

FORGED BRASS & STEEL FITTINGS "NPT" and "NPT 45° SAE"



BRASS FLARED TUBE FITTINGS

"STANDARD FLARE SAE 45°"

FITTING CONNECTIONS RANGE

- Standard **MALE FLARE SAE 45°**
- Standard **FEMALE FLARE SAE 45°**
- Standard **MPT** (male NATIONAL PIPE THREAD)
- Standard **FPT** (female NATIONAL PIPE THREAD)
- **EXCELLENT PULL OUT, MAKE and BREAK, GOOD VIBRATION RESISTANCE, LOW COST, EASY ASSEMBLY and... THE LARGEST SELECTION IMMEDIATELY AVAILABLE FROM STOCK...**

PURPOSE

- These FLARE SAE 45° fittings are widely used for:
 - **REFRIGERATION**
 - **AIR CONDITIONING**
 - **MARINE and AIRCRAFT industries**
 - **Flammable liquid and OIL industries**

DESCRIPTION

- These economical fittings resist mechanical pullout.
- Can be assembled and disassembled repeatedly.
- Long dryseal pipe thread (**IMPORTANT: strictly in ACCORDANCE with the STANDARDS**) minimize leakage and provide more clearance for tightening flare nuts.
- Grooved shapes, elbows, tees, etc... made from brass forgings to maximize strength and eliminate cracks.

SPECIFICATIONS

- These FLARE SAE 45° fittings may be used with copper, brass, aluminium, steel and plastic tube provided an acceptable flare can be generated with the material.
 - Vacuum to pressures of **350 bar** (5000 Psi) can be handled dependent upon size, material and conditions.
- Using a safety factor the following general rule (excluding plastic tube) is used for copper tubing under **73°C** (163°F):

190 bar (2800 Psi)	for tubing up to 1/8"
135 bar (1900 Psi)	for tubing up to 3/16"
100 bar (1400 Psi)	for tubing up to 1/4"
85 bar (1200 Psi)	for tubing up to 5/16"
70 bar (1000 Psi)	for tubing up to 3/8"
53 bar (750 Psi)	for tubing up to 1/2"
46 bar (650 Psi)	for tubing up to 5/8"
39 bar (550 Psi)	for tubing up to 3/4"
32 bar (450 Psi)	for tubing up to 7/8"

- Temperature ranges:
-54°C to +120°C (-65°C to +250°F)

INSTALLATION & INSTRUCTIONS

- Note that short nuts may be used when vibration is minimal.
- Long nuts are recommended when vibration is a factor.
- Tubing should be double flared in extreme applications to minimize flare thinning on over-tightening (see our flaring tool **FT-195** page 79).
- **ASSEMBLY INSTRUCTIONS:**
 - Cut tube and remove burr (see our tools section).
 - Slide nut on tube, threaded end facing end of tube.
 - Flare tube following flaring tool manufacturer instructions to provide 45° SAE flare.
 - Thread nut on to fitting body "handtight".
 - With correct wrench tighten to a solid feel.
- **ATTENTION:**
 - Over-tightening and dirt can damage fittings and/or tube causing leaks.
 - Lubrication of flare faces and threads is always recommended when practical.



NORMS

- **U.L. Listed**, these FLARE SAE 45° fittings and NPT Pipe Fittings meet functional requirement of:
 - SAE J513C, ASA and ARI 720-55 (*All flare SAE*)
 - Military std and ASTM ANSI B70-1 (*All flare SAE*)
 - U.S. Std National Pipe Thread (*All "MPT" & "FPT"*)

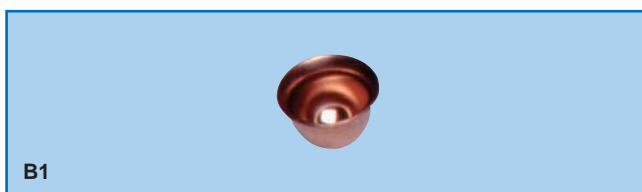
SAE FLARE THREAD SIZE

Ø TUBE	FLARE "SAE"	Ø TUBE	FLARE "SAE"
1/8"	5/16 - 24	1/2"	3/4 - 16
3/16"	3/8 - 24	5/8"	7/8 - 14
1/4"	7/16 - 20	3/4"	1 1/16 - 14
5/16"	1/2 - 20	7/8"	1 1/4 - 12
3/8"	5/8 - 18	1"	1 3/8 - 12
7/16"	1 1/16 - 16		

TORQUE FOR SAE FLARE FITTINGS

- After handtight any SAE flare fittings, use the correct wrench to tighten it by **2.5 turns** or use the correct wrench as follows:

TUBE DIAM.	RECOMMENDED TORQUE	MAXIMUM TORQUE
1/4"	12,2 N.m (9 ft.lbs)	13,5 N.m (10 ft.lbs)
3/8"	27,0 N.m (20 ft.lbs)	33,7 N.m (25 ft.lbs)
1/2"	40,5 N.m (30 ft.lbs)	47,2 N.m (35 ft.lbs)
5/8"	60,8 N.m (45 ft.lbs)	74,2 N.m (55 ft.lbs)



RED COPPER FLARE BONNET

(Used with flare NUT to cap and close any flare fittings)

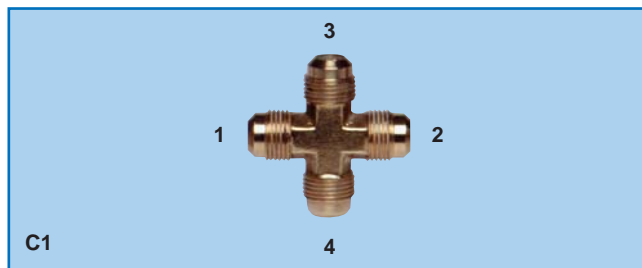
B1-04	For 1/4" flare SAE
B1-06	For 3/8" flare SAE
B1-08	For 1/2" flare SAE
B1-10	For 5/8" flare SAE
B1-12	For 3/4" flare SAE



RED COPPER FLARE GASKET

(Put in between brass to brass or to steel or to copper for high sealing)

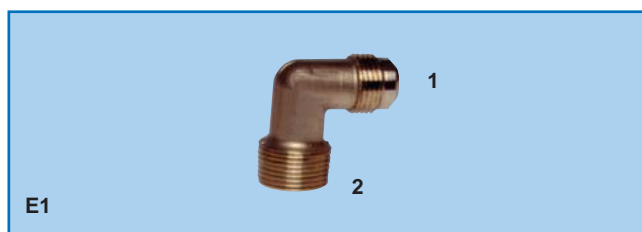
B2-03	For 3/16" flare SAE
B2-04	For 1/4" flare SAE
B2-05	For 5/16" flare SAE
B2-06	For 3/8" flare SAE
B2-08	For 1/2" flare SAE
B2-10	For 5/8" flare SAE
B2-12	For 3/4" flare SAE



