



Plumbing Components
CATALOGUE

2024





PLUMBING COMPONENTS
CATALOGUE
2024

COMISA



WWW.COMISA.IT

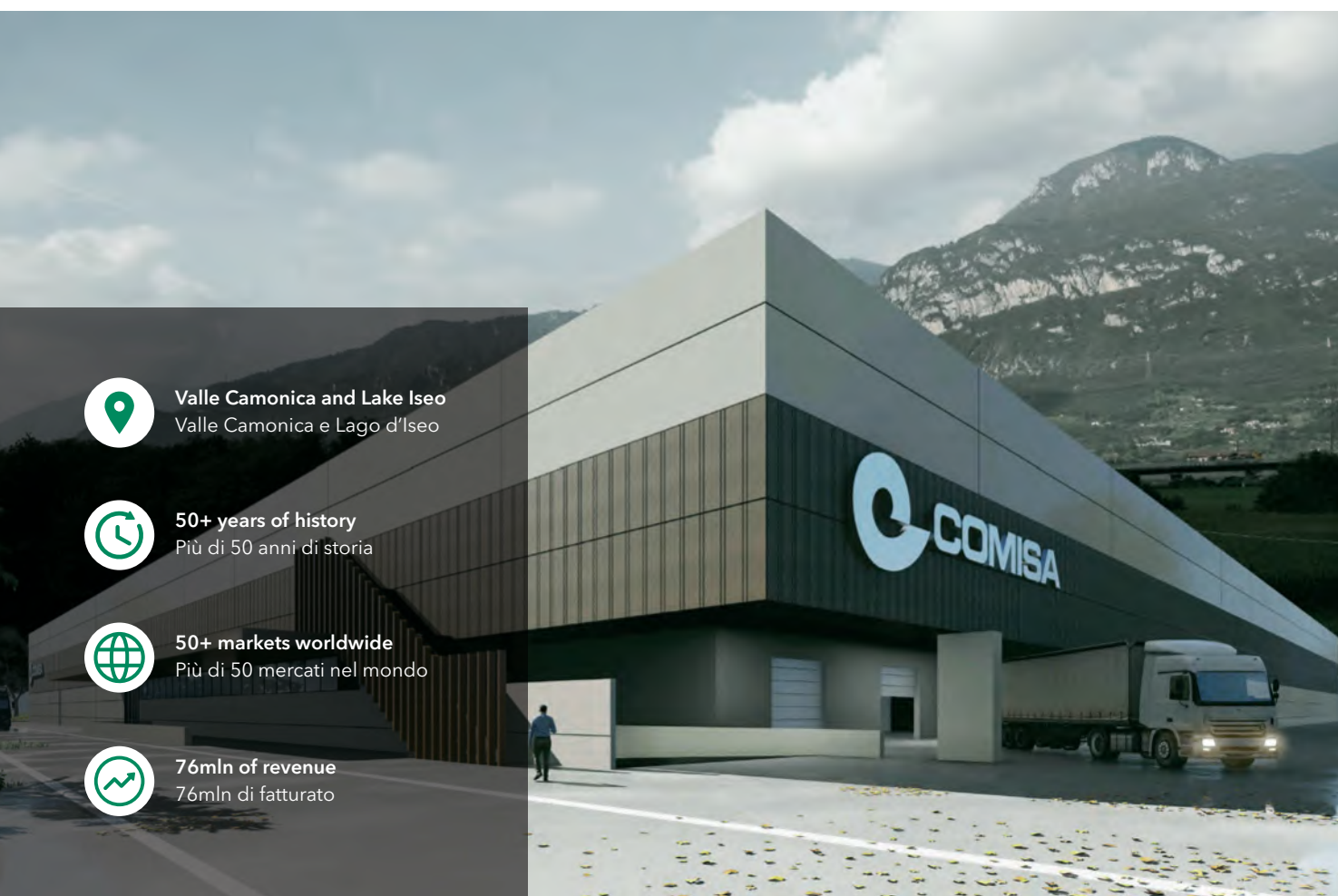
Comisa world

Il mondo Comisa

.....

Since 1969 we have been producing and distributing plumbing components and underfloor heating and cooling systems for both civil and industrial applications. We base our company philosophy on customer attention to ensure maximum results. Our mission is to become a point of reference within the plumbing and heating sector, offering reliable and quality products.

Dal 1969 produciamo e distribuiamo prodotti idrotermosanitari e sistemi per il riscaldamento e raffrescamento a pavimento, sia per utenze civili che industriali. Fondiamo la nostra filosofia aziendale sull'attenzione verso il cliente per garantire il massimo dei risultati. La nostra missione è diventare un punto di riferimento all'interno del settore idrotermosanitario, offrendo prodotti affidabili e di qualità.



From local to international

Da realtà locale a internazionale

In recent years, The strong bond with the territory has not prevented us from developing an international vision that provides us with the opportunity to compare ourselves with other competitors in the sector and to fuel the evolution of the company.

Active in the thermo-hydraulic sector for over fifty years, we export our products to more than fifty countries worldwide.

Il forte legame con il territorio non ci ha impedito in questi anni di sviluppare una visione internazionale che ci offre la possibilità di confrontarci con altri concorrenti del settore e di alimentare l'evoluzione dell'azienda.

Operanti da più di cinquant'anni nel settore della termoidraulica, esportiamo i nostri prodotti in più di cinquanta paesi nel mondo.



We combine industry 4.0 technologies with the expertise of our specialized technicians

Fondiamo le tecnologie dell'industria 4.0 alle competenze dei nostri tecnici specializzati

We pay great attention to our technological development by investing in automation, robotics and latest generation machinery. This allows us to revolutionize our internal processes and constantly optimize our production cycle. Our continuous technological advancement, the choice of certified raw materials and the skills of our experts make us a competitive reality worldwide.

Rivolgiamo grande attenzione al nostro sviluppo tecnologico investendo in automazione, robotica e macchinari di ultima generazione. Questo ci consente di rivoluzionare i nostri processi interni e ottimizzare costantemente il nostro ciclo produttivo. Il nostro continuo avanzamento tecnologico, la scelta di materie prime certificate e le competenze dei nostri esperti ci rendono una realtà competitiva a livello mondiale.



5 productive plants
5 stabilimenti produttivi



48.000 m² of total area
48.000 m² di superficie totale



Production process fully managed internally
Gestione del processo produttivo completamente interno



20+ product certifications
Più di 20 certificazioni prodotto



OFFICIAL PARTNER | MXGP TEAM



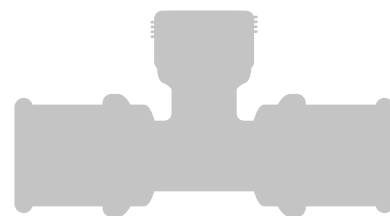
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PRESS FITTINGS FOR MULTILAYER PIPE

/ RACCORDI A PRESSARE PER TUBO MULTISTRATO
/ PRESS FITTINGS FÜR MEHRSCICHTVERBUNDROHR
/ RACCORDS À SERTIR POUR TUBE MULTICOUCHE





PRESS FITTINGS FOR MULTILAYER PIPE

COMISA PRESS	4
COMISA PRESS TIN PLATED	18

COMISA PRESS

BRASS

UNI EN 12164/12165
CW 617N
DIN 50930-6



STRAIGHT COUPLER

/ RACCORDO DIRITTO
/ KUPPLUNG
/ MANCHON ÉGAL



870

CODE	TECH. CODE	SIZE 		
87.10.140	MU0870000140	14 x 2	10	100
87.10.160	MU0870000160	16 x 2	10	100
87.10.161	MU0870000560	16 x 2,25	10	100
87.10.170	MU0870000170	17 x 2	10	100
87.10.180	MU0870000180	18 x 2	10	100
87.10.200	MU0870000200	20 x 2	10	80
87.10.201	MU0870000510	20 x 2,5	10	80
87.10.250	MU0870000250	25 x 2,5	5	50
87.10.260	MU0870000260	26 x 3	5	50
87.10.320	MU0870000320	32 x 3	1	30
87.10.400	MU0870000400	40 x 3,5	1	20
87.10.500	MU0870000500	50 x 4	1	10
87.10.631	MU0870000630	63 x 6	1	10
	MU0870000750	75 x 5	-	6

REDUCING COUPLER

/ RACCORDO DIRITTO RIDOTTO
/ KUPPLUNG REDUZIERT
/ MANCHON RÉDUIT



870R

CODE	TECH. CODE	SIZE 		
87.11.160	MU0870R16140	16 x 2 - 14 x 2	10	100
87.11.181	MU0870R18160	18 x 2 - 16 x 2	10	100
87.11.200	MU0870R20140	20 x 2 - 14 x 2	10	100
87.11.201	MU0870R20160	20 x 2 - 16 x 2	10	80
87.11.203	MU0870R20180	20 x 2 - 18 x 2	10	80
87.11.250	MU0870R25160	25 x 2,5 - 16 x 2	5	50
87.11.252	MU0870R25200	25 x 2,5 - 20 x 2	5	50
87.11.260	MU0870R26160	26 x 3 - 16 x 2	5	50
87.11.262	MU0870R26180	26 x 3 - 18 x 2	5	50
87.11.263	MU0870R26200	26 x 3 - 20 x 2	5	50
87.11.320	MU0870R32160	32 x 3 - 16 x 2	1	50
87.11.322	MU0870R32200	32 x 3 - 20 x 2	1	50
87.11.325	MU0870R32260	32 x 3 - 26 x 3	1	30
87.11.401	MU0870R40260	40 x 3,5 - 26 x 3	1	30
87.11.402	MU0870R40320	40 x 3,5 - 32 x 3	1	30
87.11.501	MU0870R50320	50 x 4 - 32 x 3	1	10
87.11.600	MU0870R50400	50 x 4 - 40 x 3,5	1	10
87.11.640	MU0870R63400	63 x 6 - 40 x 3,5	1	10
87.11.650	MU0870R63500	63 x 6 - 50 x 4	1	10
	MU0870R75400	75 x 5 - 40 x 3,5	-	6
	MU0870R75500	75 x 5 - 50 x 4	-	6

MALE COUPLER

/ RACCORDO DIRITTO MASCHIO
/ ÜBERGANG MIT AG
/ MANCHON MÂLE



871

CODE	TECH. CODE	SIZE 		
87.12.140	MU0871005140	14 x 2 - 1/2"	10	120
87.12.150	MU0871003160	16 x 2 - 3/8"	10	150
87.12.160	MU0871005160	16 x 2 - 1/2"	10	120
87.12.161	MU0871005560	16 x 2,25 - 1/2"	10	120
87.12.164	MU0871007160	16 x 2 - 3/4"	10	120
87.12.180	MU0871005180	18 x 2 - 1/2"	10	120
87.12.181	MU0871007180	18 x 2 - 3/4"	10	120
87.12.200	MU0871005200	20 x 2 - 1/2"	10	120
87.12.201	MU0871007200	20 x 2 - 3/4"	10	100
87.12.202	MU0871005510	20 x 2,5 - 1/2"	10	120
87.12.203	MU0871007510	20 x 2,5 - 3/4"	10	100
87.12.250	MU0871007250	25 x 2,5 - 3/4"	5	60
87.12.251	MU0871010250	25 x 2,5 - 1"	5	50
87.12.255	MU0871005260	26 x 3 - 1/2"	5	60
87.12.260	MU0871007260	26 x 3 - 3/4"	5	60
87.12.261	MU0871010260	26 x 3 - 1"	5	50
87.12.320	MU0871010320	32 x 3 - 1"	1	40
87.12.321	MU0871012320	32 x 3 - 1 1/4"	1	30
87.12.400	MU0871010400	40 x 3,5 - 1"	1	20
87.12.401	MU0871012400	40 x 3,5 - 1 1/4"	1	20
87.12.500	MU0871012500	50 x 4 - 1 1/4"	1	10
87.12.501	MU0871015500	50 x 4 - 1 1/2"	1	10
87.12.631	MU0871020630	63 x 6 - 2"	1	10
	MU0871025750	75 x 5 - 2 1/2"	-	6

FEMALE COUPLER

/ RACCORDO DIRITTO FEMMINA
/ ÜBERGANG MIT IG
/ MANCHON FEMELLE



880

CODE	TECH. CODE	SIZE 		
87.13.140	MU0880005140	14 x 2 - 1/2"	10	120
87.13.160	MU0880005160	16 x 2 - 1/2"	10	120
87.13.161	MU0880005560	16 x 2,25 - 1/2"	10	120
87.13.164	MU0880007160	16 x 2 - 3/4"	10	100
87.13.180	MU0880005180	18 x 2 - 1/2"	10	120
87.13.181	MU0880007180	18 x 2 - 3/4"	10	100
87.13.200	MU0880005200	20 x 2 - 1/2"	10	120
87.13.201	MU0880007200	20 x 2 - 3/4"	10	80
87.13.202	MU0880005510	20 x 2,5 - 1/2"	10	120
87.13.203	MU0880007510	20 x 2,5 - 3/4"	10	100
87.13.250	MU0880007250	25 x 2,5 - 3/4"	10	60
87.13.251	MU0880010250	25 x 2,5 - 1"	5	50
87.13.255	MU0880005260	26 x 3 - 1/2"	5	60
87.13.260	MU0880007260	26 x 3 - 3/4"	5	60
87.13.261	MU0880010260	26 x 3 - 1"	5	50
87.13.320	MU0880010320	32 x 3 - 1"	1	40
87.13.321	MU0880012320	32 x 3 - 1 1/4"	1	30
87.13.400	MU0880010400	40 x 3,5 - 1"	1	20
87.13.401	MU0880012400	40 x 3,5 - 1 1/4"	1	20
87.13.405	MU0880015400	40 x 3,5 - 1 1/2"	1	20
87.13.500	MU0880012500	50 x 4 - 1 1/4"	1	10
87.13.501	MU0880015500	50 x 4 - 1 1/2"	1	10
87.13.631	MU0880020630	63 x 6 - 2"	1	10
	MU0880025750	75 x 5 - 2 1/2"	-	6

FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA
/ WINKEL 90° MIT IG
/ COUDE 90° FEMELLE



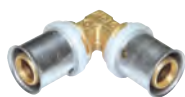
862

CODE	TECH. CODE	SIZE 		
87.17.140	MU0862005140	14 x 2 - 1/2"	10	80
87.17.159	MU08620H5160	16 x 2 - 1/2" ● DISTANCE 33 mm	10	80
87.17.160	MU0862005160	16 x 2 - 1/2" ● DISTANCE 25 mm	10	80
87.17.161	MU0862005560	16 x 2,25 - 1/2"	10	80
87.17.164	MU0862007160	16 x 2 - 3/4"	10	80
87.17.180	MU0862005180	18 x 2 - 1/2"	10	80
87.17.200	MU0862005200	20 x 2 - 1/2"	10	60
87.17.201	MU0862007200	20 x 2 - 3/4"	10	50
87.17.202	MU0862005510	20 x 2,5 - 1/2"	10	60
87.17.203	MU0862007510	20 x 2,5 - 3/4"	10	50
87.17.250	MU0862007250	25 x 2,5 - 3/4"	5	40
87.17.260	MU0862007260	26 x 3 - 3/4"	5	40
87.17.265	MU0862010260	26 x 3 - 1"	5	40
87.17.320	MU0862010320	32 x 3 - 1"	1	20
87.17.400	MU0862012400	40 x 3,5 - 1 1/4"	1	15
87.17.500	MU0862012500	50 x 4 - 1 1/4"	1	10
87.17.501	MU0862015500	50 x 4 - 1 1/2"	1	10



ELBOW 90°

/ GOMITO 90°
/ WINKEL 90°
/ COUDE 90°



860

CODE	TECH. CODE	SIZE 		
87.14.160	MU0860000160	16 x 2	10	100
87.14.161	MU0860000560	16 x 2,25	10	80
87.14.180	MU0860000180	18 x 2	10	80
87.14.200	MU0860000200	20 x 2	10	60
87.14.201	MU0860000510	20 x 2,5	10	60
87.14.250	MU0860000250	25 x 2,5	5	40
87.14.260	MU0860000260	26 x 3	5	40
87.14.320	MU0860000320	32 x 3	1	20
87.14.340	MU0860000400	40 x 3,5	1	15
87.14.350	MU0860000500	50 x 4	1	10
87.14.631	MU0860000630	63 x 6	1	5
	MU0860000750	75 x 5	-	3

MALE ELBOW 90°

/ GOMITO 90° MASCHIO
/ WINKEL 90° MIT AG
/ COUDE 90° MÂLE



861

CODE	TECH. CODE	SIZE 		
87.16.160	MU0861005160	16 x 2 - 1/2"	10	80
87.16.161	MU0861005560	16 x 2,25 - 1/2"	10	80
87.16.164	MU0861007160	16 x 2 - 3/4"	10	80
	MU0861003160	16 x 2 - 3/8"	10	80
87.16.180	MU0861005180	18 x 2 - 1/2"	10	80
87.16.200	MU0861005200	20 x 2 - 1/2"	10	80
87.16.201	MU0861007200	20 x 2 - 3/4"	10	60
87.16.202	MU0861005510	20 x 2,5 - 1/2"	10	80
87.16.203	MU0861007510	20 x 2,5 - 3/4"	10	60
87.16.250	MU0861007250	25 x 2,5 - 3/4"	5	40
87.16.260	MU0861007260	26 x 3 - 3/4"	5	40
87.16.265	MU0861010260	26 x 3 - 1"	5	40
87.16.320	MU0861010320	32 x 3 - 1"	1	20
87.16.400	MU0861012400	40 x 3,5 - 1 1/4"	1	15
87.16.500	MU0861012500	50 x 4 - 1 1/4"	1	10
87.16.501	MU0861015500	50 x 4 - 1 1/2"	1	10

ELBOW 45°

/ GOMITO 45°
/ WINKEL 45°
/ COUDE 45°



866

CODE	TECH. CODE	SIZE 		
87.30.260	MU0866000260	26 x 3	5	40
87.30.320	MU0866000320	32 x 3	1	20
87.30.400	MU0866000400	40 x 3,5	1	20
87.30.500	MU0866000500	50 x 4	1	5
	MU0866000630	63 x 6	1	5

TEE REDUCED MIDDLE SECTION

/ RACCORDO A T RIDOTTO AL CENTRO
/ T-STÜCK MITTELABGANG REDUZIERT
/ TÉ RÉDUIT AU MILIEU

853



CODE	TECH. CODE	SIZE 		
87.19.181	MU085300CAC0	18 x 2 - 16 x 2 - 18 x 2	10	50
87.19.201	MU085300BAB0	20 x 2 - 16 x 2 - 20 x 2	10	50
87.19.202	MU085300BCB0	20 x 2 - 18 x 2 - 20 x 2	10	50
87.19.250	MU085300GAG0	25 x 2,5 - 16 x 2 - 25 x 2,5	5	30
87.19.252	MU085300GBG0	25 x 2,5 - 20 x 2 - 25 x 2,5	5	30
87.19.260	MU085300DMD0	26 x 3 - 20 x 2,5 - 26 x 3	5	30
87.19.261	MU085300DAD0	26 x 3 - 16 x 2 - 26 x 3	5	30
87.19.262	MU085300DCD0	26 x 3 - 18 x 2 - 26 x 3	5	30
87.19.263	MU085300DBD0	26 x 3 - 20 x 2 - 26 x 3	5	30
87.19.320	MU085300EAE0	32 x 3 - 16 x 2 - 32 x 3	1	20
87.19.321	MU085300ECE0	32 x 3 - 18 x 2 - 32 x 3	1	20
87.19.322	MU085300EBE0	32 x 3 - 20 x 2 - 32 x 3	1	20
87.19.326	MU085300EDE0	32 x 3 - 26 x 3 - 32 x 3	1	20
87.19.402	MU085300HDH0	40 x 3,5 - 26 x 3 - 40 x 3,5	1	10
87.19.403	MU085300HEH0	40 x 3,5 - 32 x 3 - 40 x 3,5	1	10
87.19.500	MU085300IDI0	50 x 4 - 26 x 3 - 50 x 4	1	5
87.19.501	MU085300IEI0	50 x 4 - 32 x 3 - 50 x 4	1	5
87.19.502	MU085300IHI0	50 x 4 - 40 x 3,5 - 50 x 4	1	5
	MU085300NHNO	63 x 6 - 40 x 3,5 - 63 x 6	1	5
	MU085300PIPO	75 x 5 - 50 x 4 - 75 x 5	-	2

TEE ENLARGED MIDDLE SECTION

/ RACCORDO A T ALLARGATO AL CENTRO
/ T-STÜCK ERWEITERT
/ TÉ ÉLARGI AU MILIEU

853



CODE	TECH. CODE	SIZE 		
87.21.161	MU085300ABA0	16 x 2 - 20 x 2 - 16 x 2	10	50
87.21.201	MU085300BDB0	20 x 2 - 26 x 3 - 20 x 2	5	30
87.21.260	MU085300DED0	26 x 3 - 32 x 3 - 26 x 3	1	20

REDUCING TEE

/ RACCORDO A T RIDOTTO
/ T-STÜCK REDUZIERT
/ TÉ RÉDUIT

853



CODE	TECH. CODE	SIZE 		
87.20.181	MU085300CAA0	18 x 2 - 16 x 2 - 16 x 2	10	50
87.20.202	MU085300BAA0	20 x 2 - 16 x 2 - 16 x 2	10	50
87.20.203	MU085300BCC0	20 x 2 - 18 x 2 - 18 x 2	10	50
87.20.204	MU085300BAC0	20 x 2 - 16 x 2 - 18 x 2	10	50
87.20.206	MU085300BBA0	20 x 2 - 20 x 2 - 16 x 2	10	50
87.20.209	MU085300MAA0	20 x 2,5 - 16 x 2 - 16 x 2	10	50
87.20.259	MU085300DAA0	26 x 3 - 16 x 2 - 16 x 2	5	30
87.20.260	MU085300DAB0	26 x 3 - 16 x 2 - 20 x 2	5	30
87.20.262	MU085300DCC0	26 x 3 - 18 x 2 - 18 x 2	5	30
87.20.264	MU085300DBA0	26 x 3 - 20 x 2 - 16 x 2	5	30
87.20.265	MU085300DBB0	26 x 3 - 20 x 2 - 20 x 2	5	30
87.20.267	MU085300DMM0	26 x 3 - 20 x 2,5 - 20 x 2,5	5	30
87.20.269	MU085300DDA0	26 x 3 - 26 x 3 - 16 x 2	5	30
87.20.270	MU085300ddb0	26 x 3 - 26 x 3 - 20 x 2	5	30
87.20.320	MU085300EBD0	32 x 3 - 20 x 2 - 26 x 3	1	20
	MU085300EEA0	32 x 3 - 32 x 3 - 16 x 2	1	20
87.20.325	MU085300EDD0	32 x 3 - 26 x 3 - 26 x 3	1	20
87.20.326	MU085300EEB0	32 x 3 - 32 x 3 - 20 x 2	1	20
87.20.329	MU085300EED0	32 x 3 - 32 x 3 - 26 x 3	1	20
87.20.400	MU085300HEE0	40 x 3,5 - 32 x 3 - 32 x 3	1	10
87.20.403	MU085300HDE0	40 x 3,5 - 26 x 3 - 32 x 3	1	10
87.20.404	MU085300HHD0	40 x 3,5 - 40 x 3,5 - 26 x 3	1	10
87.20.405	MU085300HHE0	40 x 3,5 - 40 x 3,5 - 32 x 3	1	10
87.20.500	MU085300IHH0	50 x 4 - 40 x 3,5 - 40 x 3,5	1	10
87.20.501	MU085300IEH0	50 x 4 - 32 x 3 - 40 x 3,5	1	10
87.20.502	MU085300IIE0	50 x 4 - 50 x 4 - 32 x 3	1	5
87.20.503	MU085300IIH0	50 x 4 - 50 x 4 - 40 x 3,5	1	5
	MU085300NHIO	63 x 6 - 40 x 3,5 - 50 x 4	1	5

TEE

/ RACCORDO A T
/ T-STÜCK
/ TÉ



850

CODE	TECH. CODE	SIZE 		
87.18.160	MU0850000160	16 x 2	10	50
87.18.161	MU0850000560	16 x 2,25	10	50
87.18.180	MU0850000180	18 x 2	10	40
87.18.200	MU0850000200	20 x 2	10	40
87.18.201	MU0850000510	20 x 2,5	10	40
87.18.250	MU0850000250	25 x 2,5	5	20
87.18.260	MU0850000260	26 x 3	5	20
87.18.320	MU0850000320	32 x 3	1	15
87.18.400	MU0850000400	40 x 3,5	1	10
87.18.500	MU0850000500	50 x 4	1	5
87.18.631	MU0850000630	63 x 6	1	5
	MU0850000750	75 x 5	-	2

MALE TEE

/ RACCORDO A T MASCHIO
/ T-STÜCK MIT AG
/ TÉ MÂLE



851

CODE	TECH. CODE	SIZE 		
87.22.160	MU0851005160	16 x 2 - 1/2" - 16 x 2	10	50
87.22.180	MU0851005180	18 x 2 - 1/2" - 18 x 2	10	50
87.22.200	MU0851005200	20 x 2 - 1/2" - 20 x 2	10	40
87.22.201	MU0851007200	20 x 2 - 3/4" - 20 x 2	10	40
87.22.251	MU0851007250	25 x 2,5 - 3/4" - 25 x 2,5	5	20
87.22.252	MU0851010250	25 x 2,5 - 1" - 25 x 2,5	5	20
87.22.260	MU0851005260	26 x 3 - 1/2" - 26 x 3	5	20
87.22.261	MU0851007260	26 x 3 - 3/4" - 26 x 3	5	20
87.22.262	MU0851010260	26 x 3 - 1" - 26 x 3	5	20
87.22.320	MU0851007320	32 x 3 - 3/4" - 32 x 3	1	20
87.22.321	MU0851010320	32 x 3 - 1" - 32 x 3	1	15

FEMALE TEE

/ RACCORDO A T FEMMINA
/ T-STÜCK MIT IG
/ TÉ FEMELLE



852

CODE	TECH. CODE	SIZE 		
87.23.160	MU0852005160	16 x 2 - 1/2" - 16 x 2	10	50
87.23.161	MU0852005560	16 x 2,25 - 1/2" - 16 x 2,25	10	50
87.23.180	MU0852005180	18 x 2 - 1/2" - 18 x 2	10	50
87.23.200	MU0852005200	20 x 2 - 1/2" - 20 x 2	10	40
87.23.201	MU0852007200	20 x 2 - 3/4" - 20 x 2	10	40
87.23.202	MU0852005510	20 x 2,5 - 1/2" - 20 x 2,5	10	40
87.23.250	MU0852005250	25 x 2,5 - 1/2" - 25 x 2,5	5	20
87.23.252	MU0852007250	25 x 2,5 - 3/4" - 25 x 2,5	5	20
87.23.260	MU0852005260	26 x 3 - 1/2" - 26 x 3	5	20
87.23.263	MU0852007260	26 x 3 - 3/4" - 26 x 3	5	20
87.23.320	MU0852005320	32 x 3 - 1/2" - 32 x 3	1	20
87.23.321	MU0852007320	32 x 3 - 3/4" - 32 x 3	1	20
87.23.322	MU0852010320	32 x 3 - 1" - 32 x 3	1	15
87.23.323	MU0852012320	32 x 3 - 1 1/4" - 32 x 3	1	15
87.23.400	MU0852010400	40 x 3,5 - 1" - 40 x 3,5	1	15
87.23.401	MU0852012400	40 x 3,5 - 1 1/4" - 40 x 3,5	1	10
87.23.500	MU0852012500	50 x 4 - 1 1/4" - 50 x 4	1	5
87.23.501	MU0852015500	50 x 4 - 1 1/2" - 50 x 4	1	5
87.23.631	MU0852010630	63 x 6 - 1" - 63 x 6	1	5
87.23.632	MU0852015630	63 x 6 - 1 1/2" - 63 x 6	1	5

STOP END

/ TAPPO
/ PRESSSTOPFEN
/ BOUCHON



881

CODE	TECH. CODE	SIZE 		
87.31.140	MU0881000140	14 x 2	10	150
87.31.160	MU0881000160	16 x 2	10	150
87.31.180	MU0881000180	18 x 2	10	150
87.31.200	MU0881000200	20 x 2	10	150
87.31.250	MU0881000250	25 x 2,5	5	100
87.31.260	MU0881000260	26 x 3	5	100
87.31.320	MU0881000320	32 x 3	1	60
87.31.400	MU0881000400	40 x 3,5	1	40
87.31.500	MU0881000500	50 x 4	1	20

WALLPLATE ELBOW 90°

/ GOMITO 90° FLANGIATO
/ WANDWINKEL 90°
/ APPLIQUE MURALE 90°



863

CODE	TECH. CODE	SIZE 	H. (mm)		
87.24.140	MU0863005140 •	14 x 2 - 1/2"	39	10	50
87.24.145	MU0863003160 •	16 x 2 - 3/8"	39	10	50
87.24.159	MU0863005560 •	16 x 2,25 - 1/2"	39	10	50
87.24.160	MU0863005160 •	16 x 2 - 1/2"	39	10	50
87.24.161	MU08630H5160	16 x 2 - 1/2"	52	10	40
87.24.180	MU0863005180	18 x 2 - 1/2"	52	10	40
87.24.200	MU0863005200	20 x 2 - 1/2"	52	10	40
87.24.201	MU0863007200	20 x 2 - 3/4"	52	10	30
87.24.202	MU0863005510	20 x 2,5 - 1/2"	52	10	40
87.24.250	MU0863007250	25 x 2,5 - 3/4"	52	5	25
87.24.260	MU0863007260	26 x 3 - 3/4"	52	5	25

• CAUTION: TO BE PRESSED BEFORE WALL INSTALLATION!
/ ATTENZIONE: DA PRESSARE PRIMA DELL'INSTALLAZIONE A MURO
/ WICHTIG: VOR DEM WANDEINBAU VERPRESSEN!
/ AVERTISSEMENT: DOIT ÊTRE SERTI AVANT L'INSTALLATION AU MUR

WALLPLATE ELBOW-DOUBLE 90°

/ GOMITO 90° FLANGIATO DOPPIO
/ WANDWINKEL 90° DOPPELT
/ APPLIQUE MURALE 90° DOUBLE



864

CODE	TECH. CODE	SIZE 	H (mm)		
87.25.160	MU0864005160	16 x 2 - 1/2" - 16 x 2	52	10	20
87.25.200	MU0864005200	20 x 2 - 1/2" - 20 x 2	52	10	20

TEE DISALIGNED FITTING FEMALE

/ RACCORDO A T FEMMINA DISASSATO
/ GEGENEINANDER VERDREHTE ENDSTÜCKEN IG
/ RACCORDS DÉSAXÉS FEMELLE

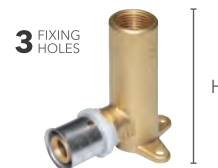


891

CODE	TECH. CODE	SIZE 		
87.54.032	MU0891005160	16 x 2 - 1/2" - 16 x 2	10	30
87.54.033	MU0891005200	20 x 2 - 1/2" - 20 x 2	10	30

WALLPLATE ELBOW-LONG 90°

/ GOMITO 90° FLANGIATO LUNGO
/ WANDWINKEL 90° LANG
/ APPLIQUE MURALE 90° LONGUE



863L

CODE	TECH. CODE	SIZE 	H (mm)		
87.26.160	MU0863L05160	16 x 2 - 1/2"	78	5	25
87.26.200	MU0863L05200	20 x 2 - 1/2"	78	5	25

WALLPLATE ELBOW FOR SERIES CONNECTIONS

/ ATTACCO FLANGIATO PASSANTE
PER COLLEGAMENTI IN SERIE
/ WANDWINKEL FÜR SERIENVERBINDUNGEN
/ APPLIQUE MURALE POUR CONNEXIONS SÉRIE



865

CODE	TECH. CODE	SIZE 	H (mm)		
87.26.205	MU0865005160	16 x 2 - 1/2" - 16 x 2	52	10	20
87.26.210	MU0865005200	20 x 2 - 1/2" - 20 x 2	52	10	20

WALLPLATE ELBOW U-SHAPED

/ GOMITO FLANGIATO AD U
/ WANDWINKEL U-FORM
/ COUDE APPLIQUE EN U

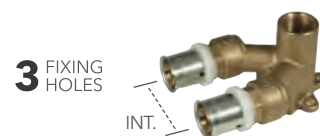


887

CODE	TECH. CODE	SIZE 	INT (mm)		
87.27.160	MU0887005160	16 x 2 - 1/2" - 16 x 2	50	5	15
87.27.200	MU0887005200	20 x 2 - 1/2" - 20 x 2	50	5	15

WALLPLATE ELBOW U-SHAPED

/ GOMITO FLANGIATO AD U
/ WANDWINKEL U-FORM
/ COUDE APPLIQUE EN U



884

CODE	TECH. CODE	SIZE 	INT (mm)		
87.27.216	MU0884005160	16 x 2 - 1/2" - 16 x 2	50	10	20
87.27.220	MU0884005200	20 x 2 - 1/2" - 20 x 2	50	10	20

ELBOW MALE/FEMALE LONG FOR CONNECTION TO LAVATORY FLUSH-WATER TANK

/ GOMITO FLANGIATO MASCHIO/FEMMINA LUNGO
PER CASSETTA DI RISCIAQUO
/ WANDDURCHFÜHRUNG AG/IG MIT VERDREHSCHUTZ
/ APPLIQUE RÉSERVOIR MÂLE/FEMELLE



867

CODE	TECH. CODE	SIZE 	H (mm)		
87.33.105	MU0867005160	16 x 2	78	5	25
87.33.115	MU0867005200	20 x 2	78	5	25

CONNECTING STRAIGHT SCREW FITTING
WITH SWIVEL NUT AND FLAT SEAL

/ RACCORDO DIRITTO TENUTA PIATTA
CON DADO PRIGIONIERO E GUARNIZIONE
/ GERADES ÜBERGANGSFITTING
MIT ÜBERWURFMUTTER UND FLACHDICHTUNG
/ RACCORD DROIT AVEC ÉCROU TOURNANT
ET JOINT PLAT

**876**

CODE	TECH. CODE	SIZE 		
87.42.140	MU087600316L	16 x 2 - 3/8"	10	150
87.42.150	MU087600516L	16 x 2 - 1/2"	10	150
87.42.160	MU087600716L	16 x 2 - 3/4"	10	120
87.42.170	MU087600520L	20 x 2 - 1/2"	10	120
87.42.180	MU087600718L	18 x 2 - 3/4"	10	100
87.42.200	MU087600720L	20 x 2 - 3/4"	10	100
87.42.260	MU087601026L	26 x 3 - 1"	5	60
	MU087600726L	26 x 3 - 3/4"	5	80
	MU087601032L	32 x 3 - 1"	1	40
	MU087601232L	32 x 3 - 1 1/4"	1	30
	MU0876012400	40 x 3.5 - 1 1/4"	1	20
	MU0876015500	50 x 4 - 1 1/2"	1	15
	MU0876020630	63 x 6 - 2"	1	10
	MU0876025750	75 x 5 - 2 1/2"	1	5

NEW

FEMALE STRAIGHT SCREW FITTING
CONICAL WITH O-RING

/ RACCORDO DIRITTO SCOMPONIBILE FEMMINA
TENUTA CONICA CON O-RING
/ PRESSVERSCHRAUBUNG MIT IG
KONISCH
/ RACCORD À SERTIR FEMELLE
ET ÉCROU TOURNANT CONIQUE

**883**

CODE	TECH. CODE	SIZE 		
87.36.160	MU0883005160	16 x 2 - 1/2"	10	80
87.36.161	MU0883007160	16 x 2 - 3/4"	10	50
87.36.200	MU0883005200	20 x 2 - 1/2"	10	50
87.36.201	MU0883007200	20 x 2 - 3/4"	10	40
87.36.260	MU0883007260	26 x 3 - 3/4"	5	40
87.36.261	MU0883010260	26 x 3 - 1"	5	30
87.36.320	MU0883010320	32 x 3 - 1"	1	30

FEMALE ELBOW SCREW CONNECTOR 90°
TAPER THREAD WITH O-RING

/ GOMITO 90° SCOMPONIBILE FEMMINA
TENUTA CONICA CON O-RING
/ WINKELVERSCHRAUBUNG 90° MIT IG KONISCH
/ ÉCROU TOURNANT ET COUDE 90° FEMELLE
CONIQUE

**869**

CODE	TECH. CODE	SIZE 		
87.35.160	MU0869005160	16 x 2 - 1/2"	10	40
87.35.200	MU0869005200	20 x 2 - 1/2"	10	40
87.35.201	MU0869007200	20 x 2 - 3/4"	10	30

CONNECTING SCREW FITTING
WITH SWIVEL NUT AND EUROCONE

/ RACCORDO DIRITTO CON DADO PRIGIONIERO E
TENUTA EUROCONO
/ ANSCHLUSSPRESSVERSCHRAUBUNG MIT
EUROKONUS
/ RACCORD À SERTIR ET ÉCROU TOURNANT
EUROCÔNE

**875**

CODE	TECH. CODE	SIZE 		
87.39.160	MU087500716L	16 x 2 - 3/4"	10	100
87.39.180	MU087500718L	18 x 2 - 3/4"	10	100
87.39.200	MU087500720L	20 x 2 - 3/4"	10	100
87.39.260	MU087501026L	26 x 3 - 1"	5	70
87.39.265	MU087501032L	32 x 3 - 1"	1	50

DEDICATED TO BRASS MANIFOLD 729
VERSIONE SPECIALE PER COLLETTORE FANCOIL 729

**875**

CODE	TECH. CODE	SIZE 		
	MU087500726L	26 x 3 - 3/4"	5	80

MALE STRAIGHT SCREW FITTING
CONICAL WITH O-RING

/ RACCORDO DIRITTO SCOMPONIBILE MASCHIO
TENUTA CONICA CON O-RING
/ PRESSVERSCHRAUBUNG MIT AG KONISCH
/ RACCORD À SERTIR MÂLE ET ÉCROU
TOURNANT CONIQUE

**873**

CODE	TECH. CODE	SIZE 		
87.37.160	MU0873005160	16 x 2 - 1/2"	10	80
87.37.161	MU0873007160	16 x 2 - 3/4"	10	50
87.37.200	MU0873005200	20 x 2 - 1/2"	10	50
87.37.201	MU0873007200	20 x 2 - 3/4"	10	40
87.37.260	MU0873007260	26 x 3 - 3/4"	5	40
87.37.261	MU0873010260	26 x 3 - 1"	5	30
87.37.320	MU0873010320	32 x 3 - 1"	1	30

MALE ELBOW SCREW CONNECTOR 90°
TAPER THREAD WITH O-RING

/ GOMITO 90° SCOMPONIBILE MASCHIO
TENUTA CONICA CON O-RING
/ WINKELVERSCHRAUBUNG 90° MIT AG
KONISCH
/ ÉCROU TOURNANT ET COUDE 90° MÂLE
CONIQUE

**868**

CODE	TECH. CODE	SIZE 		
87.34.160	MU0868005160	16 x 2 - 1/2"	10	40
87.34.200	MU0868005200	20 x 2 - 1/2"	10	40
87.34.201	MU0868007200	20 x 2 - 3/4"	10	30

PRESS ELBOW WITH SWIVEL NUT

/ GOMITO A PRESSARE CON DADO PRIGIONIERO
/ PRESSWINKEL MIT ÜBERWURFMUTTER
/ COUDE A SERTIR ECRou TOURNANT



892

CODE	TECH. CODE	SIZE 		
-	MU0892003160	16 x 2 - 3/8"	10	100
-	MU0892005160	16 x 2 - 1/2"	10	100
-	MU0892007160	16 x 2 - 3/4"	10	50
-	MU0892005200	20 x 2 - 1/2"	10	50
-	MU0892007200	20 x 2 - 3/4"	10	50
-	MU0892007260	26 x 3 - 3/4"	5	50
-	MU0892010260	26 x 3 - 1"	5	50

STRAIGHT PRESS FITTING COUPLER FOR COPPER PIPE CONNECTION (COMPRESSION)

/ RACCORDO A PRESSARE DIRITTO E STRINGERE TUBO RAME
/ PRESSÜBERGANG MIT KLEMMVERSCHRAUBUNG
/ ADAPTATEUR DROIT À VISSER POUR TUBE CUIVRE



877

CODE	TECH. CODE	SIZE 		
87.47.020	MU0877016150	16 x 2 - 15 mm	10	140
87.47.030	MU0877020220	20 x 2 - 22 mm	10	80
87.47.035	MU0877026220	26 x 3 - 22 mm	10	70
87.47.040	MU0877026280	26 x 3 - 28 mm	10	50

NIPPLES PRESS WITH INSERT

/ RACCORDO A PRESSARE DIRITTO CON INSERTO
/ PRESSÜBERGANG MIT EINSATZ
/ ADAPTATEUR TUBE CUIVRE



886

CODE	TECH. CODE	SIZE 		
87.47.055	MU0886016120 •	16 x 2 - 12 mm	10	150
87.47.060	MU0886016150	16 x 2 - 15 mm	10	150
87.47.070	MU0886020220	20 x 2 - 22 mm	10	120
87.47.080	MU0886I20220	20 x 2 - 22 mm 	10	120
87.47.081	MU0886I26220	26 x 3 - 22 mm 	5	80
	MU0886026220	26 x 3 - 22 mm	5	80
87.47.082	MU0886I32280	32 x 3 - 28 mm 	1	40
	MU0886032280	32 x 3 - 28 mm	1	40

• ON REQUEST / SU RICHIESTA / AUF ANFRAGE / SUR COMMANDE

ELBOW PRESS FOR COPPER PIPE CONNECTION (COMPRESSION)

/ GOMITO A PRESSARE PER TUBO RAME (STRINGERE)
/ PRESSWINKEL MIT KLEMMVERSCHRAUBUNG
/ ADAPTATEUR COUDE À VISSER POUR TUBE CUIVRE



858

CODE	TECH. CODE	SIZE 		
87.47.115	MU0858016150	16 x 2 - 15 mm	10	100

ELBOW FEMALE FOR CONNECTION TO LAVATORY FLUSH-WATER TANK

/ GOMITO FLANGIATO FEMMINA PER CASSETTA DI RISCIAQUO
/ UP-SPÜLKASTENWINKEL IG
/ APPLIQUE COUDE POUR RÉSERVOIR FEMELLE



856

CODE	TECH. CODE	SIZE 		
87.28.160	MU0856005160	16 x 2 - 1/2"	5	30
87.28.200	MU0856005200	20 x 2 - 1/2"	5	30

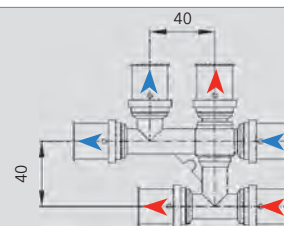
TEE BY-PASS

/ RACCORDO A T BY-PASS
/ STEIGSTRANG ANBINDESET
/ TÉ CROISÉS



888

CODE	TECH. CODE	SIZE 		
87.49.010	MU0888000160	16 x 16 x 16	1	15
87.49.015	MU088800BAA0	20 x 16 x 16	1	15
87.49.020	MU088800BAB0	20 x 16 x 20	1	15
87.49.025	MU0888000200	20 x 20 x 20	1	15



**ELBOW CONNECTOR FOR RADIATORS
WITH NICKEL PLATED COPPER PIPE**

/ GOMITO PER RADIATORI CON TUBO RAME
NICHELATO
/ HEIZKÖRPERANSCHLUSS WINKEL VERNICKELT
/ CONNECTEUR COUDE POUR RADIATEURS
NICHELÉ

**885**

CODE	TECH. CODE	SIZE 		
87.45.140	MU088500014N •	14 x 2 - 15 mm - 300 mm	2	30
87.45.160	MU088500016N	16 x 2 - 15 mm - 300 mm	2	30
87.45.161	MU088500116N	16 x 2 - 15 mm - 1100 mm	2	30
87.45.180	MU088500018N •	18 x 2 - 15 mm - 300 mm	2	30
87.45.200	MU088500020N	20 x 2 - 15 mm - 300 mm	2	30

• ON REQUEST / SU RICHIESTA / AUF ANFRAGE / SUR COMMANDE

**TEE CONNECTOR FOR RADIATORS
WITH NICKEL PLATED COPPER PIPE**

/ RACCORDO A T PER RADIATORI CON TUBO RAME
NICHELATO
/ HEIZKÖRPERANSCHLUSS T-STÜCK VERNICKELT
/ TÉ CONNECTEUR POUR RADIATEURS NICHELÉ

**889**

CODE	TECH. CODE	SIZE 		
87.46.160	MU088900016N	16 x 2 - 15 mm - 300 mm	2	20
87.46.200	MU088900020N	20 x 2 - 15 mm - 300 mm	2	20

DOUBLE PRESS ELBOW WITH COPPER PIPE NICKEL PLATED

/ RACCORDO DOPPIO A PRESSARE CON TUBO RAME NICHELATO
/ WANDWINKEL DOPPELT MIT KUPFERROHR VERNICKELT
/ DOUBLE COUDE AVEC TUBE CUIVRE NICHELÉ

890

CODE	TECH. CODE	SIZE 	INT.		
87.46.250	MU089000016N	15 mm - 16 x 2	37,5 mm	1	10
	MU0890005016N	15 mm - 16 x 2	50 mm	1	10

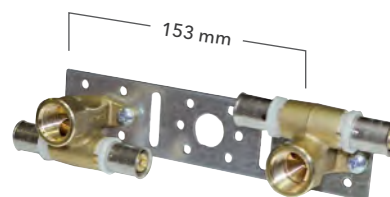


MOUNTING PLATE ASSEMBLED WITH 2 DISALIGNED TEE FITTINGS

/ STAFFA DI FISSAGGIO ASSEMBLATA CON 2 RACCORDI A T DISASSATI
 / MONTAGEINHEIT KOMPLETT MONTIERT MIT 2 GEGENEINANDER VERDREHTEN T-FITTINGS
 / SUPPORT DE MONTAGE AVEC 2 TÉ DÉSAJÉ

830

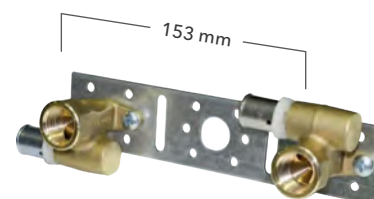
CODE	TECH. CODE	SIZE 		
87.54.034	MU0830005160	16 x 2 - 1/2" - 16 x 2	1	6
87.54.035	MU0830005200	20 x 2 - 1/2" - 20 x 2	1	6

**MOUNTING PLATE ASSEMBLED WITH 2 DISALIGNED END FITTINGS**

/ STAFFA DI FISSAGGIO ASSEMBLATA CON 2 RACCORDI DISASSATI
 / MONTAGEINHEIT KOMPLETT MONTIERT MIT 2 GEGENEINANDER VERDREHTEN ENDSTÜCKEN
 / SUPPORT DE MONTAGE AVEC 2 RACCORDS DÉSAJÉ

831

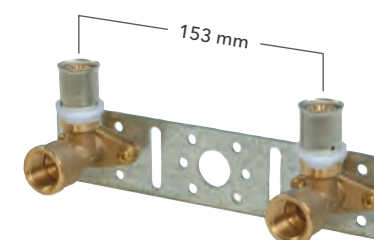
CODE	TECH. CODE	SIZE 		
87.54.039	MU0831005160	16 x 2 - 1/2" - 16 x 2	1	10
87.54.040	MU0831005200	20 x 2 - 1/2" - 20 x 2	1	10

**MOUNTING PLATE ASSEMBLED WITH 2 WALLPLATE ELBOWS 90° FEMALE, DISTANCE 153 mm**

/ STAFFA DI FISSAGGIO ASSEMBLATA CON 2 GOMITI FLANGIATI FEMMINA 90°, INTERASSE 153 mm
 / MONTAGEINHEIT KOMPLETT MONTIERT MIT 2 WANDWINKEL 90°, ABSTAND 153 mm
 / SUPPORT DE MONTAGE AVEC 2 APPLIQUES 90° MONTÉES, DISTANCE 153 mm

832

CODE	TECH. CODE	SIZE 		
87.54.005	MU0832005160	16 x 2 - 1/2"	1	10
87.54.019	MU0832005200	20 x 2 - 1/2"	1	10
87.54.020	MU0832007200	20 x 2 - 3/4"	1	8

**MOUNTING PLATE ASSEMBLED WITH 2 WALLPLATE ELBOWS 90° FEMALE WITH SOUNDPROOF ELEMENTS, DISTANCE 153 mm**

/ STAFFA DI FISSAGGIO ASSEMBLATA CON 2 GOMITI FLANGIATI FEMMINA 90°, CON ISOLANTI ANTI RUMORE INTERASSE 153 mm
 / MONTAGEINHEIT KOMPLETT MONTIERT MIT 2 WANDWINKEL 90° MIT SCHALLSCHUTZSET, ABSTAND 153 mm
 / SUPPORT DE MONTAGE AVEC 2 APPLIQUES 90° ISOLÉES MONTÉES, DISTANCE 153 mm

833

CODE	TECH. CODE	SIZE 		
87.54.030	MU0833005160	16 x 2 - 1/2"	1	20

**MOUNTING PLATE ASSEMBLED WITH 2 WALLPLATE ELBOWS 90°, DISTANCE 76 mm**

/ STAFFA DI FISSAGGIO ASSEMBLATA CON 2 GOMITI FLANGIATI FEMMINA 90°, INTERASSE 76 mm
 / MONTAGEINHEIT KOMPLETT MONTIERT MIT 2 WANDWINKEL 90°, ABSTAND 76 mm
 / SUPPORT DE MONTAGE AVEC 2 APPLIQUES 90° MONTÉES, DISTANCE 76 mm

834

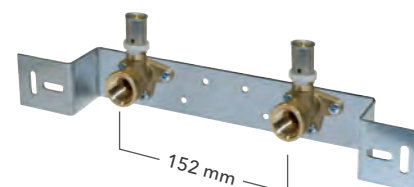
CODE	TECH. CODE	SIZE 		
87.54.060	MU0834005160	16 x 2 - 1/2"	1	15

**MOUNTING PLATE ASSEMBLED WITH 2 WALLPLATE ELBOWS 90°, DISTANCE 152 mm**

/ STAFFA DI FISSAGGIO ASSEMBLATA CON 2 GOMITI FLANGIATI FEMMINA 90°, INTERASSE 152 mm
 / MONTAGEINHEIT KOMPLETT MONTIERT MIT 2 WANDWINKEL 90°, ABSTAND 152 mm
 / SUPPORT DE MONTAGE AVEC 2 APPLIQUES 90° MONTÉES, DISTANCE 152 mm

835

CODE	TECH. CODE	SIZE 		
87.54.065	MU0835005160	16 x 2 - 1/2"	1	15
87.54.066	MU0835005200	20 x 2 - 1/2"	1	15

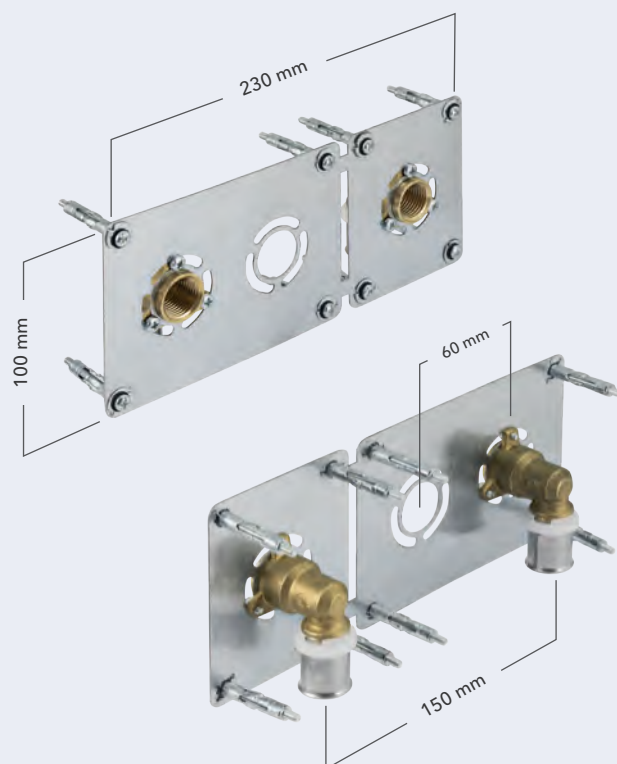


KIT PLASTER FITTINGS 90° 1/2" FEMALE

/ KIT CARTONGESSO RACCORDI 90° 1/2" FEMMINA
/ KIT GIPSKARTONPLATTEN WINKEL 90° 1/2" IG
/ KIT PLAQUE RACCORDS 90° - 1/2" FEMELLE

859

CODE	TECH. CODE	SIZE 		
	MU08590KT010	1/2" - 16 x 2	1	10
	MU08590KT020	1/2" - 20 x 2	1	10



MOUNTING PLATE WITH 4 SCREWS

/ STAFFA DI FISSAGGIO CON 4 VITI
/ MONTAGEPLATTE MIT 4 BEFESTIGUNGSSCHRAUBEN
/ APPLIQUE DE MONTAGE AVEC 4 VIS

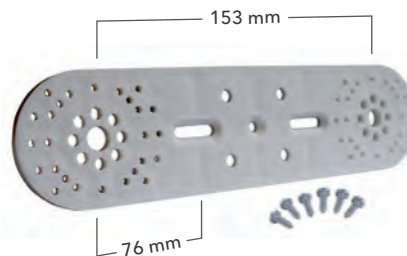
CODE	TECH. CODE	SIZE 		
87.49.600	MU0837STAF11	153/76 mm	1	50
87.49.605	MU0837STAF21	80+120/200 mm	1	50



PLASTIC WHITE PLATE WITH 6 SCREWS

/ STAFFA DI FISSAGGIO IN PLASTICA CON 6 VITI
/ WEISSE KUNSTOFFPLATTE MIT 6 BEFESTIGUNGSSCHRAUBEN
/ APPLIQUE PLASTIQUE BLANCHE AVEC 6 VIS

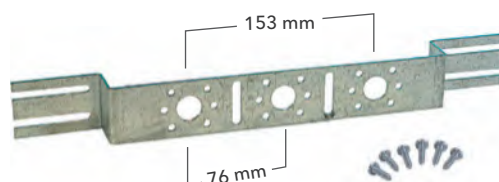
CODE	TECH. CODE	SIZE 		
87.49.601	MU0837STAF31	153/76 mm	1	40



BUILT IN MOUNTING PLATE WITH 6 SCREWS

/ STAFFA DI FISSAGGIO AD INCASSO CON 6 VITI
/ MONTAGESCHIENE (EINBAUTEIL) MIT 6 BEFESTIGUNGSSCHRAUBEN
/ APPLIQUE DE MONTAGE À ENCASTRER AVEC 6 VIS

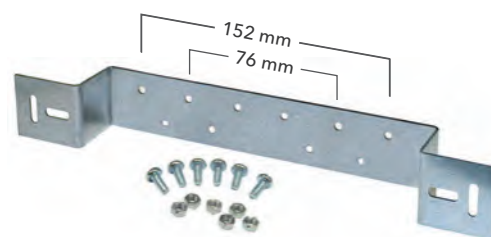
CODE	TECH. CODE	SIZE 		
87.49.610	MU0837STAF41	153/76 mm	1	22



MOUNTING PLATE WITH 6 SCREWS AND NUTS

/ STAFFA DI FISSAGGIO CON 6 DADI E 6 VITI
 / MONTAGESCHIENE - MIT 6 SCHRAUBENSSETS
 / SUPPORT DE MONTAGE AVEC 6 VIS + 6 ÉCROUS

CODE	TECH. CODE	SIZE 		
87.54.075	MU0837STAF01	76/152 mm	1	20



SOUNDPROOF ELEMENT FOR WALLPLATE ELBOW

/ COIBENTAZIONI PER GOMITO FLANGIATO FEMMINA
 / SCHALLSCHUTZSET "ISOLATION" FÜR WANDWINKEL
 / CAPUCHON ANTIBRUIT POUR APPLIQUE



CODE	TECH. CODE	SIZE 		
87.49.685	MU08630CAP01	1/2" h. 52 mm SHORT	10	30
87.49.686	MU0863LCAP01	1/2" h. 78 mm LONG	10	20

SOUNDPROOF ELEMENT FOR WALLPLATE ELBOW U-SHAPED 180°

/ COIBENTAZIONE PER GOMITO FLANGIATO 180° AD U
 / SCHALLSCHUTZSET "ISOLATION" FÜR WANDWINKEL 180° U-FORM
 / CAPUCHON ANTIBRUIT POUR APPLIQUE 180°EN U



CODE	TECH. CODE	SIZE 		
	MU08840CAP01	1/2"	10	30

SCREWS 4,8 X 16 (100 PCS/PACKAGE)

/ VITI 4,8 X 16 (100 PZ/SACCHETTO)
 / BLECHSCHRAUBEN 4,8 X 16 (100 STK./BEUTEL)
 / VIS 4,8 X 16 (100 PCS/BOITE)



CODE	TECH. CODE	SIZE 	
87.49.675	MU08370VIT01	4,8 x 16	10



100 PCS/PACKAGE - 100 PZ/SACCHETTO
 100 STK./BEUTEL - 100 PCS/BOITE

BUILT IN BALL VALVE 1/2" WITH CAP

/ RUBINETTO INCASSO 1/2" CON CAPPuccio
 / KUGELHAHN FÜR UNTERPUTZINSTALLATION 1/2" MIT KAPPE
 / ROBINET À TOURNANT SPHÉRIQUE À ENCASTRER 1/2" AVEC CACHE

**845**

CODE	TECH. CODE	SIZE 	
87.50.042	VS0845016160	16 x 2	10
87.50.043	VS0845020200	20 x 2	10
87.50.049	VS0845020160	20 x 2 - 16 x 2	10

EXTENSION KIT FOR BUILT-IN BALL VALVE

/ KIT PROLUNGA PER RUBINETTO INCASSO
 / UNTERPUTZVERLÄNGERUNG
 / RALLONGE POUR ROBINET



CODE	TECH. CODE	SIZE 		
87.50.046	VA08450PROLO		1	150

CAP AND SCREW FOR BUILT IN BALL VALVE

/ CAPPuccio E VITE PER RUBINETTO INCASSO
 / KAPPE UND SCHRAUBE FÜR KUGELHAHN
 / CACHE ET VIS POUR ROBINET À ENCASTRER



CODE	TECH. CODE	SIZE 		
87.50.048	MN084500000C	1/2"	10	30



TO BE COUPLED WITH ART. 845

BUILT IN BALLVALVE WITH CAP INSPECTIONABLE

/ VALVOLA A SFERA DA INCASSO ISPEZIONABILE CON CAPPuccio
 / EINBAU-KUGELHAHN FÜR UNTERPUTZINSTALLATION MIT KAPPE UND AUSTAUSCHBAREM OBERTEIL
 / VANNE À TOURNANT SPHÉRIQUE À ENCASTRER AVEC CAPUCHON

**840**

CODE	TECH. CODE	
87.50.050	VS0840000001	10

EXTENSION KIT FOR BUILT-IN BALL VALVE (INSPECTIONABLE)

/ KIT PROLUNGA PER VALVOLA A SFERA DA INCASSO (ISPEZIONABILE)
 / UNTERPUTZVERLÄNGERUNG FÜR EINBAU-KUGELHAHN
 / EXTENSION POUR VANNES À TOURNANT SPHÉRIQUE À ENCASTRER

**840**

CODE	TECH. CODE	
87.50.065	VA08400PROLO	50

QUICK PRESS CONNECTION (2 PIECES)

/ ATTACCO RAPIDO A PRESSARE (2 PEZZI)
 / PRESS-STECKVERBINDUNG (2 STÜCKE)
 / CONNECTEUR RAPIDE ET RACCORD À SERTIR (2 PIÈCES)

**844**

CODE	TECH. CODE	SIZE 	
87.50.100	VA0844000160	16 x 2	50
87.50.105	VA0844000200	20 x 2	50



TO BE COUPLED WITH ART. 840

BALL VALVE MOD. 847 PRESS SYSTEM

/ VALVOLA A SFERA MOD. 847 PRESS SYSTEM
 / KUGELHAHN MOD. 847 PRESSSYSTEM
 / VANNE BOISSEAU SPHÉRIQUE MOD. 847 À SERTIR DEUX COTÉS

847 ▲ RED ALUMINIUM BUTTERFLY HANDLE / FARFALLA ROSSA ALLUMINIO
 / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE



CODE	TECH. CODE	SIZE		
87.50.005	VS0847016PR0	16 x 2	10	30
87.50.010	VS0847020PR0	20 x 2	10	30
	VS0847026PRN	26 x 3 (nickel plated)	5	15

PRESSURE COLLAR IN STAINLESS STEEL

/ BUSSOLOTTO IN ACCIAIO INOX
 / PRESSHÜLSE AUS EDELSTAHL
 / BAGUE DE SERTISSAGE INOX



CODE	TECH. CODE	SIZE		
87.43.140	BU0851000140	14 x 2	10	250
87.43.160	BU0851000160	16 x 2	10	250
87.43.180	BU0851000180	18 x 2	10	250
87.43.200	BU0851000200	20 x 2	10	200
87.43.250	BU0851000250	25 x 2,5	10	100
87.43.260	BU0851000260	26 x 3	10	100
87.43.320	BU0851000320	32 x 3	10	100
87.43.400	BU0851000400	40 x 3,5	10	50
87.43.500	BU0851000500	50 x 4	6	30
87.43.505	BU0851000630	63 x 6		10

PRESSURE TEST PLUGS

/ TAPPO PROVA IMPIANTI IN PLASTICA
 / PRÜFUNG STOPFEN
 / BOUCHON D'ESSAI EN PRESSION



CODE	TECH. CODE	SIZE		
87.80.490	VA0TAP005ROS	1/2" M - RED	25	50
87.80.491	VA0TAP005BLU	1/2" M - BLUE	25	50

BALL VALVE MOD. 846 PRESS SYSTEM

/ VALVOLA A SFERA MOD. 846 PRESS SYSTEM/F
 / KUGELHAHN MOD. 846 PRESSSYSTEM/IG
 / VANNE BOISSEAU SPHÉRIQUE MOD. 846 À SERTIR/F

846 ▲ RED ALUMINIUM BUTTERFLY HANDLE / FARFALLA ROSSA ALLUMINIO
 / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE



CODE	TECH. CODE	SIZE		
87.50.014	VS0846516PR0	16 x 2 - 1/2" F	10	30
87.50.015	VS0846520PR0	20 x 2 - 1/2" F	10	30

O-RINGS

/ O-RING
 / O-RINGE
 / O-RINGS



CODE	TECH. CODE	SIZE		
87.44.160	OR08500016000	16 x 2		
87.44.180	OR08500018000	18 x 2		
87.44.200	OR08500020000	20 x 2		
87.44.260	OR08500026000	26 x 3		
87.44.320	OR08500032000	32 x 3		
87.44.400	OR08500040000	40 x 3,5		
87.44.500	OR08500050000	50 x 4		
87.44.505	OR08500063000	63 x 6		

TEST PLANT FITTING FOR THERMOMETER

/ TERMINALE PROVA IMPIANTO PORTAMANOMETRO
 / ENDSTÜCK FÜR LEITUNGSTEST FÜR THERMOMETER
 / CAPUCHON D'ESSAI PORTE THERMOMÈTRE



882

CODE	TECH. CODE	SIZE		
87.80.494	MU0882005160	1/2" F - 16 x 2	10	100
87.80.495	MU0882005200	1/2" F - 20 x 2	10	100

COMISA PRESS TIN PLATED

/ COMISA PRESS STAGNATO
/ COMISA PRESS VERZINNT
/ COMISA PRESS ETAMÉ

BRASS

UNI EN 12164/12165
CW 617N
DIN 50930-6



STRAIGHT COUPLER

/ RACCORDO DIRITTO
/ KUPPLUNG
/ MANCHON ÉGAL



870N

CODE	TECH. CODE	SIZE 		
97.10.160	MU087000016N	16 x 2	10	100
97.10.200	MU087000020N	20 x 2	10	80
97.10.260	MU087000026N	26 x 3	5	50
97.10.320	MU087000032N	32 x 3	1	30
97.10.400	MU087000040N	40 x 3,5	1	30

REDUCING COUPLER

/ RACCORDO DIRITTO RIDOTTO
/ KUPPLUNG REDUZIERT
/ MANCHON RÉDUIT



870RN

CODE	TECH. CODE	SIZE 		
97.11.201	MU0870R2016N	20 x 2 - 16 x 2	10	80
97.11.260	MU0870R2616N	26 x 3 - 16 x 2	5	50
97.11.263	MU0870R2620N	26 x 3 - 20 x 2	5	50
97.11.320	MU0870R3216N	32 x 3 - 16 x 2	1	50
97.11.322	MU0870R3220N	32 x 3 - 20 x 2	1	50
97.11.325	MU0870R3226N	32 x 3 - 26 x 3	1	50
97.11.402	MU0870R4032N	40 x 3,5 - 32 x 3	1	30

MALE COUPLER

/ RACCORDO DIRITTO MASCHIO
/ ÜBERGANG MIT AG
/ MANCHON MÂLE



871N

CODE	TECH. CODE	SIZE 		
97.12.160	MU087100516N	16 x 2 - 1/2"	10	120
97.12.200	MU087100520N	20 x 2 - 1/2"	10	120
97.12.201	MU087100720N	20 x 2 - 3/4"	10	100
97.12.260	MU087100726N	26 x 3 - 3/4"	5	60
97.12.261	MU087101026N	26 x 3 - 1"	5	50
97.12.320	MU087101032N	32 x 3 - 1"	1	40
97.12.321	MU087101232N	32 x 3 - 1 1/4"	1	30
97.12.401	MU087101240N	40 x 3,5 - 1 1/4"	1	20
97.12.500	MU087101250N	50 x 4 - 1 1/4"	1	10

FEMALE COUPLER

/ RACCORDO DIRITTO FEMMINA
/ ÜBERGANG MIT IG
/ MANCHON FEMELLE



880N

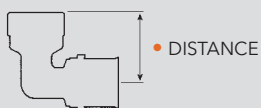
CODE	TECH. CODE	SIZE 		
97.13.160	MU088000516N	16 x 2 - 1/2"	10	120
97.13.200	MU088000520N	20 x 2 - 1/2"	10	120
97.13.201	MU088000720N	20 x 2 - 3/4"	10	100
97.13.260	MU088000726N	26 x 3 - 3/4"	5	60
97.13.261	MU088001026N	26 x 3 - 1"	5	50
97.13.320	MU088001032N	32 x 3 - 1"	1	40
97.13.321	MU088001232N	32 x 3 - 1 1/4"	1	30
97.13.401	MU088001240N	40 x 3,5 - 1 1/4"	1	20

FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA
/ WINKEL 90° MIT IG
/ COUDE 90° FEMELLE

**862N**

CODE	TECH. CODE	SIZE 		
97.17.159	MU08620H516N	16 x 2 - 1/2" ● DISTANCE 33 mm	10	80
97.17.160	MU086200516N	16 x 2 - 1/2" ● DISTANCE 25 mm	10	80
97.17.200	MU086200520N	20 x 2 - 1/2"	10	60
97.17.201	MU086200720N	20 x 2 - 3/4"	10	50
97.17.260	MU086200726N	26 x 3 - 3/4"	5	40
97.17.320	MU086201032N	32 x 3 - 1"	1	20

**MALE ELBOW 90°**

/ GOMITO 90° MASCHIO
/ WINKEL 90° MIT AG
/ COUDE 90° MÂLE

**861N**

CODE	TECH. CODE	SIZE 		
97.16.160	MU086100516N	16 x 2 - 1/2"	10	80
97.16.200	MU086100520N	20 x 2 - 1/2"	10	80
97.16.201	MU086100720N	20 x 2 - 3/4"	10	60
97.16.260	MU086100726N	26 x 3 - 3/4"	5	40
97.16.320	MU086101032N	32 x 3 - 1"	1	20

ELBOW 90°

/ GOMITO 90°
/ WINKEL 90°
/ COUDE 90°

**860N**

CODE	TECH. CODE	SIZE 		
97.14.160	MU086000016N	16 x 2	10	100
97.14.200	MU086000020N	20 x 2	10	60
97.14.260	MU086000026N	26 x 3	5	40
97.14.320	MU086000032N	32 x 3	1	20
97.14.340	MU086000040N	40 x 3,5	1	15
97.14.350	MU086000050N	50 x 4	1	10

ELBOW 45°

/ GOMITO 45°
/ WINKEL 45°
/ COUDE 45°

**866N**

CODE	TECH. CODE	SIZE 		
97.30.260	MU086600026N	26 x 3	5	40
97.30.320	MU086600032N	32 x 3	1	20

TEE

/ RACCORDO A T
/ T-STÜCK
/ TÉ



850N

CODE	TECH. CODE	SIZE 		
97.18.160	MU085000016N	16 x 2	10	50
97.18.200	MU085000020N	20 x 2	10	40
97.18.260	MU085000026N	26 x 3	5	20
97.18.320	MU085000032N	32 x 3	1	15
97.18.400	MU085000040N	40 x 3,5	1	10

MALE TEE

/ RACCORDO A T MASCHIO
/ T-STÜCK MIT AG
/ TÉ MÂLE



851N

CODE	TECH. CODE	SIZE 		
97.22.160	MU085100516N	16 x 2 - 1/2" - 16 x 2	10	50
97.22.200	MU085100520N	20 x 2 - 1/2" - 20 x 2	10	40
97.22.201	MU085100720N	20 x 2 - 3/4" - 20 x 2	10	40
97.22.260	MU085100526N	26 x 3 - 1/2" - 26 x 3	5	20

FEMALE TEE

/ RACCORDO A T FEMMINA
/ T-STÜCK MIT IG
/ TÉ FEMELLE



852N

CODE	TECH. CODE	SIZE 		
97.23.160	MU085200516N	16 x 2 - 1/2" - 16 x 2	10	50
97.23.200	MU085200520N	20 x 2 - 1/2" - 20 x 2	10	40
97.23.201	MU085200720N	20 x 2 - 3/4" - 20 x 2	10	40
97.23.260	MU085200526N	26 x 3 - 1/2" - 26 x 3	5	20
97.23.263	MU085200726N	26 x 3 - 3/4" - 26 x 3	5	20
97.23.320	MU085200532N	32 x 3 - 1/2" - 32 x 3	1	20
97.23.321	MU085200732N	32 x 3 - 3/4" - 32 x 3	1	20
97.23.322	MU085201032N	32 x 3 - 1" - 32 x 3	1	15

TEE REDUCED MIDDLE SECTION

/ RACCORDO A T RIDOTTO AL CENTRO
/ T-STÜCK MITTELABGANG REDUZIERT
/ TÉ REDUIT AU MILIEU



853N

CODE	TECH. CODE	SIZE 		
97.19.201	MU085300BABN	20 x 2 - 16 x 2 - 20 x 2	10	50
97.19.261	MU085300DADN	26 x 3 - 16 x 2 - 26 x 3	5	30
97.19.263	MU085300DBDN	26 x 3 - 20 x 2 - 26 x 3	5	30
97.19.320	MU085300EAEN	32 x 3 - 16 x 2 - 32 x 3	1	20
97.19.322	MU085300EBEN	32 x 3 - 20 x 2 - 32 x 3	1	20
97.19.326	MU085300EDEN	32 x 3 - 26 x 3 - 32 x 3	1	20
97.19.402	MU085300HDHN	40 x 3,5 - 26 x 3 - 40 x 3,5	1	10
97.19.403	MU085300HEHN	40 x 3,5 - 32 x 3 - 40 x 3,5	1	10

REDUCING TEE

/ RACCORDO A T RIDOTTO
/ T-STÜCK REDUZIERT
/ TÉ RÉDUIT



853N

CODE	TECH. CODE	SIZE 		
97.20.202	MU085300BAAN	20 x 2 - 16 x 2 - 16 x 2	10	50
97.20.206	MU085300BBAN	20 x 2 - 20 x 2 - 16 x 2	10	50
97.20.260	MU085300DABN	26 x 3 - 16 x 2 - 20 x 2	5	30
97.20.264	MU085300DBAN	26 x 3 - 20 x 2 - 16 x 2	5	30
97.20.265	MU085300DBBN	26 x 3 - 20 x 2 - 20 x 2	5	30
97.20.270	MU085300DDBN	26 x 3 - 26 x 3 - 20 x 2	5	30
97.20.320	MU085300EBDN	32 x 3 - 20 x 2 - 26 x 3	1	20
97.20.325	MU085300EDDN	32 x 3 - 26 x 3 - 26 x 3	1	20
97.20.329	MU085300EEDN	32 x 3 - 32 x 3 - 26 x 3	1	20
97.20.400	MU085300HEEN	40 x 3,5 - 32 x 3 - 32 x 3	1	10

TEE ENLARGED MIDDLE SECTION

/ RACCORDO A T ALLARGATO AL CENTRO
/ T-STÜCK ERWEITERT
/ TÉ ÉLARGI AU MILIEU



853N

CODE	TECH. CODE	SIZE 		
97.21.161	MU085300ABAN	16 x 2 - 20 x 2 - 16 x 2	10	50

WALLPLATE ELBOW 90°

/ GOMITO 90° FLANGIATO
/ WANDWINKEL 90°
/ APPLIQUE MURALE 90°

863N



CODE	TECH. CODE	SIZE	H (mm)		
97.24.160	MU086300516N •	16 x 2 - 1/2"	39 mm	10	50
97.24.161	MU08630H516N	16 x 2 - 1/2"	52 mm	10	50
97.24.200	MU086300520N	20 x 2 - 1/2"	52 mm	10	40
97.24.201	MU086300720N	20 x 2 - 3/4"	52 mm	10	40

• CAUTION: TO BE PRESSED AHEAD WALL INSTALLATION!
/ ATTENZIONE: DA PRESSARE PRIMA DELL'INSTALLAZIONE A MURO
/ WICHTIG: VOR DEM WANDEINBAU VERPRESSEN!
/ AVERTISSEMENT: DOIT ÊTRE SERTI AVANT L'INSTALLATION AU MUR

WALLPLATE ELBOW-DOUBLE 90°

/ GOMITO 90° FLANGIATO DOPPIO
/ WANDWINKEL 90° DOPPELT
/ APPLIQUE MURALE 90° DOUBLE

864N



CODE	TECH. CODE	SIZE	H (mm)		
97.25.160	MU086400516N	16 x 2 - 1/2" - 16 x 2	52	10	20
97.25.200	MU086400520N	20 x 2 - 1/2" - 20 x 2	52	10	20

WALLPLATE ELBOW-LONG 90°

/ GOMITO 90° FLANGIATO LUNGO
/ WANDWINKEL 90° LANG
/ APPLIQUE MURALE 90° LONGUE

863LN



CODE	TECH. CODE	SIZE	H (mm)		
97.26.160	MU0863L0516N	16 x 2 - 1/2"	78	5	25
97.26.200	MU0863L0520N	20 x 2 - 1/2"	78	5	25

ELBOW MALE/FEMALE LONG FOR CONNECTION TO LAVATORY FLUSH-WATER TANK

/ GOMITO FLANGIATO MASCHIO/FEMMINA LUNGO
PER CASSETTA DI RISCACQUO
/ WANDDURCHFÜHRUNG AG/IG MIT VERDREHSCHUTZ
/ APPLIQUE RÉSERVOIR MÂLE/FEMELLE

867N



CODE	TECH. CODE	SIZE	H (mm)		
97.33.105	MU086700516N	16 x 2	78	5	25
97.33.115	MU086700520N	20 x 2	78	5	25

CONNECTING STRAIGHT SCREW FITTING WITH SWIVEL NUT AND FLAT SEAL

/ RACCORDO DIRITTO TENUTA PIATTA
CON DADO PRIGIONIERO E GUARNIZIONE
/ ÜBERGANGSPRESSVERSCHRAUBUNG FLACHDICHTEND
/ RACCORD À SERTIR ET ÉCROU TOURNANT JOINT PLAT



876N

CODE	TECH. CODE	SIZE		
97.42.150	MU087600516N	16 x 2 - 1/2"	10	150
97.42.160	MU087600716N	16 x 2 - 3/4"	10	120
97.42.200	MU087600720N	20 x 2 - 3/4"	10	100
97.42.260	MU087601026N	26 x 3 - 1"	5	80

CONNECTING SCREW FITTING WITH SWIVEL NUT AND EUROCONE

/ RACCORDO DIRITTO CON DADO PRIGIONIERO E TENUTA EUROCONO
/ ANSCHLUSSPRESSVERSCHRAUBUNG MIT EUROKONUS
/ RACCORD À SERTIR ET ÉCROU TOURNANT EUROCONE



875N

CODE	TECH. CODE	SIZE		
87.40.160	MU087500716N	16 x 2 - 3/4"	10	100
87.40.200	MU087500720N	20 x 2 - 3/4"	10	100
87.40.260	MU087501026N	26 x 3 - 1"	10	100

STOP END

/ TAPPO
/ PRESSSTOPFEN
/ BOUCHON



881N

CODE	TECH. CODE	SIZE		
97.31.160	MU088100016N	16 x 2	10	150
97.31.200	MU088100020N	20 x 2	10	150
97.31.260	MU088100026N	26 x 3	5	100
97.31.320	MU088100032N	32 x 3	1	60

INSTALLATION / INSTALLAZIONE / INSTALLATION / INSTALLATION

1



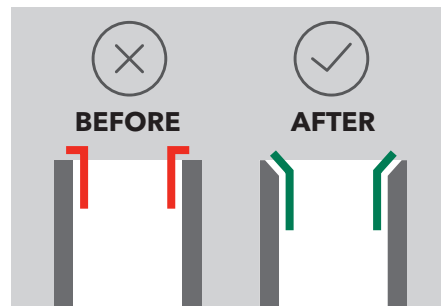
CUT
/ TAGLIO
/ ROHRABLÄNGEN
/ COUPER

2



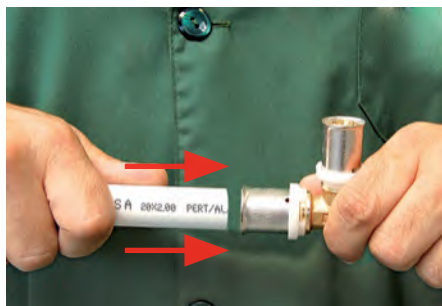
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/ CALIBRATURA
/ KALIBRIERUNG UND ENTGRATEN
/ COUPER

3



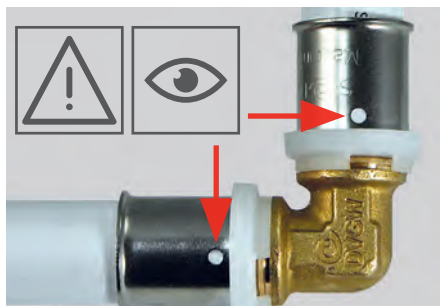
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/ ROHRKALIBRIERUNG
/ CALIBRAGE DE TUYAU

4



INSERTING THE FITTING
/ MONTAGGIO DEL RACCORDO
/ MONTAGE DES FITTINGS
/ INSERTION DU RACCORD

5



VISUAL INSPECTION
/ CONTROLLO VISIVO
/ VISUELLE KONTROLLE
/ CONTRÔLE VISUEL

6



PRESSING
/ PRESSATURA
/ VERPRESSUNG
/ PRESSER

COMISA PRESS CONTROL



FITTING NOT PRESSED
/ RACCORDO NON PRESSATO
/ UNVERPRESSTER FITTING
/ RACCORD NON SERTI



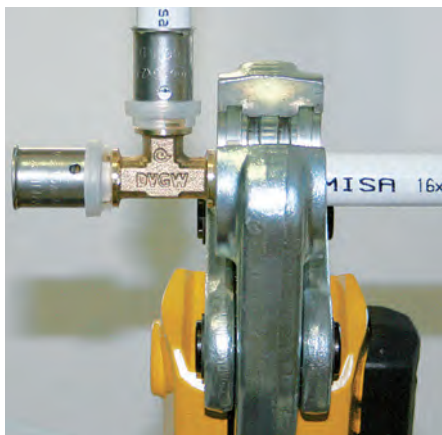
**FITTING NOT PRESSED AND TESTED
BETWEEN 1 AND 4,5 BAR - IT LEAKS**
/ RACCORDO NON PRESSATO PROVATO DA 1
FINO A 4,5 BAR - **PERDE**
/ ZWISCHEN 1 UND 4,5 BAR GEPRÜFTER
NICHT VERPRESSTER FITTING - **UNDICHT**
/ RACCORDS NON SERTI,
TEST EN PRESSION À 1-4,5BAR - **IL FUIT**



**FITTING PRESSED AND TESTED
BETWEEN 1 AND 4,5 BAR - IT DOESN'T LEAK**
/ RACCORDO PRESSATO PROVATO - NON PERDE
/ ZWISCHEN 1 UND 4,5 BAR GEPRÜFTER
VERPRESSTER FITTING - **DICHT**
/ RACCORD SERTI, TEST EN PRESSION À 1-4,5 BAR
IL NE FUIT PAS

CLAMPING JAW PROFILE TO BE USED WITH COMISA PRESS FITTINGS

/ PROFILO GANASCE DA UTILIZZARE CON RACCORDI COMISA PRESS SYSTEM
 / PRESSPROFIL IM EINSATZ MIT COMISA PRESS FITTINGS
 / PROFIL DES MÂCHOIRES /INSERTS À UTILISER AVEC LES RACCORDS À SERTIR COMISA



CONNECTING STRAIGHT SCREW FITTING
 WITH FLAT SEAL WITH WASHER

**Ø COMPATIBLE WITH
H - B JAWS:**

/ Ø COMPATIBILE CON GANASCE H - B
 / Ø KOMPATIBILITÄT MIT PRESSBACKEN H - B
 / Ø COMPATIBLES AVEC LES PROFILS H ET B

TH	H	B
14	14	14
16	16	16
18	18	18
20	20	20
25	26	26
26	32	32
32		
40		
50		
63		
75		

IMPORTANT!**COMISA PRESS SERIES**

Following the introduction on the market of multilayer pipes or fittings of uncontrolled origin, in order to protect their customers, Comisa S.p.A. states as follows:

CLAMPING JAW PROFILES COMPATIBLE WITH COMISA PRESS SYSTEM

The COMISA PRESS system, DVGW Certificate No. DW-8501BO0049, includes:

- COMISA PRESS Fittings
- COMISA Multilayer pipe
- Jaws TH Profile

COMISA ensures the compatibility of the jaws H or B only when used with the COMISA PRESS System: COMISA Multilayer pipe + fittings. Regarding the use of pipe or fittings of other producers and/or of other sources, COMISA does not guarantee the compatibility, if not after the customer's request, following which COMISA will implement its test procedure for inspection. After successful testing, COMISA will issue a certificate of guarantee.

Warning:

THE PIPE CALIBRATION IS IMPORTANT AND MUST BE MADE WITH CHIP REMOVAL CALIBRATORS.
 DO NOT USE CALIBRATORS FOR PE-X AS NOT ADEQUATE.

/ ATTENZIONE!**SERIE COMISA PRESS**

A seguito della immissione sul mercato di tubi multistrato o di raccorderie di incontrollata provenienza, al fine di tutelare la propria clientela, COMISA S.p.A. precisa quanto segue:

PROFILI GANASCE COMPATIBILI CON COMISA PRESS SYSTEM

Il sistema COMISA PRESS SYSTEM, certificato DVGW No. DW-8501BO0049, è composto da:

- Raccordi COMISA PRESS
- Tubo multistrato COMISA
- Ganasce profilo TH

COMISA garantisce la compatibilità delle ganasce H o B solo se utilizzate con sistema COMISA PRESS: raccordi + tubo multistrato COMISA. Per quanto riguarda l'utilizzo di tubo o di raccorderie di altro produttore e/o di altra provenienza, non si garantisce la compatibilità, se non previa richiesta del cliente, a seguito della quale COMISA attuerà il proprio protocollo di test per la verifica stessa. Ad esito positivo delle prove, COMISA rilascerà una certificazione di garanzia.

Attenzione:

LA CALIBRAZIONE DEL TUBO È IMPORTANTISSIMA E DEVE ESSERE FATTA CON CALIBRATORI AD ASPORTAZIONE DI TRUCIOLO. NON UTILIZZARE CALIBRATORI PER TUBO PE-X IN QUANTO NON ADEGUATI.

/ ACHTUNG!**SERIE COMISA PRESS**

Unkontrollierbare Angebote an Mehrschichtverbundrohr oder Pressfittinge auf dem Markt veranlassen uns, zum Schutz unserer eigenen Kunden, nachfolgende Erklärung abzugeben:

PRESSPROFILE KOMPATIBEL MIT COMISA PRESSSYSTEM

Das System COMISA PRESS, DVGW Zulassung DW-8501BO0049 besteht aus:

- Fittings COMISA PRESS
- Mehrschichtverbundrohr COMISA
- Pressprofil TH

COMISA garantiert die Kompatibilität der Press-Profile H und B nur in Verbindung mit den eigenen Systemkomponenten. Bei Einsatz von Rohr oder Formteilen anderer Hersteller bzw. fremder Herkunft kann eine Kompatibilität nur nach vorheriger Absprache und Genehmigung seitens Comisa gegeben werden. Eine von Werkseite ausgestellte Garantie gewährleistet den positiven Ausgang der durchgeführten Kontrolltests.

Achtung:

WIR WEISEN AUF DIE HOHE BEDEUTUNG EINER KORREKTEN UND FACHGERECHTEN KALIBRIERUNG UND ENTGRATUNG (ENTFERNEN VON SPÄNEN) MITTELS EINES GEEIGNETEN WERKZEUGES HIN. KALIBRIERER FÜR PE-X - ROHRE SIND FÜR EIN MEHRSCICHTVERBUNDROHR NICHT GEEIGNET.

/ IMPORTANT!**FAMILLE DE RACCORDS À SERTIR COMISA**

Suite à l'introduction sur le marché de tube multicouche et de raccords d'origine non contrôlée, afin de protéger ses clients, COMISA souligne ce qui suit:

PROFILS DE SERTISSAGE COMPATIBLES AVEC SYSTÈME À SERTIR COMISA

Le système à sertir COMISA, Certification DVGW No DW-8501BO0049, comprend:

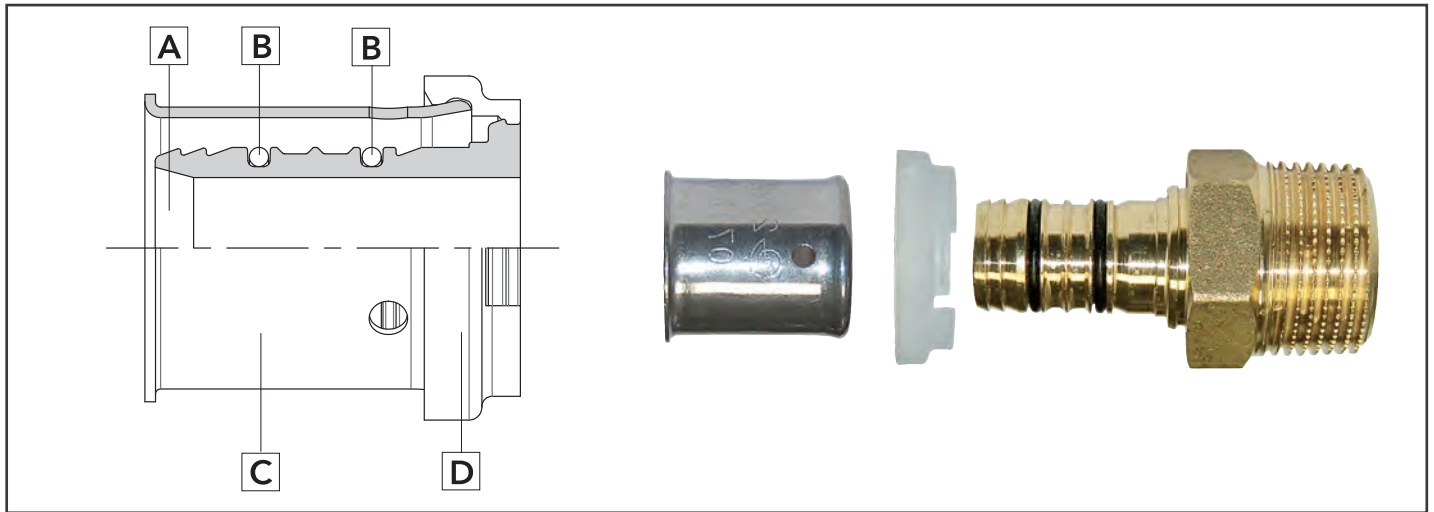
- Raccords à sertir COMISA press
- Tube multicouche COMISA
- Mâchoires/inserts profil TH

COMISA assure aussi la compatibilité de ces raccords à sertir avec les mâchoires/insert au profil H ou B uniquement pour les diamètres spécifiés ci-contre. En ce qui concerne l'utilisation de tuyaux ou des raccords d'autres producteurs et /ou d'autres sources, Comisa ne garantit pas a priori la compatibilité. Le client devra en faire la demande à COMISA et fournir un ensemble d'éléments afin que Comisa puisse effectuer un protocole de test ad-hoc. Suite aux essais concluants, Comisa pourra émettre un certificat de garantie spécifique au système testé.

Avertissement:

LE CALIBRAGE DU TUYAU EST IMPORTANT ET DOIT ÊTRE FAITE AVEC UN CALIBREURS/ÉBAVUREUR.
 N'UTILISEZ PAS DES CALIBREURS POUR TUBE PE-X, CAR ILS NE SONT PAS ADAPTÉS AU TUBE MULTICOUCHE.

SYSTEM CHARACTERISTICS / CARATTERISTICHE DEL SISTEMA / SYSTEMEIGENSCHAFTEN / CARACTÉRISTIQUES DU SYSTÈME



- A) **Brass body** in EN 12165 CW 617 N / EN 12164 CW 617 N: the part which characterises and denotes the figure of the fitting, elbow, tee, nipple or other. The drawing of the profile represents the features of the Comisa Press System and denotes its design. The processing tolerances are very reduced and the standard of processing is constantly monitored.
- B) Two special **O Rings** in EPDM-Peroxide mix: the profile of the fitting includes two OR, whose diameter varies depending on the size of the fitting. Their function is to compensate the thermal expansion of the multilayer pipe and therefore to ensure a perfect seal of the fitting with passage of hot or cold water.
- C) Stainless steel AISI 304 DIN EN 10088-2 **pressure collar**: the part on which the jaw exercises its own pressing action. After having been deformed, the stainless steel sleeve is not subject to any elastic return, immediate or subsequent. To guarantee irreversibility of the deformation, the sleeve is submitted to solubilisation.
- D) A white **clip ring** in plastic: it joins the stainless steel pressure collar to the brass body and implements a spacer which is placed between the multilayer pipe and the brass element of the fitting, preventing propagation of any highly damaging galvanic currents. In actual fact the aluminium layer of the pipe never touches the fitting because the processing profile of the fitting has a tube-stop which does not allow it. The shape of the clip also guarantees an unequivocal correspondence of the TH clamping jaws.
- A) **Corpo in ottone** EN12165 CW617N / EN12164 CW617N: è la parte che caratterizza e denota la "figura" del raccordo. Il disegno dell'attacco rappresenta la caratteristica del sistema Comisa Press e ne connota il progetto.
- B) Due **O'Rings** in speciale mescola EPDM-Perossido. La loro funzione è quella di compensare la dilatazione termica del tubo multistrato e perciò di assicurare una perfetta tenuta del raccordo sia con passaggio di acqua calda che fredda.
- C) **Bussolotto in acciaio inox** AISI 304 DIN EN 10088-2: è la parte su cui la ganaschia esercita la propria azione di pressatura. Dopo essere stato deformato, il bussolotto in acciaio inox non è soggetto ad alcun ritorno elastico, né immediato né successivo. Al fine di garantire l'irreversibilità della deformazione, il bussolotto viene sottoposto a trattamento di solubilizzazione.
- D) **Anello a clip** in materiale plastico: permette di congiungere il bussolotto inox al corpo in ottone ed implementa un distanziale che si interpone fra il tubo multistrato ed il corpo in ottone del raccordo, evitando la propagazione di eventuali dannosissime correnti galvaniche. Grazie alla forma della clips lo strato di alluminio del tubo non viene mai a contatto con il raccordo. La forma della clip garantisce, inoltre, un riscontro inequivocabile alla pinza TH.
- A) Einem **Messingkörper** EN 12165 CW 617 N / EN 12164 CW 617 N - Bestandteil, der die Form des Fittings bestimmt, Winkel, T-Stück, Anschlussstück oder andere. Technische Zeichnungen zeigen die Charakteristik des Comisa Presssystems auf und kennzeichnen das Projekt. Unter konstanter Überwachung der Qualität bewegen sich die Bearbeitungstoleranzen in einem engen Rahmen.
- B) 2 **O-Ringe** in der speziellen Zusammensetzung von EPDM (Ethyl-Propylen-Dien-Kautschuk) - Peroxyd: Für den Fitting sind 2 O-Ringe vorgesehen, deren Durchmesser sich an den unterschiedlichen Maßen der Pressverbinder orientiert. Ihre Funktion, die thermische Ausdehnung des Rohrs auszugleichen und somit eine perfekte Dichtigkeit sowohl beim Durchfluss von Warm- als auch Kaltwasser zu garantieren.
- C) Einer **Hülse** aus Edelstahl AISI 304 DIN EN 10088-2, Komponente, auf die die Pressbacke ihren Druck ausübt. Nach der Verpressung behält die Edelstahlhülse ihre erworbene Form, weder eine sofortige noch eine nachfolgende Veränderung ist möglich. Um die Irreversibilität der Verformung zu garantieren, wird die Hülse im Vorfeld dem Solubilisation Verfahren unterzogen.
- D) Einem weiß **Kunststoffring**, dieser ermöglicht die Verbindung der Edelstahlhülse mit dem Messingkörper und bewirkt gleichzeitig die Trennung zwischen Rohr und Fittingkörper - die Gefahr einer elektrogalvanischen Reaktion ist ausgeschlossen. Tatsächlich kommt die Aluminiumschicht des Rohres nie mit dem Fitting in Kontakt, da der Aufbau des Fittingkörpers automatisch einen Rohrstopps vorsieht, der dies verhindert. Die Form des Kunststoffrings garantiert darüber hinaus die eindeutige Positionierung der TH-Pressbacke.
- A) Un **corps en laiton** (EN 12165 CW 617 N / EN 12164 CW 617 N) qui caractérise et désigne le raccord: droit, coude, té ou autre. Le profil du corps en laiton des raccords est une spécificité Comisa qui les distingue de tous les produits concurrents. Les performances de nos raccords sont dues aussi à la précision de l'usinage demandant des tolérances très réduites constamment surveillées.
- B) Deux **joints toriques** spéciaux en EPDM Peroxyde-mix: sur le corps du raccord sont logés deux o-ring dont le diamètre varie en fonction du raccord. Leur fonction est de compenser la dilatation thermique du tuyau multicouche et donc assurer une parfaite étanchéité du raccord avec le passage de l'eau chaudes ou froide.
- C) Une **bague à sertir** en acier inox AISI 304 DIN EN 10088-2: la partie sur laquelle la pince à sertir exerce sa pression. Après avoir été déformée, la bague en acier inoxydable n'est pas soumise à un rappel élastique, ni immédiatement ni dans le temps. Afin de garantir l'irréversibilité de la déformation, la bague a été soumise à un processus dit de solubilisation.
- D) Un **anneau en plastique** blanc à clipper: il retient la bague inox au corps du raccord en laiton, en évitant le contact direct entre les deux métaux et donc les courants galvaniques. Ce même anneau plastique évite le contact de l'aluminium avec les autres métaux du raccord. La forme de cet anneau plastique identifie de façon certaine qu'il s'agit d'un raccord à sertir avec profil TH.

SYSTEM CHARACTERISTICS / CARATTERISTICHE DEL SISTEMA / SYSTEMEIGENSCHAFTEN / CARACTÉRISTIQUES DU SYSTÈME



Installation speed

The Comisa Press fittings can be perfectly installed with a few operations by even those with little experience. It is sufficient to follow the instructions which we provide and make the suitable equipment available. Time saving and the result are guaranteed.

Practical use

Our fittings are immediately ready for installation without the plumber having to accomplish any assembly operation; in the packaging the fitting is already fully pre-assembled. The plastic clip which implements the pressure collar ensures the correct positioning of the TH clamping jaw. The few operations necessary for installation, the range of figures and measurements available ensure the practical use of the Comisa Press fittings.

Total safety

The *Press Control System* with which the Comisa Press fittings are provided identifies any un-pressed joints. During the inspection phase of the plant, with a test pressure of up to 4,5 bar, the Comisa unpressed fittings leak and this allows immediate identification of the fitting on which to intervene. This feature is homologated by the DVGW body only on the Press fittings.

Versatility

Comisa has developed its own Press fittings optimized for the TH profile. Nevertheless the Comisa Press fittings are also available with other profiles, with which the compatibility has been tested.

/ Velocità di installazione

I raccordi a pressare Comisa Press si installano perfettamente con poche operazioni eseguibili anche da personale poco esperto. E' sufficiente seguire le istruzioni che forniamo e disporre dell'attrezzatura adeguata. Il risparmio in termini di tempo è garantito così come il risultato.

Praticità di utilizzo

I nostri raccordi sono immediatamente pronti per l'installazione senza che l'idraulico debba compiere alcuna operazione di montaggio; nell'imballaggio il raccordo è già completamente pre montato. La clip in plastica che implementa il bussolotto assicura il corretto posizionamento della ganaschia di serraggio tipo TH. Le poche operazioni necessarie all'installazione, la gamma di figure e di misure disponibili assicurano la praticità di utilizzo dei raccordi Comisa Press.

Sicurezza assoluta

Il sistema *Press Control* di cui sono dotati i raccordi Comisa Press permette di individuare eventuali giunzioni non pressate. Durante la fase di collaudo dell'impianto, con pressione di prova fino a 4,5 bar, i raccordi Comisa Press permettono la perdita immediata e perciò l'individuazione del raccordo sul quale intervenire. Tale caratteristica è omologata dall'ente DVGW solo sui raccordi Comisa Press.

Versatilità

Comisa ha sviluppato i propri raccordi serie Comisa Press per l'accoppiamento con ganasce tipo TH. Tuttavia è possibile pressare questo tipo di raccordi anche con altri profili, con i quali è stata testata la compatibilità.

/ Montagegeschwindigkeit Comisa Presssystem lässt sich hervorragend in wenigen Arbeitsschritten verarbeiten, was auch von weniger erfahrenen Arbeitskräften durchgeführt werden kann. Es genügt, die entsprechenden Anweisungen zu befolgen und das passende Werkzeug einzusetzen. Die Zeitersparnis ist ebenso garantiert wie das Resultat.

Einfach Verwendung

Unsere Fittings können sofort montiert werden, ohne dass der Installateur noch irgendwelche Vorarbeiten zu leisten hat; der Fitting ist in der Verpackung schon vollständig vormontiert. Der Kunststoffring, der die Hülse trägt, sorgt für die korrekte Positionierung der Pressbacke Profil TH. Wenige Montageschritte und die breite Auswahl an Formteilen bei Comisa Presssystem garantieren unseren Kunden die Sicherheit eines hochwertigen und praktischen Installationssystems.

Zertifizierte Sicherheit

Durch das *Press Control System* mit dem Comisa Press Fittings ausgestattet sind, ist es möglich, eventuell vorhandene unverpresste Verbindungen aufzuspüren.

Während des Testlaufs der Anlage bei einem Prüfdruck von bis zu 4,5 bar werden mögliche Undichtigkeiten sofort lokalisiert und anschließend verpresst. Dieses charakteristische Merkmal wurde vom DVGW in die bestehende Zertifizierung der Fittings aufgenommen.

Vielseitigkeit

Das Comisa Presssystem wurde für die Verbindung mit Pressbacken vom Typ TH konzipiert. Es ist jedoch möglich weitere Profile zu verwenden, die auf ihre Kompatibilität hin getestet wurden.

/ Rapidité d'installation

Les raccords à sertir Comisa peuvent être parfaitement installés avec quelques gestes exécutable même par quelqu'un ayant peu d'expérience. Il est suffisant de suivre les instructions et utiliser le matériel adapté. Gain de temps et résultat sont garantis.

Facile à utiliser

Nos raccords sont prêts à l'emploi, sans que l'installateur ait à accomplir une quelconque opération de pré assemblage. Dans son emballage le raccord est déjà entièrement pré-assemblé. Le clip en plastique qui fixe la bague à sertir au corps du raccord assure le positionnement correct de la mâchoire de sertissage TH. La gamme à sertir Comisa est disponible dans un vaste choix de forme de raccord et de taille, ils s'installent en quelque geste, ce qui en fait un raccord très pratique à utiliser.

Sécurité totale

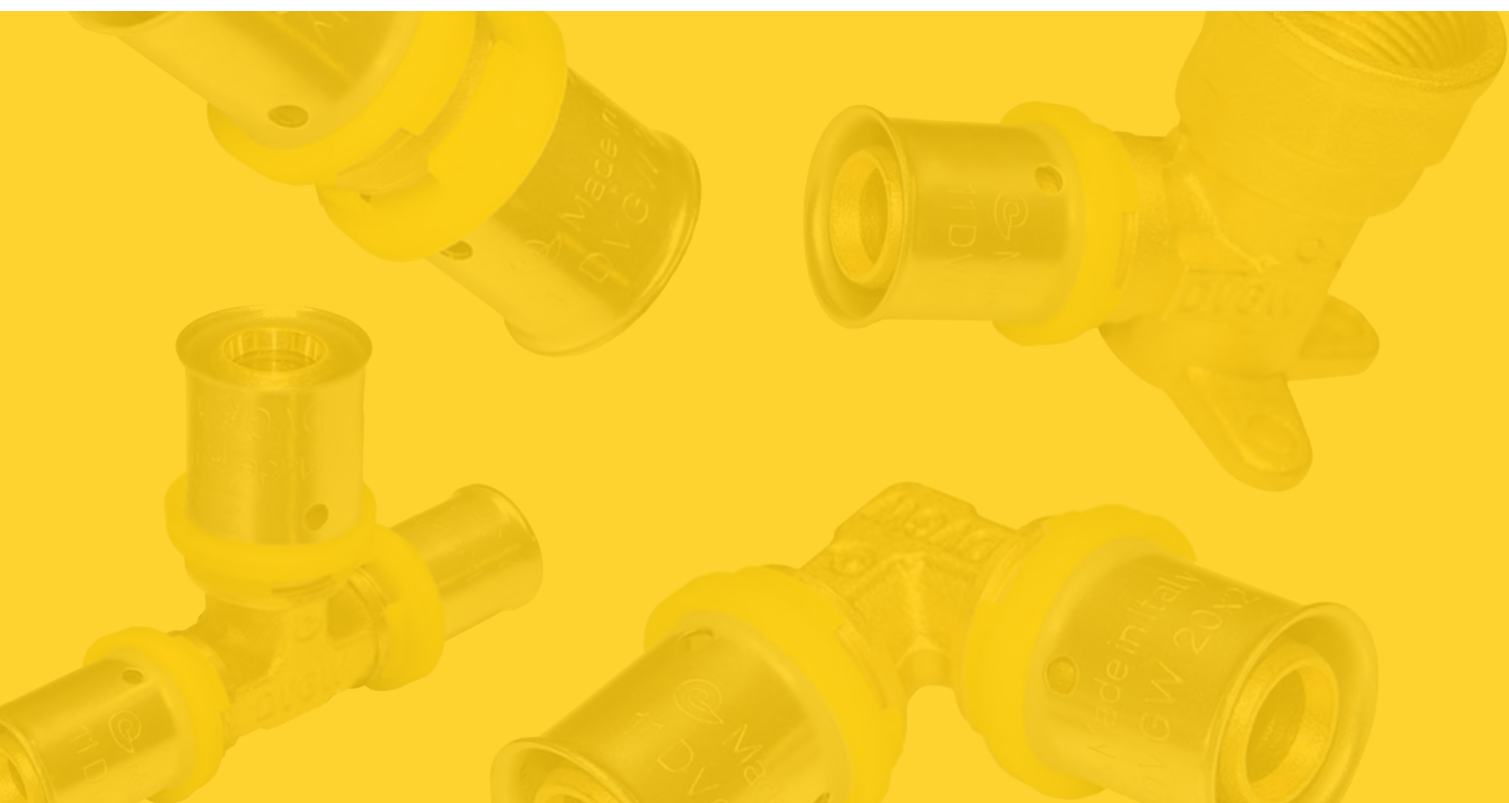
Le système de contrôle du sertissage *Press Control System* permet l'identification d'éventuels raccords qui n'auraient pas été sertis. Au cours du test sous pression de l'installation, exécuté avec une pression allant jusqu'à 4,5 bar, un raccord à sertir Comisa qui n'aurait pas été sertit va fuir, ce qui permet d'identifier le raccord sur lequel intervenir. Cette fonctionnalité est homologuée par l'organisme DVGW pour les raccords à sertir.

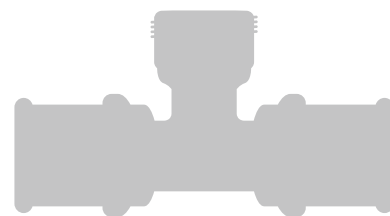
Versatilité

Comisa a développé ses propres raccords à sertir Comisa Press pour être sertis avec le profil TH. Néanmoins, les raccords à sertir Comisa peuvent être sertis avec les profils H ou B dont la compatibilité a été testée pour certains diamètres de tube.

PRESS FITTINGS FOR GAS MULTILAYER PIPE

/ RACCORDI A PRESSARE PER TUBO MULTISTRATO GAS
/ PRESS FITTINGS FÜR GAS MEHRSCICHTVERBUNDROHR
/ RACCORDS À SERTIR POUR TUBE MULTICOUCHE POUR LE GAZ





PRESS FITTINGS FOR GAS MULTILAYER PIPE

COMISA PRESS GAS

28

COMISA PRESS GAS

/ COMISA PRESS GAS
/ COMISA PRESS GAS
/ COMISA PRESS GAZ

BRASS

UNI EN 12164/12165
CW 617N
DIN 50930-6



STRAIGHT COUPLER

/ RACCORDO DIRITTO
/ KUPPLUNG
/ MANCHON ÉGAL



870

CODE	TECH. CODE	SIZE 		
87.81.160	MUG870000160	16 x 2	10	100
87.81.200	MUG870000200	20 x 2	10	80
87.81.260	MUG870000260	26 x 3	5	50
87.81.320	MUG870000320	32 x 3	1	30

MALE COUPLER

/ RACCORDO DIRITTO MASCHIO
/ ÜBERGANG MIT AG
/ MANCHON MÂLE



871

CODE	TECH. CODE	SIZE 		
87.83.160	MUG871005160	16 x 2 - 1/2"	10	120
87.83.165	MUG871007160	16 x 2 - 3/4"	10	120
87.83.200	MUG871005200	20 x 2 - 1/2"	10	120
87.83.201	MUG871007200	20 x 2 - 3/4"	10	100
87.83.255	MUG871005260	26 x 3 - 1/2"	5	60
87.83.260	MUG871007260	26 x 3 - 3/4"	5	60
87.83.261	MUG871010260	26 x 3 - 1"	5	50
87.83.320	MUG871010320	32 x 3 - 1"	1	40

FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA
/ WINKEL 90° MIT IG
/ COUDE 90° FEMELLE



862

CODE	TECH. CODE	SIZE 		
87.87.159	MUG8620H5160	16 x 2 - 1/2" 33 mm	10	80
87.87.160	MUG862005160	16 x 2 - 1/2" 25 mm	10	80
87.87.200	MUG862005200	20 x 2 - 1/2"	10	60
87.87.201	MUG862007200	20 x 2 - 3/4"	10	50
87.87.260	MUG862007260	26 x 3 - 3/4"	5	40
87.87.265	MUG862010260	26 x 3 - 1"	5	40
87.87.320	MUG862010320	32 x 3 - 1"	1	20

REDUCING COUPLER

/ RACCORDO DIRITTO RIDOTTO
/ KUPPLUNG REDUZIERT
/ MANCHON RÉDUIT



870R

CODE	TECH. CODE	SIZE 		
87.82.201	MUG870R20160	20 x 2 - 16 x 2	10	80
87.82.260	MUG870R26160	26 x 3 - 16 x 2	5	50
87.82.263	MUG870R26200	26 x 3 - 20 x 2	5	50

FEMALE COUPLER

/ RACCORDO DIRITTO FEMMINA
/ ÜBERGANG MIT IG
/ MANCHON FEMELLE



880

CODE	TECH. CODE	SIZE 		
87.84.160	MUG880005160	16 x 2 - 1/2"	10	120
87.84.200	MUG880005200	20 x 2 - 1/2"	10	120
87.84.201	MUG880007200	20 x 2 - 3/4"	10	80
87.84.255	MUG880005260	26 x 3 - 1/2"	5	60
87.84.260	MUG880007260	26 x 3 - 3/4"	5	60
87.84.261	MUG880010260	26 x 3 - 1"	5	50
87.84.320	MUG880010320	32 x 3 - 1"	1	40

MALE ELBOW 90°

/ GOMITO 90° MASCHIO
/ WINKEL 90° MIT AG
/ COUDE 90° MÂLE



861

CODE	TECH. CODE	SIZE 		
87.86.160	MUG861005160	16 x 2 - 1/2"	10	80
87.86.200	MUG861005200	20 x 2 - 1/2"	10	80
87.86.201	MUG861007200	20 x 2 - 3/4"	10	60
87.86.260	MUG861007260	26 x 3 - 3/4"	5	40

ELBOW 90°

/ GOMITO 90°
/ WINKEL 90°
/ COUDE 90°

**860**

CODE	TECH. CODE	SIZE 		
87.85.160	MUG860000160	16 x 2	10	100
87.85.200	MUG860000200	20 x 2	10	60
87.85.260	MUG860000260	26 x 3	5	40
87.85.320	MUG860000320	32 x 3	1	20

TEE

/ RACCORDO A T
/ T-STÜCK
/ TÉ

**850**

CODE	TECH. CODE	SIZE 		
87.88.160	MUG850000160	16 x 2	10	50
87.88.200	MUG850000200	20 x 2	10	40
87.88.260	MUG850000260	26 x 3	5	20
87.88.320	MUG850000320	32 x 3	1	15

TEE ENLARGED MIDDLE SECTION

/ RACCORDO A T ALLARGATO AL CENTRO
/ T-STÜCK ERWEITERT
/ TÉ ÉLARGI AU MILIEU

**853**

CODE	TECH. CODE	SIZE 		
87.91.161	MUG85300ABA0	16 x 2 - 20 x 2 - 16 x 2	10	50
87.91.201	MUG85300BDB0	20 x 2 - 26 x 3 - 20 x 2	5	30

FEMALE TEE

/ RACCORDO A T FEMMINA
/ T-STÜCK MIT IG
/ TÉ FEMELLE

**852**

CODE	TECH. CODE	SIZE 		
87.93.160	MUG852005160	16 x 2 - 1/2" - 16 x 2	10	50
87.93.200	MUG852005200	20 x 2 - 1/2" - 20 x 2	10	40
87.93.201	MUG852007200	20 x 2 - 3/4" - 20 x 2	10	40
87.93.260	MUG852005260	26 x 3 - 1/2" - 26 x 3	5	20
87.93.263	MUG852007260	26 x 3 - 3/4" - 26 x 3	5	20

TEE REDUCED MIDDLE SECTION

/ RACCORDO A T RIDOTTO AL CENTRO
/ T-STÜCK MITTELABGANG REDUZIERT
/ TÉ RÉDUIT AU MILIEU

**853**

CODE	TECH. CODE	SIZE 		
87.89.201	MUG85300BAB0	20 x 2 - 16 x 2 - 20 x 2	10	50
87.89.263	MUG85300DBD0	26 x 3 - 20 x 2 - 26 x 3	5	30

REDUCING TEE

/ RACCORDO A T RIDOTTO
/ T-STÜCK REDUZIERT
/ TÉ RÉDUIT

**853**

CODE	TECH. CODE	SIZE 		
87.90.202	MUG85300BAA0	20 x 2 - 16 x 2 - 16 x 2	10	50
87.90.206	MUG85300BBA0	20 x 2 - 20 x 2 - 16 x 2	10	50

WALLPLATE ELBOW 90°

/ GOMITO 90° FLANGIATO
/ WANDWINKEL 90°
/ APPLIQUE MURALE 90°



863

CODE	TECH. CODE	SIZE	H (mm)		
87.94.160	MUG863005160 •	16 x 2 - 1/2"	39 mm	10	50
87.94.161	MUG8630H5160	16 x 2 - 1/2"	52 mm	10	40
87.94.200	MUG863005200	20 x 2 - 1/2"	52 mm	10	40
87.94.201	MUG863007200	20 x 2 - 3/4"	52 mm	10	30
87.94.260	MUG863007260	26 x 3 - 3/4"	52 mm	5	25

• CAUTION! TO BE PRESSED AHEAD WALL INSTALLATION!
/ ATTENZIONE: DA PRESSARE PRIMA DELL'INSTALLAZIONE A MURO
/ WICHTIG: VOR DEM WANDEINBAU VERPRESSEN!
/ AVERTISSEMENT: DOIT ÊTRE SERTI AVANT L'INSTALLATION AU MUR

STOP END

/ TAPPO
/ PRESSSTOPFEN
/ BOUCHON



881

CODE	TECH. CODE	SIZE		
87.97.160	MUG881000160	16 x 2	10	150
87.97.200	MUG881000200	20 x 2	10	150
87.97.260	MUG881000260	26 x 3	5	100

O-RINGS

/ O-RING
/ O-RINGE
/ O-RINGS



CODE	TECH. CODE	SIZE
87.97.616	ORG8500016000	16 x 2
87.97.620	ORG8500020000	20 x 2
87.97.626	ORG8500026000	26 x 3

CONNECTING STRAIGHT SCREW FITTING WITH FLAT SEAL WITH WASHER

/ RACCORDO DIRITTO TENUTA PIATTA CON GUARNIZIONE
/ ÜBERGANGSPRESSVERSCHRAUBUNG FLACHDICHTEND
/ RACCORD À SERTIR ET ÉCROU TOURNANT JOINT PLAT



876

CODE	TECH. CODE	SIZE		
87.95.150	MUG87600516L	16 x 2 - 1/2"	10	150
87.95.160	MUG87600716L	16 x 2 - 3/4"	10	120
87.95.200	MUG87600720L	20 x 2 - 3/4"	10	100
87.95.260	MUG87601026L	26 x 3 - 1"	5	80

PRESSURE COLLAR IN STAINLESS STEEL

/ BUSSOLOTTA IN ACCIAIO INOX
/ PRESSHÜLSE AUS EDELSTAHL
/ BAGUE DE SERTISSAGE INOX



CODE	TECH. CODE	SIZE		
87.97.516	BUG851000160	16 x 2	10	250
87.97.520	BUG851000200	20 x 2	10	200
87.97.526	BUG851000260	26 x 3	10	100

INSTALLATION / INSTALLAZIONE / INSTALLATION / INSTALLATION

1



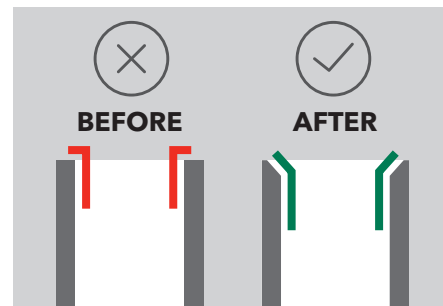
CUT
/ TAGLIO
/ ABLÄNGEN
/ COUPER

2



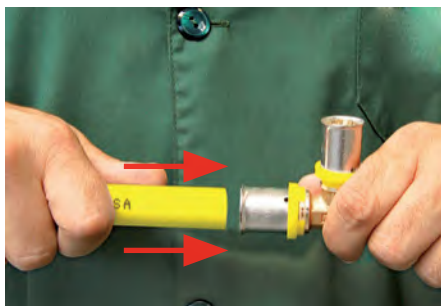
CALIBRATION
/ CALIBRATURA
/ KALIBRIERUNG
/ COUPER

3



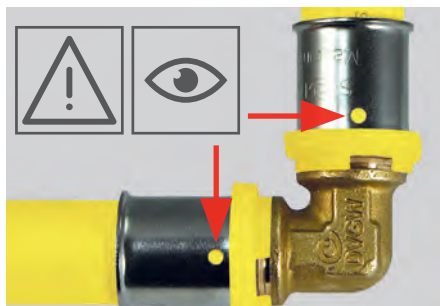
PIPE CALIBRATION
/ CALIBRAZIONE DEL TUBO
/ ROHRKALIBRIERUNG
/ CALIBRAGE DE TUYAU

4



INSERTING THE FITTING
/ MONTAGGIO DEL RACCORDO
/ MONTAGE DES FITTINGS
/ INSERTION DU RACCORD

5



VISUAL INSPECTION
/ CONTROLLO VISIVO
/ VISUELLE KONTROLLE
/ CONTRÔLE VISUEL

6



PRESSING
/ PRESSATURA
/ VERPRESSUNG
/ PRESSER

CARATTERISTICHE TECNICHE COMISA GAS SYSTEM

Il sistema **Comisa Gas system** è realizzato in ottemperanza alla normativa **UNI 11344** e può essere installato secondo quanto prescritto dalla normativa **UNI 7129**.

Comisa Gas system nasce dalla pluriennale esperienza Comisa nella produzione di sistemi multistrato per il trasporto di gas combustibile in ambito domestico. Il sistema, composto da tubazioni multistrato e raccordi a pressione in ottone, offre la più ampia garanzia nelle installazioni gas ad uso domestico.

Le proprietà del sistema lo rendono semplice ed affidabile nella realizzazione di nuovi impianti e molto pratico nel ripristino di quelli esistenti.

I principali vantaggi che il sistema Comisa Gas può offrire riguardano:

- Installazione veloce ed affidabile rispetto ai sistemi tradizionali
- Elevata portata, data la bassa rugosità interna del sistema
- Risparmio dato dalla possibilità di curvare il tubo senza bisogno di raccordi
- Completezza dimensionale della gamma
- Alto livello qualitativo
- Uniformità: attrezzatura in comune col sistema idrico **Comisa Press**.



SISTEMA CONFORME
UNI 11344

Indicazioni per la realizzazione in sicurezza di un impianto per l'adduzione di gas ad uso domestico con tubo multistrato Gas:

- Le giunzioni delle tubazioni multistrato possono essere realizzate mediante raccordi per sistemi multistrato conformi alla normativa **UNI 11344**.
- I raccordi possono essere interrati o posti sottotraccia a condizione che vengano rispettivamente inseriti in idoneo pozzetto ispezionabile o apposita scatola ispezionabile con coperchio non a tenuta.
- I punti di giunzione in corrispondenza dei raccordi posizionati nei pozzetti devono essere opportunamente protetti contro le corrosioni, secondo quanto previsto dalla normativa **UNI 12954**.
- Prima di introdurre la tubazione nel raccordo deve essere accertata l'integrità del raccordo stesso.

EUROCONE - PLATED SCREW FITTINGS FOR MULTILAYER PIPE WITH ADAPTOR

/ **EUROCONO** - RACCORDI A STRINGERE GALVANICAMENTE TRATTATI PER TUBO MULTISTRATO CON KIT ADATTATORE

/ **EUROKONUS** - GALVANISCH BEHANDELTE VERSCHRAUBUNGEN FÜR METALLVERBUNDROHR MIT KLEMMRINGVERSCHRAUBUNGEN

/ **EUROCÔNE** - RACCORDS À VISSER POUR TUBE MULTICOUCHE EN LAITON GALVANISÉ AVEC ADAPTATEUR





EUROCONE PLATED SCREW FITTINGS FOR MULTILAYER PIPE WITH ADAPTOR

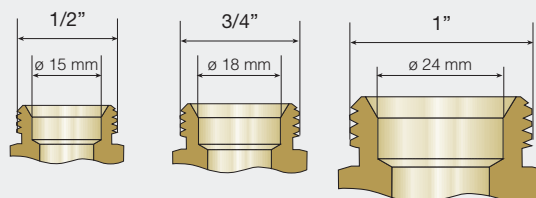
EUROCONE - BODIES	34
EUROCONE - KITS	36
EUROCONE - SCREW FITTINGS	37

EUROCONO - BODIES

/ EUROCONO - CORPI
/ EUROKONUS - KÖRPER
/ EUROCÔNE - CORPS

BRASS

UNI EN 12164/12165
CW 617N
DIN 50930-6



EUROCONO SIZES
MISURE EUROCONO
ABMESSUNGEN EUROKONUS
MEASURES EUROCÔNE

MALE STRAIGHT COUPLER WITH O-RING SEAL

/ RACCORDO DIRITTO MASCHIO
CON O-RING
/ KUPPLUNG MIT AG UND O-RING
/ MANCHON MÂLE TENUE O-RING



572

CODE	TECH. CODE	SIZE		
88.01.037	RM0572005070 yellow / giallo / messing / jaune	3/4" euro x 1/2"	10	200
88.01.038	RM057200507N nickel plated / nichelato / vernickelt / nichelé	3/4" euro x 1/2"	10	200

MALE COUPLER

/ RACCORDO DIRITTO MASCHIO
/ ÜBERGANG MIT AG
/ MANCHON MÂLE



571

CODE	TECH. CODE	SIZE		
88.01.020	RM057100505N	1/2" euro x 1/2"	10	200
88.01.021	RM057100507N	3/4" euro x 1/2"	10	100
88.01.025	RM057100707N	3/4" euro x 3/4"	10	100
88.01.030	RM057100710N	1" euro x 3/4"	10	80
88.01.035	RM057101010N	1" euro x 1"	10	80

STRAIGHT COUPLER

/ RACCORDO DIRITTO
/ KUPPLUNG
/ MANCHON ÉGAL



570

CODE	TECH. CODE	SIZE		
88.01.005	RM057000500N	1/2" euro	10	200
88.01.010	RM057000700N	3/4" euro	10	100
88.01.015	RM057001000N	1" euro	10	80

FEMALE COUPLER

/ RACCORDO DIRITTO FEMMINA
/ ÜBERGANG MIT IG
/ MANCHON FEMELLE



580

CODE	TECH. CODE	SIZE		
88.01.045	RM058000505N	1/2" euro x 1/2"	10	200
88.01.065	RM058000507N	3/4" euro x 1/2"	10	100
88.01.050	RM058000707N	3/4" euro x 3/4"	10	100
88.01.055	RM058000710N	1" euro x 3/4"	10	100
88.01.060	RM058001010N	1" euro x 1"	10	80

ELBOW 90°

/ GOMITO 90°
/ WINKEL 90°
/ COUDE 90°



560

CODE	TECH. CODE	SIZE		
88.01.100	RM056000500N	1/2" euro	10	200
88.01.105	RM056000700N	3/4" euro	10	100
88.01.110	RM056001000N	1" euro	10	40

MALE ELBOW 90°

/ GOMITO 90° MASCHIO
/ WINKEL 90° MIT AG
/ COUDE 90° MÂLE



561

CODE	TECH. CODE	SIZE		
88.01.115	RM056100505N	1/2" euro x 1/2"	10	200
88.01.130	RM056100507N	3/4" euro x 1/2"	10	100
88.01.120	RM056100707N	3/4" euro x 3/4"	10	100
88.01.125	RM056101010N	1" euro x 1"	10	40
88.01.135	RM056100710N	1" euro x 3/4"	10	50

FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA
/ WINKEL 90° MIT IG
/ COUDE 90° FEMELLE

**562**

CODE	TECH. CODE	SIZE 		
88.01.150	RM056200505N	1/2" euro x 1/2"	10	200
88.01.165	RM056200507N	3/4" euro x 1/2"	10	100
88.01.155	RM056200707N	3/4" euro x 3/4"	10	100
88.01.170	RM056200710N	1" euro x 3/4"	10	50
88.01.160	RM056201010N	1" euro x 1"	10	40

TEE

/ RACCORDO A T
/ T-STÜCK
/ TÉ

**550**

CODE	TECH. CODE	SIZE 		
88.01.200	RM055000500N	1/2" euro	10	100
88.01.205	RM055000700N	3/4" euro	10	80
88.01.210	RM055001000N	1" euro	10	40

FEMALE TEE

/ RACCORDO A T FEMMINA
/ T-STÜCK MIT IG
/ TÉ FEMELLE

**552**

CODE	TECH. CODE	SIZE 		
88.01.250	RM055200505N	1/2" euro x 1/2" x 1/2" euro	10	100
88.01.270	RM055200507N	3/4" euro x 1/2" x 3/4" euro	10	80
88.01.255	RM055200707N	3/4" euro x 3/4" x 3/4" euro	10	80
88.01.265	RM055200710N	1" euro x 3/4" x 1" euro	10	40
88.01.260	RM055201010N	1" euro x 1" x 1" euro	10	40

WALLPLATE ELBOW 90°

/ GOMITO 90° FLANGIATO
/ WANDWINKEL 90°
/ APPLIQUE MURALE 90°

3 FIXING HOLES

**563**

CODE	TECH. CODE	SIZE 		
88.01.300	RM056300505N	1/2" euro x 1/2"	10	80
88.01.310	RM056300507N	3/4" euro x 1/2"	10	60
88.01.305	RM056300707N	3/4" euro x 3/4"	10	60

MALE TEE

/ RACCORDO A T MASCHIO
/ T-STÜCK MIT AG
/ TÉ MÂLE

**551**

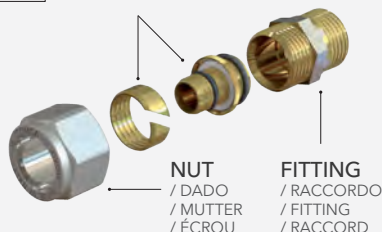
CODE	TECH. CODE	SIZE 		
88.01.280	RM055100505N	1/2" euro x 1/2" x 1/2" euro	10	100
88.01.285	RM055100707N	3/4" euro x 3/4" x 3/4" euro	10	80
88.01.295	RM055101010N	1" euro x 3/4" x 1" euro	10	40

EUROCONE - KIT

/ EUROCONO - KIT
/ EUROKONUS - KIT
/ EUROCÔNE - KIT

1/2"

OLIVE AND ADAPTOR
/ OGIVA E ADATTATORE
/ KLEMMRING UND ADAPTER
/ OLIVE ET ADAPTATEUR



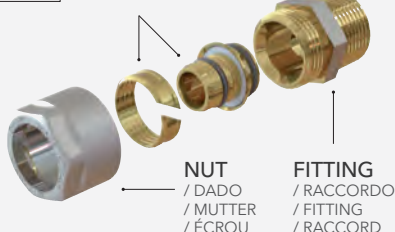
NUT
/ DADO
/ MUTTER
/ ÉCROU

FITTING
/ RACCORDO
/ FITTING
/ RACCORD

KIT 1/2"

3/4"

OLIVE AND ADAPTOR
/ OGIVA E ADATTATORE
/ KLEMMRING UND ADAPTER
/ OLIVE ET ADAPTATEUR



NUT
/ DADO
/ MUTTER
/ ÉCROU

FITTING
/ RACCORDO
/ FITTING
/ RACCORD

KIT 3/4"

1"

OLIVE AND ADAPTOR
/ OGIVA E ADATTATORE
/ KLEMMRING UND ADAPTER
/ OLIVE ET ADAPTATEUR



NUT
/ DADO
/ MUTTER
/ ÉCROU

FITTING
/ RACCORDO
/ FITTING
/ RACCORD

KIT 1"

SCREW FITTING FOR MULTILAYER PIPE

/ KIT A STRINGERE PER TUBO MULTISTRATO
/ KLEMMRINGVERSCHRAUBUNG
FÜR MEHRSCICHTVERBUNDROHR
/ ADAPTATEUR POUR TUBE MULTICOUCHE



CODE	TECH. CODE	SIZE		
88.03.016	DC055001612N	16 x 2 - 1/2"	10	200
88.03.017	DC055000556N	16 x 2,25 - 1/2"	10	200

SCREW FITTING FOR MULTILAYER PIPE

/ KIT A STRINGERE PER TUBO MULTISTRATO
/ KLEMMRINGVERSCHRAUBUNG FÜR MEHRSCICHTVERBUNDROHR
/ ADAPTATEUR POUR TUBE MULTICOUCHE



CODE	TECH. CODE	SIZE		
88.03.110	DC0221C1410N	14 x 2 - 3/4"	10	150
88.03.116	DC0221C1612N	16 x 2 - 3/4"	10	150
88.03.120	DC0221C0556N	16 x 2,25 - 3/4"	10	150
88.03.123	DC0221C1713N	17 x 2 - 3/4"	10	150
88.03.126	DC0221C1814N	18 x 2 - 3/4"	10	150
88.03.136	DC0221C2016N	20 x 2 - 3/4"	10	150
88.03.140	DC0221C2015N	20 x 2,5 - 3/4"	10	150

SCREW FITTING FOR MULTILAYER PIPE

/ KIT A STRINGERE PER TUBO MULTISTRATO
/ KLEMMRINGVERSCHRAUBUNG FÜR MEHRSCICHTVERBUNDROHR
/ ADAPTATEUR POUR TUBE MULTICOUCHE



CODE	TECH. CODE	SIZE		
88.03.310	DC055201612N	16 x 2 - 1"	10	100
88.03.315	DC055202016N	20 x 2 - 1"	10	100
88.03.321	DC055202620N	26 x 3 - 1"	10	80

SCREW FITTING FOR COPPER PIPE

/ KIT A STRINGERE PER TUBO RAME
/ KLEMMRINGVERSCHRAUBUNG FÜR KUPFERROHR
/ ADAPTATEUR POUR TUBE CUIVRE



CODE	TECH. CODE	SIZE		
88.03.150	DC057900515N	15 x 1/2"		300

SCREW FITTING FOR PE-X PIPE

/ KIT A STRINGERE PER TUBO PE-X
/ KLEMMRINGVERSCHRAUBUNG FÜR PE-X-ROHR
/ ADAPTATEUR POUR TUBE PE-X



CODE	TECH. CODE	SIZE		
88.03.006	DC022101208N	12 x 2 - 3/4" PE-X	10	100
88.03.014	DC022101410N	14 x 2 - 3/4" PE-X	10	150
88.03.118	DC022101612N	16 x 2 - 3/4" PE-X	10	150
88.03.119	DC022101713N	17 x 2 - 3/4" PE-X	10	150
88.03.138	DC022102016N	20 x 2 - 3/4" PE-X	10	150
88.03.139	DC022101613N	16 x 1,5 - 3/4" PE-X	10	150

SCREW FITTING FOR MULTILAYER PIPE

/ KIT A STRINGERE PER TUBO MULTISTRATO
/ KLEMMRINGVERSCHRAUBUNG FÜR MEHRSCICHTVERBUNDROHR
/ ADAPTATEUR POUR TUBE MULTICOUCHE



CODE	TECH. CODE	SIZE		
88.03.018	DC055011612N	16 x 2 - 1/2"	10	200
88.03.019	DC055112016N	20 x 2 - 3/4"	10	100
88.03.028	DC055212620N	26 x 3 - 1"	10	80

SCREW FITTING FOR COPPER PIPE

/ KIT A STRINGERE PER TUBO RAME
/ KLEMMRINGVERSCHRAUBUNG FÜR KUPFERROHR
/ ADAPTATEUR POUR TUBE CUIVRE



CODE	TECH. CODE	SIZE		
88.03.170	DC057800512N	12 x 1/2"		300
88.03.175	DC057800712N	12 x 3/4"		150
88.03.160	DC057801022N	22 x 1"		100

EUROCONE - SCREW FITTINGS

/ EUROCONO - RACCORDI COMPLETI
/ EUROKONUS - KLEMMRINGVERSCHRAUBUNGEN
/ EUROCÔNE - RACCORDS À VISSER

BRASS

UNI EN 12164/12165
CW 617N
DIN 50930-6



STRAIGHT COUPLER

/ RACCORDO DIRITTO
/ KUPPLUNG
/ MANCHON ÉGAL



570

CODE	TECH. CODE	SIZE 	KIT		
88.03.415	RM057000016N	16 x 2	KIT 1/2"	10	100
88.03.416	RM057000056N	16 x 2,25	KIT 1/2"	10	100
88.03.419	RM057000014N	14 x 2	KIT 3/4"	10	80
88.03.420	RM057000X16N	16 x 2	KIT 3/4"	10	80
88.03.421	RM057000X56N	16 x 2,25	KIT 3/4"	10	80
88.03.425	RM057000017N	17 x 2	KIT 3/4"	10	80
88.03.430	RM057000018N	18 x 2	KIT 3/4"	10	80
88.03.435	RM057000020N	20 x 2	KIT 3/4"	10	80
88.03.436	RM057000051N	20 x 2,5	KIT 3/4"	10	80
88.03.445	RM057000026N	26 x 3	KIT 1"	5	50

REDUCING COUPLER

/ RACCORDO DIRITTO RIDOTTO
/ KLEMMVERSCHRAUBUNG GRADE REDUZIERT
/ MANCHON RÉDUIT



570R

CODE	TECH. CODE	SIZE 	KIT		
88.03.840	RM0570R1816N	18 x 2 - 16 x 2	KIT 3/4"	10	80
88.03.855	RM0570R2016N	20 x 2 - 16 x 2	KIT 3/4"	10	80
88.03.860	RM0570R2017N	20 x 2 - 17 x 2	KIT 3/4"	10	80
88.03.865	RM0570R2018N	20 x 2 - 18 x 2	KIT 3/4"	5	80

MALE COUPLER

/ RACCORDO DIRITTO MASCHIO
/ ÜBERGANG MIT AG
/ MANCHON MÂLE



571

CODE	TECH. CODE	SIZE 	KIT		
88.03.515	RM057100516N	16 x 2 - 1/2"	KIT 1/2"	10	100
88.03.516	RM057100556N	16 x 2,25 - 1/2"	KIT 1/2"	10	100
88.03.519	RM057100514N	14 x 2 - 1/2"	KIT 3/4"	10	100
88.03.520	RM05710X516N	16 x 2 - 1/2"	KIT 3/4"	10	100
88.03.521	RM05710X556N	16 x 2,25 - 1/2"	KIT 3/4"	10	100
88.03.525	RM057100517N	17 x 2 - 1/2"	KIT 3/4"	10	100
88.03.530	RM057100518N	18 x 2 - 1/2"	KIT 3/4"	10	100
88.03.535	RM057100520N	20 x 2 - 1/2"	KIT 3/4"	5	100
88.03.536	RM057100551N	20 x 2,5 - 1/2"	KIT 3/4"	5	100
88.03.540	RM057100716N	16 x 2 - 3/4"	KIT 3/4"	10	80
88.03.550	RM057100718N	18 x 2 - 3/4"	KIT 3/4"	10	80
88.03.555	RM057100720N	20 x 2 - 3/4"	KIT 3/4"	10	80
88.03.556	RM057100751N	20 x 2,5 - 3/4"	KIT 3/4"	5	80
88.03.560	RM057100726N	26 x 3 - 3/4"	KIT 1"	5	50
88.03.580	RM057101026N	26 x 3 - 1"	KIT 1"	5	50
88.03.585	RM057101032N	32 x 3 - 1"		5	10

FEMALE COUPLER

/ RACCORDO DIRITTO FEMMINA
/ ÜBERGANG MIT IG
/ MANCHON FEMELLE



580

CODE	TECH. CODE	SIZE 	KIT		
88.03.710	RM058000516N	16 x 2 - 1/2"	KIT 1/2"	10	120
88.03.711	RM058000556N	16 x 2,25 - 1/2"	KIT 1/2"	10	100
88.03.714	RM058000514N	14 x 2 - 1/2"	KIT 3/4"	10	100
88.03.715	RM058000516N	16 x 2 - 1/2"	KIT 3/4"	10	100
88.03.716	RM058000556N	16 x 2,25 - 1/2"	KIT 3/4"	10	100
88.03.720	RM058000517N	17 x 2 - 1/2"	KIT 3/4"	10	100
88.03.725	RM058000518N	18 x 2 - 1/2"	KIT 3/4"	10	100
88.03.730	RM058000520N	20 x 2 - 1/2"	KIT 3/4"	10	100
88.03.731	RM058000551N	20 x 2,5 - 1/2"	KIT 3/4"	10	100
88.03.735	RM058000716N	16 x 2 - 3/4"	KIT 3/4"	10	80
88.03.745	RM058000718N	18 x 2 - 3/4"	KIT 3/4"	10	80
88.03.750	RM058000720N	20 x 2 - 3/4"	KIT 3/4"	5	80
88.03.751	RM058000751N	20 x 2,5 - 3/4"	KIT 3/4"	5	80
88.03.755	RM058000726N	26 x 3 - 3/4"	KIT 1"	5	50
88.03.775	RM058001026N	26 x 3 - 1"	KIT 1"	5	50
88.03.780	RM058001032N	32 x 3 - 1"		5	40

MALE STRAIGHT COUPLER
WITH O-RING SEAL

/ RACCORDO DIRITTO MASCHIO
CON O-RING
/ ÜBERGANG MIT AG UND O-RING
/ RACCORD MÂLE AVEC O-RING



572

CODE	TECH. CODE	SIZE 	KIT		
88.03.610	RM057200516N	16 x 2 - 1/2"	KIT 1/2"	10	100
88.03.620	RM05720X516N	16 x 2 - 1/2"	KIT 3/4"	10	100
88.03.625	RM057200517N	17 x 2 - 1/2"	KIT 3/4"	10	100
88.03.635	RM057200520N	20 x 2 - 1/2"	KIT 3/4"	10	100

PRESSURE TEST PLUGS

/ TAPPO PER PROVA IMPIANTO
/ PRÜFUNG-STOPFEN
/ BOUCHON D'ESSAI EN PRESSION



581

CODE	TECH. CODE	SIZE 	KIT		
87.31.605	RM058100016N	16 x 2	1/2"	5	100
87.31.615	RM058100020N	20 x 2	3/4"	5	100
87.31.620	RM058100026N	26 x 3	1"	5	50

ELBOW 90°

/ GOMITO 90°
/ WINKEL 90°
/ COUDE 90°



560

CODE	TECH. CODE	SIZE 	KIT		
88.04.015	RM056000016N	16 x 2	KIT 1/2"	10	100
88.04.019	RM056000014N	14 x 2	KIT 3/4"	10	70
88.04.020	RM056000016N	16 x 2	KIT 3/4"	10	70
88.04.025	RM056000017N	17 x 2	KIT 3/4"	10	70
88.04.030	RM056000018N	18 x 2	KIT 3/4"	10	70
88.04.035	RM056000020N	20 x 2	KIT 3/4"	10	70
88.04.036	RM056000051N	20 x 2,5	KIT 3/4"	5	70
88.04.045	RM056000026N	26 x 3	KIT 1"	5	30
88.04.050	RM056000032N	32 x 3		5	20

FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA
/ WINKEL 90° MIT IG
/ COUDE 90° FEMELLE



562

CODE	TECH. CODE	SIZE 	KIT		
88.04.215	RM056200516N	16 x 2 - 1/2"	KIT 1/2"	10	100
88.04.216	RM056200556N	16 x 2,25 - 1/2"	KIT 1/2"	10	100
88.04.219	RM056200514N	14 x 2 - 1/2"	KIT 3/4"	10	60
88.04.220	RM056200516N	16 x 2 - 1/2"	KIT 3/4"	10	60
88.04.221	RM056200556N	16 x 2,25 - 1/2"	KIT 3/4"	10	60
88.04.225	RM056200517N	17 x 2 - 1/2"	KIT 3/4"	10	60
88.04.230	RM056200518N	18 x 2 - 1/2"	KIT 3/4"	10	60
88.04.235	RM056200520N	20 x 2 - 1/2"	KIT 3/4"	10	60
88.04.236	RM056200551N	20 x 2,5 - 1/2"	KIT 3/4"	10	60
88.04.240	RM056200716N	16 x 2 - 3/4"	KIT 3/4"	10	60
88.04.250	RM056200718N	18 x 2 - 3/4"	KIT 3/4"	10	60
88.04.255	RM056200720N	20 x 2 - 3/4"	KIT 3/4"	10	60
88.04.256	RM056200751N	20 x 2,5 - 3/4"	KIT 3/4"	5	60
88.04.260	RM056200726N	26 x 3 - 3/4"	KIT 1"	5	30
88.04.280	RM056201026N	26 x 3 - 1"	KIT 1"	5	30
88.04.285	RM056201032N	32 x 3 - 1"	KIT 1"	5	20

MALE ELBOW 90°

/ GOMITO 90° MASCHIO
/ WINKEL 90° MIT AG
/ COUDE 90° MÂLE



561

CODE	TECH. CODE	SIZE 	KIT		
88.04.115	RM056100516N	16 x 2 - 1/2"	KIT 1/2"	10	100
88.04.116	RM056100556N	16 x 2,25 - 1/2"	KIT 1/2"	10	100
88.04.119	RM056100514N	14 x 2 - 1/2"	KIT 3/4"	10	60
88.04.120	RM05610X516N	16 x 2 - 1/2"	KIT 3/4"	10	60
88.04.121	RM05610X556N	16 x 2,25 - 1/2"	KIT 3/4"	10	60
88.04.125	RM056100517N	17 x 2 - 1/2"	KIT 3/4"	10	60
88.04.130	RM056100518N	18 x 2 - 1/2"	KIT 3/4"	10	60
88.04.135	RM056100520N	20 x 2 - 1/2"	KIT 3/4"	10	60
88.04.136	RM056100551N	20 x 2,5 - 1/2"	KIT 3/4"	10	60
88.04.140	RM056100716N	16 x 2 - 3/4"	KIT 3/4"	10	60
88.04.145	RM056100717N	17 x 2 - 3/4"	KIT 3/4"	10	60
88.04.150	RM056100718N	18 x 2 - 3/4"	KIT 3/4"	10	60
88.04.155	RM056100720N	20 x 2 - 3/4"	KIT 3/4"	5	60
88.04.156	RM056100751N	20 x 2,5 - 3/4"	KIT 3/4"	5	60
88.04.160	RM056100726N	26 x 3 - 3/4"	KIT 1"	5	30
88.04.180	RM056101026N	26 x 3 - 1"	KIT 1"	5	30
88.04.185	RM056101032N	32 x 3 - 1"	KIT 1"	5	20

WALLPLATE ELBOW 90°

/ GOMITO 90° FLANGIATO
/ WANDWINKEL 90°
/ APPLIQUE MURALE 90°



563

CODE	TECH. CODE	SIZE 	KIT		
88.04.315	RM056300516N	16 x 2 - 1/2"	KIT 1/2"	10	80
88.04.316	RM056300556N	16 x 2,25 - 1/2"	KIT 1/2"	10	80
88.04.319	RM056300514N	14 x 2 - 1/2"	KIT 3/4"	10	60
88.04.320	RM05630X516N	16 x 2 - 1/2"	KIT 3/4"	10	60
88.04.321	RM05630X556N	16 x 2,25 - 1/2"	KIT 3/4"	10	60
88.04.325	RM056300517N	17 x 2 - 1/2"	KIT 3/4"	10	60
88.04.330	RM056300518N	18 x 2 - 1/2"	KIT 3/4"	10	60
88.04.335	RM056300520N	20 x 2 - 1/2"	KIT 3/4"	10	60
88.04.336	RM056300551N	20 x 2,5 - 1/2"	KIT 3/4"	10	60
88.04.350	RM056300716N	16 x 2 - 3/4"	KIT 3/4"	10	60
88.04.355	RM056300717N	17 x 2 - 3/4"	KIT 3/4"	10	60
88.04.365	RM056300720N	20 x 2 - 3/4"	KIT 3/4"	5	60

TEE

/ RACCORDO A T
/ T-STÜCK
/ TÉ



550

CODE	TECH. CODE	SIZE 	KIT		
88.04.515	RM055000016N	16 x 2 - 16 x 2 - 16 x 2	KIT 1/2"	5	60
88.04.516	RM055000056N	16 x 2,25 - 16 x 2,25 - 16 x 2,25	KIT 1/2"	5	60
88.04.519	RM055000014N	14 x 2 - 14 x 2 - 14 x 2	KIT 3/4"	5	40
88.04.520	RM055000X16N	16 x 2 - 16 x 2 - 16 x 2	KIT 3/4"	5	40
88.04.530	RM055000018N	18 x 2 - 18 x 2 - 18 x 2	KIT 3/4"	5	40
88.04.535	RM055000020N	20 x 2 - 20 x 2 - 20 x 2	KIT 3/4"	5	40
88.04.536	RM055000051N	20 x 2,5 - 20 x 2,5 - 20 x 2,5	KIT 3/4"	5	40
88.04.540	RM055000026N	26 x 3 - 26 x 3 - 26 x 3	KIT 1"	5	20

FEMALE TEE

/ RACCORDO A T FEMMINA
/ T-STÜCK MIT IG
/ TÉ FEMELLE



552

CODE	TECH. CODE	SIZE 	KIT		
88.04.615	RM055200516N	16 x 2 - 1/2" - 16 x 2	KIT 1/2"	5	60
88.04.616	RM055200556N	16 x 2,25 - 1/2" 16 x 2,25	KIT 1/2"	5	60
88.04.619	RM055200514N	14 x 2 - 1/2" - 14 x 2	KIT 3/4"	5	40
88.04.620	RM05520X516N	16 x 2 - 1/2" - 16 x 2	KIT 3/4"	5	40
88.04.621	RM05520X556N	16 x 2,25 - 1/2" 16 x 2,25	KIT 3/4"	5	40
88.04.625	RM055200517N	17 x 2 - 1/2" x 17 x 2	KIT 3/4"	5	40
88.04.630	RM055200518N	18 x 2 - 1/2" - 18 x 2	KIT 3/4"	5	40
88.04.635	RM055200520N	20 x 2 - 1/2" - 20 x 2	KIT 3/4"	5	40
88.04.636	RM055200551N	20 x 2,5 - 1/2" 20 x 2,5	KIT 3/4"	5	40
88.04.640	RM055200716N	16 x 2 - 3/4" - 16 x 2	KIT 3/4"	5	40
88.04.650	RM055200718N	18 x 2 - 3/4" - 18 x 2	KIT 3/4"	5	40
88.04.655	RM055200720N	20 x 2 - 3/4" - 20 x 2	KIT 3/4"	5	40
88.04.656	RM055200751N	20 x 2,5 - 3/4" 20 x 2,5	KIT 3/4"	5	40
88.04.660	RM055200726N	26 x 3 - 3/4" - 26 x 3		5	20
88.04.680	RM055201026N	26 x 3 - 1" - 26 x 3		5	20
88.04.685	RM055201032N	32 x 3 - 1" - 32 x 3		5	10

MALE TEE

/ RACCORDO A T MASCHIO
/ T-STÜCK MIT AG
/ TÉ MÂLE



551

CODE	TECH. CODE	SIZE 	KIT		
88.04.715	RM055100516N	16 x 2 - 1/2" - 16 x 2	KIT 1/2"	5	60
88.04.720	RM055100716N	16 x 2 - 3/4" - 16 x 2	KIT 3/4"	5	40
88.04.735	RM055100720N	20 x 2 - 3/4" - 20 x 2	KIT 3/4"	5	40
88.04.740	RM055100726N	26 x 3 - 3/4" - 26 x 3	KIT 1"	5	20
88.04.760	RM055101026N	26 x 3 - 1" - 26 x 3	KIT 1"	5	20

REDUCING TEE

/ RACCORDO A T RIDOTTO
/ T-STÜCK REDUZIERT
/ TÉ RÉDUIT



553

CODE	TECH. CODE	SIZE 	KIT		
88.04.444	RM055300ABAN	16 x 2 - 20 x 2 - 16 x 2	KIT 3/4"	5	40
88.04.555	RM055300CACN	18 x 2 - 16 x 2 - 18 x 2	KIT 3/4"	5	40
88.04.558	RM055300BAAN	20 x 2 - 16 x 2 - 16 x 2	KIT 3/4"	5	40
88.04.560	RM055300BABN	20 x 2 - 16 x 2 - 20 x 2	KIT 3/4"	5	40
88.04.565	RM055300BCBN	20 x 2 - 18 x 2 - 20 x 2	KIT 3/4"	5	40
88.04.566	RM055300BBAN	20 x 3 - 20 x 3 - 16 x 2	KIT 3/4"	5	40
88.04.580	RM055300DADN	26 x 3 - 16 x 3 - 26 x 3	KIT 1"	5	20
88.04.590	RM055300DBDN	26 x 3 - 20 x 3 - 26 x 3	KIT 1"	5	20

BUILT-IN DISTRIBUTION BOX WITH 105° ELBOW

/ SCATOLA DI DISTRIBUZIONE SOTTOTRACCIA CON GOMITO 105°
 / ANSCHLUSSDOSE MIT WINKEL 105°
 / APPLIQUE PLASTIQUE À ENCASTRER AVEC COUDE 105°

566

CODE	TECH. CODE	SIZE 	
88.03.205	RM0566007050	3/4" euro x 1/2" F	20

**BUILT-IN DISTRIBUTION BOX WITH 105° ELBOW**

/ SCATOLA DI DISTRIBUZIONE SOTTOTRACCIA CON GOMITO 105°
 / ANSCHLUSSDOSE MIT WINKEL 105°
 / APPLIQUE PLASTIQUE À ENCASTRER AVEC COUDE 105°

567

CODE	TECH. CODE	SIZE 	
88.03.206	RM0567007050	3/4" euro x 1/2" F	20

**BUILT-IN DISTRIBUTION BOX WITH 105° ELBOW PE-X**

/ SCATOLA DI DISTRIBUZIONE SOTTOTRACCIA CON GOMITO 105° PE-X
 / ANSCHLUSSDOSE MIT WINKEL 105° PE-X
 / APPLIQUE PLASTIQUE À ENCASTRER AVEC COUDE 105° PE-X

569

CODE	TECH. CODE	SIZE 	
88.03.220	RM0569005160	16 x 2 PE-X - 1/2" F	12

**DOUBLE-EXIT UNDERCARPET DISTRIBUTION BOX FOR SERIAL CONNECTIONS**

/ SCATOLA DI DISTRIBUZIONE SOTTOTRACCIA A 2 USCITE
 / DOPPELDOSE FÜR SERIENVERBINDUNGEN
 / APPLIQUE PLASTIQUE À ENCASTRER AU SOL DEUX SORTIES

568

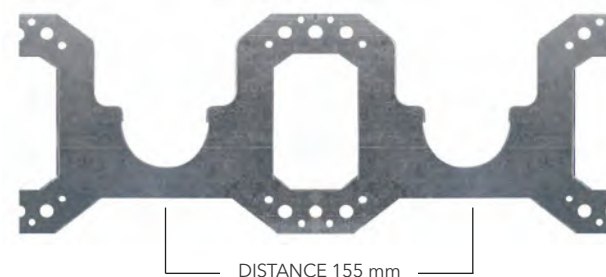
CODE	TECH. CODE	SIZE 	
88.03.210	RM0568007050	3/4" euro x 3/4" euro x 1/2" F	12

**PLATE FOR UNDERCARPET DISTRIBUTION BOX**

/ DIMA PER SCATOLA DI DISTRIBUZIONE SOTTOTRACCIA
 / MONTAGE-SCHABLONE FÜR ANSCHLUSSDOSE
 / PLAQUE POUR APPLIQUE AU SOL

565

CODE	TECH. CODE	SIZE 	
88.03.200	RM0565STAF01	155 mm	50



INSTALLATION / INSTALLAZIONE / INSTALLATION / INSTALLATION

1



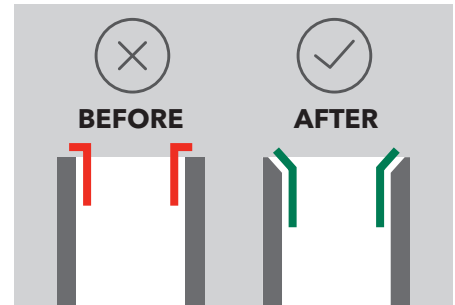
CUT
/ TAGLIO
/ ROHRABLÄNGEN
/ COUPER

2



CALIBRATION
/ CALIBRATURA
/ KALIBRIERUNG UND ENTGRATEN S
/ COUPER

3



PIPE CALIBRATION
/ CALIBRAZIONE DEL TUBO
/ ROHRKALIBRIERUNG
/ CALIBRAGE DE TUYAU

4



INSERTING THE FITTING
/ MONTAGGIO DEL RACCORDO
/ MONTAGE DES FITTINGS
/ INSERTION DU RACCORD

5



TIGHTENING THE JOINT
/ SERRAGGIO DEL RACCORDO
/ ANZIEHEN DER VERBINDUNG
/ SERRAGE DU RACCORD

6



INSPECTION
/ CONTROLLO
/ KONTROLLE
/ CONTRÔLE

For the installation of compression fittings, it is not necessary to avail of pressure tools and jaws; the seal is carried out simply by tightening a nut with a normal wrench. This operation causes the deformation of a compression ring which compresses the multilayer pipe on the tail which is inserted into it. The materials used for the components of the fittings and the O-rings are exactly the same as the Comisa Press fittings and the guarantee of duration is identical. In the Comisa Eurocone series the fitting can be separated from the tail and so the joint can be inspected. In the Comisa Unik series fitting and tail are a single component. Both series of fittings are used in the same way and have the same features: the choice is dictated only by the preference of the installer.

/ Per l'installazione di raccordi a stringere non è necessario disporre di macchina pressatrice e di ganasce; la tenuta viene effettuata semplicemente stringendo un dado con una normalissima chiave. Questa operazione causa la deformazione di una ogiva che comprime il tubo multistrato sul portagomma che vi è inserito. I materiali utilizzati per i componenti dei raccordi e gli OR sono esattamente gli stessi dei raccordi Comisa e la garanzia di durata è identica. Nella serie Comisa Eurocono il corpo raccordo è separabile dal portagomma e perciò la giunzione è ispezionabile. Nella serie Unik corpo raccordo e portagomma sono realizzati in unico elemento. Entrambe le serie di raccordi trovano la stessa applicazione ed hanno le medesime caratteristiche: la scelta è dettata solo dalla preferenza dell'installatore.

/ Für die Montage der Klemmverschraubungen benötigt man weder ein Presswerkzeug noch Pressbacken; die Dichtheit erreicht man durch einfaches Anziehen der Mutter mittels eines normalen Schraubenschlüssels. Dadurch erfolgt die Verformung des Klemmrings, der das Rohr auf den Stützkörper des Fittings fixiert. Die verarbeiteten Werkstoffe sind analog der zum Einsatz kommenden Materialien des Press Fitting Systems. Die Garantie auf die Lebensdauer ist identisch. Comisa Eurokonus besteht aus zwei separaten Komponenten (Fittingkörper und Tülle) und können unabhängig überprüft werden. Comisa Unik Fittings sind in einem kompletten Bauteil konzipiert. Beide Serien werden in denselben Bereichen eingesetzt und verfügen über dieselben Eigenschaften. Die Entscheidung für Eurokonus oder UNIK ist somit einzig von der Vorliebe des Verlegers abhängig.

/ Pour l'installation des raccords à visser il n'est pas nécessaire de pincettes et mâchoires/inserts spécifiques; l'étanchéité est réalisée simplement en vissant l'écrou avec une clé anglaise ordinaire. Cette opération provoque la déformation de la bague qui va compresser le tube multicouche contre le raccord et assurer l'étanchéité. Les matériaux utilisés pour les raccords ainsi que les joints toriques sont les mêmes que dans les raccords à sertir, et Comisa garantit la même durée de vie que pour les raccords à sertir. Il existe deux variantes de raccords à visser: dans la série Eurocône le corps du raccord et l'insert sont assemblés par un joint torique; dans la série Unik l'insert fait partie du corps du raccord en laiton. Les deux séries de raccords à visser peuvent être utilisés de la même façon: le choix est dicté uniquement par la préférence de l'installateur.



Following the introduction on the market of multilayer pipes or fittings of uncontrolled origin, in order to protect their customers, Comisa states as follows:

The COMISA screw system, DVGW Certificate No. DW-8501BT0290, includes:

• COMISA screw fittings • COMISA multilayer pipe

For the use of pipe or fittings of other producer and/or of other sources, Comisa does not guarantee the perfect functioning, if not after the customer's request, following which COMISA will implement its test procedure for inspection.

After successful testing, Comisa will issue a certificate of guarantee.

WARNING: The pipe calibration is important and must be made with chip removal calibrators. Do not use calibrators for PE-X as not adequate.

/ A seguito della immissione sul mercato di tubi multistrato o di raccorderie di incontrollata provenienza, al fine di tutelare la propria clientela, COMISA precisa quanto segue:

Il sistema a stringere COMISA, certificato DVGW n. 8501BT0290, è composto da:

• Raccordi a stringere COMISA • Tubo multistrato COMISA

Per l'utilizzo di tubo o di raccorderie di altro produttore e/o di altra provenienza, non si garantisce il perfetto funzionamento, se non previa richiesta del cliente, a seguito della quale Comisa attuerà il proprio protocollo di test per la verifica stessa.

Ad esito positivo delle prove, COMISA rilascerà una autocertificazione di garanzia.

ATTENZIONE: La calibrazione del tubo è importantissima e deve essere fatta con calibratori ad asportazione di truciolo. Non utilizzare calibratori per tubo PE-X in quanto non adeguati.

/ Unkontrollierbare Angebote an Mehrschichtverbundrohr oder Klemmverbindern auf dem Markt veranlassen uns, zum Schutz unserer eigenen Kunden, nachfolgende Erklärung abzugeben:

Das COMISA Schraubsystem, DVGW Zulassung DW-8501BT0290 besteht aus:

• Klemmringverschraubungen COMISA • Mehrschichtverbundrohr COMISA

Bei Einsatz von Rohr oder Formteilen anderer Hersteller bzw. fremder Herkunft kann deren einwandfreie Funktion nur nach vorheriger Absprache und Genehmigung seitens Comisa garantiert werden. Eine von Werkseite ausgestellte Garantie gewährleistet den positiven Ausgang der im Werk durchgeführten Kontrolltests.

ACHTUNG: Wir weisen auf die Wichtigkeit einer korrekten und fachgerechten Kalibrierung und Entgratung (Entfernen von Spänen) mittels eines geeigneten Werkzeuges hin. Kalibrierer für PE-X - Rohre sind für ein Mehrschichtverbundrohr nicht geeignet.

/ Suite à l'introduction sur le marché de tube multicouche et de raccords d'origine non contrôlée, afin de protéger ses clients, Comisa souligne ce qui suit:

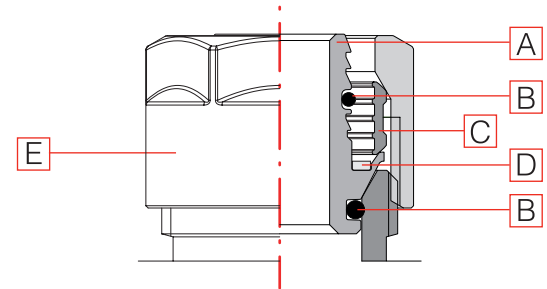
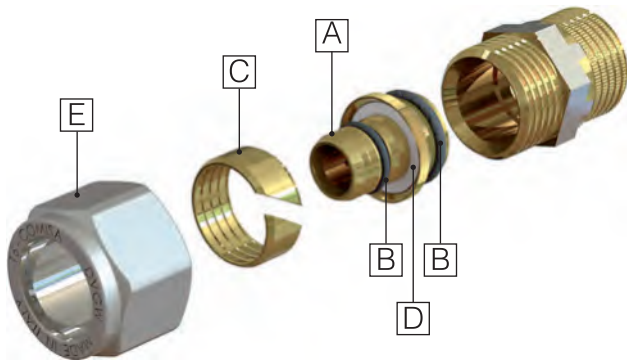
Le système à visser COMISA, Certification DVGW No DW-8501BT0290, comprend:

• Raccords à visser COMISA • Tube multicouche COMISA

En cas d'utilisation de tube ou de raccords d'autres producteurs et / ou d'autres sources, Comisa ne garantit pas le fonctionnement parfait, sauf éventuellement suite à la demande du client, en fonction de quoi COMISA mettra en œuvre son protocole d'essai.

Après des essais concluants, Comisa émettra un certificat de garantie.

AVERTISSEMENT: Le calibrage du tuyau est important et doit être fait avec un calibre-ébavureur adapté au tube multicouche. Ne pas utiliser les calibreurs pour PE-X qui ne sont pas adaptés.



MATERIALS

- A) **Insert:** EN 12165 CW 617 N brass suitable for the passage of nutritional liquids intended for human consumption
- B) **O-Ring:** made with EPDM-peroxide blend
- C) **Olive:** EN 12165 CW 617 N brass suitable for the passage of nutritional liquids intended for human consumption
- D) **Spacer:** Insulating plastic material
- E) **Nut:** EN 12165 CW 617 N brass suitable for the passage of nutritional liquids intended for human consumption

MATERIALI

- A) **Inserto:** ottone EN 12165 CW 617 N adatto per il passaggio di liquidi alimentari destinati al consumo umano
- B) **O-Ring:** realizzati con miscela EPDM-perossido
- C) **Ogiva:** ottone EN 12165 CW 617 N adatto per il passaggio di liquidi alimentari destinati al consumo umano
- D) **Distanziale:** materiale plastico isolante
- E) **Dado:** ottone EN 12165 CW 617 N adatto per il passaggio di liquidi alimentari destinati al consumo umano

MATERIAL

- A) **Körper:** aus Messing EN 12165 CW 617 N: der eingesetzte Werkstoff kann in allen Trinkwässern ohne Einschränkung verwendet werden und entspricht in seinen Eigenschaften voll und ganz der TrinkwasserverordnungB)
- B) **O-Ringe:** aus EPDM (Ethyl-Propylen-Dien- Kautschuk) - Peroxyd
- C) **Klemmring:** aus Messing EN 12165 CW 617 N: der eingesetzte Werkstoff kann in allen Trinkwässern ohne Einschränkung verwendet werden und entspricht in seinen Eigenschaften voll und ganz der Trinkwasserverordnung
- D) **Dichtung:** aus Kunststoff
- E) **Überwurfmutter:** aus Messing EN 12165 CW 617 N: der eingesetzte Werkstoff kann in allen Trinkwässern ohne Einschränkung verwendet werden und entspricht in seinen Eigenschaften voll und ganz der Trinkwasserverordnung

MATERIAUX

- A) **Insert:** laiton EN 12165 CW 617 N approprié pour le passage de liquides alimentaires destinés à la consommation humaine
- B) **Joint torique:** EPDM peroxyde
- C) **Olive:** laiton EN 12165 CW 617 N approprié pour le passage de liquides alimentaires destinés à la consommation humaine
- D) **Rondelle:** plastique isolant
- E) **Écrou:** laiton EN 12165 CW 617 N approprié pour le passage de liquides alimentaires destinés à la consommation humaine

UNIK - PLATED SCREW FITTINGS FOR MULTILAYER PIPE IN ONE PIECE

/ **UNIK** - RACCORDI A STRINGERE PER TUBO MULTISTRATO GALVANICAMENTE TRATTATI - PEZZO UNICO

/ **UNIK** - GALVANISCH BEHANDELTE VERSCHRAUBUNGEN FÜR METALLVERBUNDROHR EIN-STÜCK

/ **UNIK** - RACCORDS À VISSER MONOBLOCK POUR TUBES MULTICOUCHE EN LAITON GALVANISÉ





UNIK PLATED SCREW FITTINGS FOR MULTILAYER PIPE IN ONE PIECE

UNIK - PLATED SCREW FITTINGS FOR MULTILAYER PIPE IN ONE PIECE

46

UNIK - PLATED SCREW FITTINGS

/ UNIK - RACCORDI A STRINGERE GALVANICAMENTE TRATTATI
/ UNIK - GALVANISCH BEHANDELTE VERSCHRAUBUNGEN
/ UNIK - RACCORDS À VISSER EN LAITON GALVANISÉ

UNI EN 12164/12165
CW 617N
DIN 50930-6

BRASS



STRAIGHT COUPLER

/ RACCORDO DIRITTO
/ KUPPLUNG
/ MANCHON ÉGAL



2570

CODE	TECH. CODE	SIZE 		
88.01.405	RM257000016N	16 x 2	10	100
88.01.410	RM257000020N	20 x 2	10	80
88.01.415	RM257000026N	26 x 3	5	50
88.01.420	RM257000032N	32 x 3	5	20

2570R

CODE	TECH. CODE	SIZE 		
88.01.425	RM2570R2016N	20 x 2 - 16 x 2	10	80

FEMALE COUPLER

/ RACCORDO DIRITTO FEMMINA
/ ÜBERGANG MIT IG
/ MANCHON FEMELLE



2580

CODE	TECH. CODE	SIZE 		
88.01.505	RM258000516N	16 x 2 - 1/2"	10	100
88.01.510	RM258000716N	16 x 2 - 3/4"	10	80
88.01.515	RM258000520N	20 x 2 - 1/2"	10	100
88.01.520	RM258000720N	20 x 2 - 3/4"	5	80
88.01.525	RM258000726N	26 x 3 - 3/4"	5	50
88.01.530	RM258001026N	26 x 3 - 1"	5	50
88.01.535	RM258001032N	32 x 3 - 1"	5	20

MALE COUPLER

/ RACCORDO DIRITTO MASCHIO
/ ÜBERGANG MIT AG
/ MANCHON MÂLE



2571

CODE	TECH. CODE	SIZE 		
88.01.450	RM257100516N	16 x 2 - 1/2"	10	100
88.01.455	RM257100716N	16 x 2 - 3/4"	10	80
88.01.460	RM257100520N	20 x 2 - 1/2"	10	100
88.01.465	RM257100720N	20 x 2 - 3/4"	10	80
88.01.466	RM257100726N	26 x 3 - 3/4"	5	60
88.01.470	RM257101026N	26 x 3 - 1"	5	50
88.01.475	RM257101032N	32 x 3 - 1"	5	20

MALE COUPLER WITH O-RING

/ RACCORDO DIRITTO MASCHIO CON O-RING
/ ÜBERGANG MIT AG MIT O-RING
/ MANCHON MÂLE AVEC O-RING



2572

CODE	TECH. CODE	SIZE 		
88.01.451	RM257200516N	16 x 2 - 1/2" + OR	10	100
88.01.461	RM257200520N	20 x 2 - 1/2" + OR	10	60

ELBOW 90°

/ GOMITO 90°
/ WINKEL 90°
/ COUDE 90°



2560

CODE	TECH. CODE	SIZE 		
88.01.580	RM256000016N	16 x 2	10	100
88.01.585	RM256000020N	20 x 2	10	70
88.01.590	RM256000026N	26 x 3	5	30

MALE ELBOW 90°

/ GOMITO 90° MASCHIO
/ WINKEL 90° MIT AG
/ COUDE 90° MÂLE



2561

CODE	TECH. CODE	SIZE 		
88.01.605	RM256100516N	16 x 2 - 1/2"	10	100
88.01.610	RM256100716N	16 x 2 - 3/4"	10	60
88.01.612	RM256100520N	20 x 2 - 1/2"	10	60
88.01.615	RM256100720N	20 x 2 - 3/4"	5	60
88.01.620	RM256100726N	26 x 3 - 3/4"	5	30
88.01.625	RM256101026N	26 x 3 - 1"	5	30

FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA
/ WINKEL 90° MIT IG
/ COUDE 90° FEMELLE



2562

CODE	TECH. CODE	SIZE 		
88.01.655	RM256200516N	16 x 2 - 1/2"	10	100
88.01.660	RM256200716N	16 x 2 - 3/4"	10	80
88.01.665	RM256200520N	20 x 2 - 1/2"	10	80
88.01.670	RM256200720N	20 x 2 - 3/4"	10	80
88.01.675	RM256200726N	26 x 3 - 3/4"	5	30
88.01.680	RM256201026N	26 x 3 - 1"	5	30

TEE

/ RACCORDO A T
/ T-STÜCK
/ TÉ



2550

CODE	TECH. CODE	SIZE 		
88.01.755	RM255000016N	16 x 2	5	60
88.01.760	RM255000020N	20 x 2	5	40
88.01.765	RM255000026N	26 x 3	5	20
88.01.780	RM255000032N	32 x 3	5	10

MALE TEE

/ RACCORDO A T MASCHIO
/ T-STÜCK MIT AG
/ TÉ MÂLE



2551

CODE	TECH. CODE	SIZE 		
88.01.855	RM255100516N	16 x 2 - 1/2" - 16 x 2	5	60
88.01.860	RM255100720N	20 x 2 - 3/4" - 20 x 2	5	40
88.01.865	RM255100726N	26 x 3 - 3/4" - 26 x 3	5	20
88.01.870	RM255101026N	26 x 3 - 1" - 26 x 3	5	20

FEMALE TEE

/ RACCORDO A T FEMMINA
/ T-STÜCK MIT IG
/ TÉ FEMELLE



2552

CODE	TECH. CODE	SIZE 		
88.01.905	RM255200516N	16 x 2 - 1/2" - 16 x 2	5	60
88.01.930	RM255200520N	20 x 2 - 1/2" - 20 x 2	5	40
88.01.910	RM255200720N	20 x 2 - 3/4" - 20 x 2	5	40
88.01.915	RM255200726N	26 x 3 - 3/4" - 26 x 3	5	20
88.01.920	RM255201026N	26 x 3 - 1" - 26 x 3	5	20
88.01.925	RM255201032N	32 x 3 - 1" - 32 x 3	5	10

REDUCING TEE

/ RACCORDO A T RIDOTTO
/ T-STÜCK REDUZIERT
/ TÉ RÉDUIT



2553

CODE	TECH. CODE	SIZE 		
88.01.770	RM255300BABN	20 x 2 - 16 x 2 - 20 x 2	5	40
88.01.775	RM255300BAAN	20 x 2 - 16 x 2 - 16 x 2	5	50
88.01.776	RM255300BBAN	20 x 2 - 20 x 2 - 16 x 2	5	40

WALLPLATE ELBOW 90°

/ GOMITO 90° FLANGIATO
/ WANDWINKEL 90°
/ APPLIQUE MURALE 90°

3 FIXING HOLES



2563

CODE	TECH. CODE	SIZE 		
88.01.705	RM256300516N	16 x 2 - 1/2"	10	80
88.01.710	RM256300716N	16 x 2 - 3/4"	10	60
88.01.715	RM256300520N	20 x 2 - 1/2"	10	60
88.01.720	RM256300720N	20 x 2 - 3/4"	10	60

CROSS FITTING

/ RACCORDO A CROCE
/ KREUZFITTING
/ RACCORD EN CROIX



2554

CODE	TECH. CODE	SIZE 		
88.01.950	RM255400016N	16 x 2	5	50
88.01.955	RM255400020N	20 x 2	5	40

INSTALLATION / INSTALLAZIONE / INSTALLATION / INSTALLATION

1



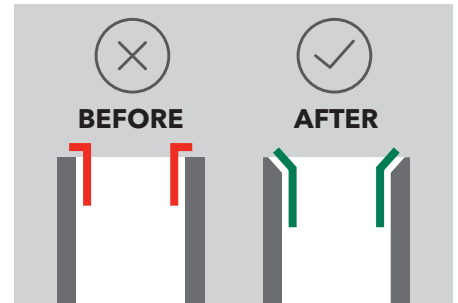
CUT
/ TAGLIO
/ ABLÄNGEN
/ COUPER

2



CALIBRATION
/ CALIBRATURA
/ KALIBRIERUNG UND ENTGRATEN
/ COUPER

3



PIPE CALIBRATION
/ CALIBRAZIONE DEL TUBO
/ ROHRKALIBRIERUNG
/ CALIBRAGE DE TUYAU

4



INSERTING THE FITTING
/ MONTAGGIO DEL RACCORDO
/ MONTAGE DES FITTINGS
/ INSERTION DU RACCORD

5



TIGHTENING THE JOINT
/ SERRAGGIO DEL RACCORDO
/ ANZIEHEN DER VERBINDUNG
/ SERRAGE DU RACCORD

6



INSPECTION
/ CONTROLLO
/ KONTROLLE
/ CONTRÔLE

For the installation of compression fittings, it is not necessary to avail of pressure tools and jaws; the seal is carried out simply by tightening a nut with a normal wrench. This operation causes the deformation of a compression ring which compresses the multilayer pipe on the tail which is inserted into it. The materials used for the components of the fittings and the O-rings are exactly the same as the Comisa Press fittings and the guarantee of duration is identical. In the Comisa Eurokono series the fitting can be separated from the tail and so the joint can be inspected. In the Comisa Unik series fitting and tail are a single component. Both series of fittings are used in the same way and have the same features: the choice is dictated only by the preference of the installer.

/ Per l'installazione di raccordi a stringere non è necessario disporre di macchina pressatrice e di ganasce; la tenuta viene effettuata semplicemente stringendo un dado con una normalissima chiave. Questa operazione causa la deformazione di una ogiva che comprime il tubo multistrato sul portagomma che vi è inserito. I materiali utilizzati per i componenti dei raccordi e gli OR sono esattamente gli stessi dei raccordi Comisa e la garanzia di durata è identica. Nella serie Comisa Eurokono il corpo raccordo è separabile dal portagomma e perciò la giunzione è ispezionabile. Nella serie Unik corpo raccordo e portagomma sono realizzati in unico elemento. Entrambe le serie di raccordi trovano la stessa applicazione ed hanno le medesime caratteristiche: la scelta è dettata solo dalla preferenza dell'installatore.

/ Für die Montage der Klemmverschraubungen benötigt man weder ein Presswerkzeug noch Pressbacken; die Dichtheit erreicht man durch einfaches Anziehen der Mutter mittels eines normalen Schraubenschlüssels. Dadurch erfolgt die Verformung des Klemmrings, der das Rohr auf den Stützkörper des Fittings fixiert. Die verarbeiteten Werkstoffe sind analog der zum Einsatz kommenden Materialien des Press Fitting Systems. Die Garantie auf die Lebensdauer ist identisch. Comisa Eurokono besteht aus zwei separaten Komponenten (Fittingkörper und Tülle) und können unabhängig überprüft werden. Comisa Unik Fittings sind in einem kompletten Bauteil konzipiert. Beide Serien werden in denselben Bereichen eingesetzt und verfügen über dieselben Eigenschaften. Die Entscheidung für Eurokono oder UNIK ist somit einzig von der Vorliebe des Verlegers abhängig.

/ Pour l'installation des raccords à visser il n'est pas nécessaire de pincettes et mâchoires/inserts spécifiques; l'étanchéité est réalisée simplement en vissant l'écrou avec une clé anglaise ordinaire. Cette opération provoque la déformation de la bague qui va compresser le tube multicouche contre le raccord et assurer l'étanchéité. Les matériaux utilisés pour les raccords ainsi que les joints toriques sont les mêmes que dans les raccords à sertir, et Comisa garantit la même durée de vie que pour les raccords à sertir. Il existe deux variantes de raccords à visser: dans la série Eurokono le corps du raccord et l'insert sont assemblés par un joint torique; dans la série Unik l'insert fait partie du corps du raccord en laiton. Les deux séries de raccords à visser peuvent être utilisés de la même façon: le choix est dicté uniquement par la préférence de l'installateur.



Following the introduction on the market of multilayer pipes or fittings of uncontrolled origin, in order to protect their customers, Comisa states as follows:

The COMISA screw system, DVGW Certificate No. DW-8501BT0290, includes:

• COMISA screw fittings • COMISA multilayer pipe

For the use of pipe or fittings of other producer and/or of other sources, Comisa does not guarantee the perfect functioning, if not after the customer's request, following which COMISA will implement its test procedure for inspection.

After successful testing, Comisa will issue a certificate of guarantee.

WARNING: The pipe calibration is important and must be made with chip removal calibrators. Do not use calibrators for PE-X as not adequate.

/ A seguito della immissione sul mercato di tubi multistrato o di raccorderie di incontrollata provenienza, al fine di tutelare la propria clientela, COMISA precisa quanto segue:

Il sistema a stringere COMISA, certificato DVGW n. 8501BT0290, è composto da:

• Raccordi a stringere COMISA • Tubo multistrato COMISA

Per l'utilizzo di tubo o di raccorderie di altro produttore e/o di altra provenienza, non si garantisce il perfetto funzionamento, se non previa richiesta del cliente, a seguito della quale Comisa attuerà il proprio protocollo di test per la verifica stessa.

Ad esito positivo delle prove, COMISA rilascerà una autocertificazione di garanzia.

ATTENZIONE: La calibrazione del tubo è importantissima e deve essere fatta con calibratori ad asportazione di truciolo. Non utilizzare calibratori per tubo PE-X in quanto non adeguati.

/ Unkontrollierbare Angebote an Mehrschichtverbundrohr oder Klemmverbindern auf dem Markt veranlassen uns, zum Schutz unserer eigenen Kunden, nachfolgende Erklärung abzugeben:

Das COMISA Schraubsystem, DVGW Zulassung DW-8501BT0290 besteht aus:

• Klemmringverschraubungen COMISA • Mehrschichtverbundrohr COMISA

Bei Einsatz von Rohr oder Formteilen anderer Hersteller bzw. fremder Herkunft kann deren einwandfreie Funktion nur nach vorheriger Absprache und Genehmigung seitens Comisa garantiert werden. Eine von Werkseite ausgestellte Garantie gewährleistet den positiven Ausgang der im Werk durchgeführten Kontrolltests.

ACHTUNG: Wir weisen auf die Wichtigkeit einer korrekten und fachgerechten Kalibrierung und Entgratung (Entfernen von Spänen) mittels eines geeigneten Werkzeuges hin. Kalibrierer für PE-X - Rohre sind für ein Mehrschichtverbundrohr nicht geeignet.

/ Suite à l'introduction sur le marché de tube multicouche et de raccords d'origine non contrôlée, afin de protéger ses clients, Comisa souligne ce qui suit:

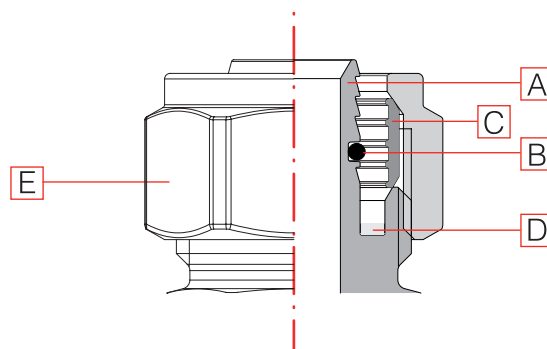
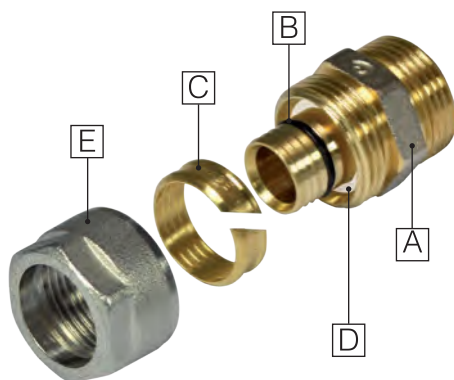
Le système à visser COMISA, Certification DVGW No DW-8501BT0290, comprend:

• Raccords à visser COMISA • Tube multicouche COMISA

En cas d'utilisation de tube ou de raccords d'autres producteurs et / ou d'autres sources, Comisa ne garantit pas le fonctionnement parfait, sauf éventuellement suite à la demande du client, en fonction de quoi COMISA mettra en œuvre son protocole d'essai.

Après des essais concluants, Comisa émettra un certificat de garantie.

AVERTISSEMENT: Le calibrage du tuyau est important et doit être fait avec un calibre-ébavureur adapté au tube multicouche. Ne pas utiliser les calibreurs pour PE-X qui ne sont pas adaptés.



MATERIALS

- A) **Insert:** EN 12165 CW 617 N brass suitable for the passage of nutritional liquids intended for human consumption
- B) **O-Ring:** made with EPDM-peroxide blend
- C) **Olive:** EN 12165 CW 617 N brass suitable for the passage of nutritional liquids intended for human consumption
- D) **Spacer:** Insulating plastic material
- E) **Nut:** EN 12165 CW 617 N brass suitable for the passage of nutritional liquids intended for human consumption

MATERIALI

- A) **Inserto:** ottone EN 12165 CW 617 N adatto per il passaggio di liquidi alimentari destinati al consumo umano
- B) **O-Ring:** realizzati con mescola EPDM-perossido
- C) **Ogiva:** ottone EN 12165 CW 617 N adatto per il passaggio di liquidi alimentari destinati al consumo umano
- D) **Distanziale:** materiale plastico isolante
- E) **Dado:** ottone EN 12165 CW 617 N adatto per il passaggio di liquidi alimentari destinati al consumo umano

MATERIAL

- A) **Körper:** aus Messing EN 12165 CW 617 N: der eingesetzte Werkstoff kann in allen Trinkwässern ohne Einschränkung verwendet werden und entspricht in seinen Eigenschaften voll und ganz der TrinkwasserverordnungB)
- B) **O-Ringe:** aus EPDM (Ethyl-Propylen-Dien- Kautschuk) - Peroxyd
- C) **Klemmring:** aus Messing EN 12165 CW 617 N: der eingesetzte Werkstoff kann in allen Trinkwässern ohne Einschränkung verwendet werden und entspricht in seinen Eigenschaften voll und ganz der Trinkwasserverordnung
- D) **Dichtung:** aus Kunststoff
- E) **Überwurfmutter:** aus Messing EN 12165 CW 617 N: der eingesetzte Werkstoff kann in allen Trinkwässern ohne Einschränkung verwendet werden und entspricht in seinen Eigenschaften voll und ganz der Trinkwasserverordnung

MATERIAUX

- A) **Insert:** laiton EN 12165 CW 617 N approprié pour le passage de liquides alimentaires destinés à la consommation humaine
- B) **Joint torique:** EPDM peroxyde
- C) **Olive:** laiton EN 12165 CW 617 N approprié pour le passage de liquides alimentaires destinés à la consommation humaine
- D) **Rondelle:** plastique isolant
- E) **Écrou:** laiton EN 12165 CW 617 N approprié pour le passage de liquides alimentaires destinés à la consommation humaine

PRONTOFIT - PUSH FIT FITTINGS FOR MULTILAYER PIPE

/ PRONTOFIT - RACCORDI A INNESTO RAPIDO PER TUBO MULTISTRATO

/ PRONTOFIT - STECKVERBINDER FÜR MEHRSCICHTVERBUNDROHR

/ PRONTOFIT - SYSTÈME DE RACCORDS À EMBOÎTER POUR TUBE MULTICOUCHE





PRONTOFIT - PUSH FIT FITTINGS FOR MULTILAYER PIPE

PRONTOFIT - PUSH FIT FITTINGS FOR MULTILAYER PIPE

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PRONTOFIT - PUSH FIT FITTINGS FOR MULTILAYER PIPE

/ PRONTOFIT - RACCORDI A INNESTO RAPIDO PER TUBO MULTISTRATO
 / PRONTOFIT - STECKVERBINDER FÜR MEHRSCICHTVERBUNDROHR
 / PRONTOFIT - SYSTÈME DE RACCORDS À EMBOÎTER POUR TUBE MULTICOUCHE

BRASS



UNI EN 12164/12165
 CW 617N
 DIN 50930-6

STRAIGHT COUPLER

/ RACCORDO DIRITTO
 / KUPPLUNG
 / MANCHON ÉGAL



3570

CODE	TECH. CODE	SIZE 		
87.98.005	RM3570000160	16 x 2	10	100
87.98.010	RM3570000200	20 x 2	10	80

MALE COUPLER

/ RACCORDO DIRITTO MASCHIO
 / ÜBERGANG MIT AG
 / MANCHON MÂLE



3571

CODE	TECH. CODE	SIZE 		
87.98.025	RM3571005160	16 x 2 - 1/2"	10	120
87.98.040	RM3571007160	16 x 2 - 3/4"	10	100
87.98.030	RM3571005200	20 x 2 - 1/2"	10	100

FEMALE COUPLER

/ RACCORDO DIRITTO FEMMINA
 / ÜBERGANG MIT IG
 / MANCHON FEMELLE



3580

CODE	TECH. CODE	SIZE 		
87.98.050	RM3580005160	16 x 2 - 1/2"	10	120
87.98.055	RM3580005200	20 x 2 - 1/2"	10	100
87.98.060	RM3580007200	20 x 2 - 3/4"	10	80

ELBOW 90°

/ GOMITO 90°
 / WINKEL 90°
 / COUDE 90°



3560

CODE	TECH. CODE	SIZE 		
87.98.070	RM3560000160	16 x 2	10	80
87.98.075	RM3560000200	20 x 2	10	60

MALE ELBOW 90°

/ GOMITO 90° MASCHIO
 / WINKEL 90° MIT AG
 / COUDE 90° MÂLE



3561

CODE	TECH. CODE	SIZE 		
87.98.100	RM3561005160	16 x 2 - 1/2"	10	80
87.98.110	RM3561007200	20 x 2 - 3/4"	10	60

FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA
 / WINKEL 90° MIT IG
 / COUDE 90° FEMELLE



3562

CODE	TECH. CODE	SIZE 		
87.98.120	RM3562005160	16 x 2 - 1/2"	10	80

TEE

/ RACCORDO A T
/ T-STÜCK
/ TÉ



3550

CODE	TECH. CODE	SIZE			
87.98.160	RM3550000160	16 x 2		10	40
87.98.165	RM3550000200	20 x 2		10	40

REDUCED TEE

/ RACCORDO A T RIDOTTO
/ T-STÜCK REDUZIERT
/ TÉ RÉDUIT



3553

CODE	TECH. CODE	SIZE			
87.98.170	RM355300BAB0	20 x 2 - 16 x 2 - 20 x 2		10	40
87.98.175	RM355300BAA0	20 x 2 - 16 x 2 - 16 x 2		10	50

WALLPLATE ELBOW 90°

/ GOMITO 90° FLANGIATO
/ WANDWINKEL 90°
/ APPLIQUE MURALE 90°

3
FIXING
HOLES



3563

CODE	TECH. CODE	SIZE	H		
87.98.220	RM35630C5160	16 x 2 - 1/2"	39 mm	10	50

STOP END

/ TAPPO
/ PRESSTOPFEN
/ BOUCHON



3581

CODE	TECH. CODE	SIZE			
87.98.235	RM3581000160	16 x 2		10	100
87.98.240	RM3581000200	20 x 2		10	100

DISASSEMBLING TOOL FOR PRONTOFIT

/ UTENSILE DI SBLOCCAGGIO PER PRONTOFIT
/ DEMONTAGWERKZEUG FÜR PRONTOFIT
/ OUTIL DE DÉMONTAGE POUR PRONTOFIT



CODE	TECH. CODE	SIZE			
87.98.001	VA03550EST16	Ø 16			1
87.98.002	VA03550EST20	Ø 20			1

MOUNTING / MONTAGGIO / VERARBEITUNG / MONTAGE

1



CUT THE PIPE SQUARE
 / TAGLIARE IL TUBO PERPENDICOLARMENTE
 / ABLÄNGEN DES ROHRES
 / COUPER LE TUBE DROIT

2



CALIBRATE - DEBURR OF THE PIPE
 / CALIBRAZIONE DEL TUBO
 / KALIBRIEREN/ ENTGRATEN
 / CALIBRER ÉBAVURER

3



QUICK AND EASY INSTALLATION
 / INSTALLAZIONE FACILE E VELOCE
 / EINFACHE UND SCHNELLE INSTALLATION
 / INSTALLATION FACILE ET RAPIDE

PUSH THE MULTILAYER PIPE INTO THE FITTING, UP TO THE PIPE STOP BY CHECKING THE CORRECT INSERTION DEPTH THROUGH THE INSPECTION WINDOWS DESIGNATED FOR THE VISUAL CONTROL OF THE POSITION OF THE PIPE.

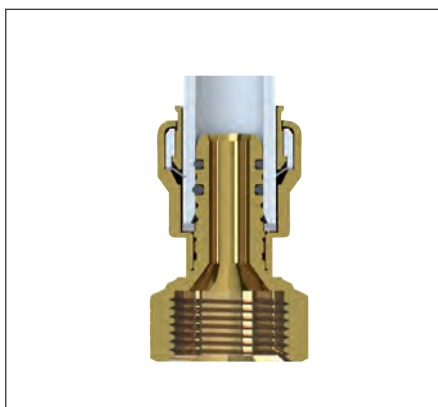
/ SPINGERE IL TUBO MULTISTRATO NEL RACCORDO, FINO ALL'ARRESTO DEL TUBO CONTROLLANDO LA CORRETTA PROFONDITÀ DI INSERIMENTO ATTRAVERSO LE FINESTRE DI ISPEZIONE DESIGNATE PER IL CONTROLLO VISIVO DELLA POSIZIONE DEL TUBO.

/ EINSCHIEBEN DES ROHRES COMISA BIS ZUM VERSCHLIESSEN DES SICHTFENSTERS AM FITTING.

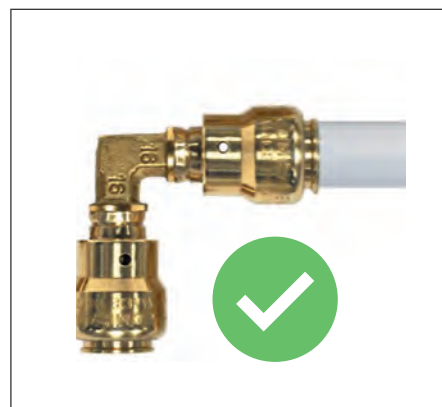
/ PUSSEZ LE TUBE MULTICOUCHE DANS LE RACCORD JUSQU'AU FOND. VÉRIFIEZ QUE LE TUBE EST BIEN INSÉRÉ PAR LA FENÊTRE DE CONTRÔLE.



INSPECTION WINDOW
 / FINESTRA DI ISPEZIONE
 / SICHTFENSTER
 / FENÊTRE DE CONTRÔLE



RETAINING WASHER FOR PIPE LOCKING
 / BLOCCAGGIO DEL TUBO
 / HALTELEMENT
 / GRIFFE DE RETENUE DU TUBE



AN OPTIMAL CONNECTION IS NOW READY FOR USE
 / IL TUBO È CORRETTAMENTE INSERITO. IL RACCORDO È PRONTO PER L'IMPIEGO
 / DIE OPTIMALE EINSTECKTIEFE DES ROHRES WURDE FACHGEMÄSS DURCHGEFÜHRT, DIE VERBINDUNG IST EINSATZBEREIT
 / UNE CONNEXION BIEN FAITE, LE RACCORD EST PRÊT À L'EMPLOI

DISMOUNTING OF THE ASSEMBLED FITTING PRONTOFIT

/ SMONTAGGIO DEL RACCORDO PRONTOFIT / DEMONTAGE DER STECKVERBINDUNG PRONTOFIT

/ DÉMONTAGE DU RACCORD PRONTOFIT

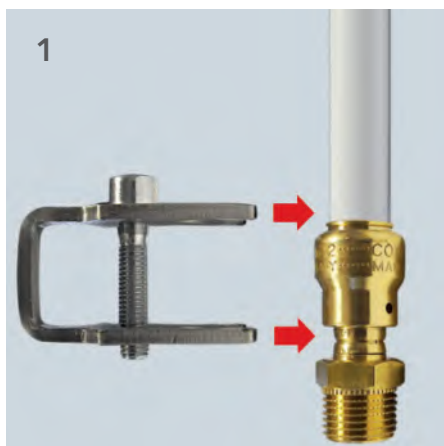


With the help of our collet release tool disconnect the connection and recover the fitting.

/ Utilizzando l'apposito strumento è possibile sfilare il tubo e riutilizzare il raccordo.

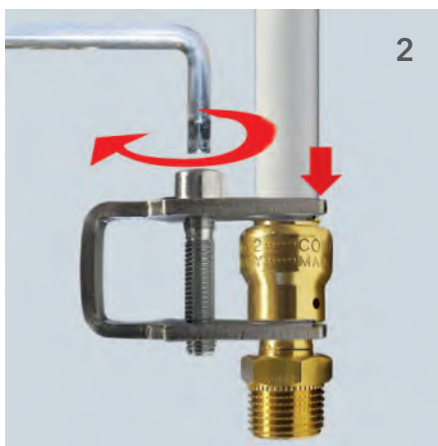
/ Mithilfe eines Lösewerkzeuges (Gabel) lösen der Verbindung und Wiederverwendung des Fittings.

/ Avec l'aide de notre outil spécifique, démontez le raccord du tube.



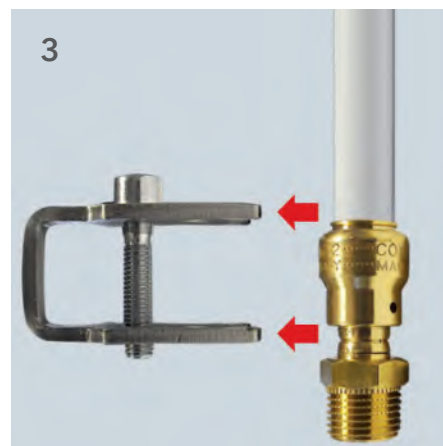
Place the collet release tool above and below the screw element by consulting the images.

/ Posizionare la forchetta superiore sul tubo multistrato e quella inferiore sul fondo della boccola
/ Ansetzen der Gabel (Lösehilfe) gemäß Abbildung oberhalb und unterhalb des Schraubelements.
/ Placez l'outil de démontage comme indiqué dans la figure ci-contre.



Through one complete rotation by using the Allen key tool and screw element are pressed together.

/ Utilizzando la chiave a brugola e stringere lo strumento effettuando un giro completo della vite.
/ Durch eine komplette Drehung des Inbusschlüssels werden die Gabel und das Schraubelement zusammengedrückt.
/ Tourner la clé Allen afin de comprimer la bague de démontage.



With the clamping fixture held in this position the pipe can be removed. **The fitting can be used again without the need for replacement parts.**

/ Sfilare il tubo multistrato, rilasciare la vite, sganciare l'attrezzo dalla boccola. **Il raccordo è pronto per il riutilizzo.**
/ Lösen der Verbindung durch Ausziehen des Rohres und entfernendes Werkzeuges. **Der Steckfitting ist wiederverwendbar.**
/ Avec la bague de démontage ainsi comprimée le tube peut être enlevé. **Le raccord est prêt à être re-utilisé.**

QUICK & EASY INSTALLATION



TOOLS FREE



REUSABLE



MONEY SAVING

MULTILAYER PIPE

/ TUBO MULTISTRATO
/ MEHRSCICHTVERBUNDROHR
/ TUBE MULTICOUCHE





MULTILAYER PIPE

MULTILAYER PIPE	58
GAS MULTILAYER PIPE	68

MULTILAYER PIPE

/ TUBO MULTISTRATO
/ MEHRSCICHTVERBUNDROHR
/ TUBE MULTICOUCHE

PRIMA PE-RT / AL / PE

MULTILAYER PIPE IN COILS

/ TUBO MULTISTRATO IN ROTOLI
/ MEHRSCICHTVERBUNDROHR IN RINGEN
/ TUBE MULTICOUCHE EN ROULEAUX

CODE	TECH. CODE	SIZE 		
87.80.005	TU0MU1420000	14 x 2	200 m	3400 m
87.80.011	TU0MU1620000	16 x 2	100 m	1700 m
87.80.010	TU0MU1620040	16 x 2	200 m	3600 m
87.80.009	TU0MU1620050	16 x 2	250 m	3000 m
87.80.008	TU0MU1620060	16 x 2	500 m	2500 m
87.80.012	TU0MU1622500	16 x 2,25	100 m	1700 m
87.80.015	TU0MU1820000	18 x 2	100 m	1800 m
87.80.020	TU0MU2020000	20 x 2	100 m	1800 m
87.80.023	TU0MU2020030	20 x 2	300 m	2400 m
87.80.025	TU0MU2025000	20 x 2,5	100 m	1800 m
87.80.035	TU0MU2630000	26 x 3	50 m	900 m
87.80.040	TU0MU3230000	32 x 3	50 m	600 m



PRIMA PE-RT / AL / PE

MULTILAYER PIPE IN BARS

/ TUBO MULTISTRATO IN BARRE
/ MEHRSCICHTVERBUNDROHR IN STANGEN
/ TUBE MULTICOUCHE EN BARRES



CODE	TECH. CODE	SIZE 	BARS 	
87.80.110	TU0MU1620B00	16 x 2	5 m	300 m
87.80.120	TU0MU2020B00	20 x 2	5 m	200 m
87.80.130	TU0MU2630B00	26 x 3	5 m	110 m
87.80.135	TU0MU3230B00	32 x 3	5 m	70 m
87.80.140	TU0MU4035B00	40 x 3,5	5 m	35 m
87.80.145	TU0MU5040B00	50 x 4	5 m	20 m
87.80.151	TU0MU6360B00	63 x 6	5 m	5 m
	TU0MU7550B00 PE-XB / AL / PE-XB	75 x 5	5 m	5 m

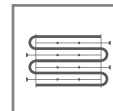


FUTURA PE / AL / PE

MULTILAYER PIPE IN COILS FOR LOW TEMPERATURE RADIANT SYSTEMS (PE / AL / PE)

/ TUBO MULTISTRATO IN ROTOLI PER IMPIANTI RADIANTI A BASSA TEMPERATURA (PE / AL / PE)
 / MEHRSCICHTVERBUNDROHR IN RINGEN FÜR NIEDRIGTEMPERATUR-STRAHLUNGSSYSTEME (PE / AL / PE)
 / TUBE MULTICOUCHE EN ROULEAUX POUR SYSTÈMES RADIANT À BASSE TEMPÉRATURE (PE / AL / PE)

CLASS 4 / 4 BAR

GREY / GRIGIO
GRAU / GRIS

CODE	TECH. CODE	SIZE 		
87.80.017	TU0MF1620010	16 x 2	200 m	3600 m
87.80.018	TU0MF1620020	16 x 2	500 m	3000 m



ONLY FOR LOW TEMPERATURE RADIANT SYSTEMS!



ON REQUEST / SU RICHIESTA / AUF ANFRAGE / SUR COMMANDE

PRIMA PE-RT / AL / PE

MULTILAYER PIPE IN COILS

/ TUBO MULTISTRATO IN ROTOLI
 / MEHRSCICHTVERBUNDROHR IN RINGEN
 / TUBE MULTICOUCHE EN ROULEAUX

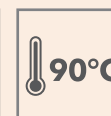
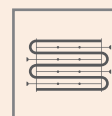


CODE	TECH. CODE	SIZE 		COILS* 
87.80.180	TU0MU1620010	16 x 2	10 m	84 COILS
87.80.181	TU0MU1620020	16 x 2	25 m	60 COILS
87.80.183	TU0MU2020010	20 x 2	10 m	72 COILS
87.80.184	TU0MU2020020	20 x 2	25 m	44 COILS



PRICE PER COIL! / PREZZO A ROTOLO!
 / PREIS PRO RING! / PRIX PAR ROULEAU!

***MINIMUM ORDER QUANTITY / *QUANTITÀ MIN. ORDINABILE**
 / *MINDESTBESTELLMENGE / *QUANTITÉ MINIMALE PER COMMANDE



PRIMA PE-RT / AL / PE

MULTILAYER PIPE IN BARS

/ TUBO MULTISTRATO IN BARRE
 / MEHRSCICHTVERBUNDROHR IN STANGEN
 / TUBE MULTICOUCHE EN BARRES



BARS
 2,5 m

CODE	TECH. CODE	SIZE 	LENGHT	BARS** 
87.80.195	TU0MU1620B10	16 x 2	2,5 m	10 BARS
87.80.196	TU0MU2020B10	20 x 2	2,5 m	10 BARS
87.80.197	TU0MU2630B10	26 x 3	2,5 m	10 BARS



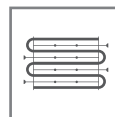
PRICE PER BAR! / PREZZO A BARRA!
 / PREIS PRO STANGE! / PRIX PAR BARRE!

****MINIMUM ORDER QUANTITY / **QUANTITÀ MIN. ORDINABILE**
 / **MINDESTBESTELLMENGE / **QUANTITÉ MINIMALE PER COMMANDE
 16 x 2 = 260 BARS | 20 x 2 = 200 BARS | 26 x 3 = 170 BARS

PRIMA PE-RT / AL / PE

MULTILAYER PIPE IN GREEN PROTECTING COAT

/ TUBO MULTISTRATO CON GUAINA VERDE ISOLANTE
/ MEHRSCICHTVERBUNDROHR MIT GRÜNER ISOLIERUNG
/ TUBE MULTICHOUCHE AVEC GAINÉ ISOLÉE VERTE



CODE	TECH. CODE	SIZE 		
87.80.355	TU0MU142000V	14 x 2	50 m	750 m
87.80.360	TU0MU162000V	16 x 2	50 m	650 m
87.80.361*	TU0MU162250V	16 x 2,25 	50 m	650 m
87.80.365	TU0MU182000V	18 x 2	50 m	650 m
87.80.370	TU0MU202000V	20 x 2	50 m	650 m
87.80.371*	TU0MU202500V	20 x 2,5 	50 m	650 m
87.80.375	TU0MU263000V	26 x 3	50 m	400 m

* "In GREY protecting coat"

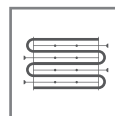
GREEN / VERDE
GRÜN / VERT



PRIMA PE-RT / AL / PE

MULTILAYER PIPE IN BLUE PROTECTING COAT

/ TUBO MULTISTRATO CON GUAINA BLU ISOLANTE
/ MEHRSCICHTVERBUNDROHR MIT BLAUER ISOLIERUNG
/ TUBE MULTICHOUCHE AVEC GAINÉ ISOLÉE BLEUE



CODE	TECH. CODE	SIZE 		
87.80.340	TU0MU162000B	16 x 2	50 m	650 m
87.80.345	TU0MU202000B	20 x 2	50 m	650 m
-	TU0MU263000B	26 x 3	50 m	400 m
87.80.341	TU0MU162000R	16 x 2	50 m	650 m
87.80.346	TU0MU202000R	20 x 2	50 m	650 m
-	TU0MU263000R	26 x 3	50 m	400 m

BLUE / BLU
BLAU / BLEU

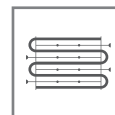
RED / ROSSO
ROT / ROUGE



PRIMA PE-RT / AL / PE

MULTILAYER PIPE IN WHITE PROTECTING COAT

/ TUBO MULTISTRATO CON GUAINA BIANCA ISOLANTE
/ MEHRSCICHTVERBUNDROHR MIT WEISSER ISOLIERUNG
/ TUBE MULTICHOUCHE AVEC GAINÉ ISOLÉE BLANCHE



CODE	TECH. CODE	SIZE 		
87.80.381	TU0MU162000W	16 x 2	50 m	550 m
87.80.384	TU0MU202000W	20 x 2	50 m	400 m
87.80.386	TU0MU263000W	26 x 3	50 m	250 m
87.80.387	TU0MU323000W	32 x 3	25 m	200 m

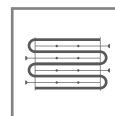
WHITE / BIANCO
WEISS / BLANCH



PRIMA PE-RT / AL / PE

MULTILAYER PIPE IN BROWN PROTECTING COAT

/ TUBO MULTISTRATO CON GUAINA MARRONE ISOLANTE
/ MEHRSCICHTVERBUNDROHR MIT BRAUN ISOLIERUNG
/ TUBE MULTICHOUCHE AVEC GAINÉ ISOLÉE MARRON



BROWN / MARRONE
BRAUN / MARRON



CODE	TECH. CODE	SIZE			
87.80.350	TU0MU162000M	16 x 2	50 m	300 m	
87.80.351	TU0MU202000M	20 x 2	50 m	250 m	
87.80.352	TU0MU263000M	26 x 3	50 m	250 m	

• ON REQUEST / SU RICHIESTA / AUF ANFRAGE / SUR DEMANDE

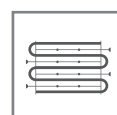
PRIMA GEG PE-RT / AL / PE

MULTILAYER PIPE IN BLUE PROTECTING COAT

/ TUBO MULTISTRATO CON GUAINA BLU ISOLANTE
/ MEHRSCICHTVERBUNDROHR MIT BLAUER ISOLIERUNG
/ TUBE MULTICHOUCHE AVEC GAINÉ ISOLÉE BLEUE

CODE	TECH. CODE	SIZE	INSULATION GEG 50%	λ [W/mK]		
87.80.291	TU0ME162001B	16 x 2	10 mm	0.035	50 m	550 m
87.80.293	TU0ME202001B	20 x 2	10 mm	0.035	50 m	400 m
87.80.295	TU0ME263001B	26 x 3	10 mm	0.035	50 m	250 m
87.80.297	TU0ME323001B	32 x 3	15 mm	0.035	25 m	200 m

CODE	TECH. CODE	SIZE	INSULATION GEG 100%	λ [W/mK]		
87.80.299	TU0ME162002B	16 x 2	20 mm	0.035	50 m	350 m
87.80.301	TU0ME202002B	20 x 2	20 mm	0.035	50 m	350 m
87.80.303	TU0ME263002B	26 x 3	20 mm	0.035	50 m	350 m



BLUE / BLU / BLAU / BLEU

GEG



INSULATION
/ GUAINA ISOLANTE
/ ISOLIERUNG
/ ISOLATION

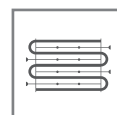


MULTILAYER PIPE IN RED PROTECTING COAT

/ TUBO MULTISTRATO CON GUAINA ROSSA ISOLANTE
/ MEHRSCICHTVERBUNDROHR MIT ROSSER ISOLIERUNG
/ TUBE MULTICHOUCHE AVEC GAINÉ ISOLÉE ROUGE

CODE	TECH. CODE	SIZE	INSULATION GEG 50%	λ [W/mK]		
87.80.292	TU0ME162001R	16 x 2	10 mm	0.035	50 m	550 m
87.80.294	TU0ME202001R	20 x 2	10 mm	0.035	50 m	400 m
87.80.296	TU0ME263001R	26 x 3	10 mm	0.035	50 m	250 m
87.80.298	TU0ME323001R	32 x 3	15 mm	0.035	25 m	200 m

CODE	TECH. CODE	SIZE	INSULATION GEG 100%	λ [W/mK]		
87.80.300	TU0ME162002R	16 x 2	20 mm	0.035	50 m	350 m
87.80.302	TU0ME202002R	20 x 2	20 mm	0.035	50 m	350 m
87.80.304	TU0ME263002R	26 x 3	20 mm	0.035	50 m	350 m



RED / ROSSO / ROT / ROUGE

GEG



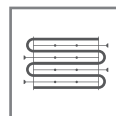
INSULATION
/ GUAINA ISOLANTE
/ ISOLIERUNG
/ ISOLATION



PRIMA PE-RT / AL / PE

MULTILAYER PIPE WITH RED-BLUE THERMO-WELDED PROTECTING COAT

/ TUBO MULTISTRATO CON GUAINA ROSSO-BLU ISOLANTE TERMOSALDATO
/ MEHRSCICHTVERBUNDROHR MIT ROT-BLAU THERMOVERSCHWEISSTER UMMANTELUNG
/ TUBE MULTICOUCHE THERMO SOUDÉ ROUGE-BLEU



RED - BLUE / ROSSO - BLU
/ ROT - BLAU / ROUGE - BLEU

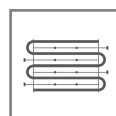
CODE	TECH. CODE	SIZE 		
87.80.330	TU0MU162000D	16 x 2	50 m	400 m
87.80.335	TU0MU202000D	20 x 2	50 m	350 m



PRIMA PE-RT / AL / PE

MULTILAYER PIPE WITH BLUE CORRUGATED SHEATH

/ TUBO MULTISTRATO CON GUAINA BLU CORRUGATA
/ MEHRSCICHTVERBUNDROHR IM WELLSCHUTZROHR BLAU
/ TUBE MULTICOUCHE GAINE ONDULÉE BLEU



BLUE / BLU
BLAU / BLEU

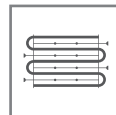
CODE	TECH. CODE	SIZE 		
87.80.310	TU0MU16200CB	16 x 2	100 m	900 m
87.80.320	TU0MU20200CB	20 x 2	100 m	500 m



PRIMA PE-RT / AL / PE

MULTILAYER PIPE WITH RED CORRUGATED SHEATH

/ TUBO MULTISTRATO CON GUAINA ROSSA CORRUGATA
/ MEHRSCICHTVERBUNDROHR IM WELLSCHUTZROHR ROT
/ TUBE MULTICOUCHE GAINE ONDULÉE ROUGE



RED / ROSSO
ROT / ROUGE

CODE	TECH. CODE	SIZE 		
87.80.210	TU0MU16200CR	16 x 2	100 m	900 m
87.80.220	TU0MU20200CR	20 x 2	100 m	500 m



BLACK CORRUGATED SHEATH

/ GUAINA NERA CORRUGATA
/ WELLSCHUTZROHR SCHWARZ
/ GAINE ONDULÉE NOIRE

CODE	TECH. CODE	SIZE 		COILS 
87.80.070	TU0GU162000N	16 x 2	10 m	60 COILS
87.80.071	TU0GU202000N	20 x 2	10 m	40 COILS



PRICE PER COIL! / PREZZO A ROTOLO!
/ PREIS PRO RING! / PRIX PAR ROULEAU!



BLACK / NERO
SCHWARZ / NOIRE



PE-X EVOH COMISA EVOHLINE

CROSSLINKED POLYETHYLENE PIPE - EVOH

/ TUBO POLIETILENE RETICOLATO - EVOH
/ POLYETHYLEVERNETZTES ROHR - EVOH
/ TUBE EN POLYÉTHYLÈNE RÉTICULÉ - EVOH

EVOH: Ethylene and vinyl alcohol

CODE	TECH. CODE	SIZE 		
87.80.395	TU0PE1720000	17 x 2	240 m	2.160 m
87.80.396	TU0PE1720010	17 x 2	600 m	2.400 m



ACCORDING TO **ISO 15875-2**

SKZ HR 3.2 CERTIFIED

PERMEABILITY TO OXYGEN ACCORDING TO **DIN 4726**

ANTI-OXYGEN BARRIER **EVOH**

/ BARRIERA ANTI OSSIGENO
/ SAUERSTOFFSPERRSCHICHT
/ BARRIÈRE ANTI-OXYGÈNE



PE-RT EVOH

5 LAYERS PIPE - EVOH

/ TUBO 5 STRATI - EVOH
/ ROHR 5-SCHICHTEN - EVOH
/ TUBE 5 COUCHES - EVOH

EVOH: Ethylene and vinyl alcohol

CODE	TECH. CODE	SIZE 	
87.80.397	TU1MU1013010	10 x 1,3	200 m
87.80.398	TU1MU1013000	10 x 1,3	600 m
87.80.392	TU1MU1213010	12 x 1,3	200 m
87.80.393	TU1MU1213000	12 x 1,3	600 m
87.80.990	TU1MU1620000	16 x 2,0	600 m

ANTI-OXYGEN BARRIER **EVOH**

/ BARRIERA ANTI OSSIGENO
/ SAUERSTOFFSPERRSCHICHT
/ BARRIÈRE ANTI-OXYGÈNE



TECHNICAL FEATURES

/ CARATTERISTICHE TECNICHE / TECHNISCHE EIGENSCHAFTEN / CARACTÉRISTIQUES TECHNIQUES

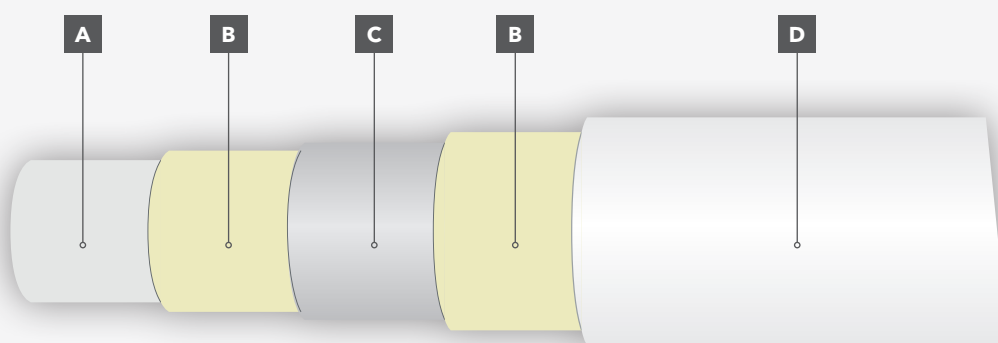
The COMISA "PRIMA" multilayer pipe is a product of the latest generation produced with advanced technology in the treatment of polyethylene polymers and unites the advantages of a plastic pipe and those of a metal pipe. The COMISA multilayer pipe is flexible and robust, resistant to high pressure and high temperatures.

/ Il tubo multistrato COMISA "PRIMA" è un prodotto di ultima generazione prodotto con tecnologia avanzata nel trattamento di polimeri di polietilene e unisce i vantaggi di un tubo di plastica e quelli di un tubo metallico. Il tubo multistrato COMISA è flessibile e robusto, resistente alle alte pressioni e alle alte temperature.

/ Das COMISA "PRIMA" - Mehrschichtverbundrohr ist ein Produkt der neuesten Generation, das unter Einsatz modernster Fertigungstechnologien in der Polymer-Bearbeitung aus Polyethylen hergestellt wird und das die Vorteile eines Kunststoffrohres mit denen eines Metallrohres vereinigt. Das COMISA - Mehrschichtverbundrohr ist flexibel, robust und äußerst druck- und hitzebeständig.

/ Le tube multicouche COMISA "PRIMA" est un produit de dernière génération réalisé avec des technologies de pointe dans le traitement des polymères de polyéthylène et combine les avantages d'un tube en matière plastique et ceux d'un tube métallique. Le tube multicouche COMISA est flexible et robuste, résistant aux hautes pressions et aux hautes températures.

PRIMA PE-RT / AL / PE



MATERIALS

- A Inner pipe PE-RT type II (polyethylene, raised temperature resistant)
Reticulated at origin according to DIN 16833
- B Bonding layer
- C Aluminium butt-welded
- B Bonding layer
- D PE thermally stabilised

/ MATERIALIEN

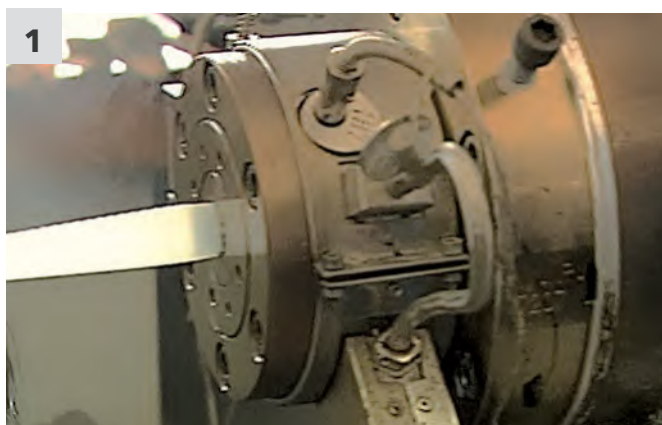
- A Innenrohr PE-RT Typ II (Polyethylen, erhöht thermisch widerstandsfähig)
ursprünglich quervernetzt nach DIN 16833
- B Haftschrift
- C Aluminiumschicht (stossgeschweisst)
- B Haftschrift
- D PE wärmestabilisiert

/ MATERIALI

- A Tubo interno PE-RT tipo II (polyethylene, resistente alle alte temperature)
Reticolato all'origine come da norma DIN 16833
- B Strato adesivo
- C Alluminio saldato testa a testa
- B Strato adesivo
- D PE stabilizzato termicamente

/ MATÉRIAUX

- A Un tuyau intérieur PE-RT type II (polyéthylène, résistant à la température élevée) éticulé à l'origine selon DIN 16833
- B Niveau de collage
- C Siège en aluminium soudé
- B Niveau de collage
- D EP stabilisé thermiquement



PRODUCTION PROCESS

The COMISA multilayer pipe is produced using a state of the art technological production process.

1. The internal layer in polyethylene is extruded (A);
2. A first adhesive layer (Primer) is applied to the external surface (B);
3. During the subsequent phase, an aluminium sheet is wound around the pipe, butt-welded and calibrated (C);
4. A second adhesive layer is applied to the external surface of the aluminium layer (B);
5. A new external polyethylene layer is applied (D).

The entire production cycle occurs at constant and controlled temperatures, is totally automated and includes five subsequent and independent control points. Before the storage phase the product is again controlled by specialised technicians to guarantee the total qualitative level of the product.

/ PROCESSO DI PRODUZIONE

/ Il tubo multistrato COMISA è realizzato attraverso un processo produttivo tecnologicamente evoluto.

1. Lo strato interno in polietilene viene estruso;
2. Sulla superficie esterna viene applicato un primo strato connettivo;
3. Durante la fase successiva, uno strato di alluminio è avvolto intorno al tubo e saldato con lembi coincidenti (testa a testa). In seguito il tubo viene calibrato;
4. Sulla superficie esterna dello strato di alluminio viene applicato un ulteriore strato connettivo;
5. Viene applicato un nuovo strato in polietilene trattato per resistere a raggi UVA.

L'intero ciclo produttivo avviene a temperatura costante e controllata, è totalmente automatizzato e prevede cinque punti di controllo successivi ed indipendenti. Prima della fase di stoccaggio il prodotto viene nuovamente controllato da tecnici specializzati per garantirne l'assoluto livello qualitativo.

/ HERSTELLUNGSVERFAHREN

/ Das COMISA Mehrschichtverbundrohr wird in einem aufwändigen und technologisch ausgereiften Verfahren hergestellt.

1. Extrusion des aus Polyethylen bestehenden Innenrohrs (A);
2. Anbringen einer dünnen Haftvermittlerschicht (Primer) im Coextrusionsverfahren (B);
3. Im nächsten Arbeitsschritt wird eine je nach Anforderung unterschiedlich dicke Aluminiumfolie um das Rohr gelegt, stumpfgeschweißt und auf das Innenrohr kalibriert (C);
4. Auftragen einer weiteren Primerschicht mittels Überzugextrusion (B);
5. Auftragen der äußeren Deckschicht in Polyethylen (D).

Der gesamte Herstellungsprozess geschieht bei konstanter und kontrollierter Temperatur, er ist voll automatisiert und durchläuft 5 aufeinander folgende und unabhängige Kontrollstellen. Vor der Lagerung wird das Produkt erneut von Fachpersonal geprüft, um den höchst möglichen Qualitätsstandard garantieren zu können.

/ PROCÉDURE DE PRODUCTION

/ Le tube multicouche COMISA est produit en utilisant les processus de fabrication de dernière génération.

1. La couche interne de polyéthylène est extrudée (A);
2. Une première couche adhésive (Primer) est appliquée sur la surface extérieure (B);
3. Une feuille d'aluminium est enroulée autour du tube, soudée bout à bout et calibrée (C);
4. Une seconde couche adhésive est appliquée à la surface externe de la couche d'aluminium (B);
5. Une nouvelle couche de polyéthylène externe est appliquée (D).

Le cycle de production se produit à température constante et contrôlée; il est totalement automatisé et comprend cinq points de contrôle successifs et indépendants. Avant le stockage le produit est à nouveau contrôlé par des techniciens spécialisés afin de garantir une qualité absolue.

MAIN FEATURES OF THE COMISA "PRIMA" MULTILAYER PIPE



LOW THERMAL EXPANSION

Minimum levels of thermal expansion (levels similar to metal pipes).



EASY TO INSTALL

No welding, threading or gluing.
It is enough to cut, gauge, and insert the pipe in the fitting.



EASY TO BEND AND MAINTAINS SHAPE

It is simple to bend by hand with no hardening, it admits reduced bend radii, and it is not impacted by bending memory.



APPROVED FOR DRINKING WATER

It complies with the most rigorous international standards related to drinking water flows.



TOTAL IMPERMEABILITY TO OXYGEN

The aluminium layer guarantees total impermeability to oxygen, water vapor, and other gaseous molecules.



RESISTANT TO AGING

Resistant to usage tests which simulate a product lifecycle of over 50 years (with both hot and cold fluid).



RESISTANT TO CORROSION

Excellent chemical and mechanical resistance.

PERFORMANCES

Maximum working pressure	10 bar
Maximum working temperature	95°C
Maximum peak temperature (1hour)	110°C

APPLICATIONS

Heating with radiators
Sanitary use
Underfloor heating
Compressed air supply
Industrial systems
Wall heating system
Refrigerated water supply

/ VANTAGGI DEL TUBO MULTISTRATO "PRIMA" COMISA



BASSA DILATAZIONE TERMICA

Minimi livelli di dilatazione termica (livelli simili ai tubi metallici)



FACILE INSTALLAZIONE

Nessuna saldatura, filettatura o incollaggio.
Basta tagliare, calibrare ed inserire il tubo nel raccordo.



FACILE DA PIEGARE E STABILE NELLA FORMA

Si piega a mano con estrema facilità senza incrudire, accetta raggi di curvatura ridotti. Nessun effetto memoria.



OMOLOGATO PER ACQUA POTABILE

Conforme ai più rigorosi standard internazionali per il passaggio di acqua potabile.



TOTALE IMPERMEABILITÀ ALL'OSSIGENO

Lo strato di alluminio garantisce la totale impermeabilità all'ossigeno, al vapore acqueo e altre molecole gassose.



RESISTENZA ALL'INVECCHIAMENTO

Resistente a prove di utilizzo che simulano un ciclo vita (con fluido caldo e freddo) di oltre 50 anni.



RESISTENTE ALLA CORROSIONE

Ottima resistenza chimica e meccanica

/ PRESTAZIONI

Massima pressione di utilizzo	10 bar
Temperatura massima di utilizzo	95°C
Temperatura massima di punta (1hour)	110°C

/ UTILIZZI

Riscaldamento con sistemi ad alta temperatura
Distribuzione acqua sanitaria
Riscaldamento a pavimento
Fornitura di aria compressa (bassa temperatura)
Sistemi industriali
Riscaldamento radiante a parete (bassa temperatura)
Fornitura di acqua refrigerata

/ VORTEILE VON COMISAS MEHRSCICHTVERBUNDROHR „PRIMA“



GERINGE WÄRMEAUSSDEHNUNG

Minimaler Wärmeausdehnungskoeffizient (ähnliche Werte wie bei Metallrohren)



EINFACHE INSTALLATION

Kein Schweißen, Gewindeschneiden oder Kleben.
Einfach das Rohr schneiden, kalibrieren und in das Fitting einführen.



LEICHT ZU BIEGEN UND FORMSTABIL

Das Rohr lässt sich extrem leicht per Hand biegen, ohne Kaltumformung, und eignet sich für geringe Krümmungsradien. Kein Memory-Effekt.



FÜR TRINKWASSER ZUGELASSEN

Das „PRIMA“ Rohr entspricht den strengsten internationalen Standards für Trinkwasser-Installationen.



VOLLKOMMEN SAUERSTOFFDICHTIG

Seine Aluminiumschicht garantiert absolute Undurchlässigkeit gegenüber Sauerstoff, Wasserdampf und anderen gasförmigen Molekülen.



ALTERUNGSBESTÄNDIG

Es erweist sich als alterungsbeständig bei der Durchführung von Gebrauchstests, die (sowohl mit heißen als auch mit kalten Flüssigkeiten) einen Lebenszyklus von über 50 Jahren simulieren.



KORROSIONSBESTÄNDIG

Ausgezeichnete chemische und mechanische Beständigkeit.

/ AVANTAGES DU TUBE MULTICOUCHE “PRIMA” DE COMISA



DILATATION THERMIQUE FAIBLE

Niveaux minimaux de dilatation thermique (niveaux similaires à ceux des tuyaux métalliques).



INSTALLATION AISÉE

Pas de soudure, filetage ou collage.
Il suffit de couper, calibrer et insérer le tube dans le raccord.



FACILE À PLIER ET DIMENSIONNELLEMENT STABLE

Il peut être plié manuellement avec une facilité extrême et sans écrouissage.
Il convient aussi pour les rayons de courbure réduits et ne présente pas d'effet mémoire.



HOMOLOGUÉ POUR L'EAU POTABLE

Le tube Prima est conforme aux normes internationales les plus rigoureuses pour le passage de l'eau potable.



TOTALEMENT IMPERMÉABLE À L'OXYGÈNE

La couche d'aluminium garantit une imperméabilité totale à l'oxygène, à la vapeur d'eau ainsi qu'à d'autres molécules gazeuses.



RÉSISTANT AU VIEILLISSEMENT

Le tube Prima se révèle être résistant aux tests d'utilisation qui simulent un cycle de vie (avec fluides chauds et froids) de plus de 50 ans.



RÉSISTANT À LA CORROSION

Ce tuyau présente une excellente résistance chimique et mécanique.

/ EINSATZBEDINGUNGEN

Maximaler betriebsdruck	10 bar
Maximale betriebstemperatur	95°C
Maximale spitztemperatur (1 stunde)	110°C

/ EINSATZBEREICH

Heizkörperanbindung
Sanitärbereich
Fußbodenheizung
Druckluft
Industrieanlagen
Wandheizung
Kühlung

/ PERFORMANCE

Pression maximale de travail	10 bar
Température maximale de travail	95°C
Température de pic maximum (1 heure)	110°C

/ DOMAINES D'UTILISATION

Chauffage par radiateurs
Utilisation sanitaire
Chauffage au sol
Réseau d'air comprimé
Systèmes industriels
Système de chauffage mural
Alimentation en eau réfrigérée

GAS MULTILAYER PIPE

/ TUBO MULTISTRATO PER GAS
/ MEHRSCICHTVERBUNDROHR GAS
/ TUBE MULTICOUCHE POUR GAZ



PE-Xb / AL / PE-Xb

GAS MULTILAYER PIPE IN COILS

/ TUBO GAS MULTISTRATO IN ROTOLI
/ GAS MEHRSCICHTVERBUNDROHR IN RINGEN
/ TUBE MULTICOUCHE POUR LE GAZ EN ROULEAUX

CODE	TECH. CODE	SIZE 		
87.81.005	TUGMU1620000	16 x 2	50 m	800 m
87.81.006	TUGMU2020000	20 x 2	50 m	800 m
87.81.007	TUGMU2630000	26 x 3	50 m	900 m
87.81.008	TUGMU3230000	32 x 3	50 m	600 m

According to UNI 11344 / Conforme UNI 11344
/ Entspricht UNI 11344 / Équivalent à UNI 11344

YELLOW / GIALLO
GELB / JAUNE



PE-Xb / AL / PE-Xb

GAS MULTILAYER PIPE IN BARS

/ TUBO GAS MULTISTRATO IN BARRE
/ GAS MEHRSCICHTVERBUNDROHR IN STANGEN
/ TUBE MULTICOUCHE POUR LE GAZ EN BARRES

CODE	TECH. CODE	SIZE 	BARS 	
87.81.015	TUGMU1620B00	16 x 2	5 m	300 m
87.81.016	TUGMU2020B00	20 x 2	5 m	200 m
87.81.017	TUGMU2630B00	26 x 3	5 m	110 m

According to UNI 11344 / Conforme UNI 11344
/ Entspricht UNI 11344 / Équivalent à UNI 11344

YELLOW / GIALLO
GELB / JAUNE

BARS
5 m



PE-Xb / AL / PE-Xb**GAS MULTILAYER PIPE IN COILS
WITH YELLOW CORRUGATED SHEATH**

/ TUBO GAS MULTISTRATO IN ROTOLI CON GUAINA CORRUGATA
/ GAS MEHRSCICHTVERBUNDROHR IM WELLSCHUTZROHR
/ TUBE MULTICHOUCHE POUR LE GAZ, GAINE JAUNE

YELLOW / GIALLO
GELB / JAUNE



CODE	TECH. CODE	SIZE 		
87.81.010	TUGMU16200CG	16 x 2 outer Ø / Ø esterno / Außendurchmesser / Ø extérieur: 32 mm (for pipe / per tubo / für Rohr / pour tube: Ø 16)	50 m	600 m
87.81.011	TUGMU20200CG	20 x 2 outer Ø / Ø esterno / Außendurchmesser / Ø extérieur: 37 mm (for pipe / per tubo / für Rohr / pour tube: Ø 20)	50 m	600 m
87.81.012	TUGMU26300CG	26 x 3 outer Ø / Ø esterno / Außendurchmesser / Ø extérieur: 44 mm (for pipe / per tubo / für Rohr / pour tube: Ø 26)	50 m	350 m

According to UNI 7129 / Conforme UNI 7129
/ Entspricht UNI 7129 / Équivalent à UNI 7129

**GAS MULTILAYER PIPE WITH POLYETHYLENE SHEATH**

/ TUBO GAS MULTISTRATO ISOLATO CON GUAINA POLIETILENE
/ GAS MEHRSCICHTVERBUNDROHR MIT POLYETHYLEN-ISOLIERUNG
/ TUBE MULTICHOUCHE POUR LE GAZ ISOLÉ AVEC GAINE EN POLYETHYLÈNE

YELLOW / GIALLO
GELB / JAUNE



CODE	TECH. CODE	SIZE 		
87.81.030	TUGMU162000G	16 x 2	50 m	600 m
87.81.031	TUGMU202000G	20 x 2	50 m	600 m



TECHNICAL FEATURES / CARATTERISTICHE TECNICHE

Multilayer Gas System is made according to the **UNI 11344** standard and it may be installed according to the **UNI 7129** standard.

The system, made up of multilayer pipes and brass press fittings, provides extensive guarantees in gas installations for household purposes. The characteristics of the system make it simple and reliable for the installation of new plants and very practical for the restoration of existing systems.

The system also includes valves, manifolds, active and passive control and safety plants as well as installation equipment that make this system a complete and exclusive product in the market

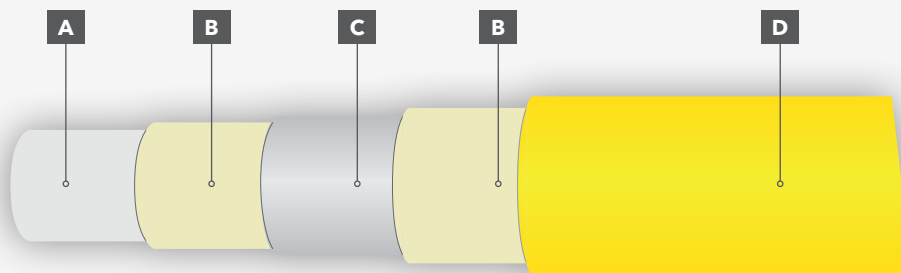
The Gas System is used in delivery plants with a wide range of application.

Il **Sistema Multistrato Gas** è realizzato secondo la norma **UNI 11344** e può essere installato secondo la norma **UNI 7129**.

Il sistema, costituito da tubi multistrato e raccordi a pressare in ottone, fornisce ampie garanzie negli impianti a gas per uso domestico. Le caratteristiche del sistema lo rendono semplice e affidabile per l'installazione di nuovi impianti e molto pratico per il ripristino di sistemi esistenti.

Il sistema comprende anche valvole, collettori, impianti di controllo e sicurezza attivi e passivi e apparecchiature di installazione che rendono questo sistema un prodotto completo ed esclusivo sul mercato.

Il sistema gas è utilizzato negli impianti di adduzione gas con un'ampia gamma di applicazioni.



MATERIALS

A	Cross-linked polyethylene pipe PE-Xb
B	Bonding layer
C	Aluminium butt-welded
B	Bonding layer
D	Cross-linked polyethylene pipe PE-Xb (yellow color RAL 1015)

/ MATERIALI

A	Tubo in polietilene reticolato PE-Xb
B	Strato adesivo
C	Alluminio saldato testa a testa
B	Strato adesivo
D	Tubo in polietilene reticolato PE-Xb (colore giallo RAL 1015)

Outer nominal diameter	Diametro nominale esterno (De)		16 x 2	20 x 2	26 x 3	32 x 3
Nominal diameter of the pipe	Valore nominale spessore tubo	mm	2	2	3	3
Inner nominal diameter	Diametro nominale interno	mm	11.8 ÷ 12.15	15.7 ÷ 15.9	19.8 ÷ 20.0	25.8 ÷ 26
Aluminium thickness	Spessore alluminio	mm	0.3	0.4	0.58	0.75
Pipe weight	Peso della tubazione	Kg/m	0.113	0.156	0.286	0.390
Coil length	Lunghezza rotolo	m	50	50	50	50
Operating temperature	Temperatura operativa	°C	-20/+70	-20/+70	-20/+70	-20/+70
Maximum operating pressure	Massima pressione operativa	Bars	0.5	0.5	0.5	0.5
Coefficient of linear dilatation	Coefficiente di dilatazione lineare	mm/m° K	0.026	0.026	0.026	0.026
Inner surface roughness	Rugosità superficie interna	mm	0.007	0.007	0.007	0.007
Oxygen diffusion @40°	Diffusione ossigeno @40°	Mg/l	0.00	0.00	0.00	0.00
Colour	Colore	yellow/giallo (RAL 1015)				

INSTALLATION / INSTALLAZIONE / INSTALLATION / INSTALLATION

1



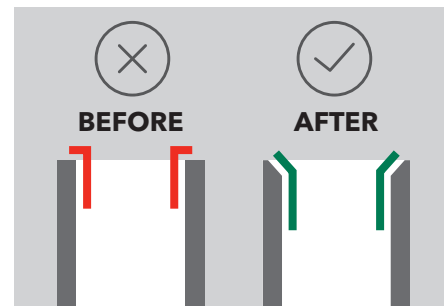
CUT
/ TAGLIO
/ ABLÄNGEN
/ COUPER

2



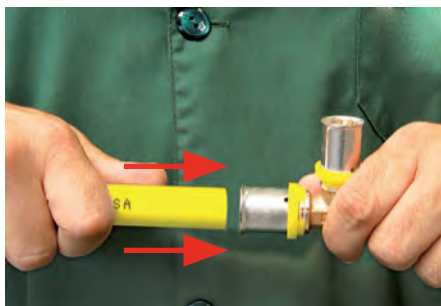
CALIBRATION
/ CALIBRATURA
/ KALIBRIERUNG
/ COUPER

3



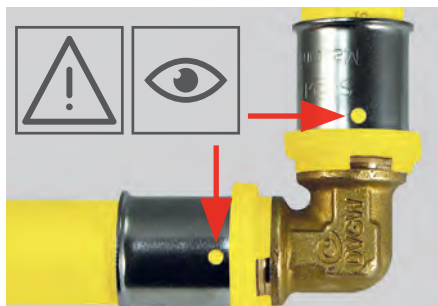
PIPE CALIBRATION
/ CALIBRAZIONE DEL TUBO
/ ROHRKALIBRIERUNG
/ CALIBRAGE DE TUYAU

4



INSERTING THE FITTING
/ MONTAGGIO DEL RACCORDO
/ MONTAGE DES FITTINGS
/ INSERTION DU RACCORD

5



VISUAL INSPECTION
/ CONTROLLO VISIVO
/ VISUELLE KONTROLLE
/ CONTRÔLE VISUEL

6



PRESSING
/ PRESSATURA
/ VERPRESSUNG
/ PRESSER

CARATTERISTICHE TECNICHE COMISA GAS SYSTEM

Il sistema **Comisa Gas system** è realizzato in ottemperanza alla normativa **UNI 11344** e può essere installato secondo quanto prescritto dalla normativa **UNI 7129**.

Comisa Gas system nasce dalla pluriennale esperienza Comisa nella produzione di sistemi multistrato per il trasporto di gas combustibile in ambito domestico. Il sistema, composto da tubazioni multistrato e raccordi a pressione in ottone, offre la più ampia garanzia nelle installazioni gas ad uso domestico.

Le proprietà del sistema lo rendono semplice ed affidabile nella realizzazione di nuovi impianti e molto pratico nel ripristino di quelli esistenti.

I principali vantaggi che il sistema Comisa Gas può offrire riguardano:

- Installazione veloce ed affidabile rispetto ai sistemi tradizionali
- Elevata portata, data la bassa rugosità interna del sistema
- Risparmio dato dalla possibilità di curvare il tubo senza bisogno di raccordi
- Completezza dimensionale della gamma
- Alto livello qualitativo
- Uniformità: attrezzatura in comune col sistema idrico **Comisa Press**.



SISTEMA CONFORME
UNI 11344

Indicazioni per la realizzazione in sicurezza di un impianto per l'adduzione di gas ad uso domestico con tubo multistrato Gas:

- Le giunzioni delle tubazioni multistrato possono essere realizzate mediante raccordi per sistemi multistrato conformi alla normativa **UNI 11344**.
- I raccordi possono essere interrati o posti sottotraccia a condizione che vengano rispettivamente inseriti in idoneo pozzetto ispezionabile o apposita scatola ispezionabile con coperchio non a tenuta.
- I punti di giunzione in corrispondenza dei raccordi posizionati nei pozzetti devono essere opportunamente protetti contro le corrosioni, secondo quanto previsto dalla normativa **UNI 12954**.
- Prima di introdurre la tubazione nel raccordo deve essere accertata l'integrità del raccordo stesso.

TOOLS FOR COMISA MULTILAYER PIPE SYSTEM

/ ATTREZZATURE PER SISTEMA TUBO MULTISTRATO COMISA

/ WERKZUEGE FÜR COMISA MEHRSCICHTVERBUNDROHR SYSTEM

/ EQUIPEMENTS POUR LE SYSTÈME COMISA MULTICOUCHE





TOOLS FOR COMISA MULTILAYER PIPE SYSTEM

TOOLS FOR COMISA MULTILAYER PIPE SYSTEM

74

TOOLS FOR COMISA MULTILAYER PIPE SYSTEM

/ ATTREZZATURE PER SISTEMA TUBO MULTISTRATO COMISA
/ WERKZUEGE FÜR COMISA MEHRSCICHTVERBUNDROHR SYSTEM
/ EQUIPEMENTS POUR LE SYSTÈME COMISA MULTICOUCHE

ELECTRO- HYDRAULIC PRESSING TOOL WITH ADAPTOR AND CABLE BY JB

/ PRESSATRICE ELETTRICO-IDRAULICA CON ALIMENTAZIONE A FILO BY JB
/ ELEKTRO-HYDRAULISCHE PRESSMASCHINE JB
/ SERTISSEUSE ÉLECTRO-HYDRAULIQUE AVEC ALIMENTATION DE FILS BY JB

PRESMOD3

CODE	TECH. CODE		
87.80.518	AT0PRES0MOD3	220 V adaptor and 5 m cable	1

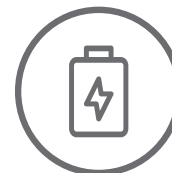


ELECTRO- HYDRAULIC BATTERY OPERATED PRESSING TOOL BY JB

/ PRESSATRICE ELETTRICO-IDRAULICA A BATTERIA BY JB
/ ELEKTRO-HYDRAULISCHE AKKU-PRESSMASCHINE JB
/ SERTISSEUSE ÉLECTRO-HYDRAULIQUE A BATTERIE JB

PRESMOD0

CODE	TECH. CODE		
87.80.515	AT0PRES0MOD0	Li-Ion battery and charger	1



BATTERY FOR PRESSING TOOL BY JB

/ BATTERIA PER PRESSATRICE BY JB
/ AKKU FÜR PRESSMASCHINE JB
/ BATTERIE POUR SERTISSEUSE BY JB



CODE	TECH. CODE		
87.80.516	AT0PRES0BAT1	Li-Ion 14,4 V / 2.6 Ah	1

BATTERY CHARGER FOR PRESSING TOOL BY JB

/ CARICA BATTERIE PER PRESSATRICE BY JB
/ AKKULADEGERÄT FÜR PRESSMASCHINE JB
/ ACCUMULATEUR POUR SERTISSEUSE BY JB



CODE	TECH. CODE		
87.80.517	AT0PRES0BAT2	Charger for AT0PRES0BAT1	1

220V ADAPTOR AND 5 M. CABLE FOR PRESSING MACHINE BY JB

/ ADATTATORE 220V E CAVO DA 5 M. PER PRESSATRICE BY JB
/ 220V ADAPTER UND 5 M. KABEL FÜR PRESSMASCHINE JB
/ ADAPTATEUR 220V AND CABLE 5M. POUR SERTISSEUSE BY JB



CODE	TECH. CODE		
87.80.519	AT0PRES0ADA3	220 V adaptor + 5 m cable	1

SET "A" JAWS AND CALIBRATORS

/ SET "A" GANASCE E CALIBRATORI
/ SET "A" PRESSBACKE UND KALIBRIERER
/ SET "A" MACHOIRES ET CALIBRATEURS

KIT

TH



CODE	TECH. CODE	SIZE 	
87.80.530	AT0GAN0THKTA	Ø 16 - Ø 20 - Ø 26	1

PRESSING JAW TH PROFILE

/ GANASCIA PER PRESSATRICE PROFILO TH
/ PRESSBACKE ZU PRESSGERÄT PROFIL TH
/ MACHOIRE POUR SERTISSEUSE PROFIL TH



TH

CODE	TECH. CODE	SIZE 	
87.80.406	AT0GAN0TH014	Ø 14	1
87.80.407	AT0GAN0TH016	Ø 16	1
87.80.408	AT0GAN0TH017	Ø 17	1
87.80.409	AT0GAN0TH018	Ø 18	1
87.80.410	AT0GAN0TH020	Ø 20	1
87.80.411	AT0GAN0TH025	Ø 25	1
87.80.412	AT0GAN0TH026	Ø 26	1
87.80.413	AT0GAN0TH032	Ø 32	1
87.80.414	AT0GAN0TH040	Ø 40	1
87.80.415	AT0GAN0TH050	Ø 50	1

PRESSING JAW TH

/ GANASCIA PER PRESSATRICE TH
/ PRESSBACKE ZU PRESSGERÄT TH
/ MACHOIRE POUR SERTISSEUSE TH



TH

CODE	TECH. CODE	SIZE 	
87.80.457	AT0GAN0TH063	Ø 63	1
	AT0GAN0TH075	Ø 75	1

UNIVERSAL PRESSING JAW Ø 14-32
INSERTS NOT INCLUDED

/ GANASCIA UNIVERSALE Ø 14-32
SENZA INSERTI
/ UNIVERSALPRESSBACKE Ø 14-32
OHNE EINSÄTZE
/ MACHOIRE UNIVERSELLE Ø 14-32
SANS INSERTS



TH

CODE	TECH. CODE	SIZE 	
87.80.540	AT0GAN2TH000	Ø 14 - 32	1

TH INSERTS FOR UNIVERSAL PRESSING
JAW ART.87.80.540

/ INSERTI TH PER GANASCIA UNIVERSALE
ART.87.80.540
/ EINSÄTZE FÜR UNIVERSALPRESSBACKE
ART.NR.87.80.540
/ INSERTS TH POUR MACHOIRE
UNIVERSELLE ART.87.80.540



TH

CODE	TECH. CODE	SIZE 	
87.80.541	AT0INS2TH014	Ø 14	1
87.80.542	AT0INS2TH016	Ø 16	1
87.80.543	AT0INS2TH018	Ø 18	1
87.80.544	AT0INS2TH020	Ø 20	1
87.80.545	AT0INS2TH026	Ø 26	1
87.80.546	AT0INS2TH032	Ø 32	1

NOT SUITABLE FOR ITEM NO. 87.80.418
/ NON COMPATIBILE CON ARTICOLO 87.80.418
/ NICHT GEEIGNET FÜR ART. NR. 87.80.418
/ NON UTILISABLE AVEC L'ARTICLE 87.80.418

BATTERY-POWERED MINI PRESSING TOOL WITH CASE WITHOUT CLAMPING JAW

/ MINI PRESSATRICE A BATTERIA CON VALIGETTA SENZA GANASCIA
/ MINI AKKU-PRESSGERÄT MIT KOFFER OHNE PRESSBACKE
/ MINI SERTISSEUSE SUR BATTERIE AVEC VALISE, SANS MACHOIRE

PRESMOD9

CODE	TECH. CODE	
87.80.574	AT0PRES0MO09	1

BATTERY 18V/1,5Ah FOR MINI PRESSING TOOL ART.87.80.574

/ BATTERIA 18V/1,5 Ah PER
MINI PRESSATRICE 87.80.574
/ AKKU 18V/1,5 Ah FÜR
MINI-PRESSMASCHINE 87.80.574
/ BATTERIE 18V /1,5 Ah POUR
MINI SERTISSEUSE 87.80.574



CODE	TECH. CODE	
87.80.575	AT0PRES0BAT7	1

WITH BATTERY CHARGER / CARICA BATTERIA INCLUSO
/ MIT AKKULADEGERÄT / CHARGEUR INCLUS



BATTERY 18V/ 3,0 Ah FOR MINI PRESSING TOOL ART.87.80.574

/ BATTERIA 18V/3,0 Ah PER
MINI PRESSATRICE 87.80.574
/ AKKU 18V /3,0 Ah FÜR
MINI-PRESSMASCHINE 87.80.574
/ BATTERIE 18V /1,5 Ah POUR
MINI SERTISSEUSE 87.80.574



CODE	TECH. CODE	
87.80.576	AT0PRES0BAT8	1

TH CLAMPING JAW FOR MINI PRESSING TOOL

/ GANASCIA TH PER MINI PRESSATRICE
/ TH PRESSBACKE ZU MINI
PRESSMASCHINE
/ MACHOIRE TH POUR MINI SERTISSEUSE



TH

CODE	TECH. CODE	SIZE		
87.80.422	AT0GAN1TH016	16		1
87.80.423	AT0GAN1TH020	20		1
87.80.424	AT0GAN1TH026	26		1
87.80.482	AT0GAN1TH032	32		1

MANUAL PRESSING TOOL WITHOUT CLAMPING JAW

/ PRESSATRICE MANUALE SENZA GANASCIA
/ HANDPRESSZANGE OHNE PRESSBACKE
/ SERTISSEUSE MANUELLE SANS MACHOIRE



TH

PRESMOD4

CODE	TECH. CODE	
87.80.418	AT0PRES0MOD4	1

TH PRESSING JAW FOR MANUAL PRESSING TOOL ART 87.80.418

/ GANASCIA TH PER PRESSATRICE MANUALE
ART.87.80.418
/ TH PRESSBACKE ZU HANDPRESSZANGE
ART.87.80.418
/ MACHOIRE TH POUR SERTISSEUSE
MANUELLE ART.87.80.418



TH

CODE	TECH. CODE	SIZE		
87.80.560	AT0GAN4TH016	Ø 16		1
87.80.563	AT0GAN4TH017	Ø 17		1
87.80.561	AT0GAN4TH020	Ø 20		1
87.80.562	AT0GAN4TH026	Ø 26		1

MANUAL PRESSING TOOL **WITH CASE AND TH INSERTS**

/ PRESSATRICE MANUALE **CON** VALIGETTA E INSERTI **TH**
 / HANDPRESSZANGE **MIT** KOFFER UND EINSÄTZE **TH**
 / SERTISSEUSE MANUELLE **AVEC** MALETTE ET AVEC INSERTS **TH**

PRESMOD6

CODE	TECH. CODE	SIZE	
87.80.520	AT0PRES0MO06	Ø 16 - 20 - 26	1



MANUAL PRESSING TOOL WITH CASE, **WITHOUT INSERTS**

/ PRESSATRICE MANUALE CON VALIGETTA **SENZA INSERTI**
 / HANDPRESSZANGE MIT KOFFER **OHNE EINSÄTZE**
 / SERTISSEUSE MANUELLE AVEC MALETTE ET **SANS INSERTS**

PRESMOD5

CODE	TECH. CODE	
87.80.419	AT0PRES0MO05	1



TH INSERTS FOR MANUAL PRESSING TOOL

/ INSERTI TH PER PRESSATRICE MANUALE
 / TH EINSÄTZE FÜR HANDPRESSZANGE
 / INSERTS TH POUR SERTISSEUSE MANUELLE



CODE	TECH. CODE	SIZE	
87.80.521	AT0INS5TH014	Ø 14	1
87.80.522	AT0INS5TH016	Ø 16	1
87.80.523	AT0INS5TH018	Ø 18	1
87.80.524	AT0INS5TH020	Ø 20	1
87.80.525	AT0INS5TH026	Ø 26	1

PIPE UNCOILER

/ SROTOLA TUBI
/ ABROLLHASPELN
/ DEROULEUR DE TUBE

CODE	TECH. CODE	
88.10.301	AT0SROTOLA01	1



PIPE STRAIGHTENER

/ RADDRIZZA TUBI
/ ROHRRICHTER
/ REDRESSEUR POUR TUBES



CODE	TECH. CODE	
88.10.302	AT0CAL000KT4	1

SPIRAL SPRING

/ MOLLA PIEGATUBI
/ BIEGEFEDER
/ RESSORT DE CINTRAGE



CODE	TECH. CODE	SIZE 	
INSIDE / INTERNA / INNEN / INTERIEUR			
87.80.438	AT0MOLLA0014	14 x 2	10
87.80.439	AT0MOLLA0016	16 x 2	10
87.80.441	AT0MOLLA0020	20 x 2	10
87.80.442	AT0MOLLA0026	26 x 3	10
OUTSIDE / ESTERNA / AUSSEN / EXTERIEUR			
87.80.443	AT0MOLLAES14	14 x 2	10
87.80.444	AT0MOLLAES16	16 x 2	10
87.80.445	AT0MOLLAES18	18 x 2	10
87.80.446	AT0MOLLAES20	20 x 2	10
87.80.447	AT0MOLLAES26	26 x 3	10

CALIBRATOR WITH HANDLE

/ CALIBRATORE CON IMPUGNATURA
/ KALIBRIERER MIT GRIFF
/ CALIBRATEUR AVEC POIGNÉE



CODE	TECH. CODE	SIZE 	
87.80.425	AT0CAL014200	14 x 2	1
87.80.426	AT0CAL016200	16 x 2	1
87.80.465	AT0CAL016225	16 x 2,25	1
87.80.427	AT0CAL017200	17 x 2	1
87.80.428	AT0CAL018200	18 x 2	1
87.80.429	AT0CAL020200	20 x 2	1
87.80.430	AT0CAL020250	20 x 2,5	1
87.80.432	AT0CAL026300	26 x 3	1
87.80.433	AT0CAL032300	32 x 3	1
87.80.434	AT0CAL040350	40 x 3,5	1
87.80.435	AT0CAL050400	50 x 4	1
87.80.461	AT0CAL063600	63 x 6	1

CALIBRATOR

/ CALIBRATORE
/ KALIBRIERER
/ CALIBRATEUR



CODE	TECH. CODE	SIZE 	
	AT0CAL075500	75 x 5	1

CALIBRATORS KIT

/ KIT CALIBRATORI
/ KALIBRIERER SET
/ SET CALIBRATEURS

KIT



CODE	TECH. CODE	SIZE 	
87.80.448	AT0CAL000KT2	16 x 2 20 x 2 26 x 3	1

CALIBRATORS KIT

/ KIT CALIBRATORI
/ KALIBRIERER SET
/ SET CALIBRATEURS

KIT



CODE	TECH. CODE	SIZE 	
87.80.436	AT0CAL000KT1	14 x 2 - 16 x 2 - 18 x 2 20 x 2 - 26 x 3	1

CALIBRATOR FOR CLAMPING TEST

/ CALIBRO A FORCHETTA PER CONTROLLO PRESSATURE
/ PRÜFMITTEL ZUR KONTROLLE DER VERPRESSUNG
/ CALIBRE POUR VERIFICATION DU SERTISSAGE

CODE	TECH. CODE	SIZE 	
87.80.492	AT0CAL000KT3	16 x 2 - 20 x 2 - 26 x 3	1



CALIBRATORS KIT

/ KIT CALIBRATORI
/ KALIBRIERER SET
/ SET CALIBRATEURS

KIT



CODE	TECH. CODE	SIZE 	
87.80.462	AT0CAL000KT5	16 x 2 - 20 x 2 26 x 3 - 32 x 3	1
87.80.463	AT0CAL000KT6	40 x 3,5 - 50 x 4 - 63 x 6	1

PIPE CUTTER

/ TAGLIA TUBI
/ ROHRABSCHNEIDER
/ COUPE TUBES



CODE	TECH. CODE	SIZE 	
87.80.420	AT0CESOIA000	14 > 32	1

BLADE FOR PIPE CUTTER

/ LAMA PER TAGLIATUBI
/ ERSATZSCHNEIDMESSER FÜR
ROHRABSCHNEIDER
/ LAME POUR COUPE TUBES



CODE	TECH. CODE	SIZE 	
87.80.487	AT0CESOIA001	14 > 32	1

KIT

SET "B" CALIBRATORS

/ SET "B" CALIBRATORI
/ SET "B" KALIBRIERER
/ SET "B" CALIBRATEURS



CODE	TECH. CODE	SIZE 	
87.80.535	AT0CAL000KTB	14 > 50	1

PIPE CUTTER

/ TAGLIA TUBI
/ ROHRABSCHNEIDER
/ COUPE TUBES

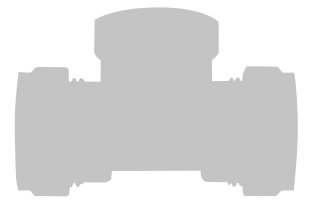


CODE	TECH. CODE	SIZE 	
	AT0TGLTUB075	40 / 50 / 63 / 75	1

COMPRESSION FITTINGS FOR COPPER PIPE

/ RACCORDI A STRINGERE PER TUBO RAME
/ KLEMMVERBINDER FÜR KUPFERROHR
/ RACCORDS À VISSER POUR TUBE EN CUIVRE





COMPRESSION FITTINGS FOR COPPER PIPE

BRASS COMPRESSION FITTINGS FOR COPPER PIPE (CW617N)	82
DZR BRASS COMPRESSION FITTINGS FOR COPPER PIPE (CW625N)	88
DZR BRASS CHROME-PLATED COMPRESSION FITTINGS FOR COPPER PIPE (CW625N)	92
GAS COMPRESSION FITTINGS FOR COPPER PIPE (CW617N)	94

BRASS COMPRESSION FITTINGS FOR COPPER PIPE

/ RACCORDI IN OTTONE A STRINGERE PER TUBO RAME
/ MESSING KLEMMVERBINDER FÜR KUPFERROHR
/ RACCORDS À VISSER EN LAITON POUR TUBE EN CUIVRE

UNI EN 12164/12165
CW 617N
DIN 50930-6



STRAIGHT COUPLER

/ RACCORDO DIRITTO
/ KUPPLUNG
/ MANCHON ÉGAL



270

CODE	TECH. CODE	SIZE		
82.01.345	RB027000008L	8	10	300
82.01.335	RB0270000100	10	10	300
82.01.339	RB02700005120	12 (1/2")	10	200
82.01.340	RB0270000120	12	10	300
82.01.005	RB0270000140	14	10	240
82.01.010	RB0270000150	15	10	240
82.01.016	RB0270000160	16	10	240
82.01.341	RB0270000180	18	10	150
82.01.110	RB0270000220	22	10	120
82.01.210	RB0270000280	28	10	80
82.01.610	RB0270000350	35		40

MALE STRAIGHT COUPLER CYLINDRICAL THREAD

/ RACCORDO DIRITTO MASCHIO
CILINDRICO
/ ÜBERGANG MIT AG ZYLINDRISCHES GEWINDE
/ MANCHON MÂLE CYLINDRIQUE



271 ISO 228

CODE	TECH. CODE	SIZE		
82.02.006	RB027100208L	8 x 1/4"	10	300
82.02.001	RB027100308L	8 x 3/8"	10	300
82.02.007	RB0271002100	10 x 1/4"	10	300
82.02.002	RB0271003100	10 x 3/8"	10	300
82.02.003	RB0271005100	10 x 1/2"	10	260
82.02.010	RB027100312L	12 x 3/8"	10	300
82.02.013	RB0271003120	12 (1/2") x 3/8"	10	230
82.02.009	RB027100512L	12 x 1/2"	10	260
82.02.019	RB0271005120	12 (1/2") x 1/2"	10	200
82.02.012	RB0271007120	12 x 3/4"	10	300
82.02.014	RB0271003140	14 x 3/8"	10	260
82.02.815	RB0271005140	14 x 1/2"	10	260
82.02.005	RB0271003150	15 x 3/8"	10	260
82.02.011	RB0271005150	15 x 1/2"	10	240
82.02.311	RB0271007150	15 x 3/4"	10	240
82.02.017	RB0271005160	16 x 1/2"	10	200
82.02.018	RB0271007160	16 x 3/4"	10	150
82.02.825	RB0271005180	18 x 1/2"	10	150
82.02.830	RB0271007180	18 x 3/4"	10	150
82.02.511	RB0271005220	22 x 1/2"	10	160
82.02.111	RB0271007220	22 x 3/4"	10	100
82.02.411	RB0271010220	22 x 1"	10	100
82.02.211	RB0271010280	28 x 1"	10	80
82.02.611	RB0271012350	35 x 1 1/4"		40
82.02.711	RB0271015420	42 x 1 1/2"		30

MALE STRAIGHT COUPLER TAPER THREAD

/ RACCORDO DIRITTO MASCHIO CONICO
/ ÜBERGANG MIT AG KONISCH
/ MANCHON MÂLE CONIQUE



272 ISO 7/2

CODE	TECH. CODE	SIZE		
85.10.015	RB0272003080	8 x 3/8"	10	300
85.10.030	RB0272003100	10 x 3/8"	10	300
85.10.035	RB0272005100	10 x 1/2"	10	260
85.10.040	RB0272002120	12 x 1/4"	10	300
85.10.045	RB0272003120	12 x 3/8"	10	300
85.10.050	RB0272005120	12 x 1/2"	10	260
85.10.065	RB0272003150	15 x 3/8"	10	260
85.10.070	RB0272005150	15 x 1/2"	10	240
85.10.075	RB0272007150	15 x 3/4"	10	180
85.10.080	RB0272005180	18 x 1/2"	10	180
85.10.085	RB0272007180	18 x 3/4"	10	180
85.10.090	RB0272005220	22 x 1/2"	10	160
85.10.095	RB0272007220	22 x 3/4"	10	160
85.10.100	RB0272010220	22 x 1"	10	100
85.10.110	RB0272010280	28 x 1"	10	80

REDUCING STRAIGHT COUPLER

/ RACCORDO DIRITTO RIDOTTO
/ KLEMMVERSCHRAUBUNG GRADE REDUZIERT
/ MANCHON RÉDUIT



270R

CODE	TECH. CODE	SIZE		
82.01.350	RB0270R10080	10 x 8	10	300
82.01.355	RB0270R12100	12 x 10	10	300
82.01.315	RB0270R15080	15 x 8	10	260
82.01.320	RB0270R15100	15 x 10	10	260
82.01.325	RB0270R15120	15 x 12	10	260
82.01.314	RB0270R16150	16 x 15	10	150
82.01.327	RB0270R18150	18 x 15	10	180
82.01.310	RB0270R22150	22 x 15	10	160
82.01.318	RB0270R22180	22 x 18	10	100
82.01.330	RB0270R28220	28 x 22	10	80

FEMALE COUPLER

/ RACCORDO DIRITTO FEMMINA
/ ÜBERGANG MIT IG
/ RACCORD FEMELLE



280

CODE	TECH. CODE	SIZE		
82.03.005	RB028000308L	8 x 3/8"	10	300
82.03.004	RB0280003100	10 x 3/8"	10	300
82.03.007	RB0280005100	10 x 1/2"	10	260
82.03.008	RB028000312L	12 x 3/8"	10	300
82.03.009	RB028000512L	12 x 1/2"	10	260
82.03.014	RB0280005120	12 (1/2") x 1/2"	10	260
82.03.015	RB0280003140	14 X 3/8"	10	200
82.03.016	RB0280005140	14 x 1/2"	10	260
82.03.010	RB0280003150	15 x 3/8"	10	260
82.03.012	RB0280005150	15 x 1/2"	10	240
82.03.312	RB0280007150	15 x 3/4"	10	200
82.03.018	RB0280005160	16 X 1/2"	10	180
82.03.019	RB0280007160	16 X 3/4"	10	200
82.03.515	RB0280005180	18 x 1/2"	10	200
82.03.520	RB0280007180	18 x 3/4"	10	100
82.03.512	RB0280005220	22 x 1/2"	10	200
82.03.112	RB0280007220	22 x 3/4"	10	140
82.03.412	RB0280010220	22 x 1"	10	100
82.03.212	RB0280010280	28 x 1"	10	80
82.03.612	RB0280012350	35 x 1 1/4"		40
82.03.712	RB0280015420	42 x 1 1/2"		30
82.03.812	RB0280020540	54 x 2"		10

ELBOW 90°

/ GOMITO 90°
/ WINKEL 90°
/ COUDE 90°



260

CODE	TECH. CODE	SIZE		
83.01.415	RB026000008L	8	10	300
83.01.515	RB0260000100	10	10	300
83.01.615	RB0260000120	12	10	300
83.01.616	RB0260005120	12 (1/2")	10	100
83.01.920	RB0260000140	14	10	200
83.01.015	RB0260000150	15	10	120
83.01.925	RB0260000160	16	10	200
83.01.220	RB0260000180	18	10	150
83.01.115	RB0260000220	22	10	100
83.01.215	RB0260000280	28	10	60
83.01.715	RB0260000350	35		20
83.01.815	RB0260000420	42		20
83.01.915	RB0260000540	54		15

REDUCING ELBOW 90°

/ GOMITO 90° RIDOTTO
/ WINKEL 90° REDUZIERT
/ COUDE 90° REDUIT



260R

CODE	TECH. CODE	SIZE		
83.01.620	RB0260R15100	15 x 10	10	200
83.01.625	RB0260R15120	15 x 12	10	200
83.01.315	RB0260R22150	22 x 15	10	100

MALE ELBOW 90° CYLINDRICAL THREAD

/ GOMITO 90° MASCHIO CILINDRICO
/ WINKEL 90° MIT AG ZYLINDRISCHES GEWINDE
/ COUDE 90° MÂLE CYLINDRIQUE



261 ISO 228

CODE	TECH. CODE	SIZE		
83.02.005	RB0261003100	10 x 3/8"	10	200
83.02.219	RB0261005100	10 x 1/2"	10	150
83.02.006	RB0261003120	12 x 3/8"	10	350
83.02.220	RB0261005120	12 x 1/2"	10	200
83.02.420	RB0261005140	14 x 1/2"	10	200
83.02.016	RB0261005150	15 x 1/2"	10	200
83.02.425	RB0261005160	16 x 1/2"	10	200
83.02.435	RB0261005180	18 x 1/2"	10	150
83.02.440	RB0261007180	18 x 3/4"	10	100
83.02.436	RB0261005220	22 x 1/2"	10	100
83.02.116	RB0261007220	22 x 3/4"	10	100
83.02.416	RB0261010220	22 x 1"	10	60
83.02.216	RB0261010280	28 x 1"	10	60

MALE ELBOW 90° TAPER THREAD

/ GOMITO 90° MASCHIO CONICO
/ WINKEL 90° MIT AG KONISCH
/ COUDE 90° MÂLE CONIQUE



265 ISO 7/2

CODE	TECH. CODE	SIZE		
85.10.165	RB0265003120	12 x 3/8"	10	300
85.10.170	RB0265005120	12 x 1/2"	10	200
85.10.175	RB0265003150	15 x 3/8"	10	200
85.10.180	RB0265005150	15 x 1/2"	10	200
85.10.185	RB0265007150	15 x 3/4"	10	100
85.10.190	RB0265005180	18 x 1/2"	10	150
85.10.200	RB0265007180	18 x 3/4"	10	100
85.10.205	RB0265007220	22 x 3/4"	10	100
85.10.220	RB0265010280	28 x 1"	10	50

FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA
/ WINKEL 90° MIT IG
/ COUDE 90° FEMELLE



262

CODE	TECH. CODE	SIZE		
83.03.530	RB0262003100	10 x 3/8"	10	200
83.03.525	RB0262005100	10 x 1/2"	10	150
83.03.535	RB0262003120	12 x 3/8"	10	300
83.03.540	RB0262005120	12 x 1/2"	10	200
83.03.820	RB0262005140	14 x 1/2"	10	200
83.03.017	RB0262005150	15 x 1/2"	10	200
83.03.417	RB0262007150	15 x 3/4"	10	120
83.03.825	RB0262005160	16 x 1/2"	10	200
83.03.550	RB0262005180	18 x 1/2"	10	150
83.03.555	RB0262007180	18 x 3/4"	10	100
83.03.517	RB0262005220	22 x 1/2"	10	120
83.03.117	RB0262007220	22 x 3/4"	10	100
83.03.317	RB0262010220	22 x 1"	10	60
83.03.217	RB0262010280	28 x 1"	10	60
83.03.617	RB0262012350	35 x 1 1/4"		30
83.03.717	RB0262015420	42 x 1 1/2"		25

TEE

/ RACCORDO A T
/ T-STÜCK
/ TÉ



250

CODE	TECH. CODE	SIZE		
84.01.318	RB025000008L	8	10	250
84.01.418	RB0250000100	10	10	250
84.01.518	RB0250000120	12	10	200
84.01.519	RB0250005120	12 (1/2")	10	120
84.01.828	RB0250000140	14	10	90
84.01.018	RB0250000150	15	10	120
84.01.838	RB0250000160	16	10	90
84.01.918	RB0250000180	18	10	100
84.01.118	RB0250000220	22	10	60
84.01.218	RB0250000280	28	10	40
84.01.718	RB0250000420	42		15

REDUCING TEE

/ RACCORDO A T RIDOTTO
/ T-STÜCK REDUZIERT
/ TÉ RÉDUIT



253

CODE	TECH. CODE	SIZE		
84.01.928	RB025300CEC0	12 x 15 x 12	10	120
84.01.948	RB025300EEC0	15 x 15 x 12	10	120
84.01.958	RB025300ECE0	15 x 12 x 15	10	120
84.01.938	RB025300ECC0	15 x 12 x 12	10	120
84.03.918	RB025300GEG0	18 x 15 x 18	10	100
84.02.118	RB025300HEE0	22 x 15 x 15	10	100
84.02.218	RB025300HHE0	22 x 22 x 15	10	80
84.02.318	RB025300HEH0	22 x 15 x 22	10	60
84.03.968	RB025300IHH0	28 x 22 x 22	10	40
84.03.718	RB025300IHI0	28 x 22 x 28	10	40

FEMALE TEE

/ RACCORDO A T FEMMINA
/ T-STÜCK MIT IG
/ TÉ FEMELLE



252

CODE	TECH. CODE	SIZE		
84.04.001	RB0252005120	12 x 1/2" x 12	10	100
84.04.110	RB0252005140	14 x 1/2" x 14	10	100
84.04.005	RB0252005150	15 x 1/2" x 15	10	100
84.04.115	RB0252005160	16 x 1/2" x 16	10	100
84.04.015	RB0252005220	22 x 1/2" x 22	10	60
84.04.010	RB0252007220	22 x 3/4" x 22	10	60
84.04.020	RB0252005280	28 x 1/2" x 28	10	40

WALLPLATE ELBOW 90°

/ GOMITO 90° FLANGIATO
/ WANDWINKEL 90°
/ APPLIQUE MURALE 90°

3 FIXING
HOLES



263

CODE	TECH. CODE	SIZE		
83.06.225	RB0263005100	10 x 1/2"	10	120
83.06.230	RB0263005120	12 x 1/2"	10	120
83.06.021	RB0263005150	15 x 1/2"	10	100
83.06.845	RB0263005160	16 x 1/2"	10	100

MALE TEE

/ RACCORDO A T MASCHIO
/ T-STÜCK MIT AG
/ TÉ MÂLE



251

CODE	TECH. CODE	SIZE		
84.04.100	RB0251005150	15 x 1/2" x 15	10	100

STOP END

/ TAPPO
/ PRESSSTOPFEN
/ BOUCHON



281

CODE	TECH. CODE	SIZE		
82.06.551	RB028100008L	8	10	600
82.06.351	RB0281000100	10	10	600
82.06.451	RB0281000120	12	10	600
82.06.051	RB0281000150	15	10	400
82.06.661	RB0281000180	18	10	300
82.06.151	RB0281000220	22	10	200
82.06.251	RB0281000280	28	10	100

OLIVE

/ OGIVA
/ KLEMMRING
/ BAGUE DE COMPRESSION



182

CODE	TECH. CODE	SIZE		
-	RB0182000080	8	50	2500
-	RB0182000100	10	50	2500
-	RB0182000120	12	50	2500
-	RB0182000140	14	50	1500
-	RB0182000150	15	50	1500
-	RB0182000160	16	50	1500
-	RB0182000180	18	50	1000
-	RB0182000220	22	50	750
-	RB0182000280	28	20	500
-	RB0182000350	35	5	50
-	RB0182000420	42	5	50
-	RB0182000540	54	5	20

REDUCING SET

/ RIDUZIONE
/ REDUZIERSATZ
/ REDUCTION



289

CODE	TECH. CODE	SIZE		
84.05.020	RB028901210L	12 x 10	10	250
84.05.025	RB028901508L	15 x 8	10	250
84.05.035	RB028901512L	15 x 12	10	250
84.05.043	RB028902218L	22 x 18	10	250
84.05.046	RB028902815L	28 x 15	10	250
84.05.047	RB028902822L	28 x 22	10	250

NUT

/ DADO
/ MUTTER
/ ÉCROU



181

CODE	TECH. CODE	SIZE		
-	RB0181000080	8	50	1000
-	RB0181000100	10	50	1000
-	RB0181000120	12	50	1000
-	RB0181005120	12 (1/2")	50	750
-	RB0181000140	14	50	600
-	RB0181000150	15	50	600
-	RB0181000160	16	50	600
-	RB0181000180	18	50	600
-	RB0181000220	22	20	300
-	RB0181000280	28	20	200
-	RB0181000350	35	10	20
-	RB0181000420	42	10	20
-	RB0181000540	54	10	10

DZR BRASS COMPRESSION FITTINGS FOR COPPER PIPE

/ RACCORDI A STRINGERE IN OTTONE DZR PER TUBO RAME
/ DZR KLEMMVERBINDER FÜR KUPFERROHR
/ RACCORDS À VISSER EN LAITON DZR POUR TUBE EN CUIVRE

BRASS
UNI EN 12164/12165
CW 625N
DIN 50930-6



STRAIGHT COUPLER

/ RACCORDO DIRITTO
/ KUPPLUNG
/ MANCHON ÉGAL



242



CODE	TECH. CODE	SIZE		
78.01.005	RB024200008L	8	30	300
78.01.001	RB0242000100	10	25	250
78.01.002	RB0242000120	12	25	250
78.01.010	RB0242000150	15	15	150
78.01.015	RB0242000180	18	10	100
78.01.110	RB0242000220	22	8	80
78.01.210	RB0242000280	28	5	50
78.01.610	RB0242000350	35	20	20

REDUCING COUPLER

/ RACCORDO DIRITTO RIDOTTO
/ KLEMMVERSCHRAUBUNG
GRADE REDUZIERT
/ MANCHON RÉDUIT



242R



CODE	TECH. CODE	SIZE		
78.01.003	RB0242R10080	10 x 8	30	300
78.01.004	RB0242R12080	12 x 8	30	300
78.01.300	RB0242R12100	12 x 10	25	250
78.01.335	RB0242R15080	15 x 8	20	200
78.01.320	RB0242R15100	15 x 10	20	200
78.01.305	RB0242R15120	15 x 12	20	200
78.01.309	RB0242R18150	18 x 15	12	120
78.01.310	RB0242R22150	22 x 15	10	100
78.01.315	RB0242R28220	28 x 22	6	60

MALE COUPLER CYLINDRICAL THREAD

/ RACCORDO DIRITTO MASCHIO CILINDRICO
/ ÜBERGANG MIT AG ZYLINDRISCHES GEWINDE
/ MANCHON ÉGAL CYLINDRIQUE



243

ISO 228



CODE	TECH. CODE	SIZE		
78.02.003	RB0243003100	10 x 3/8"	30	300
78.02.004	RB0243005100	10 x 1/2"	26	260
78.02.001	RB024300312L	12 x 3/8"	30	300
78.02.002	RB024300512L	12 x 1/2"	26	260
78.02.007	RB0243003150	15 x 3/8"	20	200
78.02.011	RB0243005150	15 x 1/2"	20	200
78.02.311	RB0243007150	15 x 3/4"	15	150
78.02.005	RB0243005180	18 x 1/2"	15	150
78.02.009	RB0243007180	18 x 3/4"	12	120
78.02.006	RB0243005220	22 x 1/2"	12	120
78.02.111	RB0243007220	22 x 3/4"	10	100
78.02.411	RB0243010220	22 x 1"	8	80
78.02.415	RB0243007280	28 x 3/4"	6	60
78.02.211	RB0243010280	28 x 1"	6	60
78.02.611	RB0243012350	35 x 1 1/4"	1	25
78.02.711	RB0243015420	42 x 1 1/2"	1	20

FEMALE COUPLER

/ RACCORDO DIRITTO FEMMINA
/ ÜBERGANG MIT IG
/ MANCHON FEMELLE



244

CODE	TECH. CODE	SIZE		
78.03.003	RB0244003100	10 x 3/8"	20	200
78.03.913	RB0244005100	10 x 1/2"	20	200
78.03.001	RB024400312L	12 x 3/8"	20	200
78.03.912	RB024400512L	12 x 1/2"	20	200
78.03.914	RB0244003150	15 x 3/8"	15	150
78.03.012	RB0244005150	15 x 1/2"	15	150
78.03.312	RB0244007150	15 x 3/4"	12	120
78.03.002	RB0244005180	18 x 1/2"	15	150
78.03.512	RB0244007180	18 x 3/4"	10	100
78.03.915	RB0244005220	22 x 1/2"	15	150
78.03.112	RB0244007220	22 x 3/4"	10	100
78.03.412	RB0244010220	22 x 1"	7	70
78.03.212	RB0244010280	28 x 1"	8	50
78.03.612	RB0244012350	35 x 1 1/4"	1	25
78.03.712	RB0244015420	42 x 1 1/2"	1	15
78.03.812	RB0244020540	54 x 2"	1	6

ELBOW 90°

/ GOMITO 90°
/ WINKEL 90°
/ COUDE 90°



237

CODE	TECH. CODE	SIZE		
79.01.001	RB0237000100	10	25	250
79.01.002	RB0237000120	12	25	250
79.01.015	RB0237000150	15	10	120
79.01.018	RB0237000180	18	8	80
79.01.115	RB0237000220	22	6	60
79.01.215	RB0237000280	28	4	40
79.01.615	RB0237000350	35	1	15
79.01.715	RB0237000420	42	1	12
79.01.815	RB0237000540	54	1	7

MALE ELBOW 90° CYLINDRICAL THREAD

/ GOMITO 90° MASCHIO CILINDRICO
/ WINKEL 90° MIT AG ZYLINDRISCHES GEWINDE
/ COUDE 90° MÂLE CYLINDRIQUE



238

ISO 228

CODE	TECH. CODE	SIZE		
79.02.916	RB0238005100	10 x 1/2"	15	150
79.02.516	RB0238005120	12 x 1/2"	15	150
79.02.716	RB0238003120	12 x 3/8"	25	250
79.02.016	RB0238005150	15 x 1/2"	15	150
79.02.816	RB0238005180	18 x 1/2"	8	80
79.02.116	RB0238007220	22 x 3/4"	6	60
79.02.216	RB0238010280	28 x 1"	4	40

FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA
/ WINKEL 90° MIT IG
/ COUDE 90° FEMELLE



239

CODE	TECH. CODE	SIZE		
79.03.827	RB0239003120	12 x 3/8"	12	120
79.03.917	RB0239005120	12 x 1/2"	12	120
79.03.017	RB0239005150	15 x 1/2"	10	100
79.03.117	RB0239007220	22 x 3/4"	6	60
79.03.217	RB0239010280	28 x 1"	3	30
79.03.617	RB0239012350	35 x 1 1/4"	20	20
79.03.717	RB0239015420	42 x 1 1/2"	15	15

TEE

/ RACCORDO A T
/ T-STÜCK
/ TÉ



234

CODE	TECH. CODE	SIZE		
80.01.001	RB0234000100	10	15	150
80.01.002	RB0234000120	12	12	120
80.01.018	RB0234000150	15	8	80
80.01.020	RB0234000180	18	6	60
80.01.118	RB0234000220	22	4	40
80.01.218	RB0234000280	28	2	20
80.02.718	RB0234000420	42	1	10

FEMALE TEE

/ RACCORDO A T FEMMINA
/ T-STÜCK MIT IG
/ TÉ FEMELLE



235

CODE	TECH. CODE	SIZE		
80.03.005	RB0235005150	15 x 1/2" x 15	8	80
80.03.006	RB0235005220	22 x 1/2" x 22	5	50
80.03.010	RB0235007220	22 x 3/4" x 22	4	40

REDUCING TEE

/ RACCORDO A T RIDOTTO
/ T-STÜCK REDUZIERT
/ TÉ RÉDUIT



236

CODE	TECH. CODE	SIZE		
80.02.008	RB023600ECC0	15x12x12	10	100
80.02.001	RB023600ECE0	15x12x15	8	80
80.02.009	RB023600CEC0	12x15x12	10	100
80.02.010	RB023600EEC0	15x15x12	8	80
80.02.118	RB023600HEE0	22x15x15	6	60
80.02.218	RB023600HHE0	22x22x15	3	30
80.02.318	RB023600HEH0	22x15x22	3	30

WALLPLATE ELBOW 90°

/ GOMITO 90° FLANGIATO
/ WANDWINKEL 90°
/ APPLIQUE MURALE 90°

3 FIXING HOLES



240

CODE	TECH. CODE	SIZE		
80.06.021	RB0240005150	15 x 1/2"	6	60

PLUG

/ TAPPO
/ STOPFEN
/ BOUCHON

**290**

CODE	TECH. CODE	SIZE		
81.05.300	RB029000010L	10	80	800
81.05.305	RB029000012L	12	80	800
81.05.310	RB029000015L	15	50	500
81.05.315	RB029000018L	18	30	300
81.05.320	RB029000022L	22	25	250
81.05.325	RB029000028L	28	12	120

OLIVE

/ OGIVA
/ KLEMMRING
/ BAGUE DE COMPRESSION

**233**

CODE	TECH. CODE	SIZE		
-	RB0233000080	8	50	2500
-	RB0233000100	10	50	2500
-	RB0233000120	12	50	2500
-	RB0233000150	15	50	1500
-	RB0233000180	18	50	1000
-	RB0233000220	22	50	750
-	RB0233000280	28	20	500
-	RB0233000350	35	5	50
-	RB0233000420	42	5	50
-	RB0233000540	54	5	20

STOP END

/ TAPPO
/ PRESSSTOPFEN
/ BOUCHON

**247**

CODE	TECH. CODE	SIZE		
78.06.051	RB0247000150	15	25	250
78.06.151	RB0247000220	22	14	140

REDUCING SET

/ RIDUZIONE
/ REDUZIERSATZ
/ REDUCTION

**248**

CODE	TECH. CODE	SIZE		
81.05.010	RB024801008L	10 x 8	25	250
81.05.006	RB024801210L	12 x 10	10	250
81.05.001	RB024801510L	15 x 10	25	250
81.05.002	RB024801512L	15 x 12	25	250
81.05.007	RB024801815L	18 x 15	15	150
81.05.008	RB024802212L	22 x 12	15	150
81.05.003	RB024802215L	22 x 15	15	150
81.05.005	RB024802822L	28 x 22	15	150
81.05.009	RB024802815L	28 x 15	15	150