FLARE CROSS

(4 x male flare)

C1-04	4 x 1/4" male flare SAE
C1-06	4 x 3/8" male flare SAE



FLARE x MALE PIPE 90° ELBOW

(Male flare x MPT male pipe)

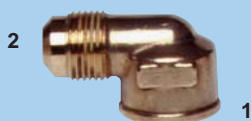
E1-03A	3/16" male fl. SAE x 1/8" MPT male pipe
E1-04A	1/4" male fl. SAE x 1/8" MPT male pipe
E1-04B	1/4" male fl. SAE x 1/4" MPT male pipe
E1-04C	1/4" male fl. SAE x 3/8" MPT male pipe
E1-05B	5/16" male fl. SAE x 1/4" MPT male pipe
E1-06A	3/8" male fl. SAE x 1/8" MPT male pipe
E1-06B	3/8" male fl. SAE x 1/4" MPT male pipe
E1-06C	3/8" male fl. SAE x 3/8" MPT male pipe
E1-06D	3/8" male fl. SAE x 1/2" MPT male pipe
E1-08B	1/2" male fl. SAE x 1/4" MPT male pipe
E1-08C	1/2" male fl. SAE x 3/8" MPT male pipe
E1-08D	1/2" male fl. SAE x 1/2" MPT male pipe
E1-08E	1/2" male fl. SAE x 3/4" MPT male pipe
E1-10C	5/8" male fl. SAE x 3/8" MPT male pipe
E1-10D	5/8" male fl. SAE x 1/2" MPT male pipe
E1-10E	5/8" male fl. SAE x 3/4" MPT male pipe
E1-12D	3/4" male fl. SAE x 1/2" MPT male pipe
E1-12E	3/4" male fl. SAE x 3/4" MPT male pipe



90° FLARE STANDARD ELBOW

(2 x male flare)

E2-04	2 x 1/4" male flare SAE
E2-06	2 x 3/8" male flare SAE
E2-08	2 x 1/2" male flare SAE
E2-10	2 x 5/8" male flare SAE
E2-12	2 x 3/4" male flare SAE



E3

FLARE x FEMALE PIPE 90° ELBOW

(Male flare x FPT female pipe)

E3-04A	1/4" male fl. SAE	x	1/8" FPT female
E3-04B	1/4" male fl. SAE	x	1/4" FPT female
E3-05B	5/16" male fl. SAE	x	1/4" FPT female
E3-06A	3/8" male fl. SAE	x	1/8" FPT female
E3-06B	3/8" male fl. SAE	x	1/4" FPT female
E3-06C	3/8" male fl. SAE	x	3/8" FPT female
E3-06D	3/8" male fl. SAE	x	1/2" FPT female
E3-08C	1/2" male fl. SAE	x	3/8" FPT female
E3-08D	1/2" male fl. SAE	x	1/2" FPT female
E3-25D	5/8" male fl. SAE	x	1/2" FPT female



E4

2 x FLARE 90° ELBOW

(Female flare x male flare)

(Shipped with 1 copper gasket)

E4-44	1/4" fem. fl. SAE	x	1/4" male fl. SAE
E4-66	3/8" fem. fl. SAE	x	3/8" male fl. SAE
E4-88	1/2" fem. fl. SAE	x	1/2" male fl. SAE



ER2

2 x FLARE REDUCING 90° ELBOW

(Male flare x male flare)

ER2-0064	3/8" male fl. SAE	x	1/4" male fl. SAE
ER2-0084	1/2" male fl. SAE	x	1/4" male fl. SAE
ER2-0086	1/2" male fl. SAE	x	3/8" male fl. SAE
ER2-0108	5/8" male fl. SAE	x	1/2" male fl. SAE



ES4

SWIVEL FEMALE FLARE 90° ELBOW

(Swivel female flare x male flare)

ES4-0044	1/4" swivel fem. fl. SAE	x	1/4" male fl. SAE
ES4-0066	3/8" swivel fem. fl. SAE	x	3/8" male fl. SAE
ES4-0088	1/2" swivel fem. fl. SAE	x	1/2" male fl. SAE
ES4-1010	5/8" swivel fem. fl. SAE	x	5/8" male fl. SAE
ES4-1212	3/4" swivel fem. fl. SAE	x	3/4" male fl. SAE



FPA

FUSIBLE PIPE PLUG

(MPT male pipe end connection) (U.L. listed and relief opening to the temperat./pressure labeled)

FPA-168	1/8" MPT male pipe for	76°C
FPA-210	1/8" MPT male pipe for	99°C
FPA-283	1/8" MPT male pipe for	139°C
FPB-168	1/4" MPT male pipe for	76°C
FPB-210	1/4" MPT male pipe for	99°C
FPB-283	1/4" MPT male pipe for	139°C
FPC-168	3/8" MPT male pipe for	76°C
FPC-210	3/8" MPT male pipe for	99°C
FPC-283	3/8" MPT male pipe for	139°C

Note: To be used only in small installations, if the working pressure is smaller or equal to 25 bar and if the volume is smaller or equal to 2 liter.



HNS4

HEAVY PATTERN SHORT NUT

(Old style for refrigeration, air conditioning, marine and aircraft, oil and high vibrations)

HNS4-04	1/4" female flare SAE
HNS4-06	3/8" female flare SAE
HNS4-08	1/2" female flare SAE
HNS4-10	5/8" female flare SAE
HNS4-12	3/4" female flare SAE



K1

REFRIGERANT DRUM ADAPTER

(Female NPS cylinder x male flare)

(Shipped with 1 fibre gasket for refrigerant cylinder)

K1-08	1/2" FPT fem pipe	x	1/4" male fl. SAE
K1-01	3/4" FPT fem pipe	x	1/4" male fl. SAE
K1-03	3/4" FPT fem pipe	x	3/8" male fl. SAE
K1-05	3/4" FPT fem pipe	x	1/2" male fl. SAE
K1-10	Cylinder adapter 1/4 M - 18/150 F		
K1-11	Cylinder adapter 3/8 M - 18/150 F		
K1-12	Cylinder adapter 1/4 M - 21, 7/1, 814 F		
K1-13	Cylinder adapter 3/8 M - 21, 7/1, 814 F		
K1-D	Gasket for K1-8		
K1-E	Gasket for K1-1, K1-3 and K1-5		



FINGER TIGHT FLARE CAP + GASKET

(With NEOPRENE seal)

MV-2245	1/4" female flare SAE
NFT5-6	3/8" female flare SAE

NOTE: see also page 126.