NUT

/ DADO
/ MUTTER
/ ÉCROU



UNI EN 12164/12165
CW 617N
DIN 50930-6

**181**

CODE	TECH. CODE	SIZE		
-	RB0181000080	8	50	750
-	RB0181000100	10	50	750
-	RB0181000120	12	50	750
-	RB0181000150	15	50	800
-	RB0181000180	18	50	600
-	RB0181000220	22	50	500
-	RB0181000280	28	50	300
-	RB0181000350	35	10	250
-	RB0181000420	42	10	150
-	RB0181000540	54	10	80

DZR BRASS CHROME-PLATED COMPRESSION FITTINGS FOR COPPER PIPE

/ RACCORDI A STRINGERE IN OTTONE DZR CROMATI PER TUBO RAME
 / DZR VERCHROMTE KLEMMVERBINDER FÜR KUPFERROHR
 / RACCORDS BICÔNE POUR TUBE EN CUIVRE DZR CHROMÉ

UNI EN 12164/12165
 CW 625N
 DIN 50930-6

BRASS



STRAIGHT COUPLER

/ RACCORDO DIRITTO
 / KUPPLUNG
 / MANCHON ÉGAL



242-C



CODE	TECH. CODE	SIZE		
81.06.001	RB024200010C	10	25	250
81.06.002	RB024200012C	12	25	250
81.06.003	RB024200015C	15	15	150
81.06.005	RB024200018C	18	10	100
81.06.004	RB024200022C	22	8	80

REDUCING COUPLER

/ RACCORDO DIRITTO RIDOTTO
 / KLEMMVERSCHRAUBUNG GRADE REDUZIERT
 / MANCHON RÉDUIT



242R-C



CODE	TECH. CODE	SIZE		
81.06.007	RB0242R1008C	8 x 10	30	300
81.06.006	RB0242R1208C	8 x 12	30	300
81.06.010	RB0242R1210C	10 x 12	25	250
81.06.012	RB0242R1510C	10 x 15	20	200
81.06.011	RB0242R1512C	12 x 15	20	200

ELBOW 90°

/ GOMITO 90°
 / WINKEL 90°
 / COUDE 90°



237-C



CODE	TECH. CODE	SIZE		
81.06.301	RB023700010C	10	25	250
81.06.302	RB023700012C	12	25	250
81.06.303	RB023700015C	15	10	120
81.06.305	RB023700018C	18	8	80
81.06.304	RB023700022C	22	6	60

MALE COUPLER CYLINDRICAL THREAD

/ RACCORDO DIRITTO MASCHIO CILINDRICO
 / ÜBERGANG MIT AG ZYLINDRISCHES GEWINDE
 / MANCHON MÂLE CYLINDRIQUE



243-C ISO 228



CODE	TECH. CODE	SIZE		
81.06.101	RB024300510C	10 x 1/2"	26	260
81.06.085	RB024300310C	10 x 3/8"	30	300
81.06.090	RB024300312C	12 x 3/8"	30	300
81.06.102	RB024300512C	12 x 1/2"	26	260
81.06.095	RB024300315C	15 x 3/8"	20	200
81.06.103	RB024300515C	15 x 1/2"	20	200
81.06.096	RB024300518C	18 x 1/2"	15	150
81.06.111	RB024300722C	22 x 3/4"	12	120

FEMALE COUPLER

/ RACCORDO DIRITTO FEMMINA
 / ÜBERGANG MIT IG
 / MANCHON FEMELLE



244-C



CODE	TECH. CODE	SIZE		
81.06.109	RB024400510C	10 x 1/2"	20	200
81.06.108	RB024400312C	12 x 3/8"	20	200
81.06.110	RB024400512C	12 x 1/2"	20	200
81.06.105	RB024400515C	15 x 1/2"	15	150

TEE

/ RACCORDO A T
 / T-STÜCK
 / TÊ



234-C



CODE	TECH. CODE	SIZE		
81.06.601	RB023400010C	10	15	150
81.06.602	RB023400012C	12	12	120
81.06.603	RB023400015C	15	8	80
81.06.605	RB023400018C	18	6	60

MALE ELBOW 90° CYLINDRICAL THREAD

/ GOMITO 90° MASCHIO CILINDRICO
 / WINKEL 90° MIT AG ZYLINDRISCHES GEWINDE
 / COUDE 90° MÂLE CYLINDRIQUE

**238-C ISO 228**

CODE	TECH. CODE	SIZE		
81.06.406	RB023800312C	12 x 3/8"	25	250
81.06.405	RB023800512C	12 x 1/2"	15	150
81.06.403	RB023800515C	15 x 1/2"	15	150

FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA
 / WINKEL 90° MIT IG
 / COUDE 90° FEMELLE

**239-C**

CODE	TECH. CODE	SIZE		
81.06.505	RB023900512C	12 x 1/2"	12	120
81.06.503	RB023900515C	15 x 1/2"	10	100

REDUCING TEE

/ RACCORDO A T RIDOTTO
 / T-STÜCK REDUZIERT
 / TÉ RÉDUIT

**236-C**

CODE	TECH. CODE	SIZE		
81.06.613	RB023600CECC	12 x 15 x 12	10	100
81.06.611	RB023600ECCC	15 x 12 x 12	10	100
81.06.610	RB023600ECEC	15 x 12 x 15	8	80
81.06.612	RB023600EECC	15 x 15 x 12	8	80
81.06.615	RB023600HEHC	22 x 15 x 22	3	30

WALLPLATE ELBOW 90°

/ GOMITO 90° FLANGIATO
 / WANDWINKEL 90°
 / APPLIQUE MURALE 90°

3 FIXING HOLES

**240-C**

CODE	TECH. CODE	SIZE		
81.06.021	RB024000515C	15 x 1/2"	6	60

GAS COMPRESSION FITTINGS FOR COPPER PIPE

/ RACCORDI A STRINGERE PER TUBO RAME GAS
/ GAS KLEMMVERBINDER FÜR KUPFERROHR
/ RACCORDS POUR TUBE EN CUIVRE GAZ

BRASS



UNI EN 12164/12165
CW 617N
DIN 50930-6

STRAIGHT COUPLER

/ RACCORDO DIRITTO
/ KUPPLUNG
/ MANCHON ÉGAL

**2270**

CODE	TECH. CODE	SIZE		
85.11.005	RB2270000120	12	10	220
85.11.010	RB2270000150	15	10	180
85.11.015	RB2270000180	18	10	120
85.11.020	RB2270000220	22	10	90
85.11.025	RB2270000280	28	10	60

2270R

85.11.030	RB2270R22150	22 x 15	10	90
85.11.035	RB2270R28220	28 x 22	10	60

MALE STRAIGHT COUPLER TAPER THREAD

/ RACCORDO DIRITTO MASCHIO CONICO
/ ÜBERGANG MIT AG KONISCH
/ MANCHON MÂLE CONIQUE

**2271 ISO 7/2**

CODE	TECH. CODE	SIZE		
85.12.005	RB2271003120	12 x 3/8"	10	220
85.12.010	RB2271005120	12 x 1/2"	10	220
85.12.015	RB2271005150	15 x 1/2"	10	200
85.12.035	RB2271007150	15 x 3/4"	10	180
85.12.020	RB2271005180	18 x 1/2"	10	160
85.12.040	RB2271007180	18 x 3/4"	10	140
85.12.025	RB2271007220	22 x 3/4"	10	140
85.12.045	RB2271010220	22 x 1"	10	60
85.12.030	RB2271010280	28 x 1"	10	40

FEMALE COUPLER

/ RACCORDO DIRITTO FEMMINA
/ ÜBERGANG MIT IG
/ MANCHON FEMELLE

**2280**

CODE	TECH. CODE	SIZE		
85.13.005	RB2280003120	12 x 3/8"	10	220
85.13.010	RB2280005120	12 x 1/2"	10	220
85.13.015	RB2280005150	15 x 1/2"	10	200
85.13.035	RB2280007150	15 x 3/4"	10	200
85.13.020	RB2280005180	18 x 1/2"	10	140
85.13.040	RB2280007180	18 x 3/4"	10	120
85.13.025	RB2280007220	22 x 3/4"	10	120
85.13.032	RB2280010220	22 x 1"	10	100
85.13.030	RB2280010280	28 x 1"	10	80

ELBOW 90°

/ GOMITO 90°
/ WINKEL 90°
/ COUDE 90°

**2260**

CODE	TECH. CODE	SIZE		
85.14.005	RB2260000120	12	10	220
85.14.010	RB2260000150	15	10	160
85.14.015	RB2260000180	18	10	100
85.14.020	RB2260000220	22	10	80
85.14.025	RB2260000280	28	10	40

2260R

85.14.030	RB2260R22150	22 x 15	10	80
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MALE ELBOW 90° TAPER THREAD

/ GOMITO 90° MASCHIO CONICO
/ WINKEL 90° AG KONISCH
/ COUDE 90° MÂLE CONIQUE



2261 ISO 7/2

CODE	TECH. CODE	SIZE		
85.15.005	RB2261003120	12 x 3/8"	10	220
85.15.010	RB2261005120	12 x 1/2"	10	180
85.15.015	RB2261005150	15 x 1/2"	10	180
85.15.025	RB2261007220	22 x 3/4"	10	80
85.15.030	RB2261010280	28 x 1"	10	40

FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA
/ WINKEL 90° MIT IG
/ COUDE 90° FEMELLE



2262

CODE	TECH. CODE	SIZE		
85.16.005	RB2262003120	12 x 3/8"	10	220
85.16.010	RB2262005120	12 x 1/2"	10	200
85.16.015	RB2262005150	15 x 1/2"	10	180
85.16.040	RB2262007150	15 x 3/4"	10	150
85.16.020	RB2262005180	18 x 1/2"	10	150
85.16.025	RB2262007220	22 x 3/4"	10	80
85.16.030	RB2262010280	28 x 1"	10	40

FEMALE TEE

/ RACCORDO A T FEMMINA
/ T-STÜCK MIT IG
/ TÉ FEMELLE



2252

CODE	TECH. CODE	SIZE		
85.18.005	RB2252005150	15 x 1/2" x 15	10	100
85.18.010	RB2252005220	22 x 1/2" x 22	10	60
85.18.015	RB2252007220	22 x 3/4" x 22	10	50

TEE

/ RACCORDO A T
/ T-STÜCK
/ TÉ



2250

CODE	TECH. CODE	SIZE		
85.17.005	RB2250000120	12	10	140
85.17.010	RB2250000150	15	10	100
85.17.015	RB2250000180	18	10	80
85.17.020	RB2250000220	22	10	50
85.17.025	RB2250000280	28	10	30

2253

85.17.030	RB225300HEE0	22 x 15 x 15	10	60
85.17.035	RB225300HEH0	22 x 15 x 22	10	60
85.17.040	RB225300HHE0	22 x 22 x 15	10	60

NUT

/ DADO
/ MUTTER
/ ÉCROU



2181

CODE	TECH. CODE	SIZE		
96.02.400	RB2181000120	12	10	220
96.02.405	RB2181000150	15	10	200
96.02.410	RB2181000180	18	10	180
96.02.415	RB2181000220	22	10	150
96.02.420	RB2181000280	28	10	150

OLIVE

/ OGIVA
/ KLEMMRING
/ BAGUE DE COMPRESSION



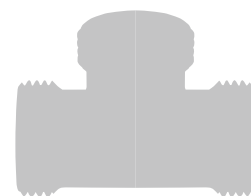
2182

CODE	TECH. CODE	SIZE		
96.02.425	RB2182000120	12	50	130
96.02.430	RB2182000150	15	50	160
96.02.435	RB2182000180	18	50	260
96.02.440	RB2182000220	22	50	290
96.02.445	RB2182000280	28	50	570

THREADED FITTINGS

/ RACCORDI FILETTATI
/ GEWINDEFITTINGS
/ RACCORDS FILETÉS





THREADED FITTINGS

BRASS THREADED FITTINGS SAND-BLASTED	98
THREADED FITTINGS WITH SWIVEL NUT SAND-BLASTED	104
THREADED FITTINGS 3 PCS	106
EXTENSIONS	108
THREADED FITTINGS NICKEL-PLATED	114
3THREADED FITTINGS NICKEL-PLATED 3 PCS	117
THREADED FITTINGS CHROME-PLATED	118

BRASS THREADED FITTINGS SAND-BLASTED

/ RACCORDI FILETTATI SABBIATI
/ GEWINDEFITTINGE SANDGESTRAHLT
/ RACCORDS FILETÉS SABLÉS

UNI EN 12164/12165
CW 617N
DIN 50930-6

BRASS



MALE/MALE STRAIGHT COUPLER

/ RACCORDO DIRITTO MASCHIO/MASCHIO
/ KUPPLUNG AG/AG
/ MANCHON MÂLE/MÂLE



270A

CODE	TECH. CODE	SIZE		
77.01.050	RF0270A03000	3/8" x 3/8" (Ø int. mm 10 - fil. mm 8)	10	400
77.01.051	RF0270A05000	1/2" x 1/2" (Ø int. mm 14 - fil. mm 9)	10	300
77.01.060	RF0270A05140	1/2" x 1/2" (Ø int. mm 14 - fil. mm 11)	10	200
77.01.014	RF0270A07000	3/4" x 3/4" (Ø int. mm 19 - fil. mm 10)	10	150
77.01.061	RF0270A07190	3/4" x 3/4" (Ø int. mm 19 - fil. mm 12)	10	150
77.01.052	RF0270A10000	1" x 1"	10	100
77.01.053	RF0270A12000	1 1/4" x 1 1/4"	5	50
77.01.054	RF0270A15000	1 1/2" x 1 1/2"	5	40
77.01.055	RF0270A20000	2" x 2"	5	20

HEAVY PATTERN SERIES

MALE/MALE REDUCING COUPLER

/ RACCORDO DIRITTO RIDOTTO
MASCHIO/MASCHIO
/ REDUZIERNIPPEL AG/AG
/ MANCHON RÉDUIT MÂLE/MÂLE



291

CODE	TECH. CODE	SIZE		
77.02.005	RF0291002010	1/4" x 1/8"	10	300
77.02.010	RF0291003020	3/8" x 1/4"	10	300
77.02.080	RF0291005030	1/2" x 3/8"	10	300
77.02.081	RF0291007050	3/4" x 1/2"	10	200
77.02.026	RF0291010050	1" x 1/2"	5	120
77.02.082	RF0291010070	1" x 3/4"	10	100
77.02.035	RF0291012050	1 1/4" x 1/2"		30
77.02.040	RF0291012070	1 1/4" x 3/4"		40
77.02.083	RF0291012100	1 1/4" x 1"	10	50
77.02.045	RF0291015070	1 1/2" x 3/4"		35
77.02.050	RF0291015100	1 1/2" x 1"		30
77.02.084	RF0291015120	1 1/2" x 1 1/4"	5	40
77.02.060	RF0291020100	2" x 1"		10
77.02.065	RF0291020120	2" x 1 1/4"		20
77.02.085	RF0291020150	2" x 1 1/2"		25

MALE/FEMALE REDUCTION

/ RIDUZIONE MASCHIO/FEMMINA
/ REDUZIERTSTÜCK AG/IG
/ RÉDUCTION MÂLE/FEMELLE



287

CODE	TECH. CODE	SIZE		
77.14.170	RF0287002010	1/4" M x 1/8" F	10	500
77.14.171	RF0287003020	3/8" M x 1/4" F	10	500
77.14.172	RF0287005010	1/2" M x 1/8" F	10	400
77.14.173	RF0287005020	1/2" M x 1/4" F	10	400
77.14.174	RF0287005030	1/2" M x 3/8" F	10	400
77.14.105	RF0287007030	3/4" M x 3/8" F	10	150
77.14.175	RF0287007050	3/4" M x 1/2" F	10	250
77.14.177	RF0287010050	1" M x 1/2" F	10	150
77.14.178	RF0287010070	1" M x 3/4" F	10	150
77.14.125	RF0287012050	1 1/4" M x 1/2" F		50
77.14.179	RF0287012070	1 1/4" M x 3/4" F	10	100
77.14.180	RF0287012100	1 1/4" M x 1" F	10	100
77.14.181	RF0287015070	1 1/2" M x 3/4" F	5	50
77.14.182	RF0287015100	1 1/2" M x 1" F	5	70
77.14.183	RF0287015120	1 1/2" M x 1 1/4" F	5	70
77.14.155	RF0287020100	2" M x 1" F		30
77.14.160	RF0287020120	2" M x 1 1/4" F		30
77.14.184	RF0287020150	2" M x 1 1/2" F		30

MALE/FEMALE REDUCTION WITH FLANGE

/ RIDUZIONE MASCHIO/FEMMINA
CON FLANGIA
/ REDUZIERTSTÜCK AG/IG MIT FLANSCH
/ RÉDUCTION MÂLE/FEMELLE
AVEC BRIDE D'ARRÊT



285

CODE	TECH. CODE	SIZE		
77.14.020	RF0285007030	3/4" M x 3/8" F	10	150
77.14.025	RF0285007050	3/4" M x 1/2" F	10	150
77.14.030	RF0285010050	1" M x 1/2" F	5	100
77.14.035	RF0285010070	1" M x 3/4" F	5	100
77.14.040	RF0285012050	1 1/4" M x 1/2" F		50
77.14.045	RF0285012070	1 1/4" M x 3/4" F		50
77.14.050	RF0285012100	1 1/4" M x 1" F		50
77.14.060	RF0285015070	1 1/2" M x 3/4" F		30
77.14.065	RF0285015100	1 1/2" M x 1" F		30

FEMALE/FEMALE STRAIGHT COUPLER

/ RACCORDO DIRITTO FEMMINA/FEMMINA
/ MUFFE IG/IG
/ MANCHON FEMELLE/FEMELLE



270F

CODE	TECH. CODE	SIZE		
77.03.040	RF0270F02000	1/4" x 1/4"	10	500
77.03.041	RF0270F03000	3/8" x 3/8"	10	300
77.03.046	RF0270F05000	1/2" x 1/2"	10	200
77.03.047	RF0270F07000	3/4" x 3/4"	10	100
77.03.042	RF0270F10000	1" x 1"	10	70
77.03.043	RF0270F12000	1 1/4" x 1 1/4"	5	40
77.03.044	RF0270F15000	1 1/2" x 1 1/2"	5	20
77.03.045	RF0270F20000	2" x 2"	5	15

FEMALE/FEMALE REDUCING COUPLER

/ RACCORDO DIRITTO RIDOTTO
FEMMINA/FEMMINA
/ MUFFE IG/IG REDUZIERT
/ MANCHON RÉDUIT FEMELLE/FEMELLE



294

CODE	TECH. CODE	SIZE		
77.03.091	RF0294007050	3/4" x 1/2"	10	120
	RF0294005030	1/2" x 3/8"	10	200
77.03.092	RF0294010050	1" x 1/2"	10	70
77.03.093	RF0294010070	1" x 3/4"	10	70
	RF0294012050	1 1/4" x 1/2"		30
	RF0294012070	1 1/4" x 3/4"		30
77.03.094	RF0294012100	1 1/4" x 1"	5	40
	RF0294015100	1 1/2" x 1"		30
	RF0294015120	1 1/2" x 1 1/4"		20

FEMALE/MALE REDUCING COUPLER

/ RACCORDO DIRITTO RIDOTTO
FEMMINA/MASCHIO
/ MUFFE IG/AG REDUZIERT
/ MANCHON RÉDUIT FEMELLE/MÂLE



295

CODE	TECH. CODE	SIZE		
77.04.035	RF0295005020	1/2" F x 1/4" M	10	150
77.04.073	RF0295005030	1/2" F x 3/8" M	10	250
77.04.070	RF0295007050	3/4" F x 1/2" M	10	150
77.04.071	RF0295010050	1" F x 1/2" M	10	80
77.04.072	RF0295010070	1" F x 3/4" M	10	80
77.04.045	RF0295012050	1 1/4" F x 1/2" M		30
77.04.050	RF0295012070	1 1/4" F x 3/4" M		30
77.04.055	RF0295012100	1 1/4" F x 1" M		30
77.04.060	RF0295015100	1 1/2" F x 1" M		30
77.04.065	RF0295015120	1 1/2" F x 1 1/4" M		20

FEMALE/FEMALE ELBOW 45°

/ GOMITO 45° FEMMINA/FEMMINA
/ WINKEL 45° IG/IG
/ COUDE 45° FEMELLE/FEMELLE



274F

CODE	TECH. CODE	SIZE		
	RF0274F05000	3/4" F x 1/2" F	10	50
	RF0274F07000	1" F x 1/2" F	10	60
	RF0274F10000	1" F x 3/4" F	5	40

MALE/MALE ELBOW 90°

/ GOMITO 90° MASCHIO/MASCHIO
/ WINKEL 90° AG/AG
/ COUDE 90° MÂLE/MÂLE



260A

CODE	TECH. CODE	SIZE		
77.07.035	RF0260A01000	1/8" x 1/8"	10	500
77.07.036	RF0260A02000	1/4" x 1/4"	10	400
77.07.037	RF0260A03000	3/8" x 3/8"	10	300
77.07.038	RF0260A05000	1/2" x 1/2"	10	200
77.07.039	RF0260A07000	3/4" x 3/4"	10	120
77.07.040	RF0260A10000	1" x 1"	10	50
77.07.041	RF0260A12000	1 1/4" x 1 1/4"		25
77.07.042	RF0260A15000	1 1/2" x 1 1/2"		20
77.07.043	RF0260A20000	2" x 2"		12

FEMALE/FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA/FEMMINA
/ WINKEL 90° IG/IG
/ COUDE 90° FEMELLE/FEMELLE



260F

CODE	TECH. CODE	SIZE		
77.05.040	RF0260F02000	1/4" x 1/4"	10	300
77.05.041	RF0260F03000	3/8" x 3/8"	10	200
77.05.042	RF0260F05000	1/2" x 1/2"	10	130
77.05.043	RF0260F07000	3/4" x 3/4"	10	70
77.05.044	RF0260F10000	1" x 1"	5	40
77.05.045	RF0260F12000	1 1/4" x 1 1/4"		20
77.05.046	RF0260F15000	1 1/2" x 1 1/2"		20
77.05.047	RF0260F20000	2" x 2"		12

FEMALE/MALE ELBOW 90°

/ GOMITO 90° FEMMINA/MASCHIO
/ WINKEL 90° IG/AG
/ COUDE 90° FEMELLE/MÂLE



262A

CODE	TECH. CODE	SIZE		
77.06.035	RF0262A02000	1/4" x 1/4"	10	300
77.06.036	RF0262A03000	3/8" x 3/8"	10	200
77.06.037	RF0262A05000	1/2" x 1/2"	10	120
77.06.038	RF0262A07000	3/4" x 3/4"	10	40
77.06.039	RF0262A10000	1" x 1"	10	40
77.06.040	RF0262A12000	1 1/4" x 1 1/4"		25
77.06.041	RF0262A15000	1 1/2" x 1 1/2"		20
77.06.042	RF0262A20000	2" x 2"		12

HEAVY PATTERN SERIES

MALE/MALE ELBOW 90° WITH FLANGE - HP SERIES

/ GOMITO 90° MASCHIO/MASCHIO CON FLANGIA - HP
/ WINKEL 90° AG/AG MIT FLANSCH - HP SERIE
/ COUDE 90° MÂLE/MÂLE AVEC BRIDE D'ARRÊT - HP SERIES



266

CODE	TECH. CODE	SIZE		
77.07.020	RF0266005000	1/2" x 1/2"	10	100
77.07.025	RF0266007000	3/4" x 3/4"	10	60
77.07.030	RF0266010000	1" x 1"	5	40

MALE/FEMALE ELBOW 90° WITH FLANGE - HP SERIES

/ GOMITO 90° MASCHIO/FEMMINA CON FLANGIA - HP
/ WINKEL 90° AG/IG MIT FLANSCH - HP SERIE
/ COUDE 90° MÂLE/FEMELLE AVEC BRIDE D'ARRÊT - HP



267

CODE	TECH. CODE	SIZE		
77.06.020	RF0267005000	1/2" x 1/2"	10	100
77.06.025	RF0267007000	3/4" x 3/4"	10	60
77.06.030	RF0267010000	1" x 1"	5	30

MALE/FEMALE ELBOW 90° WITHOUT FLANGE - HP SERIES

/ GOMITO 90° MASCHIO/FEMMINA SENZA FLANGIA - HP
/ WINKEL 90° AG/IG OHNE FLANSCH - HP SERIE
/ COUDE 90° MÂLE/FEMELLE SANS BRIDE D'ARRÊT - H



269

CODE	TECH. CODE	SIZE		
77.06.015	RF0269005000	1/2" x 1/2"	10	100
77.06.016	RF0269007000	3/4" x 3/4"	10	60
77.06.017	RF0269010000	1" x 1"	5	30

MALE TEE - HP SERIES

/ RACCORDO A T MASCHIO - SERIE HP
/ T-STÜCK MIT AG - HP SERIE
/ TÉ MÂLE - HP SERIE



255

CODE	TECH. CODE	SIZE		
77.07.080	RF0255005000	1/2" x 1/2" x 1/2"	10	120
77.07.085	RF0255007000	3/4" x 3/4" x 3/4"	10	60
77.07.090	RF0255010000	1" x 1" x 1"	5	30

FEMALE/FEMALE REDUCING ELBOW 90°

/ GOMITO 90° RIDOTTO FEMMINA/FEMMINA
/ WINKEL 90° IG/IG REDUZIERT
/ COUDE RÉDUIT 90° FEMELLE/FEMELLE



296

CODE	TECH. CODE	SIZE		
	RF0296007050	3/4" F x 1/2" F	10	80
	RF0296010050	1" F x 1/2" F	5	40
	RF0296010070	1" F x 3/4" F	5	40

FEMALE/MALE REDUCING ELBOW 90°

/ GOMITO 90° RIDOTTO FEMMINA/MASCHIO
/ WINKEL 90° IG/AG REDUZIERT
/ COUDE RÉDUIT 90° FEMELLE/MÂLE



262B

CODE	TECH. CODE	SIZE		
77.06.050	RF0262B05030	1/2" F x 3/8" M	10	150
77.06.051	RF0262B07050	3/4" F x 1/2" M	10	100

FEMALE/FEMALE ELBOW 45°

/ GOMITO 45° FEMMINA/FEMMINA
/ WINKEL 45° IG/IG
/ COUDE 45° FEMELLE/FEMELLE



262B

CODE	TECH. CODE	SIZE		
77.06.050	RF0262B05030	1/2" F x 3/8" M	10	150
77.06.051	RF0262B07050	3/4" F x 1/2" M	10	100

MALE TEE

/ RACCORDO A T MASCHIO
/ T-STÜCK MIT AG
/ TÉ MÂLE



250A

CODE	TECH. CODE	SIZE		
77.07.091	RF0250A01000	1/8" x 1/8" x 1/8"	10	250
77.07.092	RF0250A02000	1/4" x 1/4" x 1/4"	10	250
77.07.093	RF0250A03000	3/8" x 3/8" x 3/8"	10	200
77.07.094	RF0250A05000	1/2" x 1/2" x 1/2"	10	120
77.07.095	RF0250A07000	3/4" x 3/4" x 3/4"	10	80
77.07.096	RF0250A10000	1" x 1" x 1"	5	40
77.07.097	RF0250A12000	1 1/4" x 1 1/4" x 1 1/4"		20
77.07.098	RF0250A15000	1 1/2" x 1 1/2" x 1 1/2"		15
77.07.099	RF0250A20000	2" x 2" x 2"		9

FEMALE REDUCING TEE

/ RACCORDO A T RIDOTTO FEMMINA
/ T-STÜCK REDUZIERT IG
/ TÉ RÉDUIT FEMELLE



253F

CODE	TECH. CODE	SIZE		
77.08.050	RF0253F07050	3/4" x 1/2" x 3/4"	10	50
77.08.055	RF0253F10050	1" x 1/2" x 1"	5	30
77.08.060	RF0253F10070	1" x 3/4" x 1"	5	30

FEMALE TEE

/ RACCORDO A T FEMMINA
/ T-STÜCK MIT IG
/ TÉ FEMELLE

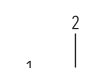


250F

CODE	TECH. CODE	SIZE		
77.08.037	RF0250F02000	1/4" x 1/4" x 1/4"	10	200
77.08.038	RF0250F03000	3/8" x 3/8" x 3/8"	10	150
77.08.039	RF0250F05000	1/2" x 1/2" x 1/2"	10	80
77.08.040	RF0250F07000	3/4" x 3/4" x 3/4"	10	50
77.08.041	RF0250F10000	1" x 1" x 1"	5	25
77.08.042	RF0250F12000	1 1/4" x 1 1/4" x 1 1/4"		15
77.08.043	RF0250F15000	1 1/2" x 1 1/2" x 1 1/2"		15
77.08.044	RF0250F20000	2" x 2" x 2"		8

MALE/FEMALE/MALE REDUCING TEE

/ RACCORDO A T RIDOTTO
MASCHIO/FEMMINA/MASCHIO
/ T-STÜCK REDUZIERT AG/IG/AG
/ TÉ RÉDUIT MÂLE/FEMELLE/MÂLE

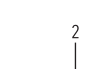


950

CODE	TECH. CODE	SIZE		
77.08.065	RF0950007050	3/4" x 1/2" F x 3/4"	10	70

FEMALE/MALE/MALE REDUCING TEE

/ RACCORDO A T RIDOTTO
FEMMINA/MASCHIO/MASCHIO
/ T-STÜCK REDUZIERT IG/AG/AG
/ TÉ RÉDUIT FEMELLE/MÂLE/MÂLE



935

CODE	TECH. CODE	SIZE		
77.08.070	RF0935007050	3/4" x 3/4" x 1/2" F	10	70

MALE/MALE ELBOW 90°

/ GOMITO 90° MASCHIO/MASCHIO
/ WINKEL 90° AG/AG
/ COUDE 90° MÂLE/MÂLE

**268**

CODE	TECH. CODE	SIZE		
77.07.050	RF0268005000	1/2" x 1/2"	10	100

FEMELLE/FEMELLE WALLPLATE ELBOW 90°

/ GOMITO 90° FLANGIATO
FEMMINA/FEMMINA
/ WANDWINKEL 90° IG/IG
/ APPLIQUE MURALE 90° FEMELLE/FEMELLE

**3** FIXING HOLES**264F**

CODE	TECH. CODE	SIZE		
77.08.100	RF0264F05000	1/2" x 1/2"	10	100

NUT

/ DADO
/ MUTTER
/ ÉCROU

**174**

CODE	TECH. CODE	SIZE		
77.12.103	DC0174005120	1/2" x 12	10	600
77.12.104	DC0174005140	1/2" x 14	10	600
77.12.105	DC0174005160	1/2" x 16	10	600
77.12.106	DC0174007140	3/4" x 14	10	400
77.12.107	DC0174007160	3/4" x 16	10	400
77.12.108	DC0174007180	3/4" x 18	10	400
77.12.109	DC0174007200	3/4" x 20	10	250

MALE CAP

/ TAPPO MASCHIO
/ STOPFEN AG
/ BOUCHON MÂLE

**286**

CODE	TECH. CODE	SIZE		
77.13.043	RF0286003000	3/8"	10	400
77.13.044	RF0286005000	1/2"	10	400
77.13.045	RF0286007000	3/4"	10	150
77.13.046	RF0286010000	1"	10	150
77.13.047	RF0286012000	1 1/4"	10	80
77.13.048	RF0286015000	1 1/2"	10	60
77.13.049	RF0286020000	2"	5	40

FEMALE CROSS TEE FITTING

/ RACCORDO A CROCE FEMMINA
/ KREUZFITTING IG
/ RACCORD FEMELLE CROIX

**254F**

CODE	TECH. CODE	SIZE		
	RF0254F05000	1/2"	10	50
	RF0254F07000	3/4"	10	40
	RF0254F10000	1"	5	30

FEMALE CAP

/ TAPPO FEMMINA
/ KAPPE IG
/ BOUCHON FEMELLE

**288**

CODE	TECH. CODE	SIZE		
77.12.005	RF028800200L	1/4"	10	400
77.12.006	RF028800300L	3/8"	10	400
77.12.010	RF0288005000	1/2"	10	200
77.12.015	RF0288007000	3/4"	10	200
77.12.020	RF0288010000	1"	5	100
77.12.026	RF0288012000	1 1/4"	10	100
77.12.031	RF0288015000	1 1/2"	5	50
77.12.035	RF0288020000	2"		8

FLANGED BACKNUT

/ CONTRODADO CON FLANGIA
/ GEGENMUTTER MIT FLANSCH
/ CONTRE ÉCROU À PLATEAU

**293**

CODE	TECH. CODE	SIZE		
77.12.150	RF0293003000	3/8"	10	400
77.12.151	RF0293005000	1/2"	10	300
77.12.152	RF0293007000	3/4"	10	200
77.12.153	RF0293010000	1"	10	150

FEMALE/MALE EXTENSION

/ PROLUNGA FEMMINA/MASCHIO
/ VERLÄNGERUNG IG/AG
/ RALLONGE FEMELLE/MÂLE

**292**

CODE	TECH. CODE	SIZE		
77.15.150	RF0292005100	1/2"-10	10	250
77.15.151	RF0292005150	1/2"-15	10	250
77.15.152	RF0292005200	1/2"-20	10	200
77.15.153	RF0292005250	1/2"-25	10	200
77.15.154	RF0292005300	1/2"-30	10	150

MALE PLUG WITH FLANGE

/ TAPPO MASCHIO CON FLANGIA
/ STOPFEN AG MIT FLANSCH
/ BOUCHON MÂLE AVEC BRIDE D'ARRÊT



276

CODE	TECH. CODE	SIZE		
77.13.040	RF027600500L	1/2"	10	350
77.13.041	RF0276007000	3/4"	10	200
77.13.042	RF0276010000	1"	10	120
77.13.025	RF0276012000	1 1/4"		50
77.13.030	RF0276015000	1 1/2"		50
77.13.035	RF0276020000	2"		30

NUT

/ DADO
/ MUTTER
/ ÉCROU



175

CODE	TECH. CODE	SIZE	
77.12.115	DC0175007000	3/4"	250
77.12.116	DC0175010000	1"	250
77.12.117	DC0175012000	1 1/4"	100
77.12.118	DC0175015000	1 1/2"	100

FLAT TAIL

/ CODULO PIATTO
/ BUCHSE FLACHDICHTEND
/ DOUILLE PLATE

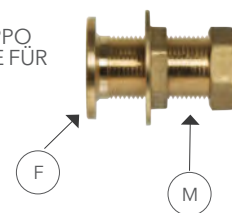


172P

CODE	TECH. CODE	SIZE	
77.12.095	DC0172P05000	1/2"	400
77.12.096	DC0172P07000	3/4"	300
77.12.097	DC0172P10000	1"	100
77.12.098	DC0172P12000	1 1/4"	100

FITTING FOR BIN WITH CAP

/ RACCORDO PER CASSONE CON TAPPO
/ GERADE VERSCHRAUBUNG MIT KAPPE FÜR KASTEN
/ RACCORD POUR RÉSERVOIR AVEC BOUCHON

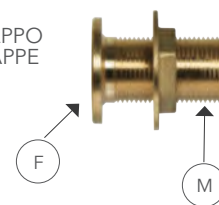


275

CODE	TECH. CODE	SIZE	
77.15.161	RF0275007000	3/4" M x 1/2" F	50
77.15.162	RF0275010000	1" M x 3/4" F	40

FITTING FOR BIN WITHOUT CAP

/ RACCORDO PER CASSONE SENZA TAPPO
/ GERADE VERSCHRAUBUNG OHNE KAPPE FÜR KASTEN
/ RACCORD POUR RÉSERVOIR SANS BOUCHON



275-ST

CODE	TECH. CODE	SIZE	
77.15.170	RF0275005ST0	1/2" M x 3/8" F	50
77.15.171	RF0275007ST0	3/4" M x 1/2" F	50
77.15.172	RF0275010ST0	1" M x 3/4" F	40
77.15.173	RF0275012ST0	1 1/4" M	25
77.15.174	RF0275015ST0	1 1/2" M	25
77.15.175	RF0275020ST0	2" M	15

THREADED FITTINGS WITH SWIVEL NUT SAND-BLASTED

BRASS



UNI EN 12164/12165
CW 617N
DIN 50930-6

/ RACCORDI FILETTATI CON DADO PRIGIONIERO SABBIATI
/ GEWINDEFITTINGE MIT ÜBERWURFMUTTER SANDGESTRAHLT
/ RACCORDS FILETÉS AVEC ÉCROU PRISONNIER SABLÉS

TEE MALE/MALE/SWIVEL NUT

/ RACCORDO A T MASCHIO/MASCHIO/
DADO PRIGIONIERO
/ T-STÜCK AG/AG/ÜBERWURFMUTTER
/ TEE MÅLE/MÅLE/ÉCROU PRISONNIER



751

CODE	TECH. CODE	SIZE		
77.18.310	RF0751007770	3/4" x 3/4" x 3/4"	10	60

TEE MALE/FEMALE/SWIVEL NUT

/ RACCORDO A T MASCHIO/FEMMINA/
DADO PRIGIONIERO
/ T-STÜCK AG/IG/ÜBERWURFMUTTER
/ TEE MÅLE/FEMELLE/ÉCROU PRISONNIER

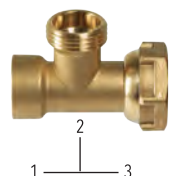


752

CODE	TECH. CODE	SIZE		
77.18.315	RF0752007370	3/4" x 3/8" x 3/4"	10	60

TEE FEMALE/MALE/SWIVEL NUT

/ RACCORDO A T FEMMINA/MASCHIO/
DADO PRIGIONIERO
/ T-STÜCK IG/AG/ÜBERWURFMUTTER
/ TEE FEMELLE/MÅLE/ÉCROU PRISONNIER



753

CODE	TECH. CODE	SIZE		
77.18.330	RF0753005770	1/2" x 3/4" x 3/4"	10	60

TEE MALE/SWIVEL NUT/MALE

/ RACCORDO A T MASCHIO/DADO
PRIGIONIERO/MASCHIO
/ T-STÜCK AG/ÜBERWURFMUTTER/AG
/ TEE MÅLE/ÉCROU PRISONNIER/MÅLE



754

CODE	TECH. CODE	SIZE		
77.18.320	RF0754007770	3/4" x 3/4" x 3/4"	10	60

TEE SWIVEL NUT/MALE/SWIVEL NUT

/ RACCORDO A T DADO PRIGIONIERO/
MASCHIO/DADO PRIGIONIERO
/ T-STÜCK ÜBERWURFMUTTER/AG/
ÜBERWURFMUTTER
/ TEE ÉCROU PRISONNIER/MÅLE/ÉCROU
PRISONNIER



755

CODE	TECH. CODE	SIZE		
77.18.335	RF0755007770	3/4" x 3/4" x 3/4"	10	50

TEE MALE/SWIVEL NUT/SWIVEL NUT

/ RACCORDO A T MASCHIO/DADO
PRIGIONIERO/DADO PRIGIONIERO
/ T-STÜCK AG/ÜBERWURFMUTTER
ÜBERWURFMUTTER
/ TEE MÅLE/ÉCROU PRISONNIER/ÉCROU
PRISONNIER



756

CODE	TECH. CODE	SIZE		
77.18.325	RF0756007770	3/4" x 3/4" x 3/4"	10	50

TEE FEMALE/SWIVEL NUT/SWIVEL NUT

/ RACCORDO A T FEMMINA/DADO
PRIGIONIERO/DADO PRIGIONIERO
/ T-STÜCK IG/ÜBERWURFMUTTER/
ÜBERWURFMUTTER
/ TEE FEMELLE/ÉCROU PRISONNIER/
ÉCROU PRISONNIER



757

CODE	TECH. CODE	SIZE		
77.18.340	RF0757005770	1/2" x 3/4" x 3/4"	10	50

ELBOW 90° SWIVEL NUT

/ GOMITO 90° DADO PRIGIONIERO
/ WINKEL 90° ÜBERWURFMUTTER
/ COUDE 90° ÉCROU PRISONNIER



761

CODE	TECH. CODE	SIZE		
77.18.345	RF0761005050	1/2" x 1/2"	10	150
77.18.346	RF0761007070	3/4" x 3/4"	10	70

STRAIGHT COUPLER SWIVEL NUT

/ RACCORDO DIRITTO DADO PRIGIONIERO
/ ROHRVERSCHRAUBUNG GERADE
ÜBERWURFMUTTER
/ MANCHON ÉGAL ÉCROU PRISONNIER



770

CODE	TECH. CODE	SIZE		
77.18.350	RF0770005050	1/2" x 1/2"	10	150
77.18.351	RF0770007070	3/4" x 3/4"	10	80
77.18.352	RF0770010070	1" x 3/4"	10	70
77.18.353	RF0770010100	1" x 1"	10	70

ELBOW 90° MALE/SWIVEL NUT

/ GOMITO 90° MASCHIO/DADO
PRIGIONIERO
/ WINKEL 90° AG/ÜBERWURFMUTTER
/ COUDE 90° MÂLE/ÉCROU PRISONNIER



762

CODE	TECH. CODE	SIZE		
77.18.360	RF0762005050	1/2" x 1/2"	10	150
77.18.361	RF0762005070	1/2" x 3/4"	10	100
77.18.362	RF0762007070	3/4" x 3/4"	10	80

THREADED FITTINGS 3 PCS

/ RACCORDI FILETTATI 3 PEZZI
/ GEWINDEFITTINGE 3 STK.
/ RACCORDS FILETÉS 3 PIÈCES

BRASS

UNI EN 12164/12165
CW 617N
DIN 50930-6



KIT CONNECTION NUT-TAIL PIECE-FLAT SEAL

/ KIT DADO-CODOLO-GUARNIZIONE PIATTA
/ VERSCHRAUBUNG MUTTER-TÜLLE-
FLACHDICHTUNG
/ KIT COUDE-BOUCHON-JOINT PLAT



245



CODE	TECH. CODE	SIZE	SIZE	
77.10.111	RF0245005000	3/4" F	1/2" M	80
77.10.116	RF0245007000	1" F	3/4" M	50
77.10.121	RF0245010000	1 1/4" F	1" M	30
77.10.126	RF0245012000	1 1/2" F	1 1/4" M	30
77.10.127	RF0245015000	2" F	1 1/2" M	20

FEMALE/FEMALE STRAIGHT COUPLER WITH O-RING TAPERED

/ BOCCHETTONE DIRITTO FEMMINA/FEMMINA
TENUTA O-RING CONICA
/ ROHRVERWSCHRAUBUNG GERADE IG/IG MIT
O-RING KONISCH DICHTEND
/ UNION FEMELLE/FEMELLE AVEC O-RING
CONIQUE



128

CODE	TECH. CODE	SIZE		
RT0128005000		1/2" x 1/2"	10	80
RT0128007000		3/4" x 3/4"	10	60
RT0128010000		1" x 1"	5	30

FEMALE/MALE STRAIGHT COUPLER METALLIC SEAL

/ BOCCHETTONE DIRITTO FEMMINA/MASCHIO
TENUTA METALLICA
/ ROHRVERSCHRAUBUNG GERADE IG/AG
METALLISCHDICHTEND
/ UNION FEMELLE/MÂLE JOINT MÉTALLIQUE



126

CODE	TECH. CODE	SIZE		
77.09.005	RT0126003MT0	3/8" x 3/8"	10	150
77.09.010	RT0126005MT0	1/2" x 1/2"	10	100
77.09.015	RT0126007MT0	3/4" x 3/4"	10	70
77.09.020	RT0126010MT0	1" x 1"	5	30
77.09.025	RT0126012MT0	1 1/4" x 1 1/4"		15

FEMALE/MALE STRAIGHT COUPLER WITH O-RING TAPERED

/ BOCCHETTONE DIRITTO FEMMINA/MASCHIO
TENUTA O-RING CONICA
/ ROHRVERWSCHRAUBUNG GERADE IG/AG MIT
O-RING KONISCH DICHTEND
/ UNION FEMELLE/MÂLE AVEC O-RING
CONIQUE



126

CODE	TECH. CODE	SIZE		
77.09.050	RT0126003000	3/8" x 3/8"	10	150
77.09.055	RT0126005000	1/2" x 1/2"	10	80
77.09.060	RT0126007000	3/4" x 3/4"	10	60
77.09.065	RT0126010000	1" x 1"	5	30
77.09.070	RT0126012000	1 1/4" x 1 1/4"		15
77.09.075	RT0126015000	1 1/2" x 1 1/2"		10
77.09.080	RT0126020000	2" x 2"		10

FEMALE/MALE STRAIGHT COUPLER FLAT SEAL

/ BOCCHETTONE DIRITTO FEMMINA/MASCHIO
TENUTA GUARNIZIONE PIANA
/ ROHRVERSCHRAUBUNG GERADE IG/AG
FLACHDICHTUNG
/ UNION FEMELLE/MÂLE JOINT PLAT



126

CODE	TECH. CODE	SIZE		
77.09.100	RT0126003GU0	3/8" x 3/8"	10	150
77.09.105	RT0126005GU0	1/2" x 1/2"	10	80
77.09.110	RT0126007GU0	3/4" x 3/4"	10	60
77.09.115	RT0126010GU0	1" x 1"	5	30
77.09.120	RT0126012GU0	1 1/4" x 1 1/4"		15
77.09.125	RT0126015GU0	1 1/2" x 1 1/2"		10
77.09.130	RT0126020GU0	2" x 2"		10

MALE/MALE STRAIGHT COUPLER METALLIC SEAL

/ BOCCHETTONE DIRITTO MASCHIO/MASCHIO
TENUTA METALLICA
/ ROHRVERSCHRAUBUNG GERADE AG/AG
METALLISCHDICHEND
/ UNION MÂLE/MÂLE JOINT MÉTALLIQUE



127

CODE	TECH. CODE	SIZE		
77.11.005	RT0127003MT0	3/8" x 3/8"	10	150
77.11.010	RT0127005MT0	1/2" x 1/2"	10	100
77.11.015	RT0127007MT0	3/4" x 3/4"	10	60
77.11.020	RT0127010MT0	1" x 1"	5	30
77.11.029	RT0127012MT0	1 1/4" x 1 1/4"		20

MALE/MALE STRAIGHT COUPLER WITH O-RING TAPERED

/ BOCCHETTONE DIRITTO MASCHIO/MASCHIO
TENUTA O-RING CONICA
/ ROHRVERSCHRAUBUNG GERADE AG/AG MIT
O-RING KONISCH DICHEND
/ UNION MÂLE/MÂLE AVEC O-RING CONIQUE



127

CODE	TECH. CODE	SIZE		
77.11.050	RT0127003000	3/8" x 3/8"	10	120
77.11.055	RT0127005000	1/2" x 1/2"	10	100
77.11.060	RT0127007000	3/4" x 3/4"	10	60
77.11.065	RT0127010000	1" x 1"	5	40
77.11.074	RT0127012000	1 1/4" x 1 1/4"		20

MALE/MALE STRAIGHT COUPLER FLAT SEAL

/ BOCCHETTONE DIRITTO MASCHIO/MASCHIO
TENUTA GUARNIZIONE PIANA
/ ROHRVERSCHRAUBUNG GERADE AG/AG
FLACHDICHUNG
/ UNION MÂLE/MÂLE JOINT PLAT



127

CODE	TECH. CODE	SIZE		
77.11.105	RT0127005GU0	1/2" x 1/2"	10	80
77.11.110	RT0127007GU0	3/4" x 3/4"	10	60
77.11.115	RT0127010GU0	1" x 1"	5	40

FEMALE/MALE ELBOW 90° METALLIC SEAL

/ BOCCHETTONE GOMITO 90°
FEMMINA/MASCHIO TENUTA METALLICA
/ WINKELVERSCHRAUBUNG 90° IG/AG
METALLISCHDICHEND
/ UNION COUDE 90° FEMELLE/MÂLE
JOINT MÉTALLIQUE



125

CODE	TECH. CODE	SIZE		
77.10.005	RT0125003MT0	3/8" x 3/8"	10	100
77.10.010	RT0125005MT0	1/2" x 1/2"	10	60
77.10.015	RT0125007MT0	3/4" x 3/4"	10	40
77.10.020	RT0125010MT0	1" x 1"	5	20
77.10.025	RT0125012MT0	1 1/4" x 1 1/4"		15

FEMALE/MALE ELBOW 90° WITH O-RING TAPERED

/ BOCCHETTONE GOMITO 90° FEMMINA/MASCHIO
TENUTA O-RING CONICA
/ WINKELVERSCHRAUBUNG 90° IG/AG MIT O-RING
KONISCH DICHEND
/ UNION COUDE 90° FEMELLE/MÂLE AVEC O-RING
CONIQUE



125

CODE	TECH. CODE	SIZE		
77.10.050	RT0125003000	3/8" x 3/8"	10	100
77.10.055	RT0125005000	1/2" x 1/2"	10	70
77.10.060	RT0125007000	3/4" x 3/4"	10	40
77.10.065	RT0125010000	1" x 1"	5	20
77.10.070	RT0125012000	1 1/4" x 1 1/4"		15
77.10.075	RT0125015000	1 1/2" x 1 1/2"		10

FEMALE/MALE ELBOW 90° FLAT SEAL

/ BOCCHETTONE GOMITO 90° FEMMINA/MASCHIO
TENUTA GUARNIZIONE PIANA
/ WINKELVERSCHRAUBUNG 90° IG/AG
FLACHDICHUNG
/ UNION COUDE 90° FEMELLE/MÂLE JOINT PLAT



125

CODE	TECH. CODE	SIZE		
77.10.105	RT0125005GU0	1/2" x 1/2"	10	60
77.10.110	RT0125007GU0	3/4" x 3/4"	10	40
77.10.115	RT0125010GU0	1" x 1"	5	20
77.10.120	RT0125012GU0	1 1/4" x 1 1/4"		15
77.10.125	RT0125015GU0	1 1/2" x 1 1/2"		10

EXTENSIONS

/ PROLUNGHE
/ HAHNVERLÄNGERUNGEN
/ RALLONGES

BRASS

UNI EN 12164/12165
CW 617N
DIN 50930-6



EXTENSION MALE/FEMALE HEAVY TYPE

/ PROLUNGA MASCHIO/FEMMINA PESANTE
/ HAHNVERLÄNGERUNG AG/IG SCHWERE AUSFÜHRUNG
/ RALLONGE MÂLE/FEMELLE LOURDE

DIN 3523



277 - 3/8"

CODE	TECH. CODE	SIZE / L		
77.15.005	RF0277003010	3/8" x 10 mm	10	300
77.15.010	RF0277003020	3/8" x 15 mm	10	250
77.15.015	RF0277003030	3/8" x 20 mm	10	200
77.15.016	RF0277003040	3/8" x 25 mm	10	180
77.15.020	RF0277003050	3/8" x 30 mm	10	150
77.15.021	RF0277003070	3/8" x 40 mm	10	120
77.15.025	RF0277003090	3/8" x 50 mm	10	100
77.15.030	RF0277003120	3/8" x 65 mm	10	70
77.15.035	RF0277003150	3/8" x 80 mm	10	60
77.15.040	RF0277003190	3/8" x 100 mm	10	40

277 - 1/2"

CODE	TECH. CODE	SIZE / L		
77.15.100	RF0277005010	1/2" x 10 mm	10	200
77.15.105	RF0277005020	1/2" x 15 mm	10	150
77.15.110	RF0277005030	1/2" x 20 mm	10	120
77.15.111	RF0277005040	1/2" x 25 mm	10	120
77.15.115	RF0277005050	1/2" x 30 mm	10	100
77.15.116	RF0277005070	1/2" x 40 mm	10	80
77.15.120	RF0277005090	1/2" x 50 mm	10	80
77.15.121	RF0277005110	1/2" x 60 mm	10	70
77.15.125	RF0277005150	1/2" x 80 mm	10	50
	RF0277005170	1/2" x 90 mm	10	50
	RF0277005190	1/2" x 100 mm	10	50

277 - 3/4"

CODE	TECH. CODE	SIZE / L		
77.15.200	RF0277007010	3/4" x 10 mm	10	150
77.15.205	RF0277007020	3/4" x 15 mm	10	120
77.15.210	RF0277007030	3/4" x 20 mm	10	100
77.15.211	RF0277007040	3/4" x 25 mm	10	100
77.15.215	RF0277007050	3/4" x 30 mm	10	80
77.15.216	RF0277007070	3/4" x 40 mm	10	60
77.15.220	RF0277007090	3/4" x 50 mm	10	60
77.15.221	RF0277007110	3/4" x 60 mm	10	50
77.15.225	RF0277007150	3/4" x 80 mm	10	40
77.15.235	RF0277007190	3/4" x 100 mm	10	30

277 - 1"

CODE	TECH. CODE	SIZE / L		
77.15.300	RF0277010010	1" x 10 mm	5	100
77.15.305	RF0277010020	1" x 15 mm	5	80
77.15.310	RF0277010030	1" x 20 mm	5	60
77.15.311	RF0277010040	1" x 25 mm	5	50
77.15.315	RF0277010050	1" x 30 mm	5	40
77.15.318	RF0277010070	1" x 40 mm	5	30
77.15.320	RF0277010090	1" x 50 mm	5	30
77.15.321	RF0277010110	1" x 60 mm	5	20
77.15.323	RF0277010150	1" x 80 mm	5	20
77.15.330	RF0277010190	1" x 100 mm	5	20

EXTENSION MALE/FEMALE HEAVY TYPE - CHROME PLATED

/ PROLUNGA MASCHIO/FEMMINA PESANTE - CROMATA
 / HAHNVERLÄNGERUNG AG/IG SCHWERE AUSFÜHRUNG - VERCHROMT
 / RALLONGE MÂLE/FEMELLE LOURDE - CHROMÉE

DIN 3523 - CHROME PLATED



277C - 3/8"

CODE	TECH. CODE	SIZE / L		
77.17.005	RF027700301C	3/8" x 10 mm	10	300
77.17.010	RF027700302C	3/8" x 15 mm	10	250
77.17.015	RF027700303C	3/8" x 20 mm	10	200
77.17.016	RF027700304C	3/8" x 25 mm	10	180
77.17.020	RF027700305C	3/8" x 30 mm	10	150
77.17.021	RF027700307C	3/8" x 40 mm	10	120
77.17.025	RF027700309C	3/8" x 50 mm	10	100

277C - 1/2"

CODE	TECH. CODE	SIZE / L		
77.17.100	RF027700501C	1/2" x 10 mm	10	200
77.17.105	RF027700502C	1/2" x 15 mm	10	150
77.17.110	RF027700503C	1/2" x 20 mm	10	120
77.17.111	RF027700504C	1/2" x 25 mm	10	120
77.17.115	RF027700505C	1/2" x 30 mm	10	100
77.17.116	RF027700507C	1/2" x 40 mm	10	80
77.17.120	RF027700509C	1/2" x 50 mm	10	80
77.17.121	RF027700511C	1/2" x 60 mm	10	70
77.17.125	RF027700515C	1/2" x 80 mm	10	50
	RF027700519C	1/2" x 100 mm	10	50

277C - 3/4"

CODE	TECH. CODE	SIZE / L		
77.17.200	RF027700701C	3/4" x 10 mm	10	150
77.17.205	RF027700702C	3/4" x 15 mm	10	120
77.17.210	RF027700703C	3/4" x 20 mm	10	100
77.17.211	RF027700704C	3/4" x 25 mm	10	100
77.17.215	RF027700705C	3/4" x 30 mm	10	80
77.17.216	RF027700707C	3/4" x 40 mm	10	60
77.17.220	RF027700709C	3/4" x 50 mm	10	60
77.17.221	RF027700711C	3/4" x 60 mm	10	50
77.17.225	RF027700715C	3/4" x 80 mm	10	50
77.17.235	RF027700719C	3/4" x 100 mm	10	30

277C - 1"

CODE	TECH. CODE	SIZE / L		
77.17.300	RF027701001C	1" x 10 mm	5	100
77.17.305	RF027701002C	1" x 15 mm	5	80
77.17.310	RF027701003C	1" x 20 mm	5	60
77.17.311	RF027701004C	1" x 25 mm	5	50
77.17.315	RF027701005C	1" x 30 mm	5	40
77.17.318	RF027701007C	1" x 40 mm	5	30
77.17.320	RF027701009C	1" x 50 mm	5	30
77.17.321	RF027701011C	1" x 60 mm	5	20
77.17.323	RF027701015C	1" x 80 mm	5	20
77.17.330	RF027701019C	1" x 100 mm	5	20

EXTENSION MALE/MALE HEAVY TYPE

/ PROLUNGA MASCHIO/MASCHIO PESANTE
 / HAHNVERLÄNGERUNG AG/AG SCHWERE AUSFÜHRUNG
 / RALLONGE MÂLE/MÂLE LOURDE



278 - 1/2"

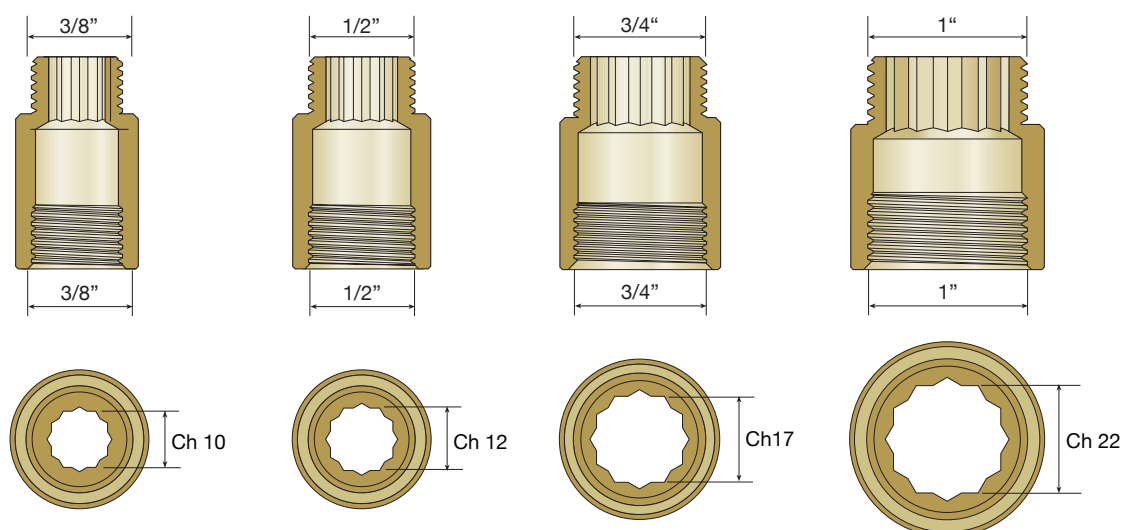
CODE	TECH. CODE	SIZE / L		
77.16.010	RF0278005050	1/2" x 30 mm	10	100
77.16.015	RF0278005070	1/2" x 40 mm	10	100
77.16.020	RF0278005090	1/2" x 50 mm	10	70
77.16.025	RF0278005110	1/2" x 60 mm	10	70
77.16.026	RF0278005130	1/2" x 70 mm	10	50
77.16.030	RF0278005150	1/2" x 80 mm	10	50
77.16.031	RF0278005170	1/2" x 90 mm	10	50
77.16.035	RF0278005210	1/2" x 100 mm	10	50
77.16.036	RF0278005230	1/2" x 120 mm	10	50
77.16.040	RF0278005290	1/2" x 150 mm	10	50
77.16.045	RF0278005390	1/2" x 200 mm	10	30

278 - 1"

CODE	TECH. CODE	SIZE / L		
77.16.210	RF0278010050	1" x 30 mm	5	30
77.16.215	RF0278010070	1" x 40 mm	5	80
77.16.220	RF0278010090	1" x 50 mm	5	60
77.16.225	RF0278010110	1" x 60 mm	5	60
77.16.226	RF0278010130	1" x 70 mm	5	50
77.16.230	RF0278010150	1" x 80 mm	5	50
77.16.231	RF0278010170	1" x 90 mm	5	20
77.16.235	RF0278010210	1" x 100 mm	5	20
77.16.236	RF0278010250	1" x 130 mm	5	20
77.16.240	RF0278010290	1" x 150 mm	5	20

278 - 3/4"

CODE	TECH. CODE	SIZE / L		
77.16.110	RF0278007050	3/4" x 30 mm	10	150
77.16.115	RF0278007070	3/4" x 40 mm	10	120
77.16.120	RF0278007090	3/4" x 50 mm	10	60
77.16.125	RF0278007110	3/4" x 60 mm	10	60
77.16.126	RF0278007130	3/4" x 70 mm	10	50
77.16.130	RF0278007150	3/4" x 80 mm	10	50
77.16.131	RF0278007170	3/4" x 90 mm	10	50
77.16.135	RF0278007210	3/4" x 100 mm	10	50
77.16.136	RF0278007220	3/4" x 110 mm	10	30
77.16.140	RF0278007290	3/4" x 150 mm	10	30
77.16.145	RF0278007390	3/4" x 200 mm	10	30



DIMENSIONS / MISURE / ABMESSUNGEN / DIMENSIONS

TECHNICAL SPECIFICATIONS

The Comisa heavy extensions are compatible with:

- UNI EN ISO 228-1:2003 cylindrical male threaded ends
- UNI EN 10226-2:2006 conical male threaded ends
- UNI EN ISO 228-1:2003 female threaded ends

MATERIALS

Brass UNI EN 12164/12168 CW 617 N (DIN 50930-6)

- Suitable for contact with food liquids for human consumption (complies with DIN 3523 standards)
- Hardness HB 2.5/62.5 ≤ 110 (complies with DIN 3523 standards)

HEAT TREATMENT

Normalising.

/ TECHNISCHE EIGENSCHAFTEN

Die Hahnverlängerungen Schwere Ausführung

Comisa passen auf:

- Endstücke mit AG zylindrisch UNI EN ISO 228-1:2003
- Endstücke mit AG konisch UNI EN ISO 10226-2:2006
- Endstücke mit IG UNI EN ISO 228-1:2003

MATERIAL

Messing UNI EN 12164/12168 CW 617 N (DIN 50930-6)

- Für Trinkwasserinstallationen geeignet (entspricht DIN 3523)
- Härte HB 2,5/62,5 ≤ 110 (entspricht DIN 3523)

WÄRMEBEHANDLUNG

Normalglühen.

/ SPECIFICHE TECNICHE

Le prolunghe pesanti Comisa sono compatibili con:

- Terminali filettati maschio cilindrici UNI EN ISO 228-1:2003
- Terminali filettati maschio conici UNI EN 10226-2:2006
- Terminali filettati femmina UNI EN ISO 228-1:2003

MATERIALI

Ottone UNI EN 12164/12168 CW 617 N (DIN 50930-6)

- Adatto al contatto con liquidi alimentari destinati al consumo umano (conforme DIN 3523)
- Durezza HB 2,5/62,5 ≤ 110 (conforme DIN 3523)

TRATTAMENTO TERMICO

Normalizzazione

/ CARACTÉRISTIQUES TECHNIQUES

Les rallonges Comisa lourde sont compatibles avec:

- UNI EN ISO 228-1:2003 filetage mâle cylindrique
- UNI EN 10226-2:2006 filetage mâle conique
- UNI EN ISO 228-1:2003 filetage femelle

MATÉRIAUX

Laiton UNI EN 12164/12168 CW 617 N (DIN 50930-6)

- Adapté au contact avec des liquides alimentaires pour la consommation humaine (conforme aux DIN 3523 normes)
- Dureté HB 2,5/62,5 ≤ 110 (conforme à la norme DIN 3523 normes)

TRAITEMENT THERMIQUE

Normalisation.

NON-NORMALISED EXTENSIONS



NON-NORMALISED EXTENSIONS

- Light yellow colour
- HB 2.5/62.5 > 110 Hardness (does not comply with DIN 3523 standards)
- Occurrence of fractures if subjected to radial compression by a deformation = 7% of the diameter
- Cracks occur if subjected to radial compression = 400 Kgf

/ PROLUNGHE NON NORMALIZZATE

- Colore giallo chiaro
- Durezza HB 2,5/62,5 > 110 (non conforme DIN 3523)
- Sottoposta a schiacciamento radiale per una deformazione = 7% del diametro si assiste alla formazione di fratture
- Sottoposta a schiacciamento radiale = 400 Kgf si producono crepe

/ HAHNVERLÄNGERUNGEN OHNE NORMALGLÜHEN

- Farbe: helles Gelb
- Härte HB 2,5/62,5 > 110 (entspricht nicht DIN 3523)
- Bei einem Radialquetschen mit einer Verformung = 7% des Durchmessers entstehen Brüche
- Bei einem Radialquetschen = 400 Kgf entstehen Risse

/ RALLONGES NON NORMALISÉES

- Couleur jaune pâle
- HB 2.5/62.5 > 110 Dureté (non conformes aux normes DIN 3523)
- Présence de fractures s'elle est soumise à une compression radiale par une déformation = 7% du diamètre
- Les fissures se produisent si soumise à une compression radiale = 400 Kgf

NORMALISED EXTENSIONS



NORMALISED EXTENSIONS

- Dark yellow colour
- HB 2.5/62.5 ≤ 110 Hardness (complies with DIN 3523)
- No fractures if subjected to radial compression by a deformation > 7% of the diameter
- No cracks occur if subjected to radial compression > 400 Kgf (plastic deformation)

/ PROLUNGHE NORMALIZZATE

- Colore giallo intenso
- Durezza HB 2,5/62,5 ≤ 110 (conforme DIN 3523)
- Sottoposta a schiacciamento radiale per una deformazione > 7% del diametro non si assiste alla formazione di fratture
- Sottoposta a schiacciamento radiale > 400 Kgf non si producono crepe (deformazione plastica)

/ NORMALGEGLÜHTE HAHNVERLÄNGERUNGEN

- Farbe: leuchtendes Gelb
- Härte HB 2,5/62,5 ≤ 110 (entspricht DIN 3523)
- Bei einem Radialquetschen mit einer Verformung > 7% des Durchmessers entstehen keine Brüche
- Bei einem Radialquetschen > 400 Kgf entstehen keine Risse (zähe Verformung)

/ RALLONGES NORMALISÉES

- Couleur jaune foncé
- HB 2.5/62.5 ≤ 110 Dureté (selon DIN 3523)
- Pas de fractures si soumise à une compression radiale par une déformation > 7% du diamètre
- Pas de fissures si soumise à une compression radiale > 400 Kgf (déformation plastique)

EFFECTS OF THERMAL TREATMENT ON THE BRASS ALLOYS

Mechanical operations required to obtain the product (fitting) causes hardening thereof and the ensuing increase of fragility. This problem can be overcome through suitable heat treatment.

Heating the fittings at a given temperature over a preset period of time allows softening the product.

When normalising an alloy, crystals deformed and subjected to stress are transformed into stress-free crystals through resetting, re-crystallisation and grain growth.

Normalised fittings have a higher capacity of absorbing deformations without being exposed to the risk of breakage, while the aesthetic aspect varies considerably in terms of colour.

/ AUSWIRKUNGEN DER WÄRMBEHANDLUNG AUF DIE MESSINGLEGIERUNGEN

Die für die Entstehung des Werkstücks (Fitting) notwendige mechanische Bearbeitung führt zur Verfestigung und somit zu einer erhöhten Brüchigkeit, der man mit einer entsprechenden Wärmebehandlung begegnen kann.

Wird das Fitting für eine vorher festgelegte Zeit bis zu einer bestimmten Temperatur erhitzt, führt dies zu einer Erweichung des Werkstücks.

Beim Normalglühen einer Legierung werden die verformten und unter Spannung stehenden Kristalle mittels Versetzung, Rekristallisation und Kornwachstum in Kristalle ohne Spannung umgewandelt.

Durch das Normalglühen erhöht sich die bruchfreie Verformbarkeit des Werkstücks, wobei durch die Behandlung eine signifikante farbliche Veränderung auftritt.

/ EFFETTI DEI TRATTAMENTI TERMICI SULLE LEGHE DI OTTONE

Le lavorazioni meccaniche necessarie per ottenere il manufatto (raccordo) ne causano l'incrudimento ed il conseguente aumento della fragilità: vi si può ovviare mediante appropriato trattamento termico.

Attraverso il riscaldamento dei raccordi ad una certa temperatura per un tempo prefissato si ottiene un ammorbidimento del manufatto.

Durante la normalizzazione di una lega, i cristalli deformati e sotto sforzo sono trasformati in cristalli privi di tensioni attraverso riassetto, ricristallizzazione e crescita dei grani.

Nel raccordo normalizzato aumenta la capacità di assorbire deformazioni senza il rischio di rotture; l'aspetto estetico presenta una significativa variazione della colorazione.

/ EFFETS DE TRAITEMENT THERMIQUE SUR LES ALLIAGES DE LAITON

L'usinage nécessaire pour obtenir l'extension provoque un durcissement du laiton ce qui le rend plus fragile.

Ce défaut peut être corrigé par un traitement thermique approprié.

Lors du traitement thermique de normalisation d'un alliage, des cristaux déformés et soumis à des tensions internes se réorganisent afin de réduire les tensions internes et recristalliser.

Les raccords normalisés ont une plus grande capacité de supporter les déformations sans risque de cassure. Ils sont facilement reconnaissables à leur couleur jaune foncé.

THREADED FITTINGS NICKEL-PLATED

/ RACCORDI FILETTATI NICHELATI
/ GEWINDEFITTINGE VERNICKELT
/ RACCORDS FILETÉS NICHELÉS

BRASS

UNI EN 12164/12165
CW 617N
DIN 50930-6



MALE/MALE STRAIGHT COUPLER

/ RACCORDO DIRITTO MASCHIO/MASCHIO
/ KUPPLUNG AG/AG
/ MANCHON MÂLE/MÂLE



270A

CODE	TECH. CODE	SIZE		
71.01.050	RF0270A0300N	3/8" x 3/8"	10	400
71.01.051	RF0270A0500N	1/2" x 1/2" (Ø int. mm 14 - fil. mm 9)	10	300
71.01.060	RF0270A0514N	1/2" x 1/2" (Ø int. mm 14 - fil. mm 11)	10	200
71.01.014	RF0270A0700N	3/4" x 3/4" (Ø int. mm 19 - fil. mm 10)	10	200
71.01.061	RF0270A0719N	3/4" x 3/4" (Ø int. mm 19 - fil. mm 12)	10	150
71.01.052	RF0270A1000N	1" x 1"	10	100
71.01.053	RF0270A1200N	1 1/4" x 1 1/4"	5	60
71.01.054	RF0270A1500N	1 1/2" x 1 1/2"	5	40
71.01.055	RF0270A2000N	2" x 2"	5	25
HEAVY PATTERN SERIES				

MALE/MALE REDUCING COUPLER

/ RACCORDO DIRITTO RIDOTTO
MASCHIO/MASCHIO
/ REDUZIERNIPPEL AG/AG
/ MANCHON RÉDUIT MÂLE/MÂLE



291

CODE	TECH. CODE	SIZE		
71.02.080	RF029100503N	1/2" x 3/8"	10	300
71.02.081	RF029100705N	3/4" x 1/2"	10	200
71.02.082	RF029101007N	1" x 3/4"	10	120
71.02.083	RF029101210N	1 1/4" x 1"	10	50
71.02.084	RF029101512N	1 1/2" x 1 1/4"	5	40
71.02.085	RF029102015N	2" x 1 1/2"		25

MALE/FEMALE REDUCTION WITH FLANGE

/ RIDUZIONE MASCHIO/FEMMINA
CON FLANGIA
/ REDUZIERTSTÜCK AG/IG MIT FLANSCH
/ RÉDUCTION MÂLE/FEMELLE
AVEC BRIDE D'ARRÊT



285

CODE	TECH. CODE	SIZE		
	RF028500705N	3/4" M x 1/2" F	10	150
	RF028501005N	1" M x 1/2" F	5	100
	RF028501007N	1" M x 3/4" F	5	100

MALE/FEMALE REDUCTION

/ RIDUZIONE MASCHIO/FEMMINA
/ REDUZIERTSTÜCK AG/IG
/ RÉDUCTION MÂLE/FEMELLE



287

CODE	TECH. CODE	SIZE		
71.14.172	RF028700501N	1/2" M x 1/8" F	10	400
71.14.173	RF028700502N	1/2" M x 1/4" F	10	400
71.14.174	RF028700503N	1/2" M x 3/8" F	10	400
71.14.175	RF028700705N	3/4" M x 1/2" F	10	250
71.14.177	RF028701005N	1" M x 1/2" F	10	150
71.14.178	RF028701007N	1" M x 3/4" F	10	150
71.14.179	RF028701207N	1 1/4" M x 3/4" F	10	100
71.14.180	RF028701210N	1 1/4" M x 1" F	10	100
71.14.183	RF028701512N	1 1/2" M x 1 1/4" F	10	70
71.14.184	RF028702015N	2" M x 1 1/2" F		30

FEMALE/FEMALE STRAIGHT COUPLER

/ RACCORDO DIRITTO FEMMINA/FEMMINA
/ MUFFE IG/IG
/ MANCHON FEMELLE/FEMELLE



270F

CODE	TECH. CODE	SIZE		
71.03.041	RF0270F0300N	3/8" x 3/8"	10	300
71.03.046	RF0270F0500N	1/2" x 1/2"	10	200
71.03.047	RF0270F0700N	3/4" x 3/4"	10	100
71.03.042	RF0270F1000N	1" x 1"	10	70
71.03.043	RF0270F1200N	1 1/4" x 1 1/4"	10	40
71.03.044	RF0270F1500N	1 1/2" x 1 1/2"	5	20
71.03.045	RF0270F2000N	2" x 2"	5	15

MALE PLUG WITH FLANGE

/ TAPPO MASCHIO CON FLANGIA
/ STOPFEN AG MIT FLANSCH
/ BOUCHON MÂLE AVEC BRIDE D'ARRÊT



276

CODE	TECH. CODE	SIZE		
71.13.040	RF027600500N	1/2"	10	350
71.13.041	RF027600700N	3/4"	10	200
71.13.042	RF027601000N	1"	10	120

FEMALE/MALE REDUCING COUPLER

/ RACCORDO DIRITTO RIDOTTO
FEMMINA/MASCHIO
/ MUFFE IG/AG REDUZIERT
/ MANCHON RÉDUIT FEMELLE/MÂLE



295

CODE	TECH. CODE	SIZE		
71.04.073	RF029500503N	1/2" F x 3/8" M	10	250
71.04.070	RF029500705N	3/4" F x 1/2" M	10	150
71.04.071	RF029501005N	1" F x 1/2" M	10	80
71.04.072	RF029501007N	1" F x 3/4" M	10	80

FEMALE/FEMALE REDUCING COUPLER

/ RACCORDO DIRITTO RIDOTTO
FEMMINA/FEMMINA
/ MUFFE IG/IG REDUZIERT
/ MANCHON RÉDUIT FEMELLE/FEMELLE



294

CODE	TECH. CODE	SIZE		
71.03.091	RF029400705N	3/4" x 1/2"	10	120
71.03.092	RF029401005N	1" x 1/2"	10	70
71.03.093	RF029401007N	1" x 3/4"	10	70
71.03.094	RF029401210N	1 1/4" x 1"	5	40

FEMALE/FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA/FEMMINA
/ WINKEL 90° IG/IG
/ COUDE 90° FEMELLE/FEMELLE



260F

CODE	TECH. CODE	SIZE		
71.05.041	RF0260F0300N	3/8" x 3/8"	10	200
71.05.042	RF0260F0500N	1/2" x 1/2"	10	130
71.05.043	RF0260F0700N	3/4" x 3/4"	10	70
71.05.044	RF0260F1000N	1" x 1"	5	40
71.05.045	RF0260F1200N	1 1/4" x 1 1/4"		20
71.05.046	RF0260F1500N	1 1/2" x 1 1/2"		20
71.05.047	RF0260F2000N	2" x 2"		12

MALE/MALE ELBOW 90°

/ GOMITO 90° MASCHIO/MASCHIO
/ WINKEL 90° AG/AG
/ COUDE 90° MÂLE/MÂLE



260A

CODE	TECH. CODE	SIZE		
71.07.038	RF0260A0500N	1/2" x 1/2"	10	200
71.07.039	RF0260A0700N	3/4" x 3/4"	10	120
71.07.040	RF0260A1000N	1" x 1"	10	50

FEMALE/MALE ELBOW 90°

/ GOMITO 90° FEMMINA/MASCHIO
/ WINKEL 90° IG/AG
/ COUDE 90° FEMELLE/MÂLE



262A

CODE	TECH. CODE	SIZE		
71.06.036	RF0262A0300N	3/8" x 3/8"	10	200
71.06.037	RF0262A0500N	1/2" x 1/2"	10	120
71.06.038	RF0262A0700N	3/4" x 3/4"	10	40
71.06.039	RF0262A1000N	1" x 1"	10	40
71.06.040	RF0262A1200N	1 1/4" x 1 1/4"		25
71.06.041	RF0262A1500N	1 1/2" x 1 1/2"		20
71.06.042	RF0262A2000N	2" x 2"		12

FEMALE/MALE REDUCING ELBOW 90°

/ GOMITO 90° RIDOTTO FEMMINA/MASCHIO
/ WINKEL 90° IG/AG REDUZIERT
/ COUDE RÉDUIT 90° FEMELLE/MÂLE 90°



262B

CODE	TECH. CODE	SIZE		
71.06.050	RF0262B0503N	1/2" x 3/8"	10	150
71.06.051	RF0262B0705N	3/4" x 1/2"	10	100

FEMALE/MALE EXTENSION

/ PROLUNGA FEMMINA/MASCHIO
/ VERLÄNGERUNG IG/AG
/ RALLONGE FEMELLE/MÂLE



292

CODE	TECH. CODE	SIZE		
71.15.150	RF029200510N	1/2" - 10	10	250
71.15.151	RF029200515N	1/2" - 15	10	250
71.15.152	RF029200520N	1/2" - 20	10	200
71.15.153	RF029200525N	1/2" - 25	10	200
71.15.154	RF029200530N	1/2" - 30	10	150

FEMELLE/FEMELLE WALLPLATE ELBOW 90°

/ GOMITO 90° FLANGIATO FEMMINA/FEMMINA
/ WANDWINKEL 90° IG/IG
/ APPLIQUE MURALE 90° FEMELLE/FEMELLE



3 FIXING HOLES

264F

CODE	TECH. CODE	SIZE		
71.08.100	RF0264F0500N	1/2" x 1/2"	10	100

MALE TEE

/ RACCORDO A T MASCHIO
/ T-STÜCK MIT AG
/ TÉ MÂLE



250A

CODE	TECH. CODE	SIZE		
71.07.094	RF0250A0500N	1/2" x 1/2" x 1/2"	10	120
71.07.095	RF0250A0700N	3/4" x 3/4" x 3/4"	10	80
71.07.096	RF0250A1000N	1" x 1" x 1"	5	40

FEMALE TEE

/ RACCORDO A T FEMMINA
/ T-STÜCK MIT IG
/ TÉ FEMELLE

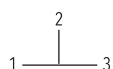


250F

CODE	TECH. CODE	SIZE		
71.08.039	RF0250F0500N	1/2" x 1/2" x 1/2"	10	80
71.08.040	RF0250F0700N	3/4" x 3/4" x 3/4"	10	50
71.08.041	RF0250F1000N	1" x 1" x 1"	5	25
71.08.042	RF0250F1200N	1 1/4" x 1 1/4" x 1 1/4"	15	
71.08.043	RF0250F1500N	1 1/2" x 1 1/2" x 1 1/2"	15	
71.08.044	RF0250F2000N	2" x 2" x 2"	8	

REDUCING TEE FEMALE

/ RACCORDO A T RIDOTTO FEMMINA
/ T-STÜCK REDUZIERT IG
/ TÉ RÉDUIT FEMELLE



253F

CODE	TECH. CODE	SIZE		
71.08.050	RF0253F0705N	3/4" x 1/2" x 3/4"	10	50
	RF0253F1005N	1" x 1/2" x 1"	5	30
	RF0253F1007N	1" x 3/4" x 1"	5	30

FEMALE CAP

/ TAPPO FEMMINA
/ KAPPE IG
/ BOUCHON FEMELLE



288

CODE	TECH. CODE	SIZE		
71.12.006	RF028800300N	3/8"	10	400
71.12.010	RF028800500N	1/2"	10	400
71.12.015	RF028800700N	3/4"	10	250
71.12.020	RF028801000N	1"	10	120
71.12.026	RF028801200N	1" 1/4	10	100
71.12.031	RF028801500N	1" 1/2	5	50

MALE CAP

/ TAPPO MASCHIO
/ STOPFEN AG
/ BOUCHON MÂLE



286

CODE	TECH. CODE	SIZE		
71.13.043	RF028600300N	3/8"	10	400
71.13.044	RF028600500N	1/2"	10	400
71.13.045	RF028600700N	3/4"	10	150
71.13.046	RF028601000N	1"	10	150
71.13.047	RF028601200N	1 1/4"	10	80
71.13.048	RF028601500N	1 1/2"	10	60
71.13.049	RF028602000N	2"	5	40

HEAVY PATTERN SERIES

MALE/FEMALE ELBOW 90° WITH FLANGE - HP SERIES

/ GOMITO 90° MASCHIO/FEMMINA CON FLANGIA - SERIE HP
/ WINKEL 90° AG/IG MIT FLANSCH - HP SERIE
/ COUDE 90° MÂLE/FEMELLE AVEC BRIDE D'ARRÊT - HP SERIE



267

CODE	TECH. CODE	SIZE		
71.06.020	RF026700500N	1/2" x 1/2"	10	100
71.06.025	RF026700700N	3/4" x 3/4"	10	60
71.06.030	RF026701000N	1" x 1"	5	30

THREADED FITTINGS NICKEL-PLATED 3 PCS

/ RACCORDI FILETTATI NICHELATI 3 PEZZI
/ GEWINDEFITTINGE VERNICKELT 3 STK.
/ RACCORDS FILETÉS NICHELÉS 3 PIÈCES

FEMALE/MALE ELBOW 90° WITH O-RING TAPERED

/ BOCCHETTONE GOMITO 90° FEMMINA/MASCHIO
TENUTA O-RING CONICA
/ WINKELVERSCHRAUBUNG 90° IG/AG MIT O-RING
KONISCH DICHTEND
/ UNION COUDE FEMELLE/MÂLE 90° AVEC O-RING
CONIQUE



125

CODE	TECH. CODE	SIZE		
71.10.050	RT012500300N	3/8" x 3/8"	10	100
71.10.055	RT012500500N	1/2" x 1/2"	10	70
71.10.060	RT012500700N	3/4" x 3/4"	10	40
71.10.065	RT012501000N	1" x 1"	5	20
71.10.070	RT012501200N	1 1/4" x 1 1/4"		15

FEMALE/MALE STRAIGHT COUPLER WITH O-RING TAPERED

/ BOCCHETTONE DIRITTO FEMMINA/MASCHIO
TENUTA O-RING CONICA
/ ROHRVERSCHRAUBUNG GERADE IG/AG MIT
O-RING KONISCH DICHTEND
/ UNION FEMELLE/MÂLE AVEC O-RING
CONIQUE



126

CODE	TECH. CODE	SIZE		
71.09.050	RT012600300N	3/8" x 3/8"	10	120
71.09.055	RT012600500N	1/2" x 1/2"	10	100
71.09.060	RT012600700N	3/4" x 3/4"	10	70
71.09.065	RT012601000N	1" x 1"	5	35
71.09.070	RT012601200N	1 1/4" x 1 1/4"		15

MALE/MALE STRAIGHT COUPLER WITH O-RING TAPERED

/ BOCCHETTONE DIRITTO MASCHIO/MASCHIO
TENUTA O-RING CONICA
/ ROHRVERSCHRAUBUNG GERADE AG/AG MIT
O-RING KONISCH DICHTEND
/ UNION MÂLE/MÂLE AVEC O-RING CONIQUE



127

CODE	TECH. CODE	SIZE		
71.11.050	RT012700300N	3/8" x 3/8"	10	120
71.11.055	RT012700500N	1/2" x 1/2"	10	80
71.11.060	RT012700700N	3/4" x 3/4"	10	60

FEMALE/MALE ELBOW 90° FLAT SEAL

/ BOCCHETTONE GOMITO 90° FEMMINA/MASCHIO
TENUTA GUARNIZIONE PIANA
/ WINKELVERSCHRAUBUNG 90° IG/AG
FLACHDICHTUNG
/ UNION COUDE FEMELLE/MÂLE 90° JOINT PLAT



125

CODE	TECH. CODE	SIZE		
71.10.105	RT0125005GUN	1/2" x 1/2"	10	70
71.10.110	RT0125007GUN	3/4" x 3/4"	10	40
71.10.115	RT0125010GUN	1" x 1"	5	20

FEMALE/MALE STRAIGHT COUPLER FLAT SEAL

/ BOCCHETTONE DIRITTO FEMMINA/MASCHIO
TENUTA GUARNIZIONE PIANA
/ ROHRVERSCHRAUBUNG GERADE IG/AG
FLACHDICHTUNG
/ UNION FEMELLE/MÂLE JOINT PLAT



126

CODE	TECH. CODE	SIZE		
71.09.105	RT0126005GUN	1/2" x 1/2"	10	100
71.09.110	RT0126007GUN	3/4" x 3/4"	10	70
71.09.115	RT0126010GUN	1" x 1"	5	35

MALE/MALE STRAIGHT COUPLER FLAT SEAL

/ BOCCHETTONE DIRITTO MASCHIO/MASCHIO
TENUTA GUARNIZIONE PIANA
/ ROHRVERSCHRAUBUNG GERADE AG/AG
FLACHDICHTUNG
/ UNION MÂLE/MÂLE JOINT PLAT



127

CODE	TECH. CODE	SIZE		
71.11.105	RT0127005GUN	1/2" x 1/2"	10	80
71.11.110	RT0127007GUN	3/4" x 3/4"	10	60
71.11.115	RT0127010GUN	1" x 1"	5	30

THREADED FITTINGS CHROME-PLATED

/ RACCORDI FILETTATI CROMATI
/ GEWINDEFITTINGE VERCHROMT
/ RACCORDS FILETÉS CHROMÉS

MALE/MALE STRAIGHT COUPLER

/ RACCORDO DIRITTO MASCHIO/MASCHIO
/ KUPPLUNG AG/AG
/ MANCHON MÂLE/MÂLE



270A

CODE	TECH. CODE	SIZE		
77.21.050	RF0270A0300C	3/8" x 3/8"	10	400
77.21.060	RF0270A0514C	1/2" x 1/2" (Ø int. mm 14 - fil. mm 11)	10	200
77.21.061	RF0270A0719C	3/4" x 3/4" (Ø int. mm 19 - fil. mm 12)	10	150

FEMALE/FEMALE STRAIGHT COUPLER

/ RACCORDO DIRITTO FEMMINA/FEMMINA
/ MUFFE IG/IG
/ MANCHON FEMELLE/FEMELLE



270F

CODE	TECH. CODE	SIZE		
77.23.040	RF0270F0200C	1/4" x 1/4"	10	500
77.23.041	RF0270F0300C	3/8" x 3/8"	10	300
77.23.046	RF0270F0500C	1/2" x 1/2"	10	200
77.23.047	RF0270F0700C	3/4" x 3/4"	10	100

MALE/FEMALE REDUCTION

/ RIDUZIONE MASCHIO/FEMMINA
/ REDUZIERTSTÜCK AG/IG
/ RÉDUCTION MÂLE/FEMELLE



287

CODE	TECH. CODE	SIZE		
77.24.171	RF028700302C	3/8" M x 1/4" F	10	500
77.24.173	RF028700502C	1/2" M x 1/4" F	10	400
77.24.174	RF028700503C	1/2" M x 3/8" F	10	400
77.24.175	RF028700705C	3/4" M x 1/2" F	10	250

MALE/MALE REDUCING COUPLER

/ RACCORDO DIRITTO RIDOTTO
MASCHIO/MASCHIO
/ REDUZIERNIPPEL AG/AG
/ MANCHON RÉDUIT MÂLE/MÂLE



291

CODE	TECH. CODE	SIZE		
77.22.080	RF029100503C	1/2" x 3/8"	10	300
77.22.081	RF029100705C	3/4" x 1/2"	10	200

HEAVY PATTERN SERIES

MALE/FEMALE ELBOW 90° WITH FLANGE - HP SERIES

/ GOMITO 90° MASCHIO/FEMMINA CON
FLANGIA - SERIE HP
/ WINKEL 90° AG/IG MIT
FLANSCH - HP SERIE
/ COUDE 90° MÂLE/FEMELLE AVEC BRIDE
D'ARRÊT - HP SERIE



267

CODE	TECH. CODE	SIZE		
77.26.020	RF026700500C	1/2" x 1/2"	10	100
77.26.025	RF026700700C	3/4" x 3/4"	10	60

FEMALE/MALE REDUCING COUPLER

/ RACCORDO DIRITTO RIDOTTO
/ FEMMINA/MASCHIO
/ MUFFE IG/AG REDUZIERT
/ MANCHON RÉDUIT FEMELLE/MÂLE



295

CODE	TECH. CODE	SIZE		
77.24.073	RF029500503C	1/2" F x 3/8" M	10	250
77.24.070	RF029500705C	3/4" F x 1/2" M	10	150

FEMALE/FEMALE REDUCING COUPLER

/ RACCORDO DIRITTO RIDOTTO
/ FEMMINA/FEMMINA
/ MUFFE IG/IG REDUZIERT
/ MANCHON RÉDUIT FEMELLE/FEMELLE



294

CODE	TECH. CODE	SIZE		
77.23.091	RF029400705C	3/4" x 1/2"	10	120

FEMALE TEE

/ RACCORDO A T FEMMINA
/ T-STÜCK MIT IG
/ TÉ FEMELLE



250F

CODE	TECH. CODE	SIZE		
77.28.037	RF0250F0200C	1/4" x 1/4" x 1/4"	10	200
77.28.038	RF0250F0300C	3/8" x 3/8" x 3/8"	10	150
77.28.039	RF0250F0500C	1/2" x 1/2" x 1/2"	10	80
77.28.040	RF0250F0700C	3/4" x 3/4" x 3/4"	10	50

MALE/MALE ELBOW 90°

/ GOMITO 90° MASCHIO/MASCHIO
/ WINKEL 90° AG/AG
/ COUDE 90° MÂLE/MÂLE



260A

CODE	TECH. CODE	SIZE		
77.27.036	RF0260A0200C	1/4" x 1/4"	10	400
77.27.037	RF0260A0300C	3/8" x 3/8"	10	300
77.27.038	RF0260A0500C	1/2" x 1/2"	10	200
77.27.039	RF0260A0700C	3/4" x 3/4"	10	120

FEMALE/FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA/FEMMINA
/ WINKEL 90° IG/IG
/ COUDE 90° FEMELLE/FEMELLE



260F

CODE	TECH. CODE	SIZE		
77.25.040	RF0260F0200C	1/4" x 1/4"	10	300
77.25.041	RF0260F0300C	3/8" x 3/8"	10	200
77.25.042	RF0260F0500C	1/2" x 1/2"	10	130
77.25.043	RF0260F0700C	3/4" x 3/4"	10	70

MALE/MALE ELBOW 90°

/ GOMITO 90° MASCHIO/MASCHIO
/ WINKEL 90° AG/AG
/ COUDE 90° MÂLE/MÂLE



262A

CODE	TECH. CODE	SIZE		
77.26.035	RF0262A0200C	1/4" x 1/4"	10	300
77.26.036	RF0262A0300C	3/8" x 3/8"	10	200
77.26.037	RF0262A0500C	1/2" x 1/2"	10	120
77.26.038	RF0262A0700C	3/4" x 3/4"	10	80

COMPRESSION FITTINGS FOR POLYETHYLENE AND IRON PIPE

/ RACCORDI A STRINGERE PER TUBO POLIETILENE E TUBO FERRO
/ KLEMMVERBINDER FÜR POLYETHYLENROHR UND EISENROHR
/ RACCORDS POUR TUBE POLYÉTHYLÈNE ET TUBE EN FER





COMPRESSION FITTINGS FOR POLYETHYLENE AND IRON PIPE

DUPLO FOR POLYETHYLENE PIPE PN 16	124
DUPLO FOR POLYETHYLENE AND PVC PIPE PN 16	126
DUPLO FOR IRON PIPE	128
FITTINGS FOR POLYETHYLENE PIPE WITH O-RING	132



UNIVERSAL • UNIVERSALE • UNIVERSELL • UNIVERSEL

DUPLO IS UNIVERSAL

Duplo fitting is designed to solve all the problems of connecting pipes. Even pipes of different materials and of different diameters can be connected together with the replacement of a simple accessory.

The fitting is effectively used in polyethylene systems, PVC, Iron, for the distribution of water, air.

DUPLO IS PRACTICAL

Thanks to its versatility, the fitting allows the construction of systems with metal or other material pipes, without welding or threading, thus facilitating any type of installation or repair.

DUPLO IS FOR INDUSTRY

The fittings is especially advantageous in industrial plant engineering and in inserting equipment on existing systems. The mounting and tightening are extremely simple even in difficult operating conditions.

/ DUPLO È UNIVERSALE

Il raccordo Duplo è stato progettato per risolvere tutti i problemi di accoppiamento delle tubature. Anche tubi di diversi materiali e di diverso diametro possono essere collegati fra di loro con la sostituzione di un semplice accessorio. Il raccordo è efficacemente utilizzato su impianti in Polietilene, PVC, Ferro, per la distribuzione di acqua, aria.

DUPLO è PRATICO

Il raccordo grazie alla sua versatilità, consente la realizzazione di impianti con tubi in metallo o altri materiali, senza saldature né filettature, facilitando ogni tipo di installazione o riparazione.

DUPLO è PER L'INDUSTRIA

Il raccordo è particolarmente vantaggioso nell'impiantistica industriale e nell'inserimento di apparecchiature su impianti già esistenti. Il montaggio ed il serraggio sono estremamente semplici anche in condizioni operative difficoltose.

/ DUPLO IST ÜBERALL EINSETZBAR

Der neue Fitting Duplo löst alle Probleme der Kopplung zwischen Leitungen mit verschiedenen Materialien. Auch Rohre mit verschiedenen Durchmessern können zusammen verbunden werden und dies einfach nur durch das Austauschen eines einfachen Zubehörs. Reibungslos auf Installationen in Polyethylen, PVC, Stahl, für die Verteilung von Wasser und Luft.

DUPLO IST PRAKTISCH

Der neue Fitting dank seiner Vielseitigkeit erlaubt die Installation mit Stahlrohre oder andere Materialien, ohne Schweißen, Schrauben, und erleichtert in jedem Fall (sei es Neuinstallation oder Reparatur).

DUPLO IST FÜR DIE INDUSTRIE

Der neue Fitting ist besonders günstig für die Industrieinstallation und für den Einsatz auf schon vorhandene Elemente. Die Installation ist einfach auch wenn es um kritische und sehr schwierige Installationssituation geht.

/ DUPLO EST UNIVERSEL

Le raccordo Duplo est conçu comme un raccord très polyvalent. Même des tubes de différents matériaux et de différent diamètre peuvent être liés entre eux par la substitution d'un si simple accessoire. Le raccord est efficacement utilisé sur installations en polyéthylène, PVC, Fer, pour la distribution d'eau et d'air.

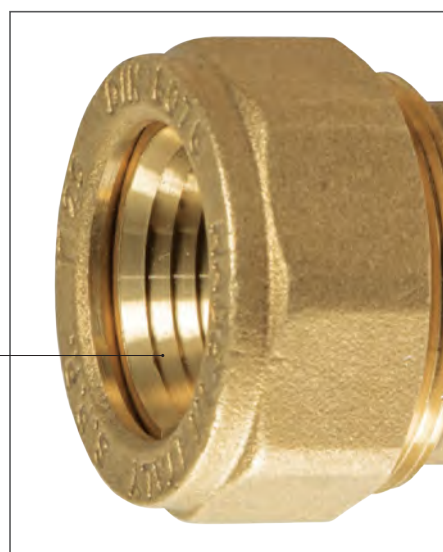
DUPLO EST PRATIQUE

Le raccord, grâce à sa versatilité, permet la réalisation des installations avec tube en métal ou d'autres matériaux, sans soudure ni filetage, en facilitant chaque type d'installation ou réparation.

DUPLO EST POUR L'INDUSTRIE

Le raccord est particulièrement avantageux dans l'implantation industrielle et pour l'ajoute d'une installation sur des implantations qui sont déjà existantes. L'assemblage et le serrage sont vraiment simples aussi dans des conditions opératives difficiles.

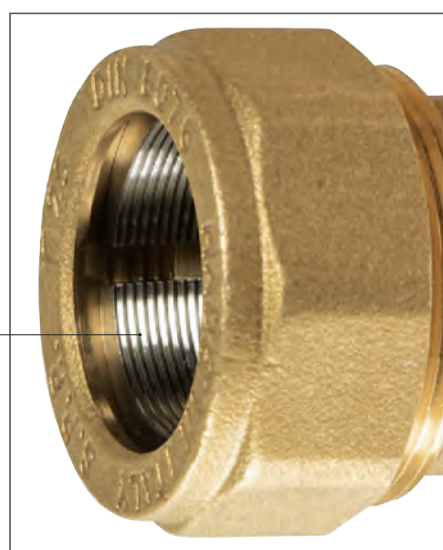
WITH BRASS WASHER
/ CON GHIERA IN OTTONE
/ MIT MESSINGKLEMMRING
/ AVEC BAGUE DE SERRAGE EN LAITON



WITH RESIN WASHER
/ CON GHIERA IN RESINA
/ MIT HARZKLEMMRING
/ AVEC BAGUE DE SERRAGE EN RESINE



WITH STAINLESS STEEL WASHER
/ CON GHIERA IN ACCIAIO INOSSIDABILE
/ MIT EDELSTAHLKLEMMRING
/ AVEC BAGUE DE SERRAGE EN INOX



DUPLO FOR POLYETHYLENE PIPE PN 16

/ DUPLO PER TUBO POLIETILENE PN 16

/ DUPLO FÜR POLYETHYLENROHR PN16

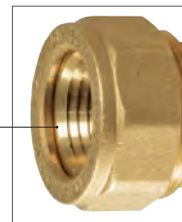
/ DUPLO POUR TUBE POLYETHYLENE PN 16

BRASS



UNI EN 12164/12165
CW 617
DIN 50930-6

WITH BRASS WASHER
/ CON GHIERA IN OTTONE
/ MIT MESSINGKLEMMRING
/ AVEC BAGUE DE SERRAGE EN
LAITON



TEE

/ RACCORDO A T
/ T-STÜCK
/ TÉ



0050

CODE	TECH. CODE	SIZE 	
73.22.005	RP0050000200	20 x 20 x 20	40
73.22.006	RP0050000250	25 x 25 x 25	20
73.22.007	RP0050000320	32 x 32 x 32	12
73.22.008	RP0050000400	40 x 40 x 40 •	8
73.22.009	RP0050000500	50 x 50 x 50 •	5
73.22.010	RP0050000630	63 x 63 x 63 •	3

ELBOW 90°

/ GOMITO 90°
/ WINKEL 90°
/ COUDE 90°



0060

CODE	TECH. CODE	SIZE 	
73.22.035	RP0060000200	20 x 20	60
73.22.036	RP0060000250	25 x 25	30
73.22.037	RP0060000320	32 x 32	20
73.22.038	RP0060000400	40 x 40 •	10
73.22.039	RP0060000500	50 x 50 •	10
73.22.040	RP0060000630	63 x 63 •	4

FEMALE TEE

/ RACCORDO A T FEMMINA
/ T-STÜCK MIT IG
/ TÉ FEMELLE



0052

CODE	TECH. CODE	SIZE 	
73.22.025	RP0052005200	20 x 1/2" x 20	45
73.22.026	RP0052007250	25 x 3/4" x 25	24
73.22.027	RP0052010320	32 x 1" x 32	15
73.22.028	RP0052012400	40 x 1 1/4" x 40 •	9
73.22.029	RP0052015500	50 x 1 1/2" x 50 •	6
73.22.030	RP0052020630	63 x 2" x 63 •	3

MALE ELBOW 90°

/ GOMITO 90° MASCHIO
/ WINKEL 90° MIT AG
/ COUDE 90° MÂLE



0061

CODE	TECH. CODE	SIZE 	
73.22.045	RP0061005200	20 x 1/2"	80
73.22.046	RP0061007250	25 x 3/4"	50
73.22.047	RP0061010320	32 x 1"	30
73.22.048	RP0061012400	40 x 1 1/4"	15
73.22.049	RP0061015500	50 x 1 1/2"	10
73.22.050	RP0061020630	63 x 2" •	6

FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA
/ WINKEL 90° MIT IG
/ COUDE 90° FEMELLE



0062

CODE	TECH. CODE	SIZE 	
73.22.055	RP0062005200	20 x 1/2"	80
73.22.056	RP0062007250	25 x 3/4"	50
73.22.057	RP0062010320	32 x 1"	30
73.22.058	RP0062012400	40 x 1 1/4"	15
73.22.059	RP0062015500	50 x 1 1/2"	10
73.22.060	RP0062020630	63 x 2"	6

REDUCING COUPLER

/ RACCORDO DIRITTO RIDOTTO
/ KLEMMVERSCHRAUBUNG GRADE
REDUZIERT
/ MANCHON RÉDUIT



0070R

CODE	TECH. CODE	SIZE 	
73.22.085	RP0070R25200	25 x 20	50
73.22.086	RP0070R32250	32 x 25	35

MALE COUPLER

/ RACCORDO DIRITTO MASCHIO
/ ÜBERGANG MIT AG
/ MANCHON MÂLE



0071

CODE	TECH. CODE	SIZE 	
73.22.090	RP0071005200	20 x 1/2"	120
73.22.091	RP0071005250	25 x 1/2"	80
73.22.092	RP0071007250	25 x 3/4"	80
73.22.093	RP0071007320	32 x 3/4"	50
73.22.094	RP0071010320	32 x 1"	40
73.22.095	RP0071012400	40 x 1 1/4"	24
73.22.096	RP0071015500	50 x 1 1/2"	15
73.22.097	RP0071020630	63 x 2"	8

STRAIGHT COUPLER

/ RACCORDO DIRITTO
/ KUPPLUNG
/ MANCHON ÉGAL



0070

CODE	TECH. CODE	SIZE 	
73.22.065	RP0070000200	20 x 20	70
73.22.066	RP0070000250	25 x 25	40
73.22.067	RP0070000320	32 x 32	25
73.22.068	RP0070000400	40 x 40	18
73.22.069	RP0070000500	50 x 50	10
73.22.070	RP0070000630	63 x 63	6

EXTENDED REPAIR COUPLER

/ RACCORDO DIRITTO PER RIPARAZIONI
/ KLEMMVERSCHRAUBUNG GRADE FÜR
REPARATUR
/ MANCHON DROIT DE REPARATION



0070L

CODE	TECH. CODE	SIZE 	
73.22.075	RP0070L00200	20 x 20	50
73.22.077	RP0070L00320	32 x 32	15
73.22.078	RP0070L00400	40 x 40	10
73.22.079	RP0070L00500	50 x 50	7

FEMALE COUPLER

/ RACCORDO DIRITTO FEMMINA
/ ÜBERGANG MIT IG
/ MANCHON FEMELLE



0080

CODE	TECH. CODE	SIZE 	
73.22.100	RP0080005200	20 x 1/2"	120
73.22.101	RP0080005250	25 x 1/2"	80
73.22.102	RP0080007250	25 x 3/4"	80
73.22.103	RP0080007320	32 x 3/4"	50
73.22.104	RP0080010320	32 x 1"	40
73.22.105	RP0080012400	40 x 1 1/4"	24
73.22.106	RP0080015500	50 x 1 1/2"	15
73.22.107	RP0080020630	63 x 2"	8

DUPLO FOR POLYETHYLENE AND PVC PIPE PN 16

/ DUPLO PER TUBO POLIETILENE E TUBO PVC PN 16

/ DUPLO MESSINGVERSCHRAUBUNGEN FÜR POLYETHYLEN UND PVC ROHRE PN 16

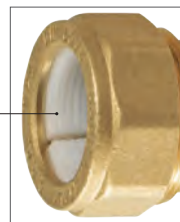
/ DUPLO POUR TUBE POLYETHYLENE ET TUBE PVC PN 16

BRASS



UNI EN 12164/12165
CW 617
DIN 50930-6

WITH RESIN WASHER
/ CON GHIERA IN RESINA
/ MIT HARZKLEMMRING
/ AVEC BAGUE DE SERRAGE EN
RESINE



TEE

/ RACCORDO A T
/ KLEMM-T-STÜCK
/ TÉ



R050

CODE	TECH. CODE	SIZE 	
73.21.005	RPR050000200	20 x 20 x 20	40
73.21.006	RPR050000250	25 x 25 x 25	20
73.21.007	RPR050000320	32 x 32 x 32	12

FEMALE TEE

/ RACCORDO A T FEMMINA
/ KLEMM-T-STÜCK IG
/ TÉ FEMELLE



R052

CODE	TECH. CODE	SIZE 	
73.21.025	RPR052005200	20 x 1/2" x 20	45
73.21.026	RPR052007250	25 x 3/4" x 25	24
73.21.027	RPR052010320	32 x 1" x 32	15

ELBOW 90°

/ GOMITO 90°
/ WINKEL 90°
/ COUDE 90°



R060

CODE	TECH. CODE	SIZE 	
73.21.035	RPR060000200	20 x 20	60
73.21.036	RPR060000250	25 x 25	30
73.21.037	RPR060000320	32 x 32	20

MALE ELBOW 90°

/ GOMITO 90° MASCHIO
/ WINKEL 90° MIT AG
/ COUDE 90° MÂLE



R061

CODE	TECH. CODE	SIZE 	
73.21.045	RPR061005200	20 x 1/2"	80
73.21.046	RPR061007250	25 x 3/4"	50
73.21.047	RPR061010320	32 x 1"	30
73.21.048	RPR061012400	40 x 1 1/4"	15
73.21.049	RPR061015500	50 x 1 1/2"	10

FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA
/ WINKEL 90° MIT IG
/ COUDE 90° FEMELLE



R062

CODE	TECH. CODE	SIZE 	
73.21.055	RPR062005200	20 x 1/2"	80
73.21.056	RPR062007250	25 x 3/4"	50
73.21.057	RPR062010320	32 x 1"	30
73.21.058	RPR062012400	40 x 1 1/4"	15
73.21.059	RPR062015500	50 x 1 1/2"	10

REDUCING COUPLER

/ RACCORDO DIRITTO RIDOTTO
/ KLEMMVERSCHRAUBUNG GRADE
REDUZIERT
/ MANCHON RÉDUIT



R070R

CODE	TECH. CODE	SIZE 	
73.21.085	RPR070R25200	25 x 20	50
73.21.086	RPR070R32250	32 x 25	35

MALE COUPLER

/ RACCORDO DIRITTO MASCHIO
/ ÜBERGANG MIT AG
/ MANCHON MÂLE



R071

CODE	TECH. CODE	SIZE 	
73.21.090	RPR071005200	20 x 1/2"	120
73.21.091	RPR071005250	25 x 1/2"	80
73.21.092	RPR071007250	25 x 3/4"	80
73.21.093	RPR071007320	32 x 3/4"	50
73.21.094	RPR071010320	32 x 1"	40
73.21.095	RPR071012400	40 x 1 1/4"	24
73.21.096	RPR071015500	50 x 1 1/2"	15

STRAIGHT COUPLER

/ RACCORDO DIRITTO
/ KUPPLUNG
/ MANCHON ÉGAL



R070

CODE	TECH. CODE	SIZE 	
73.21.065	RPR070000200	20 x 20	70
73.21.066	RPR070000250	25 x 25	40
73.21.067	RPR070000320	32 x 32	25
73.21.068	RPR070000400	40 x 40	18
73.21.069	RPR070000500	50 x 50	10

EXTENDED REPAIR COUPLER

/ RACCORDO DIRITTO PER RIPARAZIONI
/ KLEMMVERSCHRAUBUNG GERADE FÜR
REPARATUR
/ MANCHON DROIT DE REPARATION



R070L

CODE	TECH. CODE	SIZE 	
73.21.075	RPR070L00200	20 x 20	50
73.21.077	RPR070L00320	32 x 32	15
73.21.078	RPR070L00400	40 x 40	10
73.21.079	RPR070L00500	50 x 50	7

FEMALE COUPLER

/ RACCORDO DIRITTO FEMMINA
/ ÜBERGANG MIT IG
/ MANCHON FEMELLE



R080

CODE	TECH. CODE	SIZE 	
73.21.100	RPR080005200	20 x 1/2"	120
73.21.101	RPR080005250	25 x 1/2"	80
73.21.102	RPR080007250	25 x 3/4"	80
73.21.103	RPR080007320	32 x 3/4"	50
73.21.104	RPR080010320	32 x 1"	40
73.21.105	RPR080012400	40 x 1 1/4"	24
73.21.106	RPR080015500	50 x 1 1/2"	15

DUPLO FOR IRON PIPE

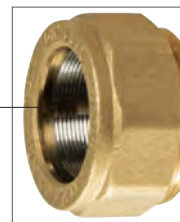
/ DUPLO PER TUBO IN FERRO
/ DUPLO FÜR EISENROHR
/ DUPLO POUR TUBE FER

BRASS



UNI EN 12164/12165
CW 617
DIN 50930-6

WITH STAINLESS STEEL WASHER
/ CON GHIERA IN ACCIAIO INOSSIDABILE
/ MIT EDELSTAHLKLEMMRING
/ AVEC BAGUE DE SERRAGE EN INOX



TEE

/ RACCORDO A T
/ T-STÜCK
/ TÉ



I050

CODE	TECH. CODE	SIZE 	
73.23.005	RPI050000200	20 (1/2") x 20 (1/2") x 20 (1/2")	40
73.23.006	RPI050000250	25 (3/4") x 25 (3/4") x 25 (3/4")	20
73.23.007	RPI050000320	32 (1") x 32 (1") x 32 (1")	12

ELBOW 90°

/ WINKEL 90°
/ GOMITO 90°
/ COUDE 90°



I060

CODE	TECH. CODE	SIZE 	
73.23.035	RPI060000200	20 (1/2") x 20 (1/2")	60
73.23.036	RPI060000250	25 (3/4") x 25 (3/4")	30
73.23.037	RPI060000320	32 (1") x 32 (1")	20

FEMALE TEE

/ RACCORDO A T FEMMINA
/ T-STÜCK MIT IG
/ TÉ FEMELLE



I052

CODE	TECH. CODE	SIZE 	
73.23.025 (3/4")	RPI052005200	20 (1/2") x 1/2" x 20 (1/2")	45
73.23.026	RPI052007250	25 (3/4") x 3/4" x 25 (3/4")	24
73.23.027	RPI052010320	32 (1") x 1" x 32 (1")	15

MALE ELBOW 90°

/ GOMITO 90° MASCHIO
/ WINKEL 90° MIT AG
/ COUDE 90° MÂLE



I061

CODE	TECH. CODE	SIZE 	
73.23.045	RPI061005200	20 (1/2") x 1/2"	80
73.23.046	RPI061007250	25 (3/4") x 3/4"	50
73.23.047	RPI061010320	32 (1") x 1"	30

EQUIVALENCE

20 =	1/2"	40 =	1 1/4"
25 =	3/4"	50 =	1 1/2"
32 =	1"	63 =	2"

FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA
/ WINKEL 90° MIT IG
/ MANCHON 90° ÉGAL



I062

CODE	TECH. CODE	SIZE 	
73.23.055	RPI062005200	20 (1/2") x 1/2"	80
73.23.056	RPI062007250	25 (3/4") x 3/4"	50
73.23.057	RPI062010320	32 (1") x 1"	30
73.23.058	RPI062012400	40 (1 1/4") x 1 1/4"	15

REDUCING COUPLER

/ RACCORDO DIRITTO RIDOTTO
/ KLEMMVERSCHRAUBUNG GRADE
REDUZIERT
/ MANCHON RÉDUIT



I070R

CODE	TECH. CODE	SIZE 	
73.23.085	RPI070R25200	25 (3/4") x 20 (1/2")	50
73.23.086	RPI070R32250	32 (1") x 25 (3/4")	35

MALE COUPLER

/ RACCORDO DIRITTO MASCHIO
/ ÜBERGANG MIT AG
/ MANCHON MÂLE



I071

CODE	TECH. CODE	SIZE 	
73.23.090	RPI071005200	20 (1/2") x 1/2"	120
73.23.092	RPI071007250	25 (3/4") x 3/4"	80
73.23.094	RPI071010320	32 (1") x 1"	40
73.23.095	RPI071012400	40 (1 1/4") x 1 1/4"	24
73.23.096	RPI071015500	50 (1 1/2") x 1 1/2"	15

STRAIGHT COUPLER

/ RACCORDO DIRITTO
/ KUPPLUNG
/ MANCHON ÉGAL



I070

CODE	TECH. CODE	SIZE 	
73.23.065	RPI070000200	20 (1/2") x 20 (1/2")	70
73.23.066	RPI070000250	25 (3/4") x 25 (3/4")	40
73.23.067	RPI070000320	32 (1") x 32 (1")	25
73.23.068	RPI070000400	40 (1 1/4") x 40 (1 1/4")	18
73.23.069	RPI070000500	50 (1 1/2") x 50 (1 1/2")	10

FEMALE COUPLER

/ RACCORDO DIRITTO FEMMINA
/ ÜBERGANG MIT IG
/ MANCHON FEMELLE



I080

CODE	TECH. CODE	SIZE 	
73.23.100	RPI080005200	20 (1/2") x 1/2"	120
73.23.102	RPI080007250	25 (3/4") x 3/4"	80
73.23.104	RPI080010320	32 (1") x 1"	40
73.23.105	RPI080012400	40 (1 1/4") x 1 1/4"	24
73.23.106	RPI080015500	50 (1 1/2") x 1 1/2"	15
73.23.107	RPI080020630	63 (2") x 2"	8

EQUIVALENCE

20 =	1/2"	40 =	1 1/4"
25 =	3/4"	50 =	1 1/2"
32 =	1"	63 =	2"

BLACK WASHER IN NBR SUITABLE FOR WATER

/ GUARNIZIONE NERA NBR USO CON ACQUA
/ KONISCHER KLEMMRING SCHWARZ NBR
FÜR WASSER
/ JOINT CONIQUE NBR POUR EAU



050D

CODE	TECH. CODE	SIZE 	
73.21.120	RP0G05020NBR	20	50
73.21.121	RP0G05025NBR	25	50
73.21.122	RP0G05032NBR	32	50
73.21.123	RP0G05040NBR	40 *	50
73.21.124	RP0G05050NBR	50 *	50
73.21.125	RP0G05063NBR	63 *	30



* NOT COMPATIBLE WITH SPECIAL SERIES

RESIN RING FOR POLYETHYLENE AND PVC PIPE PN 16

/ GHIERA DI FISSAGGIO IN RESINA PER
TUBO IN POLIETILENE E PVC PN16
/ HARZKLEMMRING FÜR POLYETHYLEN
UND PVC ROHRE PN 16
/ BAGUE DE SERRAGE EN RESINE POUR
TUBE EN POLYETHYLENE ET TUBE PVC
PN 16



050E

CODE	TECH. CODE	SIZE 	
73.21.130	RP0G05020RES	20	50
73.21.131	RP0G05025RES	25	50
73.21.132	RP0G05032RES	32	50
73.21.133	RP0G05040RES	40 *	25
73.21.134	RP0G05050RES	50 *	25



* NOT COMPATIBLE WITH SPECIAL SERIES

BRASS RING FOR POLYETHYLENE PIPE PN16

/ GHIERA DI FISSAGGIO IN OTTONE PER
TUBO IN POLIETILENE PN16
/ MESSINGKLEMMRING FÜR
POLYETHYLEN-ROHR PN16
/ BAGUE DE SERRAGE EN LAITON POUR
TUBE EN POLYÉTHYLÈNE PN16



050F

CODE	TECH. CODE	SIZE 	
73.22.130	RP0G05020000	20	25
73.22.131	RP0G05025000	25	25
73.22.132	RP0G05032000	32	25
73.22.133	RP0G05040000	40 *	10
73.22.134	RP0G05050000	50 *	10
73.22.135	RP0G05063000	63 *	10



* NOT COMPATIBLE WITH SPECIAL SERIES

STAINLESS STEEL RING FOR IRON PIPE

/ GHIERA DI FISSAGGIO IN ACCIAIO INOX
PER TUBO IN FERRO
/ EDELSTAHLKLEMMRING FÜR EISENROHR
/ BAGUE DE SERRAGE EN ACIER INOX
POUR TUBE EN FER



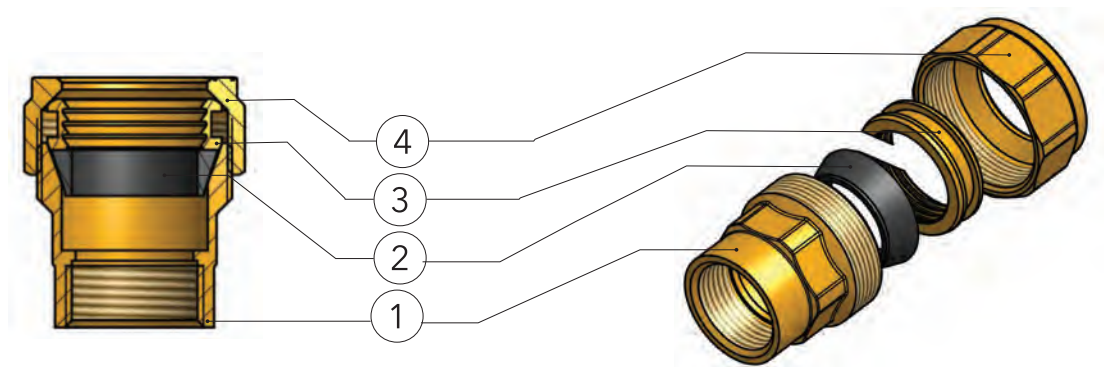
050G

CODE	TECH. CODE	SIZE 	
73.23.130	RP0G05005INO	1/2"	25
73.23.131	RP0G05007INO	3/4"	25
73.23.132	RP0G05010INO	1"	25
73.23.133	RP0G05012INO	1 1/4" *	10
73.23.134	RP0G05015INO	1 1/2" *	10
	RP0G05020INO	2" *	10



* NOT COMPATIBLE WITH SPECIAL SERIES

TECHNICAL FEATURES / CARATTERISTICHE TECNICHE / TECHNISCHE EIGENSCHAFTEN / CARACTÉRISTIQUES TECHNIQUES



	DESCRIPTION	DESCRIZIONE	BESCHREIBUNG	DESCRIPTION	MATERIAL / MATERIALE / MATERIAL / MATÉRIEL
1	BODY	CORPO	KÖRPER	CORPS	BRASS / OTTONE / MESSING / LAITON CW 617N UNI EN 12165
2	GASKET	GUARNIZIONE	DICHTUNG	JOINT DE CULASSE	NBR
3	RESIN WASHER	GHIERA IN RESINA	HARZKLEMMRING	BAGUE DE SERRAGE EN RESINE	ACETAL RESIN / RESINA ACETALICA / ACETALHARZ / RÉSINE ACÉTALE
	BRASS WASHER	GHIERA OTTONE	MESSINGKLEMMRING	BAGUE DE SERRAGE EN LAITON	BRASS / OTTONE / MESSING / LAITON CW 614N UNI EN 12164
	STAINLESS STEEL WASHER	GHIERA ACCIAIO INOSSIDABILE	EDELSTAHLKLEMMRING	BAGUE DE SERRAGE EN ACIER INOX	STEEL INOX / ACCIAIO INOSSIDABILE / EDELSTAHL / ACIER INOXYDABLE AISI 303
4	COMPRESSION NUT	DADO DI SERRAGGIO	KOMPRESSIONSMUTTER	COMPRESSION NUT	BRASS / OTTONE / MESSING / LAITON CW 617N UNI EN 12165

- GHIERA IN RESINA
- RESIN WASHER
- HARZKLEMMRING
- BAGUE DE SERRAGE EN RESINE



- GHIERA IN OTTONE
- BRASS WASHER
- MESSINGKLEMMRING
- BAGUE DE SERRAGE EN LAITON



- GHIERA ACCIAIO INOX
- STAINLESS STEEL WASHER
- EDELSTAHLKLEMMRING
- BAGUE DE SERRAGE EN ACIER INOX



- TUBO POLIETILENE
- POLYETHYLENE PIPE
- POLYETHYLEN-ROHR
- TUBE EN POLYÉTHYLÈNE



- TUBO POLIETILENE
- POLYETHYLENE PIPE
- POLYETHYLEN-ROHR
- TUBE EN POLYÉTHYLÈNE



- TUBO FERRO
- IRON PIPE
- EISENROHR
- TUBE EN FER



FITTINGS FOR POLYETHYLENE PIPE WITH O-RING

/ RACCORDI PER TUBO IN POLIETILENE CON O-RING

/ MESSINGVERSCHRAUBUNGEN FÜR POLYETHYLENROHR MIT O-RING

/ RACCORDE À SERRAGE EXTÉRIEUR POUR TUBE POLYÉTHYLÈNE AVEC JOINT TORIQUE

BRASS

UNI EN 12164/12165
CW 617
DIN 50930-6

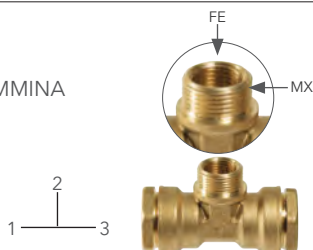
TEE

/ RACCORDO A T
/ T-STÜCK
/ TÊ

350

CODE	TECH. CODE	SIZE 		
73.24.005	RP0350000200	20 x 20 x 20	5	30
73.24.006	RP0350000250	25 x 25 x 25	5	20
73.24.007	RP0350000320	32 x 32 x 32	2	12

MALE/FEMALE TEE

/ RACCORDO A T MASCHIO/FEMMINA
/ T-STÜCK AG/IG
/ TÊ MÂLE/FEMELLE

351

CODE	TECH. CODE	SIZE 		
73.24.011	RP0351007250	25 x 3/4" M - 1/2" F x 25	5	30
73.24.012	RP0351010320	32 x 1" M - 3/4" F x 32	2	16

MALE ELBOW 90°

/ GOMITO 90° MASCHIO
/ WINKEL 90° MIT AG
/ TCOUDE 90° MÂLE

361

CODE	TECH. CODE	SIZE 		
73.24.030	RP0361005200	20 x 1/2"	10	70
73.24.031	RP0361007250	25 x 3/4" M - 1/2" F	10	50
73.24.032	RP0361010320	32 x 1"	2	20
73.24.033	RP0361012400	40 x 1 1/4"		15
73.24.034	RP0361015500	50 x 1 1/2"		10

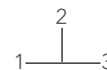
FEMALE STRAIGHT SWIVEL NUT

/ RACCORDO DIRITTO FEMMINA
CON DADO PRIGIONIERO
/ KLEMMVERSCHRAUBUNG
MIT DREHMUTTER
/ DROIT FEMELLE ÉCROU TOURNANT

383

CODE	TECH. CODE	SIZE 		
73.24.095	RP0383007250	25 x 3/4"	10	60

FEMALE TEE

/ RACCORDO A T FEMMINA
/ T-STÜCK MIT IG
/ TÊ FEMELLE

352

CODE	TECH. CODE	SIZE 		
73.24.015	RP0352005200	20 x 1/2" x 20	5	40
73.24.016	RP0352007250	25 x 3/4" x 25	5	25
73.24.017	RP0352010320	32 x 1" x 32	2	16

ELBOW 90°

/ GOMITO 90°
/ WINKEL 90°
/ COUDE 90°

360

CODE	TECH. CODE	SIZE 		
73.24.020	RP0360000200	20 x 20	10	50
73.24.021	RP0360000250	25 x 25	5	30
73.24.022	RP0360000320	32 x 32	2	16
73.24.023	RP0360000400	40 x 40		12
73.24.024	RP0360000500	50 x 50		8

FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA
/ WINKEL 90° MIT IG
/ COUDE 90° FEMELLE

362

CODE	TECH. CODE	SIZE 		
73.24.040	RP0362005200	20 x 1/2"	10	70
73.24.041	RP0362007250	25 x 3/4"	10	50
73.24.042	RP0362010320	32 x 1"	2	20
73.24.043	RP0362012400	40 x 1 1/4"		15
73.24.044	RP0362015500	50 x 1 1/2"		10

FEMALE ELBOW 90° WITH SWIVEL NUT

/ GOMITO 90° FEMMINA
CON DADO PRIGIONIERO
/ WINKEL 90° MIT IG MIT DREHMUTTER
/ COUDE 90° FEMELLE ÉCROU TOURNANT

364

CODE	TECH. CODE	SIZE 		
73.24.100	RP0364007250	25 x 3/4"	10	50
73.24.102	RP0364010320	32 x 1"	10	20

STRAIGHT COUPLER

/ RACCORDO DIRITTO
/ KUPPLUNG
/ MANCHON ÉGAL



370

CODE	TECH. CODE	SIZE 		
73.24.050	RP0370000200	20 x 20	10	60
73.24.051	RP0370000250	25 x 25	10	40
73.24.052	RP0370000320	32 x 32	5	25
73.24.053	RP0370000400	40 x 40		20

STRAIGHT REPAIR COUPLER

/ RACCORDO DIRITTO PER RIPARAZIONI
/ KUPPLUNG FÜR REPARATUR
/ MANCHON DROIT DE REPARATION



370L

CODE	TECH. CODE	SIZE 		
73.24.061	RP0370L00250	25 x 25	5	30
73.24.062	RP0370L00320	32 x 32	2	16
73.24.063	RP0370L00400	40 x 40		14
73.24.064	RP0370L00500	50 x 50		9

WALLPLATE ELBOW 90°

/ GOMITO 90° FLANGIATO
/ WANDWINKEL 90°
/ APPLIQUE MURALE 90°

3 FIXING HOLES



363

CODE	TECH. CODE	SIZE 		
73.24.070	RP0363005200	20 x 1/2"	10	50
73.24.071	RP0363005250	25 x 1/2"	5	30
73.24.072	RP0363007250	25 x 3/4"	5	30

FEMALE COUPLER

/ RACCORDO DIRITTO FEMMINA
/ ÜBERGANG MIT IG
/ MANCHON FEMELLE



380

CODE	TECH. CODE	SIZE 		
73.24.085	RP0380005200	20 x 1/2"	10	100
73.24.086	RP0380005250	25 x 1/2"	10	70
73.24.087	RP0380007250	25 x 3/4"	10	60
73.24.088	RP0380007320	32 x 3/4"	5	40
73.24.089	RP0380010250	25 x 1"	5	50
73.24.090	RP0380010320	32 x 1"	5	35
73.24.091	RP0380012400	40 x 1 1/4"		25
73.24.092	RP0380015500	50 x 1 1/2"		20

MALE COUPLER

/ RACCORDO DIRITTO MASCHIO
/ ÜBERGANG MIT AG
/ MANCHON MÂLE



371

CODE	TECH. CODE	SIZE 		
73.24.075	RP0371005200	20 x 1/2"	10	100
73.24.076	RP0371005250	25 x 1/2"	10	70
73.24.077	RP0371007250	25 x 3/4"	10	70
73.24.078	RP0371007320	32 x 3/4"	5	40
73.24.079	RP0371010250	25 x 1"	5	50
73.24.080	RP0371010320	32 x 1"	5	35
73.24.081	RP0371012400	40 x 1 1/4"		30
73.24.082	RP0371015500	50 x 1 1/2"		20

349



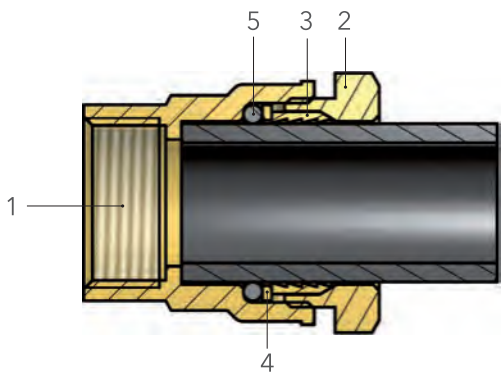
BALL VALVE MOD. 349 F/COMPRESSION FOR POLYETHYLENE PIPE - BLACK ALUMINIUM BUTTERFLY HANDLE

/ VALVOLA A SFERA MOD. 349 F/STRINGERE PER TUBO POLIETILENE -
MANIGLIA IN ALLUMINIO A FARFALLA NERA
/ KUGELHAHN MOD. 349 IG/MIT VERSCHRAUBUNGEN FÜR POLYETHYLEN
ROHR - SCHWARZER ALUMINIUM FLÜGELGRIFF
/ VANNE BOISSEAU SPHÉRIQUE MOD. 349 F/COMPRESSION POUR TUBE
POLYÉTHYLÈNE - MANETTE ALUMINIUM PAPILLON NOIRE

349 ▲

CODE	TECH. CODE	SIZE	PN	
41.32.060	VS0349525PNN	Ø 25 x 1/2" F •	16	40
41.32.062	VS0349732PNN	Ø 32 x 3/4" F •	16	20

• ON REQUEST / SU RICHIESTA / AUF ANFRAGE / SUR COMMANDE



Use: the polyethylene fittings series 350...383 are suitable for use with water: max working pressure 16 bar at 40°C.

/ Utilizzo: i raccordi in polietilene della serie 350...383 sono compatibili ad uso con acqua: sopportano una pressione massima di 16 bar a 40°C.

/ Anwendung: die Fittinge für Polyethylen Rohr 350...383 sind für Verwendung mit Wasser geeignet: max. Betriebsdruck 16 bar mit 40°C

/ Emploi: les raccords polyéthylène série 350...383 sont indiqués pour l'utilisation avec l'eau : pression d'exercice maxi. 16 bar à 40°C.

DESCRIPTION	DESCRIZIONE / BESCHREIBUNG / DESCRIPTION	MATERIAL / MATERIALE / MATERIAL / MATÉRIEL
1 BODY	CORPO / KÖRPER / CORPS	BRASS / OTTONE / MESSING / LAITON CW617N UNI EN 12165
2 COMPRESSION NUT	DADO DI SERRAGGIO / MUTTER / ÉCROU DE SERRAGE	BRASS / OTTONE / MESSING / LAITON CW617N UNI EN 12165
3 SPRING LOCK RING	GHIERA / KLEMMRING / BAGUE DE SERRAGE	BRASS / OTTONE / MESSING / LAITON CW614N UNI EN 12164
4 WASHER	ROSETTA / FEDERRING / RONDELLE	BRASS / OTTONE / MESSING / LAITON CW614N UNI EN 12164
5 O-RING	O-RING / O-RING / JOINT TORIQUE	NBR

INSTRUCTIONS FOR CORRECT INSTALLATION
/ ISTRUZIONI PER UNA CORRETTA INSTALLAZIONE DEL RACCORDO
/ INSTALLATIONSANWEISUNGEN
/ INSTRUCTIONS POUR UN MONTAGE CORRECT DU RACCORD

1

Cut the pipe using suitable tools, being careful to make the cut as perpendicular as possible with respect to the axis of the pipe itself.

/ Tagliare il tubo con appositi strumenti, avendo cura di eseguire il taglio il più perpendicolare possibile rispetto all'asse del tubo stesso.

/ Das Rohr mittels eines geeigneten Rohrschneiders rechwinkling schneiden; ein auf die Rohrlänge senkrechter Schnitt wird die Kalibrierung erleichtern.

/ Couper le tube à l'aide d'instruments prévus à cet effet ; veiller à réaliser la coupe le plus perpendiculairement possible à l'axe du tube.

2

Eliminate any burrs on the pipe.

/ Eliminare eventuali bave rimaste sul tubo.

/ Spänen aus das Rohr entfernen.

/ Éliminer le cas échéant les bavures présentes sur le tube.

3

Fit the pipe up fast on the fitting, with spring lock ring loosened, and then tighten the nut.

/ Inserire il tubo fino in battuta nel raccordo con ghiera allentata, poi avvitare il dado.

/ Schieben Sie den Fitting bis zum Anschlag in das Rohr mit dem gelösten Federring und verschrauben Sie danach die Überwurfmutter.

/ Introduire le tube jusqu'à la butée dans le raccord avec la bague deserrage desserrée, puis visser l'écrou.

4

Do not remove the single parts and fit them on the pipe.

/ Non smontare i singoli componenti e infilarli sul tubo.

/ Entfernen Sie nicht die Einzelteilen und montieren Sie sie auf das Rohr.

/ Ne pas démonter les différents composants et les enfiler sur le tube.

SOLDERING FITTINGS

/ RACCORDI A SALDARE
/ LÖTFITTINGE
/ RACCORDS À SOUDER





SOLDERING FITTINGS

SOLDERING FITTINGS

138

SOLDERING FITTINGS

/ RACCORDI A SALDARE
/ LÖTFITTINGE
/ RACCORDS À SOUDER

BRASS

UNI EN 12164/12165
CW 617N
DIN 50930-6



MALE COUPLER

/ RACCORDO DIRITTO MASCHIO
/ ÜBERGANG MIT AG
/ MANCHON MÂLE



161 (243 GCU)

CODE	TECH. CODE	SIZE 		
77.18.204	R10161012280	1 1/4" x 28	5	50

FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA
/ WINKEL 90° MIT IG
/ COUDE 90° FEMELLE



158 (90 GCU)

CODE	TECH. CODE	SIZE 		
77.18.094	R10158005120	1/2" x 12	10	200
77.18.095	R10158005140	1/2" x 14	10	180
77.18.097	R10158005160	1/2" x 16	10	150

MALE ELBOW 90°

/ GOMITO 90° MASCHIO
/ WINKEL 90° MIT AG
/ COUDE 90° MÂLE



159 (92 GCU)

CODE	TECH. CODE	SIZE 		
77.18.117	R10159003140	3/8" x 14	10	300
77.18.118	R10159005120	1/2" x 12	10	250
77.18.119	R10159005140	1/2" x 14	10	200
77.18.121	R10159005160	1/2" x 16	10	180

LONG FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA LUNGO
/ WINKEL 90° MIT IG LANG
/ COUDE 90° FEMELLE LONG



158L (90L GCU)

CODE	TECH. CODE	SIZE 		
77.18.151	R10158L05120	1/2" x 12	10	150
77.18.152	R10158L05140	1/2" x 14	10	120
77.18.153	R10158L05160	1/2" x 16	10	100

WALLPLATE ELBOW 90°

/ GOMITO 90° FLANGIATO
/ WANDWINKEL 90°
/ APPLIQUE MURALE 90°

3 FIXING HOLES

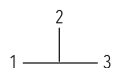


164 (471 GCU)

CODE	TECH. CODE	SIZE 		
77.18.221	R10164005140	1/2" x 14	10	120

FEMALE TEE

/ RACCORDO A T FEMMINA
/ T-STÜCK MIT IG
/ TÉ FEMELLE



157 (130 GCU)

CODE	TECH. CODE	SIZE 		
77.18.073	R10157005120	12 x 1/2" x 12	10	150
77.18.074	R10157005140	14 x 1/2" x 14	10	130
77.18.076	R10157005160	16 x 1/2" x 16	10	120
77.18.077	R10157005180	18 x 1/2" x 18	10	100
77.18.078	R10157005220	22 x 1/2" x 22	10	70

STRAIGHT COUPLER WITH DRAIN COCK

/ RACCORDO DIRITTO CON RUBINETTO DI SCARICO
/ VERSCHRAUBUNG GERADE MIT ENTLERUNG
/ MANCHON ÉGAL PURGEUR



151 (130 PCU)

CODE	TECH. CODE	SIZE 		
77.18.007	SP0151000140	14 x 14	10	180
77.18.008	SP0151000160	16 x 16	10	150

MALE COUPLER - 3 PCS

/ RACCORDO DIRITTO MASCHIO - 3 PEZZI
/ VERSCHRAUBUNG GERADE MIT AG - 3 STK.
/ MANCHON MÂLE - 3 PIÈCES



167 (341 GCU)

CODE	TECH. CODE	SIZE 		
77.18.264	R30167005140	1/2" x 14	10	180
77.18.268	R30167005160	1/2" x 16	10	150
77.18.269	R30167005180	1/2" x 18	10	120
77.18.271	R30167007180	3/4" x 18	10	100
77.18.273	R30167007220	3/4" x 22	10	70
77.18.274	R30167010220	1" x 22	10	60
77.18.275	R30167010280	1" x 28	5	35
77.18.276	R30167012320	1 1/4" x 32		30

FEMALE COUPLER - 3 PCS

/ RACCORDO DIRITTO FEMMINA - 3 PEZZI
/ VERSCHRAUBUNG GERADE MIT IG - 3 STK.
/ MANCHON FEMELLE - 3 PIÈCES



166 (340 GCU)

CODE	TECH. CODE	SIZE 		
77.18.240	R30166005120	1/2" x 12	10	200
77.18.241	R30166005140	1/2" x 14	10	200
77.18.243	R30166005160	1/2" x 16	10	150
77.18.244	R30166005180	1/2" x 18	10	150
77.18.249	R30166007220	3/4" x 22	10	80
77.18.251	R30166010280	1" x 28	5	40
77.18.252	R30166012320	1 1/4" x 32		30

FEMALE ANGLE UNION 90° - 3PCS

/ RACCORDO AD ANGOLO FEMMINA 90° - 3 PEZZI
/ WINKELVERSCHRAUBUNG 90° MIT IG - 3 STK.
/ UNION COUDE 90° FEMELLE - 3 PIÈCES



155 (96 GCU)

CODE	TECH. CODE	SIZE 		
77.18.051	R30155003120	3/8" x 12	10	150
77.18.052	R30155003140	3/8" x 14	10	150
77.18.055	R30155005160	1/2" x 16	10	100
77.18.057	R30155007160	3/4" x 16	10	80
77.18.058	R30155007180	3/4" x 18	10	80
77.18.059	R30155007220	3/4" x 22	10	50
77.18.061	R30155010280	1" x 28	5	25
77.18.062	R30155012320	1 1/4" x 32		20



COMPRESSION FITTINGS FOR SOLAR THERMAL SYSTEMS

/ RACCORDI A STRINGERE PER SOLARE TERMICO
/ KLEMMVERBINDER FÜR SOLARANLAGEN
/ RACCORDS À VISSER POUR INSTALLATIONS SOLAIRES





COMPRESSION FITTINGS FOR SOLAR THERMAL SYSTEMS

COMPRESSION FITTINGS FOR SOLAR THERMAL SYSTEMS

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COMPRESSION FITTINGS FOR SOLAR THERMAL SYSTEMS

/ RACCORDI A STRINGERE PER SOLARE TERMICO
/ KLEMMVERBINDER FÜR SOLARANLAGEN
/ RACCORDS À VISSER POUR INSTALLATIONS SOLAIRES

BRASS



UNI EN 12164/12165
CW 617N
DIN 50930-6

MALE CROSS FITTING FOR COPPER PIPE WITH DRILL HOLDER AND MANUAL AIR VENT

/ RACCORDO A CROCE MASCHIO PER TUBO RAME CON PORTASONDA E VALVOLA A SFIATO
/ ANSCHLUSSSTÜCK AG FÜR CU-ROHR MIT FÜHLERLANZE UND HAND-ENDLÜFTERVENTIL
/ RACCORD EN CROIX AVEC DOIGT DE GANT, RACCORD BICÔNE POUR TUBE CUIVRE
FILETAGE MÂLE, AVEC PURGEUR MANUEL



792

CODE	TECH. CODE	SIZE		
73.08.455	VA0792007220	22 mm x 3/4"		50

CROSS FITTING FOR COPPER PIPE WITH DRILL HOLDER AND MANUAL AIR VENT

/ RACCORDO A CROCE PER TUBO RAME CON PORTASONDA E VALVOLA A SFIATO
/ ANSCHLUSSSTÜCK FÜR CU-ROHR MIT FÜHLERLANZE UND HAND-ENDLÜFTERVENTIL
/ RACCORD EN CROIX AVEC DOIGT DE GANT, RACCORD BICÔNE POUR TUBE CUIVRE, AVEC PURGEUR MANUEL



793

CODE	TECH. CODE	SIZE		
73.08.465	VA0793000220	22 mm x 22 mm		40

AIR VENT WITH COPPER GASKET

/ VALVOLA SFIATO ARIA CON GUARNIZIONE IN RAME
/ LUFTSTOPFEN MIT KUPFERDICHTUNG
/ PERGEUR AVEC JOINT EN CURVE



797

CODE	TECH. CODE	SIZE		
73.08.490	VA0797005000	1/2"		10 100

DRILL HOLDER WITH COPPER GASKET

/ PORTASONDA CON GUARNIZIONE IN RAME
/ FÜHLERLANZE MIT KUPFERDICHTUNG
/ DOIGT DE GANT AVEC JOINT EN CURVE



794

CODE	TECH. CODE	SIZE		
73.08.510	VA0794005010	1/2" x 100 mm		10 100
73.08.515	VA0794005020	1/2" x 130 mm		10 100

STRAIGHT COUPLER

/ RACCORDO DIRITTO
/ KLEMMVERSCHRAUBUNG GERADE
/ MANCHON ÉGAL



776

CODE	TECH. CODE	SIZE		
73.08.600	RB0776000150	15 mm		10 240
73.08.605	RB0776000180	18 mm		10 150
73.08.610	RB0776000220	22 mm		10 120

MALE COUPLER CYLINDRICAL THREAD

/ RACCORDO DIRITTO MASCHIO CILINDRICO
/ KLEMMVERSCHRAUBUNG MIT AG ZYLINDRISCHES GEWINDE
/ MANCHON MÂLE CYLINDRIQUE



782

CODE	TECH. CODE	SIZE		
73.08.630	RB0782007180	18 mm x 3/4"		10 150
73.08.635	RB0782007220	22 mm x 3/4"		10 160
73.08.640	RB0782010220	22 mm x 1"		10 100

FEMALE COUPLER

/ RACCORDO DIRITTO FEMMINA
/ KLEMMVERSCHRAUBUNG MIT IG
/ MANCHON FEMELLE



783

CODE	TECH. CODE	SIZE		
73.08.645	RB0783007220	22 mm x 3/4"		10 140
73.08.650	RB0783005220	22 mm x 1/2"		10 200

MALE ELBOW 90° CYLINDRICAL THREAD

/ GOMITO 90° MASCHIO CILINDRICO
/ KLEMMWINKELVERSCHRAUBUNG 90° MIT AG ZYLINDRISCHES GEWINDE
/ COUDE 90° MÂLE CYLINDRIQUE



784

CODE	TECH. CODE	SIZE		
73.08.665	RB0784007220	22 mm x 3/4"		10 100

ELBOW 90°

/ GOMITO 90°
/ KLEMMWINKELVERSCHRAUBUNG 90°
/ COUDE 90°



786

CODE	TECH. CODE	SIZE 		
73.08.685	RB0786000220	22 mm	10	100

FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA
/ KLEMMWINKELVERSCHRAUBUNG
90° MIT IG
/ COUDE 90° FEMELLE



787

CODE	TECH. CODE	SIZE 		
73.08.705	RB0787007220	22 mm x 3/4"	10	100

STOP END

/ TAPPO
/ VERSCHLÜSSTÜCK
/ BOUCHON



778

CODE	TECH. CODE	SIZE 		
73.08.765	RB0778000150	15 mm	10	400
73.08.770	RB0778000180	18 mm	10	300
73.08.775	RB0778000220	22 mm	10	200

MALE COUPLER

/ RACCORDO DIRITTO MASCHIO
/ ÜBERGANG MIT AG
/ MANCHON MÂLE



779

CODE	TECH. CODE	SIZE 		
73.08.570	RF0779005000	1/2" x 1/2"	10	250
73.08.575	RF0779007000	3/4" x 3/4"	10	200
73.08.580	RF0779010000	1" x 1"	5	150

MALE PLUG

/ TAPPO MASCHIO
/ STOPFEN AG
/ BOUCHON MÂLE

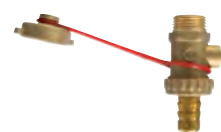


777

CODE	TECH. CODE	SIZE 		
73.08.900	RF077700500L	1/2"	10	200
73.08.905	RF0777007000	3/4"	10	150
73.08.910	RF0777010000	1"	5	100

TAP FILL-UNFILL SYSTEMS

/ RUBINETTO DI CARICO/SCARICO IMPIANTI
/ FÜLL-ENTLEERUNGSHAHN
/ VANNES DE CHARGEMENT-DÉCHARGEMENT
DE L'INSTALLATION



785

CODE	TECH. CODE	SIZE 	
88.23.835	VA0785005000	1/2"	100

DN 16 SOLAR

FEMALE COUPLER

/ RACCORDO DIRITTO FEMMINA
/ KLEMMVERSCHRAUBUNG MIT IG
/ MANCHON FEMELLE

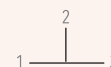


788

CODE	TECH. CODE	SIZE 		
73.08.950	VA0788007160	3/4" F - DN 16	10	100

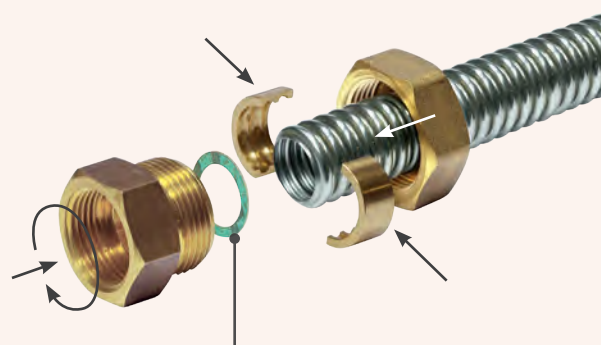
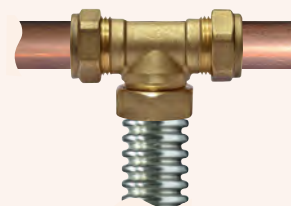
TEE

/ RACCORDO A T
/ T-STÜCK
/ TÉ



791

CODE	TECH. CODE	SIZE 		
73.08.965	VA0791022160	22 mm - DN 16 - 22 mm	10	50



ATTENTION - Insulating gasket not supplied with the fitting.