N1

SHORT ROD NUT

(Not for Refrigeration)

N1-04	1/4" female flare SAE
N1-05	5/16" female flare SAE
N1-06	3/8" female flare SAE
N1-08	1/2" female flare SAE
N1-10	5/8" female flare SAE
N1-12	3/4" female flare SAE



N4

LONG FORGED SECURITY NUT

(High vibration resistance)

N4-04	1/4" female flare SAE
N4-05	5/16" female flare SAE
N4-06	3/8" female flare SAE
N4-08	1/2" female flare SAE
N4-10	5/8" female flare SAE
N4-12	3/4" female flare SAE



N5

FEMALE FLARE CAP

(Hexagonal head)

N5-04	1/4" female flare SAE
N5-05	5/16" female flare SAE
N5-06	3/8" female flare SAE
N5-08	1/2" female flare SAE
N5-10	5/8" female flare SAE
N5-12	3/4" female flare SAE



NRS4

FORGED REDUCING STD. FLARE NUT

(Popular standard reducing nut)

NRS4-3/8x6mm	female flare SAE
NRS4-3/8x8mm	female flare SAE
NRS4-1/2x10mm	female flare SAE
NRS4-5/8x12mm	female flare SAE
NRS4-5/8x15mm	female flare SAE
NRS4-3/4x16mm	female flare SAE
NRS4-7/8x20mm	female flare SAE



NRS4

FORGED REDUCING STD. FLARE NUT

(Popular standard reducing nut)

NRS4-0043	1/4" female flare SAE	x	3/16"
NRS4-0054	5/16" female flare SAE	x	1/4"
NRS4-0064	3/8" female flare SAE	x	1/4"
NRS4-0065	3/8" female flare SAE	x	5/16"
NRS4-0086	1/2" female flare SAE	x	3/8"
NRS4-0108	5/8" female flare SAE	x	1/2"
NRS4-1210	3/4" female flare SAE	x	5/8"



NS4

SHORT FORGED STANDARD NUT

(The most popular standard nut)

NS4-03	3/16" female flare SAE
NS4-04	1/4" female flare SAE
NS4-05	5/16" female flare SAE
NS4-06	3/8" female flare SAE
NS4-08	1/2" female flare SAE
NS4-10	5/8" female flare SAE
NS4-12	3/4" female flare SAE



NS4

SHORT FORGED STANDARD NUT

(The most popular standard nut)

NS4-06mm	6 mm	x	1/4" female flare SAE
NS4-10mm	10 mm	x	3/8" female flare SAE
NS4-12mm	12 mm	x	1/2" female flare SAE
NS4-16mm	16 mm	x	5/8" female flare SAE
NS4-18mm	18 mm	x	3/4" female flare SAE
NS4-22mm	22 mm	x	7/8" female flare SAE

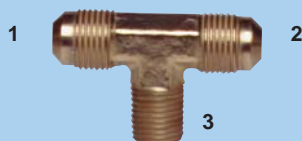


P2

MALE FLARE PLUG

(Hexagonal head)

P2-03	3/16"	male flare SAE
P2-04	1/4"	male flare SAE
P2-05	5/16"	male flare SAE
P2-06	3/8"	male flare SAE
P2-08	1/2"	male flare SAE
P2-10	5/8"	male flare SAE
P2-12	3/4"	male flare SAE



T1

2 x MALE FLARE x MPT PIPE TEE

(2 x "in line" male flare x MPT male pipe)

T1-04A	2 x 1/4"	male fl. SAE	x 1/8"	NPT male pipe
T1-04B	2 x 1/4"	male fl. SAE	x 1/4"	NPT male pipe
T1-04C	2 x 1/4"	male fl. SAE	x 3/8"	NPT male pipe
T1-06B	2 x 3/8"	male fl. SAE	x 1/4"	NPT male pipe
T1-06C	2 x 3/8"	male fl. SAE	x 3/8"	NPT male pipe
T1-08C	2 x 1/2"	male fl. SAE	x 3/8"	NPT male pipe
T1-08D	2 x 1/2"	male fl. SAE	x 1/2"	NPT male pipe
T1-10C	2 x 5/8"	male fl. SAE	x 3/8"	NPT male pipe
T1-10D	2 x 5/8"	male fl. SAE	x 1/2"	NPT male pipe



T2

FLARE TEE

(3 x male flare)

T2-04	3 x 1/4"	male flare SAE
T2-05	3 x 5/16"	male flare SAE
T2-06	3 x 3/8"	male flare SAE
T2-08	3 x 1/2"	male flare SAE
T2-10	3 x 5/8"	male flare SAE
T2-12	3 x 3/4"	male flare SAE



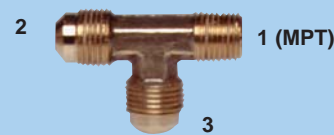
T6

2 x MALE FLARE x FEMALE FLARE TEE

(2 x in line male flare x female flare)

(Shipped with 1 copper gasket on female end)

T6-4	2 x 1/4"	male fl. SAE	x 1/4"	fem. fl. SAE
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T3

OTHER FLARE x MPT PIPE TEE

(Male Flare x MPT Male Pipe x Male Flare)

T3-04A	2 x 1/4"	Male Fl. SAE	x 1/8"	MPT Male pipe
T3-04B	2 x 1/4"	Male Fl. SAE	x 1/4"	MPT Male pipe
T3-06B	2 x 3/8"	Male Fl. SAE	x 1/4"	MPT Male pipe
T3-08D	2 x 1/2"	Male Fl. SAE	x 1/2"	MPT Male pipe
T3-10D	2 x 5/8"	Male Fl. SAE	x 1/2"	MPT Male pipe
T3-12E	2 x 3/4"	Male Fl. SAE	x 3/4"	MPT Male pipe

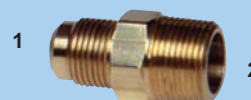


TR2

REDUCING FLARE TEE

(3 x male flare)

TR2-00446	2 x 1/4"	male fl. SAE	x 3/8"	male fl. SAE
TR2-00664	2 x 3/8"	male fl. SAE	x 1/4"	male fl. SAE
TR2-00668	2 x 3/8"	male fl. SAE	x 1/2"	male fl. SAE
TR2-00886	2 x 1/2"	male fl. SAE	x 3/8"	male fl. SAE



U1

MALE FLARE x MALE NPT PIPE ADAPTER

(Male flare x MPT male pipe)