/ ATTENZIONE - Guarnizione isolante non fornita con il raccordo.

/ ACHTUNG - Isolierdichtung nicht im Lieferumfang enthalten.

/ AVERTISSEMENT - Joint isolant non fourni avec le raccord.

MANIFOLDS

/ COLLETTORI
/ VERTEILER
/ COLLECTEURS





MANIFOLDS

DISTRIBUTION MANIFOLDS	148
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DISTRIBUTION MANIFOLDS

/ COLLETTORI DI DISTRIBUZIONE
/ VERTEILER
/ COLLECTEUR

BRASS

UNI EN 12164/12165
CW 617N
DIN 50930-6



1/2"

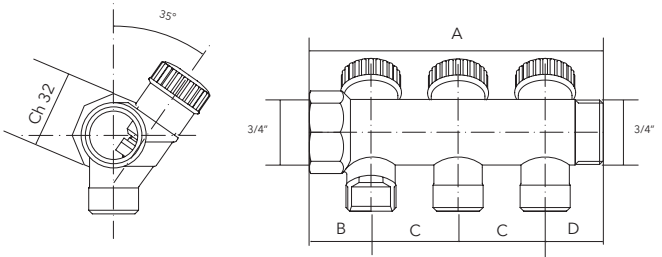
BRASS

MANIFOLD 3/4" M/F 35° WITH WHITE KNOBS
- CONNECTIONS 1/2"
- Ø INTERNAL 16 mm
- DISTANCE 36 mm
- WITH BLUE OR RED DISKS FOR UTILITIES IDENTIFICATION
- NICKEL PLATED

COLLETTORE 3/4" M/F 35° CON MANIGLIE BIANCHE
- ATTACCHI 1/2"
- Ø INTERNO 16 mm
- INTERASSE 36 mm
- CON DISCO IDENTIFICATIVO ROSSO O BLU PER UTENZE
- NICKELATO

VERTEILER 3/4" AG/IG 35° MIT REGULIERVENTILEN WEISS
- ABGÄNGE 1/2"
- INNENDURCHMESSER 16 mm
- ABSTAND 36 mm
- MIT BLAUEN ODER ROTEN DISKETTEN ZUR IDENTIFIZIERUNG DER EINZELNEN HEIZKREISE
- VERNICKELT

COLLECTEUR 3/4" M/F 35° AVEC VANNES DE RÉGULATION BLANCHES
- SORTIES 1/2"
- Ø INTERNE 16 mm
- ENTRAXE 36 mm
- AVEC DISQUE ROUGE OU BLEU AVEC DÉSIGNATION DE LA DESTINATION
- NICKELÉ



620

CODE	TECH. CODE	CONNECTIONS	DISTANCE	
88.20.050	CL062000201N	2	36 mm	24
88.20.055	CL062000301N	3	36 mm	15
88.20.060	CL062000401N	4	36 mm	12

Sizes mm / Misure mm / Abmessungen mm / Mesures mm

CONNECTIONS	A	B	C	D	Ch
2	85.5	25.5	36	24	32
3	121.5	25.5	36	24	32
4	157.5	25.5	36	24	32

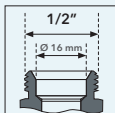
1- KNOB BODY
CORPO MANOPOLA
DREHKNOPF
CORPS DE BOUTON

2- UNIT DISC
DISCHETTO UTENZE
KLEBDISKETTE MIT HEIZREISEN
DISQUETTE

3- RED/BLUE DISC OPTION
DISCHETTO OPZIONE ROSSO/BLU
DISKETTE ROT / BLAU
DISQUETTE ROUGE / BLEU

4- LOCKING SCREW
VITE BLOCCANTE
SCHRAUBE
VIS DE BLOCAGE

1/2"



BRASS

MANIFOLD 3/4" M/F 35° WITH RED/BLUE KNOBS

- CONNECTIONS 1/2"
- Ø INTERNAL 16 mm
- DISTANCE 36 mm
- NICKEL PLATED

COLLETTORE 3/4" M/F 35° CON MANIGLIE ROSSE/BLU

- ATTACCHI 1/2"
- Ø INTERNO 16 mm
- INTERASSE 36 mm
- NICHELATO

VERTEILER 3/4" AG/IG - 35° MIT REGULIERVENTILEN ROT/BLAU

- ABGÄNGE 1/2"
- INNENDURCHMESSER 16 mm
- ABSTAND 36 mm
- VERNICKELT

COLLECTEUR 3/4" M/F 35° AVEC VANNES DE RÉGULATION ROUGES/ BLEUES

- SORTIES 1/2"
- Ø INTERNE 16 mm
- ENTRAXE 36 mm
- NICKELÉ



CONNECTIONS
/ USCITE
/ AUSGÄNGE
/ SORTIES

3/4"

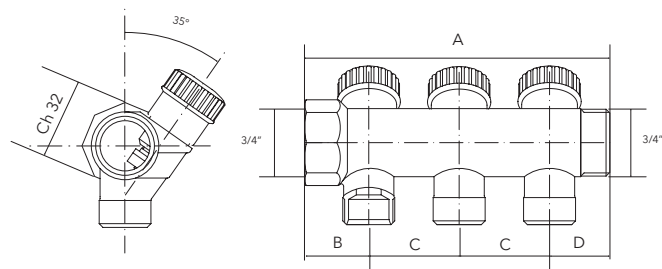
1/2"

621 - RED ●

CODE	TECH. CODE	CONNECTIONS	DISTANCE	
88.20.051	CL062100201N	2	36 mm	24
88.20.056	CL062100301N	3	36 mm	15
88.20.061	CL062100401N	4	36 mm	12

622 - BLUE ●

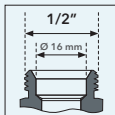
CODE	TECH. CODE	CONNECTIONS	DISTANCE	
88.20.052	CL062200201N	2	36 mm	24
88.20.057	CL062200301N	3	36 mm	15
88.20.062	CL062200401N	4	36 mm	12



Sizes mm / Misure mm / Abmessungen mm / Mesures mm

CONNECTIONS	A	B	C	D	Ch
2	85.5	25.5	36	24	32
3	121.5	25.5	36	24	32
4	157.5	25.5	36	24	32

1/2"



BRASS

MANIFOLD 3/4" M/F - WITH BALL VALVES

- CONNECTIONS 1/2"
- Ø INTERNAL 16 mm
- DISTANCE 36 mm
- RED AND BLUE HANDLE

COLLETTORE 3/4" M/F - CON VALVOLE A SFERA

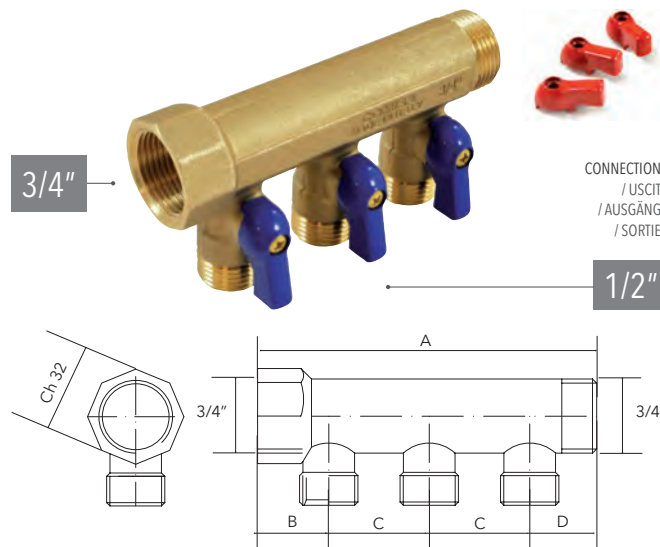
- ATTACCHI 1/2"
- INTERASSE 36MM
- Ø INTERNO 16MM
- MANIGLIE ROSSE E BLU

VERTEILER 3/4" AG/IG - MIT KUGELHÄHNEN

- ABGÄNGE 1/2"
- INNENDURCHMESSER 16MM
- ABSTAND 36MM
- ROT UND BLAU GRIFF

COLLECTEUR 3/4" M/F - AVEC VANNES BOISSEAU SPHÉRIQUE

- SORTIES 1/2"
- Ø INTERNE 16MM
- ENTRAXE 36MM
- VANNES ROUGES ET BLEUES

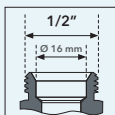
**635**

CODE	TECH. CODE	CONNECTIONS	DISTANCE	
88.20.172	CL0635002010	2	36 mm	40
88.20.173	CL0635003010	3	36 mm	30
88.20.174	CL0635004010	4	36 mm	20

Sizes mm / Misure mm / Abmessungen mm / Mesures mm

CONNECTIONS	A	B	C	D	Ch
2	85,5	25,5	36	24	32
3	121,5	25,5	36	24	32
4	157,5	25,5	36	24	32

1/2"



BRASS

MANIFOLD 1" M/F 35° WITH GREEN REGULATION KNOBS

- CONNECTIONS 1/2"
- Ø INTERNAL 16 mm
- DISTANCE 40 mm
- NICKEL PLATED

COLLETTORE 1" M/F 35° CON MANIGLIE VERDI

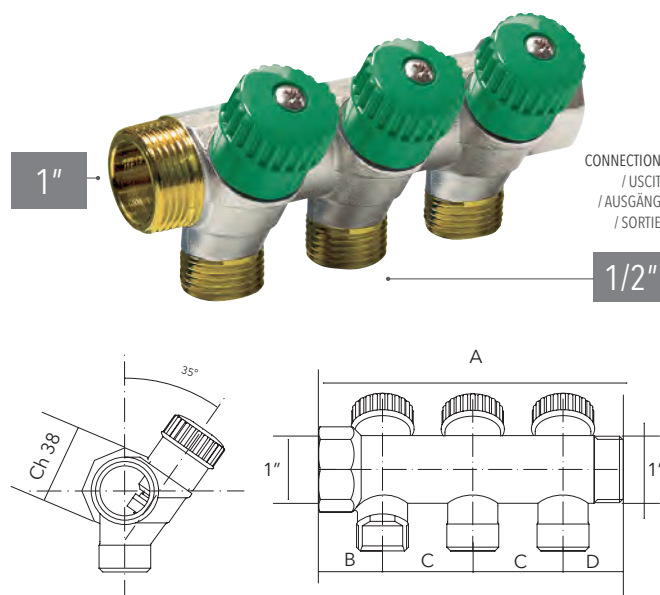
- ATTACCHI 1/2"
- Ø INTERNO 16 mm
- INTERASSE 40 mm
- NICHIELATO

VERTEILER 1" AG/IG 35° MIT REGULIERVENTILEN GRÜN

- ABGÄNGE 1/2"
- INNENDURCHMESSER 16 mm
- ABSTAND 40 mm
- VERNICKELT

COLLECTEUR 1" M/F 35° AVEC VANNES DE RÉGULATION VERTES

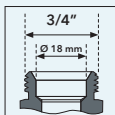
- SORTIES 1/2"
- Ø INTERNE 16 mm
- ENTRAXE 40 mm
- NICKELÉ

**623**

CODE	TECH. CODE	CONNECTIONS	DISTANCE	
88.20.070	CL062300202N	2	40 mm	15
88.20.075	CL062300302N	3	40 mm	12
88.20.080	CL062300402N	4	40 mm	10

Sizes mm / Misure mm / Abmessungen mm / Mesures mm

CONNECTIONS	A	B	C	D	Ch
2	98	29	40	29	38
3	138	29	40	29	38
4	178	29	40	29	38

3/4"**EUROCONE****BRASS****MANIFOLD 1" M/F 35° WITH GREEN KNOBS**

- CONNECTIONS 3/4" EUROCONE

- Ø INTERNAL 18 mm

- DISTANCE 40 mm

- NICKEL PLATED

COLLETTORE 1" M/F 35° CON MANIGLIE VERDI

- ATTACCHI 3/4" EUROCONO

- Ø INTERNO 18 mm

- INTERASSE 40 mm

- NICHELATO

VERTEILER 1" AG/IG 35° MIT REGULIERVENTILEN GRÜN

- ABGÄNGE 3/4" EUROKONUS

- INNENDURCHMESSER 18 mm

- ABSTAND 40 mm

- VERNICKELT

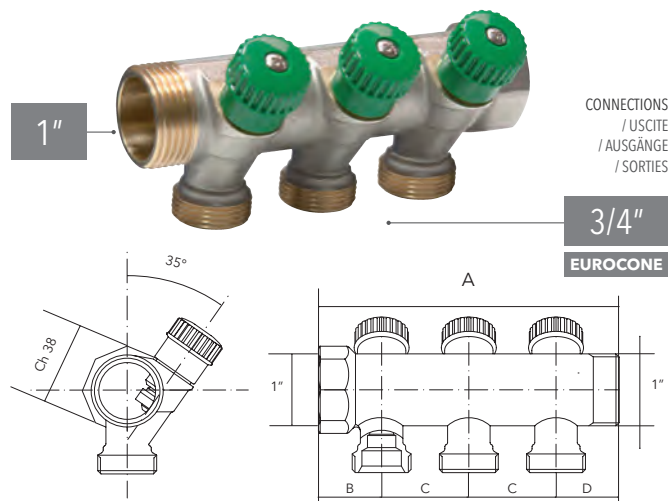
COLLECTEUR 1" M/F 35° AVEC VANNES DE RÉGULATION VERTES

- SORTIES 3/4" EUROCÔNE

- Ø INTERNE 18 mm

- ENTRAXE 40 mm

- NICKELÉ

**624**

CODE	TECH. CODE	CONNECTIONS	DISTANCE	
88.20.085	CL062400203N	2	40 mm	15
88.20.090	CL062400303N	3	40 mm	12
88.20.095	CL062400403N	4	40 mm	10

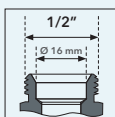
Sizes mm / Misure mm / Abmessungen mm / Mesures mm

CONNECTIONS	A	B	C	D	Ch
2	98	29	40	29	38
3	138	29	40	29	38
4	178	29	40	29	38



Qualità che lascia il segno.

1/2"



BRASS

DUAL DISTRIBUTION MANIFOLD 3/4" F/F

- CONNECTIONS 1/2"
- Ø INTERNAL 16 mm
- DISTANCE 38 mm
- NICKEL PLATED

COLLETTORE COMPLANARE 3/4" F/F

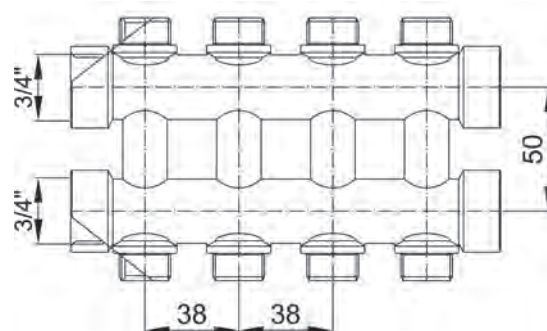
- ATTACCHI 1/2"
- Ø INTERNO 16 mm
- INTERASSE 38 mm
- NICHELATO

KOMPLANARER VERTEILER 3/4" IG/IG

- ABGÄNGE 1/2"
- INNENDURCHMESSER 16 mm
- ABSTAND 38 mm
- VERNICKELT

COLLECTEUR DOUBLE 3/4" F/F

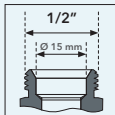
- SORTIES 1/2"
- Ø INTERNE 16 mm
- ENTRAXE 38 mm
- NICKELÉ



637

CODE	TECH. CODE	SIZE	CONNECTIONS	DISTANCE	
88.20.030	CL063700201N	3/4"	2 + 2	38 mm	1
88.20.031	CL063700401N	3/4"	4 + 4	38 mm	1
88.20.032	CL063700601N	3/4"	6 + 6	38 mm	1
88.20.033	CL063700801N	3/4"	8 + 8	38 mm	1
88.20.034	CL063701001N	3/4"	10 + 10	38 mm	1

1/2"



BRASS

EUROCONE



1/2" EUROCONE!

MANIFOLD 3/4" M/F

- CONNECTIONS 1/2" EUROCONE
- Ø INTERNAL 15 mm
- DISTANCE 50 mm
- NICKEL PLATED

COLLETTORE 3/4" M/F

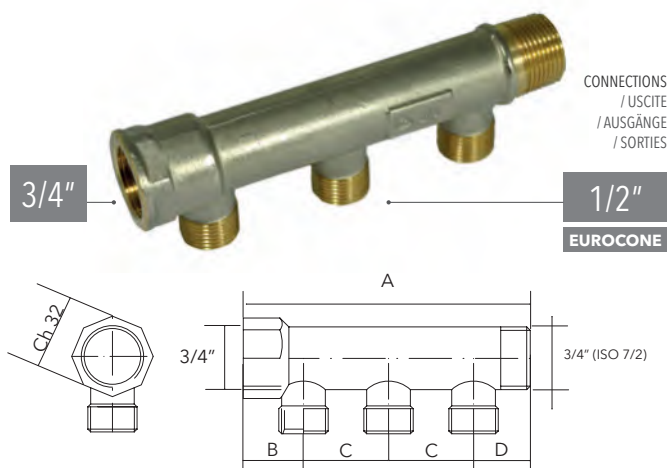
- ATTACCHI 1/2" EUROCONO
- Ø INTERNO 15 mm
- INTERASSE 50 mm
- NICHELATO

VERTEILER 3/4" AG/IG

- ABGÄNGE 1/2" EUROKONUS
- INNENDURCHMESSER 15 mm
- ABSTAND 50 mm
- VERNICKELT

COLLECTEUR 3/4" M/F

- SORTIES 1/2" EUROCÔNE
- Ø INTERNE 15 mm
- ENTRAXE 50 mm
- NICKELÉ



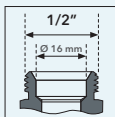
631

CODE	TECH. CODE	CONNECTIONS	DISTANCE	
88.20.005	CL063100201N	2	50 mm	30
88.20.006	CL063100301N	3	50 mm	20
88.20.007	CL063100401N	4	50 mm	15

Sizes mm / Misure mm / Abmessungen mm / Mesures mm

CONNECTIONS	A	B	C	D	Ch
2	110	27,5	50	32,5	32
3	160	27,5	50	32,5	32
4	210	27,5	50	32,5	32

1/2"



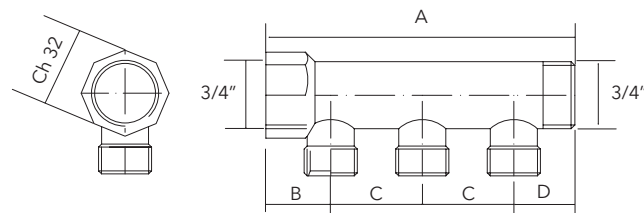
BRASS

MANIFOLD 3/4" M/F
 - CONNECTIONS 1/2"
 - Ø INTERNAL 16 mm
 - DISTANCE 36 mm
 - NICKEL PLATED

COLLETTORE 3/4" M/F
 - ATTACCHI 1/2"
 - Ø INTERNO 16 mm
 - INTERASSE 36 mm
 - NICHELATO

VERTEILER 3/4" AG/IG
 - ABGÄNGE 1/2"
 - INNENDURCHMESSER 16 mm
 - ABSTAND 36 mm
 - VERNICKELT

COLLECTEUR 3/4" M/F
 - SORTIES 1/2"
 - Ø INTERNE 16 mm
 - ENTRAXE 36 mm
 - NICKELÉ



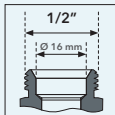
Sizes mm / Misure mm / Abmessungen mm / Mesures mm

630

CODE	TECH. CODE	CONNECTIONS	DISTANCE	
88.20.002	CL063000201N	2	36 mm	40
88.20.003	CL063000301N	3	36 mm	30
88.20.004	CL063000401N	4	36 mm	20

CONNECTIONS	A	B	C	D	Ch
2	85.5	25.5	36	24	32
3	121.5	25.5	36	24	32
4	157.5	25.5	36	24	32

1/2"



BRASS



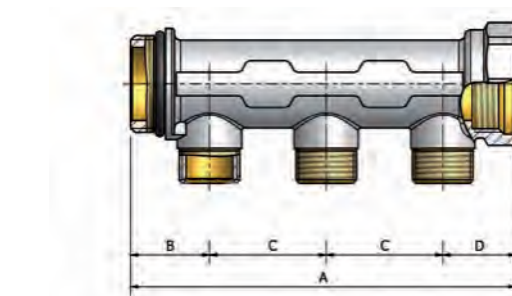
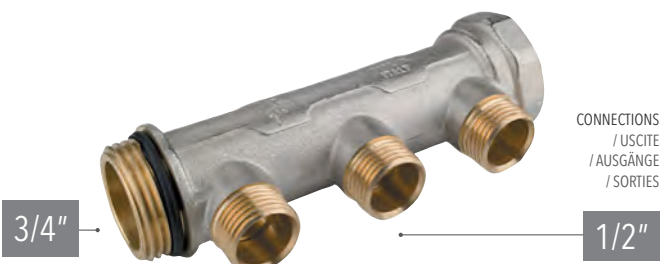
MODULAR

MANIFOLD 3/4" M/F
 - CONNECTIONS 1/2"
 - Ø INTERNAL 16 mm
 - DISTANCE 40 mm
 - O-RING CONNECTION
 - NICKEL PLATED

COLLETTORE 3/4" M/F
 - ATTACCHI 1/2"
 - Ø INTERNO 16 mm
 - INTERASSE 40 mm
 - O-RING DI TENUTA
 - NICHELATO

VERTEILER 3/4" AG/IG
 - ABGÄNGE 1/2"
 - INNENDURCHMESSER 16 mm
 - ABSTAND 40 mm
 - O-RING DICHUNG
 - VERNICKELT

COLLECTEUR 3/4" M/F
 - SORTIES 1/2"
 - Ø INTERNE 16 mm
 - ENTRAXE 40 mm
 - JOINT TORIQUE
 - NICKELÉ



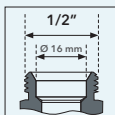
Sizes mm / Misure mm / Abmessungen mm / Mesures mm

982

CODE	TECH. CODE	CONNECTIONS	DISTANCE	
88.20.730	CL0982M0705N	2	40 mm	40
88.20.731	CL0983M0705N	3	40 mm	30

CONNECTIONS	A	B	C	D
2	92	27	40	25
3	132	27	40	25

1/2"



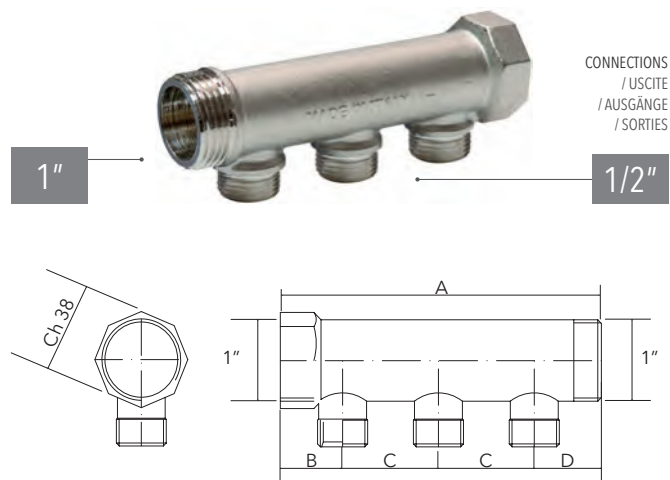
BRASS

MANIFOLD 1" M/F
- CONNECTIONS 1/2"
- Ø INTERNAL 16 mm
- DISTANCE 38 mm
- NICKEL PLATED

COLLETTORE 1" M/F
- ATTACCHI 1/2"
- Ø INTERNO 16 mm
- INTERASSE 38 mm
- NICHELATO

VERTEILER 1" AG/IG
- ABGÄNGE 1/2"
- INNENDURCHMESSER 16 mm
- ABSTAND 38 mm
- VERNICKELT

COLLECTEUR 1" M/F
- SORTIES 1/2"
- Ø INTERNE 16 mm
- ENTRAXE 38 mm
- NICKELÉ



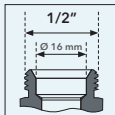
Sizes mm / Misure mm / Abmessungen mm / Mesures mm

632

CODE	TECH. CODE	CONNECTIONS	DISTANCE	
88.20.012	CL063200202N	2	38 mm	40
88.20.013	CL063200302N	3	38 mm	30
88.20.014	CL063200402N	4	38 mm	20

CONNECTIONS	A	B	C	D	Ch
2	89	25	38	26	38
3	127	25	38	26	38
4	165	25	38	26	38

1/2"



BRASS



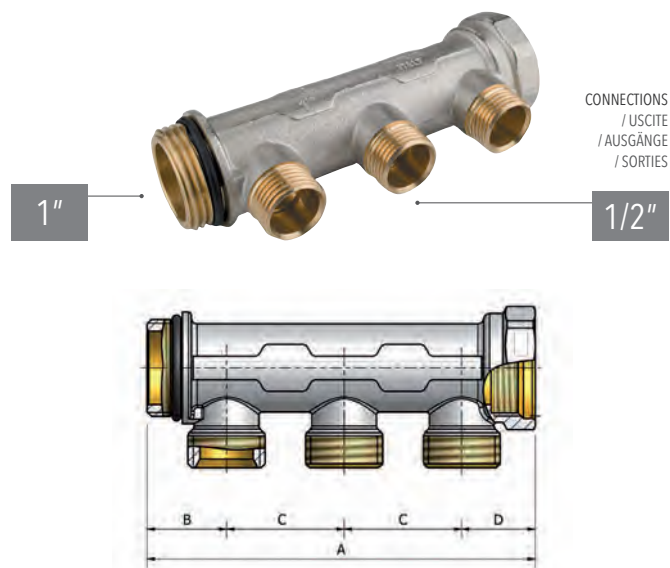
MODULAR

MANIFOLD 1" M/F
- CONNECTIONS 1/2"
- Ø INTERNAL 16 mm
- DISTANCE 40 mm
- O-RING CONNECTION
- NICKEL PLATED

COLLETTORE 1" M/F
- ATTACCHI 1/2"
- Ø INTERNO 16 mm
- INTERASSE 40 mm
- O-RING DI TENUTA
- NICHELATO

VERTEILER 1" AG/IG
- ABGÄNGE 1/2"
- INNENDURCHMESSER 16 mm
- ABSTAND 40 mm
- O-RING DICHTUNG
- VERNICKELT

COLLECTEUR 1" M/F
- SORTIES 1/2"
- Ø INTERNE 16 mm
- ENTRAXE 40 mm
- JOINT TORIQUE
- NICKELÉ

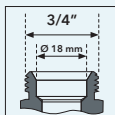


Sizes mm / Misure mm / Abmessungen mm / Mesures mm

982M - 983M

CODE	TECH. CODE	CONNECTIONS	DISTANCE	
88.20.760	CL0982M1005N	2	40 mm	10
88.20.761	CL0983M1005N	3	40 mm	5

CONNECTIONS	A	B	C	D
2	92	27	40	25
3	132	27	40	25

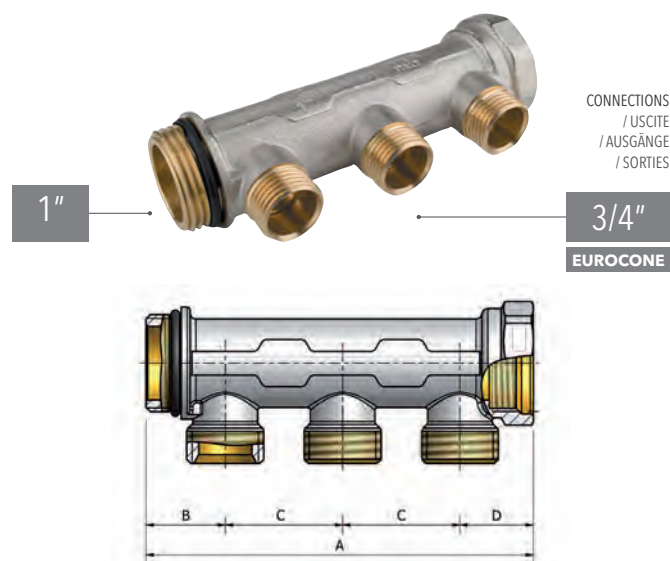
3/4"**EUROCONE****BRASS****MODULAR**

MANIFOLD 1" M/F
 - CONNECTIONS 3/4" EUROCONE
 - Ø INTERNAL 18 mm
 - DISTANCE 40 mm
 - O-RING CONNECTION
 - NICKEL PLATED

COLLETORE 1" M/F
 - ATTACCHI 3/4" EUROCONO
 - Ø INTERNO 18 mm
 - INTERASSE 40 mm
 - O-RING DI TENUTA
 - NICHELATO

VERTEILER 1" AG/IG
 - ABGÄNGE 3/4" EUROKONUS
 - INNENDURCHMESSER 18 mm
 - ABSTAND 40 mm
 - O-RING DICHTUNG
 - VERNICKELT

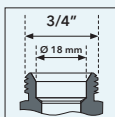
COLLECTEUR 1" M/F
 - SORTIES 3/4" EUROCÔNE
 - Ø INTERNE 18 mm
 - ENTRAXE 40 mm
 - JOINT TORIQUE
 - NICKELÉ

**982M - 983M**

CODE	TECH. CODE	CONNECTIONS	DISTANCE	
88.20.770	CL0982M1007N	2	40 mm	10
88.20.771	CL0983M1007N	3	40 mm	5

Sizes mm / Misure mm / Abmessungen mm / Mesures mm

CONNECTIONS	A	B	C	D
2	92	27	40	25
3	132	27	40	25

3/4"**EUROCONE****BRASS****MANIFOLD 1" M/F - WITH AIR VENT**

- CONNECTIONS 3/4" EUROCONE
- Ø INTERNAL 18 mm
- DISTANCE 50 mm
- O-RING CONNECTION
- AIR DRAIN VALVE
- NICKEL PLATED

COLLETTORE 1" M/F CON SFIATO ARIA

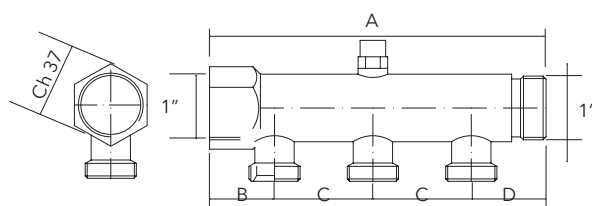
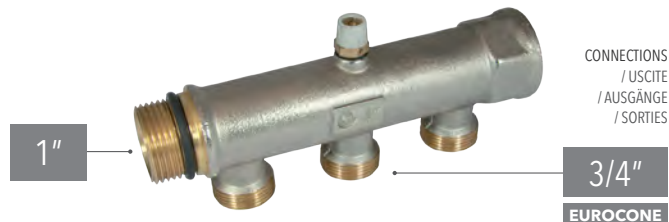
- ATTACCHI 3/4" EUROCONO
- Ø INTERNO 18 mm
- INTERASSE 50 mm
- O-RING DI TENUTA
- SFIATO ARIA
- NICHELATO

VERTEILER 1" AG/IG - MIT ENTLÜFTUNGSVENTIL

- ABGÄNGE 3/4" EUROKONUS
- INNENDURCHMESSER 18 mm
- ABSTAND 50 mm
- O-RING DICHTUNG
- ENTLÜFTUNGSVENTIL
- VERNICKELT

COLLECTEUR 1" M/F AVEC PURGEUR D'AIR

- SORTIES 3/4" EUROCÔNE
- Ø INTERNE 18 mm
- ENTRAXE 50 mm
- JOINT TORIQUE
- PURGEUR D'AIR
- NICKELÉ



Sizes mm / Misure mm / Abmessungen mm / Mesures mm

633

CODE	TECH. CODE	CONNECTIONS	DISTANCE	
88.20.015	CL063300203N	2	50 mm	20
88.20.016	CL063300303N	3	50 mm	15
88.20.017	CL063300403N	4	50 mm	10

CONNECTIONS	A	B	C	D	Ch
2	121	33	50	38	37
3	161	33	50	38	37
4	201	33	50	38	37

3/4"**MANIFOLD
KIT****BRASS****SANITARY MANIFOLD 3/4" IN PLASTIC BOX**

- SCREW FITTINGS 16 X 2 - 1/2"
- ANGLE BALL-VALVES 3/4"
- 3/4" F X 1/2" F CONNECTIONS
- PLASTIC BOX
- DISTANCE 36 mm

COLLETTORE SANITARIO 3/4" IN CASSETTA

- RACCORDI 16 X 2 - 1/2"
- VALVOLE A SFERA 3/4" AD ANGOLO
- RIDUZIONI 3/4" F X 1/2" F
- CASSETTA PLASTICA
- INTERASSE 36 mm

SANITÄR VERTEILER IN KUNSTSTOFFBOX

- KLEMMVERSCHRAUBUNGEN 16 X 2 - 1/2"
- KUGELECKVENTILE 3/4"
- REDUKTIONEN 3/4" IG X 1/2" IG
- KUNSTSTOFFBOX
- ABSTAND 36 mm

COLLECTEUR SANITAIRE 3/4" DANS COFFRET

- RACCORDS 16 X 2 - 1/2"
- VANNES BOISSEAU SPHÉRIQUE 3/4" ÉQUERRE
- RÉDUCTION 3/4" F X 1/2" F
- COFFRET PLASTIQUE
- ENTRAXE 36 mm

WITH MANUAL AIR VENT

- / CON SFIATO MANUALE
- / MIT MANUELLEM ENTLÜFTUNGSVENTIL
- / AVEC PURGEUR D'AIR MANUEL

**641**

CODE	TECH. CODE	SIZE	CONNECTIONS	DISTANCE	
88.20.507	CL064100401N	3/4"	4	36 mm	1
88.20.508	CL064100501N	3/4"	5	36 mm	1
88.20.509	CL064100601N	3/4"	6	36 mm	1
88.20.510	CL064100701N	3/4"	7	36 mm	1
88.20.511	CL064100801N	3/4"	8	36 mm	1

ADAPTORS

/ ADATTATORI
/ ADAPTER
/ ADAPTEURS

1/2"

ADAPTORS 1/2"

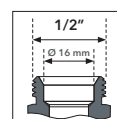


Not suitable for item no. CL0631 / Non compatibile con articoli CL0631
/ Nicht geeignet für Art. Nr. CL0631 / Non compatible avec les art. CL0631

COPPER PIPE / TUBO RAME / KUPFERROHR / TUBE CUIVRE

ADAPTOR FOR COPPER PIPE

/ ADATTATORE PER TUBO RAME
/ VERSCHRAUBUNG FÜR KUPFERROHR
/ ADAPTATEUR À VISSER POUR TUBE CUIVRE



178

CODE	TECH. CODE	SIZE		
88.20.820	DC017800010N	10 x 1/2"	20	400
88.20.821	DC017800012N	12 x 1/2"	20	400
88.20.822	DC017800014N	14 x 1/2"	20	400
88.20.823	DC017800015N	15 x 1/2"	20	400
88.20.824	DC017800016N	16 x 1/2"	20	400

COPPER PIPE

COPPER PIPE / TUBO RAME / KUPFERROHR / TUBE CUIVRE

SCREW FITTING FOR COPPER PIPE

/ RACCORDO A STRINGERE PER TUBO RAME
/ KLEMMRINGVERSCHRAUBUNG FÜR KUPFERROHR
/ ADAPTATEUR À VISSER POUR TUBE CUIVRE

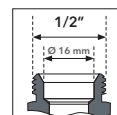
186

CODE	TECH. CODE	SIZE		
88.20.605	DC018600012N	1/2" - 12 mm	10	200
88.20.610	DC018600014N	1/2" - 14 mm	10	200
88.20.611	DC018600015N	1/2" - 15 mm	10	200
88.20.615	DC018600016N	1/2" - 16 mm	10	200

A

B

C



MULTILAYER PIPE / TUBO MULTISTRATO / MEHRSCICHTVERBUNDROHR / TUBE MULTICOUCHE

PRESS FITTING FOR MULTILAYER PIPE

/ RACCORDO A PRESSARE PER TUBO MULTISTRATO
/ PRESSFITTING FÜR MEHRSCICHTVERBUNDROHR
/ ADAPTATEUR À SERTIR POUR TUBE MULTICOUCHE

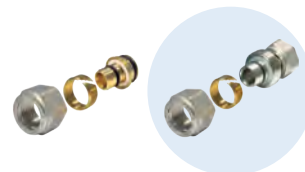


875

CODE	TECH. CODE	SIZE		
88.20.580	MU087500516N	1/2" - 16 x 2	10	150
88.20.585	MU087500520N	1/2" - 20 x 2	10	150

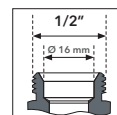
SCREW FITTING FOR MULTILAYER PIPE

/ RACCORDO A STRINGERE PER TUBO MULTISTRATO
/ KLEMMRINGVERSCHRAUBUNG FÜR MEHRSCICHTVERBUNDROHR
/ ADAPTATEUR À VISSER POUR TUBE MULTICOUCHE



225C - 228C

CODE	TECH. CODE	SIZE		
88.20.578	DC0225C1410N	1/2" - 14 x 2	10	200
88.20.576	DC0225C1612N	1/2" - 16 x 2	10	200
88.20.577	DC0225C0556N	1/2" - 16 x 2,25	10	200
88.20.579	DC0228C0520N	1/2" - 20 x 2	10	120



1/2"

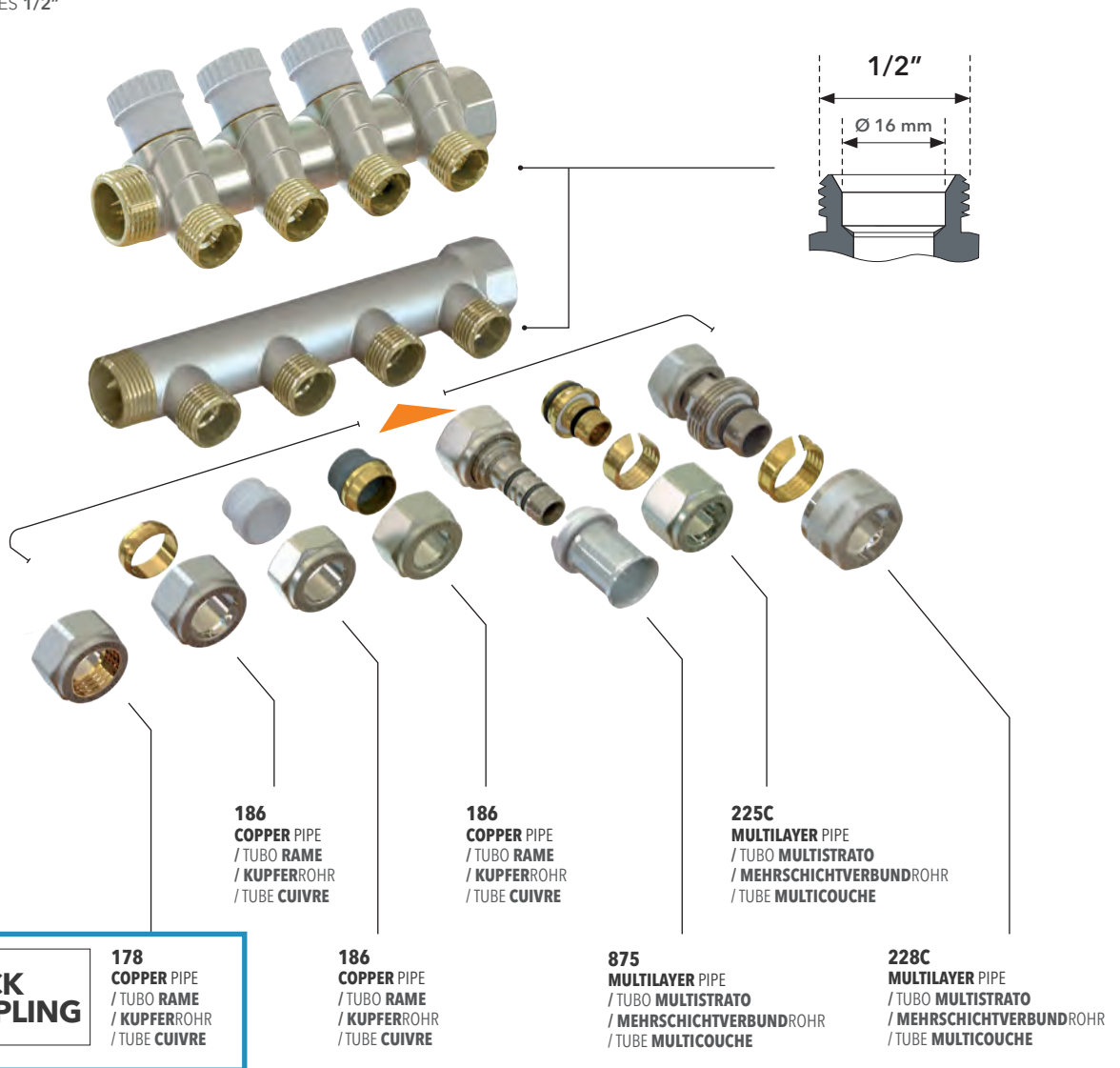
ADAPTORS 1/2"



Not suitable for item no. CL0631 / Non compatibile con articoli CL0631
 / Nicht geeignet für Art. Nr. CL0631 / Non compatible avec les art. CL0631

ADAPTORS FOR 1/2" CONNECTIONS

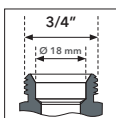
/ ADATTATORI PER USCITE 1/2"
 / ADAPTER FÜR ABGÄNGE 1/2"
 / ADAPTATEURS POUR SORTIES 1/2"



ADAPTORS 3/4" EUROCONE

3/4"

COPPER PIPE



COPPER PIPE / T. RAME / KUPFERROHR / T. CUIVRE

ADAPTOR FOR COPPER PIPE

/ ADATTATORE PER TUBO RAME
/ VERSCHRAUBUNG FÜR KUPFERROHR
/ ADAPTATEUR POUR TUBE CUIVRE



180

CODE	TECH. CODE	SIZE	
88.20.830	DC018000100N	10 x 3/4"	150
88.20.831	DC018000120N	12 x 3/4"	150
88.20.832	DC018000140N	14 x 3/4"	150
88.20.833	DC018000150N	15 x 3/4"	150
88.20.834	DC018000160N	16 x 3/4"	150
88.20.835	DC018000180N	18 x 3/4"	150

COPPER PIPE / TUBO RAME / KUPFERROHR / TUBE CUIVRE

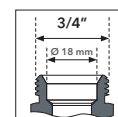
SCREW FITTING FOR COPPER PIPE WITH SOFT SEALED EPDM WASHER

/ RACCORDO A STRINGERE PER TUBO RAME CON
GUARNIZIONE EPDM
/ KLEMMRINGVERSCHRAUBUNG FÜR
KUPFERROHR MIT EPDM DICHTUNG
/ ADAPTATEUR POUR TUBE CUIVRE AVEC EPDM
JOINT



196

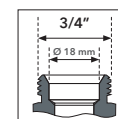
CODE	TECH. CODE	SIZE		
88.03.400	MT019600715N	15 x 1 - 3/4" Perfekt	2	100
88.03.402	MT019600718N	18 x 1 - 3/4"	2	100



PE-X PIPE / PE-X TUBO / PE-X ROHR / TUBE PE-X

SCREW FITTING FOR PE-X PIPE

/ RACCORDO A STRINGERE PER TUBO PE-X
/ KLEMMRINGVERSCHRAUBUNG FÜR PE-X-ROHR
/ ADAPTATEUR À VISSER POUR TUBE PE-X



221

CODE	TECH. CODE	SIZE		
88.03.006	DC022101208N	12 x 2 - 3/4" PE-X	10	100
88.03.014	DC022101410N	14 x 2 - 3/4" PE-X	10	150
88.03.118	DC022101612N	16 x 2 - 3/4" PE-X	10	150
88.03.119	DC022101713N	17 x 2 - 3/4" PE-X	10	150
88.03.138	DC022102016N	20 x 2 - 3/4" PE-X	10	150

MULTILAYER PIPE / TUBO MULTISTRATO / MEHRSCICHTVERBUNDROHR / TUBE MULTICOUCHE

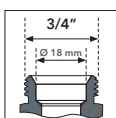
CONNECTING SCREW FITTING WITH SWIVEL NUT AND EUROCONE

/ RACCORDO DIRITTO CON DADO PRIGIONIERO E
TENUTA EUROCONO
/ ANSCHLUSSPRESSVERSCHRAUBUNG MIT EUROKONUS
/ RACCORD À SERTIR ET ÉCROU TOURNANT EUROCONO



875N

CODE	TECH. CODE	SIZE		
87.40.160	MU087500716N	16 x 2 - 3/4"	10	100
87.40.200	MU087500720N	20 x 2 - 3/4"	10	100



SCREW FITTING FOR MULTILAYER PIPE

/ RACCORDO A STRINGERE PER TUBO MULTISTRATO
/ KLEMMRINGVERSCHRAUBUNG FÜR
MEHRSCICHTVERBUNDROHR
/ ADAPTATEUR À VISSER POUR TUBE MULTICOUCHE



221C

CODE	TECH. CODE	SIZE		
88.03.110	DC0221C1410N	14 x 2 - 3/4"	10	150
88.03.116	DC0221C1612N	16 x 2 - 3/4"	10	150
88.03.120	DC0221C0556N	16 x 2,25 - 3/4"	10	150
88.03.123	DC0221C1713N	17 x 2 - 3/4"	10	150
88.03.126	DC0221C1814N	18 x 2 - 3/4"	10	150
88.03.136	DC0221C2016N	20 x 2 - 3/4"	10	150
88.03.140	DC0221C2015N	20 x 2,5 - 3/4"	10	150

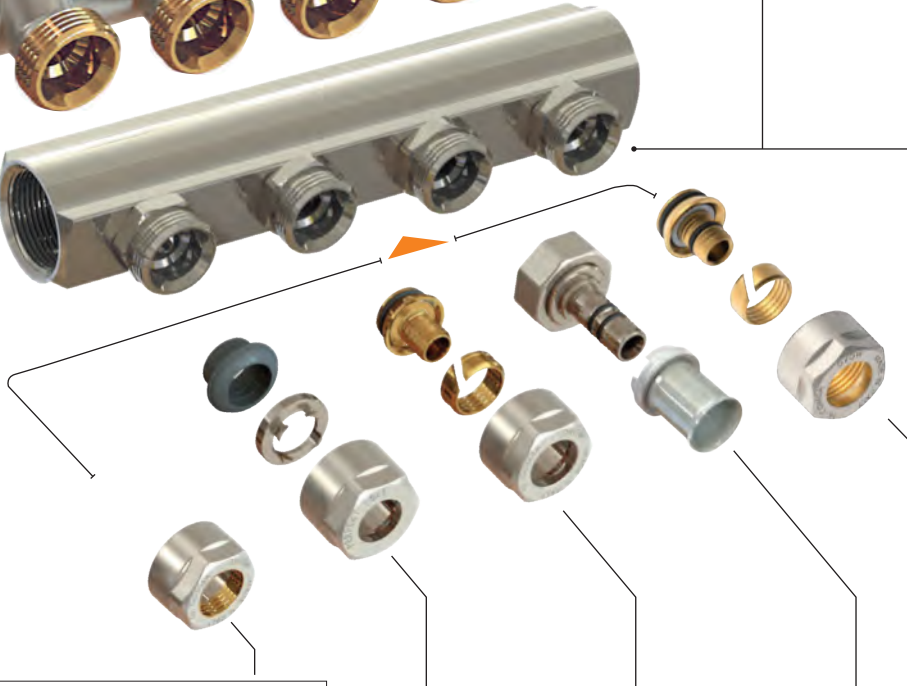
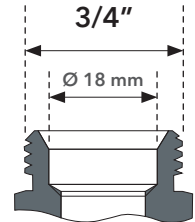
ADAPTORS 3/4"

EUROCONE

3/4"

ADAPTORS FOR 3/4" CONNECTIONS

/ ADATTATORI PER USCITE 3/4"
 / ADAPTER FÜR ABGÄNGE 3/4"
 / ADAPTATEURS POUR SORTIES 3/4"



3/4"

**QUICK
COUPLING**

180
COPPER PIPE
 / TUBO RAME
 / KUPFERROHR
 / TUBE CUIVRE

196
COPPER PIPE
 / TUBO RAME
 / KUPFERROHR
 / TUBE CUIVRE

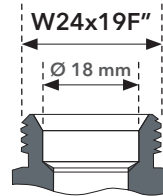
221
PE-X PIPE
 / PE-X TUBO
 / PE-X ROHR
 / PE-X TUBE

875
MULTILAYER PIPE
 / TUBO MULTISTRATO
 / MEHRSCICHTVERBUNDROHR
 / TUBE MULTICOUCHE

221C
MULTILAYER PIPE
 / TUBO MULTISTRATO
 / MEHRSCICHTVERBUNDROHR
 / TUBE MULTICOUCHE

ADAPTORS W24X19F"

• On request / su richiesta / auf Anfrage / sur demande



W24x19F"

PE-X PIPE / PE-X TUBO / PE-X ROHR / TUBE PE-X

SCREW FITTING FOR PE-X-PIPE

/ RACCORDO A STRINGERE PER TUBO PE-X
 / KLEMMRINGVERSCHRAUBUNG FÜR PE-X ROHR
 / ADAPTATEUR À VISSER POUR TUBE PE-X-PIPE



208

CODE	TECH. CODE	SIZE		
88.20.194	DC020801612N	16 x 2,0 - W24x19F" PE-X	10	180
88.20.195	DC020801814N	18 x 2,0 - W24x19F" PE-X	10	120

MULTILAYER PIPE / TUBO MULTISTRATO

/ MEHRSCICHTVERBUNDROHR / TUBE MULTICOUCHE

SCREW FITTING FOR MULTILAYER PIPE

/ RACCORDO A STRINGERE PER TUBO MULTISTRATO
 / KLEMMRINGVERSCHRAUBUNG
 FÜR MEHRSCICHTVERBUNDROHR
 / ADAPTATEUR À VISSER POUR TUBE MULTICOUCHE



208C

CODE	TECH. CODE	SIZE		
88.20.812	DC0208C1612N	16 x 2,0 - W24x19F"	10	180
88.20.813	DC0208C1814N	18 x 2,0 - W24x19F"	10	120

MIXING GROUP FOR UNDERFLOOR HEATING SYSTEMS

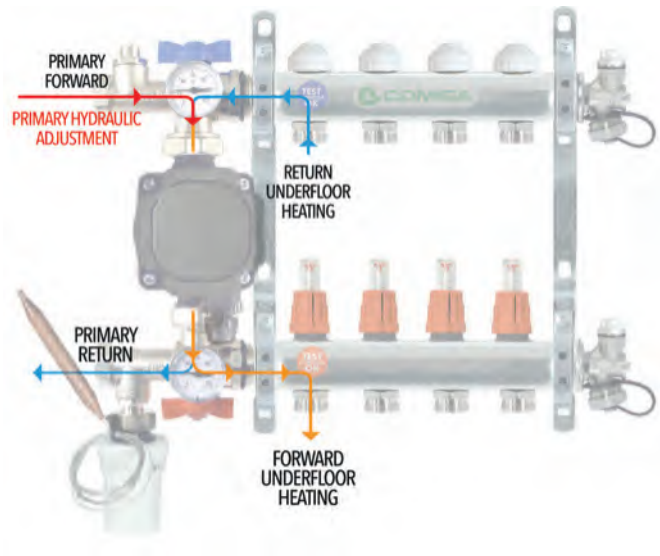
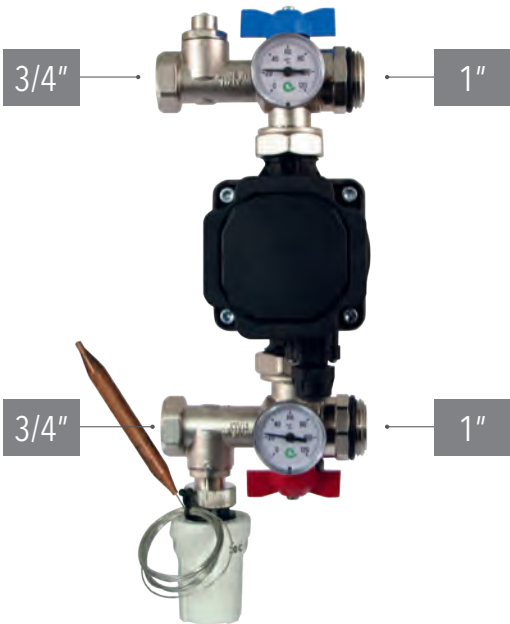
/ GRUPPI DI MISCELAZIONE PER RISCALDAMENTO A PAVIMENTO
/ REGELSTATION FÜR FUSSBODENHEIZUNG
/ KIT DE RÉGULATION POUR PLANCHER CHAUFFANT

1" M
3/4" F



MIXING UNIT WITH CIRCULATOR AND THERMOSTATIC HEAD

/ GRUPPO DI REGOLAZIONE CON CIRCOLATORE E TESTA TERMOSTATICA
/ REGELSTATION MIT PUMPE UND THERMOSTATKOPF
/ KIT DE RÉGULATION AVEC CIRCULATEUR ET TÊTE THERMOSTATIQUE



607

CODE	TECH. CODE	SIZE	DISTANCE	
88.10.034	CT0607000011	1"	200 mm	1
* ALSO AVAILABLE WITHOUT PUMP ON REQUEST				
88.10.035	CT0607000012	1"	200 mm	1

SPECIFICATIONS	
MANIFOLD CONNECTION	2 connections for 1" manifold
DISTRIBUTOR CONNECTION	2 connections for 1" circulator
PUMP *	according to market availability
BALL VALVES	2 ball valves 1"
FLOW DIRECTION	1 regulating lockshield 3/4" valve on flow direction
RETURN	1 thermostatic valve 3/4" M 30x1,5 mm 1 thermostatic head with sensor
DISTANCE	200 mm



*The pump type/model may vary depending on the market availability at the time of purchase

*Marca e modello della pompa possono variare secondo disponibilità del mercato al momento dell'acquisto

*Marke und Modell der Pumpe können je nach Marktverfügbarkeit zum Zeitpunkt des Kaufs variieren

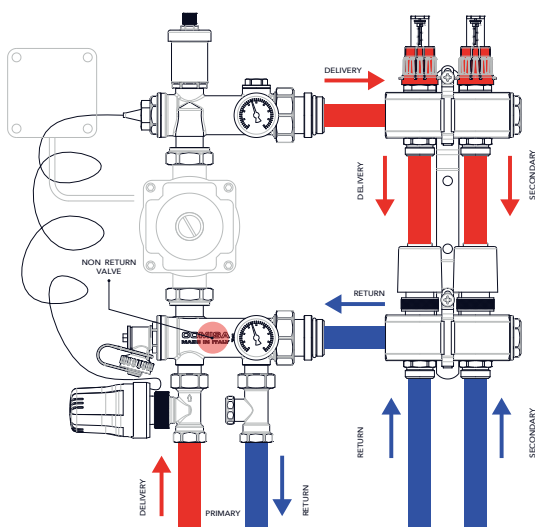
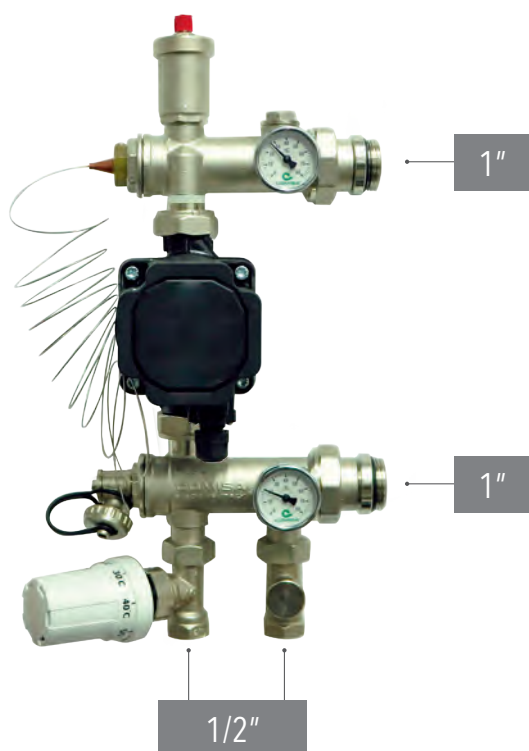
*La marque et le modèle de la pompe peuvent varier selon la disponibilité sur le marché au moment de l'achat

1" M
1/2" F



MIXING UNIT WITH CIRCULATOR AND THERMOSTATIC HEAD

/ GRUPPO DI REGOLAZIONE CON CIRCOLATORE E TESTA TERMOSTATICA
/ REGELSTATION MIT PUMPE UND THERMOSTATKOPF
/ KIT DE RÉGULATION AVEC CIRCULATEUR ET TÊTE THERMOSTATIQUE



607

CODE	TECH. CODE	SIZE	DISTANCE	
88.10.863	CT0607000001	1"	200 mm	1
* ALSO AVAILABLE WITHOUT PUMP ON REQUEST				
88.10.864	CT0607000002	1"	200 mm	1

SPECIFICATIONS

MANIFOLD CONNECTION	2 connections for 1" manifold
PUMP *	according to market availability
BALL VALVES	2 ball valves 1"
FLOW DIRECTION	1 regulating lockshield 1/2" valve on flow direction
RETURN	1 thermostatic valve 1/2" - M30x1,5 mm 1 thermostatic head with sensor
DISTANCE	200 mm



*The pump type/model may vary depending on the market availability at the time of purchase

*Marca e modello della pompa possono variare secondo disponibilità del mercato al momento dell'acquisto

*Marke und Modell der Pumpe können je nach Marktverfügbarkeit zum Zeitpunkt des Kaufs variieren

*La marque et le modèle de la pompe peuvent varier selon la disponibilité sur le marché au moment de l'achat

BRASS MANIFOLDS

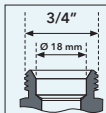
/ COLLETTORI OTTONE
/ MESSING VERTEILER
/ COLLECTEURS EN LAITON

BRASS



UNI EN 12164/12165
CW 617N
DIN 50930-6

1" F



**EUROCONE
3/4"**

**BRASS
NICKEL-PLATED**



NEW! - BRACKET COMPATIBLE WITH 80 mm-DEEP CABINET
NOVITÀ! - STAFFA COMPATIBILE CON CASSETTA PROFONDITÀ 80 mm
ANKÜNDIGUNGEN! - HALTER KOMPATIBEL MIT BOX TIEFE 80 mm
ANNONCES ! - SUPPORT COMPATIBLE AVEC BOX PROFONDEUR 80 mm

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F + STEEL BRACKETS
CONNECTIONS 3/4" EUROCONE
MEMORY STOP FLOWMETERS + SHUT-OFF VALVES WITH CAP
AUTOMATIC AIR VENTS 3/8" + TERMINAL WATER DRAIN VALVES 1" M
BALL VALVES F/TAIPIECE WITH O-RING AND THERMOMETER

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO + STAFFE IN ACCIAIO
ATTACCHI 3/4" EUROCONO
FLUSSOMETRI C/ EFFETTO MEMORIA + VALVOLE INTERCETTAZIONE C/ CAPPUCCIO
VALVOLE SFOGO ARIA AUTOMATICHE 3/8" + TERMINALI 1" M CON SCARICO ACQUA
VALVOLE A SFERA F/CODOLO C/ O-RING E TERMOMETRO

VORMONTIERTER FB-VERTEILER 1" IG + VERTEILERHALTERUNGEN AUS STAHL
3/4" EUROKONUS-ABGÄNGE
DURCHFLOSSMESSER MIT MEMORY-EFFEKT + ABSPERRVENTILE MIT KAPPE
AUTOMATISCHE ENTLÜFTUNGSVENTILE 3/8" + 1" AG-ENDSTÜCKE MIT ENTLERUNGSVENTIL
KUGELHÄHNE MIT IG/GEWINDEANSCHLUSS, MIT O-RING UND THERMOMETER

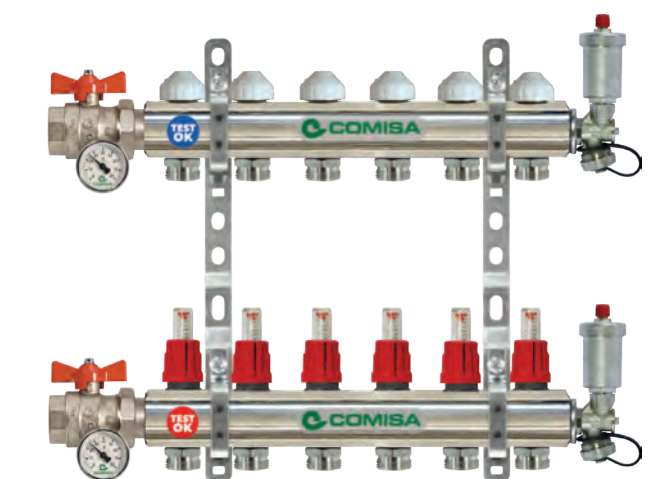
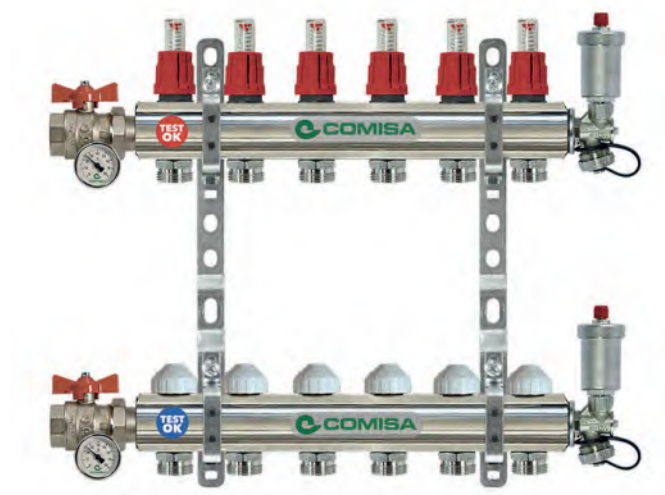
COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F + SUPPORTS EN ACIER
SORTIES 3/4" EUROCONÉ
DÉBITMÈTRES DE RÉGULATION AVEC PRÉRÉGLAGE DU DÉBIT + VANNES D'ARRÊT A/ CAPUCHON
PURGEURS D'AIR AUTOMATIQUES 3/8" + POTS DE TERMINAISON 1" M A/ ROBINET DE VIDANGE
VANNES À BOISSEAU SPHÉRIQUE A/ CONNEXION FILETÉE F, JOINT TORIQUE ET THERMOMÈTRE

728

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.08.202	CL072800203N	1"	2	50 mm	1
88.08.203	CL072800303N	1"	3	50 mm	1
88.08.204	CL072800403N	1"	4	50 mm	1
88.08.205	CL072800503N	1"	5	50 mm	1
88.08.206	CL072800603N	1"	6	50 mm	1
88.08.207	CL072800703N	1"	7	50 mm	1
88.08.208	CL072800803N	1"	8	50 mm	1
88.08.209	CL072800903N	1"	9	50 mm	1
88.08.210	CL072801003N	1"	10	50 mm	1
88.08.211	CL072801103N	1"	11	50 mm	1
88.08.212	CL072801203N	1"	12	50 mm	1
88.08.213	CL072801303N	1"	13	50 mm	1

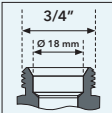
690

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
	CL069000203N	1"	2	50 mm	1
	CL069000303N	1"	3	50 mm	1
	CL069000403N	1"	4	50 mm	1
	CL069000503N	1"	5	50 mm	1
	CL069000603N	1"	6	50 mm	1
	CL069000703N	1"	7	50 mm	1
	CL069000803N	1"	8	50 mm	1
	CL069000903N	1"	9	50 mm	1
	CL069001003N	1"	10	50 mm	1
	CL069001103N	1"	11	50 mm	1
	CL069001203N	1"	12	50 mm	1
	CL069001303N	1"	13	50 mm	1



NEW! - LOWER FLOW BAR
NOVITÀ! - MANDATA BARRA INFERIORE

1" F



EUROCONE
3/4"

BRASS
NICKEL-PLATED



NEW! - BRACKET COMPATIBLE WITH 80 mm-DEEP CABINET
NOVITÀ! - STAFFA COMPATIBILE CON CASSETTA PROFONDITÀ 80 mm
ANKÜNDIGUNGEN! - HALTER KOMPATIBEL MIT BOX TIEFE 80 mm
ANNONCES ! - SUPPORT COMPATIBLE AVEC BOX PROFONDEUR 80 mm

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F + STEEL BRACKETS
CONNECTIONS 3/4" EUROCONE
MEMORY STOP FLOWMETERS + SHUT-OFF VALVES WITH CAP
AUTOMATIC AIR VENTS 3/8" + TERMINAL WATER DRAIN VALVES 1" M

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO + STAFFE IN ACCIAIO
ATTACCHI 3/4" EUROCONO
FLUSSOMETRI C/ EFFETTO MEMORIA + VALVOLE INTERCETTAZIONE C/ CAPPUCCIO
VALVOLE SFOGO ARIA AUTOMATICHE 3/8" + TERMINALI 1" M CON SCARICO ACQUA

VORMONTIERTER FB-VERTEILER 1" IG + VERTEILERHALTERUNGEN AUS STAHL
3/4" EUROKONUS-ABGÄNGE
DURCHFLOßMESSER MIT MEMORY-EFFEKT + ABSPERRVENTILE MIT KAPPE
AUTOMATISCHE ENTLÜFTUNGSVENTILE 3/8" + 1" AG-ENDSTÜCKE MIT ENTLERUNGSVENTIL

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F + SUPPORTS EN ACIER
SORTIES 3/4" EUROCONE
DÉBITMÈTRES DE RÉGULATION AVEC PRÉRÉGLAGE DU DÉBIT + VANNES D'ARRÊT A/ CAPUCHON
PURGEURS D'AIR AUTOMATIQUES 3/8" + POTS DE TERMINAISON 1" M A/ ROBINET DE VIDANGE

726

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.08.140	CL072600203N	1"	2	50 mm	1
88.08.141	CL072600303N	1"	3	50 mm	1
88.08.142	CL072600403N	1"	4	50 mm	1
88.08.143	CL072600503N	1"	5	50 mm	1
88.08.144	CL072600603N	1"	6	50 mm	1
88.08.145	CL072600703N	1"	7	50 mm	1
88.08.146	CL072600803N	1"	8	50 mm	1
88.08.147	CL072600903N	1"	9	50 mm	1
88.08.148	CL072601003N	1"	10	50 mm	1
88.08.149	CL072601103N	1"	11	50 mm	1
88.08.150	CL072601203N	1"	12	50 mm	1
88.08.151	CL072601303N	1"	13	50 mm	1

NEW NEW

691

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
	CL069100203N	1"	2	50 mm	1
	CL069100303N	1"	3	50 mm	1
	CL069100403N	1"	4	50 mm	1
	CL069100503N	1"	5	50 mm	1
	CL069100603N	1"	6	50 mm	1
	CL069100703N	1"	7	50 mm	1
	CL069100803N	1"	8	50 mm	1
	CL069100903N	1"	9	50 mm	1
	CL069101003N	1"	10	50 mm	1
	CL069101103N	1"	11	50 mm	1
	CL069101203N	1"	12	50 mm	1
	CL069101303N	1"	13	50 mm	1

NEW! - LOWER FLOW BAR
NOVITÀ! - MANDATA BARRA INFERIORE

NEW NEW



**EUROCONE
3/4"**

**BRASS
NICKEL-PLATED**

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F
STEEL BRACKETS
CONNECTIONS 3/4" EUROCONE
LOCKSHIELD VALVES WITH MICROMETRIC ADJUSTMENT
SHUT-OFF VALVES WITH CAP
AUTOMATIC AIR VENTS 3/8"
TERMINAL WATER DRAIN VALVES 1" M

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO
STAFFE IN ACCIAIO
ATTACCHI 3/4" EUROCONO
DETENTORI C/ REGOLAZIONE MICROMETRICA
VALVOLE INTERCETTAZIONE C/ CAPPUCIO
VALVOLE SFOGO ARIA AUTOMATICHE 3/8"
TERMINALI 1" M CON SCARICO ACQUA

VORMONTIERTER FB-VERTEILER 1" IG
VERTEILERHALTERUNGEN AUS STAHL
3/4" EUROKONUS-ABGÄNGE
MIKTOMETRISCHE ABSPERRVENTILE
ABSPERRVENTILE MIT KAPPE
AUTOMATISCHE ENTLÜFTUNGSVENTILE 3/8"
1" AG-ENDSTÜCKE MIT ENTLEERUNGSVENTIL

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F
SUPPORTS EN ACIER
SORTIES 3/4" EUROCONE
VANNES D'ARRÊT À RÉGLAGE MICROMÉTRIQUE
VANNES D'ARRÊT AVEC CAPUCHON
PURGEURS D'AIR AUTOMATIQUES 3/8"
POTS DE TERMINAISON 1" M A/ ROBINET DE VIDANGE

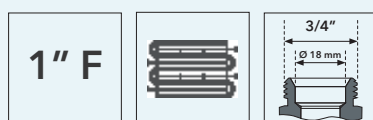


NEW! - BRACKET COMPATIBLE WITH 80 mm-DEEP CABINET
NOVITÀ! - STAFFA COMPATIBILE CON CASSETTA PROFONDITÀ 80 mm
ANKÜNDIGUNGEN! - HALTER KOMPATIBEL MIT BOX TIEFE 80 mm
ANNONCES ! - SUPPORT COMPATIBLE AVEC BOX PROFONDEUR 80 mm



725

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.08.120	CL072500203N	1"	2	50 mm	1
88.08.121	CL072500303N	1"	3	50 mm	1
88.08.122	CL072500403N	1"	4	50 mm	1
88.08.123	CL072500503N	1"	5	50 mm	1
88.08.124	CL072500603N	1"	6	50 mm	1
88.08.125	CL072500703N	1"	7	50 mm	1
88.08.126	CL072500803N	1"	8	50 mm	1
88.08.127	CL072500903N	1"	9	50 mm	1
88.08.128	CL072501003N	1"	10	50 mm	1
88.08.129	CL072501103N	1"	11	50 mm	1
88.08.130	CL072501203N	1"	12	50 mm	1



**EUROCONE
3/4"**

BRASS

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F
STEEL BRACKETS
CONNECTIONS 3/4" EUROCONE
MEMORY STOP FLOWMETERS
SHUT-OFF VALVES WITH CAP
TERMINAL WATER DRAIN VALVES 1" M

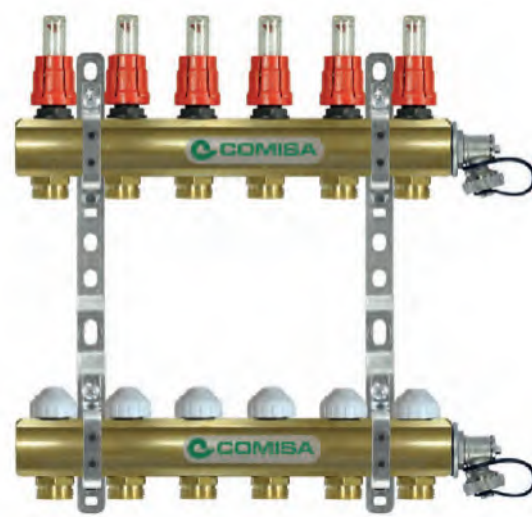
COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO
STAFFE IN ACCIAIO
ATTACCHI 3/4" EUROCONO
FLUSSOMETRI C/ EFFETTO MEMORIA
VALVOLE INTERCETTAZIONE C/ CAPPuccio
TERMINALI 1" M CON SCARICO ACQUA

VORMONTIERTER FB-VERTEILER 1" IG
VERTEILERHALTERUNGEN AUS STAHL
3/4" EUROKONUS-ABGÄNGE
DURCHFLUSSMESSER MIT MEMORY-EFFEKT
ABSPERRVENTILE MIT KAPPE
1" AG-ENDSTÜCKE MIT ENTLEERUNGSVENTIL

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F
SUPPORTS EN ACIER
SORTIES 3/4" EUROCONE
DÉBITMÈTRES DE RÉGULATION AVEC PRÉRÉGLAGE DU DÉBIT
VANNES D'ARRÊT AVEC CAPUCHON
POTS DE TERMINAISON 1" M A/ ROBINET DE VIDANGE

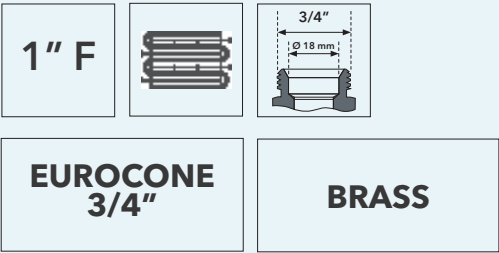


NEW! - BRACKET COMPATIBLE WITH 80 mm-DEEP CABINET
NOVITÀ! - STAFFA COMPATIBILE CON CASSETTA PROFONDITÀ 80 mm
ANKÜNDIGUNGEN! - HALTER KOMPATIBEL MIT BOX TIEFE 80 mm
ANNONCES ! - SUPPORT COMPATIBLE AVEC BOX PROFONDEUR 80 mm



685

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.10.533	CL0685002030	1"	2	50 mm	1
88.10.534	CL0685003030	1"	3	50 mm	1
88.10.535	CL0685004030	1"	4	50 mm	1
88.10.536	CL0685005030	1"	5	50 mm	1
88.10.537	CL0685006030	1"	6	50 mm	1
88.10.538	CL0685007030	1"	7	50 mm	1
88.10.539	CL0685008030	1"	8	50 mm	1
88.10.540	CL0685009030	1"	9	50 mm	1
88.10.541	CL0685010030	1"	10	50 mm	1
88.10.542	CL0685011030	1"	11	50 mm	1
88.10.543	CL0685012030	1"	12	50 mm	1
88.10.544	CL0685013030	1"	13	50 mm	1



PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F
STEEL BRACKETS
CONNECTIONS 3/4" EUROCONE
LOCKSHIELD VALVES WITH MICROMETRIC ADJUSTMENT
SHUT-OFF VALVES WITH CAP
TERMINAL WATER DRAIN VALVES 1" M

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO
STAFFE IN ACCIAIO
ATTACCHI 3/4" EUROCONO
DETENTORI C/ REGOLAZIONE MICROMETRICA
VALVOLE INTERCETTAZIONE C/ CAPPuccio
TERMINALI 1" M CON SCARICO ACQUA

VORMONTIERTER FB-VERTEILER 1" IG
VERTEILERHALTERUNGEN AUS STAHL
3/4" EUROKONUS-ABGÄNGE
MIKTOMETRISCHE ABSPERRVENTILE
ABSPERRVENTILE MIT KAPPE
1" AG-ENDSTÜCKE MIT ENTLEERUNGSVENTIL

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F
SUPPORTS EN ACIER
SORTIES 3/4" EUROCONO
VANNES D'ARRÊT À RÉGLAGE MICROMÉTRIQUE
VANNES D'ARRÊT AVEC CAPUCHON
POTS DE TERMINAISON 1" M A/ ROBINET DE VIDANGE

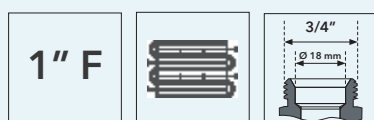


NEW! - BRACKET COMPATIBLE WITH 80 mm-DEEP CABINET
NOVITÀ! - STAFFA COMPATIBILE CON CASSETTA PROFONDITÀ 80 mm
ANKÜNDIGUNGEN! - HALTER KOMPATIBEL MIT BOX TIEFE 80 mm
ANNONCES ! - SUPPORT COMPATIBLE AVEC BOX PROFONDEUR 80 mm



684

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.10.522	CL0684002030	1"	2	50 mm	1
88.10.523	CL0684003030	1"	3	50 mm	1
88.10.524	CL0684004030	1"	4	50 mm	1
88.10.525	CL0684005030	1"	5	50 mm	1
88.10.526	CL0684006030	1"	6	50 mm	1
88.10.527	CL0684007030	1"	7	50 mm	1
88.10.528	CL0684008030	1"	8	50 mm	1
88.10.529	CL0684009030	1"	9	50 mm	1
88.10.530	CL0684010030	1"	10	50 mm	1
88.10.531	CL0684011030	1"	11	50 mm	1
88.10.532	CL0684012030	1"	12	50 mm	1
88.10.545	CL0684013030	1"	13	50 mm	1



**EUROCONE
3/4"**

**BRASS
NICKEL-PLATED**

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F
STEEL BRACKETS
CONNECTIONS 3/4" EUROCONE
1/2" DRAIN HOLE

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO
STAFFE IN ACCIAIO
ATTACCHI 3/4" EUROCONO
FORI DI SCARICO 1/2"

VORMONTIERTER FB-VERTEILER 1" IG
VERTEILERHALTERUNGEN AUS STAHL
3/4" EUROKONUS-ABGÄNGE
ENTLÜFTUNG 1/2"

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F
SUPPORTS EN ACIER
SORTIES 3/4" EUROCONO
SORTIES DE VIDANGE 1/2"

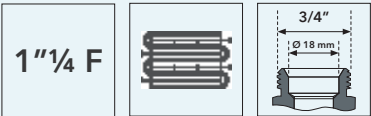


NEW! - BRACKET COMPATIBLE WITH 80 mm-DEEP CABINET
NOVITÀ! - STAFFA COMPATIBILE CON CASSETTA PROFONDITÀ 80 mm
ANKÜNDIGUNGEN! - HALTER KOMPATIBEL MIT BOX TIEFE 80 mm
ANNONCES ! - SUPPORT COMPATIBLE AVEC BOX PROFONDEUR 80 mm



686

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.20.356	CL068600203N	1"	2	50 mm	1
88.20.357	CL068600303N	1"	3	50 mm	1
88.20.358	CL068600403N	1"	4	50 mm	1
88.20.359	CL068600503N	1"	5	50 mm	1
88.20.360	CL068600603N	1"	6	50 mm	1
88.20.361	CL068600703N	1"	7	50 mm	1
88.20.362	CL068600803N	1"	8	50 mm	1
88.20.363	CL068600903N	1"	9	50 mm	1
88.20.364	CL068601003N	1"	10	50 mm	1
88.20.365	CL068601103N	1"	11	50 mm	1
88.20.366	CL068601203N	1"	12	50 mm	1
88.20.261	CL068601303N	1"	13	50 mm	1



**EUROCONE
3/4"**

**BRASS
NICKEL-PLATED**

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F
STEEL BRACKETS
CONNECTIONS 3/4" EUROCONE
1/2" DRAIN HOLE

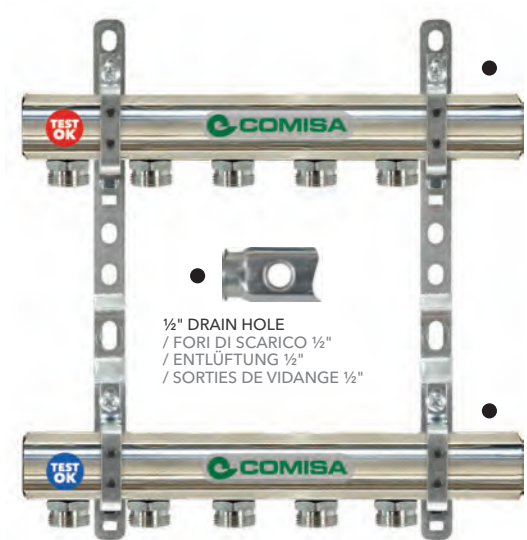
COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO
STAFFE IN ACCIAIO
ATTACCHI 3/4" EUROCONO
FORI DI SCARICO 1/2"

VORMONTIERTER FB-VERTEILER 1" IG
VERTEILERHALTERUNGEN AUS STAHL
3/4" EUROKONUS-ABGÄNGE
ENTLÜFTUNG 1/2"

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F
SUPPORTS EN ACIER
SORTIES 3/4" EUROCONE
SORTIES DE VIDANGE 1/2"



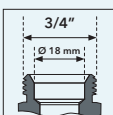
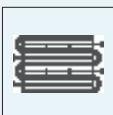
NEW! - BRACKET COMPATIBLE WITH 80 mm-DEEP CABINET
NOVITÀ! - STAFFA COMPATIBILE CON CASSETTA PROFONDITÀ 80 mm
ANKÜNDIGUNGEN! - HALTER KOMPATIBEL MIT BOX TIEFE 80 mm
ANNONCES ! - SUPPORT COMPATIBLE AVEC BOX PROFONDEUR 80 mm



696

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.11.861	CL069600203N	1 1/4"	2	50 mm	1
88.11.862	CL069600303N	1 1/4"	3	50 mm	1
88.11.863	CL069600403N	1 1/4"	4	50 mm	1
88.11.864	CL069600503N	1 1/4"	5	50 mm	1
88.11.865	CL069600603N	1 1/4"	6	50 mm	1
88.11.866	CL069600703N	1 1/4"	7	50 mm	1
88.11.867	CL069600803N	1 1/4"	8	50 mm	1
88.11.868	CL069600903N	1 1/4"	9	50 mm	1
88.11.869	CL069601003N	1 1/4"	10	50 mm	1
88.11.870	CL069601103N	1 1/4"	11	50 mm	1
88.11.871	CL069601203N	1 1/4"	12	50 mm	1

1"¼ F

**EUROCONE
3/4"****BRASS
NICKEL-PLATED**

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1"¼ F
STEEL BRACKETS
CONNECTIONS 3/4" EUROCONE
MEMORY STOP FLOWMETERS
SHUT-OFF VALVES WITH CAP
AUTOMATIC AIR VENTS + THERMOMETRE + WATER DRAIN
BALL VALVES 1 ¼" F
PLUGS 1" ¼ M

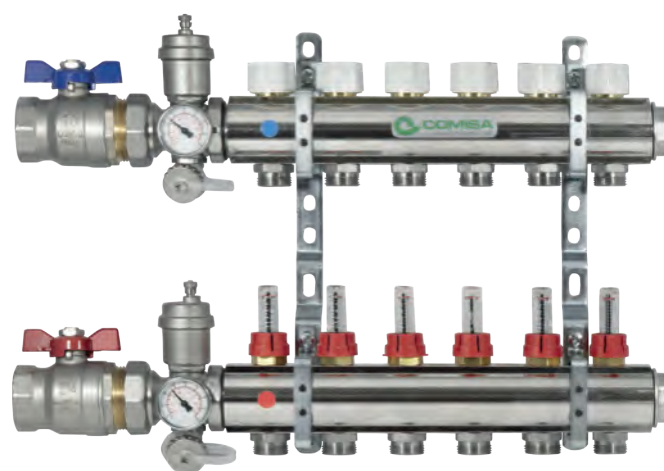
COLLETTORE DI DISTRIBUZIONE 1"¼ F PREMONTATO
STAFFE IN ACCIAIO
ATTACCHI 3/4" EUROCONO
FLUSSOMETRI C/ EFFETTO MEMORIA
VALVOLE INTERCETTAZIONE C/ CAPPuccio
VALVOLE SFOGO ARIA AUTOMATICHE + TERMOMETRO + SCARICO ACQUA
VALVOLE A SFERA 1 1/4" F
TAPPI 1" 1/4 M

VORMONTIERTER FB-VERTEILER 1" IG
VERTEILERHALTERUNGEN AUS STAHL
3/4" EUROKONUS-ABGÄNGE
DURCHFLUSSMESSER MIT MEMORY-EFFEKT
ABSPERRVENTILE MIT KAPPE
AUTOMATISCHE ENTLÜFTUNGSVENTILE
MIT THERMOMETER + ENTLEERUNGSVENTIL
KUGELHÄHNE 1 1/4" F
KAPPEN 1" 1/4 M

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F
SUPPORTS EN ACIER
SORTIES 3/4" EUROCONE
DÉBITMÈTRES DE RÉGULATION AVEC PRÉRÉGLAGE DU DÉBIT
VANNES D'ARRÊT A/ CAPUCHON
PURGEURS D'AIR AUTOMATIQUES + THERMOMÈTRE + ROBINET DE VIDANGE
VANNES À BOISSEAU SPHÉRIQUE 1 1/4" F
BOUCHONS 1" 1/4 M

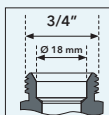
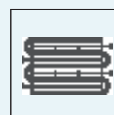


NEW! - BRACKET COMPATIBLE WITH 80 mm-DEEP CABINET
NOVITÀ! - STAFFA COMPATIBILE CON CASSETTA PROFONDITÀ 80 mm
ANKÜNDIGUNGEN! - HALTER KOMPATIBEL MIT BOX TIEFE 80 mm
ANNONCES ! - SUPPORT COMPATIBLE AVEC BOX PROFONDEUR 80 mm

**695**

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.11.875	CL069500203N	1 1/4"	2	50 mm	1
88.11.876	CL069500303N	1 1/4"	3	50 mm	1
88.11.877	CL069500403N	1 1/4"	4	50 mm	1
88.11.878	CL069500503N	1 1/4"	5	50 mm	1
88.11.879	CL069500603N	1 1/4"	6	50 mm	1
88.11.880	CL069500703N	1 1/4"	7	50 mm	1
88.11.881	CL069500803N	1 1/4"	8	50 mm	1
88.11.882	CL069500903N	1 1/4"	9	50 mm	1
88.11.883	CL069501003N	1 1/4"	10	50 mm	1
88.11.884	CL069501103N	1 1/4"	11	50 mm	1
88.11.885	CL069501203N	1 1/4"	12	50 mm	1

1" 1/4 F

EUROCONE
3/4"BRASS
NICKEL-PLATED

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" 1/4 F
CONNECTIONS 3/4" EUROCONE
1/2" DRAIN HOLES

COLLETTORE DI DISTRIBUZIONE 1" 1/4 F PREMONTATO
ATTACCHI 3/4" EUROCONO
FORI DI SCARICO 1/2"

VORMONTIERTER FB-VERTEILER 1" 1/4 IG
3/4" EUROKONUS-ABGÄNGE
ENTLÜFTUNG 1/2"

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" 1/4 F
SORTIES 3/4" EUROCONE
SORTIES DE VIDANGE 1/2"



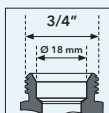
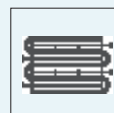
DRAIN HOLE
/ FORO DI SCARICO
/ ENTLÜFTUNG
/ SORTIE DE VIDANGE
1/2"



694

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.10.875	CL069400203N	1 1/4"	2	50 mm	1
88.10.876	CL069400303N	1 1/4"	3	50 mm	1
88.10.877	CL069400403N	1 1/4"	4	50 mm	1
88.10.879	CL069400503N	1 1/4"	5	50 mm	1
88.10.882	CL069400603N	1 1/4"	6	50 mm	1
88.10.883	CL069400703N	1 1/4"	7	50 mm	1
88.10.884	CL069400803N	1 1/4"	8	50 mm	1
88.10.885	CL069400903N	1 1/4"	9	50 mm	1
88.10.886	CL069401003N	1 1/4"	10	50 mm	1
88.10.887	CL069401103N	1 1/4"	11	50 mm	1
88.10.888	CL069401203N	1 1/4"	12	50 mm	1

1" F

EUROCONE
3/4"BRASS
NICKEL-PLATED

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F
CONNECTIONS 3/4" EUROCONE
1/2" DRAIN HOLES

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO
ATTACCHI 3/4" EUROCONO
FORI DI SCARICO 1/2"

VORMONTIERTER FB-VERTEILER 1" IG
3/4" EUROKONUS-ABGÄNGE
ENTLÜFTUNG 1/2"

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F
SORTIES 3/4" EUROCONE
SORTIES DE VIDANGE 1/2"



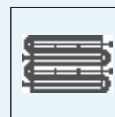
DRAIN HOLE
/ FORO DI SCARICO
/ ENTLÜFTUNG
/ SORTIE DE VIDANGE
1/2"



697

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.20.249	CL069700203N	1"	2	50 mm	1
88.20.250	CL069700303N	1"	3	50 mm	1
88.20.251	CL069700403N	1"	4	50 mm	1
88.20.252	CL069700503N	1"	5	50 mm	1
88.20.253	CL069700603N	1"	6	50 mm	1
88.20.254	CL069700703N	1"	7	50 mm	1
88.20.255	CL069700803N	1"	8	50 mm	1
88.20.256	CL069700903N	1"	9	50 mm	1
88.20.257	CL069701003N	1"	10	50 mm	1
88.20.258	CL069701103N	1"	11	50 mm	1
88.20.259	CL069701203N	1"	12	50 mm	1
88.20.260	CL069701303N	1"	13	50 mm	1

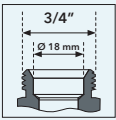
1" F

BRASS
NICKEL-PLATEDDISTRIBUTION MANIFOLD 1" F
1/2" DRAIN HOLESFB-VERTEILER 1" IG
ENTLÜFTUNG 1/2"COLLETTORE DI DISTRIBUZIONE 1" F
FORI DI SCARICO 1/2"COLLECTEUR DE DISTRIBUTION 1" F
SORTIES DE VIDANGE 1/2"DRAIN HOLE
/ FORO DI SCARICO
/ ENTLÜFTUNG
/ SORTIE DE VIDANGE
1/2"

698

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.20.160	CL069800202N	1"	2	50 mm	1
88.20.161	CL069800302N	1"	3	50 mm	1
88.20.162	CL069800402N	1"	4	50 mm	1
88.20.163	CL069800502N	1"	5	50 mm	1
88.20.164	CL069800602N	1"	6	50 mm	1
88.20.165	CL069800702N	1"	7	50 mm	1
88.20.166	CL069800802N	1"	8	50 mm	1
88.20.167	CL069800902N	1"	9	50 mm	1
88.20.168	CL069801002N	1"	10	50 mm	1
88.20.169	CL069801102N	1"	11	50 mm	1
88.20.170	CL069801202N	1"	12	50 mm	1
88.20.136	CL069801302N	1"	13	50 mm	1

1"¼ F



EUROCON
3/4"

BRASS
NICKEL-PLATED



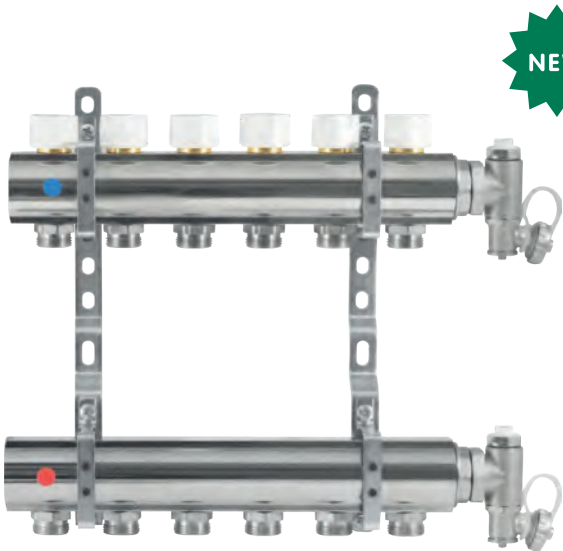
NEW! - BRACKET COMPATIBLE WITH 80 mm-DEEP CABINET
NOVITÀ! - STAFFA COMPATIBILE CON CASSETTA PROFONDITÀ 80 mm
ANKÜNDIGUNGEN! - HALTER KOMPATIBEL MIT BOX TIEFE 80 mm
ANNONCES ! - SUPPORT COMPATIBLE AVEC BOX PROFONDEUR 80 mm

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1"¼ F KIT FOR FANCOIL
STEEL BRACKETS
CONNECTIONS 3/4" EUROCON
SHUT-OFF VALVES WITH CAP
PLUGS WITH REDUCTION AND WITH O-RING SEALING GASKET
MANUAL AIR VENT AND DRAIN OFF VALVE WITH O-RING SEALING GASKET

KIT COLLETTORE DI DISTRIBUZIONE 1"¼ F PREMONTATO PER FANCOIL
STAFFE IN ACCIAIO
ATTACCHI 3/4" EUROCONO
VALVOLE INTERCETTAZIONE C/ CAPPuccio
TAPPI CON RIDUZIONE C/ GUARNIZIONE DI TENUTA O-RING
SFIATO MANUALE E SCARICO C/ GUARNIZIONE DI TENUTA O-RING

VORMONTIERTER FB-VERTEILER 1"¼ IG
VERTEILERHALTERUNGEN AUS STAHL
3/4" EUROKONUS-ABGÄNGE
ABSPERRVENTILE MIT KAPPE
STOPFEN MIT REDUKTION UND O-RING DICHTUNG
MANUELLES ENTLÜFTUNGSVENTIL + ENTLEERUNGSVENTIL MIT O-RING DICHTUNG

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1"¼ F
SUPPORTS EN ACIER
SORTIES 3/4" EUROCON
VANNES D'ARRÊT A/ CAPUCHON
BOUCHONS AVEC RÉDUCTION ET JOINT TORIQUE
PURGEUR D'AIR MANUEL ET ROBINET DE VIDANGE AVEC JOINT TORIQUE



729

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
	CL072900203N	1" 1/4	2	50 mm	1
	CL072900303N	1" 1/4	3	50 mm	1
	CL072900403N	1" 1/4	4	50 mm	1
	CL072900503N	1" 1/4	5	50 mm	1
	CL072900603N	1" 1/4	6	50 mm	1
	CL072900703N	1" 1/4	7	50 mm	1
	CL072900803N	1" 1/4	8	50 mm	1
	CL072900903N	1" 1/4	9	50 mm	1
	CL072901003N	1" 1/4	10	50 mm	1
	CL072901103N	1" 1/4	11	50 mm	1
	CL072901203N	1" 1/4	12	50 mm	1
	CL072901303N	1" 1/4	13	50 mm	1

ITEMS AVAILABLE TO COMPOSE THE KIT - SEE "ACCESSORIES" FROM PAGE 191

/ ARTICOLI DISPONIBILI PER COMPORRE IL KIT - VEDI "ACCESSORI" DA PAG. 191
/ ARTIKEL FÜR DIE ZUSAMMENSETZUNG DER VERTEILER - SIEHE "ZUBEHÖR" AB PAG. 191
/ ARTICLES DISPONIBLES POUR COMPOSER LE KIT- VOIR "ACCESSOIRES" DE LA PAG. 191



VA0696012120

INSULATION
/ GUSCIO ISOLANTE
/ ISOLIERSCHALE
/ COQUILLE ISOLANTE



VA0679ATT001
VA0679ATT002

ELECTROTHERMIC ACTUATOR
/ TESTA ELETTROTERMICA
/ ELEKTROTHERMISCHER STELLANTRIEB
/ TÊTE ÉLECTROTHERMIQUE



Ø26 x 3/4"
NEW
MU087500726L
PAG. 10

PRESS FITTING FOR MULTILAYER PIPE
/ KIT A PRESSARE PER TUBO MULTISTRATO
/ PRESSVERBINDER FÜR MEHRSCICHTVERBUNDROHR
/ KIT À SERTIR POUR TUBE MULTICOUCHE



DC0221C1612N
DC0221C2016N

SCREW FITTING FOR MULTILAYER PIPE
/ KIT A STRINGERE PER TUBO MULTISTRATO
/ KLEMMRINGVERSCHRAUBUNG FÜR MEHRSCICHTVERBUNDROHR
/ KIT DE SERRAGE POUR TUBE MULTICOUCHE



VS0146B12PRN

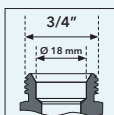
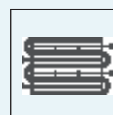
BALL VALVE FOR MANIFOLD
/ VALVOLA A SFERA PER COLLETTORE
/ KUGELHAHN FÜR VERTEILER
/ VANNE À BOISSEAU SPHÉRIQUE POUR COLLECTEUR



VS0146B12PBN

BALL VALVE FOR MANIFOLD
/ VALVOLA A SFERA PER COLLETTORE
/ KUGELHAHN FÜR VERTEILER
/ VANNE À BOISSEAU SPHÉRIQUE POUR COLLECTEUR

1" F

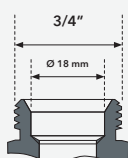
EUROCONE
3/4"BRASS
NICKEL-PLATED

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F
CONNECTIONS 3/4" EUROCONE
MEMORY STOP FLOWMETERS

VORMONTIERTER FB-VERTEILER 1" IG
3/4" EUROKONUS-ABGÄNGE
DURCHFLUSSMESSER MIT MEMORY-EFFEKT

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO
ATTACCHI 3/4" EUROCONO
FLUSSOMETRI C/ EFFETTO MEMORIA

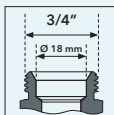
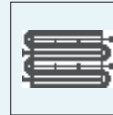
COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F
SORTIES 3/4" EUROCONE
DÉBITMÈTRES DE RÉGULATION AVEC PRÉRÉGLAGE DU DÉBIT



743

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.20.333	CL0743002030	1"	2	50 mm	1
88.20.334	CL0743003030	1"	3	50 mm	1
88.20.335	CL0743004030	1"	4	50 mm	1
88.20.336	CL0743005030	1"	5	50 mm	1
88.20.337	CL0743006030	1"	6	50 mm	1
88.20.338	CL0743007030	1"	7	50 mm	1
88.20.339	CL0743008030	1"	8	50 mm	1
88.20.340	CL0743009030	1"	9	50 mm	1
88.20.341	CL0743010030	1"	10	50 mm	1
88.20.342	CL0743011030	1"	11	50 mm	1
88.20.343	CL0743012030	1"	12	50 mm	1
88.20.344	CL0743013030	1"	13	50 mm	1

1" F

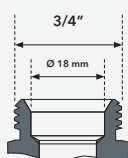
EUROCONE
3/4"BRASS
NICKEL-PLATED

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F
CONNECTIONS 3/4" EUROCONE
SHUT-OFF VALVES WITH CAP

VORMONTIERTER FB-VERTEILER 1" IG
3/4" EUROKONUS-ABGÄNGE
ABSPERRVENTILE MIT KAPPE

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO
ATTACCHI 3/4" EUROCONO
VALVOLE INTERCETTAZIONE C/ CAPPuccio

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F
SORTIES 3/4" EUROCONE
VANNES D'ARRÊT A/ CAPUCHON



744

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.20.285	CL0744002030	1"	2	50 mm	1
88.20.286	CL0744003030	1"	3	50 mm	1
88.20.287	CL0744004030	1"	4	50 mm	1
88.20.288	CL0744005030	1"	5	50 mm	1
88.20.289	CL0744006030	1"	6	50 mm	1
88.20.290	CL0744007030	1"	7	50 mm	1
88.20.291	CL0744008030	1"	8	50 mm	1
88.20.292	CL0744009030	1"	9	50 mm	1
88.20.293	CL0744010030	1"	10	50 mm	1
88.20.294	CL0744011030	1"	11	50 mm	1
88.20.295	CL0744012030	1"	12	50 mm	1
88.20.296	CL0744013030	1"	13	50 mm	1

STAINLESS STEEL MANIFOLDS

AUTOMATIC FLOW CONTROL

/ COLLETTORI AFC IN ACCIAIO INOSSIDABILE
/ EDELSTAHL VERTEILER AFC
/ COLLECTEURS AFC EN ACIER INOXYDABLE



STAINLESS
STEEL

AISI 304 L



Automatic hydraulic balancing: thanks to the flow regulator integrated in each thermostatic insert it is possible to set the maximum design flow rate for every single circuit, which must be kept constant.

Bilanciamento idraulico automatico: grazie al regolatore di portata integrato in ogni inserto termostatico è possibile impostare, per ogni singolo circuito, la portata massima di progetto che dovrà essere mantenuta costante.

The return manifold is equipped with a regulating valve that allows pressure-independent regulation of the fluid.

Il collettore di ritorno è completo di valvola di regolazione che permette una regolazione del fluido indipendente dalla pressione.

A flow indicator is mounted on the flow manifold to check the correct functioning of each heating circuit in a simple and intuitive way.

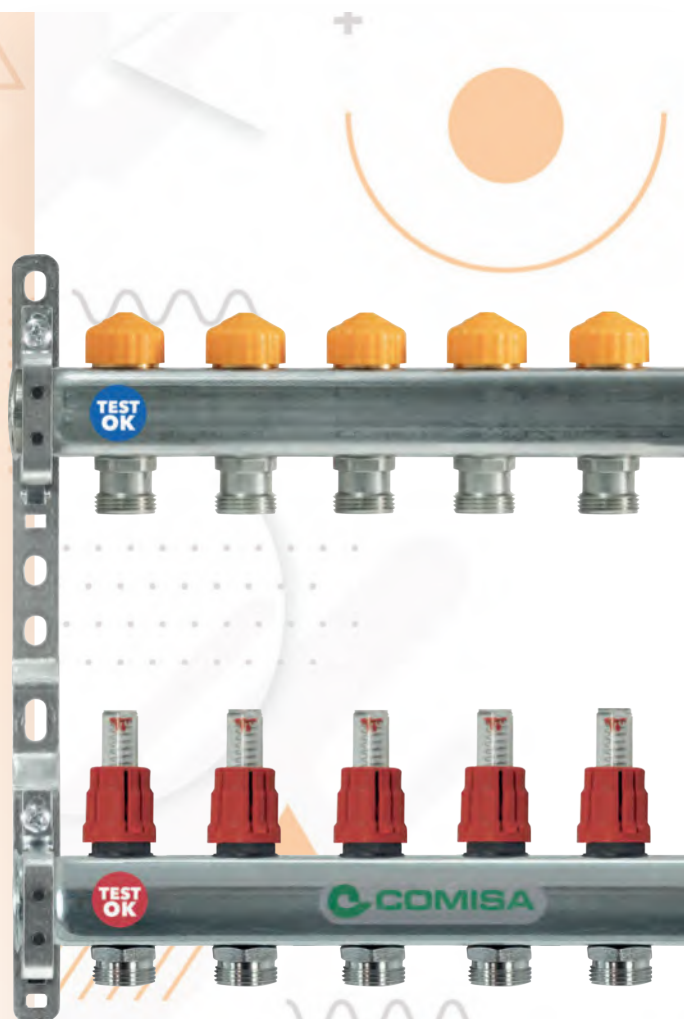
Indicatore di portata per ogni circuito di riscaldamento montato sul collettore di mandata: per verificare il funzionamento in modo semplice e intuitivo.

Optimized room temperature management: the combination of room thermostats and manifold with electrothermic heads allows to control and optimize the temperature in all rooms.

Gestione ottimizzata della temperatura ambiente: l'abbinamento del collettore a teste elettrotermiche e termostati ambiente permette di controllare e ottimizzare la temperatura nei vari ambienti.

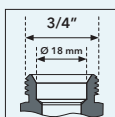
Simple and immediate circuit calibration, particularly suitable for systems that need to be upgraded.

Taratura dei circuiti semplice e immediata, particolarmente indicati in impianti da riqualificare.



THE IDEAL SOLUTION FOR A FASTER
AND MORE COST-EFFECTIVE COMMISSIONING!

1" F

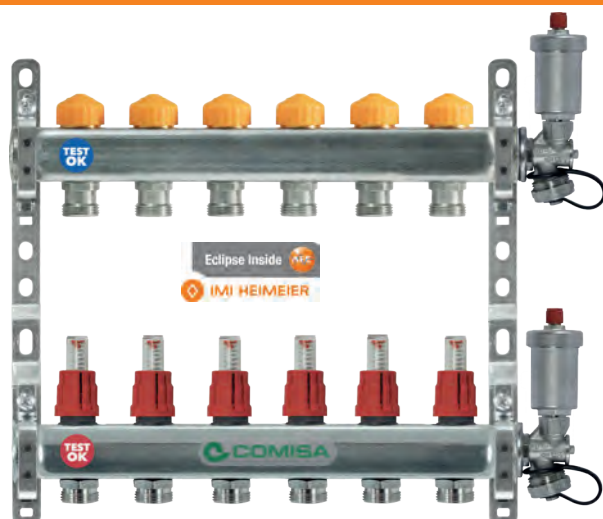
EUROCONE
3/4"STAINLESS
STEEL

NEW! - BRACKET COMPATIBLE WITH 80 mm-DEEP CABINET
NOVITÀ! - STAFFA COMPATIBILE CON CASSETTA PROFONDITÀ 80 mm
ANKÜNDIGUNGEN! - HALTER KOMPATIBEL MIT BOX TIEFE 80 mm
ANNONCES ! - SUPPORT COMPATIBLE AVEC BOX PROFONDEUR 80 mm

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F + STEEL BRACKETS
 CONNECTIONS 3/4" EUROCONE
 MEMORY STOP FLOWMETERS + AUTOMATIC FLOW CONTROL VALVES WITH CAP
 AUTOMATIC AIR VENTS 3/8" + TERMINAL WATER DRAIN VALVES 1" M

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO + STAFFE IN ACCIAIO
 ATTACCHI 3/4" EUROCONO
 FLUSSOMETRI C/ EFFETTO MEMORIA + VALVOLE DI REGOLAZIONE AUTOMATICA
 PORTATA C/ CAPPuccio
 VALVOLE SFOGO ARIA AUTOMATICHE 3/8" + TERMINALI 1" M CON SCARICO ACQUA

AFC - AUTOMATIC FLOW CONTROL

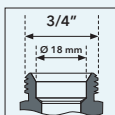


NEW! - LOWER FLOW BAR
NOVITÀ! - MANDATA BARRA INFERIORE

678

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
-	CL0678002030	1"	2	50 mm	1
-	CL0678003030	1"	3	50 mm	1
-	CL0678004030	1"	4	50 mm	1
-	CL0678005030	1"	5	50 mm	1
-	CL0678006030	1"	6	50 mm	1
-	CL0678007030	1"	7	50 mm	1
-	CL0678008030	1"	8	50 mm	1
-	CL0678009030	1"	9	50 mm	1
-	CL0678010030	1"	10	50 mm	1
-	CL0678011030	1"	11	50 mm	1
-	CL0678012030	1"	12	50 mm	1
-	CL0678013030	1"	13	50 mm	1

1" F

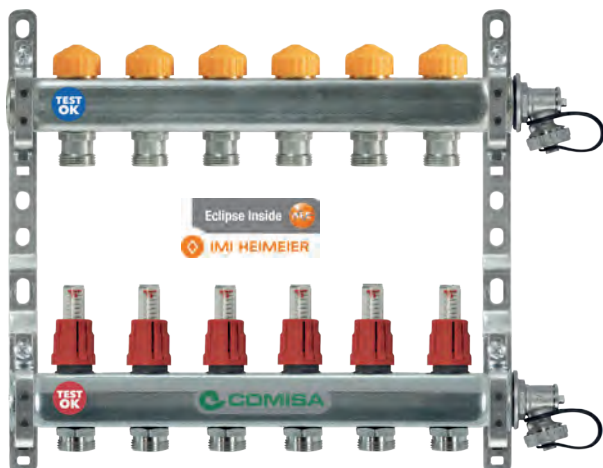
EUROCONE
3/4"STAINLESS
STEEL

NEW! - BRACKET COMPATIBLE WITH 80 mm-DEEP CABINET
NOVITÀ! - STAFFA COMPATIBILE CON CASSETTA PROFONDITÀ 80 mm
ANKÜNDIGUNGEN! - HALTER KOMPATIBEL MIT BOX TIEFE 80 mm
ANNONCES ! - SUPPORT COMPATIBLE AVEC BOX PROFONDEUR 80 mm

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F + STEEL BRACKETS
 CONNECTIONS 3/4" EUROCONE
 MEMORY STOP FLOWMETERS + AUTOMATIC FLOW CONTROL VALVES WITH CAP
 MANUAL AIR VENTS 3/8" + TERMINAL WATER DRAIN VALVES 1" M

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO + STAFFE IN ACCIAIO
 ATTACCHI 3/4" EUROCONO
 FLUSSOMETRI C/ EFFETTO MEMORIA + VALVOLE DI REGOLAZIONE AUTOMATICA
 PORTATA C/ CAPPuccio
 VALVOLE SFOGO ARIA MANUALI 3/8" + TERMINALI 1" M CON SCARICO ACQUA

AFC - AUTOMATIC FLOW CONTROL

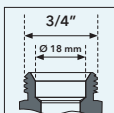
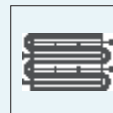


NEW! - LOWER FLOW BAR
NOVITÀ! - MANDATA BARRA INFERIORE

672

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
-	CL0672002030	1"	2	50 mm	1
-	CL0672003030	1"	3	50 mm	1
-	CL0672004030	1"	4	50 mm	1
-	CL0672005030	1"	5	50 mm	1
-	CL0672006030	1"	6	50 mm	1
-	CL0672007030	1"	7	50 mm	1
-	CL0672008030	1"	8	50 mm	1
-	CL0672009030	1"	9	50 mm	1
-	CL0672010030	1"	10	50 mm	1
-	CL0672011030	1"	11	50 mm	1
-	CL0672012030	1"	12	50 mm	1
-	CL0672013030	1"	13	50 mm	1

1" F

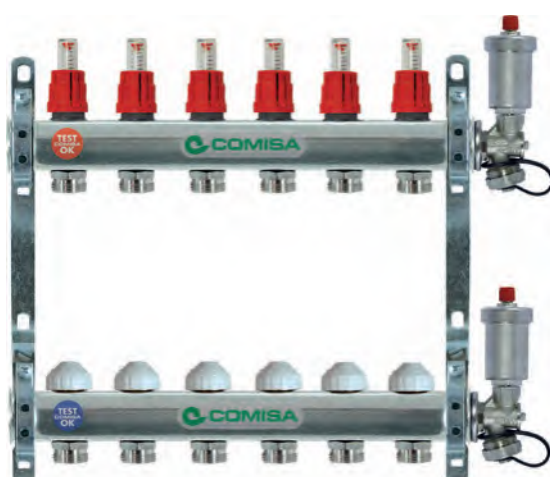
EUROCONO
3/4"STAINLESS
STEEL

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F + STEEL BRACKETS
CONNECTIONS 3/4" EUROCONO
MEMORY STOP FLOWMETERS + SHUT-OFF VALVES WITH CAP
AUTOMATIC AIR VENTS 3/8" + TERMINAL WATER DRAIN VALVES 1" M

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO + STAFFE IN ACCIAIO
ATTACCHI 3/4" EUROCONO
FLUSSOMETRI C/ EFFETTO MEMORIA + VALVOLE INTERCETTAZIONE C/ CAPPUCCHIO
VALVOLE SFOGO ARIA AUTOMATICHE 3/8" + TERMINALI 1" M CON SCARICO ACQUA

VORMONTIERTER FB-VERTEILER 1" IG + VERTEILERHALTERUNGEN AUS STAHL
3/4" EUROKONUS-ABGÄNGE
DURCHFLUSSMESSER MIT MEMORY-EFFEKT + ABSPERRVENTILE MIT KAPPE
AUTOMATISCHE ENTLÜFTUNGSVENTILE 3/8" + 1" AG-ENDSTÜCKE MIT ENTLERUNGVENTIL

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F + SUPPORTS EN ACIER
SORTIES 3/4" EUROCONO
DÉBITMÈTRES DE RÉGULATION AVEC PRÉRÉGLAGE DU DÉBIT + VANNES D'ARRÊT A/ CAPUCHON
PURGEURS D'AIR AUTOMATIQUES 3/8" + POTS DE TERMINAISON 1" M A/ ROBINET DE VIDANGE



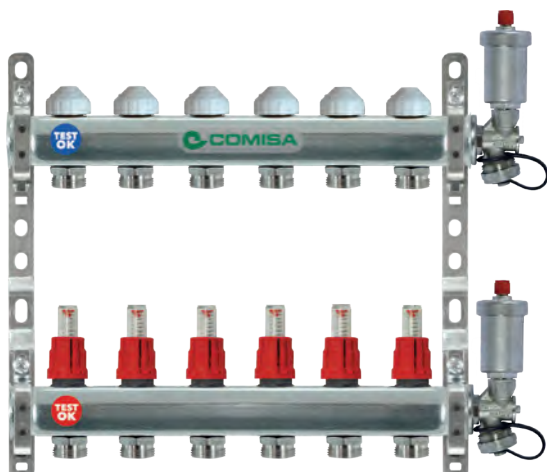
676

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.07.140	CL067600203N	1"	2	50 mm	1
88.07.141	CL067600303N	1"	3	50 mm	1
88.07.142	CL067600403N	1"	4	50 mm	1
88.07.143	CL067600503N	1"	5	50 mm	1
88.07.144	CL067600603N	1"	6	50 mm	1
88.07.145	CL067600703N	1"	7	50 mm	1
88.07.146	CL067600803N	1"	8	50 mm	1
88.07.147	CL067600903N	1"	9	50 mm	1
88.07.148	CL067601003N	1"	10	50 mm	1
88.07.149	CL067601103N	1"	11	50 mm	1
88.07.150	CL067601203N	1"	12	50 mm	1
88.07.151	CL067601303N	1"	13	50 mm	1

NEW NEW

80
mm

NEW! - BRACKET COMPATIBLE WITH 80 mm-DEEP CABINET
NOVITÀ! - STAFFA COMPATIBILE CON CASSETTA PROFONDITÀ 80 mm
ANKÜNDIGUNGEN! - HALTER KOMPATIBEL MIT BOX TIEFE 80 mm
ANNONCES! - SUPPORT COMPATIBLE AVEC BOX PROFONDEUR 80 mm



660

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
	CL0660002030	1"	2	50 mm	1
	CL0660003030	1"	3	50 mm	1
	CL0660004030	1"	4	50 mm	1
	CL0660005030	1"	5	50 mm	1
	CL0660006030	1"	6	50 mm	1
	CL0660007030	1"	7	50 mm	1
	CL0660008030	1"	8	50 mm	1
	CL0660009030	1"	9	50 mm	1
	CL0660010030	1"	10	50 mm	1
	CL0660011030	1"	11	50 mm	1
	CL0660012030	1"	12	50 mm	1
	CL0660013030	1"	13	50 mm	1

NEW! - LOWER FLOW BAR
NOVITÀ! - MANDATA BARRA INFERIORE

NEW NEW NEW NEW NEW NEW NEW NEW NEW NEW NEW NEW NEW NEW NEW NEW NEW NEW NEW



1" F

**EUROCONE
3/4"**

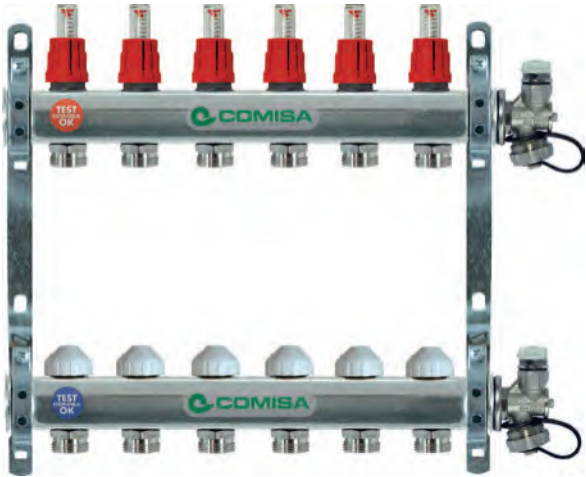
**STAINLESS
STEEL**

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F
STEEL BRACKETS
CONNECTIONS 3/4" EUROCONE
MEMORY STOP FLOWMETERS
SHUT-OFF VALVES WITH CAP
MANUAL AIR VENTS 3/8"
TERMINAL WATER DRAIN VALVES 1" M

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO
STAFFE IN ACCIAIO
ATTACCHI 3/4" EUROCONO
FLUSSOMETRI C/ EFFETTO MEMORIA
VALVOLE INTERCETTAZIONE C/ CAPPUCCIO
VALVOLE SFOGO ARIA MANUALI 3/8"
TERMINALI 1" M CON SCARICO ACQUA

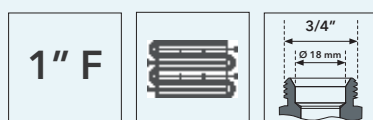
VORMONTIERTER FB-VERTEILER 1" IG
VERTEILERHALTERUNGEN AUS STAHL
3/4" EUROKONUS-ABGÄNGE
DURCHFLUSSMESSER MIT MEMORY-EFFEKT
ABSPERRVENTILE MIT KAPPE
MANUELLES ENTLÜFTUNGSVENTILE 3/8"
1" AG-ENDSTÜCKE MIT ENTLEERUNGSVENTIL

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F
SUPPORTS EN ACIER
SORTIES 3/4" EUROCONE
DÉBITMÈTRES DE RÉGULATION AVEC PRÉRÉGLAGE DU DÉBIT
VANNES D'ARRÊT AVEC CAPUCHON
PURGEURS D'AIR MANUEL 3/8"
POTS DE TERMINAISON 1" M A/ ROBINET DE VIDANGE



724

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.07.455	CL072400203N	1"	2	50 mm	1
88.07.456	CL072400303N	1"	3	50 mm	1
88.07.457	CL072400403N	1"	4	50 mm	1
88.07.458	CL072400503N	1"	5	50 mm	1
88.07.459	CL072400603N	1"	6	50 mm	1
88.07.460	CL072400703N	1"	7	50 mm	1
88.07.461	CL072400803N	1"	8	50 mm	1
88.07.462	CL072400903N	1"	9	50 mm	1
88.07.463	CL072401003N	1"	10	50 mm	1
88.07.464	CL072401103N	1"	11	50 mm	1
88.07.465	CL072401203N	1"	12	50 mm	1
88.07.466	CL072401303N	1"	13	50 mm	1



**EUROCONE
3/4"**

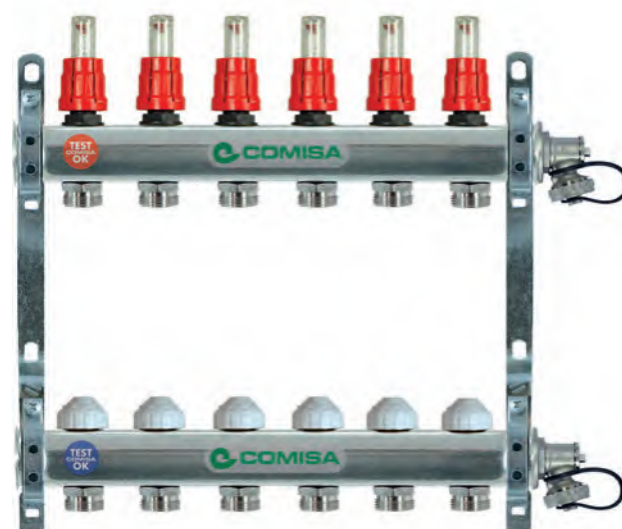
**STAINLESS
STEEL**

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F
STEEL BRACKETS
CONNECTIONS 3/4" EUROCONE
MEMORY STOP FLOWMETERS
SHUT-OFF VALVES WITH CAP
TERMINAL WATER DRAIN VALVES 1" M

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO
STAFFE IN ACCIAIO
ATTACCHI 3/4" EUROCONO
FLUSSOMETRI C/ EFFETTO MEMORIA
VALVOLE INTERCETTAZIONE C/ CAPPUCCIO
TERMINALI 1" M CON SCARICO ACQUA

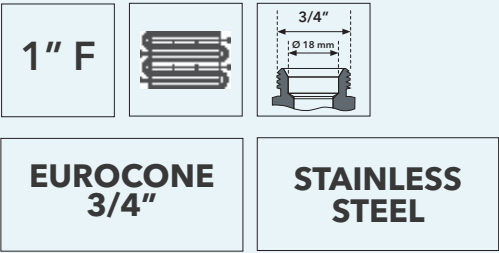
VORMONTIERTER FB-VERTEILER 1" IG
VERTEILERHALTERUNGEN AUS STAHL
3/4" EUROKONUS-ABGÄNGE
DURCHFLUSSMESSER MIT MEMORY-EFFEKT
ABSPERRVENTILE MIT KAPPE
1" AG-ENDSTÜCKE MIT ENTLEERUNGSVENTIL

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F
SUPPORTS EN ACIER
SORTIES 3/4" EUROCONE
DÉBITMÈTRES DE RÉGULATION AVEC PRÉRÉGLAGE DU DÉBIT
VANNES D'ARRÊT AVEC CAPUCHON
POTS DE TERMINAISON 1" M A/ ROBINET DE VIDANGE



665

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.05.533	CL066500203N	1"	2	50 mm	1
88.05.534	CL066500303N	1"	3	50 mm	1
88.05.535	CL066500403N	1"	4	50 mm	1
88.05.536	CL066500503N	1"	5	50 mm	1
88.05.537	CL066500603N	1"	6	50 mm	1
88.05.538	CL066500703N	1"	7	50 mm	1
88.05.539	CL066500803N	1"	8	50 mm	1
88.05.540	CL066500903N	1"	9	50 mm	1
88.05.541	CL066501003N	1"	10	50 mm	1
88.05.542	CL066501103N	1"	11	50 mm	1
88.05.543	CL066501203N	1"	12	50 mm	1
88.05.544	CL066501303N	1"	13	50 mm	1

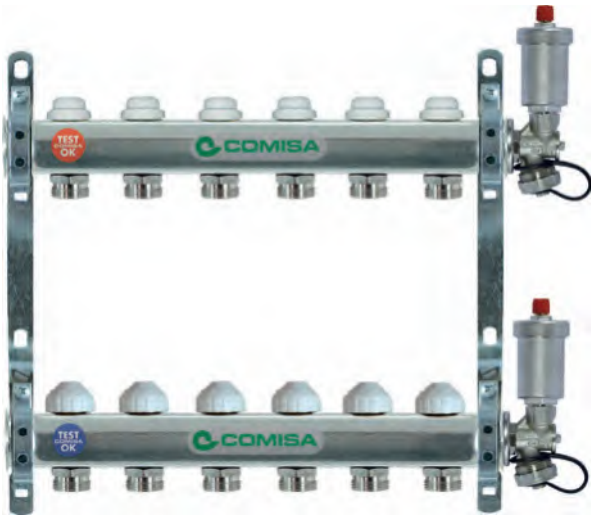


PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F
 STEEL BRACKETS
 CONNECTIONS 3/4" EUROCONE
 LOCKSHIELD VALVES WITH MICROMETRIC ADJUSTMENT
 SHUT-OFF VALVES WITH CAP
 AUTOMATIC AIR VENTS 3/8"
 TERMINAL WATER DRAIN VALVES 1" M

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO
 STAFFE IN ACCIAIO
 ATTACCHI 3/4" EUROCONO
 DETENTORI CON REGOLAZIONE MICROMETRICA
 VALVOLE INTERCETTAZIONE C/ CAPPuccio
 VALVOLE SFOGO ARIA AUTOMATICHE 3/8"
 TERMINALI 1" M CON SCARICO ACQUA

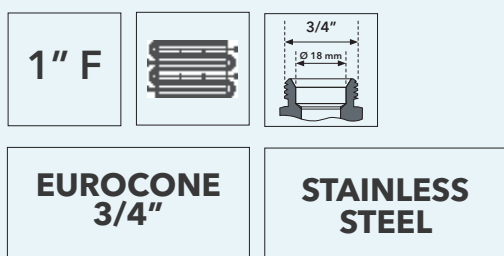
VORMONTIERTER FB-VERTEILER 1" IG
 VERTEILERHALTERUNGEN AUS STAHL
 3/4" EUROKONUS-ABGÄNGE
 MIKROMETRISCHE ABSPERRVENTILE
 ABSPERRVENTILE MIT KAPPE
 AUTOMATISCHE ENTLÜFTUNGSVENTILE 3/8"
 1" AG-ENDSTÜCKE MIT ENTLERUNGSVENTIL

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F
 SUPPORTS EN ACIER
 SORTIES 3/4" EUROCONE
 VANNES D'ARRÊT À RÉGLAGE MICROMÉTRIQUE
 VANNES D'ARRÊT AVEC CAPUCHON
 PURGEURS D'AIR AUTOMATIQUES 3/8"
 POTS DE TERMINAISON 1" M A/ ROBINET DE VIDANGE



674

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.07.120	CL067400203N	1"	2	50 mm	1
88.07.121	CL067400303N	1"	3	50 mm	1
88.07.122	CL067400403N	1"	4	50 mm	1
88.07.123	CL067400503N	1"	5	50 mm	1
88.07.124	CL067400603N	1"	6	50 mm	1
88.07.125	CL067400703N	1"	7	50 mm	1
88.07.126	CL067400803N	1"	8	50 mm	1
88.07.127	CL067400903N	1"	9	50 mm	1
88.07.128	CL067401003N	1"	10	50 mm	1
88.07.129	CL067401103N	1"	11	50 mm	1
88.07.130	CL067401203N	1"	12	50 mm	1



PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F
 STEEL BRACKETS
 CONNECTIONS 3/4" EUROCONE
 LOCKSHIELD VALVES WITH MICROMETRIC ADJUSTMENT
 SHUT-OFF VALVES WITH CAP
 MANUAL AIR VENTS 3/8"
 TERMINAL WATER DRAIN VALVES 1" M

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO
 STAFFE IN ACCIAIO
 ATTACCHI 3/4" EUROCONO
 DETENTORI CON REGOLAZIONE MICROMETRICA
 VALVOLE INTERCETTAZIONE C/ CAPPUCCIO
 VALVOLE SFOGO ARIA MANUALI 3/8"
 TERMINALI 1" M CON SCARICO ACQUA

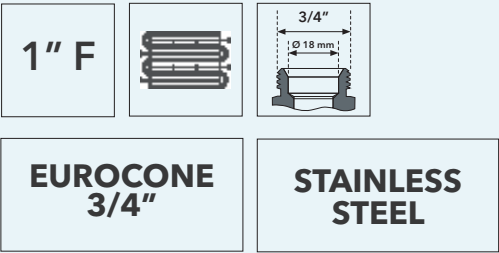
VORMONTIERTER FB-VERTEILER 1" IG
 VERTEILERHALTERUNGEN AUS STAHL
 3/4" EUROKONUS-ABGÄNGE
 MIKROMETRISCHE ABSPERRVENTILE
 ABSPERRVENTILE MIT KAPPE
 MANUELLES ENTLÜFTUNGSVENTILE 3/8"
 1" AG-ENDSTÜCKE MIT ENTLERUNGSVENTIL

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F
 SUPPORTS EN ACIER
 SORTIES 3/4" EUROCONE
 VANNES D'ARRÊT À RÉGLAGE MICROMÉTRIQUE
 VANNES D'ARRÊT AVEC CAPUCHON
 PURGEURS D'AIR MANUEL 3/8"
 POTS DE TERMINAISON 1" M A/ ROBINET DE VIDANGE



723

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.07.433	CL072300203N	1"	2	50 mm	1
88.07.434	CL072300303N	1"	3	50 mm	1
88.07.435	CL072300403N	1"	4	50 mm	1
88.07.436	CL072300503N	1"	5	50 mm	1
88.07.437	CL072300603N	1"	6	50 mm	1
88.07.438	CL072300703N	1"	7	50 mm	1
88.07.439	CL072300803N	1"	8	50 mm	1
88.07.440	CL072300903N	1"	9	50 mm	1
88.07.441	CL072301003N	1"	10	50 mm	1
88.07.442	CL072301103N	1"	11	50 mm	1
88.07.443	CL072301203N	1"	12	50 mm	1
-	CL072301303N	1"	13	50 mm	1



PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F
STEEL BRACKETS
CONNECTIONS 3/4" EUROCONE
LOCKSHIELD VALVES WITH MICROMETRIC ADJUSTMENT
SHUT-OFF VALVES WITH CAP
TERMINAL WATER DRAIN VALVES 1" M

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO
STAFFE IN ACCIAIO
ATTACCHI 3/4" EUROCONO
DETTORI CON REGOLAZIONE MICROMETRICA
VALVOLE INTERCETTAZIONE C/ CAPPuccio
TERMINALI 1" M CON SCARICO ACQUA

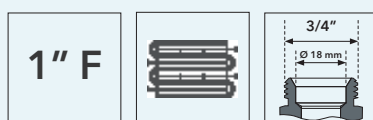
VORMONTIERTER FB-VERTEILER 1" IG
VERTEILERHALTERUNGEN AUS STAHL
3/4" EUROKONUS-ABGÄNGE
MIKTOMETRISCHE ABSPERRVENTILE
ABSPERRVENTILE MIT KAPPE
1" AG-ENDSTÜCKE MIT ENTLEERUNGSVENTIL

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F
SUPPORTS EN ACIER
SORTIES 3/4" EUROCONE
VANNES D'ARRÊT À RÉGLAGE MICROMÉTRIQUE
VANNES D'ARRÊT AVEC CAPUCHON
POTS DE TERMINAISON 1" M A/ ROBINET DE VIDANGE



664

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.05.522	CL066400203N	1"	2	50 mm	1
88.05.523	CL066400303N	1"	3	50 mm	1
88.05.524	CL066400403N	1"	4	50 mm	1
88.05.525	CL066400503N	1"	5	50 mm	1
88.05.526	CL066400603N	1"	6	50 mm	1
88.05.527	CL066400703N	1"	7	50 mm	1
88.05.528	CL066400803N	1"	8	50 mm	1
88.05.529	CL066400903N	1"	9	50 mm	1
88.05.530	CL066401003N	1"	10	50 mm	1
88.05.531	CL066401103N	1"	11	50 mm	1
88.05.532	CL066401203N	1"	12	50 mm	1



**EUROCONE
3/4"**

**STAINLESS
STEEL**

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F
STEEL BRACKETS
CONNECTIONS 3/4" EUROCONE
1/2" DRAIN HOLES

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO
STAFFE IN ACCIAIO
ATTACCHI 3/4" EUROCONO
FORI DI SCARICO 1/2"

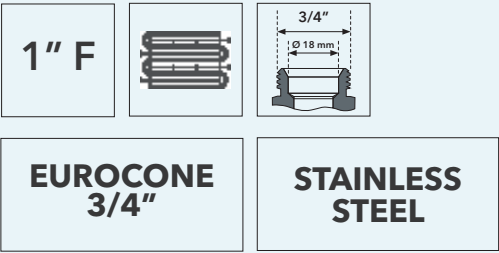
VORMONTIERTER FB-VERTEILER 1" IG
VERTEILERHALTERUNGEN AUS STAHL
3/4" EUROKONUS-ABGÄNGE
ENTLÜFTUNG 1/2"

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F
SUPPORTS EN ACIER
SORTIES 3/4" EUROCONE
SORTIES DE VIDANGE 1/2"



666

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.06.356	CL066600203N	1"	2	50 mm	1
88.06.357	CL066600303N	1"	3	50 mm	1
88.06.358	CL066600403N	1"	4	50 mm	1
88.06.359	CL066600503N	1"	5	50 mm	1
88.06.360	CL066600603N	1"	6	50 mm	1
88.06.361	CL066600703N	1"	7	50 mm	1
88.06.362	CL066600803N	1"	8	50 mm	1
88.06.363	CL066600903N	1"	9	50 mm	1
88.06.364	CL066601003N	1"	10	50 mm	1
88.06.365	CL066601103N	1"	11	50 mm	1
88.06.366	CL066601203N	1"	12	50 mm	1



PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F
STEEL BRACKETS
CONNECTIONS 3/4" EUROCONE
LOCKSHIELD VALVES WITH MICROMETRIC ADJUSTMENT
SHUT-OFF VALVES WITH CAP

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO
STAFFE IN ACCIAIO
ATTACCHI 3/4" EUROCONO
DETENTORI CON REGOLAZIONE MICROMETRICA
VALVOLE INTERCETTAZIONE C/ CAPPUCCIO

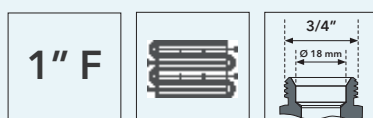
VORMONTIERTER FB-VERTEILER 1" IG
VERTEILERHALTERUNGEN AUS STAHL
3/4" EUROMONUS-ABGÄNGE
MIKTOMETRISCHE ABSPERRVENTILE
ABSPERRVENTILE MIT KAPPE

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F
SUPPORTS EN ACIER
SORTIES 3/4" EUROCONO
VANNES D'ARRÊT À RÉGLAGE MICROMÉTRIQUE
VANNES D'ARRÊT AVEC CAPUCHON



667

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.06.367	CL066700203N	1"	2	50 mm	1
88.06.368	CL066700303N	1"	3	50 mm	1
88.06.369	CL066700403N	1"	4	50 mm	1
88.06.370	CL066700503N	1"	5	50 mm	1
88.06.371	CL066700603N	1"	6	50 mm	1
88.06.372	CL066700703N	1"	7	50 mm	1
88.06.373	CL066700803N	1"	8	50 mm	1
88.06.374	CL066700903N	1"	9	50 mm	1
88.06.375	CL066701003N	1"	10	50 mm	1
88.06.376	CL066701103N	1"	11	50 mm	1
88.06.377	CL066701203N	1"	12	50 mm	1



**EUROCONE
3/4"**

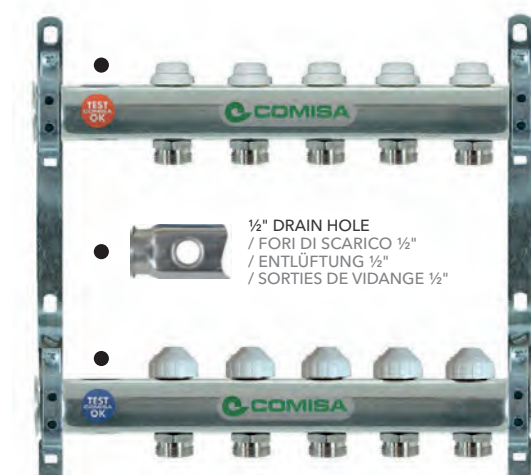
**STAINLESS
STEEL**

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F
STEEL BRACKETS
CONNECTIONS 3/4" EUROCONE
LOCKSHIELD VALVES WITH MICROMETRIC ADJUSTMENT
SHUT-OFF VALVES WITH CAP
1/2" DRAIN HOLES

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO
STAFFE IN ACCIAIO
ATTACCHI 3/4" EUROCONO
DETENTORI CON REGOLAZIONE MICROMETRICA
VALVOLE INTERCETTAZIONE C/ CAPPUCCIO
FORI DI SCARICO 1/2"

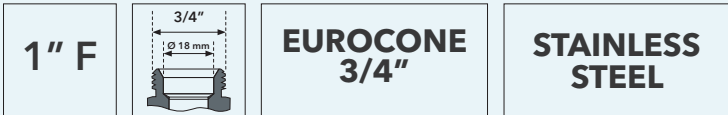
VORMONTIERTER FB-VERTEILER 1" IG
VERTEILERHALTERUNGEN AUS STAHL
3/4" EUROKONUS-ABGÄNGE
MIKTOMETRISCHE ABSPERRVENTILE
ABSPERRVENTILE MIT KAPPE
ENTLÜFTUNG 1/2"

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F
SUPPORTS EN ACIER
SORTIES 3/4" EUROCONE
VANNES D'ARRÊT À RÉGLAGE MICROMÉTRIQUE
VANNES D'ARRÊT AVEC CAPUCHON
SORTIES DE VIDANGE 1/2"



668

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.06.400	CL066800203N	1"	2	50 mm	1
88.06.401	CL066800303N	1"	3	50 mm	1
88.06.402	CL066800403N	1"	4	50 mm	1
88.06.403	CL066800503N	1"	5	50 mm	1
88.06.404	CL066800603N	1"	6	50 mm	1
88.06.405	CL066800703N	1"	7	50 mm	1
88.06.406	CL066800803N	1"	8	50 mm	1
88.06.407	CL066800903N	1"	9	50 mm	1
88.06.408	CL066801003N	1"	10	50 mm	1
88.06.409	CL066801103N	1"	11	50 mm	1
88.06.410	CL066801203N	1"	12	50 mm	1



PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F + STEEL BRACKETS
CONNECTIONS 3/4" EUROCON
MEMORY STOP FLOWMETERS + SHUT-OFF VALVES WITH CAP

VORMONTIERTER FB-VERTEILER 1" IG + VERTEILERHALTERUNGEN AUS STAHL
3/4" EUROKONUS-ABGÄNGE
DURCHFLUSSMESSER MIT MEMORY-EFFEKT + ABSPERRVENTILE MIT KAPPE

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO + STAFFE IN ACCIAIO
ATTACCHI 3/4" EUROCONO
FLUSSOMETRI C/ EFFETTO MEMORIA + VALVOLE INTERCETTAZIONE C/ CAPPUCCIO

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F + SUPPORTS EN ACIER
SORTIES 3/4" EUROCONE
DÉBITMÈTRES DE RÉGULATION AVEC PRÉRÉGLAGE DU DÉBIT + VANNES D'ARRÊT A/ CAPUCHON

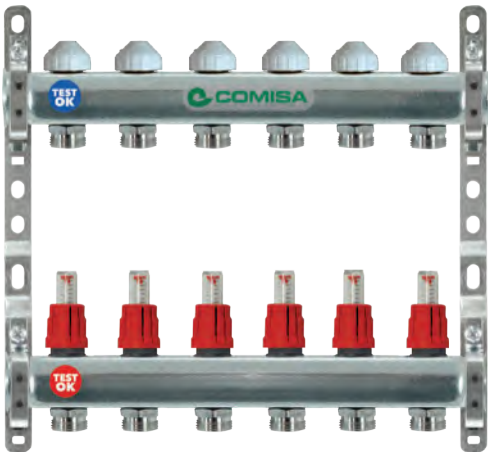


669

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.06.411	CL066900203N	1"	2	50 mm	1
88.06.412	CL066900303N	1"	3	50 mm	1
88.06.413	CL066900403N	1"	4	50 mm	1
88.06.414	CL066900503N	1"	5	50 mm	1
88.06.415	CL066900603N	1"	6	50 mm	1
88.06.416	CL066900703N	1"	7	50 mm	1
88.06.417	CL066900803N	1"	8	50 mm	1
88.06.418	CL066900903N	1"	9	50 mm	1
88.06.419	CL066901003N	1"	10	50 mm	1
88.06.420	CL066901103N	1"	11	50 mm	1
88.06.421	CL066901203N	1"	12	50 mm	1



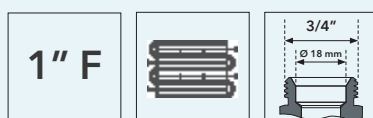
NEW! - BRACKET COMPATIBLE WITH 80 mm-DEEP CABINET
NOVITÀ! - STAFFA COMPATIBILE CON CASSETTA PROFONDITÀ 80 mm
ANKÜNDIGUNGEN! - HALTER KOMPATIBEL MIT BOX TIEFE 80 mm
ANNONCES ! - SUPPORT COMPATIBLE AVEC BOX PROFONDEUR 80 mm



NEW! - LOWER FLOW BAR
NOVITÀ! - MANDATA BARRA INFERIORE

671

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
	CL0671002030	1"	2	50 mm	1
	CL0671003030	1"	3	50 mm	1
	CL0671004030	1"	4	50 mm	1
	CL0671005030	1"	5	50 mm	1
	CL0671006030	1"	6	50 mm	1
	CL0671007030	1"	7	50 mm	1
	CL0671008030	1"	8	50 mm	1
	CL0671009030	1"	9	50 mm	1
	CL0671010030	1"	10	50 mm	1
	CL0671011030	1"	11	50 mm	1
	CL0671012030	1"	12	50 mm	1



**EUROCONE
3/4"**

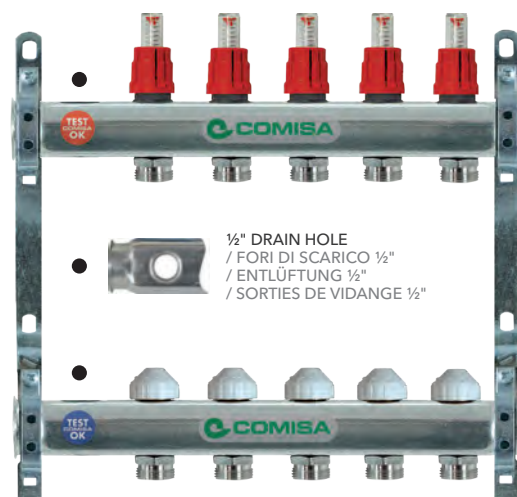
**STAINLESS
STEEL**

PRE-ASSEMBLED DISTRIBUTION MANIFOLD 1" F
STEEL BRACKETS
CONNECTIONS 3/4" EUROCONE
MEMORY STOP FLOWMETERS
SHUT-OFF VALVES WITH CAP
1/2" DRAIN HOLES

COLLETTORE DI DISTRIBUZIONE 1" F PREMONTATO
STAFFE IN ACCIAIO
ATTACCHI 3/4" EUROCONO
FLUSSOMETRI C/ EFFETTO MEMORIA
VALVOLE INTERCETTAZIONE C/ CAPPUCIO
FORI DI SCARICO 1/2"

VORMONTIERTER FB-VERTEILER 1" IG
VERTEILERHALTERUNGEN AUS STAHL
3/4" EUROKONUS-ABGÄNGE
DURCHFLUSSMESSER MIT MEMORY-EFFEKT
ABSPERRVENTILE MIT KAPPE
ENTLÜFTUNG 1/2"

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F
SUPPORTS EN ACIER
SORTIES 3/4" EUROCONE
DÉBITMÈTRES DE RÉGULATION AVEC PRÉRÉGLAGE DU DÉBIT
VANNES D'ARRÊT AVEC CAPUCHON
SORTIES DE VIDANGE 1/2"



670

CODE	TECH. CODE	SIZE	CONNECTIONS	DISTANCE	
88.06.422	CL067000203N	1"	2	50 mm	1
88.06.423	CL067000303N	1"	3	50 mm	1
88.06.424	CL067000403N	1"	4	50 mm	1
88.06.425	CL067000503N	1"	5	50 mm	1
88.06.426	CL067000603N	1"	6	50 mm	1
88.06.427	CL067000703N	1"	7	50 mm	1
88.06.428	CL067000803N	1"	8	50 mm	1
88.06.429	CL067000903N	1"	9	50 mm	1
88.06.430	CL067001003N	1"	10	50 mm	1
88.06.431	CL067001103N	1"	11	50 mm	1
88.06.432	CL067001203N	1"	12	50 mm	1



**EUROCONE
3/4"**

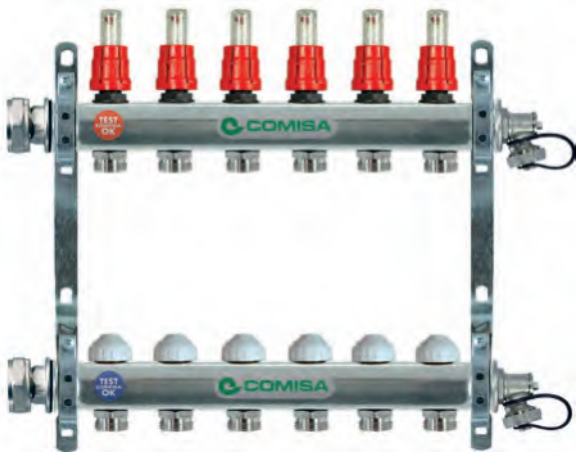
**STAINLESS
STEEL**

PRE-ASSEMBLED DISTRIBUTION MANIFOLD SWIVEL NUT 1" F
STEEL BRACKETS
CONNECTIONS 3/4" EUROCONE
MEMORY STOP FLOWMETERS
SHUT-OFF VALVES WITH CAP
TERMINAL WATER DRAIN VALVES 1" M

COLLETTORE DI DISTRIBUZIONE DADO PRIGIONIERO F 1" PREMONTATO
STAFFE IN ACCIAIO
ATTACCHI 3/4" EUROCONO
FLUSSOMETRI C/ EFFETTO MEMORIA
VALVOLE INTERCETTAZIONE C/ CAPPUCCIO
TERMINALI 1" M CON SCARICO ACQUA

VORMONTIERTER FB-VERTEILER MIT ÜBERWURFMUTTER 1" IG
VERTEILERHALTERUNGEN AUS STAHL
3/4" EUROKONUS-ABGÄNGE
DURCHFLUSSMESSER MIT MEMORY-EFFEKT
ABSPERRVENTILE MIT KAPPE
1" AG-ENDSTÜCKE MIT ENTLEERUNGSVENTIL

COLLECTEUR DE DISTRIBUTION PRÉ-ASSEMBLÉ 1" F
SUPPORTS EN ACIER
SORTIES 3/4" EUROCONE
DÉBITMÈTRES DE RÉGULATION AVEC PRÉRÉGLAGE DU DÉBIT
VANNES D'ARRÊT AVEC CAPUCHON
POTS DE TERMINAISON 1" M A/ ROBINET DE VIDANGE



675

CODE	TECH. CODE	SIZE	CONNECTION	DISTANCE	
88.05.572	CL067500203N	1"	2	50 mm	1
88.05.573	CL067500303N	1"	3	50 mm	1
88.05.574	CL067500403N	1"	4	50 mm	1
88.05.575	CL067500503N	1"	5	50 mm	1
88.05.576	CL067500603N	1"	6	50 mm	1
88.05.577	CL067500703N	1"	7	50 mm	1
88.05.578	CL067500803N	1"	8	50 mm	1
88.05.579	CL067500903N	1"	9	50 mm	1
88.05.580	CL067501003N	1"	10	50 mm	1
88.05.581	CL067501103N	1"	11	50 mm	1
88.05.582	CL067501203N	1"	12	50 mm	1

ACCESSORIES FOR MANIFOLDS

/ ACCESSORI PER COLLETTORI
/ ZUBEHÖR FÜR VERTEILER
/ ACCESSOIRES POUR COLLECTEURS

FLOWMETER FOR MANIFOLDS WITH MEMORY POSITION

/ FLUSSOMETRO DI REGOLAZIONE PER COLLETTORI CON MEMORIA DI POSIZIONE
/ DURCHFLOSSMESSER FÜR VERTEILER MIT MEMORY EFFEKT
/ DÉBITMÈTRE POUR COLLECTEURS AVEC PRÉRÉGLAGE DU DÉBIT



CODE	TECH. CODE	SIZE	MANIFOLD TYPE		
88.20.543	VA0660B05000	1/2"	STEEL M.	10	50
88.20.541	VA0661B05000	1/2"	BRASS M.	10	50

DRAIN VALVE 1/2" NICKEL-PLATED WITH 3/4" PLUG

/ TERMINALE DI SCARICO 1/2" NICHELATO CON SCARICO 3/4"
/ ABLASSHAHN 1/2" MIT KAPPE 3/4" VERNICKELT
/ VANNE DE VIDANGE 1/2" NICHELÉ AVEC BOUCHON 3/4"



648

CODE	TECH. CODE	SIZE		
88.20.530	VA064800500N	1/2" (WITH 3/4" PLUG)	2	50

THERMOMETER 0°÷80° C COMPLETE WITH SLEEVE 3/8" M

/ TERMOMETRO 0°÷80° C CON RACCORDO 3/8" M
/ THERMOMETER 0°÷80° C MIT MUFFE 3/8" AG
/ THERMOMÈTRE AVEC DOIGT DE GANT 3/8" M



645

CODE	TECH. CODE	SIZE		
88.10.350	VA0645003000	3/8"	2	12

AUTOMATIC VALVE FOR AIR OUTLET, NICKEL-PLATED

/ VALVOLA SFIATO ARIA AUTOMATICA NICHELATA
/ AUTOMATISCHES ENTLÜFTUNGSVENTIL VERNICKELT
/ VANNE AUTOMATIQUE AVEC PURGEUR D'AIR NICKELÉE



095

CODE	TECH. CODE	SIZE		
88.10.360	VA009500500N	1/2"	1	84

SWIVEL NUT (PAIR)

/ DADO PRIGIONIERO (COPPIA)
/ GELENKMUTTER (PAAR)
/ ÉCROU PRISONNIER (PAIRE)



735

CODE	TECH. CODE	SIZE	
88.20.622	DC073501010N	1"	40

DRAIN VALVE 1" NICKEL-PLATED

/ TERMINALE SCARICO 1" NICHELATO
/ DREHVENTIL 1" FÜR WASSERFÜLLUNG UND ENTLEERUNG
/ POT DE TERMINAISON AVEC VIDANGE 1"



CODE	TECH. CODE	SIZE	CAP TYPE		
88.20.533	SP073101000N	1"	PLASTIC	2	70
88.20.546	SP073201000N	1"	BRASS	2	70

CONNECTION FOR THERMOMETER ART. 88.10.350

/ RACCORDO PER TERMOMETRO ART. 88.10.350
/ ANSCHLUSS FÜR THERMOMETER ART. 88.10.350
/ RACCORD POUR THERMOMÈTRE ART. 88.10.350



647

CODE	TECH. CODE	SIZE		
88.20.527	RF064701003N	1" M x 3/8" F x 1 - 1/4" F	2	12

AUTOMATIC VALVE FOR AIR OUTLET NICKEL-PLATED WITH LATERAL CONNECTION

/ VALVOLA SFIATO ARIA AUTOMATICA, NICHELATA CON ATTACCO LATERALE
/ AUTOMATISCHES ENTLÜFTUNGSVENTIL, VERNICKELT MIT SEITENANSCHLUSS
/ VANNE AUTOMATIQUE AVEC PURGEUR D'AIR, NICKELÉE AVEC UN RACCORDEMENT LATÉRAL



096

CODE	TECH. CODE	SIZE		
88.10.361	VA009600500N	1/2"	1	72

PLUG

/ TAPPO
/ STOPFEN
/ BOUCHON



CODE	TECH. CODE	SIZE		
88.20.558	CL061900500N	1/2"	10	400

ELECTROTHERMIC ACTUATOR
NORMALLY CLOSED, 230V

/ TESTA ELETTROTERMICA
NORMALMENTE CHIUSA, 230V
/ ELEKTROTHERMISCHER STELLANTRIEB
NORMAL GESCHLOSSEN, 230V
/ MOTEUR COMMANDE
ÉLECTROTHERMIQUE NORMALEMENT FERMÉE,
230V



679

CODE	TECH. CODE	SIZE		
88.20.518	VA0679ATT001	230 V 2 cables	10	10
88.20.519	VA0679ATT002	230 V 4 cables	10	10

AIR VENT

/ VALVOLA SFIATO ARIA
/ ENTLÜFTUNGSVENTIL
/ PURGEUR D'AIR



114

CODE	TECH. CODE	SIZE		
88.20.520	SP011400500N	1/2" M	100	400

HANDWHEEL FOR MANUAL CONTROL

/ MANOPOLA PER COMANDO MANUALE
/ HANDRAD ZUR MANUELLEN REGELUNG
/ VOLANT POUR LE CONTRÔLE MANUEL



105

CODE	TECH. CODE			
88.10.370	VO0105003/PZ	20	60	

MALE PLUG FOR MANIFOLDS WITH O-RING

/ TAPPO MASCHIO PER COLLETTORE CON OR
/ STOPFEN AG FÜR VERTEILER MIT O-RING
/ BOUCHON MÂLE POUR COLLECTEURS AVEC O-RING



617

CODE	TECH. CODE	SIZE		
88.20.562	RF061700700N	3/4"	10	100
88.20.563	RF061701000N	1"	2	100
	RF061701200N	1 1/4"	2	80

PLUG 3/4"F FOR CONNECTIONS 3/4"
EUROCONE FOR MANIFOLDS

/ TAPPO 3/4"F PER USCITE 3/4" EUROCONO
PER COLLETTORI
/ KAPPE 3/4"IG PASSEND FÜR VERTEILERABGÄNGE
3/4" EUKONUS
/ BOUCHON 3/4"F POUR SORTIES
3/4" EUROCÔNE POUR COLLECTEURS



619

CODE	TECH. CODE	SIZE		
88.20.557	DC061900718N	3/4 F	5	100

FEMALE PLUG FOR MANIFOLDS

/ TAPPO FEMMINA PER COLLETTORI
/ KAPPE IG FÜR VERTEILER
/ BOUCHON FEMELLE POUR COLLECTEURS



CODE	TECH. CODE	SIZE		
88.20.565		1/2"	10	400
88.20.566		3/4"	10	200
88.20.567		1"	10	50

UNIVERSAL BRACKET FOR MANIFOLDS
80/100

/ STAFFA UNIVERSALE PER COLLETTORI 80/100
/ UNIVERSAL BEFESTIGUNGSHALTERUNG FÜR 80/100 VERTEILER
/ SUPPORT DE FIXATION UNIVERSEL POUR COLLECTEURS 80/100



660

CODE	TECH. CODE	SIZE		
	CL0660STAF01	80/100 mm	2	25

CHECK VALVE FOR AUTOMATIC AIR VENT 1/2" F X 1/2" M NICKEL-PLATED

/ VALVOLA DI RITEGNO PER VALVOLA
AUTOMATICA SFIATO ARIA 1/2" F - 1/2" M
NICKELATA
/ RÜCKSCHLAGVENTIL FÜR AUTOMATISCHES
ENTLÜFTUNGSVENTIL 1/2" IG X 1/2" AG
VERNICKELT
/ CLAPET ANTI-RETOUR POUR VANNES
AUTOMATIQUE AVEC PURGEUR D'AIR 1/2" F X
1/2" M NICKELÉL



733

CODE	TECH. CODE	SIZE		
88.10.362	SP073300500N	1/2" F - 1/2" M	10	200

BY-PASS FOR MANIFOLD 1" WITH 200 mm DISTANCE

/ BY-PASS DIFFERENZIALE PER COLLETTORE DA
BARRA 1" INTERASSE 200 mm
/ BYPASS FÜR VERTEILER 1" ABSTAND 200 mm
/ BY-PASS POUR COLLECTEURS 1" AVEC 200 mm
DISTANCE



740

CODE	TECH. CODE	
88.20.538	VA0740010010	1

COMPATIBLE WITH MANIFOLD KIT 729
COMPATIBILE CON KIT COLLETTORE 729
KOMPATIBEL MIT DER VERTEILERGRUPPE 729
COMPATIBLE AVEC LE KIT DE COLLECTEUR 729

WHITE KNOB WITH BLUE/RED INDICATOR AND DISK FOR UTILITIES

/ MANIGLIA BIANCA CON DISCHETTO ROSSO/BLU
E DISCHETTO INDICATORE ZONE
/ WEISSER GRIFF MIT BLAUEN UND ROTEN
KLEBEDISKETTEN UND DISKETTEN ZUR
IDENTIFIZIERUNG DER HEIZKREISE
/ POIGNÉE BLANCHE AVEC DISQUE ROUGE ET
BLEU ET DISQUE POUR IDENTIFIER LES CIRCUITS



620

CODE	TECH. CODE	
88.20.626	CL0620000002	10

INSULATION SHELLS FOR MANIFOLD

/ GUSCIO ISOLANTE PER COLLETTORE
/ SCHALENDÄMMUNG FÜR VERTEILER
/ COQUILLE D'ISOLATION POUR
COLLECTEUR



698-696

CODE	TECH. CODE	SIZE		
88.10.311	VA0698010120	1"		1
88.11.895	VA0696012120	1 1/4"		1

TEE CONNECTION FOR MANIFOLDS WITH 1/2" F THREADED BORES

/ TERMINALE A T DI SERVIZIO
PER COLLETTORI CON FORI DA 1/2" F
/ T ENDSTÜCK FÜR VERTEILER MIT
1/2" IG
/ POT DE TERMINAISON
POUR COLLECTEURS AVEC 1/2" F



646

CODE	TECH. CODE	SIZE		
88.20.526	RF064601005N	1" M x 1/2" F x 1/2" F	2	24

REGULATION VALVE 3/8" FOR MANIFOLDS

/ VITONE DI RICAMBIO 3/8" PER COLLETTORI
/ REGULIERVENTIL 3/8" FÜR VERTEILER
/ VANNE DE RÉGULATION 3/8"
POUR COLLECTEURS



620

CODE	TECH. CODE	SIZE		
88.20.625	CL0620000001	3/8"		100

CIRCUIT SPLIT FITTING

/ RACCORDO SDOPPIA CIRCUITO
/ Y-STÜCK
/ RACCORD DOUBLE CIRCUIT



736

CODE	TECH. CODE	SIZE		
88.03.010	RF073600707N	3/4" eurocone	10	40

**ART. 88.20.551**

MATCHABLE WITH / COMPATIBILE CON / KOMBINIERBAR MIT / COMBINABLE AVEC

ART. 88.20.521 - 88.10.359 - 88.20.547**TERMINAL 1" M WITH WATERDRAIN CONNECTION 3/8" F NICKEL PLATED**

/ TERMINALE 1" M CON TAPPO SCARICO E
ATTACCO 3/8" F NICHELATO
/ ENDSTÜCK 1" AG MIT ENTLERUNGVENTIL UND
WASSERFÜLLUNG 3/8" IG VERNICKELT
/ POT DE TERMINAISON 1" M AVEC VANNE DE
DRAINAGE 3/8" F NICKELÉ

**730**

CODE	TECH. CODE	SIZE	
88.20.551	SP073001003N	1" M X 3/8" F	50

AUTOMATIC VALVE FOR AIR OUTLET NICKEL-PLATED

/ VALVOLA SFIATO ARIA AUTOMATICA
NICHELATA
/ AUTOMATISCHES ENTLÜFTUNGSVENTIL,
VERNICKELT
/ VANNE AUTOMATIQUE AVEC PURGEUR D'AIR,
NICKELÉE

**095**

CODE	TECH. CODE	SIZE		
88.10.359	VA009500300N	3/8" M	1	84

AIR VENT

/ VALVOLA SFIATO ARIA
/ ENTLÜFTUNGSVENTIL
/ PURGEUR D'AIR

**114**

CODE	TECH. CODE	SIZE		
88.20.521	SP011400300N	3/8" M	100	400

PRESSURE GAUGE 3/8" 0 -10 BAR - Ø 50 mm

/ MANOMETRO 3/8" 0 -10 BAR - Ø 50 mm
/ MANOMETER 3/8" 0 -10 BAR - Ø 50 mm
/ MANOMÈTRE 3/8" 0 -10 BAR - Ø 50 mm

**738**

CODE	TECH. CODE	SIZE	
88.20.547	VA0738003000	3/8" M - Ø 50 mm	6

PLASTIC MANIFOLD CABINET WITH FIXING SET

/ CASSETTA D'ISPEZIONE IN PLASTICA COMPLETA DI SUPPORTI
/ VERTEILERSCHRÄNK AUS KUNSTSTOFF MIT BEFESTIGUNGSELEMENT
/ COFFRET PLASTIQUE POUR COLLECTEURS AVEC SUPPORTS

CODE	TECH. CODE	SIZE	
88.20.097	VA0649CAS001	260 x 400 x 85 mm	1
88.20.098	VA0649CAS002	260 x 500 x 85 mm	1
	VA0649CAS003	260 x 600 x 85 mm	1

PLASTIC MANIFOLD CABINET FLAT COMPLETE WITH FIXING SET

/ CASSETTA D'ISPEZIONE FLAT IN PLASTICA COMPLETA DI SUPPORTI
/ FLAT VERTEILERSCHRANK AUS KUNSTSTOFF MIT BEFESTIGUNGSELEMENT
/ COFFRET PLASTIQUE FLAT POUR COLLECTEURS AVEC SUPPORTS

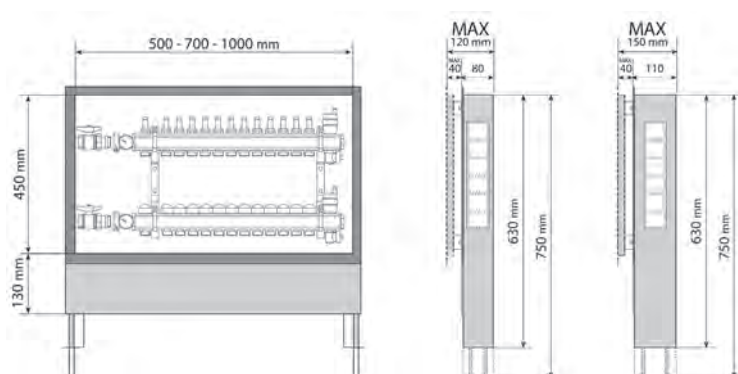
CODE	TECH. CODE	SIZE	
88.20.130	VA0649CAS011	265 x 320 x 95 mm	10
88.20.131	VA0649CAS012	265 x 400 x 95 mm	10
88.20.132	VA0649CAS013	265 x 500 x 95 mm	10

MANIFOLD CABINET DOOR

/ COPERCHI DI RICAMBIO PER CASSETTE D'ISPEZIONE
/ VERTEILERSCHRANKTÜR
/ COUVERCLE POUR COFFRET DE COLLECTEURS

CODE	TECH. CODE	SIZE	
88.20.134	VA0649CAS041	428 x 278 x 14 mm - cover for VA0649CAS001	10
88.20.135	VA0649CAS042	528 x 278 x 14 mm - cover for VA0649CAS002	10
	VA0649CAS043	628 x 278 x 14 mm - cover for VA0649CAS003	10
88.20.127	VA0649CAS051	265 x 320 x 14 mm - cover for VA0649CAS011	10
88.20.128	VA0649CAS052	265 x 400 x 14 mm - cover for VA0649CAS012	10
	VA0649CAS053	265 x 500 x 14 mm - cover for VA0649CAS013	10





1"
MANIFOLDS

**DEPTH
80 mm**

80
mm

COMPATIBLE WITH NEW MANIFOLD SERIES
726 / 728 / 660 / 663 / 669

ECO - MANIFOLD CABINET IN GALVANISED STEEL WITH ENAMELLED DOOR WHITE COLOUR

/ ECO - CASSETTA D'ISPEZIONE IN METALLO ZINCATO
COLORE BIANCO
/ ECO - VERTEILERSCHRÄNK AUS VERZINKTEM STAHLBLECH, RAHMEN
UND STECKTÜR MATT WEISS LACKIERT
/ ECO - COFFRET POUR COLLECTEUR, MÉTAL GALVANISÉ ET COUVERCLE
BLANC

CODE	TECH. CODE	SIZE	CON.	
88.10.315	VA0699CAS001	500 x 630 - 750 x 80 - 120	2/5	1
88.10.320	VA0699CAS002	700 x 630 - 750 x 80 - 120	6/9	1
88.10.325	VA0699CAS003	1000 x 630 - 750 x 80 - 120	10/13	1

1"¼
MANIFOLDS

**DEPTH
110 mm**

PLUS - MANIFOLD CABINET IN GALVANISED STEEL WITH ENAMELLED DOOR WHITE COLOUR

/ PLUS - CASSETTA D'ISPEZIONE IN METALLO ZINCATO, COLORE BIANCO
/ PLUS - VERTEILERSCHRÄNK AUS VERZINKTEM STAHLBLECH, RAHMEN
UND STECKTÜR MATT WEISS LACKIERT
/ PLUS - COFFRET POUR COLLECTEUR MÉTAL GALVANISÉ ET COUVERCLE
BLANC

CODE	TECH. CODE	SIZE	CON.	
88.10.330	VA0699CAS011	500 x 630 - 750 x 110 - 150	2/5	1
88.10.335	VA0699CAS012	700 x 630 - 750 x 110 - 150	6/9	1
88.10.340	VA0699CAS013	1000 x 630 - 750 x 110 - 150	10/13	1

**COVER
PANEL**

FRAME AND INSPECTION PANEL FOR ECO/PLUS CABINET

/ CORNICE E SPORTELLI PER CASSETTE D'ISPEZIONE ECO - PLUS
/ RAHMEN UND TÜR FÜR INSPEKTION VERTEILERSCHRÄNK ECO - PLUS
/ CADRE ET PANNEAU D'INSPECTION POUR COFFRET ECO / PLUS

CODE	TECH. CODE	
88.10.317	VA0699CAS051	1
88.10.318	VA0699CAS052	1
88.10.319	VA0699CAS053	1

Distribution manifold kits with lower flow bar



The manifolds come assembled with the brackets and are ready to be installed.

I collettori vengono forniti già assemblati con le nuove staffe pronti per essere installati.

Die Verteiler werden bereits vormontiert und mit integrierten Halterungen geliefert.

Les collecteurs sont fournis déjà assemblés avec les supports prêts à être installés.



Thanks to this configuration, the assembly of any electrothermal actuator becomes much easier.

Il montaggio di eventuali teste elettrotermiche è molto più facile grazie a questa configurazione.

Das Anbringen von elektrothermischen Stellantrieben ist dank des vertauschten Vor- und Rücklaufes viel einfacher.

Le montage d'éventuelles têtes électrothermiques est beaucoup plus facile grâce aux voies inversées.



The different configurations are available in both brass and stainless steel.

Le diverse configurazioni sono disponibili sia in ottone che in acciaio inossidabile.

Die verschiedenen Konfigurationen sind sowohl in Messing als auch in Edelstahl erhältlich.

Les différentes configurations sont disponibles en laiton et en acier inoxydable.



This configuration is comprised of the flow of hot water in the lower bar of the manifold.

Questa configurazione prevede la mandata dell'acqua calda nella barra inferiore del collettore.

Diese Konfiguration sieht vor, dass der Warmwasservorlauf im unteren Verteilerbalken angeschlossen ist.

Cette configuration prévoit la distribution d'eau chaude dans la barre inférieure du col-lecteur.

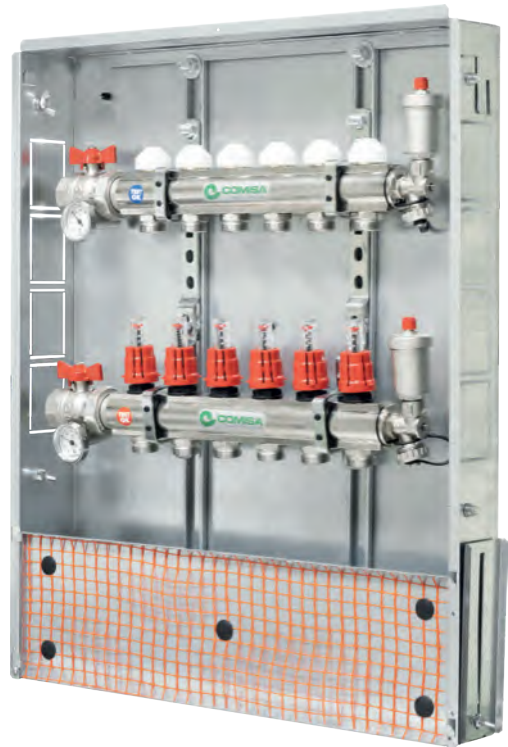


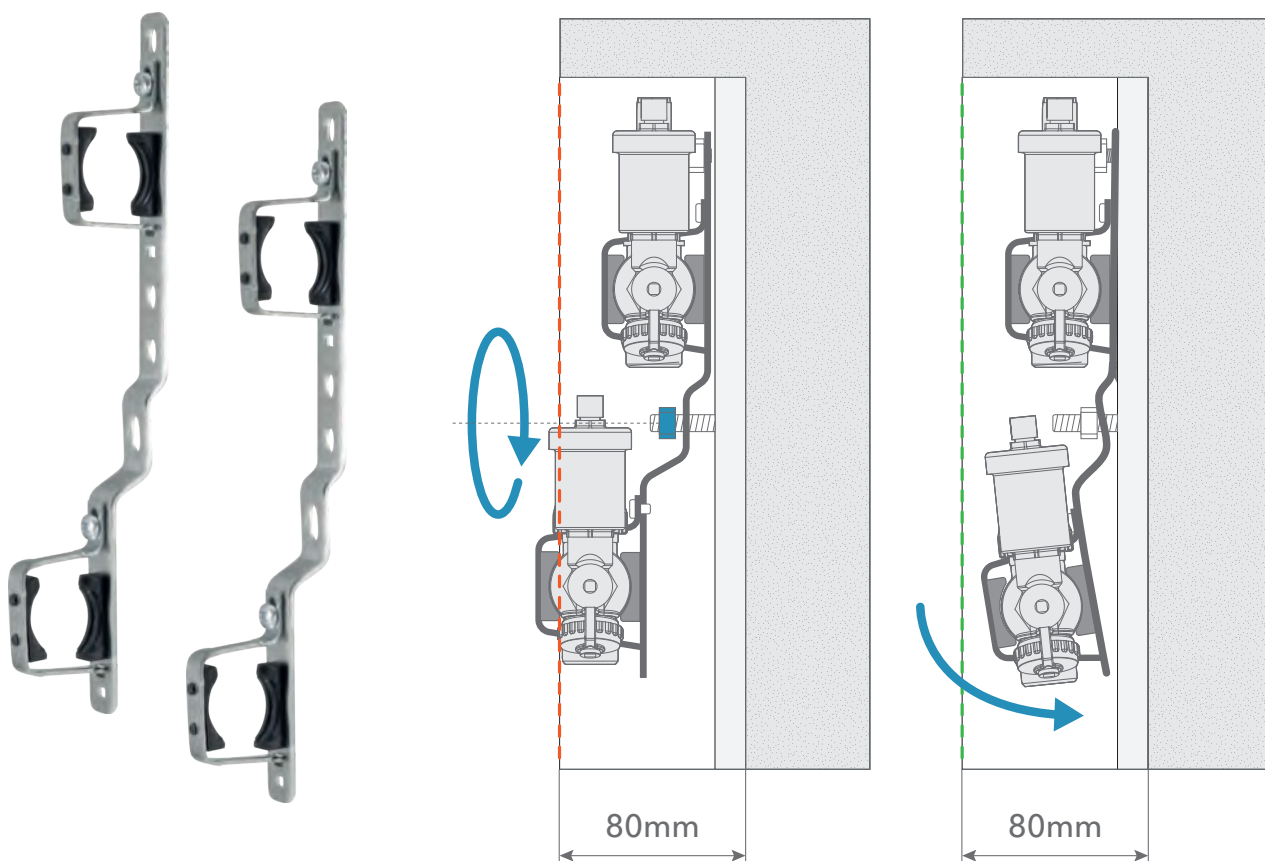
The new brackets allow for a quick assembly even in boxes as deep as 80mm.

Le nuove staffe consentono un montaggio facilitato e rapido anche in cassette profonde 80mm.

Die neuen Halterungen ermöglichen eine schnelle Installation, auch in nur 80mm tiefen Verteilerschränken.

Les nouveaux supports permettent un montage rapide même dans des boîtes de 80 mm de profondeur.



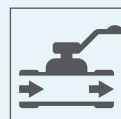


Le nouveau support de fixation CL0660STAF01 sera également installé sur tous les collecteurs en laiton déjà présents dans la gamme Comisa, les rendant ainsi adaptés à une installation plus facile dans des boîtiers de 80 mm de profondeur.

BALL VALVES FOR MANIFOLDS

/ VALVOLE A SFERA PER COLLETTORE
/ KUGELHÄHNE FÜR VERTEILER
/ VANNES À BOISSEAU POUR COLLECTEURS

146B - F/M



100%
FULL
BORE

ISO
228



BALL VALVE MOD. 146B F/TAIL PIECE FOR MANIFOLD FULL BORE

/ VALVOLA A SFERA MOD. 146B F/CODOLO PER COLLETTORE
PASSAGGIO TOTALE
/ KUGELHAHN MOD. 146B IG/GEWINDEANSCHLÜSSE FÜR VERTEILER
VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 146B F/UNION M POUR COLLECTEUR
PASSAGE INTÉGRALE



146B ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.790	VS0146B05PRN	1/2"	45	60
41.31.800	VS0146B07PRN	3/4"	35	35
41.31.810	VS0146B10PRN	1"	35	20
41.31.820	VS0146B12PRN	1 1/4"	25	10



146B ▲ BLUE ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA BLU / BLAUE ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON BLEU

CODE	TECH. CODE	SIZE	PN	
41.31.791	VS0146B05PBN	1/2"	45	60
41.31.801	VS0146B07PBN	3/4"	35	35
41.31.811	VS0146B10PBN	1"	35	20
41.31.821	VS0146B12PBN	1 1/4"	25	10



146B ▲ BLACK ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA NERA / SHWARZ ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON NOIRE

CODE	TECH. CODE	SIZE	PN	
41.31.792	VS0146B05PNN	1/2"	45	60
41.31.802	VS0146B07PNN	3/4"	35	35
41.31.812	VS0146B10PNN	1"	35	20
41.31.822	VS0146B12PNN	1 1/4"	25	10

BALL VALVE MOD. 146B F WITHOUT TAIL PIECE FOR MANIFOLD FULL BORE

/ VALVOLA A SFERA MOD. 146B F SENZA CODOLO PER COLLETTORE
PASSAGGIO TOTALE
/ KUGELHAHN MOD. 146B IG/OHNE GEWINDEANSCHLÜSSE FÜR VERTEILER
VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 146B F SANS UNION M
PASSAGE INTÉGRALE



146B ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.805	VSZ146B07PRN	3/4" (A) x 1" (B)	35	50
41.31.815	VSZ146B10PRN	1" (A) x 1 1/4" (B)	35	30



146B ▲ BLUE ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA BLU / BLAUE ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON BLEU

CODE	TECH. CODE	SIZE	PN	
41.31.806	VSZ146B07PBN	3/4" (A) x 1" (B)	35	50

BALL VALVE MOD. 146B F/TAILPIECE WITH O-RING FOR MANIFOLD FULL BORE

/ VALVOLA A SFERA MOD. 146B F/CODOLO PER COLLETTORE CON O-RING
PASSAGGIO TOTALE
/ KUGELHAHN MOD. 146B IG/GEWINDEANSCHLÜSSE FÜR VERTEILER MIT O-RING
VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 146B F/UNION M POUR COLLECTEUR AVEC
JOINT TORIQUE - PASSAGE INTÉGRALE

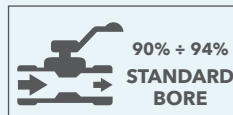


146B ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.804	VS0146B71PRN	3/4" F x 1" M	35	30
88.20.522	VS0146B10PRN	1" F x 1" M •	35	20

• REGULATION RING TAIL / CODOLO PREGUARNITO CON GHIERA GIREVOLE
/ ROHRVERSCHRAUBUNG MIT O-RING / UNION AVEC JOINT TORIQUE

140B - F/M



ISO
228



BALL VALVE MOD. 140B F/TAIL PIECE FOR MANIFOLD - STANDARD BORE

/ VALVOLA A SFERA MOD. 140B F/CODOLO PER COLLETTORE - PASSAGGIO STANDARD

/ KUGELHAHN MOD. 140B IG/GEWINDEANSCHLÜSSE FÜR VERTEILER - STANDARD DURCHGANG

/ VANNE BOISSEAU SPHÉRIQUE MOD. 140B F/UNION M POUR COLLECTEUR- PASSAGE STANDARD



140B ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.725	VS0140B05PRN	1/2"	40	60
41.31.726	VS0140B07PRN	3/4"	30	35
41.31.727	VS0140B10PRN	1"	30	20
41.31.728	VS0140B12PRN	1" 1/4	20	10



140B ▲ BLUE ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA BLU / BLAUE ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON BLEU

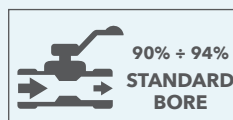
CODE	TECH. CODE	SIZE	PN	
41.31.776	VS0140B05PBN	1/2"	40	60
41.31.777	VS0140B07PBN	3/4"	30	35
41.31.778	VS0140B10PBN	1"	30	20



140B ▲ BLACK ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA NERA / SCHWARZ ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON NOIRE

CODE	TECH. CODE	SIZE	PN	
41.31.774	VS0140B05PNN	1/2"	40	60
41.31.807	VS0140B07PNN	3/4"	30	35
41.31.808	VS0140B10PNN	1"	30	20

146A - F/M



ISO
228



BALL VALVE MOD. 146A 90° F/TAIL PIECE FOR MANIFOLD STANDARD BORE

/ VALVOLA A SFERA MOD. 146A F/CODOLO 90° PER COLLETTORE
PASSAGGIO STANDARD
/ KUGELHAHN MOD. 146A IG/90° GEWINDEANSCHLÜSSE FÜR VERTEILER
STANDARD DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE 146A F/ UNION COUDÉ M POUR COLLECTEUR
PASSAGE STANDARD



146A ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.760	VS0146A05PRN	1/2"	45	50
41.31.770	VS0146A07PRN	3/4"	35	30
41.31.780	VS0146A10PRN	1"	35	18



146A ▲ BLUE ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA BLU
/ BLAUE ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON BLEU

CODE	TECH. CODE	SIZE	PN	
41.31.761	VS0146A05PBN	1/2"	45	50
41.31.771	VS0146A07PBN	3/4"	35	30
41.31.781	VS0146A10PBN	1"	35	18

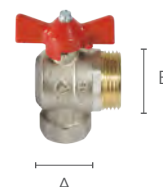


146A ▲ BLACK ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA NERA
/ SCHWARZ ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON NOIRE

CODE	TECH. CODE	SIZE	PN	
41.31.762	VS0146A05PNN	1/2"	45	50
41.31.772	VS0146A07PNN	3/4"	35	30
41.31.782	VS0146A10PNN	1"	35	18

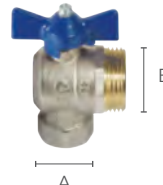
BALL VALVE MOD. 146A 90° F WITHOUT TAIL PIECE FOR MANIFOLD STANDARD BORE

/ VALVOLA A SFERA MOD. 146A F 90° SENZA CODOLO PER COLLETTORE
PASSAGGIO STANDARD
/ KUGELHAHN MOD. 146A 90° IG/OHNE GEWINDEANSCHLÜSSE FÜR
VERTEILER - STANDARD DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE ÉQUERRE 146A F /SANS UNION M POUR
COLLECTEUR - PASSAGE STANDARD



146A ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.795	VSZ146A07PRN	3/4" (A) x 1" (B)	35	40
41.31.785	VSZ146A10PRN	1" (A) x 1" 1/4 (B)	35	25



146A ▲ BLUE ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA BLU
/ BLAUE ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON BLEU

CODE	TECH. CODE	SIZE	PN	
41.31.796	VSZ146A07PBN	3/4" (A) x 1" (B)	35	40

BALL VALVE MOD. 146A F/TAILPIECE WITH O-RING 90° FOR MANIFOLD - STANDARD BORE

/ VALVOLA A SFERA MOD. 146A F 90° CODOLO PER COLLETTORE CON
O'RING - PASSAGGIO STANDARD
/ KUGELHAHN MOD. 146A IG/90° GEWINDEANSCHLÜSSE MIT O-RING FÜR
VERTEILER - STANDARD DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE ÉQUERRE MOD. 146A F/UNION M POUR
COLLECTEUR AVEC JOINT TORIQUE - PASSAGE STANDARD

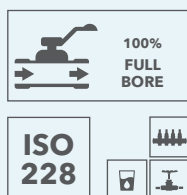


146A ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.775	VS0146A71PRN	3/4" F x 1" M	35	18
88.20.592	VS0146A10PRN	1" F x 1" M •	35	15

• REGULATION RING TAIL / CODOLO PREGUARNITO CON GHIERA GIREVOLE
/ ROHRVERSCHRAUBUNG MIT O-RING / UNION AVEC JOINT TORIQUE

603B



BALL VALVE MOD. 603B F/TAIPIECE AND THERMOMETER FOR MANIFOLD - FULL BORE

/ VALVOLA A SFERA MOD. 603B F/CODOLO E TERMOMETRO PER COLLETTORE - PASSAGGIO TOTALE

/ KUGELHAHN MOD. 603B IG/ GEWINDEANSCHLÜSSE FÜR VERTEILER UND THERMOMETER - VOLLER DURCHGANG

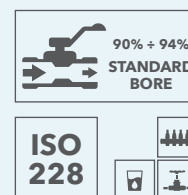
/ VANNE BOISSEAU SPHÉRIQUE MODÈLE 603B F/ UNION ET THERMOMÈTRE POUR COLLECTEUR - PASSAGE INTÉGRALE



603B ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN		
41.31.809	VS0603B10PRN	1" M x 1" F	35	2	8

604B



BALL VALVE MOD. 604B 90° F/TAIPIECE AND THERMOMETER FOR MANIFOLD - STANDARD BORE

/ VALVOLA A SFERA MOD. 604B 90° F/CODOLO E TERMOMETRO - PASSAGGIO STANDARD

/ KUGELHAHN MOD. 604B 90° IG/ GEWINDEANSCHLÜSSE FÜR VERTEILER UND THERMOMETER - STANDARD DURCHGANG

/ VANNE BOISSEAU SPHÉRIQUE MOD. 604B ÉQUERRE F/ UNION ET THERMOMÈTRE POUR COLLECTEUR - PASSAGE STANDARD



604B ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN		
41.31.779	VS0604B10PRN	1" M x 1" F	35	2	8

602B



VALVES KIT 602B F / WITH PLUG AND THERMOMETER COMPOSED OF 603B STRAIGHT AND 604B 90°

/ KIT VALVOLE A SFERA 602B F/CODOLO BOC. E TERMOMETRO COMPOSTO DA MOD. 603B DIRITTA E 604B 90°

/ SET KUGELHÄHNE ART. 602B IG/VERSCHR. UND THERMOMETER BEST.AUS ART. 603B GERADE UND 604B 90°

/ KIT VANNES 602B F/AVEC BOUCHON ET THERMOMETRE - COMPOSE DE 603B DROIT ET 604B 90°



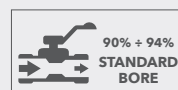
KIT

602B ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
	VS0602B10PRN	1" M x 1" F	35	4



/ **FULL BORE** / PASSAGGIO TOTALE / VOLLER DURCHGANG / PASSAGE INTÉGRALE



/ **STANDARD BORE** / PASSAGGIO STANDARD / STANDARD DURCHGANG / PASSAGE STANDARD



THREADED CONNECTIONS / ATTACCHI FILETTATI
GEWINDEANSCHLUSS / CONNEXIONS FILETÉES



EQUIVALENT TO **EN ISO 228** (CYLINDRICAL)
CONFORME A **EN ISO 228** (CILINDRICO)
ENTSPRECHEND **EN ISO 228** (ZYLINDRISCH)
ÉQUIVALENT À **EN ISO 228** (CYLINDRIQUE)



/ **AIR** / ARIA / LUFT / AIR



/ **POTABLE WATER** / ACQUA POTABILE / TRINKWASSER / EAU POTABLE



/ **HYDRAULIC** / IDRAULICA / HYDRAULIC / HYDRAULIQUE



/ **MANIFOLDS** / COLLETTORI / VERTEILER / COLLECTEUR



OPERATING TEMPERATURE / TEMPERATURA D'ESERCIZIO / BETRIEBSTEMPERATUR / TEMPÉRATURE D'UTILISATION:
- 20° C + 120° C
(UNLESS OTHERWISE STATED / SALVO INDICAZIONI CONTRARIE / SOFERN NICHTS ANDERES BESTIMMT IST / SAUF INDICATION CONTRAIRE)

BALL VALVES

/ VALVOLE A SFERA

/ KUGELHÄHNE

/ VANNES À BOISSEAU SPHÉRIQUE



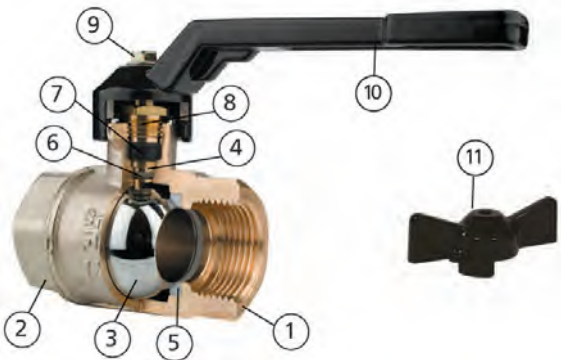


BALL VALVES

BALL VALVES - DRINKING WATER	208
BALL VALVES - HEAVY SERIES	210
BALL VALVES - SPR SERIES	214
BALL VALVES - ACCESSORIES	232
BALL VALVES FOR SPECIAL APPLICATIONS	234
BALL VALVES FOR MANIFOLDS	240
BALL VALVES FOR WATER METERS	244
BALL VALVES FOR SOLAR THERMAL SYSTEMS	247
BALL VALVES FOR GAS	248
MINI BALL VALVES	251
DZR MINI BALL VALVES	252

BALL VALVES WITH PACKING GLAND

/ VALVOLA A SFERA CON PREMISTOPPA
/ KUGELHAHN MIT TEFLONSDICHTUNG
/ VANNE À BOISSEAU SPHÉRIQUE AVEC PRESS-ÉTOUPE



BALL VALVES WITH PACKING GLAND

MODEL:
143
143M
145
349
440
440M
WATER METERS

	DESCRIPTION	DESCRIZIONE	BESCHREIBUNG	DESCRIPTION	MATERIAL / MATERIAL / MATERIAUX
1	BODY	CORPO	GEHÄUSE	CORPS	BRASS / OTTONE / MESSING / LAITON CW617N UNI EN 12165
2	COUPLING	MANICOTTO	KUPPLUNG	MANCHON	BRASS / OTTONE / MESSING / LAITON CW617N UNI EN 12165
3	BALL	SFERA	KUGEL	SPHÈRE	BRASS / OTTONE / MESSING / LAITON CW617N UNI EN 12165
4	SPINDLE	ASTA	SPINDEL	TIGÉ	BRASS / OTTONE / MESSING / LAITON CW617N UNI EN 12164
5	SEATS	SEDI	KUGELSITZDICHTUNG	SIÈGES	P.T.F.E.
6	O-RING	O-RING	O-RING	JOINT TORIQUE	NBR
7	PACKING GLAND	PREMISTOPPA	STOPFBUCHSE	BAGUE DE PRESSE ÉTOUPE	P.T.F.E.
8	STUFFING NUT	GHIERA PREMISTOPPA	STOPFBUCHSMUTTER	ÉCROU DE PRESSE ÉTOUPE	BRASS / OTTONE / MESSING / LAITON CW614N UNI EN 12164
9	SCREW	VITE	SCHRAUB	VIS	STEEL / ACCIAIO / STAHL / ACIER UNI EN 10263-2 - BRASS / OTTONE / MESSING / LAITON
10	HANDLE	MANIGLIA A LEVA	HEBELGRIFF	POIGNÉE	ALUMINIUM EN AB-46100 UNI EN 1676
11	BUTTERFLY HANDLE	MANIGLIA A FARFALLA	FLÜGELGRIFF	MANETTE PAPILLON	ALUMINIUM EN AB-46100 UNI EN 1676

BRASS



UNI EN 12164/12165
CW 617N
DIN 50930-6

BRASS COMPLIES WITH DIN 50930-6
/ OTTONE CONFORME DIN 50930-6
/ MESSING ENTSPRICHT DIN 50930-6
/ LAITON CONFORME DIN 50930-6

All the Comisa ball valves series with packing gland feature an O-ring on the spindle and the seal is guaranteed by use of a P.T.F.E. packing gland. For correct operation, the ball valves must only be used as on/off valves and not as regulator valves; they must therefore be kept either fully open or fully closed. This operation is performed by turning the handle by 90° clockwise or anticlockwise, without operating it quickly so as to avoid water hammering. Once correctly fitted, the valve does not require any particular maintenance, but must be periodically operated to ensure smooth operation and prevent blockages.

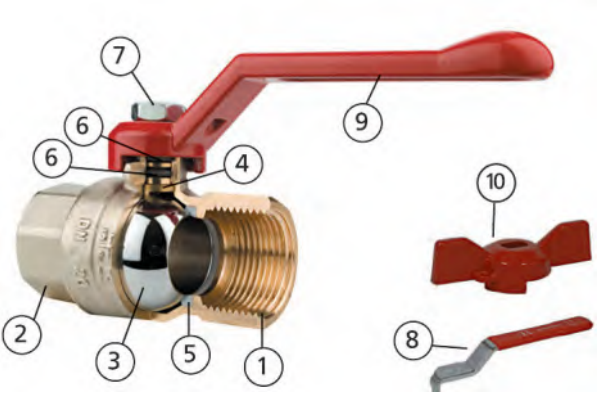
/ Tutte le serie di valvole a sfera Comisa caratterizzate dalla tecnologia "premistoppa" sono dotate di asta di manovra provvista di o-ring; la tenuta è inoltre garantita dall'uso di un premistoppa in P.T.F.E. Per il corretto funzionamento, le valvole a sfera devono essere utilizzate solo come valvole on / off e non come valvole di regolazione; devono quindi essere tenute completamente aperte o completamente chiuse. Questa operazione viene eseguita ruotando la maniglia di 90° in senso orario o antiorario, senza azionarla rapidamente in modo da evitare colpi d'ariete. Una volta installata correttamente, la valvola non richiede alcuna manutenzione particolare, ma deve essere periodicamente utilizzata per garantire un funzionamento regolare e prevenire blocchi.

/ Alle Kugelhähne der Serie Comisa mit Stopfbuchse haben einen O-Ring an der Spindel und die Dichtung wird durch Verwendung eines P.T.F.E. Verpackungsdrüse. Für einen korrekten Betrieb sind die Kugelventile nur als Absperr- und nicht als Regelventile zu verwenden, müssen daher in vollständig offenen oder vollständig geschlossenen Zustand gehalten werden. Dieser Vorgang wird durch Drehen im oder gegen den Uhrzeigersinn des Griffes um 90° erreicht, ohne es schnell zu bewegen, um so Wasserschläge zu vermeiden. Das Ventil, wenn es einmal richtig installiert ist, bedarf keine besondere Wartung, muss aber regelmäßig benutzt werden, um einen reibungslosen Betrieb zu gewährleisten und eine Blockierung zu vermeiden.

/ Toutes les vannes à boisseau sphérique Comisa avec presse-étoupe disposent d'un joint torique sur la broche et le sceau est garanti par l'utilisation d'un P.T.F.E. glande d'emballage. Pour un fonctionnement correct, les vannes à boisseau sphérique ne doivent être utilisés que comme des éléments d'interception et non pas de régulation; ils doivent donc être maintenus soit complètement ouverts, soit complètement fermés. Pour ce faire, tourner la manette de 90° dans le sens horaire ou contre-horaire en évitant de manoeuvrer rapidement pour éviter le coup de bélier. Une fois installée correctement, le robinet ne demande pas d'entretien spécial; il faut cependant le manoeuvrer périodiquement afin d'assurer un mouvement fluide et d'éviter qu'il ne se bloque.

BALL VALVES WITH ANTI-BURSTING PIN

/ VALVOLE A SFERA ANTISCOPPIO
/ KUGELHÄHNE MIT SPRENGSCHUTZ-VORRICHTUNG
/ ROBINETS À BOISSEAU SPHÉRIQUE ANTI-ÉCLATEMEN



BALL VALVES WITH ANTI-BURSTING PIN MODELS AVAILABLE	133	144M
	133M	146A
	134	146B
	139	147
	139M	147B
	140	148
	140B	148A
	140M	149
	141	297B
	141A	297F
	141H	303
	141L	603B
	144	604B

	DESCRIPTION	DESCRIZIONE	BESCHREIBUNG	DESCRIPTION	MATERIAL / MATERIAL / MATERIAUX
1	BODY	CORPO	GEHÄUSE	CORPS	BRASS / OTTONE / MESSING / LAITON CW617N UNI EN 12165
2	COUPLING	MANICOTTO	KUPPLUNG	MANCHON	BRASS / OTTONE / MESSING / LAITON CW617N UNI EN 12165
3	BALL	SFERA	KUGEL	SPHÈRE	BRASS / OTTONE / MESSING / LAITON CW617N UNI EN 12165
4	SPINDLE	ASTA	SPINDEL	TIGÉ	BRASS / OTTONE / MESSING / LAITON CW617N UNI EN 12164
5	SEATS	SEDI	KUGELSITZDICHTUNG	SIÈGES	P.T.F.E.
6	O-RING	O-RING	O-RING	JOINT TORIQUE	NBR
7	NUT	DADO	MUTTER	ÉCROU	STEEL / ACCIAIO / STAHL / ACIER UNI EN 20898/2
8	FLAT HANDLE	MANIGLIA PIATTA	HEISENHEBELGRIFF	POIGNÉE PLATE	ZINC-COATED STEEL / ACCIAIO ZINCATO / EDELSTAHL VERZINKT / ACIER REVÊTU DE ZINC FE P12
9	HANDLE	MANIGLIA A LEVA	HEBELGRIFF	POIGNÉE	ALUMINIUM EN AB-46100 UNI EN 1676
10	BUTTERFLY HANDLE	MANIGLIA A FARFALLA	FLÜGELGRIFF	MANETTE PAPILLON	ALUMINIUM EN AB-46100 UNI EN 1676

UNI EN 12164/12165
CW 617N
DIN 50930-6

BRASS

BRASS COMPLIES WITH DIN 50930-6
/ OTTONE CONFORME DIN 50930-6
/ MESSING ENTSPRICHT DIN 50930-6
/ LAITON CONFORME DIN 50930-6

All ball valves series with antibursting feature a double O-ring on the spindle for greater and safer seal. Furthermore, because the spindle is mounted from inside it is blow out proof and provides greater guarantees against accidental escape or tampering from outside. For correct operation, the ball valves must only be used as on/off valves and not as regulator valves; they must therefore be kept either fully open or fully closed. This operation is performed by turning the handle by 90° clockwise or anticlockwise, without operating it quickly so as to avoid water hammering. Once correctly fitted, the valve does not require any particular maintenance, but must be periodically operated to ensure smooth operation and prevent blockages.

/ Tutte le serie di valvole a sfera con antibursting presentano un doppio O-ring sull'asta per una tenuta maggiore e più sicura. Inoltre, poiché l'asta è montata dall'interno, è a prova di esplosione e fornisce maggiori garanzie contro la fuga accidentale o la manomissione dall'esterno. Per il corretto funzionamento, le valvole a sfera devono essere utilizzate solo come valvole on / off e non come valvole di regolazione; devono quindi essere tenute completamente aperte o completamente chiuse. Questa operazione viene eseguita ruotando la maniglia di 90° in senso orario o antiorario, senza azionarla rapidamente in modo da evitare colpi d'ariete. Una volta installata correttamente, la valvola non richiede alcuna manutenzione particolare, ma deve essere periodicamente utilizzata per garantire un funzionamento regolare e prevenire blocchi.

/ Alle Kugelhähne der Serie Comisa mit Berstschutz verfügen über einen doppelten O-Ring an der Spindel für eine größere und sicherere Abdichtung. Da die Spindel, von innen montiert ist, bietet sie mehr Garantien gegen unbeabsichtigtes Sprengen oder gegen eine von außen durchgeführte Manipulation. Für einen korrekten Betrieb sind die Kugelventile nur als Absperr- und nicht als Regelventile zu verwenden, müssen daher in vollständig offenen oder vollständig geschlossenen Zustand gehalten werden. Dieser Vorgang wird durch Drehen im oder gegen den Uhrzeigersinn des Griffes um 90° erreicht, ohne es schnell zu bewegen, um so Wasserschläge zu vermeiden. Das Ventil, wenn es einmal richtig installiert ist, bedarf keine besondere Wartung, muss aber regelmäßig benutzt werden, um einen reibungslosen Betrieb zu gewährleisten und eine Blockierung zu vermeiden.

/ Toutes les séries de robinets à boisseau sphérique avec anti-buée comportent un double joint torique sur la broche pour une étanchéité plus grande et plus sûre. De plus la tige, qui est montée de l'intérieur, est inéjectable et, le cas échéant, offre de meilleures garanties contre l'éjection accidentelle ou l'altération non autorisée de l'extérieur. Pour un fonctionnement correct, les vannes à boisseau sphérique ne doivent être utilisées que comme des éléments d'interception et non pas de régulation; ils doivent donc être maintenus soit complètement ouverts, soit complètement fermés. Pour ce faire, tourner la manette de 90° dans le sens horaire ou contre-horaire en évitant de manoeuvrer rapidement pour éviter le coup de bélier. Une fois installé correctement, le robinet ne demande pas d'entretien spécial; il faut cependant le manoeuvrer périodiquement afin d'assurer un mouvement fluide et d'éviter qu'il ne se bloque.

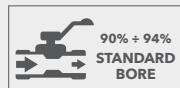
LEGEND

/ LEGENDA
/ LEGENDE
/ LÉGENDE



100%
FULL
BORE

FULL BORE / PASSAGGIO TOTALE
/ VOLLER DURCHGANG / PASSAGE INTÉGRALE



90% + 94%
STANDARD
BORE

STANDARD BORE / PASSAGGIO STANDARD
/ STANDARD DURCHGANG / PASSAGE STANDARD



THREADED CONNECTIONS / ATTACCHI FILETTATI
GEWINDEANSCHLUSS / CONNEXIONS FILETÉES

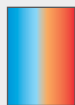


ACCORDING TO **EN ISO 228** (CYLINDRICAL)
/ CONFORME A **EN ISO 228** (CILINDRICO)
/ ENTSPRECHEND **EN ISO 228** (ZYLINDRISCH)
/ ÉQUIVALENT À **EN ISO 228** (CYLINDRIQUE)



ACCORDING TO **EN 10226-1**
/ CONFORME A **EN 10226-1**
/ ENTSPRECHEND **EN 10226-1**
/ EQUIVALENT TO **EN 10226-1**

- FEMALE RP (CYLINDRICAL)
- MALE R (CONICAL)
- FEMMINA RP (CILINDRICO)
- MASCHIO R (CONICO)
- INNENGEWINDE RP (ZYLINDRISCH)
- AUSSENGEWINDE R (KONISCH)
- FEMALE RP (CYLINDRICAL)
- MALE R (CONICAL)



OPERATING TEMPERATURE / TEMPERATURA D'ESERCIZIO
/ BETRIEBSTEMPERATUR / TEMPÉRATURE D'UTILISATION:
- 20° C + 120° C
(UNLESS OTHERWISE STATED / SALVO INDICAZIONI CONTRARIE
/ SOFERN NICHTS ANDERES BESTIMMT IST / SAUF INDICATION CONTRAIRE)



BALL VALVE WITH PACKING GLAND / VALVOLA CON PREMISTOPPA
/ KUGELHAHN MIT TEFLONSDICHTUNG
/ VANNE À BOISSEAU SPHÉRIQUE AVEC PRESS-ÉTOUPE



AIR / ARIA
/ LUFT / AIR



POTABLE WATER / ACQUA POTABILE
/ TRINKWASSER / EAU POTABLE



HYDRAULIC / IDRAULICA
/ HYDRAULIC / HYDRAULIQUE



MANIFOLDS / COLLETTORI
/ VERTEILER / COLLECTEUR



INSULATION / ISOLAMENTO
/ ISOLIERUNG / ISOLATION



SOLAR SYSTEM / IMPIANTI SOLARI-TERMICI
/ SOLARANLAGEN / SYSTÈME SOLAIRE



GAS / GAS
/ GAS / GAZ



RED HANDLE / MANIGLIA ROSSA
/ ROT HEBELGRIFF / MANETTE LEVIER ROUGE



BLUE HANDLE / MANIGLIA BLU
/ BLAUER HEBELGRIFF / MANETTE LEVIER BLEU



BLACK HANDLE / MANIGLIA NERA
/ SCHWARZ HEBELGRIFF / MANETTE LEVIER NOIRE



GREEN HANDLE / MANIGLIA VERDE
/ GRÜN HEBELGRIFF / MANETTE VERT



YELLOW HANDLE / MANIGLIA GIALLA
/ GELB HEBELGRIFF / MANETTE JAUNE



ORANGE HANDLE / MANIGLIA ARANCIO
/ ORANGE HEBELGRIFF / MANETTE ORANGE



ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO
/ ALUMINIUM HEBELGRIFF / MANETTE ALUMINIUM LEVIER



ALUMINIUM BUTTERFLY HANDLE / MANIGLIA FARFALLA IN ALLUMINIO
/ ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON



IRON HANDLE / MANIGLIA ACCIAIO
/ EISENHEBELGRIFF / MANETTE ACIER LEVIER
MINI BALL / MINI BALL
/ MINI-KUGELHAHN / MINI V. BOISSEAU



SEALABLE CAP / CAPPuccio PIOMBABILE
/ PLOMBIERUNGSKAPPE / MANETTE SCELLABLE



GATE VALVE / SARACINESCA
/ ABSPERRSCHIEBER / GUILLotine

HANDLE COLOR

HANDLE SPECIFICATION

HOW TO UNDERSTAND OUR CODES

EXAMPLE **VS0139M05ARN**

VS0	139	05	A	R	N
PRODUCT	ARTICLE	SIZE	HANDLE	COLOUR HANDLE	FINISHING
VS0	133 133M 134 137 137M 139 139M 140 140M 140B 141 141A 141H 141L 143 143M 144 144M 145 146A 146B 147 147B 148 148A 149 297B 297F 303 305 313 315 317 440 440M 603B 604B	01 = 1/8" 02 = 1/4" 03 = 3/8" 05 = 1/2" 07 = 3/4" 10 = 1" 12 = 1 1/4" 15 = 1 1/2" 20 = 2" 25 = 2 1/2" 30 = 3" 40 = 4" 15 = Ø 15 22 = Ø 22 28 = Ø 28 35 = Ø 35	A ALUMINIUM HANDLE F IRON FLAT HANDLE P BUTTERFLY ALUMINIUM HANDLE	B BLUE G YELLOW R RED N BLACK A ORANGE V GREEN	N NICKEL-PLATED O SAND-BLASTED

NEW BALL VALVES FOR DRINKING WATER

/ NUOVE VALVOLE A SFERA PER ACQUA POTABILE
/ NEUE KUGELHÄHNE FÜR TRINKWASSER
/ NOUVELLE VANNE POUR EAU POTABLE

137 - F/F





100%
FULL
BORE

ISO
7/1




ANTI-LEGIONELLA


ANTI-FREEZING

BALL VALVE MOD. 137 F/F FULL BORE

/ VALVOLA A SFERA MOD. 137 F/F - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 137 IG/IG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 137 F/F - PASSAGE INTÉGRALE

137  GREEN ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO VERDE
/ GRÜN ALUMINIUM HEBELGRIFF / MANETTE ALUMINIUM LEVIER VERT

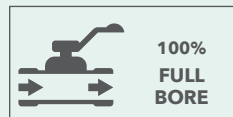
TECH. CODE	SIZE	PN	
VS0137005AVN	1/2"	45	50
VS0137007AVN	3/4"	35	30
VS0137010AVN	1"	35	25



137  GREEN ALUMINIUM BUTTERFLY HANDLE / MANIGLIA AL FARFALLA VERDE
/ GRÜN ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON VERT

TECH. CODE	SIZE	PN	
VS0137005PVN	1/2"	45	70
VS0137007PVN	3/4"	35	50
VS0137010PVN	1"	35	30

137M - F/M



ISO
7/1



BALL VALVE MOD. 137M F/M FULL BORE

/ VALVOLA A SFERA MOD. 137M F/M - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 137M IG/AG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 137M F/M - PASSAGE INTÉGRALE

137M  GREEN ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO VERDE
/ GRÜN ALUMINIUM HEBELGRIFF / MANETTE ALUMINIUM LEVIER VERT

TECH. CODE	SIZE	PN	
VS0137M05AVN	1/2"	45	50
VS0137M07AVN	3/4"	35	30
VS0137M10AVN	1"	35	25



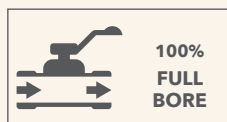
137M  GREEN ALUMINIUM BUTTERFLY HANDLE / MANIGLIA AL FARFALLA VERDE
/ GRÜN ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON VERT

TECH. CODE	SIZE	PN	
VS0137M05PVN	1/2"	45	70
VS0137M07PVN	3/4"	35	50
VS0137M10PVN	1"	35	30

BALL VALVES - HEAVY SERIES

/ VALVOLE A SFERA - SERIE PESANTE
/ KUGELHÄHNE - SCHWERE SERIE
/ VANNES À BOISSEAU - SÉRIE PESANTE

145 - F/F



BALL VALVE MOD. 145 F/F FULL BORE

/ VALVOLA A SFERA MOD. 145 F/F - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 145 IG/IG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 145 F/F - PASSAGE INTÉGRALE

145 ●

BLACK ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO NERA
/ SCHWARZ ALUMINIUM HEBELGRIF / MANETTE ALUMINIUM LEVIER NOIRE



CODE	TECH. CODE	SIZE	PN	
41.31.035	VS0145005ANN	1/2"	65	40
41.31.040	VS0145007ANN	3/4"	55	25
41.31.045	VS0145010ANN	1"	55	20
41.31.050	VS0145012ANN	1 1/4"	45	12
41.31.055	VS0145015ANN	1 1/2"	45	8
41.31.060	VS0145020ANN	2"	45	4

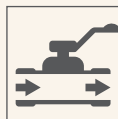
145 ▲



BLACK ALUMINIUM BUTTERFLY HANDLE / MANIGLIA AL FARFALLA NERA
/ SCHWARZ ALUMINIUM FLÜGELGRIF / MANETTE ALUMINIUM PAPILLON NOIRE

CODE	TECH. CODE	SIZE	PN	
41.31.036	VS0145005PNN	1/2"	65	40
41.31.041	VS0145007PNN	3/4"	55	25

143 - F/F



100%
FULL
BORE

ISO
228



BALL VALVE MOD. 143 F/F - FULL BORE

/ VALVOLA A SFERA MOD. 143 F/F - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 143 IG/IG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 143 F/F - PASSAGE INTÉGRALE

143 ● RED ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO ROSSA
/ ROT ALUMINIUM HEBELGRIF / MANETTE ALUMINIUM LEVIER ROUGE



CODE	TECH. CODE	SIZE	PN	
41.31.090	VS0143003ARN	3/8"	55	90
41.31.100	VS0143005ARN	1/2"	55	50
41.31.110	VS0143007ARN	3/4"	45	30
41.31.120	VS0143010ARN	1"	45	20
41.31.130	VS0143012ARN	1 1/4"	35	12
41.31.140	VS0143015ARN	1 1/2"	35	8
41.31.150	VS0143020ARN	2"	35	5

143 ●



BLACK ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO NERA
/ SHWARZ ALUMINIUM HEBELGRIF / MANETTE ALUMINIUM LEVIER NOIRE

CODE	TECH. CODE	SIZE	PN	
41.31.092	VS0143003ANN	3/8"	55	90
41.31.102	VS0143005ANN	1/2"	55	50
41.31.112	VS0143007ANN	3/4"	45	30
41.31.122	VS0143010ANN	1"	45	20
41.31.132	VS0143012ANN	1 1/4"	35	12
41.31.142	VS0143015ANN	1 1/2"	35	8
41.31.152	VS0143020ANN	2"	35	5

143 ▲



RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROT ALUMINIUM FLÜGELGRIF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.093	VS0143003PRN	3/8"	55	80
41.31.103	VS0143005PRN	1/2"	55	60
41.31.113	VS0143007PRN	3/4"	45	40
41.31.123	VS0143010PRN	1"	45	30

143 ▲



BLACK ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA NERA
/ SHWARZ ALUMINIUM FLÜGELGRIF / MANETTE ALUMINIUM PAPILLON NOIRE

CODE	TECH. CODE	SIZE	PN	
41.31.095	VS0143003PNN	3/8"	55	80
41.31.105	VS0143005PNN	1/2"	55	60
41.31.115	VS0143007PNN	3/4"	45	40
41.31.125	VS0143010PNN	1"	45	30

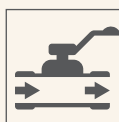
143-CP ◆



SEALABLE CAP / CAPPuccio PIOMBABILE
/ PLOMBIERUNGSKAPPE / MANETTE SCELLABILE

CODE	TECH. CODE	SIZE	PN	
41.31.106	VS0143005CPN	1/2"	55	60
41.31.116	VS0143007CPN	3/4"	45	44
41.31.126	VS0143010CPN	1"	45	24

143M - M/F



100%
FULL
BORE

ISO
228



BALL VALVE MOD.143M M/F - FULL BORE

/ VALVOLA A SFERA MOD. 143M M/F - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 143M AG/IG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 143M M/F - PASSAGE INTÉGRALE

143M ● RED ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO ROSSA
/ ROT ALUMINIUM HEBELGRIF / MANETTE ALUMINIUM LEVIER ROUGE



CODE	TECH. CODE	SIZE	PN	
41.31.170	VS0143M05ARN	1/2"	55	50
41.31.180	VS0143M07ARN	3/4"	45	35
41.31.190	VS0143M10ARN	1"	45	20
41.31.200	VS0143M12ARN	1 1/4"	35	12
41.31.210	VS0143M15ARN	1 1/2"	35	8
41.31.220	VS0143M20ARN	2"	35	5

143M ●



BLACK ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO NERA
/ SHWARZ ALUMINIUM HEBELGRIF / MANETTE ALUMINIUM LEVIER NOIRE

CODE	TECH. CODE	SIZE	PN	
41.31.172	VS0143M05ANN	1/2"	55	50
41.31.182	VS0143M07ANN	3/4"	45	35
41.31.192	VS0143M10ANN	1"	45	20
41.31.202	VS0143M12ANN	1 1/4"	35	12
41.31.212	VS0143M15ANN	1 1/2"	35	8
41.31.222	VS0143M20ANN	2"	35	5

143M ▲



RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROT ALUMINIUM FLÜGELGRIF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.173	VS0143M05PRN	1/2"	55	60
41.31.183	VS0143M07PRN	3/4"	45	40
41.31.193	VS0143M10PRN	1"	45	30

143M ▲



BLACK ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA NERA
/ SHWARZ ALUMINIUM FLÜGELGRIF / MANETTE ALUMINIUM PAPILLON NOIRE

CODE	TECH. CODE	SIZE	PN	
41.31.175	VS0143M05PNN	1/2"	55	60
41.31.185	VS0143M07PNN	3/4"	45	40
41.31.195	VS0143M10PNN	1"	45	30

143M-CP ◆



SEALABLE CAP / CAPPUCIO PIOMBABILE
/ PLOMBIERUNGSKAPPE / MANETTE SCELLABLE

CODE	TECH. CODE	SIZE	PN	
41.31.176	VS0143M05CPN	1/2"	55	50
41.31.186	VS0143M07CPN	3/4"	45	35
41.31.196	VS0143M10CPN	1"	45	25

RED ALUMINIUM HANDLE

/ MANIGLIA IN ALLUMINIO ROSSA
/ ROTER ALUMINIUM HEBELGRIFF
/ MANETTE ALUMINIUM LEVIER ROUGE



TECH. CODE	SIZE	
MN0ALLT00ROS	ALL-0	200
MN0ALLT01ROS	ALL-1	200
MN0ALLT02ROS	ALL-2	150
MN0ALLT03ROS	ALL-3	100
MN0ALLT04ROS	ALL-4	50

RED ALUMINIUM BUTTERFLY HANDLE

/ MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROTERE ALUMINIUM FLÜGELGRIFF
/ MANETTE ALUMINIUM PAPILLON ROUGE



TECH. CODE	SIZE	
MN0ALLT07ROS	ALL-7	400
MN0ALLT08ROS	ALL-8	400

BLACK ALUMINIUM HANDLE

/ MANIGLIA IN ALLUMINIO NERA
/ SCHWARZER ALUMINIUM HEBELGRIFF
/ MANETTE ALUMINIUM LEVIER NOIRE



TECH. CODE	SIZE	
MN0ALLT00NER	ALL-0	200
MN0ALLT01NER	ALL-1	200
MN0ALLT02NER	ALL-2	150
MN0ALLT03NER	ALL-3	100
MN0ALLT04NER	ALL-4	50

BLACK ALUMINIUM BUTTERFLY HANDLE

/ MANIGLIA IN ALLUMINIO A FARFALLA NERA
/ SCHWARZER ALUMINIUM-FLÜGELGRIFF
/ MANETTE ALUMINIUM PAPILLON NOIRE



TECH. CODE	SIZE	
MN0ALLT07NER	ALL-7	400
MN0ALLT08NER	ALL-8	400

BLUE ALUMINIUM HANDLE

/ MANIGLIA IN ALLUMINIO BLU
/ BLAUER ALUMINIUM HEBELGRIFF
/ MANETTE ALUMINIUM LEVIER BLEU



TECH. CODE	SIZE	
MN0ALLT00BLU	ALL-0	200
MN0ALLT01BLU	ALL-1	200
MN0ALLT02BLU	ALL-2	150
MN0ALLT03BLU	ALL-3	100
MN0ALLT04BLU	ALL-4	50

SEALABLE CAP

/ CAPPUCCIO PIOMBABILE
/ PLOMBIERUNGSKAPPE
/ TIGE SCELLABLE



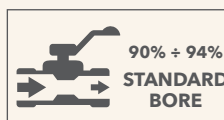
TECH. CODE	SIZE	
CP061100200N	1/2" - 3/4" - 1"	300
CP061100300N	1 1/4" - 1 1/2"	250
CP061100400N	2"	100

MODEL SIZE	TYPE OF HANDLE	
	ALUMINIUM 	BUTTERFLY 
145		
1/2"	ALL-1	ALL-7
3/4"	ALL-2	ALL-8
1"	ALL-2	ALL-8
1 1/4"	ALL-3	-
1 1/2"	ALL-3	-
2"	ALL-4	-
143 - 143M		
1/4"	ALL-0	ALL-7
3/8"	ALL-0	ALL-7
1/2"	ALL-1	ALL-7
3/4"	ALL-1	ALL-8
1"	ALL-2	ALL-8
1 1/4"	ALL-3	-
1 1/2"	ALL-3	-
2"	ALL-4	-

BALL VALVES - SPR SERIES

/ VALVOLE A SFERA - SERIE SPR
/ KUGELHÄHNE - SERIE SPR
/ VANNES À BOISSEAU - SÉRIE SPR

440 - F/F



ISO
228



BALL VALVE MOD.440 F/F - STANDARD BORE

/ VALVOLA A SFERA MOD. 440 F/F - PASSAGGIO STANDARD
/ KUGELHAHN MOD. 440 IG/IG - STANDARD DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 440 F/F - PASSAGE STANDARD

440 ● RED ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO ROSSA
/ ROT ALUMINIUM HEBELGRIFF / MANETTE ALUMINIUM LEVIER ROUGE



CODE	TECH. CODE	SIZE	PN	
41.32.530	VS0440005ARN	1/2"	40	60
41.32.535	VS0440007ARN	3/4"	30	40
41.32.540	VS0440010ARN	1"	30	30

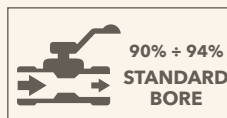
440 ▲



RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.32.531	VS0440005PRN	1/2"	40	90
41.32.536	VS0440007PRN	3/4"	30	50
41.32.541	VS0440010PRN	1"	30	30

440M - M/F



ISO
228



BALL VALVE MOD.440M M/F - STANDARD BORE

/ VALVOLA A SFERA MOD. 440M M/F - PASSAGGIO STANDARD
/ KUGELHAHN MOD. 440M AG/IG - STANDARD DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 440M M/F - PASSAGE STANDARD

440M  RED ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO ROSSA
/ ROT ALUMINIUM HEBELGRIFF / MANETTE ALUMINIUM LEVIER ROUGE



CODE	TECH. CODE	SIZE	PN	
41.32.570	VS0440M05ARN	1/2"	40	60
41.32.575	VS0440M07ARN	3/4"	30	40
41.32.580	VS0440M10ARN	1"	30	30

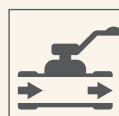
440M 



RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.32.571	VS0440M05PRN	1/2"	40	90
41.32.576	VS0440M07PRN	3/4"	30	50
41.32.581	VS0440M10PRN	1"	30	30

139 - F/F

100%
FULL
BOREISO
7/1

BALL VALVE MOD.139 F/F - FULL BORE

/ VALVOLA A SFERA MOD. 139 F/F - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 139 IG/IG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 139 F/F - PASSAGE INTÉGRALE

139 ● RED ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO ROSSA
/ ROT ALUMINIUM HEBELGRIFF / MANETTE ALUMINIUM LEVIER ROUGE



CODE	TECH. CODE	SIZE	PN	
41.31.230	VS0139003ARN	3/8"	45	80
41.31.240	VS0139005ARN	1/2"	45	50
41.31.250	VS0139007ARN	3/4"	35	30
41.31.260	VS0139010ARN	1"	35	25
41.31.270	VS0139012ARN	1 1/4"	25	12
41.31.280	VS0139015ARN	1 1/2"	25	8
41.31.290	VS0139020ARN	2"	25	5

139 ●



BLACK ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO NERA
/ SHWARZ ALUMINIUM HEBELGRIFF / MANETTE ALUMINIUM LEVIER NOIR

CODE	TECH. CODE	SIZE	PN	
41.31.232	VS0139003ANN	3/8"	45	80
41.31.242	VS0139005ANN	1/2"	45	50
41.31.252	VS0139007ANN	3/4"	35	30
41.31.262	VS0139010ANN	1"	35	25
41.31.272	VS0139012ANN	1 1/4"	25	12
41.31.282	VS0139015ANN	1 1/2"	25	8
41.31.292	VS0139020ANN	2"	25	5

139 ●



BLUE ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO BLU
/ BLAUE ALUMINIUM HEBELGRIFF / MANETTE ALUMINIUM LEVIER BLEU

CODE	TECH. CODE	SIZE	PN	
41.31.241	VS0139005ABN	1/2"	45	50
41.31.251	VS0139007ABN	3/4"	35	30
41.31.261	VS0139010ABN	1"	35	25

139 ■



RED IRON HANDLE / MANIGLIA ACCIAIO ROSSA
/ ROT EISENHEBELGRIFF / MANETTE ACIER LEVIER ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.243	VS0139005FRN	1/2"	45	50
41.31.253	VS0139007FRN	3/4"	35	30
41.31.263	VS0139010FRN	1"	35	25
41.31.273	VS0139012FRN	1 1/4"	25	12
41.31.283	VS0139015FRN	1 1/2"	25	8
41.31.293	VS0139020FRN	2"	25	5

BALL VALVE MOD.139 F/F - FULL BORE

/ VALVOLA A SFERA MOD. 139 F/F - PASSAGGIO TOTALE
 / KUGELHAHN MOD. 139 IG/IG - VOLLER DURCHGANG
 / VANNE BOISSEAU SPHÉRIQUE MOD. 139 F/F - PASSAGE INTÉGRALE

139 ▲

RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
 / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE



CODE	TECH. CODE	SIZE	PN	
41.31.235	VS0139003PRN	3/8"	45	80
41.31.245	VS0139005PRN	1/2"	45	70
41.31.255	VS0139007PRN	3/4"	35	50
41.31.265	VS0139010PRN	1"	35	30

139 ▲

BLACK ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA NERA
 / SCHWARZ ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON NOIRE

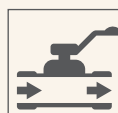
CODE	TECH. CODE	SIZE	PN	
41.31.247	VS0139005PNN	1/2"	45	70
41.31.257	VS0139007PNN	3/4"	35	50
41.31.267	VS0139010PNN	1"	35	30

139 ▲

BLUE ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA BLU
 / BLAUE ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON BLEU

CODE	TECH. CODE	SIZE	PN	
41.31.246	VS0139005PBN	1/2"	45	70
41.31.256	VS0139007PBN	3/4"	35	50
41.31.266	VS0139010PBN	1"	35	30

139M - M/F



100%
FULL
BORE

ISO
7/1



BALL VALVE MOD.139M M/F - FULL BORE

/ VALVOLA A SFERA MOD. 139M M/F - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 139M AG/IG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 139M M/F - PASSAGE INTÉGRALE

139M ● RED ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO ROSSA
/ ROT ALUMINIUM HEBELGRIF / MANETTE ALUMINIUM LEVIER ROUGE



CODE	TECH. CODE	SIZE	PN	
41.31.300	VS0139M05ARN	1/2"	45	50
41.31.310	VS0139M07ARN	3/4"	35	30
41.31.320	VS0139M10ARN	1"	35	25
41.31.330	VS0139M12ARN	1 1/4"	25	12
41.31.340	VS0139M15ARN	1 1/2"	25	8
41.31.350	VS0139M20ARN	2"	25	5

139M ●



BLACK ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO NERA
/ SHWARZ ALUMINIUM HEBELGRIF / MANETTE ALUMINIUM LEVIER NOIRE

CODE	TECH. CODE	SIZE	PN	
41.31.302	VS0139M05ANN	1/2"	45	50
41.31.312	VS0139M07ANN	3/4"	35	30
41.31.322	VS0139M10ANN	1"	35	25
41.31.332	VS0139M12ANN	1 1/4"	25	12
41.31.342	VS0139M15ANN	1 1/2"	25	8
41.31.352	VS0139M20ANN	2"	25	5

139M ●



BLUE ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO BLU
/ BLAUE ALUMINIUM HEBELGRIF / MANETTE ALUMINIUM LEVIER BLEU

CODE	TECH. CODE	SIZE	PN	
41.31.301	VS0139M05ABN	1/2"	45	50
41.31.311	VS0139M07ABN	3/4"	35	30
41.31.321	VS0139M10ABN	1"	35	25

139M ■



RED IRON HANDLE / MANIGLIA ACCIAIO ROSSA
/ ROT EISENHEBELGRIF / MANETTE ACIER LEVIER ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.303	VS0139M05FRN	1/2"	45	50
41.31.313	VS0139M07FRN	3/4"	35	30
41.31.323	VS0139M10FRN	1"	35	25

BALL VALVE MOD.139M M/F - FULL BORE

/ VALVOLA A SFERA MOD. 139M M/F - PASSAGGIO TOTALE
 / KUGELHAHN MOD. 139M AG/IG - VOLLER DURCHGANG
 / VANNE BOISSEAU SPHÉRIQUE MOD. 139M M/F - PASSAGE INTÉGRALE

139M ▲

RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
 / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE



CODE	TECH. CODE	SIZE	PN	
41.31.305	VS0139M05PRN	1/2"	45	50
41.31.315	VS0139M07PRN	3/4"	35	30
41.31.325	VS0139M10PRN	1"	35	25

139M ▲

BLACK ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA NERA
 / SCHWARZ ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON NOIRE

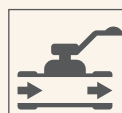
CODE	TECH. CODE	SIZE	PN	
41.31.307	VS0139M05PNN	1/2"	45	70
41.31.317	VS0139M07PNN	3/4"	35	50
41.31.327	VS0139M10PNN	1"	35	30

139M ▲

BLUE ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA BLU
 / BLAUE ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON BLEU

CODE	TECH. CODE	SIZE	PN	
41.31.306	VS0139M05PBN	1/2"	45	70
41.31.316	VS0139M07PBN	3/4"	35	50
41.31.326	VS0139M10PBN	1"	35	30

141 - F/F

100%
FULL
BOREISO
228

BALL VALVE MOD.141 F/F - FULL BORE

/ VALVOLA A SFERA MOD. 141 F/F - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 141 IG/IG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 141 F/F - PASSAGE INTÉGRALE

141 ●

RED ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO ROSSA
/ ROT ALUMINIUM HEBELGRIFF / MANETTE ALUMINIUM LEVIER ROUGE



CODE	TECH. CODE	SIZE	PN	
41.31.370	VS0141003ARN	3/8"	45	90
41.31.380	VS0141005ARN	1/2"	45	60
41.31.390	VS0141007ARN	3/4"	35	40
41.31.400	VS0141010ARN	1"	35	30
41.31.410	VS0141012ARN	1 1/4"	25	12
41.31.420	VS0141015ARN	1 1/2"	25	8
41.31.430	VS0141020ARN	2"	25	5
41.31.440	VS0141025ARN	2 1/2"	18	3

141 ■

RED IRON HANDLE / MANIGLIA ACCIAIO ROSSA
/ ROT EISENHEBELGRIFF / MANETTE ACIER LEVIER ROUGE

41.31.450	VS0141030ARN	3"	16	2
41.31.460	VS0141040ARN	4"	16	2

141 ●



BLACK ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO NERA
/ SHWARZ ALUMINIUM HEBELGRIFF / MANETTE ALUMINIUM LEVIER NOIRE

CODE	TECH. CODE	SIZE	PN	
41.31.372	VS0141003ANN	3/8"	45	90
41.31.382	VS0141005ANN	1/2"	45	60
41.31.392	VS0141007ANN	3/4"	35	40
41.31.402	VS0141010ANN	1"	35	30
41.31.412	VS0141012ANN	1 1/4"	25	12
41.31.422	VS0141015ANN	1 1/2"	25	8
41.31.432	VS0141020ANN	2"	25	5

141 ■



RED IRON HANDLE / MANIGLIA ACCIAIO ROSSA
/ ROT EISENHEBELGRIFF / MANETTE ACIER LEVIER ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.383	VS0141005FRN	1/2"	45	60
41.31.393	VS0141007FRN	3/4"	35	40
41.31.403	VS0141010FRN	1"	35	25
41.31.413	VS0141012FRN	1 1/4"	25	12
41.31.423	VS0141015FRN	1 1/2"	25	8
41.31.433	VS0141020FRN	2"	25	5

BALL VALVE MOD.141 F/F - FULL BORE

/ VALVOLA A SFERA MOD. 141 F/F - PASSAGGIO TOTALE
 / KUGELHAHN MOD. 141 AG/IG - VOLLER DURCHGANG
 / VANNE BOISSEAU SPHÉRIQUE MOD. 141 F/F - PASSAGE INTÉGRALE

141 ▲

RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
 / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE



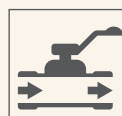
CODE	TECH. CODE	SIZE	PN	
41.31.375	VS0141003PRN	3/8"	45	130
41.31.385	VS0141005PRN	1/2"	45	80
41.31.395	VS0141007PRN	3/4"	35	50
41.31.405	VS0141010PRN	1"	35	35
41.31.415	VS0141012PRN	1 1/4"	25	20

**141 ▲**

BLACK ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA NERA
 / SCHWARZ ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON NOIRE

CODE	TECH. CODE	SIZE	PN	
41.31.387	VS0141005PNN	1/2"	45	80
41.31.397	VS0141007PNN	3/4"	35	50
41.31.407	VS0141010PNN	1"	35	35

147 - F/M



100%
FULL
BORE

ISO
228



BALL VALVE MOD.147 F/M - FULL BORE

/ VALVOLA A SFERA MOD. 147 F/M - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 147 IG/AG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 147 F/M - PASSAGE INTÉGRALE

147 ● RED ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO ROSSA
/ ROT ALUMINIUM HEBELGRIF / MANETTE ALUMINIUM LEVIER ROUGE



CODE	TECH. CODE	SIZE	PN	
41.31.520	VS0147003ARN	3/8"	45	90
41.31.530	VS0147005ARN	1/2"	45	60
41.31.540	VS0147007ARN	3/4"	35	40
41.31.550	VS0147010ARN	1"	35	25
41.31.560	VS0147012ARN	1 1/4"	20	15
41.31.570	VS0147015ARN	1 1/2"	20	12
41.31.580	VS0147020ARN	2"	20	6

147 ●



BLACK ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO NERA
/ SHWARZ ALUMINIUM HEBELGRIF / MANETTE ALUMINIUM LEVIER NOIRE

CODE	TECH. CODE	SIZE	PN	
41.31.522	VS0147003ANN	3/8"	45	90
41.31.532	VS0147005ANN	1/2"	45	60
41.31.542	VS0147007ANN	3/4"	35	40
41.31.552	VS0147010ANN	1"	35	25
41.31.562	VS0147012ANN	1 1/4"	20	15
41.31.572	VS0147015ANN	1 1/2"	20	12
41.31.582	VS0147020ANN	2"	20	6

147 ■



RED IRON HANDLE / MANIGLIA ACCIAIO ROSSA
/ ROT EISENHEBELGRIF / MANETTE ACIER LEVIER ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.533	VS0147005FRN	1/2"	45	60
41.31.543	VS0147007FRN	3/4"	35	40
41.31.553	VS0147010FRN	1"	35	25
41.31.563	VS0147012FRN	1 1/4"	20	15
41.31.573	VS0147015FRN	1 1/2"	20	12
41.31.583	VS0147020FRN	2"	20	6

BALL VALVE MOD.147 F/M - FULL BORE

/ VALVOLA A SFERA MOD. 147 F/M - PASSAGGIO TOTALE
 / KUGELHAHN MOD. 147 IG/AG - VOLLER DURCHGANG
 / VANNE BOISSEAU SPHÉRIQUE MOD. 147 F/M - PASSAGE INTÉGRALE

147 ▲

RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
 / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE



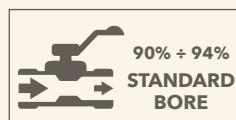
CODE	TECH. CODE	SIZE	PN	
41.31.525	VS0147003PRN	3/8"	45	130
41.31.535	VS0147005PRN	1/2"	45	80
41.31.545	VS0147007PRN	3/4"	35	50
41.31.555	VS0147010PRN	1"	35	30
41.31.565	VS0147012PRN	1 1/4"	20	20

147 ▲

BLACK ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA NERA
 / SCHWARZ ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON NOIRE

CODE	TECH. CODE	SIZE	PN	
41.31.537	VS0147005PNN	1/2"	45	80
41.31.547	VS0147007PNN	3/4"	35	50
41.31.557	VS0147010PNN	1"	35	30

140 - F/F

ISO
228

BALL VALVE MOD.140 F/F - STANDARD BORE

/ VALVOLA A SFERA MOD. 140 F/F - PASSAGGIO STANDARD
/ KUGELHAHN MOD. 140 IG/IG - STANDARD DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 140 F/F - PASSAGE STANDARD

140 ● RED ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO ROSSA
/ ROT ALUMINIUM HEBELGRIF / MANETTE ALUMINIUM LEVIER ROUGE



CODE	TECH. CODE	SIZE	PN	
41.31.670	VS0140005ARN	1/2"	40	60
41.31.680	VS0140007ARN	3/4"	30	40
41.31.690	VS0140010ARN	1"	30	30
41.31.700	VS0140012ARN	1 1/4"	20	15
41.31.710	VS0140015ARN	1 1/2"	20	12
41.31.720	VS0140020ARN	2"	20	6

140 ●

BLACK ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO NERA
/ SHWARZ ALUMINIUM HEBELGRIF / MANETTE ALUMINIUM LEVIER NOIRE

CODE	TECH. CODE	SIZE	PN	
41.31.672	VS0140005ANN	1/2"	40	60
41.31.682	VS0140007ANN	3/4"	30	40
41.31.692	VS0140010ANN	1"	30	30
41.31.702	VS0140012ANN	1 1/4"	20	15
41.31.712	VS0140015ANN	1 1/2"	20	12
41.31.722	VS0140020ANN	2"	20	6

140 ■

RED IRON HANDLE / MANIGLIA ACCIAIO ROSSA
/ ROT EISENHEBELGRIF / MANETTE ACIER LEVIER ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.673	VS0140005FRN	1/2"	40	60
41.31.683	VS0140007FRN	3/4"	30	40
41.31.693	VS0140010FRN	1"	30	30
41.31.703	VS0140012FRN	1 1/4"	20	15
41.31.713	VS0140015FRN	1 1/2"	20	12
41.31.723	VS0140020FRN	2"	20	6

BALL VALVE MOD.140 F/F - STANDARD BORE

/ VALVOLA A SFERA MOD. 140 F/F - PASSAGGIO STANDARD
 / KUGELHAHN MOD. 140 IG/IG - STANDARD DURCHGANG
 / VANNE BOISSEAU SPHÉRIQUE MOD. 140 F/F - PASSAGE STANDARD

140 ▲

RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
 / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE



CODE	TECH. CODE	SIZE	PN	
41.31.675	VS0140005PRN	1/2"	40	90
41.31.685	VS0140007PRN	3/4"	30	50
41.31.695	VS0140010PRN	1"	30	40
41.31.705	VS0140012PRN	1 1/4"	20	25

**140 ▲**

BLACK ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA NERA
 / SCHWARZ ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON NOIRE

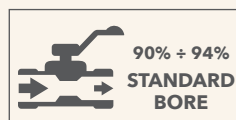
CODE	TECH. CODE	SIZE	PN	
41.31.677	VS0140005PNN	1/2"	40	90
41.31.687	VS0140007PNN	3/4"	30	50
41.31.697	VS0140010PNN	1"	30	40

**140 ▲**

BLUE ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA BLU
 / BLAU ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON BLEU

CODE	TECH. CODE	SIZE	PN	
41.31.676	VS0140005PBN	1/2"	40	90
41.31.686	VS0140007PBN	3/4"	30	50
41.31.696	VS0140010PBN	1"	30	40

140M - M/F


**ISO
228**


BALL VALVE MOD.140M M/F - STANDARD BORE

/ VALVOLA A SFERA MOD. 140M M/F - PASSAGGIO STANDARD
/ KUGELHAHN MOD. 140M AG/IG - STANDARD DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 140M M/F - PASSAGE STANDARD

140M ● RED ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO ROSSA
/ ROT ALUMINIUM HEBELGRIF / MANETTE ALUMINIUM LEVIER ROUGE



CODE	TECH. CODE	SIZE	PN	
41.31.730	VS0140M05ARN	1/2"	40	60
41.31.740	VS0140M07ARN	3/4"	30	40
41.31.750	VS0140M10ARN	1"	30	25
41.31.001	VS0140M12ARN	1 1/4"	20	15
41.31.018	VS0140M15ARN	1 1/2"	20	12
41.31.023	VS0140M20ARN	2"	20	6

140M ●



BLACK ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO NERA
/ SHWARZ ALUMINIUM HEBELGRIF / MANETTE ALUMINIUM LEVIER NOIRE

CODE	TECH. CODE	SIZE	PN	
41.31.732	VS0140M05ANN	1/2"	40	60
41.31.742	VS0140M07ANN	3/4"	30	40
41.31.752	VS0140M10ANN	1"	30	25
41.31.004	VS0140M12ANN	1 1/4"	20	15
41.31.020	VS0140M15ANN	1 1/2"	20	12
41.31.025	VS0140M20ANN	2"	20	6

140M ■



RED IRON HANDLE / MANIGLIA ACCIAIO ROSSA
/ ROT EISENHEBELGRIF / MANETTE ACIER LEVIER ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.733	VS0140M05FRN	1/2"	40	60
41.31.743	VS0140M07FRN	3/4"	30	40
41.31.753	VS0140M10FRN	1"	30	25
41.31.763	VS0140M12FRN	1 1/4"	20	15
41.31.773	VS0140M15FRN	1 1/2"	20	12
41.31.026	VS0140M20FRN	2"	20	6

BALL VALVE MOD.140M M/F - STANDARD BORE

/ VALVOLA A SFERA MOD. 140M M/F - PASSAGGIO STANDARD
 / KUGELHAHN MOD. 140M AG/IG - STANDARD DURCHGANG
 / VANNE BOISSEAU SPHÉRIQUE MOD. 140M M/F - PASSAGE STANDARD

140M ▲

RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
 / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE



CODE	TECH. CODE	SIZE	PN	
41.31.735	VS0140M05PRN	1/2"	40	90
41.31.745	VS0140M07PRN	3/4"	30	60
41.31.755	VS0140M10PRN	1"	30	35
41.31.002	VS0140M12PRN	1 1/4"	20	20

140M ▲

BLACK ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA NERA
 / SHWARZ ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON NOIRE

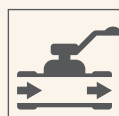
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41.31.737	VS0140M05PNN	1/2"	40	90
41.31.747	VS0140M07PNN	3/4"	30	60
41.31.757	VS0140M10PNN	1"	30	35

140M ▲

BLUE ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA BLU
 / BLAU ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON BLEU

CODE	TECH. CODE	SIZE	PN	
41.31.736	VS0140M05PBN	1/2"	40	90
41.31.746	VS0140M07PBN	3/4"	30	60
41.31.756	VS0140M10PBN	1"	30	35

148 - M/M



100%
FULL
BORE

ISO
228



BALL VALVE MOD.148M M/M - FULL BORE

/ VALVOLA A SFERA MOD. 148 M/M - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 148 AG/AG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 148 M/M - PASSAGE INTÉGRALE

148 ● RED ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO ROSSA
/ ROT ALUMINIUM HEBELGRIFF / MANETTE ALUMINIUM LEVIER ROUGE



CODE	TECH. CODE	SIZE	PN	
41.31.600	VS0148003ARN	3/8"	45	90
41.31.610	VS0148005ARN	1/2"	45	60
41.31.620	VS0148007ARN	3/4"	35	40
41.31.630	VS0148010ARN	1"	35	25
41.31.640	VS0148012ARN	1 1/4"	20	15
41.31.650	VS0148015ARN	1 1/2"	20	12
41.31.660	VS0148020ARN	2"	20	6

148 ■



RED IRON HANDLE / MANIGLIA ACCIAIO ROSSA
/ ROT EISENHEBELGRIFF / MANETTE ACIER LEVIER ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.613	VS0148005FRN	1/2"	45	60
41.31.623	VS0148007FRN	3/4"	35	40
41.31.633	VS0148010FRN	1"	35	25
41.31.643	VS0148012FRN	1 1/4"	20	15
41.31.653	VS0148015FRN	1 1/2"	20	12
41.31.663	VS0148020FRN	2"	20	6

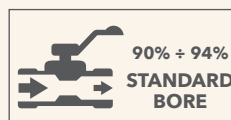
148 ▲



RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.615	VS0148005PRN	1/2"	45	80
41.31.625	VS0148007PRN	3/4"	35	50
41.31.635	VS0148010PRN	1"	35	30

141A - F/F



ISO
228



BALL VALVE MOD.141A F/F 90°- STANDARD BORE

/ VALVOLA A SFERA MOD. 141A F/F 90°- PASSAGGIO STANDARD
/ KUGELHAHN MOD. 141A IG/IG 90°- STANDARD DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 141A F/F 90°- PASSAGE STANDARD

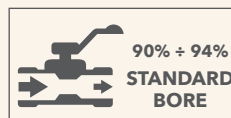


141A ▲

RED ALUMINIUM BUTTERFLY HANDLE
/ MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROT ALUMINIUM FLÜGELGRIFF
/ MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.32.150	VS0141A05PRN	1/2"	45	70
41.32.160	VS0141A07PRN	3/4"	35	50

147B - F/M



ISO
228



BALL VALVE MOD.147B - F/M 90°- STANDARD BORE

/ VALVOLA A SFERA MOD. 147B - F/M 90°- PASSAGGIO STANDARD
/ KUGELHAHN MOD. 147B - IG/AG 90°- STANDARD DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 147B - F/M 90°- PASSAGE STANDARD

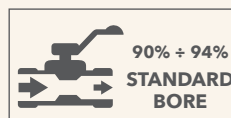


147B ▲

RED ALUMINIUM BUTTERFLY HANDLE
/ MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROT ALUMINIUM FLÜGELGRIFF
/ MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.32.120	VS0147B05PRN	1/2"	45	70
41.32.130	VS0147B07PRN	3/4"	35	50
41.32.140	VS0147B10PRN	1"	35	25

148A - M/M



ISO
228



BALL VALVE MOD.148A - M/M 90°- STANDARD BORE

/ VALVOLA A SFERA 148A - M/M 90°- PASSAGGIO STANDARD
/ KUGELHAHN MOD. 148A - AG/AG 90°- STANDARD DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 148A - M/M 90°- PASSAGE STANDARD



148A ▲

RED ALUMINIUM BUTTERFLY HANDLE
/ MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROT ALUMINIUM FLÜGELGRIFF
/ MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.32.180	VS0148A05PRN	1/2"	45	70
41.32.190	VS0148A07PRN	3/4"	35	50

141L - F/F



100%
FULL
BORE

ISO
228



BALL VALVE MOD.141L F/F - FULL BORE

/ VALVOLA A SFERA MOD. 141L F/F - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 141L IG/IG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 141L F/F - PASSAGE INTÉGRALE



141L ■

WITH ASSEMBLED AXE EXTENSION FOR HEAT INSULATION
/ CON PROLUNGATORE D'ASTA PER ISOLAMENTO TERMICO
/ MIT MONTIERTER VERLÄNGERUNG FÜR WÄRMEDÄMMUNG
/ AVEC ALLONGE POUR ISOLATION THERMIQUE

RED IRON HANDLE / MANIGLIA ACCIAIO ROSSA
/ ROT EISENHEBELGRIF / MANETTE ACIER LEVIER ROUGE

CODE	TECH. CODE	SIZE	PN	
41.32.275	VSL141005FRN	1/2"	45	40
41.32.280	VSL141007FRN	3/4"	35	30
41.32.285	VSL141010FRN	1"	35	25
41.32.290	VSL141012FRN	1 1/4"	25	10
41.32.295	VSL141015FRN	1 1/2"	25	6
41.32.300	VSL141020FRN	2"	25	4

141H - F/F



100%
FULL
BORE

ISO
228



BALL VALVE MOD.141H F/F - FULL BORE

/ VALVOLA A SFERA MOD. 141H F/F - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 141H IG/IG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 141H F/F - PASSAGE INTÉGRALE



141H ■

WITH ASSEMBLED EXTENSION FOR HEAT INSULATION
/ CON PROLUNGA FISSA PER ISOLAMENTO TERMICO
/ MIT MONTIERTER VERLÄNGERUNG FÜR WÄRMEDÄMMUNG
/ AVEC ALLONGE POUR ISOLATION THERMIQUE

RED ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO ROSSA
/ ROT ALUMINIUM HEBELGRIF / MANETTE ALUMINIUM LEVIER ROUGE

CODE	TECH. CODE	SIZE	PN	
41.32.302	VSH141005ARN	1/2"	45	40
41.32.303	VSH141007ARN	3/4"	35	30
41.32.304	VSH141010ARN	1"	35	25
41.32.305	VSH141012ARN	1 1/4"	25	12
41.32.306	VSH141015ARN	1 1/2"	25	8
41.32.307	VSH141020ARN	2"	25	4

610 - 949

610 - 949

EXTENSION FOR HEAT INSULATION
/ PROLUNGA FISSA PER ISOLAMENTO TERMICO
/ MONTIERTER VERLÄNGERUNG FÜR WÄRMEDÄMMUNG
/ AVEC ALLONGE POUR ISOLATION THERMIQUE



CODE	TECH. CODE	MOD.		
4132910	VA094900310N	A	10	160
4132911	VA094901215N	B	10	80
4132912	VA061002000N	C	5	30
	VA0949025ROS	D	1	10

CODE	MOD. OF EXTENSION		
	A	B	C

139			
3/8"	•		
1/2"	•		
3/4"	•		
1"	•		
1 1/4"		•	
1 1/2"		•	
2"		•	

139M			
1/2"	•		
3/4"	•		
1"	•		
1 1/4"		•	
1 1/2"		•	
2"		•	

140			
1/2"	•		
3/4"	•		
1"	•		
1 1/4"	•		
1 1/2"		•	
2"		•	

140M			
1/2"	•		
3/4"	•		
1"	•		
1 1/4"	•		
1 1/2"		•	
2"		•	

140B			
1/2"	•		
3/4"	•		
1"	•		

141			
3/8"	•		
1/2"	•		
3/4"	•		
1"	•		
1 1/4"		•	
1 1/2"		•	
2"		•	
2 1/2"			D

141A			
1/2"	•		
3/4"	•		

CODE	MOD. OF EXTENSION		
	A	B	C

143			
3/8"	•		
1/2"	•		
3/4"	•		
1"	•		
1 1/4"		•	
1 1/2"		•	
2"			•

143M			
1/2"	•		
3/4"	•		
1"	•		
1 1/4"		•	
1 1/2"		•	
2"			•

144			
1/2"	•		
3/4"	•		
1"	•		
1 1/4"		•	
1 1/2"		•	
2"		•	

144M			
1/2"	•		
3/4"	•		
1"	•		

145			
3/8"	•		
1/2"	•		
3/4"	•		
1"	•		
1 1/4"		•	
1 1/2"		•	
2"			•

146A			
1/2"	•		
3/4"	•		
1"	•		

146B			
1/2"	•		
3/4"	•		
1"	•		
1 1/4"		•	

CODE	MOD. OF EXTENSION		
	A	B	C

147			
3/8"	•		
1/2"	•		
3/4"	•		
1"	•		
1 1/4"		•	
1 1/2"		•	
2"		•	

147B			
1/2"	•		
3/4"	•		
1"	•		

148			
3/8"	•		
1/2"	•		
3/4"	•		
1"	•		
1 1/4"		•	
1 1/2"		•	
2"		•	

148A			
1/2"	•		
3/4"	•		

149			
1/2"	•		
3/4"	•		
1"	•		

303			
15	•		
22	•		
28	•		
35		•	

ACCESSORIES

/ ACCESSORI
/ ZUBEHÖR
/ ACCESSOIRES

RED ALUMINIUM HANDLE

/ MANIGLIA IN ALLUMINIO ROSSA
/ ROTER ALUMINIUM HEBELGRIFF
/ MANETTE ALUMINIUM LEVIER ROUGE



TECH. CODE	SIZE	
MN0ALLT0AROS	ALL-A	300
MN0ALLT0BROS	ALL-B	250
MN0ALLT0CROS	ALL-C	100
MN0ALLT0DROS	ALL-D	80

RED ALUMINIUM BUTTERFLY HANDLE

/ MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROTER ALUMINIUM FLÜGELGRIFF
/ MANETTE ALUMINIUM PAPILLON ROUGE



TECH. CODE	SIZE	
MN0ALLT0EROS	ALL-E	800
MN0ALLT0FROS	ALL-F	500
MN0ALLT0GROS	ALL-G	250

RED PLASTIC COVERED FLAT IRON ZINC PLATED HANDLE

/ MANIGLIA PIATTA ACCIAIO ZINCATA CON
COPERTURA IN PLASTICA ROSSA
/ VERZINKTER EISENHEBELGRIFF
KUNSTSTOFFBESCHICHTET ROT
/ MANETTE ACIER REVETEMENT PLASTIQUE
ROUGE



TECH. CODE	SIZE	
MN0ACCT00ROS	ACC-0	400
MN0ACCT01ROS	ACC-1	200
MN0ACCT02ROS	ACC-2	150
MN0ACCT03ROS	ACC-3	100

BLACK ALUMINIUM HANDLE

/ MANIGLIA IN ALLUMINIO NERA
/ SCHWARZER ALUMINIUM HEBELGRIFF
/ MANETTE ALUMINIUM PAPILLON NOIRE



TECH. CODE	SIZE	
MN0ALLT0ANER	ALL-A	300
MN0ALLT0BNER	ALL-B	250
MN0ALLT0CNER	ALL-C	100
MN0ALLT0DNER	ALL-D	80

BLUE ALUMINIUM HANDLE

/ MANIGLIA IN ALLUMINIO BLU
/ BLAUER ALUMINIUM HEBELGRIFF
/ MANETTE ALUMINIUM LEVIER BLEU



TECH. CODE	SIZE	
MN0ALLT0ABLU	ALL-A	300
MN0ALLT0BBLU	ALL-B	250
MN0ALLT0CBLU	ALL-C	100
MN0ALLT0DBLU	ALL-D	80

BLUE ALUMINIUM BUTTERFLY HANDLE

/ MANIGLIA IN ALLUMINIO A FARFALLA BLU
/ BLAUER ALUMINIUM FLÜGELGRIFF
/ MANETTE PAPILLON EN ALUMINIUM BLEU



TECH. CODE	SIZE	
MN0ALLT0EBLU	ALL-E	800
MN0ALLT0FBLU	ALL-F	500
MN0ALLT0GBLU	ALL-G	250

BLUE PLASTIC COVERED FLAT IRON ZINC PLATED HANDLE

/ MANIGLIA PIATTA ACCIAIO ZINCATA CON
COPERTURA IN PLASTICA BLU
/ VERZINKTER EISENHEBELGRIFF
KUNSTSTOFFBESCHICHTET BLAU
/ MANETTE ACIER REVETEMENT
PLASTIQUE BLEU



TECH. CODE	SIZE	
MN0ACCT00BLU	ACC-0	400
MN0ACCT01BLU	ACC-1	200
MN0ACCT02BLU	ACC-2	150
MN0ACCT03BLU	ACC-3	100

BLACK ALUMINIUM BUTTERFLY HANDLE

/ MANIGLIA IN ALLUMINIO A FARFALLA NERA
/ SCHWARZER ALUMINIUM FLÜGELGRIFF
/ MANETTE PAPILLON EN ALUMINIUM NOIRE



TECH. CODE	SIZE	
MN0ALLT0ENER	ALL-E	800
MN0ALLT0FNER	ALL-F	500
MN0ALLT0GNER	ALL-G	250

ART. NUMBER / ARTICOLO / ARTIKEL / ARTICLE	TYPE OF HANDLE / TIPOLOGIA MANIGLIA / GRIFF / TYPE DE POIGNÉE		
	ALUMINIUM	IRON	BUTTERFLY
			

137 - 137M			
1/2"	ALL-A	-	ALL-E
3/4"	ALL-B	-	ALL-F
1"	ALL-B	-	ALL-F
139 - 139M			
3/8"	ALL-A	ACC-0	ALL-E
1/2"	ALL-A	ACC-0	ALL-E
3/4"	ALL-B	ACC-1	ALL-F
1"	ALL-B	ACC-1	ALL-F
1 1/4"	ALL-C	ACC-2	ALL-G
1 1/2"	ALL-C	ACC-2	-
2"	ALL-D	ACC-3	-

140 - 140M			
1/2"	ALL-A	ACC-0	ALL-E
3/4"	ALL-A	ACC-0	ALL-F
1"	ALL-B	ACC-1	ALL-F
1 1/4"	ALL-B	ACC-1	ALL-F
1 1/2"	ALL-C	ACC-2	-
2"	ALL-D	ACC-3	-

141 - 147 - 148			
3/8"	ALL-A	ACC-0	ALL-E
1/2"	ALL-A	ACC-0	ALL-E
3/4"	ALL-B	ACC-0	ALL-F
1"	ALL-B	ACC-1	ALL-F
1 1/4"	ALL-C	ACC-2	ALL-G
1 1/2"	ALL-C	ACC-2	-
2"	ALL-D	ACC-3	-

144 - 144M - 149			
1/2"	ALL-A	ACC-0	ALL-E
3/4"	ALL-B	ACC-1	ALL-F
1"	ALL-B	ACC-1	ALL-F
1 1/4"	ALL-C	ACC-2	ALL-G
1 1/2"	ALL-C	ACC-2	-
2"	ALL-D	ACC-3	-

141A - 147B - 148A			
1/2"	-	-	ALL-E
3/4"	-	-	ALL-F
1"	-	-	ALL-F

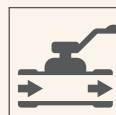
303			
15	ALL-A	ACC-0	ALL-E
22	ALL-B	ACC-1	ALL-F
28	ALL-B	ACC-1	ALL-F
35	ALL-C	ACC-2	ALL-G

315 - 317			
1/2" x 16	ALL-A	ACC-0	ALL-E
1/2" x 20	ALL-A	ACC-0	ALL-E

BALL VALVES FOR SPECIAL APPLICATIONS

/ VALVOLE A SFERA PER APPLICAZIONI SPECIALI
/ KUGELHAHN FÜR SONDERANWENDUNGEN
/ VANNES À BOISSEAU SPHÉRIQUE POUR APPLICATIONS SPÉCIALES

144 - F/F



100%
FULL
BORE

ISO
228



BALL VALVE MOD.144 F/F - FULL BORE

/ VALVOLA A SFERA MOD. 144 M/M - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 144 AG/AG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 144 M/M - PASSAGE INTÉGRALE

144 ● RED ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO ROSSA
/ ROT ALUMINIUM HEBELGRIF / MANETTE ALUMINIUM LEVIER ROUGE



WITH DRAIN OFF
/ CON SPURGO
/ MIT ABLASSVENTIL
/ AVEC PURGE

CODE	TECH. CODE	SIZE	PN	
41.31.830	VS0144005ARN	1/2"	45	40
41.31.840	VS0144007ARN	3/4"	35	25
41.31.850	VS0144010ARN	1"	35	20
41.31.860	VS0144012ARN	1 1/4"	20	12
41.31.870	VS0144015ARN	1 1/2"	20	8
41.31.880	VS0144020ARN	2"	20	5

144 ■



RED IRON HANDLE / MANIGLIA ACCIAIO ROSSA
/ ROT EISENHEBELGRIF / MANETTE ACIER LEVIER ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.833	VS0144005FRN	1/2"	45	40
41.31.843	VS0144007FRN	3/4"	35	25
41.31.853	VS0144010FRN	1"	35	20
41.31.863	VS0144012FRN	1 1/4"	20	12
41.31.873	VS0144015FRN	1 1/2"	20	8
41.31.883	VS0144020FRN	2"	20	5

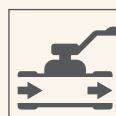
144 ▲



RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROT ALUMINIUM FLÜGELGRIF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.835	VS0144005PRN	1/2"	45	50
41.31.845	VS0144007PRN	3/4"	35	35
41.31.855	VS0144010PRN	1"	35	25

144M - M/F



100%
FULL
BORE

ISO
228



BALL VALVE MOD. 144M M/F - FULL BORE

/ VALVOLA A SFERA MOD. 144M M/F - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 144M AG/IG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 144M M/F - PASSAGE INTÉGRALE

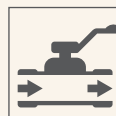
144M ● RED ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO ROSSA
/ ROT ALUMINIUM HEBELGRIFF / MANETTE ALUMINIUM LEVIER ROUGE



WITH DRAIN OFF
/ CON SPURGO
/ MIT ABLASSVENTIL
/ AVEC PURGE

CODE	TECH. CODE	SIZE	PN	
41.31.890	VS0144M05ARN	1/2"	45	40
41.31.900	VS0144M07ARN	3/4"	35	25
41.31.910	VS0144M10ARN	1"	35	20

149 - M/M



100%
FULL
BORE

ISO
228



BALL VALVE MOD. 149 M/M - FULL BORE

/ VALVOLA A SFERA MOD. 149 M/M - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 149 AG/AG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 149 M/M - PASSAGE INTÉGRALE

149 ● RED ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO ROSSA
/ ROT ALUMINIUM HEBELGRIFF / MANETTE ALUMINIUM LEVIER ROUGE



WITH DRAIN OFF
/ CON SPURGO
/ MIT ABLASSVENTIL
/ AVEC PURGE

CODE	TECH. CODE	SIZE	PN	
41.31.950	VS0149005ARN	1/2"	45	40
41.31.960	VS0149007ARN	3/4"	35	25
41.31.970	VS0149010ARN	1"	35	20

149 ▲



RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.955	VS0149005PRN	1/2"	45	50
41.31.965	VS0149007PRN	3/4"	35	35

297B**BALL VALVE MOD. 297B F NUT/TAILPIECE - FULL BORE**

/ VALVOLA A SFERA MOD. 297B F/CODOLO - PASSAGGIO TOTALE
 / KUGELHAHN MOD. 297B IG/ ROHRVERSCHRAUBUNG/GERADE AG - VOLLER DURCHGANG
 / VANNE BOISSEAU SPHÉRIQUE MOD. 297B F UNION - PASSAGE INTÉGRALE

297B ▲ **RED ALUMINIUM BUTTERFLY HANDLE / FARFALLA ROSSA ALLUMINIO**
 / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE



W/ TEMPERATURE PROBE CONNECTION
 / CON ATTACCO TERMOMETRO
 / MIT ANSCHLUSS FÜR TEMPERATURFÜHLER
 / AVEC PORTE-THERMOMÈTRE PURGE

CODE	TECH. CODE	SIZE	PN	
41.32.395	VS0297B05PRN	1/2"	30	40
41.32.400	VS0297B07PRN	3/4"	30	30
41.32.405	VS0297B10PRN	1"	30	16

297F F/F**BALL VALVE MOD. 297F F/F - FULL BORE**

/ VALVOLA A SFERA MOD. 297F F/F - PASSAGGIO TOTALE
 / KUGELHAHN MOD. 297F IG/IG - VOLLER DURCHGANG
 / VANNE BOISSEAU SPHÉRIQUE MOD. 297F F/F - PASSAGE INTÉGRALE

297F ▲ **RED ALUMINIUM BUTTERFLY HANDLE / FARFALLA ROSSA ALLUMINIO**
 / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE



W/ TEMPERATURE PROBE CONNECTION
 / CON ATTACCO TERMOMETRO
 / MIT ANSCHLUSS FÜR TEMPERATURFÜHLER
 / AVEC PORTE-THERMOMÈTRE PURGE

CODE	TECH. CODE	SIZE	PN	
41.32.410	VS0297F05PRN	1/2"	30	60
41.32.415	VS0297F07PRN	3/4"	30	40
41.32.420	VS0297F10PRN	1"	30	25

847**BALL VALVE MOD. 847 PRESS SYSTEM**

/ VALVOLA A SFERA MOD. 847 PRESS SYSTEM
 / KUGELHAHN MOD. 847 PRESSSYSTEM
 / VANNE BOISSEAU SPHÉRIQUE MOD. 847 À SERTIR DEUX COTÉS

847 ▲ **RED ALUMINIUM BUTTERFLY HANDLE / FARFALLA ROSSA ALLUMINIO**
 / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE



CODE	TECH. CODE	SIZE		
87.50.005	VS0847016PR0	16 x 2	10	30
87.50.010	VS0847020PR0	20 x 2	10	30
	VS0847026PRN	26 x 3 (nickel plated)	5	15
	VS0847032PRN	32 x 3 (nickel plated)	1	15

846**BALL VALVE MOD. 846 PRESS SYSTEM**

/ VALVOLA A SFERA MOD. 846 PRESS SYSTEM/F
 / KUGELHAHN MOD. 846 PRESSSYSTEM/IG
 / VANNE BOISSEAU SPHÉRIQUE MOD. 846 À SERTIR/F

846 ▲ **RED ALUMINIUM BUTTERFLY HANDLE / FARFALLA ROSSA ALLUMINIO**
 / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE



CODE	TECH. CODE	SIZE		
87.50.014	VS0846516PR0	16 x 2 - 1/2" F	10	30
87.50.015	VS0846520PR0	20 x 2 - 1/2" F	10	30

317

BALL VALVE MOD. 317 COMPRESSION FITTINGS
FOR MULTILAYER PIPE

/ VALVOLA A SFERA MOD. 317 STRINGERE PER TUBO MULTISTRATO
/ KUGELHAHN MOD. 317 MIT VERSCHRAUBUNGEN FÜR VERBUNDROHR
/ VANNE BOISSEAU SPHÉRIQUE MOD. 317 COMPRESSION TUBE MULTICOUCHE

317 ● RED ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO ROSSA
/ ROT ALUMINIUM HEBELGRIF / MANETTE ALUMINIUM LEVIER ROUGE



CODE	TECH. CODE	SIZE	PN	
41.32.250	VS0317016ARN	16 x 2 ●	10	40
41.32.260	VS0317020ARN	20 x 2 ●	10	30

● On request / su richiesta / auf Anfrage / sur demande

317 ▲



RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROT ALUMINIUM FLÜGELGRIF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.32.255	VS0317016PRN	16 x 2 ●	10	50
41.32.265	VS0317020PRN	20 x 2 ●	10	40

● On request / su richiesta / auf Anfrage / sur demande

315



BALL VALVE MOD. 315 F/COMPRESSION MULTILAYER PIPE

/ VALVOLA A SFERA MOD. 315 F/STRINGERE PER TUBO MULTISTRATO
/ KUGELHAHN MOD. 315 IG/MIT VERSCHRAUBUNGEN FÜR VERBUNDROHR
/ VANNE BOISSEAU SPHÉRIQUE MOD. 315 F/A COMPRESSION TUBE MULTICOUCHE

315 ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROT ALUMINIUM FLÜGELGRIF / MANETTE ALUMINIUM PAPILLON ROUGE



CODE	TECH. CODE	SIZE	PN	
41.32.215	VS0315516PRN	1/2" - 16 x 2	10	50
41.32.225	VS0315520PRN	1/2" - 20 x 2	10	50

303



BALL VALVE MOD. 303 COMPRESSION FOR COPPER PIPE

/ VALVOLA A SFERA MOD. 303 A COMPRESSIONE PER TUBO RAME
/ KUGELHAHN MOD. 303 MIT KLEMMVERSCHRAUBUNG FÜR KUPFERROHR
/ VANNE BOISSEAU SPHÉRIQUE MOD. 303 RACCORD BICÔNE CUIVRE

303 ● RED ALUMINIUM HANDLE / MANIGLIA ROSSA ALLUMINIO
/ ROT ALUMINIUM GRIF / MANETTE ALUMINIUM ROUGE



CODE	TECH. CODE	SIZE	PN	
41.32.010	VS0303015ARN	15 mm	16	50
41.32.030	VS0303022ARN	22 mm	16	30
41.32.040	VS0303028ARN	28 mm	16	20

349
**BALL VALVE MOD. 349 F/COMPRESSION FOR POLYETHYLENE PIPE
- BLACK ALUMINIUM BUTTERFLY HANDLE**

/ VALVOLA A SFERA MOD. 349 F/STRINGERE PER TUBO POLIETILENE -
MANIGLIA IN ALLUMINIO A FARFALLA NERA
/ KUGELHAHN MOD. 349 IG/MIT VERSCHRAUBUNGEN FÜR POLYETHYLEN
ROHR - SCHWARZER ALUMINIUM FLÜGELGRIFF
/ VANNE BOISSEAU SPHÉRIQUE MOD. 349 F/COMPRESSION POUR TUBE
POLYÉTHYLÈNE - MANETTE ALUMINIUM PAPILLON NOIRE

349 ▲

CODE	TECH. CODE	SIZE	PN	
41.32.060	VS0349525PNN	Ø 25 x 1/2" F •	16	40
41.32.062	VS0349732PNN	Ø 32 x 3/4" F •	16	20

• ON REQUEST / SU RICHIESTA / AUF ANFRAGE / SUR COMMANDE

**BALL VALVE MOD. 600 F/F BUILT-IN WITH
CHROME-PLATED CAP - FULL BORE**

/ VALVOLA A SFERA MOD. 600 F/F AD INCASSO
CON CAPPUCCIO CROMATO - PASSAGGIO
TOTALE
/ KUGELHAHN MOD. 600 IG/IG EINGEBAUT MIT
VERCHROMTER KAPPE - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 600 F/F
À ENCASTRER CACHE CHROMÉE - PASSAGE
INTÉGRALE

**600**

CODE	TECH. CODE	SIZE	PN	
41.32.472	VA060000500N	1/2"	25	25
41.32.473	VA060000700N	3/4"	25	20

**BALL VALVE MOD. 605 F/F BUILT-IN WITH
CHROME-PLATED HANDLE - FULL BORE**

/ VALVOLA A SFERA MOD. 605 F/F AD INCASSO
CON MANIGLIA CROMATA - PASSAGGIO
TOTALE
/ KUGELHAHN MOD. 605 IG/IG EINGEBAUT MIT
VERCHROMTER GRIFF - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 605 F/F
À ENCASTRER AVEC MANETTE CHROMÉE -
PASSAGE INTÉGRALE

**605**

CODE	TECH. CODE	SIZE	PN	
41.32.477	VA060500500N	1/2"	25	20
41.32.478	VA060500700N	3/4"	25	15



COMPATIBLE WITH 600 AND 605

SPINDLE EXTENSION FOR BALL VALVE

/ SET PROLUNGA PER VALVOLA A SFERA
/ SET FÜR KUGELHAHNVERLÄNGERUNG
/ ALLONGE POUR VANNES BOISSEAU SPHÉRIQUE



CODE	TECH. CODE	
41.32.479	VA06000PROLO	40

GATE VALVE MOD. 232 F/F HEAVY PATTERN

/ VALVOLA A SARACINESCA MOD. 232 F/F SERIE PESANTE
 / ABSPERRSCHIEBER MOD. 232 IG/IG SCHWERE AUSFÜHRUNG
 / VANNE GUILLotine MOD. 232 F/F SÉRIE LOURDE

**232**

CODE	TECH. CODE	SIZE	PN	
41.32.711	VA0232005000	1/2"	20	120
41.32.712	VA0232007000	3/4"	20	80
41.32.713	VA0232010000	1"	20	20
41.32.714	VA0232012000	1 1/4"	20	14
41.32.715	VA0232015000	1 1/2"	20	10
41.32.716	VA0232020000	2"	20	6
41.32.717	VA0232025000	2 1/2"	20	2
41.32.718	VA0232030000	3"	20	2
41.32.719	VA0232040000	4"	20	1

BALL VALVE MOD. 305 M/SWIVEL NUT AND RED ALUMINIUM BUTTERFLY HANDLE

/ VALVOLA SFERA MOD. 305 M/DADO PRIGIONIERO E MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
 / KUGELHAHN MOD. 305 AG/GELENKMUTTER UND ROT ALUMINIUM FLÜGELGRIFF
 / VANNE BOISSEAU SPHÉRIQUE MOD. 305 M/ÉCROU TOURNANT ET MANETTE ALLUMINIUM PAPILLON ROUGE

**305**

CODE	TECH. CODE	SIZE	PN	
41.32.470	VS0305005PRO	1/2" x 1/2"	10	100

BALL VALVE MOD. 300 FOR PUMP CONNECTION COMPRESSION END FOR COPPER PIPE

/ VALVOLA A SFERA MOD. 300 PER CIRCOLATORI A COMPRESSIONE PER TUBO RAME
 / KUGELHAHN MOD. 300 FÜR PUMPE MIT KLEMMVERBINDER FÜR KUPFERROHR
 / VANNE BOISSEAU SPHÉRIQUE MOD. 300 POUR POMPE RACCORD BICÔNE POUR TUBE CUIVRE

**300**

CODE	TECH. CODE	SIZE	PN	
41.32.460	VS0300022000	22	10	30

BALL VALVE MOD. 313 FOR BOILERS DRAIN HOSE UNION

/ VALVOLA A SFERA MOD. 313 PER SCARICO CALDAIA CON TAPPO
 / KESSELFÜLL UND ENTLEERUNGSHAHN MOD. 313
 / VANNE BOISSEAU SPHÉRIQUE MOD. 313 AVEC BOUCHON POUR VIDANGE CHAUDIÈRE

**313**

CODE	TECH. CODE	SIZE	PN	
41.32.500	VS0313005ARN	1/2" x 3/4"	10	70

BALL VALVE MOD. 304 FOR PUMP CONNECTION

/ VALVOLA A SFERA MOD. 304 F PER CIRCOLATORI
 / KUGELHAHN MOD. 304 IG FÜR PUMPE
 / VANNE BOISSEAU SPHÉRIQUE MOD. 304 F POUR POMPE

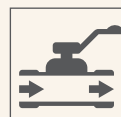
**304**

CODE	TECH. CODE	SIZE	PN	
41.32.466	VS0304010000	1"	10	30
41.32.467	VS0304012000	1 1/4"	10	25

BALL VALVES FOR MANIFOLDS

/ VALVOLE A SFERA PER COLLETTORI
/ KUGELHÄHNE FÜR VERTEILER
/ VANNES À BOISSEAU SPHÉRIQUE POUR COLLECTEURS

146B - F/M



100%
FULL
BORE

ISO
228



BALL VALVE MOD. 146B F/TAIL PIECE FOR MANIFOLD FULL BORE

/ VALVOLA A SFERA MOD. 146B F/CODOLO PER COLLETTORE
PASSAGGIO TOTALE
/ KUGELHAHN MOD. 146B IG/GEWINDEANSCHLÜSSE FÜR VERTEILER
VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 146B F/UNION M POUR COLLECTEUR
PASSAGE INTÉGRALE



146B ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.790	VS0146B05PRN	1/2"	45	60
41.31.800	VS0146B07PRN	3/4"	35	35
41.31.810	VS0146B10PRN	1"	35	20
41.31.820	VS0146B12PRN	1 1/4"	25	10



146B ▲ BLUE ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA BLU / BLAUE ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON BLEU

CODE	TECH. CODE	SIZE	PN	
41.31.791	VS0146B05PBN	1/2"	45	60
41.31.801	VS0146B07PBN	3/4"	35	35
41.31.811	VS0146B10PBN	1"	35	20
41.31.821	VS0146B12PBN	1 1/4"	25	10



146B ▲ BLACK ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA NERA / SHWARZ ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON NOIRE

CODE	TECH. CODE	SIZE	PN	
41.31.792	VS0146B05PNN	1/2"	45	60
41.31.802	VS0146B07PNN	3/4"	35	35
41.31.812	VS0146B10PNN	1"	35	20
41.31.822	VS0146B12PNN	1 1/4"	25	10

BALL VALVE MOD. 146B F WITHOUT TAIL PIECE FOR MANIFOLD FULL BORE

/ VALVOLA A SFERA MOD. 146B F SENZA CODOLO PER COLLETTORE
PASSAGGIO TOTALE
/ KUGELHAHN MOD. 146B IG/OHNE GEWINDEANSCHLÜSSE FÜR VERTEILER
VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 146B F SANS UNION M
PASSAGE INTÉGRALE



146B ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.805	VSZ146B07PRN	3/4" (A) x 1" (B)	35	50
41.31.815	VSZ146B10PRN	1" (A) x 1 1/4" (B)	35	30



146B ▲ BLUE ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA BLU / BLAUE ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON BLEU

CODE	TECH. CODE	SIZE	PN	
41.31.806	VSZ146B07PBN	3/4" (A) x 1" (B)	35	50

BALL VALVE MOD. 146B F/TAILPIECE WITH O-RING FOR MANIFOLD FULL BORE

/ VALVOLA A SFERA MOD. 146B F/CODOLO PER COLLETTORE CON O-RING
PASSAGGIO TOTALE
/ KUGELHAHN MOD. 146B IG/GEWINDEANSCHLÜSSE FÜR VERTEILER MIT O-RING
VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 146B F/UNION M POUR COLLECTEUR AVEC
JOINT TORIQUE - PASSAGE INTÉGRALE

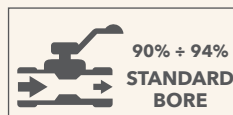


146B ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.804	VS0146B71PRN	3/4" F x 1" M	35	30
88.20.522	VS0146B10PRN	1" F x 1" M •	35	20

• REGULATION RING TAIL / CODOLO PREGUARNITO CON GHIERA GIREVOLE
/ ROHRVERSCHRAUBUNG MIT O-RING / UNION AVEC JOINT TORIQUE

140B - F/M



ISO
228



BALL VALVE MOD. 140B F/TAIL PIECE FOR MANIFOLD - STANDARD BORE

/ VALVOLA A SFERA MOD. 140B F/CODOLO PER COLLETTORE - PASSAGGIO STANDARD

/ KUGELHAHN MOD. 140B IG/GEWINDEANSCHLÜSSE FÜR VERTEILER - STANDARD DURCHGANG

/ VANNE BOISSEAU SPHÉRIQUE MOD. 140B F/UNION M POUR COLLECTEUR- PASSAGE STANDARD



140B ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.725	VS0140B05PRN	1/2"	40	60
41.31.726	VS0140B07PRN	3/4"	30	35
41.31.727	VS0140B10PRN	1"	30	20
41.31.728	VS0140B12PRN	1" 1/4	20	10



140B ▲ BLUE ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA BLU / BLAUE ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON BLEU

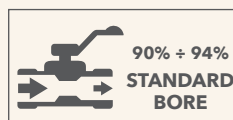
CODE	TECH. CODE	SIZE	PN	
41.31.776	VS0140B05PBN	1/2"	40	60
41.31.777	VS0140B07PBN	3/4"	30	35
41.31.778	VS0140B10PBN	1"	30	20



140B ▲ BLACK ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA NERA / SCHWARZ ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON NOIRE

CODE	TECH. CODE	SIZE	PN	
41.31.774	VS0140B05PNN	1/2"	40	60
41.31.807	VS0140B07PNN	3/4"	30	35
41.31.808	VS0140B10PNN	1"	30	20

146A - F/M



ISO
228



BALL VALVE MOD. 146A 90° F/TAIL PIECE FOR MANIFOLD STANDARD BORE

/ VALVOLA A SFERA MOD. 146A F/CODOLO 90° PER COLLETTORE
PASSAGGIO STANDARD
/ KUGELHAHN MOD. 146A IG/90° GEWINDEANSCHLÜSSE FÜR VERTEILER
STANDARD DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE 146A F/ UNION COUDÉ M POUR COLLECTEUR
PASSAGE STANDARD



146A ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.760	VS0146A05PRN	1/2"	45	50
41.31.770	VS0146A07PRN	3/4"	35	30
41.31.780	VS0146A10PRN	1"	35	18



146A ▲ BLUE ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA BLU
/ BLAUE ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON BLEU

CODE	TECH. CODE	SIZE	PN	
41.31.761	VS0146A05PBN	1/2"	45	50
41.31.771	VS0146A07PBN	3/4"	35	30
41.31.781	VS0146A10PBN	1"	35	18

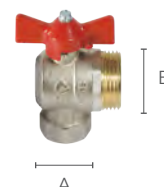


146A ▲ BLACK ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA NERA
/ SCHWARZ ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON NOIRE

CODE	TECH. CODE	SIZE	PN	
41.31.762	VS0146A05PNN	1/2"	45	50
41.31.772	VS0146A07PNN	3/4"	35	30
41.31.782	VS0146A10PNN	1"	35	18

BALL VALVE MOD. 146A 90° F WITHOUT TAIL PIECE FOR MANIFOLD STANDARD BORE

/ VALVOLA A SFERA MOD. 146A F 90° SENZA CODOLO PER COLLETTORE
PASSAGGIO STANDARD
/ KUGELHAHN MOD. 146A 90° IG/OHNE GEWINDEANSCHLÜSSE FÜR
VERTEILER - STANDARD DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE ÉQUERRE 146A F /SANS UNION M POUR
COLLECTEUR - PASSAGE STANDARD



146A ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.795	VSZ146A07PRN	3/4" (A) x 1" (B)	35	40
41.31.785	VSZ146A10PRN	1" (A) x 1 1/4" (B)	35	25



146A ▲ BLUE ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA BLU
/ BLAUE ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON BLEU

CODE	TECH. CODE	SIZE	PN	
41.31.796	VSZ146A07PBN	3/4" (A) x 1" (B)	35	40

BALL VALVE MOD. 146A F/TAILPIECE WITH O-RING 90° FOR MANIFOLD - STANDARD BORE

/ VALVOLA A SFERA MOD. 146A F 90° CODOLO PER COLLETTORE CON
O'RING - PASSAGGIO STANDARD
/ KUGELHAHN MOD. 146A IG/90° GEWINDEANSCHLÜSSE MIT O-RING FÜR
VERTEILER - STANDARD DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE ÉQUERRE MOD. 146A F/UNION M POUR
COLLECTEUR AVEC JOINT TORIQUE - PASSAGE STANDARD

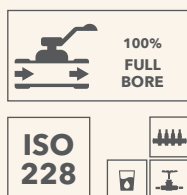


146A ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
/ ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
41.31.775	VS0146A71PRN	3/4" F x 1" M	35	18
88.20.592	VS0146A10PRN	1" F x 1" M •	35	15

• REGULATION RING TAIL / CODOLO PREGUARNITO CON GHIERA GIREVOLE
/ ROHRVERSCHRAUBUNG MIT O-RING / UNION AVEC JOINT TORIQUE

603B



BALL VALVE MOD. 603B F/TAILPIECE AND THERMOMETER FOR MANIFOLD - FULL BORE

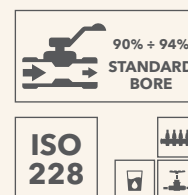
/ VALVOLA A SFERA MOD. 603B F/CODOLO E TERMOMETRO PER COLLETTORE - PASSAGGIO TOTALE
 / KUGELHAHN MOD. 603B IG/ GEWINDEANSCHLÜSSE FÜR VERTEILER UND THERMOMETER - VOLLER DURCHGANG
 / VANNE BOISSEAU SPHÉRIQUE MODÈLE 603B F/ UNION ET THERMOMÈTRE POUR COLLECTEUR - PASSAGE INTÉGRALE



603B ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
 / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN		
41.31.809	VS0603B10PRN	1" M x 1" F	35	2	8

604B



BALL VALVE MOD. 604B 90° F/TAILPIECE AND THERMOMETER FOR MANIFOLD - STANDARD BORE

/ VALVOLA A SFERA MOD. 604B 90° F/CODOLO E TERMOMETRO - PASSAGGIO STANDARD
 / KUGELHAHN MOD. 604B 90° IG/ GEWINDEANSCHLÜSSE FÜR VERTEILER UND THERMOMETER - STANDARD DURCHGANG
 / VANNE BOISSEAU SPHÉRIQUE MOD. 604B ÉQUERRE F/UNION ET THERMOMÈTRE POUR COLLECTEUR - PASSAGE STANDARD



604B ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
 / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN		
41.31.779	VS0604B10PRN	1" M x 1" F	35	2	8

602B



VALVES KIT 602B F / WITH PLUG AND THERMOMETER COMPOSED OF 603B STRAIGHT AND 604B 90°

/ KIT VALVOLE A SFERA 602B F/CODOLO BOC. E TERMOMETRO COMPOSTO DA MOD. 603B DIRITTA E 604B 90°
 / SET KUGELHÄHNE ART.602B IG/VERSCHR. UND THERMOMETER BEST.AUS ART.603B GERADE UND 604B 90°
 / KIT VANNES 602B F/AVEC BOUCHON ET THERMOMETRE - COMPOSE DE 603B DROIT ET 604B 90°



KIT

602B ▲ RED ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA ROSSA
 / ROT ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON ROUGE

CODE	TECH. CODE	SIZE	PN	
	VS0602B10PRN	1" M x 1" F	35	4

BALL VALVES FOR WATER METER

/ VALVOLA A SFERA PER ATTACCO CONTATORE
/ KUGELHÄHNE FÜR WASSERZÄHLER
/ VANNE POUR COMPTEUR D'EAU

BALL VALVE MOD. 701 M/SWIVEL NUT FOR WATER METER - BRASS BUTTERFLY HANDLE

ISO 228

/ VALVOLA A SFERA MOD. 701 M/DADO PRIGIONIERO PER ATTACCO CONTATORE - MANIGLIA FARFALLA OTTONE
/ KUGELHAHN MOD. 701 AG/ÜBERWURFMUTTER FÜR WASSERZÄHLER - MESSING FLÜGELGRIFF
/ VANNE COMPTEUR MOD. 701 M/ÉCROU TOURNANT PRESSE ÉTOUPE - PAPILLON EN LAITON



701

CODE	TECH. CODE	SIZE	PN	
41.33.050	AC0701005070	1/2" x 3/4"	30	50
41.33.055	AC0701007070	3/4" x 3/4"	30	40
41.33.060	AC0701007100	3/4" x 1"	30	35
41.33.065	AC0701010070	1" x 3/4"	30	35
41.33.070	AC0701010100	1" x 1"	30	30

BALL VALVE MOD. 721 M/SWIVEL NUT COMPACT - BRASS BUTTERFLY HANDLE

ISO 228

/ VALVOLA A SFERA MOD. 721 M/DADO PRIGIONIERO PER ATTACCO CONTATORE - MANIGLIA FARFALLA OTTONE
/ KUGELHAHN MOD. 721 AG/ÜBERWURFMUTTER FÜR WASSERZÄHLER - MESSING FLÜGELGRIFF
/ VANNE COMPTEUR MOD. 721 M/ÉCROU TOURNANT PRESSE ÉTOUPE - PAPILLON EN LAITON



721

CODE	TECH. CODE	SIZE	PN	
41.33.195	AC0721007070	3/4" x 3/4"	30	30

BALL VALVE MOD. 721 M/SWIVEL NUT COMPACT - BLACK ALUMINIUM BUTTERFLY HANDLE

ISO 228

/ VALVOLA A SFERA MOD. 721 M/DADO PRIGIONIERO PER ATTACCO CONTATORE - MANIGLIA IN ALLUMINIO A FARFALLA NERA
/ KUGELHAHN MOD. 721 AG/ÜBERWURFMUTTER FÜR WASSERZÄHLER - SCHWARZ ALUMINIUM FLÜGELGRIFF
/ VANNE COMPTEUR MOD. 721 M/ÉCROU TOURNANT PRESSE ÉTOUPE - MANETTE ALUMINIUM PAPILLON NOIRE



721

CODE	TECH. CODE	SIZE	PN	
	AC0721N07GU0	3/4" x 3/4"	30	30

BALL VALVE MOD. 700 F/SWIVEL NUT FOR WATER METER - BRASS BUTTERFLY HANDLE

ISO 228

/ VALVOLA A SFERA MOD. 700 F/DADO PRIGIONIERO PER ATTACCO CONTATORE - MANIGLIA FARFALLA OTTONE ISO 228
/ KUGELHAHN MOD. 700 IG/ÜBERWURFMUTTER FÜR WASSERZÄHLER MIT RÜCKSCHLAGVENTIL - MESSING FLÜGELGRIFF ISO 228
/ VANNE COMPTEUR MOD. 700 F/ÉCROU TOURNANT PRESSE ÉTOUPE - PAPILLON EN LAITON



700

CODE	TECH. CODE	SIZE	PN	
41.33.005	AC0700005070	1/2" x 3/4"	30	50
41.33.010	AC0700007070	3/4" x 3/4"	30	40
41.33.025	AC0700010100	1" x 1"	30	25

BALL VALVE MOD. 703 M/SWIVEL NUT WITH DRAIN OFF - BRASS BUTTERFLY HANDLE

ISO 228

/ VALVOLA A SFERA MOD. 703 M/DADO PRIGIONIERO PER ATTACCO CONTATORE CON SPURGO - MANIGLIA FARFALLA OTTONE
/ KUGELHAHN MOD. 703 AG/ÜBERWURFMUTTER FÜR WASSERZÄHLER MIT ABFLUSS - MESSING FLÜGELGRIFF
/ VANNE COMPTEUR MOD. 703 M/ÉCROU TOURNANT PRESSE ÉTOUPE AVEC PURGE - PAPILLON EN LAITON

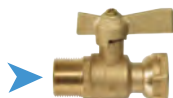


703

CODE	TECH. CODE	SIZE	PN	
41.33.170	AC0703005070	1/2" x 3/4"	30	35
41.33.175	AC0703007070	3/4" x 3/4"	30	30

BALL VALVE MOD. E701 M/SWIVEL NUT FOR WATER METER INTLET WITH NON RETURN VALVE - BRASS BUTTERFLY HANDLE
**ISO
228**

/ VALVOLA A SFERA FLUSSO IN ENTRATA MOD. E701 M/DADO PRIGIONIERO PER ATTACCO CONTATORE VALVOLA DI NON RITORNO - MANIGLIA FARFALLA OTTONE
/ KUGELHAHN IM VORLAUF MOD. E701 AG/ ÜBERWURFMUTTER FÜR WASSERZÄHLER MIT RÜCKSCHLAGVENTIL - MESSING FLÜGELGRIFF
/ VANNE AVANT COMPTEUR MOD. E701 M/ ÉCROU TOURNANT PRESSE ÉTOUPE - PAPILLON EN LAITON



Direction of water flow
/ Direzione dell'acqua
/ Fluss richtung
/ Direction de l'eau

E701

CODE	TECH. CODE	SIZE	
41.33.094	ACE701005070	1/2" x 3/4"	50
41.33.095	ACE701007070	3/4" x 3/4"	40

BALL VALVE 90° MOD. 705 M/SWIVEL NUT - BRASS BUTTERFLY HANDLE
**ISO
228**

/ VALVOLA A SFERA 90° MOD. 705 M/DADO PRIGIONIERO PER ATTACCO CONTATORE - MANIGLIA FARFALLA OTTONE
/ KUGELHAHN 90° MOD. 705 AG/ ÜBERWURFMUTTER FÜR WASSERZÄHLER - MESSING FLÜGELGRIFF
/ VANNE COMPTEUR ÉQUERRE MOD. 705 M/ ÉCROU TOURNANT PRESSE ÉTOUPE - PAPILLON EN LAITON


705

CODE	TECH. CODE	SIZE	PN	
41.33.140	AC0705005070	1/2" x 3/4"	30	40
41.33.145	AC0705007070	3/4" x 3/4"	30	40

BALL VALVE MOD. U701 M/SWIVEL NUT FOR WATER METER OUTLET WITH NON RETURN VALVE - BRASS BUTTERFLY HANDLE
**ISO
228**

/ VALVOLA A SFERA FLUSSO IN USCITA MOD. U701 M/DADO PRIGIONIERO PER ATTACCO CONTATORE VALVOLA DI NON RITORNO - MANIGLIA FARFALLA OTTONE
/ KUGELHAHN IM RÜCKLAUF MOD. U701 AG/ ÜBERWURFMUTTER FÜR WASSERZÄHLER MIT RÜCKSCHLAGVENTIL - MESSING FLÜGELGRIFF
/ VANNE APRÈS COMPTEUR MOD. U701 M/ ÉCROU TOURNANT PRESSE ÉTOUPE - PAPILLON EN LAITON



Direction of water flow
/ Direzione dell'acqua
/ Flussrichtung
/ Direction de l'eau

U701

CODE	TECH. CODE	SIZE	
41.33.110	ACU701007070	3/4" x 3/4"	40

BALL VALVE MOD. 702 F/SWIVEL NUT FOR WATER METER WITH DRAIN OFF - BRASS BUTTERFLY HANDLE
**ISO
228**

/ VALVOLA A SFERA MOD. 702 F/DADO PRIGIONIERO PER ATTACCO CONTATORE CON SPURGO - MANIGLIA FARFALLA
/ KUGELHAHN MOD. 702 IG/ÜBERWURFMUTTER FÜR WASSERZÄHLER MIT ABFLUSS - MESSING FLÜGELGRIFF
/ VANNE COMPTEUR MOD. 702 F/ÉCROU TOURNANT PRESSE ÉTOUPE AVEC PURGE - PAPILLON EN LAITON


702

CODE	TECH. CODE	SIZE	PN	
41.33.125	AC0702007070	3/4" x 3/4"	30	30

**BALL VALVE MOD. 710 POLYETHYLENE PIPE/
SWIVEL NUT - BRASS BUTTERFLY HANDLE**

/ VALVOLA A SFERA MOD. 710 ATTACCO
POLIETILENE/DADO PRIGIONIERO PER
ATTACCO CONTATORE - MANIGLIA FARFALLA
OTTONE

/ KUGELHAHN MOD.710 POLYEHTYLEN
ANSCHLUSS/ÜBERWURFMUTTER FÜR
WASSERZÄHLER - MESSING FLÜGELGRIFF

/ VANNE COMPTEUR MOD. 710 RACCORD TUBE
PE/ÉCROU TOURNANT PRESSE ÉTOUPE -
PAPILLON EN LAITON

**ISO
228****710**

CODE	TECH. CODE	SIZE	PN	
41.33.220	AC0710025070	25 x 3/4"	30	30
41.33.225	AC0710025100	25 x 1" •	30	25
41.33.230	AC0710032070	32 x 3/4"	30	25
41.33.235	AC0710032100	32 x 1"	30	20

**BALL VALVE 90° MOD. 708 POLYETHYLE-
NE PIPE/SWIVEL NUT - BRASS BUTTERFLY
HANDLE**

/ VALVOLA A SFERA 90° MOD. 708 ATTACCO
POLIETILENE/DADO PRIGIONIERO PER
ATTACCO CONTATORE - MANIGLIA FARFALLA
OTTONE

/ KUGELHAHN 90° MOD. 708 POLYEHTYLEN
ANSCHLUSS/ÜBERWURFMUTTER FÜR
WASSERZÄHLER - MESSING FLÜGELGRIFF

/ VANNE COMPTEUR ÉQUERRE MOD. 708
RACCORD TUBE PE/ÉCROU TOURNANT PRESSE
ÉTOUPE - PAPILLON EN LAITON

**ISO
228****708**

CODE	TECH. CODE	SIZE	PN	
41.33.200	AC0708025070	25 x 3/4"	30	30
41.33.210	AC0708032100	32 x 1"	30	20

**EXTENSION FITTING MOD. 706 FOR
WATER METER**

/ PROLUNGA ESTENDIBILE MOD. 706 PER
ATTACCO CONTATORE

/ VERLÄNGERUNG MOD. 706 FÜR WASSERZÄHLER

/ ALLONGE POUR VANNE COMPTEUR MOD. 706

**ISO
228****706**

CODE	TECH. CODE	SIZE	
41.33.085	EX0706007070	3/4" x 3/4"	70

**EXTENSION FITTING M/M
FOR WATER METER**

/ TRONCHETTO M/M PER AVANTI CONTATORE

/ WASSERZÄHLER PASSTÜCK AG/AG
FÜR WASSERZÄHLER

/ RACCORD D'EXTENSION M/M POUR COMPTEUR D'EAU

**713**

CODE	TECH. CODE	SIZE		
	AC0713007220	3/4" - 110 mm	10	30
	AC0713010250	1" - 130 mm	5	20

**BALL VALVE MOD. E710 POLYETHYLENE
PIPE/SWIVEL NUT WATER METER INTLET
WITH NON RETURN VALVE - BRASS BUT-
TERFLY HANDLE**

/ VALVOLA A SFERA FLUSSO IN ENTRATA
MOD. E710 ATTACCO POLIETILENE/DADO
PRIGIONIERO - PER ATTACCO CONTATORE
MANIGLIA FARFALLA OTTONE

/ KUGELHAHN IM VORLAUF MOD. E710
POLYEHTYLEN ANSCHLUSS/ÜBERWURFMUTTER
FÜR WASSERZÄHLER - MESSING FLÜGELGRIFF

/ VANNE AVANT COMPTEUR MOD. E710
RACCORD TUBE PE/ÉCROU TOURNANT PRESSE
ÉTOUPE - PAPILLON EN LAITON

**ISO
228**

Direction of water flow
/ Direzione dell'acqua
/ Flussrichtung
/ Direction de l'eau

E710

CODE	TECH. CODE	SIZE	
41.33.250	ACE710025070	25 x 3/4"	30

**BALL VALVE MOD. 711 POLYETHYLENE
PIPE/SWIVEL NUT WITH DRAIN OFF -
BRASS BUTTERFLY HANDLE**

/ VALVOLA A SFERA MOD. 711 ATTACCO
POLIETILENE/DADO PRIGIONIERO CON
SPURGO PER ATTACCO CONTATORE -
MANIGLIA FARFALLA OTTONE

/ KUGELHAHN MOD.711 POLYEHTYLEN
ANSCHLUSS/ÜBERWURFMUTTER FÜR
WASSERZÄHLER MIT ABFLAU - MESSING
FLÜGELGRIFF

/ VANNE COMPTEUR ÉQUERRE MOD. 711
RACCORD TUBE PE/ÉCROU TOURNANT PRESSE
ÉTOUPE AVEC PURGE - PAPILLON EN LAITON

**ISO
228****711**

CODE	TECH. CODE	SIZE	PN	
41.33.265	AC0711025070	25 x 3/4"	30	25
41.33.270	AC0711032070	32 x 3/4" •	30	20

• ON REQUEST / SU RICHIESTA / AUF ANFRAGE / SUR COMMANDE

**FIXED FITTING MOD. 709 FOR WATER
METER**

/ RACCORDO FISSO MOD. 709 PER ATTACCO
CONTATORE

/ VERSCHRAUBUNG MOD. 709 FÜR
WASSERZÄHLER

/ RACCORD FIXE MOD. 709 POUR VANNE
COMPTEUR

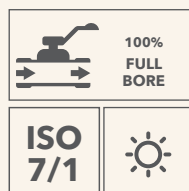
**ISO
228****709**

CODE	TECH. CODE	SIZE	
41.33.090	EX0709007070	3/4" x 3/4"	100
41.33.091	EX0709010100	1" x 1"	60

BALL VALVES FOR SOLAR THERMAL SYSTEMS

/ VALVOLE A SFERA PER SOLARE TERMICO
/ KUGELHAHN FÜR SOLARANLAGEN
/ VANNES À BOISSEAU SPHÉRIQUE POUR INSTALLATIONS SOLAIRES

133 - F/F



BALL VALVE MOD.133 F/F - FULL BORE

/ VALVOLA A SFERA MOD. 133 F/F - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 133 IG/IG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 133 F/F - PASSAGE INTÉGRALE

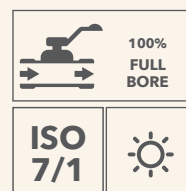


133 ●

ORANGE ALUMINIUM HANDLE
/ MANIGLIA IN ALLUMINIO ARANCIO
/ ORANGE ALUMINIUM HEBELGRIFF
/ MANETTE ALUMINIUM LEVIER ORANGE

CODE	TECH. CODE	SIZE	PN	
41.32.670	VS0133005AAN	1/2"	10	70
41.32.675	VS0133007AAN	3/4"	10	50
41.32.680	VS0133010AAN	1"	10	30

133M - M/F



BALL VALVE MOD.133M M/F - FULL BORE

/ VALVOLA A SFERA MOD. 133M M/F - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 133M AG/IG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 133M M/F - PASSAGE INTÉGRALE

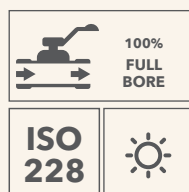


133 ●

ORANGE ALUMINIUM HANDLE
/ MANIGLIA IN ALLUMINIO ARANCIO
/ ORANGE ALUMINIUM HEBELGRIFF
/ MANETTE ALUMINIUM LEVIER ORANGE

CODE	TECH. CODE	SIZE	PN	
41.32.685	VS0133M05AAN	1/2"	10	70
41.32.690	VS0133M07AAN	3/4"	10	50
41.32.695	VS0133M10AAN	1"	10	30

134 - F/M



BALL VALVE MOD.134 F/M - FULL BORE

/ VALVOLA A SFERA MOD. 134 F/M - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 134 IG/AG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 134 F/M - PASSAGE INTÉGRALE



134 ▲

ORANGE ALUMINIUM BUTTERFLY HANDLE
/ MANIGLIA IN ALLUMINIO A FARFALLA ARANCIO
/ ORANGE ALUMINIUM FLÜGELGRIFF
/ MANETTE ALUMINIUM MANETTE ALUMINIUM PAPILLON ORANGE

CODE	TECH. CODE	SIZE	PN	
41.32.700	VS0134003PAN	3/8"	10	130



USE: water and glycol (max. 50%)
MAX PRESSURE: 10 bar
OPERATING TEMPERATURE: - 30°C + 200°C.