U1-03A	3/16"	male fl. SAE	x 1/8"	MPT pipe
U1-04A	1/4"	male fl. SAE	x 1/8"	MPT pipe
U1-04B	1/4"	male fl. SAE	x 1/4"	MPT pipe
U1-04C	1/4"	male fl. SAE	x 3/8"	MPT pipe
U1-04D	1/4"	male fl. SAE	x 1/2"	MPT pipe
U1-05A	5/16"	male fl. SAE	x 1/8"	MPT pipe
U1-05B	5/16"	male fl. SAE	x 1/4"	MPT pipe
U1-05C	5/16"	male fl. SAE	x 3/8"	MPT pipe
U1-06A	3/8"	male fl. SAE	x 1/8"	MPT pipe
U1-06B	3/8"	male fl. SAE	x 1/4"	MPT pipe
U1-06C	3/8"	male fl. SAE	x 3/8"	MPT pipe
U1-06D	3/8"	male fl. SAE	x 1/2"	MPT pipe
U1-06E	3/8"	male fl. SAE	x 3/4"	MPT pipe
U1-08A	1/2"	male fl. SAE	x 1/8"	MPT pipe
U1-08B	1/2"	male fl. SAE	x 1/4"	MPT pipe
U1-08C	1/2"	male fl. SAE	x 3/8"	MPT pipe
U1-08D	1/2"	male fl. SAE	x 1/2"	MPT pipe
U1-08E	1/2"	male fl. SAE	x 3/4"	MPT pipe
U1-10B	5/8"	male fl. SAE	x 1/4"	MPT pipe
U1-10C	5/8"	male fl. SAE	x 3/8"	MPT pipe
U1-10D	5/8"	male fl. SAE	x 1/2"	MPT pipe
U1-10E	5/8"	male fl. SAE	x 3/4"	MPT pipe
U1-12D	3/4"	male fl. SAE	x 1/2"	MPT pipe
U1-12E	3/4"	male fl. SAE	x 3/4"	MPT pipe



U2

STRAIGHT FLARE UNION

(Male flare x male flare)

U2-03	2	x	3/16"	male flare SAE
U2-04	2	x	1/4"	male flare SAE
U2-05	2	x	5/16"	male flare SAE
U2-06	2	x	3/8"	male flare SAE
U2-08	2	x	1/2"	male flare SAE
U2-10	2	x	5/8"	male flare SAE
U2-12	2	x	3/4"	male flare SAE



U5

FEMALE FLARE x MPT ADAPTER

(Female flare x MPT male pipe)

(Shipped with 1 copper gasket)

U5-04A	1/4"	fem. fl. SAE	x	1/8"	MPT male
U5-04B	1/4"	fem. fl. SAE	x	1/4"	MPT male
U5-06B	3/8"	fem. fl. SAE	x	1/4"	MPT male
U5-08D	1/2"	fem. fl. SAE	x	1/2"	MPT male



U3

MALE FLARE x FPT PIPE ADAPTER

(Male flare x FPT female pipe)

U3-04A	1/4"	male flare SAE	x	1/8"	FPT pipe
U3-04B	1/4"	male flare SAE	x	1/4"	FPT pipe
U3-04C	1/4"	male flare SAE	x	3/8"	FPT pipe
U3-05A	5/16"	male flare SAE	x	1/8"	FPT pipe
U3-05B	5/16"	male flare SAE	x	1/4"	FPT pipe
U3-06A	3/8"	male flare SAE	x	1/8"	FPT pipe
U3-06B	3/8"	male flare SAE	x	1/4"	FPT pipe
U3-06C	3/8"	male flare SAE	x	3/8"	FPT pipe
U3-06D	3/8"	male flare SAE	x	1/2"	FPT pipe
U3-08B	1/2"	male flare SAE	x	1/4"	FPT pipe
U3-08C	1/2"	male flare SAE	x	3/8"	FPT pipe
U3-08D	1/2"	male flare SAE	x	1/2"	FPT pipe
U3-10C	5/8"	male flare SAE	x	3/8"	FPT pipe
U3-10D	5/8"	male flare SAE	x	1/2"	FPT pipe
U3-10E	5/8"	male flare SAE	x	3/4"	FPT pipe



U6

FEMALE FLARE x FPT UNION

(Female flare x FPT female pipe)

(Shipped with 1 copper gasket on Flare end)

U6-4A	1/4"	fem. fl. SAE	x	1/8"	fem. FPT pipe
U6-4B	1/4"	fem. fl. SAE	x	1/4"	fem. FPT pipe



U4

2 x SAE FLARE CONNECTOR

(Female flare x female flare)

(shipped with 2 copper gaskets)

U4-04	2	x	1/4"	female flare SAE
U4-06	2	x	3/8"	female flare SAE
U4-08	2	x	1/2"	female flare SAE
U4-10	2	x	5/8"	female flare SAE
U4-12	2	x	3/4"	female flare SAE



UR2

REDUCING FLARE UNION

(Male flare x male flare)

UR2-0043	1/4"	x	3/16"	male flare SAE
UR2-0054	5/16"	x	1/4"	male flare SAE
UR2-0064	3/8"	x	1/4"	male flare SAE
UR2-0065	3/8"	x	5/16"	male flare SAE
UR2-0084	1/2"	x	1/4"	male flare SAE
UR2-0086	1/2"	x	3/8"	male flare SAE
UR2-0104	5/8"	x	1/4"	male flare SAE
UR2-0106	5/8"	x	3/8"	male flare SAE
UR2-0108	5/8"	x	1/2"	male flare SAE
UR2-0128	3/4"	x	1/2"	male flare SAE
UR2-1210	3/4"	x	5/8"	male flare SAE



UR3

FEMALE x MALE FLARE ADAPTER

(Hex female flare x male flare)

(Shipped with 1 copper gasket)

UR3-0046	1/4"	fem. fl. SAE	x	3/8"	male fl. SAE
UR3-0048	1/4"	fem. fl. SAE	x	1/2"	male fl. SAE
UR3-0064	3/8"	fem. fl. SAE	x	1/4"	male fl. SAE
UR3-0065	3/8"	fem. fl. SAE	x	5/16"	male fl. SAE
UR3-0068	3/8"	fem. fl. SAE	x	1/2"	male fl. SAE
UR3-0084	1/2"	fem. fl. SAE	x	1/4"	male fl. SAE
UR3-0086	1/2"	fem. fl. SAE	x	3/8"	male fl. SAE
UR3-0810	1/2"	fem. fl. SAE	x	5/8"	male fl. SAE
UR3-0106	5/8"	fem. fl. SAE	x	3/8"	male fl. SAE
UR3-0108	5/8"	fem. fl. SAE	x	1/2"	male fl. SAE
UR3-1012	5/8"	fem. fl. SAE	x	3/4"	male fl. SAE
UR3-1210	3/4"	fem. fl. SAE	x	5/8"	male fl. SAE



US3

FLARE x SOLDER HEX ADAPTER

(Male flare x O.D.S. solder end)

US3-0044	1/4"	male flare SAE	x	1/4"	ODS
US3-0045	1/4"	male flare SAE	x	5/16"	ODS
US3-0046	1/4"	male flare SAE	x	3/8"	ODS
US3-0064	3/8"	male flare SAE	x	1/4"	ODS
US3-0065	3/8"	male flare SAE	x	5/16"	ODS
US3-0066	3/8"	male flare SAE	x	3/8"	ODS
US3-0068	3/8"	male flare SAE	x	1/2"	ODS
US3-0610	3/8"	male flare SAE	x	5/8"	ODS
US3-0086	1/2"	male flare SAE	x	3/8"	ODS
US3-0088	1/2"	male flare SAE	x	1/2"	ODS
US3-0810	1/2"	male flare SAE	x	5/8"	ODS
US3-0108	5/8"	male flare SAE	x	1/2"	ODS
US3-1010	5/8"	male flare SAE	x	5/8"	ODS
US3-1012	5/8"	male flare SAE	x	3/4"	ODS
US3-1014	5/8"	male flare SAE	x	7/8"	ODS
US3-1212	3/4"	male flare SAE	x	3/4"	ODS
US3-1214	3/4"	male flare SAE	x	7/8"	ODS