/ FLUIDI AMMESSI: acqua e glicole (max 50%)
PRESSIONE MASSIMA: 10 Bar
TEMPERATURA DI ESERCIZIO: - 30°C + 200°C.

/ ANWENDUNG: Wasser und Glykol (max. 50%).
MAX. BETRIEBSDRUCK: 10 bar
TEMPERATUR: -30°C + 200°C

/ EMPLOI: eau et glycol (maxi 50%)
PRESSION MAXI: 10 bar
TEMPÉRATURE: -30°C + 200°C.

BALL VALVES FOR GAS

/ VALVOLE A SFERA PER GAS

/ KUGELHÄHNE FÜR GAS

/ VANNES À BOISSEAU SPHÉRIQUE POUR GAZ

335 - F/F

ISO
7/1CE
EN 331

BALL VALVE MOD.335 F/F - FULL BORE

/ VALVOLA A SFERA MOD. 335 F/F - PASSAGGIO TOTALE

/ KUGELHAHN MOD. 335 IG/IG - VOLLER DURCHGANG

/ VANNE BOISSEAU SPHÉRIQUE MOD. 335 F/F - PASSAGE INTÉGRALE

335  **YELLOW ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO GIALLA**
/ GELB ALUMINIUM HEBELGRIFF / MANETTE ALUMINIUM LEVIER JAUNE



CODE	TECH. CODE	SIZE	MOP	DN	
41.32.600	VS0335003AGN	3/8"	5	10	80
41.32.605	VS0335005AGN	1/2"	5	15	50
41.32.610	VS0335007AGN	3/4"	5	20	30
41.32.615	VS0335010AGN	1"	5	25	25
41.32.620	VS0335012AGN	1 1/4"	5	32	12
41.32.625	VS0335015AGN	1 1/2"	5	40	8
41.32.630	VS0335020AGN	2"	5	50	5

335 

YELLOW IRON HANDLE / MANIGLIA ACCIAIO GIALLA
/ GELB EISENHEBELGRIFF / MANETTE ACIER LEVIER JAUNE

CODE	TECH. CODE	SIZE	MOP	DN	
41.32.606	VS0335005FGN	1/2"	5	15	50
41.32.611	VS0335007FGN	3/4"	5	20	30
41.32.616	VS0335010FGN	1"	5	25	25
41.32.621	VS0335012FGN	1 1/4"	5	32	12
41.32.626	VS0335015FGN	1 1/2"	5	40	8
41.32.631	VS0335020FGN	2"	5	50	5

335 

YELLOW BUTTERFLY ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA GIALLA
/ GELB ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON JAUNE

CODE	TECH. CODE	SIZE	MOP	DN	
41.32.602	VS0335003PGN	3/8"	5	10	80
41.32.607	VS0335005PGN	1/2"	5	15	50
41.32.612	VS0335007PGN	3/4"	5	20	30
41.32.617	VS0335010PGN	1"	5	25	30
41.32.622	VS0335012PGN	1 1/4"	5	32	15

335M - M/F



BALL VALVE MOD.335M M/F - FULL BORE

/ VALVOLA A SFERA MOD. 335M M/F - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 335M AG/IG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 335M M/F - PASSAGE INTÉGRALE

335M ●

YELLOW ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO GIALLA
/ GELB ALUMINIUM HEBELGRIFF / MANETTE ALUMINIUM LEVIER JAUNE



CODE	TECH. CODE	SIZE	MOP	DN	
41.32.635	VS0335M05AGN	1/2"	5	15	50
41.32.640	VS0335M07AGN	3/4"	5	20	30
41.32.645	VS0335M10AGN	1"	5	25	25
41.32.650	VS0335M12AGN	1 1/4"	5	32	12
41.32.655	VS0335M15AGN	1 1/2"	5	40	8
41.32.660	VS0335M20AGN	2"	5	50	5

335M ■



YELLOW IRON HANDLE / MANIGLIA ACCIAIO GIALLA
/ GELB EISENHEBELGRIFF / MANETTE ACIER LEVIER JAUNE

CODE	TECH. CODE	SIZE	MOP	DN	
41.32.636	VS0335M05FGN	1/2"	5	15	50
41.32.641	VS0335M07FGN	3/4"	5	20	30
41.32.646	VS0335M10FGN	1"	5	25	25

335M ▲



YELLOW BUTTERFLY ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA GIALLA
/ GELB ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON JAUNE

CODE	TECH. CODE	SIZE	MOP	DN	
41.32.637	VS0335M05PGN	1/2"	5	15	70
41.32.642	VS0335M07PGN	3/4"	5	20	50
41.32.647	VS0335M10PGN	1"	5	25	30
41.32.652	VS0335M12PGN	1 1/4"	5	32	15

339 F/F



BALL VALVE MOD. 339 F/F - FULL BORE

/ VALVOLA A SFERA MOD. 339 F/F - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 339 IG/IG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 339 F/F - PASSAGE INTÉGRALE

339 ▲ YELLOW ALUMINIUM BUTTERFLY HANDLE / FARFALLA GIALLA ALLUMINIO
/ GELB ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON JAUNE



WITH PRESSURE PLUG
/ CON PRESA DI PRESSIONE
/ MIT ANSCHLUSS FÜR DRUCKMESSUNG
/ AVEC PRISE DE PRESSION

CODE	TECH. CODE	SIZE	MOP	
41.32.662	VS0339007PGN	3/4"	5	40
41.32.663	VS0339010PGN	1"	5	25

339M F/M



BALL VALVE MOD. 339M F/M - FULL BORE

/ VALVOLA A SFERA MOD. 339M F/M - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 339M IG/AG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 339M F/M - PASSAGE INTÉGRALE

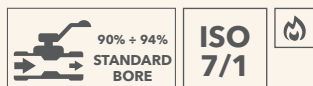
339M ▲ YELLOW ALUMINIUM BUTTERFLY HANDLE / FARFALLA GIALLA ALLUMINIO
/ GELB ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON JAUNE



WITH PRESSURE PLUG
/ CON PRESA DI PRESSIONE
/ MIT ANSCHLUSS FÜR DRUCKMESSUNG
/ AVEC PRISE DE PRESSION

CODE	TECH. CODE	SIZE	MOP	
41.32.665	VS0339M07PGN	3/4"	5	40
41.32.666	VS0339M10PGN	1"	5	25

337 M/M



BALL VALVE MOD. 337 M/M 90° - STANDARD BORE

/ VALVOLA A SFERA MOD. 337 M/M 90° - PASSAGGIO STANDARD
/ KUGELHAHN MOD. 337 AG/AG 90° - STANDARD DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 337 M/M 90° - PASSAGE STANDARD

337 ▲ YELLOW ALUMINIUM BUTTERFLY HANDLE / FARFALLA GIALLA ALLUMINIO
/ GELB ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON JAUNE



CODE	TECH. CODE	SIZE	
87.81.136	VS0337005PGN •	1/2"	36

• ON REQUEST / SU RICHIESTA / AUF ANFRAGE / SUR COMMANDE

338 M/S



BALL VALVE MOD. 338 90° M/SWIVEL NUT - STANDARD BORE

/ VALVOLA A SFERA MOD. 338 M/DADO PRIGIONIERO 90° - PASSAGGIO STANDARD
/ KUGELHAHN MOD. 338 AG/ÜBERWURFMUTTER 90° - STANDARD DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 338 M/ÉCROU TOURNANT 90° - PASSAGE STANDARD

338 ▲ YELLOW ALUMINIUM BUTTERFLY HANDLE / FARFALLA GIALLA ALLUMINIO
/ GELB ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON JAUNE



CODE	TECH. CODE	SIZE	
87.81.137	VS0338055PGN •	1/2"	36

• ON REQUEST / SU RICHIESTA / AUF ANFRAGE / SUR COMMANDE

MINI BALL VALVES

/ VALVOLE A SFERA MINI
/ MINI-KUGELHAHN
/ MINI VANNES BOISSEAU SPHÉRIQUE

BRASS



UNI EN 12164/12165
CW 617N
DIN 50930-6

MINI BALL VALVE MOD. 307 F/F

/ VALVOLA A SFERA MINI MOD. 307 F/F
/ MINI-KUGELHAHN MOD. 307 IG/IG
/ MINI V. BOISSEAU SPHÉRIQUE MOD. 307 F/F



307 ◆ BLACK HANDLE / MANIGLIA NERA
/ SCHWARZER GRIFF / MANETTE NOIRE

CODE	TECH. CODE	SIZE	PN	
41.22.312	VS0307002ANN	1/4" x 1/4"	10	150
41.22.316	VS0307003ANN	3/8" x 3/8"	10	150
41.22.321	VS0307005ANN	1/2" x 1/2"	10	150

MINI BALL VALVE MOD. 306 M/F

/ VALVOLA A SFERA MINI MOD. 306 M/F
/ MINI-KUGELHAHN MOD. 306 AG/IG
/ MINI V. BOISSEAU SPHÉRIQUE MOD. 306 M/F



306 ◆ BLUE HANDLE / MANIGLIA BLU
/ BLAUER GRIFF / MANETTE BLEU

CODE	TECH. CODE	SIZE	PN	
41.22.310	VS0306005ABN	1/2" x 1/2"	10	150

MINI BALL VALVE MOD. 306 M/F

/ VALVOLA A SFERA MINI MOD. 306 M/F
/ MINI-KUGELHAHN MOD. 306 AG/IG
/ MINI V. BOISSEAU SPHÉRIQUE MOD. 306 M/F



306 ◆ BLACK HANDLE / MANIGLIA NERA
/ SCHWARZER GRIFF / MANETTE NOIRE

CODE	TECH. CODE	SIZE	PN	
41.22.300	VS0306002ANN	1/4" x 1/4"	10	150
41.22.304	VS0306003ANN	3/8" x 3/8"	10	150
41.22.308	VS0306005ANN	1/2" x 1/2"	10	150

MINI BALL VALVE MOD. 306 M/F

/ VALVOLA A SFERA MINI MOD. 306 M/F
/ MINI-KUGELHAHN MOD. 306 AG/IG
/ MINI V. BOISSEAU SPHÉRIQUE MOD. 306 M/F



306 ◆ RED HANDLE / MANIGLIA ROSSA
/ ROTER GRIFF / MANETTE ROUGE

CODE	TECH. CODE	SIZE	PN	
41.22.309	VS0306005ARN	1/2" x 1/2"	10	150

MINI BALL VALVES DZR CHROME-PLATED

/ VALVOLE A SFERA MINI DZR CROMATE
/ MINI-KUGELHÄHNE DZR VERCHROMT
/ MINI VANNES BOISSEAU SPHÉRIQUE DZR CHROMÉES

BRASS



UNI EN 12164/12165
CW 625N
DIN 50930-6



MINI BALL VALVE MOD. 311 F X M - CHROME-PLATED METAL HANDLE

/ VALVOLA A SFERA MINI MOD. 311 F X M - MANIGLIA CROMATA IN METALLO
/ MINI-KUGELHAHN MOD. 311 IG X AG - METALLHEBELGRIFF VERCHROMT
/ MINI VANNE BOISSEAU SPHÉRIQUE MOD. 311 F X M - MANETTE METAL CHROMÉE



311

CODE	TECH. CODE	SIZE		
41.23.040	VS0311003ACC	3/8" x 3/8"	10	60
41.23.045	VS0311005ACC	1/2" x 1/2"	10	60
41.23.050	VS0311007ACC	3/4" x 3/4"	10	30

MINI BALL VALVE MOD. 312 F X F - CHROME-PLATED METAL HANDLE

/ VALVOLA A SFERA MINI MOD. 312 F X F - MANIGLIA CROMATA IN METALLO
/ MINI-KUGELHAHN MOD. 312 IG X IG - HEBELGRIFF VERCHROMT IN METALL
/ MINI VANNE BOISSEAU SPHÉRIQUE MOD. 312 F X F - MANETTE METAL CHROMÉE



312

CODE	TECH. CODE	SIZE		
41.23.005	VS0312003ACC	3/8" x 3/8"	10	60
41.23.010	VS0312005ACC	1/2" x 1/2"	10	60
41.23.015	VS0312007ACC	3/4" x 3/4"	10	30

MINI BALL VALVE MOD. 321 M X Cu - CHROME-PLATED METAL HANDLE

/ VALVOLA A SFERA MINI MOD. 321 M X Cu - MANIGLIA CROMATA IN METALLO
/ MINI-KUGELHAHN MOD. 321 AG X Cu - METALLHEBELGRIFF VERCHROMT
/ MINI VANNE BOISSEAU SPHÉRIQUE MOD. 321 M X Cu - MANETTE METAL CHROMÉE



321

CODE	TECH. CODE	SIZE		
41.23.150	VS0321001ACC	1/2" x 12	10	60
41.23.155	VS0321002ACC	1/2" x 15	10	60

MINI BALL VALVE MOD. 319 MI X MI - CHROME-PLATED METAL HANDLE

/ VALVOLA A SFERA MINI MOD. 319 M X M - MANIGLIA CROMATA IN METALLO
/ MINI-KUGELHAHN MOD. 319 AG X AG - METALLHEBELGRIFF VERCHROMT
/ MINI VANNE BOISSEAU SPHÉRIQUE MOD. 319 M X M - MANETTE METAL CHROMÉE



319

CODE	TECH. CODE	SIZE		
41.23.075	VS0319003ACC	3/8" x 3/8"	10	60
41.23.080	VS0319005ACC	1/2" x 1/2"	10	60
41.23.085	VS0319007ACC	3/4" x 3/4"	10	30

MINI BALL VALVE MOD. 320 F X Cu - CHROME-PLATED METAL HANDLE

/ VALVOLA A SFERA MINI MOD. 320 F X Cu - MANIGLIA CROMATA IN METALLO
/ MINI-KUGELHAHN MOD. 320 IG X Cu - HEBELGRIFF VERCHROMT IN METALL
/ MINI VANNE BOISSEAU SPHÉRIQUE MOD. 320 F X Cu - MANETTE METAL CHROMÉE



320

CODE	TECH. CODE	SIZE		
41.23.110	VS0320001ACC	3/8" x 12	10	60
41.23.115	VS0320002ACC	1/2" x 12	10	60
41.23.120	VS0320003ACC	1/2" x 15	10	60
41.23.125	VS0320004ACC	3/4" x 22	10	30

MINI BALL VALVE MOD. 325 F X M (EK) - CHROME-PLATED METAL HANDLE

/ VALVOLA A SFERA MINI MOD. 325 F X M (EK) - MANIGLIA CROMATA IN METALLO
/ MINI-KUGELHAHN MOD. 325 IG X M (EK) - METALLHEBELGRIFF VERCHROMT
/ MINI VANNE BOISSEAU SPHÉRIQUE MOD. 325 F X M (EK) - MANETTE METAL CHROMÉE



325

CODE	TECH. CODE	SIZE		
41.23.121	VS0325001ACC	1/2" x 1/2" euro	10	60



ANGLE MINI BALL VALVE MOD. 323 Cu X Cu - CHROME-PLATED METAL HANDLE

/ VALVOLA A SFERA A SQUADRA MINI MOD. 323 Cu X Cu - MANIGLIA CROMATA IN METALLO
/ MINI WINKELKUGELHAHN MOD. 323 Cu X Cu - METALLHEBELGRIFF VERCHROMT
/ MINI VANNE BOISSEAU SPHÉRIQUE ÉQUERRE MOD. 323, Cu X Cu - MANETTE METAL CHROMÉE



323



CODE	TECH. CODE	SIZE		
41.23.300	VS0323001ACC	12 x 12	8	48
41.23.305	VS0323002ACC	12 x 10	8	48
41.23.310	VS0323003ACC	15 x 15	8	48
41.23.315	VS0323004ACC	15 x 10	8	48

MINI BALL VALVE MOD. 322 Cu x Cu - CHROME-PLATED METAL HANDLE

/ VALVOLA A SFERA MINI MOD. 322 Cu X Cu - MANIGLIA CROMATA IN METALLO
/ MINI-KUGELHAHN MOD. 322 Cu X Cu - METALLHEBELGRIFF VERCHROMT IN METALL
/ MINI VANNE BOISSEAU SPHÉRIQUE MOD. 322 Cu X Cu - MANETTE METAL CHROMÉE



322



CODE	TECH. CODE	SIZE		
41.23.180	VS0322001ACC	10 x 10	10	60
41.23.185	VS0322002ACC	10 x 12	10	60
41.23.190	VS0322003ACC	10 x 15	10	60
41.23.195	VS0322004ACC	10 x 16	10	60
41.23.200	VS0322005ACC	12 x 12	10	60
41.23.205	VS0322006ACC	12 x 15	10	60
41.23.210	VS0322007ACC	12 x 16	10	60
41.23.220	VS0322008ACC	15 x 15	10	60
41.23.222	VS0322009ACC	15 x 16	10	60
41.23.225	VS0322010ACC	16 x 16	10	60
41.23.230	VS0322011ACC	18 x 18	10	30
41.23.235	VS0322012ACC	22 x 22	4	24

TEE MINI BALL VALVE MOD. 324 Cu x Cu x Cu - CHROME-PLATED METAL HANDLE

/ VALVOLA A SFERA A T MINI MOD. 324 Cu x Cu x Cu - MANIGLIA CROMATA IN METALLO
/ MINI T-KUGELHAHN MOD. 324 Cu x Cu x Cu - METALLHEBELGRIFF VERCHROMT
/ MINI VANNE BOISSEAU SPHÉRIQUE MOD. 324 EN TÉ Cu x Cu x Cu - MANETTE METAL CHROMÉE



324



CODE	TECH. CODE	SIZE		
41.23.320	VS0324001ACC	12 x 12 x 12	5	30
41.23.325	VS0324002ACC	15 x 15 x 15	5	30

CHROME-PLATED METAL HANDLE

/ MANIGLIA CROMATA IN METALLO
/ VERCHROMTER HEBELGRIFF IN METALL
/ MANETTE METAL CHROMÉE

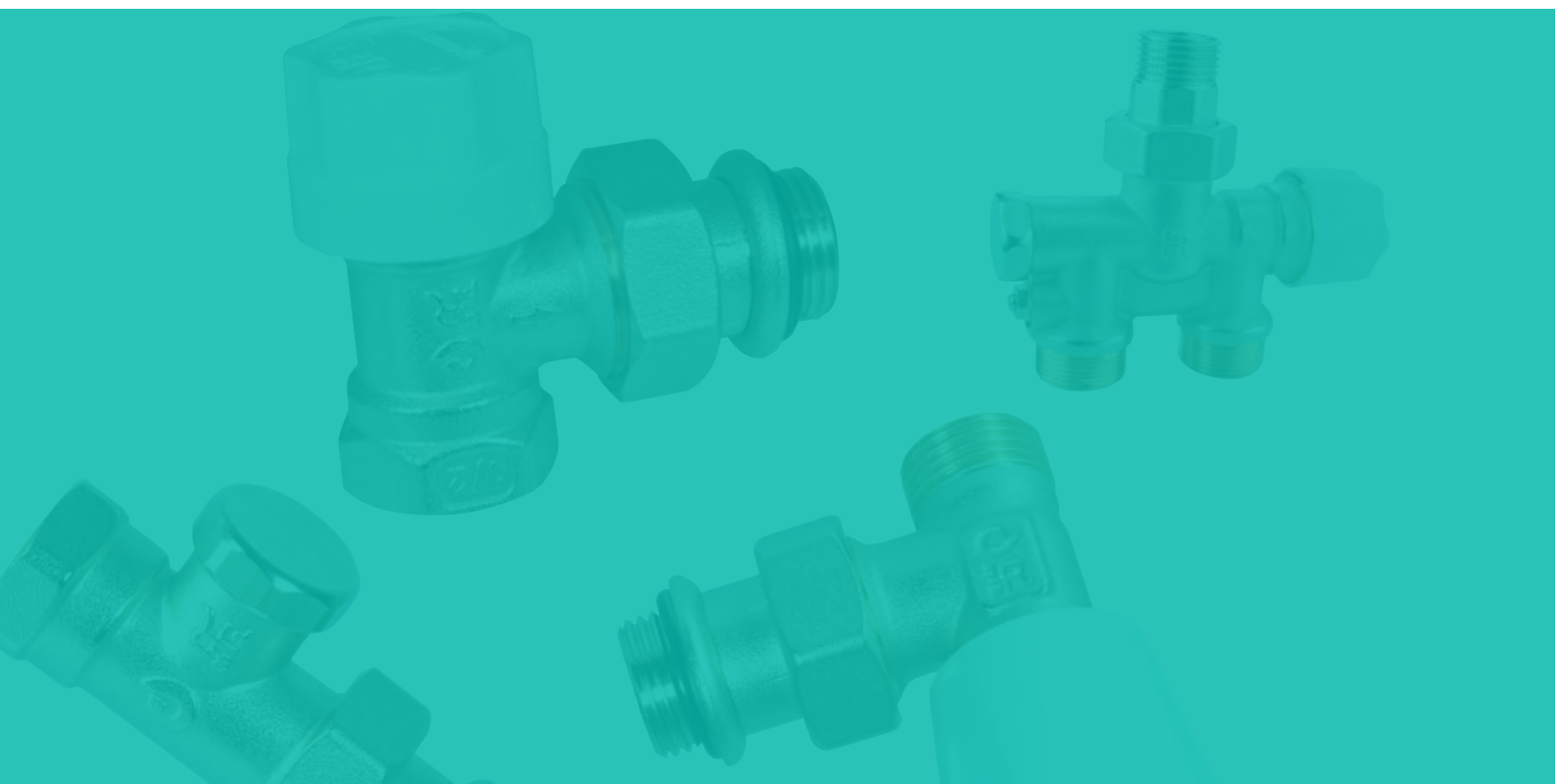


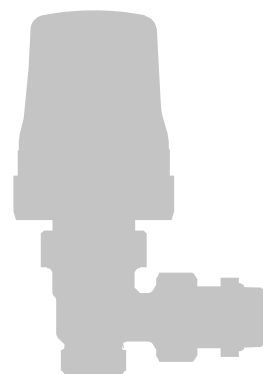
311

CODE	TECH. CODE	
41.23.001	MN0311000000C	300

RADIATOR VALVES

/ VALVOLE PER RADIATORI
/ REGELVENTILE FÜR HEIZKÖRPER
/ ROBINETTERIE DE RADIATEUR





RADIATOR VALVES

THERMOSTATIC HEAD WITH LIQUID SENSOR	258
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THERMOSTATIC RADIATOR VALVES - CHROME SERIES	265
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THERMOSTATIC RADIATOR VALVES WITH PRESETTING FLOW AND LOCKSHIELDS

/ VALVOLE TERMOSTATIZZABILI PER RADIATORE CON PRE-REGOLAZIONE DELLA PORTATA E DETENTORI
/ VOREINSTELLBARE THERMOSTATVENTILE UND RÜCKLAUFVERSCHRAUBUNGEN
/ ROBINETS THERMOSTATISABLE AVEC PRE-RÉGLAGE ET DETENDEURS

The Comisa thermostatic valves are dimensionally conformed to the F series of UNI EN 215. With the regulating hand wheel, they also allow the operating in manual way.
Comisa radiator valve is equipped with a presetting device which allows a simple and precise calibration of the hydraulic characteristics of pressure drop. It is also possible to replace the sealing O-ring without draining the system. These new features have allowed us to improve the performance flu dynamic of the valve during the operating of the valve with the thermostatic actuator.

TECHNICAL FEATURES:	
Maximum pressure:	10 Bar
Maximum temperature:	120°C
Maximum Δp:	1 Bar

Die Thermostatventile von Comisa entsprechen der Norm UNI EN 215 Series F. Mit dem beweglichen Handrad ermöglichen sie auch die manuelle Einstellung.
Der Heizkörperventil von Comisa ermöglicht durch eine Voreinstellungsvorrichtung, eine einfache und präzise Kalibrierung der hydraulischen Eigenschaften des Druckabfalls. Es ist auch möglich, die Dichtungs-O-Ringe ohne Entleeren der Anlage zu ersetzen. Diese neuen Funktionen haben uns erlaubt die Dynamikleistung des Ventils während des Betriebs mit dem thermostatischen Antrieb zu verbessern.

TECHNISCHE EIGENSCHAFTEN:	
Maximum pressure:	10 Bar
Max. Temperatur:	120°C
Maximum Δp:	1 Bar

FLOW SETTING
The system for regulating the flow, allows, without the aid of special tools, to balance the circuit with the adjustment of a lockshield, simply aligning the reference notch on the rod with the desired location that is marked on the body of the valve.

/ REGOLAZIONE FLUSSO
Il sistema di regolazione del flusso, permette, senza l'ausilio di particolari attrezzi, di bilanciare il circuito con la precisione di un detentore, semplicemente allineando la tacca di riferimento presente sull'asta con la posizione desiderata impressa sul corpo della valvola.

/ FLUSSEINSTELLUNG
Das System zur Regelung des Durchflusses ermöglicht, ohne Zuhilfenahme von Spezialwerkzeugen, mit der Einstellung einer Verschraubung ein einfaches Ausrichten der Referenzkerbe an dem Stab mit der gewünschten Position, die auf dem Körper des Ventils gekennzeichnet ist.

/ RÉGLAGE DU DÉBIT
Le système de réglage du débit, permet, sans l'aide d'outils spéciaux, d'équilibrer le circuit avec la précision d'un té de réglage, en alignant l'encoche sur la tige sur le repère de débit indiqué sur le corps de la vanne.



For a correct operating of the thermostatic valves, is recommended to keep the values of Δp less than 0,25 Bar, in order to avoid excessive noise of the system.

/ Per un buon funzionamento delle valvole termostatiche è consigliato mantenere valori di Δp inferiori a 0.25 bar, al fine di evitare eccessive rumorosità dell'impianto.

/ Für einen korrekten Betrieb der Thermostatventile, wird empfohlen, die Werte von Δp weniger als 0,25 Bar zu halten, um einen übermäßigen Rauschen des Systems zu vermeiden.

/ Pour un fonctionnement correct des soupapes thermostatiques il est recommandé de maintenir les valeurs de Δp inférieure à 0,25 bar, afin d'éviter de generer un bruit sur le système.

Le valvole termostattizzabili Comisa, sono dimensionalmente conformi alla serie F della norma UNI EN 215. Nella versione con volantino di regolazione permettono inoltre il funzionamento in modalità manuale.
La valvola termostattizzabile Comisa è dotata di un dispositivo di preregolazione che permette una semplice e precisa taratura delle caratteristiche idrauliche di perdite di carico, inoltre, è possibile sostituire l'o-ring di tenuta senza svuotare l'impianto. Queste caratteristiche consentono di migliorare le prestazioni fluidodinamiche della valvola durante il funzionamento con l'attuatore termostatico.

CARATTERISTICHE TECNICHE:	
Massima pressione d'esercizio:	10 Bar
Temperatura massima:	120°C
Massima Δp:	1 Bar

Le robinets thermostatisables Comisa, sont conformes à la série F de la norme UNI EN 215. Dans la version avec volant de réglage elle fonctionnent en mode manuel.
Le robinet radiateur Comisa est équipé d'un dispositif de pré-réglage qui permet un étalonnage simple et précis des caractéristiques hydrauliques de pertes de charge, il est également possible de remplacer le joint torique sans vidanger l'installation. Ces nouvelles fonctionnalités nous ont permis d'améliorer la performance dynamique du robinet avec la tête thermostatique.

CARACTÉRISTIQUES TECHNIQUES:	
Pression de service maximale:	10 Bar
Température maximale:	120°C
Maximum Δp:	1 Bar

Pos. 1

Pos. 6

In case of leakage it's possible to replace the O-ring
/ possibilità di sostituzione O-ring in caso di perdita
/ bei Undichtigkeit ist eine Ersetzung des O-Ringes ermöglich
/ en cas de fuite vous pouvez remplacer le joint torique.

TECHNICAL FEATURES

/ CARATTERISTICHE TECNICHE
/ TECHNISCHE EIGENSCHAFTEN
/ CARACTÉRISTIQUES TECHNIQUES

PREMIUM SERIES



IRON PIPE



COPPER PIPE



MULTILAYER PIPE



WHITE HANDWHEEL



FLOW PRESETTING



PRE-ASSEMBLED TAIL



STANDARD TAIL

CHROME SERIES



COPPER PIPE



MULTILAYER PIPE



WHITE HANDWHEEL



CHROME HANDWHEEL



REGULATION RING TAIL



FLOW PRESETTING

GOLD SERIES



IRON PIPE



COPPER PIPE



MULTILAYER PIPE



WHITE 3 PCS HANDWHEEL



FLOW PRESETTING



REGULATION RING TAIL

KIT



IRON PIPE



COPPER PIPE



MULTILAYER PIPE



FLOW PRESETTING



PRE-ASSEMBLED TAIL



STANDARD TAIL

PLUS SERIES



IRON PIPE



WHITE HANDWHEEL



PRE-ASSEMBLED TAIL



STANDARD TAIL

COVER SERIES



IRON PIPE



COPPER PIPE



MULTILAYER PIPE



WHITE HANDWHEEL



STANDARD TAIL

X SERIES



IRON PIPE



COPPER PIPE



MULTILAYER PIPE



WHITE HANDWHEEL



PRE-ASSEMBLED TAIL



STANDARD TAIL

THERMOSTATIC HEAD WITH LIQUID SENSOR

/ TESTE TERMOSTATICHE CON SENSORE A LIQUIDO
/ THERMOSTAT-KOPF MIT FLÜSSIGFÜHLER
/ TÊTE THERMOSTATIQUE BULBE LIQUIDE

The thermostatic head automatically adjusts the environment temperature in each single room, increasing the environmental comfort in addition to an actual energy saving. The sensor of the thermostatic head is a temperature proportional regulator that transmits quickly any changes in temperature to the valve shutter, thereby regulating the fluid flow in the heating body.

/ La testa termostatica regola automaticamente la temperatura ambiente in ogni singolo locale, aumentando così il comfort ambientale oltre ad un effettivo risparmio energetico. L'elemento sensibile della testa termostatica è un regolatore proporzionale di temperatura che trasmette rapidamente eventuali variazioni di temperatura all'otturatore della valvola, regolando così il flusso del fluido nel corpo scaldante.

/ Der Thermostatkopf regelt die Temperatur in jedem einzelnen Raum und somit erzielt eine Erhöhung des Raumkomfort neben einer effektiven Energieeinsparung. Das sensitive Element des Thermostatkopf und eine proportionale Temperaturregler überträgt schnell alle Temperaturschwankungen am Ventilschluss und regelt somit den Durchfluss der Flüssigkeit im Heizkörper.

/ La tête thermostatique ajuste automatiquement la température dans chaque pièce, augmentant ainsi le confort de l'environnement en plus des économies d'énergie réelles. L'élément de détection de la tête thermostatique est un régulateur proportionnel qui face à une variation de température va changer la position de l'obturateur du robinet réglant ainsi le débit du fluide dans le radiateur.

THERMOSTATIC HEAD WITH LIQUID SENSOR - MOD. 101

/ TESTA TERMOSTATICA CON SENSORE A LIQUIDO MOD. 101
/ THERMOSTAT-KOPF MIT FLÜSSIGFÜHLER MOD. 101
/ TÊTE THERMOSTATIQUE BULBE À LIQUIDE MOD. 101

101

CODE	TECH. CODE	COLOR	
88.21.412	TH010100SPR0	WHITE - WITH LOGO	100
88.21.413	TH010100NEUC	CHROME - NO LOGO	100

TECHNICAL FEATURES:

Liquid thermostat	
Setting range:	from 6°C to 30°C
Hysteresis:	< 0.50K
Maximum temperature:	120° C
Maximum working pressure:	10 Bar
Intermediate position (20°C)	coincides with the position 3
Maximum Δp:	1 Bar
Minimal position (6° C)	coincides with the position *

TECHNISCHE EIGENSCHAFTEN:

Fluessigkeitsthermostat	
Bedienungsbreite	von 6° C bis 30° C
Hysterese	< 0.50K
Max. Temperatur	120° C
Max. Betriebsdruck	10 bar
Mittelposition (20° C)	entspricht der Pos. 3
Maximaler Δp	1 Bar
Mindestposition (6° C)	entspricht der Pos. *

CARATTERISTICHE TECNICHE:

Termostato a liquido	
Campo di regolazione:	da 6°C a 30°C
Isteresi:	< 0.50K
Temperatura massima:	120° C
Massima pressione d'esercizio:	10 Bar
Posizione intermedia (20° C)	corrisponde alla posizione 3
Massimo Δp:	1 Bar
Posizione minima (6° C)	corrisponde alla posizione *

CARACTÉRISTIQUES TECHNIQUES:

Thermostat liquide	
Plage de réglage:	de 6 ° C à 30 ° C
Hystérésis:	< 0.50K
Température maximale:	120° C
Pression de service maximale:	10 bar
Position intermédiaire (20°C)	correspond à la position 3
maximale Δp:	1 Bar
Position minimum (6°C)	correspond à la position *



THERMOSTATIC HEAD WITH LIQUID SENSOR - MOD. 103. WITH INTEGRATED CONTROL AND REMOTE SENSOR

/ TESTA TERMOSTATICA CON SENSORE A LIQUIDO MOD. 103 CON COMANDO INCORPORATO E SENSORE A DISTANZA
 / THERMOSTAT-KOPF MIT FLÜSSIGFÜHLER MOD. 103 MIT EINGEBAUTER STEUERUNG UND FERNBEDIENUNGSSENSOR
 / TÊTE THÉRMOSTATIQUE BULBE À LIQUIDE MOD. 103 COMMANDE DANS LA TÊTE ET SONDE À DISTANCE



103

CODE	TECH. CODE	
88.21.404	TH010300NEU0	6

TECHNICAL FEATURES:

Sensor:	Liquid
Adjustment range:	6° C ÷ 28° C
Hysteresis:	0.5 K
Intermediate position (20°C):	coincides with the position 3
Minimum position (6°C):	coincides with the position *
Differential pressure influence:	0.5 K
Influence of ambient temperature:	0.3 K
Length of capillary:	2 m

CARATTERISTICHE TECNICHE:

Sensore:	Liquido
Campo di regolazione:	6° C ÷ 28° C
Isteresi:	0.5 K
Posizione intermedia (20°C):	corrisponde alla posizione 3
Posizione minima (6°C):	corrisponde alla posizione *
Influenza pressione differenziale:	0.5 K
Influenza temperatura ambientale:	0.3 K
Lunghezza capillare:	2 m

TECHNISCHE EIGENSCHAFTEN:

Sensor:	Liquid
Einstellbereich:	6° C ÷ 28° C
Hysterese:	0.5 K
Zwischenposition (20° C):	entspricht der Pos. 3
Mindestposition (6° C):	entspricht der Pos. *
Einfluss des Differenzdruckes:	0.5 K
Einfluss der Umgebungstemperatur:	0.3 K
Kapillarlänge:	2 m

CARACTÉRISTIQUES TECHNIQUES:

Capteur:	Liquid
Plage de réglage:	6° C ÷ 28° C
Hystérésis:	0.5 K
Position intermédiaire (20° C):	correspond à la position 3
Minimum position (6° C):	correspond à la position *
Influence de la pression différentielle:	0.5 K
Influence de la température ambiante:	0.3 K
Longueur de la sonde:	2 m

THERMOSTATIC VALVES

/ VALVOLE TERMOSTATIZZABILI
/ THERMOSTATVENTILE
/ ROBINETS THERMOSTATIQUES

BRASS



UNI EN 12164/12165
CW 617N
DIN 50930-6

PREMIUM
SERIES



IRON PIPE

WHITE
HANDWHEELFLOW
PRESETTINGPRE-ASSEMBLED
TAILSTANDARD
TAIL

ANGLE THERMOSTATIC RADIATOR VALVE MOD. 105 PREMIUM

/ VALVOLA PER RADIATORE TERMOSTATICA AD
ANGOLO MOD. 105 PREMIUM
/ THERMOSTATVENTIL ECKFORM FÜR
HEIZKÖRPER MOD. 105 PREMIUM
/ ROBINET RADIATEUR THERMOSTATISABLE
ÉQUERRE MOD. 105 PREMIUM



O-RING

105

CODE	TECH. CODE	SIZE	
88.16.004	THJ10500300N	3/8"	40
88.16.005	THJ10500500N	1/2"	40

ANGLE LOCKSHIELD - MOD. 111

/ DETENTORE AD ANGOLO MOD. 111
/ RÜCKLAUFVENTIL ECKFORM MOD. 111
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 111



O-RING

111

CODE	TECH. CODE	SIZE	
88.16.010	VTJ11100300N	3/8"	60
88.16.011	VTJ11100500N	1/2"	60

ANGLE LOCKSHIELD MOD. 117

/ DETENTORE AD ANGOLO MOD. 117
/ RÜCKLAUFVENTIL ECKFORM MOD. 117
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 117



O-RING

117

CODE	TECH. CODE	SIZE	
88.16.016	VTJ11700300N	3/8"	80
88.16.017	VTJ11700500N	1/2"	80

ANGLE THERMOSTATIC RADIATOR VALVE MOD. 105 PREMIUM

/ VALVOLA PER RADIATORE TERMOSTATICA AD
ANGOLO MOD. 105 PREMIUM
/ THERMOSTATVENTIL ECKFORM FÜR
HEIZKÖRPER MOD. 105 PREMIUM
/ ROBINET RADIATEUR THERMOSTATISABLE
ÉQUERRE MOD. 105 PREMIUM



105

CODE	TECH. CODE	SIZE	
88.16.007	TH010500300N	3/8"	40
88.16.008	TH010500500N	1/2"	40
88.16.009	TH010500700N	3/4"	40
88.16.021	TH010501000N	1"	15

ANGLE LOCKSHIELD - MOD. 111

/ DETENTORE AD ANGOLO MOD. 111
/ RÜCKLAUFVENTIL ECKFORM MOD. 111
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 111



111

CODE	TECH. CODE	SIZE	
88.16.013	VT011100300N	3/8"	60
88.16.014	VT011100500N	1/2"	60
88.16.015	VT011100700N	3/4"	40
88.16.012	VT011101000N	1"	15

ANGLE LOCKSHIELD MOD. 117

/ DETENTORE AD ANGOLO MOD. 117
/ RÜCKLAUFVENTIL ECKFORM MOD. 117
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 117



117

CODE	TECH. CODE	SIZE	
88.16.019	VT011700300N	3/8"	80
88.16.020	VT011700500N	1/2"	80

STRAIGH RADIATOR VALVE MOD. 106 PREMIUM

/ VALVOLA PER RADIATORE TERMOSTATICA DIRITTA MOD. 106 PREMIUM
 / THERMOSTATVENTIL DURCHGANGSFORM FÜR HEIZKÖRPER MOD. 106 PREMIUM
 / ROBINET RADIATEUR THÉRMOSTATISABLE DROIT MOD. 106 PREMIUM



O-RING

106

CODE	TECH. CODE	SIZE	
88.16.022	THJ10600300N	3/8"	40
88.16.023	THJ10600500N	1/2"	40

STRAIGHT LOCKSHIELD MOD. 110

/ DETENTORE DIRITTO MOD. 110
 / RÜCKLAUFVENTIL DURCHGANGSFORM MOD. 110
 / TÉ DE RÉGLAGE DROIT MOD. 110



O-RING

110

CODE	TECH. CODE	SIZE	
88.16.028	VTJ11000300N	3/8"	60
88.16.029	VTJ11000500N	1/2"	60

STRAIGH RADIATOR VALVE MOD. 106 PREMIUM

/ VALVOLA PER RADIATORE TERMOSTATICA DIRITTA MOD. 106 PREMIUM
 / THERMOSTATVENTIL DURCHGANGSFORM FÜR HEIZKÖRPER MOD. 106 PREMIUM
 / ROBINET RADIATEUR THÉRMOSTATISABLE DROIT MOD. 106 PREMIUM



106

CODE	TECH. CODE	SIZE	
88.16.025	TH010600300N	3/8"	40
88.16.026	TH010600500N	1/2"	40
88.16.027	TH010600700N	3/4"	40
88.16.024	TH010601000N	1"	40

STRAIGHT LOCKSHIELD MOD. 110

/ DETENTORE DIRITTO MOD. 110
 / RÜCKLAUFVENTIL DURCHGANGSFORM MOD. 110
 / TÉ DE RÉGLAGE DROIT MOD. 110



110

CODE	TECH. CODE	SIZE	
88.16.031	VT011000300N	3/8"	60
88.16.032	VT011000500N	1/2"	60
88.16.033	VT011000700N	3/4"	60
88.16.030	VT011001000N	1"	60

REVERSE THERMOSTATIC RADIATOR VALVE MOD. 107

/ VALVOLA PER RADIATORE TERMOSTATICA ROVESCIAIA MOD. 107
 / THERMOSTATVENTIL MIT HANDRAD FÜR HEIZKÖRPER MOD. 107
 / ROBINET RADIATEUR THÉRMOSTATISABLE ÉQUERRE INVERSÉ MOD. 107



O-RING

107

CODE	TECH. CODE	SIZE	
88.16.040	THJ10700500N •	1/2"	40

• WITHOUT FLOW PRESETTING

REVERSE THERMOSTATIC RADIATOR VALVE MOD. 107

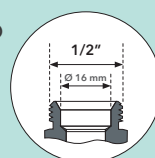
/ VALVOLA TERMOSTATICA PER RADIATORE ROVESCIAIA MOD. 107
 / THERMOSTATVENTIL MIT HANDRAD FÜR HEIZKÖRPER MOD. 107
 / ROBINET RADIATEUR THÉRMOSTATISABLE ÉQUERRE INVERSÉ MOD. 107



107

CODE	TECH. CODE	SIZE	
88.16.041	TH010700500N •	1/2"	40

• WITHOUT FLOW PRESETTING

COPPER
PIPEMULTILAYER
PIPEWHITE
HANDWHEELFLOW
PRESETTINGPRE-ASSEMBLED
TAILSTANDARD
TAIL**ANGLE THERMOSTATIC RADIATOR VALVE
MOD. 105R PREMIUM**

/ VALVOLA PER RADIATORE TERMOSTATICA AD
ANGOLO MOD. 105R PREMIUM
/ THERMOSTATVENTIL ECKFORM FÜR
HEIZKÖRPER MOD. 105R PREMIUM
/ ROBINET RADIATEUR THERMOSTATISABLE
ÉQUERRE MOD. 105R PREMIUM



O-RING

105R

CODE	TECH. CODE	SIZE	
88.16.049	THJ105R0300N	3/8"	40
88.16.050	THJ105R0500N	1/2"	40

ANGLE LOCKSHIELD MOD. 111R

/ DETENTORE AD ANGOLO MOD. 111R
/ RÜCKLAUFVENTIL ECKFORM MOD. 111R
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 111R



O-RING

111R

CODE	TECH. CODE	SIZE	
88.16.055	VTJ111R0300N	3/8"	80
88.16.056	VTJ111R0500N	1/2"	80

ANGLE LOCKSHIELD MOD. 117R

/ DETENTORE AD ANGOLO MOD. 117R
/ RÜCKLAUFVENTIL ECKFORM MOD. 117R
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 117R



O-RING

117R

CODE	TECH. CODE	SIZE	
88.16.061	VTJ117R0300N	3/8"	80
88.16.062	VTJ117R0500N	1/2"	80

**ANGLE THERMOSTATIC RADIATOR VALVE
MOD. 105R PREMIUM**

/ VALVOLA PER RADIATORE TERMOSTATICA AD
ANGOLO MOD. 105R PREMIUM
/ THERMOSTATVENTIL ECKFORM FÜR
HEIZKÖRPER MOD. 105R PREMIUM
/ ROBINET RADIATEUR THERMOSTATISABLE
ÉQUERRE MOD. 105R PREMIUM

**105R**

CODE	TECH. CODE	SIZE	
88.16.052	TH0105R0300N	3/8"	40
88.16.053	TH0105R0500N	1/2"	40

ANGLE LOCKSHIELD MOD. 111R

/ DETENTORE AD ANGOLO MOD. 111R
/ RÜCKLAUFVENTIL ECKFORM MOD. 111R
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 111R

**111R**

CODE	TECH. CODE	SIZE	
88.16.058	VT0111R0300N	3/8"	80
88.16.059	VT0111R0500N	1/2"	80

ANGLE LOCKSHIELD MOD. 117R

/ DETENTORE AD ANGOLO MOD. 117R
/ RÜCKLAUFVENTIL ECKFORM MOD. 117R
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 117R

**117R**

CODE	TECH. CODE	SIZE	
88.16.064	VT0117R0300N	3/8"	80
88.16.065	VT0117R0500N	1/2"	80

STRAIGHT THERMOSTATIC RADIATOR VALVE MOD. 106R PREMIUM

/ VALVOLA PER RADIATORE TERMOSTATICA DIRITTA MOD. 106R PREMIUM
/ THERMOSTATVENTIL DURCHGANGSFORM FÜR HEIZKÖRPER MOD. 106R PREMIUM
/ ROBINET RADIATEUR THÉMOSTATISABLE DROIT MOD. 106R PREMIUM



O-RING

106R

CODE	TECH. CODE	SIZE	
88.16.067	THJ106R0300N	3/8"	40
88.16.068	THJ106R0500N	1/2"	30

STRAIGHT LOCKSHIELD MOD. 110R

/ DETENTORE DIRITTO MOD. 110R
/ RÜCKLAUFVENTIL DURCHGANGSFORM MOD. 110R
/ TÉ DE RÉGLAGE DROIT MOD. 110R



O-RING

110R

CODE	TECH. CODE	SIZE	
88.16.073	VTJ110R0300N	3/8"	80
88.16.074	VTJ110R0500N	1/2"	80

STRAIGHT THERMOSTATIC RADIATOR VALVE MOD. 106R PREMIUM

/ VALVOLA PER RADIATORE TERMOSTATICA DIRITTA MOD. 106R PREMIUM
/ THERMOSTATVENTIL DURCHGANGSFORM FÜR HEIZKÖRPER MOD. 106R PREMIUM
/ ROBINET RADIATEUR THÉMOSTATISABLE DROIT MOD. 106R PREMIUM



106R

CODE	TECH. CODE	SIZE	
88.16.070	TH0106R0300N	3/8"	40
88.16.071	TH0106R0500N	1/2"	30

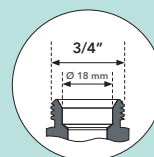
STRAIGHT LOCKSHIELD MOD. 110R

/ DETENTORE DIRITTO MOD. 110R
/ RÜCKLAUFVENTIL DURCHGANGSFORM MOD. 110R
/ TÉ DE RÉGLAGE DROIT MOD. 110R



110R

CODE	TECH. CODE	SIZE	
88.16.076	VT0110R0300N	3/8"	80
88.16.077	VT0110R0500N	1/2"	80

COPPER
PIPEMULTILAYER
PIPEWHITE
HANDWHEELPRE-ASSEMBLED
TAILFLOW
PRESETTINGSTANDARD
TAIL

EUROCONE

**ANGLE THERMOSTATIC RADIATOR VALVE
MOD. 105E PREMIUM**

/ VALVOLA PER RADIATORE TERMOSTATICA AD
ANGOLO MOD. 105E PREMIUM
/ THERMOSTATVENTIL ECKFORM
FÜR HEIZKÖRPER MOD. 105E PREMIUM
/ ROBINET RADIATEUR THERMOSTATISABLE
ÉQUERRE MOD. 105E PREMIUM



O-RING

105E

CODE	TECH. CODE	SIZE	
88.16.085	THJ105E0500N	1/2"	40

ANGLE LOCKSHIELD MOD. 111E

/ DETENTORE AD ANGOLO MOD. 111E
/ RÜCKLAUFVENTIL ECKFORM MOD. 111E
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 111E



O-RING

111E

CODE	TECH. CODE	SIZE	
88.16.088	VTJ111E0500N	1/2"	80

**ANGLE THERMOSTATIC RADIATOR VALVE
MOD. 105E PREMIUM**

/ VALVOLA PER RADIATORE TERMOSTATICA AD
ANGOLO MOD. 105E PREMIUM
/ THERMOSTATVENTIL ECKFORM
FÜR HEIZKÖRPER MOD. 105E PREMIUM
/ ROBINET RADIATEUR THERMOSTATISABLE
ÉQUERRE MOD. 105E PREMIUM

**105E**

CODE	TECH. CODE	SIZE	
88.16.086	TH0105E0500N	1/2"	40

ANGLE LOCKSHIELD MOD. 111E

/ DETENTORE AD ANGOLO MOD. 111E
/ RÜCKLAUFVENTIL ECKFORM MOD. 111E
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 111E

**111E**

CODE	TECH. CODE	SIZE	
88.16.089	VT0111E0500N	1/2"	80

**STRAIGHT THERMOSTATIC RADIATOR
VALVE MOD. 106E PREMIUM**

/ VALVOLA PER RADIATORE TERMOSTATICA
DIRITTA MOD. 106E PREMIUM
/ THERMOSTATVENTIL DURCHGANGSFORM
FÜR HEIZKÖRPER MOD. 106E PREMIUM
/ ROBINET RADIATEUR THERMOSTATISABLE
DROIT MOD. 106E PREMIUM

**106E**

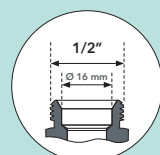
CODE	TECH. CODE	SIZE	
88.16.096	TH0106E0500N	1/2"	40

STRAIGHT LOCKSHIELD MOD. 110E

/ DETENTORE DIRITTO MOD. 110E
/ RÜCKLAUFVENTIL DURCHGANGSFORM
MOD. 110E
/ TÉ DE RÉGLAGE DROIT MOD. 110E

**110E**

CODE	TECH. CODE	SIZE	
88.16.099	VT0110E0500N	1/2"	80

CHROME
SERIESCOPPER
PIPEMULTILAYER
PIPEWHITE
HANDWHEELCHROME
HANDWHEELREGULATION
RING TAILFLOW
PRESETTINGANGLE THERMOSTATIC RADIATOR VALVE
MOD. 105R CHROME-PLATED

/ VALVOLA PER RADIATORE TERMOSTATICA AD
ANGOLO MOD. 105R CROMATA
/ THERMOSTATVENTIL ECKFORM FÜR
HEIZKÖRPER MOD. 105R VERCHROMT
/ ROBINET RADIATEUR THERMOSTATISABLE
ÉQUERRE MOD. 105R CHROMÉE



105R - CP

CODE	TECH. CODE	SIZE	HANDWHEEL	
88.16.170	THY105R03M0C	3/8"	WHITE	35
88.16.171	THY105R05M0C	1/2"	WHITE	35
88.16.180	THY105R03MCC	3/8"	CHROME PL.	35
88.16.181	THY105R05MCC	1/2"	CHROME PL.	35

ANGLE LOCKSHIELD MOD. 211R
CHROME-PLATED

/ DETENTORE AD ANGOLO MOD. 211R
CROMATA
/ RÜCKLAUFVENTIL ECKFORM
MOD. 211R VERCHROMT
/ TÉ DE RÉGLAGE ÉQUERRE
MOD. 211R CHROMÉE



211R - CP

CODE	TECH. CODE	SIZE	HANDWHEEL	
88.16.175	VTY211R03T0C	3/8"	WHITE	35
88.16.176	VTY211R05T0C	1/2"	WHITE	35
88.16.185	VTY211R03TCC	3/8"	CHROME PL.	35
88.16.186	VTY211R05TCC	1/2"	CHROME PL.	35

ADAPTORS PAG. 280

PREMIUM ACCESSORIES

/ ACCESSORI PREMIUM
/ ZUBEHÖR PREMIUM
/ ACCESSOIRES PREMIUM

TOOL FOR MOD. PREMIUM HEADWORK
SHUTTER REPLACEMENT

/ CHIAVE PER SOSTITUZIONE OTTURATORE
VALVOLA PREMIUM
/ SCHLÜSSEL ZUM AUSTAUSCH DES VENTILES
PREMIUM
/ CLEF POUR REMPLACEMENT OBTURATEUR
ROBINET PREMIUM



CODE	TECH. CODE	
88.16.309	VA0CHIAVETH1	1

TELESCOPIC CONNECTION FOR
THERMOSTATIC RADIATOR VALVE
PREMIUM MOD. 168

/ CODULO TELESCOPICO PER VALVOLA
TERMOSTATICA PREMIUM MOD.168
/ TELESKOPSCHLUSSTEIL FÜR
THERMOSTATVENTIL PREMIUM MOD.168
/ UNION TELESCOPIQUE POUR ROBINET
RADIATEUR THERMOSTATISABLE PREMIUM
MOD.168



168

CODE	TECH. CODE	SIZE	
88.16.045	DC016800500N	1/2" M nut 3/4"	10



IRON PIPE

WHITE 3 PCS
HANDWHEELFLOW
PRESETTINGREGULATION
RING TAIL**ANGLE THERMOSTATIC RADIATOR VALVE
MOD. 105 GOLD**

/ VALVOLA PER RADIATORE TERMOSTATICA AD
ANGOLO MOD. 105 GOLD
/ THERMOSTATVENTIL ECKFORM FÜR
HEIZKÖRPER MOD. 105 GOLD
/ ROBINET RADIATEUR THERMOSTATISABLE
ÉQUERRE MOD. 105 GOLD



O-RING

105

CODE	TECH. CODE	SIZE	
88.21.298	THY105003V0N	3/8"	25
88.21.303	THY105005V0N	1/2"	25
88.21.299	TH0105007V0N	3/4" •	25

• WITHOUT RING TAIL

ANGLE LOCKSHIELD MOD. 111

/ DETENTORE AD ANGOLO MOD. 111
/ RÜCKLAUFVENTIL ECKFORM MOD. 111
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 111



O-RING

111

CODE	TECH. CODE	SIZE	
88.21.319	VTY11100300N	3/8"	50
88.21.323	VTY11100500N	1/2"	50

**STRAIGHT THERMOSTATIC RADIATOR
VALVE MOD. 106 GOLD**

/ VALVOLA PER RADIATORE TERMOSTATICA
DIRITTA MOD. 106 GOLD
/ THERMOSTATVENTIL DURCHGANGSFORM
FÜR HEIZKÖRPER MOD. 106 GOLD
/ ROBINET RADIATEUR THERMOSTATISABLE
DROIT MOD. 106 GOLD



O-RING

106

CODE	TECH. CODE	SIZE	
88.21.308	THY106003V0N	3/8"	20
88.21.313	THY106005V0N	1/2"	20
88.21.309	TH0106007V0N	3/4" •	20

• WITHOUT RING TAIL

STRAIGHT LOCKSHIELD MOD. 110

/ DETENTORE DIRITTO MOD. 110
/ RÜCKLAUFVENTIL DURCHGANGSFORM
MOD. 110
/ TÉ DE RÉGLAGE DROIT MOD. 110



O-RING

110

CODE	TECH. CODE	SIZE	
88.21.329	VTY11000300N	3/8"	40
88.21.328	VTY11000500N	1/2"	40

ACCESSORIES

/ ACCESSORI
/ ZUBEHÖR
/ ACCESSOIRES

**ANGLE ADAPTOR FOR
THERMOSTATIC HEAD**

/ ADATTATORE ANGOLARE PER TESTA
TERMOSTATICA
/ WINKELADAPTER FÜR THERMOSTAT-KOPF
/ ADAPTATEUR D'ANGLE POUR TÊTE
THERMOSTATISABLE



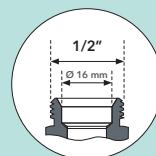
CODE	TECH. CODE	SIZE	
88.21.401	TH0110000000	M30 x 1,5	10

WHITE MANUAL HANDWHEEL 3 PCS

/ MANOPOLA MANUALE BIANCA 3 PEZZI
/ MANUAL KNOF WEISS 3 STÜCKE
/ POIGNÉE MANUELLE BLANCHE 3 PIÈCES



CODE	TECH. CODE	SIZE		
88.10.370	VO0105003/PZ	3/8" - 1/2"	20	500

GOLD
SERIESCOPPER
PIPEMULTILAYER
PIPEWHITE 3 PCS
HANDWHEELFLOW
PRESETTINGREGULATION
RING TAILANGLE THERMOSTATIC RADIATOR VALVE
MOD. 105R GOLD

/ VALVOLA PER RADIATORE TERMOSTATICA AD
ANGOLO MOD. 105R GOLD
/ THERMOSTATVENTIL ECKFORM FÜR
HEIZKÖRPER MOD. 105R GOLD
/ ROBINET RADIATEUR THERMOSTATISABLE
ÉQUERRE MOD. 105R GOLD



O-RING

105R

CODE	TECH. CODE	SIZE	
88.21.252	THY105R03V0N	3/8"	25
88.21.253	THY105R05V0N	1/2"	25

ANGLE LOCKSHIELD MOD. 111R

/ DETENTORE AD ANGOLO MOD. 111R
/ RÜCKLAUFVENTIL ECKFORM MOD. 111R
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 111R



O-RING

111R

CODE	TECH. CODE	SIZE	
88.21.272	VTY111R0300N	3/8"	50
88.21.273	VTY111R0500N	1/2"	50

STRAIGHT THERMOSTATIC RADIATOR
VALVE MOD. 106R GOLD

/ VALVOLA PER RADIATORE TERMOSTATICA
DIRITTA MOD. 106R GOLD
/ THERMOSTATVENTIL DURCHGANGSFORM
FÜR HEIZKÖRPER MOD. 106R GOLD
/ ROBINET RADIATEUR THERMOSTATISABLE
DROIT MOD. 106R GOLD



106R

CODE	TECH. CODE	SIZE	
88.21.262	THY106R03V0N	3/8"	20
88.21.263	THY106R05V0N	1/2"	20

STRAIGHT LOCKSHIELD MOD. 110R

/ DETENTORE DIRITTO MOD. 110R
/ RÜCKLAUFVENTIL DURCHGANGSFORM
MOD. 110R
/ TÉ DE RÉGLAGE DROIT MOD. 110R



110R

CODE	TECH. CODE	SIZE	
88.21.277	VTY110R0300N	3/8"	40
88.21.278	VTY110R0500N	1/2"	40

AIR VENT VALVE

/ VALVOLA SFIATO ARIA
/ ENTLÜFTUNGSVENTIL
/ PURGEUR DE RADIATEUR À VOLANT



113

CODE	TECH. CODE	SIZE		
88.16.115	SP011300200N	1/4"	10	120
88.16.116	SP011300300N	3/8"	10	120
88.16.117	SP011300500N	1/2"	10	120

PIPE COVERING PLASTIC WASHER

/ ROSETTA IN PLASTICA COPRITUBO
/ KUNSTSTOFFROSETTE FÜR ROHRABDECKUNG
/ RONDELLE EN PLASTIQUE COUVRE-TUBE



099

CODE	TECH. CODE	SIZE	
88.16.111	VA0ROS000990		60

WASHER WALL COVER

/ ROSETTA IN PLASTICA
/ KUNSTSTOFFROSETTE
/ RONDELLE EN PLASTIQUE

PIPE Ø MAX 16 mm!
TUBO Ø MAX 16 mm!

098

CODE	TECH. CODE	SIZE	
88.16.110	VA0ROS000980		25



IRON PIPE

FLOW
PRESETTINGPRE-ASSEMBLED
TAILSTANDARD
TAIL

THERMOSTATIC KIT X SERIES FOR IRON PIPE

/ KIT TERMOSTATICO SERIE X PER TUBO FERRO
/ KIT THERMOSTATIK SERIE X FÜR EISENROHR
/ KIT THERMOSTATIQUE SÉRIE X POUR TUBE FER

X SERIES



CONNECTION	THERMOSTATIC VALVE	LOCKSHIELD	THERMOSTATIC HEAD	CODE	TECH. CODE	KIT
3/8" Iron angle Standard				88.16.140	KS01050030X1	10
3/8" Iron angle With O-ring and fixed ring				88.16.141	KSJ1050030X1	
1/2" Iron angle Standard				88.16.145	KS01050050X1	10
1/2" Iron angle With O-ring and fixed ring				88.16.146	KSJ1050050X1	

THERMOSTATIC KIT PREMIUM SERIES FOR IRON PIPE

/ KIT TERMOSTATICO SERIE PREMIUM PER TUBO FERRO
/ KIT THERMOSTATIK SERIE PREMIUM FÜR EISENROHR
/ KIT THERMOSTATIQUE SÉRIE PREMIUM POUR TUBE FER

PREMIUM SERIES



CONNECTION	THERMOSTATIC VALVE	LOCKSHIELD	THERMOSTATIC HEAD	CODE	TECH. CODE	KIT
3/8" Iron angle Standard				88.16.190	KS0105003001	10
3/8" Iron angle With O-ring and fixed ring				88.16.191	KSJ105003001	
1/2" Iron angle Standard				88.16.195	KS0105005001	10
1/2" Iron angle With O-ring and fixed ring				88.16.196	KSJ105005001	

CONNECTION	THERMOSTATIC VALVE	LOCKSHIELD	THERMOSTATIC HEAD	CODE	TECH. CODE	KIT
3/8" Iron straight Standard				88.16.142	KS0106003001	10
3/8" Iron straight With O-ring and fixed ring				88.16.143	KSJ106003001	
1/2" Iron straight Standard				88.16.147	KS0106005001	10
1/2" Iron straight With O-ring and fixed ring				88.16.148	KSJ106005001	

KIT

COPPER
PIPEMULTILAYER
PIPEFLOW
PRESETTINGPRE-ASSEMBLED
TAILSTANDARD
TAIL**THERMOSTATIC KIT X SERIES FOR MULTILAYER AND COPPER PIPE**

/ KIT THERMOSTATICO SERIE X PER TUBO RAME E MULTISTRATO
/ KIT THERMOSTATIK SERIE X FÜR KUPFERROHR UND VERBUNDROHR
/ KIT THERMOSTATIQUE SÉRIE X POUR TUBE CUIVRE ET MULTICOUCHE

X SERIES

CONNECTION	THERMOSTATIC VALVE	LOCKSHIELD	THERMOSTATIC HEAD	CODE	TECH. CODE	KIT
3/8" Multilayer copper pipe angle Standard				88.16.150	KS0105R030X1	10
3/8" Multilayer and copper pipe angle With O-ring and fixed ring				88.16.151	KSJ105R030X1	

1/2" Multilayer and copper pipe angle Standard				88.16.155	KS0105R050X1	10
1/2" Multilayer and copper pipe angle With O-ring and fixed ring				88.16.156	KSJ105R050X1	

THERMOSTATIC KIT PREMIUM SERIES FOR MULTILAYER AND COPPER PIPE

/ KIT THERMOSTATICO SERIE PREMIUM PER TUBO RAME E MULTISTRATO
/ KIT THERMOSTATIK SERIE PREMIUM FÜR KUPFERROHR UND VERBUNDROHR
/ KIT THERMOSTATIQUE SÉRIE PREMIUM POUR TUBE CUIVRE ET MULTICOUCHE

PREMIUM SERIES

CONNECTION	THERMOSTATIC VALVE	LOCKSHIELD	THERMOSTATIC HEAD	CODE	TECH. CODE	KIT
3/8" Multilayer and copper pipe angle Standard				88.16.160	KS0105R03001	10
3/8" Multilayer and copper pipe angle With O-ring and fixed ring				88.16.161	KSJ105R03001	

1/2" Multilayer and copper pipe angle Standard				88.16.165	KS0105R05001	10
1/2" Multilayer and copper pipe angle With O-ring and fixed ring				88.16.166	KSJ105R05001	

3/8" Multilayer and copper pipe straight Standard				88.16.152	KS0106R03001	10
3/8" Multilayer and copper pipe straight With O-ring and fixed ring				88.16.153	KSJ106R03001	

1/2" Multilayer and copper pipe straight Standard				88.16.168	KS0106R05001	10
1/2" Multilayer and copper pipe straight With O-ring and fixed ring				88.16.169	KSJ106R05001	

SINGLE / DOUBLE-PIPE FOR RADIATORS

/ VALVOLE RADIATORE MONO/BI-TUBO
/ EINROHR/ZWEIROHRVENTILE FÜR HEIZKÖRPER
/ ROBINETS MONOTUBE/BITUBE POUR RADIATEURS

BRASS

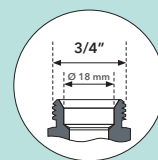
UNI EN 12164/12165
CW 617N
DIN 50930-6



COPPER PIPE



MULTILAYER PIPE



SINGLE - PIPE MANUAL RADIATOR VALVE MOD. 201

/ VALVOLA RADIATORE MANUALE
MONOTUBO MOD. 201
/ EINROHR MANUELLES HANDVENTIL
MOD. 201
/ ROBINET RADIATEUR MANUEL
MONOTUBE MOD. 201



40 mm

201

CODE	TECH. CODE	SIZE	CONNECTION	
88.16.301	MT0201E0500N	1/2"	3/4"	24

PROBE BEARING TAIL FOR MOD. 201

/ BOCCHETTONE PORTASONDA
PER MOD. 201
/ FÜLLSTOFF SONDENHALTER
FÜR MOD.201
/ DOUILLE PORTE-SONDE POUR MOD. 201
MONO-BITUBE REVERSIBLE



CODE	TECH. CODE	SIZE	
88.16.305	DC0202D0500N	1/2"	250
88.16.306	DC0202D0700N	3/4"	200

• ON REQUEST / SU RICHIESTA / AUF ANFRAGE / SUR COMMANDE

ACCESSORIES AND SPARES PARTS MOD. 201

WHITE HANDWHEEL FOR MOD. 201

/ MANOPOLA BIANCA PER MOD. 201
/ WEISS HANDRAD MOD. 201
/ VOLANT BLANC POUR MOD. 201



CODE	TECH. CODE	SIZE	
88.16.310	VO0201000000	1/2" - 3/4"	180

DOUBLE PLASTIC COVERING WASHER FOR MOD. 201

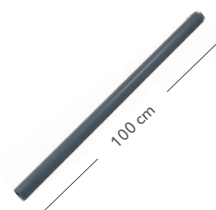
/ ROSETTA DOPPIA COPRITUBO IN PLASTICA
PER MOD. 201
/ DOPPEL KUNSTSTOFFROSETTEN FÜR MOD.
201
/ DOUBLE CACHE PLASTIQUE POUR MOD. 201



CODE	TECH. CODE	
88.16.311	VA0ROS0D0990	10

PVC INTERNAL PROBE Ø12 FOR FLOW SEPARATION FOR MOD. 201

/ SONDA INTERNA Ø12 IN PVC PER SEPARAZIONE
FLUSSI PER MOD. 201
/ INNERE SONDE Ø12 IN PVC
ZUR FLUSSVERTEILUNG MOD.201
/ SONDE INTERNE Ø12 EN PVC
POUR SÉPARATION DES FLUX MOD. 201



CODE	TECH. CODE	SIZE	
88.16.314	VASONDA1210L	100 cm	1

REVERSE THERMOSTATIC SINGLE / DOUBLE-PIPE VALVE MOD. 200

/ VALVOLA TERMOSTATIZZABILE
/ MONO-BITUBO REVERSIBILE MOD. 200
/ WENDE THERMO EIN/ZWEIROHRVENTIL
/ REVERSIBEL MOD. 200
/ ROBINET THERMOSTATISABLE
/ MONO-BITUBE REVERSIBLE MOD. 200



40 mm

200

CODE	TECH. CODE	SIZE	CONNECTION	
88.16.300	MT0200E0500N	1/2"	3/4"	24

• ON REQUEST / SU RICHIESTA / AUF ANFRAGE / SUR DEMANDE

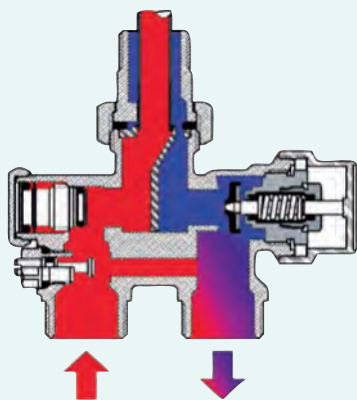
PROBE BEARING TAIL FOR MOD. 200

/ BOCCHETTONE PORTASONDA PER MOD. 200
/ FÜLLSTOFF SONDENHALTER FÜR MOD.200
/ DOUILLE PORTE-SONDE POUR MOD. 200

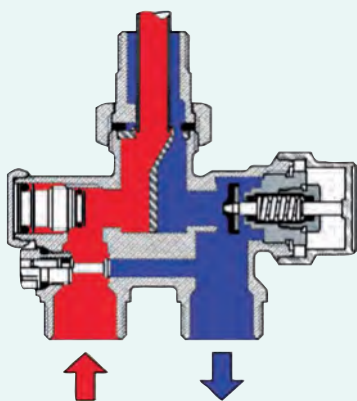


CODE	TECH. CODE	SIZE	
	DC020000500N	1/2"	250

FUNCTIONING



SINGLE-PIPE SYSTEM WITH BYPASS
/ SISTEMA MONOTUBO CON BYPASS
/ EINZEL ROHR-SYSTEM MIT BYPASS
/ SYSTÈME MONOTUBE AVEC BY-PASS



DOUBLE-PIPE SYSTEM WITHOUT BYPASS
/ SISTEMA BITUBO SENZA BYPASS
/ DOPPELROHR SYSTEM OHNE BY-PASS
/ SYSTÈME BITUBE SANS BY-PASS



Use: Max pressure 10 Bar at 100°C

/ Utilizzo: Max pressione 10 bar a 100°

/ Einsatzbereich: Max Druck 10 Bar bei 100°C

/ Emploi: pression maxi. 10 bar à 100°C

BRASS THREADED INTERNAL PROBE Ø10 mm FOR MOD.200

/ SONDA INTERNA IN OTTONE FILETTATA Ø10 mm
PER ART.200
/ MESSINGGEWINDE-INNENSONDE Ø10 mm
FÜR MOD.200
/ SONDE INTERNE FILETÉE LAITON Ø10 mm
POUR MOD.200



CODE	TECH. CODE	SIZE	
	VASONOT10300	30 cm	1

MANUAL VALVES

/ VALVOLE MANUALI
/ HANDVENTILE
/ ROBINETS MANUELLES

BRASS

UNI EN 12164/12165
CW 617N
DIN 50930-6

PLUS
SERIES

IRON PIPE

WHITE
HANDWHEELPRE-ASSEMBLED
TAILSTANDARD
TAIL

ANGLE RADIATOR VALVE WITH HANDWHEEL MOD. 119 PLUS

/ VALVOLA RADIATORE
AD ANGOLO MOD. 119 PLUS
/ VORLAUFVENTIL ECKFORM
MOD. 119 PLUS
/ ROBINET POUR RADIATEUR
ÉQUERRE MOD. 119 PLUS



O-RING

119

CODE	TECH. CODE	SIZE	
88.16.224	VTJ11900300N	3/8"	40
88.16.225	VTJ11900500N	1/2"	30

ANGLE LOCKSHIELD MOD. 111

/ DETENTORE AD ANGOLO MOD. 111
/ RÜCKLAUFVENTIL ECKFORM MOD. 111
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 111



O-RING

111

CODE	TECH. CODE	SIZE	
88.16.010	VTJ11100300N	3/8"	60
88.16.011	VTJ11100500N	1/2"	60

ANGLE RADIATOR VALVE WITH HANDWHEEL MOD. 119 PLUS

/ VALVOLA RADIATORE
AD ANGOLO MOD. 119 PLUS
/ VORLAUFVENTIL ECKFORM
MOD. 119 PLUS
/ ROBINET POUR RADIATEUR
ÉQUERRE MOD. 119 PLUS



119

CODE	TECH. CODE	SIZE	
88.16.227	VT011900300N	3/8"	40
88.16.228	VT011900500N	1/2"	30
88.16.229	VT011900700N	3/4"	20
88.16.230	VT011901000N	1"	12

ANGLE LOCKSHIELD MOD. 111

/ DETENTORE AD ANGOLO MOD. 111
/ RÜCKLAUFVENTIL ECKFORM MOD. 111
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 111



111

CODE	TECH. CODE	SIZE	
88.16.013	VT011100300N	3/8"	60
88.16.014	VT011100500N	1/2"	60
88.16.015	VT011100700N	3/4"	40
88.16.239	VT012101000N	1"	16

STRAIGHT RADIATOR VALVE WITH HANDWHEEL MOD. 120 PLUS

/ VALVOLA RADIATORE DIRITTA MOD. 120 PLUS
/ VORLAUFVENTIL DURCHGANGSFORM
MOD.120 PLUS
/ ROBINET POUR RADIATEUR DROIT
MOD. 120 PLUS



O-RING

120

CODE	TECH. CODE	SIZE	
88.16.242	VTJ12000300N	3/8"	40
88.16.243	VTJ12000500N	1/2"	30

STRAIGHT LOCKSHIELD MOD. 122

/ DETENTORE DIRITTO MOD. 122
/ RÜCKLAUFVENTIL DURCHGANGSFORM
MOD. 122
/ TÉ DE RÉGLAGE DROIT MOD. 122



O-RING

122

CODE	TECH. CODE	SIZE	
88.16.251	VTJ12200300N	3/8"	80
88.16.252	VTJ12200500N	1/2"	60

STRAIGHT RADIATOR VALVE WITH HANDWHEEL MOD. 120 PLUS

/ VALVOLA RADIATORE DIRITTA MOD. 120 PLUS
/ VORLAUFVENTIL DURCHGANGSFORM
MOD.120 PLUS
/ ROBINET POUR RADIATEUR DROIT
MOD. 120 PLUS



120

CODE	TECH. CODE	SIZE	
88.16.245	VT012000300N	3/8"	40
88.16.246	VT012000500N	1/2"	30
88.16.247	VT012000700N	3/4"	20
88.16.248	VT012001000N	1"	12
88.16.249	VT012001200N	1 1/4"	8

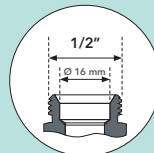
STRAIGHT LOCKSHIELD MOD. 122

/ DETENTORE DIRITTO MOD. 122
/ RÜCKLAUFVENTIL DURCHGANGSFORM
MOD. 122
/ TÉ DE RÉGLAGE DROIT MOD. 122



122

CODE	TECH. CODE	SIZE	
88.16.254	VT012200300N	3/8"	80
88.16.255	VT012200500N	1/2"	60
88.16.033	VT011000700N	3/4"	60
88.16.257	VT012201000N	1"	16
88.16.258	VT012201200N	1 1/4"	12

PLUS
SERIESCOPPER
PIPEMULTILAYER
PIPEWHITE
HANDWHEELPRE-ASSEMBLED
TAILSTANDARD
TAILANGLE RADIATOR VALVE
WITH HANDWHEEL MOD. 119R PLUS

/ VALVOLA RADIATORE AD ANGOLO
MOD. 119R PLUS
/ VORLAUFVENTIL ECKFORM
MOD. 119R PLUS
/ ROBINET POUR RADIATEUR ÉQUERRE
MOD. 119R PLUS



O-RING

119R

CODE	TECH. CODE	SIZE	
88.16.260	VTJ119R0300N	3/8"	30
88.16.261	VTJ119R0500N	1/2"	30

ANGLE LOCKSHIELD MOD. 111R

/ DETENTORE AD ANGOLO MOD. 111R
/ RÜCKLAUFVENTIL ECKFORM MOD. 111R
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 111R



O-RING

111R

CODE	TECH. CODE	SIZE	
88.16.055	VTJ111R0300N	3/8"	80
88.16.056	VTJ111R0500N	1/2"	80

ANGLE RADIATOR VALVE
WITH HANDWHEEL MOD. 119R PLUS

/ VALVOLA RADIATORE AD ANGOLO
MOD. 119R PLUS
/ VORLAUFVENTIL ECKFORM
MOD. 119R PLUS
/ ROBINET POUR RADIATEUR ÉQUERRE
MOD. 119R PLUS



119R

CODE	TECH. CODE	SIZE	
88.16.263	VT0119R0300N	3/8"	30
88.16.264	VT0119R0500N	1/2"	30

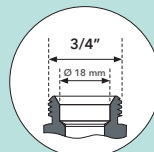
ANGLE LOCKSHIELD MOD. 111R

/ DETENTORE AD ANGOLO MOD. 111R
/ RÜCKLAUFVENTIL ECKFORM MOD. 111R
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 111R



111R

CODE	TECH. CODE	SIZE	
88.16.058	VT0111R0300N	3/8"	80
88.16.059	VT0111R0500N	1/2"	80

PLUS
SERIESCOPPER
PIPEMULTILAYER
PIPEWHITE
HANDWHEELSTANDARD
TAIL

EUROCONC

ANGLE RADIATOR VALVE
WITH HANDWHEEL MOD. 119E PLUS

/ VALVOLA RADIATORE AD ANGOLO
MOD. 119E PLUS
/ VORLAUFVENTIL ECKFORM
MOD. 119E PLUS
/ ROBINET POUR RADIATEUR ÉQUERRE
MOD. 119E PLUS



119E

CODE	TECH. CODE	SIZE	
88.16.235	VT0119E0500N	1/2"	30

ANGLE LOCKSHIELD MOD. 111E

/ DETENTORE AD ANGOLO MOD. 111E
/ RÜCKLAUFVENTIL ECKFORM MOD. 111E
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 111E



111E

CODE	TECH. CODE	SIZE	
88.16.089	VT0111E0500N	1/2"	80

COVER
SERIES

IRON PIPE

WHITE
HANDWHEELSTANDARD
TAIL

ANGLE VALVE MOD. 907 COVER

/ VALVOLA RADIATORE AD ANGOLO MOD. 907 COVER
/ VORLAUFVENTIL ECKFORM MOD.907 COVER
/ ROBINET POUR RADIATEUR ÉQUERRE MOD. 907 COVER



907

CODE	TECH. CODE	SIZE	
88.21.195	VT090700300N	3/8"	100
88.21.200	VT090700500N	1/2"	40
88.21.201	VT090700700N	3/4"	30

ANGLE LOCKSHIELD MOD. 909

/ DETENTORE AD ANGOLO MOD. 909
/ RÜCKLAUFVENTIL ECKFORM MOD.909
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 909



909

CODE	TECH. CODE	SIZE	
88.21.196	VT090900300N	3/8"	100
88.21.204	VT090900500N	1/2"	40
88.21.205	VT090900700N	3/4"	30

STRAIGHT VALVE MOD. 908 COVER

/ VALVOLA RADIATORE DIRITTA MOD. 908 COVER
/ VORLAUFVENTIL DURCHGANGSFORM MOD.908 COVER
/ ROBINET POUR RADIATEUR DROIT MOD. 908 COVER



908

CODE	TECH. CODE	SIZE	
88.21.202	VT090800500N	1/2"	40
88.21.203	VT090800700N	3/4"	30

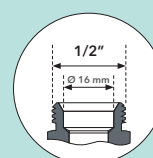
STRAIGHT LOCKSHIELD MOD.910

/ DETENTORE DIRITTO MOD. 910
/ RÜCKLAUFVENTIL DURCHGANGSFORM MOD. 910
/ TÉ DE RÉGLAGE DROIT MOD. 910



910

CODE	TECH. CODE	SIZE	
88.21.206	VT091000500N	1/2"	40
88.21.207	VT091000700N	3/4"	30

COVER
SERIESCOPPER
PIPEMULTILAYER
PIPEWHITE
HANDWHEELSTANDARD
TAIL

ANGLE VALVE MOD. 907R COVER

/ VALVOLA RADIATORE AD ANGOLO MOD. 907R COVER
/ VORLAUFVENTIL ECKFORM MOD.907R COVER
/ ROBINET POUR RADIATEUR ÉQUERRE MOD. 907R COVER



907R

CODE	TECH. CODE	SIZE	
88.21.105	VT0907R0300N	3/8"	40
88.21.110	VT0907R0500N	1/2"	40

ANGLE LOCKSHIELD MOD. 909R

/ DETENTORE AD ANGOLO MOD. 909R
/ RÜCKLAUFVENTIL ECKFORM MOD. 909R
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 909R



909R

CODE	TECH. CODE	SIZE	
88.21.155	VT0909R0300N	3/8"	40
88.21.160	VT0909R0500N	1/2"	40

STRAIGHT VALVE MOD. 908R COVER

/ VALVOLA RADIATORE DIRITTA MOD. 908R COVER
/ VORLAUFVENTIL DURCHGANGSFORM MOD.908R COVER
/ ROBINET POUR RADIATEUR DROIT MOD. 908R COVER



908R

CODE	TECH. CODE	SIZE	
88.21.125	VT0908R0300N	3/8"	40
88.21.130	VT0908R0500N	1/2"	40

STRAIGHT LOCKSHIELD MOD. 910R

/ DETENTORE DIRITTO MOD. 910R
/ RÜCKLAUFVENTIL DURCHGANGSFORM MOD. 910R
/ TÉ DE RÉGLAGE DROIT MOD. 910R



910R

CODE	TECH. CODE	SIZE	
88.21.175	VT0910R0300N	3/8"	40
88.21.180	VT0910R0500N	1/2"	40

X
SERIES

IRON PIPE

WHITE
HANDWHEELPRE-ASSEMBLED
TAILSTANDARD
TAIL**ANGLE VALVE WITH HANDWHEEL
MOD. 115 X**

/ VALVOLA RADIATORE AD ANGOLO
MOD. 115 X
/ VORLAUFVENTIL ECKFORM MOD.115 X
/ ROBINET POUR RADIATEUR ÉQUERRE
MOD. 115 X



O-RING

115

CODE	TECH. CODE	SIZE	
88.16.201	VTJ11500500N	1/2"	40

ANGLE LOCKSHIELD MOD. 117

/ DETENTORE AD ANGOLO MOD. 117
/ RÜCKLAUFVENTIL ECKFORM MOD. 117
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 117



O-RING

117

CODE	TECH. CODE	SIZE	
88.16.017	VTJ11700500N	1/2"	80

**ANGLE VALVE WITH HANDWHEEL
MOD. 115 X**

/ VALVOLA RADIATORE AD ANGOLO
MOD. 115 X
/ VORLAUFVENTIL ECKFORM MOD.115 X
/ ROBINET POUR RADIATEUR ÉQUERRE
MOD. 115 X

**115**

CODE	TECH. CODE	SIZE	
88.16.204	VT011500500N	1/2"	40

ANGLE LOCKSHIELD MOD. 117

/ DETENTORE AD ANGOLO MOD. 117
/ RÜCKLAUFVENTIL ECKFORM MOD. 117
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 117

**117**

CODE	TECH. CODE	SIZE	
88.16.020	VT011700500N	1/2"	80

**STRAIGHT VALVE WITH HANDWHEEL
MOD. 116 X**

/ VALVOLA RADIATORE DIRITTA
MOD. 116 X
/ VORLAUFVENTIL DURCHGANGSFORM
MOD.116 X
/ ROBINET POUR RADIATEUR DROIT
MOD. 116 X



O-RING

116

CODE	TECH. CODE	SIZE	
88.16.206	VTJ11600300N	3/8"	40
88.16.207	VTJ11600500N	1/2"	40

STRAIGHT LOCKSHIELD MOD. 118

/ DETENTORE DIRITTO MOD. 118
/ RÜCKLAUFVENTIL DURCHGANGSFORM
MOD. 118
/ TÉ DE RÉGLAGE DROIT MOD. 118



O-RING

118

CODE	TECH. CODE	SIZE	
88.16.034	VTJ11800300N	3/8"	80
88.16.035	VTJ11800500N	1/2"	80

**STRAIGHT VALVE WITH HANDWHEEL
MOD. 116 X**

/ VALVOLA RADIATORE DIRITTA
MOD. 116 X
/ VORLAUFVENTIL DURCHGANGSFORM
MOD.116 X
/ ROBINET POUR RADIATEUR DROIT
MOD. 116 X

**116**

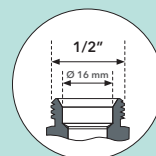
CODE	TECH. CODE	SIZE	
88.16.209	VT011600300N	3/8"	40
88.16.210	VT011600500N	1/2"	40

STRAIGHT LOCKSHIELD MOD. 118

/ DETENTORE DIRITTO MOD. 118
/ RÜCKLAUFVENTIL DURCHGANGSFORM
MOD. 118
/ TÉ DE RÉGLAGE DROIT MOD. 118

**118**

CODE	TECH. CODE	SIZE	
88.16.037	VT011800300N	3/8"	80
88.16.038	VT011800500N	1/2"	80

X
SERIESCOPPER
PIPEMULTILAYER
PIPEWHITE
HANDWHEELPRE-ASSEMBLED
TAILSTANDARD
TAIL**ANGLE VALVE WITH HANDWHEEL
MOD. 115R X**

/ VALVOLA RADIATORE AD ANGOLO
MOD. 115R X
/ VORLAUFVENTIL ECKFORM MOD.115R X
/ ROBINET POUR RADIATEUR ÉQUERRE
MOD. 115R X



O-RING

115R

CODE	TECH. CODE	SIZE	
88.16.212	VTJ115R0300N	3/8"	40
88.16.213	VTJ115R0500N	1/2"	40

ANGLE LOCKSHIELD MOD. 117R

/ DETENTORE AD ANGOLO MOD. 117R
/ RÜCKLAUFVENTIL ECKFORM MOD. 117R
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 117R



O-RING

117R

CODE	TECH. CODE	SIZE	
88.16.061	VTJ117R0300N	3/8"	80
88.16.062	VTJ117R0500N	1/2"	80

**ANGLE VALVE WITH HANDWHEEL
MOD. 115R X**

/ VALVOLA RADIATORE AD ANGOLO
MOD. 115R X
/ VORLAUFVENTIL ECKFORM MOD.115R X
/ ROBINET POUR RADIATEUR ÉQUERRE
MOD. 115R X

**115R**

CODE	TECH. CODE	SIZE	
88.16.215	VT0115R0300N	3/8"	40
88.16.216	VT0115R0500N	1/2"	40

ANGLE LOCKSHIELD MOD. 117R

/ DETENTORE AD ANGOLO MOD. 117R
/ RÜCKLAUFVENTIL ECKFORM MOD. 117R
/ TÉ DE RÉGLAGE ÉQUERRE MOD. 117R

**117R**

CODE	TECH. CODE	SIZE	
88.16.064	VT0117R0300N	3/8"	80
88.16.065	VT0117R0500N	1/2"	80

**STRAIGHT VALVE WITH HANDWHEEL
MOD. 116R X**

/ VALVOLA RADIATORE DIRITTA
MOD. 116R X
/ VORLAUFVENTIL DURCHGANGSFORM
MOD.116R X
/ ROBINET POUR RADIATEUR DROIT
MOD. 116R X



O-RING

116R

CODE	TECH. CODE	SIZE	
88.16.218	VTJ116R0300N	3/8"	40
88.16.219	VTJ116R0500N	1/2"	40

STRAIGHT LOCKSHIELD MOD. 118R

/ DETENTORE DIRITTO MOD. 118R
/ RÜCKLAUFVENTIL DURCHGANGSFORM
MOD. 118R
/ TÉ DE RÉGLAGE DROIT MOD. 118



O-RING

118R

CODE	TECH. CODE	SIZE	
88.16.079	VTJ118R0300N	3/8"	80
88.16.080	VTJ118R0500N	1/2"	80

**STRAIGHT VALVE WITH HANDWHEEL
MOD. 116R X**

/ VALVOLA RADIATORE DIRITTA
MOD. 116R X
/ VORLAUFVENTIL DURCHGANGSFORM
MOD.116R X
/ ROBINET POUR RADIATEUR DROIT
MOD. 116R X

**116R**

CODE	TECH. CODE	SIZE	
88.16.221	VT0116R0300N	3/8"	40
88.16.222	VT0116R0500N	1/2"	40

STRAIGHT LOCKSHIELD MOD. 118R

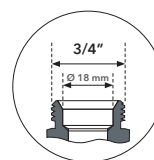
/ DETENTORE DIRITTO MOD. 118R
/ RÜCKLAUFVENTIL DURCHGANGSFORM
MOD. 118R
/ TÉ DE RÉGLAGE DROIT MOD. 118R

**118R**

CODE	TECH. CODE	SIZE	
88.16.082	VT0118R0300N	3/8"	80
88.16.083	VT0118R0500N	1/2"	80

H VALVES

/ VALVOLE AD H
/ HAHNBLÖCKE
/ ROBINET EN H



BRASS



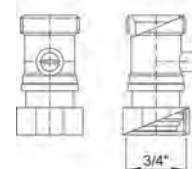
UNI EN 12164/12165
CW 617N
DIN 50930-6

STRAIGHT SINGLE BALLVALVE - TAPERED SEAL

/ H-BLOCK SINGOLO DIRITTO A TENUTA CONICA
/ EINZELKUGELHAHN DURCHGANGSFORM - KONISCH
/ H-BLOCK MONO DROIT - TENUE CONIQUE

192

CODE	TECH. CODE	SIZE	
88.21.005	MT0192C0707N	3/4" Euro x 3/4"	50

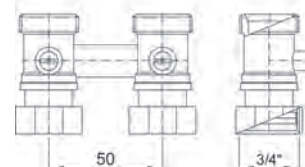


DOUBLE STRAIGHT BALLVALVE - FLAT SEAL

/ H-BLOCK DIRITTO - TENUTA PIATTA
/ HAHNBLOCK DURCHGANGSFORM - FLACHDICHTED
/ H-BLOCK DROIT - TENUE PLATE

190

CODE	TECH. CODE	SIZE	
88.21.010	MT019000707N	3/4" Euro x 3/4"	30

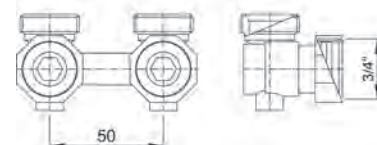


DOUBLE ANGLE BALLVALVE - FLAT SEAL

/ H-BLOCK AD ANGOLO - TENUTA PIATTA
/ HAHNBLOCK ECKFORM - FLACHDICHTEND
/ H-BLOCK ÉQUERRE - TENUE PLATE

191

CODE	TECH. CODE	SIZE	
88.21.015	MT019100707N	3/4" Euro x 3/4"	30

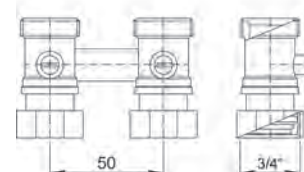


DOUBLE STRAIGHT BALLVALVE - TAPERED SEAL

/ H-BLOCK DIRITTO - TENUTA CONICA
/ HAHNBLOCK DURCHGANGSFORM - KONISCH
/ H-BLOCK DROIT - TENUE CONIQUE

190C

CODE	TECH. CODE	SIZE	
88.21.020	MT0190C0707N	3/4" Euro x 3/4"	30

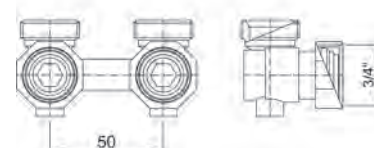


DOUBLE ANGLE BALLVALVE - TAPERED SEAL

/ H-BLOCK AD ANGOLO - TENUTA CONICA
/ HAHNBLOCK ECKFORM - KONISCH
/ H-BLOCK ÉQUERRE - TENUE CONIQUE

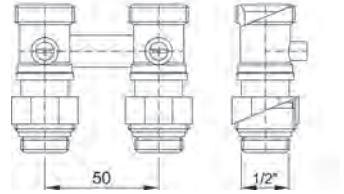
191C

CODE	TECH. CODE	SIZE	
88.21.025	MT0191C0707N	3/4" Euro x 3/4"	30



DOUBLE STRAIGHT BALLVALVE WITH 2 CONNECTORS

/ H-BLOCK DIRITTO CON 2 ADATTATORI
 / HAHNBLOCK DURCHGANGSFORM MIT 2 NIPPELN
 / H-BLOCK DROIT AVEC 2 ADAPTATEURS

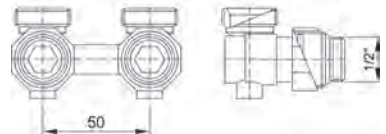


190C

CODE	TECH. CODE	SIZE	
88.21.060	MT0190C0705N	3/4" Euro x 1/2" (TAPERED SEAL)	25
88.21.070	MT019000705N	3/4" Euro x 1/2" (FLAT SEAL)	25

DOUBLE ANGLE BALLVALVE WITH 2 CONNECTORS

/ H-BLOCK AD ANGOLO CON 2 ADATTATORI
 / HAHNBLOCK ECKFORM MIT 2 NIPPELN
 / H-BLOCK ÉQUERRE AVEC 2 ADAPTATEURS



191C

CODE	TECH. CODE	SIZE	
88.21.065	MT0191C0705N	3/4" Euro x 1/2" (TAPERED SEAL)	25
88.21.075	MT019100705N	3/4" Euro x 1/2" (FLAT SEAL)	25

CONNECTOR FOR DOUBLE BALLVALVE WITH O-RING SEAL - TAPERED SEAL

/ RACCORDO DIRITTO PER H-BLOCK
 CON OR - CONICO
 / NIPPEL FÜR HAHNBLOCKE MIT O-RING - KONISCH
 / RACCORD DROIT POUR H-BLOCK
 AVEC TENUE CONIQUE ET JOINT TORIQUE



ADAPTOR FOR H-BLOCK - FLAT

/ ADATTATORE PER H-BLOCK - PIATTO
 / ADAPTOR FÜR HAHNBLOCKE - FLACHDICHTEND
 / ADAPTATEUR POUR H-BLOCK
 AVEC TENUE PLATE



CODE	TECH. CODE	SIZE	
88.21.050	MT0194C0507N	3/4" Euro x 1/2"	200

CODE	TECH. CODE		
88.21.056	MT019500700L	2	400

CONNECTOR FOR DOUBLE BALLVALVE WITH O-RING SEAL - FLAT

/ RACCORDO DIRITTO PER H-BLOCK
 CON OR TENUTA PIATTA
 / NIPPEL FÜR HAHNBLOCKE
 MIT O-RING - FLACHDICHTED
 / RACCORD DROIT POUR H-BLOCK
 AVEC TENUE PLATE



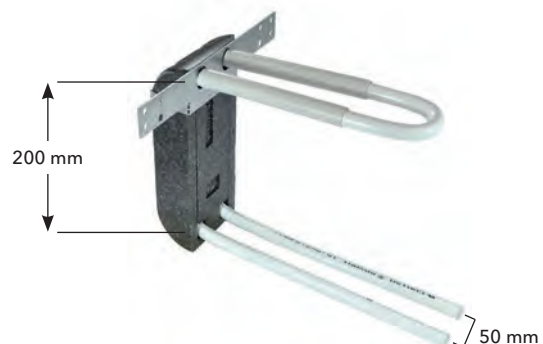
CODE	TECH. CODE	SIZE		
88.21.055	MT019400507N	3/4" x 1/2"	2	200

RADIATOR CONNECTION KIT FOR H-BLOCKS WITH PRE-ASSEMBLED INSULATION

/ BOX DA INCASSO CON ISOLAMENTO PRE-MONTATO
 PER COLLEGAMENTO RADIATORI
 / WANDBOX AUS EPP MIT VORMONTIERTER ROHRBOGENEINHEIT
 INKL. SOLIERBOX FÜR HEIZKÖRPER
 / BOÎTIER MURAL CONNECTION RADIATEURS
 AVEC BOÎTIER ISOLANT PRE-ASSEMBLÉ

838

CODE	TECH. CODE	SIZE	
87.54.105	MU0838STAF01	16 x 2.0	2



ADAPTORS 1/2"

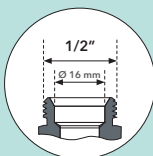
/ ADATTATORI 1/2"
/ ADAPTER 1/2"
/ ADAPTEURS 1/2"

BRASS

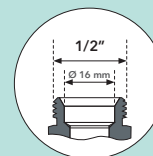
UNI EN 12164/12165
CW 617N
DIN 50930-6



COPPER PIPE



MULTILAYER PIPE



QUICK COUPLING

ADAPTOR FOR COPPER PIPE MOD. 178

/ ADATTATORE PER TUBO RAME MOD. 178
/ ADAPTER FÜR KUPFERROHR MOD. 178
/ ADAPTATEUR POUR TUBE CUIVRE MOD. 178



178

CODE	TECH. CODE	SIZE		
88.20.820	DC017800010N	10 x 1/2"	20	400
88.20.821	DC017800012N	12 x 1/2"	20	400
88.20.822	DC017800014N	14 x 1/2"	20	400
88.20.823	DC017800015N	15 x 1/2"	20	400
88.20.824	DC017800016N	16 x 1/2"	20	400



178 CHROME PLATED

CODE	TECH. CODE	SIZE		
88.20.840	DC017800010C	10 x 1/2" CHROME PL.	1	400
88.20.841	DC017800012C	12 x 1/2" CHROME PL.	1	400
88.20.842	DC017800014C	14 x 1/2" CHROME PL.	1	400
88.20.843	DC017800015C	15 x 1/2" CHROME PL.	1	400
88.20.844	DC017800016C	16 x 1/2" CHROME PL.	1	400

QUICK COUPLING

SCREW FITTING FOR MULTILAYER PIPE MOD. 225C

/ RACCORDO A STRINGERE PER TUBO
MULTISTRATO MOD. 225C
/ KLEMMRINGVERSCHRAUBUNG
FÜR VERBUNDROHR MOD. 225C
/ ADAPTATEUR À COMPRESSION
POUR TUBE MULTICOUCHE MOD. 225C



225C

CODE	TECH. CODE	SIZE		
88.20.578	DC0225C1410N	14 x 2,0 x 1/2"	10	200
88.20.576	DC0225C1612N	16 x 2,0 x 1/2"	10	200
88.20.577	DC0225C0556N	16 x 2,25 x 1/2"	10	200

225C CHROME PLATED

CODE	TECH. CODE	SIZE		
88.20.850	DC0225C1612C	16 x 2,0 x 1/2" CHROME PL.	10	200

MALE/MALE STRAIGHT CONVERSION COUPLER IRON TO COPPER PIPE CONNECTION MOD. 229

/ RACCORDO DIRITTO CONVERTITORE
ATTACCO FERRO-RAME MOD. 229
/ KONVERTER KUPPLUNG
EISENROHR-KUPFERROHR MOD. 229
/ ADAPTATEUR FER-CUIVRE MOD. 229



229

CODE	TECH. CODE	SIZE		
88.16.500	RM022900305N	3/8" x 1/2" (16)	10	200
88.16.501	RM022900505N	1/2" x 1/2" (16)	10	200

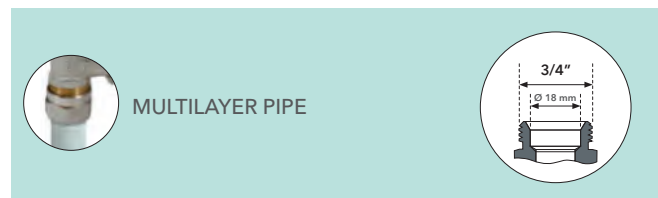
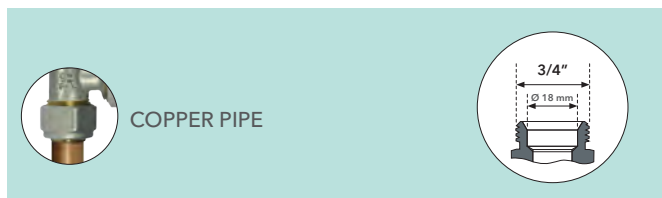
ADAPTORS 3/4" EUROCONE

/ ADATTATORI 3/4" EUROCONE
/ ADAPTORS 3/4" EUROCONE
/ ADAPTEURS 3/4" EUROCONE

BRASS



UNI EN 12164/12165
CW 617N
DIN 50930-6



QUICK COUPLING

ADAPTOR TOP FOR COPPER PIPE MOD. 180

/ ADATTATORE PER TUBO RAME MOD. 180
/ ADAPTER FÜR KUPFERROHR MOD. 180
/ ADAPTATEUR POUR TUBE CUIVRE MOD. 180



180

CODE	TECH. CODE	SIZE		
88.20.830	DC018000100N	10 x 3/4"	10	150
88.20.831	DC018000120N	12 x 3/4"	10	150
88.20.832	DC018000140N	14 x 3/4"	10	150
88.20.833	DC018000150N	15 x 3/4"	10	150
88.20.834	DC018000160N	16 x 3/4"	10	150
88.20.835	DC018000180N	18 x 3/4"	10	150

SCREW FITTING FOR MULTILAYER PIPE MOD.221C

/ RACCORDO A STRINGERE PER TUBO
MULTISTRATO MOD.221C
/ KLEMMRINGVERSCHRAUBUNG
FÜR VERBUNDROHR MOD.221C
/ ADAPTATEUR À COMPRESSION
POUR TUBE MULTICOUCHE MOD.221C



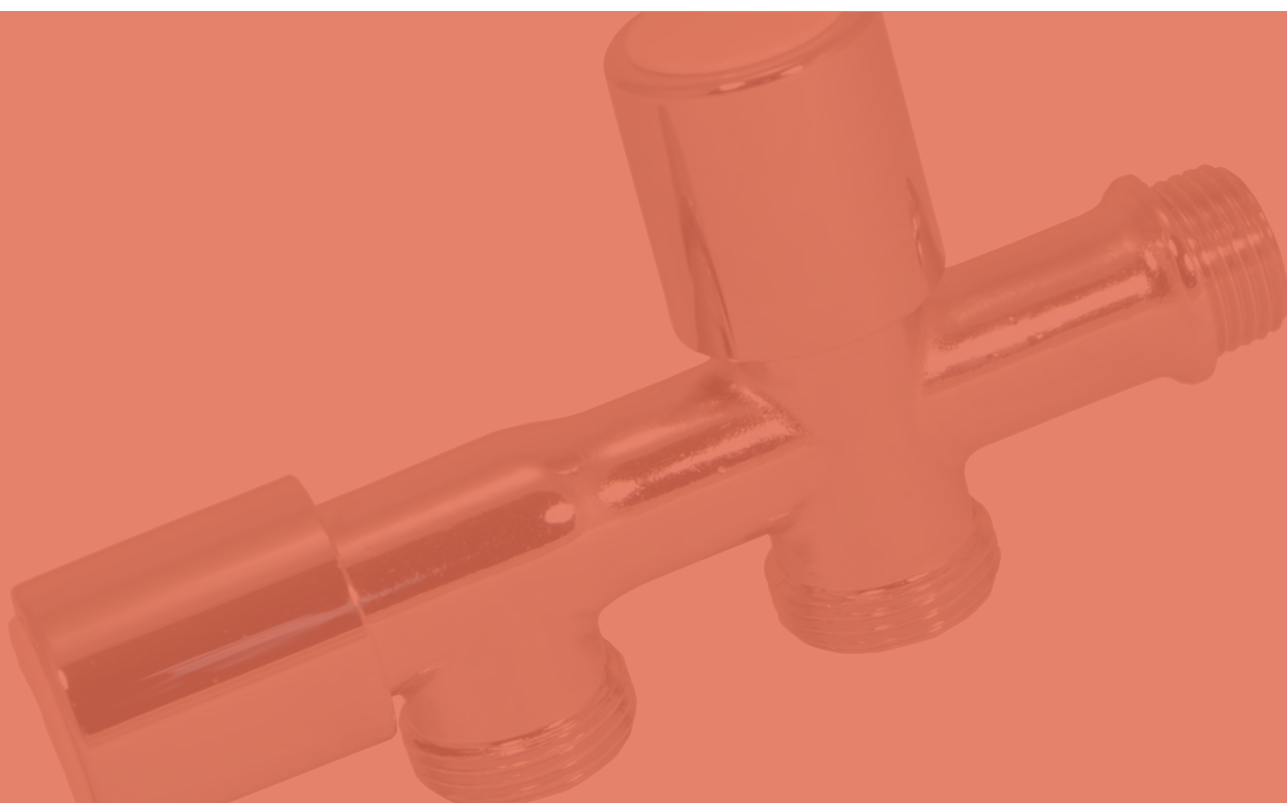
221C

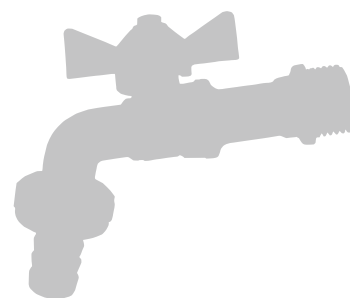
CODE	TECH. CODE	SIZE		
88.03.110	DC0221C1410N	14 x 2,0 x 3/4"	10	150
88.03.120	DC0221C0556N	16 x 2,25 x 3/4"	10	150
88.03.116	DC0221C1612N	16 x 2,0 x 3/4"	10	150
88.03.140	DC0221C2015N	20 x 2,5 x 3/4"	10	150
88.03.136	DC0221C2016N	20 x 2,0 x 3/4"	10	150

QUICK COUPLING

TAPS

/ RUBINETTI
/ VENTILE
/ ROBINETS





TAPS

TAPS

284

TAPS

/ RUBINETTI
/ VENTILE
/ ROBINETS

BRASS

UNI EN 12164/12165
CW 617N
DIN 50930-6



TEE WASHING MACHINE VALVE

/ VALVOLA A T PER LAVATRICE
/ T-STÜCK FÜR WASCHMASCHINE
/ ROBINET MACHINE À LAVER EN TÉ

520

CODE	TECH. CODE	SIZE	
41.20.205	RD052000507N	1/2" F x 3/4" M x 1/2" M NICKEL PLATED / NICHELATO / VERNICKELT / NICKELE	50



MINI BALL VALVE

/ VALVOLA A SFERA MINI
/ MINI KUGELHAHN
/ MINI VANNE À BOISSEAU SPHÉRIQUE

524

CODE	TECH. CODE	SIZE	
41.20.135	RD052400015N	15 mm x 15 mm NICKEL PLATED / NICHELATO / VERNICKELT / NICKELE	140



BIB COCK (BALL TYPE) - WITH HOSE UNION AND RED ALUMINIUM HANDLE

/ RUBINETTO A SFERA CON PORTAGOMMA E MANIGLIA ALLUMINIO ROSSA
 / AUSLAUFKUGELHAHN MIT SCHLAUCHVERSCHRAUBUNG UND ROTEM ALUMINIUM HEBELGRIFF
 / ROBINET D'ARROSAGE À BOULE AVEC RACCORD AU NEZ ET MANETTE ALUMINIUM ROUGE


500

CODE	TECH. CODE	SIZE	
41.32.435	RG050000500N	1/2"	36

BIB COCK (BALL TYPE) - WITH HOSE UNION AND BLUE BUTTERFLY ALUMINIUM HANDLE

/ RUBINETTO A SFERA CON PORTAGOMMA E MANIGLIA A FARFALLA BLU
 / AUSLAUFKUGELHAHN MIT SCHLAUCHVERSCHRAUBUNG UND BLAU ALUMINIUM FLÜGELGRIFF
 / ROBINET D'ARROSAGE À BOULE AVEC RACCORD AU NEZ ET PAPILLON EN ALUMINIUM BLEU


500

CODE	TECH. CODE	SIZE	
41.32.438	RG0500005PBN	1/2"	40

BIB COCK (BALL TYPE) - WITH HOSE UNION AND BLUE ALUMINIUM HANDLE

/ RUBINETTO A SFERA CON PORTAGOMMA E MANIGLIA ALLUMINIO BLU
 / AUSLAUFKUGELHAHN MIT SCHLAUCHVERSCHRAUBUNG UND BLAUEM ALUMINIUM HEBELGRIFF
 / ROBINET D'ARROSAGE À BOULE AVEC RACCORD AU NEZ ET MANETTE ALUMINIUM BLEU


500

CODE	TECH. CODE	SIZE	
41.32.436	RG0500005ABN	1/2"	36
41.32.445	RG050001000N	3/4"	20
41.32.450	RG050001200N	1"	12

GARDEN TAP WITH HOSE CONNECTION

/ RUBINETTO GIARDINO CON PORTAGOMMA
 / AUSLAUFHAHN MIT SCHLAUCHTÜLE FÜR GARTEN
 / ROBINET D'ARROSAGE AVEC RACCORD BROSSÉ


548

CODE	TECH. CODE	SIZE	
41.21.100	RG0548005070	1/2" M YELLOW / GIALLO / GELB / JAUNE	20
41.21.101	RG054800507N	1/2" M CHROME PLATED / CROMATO / VERCHROMT / CHROMÉ	20

WASHING MACHINE TAP

/ RUBINETTO LAVATRICE
/ HAHN FÜR WASCHMASCHINE
/ ROBINET MACHINE À LAVER



509

CODE	TECH. CODE	SIZE		
41.21.015	RD050900507C	1/2" M x 3/4" M CHROME PLATED / CROMATO / VERCHROMT / CHROMÉ	2	12

WASHING MACHINE TAP

/ RUBINETTO LAVATRICE
/ HAHN FÜR WASCHMASCHINE
/ ROBINET MACHINE À LAVER



511

CODE	TECH. CODE	SIZE	
41.21.125	RD051100507C	1/2" M x 3/4" M CHROME PLATED / CROMATO / VERCHROMT / CHROMÉ	12

DOUBLE WASHING MACHINE TAP

/ RUBINETTO LAVATRICE DOPPIO
/ HAHN FÜR WASCHMASCHINE DOPPELT
/ ROBINET MACHINE À LAVER DOUBLE



515

CODE	TECH. CODE	SIZE	
41.21.407	RD051500507C	1/2" M x 3/4" M x 3/4" M CHROME PLATED / CROMATO / VERCHROMT / CHROMÉ	6

DOUBLE WASHING MACHINE TAP

/ RUBINETTO LAVATRICE DOPPIO
/ HAHN FÜR WASCHMASCHINE DOPPELT
/ ROBINET MACHINE À LAVER DOUBLE



507

CODE	TECH. CODE	SIZE		
41.21.005	RD050700507C	1/2" M x 3/4" M CHROME PLATED / CROMATO / VERCHROMT / CHROMÉ	1	6

DOUBLE WASHING MACHINE TAP

/ RUBINETTO LAVATRICE DOPPIO
/ HAHN FÜR WASCHMASCHINE DOPPELT
/ ROBINET MACHINE À LAVER DOUBLE



516

CODE	TECH. CODE	SIZE	
41.21.408	RD051600507C	1/2" M x 3/4" M x 3/4" M CHROME PLATED / CROMATO / VERCHROMT / CHROMÉ	20

DOUBLE WASHING MACHINE TAP
WITH NON-RETURN VALVE

/ RUBINETTO LAVATRICE DOPPIO
CON VALVOLA DI NON RITORNO
/ HAHN FÜR WASCHMASCHINE DOPPELT
MIT RÜCKSCHLAGVENTIL
/ ROBINET MACHINE À LAVER DOUBLE
AVEC VANNE ANTI RETOUR



522

CODE	TECH. CODE	SIZE	
41.21.308	RD052200507C	1/2" M x 3/4" M x 3/4" M CHROME PLATED / CROMATO / VERCHROMT / CHROMÉ	15

DOUBLE WASHING MACHINE TAP "Y"

/ RUBINETTO LAVATRICE DOPPIO AD "Y"
/ "Y"-HAHN FÜR WASCHMASCHINE DOPPELT
/ ROBINET MACHINE À LAVER DOUBLE EN "Y"



518 - 519

CODE	TECH. CODE	SIZE	
41.21.410	RD051800507R	3/4" M x 1/2" M x 3/4" M SANDBLASTED - CHROME PLATED / SABBATO - CROMATO / VERCHROMT - SANDGESTRAHLT / CHROMÉ - SABLÉ	20
41.21.411	RD051900507R	3/4" M x 1/2" M x 3/4" M with locknut / con contronado / mit kontermutter / avec contre écrou SANDBLASTED - CHROME PLATED / SABBATO - CROMATO / VERCHROMT - SANDGESTRAHLT / CHROMÉ - SABLÉ	20

DOUBLE WASHING MACHINE TAP "Y"
WITH NON RETURN VALVE

/ RUBINETTO LAVATRICE DOPPIO AD "Y"
CON VALVOLA DI NON RITORNO
/ "Y"-HAHN FÜR WASCHMASCHINE DOPPELT
MIT RÜCKSCHLAGVENTIL
/ ROBINET MACHINE À LAVER DOUBLE EN "Y"
AVEC VANNE ANTI-RETOUR



523

CODE	TECH. CODE	SIZE	
41.21.310	RD052300507R	3/4" M x 1/2" M x 3/4" M SANDBLASTED - CHROME PLATED / SABBATO - CROMATO / VERCHROMT - SANDGESTRAHLT / CHROMÉ - SABLÉ	20

WASHING MACHINE BALL VALVE WITH HANDLE

/ RUBINETTO LAVATRICE A SFERA CON MANIGLIA
/ ABSPERRKUGELHAHN FÜR WASCHMASCHINE MIT GRIFF
/ ROBINET MACHINE À LAVER BOISSEAU SPHÉRIQUE AVEC POIGNÉE



3/4"

512

CODE	TECH. CODE	SIZE	
41.21.130	RD051200507C	1/2" M x 3/4" M	50

90° WASHING MACHINE TAP WITH 3-CORNERED HANDLE

/ RUBINETTO LAVATRICE 90° CON MANIGLIA 3 PUNTE
/ 90° WASCHMASCHINENHAHN MIT 3-ECKIGEM GRIFF
/ ROBINET MACHINE À LAVER 90° AVEC POIGNÉE TRIANGULAIRE



508

CODE	TECH. CODE	SIZE	
41.21.010	RD050800505C	1/2" M x 1/2" M CHROME PLATED / CROMATO / VERCHROMT / CHROMÉ	6

UNDER SINK STOP VALVE WITH WALL COVER

/ RUBINETTO D'ARRESTO SOTTO LAVABO CON ROSONE
/ UNTER-WASCHBECKEN ABSPERRHAHN MIT ROSETTE
/ ROBINET D'ARRÊT SOUS LAVABO AVEC BICONE ET CACHE



513

CODE	TECH. CODE	SIZE	
41.21.170	RD051300510C	1/2" M x 10 mm CHROME PLATED / CROMATO / VERCHROMT / CHROMÉ	30

UNDER SINK STOP BALL VALVE WITH FILTER, ARTICULATED JOINT AND WALL COVER

/ RUBINETTO D'ARRESTO SOTTO LAVABO CON FILTRO, SNODO E ROSONE
/ UNTER-WASCHBECKEN ABSPERRKUGELHAHN MIT FILTER, GELENKTÜLE UND ROSETTE
/ ROBINET D'ARRÊT SOUS LAVABO BOISSEAU SPHÉRIQUE AVEC FILTRE BICONE ET CACHE



514

CODE	TECH. CODE	SIZE	
41.21.180	RD051400510C	1/2" M x 10 mm CHROME PLATED / CROMATO / VERCHROMT / CHROMÉ	40

APPLIQUE WITHOUT NUT

/ APPLIQUE SENZA DADO
/ APPLIQUE OHNE MUTTER
/ APPLIQUE SANS ÉCROU



522

CODE	TECH. CODE	SIZE	
41.21.428	AP052200512L	Ø 12 - 1/2" M x 1/2" F YELLOW / GIALLO / GELB / JAUNE	50
41.21.429	AP052200512C	Ø 12 - 1/2" M x 1/2" F CHROME PLATED / CROMATO / VERCHROMT / CHROMÉ	50

STRAIGHT DRAIN OFF WITH LEVER

/ VALVOLA DI DRENAGGIO DIRITTA CON MANIGLIA
/ GERADES ABLASSVENTIL MIT GRIFF
/ ROBINET PURGEUR DROIT AVEC MANETTE

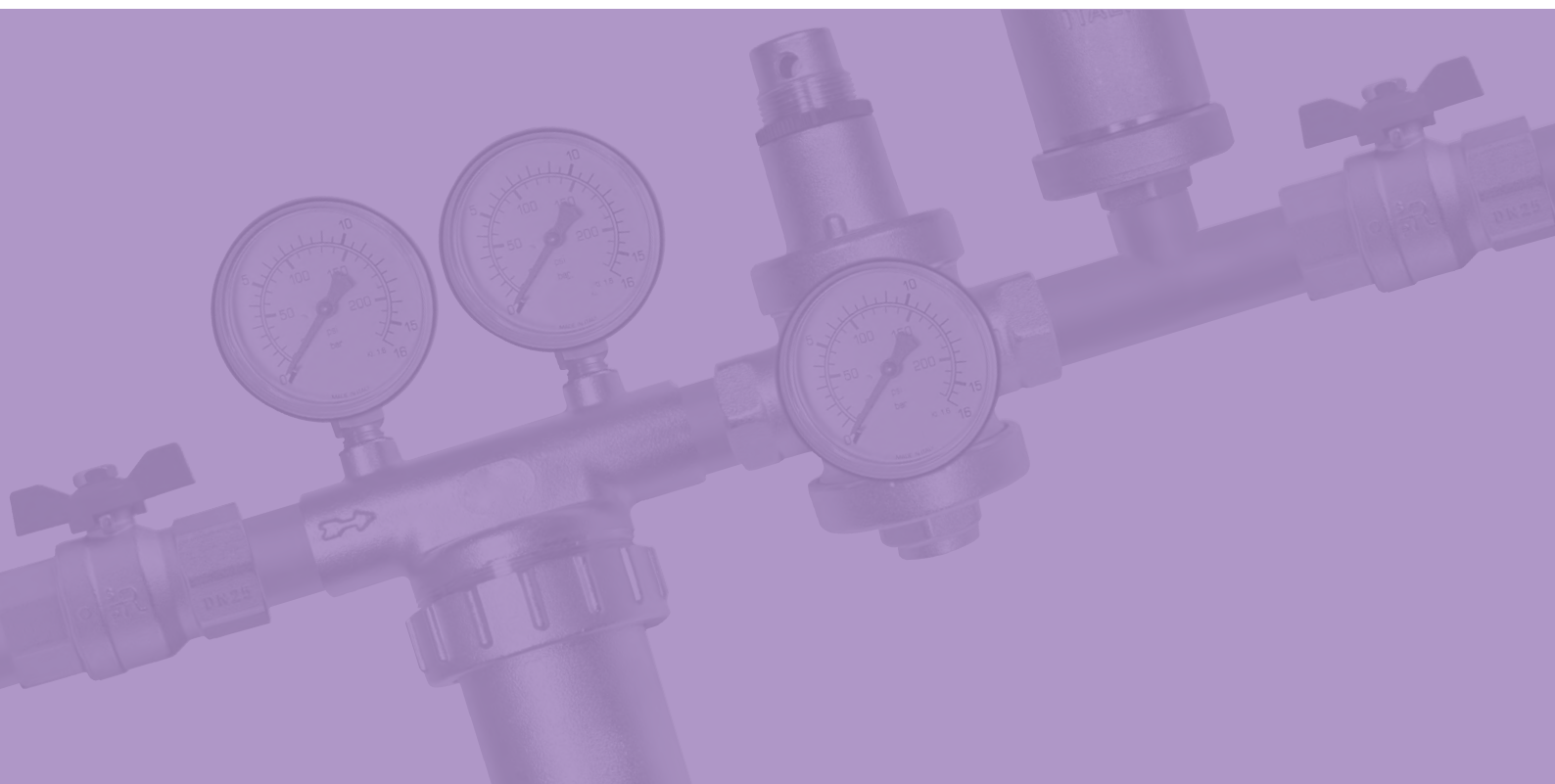


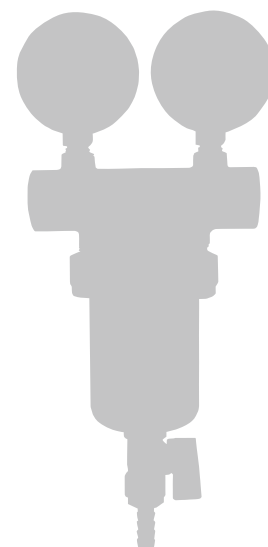
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CODE	TECH. CODE	SIZE	
41.21.020	SP0153002000	1/4" M YELLOW / GIALLO / GELB / JAUNE	100
41.21.021	SP015300200N	1/4" M NICKEL PLATED / NICHELATO / VERCHROMT / NICHELE	100