US4

SWIVEL FEMALE FLARE CONNECTOR

(Female flare x swivel female flare)

US4-04	2	x	1/4"	female flare SAE
US4-06	2	x	3/8"	female flare SAE
US4-08	2	x	1/2"	female flare SAE
US4-10	2	x	5/8"	female flare SAE



US5

SWIVEL FEMALE FLARE CONNECTOR x O.D.S. SOLDER END ADAPTER

(Swivel female flare x O.D.S. solder)

US5-0044	1/4"	female flare SAE	x	1/4"	ODS
US5-0066	3/8"	female flare SAE	x	3/8"	ODS
US5-0088	1/2"	female flare SAE	x	1/2"	ODS
US5-1010	5/8"	female flare SAE	x	5/8"	ODS



USTK

STEK COUPLING

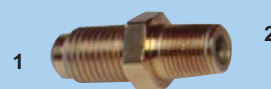
USTK-04	Stek coupling 1/4"
USTK-06	Stek coupling 3/8"
USTK-08	Stek coupling 1/2"
USTK-10	Stek coupling 5/8"
USTK-12	Stek coupling 3/4"



USTKR-46

STEK COUPLING REDUCER

USTKR-46	Stek coupling reducer 3/8" x 1/4"
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UX1

EXTRA LONG FLARE HEX UNION

(Male flare x MPT male pipe)

UX1-4A	1/4"	male fl. SAE	x	1/8"	MPT pipe
UX1-4B	1/4"	male fl. SAE	x	1/4"	MPT pipe

NPT PIPE FORGED BRASS FITTINGS

"STANDARD NATIONAL PIPE THREAD"

FITTINGS CONNECTIONS ARE:

- Standard **MPT (Male NATIONAL PIPE THREAD)**
- Standard **FPT (Female NATIONAL PIPE THREAD)**
- EXCELLENT PULL OUT, MAKE and BREAK, GOOD VIBRATION RESISTANCE, LOW COST, EASY ASSEMBLY and... THE LARGEST SELECTION IMMEDIATELY AVAILABLE ON STOCK...

PURPOSE, SPECIFICATION & NORMS:

- See "BRASS FLARED TUBE FITTINGS" section, page 133.



FORGED 90° ELBOW

(2 x FPT female pipe)

100-B-02	1/8" FPT
100-B-04	1/4" FPT
100-B-06	3/8" FPT
100-B-08	1/2" FPT



HEX COUPLING

(2 x FPT female pipe)

103-B-02	1/8" FPT
103-B-04	1/4" FPT
103-B-06	3/8" FPT
103-B-08	1/2" FPT



FORGED TEE

(3 x FPT female pipe)

101-B-02	1/8" FPT
101-B-04	1/4" FPT
101-B-06	3/8" FPT
101-B-08	1/2" FPT



HEX 3 PIECES UNIONS

(2 x FPT female pipe)

104-B-04	1/4" FPT
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FORGED CROSS

(4 x FPT female pipe)

102-B-06	3/8" FPT
102-B-08	1/2" FPT



FEMALE CAP

(FPT female pipe)

108-B-02	1/8" FPT
108-B-04	1/4" FPT
108-B-06	3/8" FPT
108-B-08	1/2" FPT

109-B



MALE SQUARE HEAD PLUG

(MPT male pipe)

109-B-02	1/8" MPT
109-B-04	1/4" MPT
109-B-06	3/8" MPT
109-B-08	1/2" MPT

113-B



LONG NIPPLE

(2 x MPT male pipe)

113-B-02x24	Long nipple 1/8" MPT - 38 mm
113-B-04x24	Long nipple 1/4" MPT - 38 mm
113-B-04x32	Long nipple 1/4" MPT - 51 mm
113-B-04x48	Long nipple 1/4" MPT - 76 mm

110-B



HEX BUSHING

(MPT male pipe x FPT female pipe)

110-B-04x02	1/4" MPT x 1/8" FPT
110-B-06x02	3/8" MPT x 1/8" FPT
110-B-06x04	3/8" MPT x 1/4" FPT
110-B-08x02	1/2" MPT x 1/8" FPT
110-B-08x04	1/2" MPT x 1/4" FPT
110-B-08x06	1/2" MPT x 3/8" FPT
110-B-12x06	3/4" MPT x 3/8" FPT
110-B-12x08	3/4" MPT x 1/2" FPT

116-B



FORGED 90° STREET ELBOW

(MPT male pipe x FPT female pipe)

116-B-02	1/8" MPT x 1/8" FPT
116-B-04	1/4" MPT x 1/4" FPT
116-B-06	3/8" MPT x 3/8" FPT
116-B-08	1/2" MPT x 1/2" FPT

111-B



HEX LOCK NUT

(Through wall maintaining)

111-B-02	1/8" FPT
111-B-04	1/4" FPT
111-B-06	3/8" FPT
111-B-08	1/2" FPT

117-B



SLOTTED PLUG

(MPT male pipe)

117-B-02	1/8" MPT
117-B-04	1/4" MPT
117-B-06	3/8" MPT

112-B



CROSS NIPPLE

(2 x MPT male pipe)

112-B-02	1/8" MPT
112-B-04	1/4" MPT
112-B-06	3/8" MPT
112-B-08	1/2" MPT

119-B



HEX REDUCING BUSHING

(FPT female pipe x FPT female pipe)

119-B-04x02	1/4" FPT x 1/8" FPT
119-B-06x04	3/8" FPT x 1/4" FPT
119-B-08x06	1/2" FPT x 3/8" FPT



HEX ADAPTER

(FPT female pipe x MPT male pipe)

120-B-02x02	1/8" FPT	x	1/8" MPT
120-B-04x04	1/4" FPT	x	1/4" MPT
120-B-06x06	3/8" FPT	x	3/8" MPT
120-B-08x08	1/2" FPT	x	1/2" MPT



HEX NIPPLE

(2 x MPT male pipe)

122-B-02	1/8" MPT
122-B-04	1/4" MPT
122-B-06	3/8" MPT
122-B-08	1/2" MPT



HEX ADAPTER

(FPT female pipe x MPT male pipe)

120-B-04x02	1/4" FPT	x	1/8" MPT
120-B-06x04	3/8" FPT	x	1/4" MPT
120-B-08x06	1/2" FPT	x	3/8" MPT



REDUCING HEX NIPPLE

(2 x MPT male pipe)

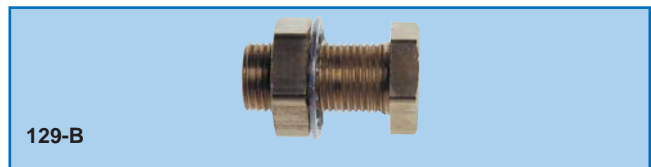
123-B-04x02	1/4" MPT	x	1/8" MPT
123-B-06x04	3/8" MPT	x	1/4" MPT



HEX HEAD PLUG

(MPT male pipe)

121-B-02	1/8" MPT
121-B-04	1/4" MPT
121-B-06	3/8" MPT
121-B-08	1/2" MPT
121-B-12	3/4" MPT



BULKHEAD ADAPTER

(Through wall anchor)

129-B-02x24	1/8" FPT - Length: 38 mm
129-B-04x15	1/4" FPT - Length: 33 mm

REFRIGERATION STEEL FITTINGS

"STEEL 3000 & SCHEDULE 80"

DESCRIPTION

- All these **"NPT" FORGED STEEL FITTINGS & UNIONS** are suitable for:
 - **REFRIGERATION**
 - **AIR-CONDITIONING**
 - **MARINE** and **OIL** industries
- Both threads are Male thread (**MPT**) or Female thread (**FPT**) and are designated as follows:
 - **"NPT"**: *National Pipe Thread* according to the US std
 - **"BRIGGS"**: *Name of the discoverer engineer*
 - **"PIPE"**: *Inexplicit term used sometimes.*
(There is no similarity with "GAS" or "BSP" threads)
- Meanwhile, to define these specific **"NPT"** steel threaded fittings and unions, professional terms normally used are:
 - **"MPT"** = NPT male thread
 - **"FPT"** = NPT female thread
 - **"BUTT WELD"** = To be welded (same Ø of the pipe)
 - **"SW"** = welding of socket weld end

SPECIFICATIONS

- Metal/metal thread contact.
- Leak proof under high pressure.
- All these steel fittings are **"PHOSPHATIZED"**. This process consists of a chemical treatment to protect steel fittings against corrosion (60 hours of resistance under spray salt) and to increase the safety of the installation against leakage.
- Phosphatized fittings offer mechanical advantages and reduce tightening torque for a leak proof installation (by 20%).
- Also, if these steel fittings must often be disassembled and reassembled, there is no risk of seizing.

NORMES

- A.S.T.M.** = A-181 and A-105
- A.I.S.I.** = 1020
- AFNOR** = XC18 S
- BRITISH STD** = 1503 and 161-GR B
- DIN** = CK 22
- Specifications** = ASA-B16-11 and BS-3799
- Threading** = API-5B or ASA-B2-1

GENERAL PURPOSE

Multi threading uses and easy and safe assembling for:

- Level liquid Indicators (on piping, in line, receivers, etc...).
- Steel or brass relief-valve threadings (inlet, outlet, etc...).
- Level float-switch or level controller assemblies.
- Gauges, manifolds, service valves, expansion valves, etc...
- Water solenoid or pressostatic valves, etc...
- Glycool water pipings and all other refrigeration and air-conditioning systems, etc...

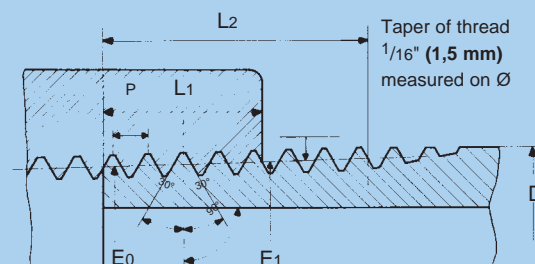
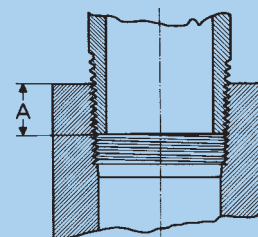
INSTALLATION

- To prevent crackings of the weld (socket-weld ends), it is safer to withdraw the pipe approximately **1,5 mm** ($1/16$ inch) away from the bottom of the socket.

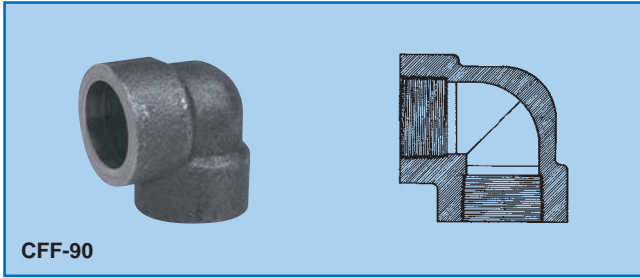


SCREW ENDS

Normal engagement between male and female threads to make tight joints according to standard **ASA-B. 2-1** or **API Std 5 B.**

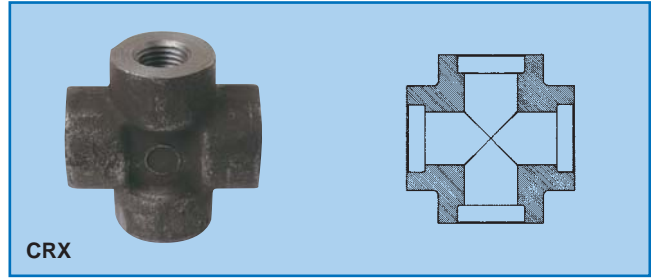


REFRIGERATION FITTINGS



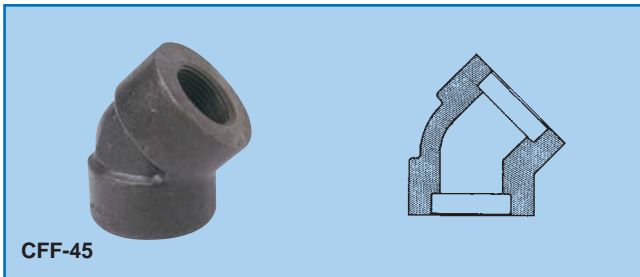
90° FEMALE ELBOWS (FPT x FPT)

CFF-90-02	2 times	1/4"
CFF-90-03	2 times	3/8"
CFF-90-04	2 times	1/2"
CFF-90-06	2 times	3/4"
CFF-90-08	2 times	1"
CFF-90-10	2 times	1 1/4"
CFF-90-12	2 times	1 1/2"
CFF-90-16	2 times	2"



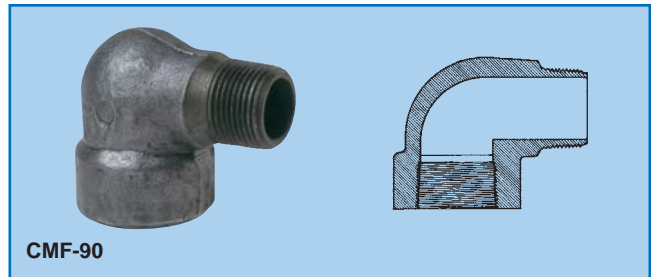
FEMALE CROSSES (FPT x FPT x FPT x FPT)