COMPONENTS FOR THERMAL PLANT

/ COMPONENTI DA CENTRALE TERMICA
/ THERMISCHE ZETRAKKOMponenten
/ COMPONENTS POUR UNITÉ THERMIQUE



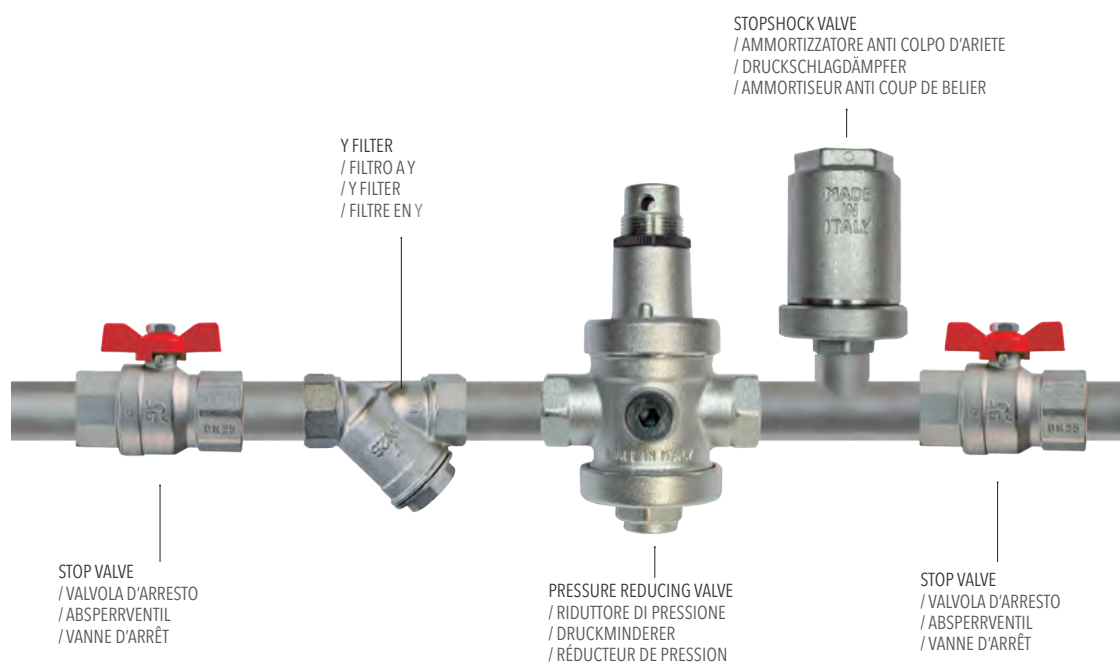
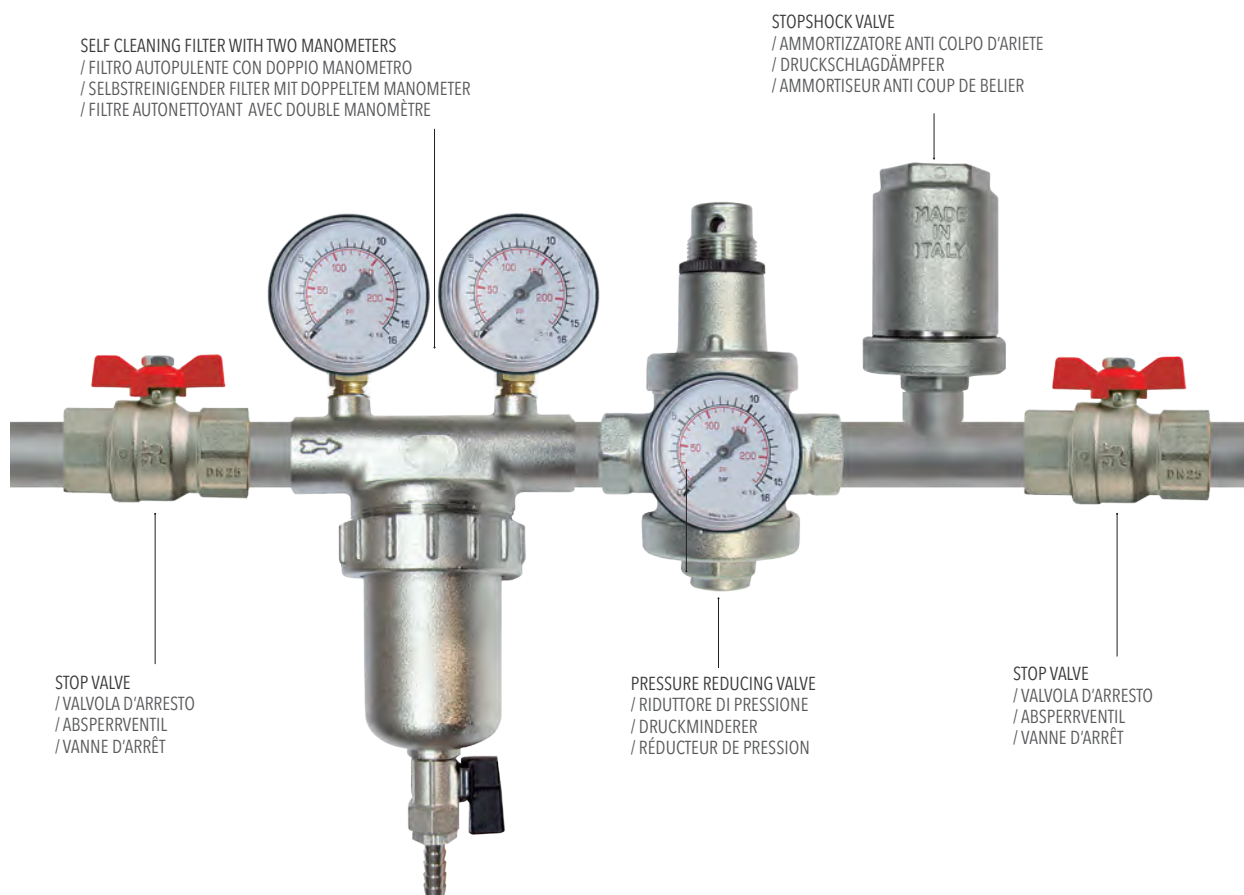


COMPONENTS FOR THERMAL PLANT

CHECK VALVES	291
FILTER AND PRESSURE REDUCING VALVES	292
THERMOSTATIC MIXERS FOR DOMESTIC WATER	297
MIXERS FOR SOLAR THERMAL SYSTEMS	297

CIRCUIT DIAGRAM

/ SCHEMA D'INSTALLAZIONE / INSTALLATIONSPLAN / SCHÉMAS D'INSTALLATION



CHECK VALVES

/ VALVOLE DI RITEGNO
/ RÜCKSCHLAGVENTILE
/ CLAPETS DE RETENUE

CHECK VALVE WITH NYLON PLATE

/ VALVOLA DI RITEGNO CON PIATTELLO IN NYLON
/ RÜCKSCHLAGVENTIL MIT NYLONPLATTE
/ CLAPET ANTI-RETOUR AVEC PLAQUE EN NYLON



650

CODE	TECH. CODE	SIZE	PRESSURE BAR		
88.21.661	NR0650005000	1/2"	16	1	54
88.21.662	NR0650007000	3/4"	16	1	32
88.21.663	NR0650010000	1"	16	1	32
88.21.664	NR0650012000	1 1/4"	10	1	24
88.21.665	NR0650015000	1 1/2"	10	1	8
88.21.666	NR0650020000	2"	10	1	6
88.21.667	NR0650025000	2 1/2"	10	1	4

CHECK VALVE WITH BRASS PLATE

/ VALVOLA DI RITEGNO CON PIATTELLO IN OTTONE
/ RÜCKSCHLAGVENTIL MIT MESSINGPLATTE
/ CLAPET ANTI-RETOUR AVEC PLAQUE EN LAITON



651

CODE	TECH. CODE	SIZE	PRESSURE BAR		
88.21.651	NR0651005000	1/2"	50	1	54
88.21.652	NR0651007000	3/4"	50	1	32
88.21.653	NR0651010000	1"	50	1	24
88.21.654	NR0651012000	1 1/4"	35	1	20
88.21.655	NR0651015000	1 1/2"	35	1	8
88.21.656	NR0651020000	2"	35	1	6

FILTER FOR CHECK VALVES FOR 650 / 651

/ FILTRO PER VALVOLE DI RITEGNO
/ FILTER FÜR RÜCKSCHLAGVENTILE
/ FILTRE POUR CLAPET ANTI-RETOUR



INOX

652

CODE	TECH. CODE	SIZE	FILTER		
88.21.671	VA0652005000	1/2"	1200 µm	10	50
88.21.672	VA0652007000	3/4"	1200 µm	10	40
88.21.673	VA0652010000	1"	1200 µm	10	30
88.21.674	VA0652012000	1 1/4"	1200 µm	6	24
88.21.675	VA0652015000	1 1/2"	1200 µm	6	18
88.21.676	VA0652020000	2"	1200 µm	1	12
88.21.677	VA0652025000	2 1/2"	2000 µm	1	6

SWING CHECK VALVE WITH BRASS PLATE

/ VALVOLE CLAPET CON PIATTELLO OTTONE
/ RÜCKSCHLAGKLAPPE MIT MESSINGPLATTE
/ CLAPET ANTI-RETOUR AVEC PLAQUE EN LAITON



657

NBR SEAL / TENUTA IN NBR
/ NBR DICHTUNG / JOINT NBR

CODE	TECH. CODE	SIZE	PRESSURE BAR	
88.21.681	NR0657005000	1/2"	16	16
88.21.682	NR0657007000	3/4"	16	12
88.21.683	NR0657010000	1"	12	8
88.21.684	NR0657012000	1 1/4"	10	5
88.21.685	NR0657015000	1 1/2"	10	4
88.21.686	NR0657020000	2"	10	6

658

METAL SEAL / TENUTA METALLICA
/ METALLDICHTUNG / JOINT METALLIQUE

CODE	TECH. CODE	SIZE	PRESSURE BAR	
88.21.688	NR0658005000	1/2"	16	16

FILTER AND PRESSURE REDUCING VALVES

/ FILTRI E RIDUTTORI DI PRESSIONE
/ FILTER UND DRUCKMINDERER
/ FILTRES ET RÉDUCTEURS DE PRESSION

COMPACT MAGNETIC UNDER-BOILER DIRT SEPARATOR FILTER

/ FILTRO DEFANGATORE MAGNETICO COMPATTO SOTTOCALDAIA
/ KOMPAKTER MAGNETISCHER SCHLAMMABSCHIEDER UNTER DEM KESSEL
/ FILTRE DÉFANGATEUR MAGNÉTIQUE COMPACT SOUS LA CHAUDIÈRE

592 Filtration degree / Grado di filtrazione / Filterfeinheit / Degré de filtration: **500 µm**

CODE	TECH. CODE	SIZE		
-	CT0592007000	3/4"	1	3



Y FILTER YELLOW

/ FILTRO A Y GIALLO
/ Y FILTER GELB
/ FILTRE EN Y JAUNE



653

CODE	TECH. CODE	SIZE	PRESSURE BAR		
Filtration degree / Grado di filtrazione / Filterfeinheit / Degré de filtration: 500 µm					
88.21.711	VA0653003000	3/8"	20	20	60
88.21.712	VA0653005000	1/2"	20	20	60
88.21.713	VA0653007000	3/4"	20	10	30
88.21.714	VA0653010000	1"	20	5	15
88.21.715	VA0653012000	1 1/4"	20	4	12
88.21.716	VA0653015000	1 1/2"	20	2	10
88.21.717	VA0653020000	2"	20		3
Filtration degree / Grado di filtrazione / Filterfeinheit / Degré de filtration: 800 µm					
88.21.718	VA0653025000	2 1/2"	16		3

CARTRIDGE FOR Y FILTER

/ CARTUCCIA PER FILTRO A Y
/ PATRONE FÜR Y FILTER
/ CARTOUCHE POUR FILTRE EN Y



653

CODE	TECH. CODE	SIZE		
Filtration degree / Grado di filtrazione / Filterfeinheit / Degré de filtration: 500 µm				
88.21.723	VA0653005FIL	1/2"	5	100
88.21.724	VA0653007FIL	3/4"	5	100
88.21.725	VA0653010FIL	1"	5	50
88.21.726	VA0653012FIL	1 1/4"	5	50
88.21.727	VA0653015FIL	1 1/2"	5	50
88.21.728	VA0653020FIL	2"	5	25

Y FILTER

- FEMALE/FEMALE THREADS AND INSPECTION PLUG • MINIMUM AND MAXIMUM WORKING TEMPERATURES: - 20°C, + 110°C IN ABSENCE OF STEAM • THREADS: ISO 228 (EQUIVALENT TO DIN EN ISO 228 AND BS EN ISO 228)

/ FILTRO A Y

- FILETTO FEMMINA/FEMMINA E TAPPO DI ISPEZIONE • TEMPERATURA MINIMA E MASSIMA DI ESERCIZIO: - 20°C, + 110°C IN ASSENZA DI VAPORE • FILETTO: ISO 228 (CONFORME A DIN EN ISO 228 E BS EN ISO 228)

/ Y FILTER

- ANSCHLUSSGEWINDE IG/IG UND INSPEKTIONSTOPFEN • MINIMALE UND MAXIMALE BETRIEBSTEMPERATUR - 20° + 110 °C OHNE DAMPF • GEWINDE ISO 228 (ENTSPRICHT DIN EN ISO 228 UND BE EN ISO 228)

/ FILTRE EN Y

- RACCORDE FILETÉS FEMELLE/FEMELLE ET BOUCHON D'INSPECTION • TEMPÉRATURE MINIMALE ET MAXIMALE D'UTILISATION: - 20° C, + 110° C EN L'ABSENCE DE VAPEUR D'EAU • FILETAGE ISO 228 (ÉQUIVALENT À DIN EN ISO 228 ET BS EN ISO 228)

/ FILTRO AUTOPULENTE
/ SELBSTREINIGENDER FILTER
/ FILTRE AUTONETTOYANT



595 Filtration degree / Grado di filtrazione / Filterfeinheit / Degré de filtration: **300 µm**

CODE	TECH. CODE	SIZE	PN	1
88.21.700	CT059500500N	1/2"	25	1
88.21.701	CT059500700N	3/4"	25	1
88.21.702	CT059501000N	1"	25	1
88.21.703	CT059501200N	1 1/4"	25	1
88.21.704	CT059501500N	1 1/2"	25	1
88.21.705	CT059502000N	2"	25	1

SELF-CLEANING FILTER WITH MAGNET

/ FILTRO MAGNETICO AUTOPULENTE
/ SELBSTREINIGENDER FILTER MIT MAGNET
/ FILTRE MAGNETIQUE AUTONETTOYANT



594 Filtration degree / Grado di filtrazione / Filterfeinheit / Degré de filtration: **100 µm**

CODE	TECH. CODE	SIZE	PN	1
88.21.821	CT059400700N	3/4"	25	1
88.21.822	CT059401000N	1"	25	1

CARTRIDGE FOR SELF CLEANING FILTER

/ CARTUCCIA PER FILTRO AUTOPULENTE
/ PATRONE FÜR SELBSTREINIGENDEN FILTER
/ CARTUCHE POUR FILTRE AUTONETTOYANT

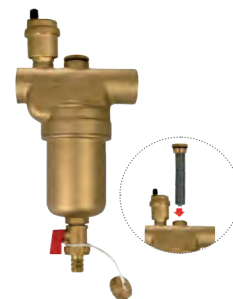


595 Filtration degree / Grado di filtrazione / Filterfeinheit / Degré de filtration: **300 µm**

CODE	TECH. CODE	SIZE	1
88.21.706	CT0595005FIL	1/2" ÷ 3/4"	1
88.21.707	CT0595010FIL	1" ÷ 1 1/4"	1

SELF-CLEANING DIRT SEPARATOR
WITH MAGNET AND DRAIN COCK

/ FILTRO DEFANGATORE MAGNETICO
AUTOPULENTE CON SFIATO ARIA
/ SELBSTREINIGENDER SCHMUTZFILTER MIT
MAGNET UND ABLASSTHAHN
/ FILTRE MAGNETIQUE AUTONETTOYANT AVEC
POT À BOUE



593

CODE	TECH. CODE	SIZE	PN	1
88.21.826	CT0593007000	3/4"	10	1
88.21.827	CT0593010000	1"	10	1
88.21.828	CT0593012000	1 1/4"	10	1
88.21.829	CT0593015000	1 1/2"	10	1

PRESSURE REDUCING VALVE

/ RIDUTTORE DI PRESSIONE
/ DRUCKMINDERER
/ RÉDUCTEUR DE PRESSION

PN 25

596

CODE	TECH. CODE	SIZE	PN	
88.21.791	CT059600500N	1/2"	25	1
88.21.792	CT059600700N	3/4"	25	1
88.21.793	CT059601000N	1"	25	1
88.21.794	CT059601200N	1 1/4"	25	1
88.21.795	CT059601500N	1 1/2"	25	1
88.21.796	CT059602000N	2"	25	1



- MIN. AND MAX. WORKING TEMPERATURE: 0°C, 80°C
- ADJUSTABLE OUTLET PRESSURE: BETWEEN 0,5 AND 6 BAR
- PRE-CALIBRATION AT 3 BAR
- 1/4" SOCKETS FOR MANOMETER ON BOTH SIDES FOR THE INSPECTION OF THE OUTLET PRESSURE

- TEMPERATURA MIN. E MAX DI ESERCIZIO: 0°C, 80°C
- PRESSIONE IN USCITA REGOLABILE TRA 0,5 E 6 BAR
- PRE-TARATURA DI FABBRICA 3 BAR
- ATTACCHI MANOMETRO 1/4" SUI 2 LATI PER CONTROLLO PRESSIONE USCITA

- MIN. UND MAX. BETRIEBSTEMPERATUR 0 °C, 80 °C
- EINSTELLBARER AUSGANGSDRUCK: ZWISCHEN 0,5 UND 6 BAR
- VOR DER KALIBRIERUNG BEI 3 BAR
- 1/4" ANSCHLÜSSE FÜR MANOMETER AUF BEIDEN SEITEN FÜR DIE INSPEKTION VON DEM DRUCK AM AUSGANG

- TEMP. MIN. ET MAX. DE FONCTIONNEMENT: 0° C, 80° C
- PRESSION DE SORTIE REGLABLE ENTRE 0,5 ET 6 BARS
- L'ETALONNAGE EN USINE 3 BAR
- FIXATION MANOMETRE 1/4 " DES DEUX COTES POUR LE CONTROLE PRESSION DE SORTIE

PRESSURE REDUCING VALVE WITH GAUGE CONNECTIONS

/ RIDUTTORE DI PRESSIONE CON ATTACCHI A BOCCHETTONE
/ DRUCKMINDERER MIT MANOMETER-ANSCHLÜSSEN
/ RÉDUCTEUR DE PRESSION AVEC UNIONS

PN 25

597

CODE	TECH. CODE	SIZE	PN	
88.21.800	CT059700500N	1/2"	25	1
88.21.801	CT059700700N	3/4"	25	1
88.21.802	CT059701000N	1"	25	1
88.21.803	CT059701200N	1 1/4"	25	1
88.21.804	CT059701500N	1 1/2"	25	1
88.21.805	CT059702000N	2"	25	1



- MIN. AND MAX. WORKING TEMPERATURE: 0°C, 80°C
- ADJUSTABLE OUTLET PRESSURE: BETWEEN 0,5 AND 6 BAR
- PRE-CALIBRATION AT 3 BAR
- 1/4" SOCKETS FOR MANOMETER ON BOTH SIDES FOR THE INSPECTION OF THE OUTLET PRESSURE

- TEMPERATURA MIN. E MAX DI ESERCIZIO: 0°C, 80°C
- PRESSIONE IN USCITA REGOLABILE TRA 0,5 E 6 BAR
- PRE-TARATURA DI FABBRICA 3 BAR
- ATTACCHI MANOMETRO 1/4" SUI 2 LATI PER CONTROLLO PRESSIONE USCITA

- MIN. UND MAX. BETRIEBSTEMPERATUR 0 °C, 80 °C
- EINSTELLBARER AUSGANGSDRUCK: ZWISCHEN 0,5 UND 6 BAR
- VOR DER KALIBRIERUNG BEI 3 BAR
- 1/4" ANSCHLÜSSE FÜR MANOMETER AUF BEIDEN SEITEN FÜR DIE INSPEKTION VON DEM DRUCK AM AUSGANG

- TEMP. MIN. ET MAX. DE FONCTIONNEMENT: 0° C, 80° C
- PRESSION DE SORTIE REGLABLE ENTRE 0,5 ET 6 BARS
- L'ETALONNAGE EN USINE 3 BAR
- FIXATION MANOMETRE 1/4 " DES DEUX COTES POUR LE CONTROLE PRESSION DE SORTIE

MINI PRESSURE REDUCING VALVE

/ RIDUTTORE DI PRESSIONE MINI
/ MINI DRUCKMINDERER
/ RÉDUCTEUR DE PRESSION MINI

PN 15

598

CODE	TECH. CODE	SIZE	PN		
88.21.807	CT059800500N	1/2"	15	1	20
88.21.808	CT059800700N	3/4"	15	1	20



- MIN. AND MAX. WORKING TEMPERATURE: 0°C, 80°C
- ADJUSTABLE OUTLET PRESSURE: BETWEEN 1 AND 4 BAR
- PRE-CALIBRATION AT 3 BAR
- 1/4" SOCKET FOR MANOMETER

- TEMPERATURA MIN. E MAX DI ESERCIZIO: 0°C, 80°C
- PRESSIONE IN USCITA REGOLABILE TRA 1 E 4 BAR
- PRE-TARATURA DI FABBRICA 3 BAR
- ATTACCO MANOMETRO 1/4"

- MIN. UND MAX. BETRIEBSTEMPERATUR 0 °C, 80 °C
- EINSTELLBARER AUSGANGSDRUCK: ZWISCHEN 1 UND 4 BAR
- VOR DER KALIBRIERUNG BEI 3 BAR
- 1/4" ANSCHLÜSSE FÜR MANOMETER

- TEMP. MIN.ET MAX. DE FONCTIONNEMENT: 0° C, 80° C
- PRESSION DE SORTIE REGLABLE ENTRE 1 ET 4 BARS
- L'ETALONNAGE EN USINE 3 BAR
- FIXATION MANOMETRE ¼ "

STOPSHOCK VALVE

/ AMMORTIZZATORE ANTI-COLPO D'ARIETE
/ DRUCKSCHLAGDÄMPFER
/ AMMORTISEUR ANTI COUP DE BELIER

599

CODE	TECH. CODE	SIZE	PRESSURE		
88.21.809	CT059900500N	1/2"	MAX 10 BAR	1	12

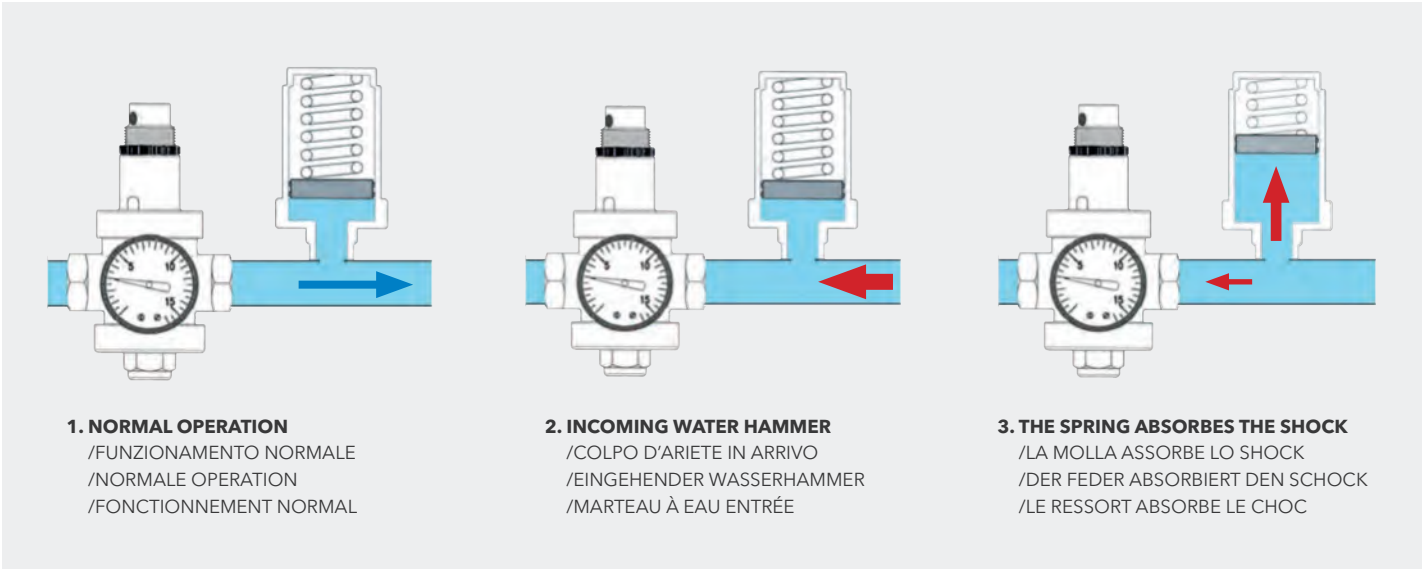


Max working temperature
/ Temperatura massima di esercizio
/ Maximale Arbeitstemperatur
/ Max température de travail

90 °C

Max peak pressure
/ Picco massimo di pressione
/ Maximale Spitzendruck
/ Pression maximale maximale

50 BAR



WITH EPDM GASKET / CON MEMBRANA IN EPDM / MIT MEMBRAN IN EPDM / AVEC MEMBRANE EN EPDM

FEMALE/FEMALE SAFETY VALVE

/ VALVOLA DI SICUREZZA F/F
/ SICHERHEITSVENTIL IG/IG
/ VANNE DE SÉCURITÉ FEMELLE/FEMELLE



613

CODE	TECH. CODE	SIZE	PN	CALIBRATION BAR		
88.21.600	CT061300501N	1/2"	10	1,5	5	80
88.21.601	CT061300502N	1/2"	10	1,8	5	80
88.21.602	CT061300503N	1/2"	10	2,5	5	80
88.21.603	CT061300504N	1/2"	10	3,0	5	80
88.21.604	CT061300505N	1/2"	10	4,0	5	80
88.21.605	CT061300506N	1/2"	10	6,0	5	80
88.21.606	CT061300701N	3/4"	10	1,5	5	50
88.21.607	CT061300702N	3/4"	10	1,8	5	50
88.21.608	CT061300703N	3/4"	10	2,5	5	50
88.21.609	CT061300704N	3/4"	10	3,0	5	50
88.21.610	CT061300705N	3/4"	10	4,0	5	50
88.21.611	CT061300706N	3/4"	10	6,0	5	50
88.21.612	CT061301001N	1"	10	1,5	5	30
88.21.613	CT061301002N	1"	10	1,8	5	30
88.21.614	CT061301003N	1"	10	2,5	5	30
88.21.615	CT061301004N	1"	10	3,0	5	30
88.21.616	CT061301005N	1"	10	4,0	5	30
88.21.617	CT061301006N	1"	10	6,0	5	30

MALE/FEMALE SAFETY VALVE

/ VALVOLA DI SICUREZZA M/F
/ SICHERHEITSVENTIL AG/IG
/ VANNE DE SÉCURITÉ MÂLE/FEMELLE



614

CODE	TECH. CODE	SIZE	PN	CALIBRATION BAR		
88.21.620	CT061400501N	1/2"	10	1,5	5	40
88.21.622	CT061400503N	1/2"	10	2,5	5	40
88.21.623	CT061400504N	1/2"	10	3,0	5	40
88.21.624	CT061400505N	1/2"	10	4,0	5	40
88.21.625	CT061400506N	1/2"	10	6,0	5	40

MALE/FEMALE SAFETY VALVE
WITH 1/4" SOCKET FOR MANOMETER

/ VALVOLA DI SICUREZZA M/F
CON ATTACCO MANOMETRO 1/4"
/ SICHERHEITSVENTIL AG/IG
MIT 1/4" ANSCHLUSS FÜR MANOMETER
/ VANNE DE SÉCURITÉ MÂLE/FEMELLE
AVEC UNION 1/4" POUR MANOMÈTRE



616

CODE	TECH. CODE	SIZE	PN	CALIBRATION BAR		
88.21.643	CT061600504N	1/2"	10	3,0	5	40
88.21.645	CT061600506N	1/2"	10	6,0	5	40

THERMOSTATIC MIXERS FOR DOMESTIC WATER

/ MISCELATORI TERMOSTATICO PER USO SANITARIO
/ THERMOMISCHER FÜR SANITÄRANLAGEN
/ MÉLANGEURS THERMOSTATIQUES SANITAIRES

/ THERMOSTATIC MIXER FOR DOMESTIC WATER

/ MISCELATORE TERMOSTATICO
PER USO SANITARIO
/ THERMOMISCHER
FÜR SANITÄRANLAGEN
/ MÉLANGEUR THERMOSTATIQUE SANITAIRE



591

CODE	TECH. CODE	SIZE	
88.21.910	CT059100500N	1"	5

/ THERMOSTATIC MIXER FOR DOMESTIC WATER

/ MISCELATORE TERMOSTATICO
PER USO SANITARIO
/ THERMOMISCHER
FÜR SANITÄRANLAGEN
/ MÉLANGEUR THERMOSTATIQUE
SANITAIRE



590

CODE	TECH. CODE	SIZE		
88.21.900	CT059000500N	1/2"	1	6
88.21.901	CT059000700N	3/4"	1	6
88.21.902	CT059001000N	1"	1	6

MIXERS FOR SOLAR THERMAL SYSTEMS

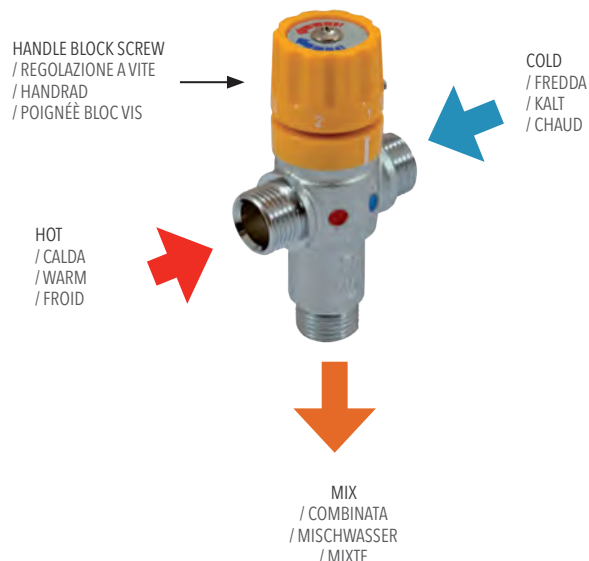
/ MISCELATORI PER SISTEMI SOLARE TERMICO
/ THERMOMISCHER FÜR SOLARANLAGEN
/ MÉLANGEURS POUR INSTALLATIONS SOLAIRES

THERMOSTATIC MIXER FOR SOLAR PANEL

/ MISCELATORE TERMOSTATICO PER PANNELLO SOLARE
/ THERMOMISCHER FÜR SOLARANLAGEN
/ MÉLANGEUR THERMOSTATIQUE POUR PANNEAUX SOLAIRES

780

CODE	TECH. CODE	SIZE	
88.23.860	VA078000500N	1/2"	1
88.23.861	VA078000700N	3/4"	1
88.23.862	VA078001000N	1"	1



GAS SYSTEM

/ GAS SYSTEM
/ GAS SYSTEM
/ GAZ SYSTEM





GAS SYSTEM

GAS MULTILAYER PIPE	300
PRESS FITTINGS FOR GAS INSTALLATION	302
BALL VALVES FOR GAS	306
GAS ACCESSORIES	310

GAS MULTILAYER PIPE

/ TUBO MULTISTRATO PER GAS
/ MEHRSCICHTVERBUNDROHR GAS
/ TUBE MULTICOUCHE POUR GAZ

PE-Xb / AL / PE-Xb

GAS MULTILAYER PIPE IN COILS

/ TUBO GAS MULTISTRATO IN ROTOLI
/ GAS MEHRSCICHTVERBUNDROHR IN RINGEN
/ TUBE MULTICOUCHE POUR LE GAZ EN ROULEAUX

CODE	TECH. CODE	SIZE		
87.81.005	TUGMU1620000	16 x 2	50 m	800 m
87.81.006	TUGMU2020000	20 x 2	50 m	800 m
87.81.007	TUGMU2630000	26 x 3	50 m	900 m
87.81.008	TUGMU3230000	32 x 3	50 m	600 m

According to UNI 7129 / Conforme UNI 7129
/ Entspricht UNI 7129 / Équivalent à UNI 7129

YELLOW / GIALLO
GELB / JAUNE



PE-Xb / AL / PE-Xb

GAS MULTILAYER PIPE IN BARS

/ TUBO GAS MULTISTRATO IN BARRE
/ GAS MEHRSCICHTVERBUNDROHR IN STANGEN
/ TUBE MULTICOUCHE POUR LE GAZ EN BARRES

CODE	TECH. CODE	SIZE	BARS	
87.81.015	TUGMU1620B00	16 x 2	5 m	300 m
87.81.016	TUGMU2020B00	20 x 2	5 m	200 m
87.81.017	TUGMU2630B00	26 x 3	5 m	110 m

According to UNI 7129 / Conforme UNI 7129
/ Entspricht UNI 7129 / Équivalent à UNI 7129

YELLOW / GIALLO
GELB / JAUNE



PE-Xb / AL / PE-Xb**GAS MULTILAYER PIPE IN COILS
WITH YELLOW CORRUGATED SHEATH**

/ TUBO GAS MULTISTRATO IN ROTOLI CON GUAINA CORRUGATA
 / GAS MEHRSCICHTVERBUNDROHR IM WELLSCHUTZROHR
 / TUBE MULTICHOUCHE POUR LE GAZ, GAINE JAUNE

YELLOW / GIALLO
 GELB / JAUNE



CODE	TECH. CODE	SIZE 		
87.81.010	TUGMU16200CG	16 x 2 outer Ø / Ø esterno / Außendurchmesser / Ø extérieur: 32 mm (for pipe / per tubo / für Rohr / pour tube: Ø 16)	50 m	600 m
87.81.011	TUGMU20200CG	20 x 2 outer Ø / Ø esterno / Außendurchmesser / Ø extérieur: 37 mm (for pipe / per tubo / für Rohr / pour tube: Ø 20)	50 m	600 m
87.81.012	TUGMU26300CG	26 x 3 outer Ø / Ø esterno / Außendurchmesser / Ø extérieur: 44 mm (for pipe / per tubo / für Rohr / pour tube: Ø 26)	50 m	350 m

According to UNI 11344 / Conforme UNI 11344
 / Entspricht UNI 11344 / Équivalent à UNI 11344

**GAS MULTILAYER PIPE WITH POLYETHYLENE SHEATH**

/ TUBO GAS MULTISTRATO ISOLATO CON GUAINA POLIETILENE
 / GAS MEHRSCICHTVERBUNDROHR MIT POLYETHYLEN-ISOLIERUNG
 / TUBE MULTICHOUCHE POUR LE GAZ ISOLÉ AVEC GAINE EN POLYETHYLÈNE

YELLOW / GIALLO
 GELB / JAUNE



CODE	TECH. CODE	SIZE		
87.81.030	TUGMU162000G	16 x 2	50 m	600 m
87.81.031	TUGMU202000G	20 x 2	50 m	600 m



PRESS FITTINGS FOR GAS INSTALLATIONS

/ RACCORDI A PRESSARE PER IMPIANTI GAS
/ PRESSEINRICHTUNGEN FÜR GASANLAGEN
/ RACCORDS À SERTIR POUR L'INSTALLATIONS DE GAS

BRASS

UNI EN 12164/12165
CW 617N
DIN 50930-6



STRAIGHT COUPLER

/ RACCORDO DIRITTO
/ KUPPLUNG
/ MANCHON ÉGAL



870

CODE	TECH. CODE	SIZE		
87.81.160	MUG870000160	16 x 2	10	100
87.81.200	MUG870000200	20 x 2	10	80
87.81.260	MUG870000260	26 x 3	5	50
87.81.320	MUG870000320	32 x 3	1	30

MALE COUPLER

/ RACCORDO DIRITTO MASCHIO
/ ÜBERGANG MIT AG
/ MANCHON MÂLE



871

CODE	TECH. CODE	SIZE		
87.83.160	MUG871005160	16 x 2 - 1/2"	10	120
87.83.165	MUG871007160	16 x 2 - 3/4"	10	120
87.83.200	MUG871005200	20 x 2 - 1/2"	10	120
87.83.201	MUG871007200	20 x 2 - 3/4"	10	100
87.83.255	MUG871005260	26 x 3 - 1/2"	5	60
87.83.260	MUG871007260	26 x 3 - 3/4"	5	60
87.83.261	MUG871010260	26 x 3 - 1"	5	50
87.83.320	MUG871010320	32 x 3 - 1"	1	40

FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA
/ WINKEL 90° MIT IG
/ COUDE 90° FEMELLE



862

CODE	TECH. CODE	SIZE		
87.87.159	MUG8620H5160	16 x 2 - 1/2" 33 mm	10	80
87.87.160	MUG862005160	16 x 2 - 1/2" 25 mm	10	80
87.87.200	MUG862005200	20 x 2 - 1/2"	10	60
87.87.201	MUG862007200	20 x 2 - 3/4"	10	50
87.87.260	MUG862007260	26 x 3 - 3/4"	5	40
87.87.265	MUG862010260	26 x 3 - 1"	5	40
87.87.320	MUG862010320	32 x 3 - 1"	1	20

REDUCING COUPLER

/ RACCORDO DIRITTO RIDOTTO
/ KUPPLUNG REDUZIERT
/ MANCHON RÉDUIT



870R

CODE	TECH. CODE	SIZE		
87.82.201	MUG870R20160	20 x 2 - 16 x 2	10	80
87.82.260	MUG870R26160	26 x 3 - 16 x 2	5	50
87.82.263	MUG870R26200	26 x 3 - 20 x 2	5	50

FEMALE COUPLER

/ RACCORDO DIRITTO FEMMINA
/ ÜBERGANG MIT IG
/ MANCHON FEMELLE



880

CODE	TECH. CODE	SIZE		
87.84.160	MUG880005160	16 x 2 - 1/2"	10	120
87.84.200	MUG880005200	20 x 2 - 1/2"	10	120
87.84.201	MUG880007200	20 x 2 - 3/4"	10	80
87.84.255	MUG880005260	26 x 3 - 1/2"	5	60
87.84.260	MUG880007260	26 x 3 - 3/4"	5	60
87.84.261	MUG880010260	26 x 3 - 1"	5	50
87.84.320	MUG880010320	32 x 3 - 1"	1	40

MALE ELBOW 90°

/ GOMITO 90° MASCHIO
/ WINKEL 90° MIT AG
/ COUDE 90° MÂLE



861

CODE	TECH. CODE	SIZE		
87.86.160	MUG861005160	16 x 2 - 1/2"	10	80
87.86.200	MUG861005200	20 x 2 - 1/2"	10	80
87.86.201	MUG861007200	20 x 2 - 3/4"	10	60
87.86.260	MUG861007260	26 x 3 - 3/4"	5	40

ELBOW 90°

/ GOMITO 90°
/ WINKEL 90°
/ COUDE 90°



860

CODE	TECH. CODE	SIZE		
87.85.160	MUG860000160	16 x 2	10	100
87.85.200	MUG860000200	20 x 2	10	60
87.85.260	MUG860000260	26 x 3	5	40
87.85.320	MUG860000320	32 x 3	1	20

TEE

/ RACCORDO A T
/ T-STÜCK
/ TÉ



850

CODE	TECH. CODE	SIZE		
87.88.160	MUG850000160	16 x 2	10	50
87.88.200	MUG850000200	20 x 2	10	40
87.88.260	MUG850000260	26 x 3	5	20
87.88.320	MUG850000320	32 x 3	1	15

TEE ENLARGED MIDDLE SECTION

/ RACCORDO A T ALLARGATO AL CENTRO
/ T-STÜCK ERWEITERT
/ TÉ ÉLARGI AU MILIEU



853

CODE	TECH. CODE	SIZE		
87.91.161	MUG85300ABA0	16 x 2 - 20 x 2 - 16 x 2	10	50
87.91.201	MUG85300BDB0	20 x 2 - 26 x 3 - 20 x 2	5	30

FEMALE TEE

/ RACCORDO A T FEMMINA
/ T-STÜCK MIT IG
/ TÉ FEMELLE



852

CODE	TECH. CODE	SIZE		
87.93.160	MUG852005160	16 x 2 - 1/2" - 16 x 2	10	50
87.93.200	MUG852005200	20 x 2 - 1/2" - 20 x 2	10	40
87.93.201	MUG852007200	20 x 2 - 3/4" - 20 x 2	10	40
87.93.260	MUG852005260	26 x 3 - 1/2" - 26 x 3	5	20
87.93.263	MUG852007260	26 x 3 - 3/4" - 26 x 3	5	20

TEE REDUCED MIDDLE SECTION

/ RACCORDO A T RIDOTTO AL CENTRO
/ T-STÜCK MITTELABGANG REDUZIERT
/ TÉ RÉDUIT AU MILIEU



853

CODE	TECH. CODE	SIZE		
87.89.201	MUG85300BAB0	20 x 2 - 16 x 2 - 20 x 2	10	50
87.89.263	MUG85300DBD0	26 x 3 - 20 x 2 - 26 x 3	5	30

REDUCING TEE

/ RACCORDO A T RIDOTTO
/ T-STÜCK REDUZIERT
/ TÉ RÉDUIT



853

CODE	TECH. CODE	SIZE		
87.90.202	MUG85300BAA0	20 x 2 - 16 x 2 - 16 x 2	10	50
87.90.206	MUG85300BBA0	20 x 2 - 20 x 2 - 16 x 2	10	50

WALLPLATE ELBOW 90°

/ GOMITO 90° FLANGIATO
/ WANDWINKEL 90°
/ APPLIQUE MURALE 90°

**863**

CODE	TECH. CODE	SIZE	H (mm)		
87.94.160	MUG863005160 •	16 x 2 - 1/2"	39 mm	10	50
87.94.161	MUG8630H5160	16 x 2 - 1/2"	52 mm	10	40
87.94.200	MUG863005200	20 x 2 - 1/2"	52 mm	10	40
87.94.201	MUG863007200	20 x 2 - 3/4"	52 mm	10	30
87.94.260	MUG863007260	26 x 3 - 3/4"	52 mm	5	25

• CAUTION! TO BE PRESSED AHEAD WALL INSTALLATION!
/ ATTENZIONE: DA PRESSARE PRIMA DELL'INSTALLAZIONE A MURO
/ WICHTIG: VOR DEM WANDEINBAU VERPRESSEN!
/ AVERTISSEMENT: DOIT ÊTRE SERTI AVANT L'INSTALLATION AU MUR

STOP END

/ TAPPO CIECO
/ PRESSTOPFEN
/ BOUCHON

**881**

CODE	TECH. CODE	SIZE		
87.97.160	MUG881000160	16 x 2	10	150
87.97.200	MUG881000200	20 x 2	10	150
87.97.260	MUG881000260	26 x 3	5	100

O-RINGS

/ O-RING
/ O-RINGE
/ O-RINGS



CODE	TECH. CODE	SIZE2
87.97.616	ORG8500016000	16 x 2
87.97.620	ORG8500020000	20 x 2
87.97.626	ORG8500026000	26 x 3

CONNECTING STRAIGHT SCREW FITTING
WITH SWIVEL NUT AND FLAT SEAL

/ RACCORDO DIRITTO TENUTA PIATTA
CON DADO PRIGIONIERO E GUARNIZIONE
/ GERADES ÜBERGANGSFITTING
MIT ÜBERWURFMUTTER UND FLACHDICHTUNG
/ RACCORD DROIT AVEC ÉCROU TOURNANT
ET JOINT PLAT

**876**

CODE	TECH. CODE	SIZE		
87.95.150	MUG87600516L	16 x 2 - 1/2"	10	150
87.95.160	MUG87600716L	16 x 2 - 3/4"	10	120
87.95.200	MUG87600720L	20 x 2 - 3/4"	10	100
87.95.260	MUG87601026L	26 x 3 - 1"	5	80

PRESSURE COLLAR IN STAINLESS STEEL

/ BUSSOLOTTA IN ACCIAIO INOX
/ PRESSHÜLSE AUS EDELSTAHL
/ BAGUE DE SERTISSAGE INOX



CODE	TECH. CODE	SIZE		
87.97.516	BUG851000160	16 x 2	10	250
87.97.520	BUG851000200	20 x 2	10	200
87.97.526	BUG851000260	26 x 3	10	100

INSTALLATION / INSTALLAZIONE / INSTALLATION / INSTALLATION

1



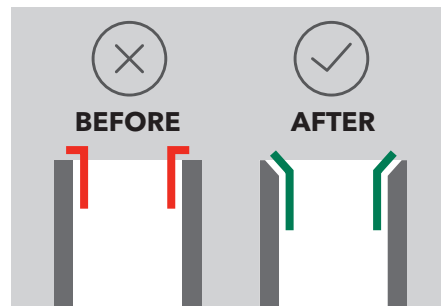
CUT
/ TAGLIO
/ ABLÄNGEN
/ COUPER

2



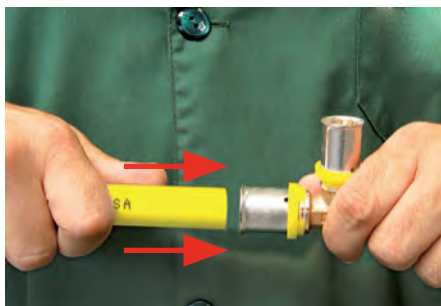
CALIBRATION
/ CALIBRATURA
/ KALIBRIERUNG
/ COUPER

3



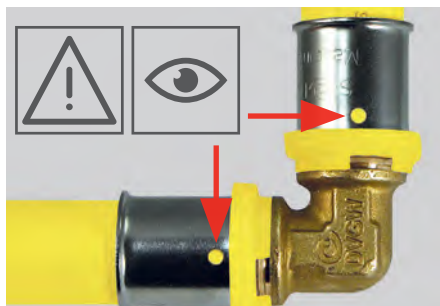
PIPE CALIBRATION
/ CALIBRAZIONE DEL TUBO
/ ROHRKALIBRIERUNG
/ CALIBRAGE DE TUYAU

4



INSERTING THE FITTING
/ MONTAGGIO DEL RACCORDO
/ MONTAGE DES FITTINGS
/ INSERTION DU RACCORD

5



VISUAL INSPECTION
/ CONTROLLO VISIVO
/ VISUELLE KONTROLLE
/ CONTRÔLE VISUEL

6



PRESSING
/ PRESSATURA
/ VERPRESSUNG
/ PRESSER

CARATTERISTICHE TECNICHE COMISA GAS SYSTEM

Il sistema **Comisa Gas system** è realizzato in ottemperanza alla normativa **UNI 11344** e può essere installato secondo quanto prescritto dalla normativa **UNI 7129**.

Comisa Gas system nasce dalla pluriennale esperienza Comisa nella produzione di sistemi multistrato per il trasporto di gas combustibile in ambito domestico. Il sistema, composto da tubazioni multistrato e raccordi a pressione in ottone, offre la più ampia garanzia nelle installazioni gas ad uso domestico.

Le proprietà del sistema lo rendono semplice ed affidabile nella realizzazione di nuovi impianti e molto pratico nel ripristino di quelli esistenti.

I principali vantaggi che il sistema Comisa Gas può offrire riguardano:

- Installazione veloce ed affidabile rispetto ai sistemi tradizionali
- Elevata portata, data la bassa rugosità interna del sistema
- Risparmio dato dalla possibilità di curvare il tubo senza bisogno di raccordi
- Completezza dimensionale della gamma
- Alto livello qualitativo
- Uniformità: attrezzatura in comune col sistema idrico **Comisa Press**.



SISTEMA CONFORME
UNI 11344

Indicazioni per la realizzazione in sicurezza di un impianto per l'adduzione di gas ad uso domestico con tubo multistrato Gas:

- Le giunzioni delle tubazioni multistrato possono essere realizzate mediante raccordi per sistemi multistrato conformi alla normativa **UNI 11344**.
- I raccordi possono essere interrati o posti sottotraccia a condizione che vengano rispettivamente inseriti in idoneo pozzetto ispezionabile o apposita scatola ispezionabile con coperchio non a tenuta.
- I punti di giunzione in corrispondenza dei raccordi posizionati nei pozzetti devono essere opportunamente protetti contro le corrosioni, secondo quanto previsto dalla normativa **UNI 12954**.
- Prima di introdurre la tubazione nel raccordo deve essere accertata l'integrità del raccordo stesso.

BALL VALVES FOR GAS

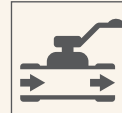
/ VALVOLE A SFERA PER GAS
/ KUGELHÄHNE FÜR GAS
/ VANNES À BOISSEAU SPHÉRIQUE POUR GAZ

BRASS



UNI EN 12164/12165
CW 617N
DIN 50930-6

335 - F/F



100%
FULL
BORE

ISO
7/1



CE
EN 331

BALL VALVE MOD.335 F/F - FULL BORE

/ VALVOLA A SFERA MOD. 135 F/F - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 135 IG/IG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 135 F/F - PASSAGE INTÉGRALE

335

YELLOW ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO GIALLA
/ GELBER ALUMINIUM HEBELGRIFF / MANETTE ALUMINIUM LEVIER JAUNE



CODE	TECH. CODE	SIZE	MOP	DN	
41.32.600	VS0335003AGN	3/8"	5	10	80
41.32.605	VS0335005AGN	1/2"	5	15	50
41.32.610	VS0335007AGN	3/4"	5	20	30
41.32.615	VS0335010AGN	1"	5	25	25
41.32.620	VS0335012AGN	1 1/4"	5	32	12
41.32.625	VS0335015AGN	1 1/2"	5	40	8
41.32.630	VS0335020AGN	2"	5	50	5

335



YELLOW IRON HANDLE / MANIGLIA IN ACCIAIO GIALLA
/ GELBER EISENHEBELGRIFF / MANETTE ACIER LEVIER JAUNE

CODE	TECH. CODE	SIZE	MOP	DN	
41.32.606	VS0335005FGN	1/2"	5	15	50
41.32.611	VS0335007FGN	3/4"	5	20	30
41.32.616	VS0335010FGN	1"	5	25	25
41.32.621	VS0335012FGN	1 1/4"	5	32	12
41.32.626	VS0335015FGN	1 1/2"	5	40	8
41.32.631	VS0335020FGN	2"	5	50	5

335



YELLOW ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA GIALLO
/ GELBER ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON JAUNE

CODE	TECH. CODE	SIZE	MOP	DN	
41.32.602	VS0335003PGN	3/8"	5	10	80
41.32.607	VS0335005PGN	1/2"	5	15	50
41.32.612	VS0335007PGN	3/4"	5	20	30
41.32.617	VS0335010PGN	1"	5	25	30
41.32.622	VS0335012PGN	1 1/4"	5	32	15

335M - M/F



BALL VALVE MOD.335M M/F - FULL BORE

/ VALVOLA A SFERA MOD. 135M M/F - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 135M AG/IG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 135M M/F - PASSAGE INTÉGRALE

335M ●

YELLOW ALUMINIUM HANDLE / MANIGLIA IN ALLUMINIO GIALLA
/ GELBER ALUMINIUM HEBELGRIFF / MANETTE ALUMINIUM LEVIER JAUNE



CODE	TECH. CODE	SIZE	MOP	DN	
41.32.635	VS0335M05AGN	1/2"	5	15	50
41.32.640	VS0335M07AGN	3/4"	5	20	30
41.32.645	VS0335M10AGN	1"	5	25	25
41.32.650	VS0335M12AGN	1 1/4"	5	32	12
41.32.655	VS0335M15AGN	1 1/2"	5	40	8
41.32.660	VS0335M20AGN	2"	5	50	5

335M ■



YELLOW IRON HANDLE / MANIGLIA IN ACCIAIO GIALLA
/ GELBER EISENHEBELGRIFF / MANETTE ACIER LEVIER JAUNE

CODE	TECH. CODE	SIZE	MOP	DN	
41.32.636	VS0335M05FGN	1/2"	5	15	50
41.32.641	VS0335M07FGN	3/4"	5	20	30
41.32.646	VS0335M10FGN	1"	5	25	25

335M ▲



YELLOW ALUMINIUM BUTTERFLY HANDLE / MANIGLIA IN ALLUMINIO A FARFALLA GIALLO
/ GELBER ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON JAUNE

CODE	TECH. CODE	SIZE	MOP	DN	
41.32.637	VS0335M05PGN	1/2"	5	15	70
41.32.642	VS0335M07PGN	3/4"	5	20	50
41.32.647	VS0335M10PGN	1"	5	25	30
41.32.652	VS0335M12PGN	1 1/4"	5	32	15

339 F/F



BALL VALVE MOD. 339 F/F - FULL BORE

/ VALVOLA A SFERA MOD. 339 F/F - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 339 IG/IG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 339 F/F - PASSAGE INTÉGRALE

339 ▲

YELLOW ALUMINIUM BUTTERFLY HANDLE / FARFALLA GIALLA ALLUMINIO
/ GELB ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON JAUNE



WITH PRESSURE PLUG
/ CON PRESA DI PRESSIONE
/ MIT ANSCHLUSS FÜR DRUCKMESSUNG
/ AVEC PRISE DE PRESSION

CODE	TECH. CODE	SIZE	MOP	
41.32.662	VS0339007PGN	3/4"	5	40
41.32.663	VS0339010PGN	1"	5	25

339M F/M



BALL VALVE MOD. 339M F/M - FULL BORE

/ VALVOLA A SFERA MOD. 339M F/M - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 339M IG/AG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 339M F/M - PASSAGE INTÉGRALE

339M ▲

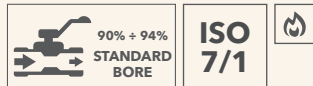
YELLOW ALUMINIUM BUTTERFLY HANDLE / FARFALLA GIALLA ALLUMINIO
/ GELB ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON JAUNE



WITH PRESSURE PLUG
/ CON PRESA DI PRESSIONE
/ MIT ANSCHLUSS FÜR DRUCKMESSUNG
/ AVEC PRISE DE PRESSION

CODE	TECH. CODE	SIZE	MOP	
41.32.665	VS0339M07PGN	3/4"	5	40
41.32.666	VS0339M10PGN	1"	5	25

337 M/M



BALL VALVE MOD. 337 M/M 90° - STANDARD BORE

/ VALVOLA A SFERA MOD. 337 M/M 90° - PASSAGGIO STANDARD
/ KUGELHAHN MOD. 337 AG/AG 90° - STANDARD DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 337 M/M 90° - PASSAGE STANDARD

337 ▲

YELLOW ALUMINIUM BUTTERFLY HANDLE / FARFALLA GIALLA ALLUMINIO
/ GELB ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON JAUNE



CODE	TECH. CODE	SIZE	
87.81.136	VS0337005PGN •	1/2"	36

• ON REQUEST / SU RICHIESTA / AUF ANFRAGE / SUR COMMANDE

338 M/S



BALL VALVE MOD. 338 90° M/SWIVEL NUT - STANDARD BORE

/ VALVOLA A SFERA MOD. 338 M/DADO PRIGIONIERO 90° - PASSAGGIO STANDARD
/ KUGELHAHN MOD. 338 AG/ÜBERWURFMUTTER 90° - STANDARD DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 338 M/ÉCROU TOURNANT 90° - PASSAGE STANDARD

338 ▲

YELLOW ALUMINIUM BUTTERFLY HANDLE / FARFALLA GIALLA ALLUMINIO
/ GELB ALUMINIUM FLÜGELGRIFF / MANETTE ALUMINIUM PAPILLON JAUNE



CODE	TECH. CODE	SIZE	
87.81.137	VS0338055PGN •	1/2"	36

• ON REQUEST / SU RICHIESTA / AUF ANFRAGE / SUR COMMANDE



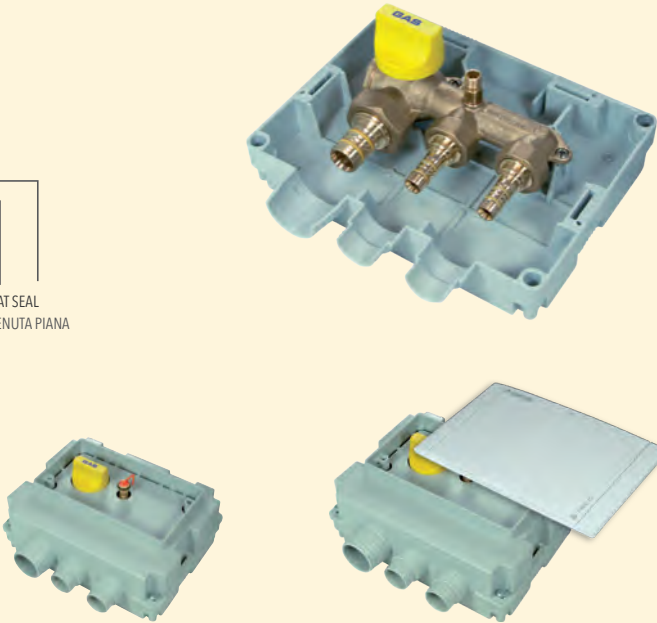
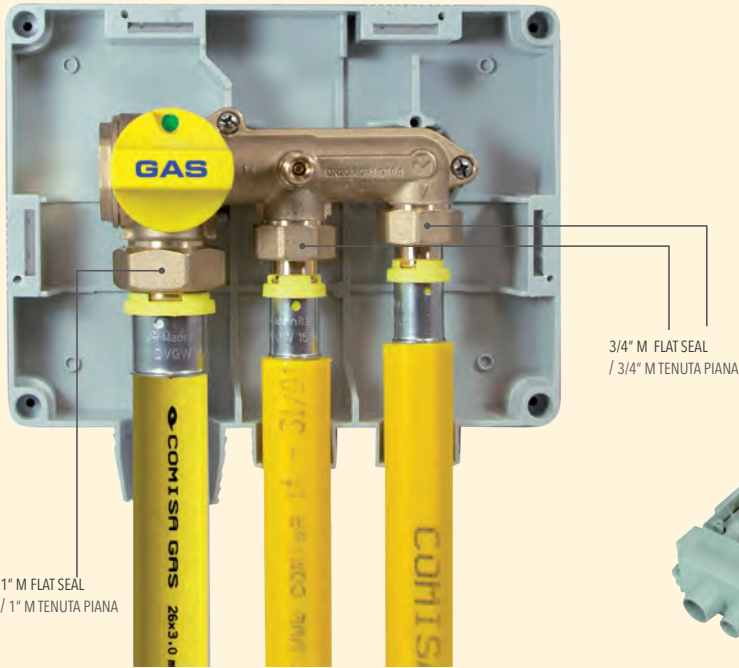
GAS ACCESSORIES

/ ACCESSORI GAS



SINGLE SHUT-OFF DISTRIBUTION MANIFOLD FLAT SEAL

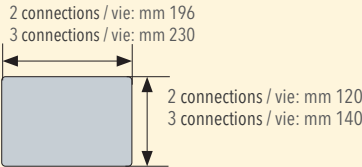
/ COLLETTORE DI DISTRIBUZIONE CON VALVOLA INTERCETTAZIONE E PRESA DI PRESSIONE TENUTA PIANA



344

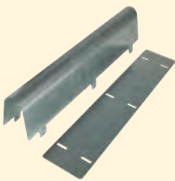
CODE	TECH. CODE	SIZE	CONNECTIONS	
87.81.067	VS0344002000	1" M - 3/4" M	2	1
87.81.068	VS0344003000	1" M - 3/4" M	3	1

/Sizes
/ Dimensioni



METAL DUCT FOR EXTERNAL PIPE

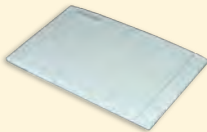
/ KIT CANALETTA METALLICA PER INCASSO TUBAZIONI ESTERNE



CODE	TECH. CODE	SIZE	
87.81.077	VA0344005030	750 x 50 mm	10

COVER PLATE FOR 2 WAYS MANIFOLD
87.81.067

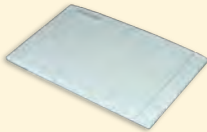
/ PLACCA DI COPERTURA PER COLLETTORE A 2 VIE 87.81.067



CODE	TECH. CODE		
87.81.075	VA0344005010	3	9

COVER PLATE FOR 3 WAYS MANIFOLD
87.81.068

/ PLACCA DI COPERTURA PER COLLETTORE A 3 VIE 87.81.068



CODE	TECH. CODE		
87.81.076	VA0344005020	3	9

BUILT-IN VALVE WITH WHITE PLATE

/ KIT RACCORDO TERMINALE CON SCATOLA PER IMPIANTI GAS SOTTOTRACCIA



CODE	TECH. CODE	SIZE		
87.81.074	VA0345001000	1/2" F - 3/4" M		3

BUILT-IN STRAIGHT SHUT-OFF BALLVALVE TO COMBINE WITH COVER PLATES

/ VALVOLA DI INTERCETTAZIONE CON SCATOLA PER IMPIANTI GAS SOTTOTRACCIA



CODE	TECH. CODE	SIZE		
87.81.069	VA0345002000	3/4" M - 3/4" M	1	10

ELBOW 90° FITTING WITH HEAT ACTUATED SAFETY DEVICE, CURVED FOR FLEXIBLE PIPES IN GAS SYSTEMS

/ GOMITO 90° CON DISPOSITIVO DI SICUREZZA AD ATTIVAZIONE TERMICA CURVO PER TUBO FLESSIBILE PER APPARECCHIATURE GAS



CODE	TECH. CODE	SIZE		
87.81.080	VA0345004000	1/2" M x 1/2" M		20

COVER PLATE - WHITE FOR ART. 87.81.069

/ PLACCA DI COPERTURA BIANCA PER ART. 87.81.069



CODE	TECH. CODE	COLOR		
87.81.070	VA0345003000	WHITE / BIANCO	1	30
87.81.071	VA0345003010	CHROME / CROMO	1	30
87.81.072	VA0345003020	SATINIZED CHROME / CROMO SATINATO	1	30
87.81.073	VA0345003030	BLACK / NERO	1	30

ELBOW 90° BALL VALVE FOR GAS INSTALLATIONS WITH THERMO-ACTIVATED SAFETY DEVICE

/ VALVOLA A SFERA 90° PER APPARECCHI GAS CON DISPOSITIVO DI SICUREZZA AD ATTIVAZIONE TERMICA



CODE	TECH. CODE	SIZE		
87.81.081	VA0345005000	1/2" M x 1/2" M		2

OVERFLOW VALVE

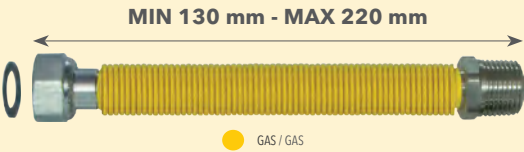
/ DISPOSITIVO DI SICUREZZA DI ECCESSO DI FLUSSO



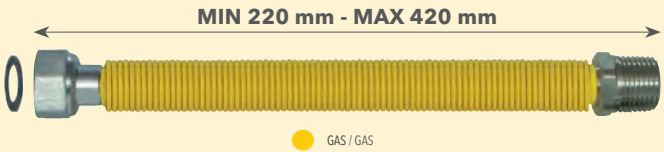
CODE	TECH. CODE	SIZE	DN		
87.81.090	VA0345006000	2,5	DN15 VGAS	10	100
87.81.091	VA0345006010	2,5	DN20 VGAS	10	80

STAINLESS STEEL AISI 316 FLEXIBLE HOSE WITH YELLOW PLASTIC COAT AND RUBBER GASKET FOR BOILER CONNECTION

/ TUBO FLESSIBILE PER CALDAIA A GAS IN ACCIAIO INOX AISI 316 RIVESTITO CON GUARNIZIONE IN GOMMA



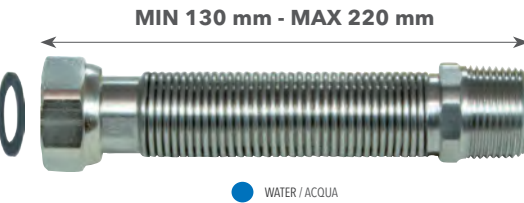
CODE	TECH. CODE	SIZE	
87.81.506	VA0345009300	1/2" F / M 130 - 220 mm	20
87.81.508	VA0345009350	3/4" F / M 130 - 220 mm	10



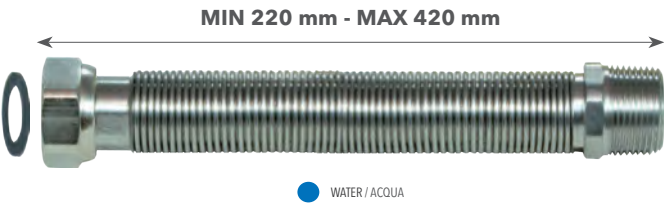
CODE	TECH. CODE	SIZE	
87.81.507	VA0345009310	1/2" F / M 220 - 420 mm	20
87.81.509	VA0345009360	3/4" F / M 220 - 420 mm	10

EXTENSIBLE AND FLEXIBLE STAINLESS STEEL PIPE FOR WATER

/ TUBO FLESSIBILE ED ESTENSIBILE PER ACQUA IN ACCIAIO INOX



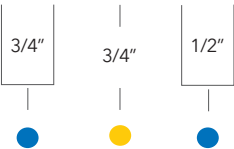
CODE	TECH. CODE	SIZE	
87.81.510	VA0345009400	1/2" F / M 130 - 220 mm	20
87.81.512	VA0345009450	3/4" F / M 130 - 220 mm	10



CODE	TECH. CODE	SIZE	
87.81.511	VA0345009410	1/2" F / M 220 - 420 mm	20
87.81.513	VA0345009460	3/4" F / M 220 - 420 mm	10

GAS BOILER KIT
/ KIT CALDAIA

MIN 130 mm - MAX 220 mm



CODE	TECH. CODE	SIZE	
87.81.515	VA0345009550	130 - 220 mm	5

GAS BOILER KIT
/ KIT CALDAIA A GAS

REGULATIONS FOR GAS PIPE
/ NORMA PER TUBO GAS

UNI 11353

GAS BOILER KIT
/ KIT CALDAIA

MIN 220 mm - MAX 420 mm



CODE	TECH. CODE	SIZE	
87.81.514	VA0345009500	220 - 420 mm	5

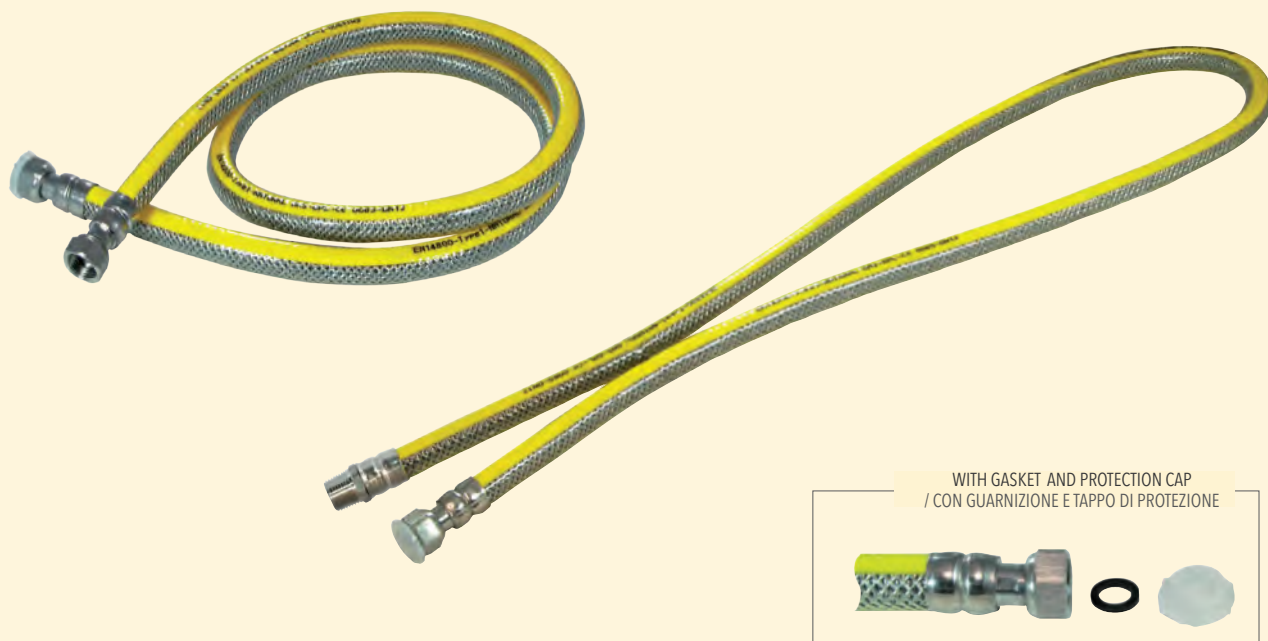
REGULATIONS FOR WATER PIPE
/ NORMA PER TUBO ACQUA

DM 174

● WATER / ACQUA
● GAS / GAS

FLEXIBLE HOSE IN STAINLESS STEEL FOR GAS HOB WITH GASKET

/ TUBO FLESSIBILE IN ACCIAIO INOX PER PIANO COTTURA CON GUARNIZIONE



FEMALE / FEMALE CONNECTION 1/2"

/ ATTACCO FEMMINA / FEMMINA 1/2"



CODE	TECH. CODE	SIZE 	
87.81.500	VA0345009000	1/2" F / F - 1000 mm	10
87.81.501	VA0345009010	1/2" F / F - 1500 mm	10
87.81.502	VA0345009020	1/2" F / F - 2000 mm	10

MALE / FEMALE CONNECTION 1/2"

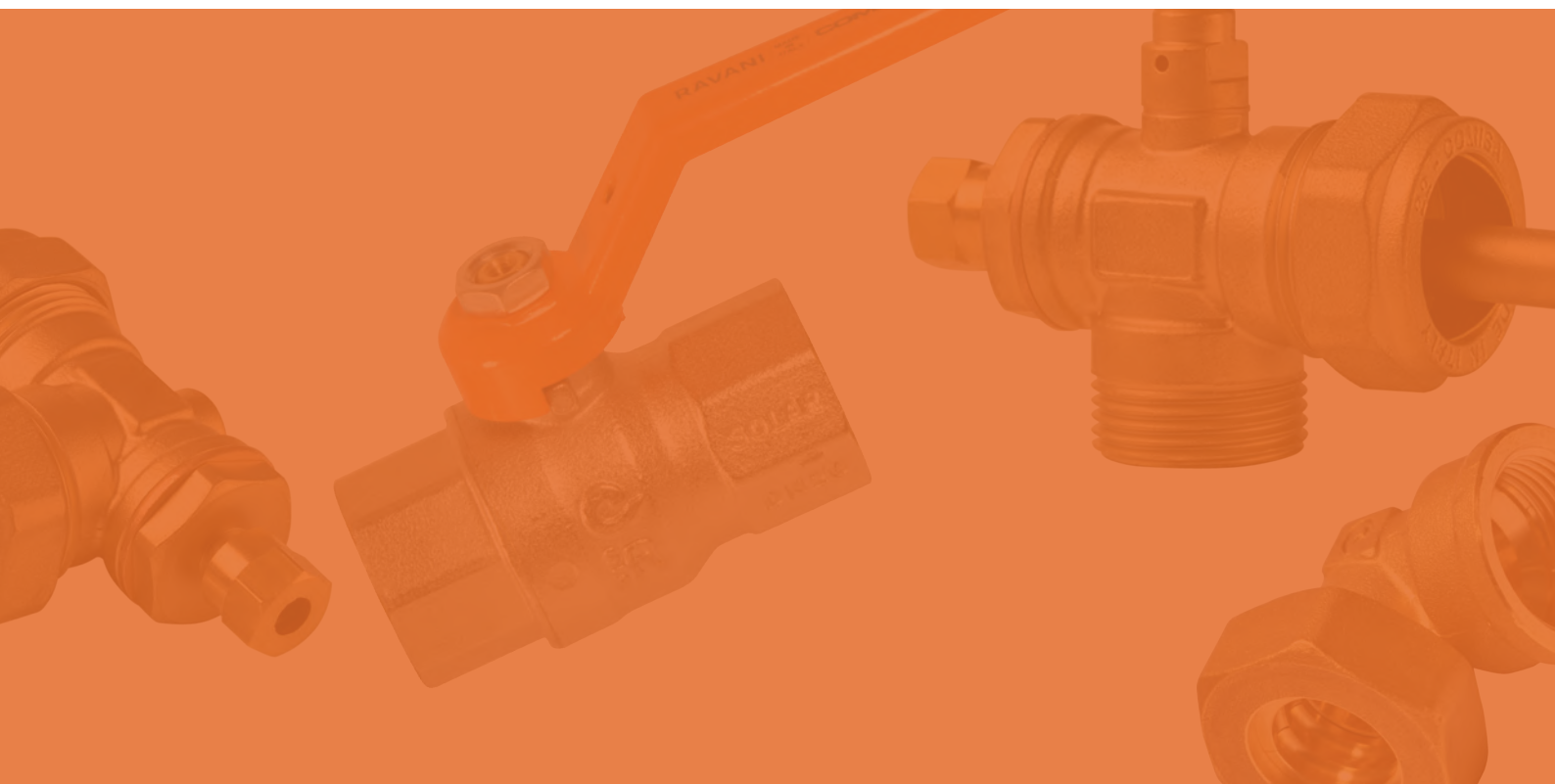
/ ATTACCO MASCHIO / FEMMINA 1/2"

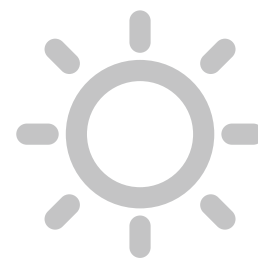


CODE	TECH. CODE	SIZE	
87.81.503	VA0345009100	1/2" M / F - 1000 mm	10
87.81.504	VA0345009110	1/2" M / F - 1500 mm	10
87.81.505	VA0345009120	1/2" M / F - 2000 mm	10

SOLAR THERMAL SYSTEMS

/ SISTEMA SOLARE TERMICO
/ SOLARANLAGEN
/ INSTALLATIONS SOLAIRES





SOLAR THERMAL SYSTEMS

COMPRESSION FITTINGS FOR SOLAR THERMAL SYSTEMS	316
BALL VALVES FOR SOLAR THERMAL SYSTEMS	318
MIXERS FOR SOLAR THERMAL SYSTEMS	319

COMPRESSION FITTINGS FOR SOLAR THERMAL SYSTEMS

/ RACCORDI A STRINGERE PER SOLARE TERMICO
/ KLEMMVERBINDER FÜR SOLARANLAGEN
/ RACCORDS À VISSEUR POUR INSTALLATIONS SOLAIRES

BRASS



UNI EN 12164/12165
CW 617N
DIN 50930-6

MALE CROSS FITTING FOR COPPER PIPE WITH DRILL HOLDER AND MANUAL AIR VENT

/ RACCORDO A CROCE MASCHIO PER TUBO RAME
CON PORTASONDA E VALVOLA A SFIATO
/ ANSCHLUSSSTÜCK AG FÜR CU-ROHR MIT
FÜHLERLANZE UND HAND-ENDLÜFTERVENTIL
/ RACCORD EN CROIX AVEC DOIGT DE GANT,
RACCORD BICÔNE POUR TUBE CUIVRE
FILETAGE MÂLE, AVEC PURGEUR MANUEL



792

CODE	TECH. CODE	SIZE		
73.08.455	VA0792007220	22 mm x 3/4"	50	

CROSS FITTING FOR COPPER PIPE WITH DRILL HOLDER AND MANUAL AIR VENT

/ RACCORDO A CROCE PER TUBO RAME CON
PORTASONDA E VALVOLA A SFIATO
/ ANSCHLUSSSTÜCK FÜR CU-ROHR MIT FÜHLERLANZE
UND HAND-ENDLÜFTERVENTIL
/ RACCORD EN CROIX AVEC DOIGT DE GANT,
RACCORD BICÔNE POUR TUBE CUIVRE, AVEC
PURGEUR MANUEL



793

CODE	TECH. CODE	SIZE		
73.08.465	VA0793000220	22 mm x 22 mm	40	

AIR VENT WITH COPPER GASKET

/ VALVOLA SFIATO ARIA CON GUARNIZIONE IN
RAME
/ LUFTSTOPFEN MIT KUPFERDICHTUNG
/ PERGEUR AVEC JOINT EN CURVE



797

CODE	TECH. CODE	SIZE		
73.08.490	VA0797005000	1/2"	10	100

DRILL HOLDER WITH COPPER GASKET

/ PORTASONDA CON GUARNIZIONE IN RAME
/ FÜHLERLANZE MIT KUPFERDICHTUNG
/ DOIGT DE GANT AVEC JOINT EN CURVE



794

CODE	TECH. CODE	SIZE		
73.08.510	VA0794005010	1/2" x 100 mm	10	100
73.08.515	VA0794005020	1/2" x 130 mm	10	100

STRAIGHT COUPLER

/ RACCORDO DIRITTO
/ KLEMMVERSCHRAUBUNG GERADE
/ MANCHON ÉGAL



776

CODE	TECH. CODE	SIZE		
73.08.600	RB0776000150	15 mm	10	240
73.08.605	RB0776000180	18 mm	10	150
73.08.610	RB0776000220	22 mm	10	120

MALE COUPLER CYLINDRICAL THREAD

/ RACCORDO DIRITTO MASCHIO CILINDRICO
/ KLEMMVERSCHRAUBUNG MIT AG
ZYLINDRISCHES GEWINDE
/ MANCHON MÂLE CYLINDRIQUE



782

CODE	TECH. CODE	SIZE		
73.08.630	RB0782007180	18 mm x 3/4"	10	150
73.08.635	RB0782007220	22 mm x 3/4"	10	160
73.08.640	RB0782010220	22 mm x 1"	10	100

FEMALE COUPLER

/ RACCORDO DIRITTO FEMMINA
/ KLEMMVERSCHRAUBUNG MIT IG
/ MANCHON FEMELLE



783

CODE	TECH. CODE	SIZE		
73.08.645	RB0783007220	22 mm x 3/4"	10	140
73.08.650	RB0783005220	22 mm x 1/2"	10	200

MALE ELBOW 90° CYLINDRICAL THREAD

/ GOMITO 90° MASCHIO CILINDRICO
/ KLEMMWINKELVERSCHRAUBUNG 90° MIT AG
ZYLINDRISCHES GEWINDE
/ COUDE 90° MÂLE CYLINDRIQUE



784

CODE	TECH. CODE	SIZE		
73.08.665	RB0784007220	22 mm x 3/4"	10	100

ELBOW 90°

/ GOMITO 90°
/ KLEMMWINKELVERSCHRAUBUNG 90°
/ COUDE 90°

**786**

CODE	TECH. CODE	SIZE		
73.08.685	RB0786000220	22 mm	10	100

FEMALE ELBOW 90°

/ GOMITO 90° FEMMINA
/ KLEMMWINKELVERSCHRAUBUNG
90° MIT IG
/ COUDE 90° FEMELLE

**787**

CODE	TECH. CODE	SIZE		
73.08.705	RB0787007220	22 mm x 3/4"	10	100

STOP END

/ TAPPO CIECO
/ VERSCHLÜSSTÜCK
/ BOUCHON

**778**

CODE	TECH. CODE	SIZE		
73.08.765	RB0778000150	15 mm	10	400
73.08.770	RB0778000180	18 mm	10	300
73.08.775	RB0778000220	22 mm	10	200

MALE COUPLER

/ RACCORDO DIRITTO MASCHIO
/ ÜBERGANG MIT AG
/ MANCHON MÂLE

**779**

CODE	TECH. CODE	SIZE		
73.08.570	RF0779005000	1/2" x 1/2"	10	250
73.08.575	RF0779007000	3/4" x 3/4"	10	200
73.08.580	RF0779010000	1" x 1"	5	150

MALE PLUG

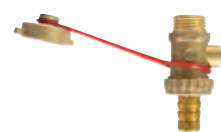
/ TAPPO MASCHIO
/ STOPFEN AG
/ BOUCHON MÂLE

**777**

CODE	TECH. CODE	SIZE		
73.08.900	RF077700500L	1/2"	10	200
73.08.905	RF0777007000	3/4"	10	150
73.08.910	RF0777010000	1"	5	100

TAP FILL-UNFILL SYSTEMS

/ RUBINETTO DI CARICO/SCARICO IMPIANTI
/ FÜLL-ENTLEERUNGSHAHN
/ VANNES DE CHARGEMENT-DÉCHARGEMENT
DE L'INSTALLATION

**785**

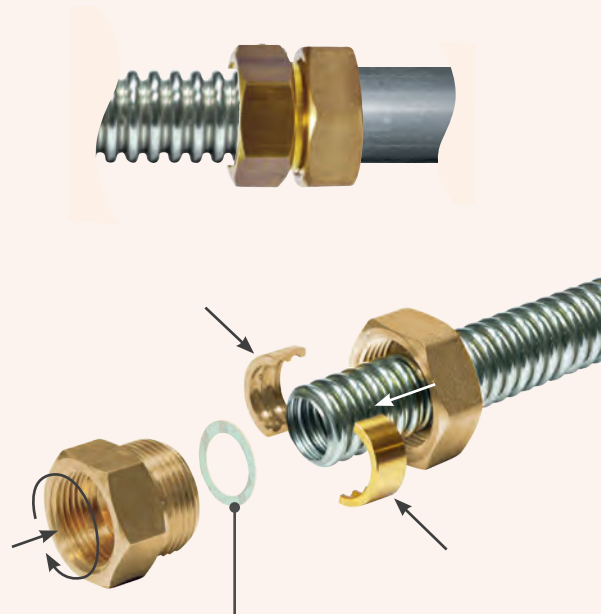
CODE	TECH. CODE	SIZE	
88.23.835	VA0785005000	1/2"	100

DN 16 SOLAR**FEMALE COUPLER**

/ RACCORDO DIRITTO FEMMINA
/ KLEMMVERSCHRAUBUNG MIT IG
/ MANCHON FEMELLE

**788**

CODE	TECH. CODE	SIZE		
73.08.950	VA0788007160	3/4" F - DN 16	10	100



ATTENTION - Insulating gasket not supplied with the fitting.

/ **ATTENZIONE** - Guarnizione isolante non fornita con il raccordo.

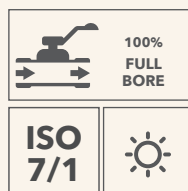
/ **ACHTUNG** - Isolierdichtung nicht im Lieferumfang enthalten.

/ **AVERTISSEMENT** - Joint isolant non fourni avec le raccord.

BALL VALVES FOR SOLAR THERMAL SYSTEMS

/ VALVOLE A SFERA PER SOLARE TERMICO
/ KUGELHAHN FÜR SOLARANLAGEN
/ VANNES À BOISSEAU SPHÉRIQUE POUR INSTALLATIONS SOLAIRES

133 - F/F



BALL VALVE MOD.133 F/F - FULL BORE

/ VALVOLA A SFERA MOD. 133 F/F - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 133 IG/IG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 133 F/F - PASSAGE INTÉGRALE

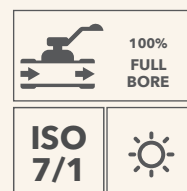


133 ●

ORANGE ALUMINIUM HANDLE
/ MANIGLIA IN ALLUMINIO ARANCIO
/ ORANGE ALUMINIUM HEBELGRIFF
/ MANETTE ALUMINIUM LEVIER ORANGE

CODE	TECH. CODE	SIZE	PN	
41.32.670	VS0133005AAN	1/2"	10	70
41.32.675	VS0133007AAN	3/4"	10	50
41.32.680	VS0133010AAN	1"	10	30

133M - M/F



BALL VALVE MOD.133M M/F - FULL BORE

/ VALVOLA A SFERA MOD. 133M M/F - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 133M AG/IG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 133M M/F - PASSAGE INTÉGRALE

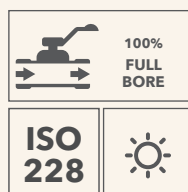


133 ●

ORANGE ALUMINIUM HANDLE
/ MANIGLIA IN ALLUMINIO ARANCIO
/ ORANGE ALUMINIUM HEBELGRIFF
/ MANETTE ALUMINIUM LEVIER ORANGE

CODE	TECH. CODE	SIZE	PN	
41.32.685	VS0133M05AAN	1/2"	10	70
41.32.690	VS0133M07AAN	3/4"	10	50
41.32.695	VS0133M10AAN	1"	10	30

134 - F/M



BALL VALVE MOD.134 F/M - FULL BORE

/ VALVOLA A SFERA MOD. 134 F/M - PASSAGGIO TOTALE
/ KUGELHAHN MOD. 134 IG/AG - VOLLER DURCHGANG
/ VANNE BOISSEAU SPHÉRIQUE MOD. 134 F/M - PASSAGE INTÉGRALE



134 ▲

ORANGE ALUMINIUM BUTTERFLY HANDLE
/ MANIGLIA IN ALLUMINIO A FARFALLA ARANCIO
/ ORANGE ALUMINIUM FLÜGELGRIFF
/ MANETTE ALUMINIUM MANETTE ALUMINIUM PAPILLON ORANGE

CODE	TECH. CODE	SIZE	PN	
41.32.700	VS0134003PAN	3/8"	10	130



USE: water and glycol (max. 50%)
MAX PRESSURE: 10 bar
OPERATING TEMPERATURE: - 30°C + 200°C.

/ FLUIDI AMMESSI: acqua e glicole (max 50%)
PRESSIONE MASSIMA: 10 Bar
TEMPERATURA DI ESERCIZIO: - 30°C + 200°C.

/ ANWENDUNG: Wasser und Glykol (max. 50%).
MAX. BETRIEBSDRUCK: 10 bar
TEMPERATUR: -30°C +200°C

/ EMPLOI: eau et glycol (maxi 50%)
PRESSION MAXI: 10 bar
TEMPÉRATURE: -30°C + 200°C.

MIXERS FOR SOLAR THERMAL SYSTEMS

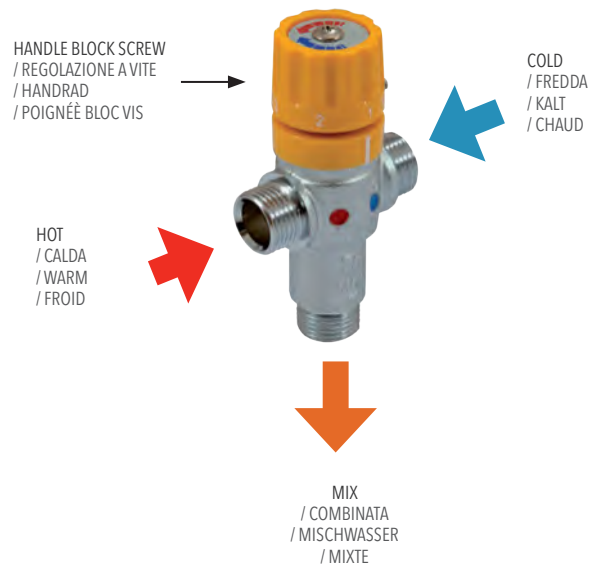
/ MISCELATORI PER SISTEMI SOLARE TERMICO
 / THERMOMISCHER FÜR SOLARANLAGEN
 / MELANGEURS POUR INSTALLATIONS SOLAIRES

THERMOSTATIC MIXER FOR SOLAR PANEL

/ MISCELATORE TERMOSTATICO PER PANNELLO SOLARE
 / THERMOMISCHER FÜR SOLARANLAGEN
 / MELANGEUR THERMOSTATIQUE POUR PANNEAUX SOLAIRES

780

CODE	TECH. CODE	SIZE	
88.23.860	VA078000500N	1/2"	1
88.23.861	VA078000700N	3/4"	1
88.23.862	VA078001000N	1"	1



SALES CONDITIONS AND ARTICLES INDEX

/ CONDIZIONI DI VENDITA E INDICE DEI CODICI
/ VERKAUFSBEDINGUNGEN UND ARTIKEL INDEX
/ CONDITIONS DE VENTE ET INDEX DES ARTICLES



SALES CONDITIONS

1. VALIDITY

1.1 The present General Conditions of Sale shall apply to any sale between **Comisa S.p.A., Via Neziole, 27- 25055 -Pisogne (BS), Italy** (hereinafter "COMISA") and the Client (hereinafter "Client").

1.2 The application of any different term and condition whatsoever, even if applied by the Client pursuant to reference made to its own purchasing or contractual provisions, is expressly excluded.

1.3 Any modification to the General Conditions of Sale herein, shall be endorsed by COMISA in writing, which will have the right to establish specific different conditions in each offer, and such specific condition will prevail over the present General Conditions of Sale.

1.4 Client acknowledges to be aware of the contents of the General Conditions of Sale, available at **www.comisa.it**

2. ORDERS

All orders are accepted as advance bookings and are not subject to even partial deliveries without the issue of the Company's order confirmation.

3. PRICES

Only the prices indicated on COMISA's order confirmations are to be considered valid.

4. DELIVERY TERMS

The delivery terms indicated by COMISA are non-binding and do not entitle the Client to writing, which will have the right to establish specific different conditions in each offer, and such specific condition will prevail over the present General Conditions of Sale.

5. PACKAGING

The packaging used must be disposed of according to the procedures established by the national laws in force. COMISA S.p.A. declines all responsibility for damage to people or things due to non-compliant use.

6. PACKING UNITS

COMISA delivers goods ordered according to the standard packing (box) quantities specified in the price list/catalogue. In the event of a mismatch, the quantity may be rounded, without notice, to the quantity established per package (box) or multiple thereof. Only samples can be packaged loosely.

7. PAYMENT - RETENTION OF TITLE

7.1 The payment terms specified in the invoice are binding. No other conditions are accepted unless these have been expressly agreed upon between the parties beforehand. Cheques issued as payment shall always be made out to COMISA and are considered valid payment only after having been credited to COMISA's bank account and confirmed by COMISA's Financial department.

7.2 If the payments are not made as stipulated in the terms and without any prior agreement, COMISA reserves the right to suspend or cancel any supplies in the course of dispatch and any other orders already accepted by COMISA. Objections of any kind do not grant the customer the right to suspend any payments due. The orders dispatched and invoiced in whole or in part are subject to the conditions specified in this agreement, and it is agreed between the parties that payments for ordered goods are not contingent upon completion of the order. In the case of payments delayed beyond the specified terms identified in the invoice, default interest will begin to accrue without prejudice and with COMISA's right to take further action, at the rate specified by Italian Legislative Decree No. 231/02.

7.3 COMISA acknowledges as valid payments only those made to its headquarters or by bank wire transfer. The only parties authorized to receive payment on COMISA's behalf are those in a valid possession with explicit authorization to do so. Cheques and bills of exchange are received by COMISA "subject to collection" and the amount(s) specified therein are entered as the settlement of payment only after the amount(s) have been effectively deposited.

7.4 According to article 1523 of the Italian Civil Code, the property in the products shall not pass to Buyer until the relevant products - as well as all other amounts owed by Buyer to COMISA on any account in connection thereto - have been paid in full. COMISA reserves the right to require Buyer to return all partially unpaid Products at Buyer's sole cost and expense.

8. RESPONSIBILITIES AND CLAIMS

8.1 In regards to transport "ex-works" COMISA accepts no responsibility for any delays, incorrect deliveries, breakage, theft, shortage or tampering with the material, and will therefore issue no credits for goods that have been tampered with, damaged or lost in transit. Any claims or complaints for apparent faults shall be made to the carrier immediately during the unloading of the materials, and specific reserve (as per D.p.r. No. 450 of August 2, 1985) should be entered in the delivery note, a copy of which should be sent as soon as possible to COMISA sales office.

8.2 COMISA will not accept complaints regarding non-delivery of packages, rolls or pallets not referred to in writing, in the carrier's delivery note. No claims will be accepted after 8 days from the delivery of the goods as specified in the delivery note, and the object of the claim should be clearly identified.

9. RETURNS

9.1 COMISA will not accept returned material unless it is due to a presumed "technical non-conformity" which has been accepted by a representative of COMISA or its laboratory, the result of delivery errors by COMISA or in any case of COMISA's discretion that is not attributable to the customer. The return should always take place upon prior authorization of COMISA.

9.2 Products will be accepted for return if:

- The merchandise returned is correctly packed and in perfect condition;
- It is accompanied by a "return of goods" rather than a "sale" note;
- The delivery note contains all references from the original purchase (invoice date and number);
- The delivery note and packaging contain the return authorisation number.

9.3 Any returns not adhering to the above conditions will be automatically refused and sent back. If the material is not returned in perfect condition or an objection due to "technical non-conformity" is unfounded, COMISA reserves the right to debit the customer with COMISA's resulting incurred costs

9.4 Client is charged with the depreciation costs amounting minimum 30% of products own value in case of any returns of unsold and unused goods, the Client is fully burdened with the cost of transportation, delivery and return goods.

10. GUARANTEE

10.1 Object of guarantee

10.1.1 COMISA products are guaranteed against faults and/or defects. COMISA guarantees its products for a period of 2 (two) years from the date of purchase of the product (as evidenced by the date shown on the purchase invoice) and the possibility for the Seller himself to exercise the right of recourse against the manufacturer, provided that the intervention has been previously evaluated and approved by COMISA. This means that just in case a defect attributable solely and exclusively to manufacturing defects is reported within 2 (two) years from the date of purchase, COMISA undertakes to replace a free title the defective Product

or component. Compensation for any damage to people, animals or things deriving from the described defects are guaranteed by valid insurance coverage EXCLUSIVELY for claims caused by defective COMISA items. No claims will be compensated if arising from incorrect installation. Products that are stored or used in a way that does not comply with the operating conditions (see art. 10.2.1), are expressly excluded from the warranty.

10.1.2 COMISA guarantees materials for the realization of heating/cooling underfloor plants for the period of 10 years from the sale, on the condition that the whole plant is installed using entirely COMISA's materials or with materials previously authorized by COMISA in writing, according to COMISA' installation instructions. The guarantee applies only if the plant is used within the scope and functions for which it is designed.

10.1.3 According to art. 10.1.1, Comisa guarantees the COMISA PRESS SYSTEM, composed of Comisa press fittings, Comisa pipe and TH profile jaws for a period of 10 (ten) years from the date of purchase. This guarantee is excluded in case of use of fittings, pipes or jaws from another manufacturer, unless such components are previously tested and certified by Comisa as compatible with the products supplied by it.

10.1.4 Notwithstanding art. 10.1.1., COMISA guarantees the equipment for the machining of its Products, for 1 (one) year from the date of purchase of the equipment or one of its components or spare parts by the professional installer. The batteries for the operation of professional use equipment are guaranteed for 6 (six) months from the date of purchase of the equipment or one of its components or spare parts made by the professional installer.

10.2 Exclusion of guarantee

10.2.1 By way of example, any damages deriving from:

- Product modifications or alterations by the Customer or third parties different from COMISA;
- Improper use or non-compliance with COMISA's instructions for use;
- Improper maintenance.

Are excluded from the guarantee as per art. 10.1

10.2.2 Guarantee provided for by article 10.1.2 does not apply:

- In case of use of materials not guaranteed or not authorized by COMISA in writing;
- If the defect derives from an incorrect installation, improper maintenance or alterations of the plant not authorized by COMISA;
- If the defect results from major force events affecting the systems, plants, and/or centrals present on the Customer's premises to which COMISA's system/plant is directly or indirectly connected or dependent upon whatsoever;
- If the Customer knew of the existence of the defect or could not ignore its existence using ordinary diligence.

10.3 Territorial extension of the guarantee

COMISA's guarantees as per article 10.1 are valid worldwide except in the U.S.A. and Canada.

10.4 Forfeiture of the guarantee

Guarantees of article 10.1 are forfeited terminate if:

- Installation of the system does not comply with the mounting instructions published by COMISA;
- The system is used for the conduction of liquids other than those listed in COMISA's publications; or
- Liquids are introduced into the system with temperature and pressure values that do not comply with COMISA's published instructions.

10.5 Obligations of the beneficiary of the warranty

The above terms are binding upon COMISA subject to the fulfilment of all the following conditions:

- Written notice sent to COMISA within 8 days from delivery or from the date of the occurrence of the concealed damage, indicating the invoice and delivery note number of the goods being claimed as defective, specific description of such defects and enclosing the photos of damaged products; The defect should be notified immediately upon delivery.
- Compliance with the technical specifications regarding the field of application, the technical installation instructions and the legislation in force at the time of installation;
- The defective parts should be kept in the condition as delivered, without being modified, installed or further transformed;
- Any use of the equipment where the assumed defective system is installed must be immediately stopped.

10.6 Obligation to pay

The Customer cannot raise any objection to avoid or delay outstanding payments according to article 1462 of the Italian Civil Code.

10.7 Co-dispute of defects, assessment and definition of the damage.

10.7.1 COMISA shall not be liable for damages deriving from unauthorized interventions by third parties other than COMISA and shall not accept any return unless previously communicated to and authorized by COMISA.

10.8 Guarantees by law

All products published in COMISA's catalogue different from the COMISA PRESS system and from materials provided for the realization and installation of underfloor heating/cooling systems, to which commercial guarantee of article 10.1 - 10.7 of these General Conditions of Sale apply, are guaranteed by law in article 1490 of the Italian Civil Code and by article 128-135 of the Leg. Decree No. 206/05 (Consumers' Code), where applicable.

10.9 Complaints

The Client has the right to submit a claim in the case of irregularities in COMISA's products, in such a case has to immediately inform distributor or importer to get and fill in the "Comisa Claim Form" and follow listed procedures.

11. MARKETING ACTIVITIES

Every Client marketing activity, which regards using Comisa's logo, products images or photos has to be previously approved by Comisa's Management. It is allowed to use only logos of Comisa's property.

12. CATALOGUES AND BROCHURES

All pictures shown in COMISA's catalogues, leaflets, offers, drawings, price sheets, web site www.comisa.it and documents of sale are approximations only for the use of explaining and illustrating the main features of the product and are not binding in respect to weight and dimension specifications stated or shown therein.

13. JURISDICTION - GOVERNING LAW

The Courts of Brescia, Italy, shall have exclusive jurisdiction over all disputes arising between COMISA and the Customer.

CONDIZIONI DI VENDITA

1. AMBITO DI VALIDITÀ

1.1 Le presenti Condizioni Generali di Vendita si applicano e sono parte integrante di ogni contratto di vendita e fornitura concluso tra **Comisa S.p.A. con sede in Via Neziole, 27 - 25055 - Pisogne (BS)**, (in seguito COMISA) ed il Cliente (in seguito "il Cliente").

1.2 È espressamente esclusa l'applicazione di ogni altra diversa disposizione, anche se indicata dal Cliente in base ad un richiamo da questi fatto alle proprie condizioni contrattuali o di acquisto.

1.3 Qualsiasi modifica delle presenti condizioni dovrà essere confermata per iscritto da COMISA, la quale potrà indicare diverse specifiche condizioni per ogni offerta, che prevarranno sulle presenti condizioni generali.

1.4 Il Cliente dà atto di essere a conoscenza del contenuto delle presenti condizioni generali di vendita, disponibili sul sito internet **www.comisa.it**

2. ORDINI

Tutti gli ordini si intendono assunti a titolo di prenotazione e senza la nostra conferma d'ordine, non impegnano la ns. Società alla consegna anche parziale di quanto ordinato.

3. PREZZI

Si intendono validi solamente i prezzi indicati della nostra conferma d'ordine.

4. TERMINI DI CONSEGNA

I termini di consegna indicati da COMISA sono soltanto indicativi e non danno diritto al Cliente di annullare l'ordine o reclamare danni di qualsiasi natura per ritardi derivanti da incidenti di fabbricazione o di forza maggiore.

5. IMBALLO

Gli imballi utilizzati dovranno essere smaltiti secondo le modalità previste dalle leggi nazionali in vigore, COMISA S.p.A. declina ogni responsabilità per danni a persone o cose per uso difforme da quello cui essi sono stati concepiti.

6. CONFEZIONI

COMISA consegna merci ordinate secondo le quantità standard previste per confezione come specificato a listino/catalogo. In caso di mancata corrispondenza la quantità potrà essere arrotondata, senza preavviso, alla quantità stabilita per confezione o multipla di essa. Solo le campionature potranno essere consegnate "sfuse".

7. PAGAMENTI - PATTO DI RISERVATO DOMINIO

7.1 I termini di pagamento specificati in fattura si intendono tassativi. Non si accettano condizioni difformi se non preventivamente ed espressamente pattuite. In caso di pagamento mediante assegno, esso deve essere intestato a COMISA e viene accettato salvo buon fine.

7.2 Qualora i pagamenti non siano effettuati nei termini stabiliti, senza preventivo accordo, COMISA si riserva il diritto di sospendere o annullare le forniture in corso di spedizione ed ogni altro eventuale ordine già accettato. Eventuali contestazioni di qualsiasi natura non conferiscono al Cliente la facoltà di sospendere i pagamenti in corso. Gli ordini evasi e fatturati, anche in parte, saranno regolati alle condizioni stabilite, intendendosi che i pagamenti delle merci spedite non potranno essere subordinati al completamento dell'ordine. Sui pagamenti ritardati oltre i termini stabiliti e riportati in fattura, decorreranno, senza pregiudizio di ogni altra azione, gli interessi di mora ai sensi del D.Lgs. n. 231/02.

7.3 COMISA riconosce validi solamente i pagamenti effettuati presso la propria Sede Sociale o tramite bonifico bancario. Possono ricevere pagamenti per nostro conto solo coloro che sono muniti di apposito ed esplicito mandato. In ogni caso gli assegni e gli effetti cambiari vengono da noi ricevuti "salvo buon fine" ed il loro importo è da noi registrato a saldo o acconto di nostri crediti subordinatamente e solo dopo l'avvenuto effettivo incasso.

7.4 Ai sensi dell'art. 1523 c.c., la proprietà della merce non passa in capo al Cliente fino all'integrale pagamento del prezzo. COMISA si riserva il diritto di richiedere al Cliente la restituzione della merce non pagata entro i termini concordati, a spese del Cliente.

8. RESPONSABILITÀ E RECLAMI

8.1 Nel caso in cui il trasporto sia a carico dell'acquirente (ex-works), COMISA non è responsabile di eventuali ritardi, disguidi, rotture, furti, ammanchi, manomissioni dei ns. materiali e pertanto non accredita merce manomessa, danneggiata o perduta nel corso del trasporto. Eventuali reclami o contestazioni per vizi apparenti devono essere comunicati immediatamente al Vettore all'atto dello scarico del materiale, effettuando specifica riserva scritta apponendo "riserva di controllo" sul documento di trasporto-bolla di consegna (D.P.R. NR. 450 del 02.08.1985), inviandone tempestivamente copia al nostro Ufficio Commerciale.

8.2 Non saranno accettate contestazioni relative a mancanza di colli, rotoli o pallets non rilevate/riferite per iscritto sulla bolla di consegna e sul bollettino del Vettore. I reclami sono accettati non oltre 8 (otto) giorni dalla data di consegna della merce rilevabile sulla bolla di consegna e devono riportare in modo chiaro l'oggetto della contestazione.

9. RESI

9.1 COMISA non accetterà il materiale reso a meno che non sia dovuto a una presunta "non conformità tecnica" accertata da un rappresentante di COMISA o dal suo laboratorio, a errori di consegna da parte di COMISA o comunque a discrezionalità di COMISA che non sia attribuibile al Cliente.

Il reso deve sempre avvenire previa autorizzazione di COMISA.

9.2 Il materiale viene accettato in restituzione solamente se:

- viene restituito perfettamente imballato e in ottime condizioni;
- è accompagnato da una bolla con causale "reso merce" e non "vendita";
- la bolla di accompagnamento contiene tutti i riferimenti dell'acquisto originario (numero e data fattura);
- sul ddt di reso e sull'involucro esterno dei colli viene riportato il numero di autorizzazione al reso.

9.3 Qualsiasi reso non conforme a quanto summenzionato viene automaticamente respinto. Qualora il materiale non venga reso in ottime condizioni o se la contestazione per "non conformità tecnica" sia priva di fondamento, COMISA si riserva di addebitare al Cliente i costi sostenuti.

9.4 Al cliente viene decurtato il 30% minimo del valore dei prodotti in caso di eventuali restituzioni di merci non vendute e non utilizzate, accollandosi pienamente il costo del trasporto, della consegna e della restituzione.

10. GARANZIA

10.1 Oggetto della garanzia

10.1.1 I prodotti COMISA vengono garantiti da vizi e/o difetti. COMISA garantisce i propri Prodotti per un periodo di 2 (due) anni dalla data di acquisto del prodotto (fa fede la data riportata sulla fattura di acquisto) e la possibilità per il Venditore stesso di esercitare il diritto di rivalsa nei confronti del produttore, purché l'intervento sia stato preventivamente valutato ed approvato da COMISA. Questo significa che nel caso in cui venga segnalata una difettosità attribuibile solo ed esclusivamente a difetti di fabbricazione entro 2 (due) anni dalla data di acquisto, COMISA si impegna a sostituire a titolo gratuito il Prodotto o il componente difettoso. Il risarcimento di eventuali danni a persone, animali o cose derivanti dalle difettosità descritte è garantito da una copertura assicurativa valida ESCLUSIVAMENTE per sinistri

causati da articoli di produzione COMISA difettosi, e non da un errata posa in opera. Sono espressamente esclusi dalla garanzia i prodotti custoditi o utilizzati in modo non conforme alle condizioni operative (vedi art. 10.2.1).

10.1.2 COMISA garantisce i materiali forniti per la realizzazione di impianti di riscaldamento/raffrescamento a pavimento per il periodo di 10 (dieci) anni dalla vendita, a condizione che tutto l'impianto venga eseguito esclusivamente con materiali COMISA, o comunque con materiali autorizzati per iscritto da COMISA, secondo le indicazioni di installazione e di posa fornite da COMISA. La garanzia è valida solamente se l'impianto è usato per gli scopi e le funzioni cui esso è destinato.

10.1.3 Alle condizioni di cui all'art. 10.1.1., COMISA garantisce il sistema COMISA PRESS SYSTEM, composto congiuntamente da raccordi COMISA PRESS, tubo COMISA e ganasce profilo TH per un periodo di 10 (dieci) anni dalla data di vendita. Tale garanzia è esclusa in caso di utilizzo di raccordi, tubi o ganasce di altro produttore, a meno che tali componenti non siano preventivamente testati e certificati da COMISA come compatibili con i prodotti da lei forniti.

10.1.4 In deroga all'art. 10.1.1., COMISA garantisce le attrezzature per la lavorazione dei propri Prodotti, per 1 (uno) anno dalla data di acquisto dell'attrezzatura o di un suo componente o parte di ricambio da parte del professionista installatore. Le batterie per il funzionamento delle attrezzature ad uso professionale sono garantite per 6 (sei) mesi dalla data di acquisto dell'attrezzatura o di un suo componente o parte di ricambio effettuata dal professionista installatore.

10.2 Esclusione della garanzia

10.2.1 A titolo esemplificativo, sono esclusi dalla garanzia di cui all'art. 10.1 e sottoarticolati i danni derivanti da:

- Modifiche o manomissioni del prodotto da parte dell'acquirente o di terzi;
- Uso improprio od inosservanza delle istruzioni per l'uso;
- Errata manutenzione.

10.2.2 La garanzia di cui all'art. 10.1.2 non opera:

- In caso di utilizzo di materiali non garantiti da COMISA o da questa non autorizzati per iscritto;
- Quando il difetto dipende da un'errata installazione, da un'errata manutenzione o da interventi sull'impianto non autorizzati da COMISA;
- Quando il difetto dipende da causa di forza maggiore o da guasti o rotture di sistemi, impianti, strutture, centrali presenti presso la sede del Cliente, ai quali l'impianto COMISA è direttamente o indirettamente collegato, o in qualsiasi modo dipendente;
- Quando il Cliente sia stato a conoscenza del difetto, o non abbia potuto ignorarlo utilizzando l'ordinaria diligenza.

10.3 Estensione territoriale della garanzia.

Le garanzie di cui all'art. 10.1 sono valide in tutti i Paesi del mondo, esclusi U.S.A. e Canada.

10.4 Decadenza della garanzia.

Le garanzie di cui all'art. 10.1 decadono qualora:

- L'installazione del sistema non avvenga conformemente alle istruzioni di montaggio riportate nelle pubblicazioni tecniche COMISA;
- Il sistema venga utilizzato per condurre sostanze liquide diverse da quelle elencate nelle pubblicazioni COMISA;
- Nel sistema vengano immessi liquidi a valori di pressione e temperature diversi dai rispettivi limiti riportati sulle pubblicazioni COMISA.

10.5 Obblighi del beneficiario della garanzia.

Le garanzie di cui sopra sono operanti solamente nell'ipotesi in cui il beneficiario rispetti tutte le condizioni di seguito esposte:

- Segnalazione per iscritto, entro 8 (otto) giorni dalla consegna della merce o dalla scoperta del vizio, indicando il numero di fattura e di bolla cui è riferita la merce presunta viziata, nonché la specifica descrizione del difetto riscontrato e relative foto dei prodotti danneggiati;
- Avere rispettato i capitolati tecnici dei campi specifici di applicazione, nonché le regole tecniche di installazione e la normativa vigente al momento della posa;
- Avere conservato la merce viziata nello stato in cui è stata fornita, senza alcuna manomissione o lavorazione ulteriore;
- Avere bloccato il funzionamento dell'impianto su cui è installato il sistema presunto viziato.

10.6 Obbligo di pagamento.

L'acquirente non può opporre eccezioni al fine di evitare o ritardare il pagamento ai sensi dell'art. 1462 c.c.

10.7 Contestazione dei vizi, accertamento e definizione del danno.

10.7.1 Non potranno essere reclamati danni conseguenti ad interventi effettuati dall'acquirente senza la preventiva autorizzazione di COMISA, né verranno accettati resi da parte del cliente, senza che ciò sia preventivamente comunicato ed autorizzato da COMISA.

10.8 Garanzie di legge.

Tutti i prodotti a catalogo COMISA diversi dai materiali forniti per la realizzazione di impianti di riscaldamento/raffrescamento a pavimento, per i quali opera la garanzia commerciale di cui agli artt. 10.1 - 10.7, sono soggetti alla garanzia di legge di cui all'art. 1490 c.c. e agli artt. 128 - 135 del D. Lgs. n. 206/05 (Codice del Consumo), in quanto applicabili.

10.9 Reclami.

Il Cliente ha il diritto di presentare un reclamo in caso di irregolarità nei prodotti di COMISA, in tal caso deve immediatamente informare il distributore o l'importatore per ottenere e compilare la "Comisa Claim Form" e seguire le procedure elencate.

11. ATTIVITÀ DI MARKETING

Ogni attività di marketing del Cliente, che riguardi il logo COMISA, immagini di prodotti, altre immagini tecniche, deve essere precedentemente approvata da COMISA. Non è consentito utilizzare loghi o altri materiali coperti da diritto che non siano di esclusiva proprietà COMISA.

12. CATALOGHI E OPUSCOLI

Tutte le illustrazioni contenute nei cataloghi, negli opuscoli, nelle offerte, nei disegni COMISA e sul sito web www.comisa.it hanno un valore puramente esplicativo ed illustrativo e non sono vincolanti relativamente alle indicazioni di peso e dimensioni ivi raffigurate/indicate.

13. FORO COMPETENTE

Per qualsiasi controversia insorta fra COMISA ed il Cliente è competente in via esclusiva il Foro di Brescia.

VERKAUFSBEDINGUNGEN

1. Geltungsbereich

1.1 Die vorliegenden allgemeinen Verkaufsbedingungen werden bei jedem Verkaufs- und Lieferungsvertrag zwischen **COMISA S.p.A., mit Sitz in Via Neziolo 27, 25055 Pisogne (BS)** (im folgenden Text: COMISA) und dem Kunden (im folgenden Text: Kunde) angewandt, und sind dessen integrierender Bestandteil.

1.2 Die Anwendung jeder anderslautenden Bestimmung ist ausdrücklich ausgeschlossen, auch wenn der Kunde sich auf die eigenen Vertrags- oder Einkaufsbedingungen bezieht. **1.3** Jede Änderung dieser Bedingungen muss schriftlich von COMISA bestätigt werden. COMISA kann für jedes Angebot andere spezifische Bedingungen angeben, die Vorrang gegenüber diesen allgemeinen Bedingungen haben.

1.4 Der Kunde bestätigt, den Inhalt der vorliegenden allgemeinen Verkaufsbedingungen zu kennen, die auch auf der Website **www.comisa.it** verfügbar sind.

2. Aufträge

Ohne Auftragsbestätigung verpflichten Bestellungen unser Unternehmen nicht, die bestellte Ware vollständig oder teilweise zu liefern.

3. Preise

Es gelten ausschließlich die Preise, die auf unseren Auftragsbestätigungen angegeben sind.

4. Lieferfristen

Die von COMISA angegebenen Liefertermine sind nur Richtwerte und berechtigen den Kunden nicht, die Bestellung wegen Verzögerungen aus betrieblichen Gründen oder höherer Gewalt zu stornieren oder Schadensersatz jeglicher Art zu verlangen.

5. Verpackung

Die verwendeten Verpackungen müssen gemäß den geltenden nationalen Gesetzen entsorgt werden. COMISA S.p.A. lehnt jede Verantwortung für Schäden an Personen oder Sachen ab, die auf eine nicht bestimmungsgemäße Verwendung zurückzuführen sind.

6. Verpackungseinheiten

COMISA liefert die bestellten Artikel in den Standard-Verpackungseinheiten (Box q.ty), die in den Preislisten/Katalog angegeben sind. Im Falle einer Nichtübereinstimmung kann die Menge ohne vorherige Ankündigung auf die festgelegte Verpackungseinheit oder ein Vielfaches davon auf- oder abgerundet werden. Nur Muster können "lose" geliefert werden.

7. Zahlungsbedingungen - Eigentumsvorbehalt

7.1 Die in der Rechnung genannten Zahlungsfristen sind verbindlich. Es werden keine anderslautenden Bedingungen akzeptiert, wenn diese nicht vorab mit COMISA ausdrücklich vereinbart wurden. Eventuelle Zahlungsschecks müssen immer auf den Namen „COMISA S.p.A.“ ausgestellt sein und werden nur unter dem Vorbehalt der Einlösung angenommen.

7.2 Für den Fall, dass ohne vorherige Absprache die Zahlungen nicht innerhalb der angegebenen Fristen eingehen, behält sich COMISA das Recht vor, alle Lieferungen und anderen bereits angenommenen Bestellungen zu unterbrechen oder zu stornieren. Streitigkeiten jeglicher Art geben dem Kunden nicht das Recht, laufende Zahlungen einzustellen. Bestellungen, die bearbeitet und in Rechnung gestellt wurden, auch teilweise, unterliegen den festgelegten Bedingungen, wobei die Zahlung der versandten Ware nicht von der Ausführung der Bestellung abhängig ist. Bei verspäteter Zahlung über die vereinbarten und in der Rechnung genannten Fristen hinaus werden wir, vorbehaltlich anderer Schritte, Fälligkeitszinsen gemäß dem Italienischen legislativen Beschluss N. 231/02 berechnen.

7.3 COMISA erkennt lediglich Banküberweisungen oder Zahlungen, die beim Firmensitz derselben ausgeführt wurden, als gültige Zahlungen. Nur diejenigen, die in Besitz einer spezifischen und ausdrücklichen Vollmacht sind, können Zahlungen in unserem Namen entgegennehmen. Auf jeden Fall werden Schecks und Wechsel vorbehaltlich deren Einlösung angenommen, die Entsprechenden Beträge werden als Saldo oder Abschlagszahlung ausschließlich erst nach dem tatsächlich erfolgten Inkasso verbucht.

7.4 Gemäß Art. 1523 des italienischen ZGB, bleibt die Ware bis zu ihrer vollständigen Bezahlung Eigentum von COMISA. COMISA behält sich das Recht vor, den Kunden aufzufordern, die Ware, die nicht innerhalb der vereinbarten Fristen bezahlt wurde, auf seine Kosten zurückzusenden.

8. Haftungsregelung und Beschwerden

8.1 Falls der Transport vom Käufer getragen wird (ab Werk), ist COMISA nicht für Verzögerungen, Missverständnisse, Brüche, Diebstähle, Fehlmengen und Manipulationen an unseren Materialien verantwortlich, und schreibt daher keine Ware gut, die während des Transports manipuliert, beschädigt oder verloren wurde. In jedem Fall müssen eventuelle Beanstandungen oder Beschwerden wegen sichtbarer Mängel umgehend beim Transportunternehmen bei der Warenentladung durch schriftlichen Vorbehalt auf dem Lieferschein geltend gemacht werden (DPR Nr. 450 vom 02.08.1985); gleichzeitig muss eine Kopie an COMISA gesendet werden.

8.2 Beanstandungen wegen fehlender Frachttücke, Rollen oder Paletten werden nicht berücksichtigt, wenn sie nicht auf dem Lieferschein des Transportunternehmens vermerkt sind. Es werden nur Beschwerden berücksichtigt, die innerhalb von 8 Tagen ab Warenlieferung eingehen, auf dem Lieferschein vermerkt sind und deutlich den Grund der Beanstandung benennen.

9. Rückgaben

9.1 Ordnungsgemäß ausgelieferte Ware wird nicht zurückgenommen, außer im Falle von Beanstandungen wegen eines angenommenen „technischen Mangels“, der durch einen COMISA Beauftragten oder in einem unserer Labore festgestellt wurde, oder wegen fehlerhafter Lieferung, die COMISA zuzuordnen ist. Die Rückgabe muss auf jeden Fall vorab von COMISA genehmigt werden.

9.2 Rückgaben werden nur dann angenommen, wenn:

- Die Ware perfekt verpackt und in einwandfreiem Zustand zurückgegeben wird;
- Auf dem beigefügten Lieferschein die Bezeichnung „Rückgabe“ und nicht „Verkauf“ angegeben ist;
- Der Lieferschein alle Referenzen bzgl. des ursprünglichen Kaufs (Rechnungsnummer und -datum) enthält;
- Die Rücksendenummer sowohl auf dem Lieferschein als auf der äußeren Verpackung angegeben ist.

9.3 Jede Rückgabe, die diesen Anforderungen nicht entspricht, wird automatisch zurückgewiesen. Wenn die Ware nicht in einwandfreiem Zustand zurückgegeben wird, oder die Beanstandung wegen „technischer Mängel“ grundlos ist, behält sich COMISA vor, den Kunden mit den entstandenen Kosten zu belasten und die Gutschrift um einen Pauschalbetrag nach Nettowarenwert zu kürzen.

9.4 Dem Kunden werden die Abschreibungskosten in Höhe von mindestens 30% des Eigenwertes der Produkte im Falle von Rücksendungen von unverkauften und unbenutzten Waren in Rechnung gestellt, der Kunde ist vollständig mit den Transport-, Liefer- und Rückgabekosten belastet.

10. Garantie

10.1 Gegenstand der Garantie

10.1.1 COMISA-Produkte sind gegen Fehler und/oder Mängel garantiert. COMISA garantiert seine Produkte für einen Zeitraum von 2 (zwei) Jahren ab dem Datum des Kaufs des Produkts (das auf der Kaufrechnung angegebene Datum ist verbindlich) und sieht die Möglichkeit für den Verkäufer vor, ein Regressrecht gegen den Hersteller auszuüben, sofern der Eingriff

zuvor von COMISA bewertet und genehmigt wurde. Das bedeutet, dass für den Fall, dass innerhalb von 2 (zwei) Jahren ab Kaufdatum ein Mangel gemeldet wird, der ausschließlich auf Herstellungsfehler zurückzuführen ist, verpflichtet sich COMISA, das defekte Produkt oder die defekte Komponente kostenlos zu ersetzen. Der Schadenersatz von Personen-, Tier- oder Sachschäden, die sich aus den beschriebenen Mängeln ergeben, wird durch Versicherungsschutz garantiert, der AUSSCHLIESSLICH für Ansprüche gilt, die durch fehlerhafte COMISA-Produktionsartikel und nicht durch fehlerhafte Installation verursacht wurden. Produkte, die nicht den Betriebsbedingungen entsprechend gelagert oder verwendet werden, sind ausdrücklich von der Garantie ausgeschlossen (siehe Art. 10.2.1).

10.1.2 COMISA gewährleistet Garantie über die gelieferten Materialien für den Bau von Fußbodenheizungs-/kühlungssystemen für einen Zeitraum von 10 (zehn) Jahren ab Verkauf, vorausgesetzt, dass das komplette System ausschließlich mit COMISA-Materialien oder mit von COMISA schriftlich genehmigten Materialien gemäß den von COMISA bereitgestellten Installations- und Verlegungsanweisungen ausgeführt wird. Die Garantie gilt nur, wenn das System für die Zwecke und Funktionen verwendet wird, für die es bestimmt ist.

10.1.3 Unter den in Art. 10.1.1. festgelegten Bedingungen, gewährleistet COMISA Garantie über das COMISA PRESS SYSTEM, bestehend aus COMISA PRESS Fittings, COMISA Rohr und TH-Profilbacken, für einen Zeitraum von 10 (zehn) Jahren ab Verkaufsdatum. Diese Garantie ist bei Verwendung von Fittings, Rohren oder Backen eines anderen Herstellers ausgeschlossen, es sei denn, diese Komponenten wurden zuvor von COMISA getestet und mit den von ihr gelieferten Produkten als kompatibel erwiesen und zertifiziert.

10.1.4 Abweichend von Artikel 10.1.1., gewährleistet COMISA Garantie über die Werkzeuge zur Verarbeitung ihrer Produkte für 1 (ein) Jahr ab Kaufdatum der Ausrüstung oder einer ihrer Komponenten oder Ersatzteile durch den professionellen Installateur. Die Batterien für den Betrieb des Geräts für den professionellen Gebrauch haben eine Garantie von 6 (sechs) Monaten ab Kaufdatum des Geräts oder einer seiner Komponenten oder Ersatzteile, die vom professionellen Installateur hergestellt wurden.

10.2 Gewährleistungsausschluss

10.2.1 Beispielsweise, sind von der Garantie gemäß Art. 10.1 und Unterartikel, die Schäden, die sich aus folgenden Gründen ergeben, ausgeschlossen:

- Modifikationen oder Manipulationen des Produkts durch den Käufer oder Dritte;
- Unsachgemäße Verwendung oder Nichtbeachtung der Gebrauchsanweisung;
- Falsche Wartung.

10.2.2 Die Garantie gem. 10.1.2 funktioniert nicht:

- Im Falle der Verwendung von Materialien, die nicht von COMISA garantiert oder von COMISA nicht schriftlich genehmigt wurden;
- Wenn der Mangel auf einer fehlerhaften Installation, einer fehlerhaften Wartung oder Eingriffen in das System beruht, die nicht von COMISA genehmigt wurden;
- Wenn der Mangel auf höherer Gewalt oder auf Ausfällen oder Störungen von Systemen, Anlagen, Bauwerken, Kraftwerken beim Kunden beruht, mit denen das Werk von COMISA direkt oder indirekt verbunden oder in irgendeiner Weise abhängig ist;
- wenn der Kunde den Mangel kannte oder bei verkehrsmäßiger Sorgfalt nicht übersehen konnte.

10.3 Räumliche Ausdehnung der Garantie. Die Garantien gemäß Art. 10.1 gelten in allen Ländern der Welt mit Ausnahme der USA und Kanada.

10.4 Verfall der Garantie. Die Garantien gemäß Art. 10.1 erlöschen, wenn:

- Die Installation des Systems nicht in Übereinstimmung mit den Montageanweisungen in den technischen Veröffentlichungen von COMISA erfolgt;
- Das System verwendet wird, um flüssige Substanzen zu leiten, die nicht in den COMISA-Veröffentlichungen aufgeführt sind;
- Flüssigkeiten mit Druck- und Temperaturwerten, die von den jeweiligen Grenzwerten abweichen, die in COMISA Veröffentlichungen angegeben sind, in das System eingeführt werden.

10.5 Pflichten der Garantiebegünstigten

Damit die Garantien gem. Artikel 10.1 Berücksichtigung finden, müssen all die folgenden Bedingungen erfüllt werden.

- Schriftliche Mitteilung direkt an COMISA innerhalb von 8 Tagen ab Warenlieferung oder Feststellung des versteckten Mangels mit Angabe der Rechnungs- und Lieferscheinnummer auf die sich die angeblich fehlerhafte Ware bezieht, so wie die genaue Beschreibung des festgestellten Fehlers und die Fotos der beschädigten Produkte einschließen. Der offensichtliche Mangel muss unverzüglich nach Ablieferung gerügt werden;

- Beachtung der technischen Vorschriften der verschiedenen Anwendungsfelder, der technischen Installationsvorschriften sowie der geltenden Normen zum Zeitpunkt der Installation;

- Die Produkte müssen im Lieferungszustand erhalten sein, ohne Verletzungen oder weitere Bearbeitung;

- Die Arbeit der Anlage, wo das vermutet fehlerhafte System installiert ist, muss abgestellt werden.

10.6 Zahlungspflicht. Gemäß Artikel 1462 vom italienischen BGB kann der Kunde keine Einwände erheben, um die Zahlung zu unterlassen oder verspätet zu leisten.

10.7 Schadensmitteilung, Feststellung und Definition des Schadens

10.7.1 Schäden, die aus Eingriffen des Käufers ohne vorherige Zustimmung von COMISA resultieren, können nicht geltend gemacht werden, noch werden Rücksendungen vom Kunden akzeptiert, ohne dass dies zuvor mitgeteilt und von COMISA genehmigt wurde.

10.8 Gesetzliche Gewährleistung

Für alle Produkte des COMISA Kataloges, die vom System COMISA PRESSSYSTEM und von dem zur Installation von Fußboden- Heizungs / - Kühlungs - Anlagen geliefertem Material abweichen, für welche die kaufmännische Garantie gem. Art. 10.1-10.7 gilt, gilt die gesetzliche Garantie gem. Art. 1490 ital. BGB und Art. 128-135 des Beschlusses Nr. 206/05 (Verbrauchergesetz), da anwendbar.

10.9 Beschwerden

Der Kunde hat das Recht, im Falle von Unregelmäßigkeiten in den Produkten von COMISA eine Reklamation einzureichen. In einem solchen Fall muss er sofort den Händler oder Importeur informieren, um das "Comisa Claim Form" zu erhalten und auszufüllen und die aufgeführten Verfahren zu befolgen.

11. Marketingaktivitäten

Jede Marketingaktivität des Kunden, die die Verwendung des Logos, der Bilder oder Fotos von Comisa in Betracht zieht, muss zuvor von der COMISA-Geschäftsführung genehmigt werden. Es ist nicht gestattet, Logos oder andere urheberrechtlich geschützte Materialien zu verwenden, die nicht ausschließliches Eigentum von COMISA sind.

12. Kataloge und Broschüren

Alle Abbildungen, die in den Katalogen, Broschüren, Angeboten und Zeichnungen von COMISA und auf der Website www.comisa.it enthalten sind, haben einen rein erläuternden und illustrativen Wert, und sind hinsichtlich der darin abgebildeten/angegebenen Gewichts- und Maßangaben nicht bindend.

13 - Gerichtsstand

Für alle Streitigkeiten zwischen COMISA und dem Kunden ist ausschließlich das Gericht Brescia zuständig.

CONDITIONS GENERALES DE VENTE

1. CHAMP D'APPLICATION

1.1 Ces conditions générales s'appliquent et font partie intégrante de chaque contrat de vente et fourniture établi entre **COMISA S.p.A. ayant son siège in rue Neziole 27, 25055 Pisogne-BS Italie**, (ci-après dénommé COMISA) et le CLIENT (ci-après dénommé CLIENT).
1.2 Est expressément exclu l'application de toute autre disposition, même si elle est indiquée par le CLIENT sur la base d'une référence faite aux termes de son contrat général ou d'achat.
1.3 Toute modification de ces conditions doit être confirmée par écrit par COMISA, ce qui pourra indiquer des conditions spécifiques différentes pour chaque offre, qui prévalent sur les présentes conditions générales.
1.4 Le CLIENT reconnaît être au courant du contenu de ces conditions générales de vente, disponibles aussi sur le site **www.comisa.it**.

2. COMMANDES

Toutes les commandes sont reçues comme des demandes de réservation et sans notre confirmation de commande elles n'engagent pas COMISA à la livraison même partielle de la commande.

3. PRIX

Sont valables seulement les prix indiqués dans notre confirmation de commande.

4. LIVRAISON

Les délais de livraison indiqués par COMISA sont donnés à titre indicatif et n'autorisent pas le CLIENT à annuler la commande ou réclamer des dommages-intérêts pour des retards résultant d'incidents de fabrication ou des situations de force majeure.

5. EMBALLAGE

Les emballages utilisés doivent être éliminés conformément aux procédures établies par les lois nationales en vigueur. COMISA S.p.A. décline toute responsabilité pour les dommages aux personnes ou aux choses dus à l'utilisation différent de ce pour quoi ils ont été conçus.

6. CONDITIONNEMENT

COMISA ne vend que des articles conditionnés avec quantités standard comme indiqué dans les catalogues. En cas de non-correspondance, la quantité sera arrondie, sans préavis, à la quantité établie par colis ou multiple de celui-ci. Seulement les échantillons peuvent être distribués non conditionnés.

7. PAIEMENT - RÉSERVE DE PROPRIÉTÉ

7.1 Les conditions de paiement spécifiées dans la facture sont péremptoires. Nous n'acceptons d'autres conditions, sauf si préalablement et expressément convenues. En cas de paiement par chèque, il doit être libellé à COMISA et est accepté sous réserve d'encaissement.
7.2 Si les paiements ne sont pas effectués dans le délai prescrit, sans accord préalable, COMISA se réserve le droit de suspendre ou d'annuler les livraisons en cours et de toute autre commande déjà acceptée. Les différends de toute nature ne donnent pas au CLIENT le droit de suspendre les paiements en cours. Les commandes expédiées et facturées, même en partie, seront réglées aux conditions prévues, ce qui signifie que les paiements pour les marchandises expédiées ne seront pas soumis à la finalisation de la commande. Concernant les paiements retardés au-delà des délais établis et signalés sur la facture, deviendra effectif, sans préjudice de toute autre action, l'intérêt moratoire conformément au décret législatif n. 231/02.
7.3 COMISA ne reconnaît que les paiements faits à son siège social ou par virement bancaire. Peuvent recevoir le paiement pour compte de COMISA que ceux qui ont reçu un mandat spécifique et explicite. Dans tous les cas, les chèques et autres ordres de paiement seront reçus par nous sous réserve d'encaissement, et le montant de celui-ci sont enregistrées en compte ou solde des créances seulement après l'effectif encaissement.
7.4 Selon l'art. 1523 du code civil, la propriété des marchandises ne passe au CLIENT que suite au paiement intégral du prix en facture. COMISA se réserve le droit de demander au CLIENT de retourner les marchandises non payées dans le délai convenu, à la charge du CLIENT.

8. RESPONSABILITÉ - RÉCLAMATIONS

8.1 Dans le cas où le transport est pris en charge par l'acheteur (départ usine en EX-WORKS), Comisa n'est pas responsable des retards, erreurs, casse, vols, pertes, altération de ses produits et donc ne prends pas en charge les marchandises altérées, endommagés ou perdues durant le transport. Les possibles réclamations pour vices apparents doivent être communiquées immédiatement au transporteur lors du déchargement du matériel, faisant une réserve écrite spécifique en apposant « réserve de contrôle » sur le document de transport-bon de livraison (décret présidentiel n° 450 du 02/08/1985), en envoyant une copie immédiatement à notre service commercial.
8.2 Sont acceptées les réclamations si des colis, des rouleaux ou des palettes manquant que si notifié par écrit sur le bon de livraison et le bulletin du Transporteur. Les plaintes sont acceptées au plus tard dans les huit (8) jours suivant la date de livraison des marchandises reportée sur le bordereau de livraison et elles doivent définir clairement l'objet de la contestation.

9. RETOURS

9.1 COMISA n'acceptera pas de retours à moins qu'il y ait une erreur de livraison ou bien une contestation pour "non-conformité techniques " ayant été confirmé par un expert chargé par COMISA ou bien par notre bureau technique. Dans les deux cas le retour doit être préalablement confirmé par écrit par COMISA.
9.2 Le matériel est accepté en retour que si : il est retourné parfaitement emballé et en parfait état; il est accompagné d'un document de transport indiquant "marchandises en retour" et non "à vendre"; le document de transport contient toutes les références de l'achat initial (notamment le numéro de facture et la date); le bon de livraison et le liste de colisage portent le numéro d'autorisation.
9.3 Tout retour non conforme à ces exigences listées ci-dessus ne sera pas accepté. Si le matériel n'est pas rendu dans son emballage d'origine, ou si la plainte pour "non-conformité technique" n'est pas fondée, COMISA se réserve le droit de facturer au CLIENT les frais engagés.
9.4 Suite à l'accord du bureau export de COMISA, le client pourra rendre les articles non vendus ou non utilisés. La note de crédit accordé au client sera dépréciée d'au moins 30% du prix de vente. Le transport, la livraison et le retour de la marchandise sont entièrement à la charge du client.

10. GARANTIE

10.1 Objet de la garantie

10.1.1 Les produits Comisa sont garantis par défauts. COMISA garantit ses Produits pour une période de deux (2) ans à compter de la date d'achats du produit (telle qu'attestée par la date figurant sur la facture d'achat) et la possibilité pour le Vendeur lui-même d'exercer le droit de recours contre le fabricant, à condition que l'intervention ait été préalablement évalué et approuvé par la COMISA. Cela signifie qu'au cas où un défaut imputable uniquement et exclusivement à des défauts de fabrication est signalé dans un délai de deux (2) ans à compter de la date d'achats, COMISA s'engage à remplacer gratuitement le produit ou le composant défectueux. L'indemnisation de tout dommage aux personnes, aux animaux ou les choses dérivant des défauts décrits est garantie par une couverture d'assurance valide

EXCLUSIVEMENT pour les réclamations causées par des articles de production COMISA défectueux mais pas du tout à une mauvaise installation. Les produits stockés ou utilisé d'une manière non conforme aux conditions d'utilisation (voir art. 10.2.1) sont expressément exclus de la garantie.

10.1.2 COMISA garantit les matériaux fourni pour la construction de systèmes de chauffage/refroidissement radiant sous-plancher pour une période de dix ans (10) depuis la vente, que tout le système est entièrement construit avec des matériaux COMISA, ou d'autres matériaux autorisées par écrit par COMISA, en suivant les indications de mis en œuvre fournies par COMISA. La garantie est valable que si le système est utilisé pour les fonctions pour lesquelles il a été conçu.

10.1.3 Aux conditions dont l'art. 10.1.1 Comisa garantit Le system COMISA PRESS SYSTEM, composé conjointement de raccords COMISA PRESS, tube COMISA et mâchoires profilées TH pour une période de 10 (dix) années de la date de vente. Cette garantie est exclue en cas de l'utilisation de raccords, de tubes ou de mâchoires d'autres fabricants, à moins que ces composants ne soient préalablement testés et certifiés par COMISA comme compatibles avec les produits qu'elle fournit.

10.1.4 Par dérogation à l'art. 10.1.1 COMISA garantit le matériel d'équipement pour la transformation de ses Produits, pendant un (1) an à compter de la date d'achat du matériel ou de son composant ou pièce de rechange par un installateur professionnel. Les piles pour le fonctionnement du matériel à usage professionnel sont garanties six (6) mois à compter de date d'achat de l'équipement ou de l'un de ses composants ou pièces de rechange fabriqué par installateur professionnel.

10.2 Exclusion de garantie

10.2.1 A' titre d'exemple sont exclus de la garantie de l'art. 10.1 les dommages causés par : modification ou manipulations du produit par l'acheteur ou par des tiers ; une mauvaise utilisation ou la non observance des instructions d'utilisation ; un entretien inadéquat.

10.2.2 La garantie de l'art. 10.1.2 ne s'applique pas: en cas d'utilisation de matériaux non couverts par la garantie COMISA ou n'ayant pas été autorisé par écrit; lorsque le défaut dépend d'une mauvaise installation, un mauvais entretien ou d'une intervention sur l'installation non autorisée par COMISA; lorsque le défaut dépend de causes de force majeure, d'une défaillance ou panne des systèmes, des installations, des équipements, des centrales électriques présents sur le site du CLIENT, auxquels le système fourni par COMISA est relié directement ou indirectement, ou desquels il est de toute autre façon dépendant; lorsque le CLIENT était au courant d'un défaut, ou il ne pouvait pas l'ignorer en suivant le bon sens commun.

10.3 Extension territoriale de la garantie

Garanties d'art. 10.1 sont valables dans tous les pays du monde, sauf les États-Unis et le Canada.

10.4 Perte de Garantie

Les garanties définies à l'art. 10.1 ne sont plus valables si : l'installation du système n'est pas en conformité avec les instructions d'installation reportés dans les documents techniques COMISA; le système est utilisé pour transporter des liquides autres que les liquides listés dans les documents techniques COMISA; le système est utilisé avec un liquide ayant une pression et une température en dehors de la plage d'utilisation spécifiées dans les documents techniques COMISA.

10.5 Obligations du bénéficiaire de la garantie

Les garanties mentionnées fonctionnent seulement dans le cas où le bénéficiaire remplit toutes les conditions énoncées ci-dessous:

faire une déclaration par écrit, dans les huit (8) jours après la livraison des produits ou la découverte du défaut caché, en indiquant le numéro de facture et du document de transport relatifs à la marchandise présumée défectueuse ;faire une description précise du défaut et envoyer des photos des pièces défectueuses. Le défaut apparent doit être signalé à la livraison. respecter les domaines d'application, les spécifications techniques de mise en œuvre et les règlements en vigueur au moment de l'installation ; garder les marchandises défectueuses dans l'état dans lequel elles avaient été livrées sans aucune manipulation ou modification ; mettre à l'arrêt le système à partir du moment où la problème a été décelé.

10.6 Obligation de payer

L'acheteur ne peut pas soulever d'objections afin d'éviter de retarder le paiement comme par article 1462 de la loi italienne.

10.7 Plaintes pour défauts, détection et définition des dommages

10.7.1 Les dommages causés par des interventions décidés par le CLIENT sans la préalable autorisation de COMISA ne seront pas pris en compte. COMISA n'accepte pas les retours de la clientèle, sans la notification et l'acceptation préalable de COMISA.

10.8 Garanties légales

Tous les produits du catalogue COMISA autres que les matériaux fournis pour la construction des systèmes de plancher chauffant/rafraichissant pour lesquels la garantie commerciale est mentionnée dans les articles 10.1 - 10.7, sont soumis à la garantie légale conformément à l'art. 1490 du code civil et aux articles 128 - 135 du décret législatif no. 206/05 (Code de la consommation), selon le cas.