CRX-02	4 times	1/4"
CRX-03	4 times	3/8"
CRX-04	4 times	1/2"
CRX-06	4 times	3/4"
CRX-08	4 times	1"
CRX-10	4 times	1 1/4"
CRX-12	4 times	1 1/2"



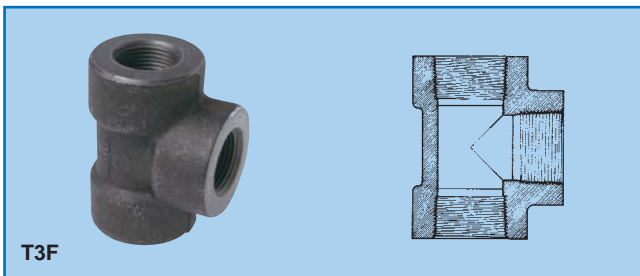
45° FEMALE ELBOWS (FPT x FPT)

CFF-45-02	2 times	1/4"
CFF-45-03	2 times	3/8"
CFF-45-04	2 times	1/2"
CFF-45-06	2 times	3/4"
CFF-45-08	2 times	1"
CFF-45-10	2 times	1 1/4"



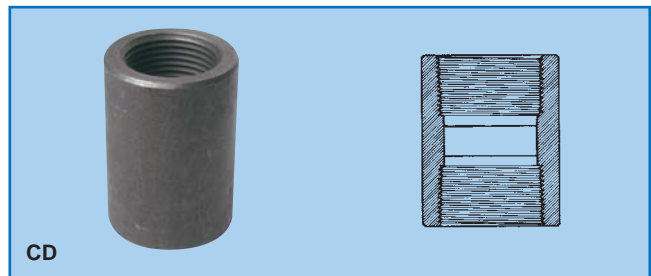
90° MALE x FEMALE ELBOWS (FPT x MPT)

CMF-90-02	2 times	1/4"
CMF-90-03	2 times	3/8"
CMF-90-04	2 times	1/2"
CMF-90-06	2 times	3/4"
CMF-90-08	2 times	1"
CMF-90-10	2 times	1 1/4"



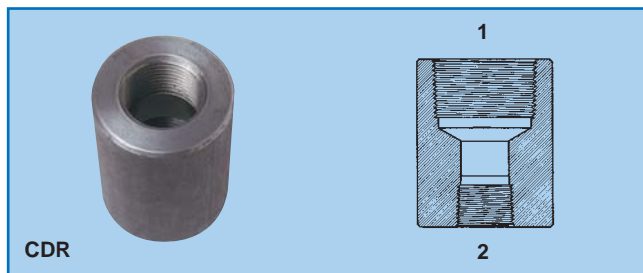
FEMALE TEES (FPT x FPT x FPT)

T3F-02	3 times	1/4"
T3F-03	3 times	3/8"
T3F-04	3 times	1/2"
T3F-06	3 times	3/4"
T3F-08	3 times	1"
T3F-10	3 times	1 1/4"
T3F-12	3 times	1 1/2"
T3F-16	3 times	2"



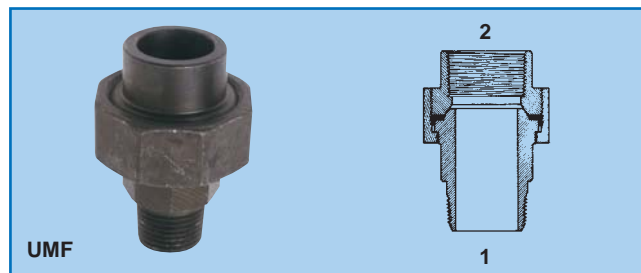
STEEL COUPLINGS (FPT x FPT)

CD-02	2 times	1/4"
CD-03	2 times	3/8"
CD-04	2 times	1/2"
CD-06	2 times	3/4"
CD-08	2 times	1"
CD-10	2 times	1 1/4"
CD-12	2 times	1 1/2"



FEMALE REDUCING COUPLINGS (FPT x FPT)

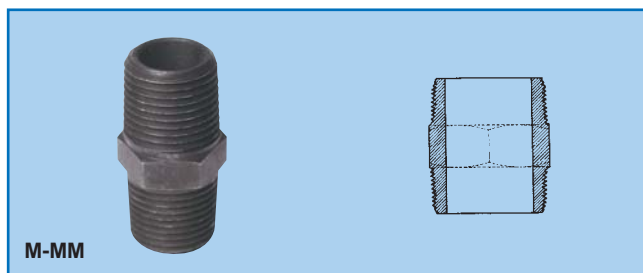
CDR-03-02	3/8"	x	1/4"
CDR-04-03	1/2"	x	3/8"
CDR-06-03	3/4"	x	3/8"
CDR-06-04	3/4"	x	1/2"
CDR-08-06	1"	x	3/4"
CDR-10-08	1 1/4"	x	1"
CDR-12-10	1 1/2"	x	1 1/4"
CDR-16-10	2"	x	1 1/4"
CDR-16-12	2"	x	1 1/2"



3 PIECES UNIONS (MPT x SW)

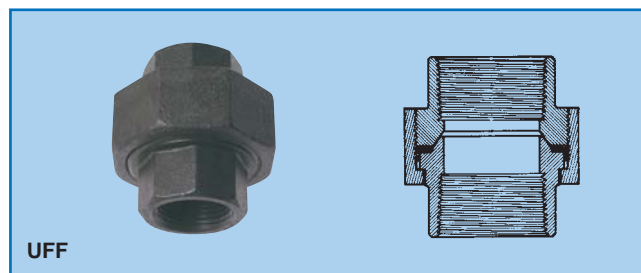
UMF-02	1/4" MPT	x	1/4" SW socket welding
UMF-03	3/8" MPT	x	3/8" SW socket welding
UMF-04	1/2" MPT	x	1/2" SW socket welding
UMF-06	3/4" MPT	x	3/4" SW socket welding
UMF-08	1" MPT	x	1" SW socket welding
UMF-10	1 1/4" MPT	x	1 1/4" SW socket welding
UMF-12	1 1/2" MPT	x	1 1/2" SW socket welding
UMF-16	2" MPT	x	2" SW socket welding

Typical for single or dual relief-valve outlets



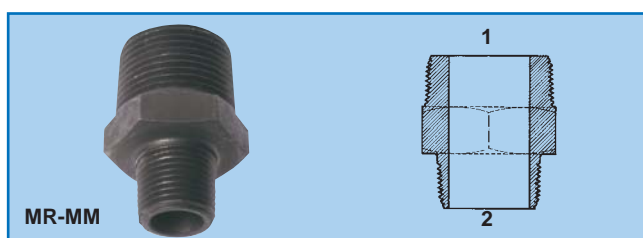
HEXAGONAL NIPPLES (MPT x MPT)