10.9 Réclamations

Le client a le droit d'informer Comisa en cas de produits non conformes. Dans ce cas il informe immédiatement le distributeur ou l'importateur et il demande le « formulaire de réclamation Comisa » en le retournant dûment complété selon la procédure décrite au service export.

11 ACTIVITÉ MARKETING

Toute activité marketing impliquant l'utilisation de logo Comisa, d'images ou de photos des produits doit être préalablement approuvée par la direction Comisa. Les seuls logo Comisa autorisés sont ceux de propriété de COMISA .

12. CATALOGUES ET BROCHURES

Toutes les illustrations des catalogues, des brochures, des offres, des listes d prix, du site web www.comisa.it sont purement illustratives et explicatives et ne sont pas contraignants du point de vue du poids et de la dimension des articles.

13. TRIBUNAL DE COMPÉTENCE

Pour tout litige entre COMISA et le CLIENT le tribunal compétent est le tribunal de Brescia.

TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.
AC0700005070	41.33.005	244	ATOGAN0TH075		75	CL0620000002	88.20.626	193	CL0663011030		178	CL066900603N	88.06.415	188
AC0700007070	41.33.010	244	ATOGAN0THKTA	87.80.530	75	CL062000201N	88.20.050	148	CL0663012030		178	CL066900703N	88.06.416	188
AC0700010100	41.33.025	244	ATOGAN1TH016	87.80.422	76	CL062000301N	88.20.055	148	CL0663013030		178	CL066900803N	88.06.417	188
AC0701005070	41.33.050	244	ATOGAN1TH020	87.80.423	76	CL062000401N	88.20.060	148	CL066400203N	88.05.522	184	CL066900903N	88.06.418	188
AC0701007070	41.33.055	244	ATOGAN1TH026	87.80.424	76	CL062100201N	88.20.051	149	CL066400303N	88.05.523	184	CL066901003N	88.06.419	188
AC0701007100	41.33.060	244	ATOGAN1TH032	87.80.482	76	CL062100301N	88.20.056	149	CL066400403N	88.05.524	184	CL066901103N	88.06.420	188
AC0701010070	41.33.065	244	ATOGAN2TH000	87.80.540	75	CL062100401N	88.20.061	149	CL066400503N	88.05.525	184	CL066901203N	88.06.421	188
AC0701010100	41.33.070	244	ATOGAN4TH016	87.80.560	76	CL062200201N	88.20.052	149	CL066400603N	88.05.526	184	CL067000203N	88.06.422	189
AC0702007070	41.33.125	245	ATOGAN4TH017	87.80.563	76	CL062200301N	88.20.057	149	CL066400703N	88.05.527	184	CL067000303N	88.06.423	189
AC0703005070	41.33.170	244	ATOGAN4TH020	87.80.561	76	CL062200401N	88.20.062	149	CL066400803N	88.05.528	184	CL067000403N	88.06.424	189
AC0703007070	41.33.175	244	ATOGAN4TH026	87.80.562	76	CL062300202N	88.20.070	150	CL066400903N	88.05.529	184	CL067000503N	88.06.425	189
AC0705005070	41.33.140	245	ATOINS2TH014	87.80.541	75	CL062300302N	88.20.075	150	CL066401003N	88.05.530	184	CL067000603N	88.06.426	189
AC0705007070	41.33.145	245	ATOINS2TH016	87.80.542	75	CL062300402N	88.20.080	150	CL066401103N	88.05.531	184	CL067000703N	88.06.427	189
AC0708025070	41.33.200	246	ATOINS2TH018	87.80.543	75	CL062400203N	88.20.085	151	CL066401203N	88.05.532	184	CL067000803N	88.06.428	189
AC0708032100	41.33.210	246	ATOINS2TH020	87.80.544	75	CL062400303N	88.20.090	151	CL066500203N	88.05.533	181	CL067000903N	88.06.429	189
AC0710025070	41.33.220	246	ATOINS2TH026	87.80.545	75	CL062400403N	88.20.095	151	CL066500303N	88.05.534	181	CL067001003N	88.06.430	189
AC0710025100	41.33.225	246	ATOINS2TH032	87.80.546	75	CL063000201N	88.20.002	154	CL066500403N	88.05.535	181	CL067001103N	88.06.431	189
AC0710032070	41.33.230	246	ATOINS5TH014	87.80.521	77	CL063000301N	88.20.003	154	CL066500503N	88.05.536	181	CL067001203N	88.06.432	189
AC0710032100	41.33.235	246	ATOINS5TH016	87.80.522	77	CL063000401N	88.20.004	154	CL066500603N	88.05.537	181	CL0671002030		188
AC0711025070	41.33.265	246	ATOINS5TH018	87.80.523	77	CL063100201N	88.20.005	153	CL066500703N	88.05.538	181	CL0671003030		188
AC0711032070	41.33.270	246	ATOINS5TH020	87.80.524	77	CL063100301N	88.20.006	153	CL066500803N	88.05.539	181	CL0671004030		188
AC0713007220		246	ATOINS5TH026	87.80.525	77	CL063100401N	88.20.007	153	CL066500903N	88.05.540	181	CL0671005030		188
AC0713010250		246	ATOMOLLA0014	87.80.438	78	CL063200202N	88.20.012	155	CL066501003N	88.05.541	181	CL0671006030		188
AC0721007070	41.33.195	244	ATOMOLLA0016	87.80.439	78	CL063200302N	88.20.013	155	CL066501103N	88.05.542	181	CL0671007030		188
ACE701005070	41.33.094	245	ATOMOLLA0020	87.80.441	78	CL063200402N	88.20.014	155	CL066501203N	88.05.543	181	CL0671008030		188
ACE701007070	41.33.095	245	ATOMOLLA0026	87.80.442	78	CL063300203N	88.20.015	157	CL066501303N	88.05.544	181	CL0671009030		188
ACE710025070	41.33.250	246	ATOMOLLAES14	87.80.443	78	CL063300303N	88.20.016	157	CL066600203N	88.06.356	185	CL0671010030		188
ACU701007070	41.33.110	245	ATOMOLLAES16	87.80.444	78	CL063300403N	88.20.017	157	CL066600303N	88.06.357	185	CL0671011030		188
AP052200512C	41.21.429	287	ATOMOLLAES18	87.80.445	78	CL0635002010	88.20.172	150	CL066600403N	88.06.358	185	CL0671012030		188
AP052200512L	41.21.428	287	ATOMOLLAES20	87.80.446	78	CL0635003010	88.20.173	150	CL066600503N	88.06.359	185	CL0672002030		177
ATOCAL000K1T	87.80.436	79	ATOMOLLAES26	87.80.447	78	CL0635004010	88.20.174	150	CL066600603N	88.06.360	185	CL0672003030		177
ATOCAL000KT2	87.80.448	79	ATOPRES0ADA3	87.80.519	74	CL063700201N	88.20.030	153	CL066600703N	88.06.361	185	CL0672004030		177
ATOCAL000KT3	87.80.492	79	ATOPRES0BAT1	87.80.516	74	CL063700401N	88.20.031	153	CL066600803N	88.06.362	185	CL0672005030		177
ATOCAL000KT4	88.10.302	78	ATOPRES0BAT2	87.80.517	74	CL063700601N	88.20.032	153	CL066600903N	88.06.363	185	CL0672006030		177
ATOCAL000KT5	87.80.462	79	ATOPRES0BAT7	87.80.575	76	CL063700801N	88.20.033	153	CL066601003N	88.06.364	185	CL0672007030		177
ATOCAL000KT6	87.80.463	79	ATOPRES0BAT8	87.80.576	76	CL063701001N	88.20.034	153	CL066601103N	88.06.365	185	CL0672008030		177
ATOCAL000KTB	87.80.535	79	ATOPRES0M005	87.80.419	77	CL064100401N	88.20.507	157	CL066601203N	88.06.366	185	CL0672009030		177
ATOCAL014200	87.80.425	78	ATOPRES0M006	87.80.520	77	CL064100501N	88.20.508	157	CL066700203N	88.06.367	186	CL0672010030		177
ATOCAL016200	87.80.426	78	ATOPRES0M009	87.80.574	76	CL064100601N	88.20.509	157	CL066700303N	88.06.368	186	CL0672011030		177
ATOCAL016225	87.80.465	78	ATOPRES0M0D0	87.80.515	74	CL064100701N	88.20.510	157	CL066700403N	88.06.369	186	CL0672012030		177
ATOCAL017200	87.80.427	78	ATOPRES0M0D3	87.80.518	74	CL064100801N	88.20.511	157	CL066700503N	88.06.370	186	CL0672013030		177
ATOCAL018200	87.80.428	78	ATOPRES0M0D4	87.80.418	76	CL0660002030		179	CL066700603N	88.06.371	186	CL067400203N	88.07.120	182
ATOCAL020200	87.80.429	78	ATOSROTOLA01	88.10.301	78	CL0660003030		179	CL066700703N	88.06.372	186	CL067400303N	88.07.121	182
ATOCAL020250	87.80.430	78	ATOTGLTUB075		79	CL0660004030		179	CL066700803N	88.06.373	186	CL067400403N	88.07.122	182
ATOCAL026300	87.80.432	78	BU0851000140	87.43.140	17	CL0660005030		179	CL066700903N	88.06.374	186	CL067400503N	88.07.123	182
ATOCAL032300	87.80.433	78	BU0851000160	87.43.160	17	CL0660006030		179	CL066701003N	88.06.375	186	CL067400603N	88.07.124	182
ATOCAL040350	87.80.434	78	BU0851000180	87.43.180	17	CL0660007030		179	CL066701103N	88.06.376	186	CL067400703N	88.07.125	182
ATOCAL050400	87.80.435	78	BU0851000200	87.43.200	17	CL0660008030		179	CL066701203N	88.06.377	186	CL067400803N	88.07.126	182
ATOCAL063600	87.80.461	78	BU0851000250	87.43.250	17	CL0660009030		179	CL066800203N	88.06.400	187	CL067400903N	88.07.127	182
ATOCAL075500		78	BU0851000260	87.43.260	17	CL0660010030		179	CL066800303N	88.06.401	187	CL067401003N	88.07.128	182
ATOCES0IA000	87.80.420	79	BU0851000320	87.43.320	17	CL0660011030		179	CL066800403N	88.06.402	187	CL067401103N	88.07.129	182
ATOCES0IA001	87.80.487	79	BU0851000400	87.43.400	17	CL0660012030		179	CL066800503N	88.06.403	187	CL067401203N	88.07.130	182
ATOGAN0TH014	87.80.406	75	BU0851000500	87.43.500	17	CL0660013030		179	CL066800603N	88.06.404	187	CL067500203N	88.05.572	190
ATOGAN0TH016	87.80.407	75	BU0851000630	87.43.505	17	CL0660014030		192	CL066800703N	88.06.405	187	CL067500303N	88.05.573	190
ATOGAN0TH017	87.80.408	75	BUG851000160	87.97.516	30	CL0663002030		178	CL066800803N	88.06.406	187	CL067500403N	88.05.574	190
ATOGAN0TH018	87.80.409	75	BUG851000160	87.97.516	304	CL0663003030		178	CL066800903N	88.06.407	187	CL067500503N	88.05.575	190
ATOGAN0TH020	87.80.410	75	BUG851000200	87.97.520	30	CL0663004030		178	CL066801003N	88.06.408	187	CL067500603N	88.05.576	190
ATOGAN0TH025	87.80.411	75	BUG851000200	87.97.520	304	CL0663005030		178	CL066801103N	88.06.409	187	CL067500703N	88.05.577	190
ATOGAN0TH026	87.80.412	75	BUG851000260	87.97.526	30	CL0663006030		178	CL066801203N	88.06.410	187	CL067500803N	88.05.578	190
ATOGAN0TH032	87.80.413	75	BUG851000260	87.97.526	304	CL0663007030		178	CL066900203N	88.06.411	188	CL067500903N	88.05.579	190
ATOGAN0TH040	87.80.414	75	BUG851000320	87.97.532	304	CL0663008030		178	CL066900303N	88.06.412	188	CL067501003N	88.05.580	190
ATOGAN0TH050	87.80.415	75	CL061900500N	88.20.558	192	CL0663009030		178	CL066900403N	88.06.413	188	CL067501103N	88.05.581	190
ATOGAN0TH063	87.80.457	75	CL0620000001	88.20.625	193	CL0663010030		178	CL066900503N	88.06.414	188	CL067501203N	88.05.582	190

TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.
CL067600203N	88.07.140	179	CL069000503N		164	CL069701103N	88.20.258	172	CL072700403N	88.07.204	178	CL0983M1007N	88.20.771	156
CL067600303N	88.07.141	179	CL069000603N		164	CL069701203N	88.20.259	172	CL072700503N	88.07.205	178	CP061100200N		213
CL067600403N	88.07.142	179	CL069000703N		164	CL069701303N	88.20.260	172	CL072700603N	88.07.206	178	CP061100300N		213
CL067600503N	88.07.143	179	CL069000803N		164	CL069800202N	88.20.160	173	CL072700703N	88.07.207	178	CP061100400N		213
CL067600603N	88.07.144	179	CL069000903N		164	CL069800302N	88.20.161	173	CL072700803N	88.07.208	178	CT059000500N	88.21.900	297
CL067600703N	88.07.145	179	CL069001003N		164	CL069800402N	88.20.162	173	CL072700903N	88.07.209	178	CT059000700N	88.21.901	297
CL067600803N	88.07.146	179	CL069001103N		164	CL069800502N	88.20.163	173	CL072701003N	88.07.210	178	CT059001000N	88.21.902	297
CL067600903N	88.07.147	179	CL069001203N		164	CL069800602N	88.20.164	173	CL072701103N	88.07.211	178	CT059100500N	88.21.910	297
CL067601003N	88.07.148	179	CL069001303N		164	CL069800702N	88.20.165	173	CL072701203N	88.07.212	178	CT0592007000		292
CL067601103N	88.07.149	179	CL069100203N		165	CL069800802N	88.20.166	173	CL072701303N	88.07.213	178	CT0593007000	88.21.826	293
CL067601203N	88.07.150	179	CL069100303N		165	CL069800902N	88.20.167	173	CL072800203N	88.08.202	164	CT0593010000	88.21.827	293
CL067601303N	88.07.151	179	CL069100403N		165	CL069801002N	88.20.168	173	CL072800303N	88.08.203	164	CT0593012000	88.21.828	293
CL0678002030		177	CL069100503N		165	CL069801102N	88.20.169	173	CL072800403N	88.08.204	164	CT0593015000	88.21.829	293
CL0678003030		177	CL069100603N		165	CL069801202N	88.20.170	173	CL072800503N	88.08.205	164	CT059400700N	88.21.821	293
CL0678004030		177	CL069100703N		165	CL069801302N	88.20.136	173	CL072800603N	88.08.206	164	CT059401000N	88.21.822	293
CL0678005030		177	CL069100803N		165	CL072300203N	88.07.433	183	CL072800703N	88.08.207	164	CT059500500N	88.21.700	293
CL0678006030		177	CL069100903N		165	CL072300303N	88.07.434	183	CL072800803N	88.08.208	164	CT0595005FIL	88.21.706	293
CL0678007030		177	CL069101003N		165	CL072300403N	88.07.435	183	CL072800903N	88.08.209	164	CT059500700N	88.21.701	293
CL0678008030		177	CL069101103N		165	CL072300503N	88.07.436	183	CL072801003N	88.08.210	164	CT059501000N	88.21.702	293
CL0678009030		177	CL069101203N		165	CL072300603N	88.07.437	183	CL072801103N	88.08.211	164	CT0595010FIL	88.21.707	293
CL0678010030		177	CL069101303N		165	CL072300703N	88.07.438	183	CL072801203N	88.08.212	164	CT059501200N	88.21.703	293
CL0678011030		177	CL069400203N	88.10.875	172	CL072300803N	88.07.439	183	CL072801303N	88.08.213	164	CT059501500N	88.21.704	293
CL0678012030		177	CL069400303N	88.10.876	172	CL072300903N	88.07.440	183	CL072900203N		174	CT059502000N	88.21.705	293
CL0678013030		177	CL069400403N	88.10.877	172	CL072301003N	88.07.441	183	CL072900303N		174	CT059600500N	88.21.791	294
CL0684002030	88.10.522	168	CL069400503N	88.10.879	172	CL072301103N	88.07.442	183	CL072900403N		174	CT059600700N	88.21.792	294
CL0684003030	88.10.523	168	CL069400603N	88.10.882	172	CL072301203N	88.07.443	183	CL072900503N		174	CT059601000N	88.21.793	294
CL0684004030	88.10.524	168	CL069400703N	88.10.883	172	CL072400203N	88.07.455	180	CL072900603N		174	CT059601200N	88.21.794	294
CL0684005030	88.10.525	168	CL069400803N	88.10.884	172	CL072400303N	88.07.456	180	CL072900703N		174	CT059601500N	88.21.795	294
CL0684006030	88.10.526	168	CL069400903N	88.10.885	172	CL072400403N	88.07.457	180	CL072900803N		174	CT059602000N	88.21.796	294
CL0684007030	88.10.527	168	CL069401003N	88.10.886	172	CL072400503N	88.07.458	180	CL072900903N		174	CT059700500N	88.21.800	294
CL0684008030	88.10.528	168	CL069401103N	88.10.887	172	CL072400603N	88.07.459	180	CL072901003N		174	CT059700700N	88.21.801	294
CL0684009030	88.10.529	168	CL069401203N	88.10.888	172	CL072400703N	88.07.460	180	CL072901103N		174	CT059701000N	88.21.802	294
CL0684010030	88.10.530	168	CL069500203N	88.11.875	171	CL072400803N	88.07.461	180	CL072901203N		174	CT059701200N	88.21.803	294
CL0684011030	88.10.531	168	CL069500303N	88.11.876	171	CL072400903N	88.07.462	180	CL072901303N		174	CT059701500N	88.21.804	294
CL0684012030	88.10.532	168	CL069500403N	88.11.877	171	CL072401003N	88.07.463	180	CL0743002030	88.20.333	175	CT059702000N	88.21.805	294
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CL0685003030	88.10.534	167	CL069500703N	88.11.880	171	CL072401303N	88.07.466	180	CL0743005030	88.20.336	175	CT059900500N	88.21.809	295
CL0685004030	88.10.535	167	CL069500803N	88.11.881	171	CL072500203N	88.08.120	166	CL0743006030	88.20.337	175	CT0607000001	88.10.863	163
CL0685005030	88.10.536	167	CL069500903N	88.11.882	171	CL072500303N	88.08.121	166	CL0743007030	88.20.338	175	CT0607000002	88.10.864	163
CL0685006030	88.10.537	167	CL069501003N	88.11.883	171	CL072500403N	88.08.122	166	CL0743008030	88.20.339	175	CT0607000011	88.10.034	162
CL0685007030	88.10.538	167	CL069501103N	88.11.884	171	CL072500503N	88.08.123	166	CL0743009030	88.20.340	175	CT0607000012	88.10.035	162
CL0685008030	88.10.539	167	CL069501203N	88.11.885	171	CL072500603N	88.08.124	166	CL0743010030	88.20.341	175	CT061300501N	88.21.600	296
CL0685009030	88.10.540	167	CL069600203N	88.11.861	170	CL072500703N	88.08.125	166	CL0743011030	88.20.342	175	CT061300502N	88.21.601	296
CL0685010030	88.10.541	167	CL069600303N	88.11.862	170	CL072500803N	88.08.126	166	CL0743012030	88.20.343	175	CT061300503N	88.21.602	296
CL0685011030	88.10.542	167	CL069600403N	88.11.863	170	CL072500903N	88.08.127	166	CL0743013030	88.20.344	175	CT061300504N	88.21.603	296
CL0685012030	88.10.543	167	CL069600503N	88.11.864	170	CL072501003N	88.08.128	166	CL0744002030	88.20.285	175	CT061300505N	88.21.604	296
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CL068600203N	88.20.356	169	CL069600703N	88.11.866	170	CL072501203N	88.08.130	166	CL0744004030	88.20.287	175	CT061300701N	88.21.606	296
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CL068600703N	88.20.361	169	CL069601203N	88.11.871	170	CL072600603N	88.08.144	165	CL0744009030	88.20.292	175	CT061300706N	88.21.611	296
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CL068600903N	88.20.363	169	CL069700303N	88.20.250	172	CL072600803N	88.08.146	165	CL0744011030	88.20.294	175	CT061301002N	88.21.613	296
CL068601003N	88.20.364	169	CL069700403N	88.20.251	172	CL072600903N	88.08.147	165	CL0744012030	88.20.295	175	CT061301003N	88.21.614	296
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CL068601203N	88.20.366	169	CL069700603N	88.20.253	172	CL072601103N	88.08.149	165	CL0982M0705N	88.20.730	154	CT061301005N	88.21.616	296
CL068601303N	88.20.261	169	CL069700703N	88.20.254	172	CL072601203N	88.08.150	165	CL0982M1005N	88.20.760	155	CT061301006N	88.21.617	296
CL069000203N		164	CL069700803N	88.20.255	172	CL072601303N	88.08.151	165	CL0982M1007N	88.20.770	156	CT061400501N	88.21.620	296
CL069000303N		164	CL069700903N	88.20.256	172	CL072700203N	88.07.202	178	CL0983M0705N	88.20.731	154	CT061400503N	88.21.622	296
CL069000403N		164	CL069701003N	88.20.257	172	CL072700303N	88.07.203	178	CL0983M1005N	88.20.761	155	CT061400504N	88.21.623	296

TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.
CT061400505N	88.21.624	296	DC022101612N	88.03.118	160	KSJ1050030X1	88.16.141	268	MT0190C0705N	88.21.060	279	MU0851010320	87.22.321	8
CT061400506N	88.21.625	296	DC022101613N	88.03.139	36	KSJ105005001	88.16.196	268	MT0190C0707N	88.21.020	278	MU0852005160	87.23.160	8
CT061600504N	88.21.643	296	DC022101713N	88.03.119	36	KSJ1050050X1	88.16.146	268	MT019100705N	88.21.075	279	MU085200516N	97.23.160	20
CT061600506N	88.21.645	296	DC022101713N	88.03.119	160	KSJ105R03001	88.16.161	269	MT019100707N	88.21.015	278	MU0852005180	87.23.180	8
DC016800500N	88.16.045	265	DC022102016N	88.03.138	36	KSJ105R030X1	88.16.151	269	MT0191C0705N	88.21.065	279	MU0852005200	87.23.200	8
DC0172P05000	77.12.095	103	DC022102016N	88.03.138	160	KSJ105R05001	88.16.166	269	MT0191C0707N	88.21.025	278	MU085200520N	97.23.200	20
DC0172P07000	77.12.096	103	DC0221C0556N	88.03.120	36	KSJ105R050X1	88.16.156	269	MT0192C0707N	88.21.005	278	MU0852005250	87.23.250	8
DC0172P10000	77.12.097	103	DC0221C0556N	88.03.120	160	KSJ106003001	88.16.143	268	MT019400507N	88.21.055	279	MU0852005260	87.23.260	8
DC0172P12000	77.12.098	103	DC0221C0556N	88.03.120	281	KSJ106005001	88.16.148	268	MT0194C0507N	88.21.050	279	MU085200526N	97.23.260	20
DC0174005120	77.12.103	102	DC0221C1410N	88.03.110	36	KSJ106R03001	88.16.153	269	MT019500700L	88.21.056	279	MU0852005320	87.23.320	8
DC0174005140	77.12.104	102	DC0221C1410N	88.03.110	160	KSJ106R05001	88.16.169	269	MT019600715N	88.03.400	160	MU085200532N	97.23.320	20
DC0174005160	77.12.105	102	DC0221C1410N	88.03.110	281	MN0311000000C	41.23.001	253	MT019600718N	88.03.402	160	MU0852005510	87.23.202	8
DC0174007140	77.12.106	102	DC0221C1612N	88.03.116	36	MN084500000C	87.50.048	16	MT0200E0500N	88.16.300	271	MU0852005560	87.23.161	8
DC0174007160	77.12.107	102	DC0221C1612N	88.03.116	160	MN0ACCT00BLU		232	MT0201E0500N	88.16.301	270	MU0852007200	87.23.201	8
DC0174007180	77.12.108	102	DC0221C1612N	88.03.116	281	MN0ACCT00ROS		232	MU0830005160	87.54.034	13	MU085200720N	97.23.201	20
DC0174007200	77.12.109	102	DC0221C1713N	88.03.123	36	MN0ACCT01BLU		232	MU0830005200	87.54.035	13	MU0852007250	87.23.252	8
DC0175007000	77.12.115	103	DC0221C1713N	88.03.123	160	MN0ACCT01ROS		232	MU0831005160	87.54.039	13	MU0852007260	87.23.263	8
DC0175010000	77.12.116	103	DC0221C1814N	88.03.126	36	MN0ACCT02BLU		232	MU0831005200	87.54.040	13	MU085200726N	97.23.263	20
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DC017800010C	88.20.840	280	DC0221C2015N	88.03.140	160	MN0ACCT03ROS		232	MU0832007200	87.54.020	13	MU0852010320	87.23.322	8
DC017800010N	88.20.820	158	DC0221C2015N	88.03.140	281	MN0ALLT00BLU		213	MU0833005160	87.54.030	13	MU085201032N	97.23.322	20
DC017800010N	88.20.820	280	DC0221C2016N	88.03.136	36	MN0ALLT00NER		213	MU0834005160	87.54.060	13	MU0852010400	87.23.400	8
DC017800012C	88.20.841	280	DC0221C2016N	88.03.136	160	MN0ALLT00ROS		213	MU0835005160	87.54.065	13	MU0852010630	87.23.631	8
DC017800012N	88.20.821	158	DC0221C2016N	88.03.136	281	MN0ALLT01BLU		213	MU0835005200	87.54.066	13	MU0852012320	87.23.323	8
DC017800012N	88.20.821	280	DC0225C0556N	88.20.577	158	MN0ALLT01NER		213	MU08370VIT01	87.49.675	15	MU0852012400	87.23.401	8
DC017800014C	88.20.842	280	DC0225C0556N	88.20.577	280	MN0ALLT01ROS		213	MU0837STAF01	87.54.075	15	MU0852012500	87.23.500	8
DC017800014N	88.20.822	158	DC0225C1410N	88.20.578	158	MN0ALLT02BLU		213	MU0837STAF11	87.49.600	14	MU0852015500	87.23.501	8
DC017800014N	88.20.822	280	DC0225C1410N	88.20.578	280	MN0ALLT02NER		213	MU0837STAF21	87.49.605	14	MU0852015630	87.23.632	8
DC017800015C	88.20.843	280	DC0225C1612C	88.20.850	280	MN0ALLT02ROS		213	MU0837STAF31	87.49.601	14	MU085300ABAO	87.21.161	7
DC017800015N	88.20.823	158	DC0225C1612N	88.20.576	158	MN0ALLT03BLU		213	MU0837STAF41	87.49.610	14	MU085300ABAN	97.21.161	20
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DC017800016C	88.20.844	280	DC0228C0520N	88.20.579	158	MN0ALLT03ROS		213	MU0850000160	87.18.160	8	MU085300BAAN	97.20.202	20
DC017800016N	88.20.824	158	DC055000556N	88.03.017	36	MN0ALLT04BLU		213	MU085000016N	97.18.160	20	MU085300BAB0	87.19.201	7
DC017800016N	88.20.824	280	DC055001612N	88.03.016	36	MN0ALLT04NER		213	MU0850000180	87.18.180	8	MU085300BABN	97.19.201	20
DC018000100N	88.20.830	160	DC05501612N	88.03.018	36	MN0ALLT04ROS		213	MU0850000200	87.18.200	8	MU085300BACO	87.20.204	7
DC018000100N	88.20.830	281	DC055112016N	88.03.019	36	MN0ALLT07NER		213	MU085000020N	97.18.200	20	MU085300BBA0	87.20.206	7
DC018000120N	88.20.831	160	DC055201612N	88.03.310	36	MN0ALLT07ROS		213	MU0850000250	87.18.250	8	MU085300BBAN	97.20.206	20
DC018000120N	88.20.831	281	DC055202016N	88.03.315	36	MN0ALLT08NER		213	MU0850000260	87.18.260	8	MU085300BCB0	87.19.202	7
DC018000140N	88.20.832	160	DC055202620N	88.03.321	36	MN0ALLT08ROS		213	MU085000026N	97.18.260	20	MU085300BCC0	87.20.203	7
DC018000140N	88.20.832	281	DC055212620N	88.03.028	36	MN0ALLT0A0BLU		232	MU0850000320	87.18.320	8	MU085300BDB0	87.21.201	7
DC018000150N	88.20.833	160	DC057800512N	88.03.170	36	MN0ALLT0ANER		232	MU085000032N	97.18.320	20	MU085300CAAO	87.20.181	7
DC018000150N	88.20.833	281	DC057800712N	88.03.175	36	MN0ALLT0AROS		232	MU0850000400	87.18.400	8	MU085300CAC0	87.19.181	7
DC018000160N	88.20.834	160	DC057801022N	88.03.160	36	MN0ALLT0BBLU		232	MU085000040N	97.18.400	20	MU085300DAA0	87.20.259	7
DC018000160N	88.20.834	281	DC057900515N	88.03.150	36	MN0ALLT0BNER		232	MU0850000500	87.18.500	8	MU085300DAB0	87.20.260	7
DC018000180N	88.20.835	160	DC061900718N	88.20.557	192	MN0ALLT0BROS		232	MU0850000510	87.18.201	8	MU085300DABN	97.20.260	20
DC018000180N	88.20.835	281	DC073501010N	88.20.622	191	MN0ALLT0CBLU		232	MU0850000560	87.18.161	8	MU085300DAD0	87.19.261	7
DC018600012N	88.20.605	158	EX0706007070	41.33.085	246	MN0ALLT0CNER		232	MU0850000630	87.18.631	8	MU085300DADN	97.19.261	20
DC018600014N	88.20.610	158	EX0709007070	41.33.090	246	MN0ALLT0CROS		232	MU0850000750		8	MU085300DBAO	87.20.264	7
DC018600015N	88.20.611	158	EX0709010100	41.33.091	246	MN0ALLT0DBLU		232	MU0851005160	87.22.160	8	MU085300DBAN	97.20.264	20
DC018600016N	88.20.615	158	KS0105003001	88.16.190	268	MN0ALLT0DNER		232	MU085100516N	97.22.160	20	MU085300DBB0	87.20.265	7
DC020000500N		271	KS01050030X1	88.16.140	268	MN0ALLT0DROS		232	MU0851005180	87.22.180	8	MU085300DBBN	97.20.265	20
DC0202D0500N	88.16.305	270	KS0105005001	88.16.195	268	MN0ALLT0EBLU		232	MU0851005200	87.22.200	8	MU085300DBD0	87.19.263	7
DC0202D0700N	88.16.306	270	KS01050050X1	88.16.145	268	MN0ALLT0ENER		232	MU085100520N	97.22.200	20	MU085300DBDN	97.19.263	20
DC020801612N	88.20.194	161	KS0105R03001	88.16.160	269	MN0ALLT0EROS		232	MU0851005260	87.22.260	8	MU085300DCC0	87.20.262	7
DC020801814N	88.20.195	161	KS0105R030X1	88.16.150	269	MN0ALLT0FBLU		232	MU085100526N	97.22.260	20	MU085300DCD0	87.19.262	7
DC0208C1612N	88.20.812	161	KS0105R05001	88.16.165	269	MN0ALLT0FNER		232	MU0851007200	87.22.201	8	MU085300DDA0	87.20.269	7
DC0208C1814N	88.20.813	161	KS0105R050X1	88.16.155	269	MN0ALLT0FROS		232	MU085100720N	97.22.201	20	MU085300DDB0	87.20.270	7
DC022101208N	88.03.006	36	KS0106003001	88.16.142	268	MN0ALLT0GBLU		232	MU0851007250	87.22.251	8	MU085300DDBN	97.20.270	20
DC022101208N	88.03.006	160	KS0106005001	88.16.147	268	MN0ALLT0GNER		232	MU0851007260	87.22.261	8	MU085300DEDO	87.21.260	7
DC022101410N	88.03.014	36	KS0106R03001	88.16.152	269	MN0ALLT0GROS		232	MU0851007320	87.22.320	8	MU085300DMD0	87.19.260	7
DC022101410N	88.03.014	160	KS0106R05001	88.16.168	269	MT019000705N	88.21.070	279	MU0851010250	87.22.252	8	MU085300DMM0	87.20.267	7
DC022101612N	88.03.118	36	KSJ105003001	88.16.191	268	MT019000707N	88.21.010	278	MU0851010260	87.22.262	8	MU085300EAE0	87.19.320	7

TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.
MU085300EAEN	97.19.320	20	MU0861005200	87.16.200	6	MU0864005200	87.25.200	9	MU0870R63400	87.11.640	4	MU087600718L	87.42.180	10
MU085300EBDO	87.20.320	7	MU086100520N	97.16.200	19	MU086400520N	97.25.200	21	MU0870R63500	87.11.650	4	MU087600720L	87.42.200	10
MU085300EBDN	97.20.320	20	MU0861005510	87.16.202	6	MU0865005160	87.26.205	9	MU0870R75400		4	MU087600720N	97.42.200	21
MU085300EBEO	87.19.322	7	MU0861005560	87.16.161	6	MU0865005200	87.26.210	9	MU0870R75500		4	MU087600726L		10
MU085300EBEN	97.19.322	20	MU0861007160	87.16.164	6	MU08660000260	87.30.260	6	MU0871003160	87.12.150	5	MU087601026L	87.42.260	10
MU085300ECE0	87.19.321	7	MU0861007200	87.16.201	6	MU0866000026N	97.30.260	19	MU0871005140	87.12.140	5	MU087601026N	97.42.260	21
MU085300EDDO	87.20.325	7	MU086100720N	97.16.201	19	MU08660000320	87.30.320	6	MU0871005160	87.12.160	5	MU087601032L		10
MU085300EDDN	97.20.325	20	MU0861007250	87.16.250	6	MU0866000032N	97.30.320	19	MU087100516N	97.12.160	18	MU087601232L		10
MU085300EDE0	87.19.326	7	MU0861007260	87.16.260	6	MU08660000400	87.30.400	6	MU0871005180	87.12.180	5	MU0876012400		10
MU085300EEDEN	97.19.326	20	MU086100726N	97.16.260	19	MU08660000500	87.30.500	6	MU0871005200	87.12.200	5	MU0876015500		10
MU085300EEAO		7	MU0861007510	87.16.203	6	MU0867005160	87.33.105	9	MU087100520N	97.12.200	18	MU0876020630		10
MU085300EEBO	87.20.326	7	MU0861010260	87.16.265	6	MU086700516N	97.33.105	21	MU0871005260	87.12.255	5	MU0876025750		10
MU085300EEDO	87.20.329	7	MU0861010320	87.16.320	6	MU0867005200	87.33.115	9	MU0871005510	87.12.202	5	MU0877016150	87.47.020	11
MU085300EEDN	97.20.329	20	MU086101032N	97.16.320	19	MU086700520N	97.33.115	21	MU0871005560	87.12.161	5	MU0877020220	87.47.030	11
MU085300GAGO	87.19.250	7	MU0861012400	87.16.400	6	MU0868005160	87.34.160	10	MU0871007160	87.12.164	5	MU0877026220	87.47.035	11
MU085300GBGO	87.19.252	7	MU0861012500	87.16.500	6	MU0868005200	87.34.200	10	MU0871007180	87.12.181	5	MU0877026280	87.47.040	11
MU085300HDE0	87.20.403	7	MU0861015500	87.16.501	6	MU0868007200	87.34.201	10	MU0871007200	87.12.201	5	MU0880005140	87.13.140	5
MU085300HDHO	87.19.402	7	MU0862005140	87.17.140	6	MU0869005160	87.35.160	10	MU087100720N	97.12.201	18	MU0880005160	87.13.160	5
MU085300HDHN	97.19.402	20	MU0862005160	87.17.160	6	MU0869005200	87.35.200	10	MU0871007250	87.12.250	5	MU088000516N	97.13.160	18
MU085300HEEO	87.20.400	7	MU086200516N	97.17.160	19	MU0869007200	87.35.201	10	MU0871007260	87.12.260	5	MU0880005180	87.13.180	5
MU085300HEEN	97.20.400	20	MU0862005180	87.17.180	6	MU0870000140	87.10.140	4	MU087100726N	97.12.260	18	MU0880005200	87.13.200	5
MU085300HEHO	87.19.403	7	MU0862005200	87.17.200	6	MU0870000160	87.10.160	4	MU0871007510	87.12.203	5	MU088000520N	97.13.200	18
MU085300HEHN	97.19.403	20	MU086200520N	97.17.200	19	MU087000016N	97.10.160	18	MU0871010250	87.12.251	5	MU0880005260	87.13.255	5
MU085300HHDO	87.20.404	7	MU0862005510	87.17.202	6	MU0870000170	87.10.170	4	MU0871010260	87.12.261	5	MU0880005510	87.13.202	5
MU085300HHEO	87.20.405	7	MU0862005560	87.17.161	6	MU0870000180	87.10.180	4	MU087101026N	97.12.261	18	MU0880005560	87.13.161	5
MU085300IDIO	87.19.500	7	MU0862007160	87.17.164	6	MU0870000200	87.10.200	4	MU0871010320	87.12.320	5	MU0880007160	87.13.164	5
MU085300IEHO	87.20.501	7	MU0862007200	87.17.201	6	MU087000020N	97.10.200	18	MU087101032N	97.12.320	18	MU0880007180	87.13.181	5
MU085300IEIO	87.19.501	7	MU086200720N	97.17.201	19	MU0870000250	87.10.250	4	MU0871010400	87.12.400	5	MU0880007200	87.13.201	5
MU085300IIHO	87.20.500	7	MU0862007250	87.17.250	6	MU0870000260	87.10.260	4	MU0871012320	87.12.321	5	MU088000720N	97.13.201	18
MU085300IIHO	87.19.502	7	MU0862007260	87.17.260	6	MU087000026N	97.10.260	18	MU087101232N	97.12.321	18	MU0880007250	87.13.250	5
MU085300IIEO	87.20.502	7	MU086200726N	97.17.260	19	MU0870000320	87.10.320	4	MU0871012400	87.12.401	5	MU0880007260	87.13.260	5
MU085300IIHO	87.20.503	7	MU0862007510	87.17.203	6	MU087000032N	97.10.320	18	MU087101240N	97.12.401	18	MU088000726N	97.13.260	18
MU085300MAAO	87.20.209	7	MU0862010260	87.17.265	6	MU0870000400	87.10.400	4	MU0871012500	87.12.500	5	MU0880007510	87.13.203	5
MU085300NHIO		7	MU0862010320	87.17.320	6	MU087000040N	97.10.400	18	MU087101250N	97.12.500	18	MU0880010250	87.13.251	5
MU085300NHN0		7	MU086201032N	97.17.320	19	MU0870000500	87.10.500	4	MU0871015500	87.12.501	5	MU0880010260	87.13.261	5
MU085300PIPO		7	MU0862012400	87.17.400	6	MU0870000510	87.10.201	4	MU0871020630	87.12.631	5	MU088001026N	97.13.261	18
MU0856005160	87.28.160	11	MU0862012500	87.17.500	6	MU0870000560	87.10.161	4	MU0871025750		5	MU0880010320	87.13.320	5
MU0856005200	87.28.200	11	MU0862015500	87.17.501	6	MU0870000630	87.10.631	4	MU0873005160	87.37.160	10	MU088001032N	97.13.320	18
MU0858016150	87.47.115	11	MU08620H5160	87.17.159	6	MU0870000750		4	MU0873005200	87.37.200	10	MU0880010400	87.13.400	5
MU08590KT010		14	MU08620H516N	97.17.159	19	MU0870R16140	87.11.160	4	MU0873007160	87.37.161	10	MU0880012320	87.13.321	5
MU08590KT020		14	MU0863003160	87.24.145	9	MU0870R18160	87.11.181	4	MU0873007200	87.37.201	10	MU088001232N	97.13.321	18
MU0860000160	87.14.160	6	MU0863005140	87.24.140	9	MU0870R20140	87.11.200	4	MU0873007260	87.37.260	10	MU0880012400	87.13.401	5
MU086000016N	97.14.160	19	MU0863005160	87.24.160	9	MU0870R20160	87.11.201	4	MU0873010260	87.37.261	10	MU088001240N	97.13.401	18
MU0860000180	87.14.180	6	MU086300516N	97.24.160	21	MU0870R2016N	97.11.201	18	MU0873010320	87.37.320	10	MU0880012500	87.13.500	5
MU0860000200	87.14.200	6	MU0863005180	87.24.180	9	MU0870R20180	87.11.203	4	MU087500516N	88.20.580	158	MU0880015400	87.13.405	5
MU086000020N	97.14.200	19	MU0863005200	87.24.200	9	MU0870R25160	87.11.250	4	MU087500520N	88.20.585	158	MU0880015500	87.13.501	5
MU0860000250	87.14.250	6	MU086300520N	97.24.200	21	MU0870R25200	87.11.252	4	MU087500716L	87.39.160	10	MU0880020630	87.13.631	5
MU0860000260	87.14.260	6	MU0863005510	87.24.202	9	MU0870R26160	87.11.260	4	MU087500716N	87.40.160	21	MU0880025750		5
MU086000026N	97.14.260	19	MU0863005560	87.24.159	9	MU0870R2616N	97.11.260	18	MU087500716N	87.40.160	160	MU0881000140	87.31.140	8
MU0860000320	87.14.320	6	MU0863007200	87.24.201	9	MU0870R26180	87.11.262	4	MU087500718L	87.39.180	10	MU0881000160	87.31.160	8
MU086000032N	97.14.320	19	MU086300720N	97.24.201	21	MU0870R26200	87.11.263	4	MU087500720L	87.39.200	10	MU088100016N	97.31.160	21
MU0860000400	87.14.340	6	MU0863007250	87.24.250	9	MU0870R2620N	97.11.263	18	MU087500720N	87.40.200	21	MU0881000180	87.31.180	8
MU086000040N	97.14.340	19	MU0863007260	87.24.260	9	MU0870R32160	87.11.320	4	MU087500720N	87.40.200	160	MU0881000200	87.31.200	8
MU0860000500	87.14.350	6	MU08630CAP01	87.49.685	15	MU0870R3216N	97.11.320	18	MU087500726L		10	MU088100020N	97.31.200	21
MU086000050N	97.14.350	19	MU08630H5160	87.24.161	9	MU0870R32200	87.11.322	4	MU087501026L	87.39.260	10	MU0881000250	87.31.250	8
MU0860000510	87.14.201	6	MU08630H516N	97.24.161	21	MU0870R3220N	97.11.322	18	MU087501026N	87.40.260	21	MU0881000260	87.31.260	8
MU0860000560	87.14.161	6	MU0863L05160	87.26.160	9	MU0870R32260	87.11.325	4	MU087501032L	87.39.265	10	MU088100026N	97.31.260	21
MU0860000630	87.14.631	6	MU0863L0516N	97.26.160	21	MU0870R3226N	97.11.325	18	MU087600316L	87.42.140	10	MU0881000320	87.31.320	8
MU0860000750		6	MU0863L05200	87.26.200	9	MU0870R40260	87.11.401	4	MU087600516L	87.42.150	10	MU088100032N	97.31.320	21
MU0861003160		6	MU0863L0520N	97.26.200	21	MU0870R40320	87.11.402	4	MU087600516N	97.42.150	21	MU0881000400	87.31.400	8
MU0861005160	87.16.160	6	MU0863LCAP01	87.49.686	15	MU0870R4032N	97.11.402	18	MU087600520L	87.42.170	10	MU0881000500	87.31.500	8
MU086100516N	97.16.160	19	MU0864005160	87.25.160	9	MU0870R50320	87.11.501	4	MU087600716L	87.42.160	10	MU0882005160	87.80.494	17
MU0861005180	87.16.180	6	MU086400516N	97.25.160	21	MU0870R50400	87.11.600	4	MU087600716N	97.42.160	21	MU0882005200	87.80.495	17

TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.
MU0883005160	87.36.160	10	MUG853008AA0	87.90.202	303	MUG871005160	87.83.160	28	NR0658005000	88.21.688	291	RB0181000150	96.02.231	87
MU0883005200	87.36.200	10	MUG853008AB0	87.89.201	29	MUG871005160	87.83.160	302	OR08500016000	87.44.160	17	RB0181000150	96.02.231	91
MU0883007160	87.36.161	10	MUG853008AB0	87.89.201	303	MUG871005200	87.83.200	28	OR08500018000	87.44.180	17	RB0181000160	96.02.258	87
MU0883007200	87.36.201	10	MUG853008BA0	87.90.206	29	MUG871005200	87.83.200	302	OR08500020000	87.44.200	17	RB0181000180	96.02.235	87
MU0883007260	87.36.260	10	MUG853008BA0	87.90.206	303	MUG871005260	87.83.255	28	OR08500026000	87.44.260	17	RB0181000180	96.02.235	91
MU0883010260	87.36.261	10	MUG853008DB0	87.91.201	29	MUG871005260	87.83.255	302	OR08500032000	87.44.320	17	RB0181000220	96.02.241	87
MU0883010320	87.36.320	10	MUG853008DB0	87.91.201	303	MUG871007160	87.83.165	28	OR08500040000	87.44.400	17	RB0181000220	96.02.241	91
MU0884005160	87.27.216	9	MUG853008DB0	87.89.263	29	MUG871007160	87.83.165	302	OR08500050000	87.44.500	17	RB0181000280	96.02.251	87
MU0884005200	87.27.220	9	MUG853008DB0	87.89.263	303	MUG871007200	87.83.201	28	OR08500063000	87.44.505	17	RB0181000280	96.02.251	91
MU08840CAP01		15	MUG860000160	87.85.160	29	MUG871007200	87.83.201	302	ORG8500016000	87.97.616	30	RB0181000350	96.02.254	87
MU088500014N	87.45.140	12	MUG860000160	87.85.160	303	MUG871007260	87.83.260	28	ORG8500016000	87.97.616	304	RB0181000350	96.02.254	91
MU088500016N	87.45.160	12	MUG860000200	87.85.200	29	MUG871007260	87.83.260	302	ORG8500020000	87.97.620	30	RB0181000420	96.02.255	87
MU088500018N	87.45.180	12	MUG860000200	87.85.200	303	MUG871010260	87.83.261	28	ORG8500020000	87.97.620	304	RB0181000420	96.02.255	91
MU088500020N	87.45.200	12	MUG860000260	87.85.260	29	MUG871010260	87.83.261	302	ORG8500026000	87.97.626	30	RB0181000540	96.02.256	87
MU0885000116N	87.45.161	12	MUG860000260	87.85.260	303	MUG871010320	87.83.320	28	ORG8500026000	87.97.626	304	RB0181000540	96.02.256	91
MU0886016120	87.47.055	11	MUG860000320	87.85.320	29	MUG871010320	87.83.320	302	R10157005120	77.18.073	139	RB0181005120	96.02.220	87
MU0886016150	87.47.060	11	MUG860000320	87.85.320	303	MUG87600516L	87.95.150	30	R10157005140	77.18.074	139	RB0182000080	96.02.260	87
MU0886020220	87.47.070	11	MUG861005160	87.86.160	28	MUG87600516L	87.95.150	304	R10157005160	77.18.076	139	RB0182000100	96.02.265	87
MU0886026220		11	MUG861005160	87.86.160	302	MUG87600716L	87.95.160	30	R10157005180	77.18.077	139	RB0182000120	96.02.276	87
MU0886032280		11	MUG861005200	87.86.200	28	MUG87600716L	87.95.160	304	R10157005220	77.18.078	139	RB0182000140	96.02.277	87
MU0886120220	87.47.080	11	MUG861005200	87.86.200	302	MUG87600720L	87.95.200	30	R10158005120	77.18.094	138	RB0182000150	96.02.280	87
MU0886126220	87.47.081	11	MUG861007200	87.86.201	28	MUG87600720L	87.95.200	304	R10158005140	77.18.095	138	RB0182000160	96.02.286	87
MU0886132280	87.47.082	11	MUG861007200	87.86.201	302	MUG87601026L	87.95.260	30	R10158005160	77.18.097	138	RB0182000180	96.02.288	87
MU0887005160	87.27.160	9	MUG861007260	87.86.260	28	MUG87601026L	87.95.260	304	R10158L05120	77.18.151	138	RB0182000220	96.02.290	87
MU0887005200	87.27.200	9	MUG861007260	87.86.260	302	MUG880005160	87.84.160	28	R10158L05140	77.18.152	138	RB0182000280	96.02.300	87
MU0888000160	87.49.010	11	MUG862005160	87.87.160	28	MUG880005160	87.84.160	302	R10158L05160	77.18.153	138	RB0182000350	96.02.306	87
MU0888000200	87.49.025	11	MUG862005160	87.87.160	302	MUG880005200	87.84.200	28	R10159003140	77.18.117	138	RB0182000420	96.02.307	87
MU0888008AA0	87.49.015	11	MUG862005200	87.87.200	28	MUG880005200	87.84.200	302	R10159005120	77.18.118	138	RB0182000540	96.02.308	87
MU0888008AB0	87.49.020	11	MUG862005200	87.87.200	302	MUG880005260	87.84.255	28	R10159005140	77.18.119	138	RB0233000080		91
MU088900016N	87.46.160	12	MUG862007200	87.87.201	28	MUG880005260	87.84.255	302	R10159005160	77.18.121	138	RB0233000100		91
MU088900020N	87.46.200	12	MUG862007200	87.87.201	302	MUG880007200	87.84.201	28	R10160010280	77.18.172	138	RB0233000120		91
MU089000016N	87.46.250	12	MUG862007260	87.87.260	28	MUG880007200	87.84.201	302	R10161012280	77.18.204	138	RB0233000150		91
MU089005016N		12	MUG862007260	87.87.260	302	MUG880007260	87.84.260	28	R10164005140	77.18.221	139	RB0233000180		91
MU0891005160	87.54.032	9	MUG862010260	87.87.265	28	MUG880007260	87.84.260	302	R30155003120	77.18.051	140	RB0233000220		91
MU0891005200	87.54.033	9	MUG862010260	87.87.265	302	MUG880010260	87.84.261	28	R30155003140	77.18.052	140	RB0233000280		91
MU0892003160		11	MUG862010320	87.87.320	28	MUG880010260	87.84.261	302	R30155005160	77.18.055	140	RB0233000350		91
MU0892005160		11	MUG862010320	87.87.320	302	MUG880010320	87.84.320	28	R30155007160	77.18.057	140	RB0233000420		91
MU0892005200		11	MUG8620H5160	87.87.159	28	MUG880010320	87.84.320	302	R30155007180	77.18.058	140	RB0233000540		91
MU0892007160		11	MUG8620H5160	87.87.159	302	MUG881000160	87.97.160	30	R30155007220	77.18.059	140	RB0234000100	80.01.001	90
MU0892007200		11	MUG863005160	87.94.160	30	MUG881000160	87.97.160	304	R30155010280	77.18.061	140	RB023400010C	81.06.601	92
MU0892007260		11	MUG863005160	87.94.160	304	MUG881000200	87.97.200	30	R30155012320	77.18.062	140	RB0234000120	80.01.002	90
MU0892010260		11	MUG863005200	87.94.200	30	MUG881000200	87.97.200	304	R30166005120	77.18.240	140	RB023400012C	81.06.602	92
MUG850000160	87.88.160	29	MUG863005200	87.94.200	304	MUG881000260	87.97.260	30	R30166005140	77.18.241	140	RB0234000150	80.01.018	90
MUG850000160	87.88.160	303	MUG863007200	87.94.201	30	MUG881000260	87.97.260	304	R30166005160	77.18.243	140	RB023400015C	81.06.603	92
MUG850000200	87.88.200	29	MUG863007200	87.94.201	304	NR0650005000	88.21.661	291	R30166005180	77.18.244	140	RB0234000180	80.01.020	90
MUG850000200	87.88.200	303	MUG863007260	87.94.260	30	NR0650007000	88.21.662	291	R30166007220	77.18.249	140	RB023400018C	81.06.605	92
MUG850000260	87.88.260	29	MUG863007260	87.94.260	304	NR0650010000	88.21.663	291	R30166010280	77.18.251	140	RB0234000220	80.01.118	90
MUG850000260	87.88.260	303	MUG8630H5160	87.94.161	30	NR0650012000	88.21.664	291	R30166012320	77.18.252	140	RB0234000280	80.01.218	90
MUG850000320	87.88.320	29	MUG8630H5160	87.94.161	304	NR0650015000	88.21.665	291	R30167005140	77.18.264	140	RB0234000420	80.02.718	90
MUG850000320	87.88.320	303	MUG870000160	87.81.160	28	NR0650020000	88.21.666	291	R30167005160	77.18.268	140	RB0235005150	80.03.005	90
MUG852005160	87.93.160	29	MUG870000160	87.81.160	302	NR0650025000	88.21.667	291	R30167005180	77.18.269	140	RB0235005220	80.03.006	90
MUG852005160	87.93.160	303	MUG870000200	87.81.200	28	NR0651005000	88.21.651	291	R30167007180	77.18.271	140	RB0235007220	80.03.010	90
MUG852005200	87.93.200	29	MUG870000200	87.81.200	302	NR0651007000	88.21.652	291	R30167007220	77.18.273	140	RB023600CEC0	80.02.009	90
MUG852005200	87.93.200	303	MUG870000260	87.81.260	28	NR0651010000	88.21.653	291	R30167010220	77.18.274	140	RB023600CECC	81.06.613	93
MUG852005260	87.93.260	29	MUG870000260	87.81.260	302	NR0651012000	88.21.654	291	R30167010280	77.18.275	140	RB023600ECC0	80.02.008	90
MUG852005260	87.93.260	303	MUG870000320	87.81.320	28	NR0651015000	88.21.655	291	R30167012320	77.18.276	140	RB023600ECCC	81.06.611	93
MUG852007200	87.93.201	29	MUG870000320	87.81.320	302	NR0651020000	88.21.656	291	RB0181000080	96.02.200	87	RB023600ECE0	80.02.001	90
MUG852007200	87.93.201	303	MUG870R20160	87.82.201	28	NR0657005000	88.21.681	291	RB0181000080	96.02.200	91	RB023600ECEC	81.06.610	93
MUG852007260	87.93.263	29	MUG870R20160	87.82.201	302	NR0657007000	88.21.682	291	RB0181000100	96.02.211	87	RB023600EEC0	80.02.010	90
MUG852007260	87.93.263	303	MUG870R26160	87.82.260	28	NR0657010000	88.21.683	291	RB0181000100	96.02.211	91	RB023600EECC	81.06.612	93
MUG853000ABAO	87.91.161	29	MUG870R26160	87.82.260	302	NR0657012000	88.21.684	291	RB0181000120	96.02.221	87	RB023600HEE0	80.02.118	90
MUG853000ABAO	87.91.161	303	MUG870R26200	87.82.263	28	NR0657015000	88.21.685	291	RB0181000120	96.02.221	91	RB023600HEH0	80.02.318	90
MUG853000ABAO	87.90.202	29	MUG870R26200	87.82.263	302	NR0657020000	88.21.686	291	RB0181000140	96.02.257	87	RB023600HEHC	81.06.615	93

TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.
RB023600HHE0	80.02.218	90	RB0243003100	78.02.003	88	RB0250000280	84.01.218	85	RB0262010280	83.03.217	85	RB0272003080	85.10.015	83
RB0237000100	79.01.001	89	RB024300310C	81.06.085	92	RB0250000420	84.01.718	85	RB0262012350	83.03.617	85	RB0272003100	85.10.030	83
RB023700010C	81.06.301	92	RB024300312C	81.06.090	92	RB0250005120	84.01.519	85	RB0262015420	83.03.717	85	RB0272003120	85.10.045	83
RB0237000120	79.01.002	89	RB024300312L	78.02.001	88	RB0251005150	84.04.100	86	RB0263005100	83.06.225	86	RB0272003150	85.10.065	83
RB023700012C	81.06.302	92	RB0243003150	78.02.007	88	RB0252005120	84.04.001	86	RB0263005120	83.06.230	86	RB0272005100	85.10.035	83
RB0237000150	79.01.015	89	RB024300315C	81.06.095	92	RB0252005140	84.04.110	86	RB0263005150	83.06.021	86	RB0272005120	85.10.050	83
RB023700015C	81.06.303	92	RB0243005100	78.02.004	88	RB0252005150	84.04.005	86	RB0263005160	83.06.845	86	RB0272005150	85.10.070	83
RB0237000180	79.01.018	89	RB024300510C	81.06.101	92	RB0252005160	84.04.115	86	RB0265003120	85.10.165	84	RB0272005180	85.10.080	83
RB023700018C	81.06.305	92	RB024300512C	81.06.102	92	RB0252005220	84.04.015	86	RB0265003150	85.10.175	84	RB0272005220	85.10.090	83
RB0237000220	79.01.115	89	RB024300512L	78.02.002	88	RB0252005280	84.04.020	86	RB0265005120	85.10.170	84	RB0272007150	85.10.075	83
RB023700022C	81.06.304	92	RB0243005150	78.02.011	88	RB0252007220	84.04.010	86	RB0265005150	85.10.180	84	RB0272007180	85.10.085	83
RB0237000280	79.01.215	89	RB024300515C	81.06.103	92	RB025300CEC0	84.01.928	85	RB0265005180	85.10.190	84	RB0272007220	85.10.095	83
RB0237000350	79.01.615	89	RB0243005180	78.02.005	88	RB025300ECC0	84.01.938	85	RB0265007150	85.10.185	84	RB0272010220	85.10.100	83
RB0237000420	79.01.715	89	RB024300518C	81.06.096	92	RB025300EEC0	84.01.958	85	RB0265007180	85.10.200	84	RB0272010280	85.10.110	83
RB0237000540	79.01.815	89	RB0243005220	78.02.006	88	RB025300EEC0	84.01.948	85	RB0265007220	85.10.205	84	RB028000308L	82.03.005	83
RB0238003120	79.02.716	89	RB0243007150	78.02.311	88	RB025300GEG0	84.03.918	85	RB0265010280	85.10.220	84	RB0280003100	82.03.004	83
RB023800312C	81.06.406	93	RB0243007180	78.02.009	88	RB025300HHE0	84.02.118	85	RB027000008L	82.01.345	82	RB028000312L	82.03.008	83
RB0238005100	79.02.916	89	RB0243007220	78.02.111	88	RB025300HEH0	84.02.318	85	RB0270000100	82.01.335	82	RB0280003140	82.03.015	83
RB0238005120	79.02.516	89	RB024300722C	81.06.111	92	RB025300HHE0	84.02.218	85	RB0270000120	82.01.340	82	RB0280003150	82.03.010	83
RB023800512C	81.06.405	93	RB0243007280	78.02.415	88	RB025300IHH0	84.03.968	85	RB0270000140	82.01.005	82	RB0280005100	82.03.007	83
RB0238005150	79.02.016	89	RB0243010220	78.02.411	88	RB025300IHH0	84.03.718	85	RB0270000150	82.01.010	82	RB0280005120	82.03.014	83
RB023800515C	81.06.403	93	RB0243010280	78.02.211	88	RB026000008L	83.01.415	84	RB0270000160	82.01.016	82	RB028000512L	82.03.009	83
RB0238005180	79.02.816	89	RB0243012350	78.02.611	88	RB0260000100	83.01.515	84	RB0270000180	82.01.341	82	RB0280005140	82.03.016	83
RB0238007220	79.02.116	89	RB0243015420	78.02.711	88	RB0260000120	83.01.615	84	RB0270000220	82.01.110	82	RB0280005150	82.03.012	83
RB0238010280	79.02.216	89	RB0244003100	78.03.003	89	RB0260000140	83.01.920	84	RB0270000280	82.01.210	82	RB0280005160	82.03.018	83
RB0239003120	79.03.827	89	RB024400312C	81.06.108	92	RB0260000150	83.01.015	84	RB0270000350	82.01.610	82	RB0280005180	82.03.515	83
RB0239005120	79.03.917	89	RB024400312L	78.03.001	89	RB0260000160	83.01.925	84	RB0270005120	82.01.339	82	RB0280005220	82.03.512	83
RB023900512C	81.06.505	93	RB0244003150	78.03.914	89	RB0260000180	83.01.220	84	RB0270R10080	82.01.350	83	RB0280007150	82.03.312	83
RB0239005150	79.03.017	89	RB0244005100	78.03.913	89	RB0260000220	83.01.115	84	RB0270R12100	82.01.355	83	RB0280007160	82.03.019	83
RB023900515C	81.06.503	93	RB024400510C	81.06.109	92	RB0260000280	83.01.215	84	RB0270R15080	82.01.315	83	RB0280007180	82.03.520	83
RB0239007220	79.03.117	89	RB024400512C	81.06.110	92	RB0260000350	83.01.715	84	RB0270R15100	82.01.320	83	RB0280007220	82.03.112	83
RB0239010280	79.03.217	89	RB024400512L	78.03.912	89	RB0260000420	83.01.815	84	RB0270R15120	82.01.325	83	RB0280010220	82.03.412	83
RB0239012350	79.03.617	89	RB0244005150	78.03.012	89	RB0260000540	83.01.915	84	RB0270R16150	82.01.314	83	RB0280010280	82.03.212	83
RB0239015420	79.03.717	89	RB024400515C	81.06.105	92	RB0260005120	83.01.616	84	RB0270R18150	82.01.327	83	RB0280012350	82.03.612	83
RB0240005150	80.06.021	90	RB0244005180	78.03.002	89	RB0260R15100	83.01.620	84	RB0270R22150	82.01.310	83	RB0280015420	82.03.712	83
RB024000515C	81.06.021	93	RB0244005220	78.03.915	89	RB0260R15120	83.01.625	84	RB0270R22180	82.01.318	83	RB0280020540	82.03.812	83
RB024200008L	78.01.005	88	RB0244007150	78.03.312	89	RB0260R22150	83.01.315	84	RB0270R28220	82.01.330	83	RB028100008L	82.06.551	86
RB0242000100	78.01.001	88	RB0244007180	78.03.512	89	RB0261003100	83.02.005	84	RB027100208L	82.02.006	82	RB0281000100	82.06.351	86
RB024200010C	81.06.001	92	RB0244007220	78.03.112	89	RB0261003120	83.02.006	84	RB0271002100	82.02.007	82	RB0281000120	82.06.451	86
RB0242000120	78.01.002	88	RB0244010220	78.03.412	89	RB0261005100	83.02.219	84	RB027100308L	82.02.001	82	RB0281000150	82.06.051	86
RB024200012C	81.06.002	92	RB0244010280	78.03.212	89	RB0261005120	83.02.220	84	RB0271003100	82.02.002	82	RB0281000180	82.06.661	86
RB0242000150	78.01.010	88	RB0244012350	78.03.612	89	RB0261005140	83.02.420	84	RB0271003120	82.02.013	82	RB0281000220	82.06.151	86
RB024200015C	81.06.003	92	RB0244015420	78.03.712	89	RB0261005150	83.02.016	84	RB027100312L	82.02.010	82	RB0281000280	82.06.251	86
RB0242000180	78.01.015	88	RB0244020540	78.03.812	89	RB0261005160	83.02.425	84	RB0271003140	82.02.014	82	RB028901210L	84.05.020	87
RB024200018C	81.06.005	92	RB0247000150	78.06.051	91	RB0261005180	83.02.435	84	RB0271003150	82.02.005	82	RB028901508L	84.05.025	87
RB0242000220	78.01.110	88	RB0247000220	78.06.151	91	RB0261005220	83.02.436	84	RB0271005100	82.02.003	82	RB028901512L	84.05.035	87
RB024200022C	81.06.004	92	RB024801008L	81.05.010	91	RB0261007180	83.02.440	84	RB0271005120	82.02.019	82	RB028902218L	84.05.043	87
RB0242000280	78.01.210	88	RB024801210L	81.05.006	91	RB0261007220	83.02.116	84	RB027100512L	82.02.009	82	RB028902815L	84.05.046	87
RB0242000350	78.01.610	88	RB024801510L	81.05.001	91	RB0261010220	83.02.416	84	RB0271005140	82.02.815	82	RB028902822L	84.05.047	87
RB02422R10080	78.01.003	88	RB024801512L	81.05.002	91	RB0261010280	83.02.216	84	RB0271005150	82.02.011	82	RB029000010L	81.05.300	91
RB0242R1008C	81.06.007	92	RB024801815L	81.05.007	91	RB0262003100	83.03.530	85	RB0271005160	82.02.017	82	RB029000012L	81.05.305	91
RB0242R12080	78.01.004	88	RB024802212L	81.05.008	91	RB0262003120	83.03.535	85	RB0271005180	82.02.825	82	RB029000015L	81.05.310	91
RB0242R1208C	81.06.006	92	RB024802215L	81.05.003	91	RB0262005100	83.03.525	85	RB0271005220	82.02.511	82	RB029000018L	81.05.315	91
RB0242R12100	78.01.300	88	RB024802815L	81.05.009	91	RB0262005120	83.03.540	85	RB0271007120	82.02.012	82	RB029000022L	81.05.320	91
RB0242R1210C	81.06.010	92	RB024802822L	81.05.005	91	RB0262005140	83.03.820	85	RB0271007150	82.02.311	82	RB029000028L	81.05.325	91
RB0242R15080	78.01.335	88	RB025000008L	84.01.318	85	RB0262005150	83.03.017	85	RB0271007160	82.02.018	82	RB0776000150	73.08.600	144
RB0242R15100	78.01.320	88	RB0250000100	84.01.418	85	RB0262005160	83.03.825	85	RB0271007180	82.02.830	82	RB0776000150	73.08.600	316
RB0242R1510C	81.06.012	92	RB0250000120	84.01.518	85	RB0262005180	83.03.550	85	RB0271007220	82.02.111	82	RB0776000180	73.08.605	144
RB0242R15120	78.01.305	88	RB0250000140	84.01.828	85	RB0262005220	83.03.517	85	RB0271010220	82.02.411	82	RB0776000180	73.08.605	316
RB0242R1512C	81.06.011	92	RB0250000150	84.01.018	85	RB0262007150	83.03.417	85	RB0271010280	82.02.211	82	RB0776000220	73.08.610	144
RB0242R18150	78.01.309	88	RB0250000160	84.01.838	85	RB0262007180	83.03.555	85	RB0271012350	82.02.611	82	RB0776000220	73.08.610	316
RB0242R22150	78.01.310	88	RB0250000180	84.01.918	85	RB0262007220	83.03.117	85	RB0271015420	82.02.711	82	RB0778000150	73.08.765	145
RB0242R28220	78.01.315	88	RB0250000220	84.01.118	85	RB0262010220	83.03.317	85	RB0272002120	85.10.040	83	RB0778000150	73.08.765	317

TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.
RB0778000180	73.08.770	145	RB2270000280	85.11.025	94	RF0250F10000	77.08.041	101	RF0262A10000	77.06.039	100	RF0270F12000	77.03.043	99
RB0778000180	73.08.770	317	RB2270R22150	85.11.030	94	RF0250F1000N	71.08.041	116	RF0262A1000N	71.06.039	115	RF0270F1200N	71.03.043	114
RB0778000220	73.08.775	145	RB2270R28220	85.11.035	94	RF0250F12000	77.08.042	101	RF0262A12000	77.06.040	100	RF0270F15000	77.03.044	99
RB0778000220	73.08.775	317	RB2271003120	85.12.005	94	RF0250F1200N	71.08.042	116	RF0262A1200N	71.06.040	115	RF0270F1500N	71.03.044	114
RB0782007180	73.08.630	144	RB2271005120	85.12.010	94	RF0250F15000	77.08.043	101	RF0262A15000	77.06.041	100	RF0270F20000	77.03.045	99
RB0782007180	73.08.630	316	RB2271005150	85.12.015	94	RF0250F1500N	71.08.043	116	RF0262A1500N	71.06.041	115	RF0270F2000N	71.03.045	114
RB0782007220	73.08.635	144	RB2271005180	85.12.020	94	RF0250F20000	77.08.044	101	RF0262A20000	77.06.042	100	RF0275005ST0	77.15.170	103
RB0782007220	73.08.635	316	RB2271007150	85.12.035	94	RF0250F2000N	71.08.044	116	RF0262A2000N	71.06.042	115	RF0275007000	77.15.161	103
RB0782010220	73.08.640	144	RB2271007180	85.12.040	94	RF0253F07050	77.08.050	101	RF0262B05030	77.06.050	101	RF0275007ST0	77.15.171	103
RB0782010220	73.08.640	316	RB2271007220	85.12.025	94	RF0253F0705N	71.08.050	116	RF0262B0503N	71.06.050	115	RF0275010000	77.15.162	103
RB0783005220	73.08.650	144	RB2271010220	85.12.045	94	RF0253F10050	77.08.055	101	RF0262B07050	77.06.051	101	RF0275010ST0	77.15.172	103
RB0783005220	73.08.650	316	RB2271010280	85.12.030	94	RF0253F1005N	71.08.055	116	RF0262B0705N	71.06.051	115	RF0275012ST0	77.15.173	103
RB0783007220	73.08.645	144	RB2280003120	85.13.005	94	RF0253F10070	77.08.060	101	RF0264F05000	77.08.100	102	RF0275015ST0	77.15.174	103
RB0783007220	73.08.645	316	RB2280005120	85.13.010	94	RF0253F1007N	71.08.060	116	RF0264F0500N	71.08.100	116	RF0275020ST0	77.15.175	103
RB0784007220	73.08.665	144	RB2280005150	85.13.015	94	RF0255005000	77.07.080	101	RF0266005000	77.07.020	100	RF027600500L	77.13.040	103
RB0784007220	73.08.665	316	RB2280005180	85.13.020	94	RF0255007000	77.07.085	101	RF0266007000	77.07.025	100	RF027600500N	71.13.040	114
RB0786000220	73.08.685	145	RB2280007150	85.13.035	94	RF0255010000	77.07.090	101	RF0266010000	77.07.030	100	RF0276007000	77.13.041	103
RB0786000220	73.08.685	317	RB2280007180	85.13.040	94	RF0260A01000	77.07.035	100	RF0267005000	77.06.020	100	RF027600700N	71.13.041	114
RB0787007220	73.08.705	145	RB2280007220	85.13.025	94	RF0260A02000	77.07.036	100	RF026700500C	77.26.020	118	RF0276010000	77.13.042	103
RB0787007220	73.08.705	317	RB2280010220	85.13.032	94	RF0260A0200C	77.27.036	119	RF026700500N	71.06.020	116	RF027601000N	71.13.042	114
RB2181000120	96.02.400	95	RB2280010280	85.13.030	94	RF0260A03000	77.07.037	100	RF0267007000	77.06.025	100	RF0276012000	77.13.025	103
RB2181000150	96.02.405	95	RD050700507C	41.21.005	286	RF0260A0300C	77.27.037	119	RF026700700C	77.26.025	118	RF0276015000	77.13.030	103
RB2181000180	96.02.410	95	RD050800505C	41.21.010	287	RF0260A05000	77.07.038	100	RF026700700N	71.06.025	116	RF0276020000	77.13.035	103
RB2181000220	96.02.415	95	RD050900507C	41.21.015	286	RF0260A0500C	77.27.038	119	RF0267010000	77.06.030	100	RF0277003010	77.15.005	108
RB2181000280	96.02.420	95	RD051100507C	41.21.125	286	RF0260A0500N	71.07.038	115	RF026701000N	71.06.030	116	RF027700301C	77.17.005	109
RB2182000120	96.02.425	95	RD051200507C	41.21.130	287	RF0260A07000	77.07.039	100	RF0268005000	77.07.050	102	RF0277003020	77.15.010	108
RB2182000150	96.02.430	95	RD051300510C	41.21.170	287	RF0260A0700C	77.27.039	119	RF0269005000	77.06.015	100	RF027700302C	77.17.010	109
RB2182000180	96.02.435	95	RD051400510C	41.21.180	287	RF0260A0700N	71.07.039	115	RF0269007000	77.06.016	100	RF0277003030	77.15.015	108
RB2182000220	96.02.440	95	RD051500507C	41.21.407	286	RF0260A10000	77.07.040	100	RF0269010000	77.06.017	100	RF027700303C	77.17.015	109
RB2182000280	96.02.445	95	RD051600507C	41.21.408	286	RF0260A1000N	71.07.040	115	RF0270A03000	77.01.050	98	RF0277003040	77.15.016	108
RB2250000120	85.17.005	95	RD051800507R	41.21.410	286	RF0260A12000	77.07.041	100	RF0270A0300C	77.21.050	118	RF027700304C	77.17.016	109
RB2250000150	85.17.010	95	RD051900507R	41.21.411	286	RF0260A15000	77.07.042	100	RF0270A0300N	71.01.050	114	RF0277003050	77.15.020	108
RB2250000180	85.17.015	95	RD052000507N	41.20.205	284	RF0260A20000	77.07.043	100	RF0270A05000	77.01.051	98	RF027700305C	77.17.020	109
RB2250000220	85.17.020	95	RD052200507C	41.21.308	286	RF0260F02000	77.05.040	100	RF0270A0500N	71.01.051	114	RF0277003070	77.15.021	108
RB2250000280	85.17.025	95	RD052300507R	41.21.310	286	RF0260F0200C	77.25.040	119	RF0270A05140	77.01.060	98	RF027700307C	77.17.021	109
RB2252005150	85.18.005	95	RD052400015N	41.20.135	284	RF0260F03000	77.05.041	100	RF0270A0514C	77.21.060	118	RF0277003090	77.15.025	108
RB2252005220	85.18.010	95	RF0245005000	77.10.111	106	RF0260F0300C	77.25.041	119	RF0270A0514N	71.01.060	114	RF027700309C	77.17.025	109
RB2252007220	85.18.015	95	RF0245007000	77.10.116	106	RF0260F0300N	71.05.041	115	RF0270A07000	77.01.014	98	RF0277003120	77.15.030	108
RB225300HEE0	85.17.030	95	RF0245010000	77.10.121	106	RF0260F05000	77.05.042	100	RF0270A0700N	71.01.014	114	RF0277003150	77.15.035	108
RB225300HEH0	85.17.035	95	RF0245012000	77.10.126	106	RF0260F0500C	77.25.042	119	RF0270A07190	77.01.061	98	RF0277003190	77.15.040	108
RB225300HHED	85.17.040	95	RF0245015000	77.10.127	106	RF0260F0500N	71.05.042	115	RF0270A0719C	77.21.061	118	RF0277005010	77.15.100	108
RB2260000120	85.14.005	94	RF0250A01000	77.07.091	101	RF0260F07000	77.05.043	100	RF0270A0719N	71.01.061	114	RF027700501C	77.17.100	109
RB2260000150	85.14.010	94	RF0250A02000	77.07.092	101	RF0260F0700C	77.25.043	119	RF0270A10000	77.01.052	98	RF0277005020	77.15.105	108
RB2260000180	85.14.015	94	RF0250A03000	77.07.093	101	RF0260F0700N	71.05.043	115	RF0270A1000N	71.01.052	114	RF027700502C	77.17.105	109
RB2260000220	85.14.020	94	RF0250A05000	77.07.094	101	RF0260F10000	77.05.044	100	RF0270A12000	77.01.053	98	RF0277005030	77.15.110	108
RB2260000280	85.14.025	94	RF0250A0500N	71.07.094	116	RF0260F1000N	71.05.044	115	RF0270A1200N	71.01.053	114	RF027700503C	77.17.110	109
RB2260R22150	85.14.030	94	RF0250A07000	77.07.095	101	RF0260F12000	77.05.045	100	RF0270A15000	77.01.054	98	RF0277005040	77.15.111	108
RB2261003120	85.15.005	95	RF0250A0700N	71.07.095	116	RF0260F1200N	71.05.045	115	RF0270A1500N	71.01.054	114	RF027700504C	77.17.111	109
RB2261005120	85.15.010	95	RF0250A10000	77.07.096	101	RF0260F15000	77.05.046	100	RF0270A20000	77.01.055	98	RF0277005050	77.15.115	108
RB2261005150	85.15.015	95	RF0250A1000N	71.07.096	116	RF0260F1500N	71.05.046	115	RF0270A2000N	71.01.055	114	RF027700505C	77.17.115	109
RB2261007220	85.15.025	95	RF0250A12000	77.07.097	101	RF0260F20000	77.05.047	100	RF0270F02000	77.03.040	99	RF0277005070	77.15.116	108
RB2261010280	85.15.030	95	RF0250A15000	77.07.098	101	RF0260F2000N	71.05.047	115	RF0270F0200C	77.23.040	118	RF027700507C	77.17.116	109
RB2262003120	85.16.005	95	RF0250A20000	77.07.099	101	RF0262A02000	77.06.035	100	RF0270F03000	77.03.041	99	RF0277005090	77.15.120	108
RB2262005120	85.16.010	95	RF0250F02000	77.08.037	101	RF0262A0200C	77.26.035	119	RF0270F0300C	77.23.041	118	RF027700509C	77.17.120	109
RB2262005150	85.16.015	95	RF0250F0200C	77.28.037	119	RF0262A03000	77.06.036	100	RF0270F0300N	71.03.041	114	RF0277005110	77.15.121	108
RB2262005180	85.16.020	95	RF0250F03000	77.08.038	101	RF0262A0300C	77.26.036	119	RF0270F05000	77.03.046	99	RF027700511C	77.17.121	109
RB2262007150	85.16.040	95	RF0250F0300C	77.28.038	119	RF0262A0300N	71.06.036	115	RF0270F0500C	77.23.046	118	RF0277005150	77.15.125	108
RB2262007220	85.16.025	95	RF0250F05000	77.08.039	101	RF0262A05000	77.06.037	100	RF0270F0500N	71.03.046	114	RF027700515C	77.17.125	109
RB2262010280	85.16.030	95	RF0250F0500C	77.28.039	119	RF0262A0500C	77.26.037	119	RF0270F07000	77.03.047	99	RF0277005170	77.15.126	108
RB2270000120	85.11.005	94	RF0250F0500N	71.08.039	116	RF0262A0500N	71.06.037	115	RF0270F0700C	77.23.047	118	RF0277005190	77.15.127	108
RB2270000150	85.11.010	94	RF0250F07000	77.08.040	101	RF0262A07000	77.06.038	100	RF0270F0700N	71.03.047	114	RF027700519C	77.17.128	109
RB2270000180	85.11.015	94	RF0250F0700C	77.28.040	119	RF0262A0700C	77.26.038	119	RF0270F10000	77.03.042	99	RF0277007010	77.15.200	108
RB2270000220	85.11.020	94	RF0250F0700N	71.08.040	116	RF0262A0700N	71.06.038	115	RF0270F1000N	71.03.042	114	RF027700701C	77.17.200	109

TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.
RF0277007020	77.15.205	108	RF0278010110	77.16.225	110	RF0287020150	77.14.184	98	RF0294012100	77.03.094	99	RM022900505N	88.16.501	280
RF027700702C	77.17.205	109	RF0278010130	77.16.226	110	RF028702015N	71.14.184	114	RF029401210N	71.03.094	115	RM055000014N	88.04.519	40
RF0277007030	77.15.210	108	RF0278010150	77.16.230	110	RF028800200L	77.12.005	102	RF0294015100		99	RM055000016N	88.04.515	40
RF027700703C	77.17.210	109	RF0278010170	77.16.231	110	RF028800300L	77.12.006	102	RF0294015120		99	RM055000018N	88.04.530	40
RF0277007040	77.15.211	108	RF0278010210	77.16.235	110	RF028800300N	71.12.006	116	RF0295005020	77.04.035	99	RM055000020N	88.04.535	40
RF027700704C	77.17.211	109	RF0278010250	77.16.236	110	RF0288005000	77.12.010	102	RF0295005030	77.04.073	99	RM055000026N	88.04.540	40
RF0277007050	77.15.215	108	RF0278010290	77.16.240	110	RF028800500N	71.12.010	116	RF029500503C	77.24.073	119	RM055000051N	88.04.536	40
RF027700705C	77.17.215	109	RF0285007030	77.14.020	99	RF0288007000	77.12.015	102	RF029500503N	71.04.073	115	RM055000056N	88.04.516	40
RF0277007070	77.15.216	108	RF0285007050	77.14.025	99	RF028800700N	71.12.015	116	RF0295007050	77.04.070	99	RM055000500N	88.01.200	35
RF027700707C	77.17.216	109	RF028500705N		114	RF0288010000	77.12.020	102	RF029500705C	77.24.070	119	RM055000700N	88.01.205	35
RF0277007090	77.15.220	108	RF0285010050	77.14.030	99	RF028801000N	71.12.020	116	RF029500705N	71.04.070	115	RM055000X16N	88.04.520	40
RF027700709C	77.17.220	109	RF028501005N		114	RF0288012000	77.12.026	102	RF0295010050	77.04.071	99	RM055001000N	88.01.210	35
RF0277007110	77.15.221	108	RF0285010070	77.14.035	99	RF028801200N	71.12.026	116	RF029501005N	71.04.071	115	RM055100505N	88.01.280	35
RF027700711C	77.17.221	109	RF028501007N		114	RF0288015000	77.12.031	102	RF0295010070	77.04.072	99	RM055100516N	88.04.715	40
RF0277007150	77.15.225	108	RF0285012050	77.14.040	99	RF028801500N	71.12.031	116	RF029501007N	71.04.072	115	RM055100707N	88.01.285	35
RF027700715C	77.17.225	109	RF0285012070	77.14.045	99	RF0288020000	77.12.035	102	RF0295012050	77.04.045	99	RM055100716N	88.04.720	40
RF0277007190	77.15.235	108	RF0285012100	77.14.050	99	RF0291002010	77.02.005	98	RF0295012070	77.04.050	99	RM055100720N	88.04.735	40
RF027700719C	77.17.235	109	RF0285015070	77.14.060	99	RF0291003020	77.02.010	98	RF0295012100	77.04.055	99	RM055100726N	88.04.740	40
RF0277010010	77.15.300	108	RF0285015100	77.14.065	99	RF0291005030	77.02.080	98	RF0295015100	77.04.060	99	RM055101010N	88.01.295	35
RF027701001C	77.17.300	109	RF0286003000	77.13.043	102	RF029100503C	77.22.080	118	RF0295015120	77.04.065	99	RM055101026N	88.04.760	40
RF0277010020	77.15.305	108	RF028600300N	71.13.043	116	RF029100503N	71.02.080	114	RF061700700N	88.20.562	192	RM055200505N	88.01.250	35
RF027701002C	77.17.305	109	RF0286005000	77.13.044	102	RF0291007050	77.02.081	98	RF061701000N	88.20.563	192	RM055200507N	88.01.270	35
RF0277010030	77.15.310	108	RF028600500N	71.13.044	116	RF029100705C	77.22.081	118	RF064601005N	88.20.526	193	RM055200514N	88.04.619	40
RF027701003C	77.17.310	109	RF0286007000	77.13.045	102	RF029100705N	71.02.081	114	RF064701003N	88.20.527	191	RM055200516N	88.04.615	40
RF0277010040	77.15.311	108	RF028600700N	71.13.045	116	RF0291010050	77.02.026	98	RF073600707N	88.03.010	193	RM055200517N	88.04.625	40
RF027701004C	77.17.311	109	RF0286010000	77.13.046	102	RF0291010070	77.02.082	98	RF0751007770	77.18.310	104	RM055200518N	88.04.630	40
RF0277010050	77.15.315	108	RF028601000N	71.13.046	116	RF029101007N	71.02.082	114	RF0752007370	77.18.315	104	RM055200520N	88.04.635	40
RF027701005C	77.17.315	109	RF0286012000	77.13.047	102	RF0291012050	77.02.035	98	RF0753005770	77.18.330	104	RM055200551N	88.04.636	40
RF0277010070	77.15.318	108	RF028601200N	71.13.047	116	RF0291012070	77.02.040	98	RF0754007770	77.18.320	104	RM055200556N	88.04.616	40
RF027701007C	77.17.318	109	RF0286015000	77.13.048	102	RF0291012100	77.02.083	98	RF0755007770	77.18.335	104	RM055200707N	88.01.255	35
RF0277010090	77.15.320	108	RF028601500N	71.13.048	116	RF029101210N	71.02.083	114	RF0756007770	77.18.325	104	RM055200710N	88.01.265	35
RF027701009C	77.17.320	109	RF0286020000	77.13.049	102	RF0291015070	77.02.045	98	RF0757005770	77.18.340	104	RM055200716N	88.04.640	40
RF0277010110	77.15.321	108	RF028602000N	71.13.049	116	RF0291015100	77.02.050	98	RF0761005050	77.18.345	105	RM055200718N	88.04.650	40
RF027701011C	77.17.321	109	RF0287002010	77.14.170	98	RF0291015120	77.02.084	98	RF0761007070	77.18.346	105	RM055200720N	88.04.655	40
RF0277010150	77.15.323	108	RF0287003020	77.14.171	98	RF029101512N	71.02.084	114	RF0762005050	77.18.360	105	RM055200726N	88.04.660	40
RF027701015C	77.17.323	109	RF028700302C	77.24.171	118	RF0291020100	77.02.060	98	RF0762005070	77.18.361	105	RM055200751N	88.04.656	40
RF0277010190	77.15.330	108	RF0287005010	77.14.172	98	RF0291020120	77.02.065	98	RF0762007070	77.18.362	105	RM055201010N	88.01.260	35
RF027701019C	77.17.330	109	RF028700501N	71.14.172	114	RF0291020150	77.02.085	98	RF0770005050	77.18.350	105	RM055201026N	88.04.680	40
RF0278005050	77.16.010	110	RF0287005020	77.14.173	98	RF029102015N	71.02.085	114	RF0770007070	77.18.351	105	RM055201032N	88.04.685	40
RF0278005070	77.16.015	110	RF028700502C	77.24.173	118	RF0292005100	77.15.150	102	RF0770010070	77.18.352	105	RM05520X516N	88.04.620	40
RF0278005090	77.16.020	110	RF028700502N	71.14.173	114	RF029200510N	71.15.150	115	RF0770010100	77.18.353	105	RM05520X556N	88.04.621	40
RF0278005110	77.16.025	110	RF0287005030	77.14.174	98	RF0292005150	77.15.151	102	RF077700500L	73.08.900	145	RM055300ABAN	88.04.444	40
RF0278005130	77.16.026	110	RF028700503C	77.24.174	118	RF029200515N	71.15.151	115	RF077700500L	73.08.900	317	RM055300BAAN	88.04.558	40
RF0278005150	77.16.030	110	RF028700503N	71.14.174	114	RF0292005200	77.15.152	102	RF0777007000	73.08.905	145	RM055300BABN	88.04.560	40
RF0278005170	77.16.031	110	RF0287007030	77.14.105	98	RF029200520N	71.15.152	115	RF0777007000	73.08.905	317	RM055300BBAN	88.04.566	40
RF0278005210	77.16.035	110	RF0287007050	77.14.175	98	RF0292005250	77.15.153	102	RF0777010000	73.08.910	145	RM055300BCBN	88.04.565	40
RF0278005230	77.16.036	110	RF028700705C	77.24.175	118	RF029200525N	71.15.153	115	RF0777010000	73.08.910	317	RM055300CACN	88.04.555	40
RF0278005290	77.16.040	110	RF028700705N	71.14.175	114	RF0292005300	77.15.154	102	RF0779005000	73.08.570	145	RM055300DADN	88.04.580	40
RF0278005390	77.16.045	110	RF0287010050	77.14.177	98	RF029200530N	71.15.154	115	RF0779005000	73.08.570	317	RM055300DBDN	88.04.590	40
RF0278007050	77.16.110	110	RF028701005N	71.14.177	114	RF0293003000	77.12.150	102	RF0779007000	73.08.575	145	RM0556000014N	88.04.019	39
RF0278007070	77.16.115	110	RF0287010070	77.14.178	98	RF0293005000	77.12.151	102	RF0779007000	73.08.575	317	RM056000016N	88.04.015	39
RF0278007090	77.16.120	110	RF028701007N	71.14.178	114	RF0293007000	77.12.152	102	RF0779010000	73.08.580	145	RM056000017N	88.04.025	39
RF0278007110	77.16.125	110	RF0287012050	77.14.125	98	RF0293010000	77.12.153	102	RF0779010000	73.08.580	317	RM056000018N	88.04.030	39
RF0278007130	77.16.126	110	RF0287012070	77.14.179	98	RF0294005030		99	RF0935007050	77.08.070	101	RM056000020N	88.04.035	39
RF0278007150	77.16.130	110	RF028701207N	71.14.179	114	RF0294007050	77.03.091	99	RF0950007050	77.08.065	101	RM056000026N	88.04.045	39
RF0278007170	77.16.131	110	RF0287012100	77.14.180	98	RF029400705C	77.23.091	119	RG050000500N	41.32.435	285	RM056000032N	88.04.050	39
RF0278007210	77.16.135	110	RF028701210N	71.14.180	114	RF029400705N	71.03.091	115	RG0500005ABN	41.32.436	285	RM056000051N	88.04.036	39
RF0278007220	77.16.136	110	RF0287015070	77.14.181	98	RF0294010050	77.03.092	99	RG0500005PBN	41.32.438	285	RM056000500N	88.01.100	34
RF0278007290	77.16.140	110	RF0287015100	77.14.182	98	RF029401005N	71.03.092	115	RG050001000N	41.32.445	285	RM056000700N	88.01.105	34
RF0278007390	77.16.145	110	RF0287015120	77.14.183	98	RF0294010070	77.03.093	99	RG050001200N	41.32.450	285	RM056000X16N	88.04.020	39
RF0278010050	77.16.210	110	RF028701512N	71.14.183	114	RF029401007N	71.03.093	115	RG0548005070	41.21.100	285	RM056001000N	88.01.110	34
RF0278010070	77.16.215	110	RF0287020100	77.14.155	98	RF0294012050		99	RG054800507N	41.21.101	285	RM056100505N	88.01.115	34
RF0278010090	77.16.220	110	RF0287020120	77.14.160	98	RF0294012070		99	RM022900305N	88.16.500	280	RM056100507N	88.01.130	34

TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.
RM056100514N	88.04.119	39	RM057000017N	88.03.425	37	RM058100016N	87.31.605	38	RM3550000200	87.98.165	53	RP0080005200	73.22.100	125
RM056100516N	88.04.115	39	RM057000018N	88.03.430	37	RM058100020N	87.31.615	38	RM355300BAA0	87.98.175	53	RP0080005250	73.22.101	125
RM056100517N	88.04.125	39	RM057000020N	88.03.435	37	RM058100026N	87.31.620	38	RM355300BAB0	87.98.170	53	RP0080007250	73.22.102	125
RM056100518N	88.04.130	39	RM057000026N	88.03.445	37	RM255000016N	88.01.755	47	RM3560000160	87.98.070	52	RP0080007320	73.22.103	125
RM056100520N	88.04.135	39	RM057000051N	88.03.436	37	RM255000020N	88.01.760	47	RM3560000200	87.98.075	52	RP0080010320	73.22.104	125
RM056100551N	88.04.136	39	RM057000056N	88.03.416	37	RM255000026N	88.01.765	47	RM3561005160	87.98.100	52	RP0080012400	73.22.105	125
RM056100556N	88.04.116	39	RM057000500N	88.01.005	34	RM255000032N	88.01.780	47	RM3561007200	87.98.110	52	RP0080015500	73.22.106	125
RM056100707N	88.01.120	34	RM057000700N	88.01.010	34	RM255100516N	88.01.855	47	RM3562005160	87.98.120	52	RP0080020630	73.22.107	125
RM056100710N	88.01.135	34	RM057000X16N	88.03.420	37	RM255100720N	88.01.860	47	RM35630C5160	87.98.220	53	RP0350000200	73.24.005	132
RM056100716N	88.04.140	39	RM057000X56N	88.03.421	37	RM255100726N	88.01.865	47	RM3570000160	87.98.005	52	RP0350000250	73.24.006	132
RM056100717N	88.04.145	39	RM057001000N	88.01.015	34	RM255101026N	88.01.870	47	RM3570000200	87.98.010	52	RP0350000320	73.24.007	132
RM056100718N	88.04.150	39	RM0570R1816N	88.03.840	37	RM255200516N	88.01.905	47	RM3571005160	87.98.025	52	RP0351007250	73.24.011	132
RM056100720N	88.04.155	39	RM0570R2016N	88.03.855	37	RM255200520N	88.01.930	47	RM3571005200	87.98.030	52	RP0351010320	73.24.012	132
RM056100726N	88.04.160	39	RM0570R2017N	88.03.860	37	RM255200720N	88.01.910	47	RM3571007160	87.98.040	52	RP0352005200	73.24.015	132
RM056100751N	88.04.156	39	RM0570R2018N	88.03.865	37	RM255200726N	88.01.915	47	RM3580005160	87.98.050	52	RP0352007250	73.24.016	132
RM056101010N	88.01.125	34	RM057100505N	88.01.020	34	RM255201026N	88.01.920	47	RM3580005200	87.98.055	52	RP0352010320	73.24.017	132
RM056101026N	88.04.180	39	RM057100507N	88.01.021	34	RM255201032N	88.01.925	47	RM3580007200	87.98.060	52	RP0360000200	73.24.020	132
RM056101032N	88.04.185	39	RM057100514N	88.03.519	37	RM255300BAAN	88.01.775	47	RM3581000160	87.98.235	53	RP0360000250	73.24.021	132
RM05610X516N	88.04.120	39	RM057100516N	88.03.515	37	RM255300BABN	88.01.770	47	RM3581000200	87.98.240	53	RP0360000320	73.24.022	132
RM05610X556N	88.04.121	39	RM057100517N	88.03.525	37	RM255300BBAN	88.01.776	47	RP0052005200	73.22.025	124	RP0360000400	73.24.023	132
RM056200505N	88.01.150	35	RM057100518N	88.03.530	37	RM255400016N	88.01.950	47	RP0052007250	73.22.026	124	RP0360000500	73.24.024	132
RM056200507N	88.01.165	35	RM057100520N	88.03.535	37	RM255400020N	88.01.955	47	RP0052010320	73.22.027	124	RP0361005200	73.24.030	132
RM056200514N	88.04.219	39	RM057100551N	88.03.536	37	RM256000016N	88.01.580	46	RP0052012400	73.22.028	124	RP0361007250	73.24.031	132
RM056200516N	88.04.215	39	RM057100556N	88.03.516	37	RM256000020N	88.01.585	46	RP0052015500	73.22.029	124	RP0361010320	73.24.032	132
RM056200517N	88.04.225	39	RM057100707N	88.01.025	34	RM256000026N	88.01.590	46	RP0052020630	73.22.030	124	RP0361012400	73.24.033	132
RM056200518N	88.04.230	39	RM057100710N	88.01.030	34	RM256100516N	88.01.605	46	RP0060000200	73.22.035	124	RP0361015500	73.24.034	132
RM056200520N	88.04.235	39	RM057100716N	88.03.540	37	RM256100520N	88.01.612	46	RP0060000250	73.22.036	124	RP0362005200	73.24.040	132
RM056200551N	88.04.236	39	RM057100718N	88.03.550	37	RM256100716N	88.01.610	46	RP0060000320	73.22.037	124	RP0362007250	73.24.041	132
RM056200556N	88.04.216	39	RM057100720N	88.03.555	37	RM256100720N	88.01.615	46	RP0060000400	73.22.038	124	RP0362010320	73.24.042	132
RM056200707N	88.01.155	35	RM057100726N	88.03.560	37	RM256100726N	88.01.620	46	RP0060000500	73.22.039	124	RP0362012400	73.24.043	132
RM056200710N	88.01.170	35	RM057100751N	88.03.556	37	RM256101026N	88.01.625	46	RP0060000630	73.22.040	124	RP0362015500	73.24.044	132
RM056200716N	88.04.240	39	RM057101010N	88.01.035	34	RM256200516N	88.01.655	47	RP0061005200	73.22.045	124	RP0363005200	73.24.070	133
RM056200718N	88.04.250	39	RM057101026N	88.03.580	37	RM256200520N	88.01.665	47	RP0061007250	73.22.046	124	RP0363005250	73.24.071	133
RM056200720N	88.04.255	39	RM057101032N	88.03.585	37	RM256200716N	88.01.660	47	RP0061010320	73.22.047	124	RP0363007250	73.24.072	133
RM056200726N	88.04.260	39	RM05710X516N	88.03.520	37	RM256200720N	88.01.670	47	RP0061012400	73.22.048	124	RP0364007250	73.24.100	132
RM056200751N	88.04.256	39	RM05710X556N	88.03.521	37	RM256200726N	88.01.675	47	RP0061015500	73.22.049	124	RP0364010320	73.24.102	132
RM056201010N	88.01.160	35	RM0572005070	88.01.037	34	RM256201026N	88.01.680	47	RP0061020630	73.22.050	124	RP0370000200	73.24.050	133
RM056201026N	88.04.280	39	RM057200507N	88.01.038	34	RM256300516N	88.01.705	47	RP0062005200	73.22.055	125	RP0370000250	73.24.051	133
RM056201032N	88.04.285	39	RM057200516N	88.03.610	38	RM256300520N	88.01.715	47	RP0062007250	73.22.056	125	RP0370000320	73.24.052	133
RM05620X516N	88.04.220	39	RM057200517N	88.03.625	38	RM256300716N	88.01.710	47	RP0062010320	73.22.057	125	RP0370000400	73.24.053	133
RM05620X556N	88.04.221	39	RM057200520N	88.03.635	38	RM256300720N	88.01.720	47	RP0062012400	73.22.058	125	RP0370L00250	73.24.061	133
RM056300505N	88.01.300	35	RM05720X516N	88.03.620	38	RM257000016N	88.01.405	46	RP0062015500	73.22.059	125	RP0370L00320	73.24.062	133
RM056300507N	88.01.310	35	RM058000505N	88.01.045	34	RM257000020N	88.01.410	46	RP0062020630	73.22.060	125	RP0370L00400	73.24.063	133
RM056300514N	88.04.319	39	RM058000507N	88.01.065	34	RM257000026N	88.01.415	46	RP0070000200	73.22.065	125	RP0370L00500	73.24.064	133
RM056300516N	88.04.315	39	RM058000514N	88.03.714	38	RM257000032N	88.01.420	46	RP0070000250	73.22.066	125	RP0371005200	73.24.075	133
RM056300517N	88.04.325	39	RM058000516N	88.03.710	38	RM2570R2016N	88.01.425	46	RP0070000320	73.22.067	125	RP0371005250	73.24.076	133
RM056300518N	88.04.330	39	RM058000517N	88.03.720	38	RM257100516N	88.01.450	46	RP0070000400	73.22.068	125	RP0371007250	73.24.077	133
RM056300520N	88.04.335	39	RM058000518N	88.03.725	38	RM257100520N	88.01.460	46	RP0070000500	73.22.069	125	RP0371007320	73.24.078	133
RM056300551N	88.04.336	39	RM058000520N	88.03.730	38	RM257100716N	88.01.455	46	RP0070000630	73.22.070	125	RP0371010250	73.24.079	133
RM056300556N	88.04.316	39	RM058000551N	88.03.731	38	RM257100720N	88.01.465	46	RP0070L00200	73.22.075	125	RP0371010320	73.24.080	133
RM056300707N	88.01.305	35	RM058000556N	88.03.711	38	RM257100726N	88.01.466	46	RP0070L00320	73.22.077	125	RP0371012400	73.24.081	133
RM056300716N	88.04.350	39	RM058000707N	88.01.050	34	RM257101026N	88.01.470	46	RP0070L00400	73.22.078	125	RP0371015500	73.24.082	133
RM056300717N	88.04.355	39	RM058000710N	88.01.055	34	RM257101032N	88.01.475	46	RP0070L00500	73.22.079	125	RP0380005200	73.24.085	133
RM056300720N	88.04.365	39	RM058000716N	88.03.735	38	RM257200516N	88.01.451	46	RP0070R25200	73.22.085	125	RP0380005250	73.24.086	133
RM05630X516N	88.04.320	39	RM058000718N	88.03.745	38	RM257200520N	88.01.461	46	RP0070R32250	73.22.086	125	RP0380007250	73.24.087	133
RM05630X556N	88.04.321	39	RM058000720N	88.03.750	38	RM258000516N	88.01.505	46	RP0071005200	73.22.090	125	RP0380007320	73.24.088	133
RM056S5TAF01	88.03.200	41	RM058000726N	88.03.755	38	RM258000520N	88.01.515	46	RP0071005250	73.22.091	125	RP0380010250	73.24.089	133
RM0566007050	88.03.205	41	RM058000751N	88.03.751	38	RM258000716N	88.01.510	46	RP0071007250	73.22.092	125	RP0380010320	73.24.090	133
RM0567007050	88.03.206	41	RM058001010N	88.01.060	34	RM258000720N	88.01.520	46	RP0071007320	73.22.093	125	RP0380012400	73.24.091	133
RM0568007050	88.03.210	41	RM058001026N	88.03.775	38	RM258000726N	88.01.525	46	RP0071010320	73.22.094	125	RP0380015500	73.24.092	133
RM0569005160	88.03.220	41	RM058001032N	88.03.780	38	RM258001026N	88.01.530	46	RP0071012400	73.22.095	125	RP0383007250	73.24.095	132
RM057000014N	88.03.419	37	RM05800X516N	88.03.715	38	RM258001032N	88.01.535	46	RP0071015500	73.22.096	125	RP0G05005IN0	73.23.130	130
RM057000016N	88.03.415	37	RM05800X556N	88.03.716	38	RM3550000160	87.98.160	53	RP0071020630	73.22.097	125	RP0G05007IN0	73.23.131	130

TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.
RPOG05010IN0	73.23.132	130	RPR060000320	73.21.037	126	RT0126003MT0	77.09.005	106	TH010501000N	88.16.021	260	TU0MU1620010	87.80.180	59
RPOG05012IN0	73.23.133	130	RPR061005200	73.21.045	126	RT0126005000	77.09.055	106	TH0105E0500N	88.16.086	264	TU0MU1620020	87.80.181	59
RPOG05015IN0	73.23.134	130	RPR061007250	73.21.046	126	RT012600500N	71.09.055	117	TH0105R0300N	88.16.052	262	TU0MU1620040	87.80.010	58
RPOG05020000	73.22.130	130	RPR061010320	73.21.047	126	RT0126005GU0	77.09.105	106	TH0105R0500N	88.16.053	262	TU0MU1620050	87.80.009	58
RPOG05020IN0		130	RPR061012400	73.21.048	126	RT0126005GUN	71.09.105	117	TH010600300N	88.16.025	261	TU0MU1620060	87.80.008	58
RPOG05020NBR	73.21.120	130	RPR061015500	73.21.049	126	RT0126005MT0	77.09.010	106	TH010600500N	88.16.026	261	TU0MU16200CB	87.80.310	62
RPOG05020RES	73.21.130	130	RPR062005200	73.21.055	127	RT0126007000	77.09.060	106	TH010600700N	88.16.027	261	TU0MU16200CR	87.80.210	62
RPOG05025000	73.22.131	130	RPR062007250	73.21.056	127	RT012600700N	71.09.060	117	TH0106007V0N	88.21.309	266	TU0MU1620B00	87.80.110	58
RPOG05025NBR	73.21.121	130	RPR062010320	73.21.057	127	RT0126007GU0	77.09.110	106	TH010601000N	88.16.024	261	TU0MU1620B10	87.80.195	59
RPOG05025RES	73.21.131	130	RPR062012400	73.21.058	127	RT0126007GUN	71.09.110	117	TH0106E0500N	88.16.096	264	TU0MU1622500	87.80.012	58
RPOG05032000	73.22.132	130	RPR062015500	73.21.059	127	RT0126007MT0	77.09.015	106	TH0106R0300N	88.16.070	263	TU0MU162250V	87.80.361	60
RPOG05032NBR	73.21.122	130	RPR070000200	73.21.065	127	RT0126010000	77.09.065	106	TH0106R0500N	88.16.071	263	TU0MU1820000	87.80.015	58
RPOG05032RES	73.21.132	130	RPR070000250	73.21.066	127	RT012601000N	71.09.065	117	TH010700500N	88.16.041	261	TU0MU182000V	87.80.365	60
RPOG05040000	73.22.133	130	RPR070000320	73.21.067	127	RT0126010GU0	77.09.115	106	TH0110000000	88.21.401	266	TU0MU2020000	87.80.020	58
RPOG05040NBR	73.21.123	130	RPR070000400	73.21.068	127	RT0126010GUN	71.09.115	117	THJ10500300N	88.16.004	260	TU0MU202000B	87.80.345	60
RPOG05040RES	73.21.133	130	RPR070000500	73.21.069	127	RT0126010MT0	77.09.020	106	THJ10500500N	88.16.005	260	TU0MU202000D	87.80.335	62
RPOG05050000	73.22.134	130	RPR070L00200	73.21.075	127	RT0126012000	77.09.070	106	THJ105E0500N	88.16.085	264	TU0MU202000M	87.80.351	61
RPOG05050NBR	73.21.124	130	RPR070L00320	73.21.077	127	RT012601200N	71.09.070	117	THJ105R0300N	88.16.049	262	TU0MU202000R	87.80.346	60
RPOG05050RES	73.21.134	130	RPR070L00400	73.21.078	127	RT0126012GU0	77.09.120	106	THJ105R0500N	88.16.050	262	TU0MU202000V	87.80.370	60
RPOG05063000	73.22.135	130	RPR070L00500	73.21.079	127	RT0126012MT0	77.09.025	106	THJ10600300N	88.16.022	261	TU0MU202000W	87.80.384	60
RPOG05063NBR	73.21.125	130	RPR070R25200	73.21.085	127	RT0126015000	77.09.075	106	THJ10600500N	88.16.023	261	TU0MU2020010	87.80.183	59
RPI050000200	73.23.005	128	RPR070R32250	73.21.086	127	RT0126015GU0	77.09.125	106	THJ106R0300N	88.16.067	263	TU0MU2020020	87.80.184	59
RPI050000250	73.23.006	128	RPR071005200	73.21.090	127	RT0126020000	77.09.080	106	THJ106R0500N	88.16.068	263	TU0MU2020030	87.80.023	58
RPI050000320	73.23.007	128	RPR071005250	73.21.091	127	RT0126020GU0	77.09.130	106	THJ10700500N	88.16.040	261	TU0MU20200CB	87.80.320	62
RPI052005200	73.23.025	128	RPR071007250	73.21.092	127	RT0127003000	77.11.050	107	THY105003V0N	88.21.298	266	TU0MU20200CR	87.80.220	62
RPI052007250	73.23.026	128	RPR071007320	73.21.093	127	RT012700300N	71.11.050	117	THY105005V0N	88.21.303	266	TU0MU2020B00	87.80.120	58
RPI052010320	73.23.027	128	RPR071010320	73.21.094	127	RT0127003MT0	77.11.005	107	THY105R03M0C	88.16.170	265	TU0MU2020B10	87.80.196	59
RPI060000200	73.23.035	128	RPR071012400	73.21.095	127	RT0127005000	77.11.055	107	THY105R03MCC	88.16.180	265	TU0MU2025000	87.80.025	58
RPI060000250	73.23.036	128	RPR071015500	73.21.096	127	RT012700500N	71.11.055	117	THY105R03V0N	88.21.252	267	TU0MU202500V	87.80.371	60
RPI060000320	73.23.037	128	RPR080005200	73.21.100	127	RT0127005GU0	77.11.105	107	THY105R05M0C	88.16.171	265	TU0MU2630000	87.80.035	58
RPI061005200	73.23.045	128	RPR080005250	73.21.101	127	RT0127005GUN	71.11.105	117	THY105R05MCC	88.16.181	265	TU0MU263000B		60
RPI061007250	73.23.046	128	RPR080007250	73.21.102	127	RT0127005MT0	77.11.010	107	THY105R05V0N	88.21.253	267	TU0MU263000M	87.80.352	61
RPI061010320	73.23.047	128	RPR080007320	73.21.103	127	RT0127007000	77.11.060	107	THY106003V0N	88.21.308	266	TU0MU263000R		60
RPI062005200	73.23.055	129	RPR080010320	73.21.104	127	RT012700700N	71.11.060	117	THY106005V0N	88.21.313	266	TU0MU263000V	87.80.375	60
RPI062007250	73.23.056	129	RPR080012400	73.21.105	127	RT0127007GU0	77.11.110	107	THY106R03V0N	88.21.262	267	TU0MU263000W	87.80.386	60
RPI062010320	73.23.057	129	RPR080015500	73.21.106	127	RT0127007GUN	71.11.110	117	THY106R05V0N	88.21.263	267	TU0MU2630B00	87.80.130	58
RPI062012400	73.23.058	129	RT0125003000	77.10.050	107	RT0127007MT0	77.11.015	107	TU0GU162000N	87.80.070	63	TU0MU2630B10	87.80.197	59
RPI070000200	73.23.065	129	RT012500300N	71.10.050	117	RT0127010000	77.11.065	107	TU0GU202000N	87.80.071	63	TU0MU3230000	87.80.040	58
RPI070000250	73.23.066	129	RT0125003MT0	77.10.005	107	RT0127010GU0	77.11.115	107	TU0ME162001B	87.80.291	61	TU0MU323000V	87.80.387	60
RPI070000320	73.23.067	129	RT0125005000	77.10.055	107	RT0127010GUN	71.11.115	117	TU0ME162001R	87.80.292	61	TU0MU32300B0	87.80.135	58
RPI070000400	73.23.068	129	RT012500500N	71.10.055	117	RT0127010MT0	77.11.020	107	TU0ME162002B	87.80.299	61	TU0MU4035B00	87.80.140	58
RPI070000500	73.23.069	129	RT0125005GU0	77.10.105	107	RT0127012000	77.11.074	107	TU0ME162002R	87.80.300	61	TU0MU5040B00	87.80.145	58
RPI070R25200	73.23.085	129	RT0125005GUN	71.10.105	117	RT0127012MT0	77.11.029	107	TU0ME202001B	87.80.293	61	TU0MU6360B00	87.80.151	58
RPI070R32250	73.23.086	129	RT0125005MT0	77.10.010	107	SP011300200N	88.16.115	267	TU0ME202001R	87.80.294	61	TU0MU7550B00		58
RPI071005200	73.23.090	129	RT0125007000	77.10.060	107	SP011300300N	88.16.116	267	TU0ME202002B	87.80.301	61	TU0PE1720000	87.80.395	63
RPI071007250	73.23.092	129	RT012500700N	71.10.060	117	SP011300500N	88.16.117	267	TU0ME202002R	87.80.302	61	TU0PE1720010	87.80.396	63
RPI071010320	73.23.094	129	RT0125007GU0	77.10.110	107	SP011400300N	88.20.521	194	TU0ME263001B	87.80.295	61	TU1MU1013000	87.80.398	63
RPI071012400	73.23.095	129	RT0125007GUN	71.10.110	117	SP011400500N	88.20.520	192	TU0ME263001R	87.80.296	61	TU1MU1013010	87.80.397	63
RPI071015500	73.23.096	129	RT0125007MT0	77.10.015	107	SP0151000140	77.18.007	139	TU0ME263002B	87.80.303	61	TU1MU1213000	87.80.393	63
RPI080005200	73.23.100	129	RT0125010000	77.10.065	107	SP0151000160	77.18.008	139	TU0ME263002R	87.80.304	61	TU1MU1213010	87.80.392	63
RPI080007250	73.23.102	129	RT012501000N	71.10.065	117	SP0153002000	41.21.020	287	TU0ME323001B	87.80.297	61	TU1MU1620000	87.80.990	63
RPI080010320	73.23.104	129	RT0125010GU0	77.10.115	107	SP015300200N	41.21.021	287	TU0ME323001R	87.80.298	61	TUGMU1620000	87.81.005	68
RPI080012400	73.23.105	129	RT0125010GUN	71.10.115	117	SP073001003N	88.20.551	194	TU0MF1620010	87.80.017	59	TUGMU1620000	87.81.005	300
RPI080015500	73.23.106	129	RT0125010MT0	77.10.020	107	SP073101000N	88.20.533	191	TU0MF1620020	87.80.018	59	TUGMU162000G	87.81.030	69
RPI080020630	73.23.107	129	RT0125012000	77.10.070	107	SP073201000N	88.20.546	191	TU0MU1420000	87.80.005	58	TUGMU162000G	87.81.030	301
RPR050000200	73.21.005	126	RT012501200N	71.10.070	117	SP073300500N	88.10.362	193	TU0MU142000V	87.80.355	60	TUGMU16200CG	87.81.010	69
RPR050000250	73.21.006	126	RT0125012GU0	77.10.120	107	TH010100NEUC	88.21.413	258	TU0MU1620000	87.80.011	58	TUGMU16200CG	87.81.010	301
RPR050000320	73.21.007	126	RT0125012MT0	77.10.025	107	TH010100SPRO	88.21.412	258	TU0MU162000B	87.80.340	60	TUGMU1620B00	87.81.015	68
RPR052005200	73.21.025	126	RT0125015000	77.10.075	107	TH010300NEU0	88.21.404	259	TU0MU162000D	87.80.330	62	TUGMU1620B00	87.81.015	300
RPR052007250	73.21.026	126	RT0125015GU0	77.10.125	107	TH010500300N	88.16.007	260	TU0MU162000M	87.80.350	61	TUGMU2020000	87.81.006	68
RPR052010320	73.21.027	126	RT0126003000	77.09.050	106	TH010500500N	88.16.008	260	TU0MU162000R	87.80.341	60	TUGMU2020000	87.81.006	300
RPR060000200	73.21.035	126	RT012600300N	71.09.050	117	TH010500700N	88.16.009	260	TU0MU162000V	87.80.360	60	TUGMU202000G	87.81.031	69
RPR060000250	73.21.036	126	RT0126003GU0	77.09.100	106	TH0105007V0N	88.21.299	266	TU0MU162000W	87.80.381	60	TUGMU202000G	87.81.031	301

TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.
TUGMU20200CG	87.81.011	69	VA0649CAS001	88.20.097	194	VA0793000220	73.08.465	316	VS0139007ARN	41.31.250	216	VS0140010PBN	41.31.696	225
TUGMU20200CG	87.81.011	301	VA0649CAS002	88.20.098	194	VA0794005010	73.08.510	144	VS0139007FRN	41.31.253	216	VS0140010PNN	41.31.697	225
TUGMU2020800	87.81.016	68	VA0649CAS003		194	VA0794005010	73.08.510	316	VS0139007PBN	41.31.256	217	VS0140010PRN	41.31.695	225
TUGMU2020800	87.81.016	300	VA0649CAS011	88.20.130	194	VA0794005020	73.08.515	144	VS0139007PNN	41.31.257	217	VS0140012ANN	41.31.702	224
TUGMU2630000	87.81.007	68	VA0649CAS012	88.20.131	194	VA0794005020	73.08.515	316	VS0139007PRN	41.31.255	217	VS0140012ARN	41.31.700	224
TUGMU2630000	87.81.007	300	VA0649CAS013	88.20.132	194	VA0797005000	73.08.490	144	VS0139010ABN	41.31.261	216	VS0140012FRN	41.31.703	224
TUGMU26300CG	87.81.012	69	VA0649CAS041		194	VA0797005000	73.08.490	316	VS0139010ANN	41.31.262	216	VS0140012PRN	41.31.705	225
TUGMU26300CG	87.81.012	301	VA0649CAS042		194	VA08400PROLO	87.50.065	16	VS0139010ARN	41.31.260	216	VS0140015ANN	41.31.712	224
TUGMU2630800	87.81.017	68	VA0649CAS043		194	VA0844000160	87.50.100	16	VS0139010FRN	41.31.263	216	VS0140015ARN	41.31.710	224
TUGMU2630800	87.81.017	300	VA0649CAS051	88.20.127	194	VA0844000200	87.50.105	16	VS0139010PBN	41.31.266	217	VS0140015FRN	41.31.713	224
TUGMU3230000	87.81.008	68	VA0649CAS052	88.20.128	194	VA08450PROLO	87.50.046	16	VS0139010PNN	41.31.267	217	VS0140020ANN	41.31.722	224
TUGMU3230000	87.81.008	300	VA0649CAS053		194	VA094900310N	41.32.910	231	VS0139010PRN	41.31.265	217	VS0140020ARN	41.31.720	224
VA009500300N	88.10.359	194	VA0652005000	88.21.671	291	VA094901215N	41.32.911	231	VS0139012ANN	41.31.272	216	VS0140020FRN	41.31.723	224
VA009500500N	88.10.360	191	VA0652007000	88.21.672	291	VA09490025ROS		231	VS0139012ARN	41.31.270	216	VS0140B05PBN	41.31.776	199
VA009600500N	88.10.361	191	VA0652010000	88.21.673	291	VA0CHIAVETH1	88.16.309	265	VS0139012FRN	41.31.273	216	VS0140B05PBN	41.31.776	241
VA0232005000	41.32.711	239	VA0652012000	88.21.674	291	VA0ROS000980	88.16.110	267	VS0139015ANN	41.31.282	216	VS0140B05PNN	41.31.774	199
VA0232007000	41.32.712	239	VA0652015000	88.21.675	291	VA0ROS000990	88.16.111	267	VS0139015ARN	41.31.280	216	VS0140B05PNN	41.31.774	241
VA0232010000	41.32.713	239	VA0652020000	88.21.676	291	VA0ROS00D0990	88.16.311	270	VS0139015FRN	41.31.283	216	VS0140B05PRN	41.31.725	199
VA0232012000	41.32.714	239	VA0652025000	88.21.677	291	VA0TAP0058LU	87.80.491	17	VS0139020ANN	41.31.292	216	VS0140B05PRN	41.31.725	241
VA0232015000	41.32.715	239	VA0653003000	88.21.711	292	VA0TAP005ROS	87.80.490	17	VS0139020ARN	41.31.290	216	VS0140B07PBN	41.31.777	199
VA0232020000	41.32.716	239	VA0653005000	88.21.712	292	VASONDA1210L	88.16.314	270	VS0139020FRN	41.31.293	216	VS0140B07PBN	41.31.777	241
VA0232025000	41.32.717	239	VA0653005FIL	88.21.723	292	VASONOT10300		271	VS0139M05ABN	41.31.301	218	VS0140B07PNN	41.31.807	199
VA0232030000	41.32.718	239	VA0653007000	88.21.713	292	VO01050031PZ	88.10.370	192	VS0139M05ANN	41.31.302	218	VS0140B07PNN	41.31.807	241
VA0232040000	41.32.719	239	VA0653007FIL	88.21.724	292	VO01050031PZ	88.10.370	266	VS0139M05ARN	41.31.300	218	VS0140B07PRN	41.31.726	199
VA0344005010	87.81.075	310	VA0653010000	88.21.714	292	VO0201000000		270	VS0139M05FRN	41.31.303	218	VS0140B07PRN	41.31.726	241
VA0344005020	87.81.076	310	VA0653010FIL	88.21.725	292	VS0133005AAN	41.32.670	247	VS0139M05PBN	41.31.306	219	VS0140B10PBN	41.31.778	199
VA0344005030	87.81.077	310	VA0653012000	88.21.715	292	VS0133005AAN	41.32.670	318	VS0139M05PNN	41.31.307	219	VS0140B10PBN	41.31.778	241
VA0345001000	87.81.074	311	VA0653012FIL	88.21.726	292	VS0133007AAN	41.32.675	247	VS0139M05PRN	41.31.305	219	VS0140B10PNN	41.31.808	199
VA0345002000	87.81.069	311	VA0653015000	88.21.716	292	VS0133007AAN	41.32.675	318	VS0139M07ABN	41.31.311	218	VS0140B10PNN	41.31.808	241
VA0345003000	87.81.070	311	VA0653015FIL	88.21.727	292	VS0133010AAN	41.32.680	247	VS0139M07ANN	41.31.312	218	VS0140B10PRN	41.31.727	199
VA0345003010	87.81.071	311	VA0653020000	88.21.717	292	VS0133010AAN	41.32.680	318	VS0139M07ARN	41.31.310	218	VS0140B10PRN	41.31.727	241
VA0345003020	87.81.072	311	VA0653020FIL	88.21.728	292	VS0133M05AAN	41.32.685	247	VS0139M07FRN	41.31.313	218	VS0140B12PRN	41.31.728	199
VA0345003030	87.81.073	311	VA0653025000	88.21.718	292	VS0133M05AAN	41.32.685	318	VS0139M07PBN	41.31.316	219	VS0140B12PRN	41.31.728	241
VA0345004000	87.81.080	311	VA0660B05000	88.20.543	191	VS0133M07AAN	41.32.690	247	VS0139M07PNN	41.31.317	219	VS0140M05ANN	41.31.732	226
VA0345005000	87.81.081	311	VA0661B05000	88.20.541	191	VS0133M07AAN	41.32.690	318	VS0139M07PRN	41.31.315	219	VS0140M05ARN	41.31.730	226
VA0345006000	87.81.090	311	VA0679ATT001	88.20.518	192	VS0133M10AAN	41.32.695	247	VS0139M10ABN	41.31.321	218	VS0140M05FRN	41.31.733	226
VA0345006010	87.81.091	311	VA0679ATT002	88.20.519	192	VS0133M10AAN	41.32.695	318	VS0139M10ANN	41.31.322	218	VS0140M05PBN	41.31.736	227
VA0345009000	87.81.500	313	VA0696012120	88.11.895	193	VS0134003PAN	41.32.700	247	VS0139M10ARN	41.31.320	218	VS0140M05PNN	41.31.737	227
VA0345009010	87.81.501	313	VA0698010120	88.10.311	193	VS0134003PAN	41.32.700	318	VS0139M10FRN	41.31.323	218	VS0140M05PRN	41.31.735	227
VA0345009020	87.81.502	313	VA0699CAS001	88.10.315	195	VS0137005AVN		208	VS0139M10PBN	41.31.326	219	VS0140M07ANN	41.31.742	226
VA0345009100	87.81.503	313	VA0699CAS002	88.10.320	195	VS0137005PVN		208	VS0139M10PNN	41.31.327	219	VS0140M07ARN	41.31.740	226
VA0345009110	87.81.504	313	VA0699CAS003	88.10.325	195	VS0137007AVN		208	VS0139M10PRN	41.31.325	219	VS0140M07FRN	41.31.743	226
VA0345009120	87.81.505	313	VA0699CAS011	88.10.330	195	VS0137007PVN		208	VS0139M12ANN	41.31.332	218	VS0140M07PBN	41.31.746	227
VA0345009300	87.81.506	312	VA0699CAS012	88.10.335	195	VS0137010AVN		208	VS0139M12ARN	41.31.330	218	VS0140M07PNN	41.31.747	227
VA0345009310	87.81.507	312	VA0699CAS013	88.10.340	195	VS0137010PVN		208	VS0139M15ANN	41.31.342	218	VS0140M07PRN	41.31.745	227
VA0345009350	87.81.508	312	VA0699CAS051	88.10.317	195	VS0137M05AVN		209	VS0139M15ARN	41.31.340	218	VS0140M10ANN	41.31.752	226
VA0345009360	87.81.509	312	VA0699CAS052	88.10.318	195	VS0137M05PVN		209	VS0139M20ANN	41.31.352	218	VS0140M10ARN	41.31.750	226
VA0345009400	87.81.510	312	VA0699CAS053	88.10.319	195	VS0137M07AVN		209	VS0139M20ARN	41.31.350	218	VS0140M10FRN	41.31.753	226
VA0345009410	87.81.511	312	VA0738003000	88.20.547	194	VS0137M07PVN		209	VS0140005ANN	41.31.672	224	VS0140M10PBN	41.31.756	227
VA0345009450	87.81.512	312	VA0740010010	88.20.538	193	VS0137M10AVN		209	VS0140005ARN	41.31.670	224	VS0140M10PNN	41.31.757	227
VA0345009460	87.81.513	312	VA078000500N	88.23.860	297	VS0137M10PVN		209	VS0140005FRN	41.31.673	224	VS0140M10PRN	41.31.755	227
VA0345009500	87.81.514	312	VA078000500N	88.23.860	319	VS0139003ANN	41.31.232	216	VS0140005PBN	41.31.676	225	VS0140M12ANN	41.31.004	226
VA0345009550	87.81.515	312	VA078000700N	88.23.861	297	VS0139003ARN	41.31.230	216	VS0140005PNN	41.31.677	225	VS0140M12ARN	41.31.001	226
VA03550EST16	87.98.001	53	VA078000700N	88.23.861	319	VS0139003PRN	41.31.235	217	VS0140005PRN	41.31.675	225	VS0140M12FRN	41.31.763	226
VA03550EST20	87.98.002	53	VA078001000N	88.23.862	297	VS0139005ABN	41.31.241	216	VS0140007ANN	41.31.682	224	VS0140M12PRN	41.31.002	227
VA060000500N	41.32.472	238	VA078001000N	88.23.862	319	VS0139005ANN	41.31.242	216	VS0140007ARN	41.31.680	224	VS0140M15ANN	41.31.020	226
VA060000700N	41.32.473	238	VA0785005000	88.23.835	145	VS0139005ARN	41.31.240	216	VS0140007FRN	41.31.683	224	VS0140M15ARN	41.31.018	226
VA06000PROLO	41.32.479	238	VA0785005000	88.23.835	317	VS0139005FRN	41.31.243	216	VS0140007PBN	41.31.686	225	VS0140M15FRN	41.31.773	226
VA060500500N	41.32.477	238	VA0788007160	73.08.950	145	VS0139005PBN	41.31.246	217	VS0140007PNN	41.31.687	225	VS0140M20ANN	41.31.025	226
VA060500700N	41.32.478	238	VA0788007160	73.08.950	317	VS0139005PNN	41.31.247	217	VS0140007PRN	41.31.685	225	VS0140M20ARN	41.31.023	226
VA061002000N	41.32.912	231	VA0792007220	73.08.455	144	VS0139005PRN	41.31.245	217	VS0140010ANN	41.31.692	224	VS0140M20FRN	41.31.026	226
VA0645003000	88.10.350	191	VA0792007220	73.08.455	316	VS0139007ABN	41.31.251	216	VS0140010ARN	41.31.690	224	VS0141003ANN	41.31.372	220
VA064800500N	88.20.530	191	VA0793000220	73.08.465	144	VS0139007ANN	41.31.252	216	VS0140010FRN	41.31.693	224	VS0141003ARN	41.31.370	220

TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.	TECH. CODE	CODE	PAG.
V50141003PRN	41.31.375	221	V50143M07CPN	41.31.186	212	V50146B05PNN	41.31.792	240	V50148010PRN	41.31.635	228	V50322007ACC	41.23.210	253
V50141005ANN	41.31.382	220	V50143M07PNN	41.31.185	212	V50146B05SPRN	41.31.790	198	V50148012ARN	41.31.640	228	V50322008ACC	41.23.220	253
V50141005ARN	41.31.380	220	V50143M07PRN	41.31.183	212	V50146B05SPRN	41.31.790	240	V50148012FRN	41.31.643	228	V50322009ACC	41.23.222	253
V50141005FRN	41.31.383	220	V50143M10ANN	41.31.192	212	V50146B07PBN	41.31.801	198	V50148015ARN	41.31.650	228	V50322010ACC	41.23.225	253
V50141005PNN	41.31.387	221	V50143M10ARN	41.31.190	212	V50146B07PBN	41.31.801	240	V50148015FRN	41.31.653	228	V50322011ACC	41.23.230	253
V50141005PRN	41.31.385	221	V50143M10CPN	41.31.196	212	V50146B07PNN	41.31.802	198	V50148020ARN	41.31.660	228	V50322012ACC	41.23.235	253
V50141007ANN	41.31.392	220	V50143M10PNN	41.31.195	212	V50146B07PRN	41.31.802	240	V50148020FRN	41.31.663	228	V50323001ACC	41.23.300	253
V50141007ARN	41.31.390	220	V50143M10PRN	41.31.193	212	V50146B07PRN	41.31.800	198	V50148A05SPRN	41.32.180	229	V50323002ACC	41.23.305	253
V50141007FRN	41.31.393	220	V50143M12ANN	41.31.202	212	V50146B07PRN	41.31.800	240	V50148A07PRN	41.32.190	229	V50323003ACC	41.23.310	253
V50141007PNN	41.31.397	221	V50143M12ARN	41.31.200	212	V50146B10PBN	41.31.811	198	V50149005SARN	41.31.950	235	V50323004ACC	41.23.315	253
V50141007PRN	41.31.395	221	V50143M15ANN	41.31.212	212	V50146B10PBN	41.31.811	240	V50149005SPRN	41.31.955	235	V50324001ACC	41.23.320	253
V50141010ANN	41.31.402	220	V50143M15ARN	41.31.210	212	V50146B10PPN	41.31.812	198	V50149007ARN	41.31.960	235	V50324002ACC	41.23.325	253
V50141010ARN	41.31.400	220	V50143M20ANN	41.31.222	212	V50146B10PPN	41.31.812	240	V50149007PRN	41.31.965	235	V50325001ACC	41.23.121	252
V50141010FRN	41.31.403	220	V50143M20ARN	41.31.220	212	V50146B10PRN	41.31.810	198	V50149010ARN	41.31.970	235	V50335003AGN	41.32.600	248
V50141010PNN	41.31.407	221	V50144005ARN	41.31.830	234	V50146B10PRN	41.31.810	240	V50297B05SPRN	41.32.395	236	V50335003AGN	41.32.600	306
V50141010PRN	41.31.405	221	V50144005FRN	41.31.833	234	V50146B12PBN	41.31.821	198	V50297B07PRN	41.32.400	236	V50335003PGN	41.32.602	248
V50141012ANN	41.31.412	220	V50144005PRN	41.31.835	234	V50146B12PBN	41.31.821	240	V50297B10PRN	41.32.405	236	V50335003PGN	41.32.602	306
V50141012ARN	41.31.410	220	V50144007ARN	41.31.840	234	V50146B12PNN	41.31.822	198	V50297F05SPRN	41.32.410	236	V50335005AGN	41.32.605	248
V50141012FRN	41.31.413	220	V50144007FRN	41.31.843	234	V50146B12PNN	41.31.822	240	V50297F07PRN	41.32.415	236	V50335005AGN	41.32.605	306
V50141012PRN	41.31.415	221	V50144007PRN	41.31.845	234	V50146B12PRN	41.31.820	198	V50297F10PRN	41.32.420	236	V50335005FGN	41.32.606	248
V50141015ANN	41.31.422	220	V50144010ARN	41.31.850	234	V50146B12PRN	41.31.820	240	V50300022000	41.32.460	239	V50335005FGN	41.32.606	306
V50141015ARN	41.31.420	220	V50144010FRN	41.31.853	234	V50146B17PRN	41.31.804	198	V503030015ARN	41.32.010	237	V50335005PGN	41.32.607	248
V50141015FRN	41.31.423	220	V50144010PRN	41.31.855	234	V50146B17PRN	41.31.804	240	V50303022ARN	41.32.030	237	V50335005PGN	41.32.607	306
V50141020ANN	41.31.432	220	V50144012ARN	41.31.860	234	V50147003ANN	41.31.522	222	V50303028ARN	41.32.040	237	V50335007AGN	41.32.610	248
V50141020ARN	41.31.430	220	V50144012FRN	41.31.863	234	V50147003ARN	41.31.520	222	V50304010000	41.32.466	239	V50335007AGN	41.32.610	306
V50141020FRN	41.31.433	220	V50144015ARN	41.31.870	234	V50147003PRN	41.31.525	223	V50304012000	41.32.467	239	V50335007FGN	41.32.611	248
V50141025ARN	41.31.440	220	V50144015FRN	41.31.873	234	V50147005ANN	41.31.532	222	V50305005SPRO	41.32.470	239	V50335007FGN	41.32.611	306
V50141030ARN	41.31.450	220	V50144020ARN	41.31.880	234	V50147005ARN	41.31.530	222	V50306002ANN	41.22.300	251	V50335007PGN	41.32.612	248
V50141040ARN	41.31.460	220	V50144020FRN	41.31.883	234	V50147005FRN	41.31.533	222	V50306003ANN	41.22.304	251	V50335007PGN	41.32.612	306
V50141A05PRN	41.32.150	229	V50144M05ARN	41.31.890	235	V50147005PNN	41.31.537	223	V50306005ABN	41.22.310	251	V50335010AGN	41.32.615	248
V50141A07PRN	41.32.160	229	V50144M07ARN	41.31.900	235	V50147005SPRN	41.31.535	223	V50306005ANN	41.22.308	251	V50335010AGN	41.32.615	306
V50143003ANN	41.31.092	211	V50144M10ARN	41.31.910	235	V50147007ANN	41.31.542	222	V50306005SARN	41.22.309	251	V50335010FGN	41.32.616	248
V50143003ARN	41.31.090	211	V50145005ANN	41.31.035	210	V50147007ARN	41.31.540	222	V50307002ANN	41.22.312	251	V50335010FGN	41.32.616	306
V50143003PNN	41.31.095	211	V50145005PNN	41.31.036	210	V50147007FRN	41.31.543	222	V50307003ANN	41.22.316	251	V50335010PGN	41.32.617	248
V50143003PRN	41.31.093	211	V50145007ANN	41.31.040	210	V50147007PNN	41.31.547	223	V50307005ANN	41.22.321	251	V50335010PGN	41.32.617	306
V50143005ANN	41.31.102	211	V50145007PNN	41.31.041	210	V50147007PRN	41.31.545	223	V50311003ACC	41.23.040	252	V50335012AGN	41.32.620	248
V50143005ARN	41.31.100	211	V50145010ANN	41.31.045	210	V50147010ANN	41.31.552	222	V50311005ACC	41.23.045	252	V50335012AGN	41.32.620	306
V50143005CPN	41.31.106	211	V50145012ANN	41.31.050	210	V50147010ARN	41.31.550	222	V50311007ACC	41.23.050	252	V50335012FGN	41.32.621	248
V50143005PNN	41.31.105	211	V50145015ANN	41.31.055	210	V50147010FRN	41.31.553	222	V50312003ACC	41.23.005	252	V50335012FGN	41.32.621	306
V50143005PRN	41.31.103	211	V50145020ANN	41.31.060	210	V50147010PPN	41.31.557	223	V50312005ACC	41.23.010	252	V50335012PGN	41.32.622	248
V50143007ANN	41.31.112	211	V50146A05PBN	41.31.761	200	V50147010PRN	41.31.555	223	V50312007ACC	41.23.015	252	V50335012PGN	41.32.622	306
V50143007ARN	41.31.110	211	V50146A05PBN	41.31.761	242	V50147012ANN	41.31.562	222	V50313005SARN	41.32.500	239	V50335015AGN	41.32.625	248
V50143007CPN	41.31.116	211	V50146A05PNN	41.31.762	200	V50147012ARN	41.31.560	222	V50315516PRN	41.32.215	237	V50335015AGN	41.32.625	306
V50143007PNN	41.31.115	211	V50146A05PNN	41.31.762	242	V50147012FRN	41.31.563	222	V50315520PRN	41.32.225	237	V50335015FGN	41.32.626	248
V50143007PRN	41.31.113	211	V50146A05PRN	41.31.760	200	V50147012PRN	41.31.565	223	V50317016ARN	41.32.250	237	V50335015FGN	41.32.626	306
V50143010ANN	41.31.122	211	V50146A05PRN	41.31.760	242	V50147015ANN	41.31.572	222	V50317016PRN	41.32.255	237	V50335020AGN	41.32.630	248
V50143010ARN	41.31.120	211	V50146A07PBN	41.31.771	200	V50147015ARN	41.31.570	222	V50317020ARN	41.32.260	237	V50335020AGN	41.32.630	306
V50143010CPN	41.31.126	211	V50146A07PBN	41.31.771	242	V50147015FRN	41.31.573	222	V50317020PRN	41.32.265	237	V50335020FGN	41.32.631	248
V50143010PNN	41.31.125	211	V50146A07PNN	41.31.772	200	V50147020ANN	41.31.582	222	V50319003ACC	41.23.075	252	V50335020FGN	41.32.631	306
V50143010PRN	41.31.123	211	V50146A07PNN	41.31.772	242	V50147020ARN	41.31.580	222	V50319005ACC	41.23.080	252	V50335M05AGN	41.32.635	249
V50143012ANN	41.31.132	211	V50146A07PRN	41.31.770	200	V50147020FRN	41.31.583	222	V50319007ACC	41.23.085	252	V50335M05AGN	41.32.635	307
V50143012ARN	41.31.130	211	V50146A07PRN	41.31.770	242	V50147B05SPRN	41.32.120	229	V50320001ACC	41.23.110	252	V50335M05FGN	41.32.636	249
V50143015ANN	41.31.142	211	V50146A10PBN	41.31.781	200	V50147B07PRN	41.32.130	229	V50320002ACC	41.23.115	252	V50335M05FGN	41.32.636	307
V50143015ARN	41.31.140	211	V50146A10PBN	41.31.781	242	V50147B10PRN	41.32.140	229	V50320003ACC	41.23.120	252	V50335M05PGN	41.32.637	249
V50143020ANN	41.31.152	211	V50146A10PNN	41.31.782	200	V50148003ARN	41.31.600	228	V50320004ACC	41.23.125	252	V50335M05PGN	41.32.637	307
V50143020ARN	41.31.150	211	V50146A10PNN	41.31.782	242	V50148005ARN	41.31.610	228	V50321001ACC	41.23.150	252	V50335M07AGN	41.32.640	249
V50143M05ANN	41.31.172	212	V50146A10PRN	41.31.780	200	V50148005FRN	41.31.613	228	V50321002ACC	41.23.155	252	V50335M07AGN	41.32.640	307
V50143M05ARN	41.31.170	212	V50146A10PRN	41.31.780	242	V50148005SPRN	41.31.615	228	V50322001ACC	41.23.180	253	V50335M07FGN	41.32.641	249
V50143M05CPN	41.31.176	212	V50146A71PRN	41.31.775	200	V50148007ARN	41.31.620	228	V50322002ACC	41.23.185	253	V50335M07FGN	41.32.641	307
V50143M05PNN	41.31.175	212	V50146A71PRN	41.31.775	242	V50148007FRN	41.31.623	228	V50322003ACC	41.23.190	253	V50335M07PGN	41.32.642	249
V50143M05PRN	41.31.173	212	V50146B05PBN	41.31.791	198	V50148007PRN	41.31.625	228	V50322004ACC	41.23.195	253	V50335M07PGN	41.32.642	307
V50143M07ANN	41.31.182	212	V50146B05PBN	41.31.791	240	V50148010ARN	41.31.630	228	V50322005ACC	41.23.200	253	V50335M10AGN	41.32.645	249
V50143M07ARN	41.31.180	212	V50146B05PNN	41.31.792	198	V50148010FRN	41.31.633	228	V50322006ACC	41.23.205	253	V50335M10AGN	41.32.645	307

TECH. CODE	CODE	PAG.
VTJ117R0500N	88.16.062	262
VTJ117R0500N	88.16.062	277
VTJ11800300N	88.16.034	276
VTJ11800500N	88.16.035	276
VTJ118R0300N	88.16.079	277
VTJ118R0500N	88.16.080	277
VTJ11900300N	88.16.224	272
VTJ11900500N	88.16.225	272
VTJ119R0300N	88.16.260	274
VTJ119R0500N	88.16.261	274
VTJ12000300N	88.16.242	273
VTJ12000500N	88.16.243	273
VTJ12200300N	88.16.251	273
VTJ12200500N	88.16.252	273
VTY11000300N	88.21.329	266
VTY11000500N	88.21.328	266
VTY110R0300N	88.21.277	267
VTY110R0500N	88.21.278	267
VTY11100300N	88.21.319	266
VTY11100500N	88.21.323	266
VTY111R0300N	88.21.272	267
VTY111R0500N	88.21.273	267
VTY211R03T0C	88.16.175	265
VTY211R03TCC	88.16.185	265
VTY211R05T0C	88.16.176	265
VTY211R05TCC	88.16.186	265



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