M-MM-02	2 times	1/4"
M-MM-03	2 times	3/8"
M-MM-04	2 times	1/2"
M-MM-06	2 times	3/4"
M-MM-08	2 times	1"
M-MM-10	2 times	1 1/4"
M-MM-12	2 times	1 1/2"
M-MM-16	2 times	2"



3 PIECES UNIONS (FPT x FPT)

UFF-02	2 times	1/4"
UFF-03	2 times	3/8"
UFF-04	2 times	1/2"
UFF-06	2 times	3/4"
UFF-08	2 times	1"
UFF-10	2 times	1 1/4"
UFF-12	2 times	1 1/2"



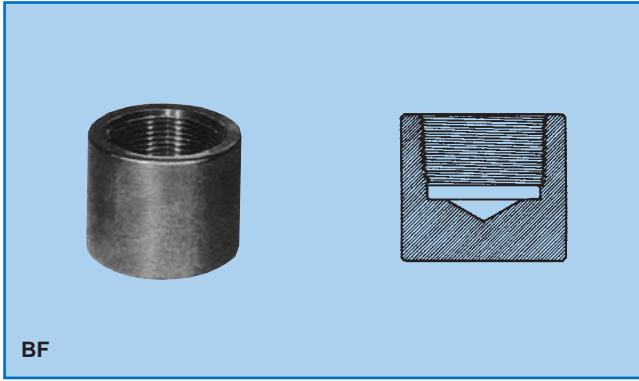
REDUCING HEXAGONAL NIPPLES (MPT x MPT)

MR-MM-032	3/8"	x	1/4"
MR-MM-042	1/2"	x	1/4"
MR-MM-043	1/2"	x	3/8"
MR-MM-064	3/4"	x	1/2"
MR-MM-082	1"	x	1/4"
MR-MM-084	1"	x	1/2"
MR-MM-086	1"	x	3/4"
MR-MM-106	1 1/4"	x	3/4"
MR-MM-108	1 1/4"	x	1"



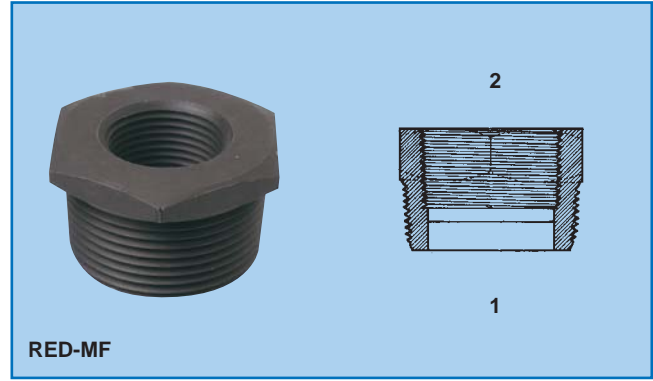
BARREL NIPPLES (MPT x BUTT WELD)

MT-02	2 times	1/4"	butt weld
MT-03	2 times	3/8"	butt weld
MT-04	2 times	1/2"	butt weld
MT-06	2 times	3/4"	butt weld
MT-08	2 times	1"	butt weld
MT-10	2 times	1 1/4"	butt weld
MT-12	2 times	1 1/2"	butt weld
MT-16	2 times	2"	butt weld
MT-20	2 times	2 1/2"	butt weld
MT-24	2 times	3"	butt weld



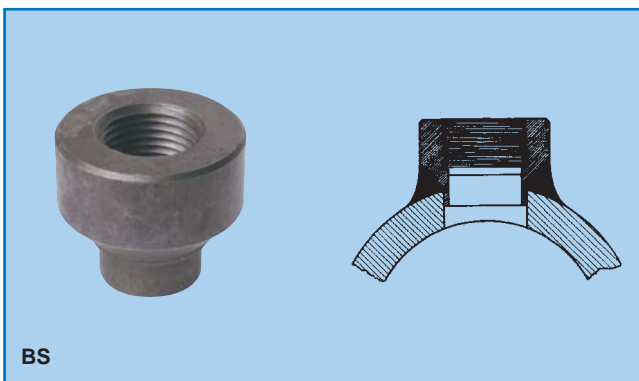
FEMALE ROUND CAPS (FPT)

BF-01	1/8"
BF-02	1/4"
BF-03	3/8"
BF-04	1/2"
BF-06	3/4"
BF-08	1"
BF-10	1 1/4"
BF-12	1 1/2"
BF-16	2"
BF-20	2 1/2"
BF-24	3"



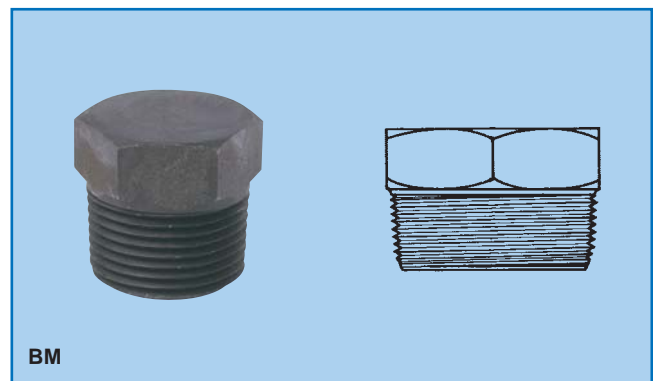
HEXAGONAL HEAD BUSHINGS (MPT x FPT)

RED-MF-0032	3/8"	x	1/4"
RED-MF-0042	1/2"	x	1/4"
RED-MF-0043	1/2"	x	3/8"
RED-MF-0062	3/4"	x	1/4"
RED-MF-0064	3/4"	x	1/2"
RED-MF-0084	1"	x	1/2"
RED-MF-0086	1"	x	3/4"
RED-MF-0106	1 1/4"	x	3/4"
RED-MF-0108	1 1/4"	x	1"
RED-MF-0128	1 1/2"	x	1"
RED-MF-1210	1 1/2"	x	1 1/4"



FEMALE WELD COUPLETS (FPT x BUTT WELD)

BS-02	2 times	1/4"	butt weld
BS-03	2 times	3/8"	butt weld
BS-04	2 times	1/2"	butt weld
BS-06	2 times	3/4"	butt weld
BS-08	2 times	1"	butt weld
BS-10	2 times	1 1/4"	butt weld
BS-12	2 times	1 1/2"	butt weld



MALE HEXAGONAL HEAD PLUGS (MPT)

BM-01	1/8"
BM-02	1/4"
BM-03	3/8"
BM-04	1/2"
BM-06	3/4"
BM-08	1"
BM-10	1 1/4"
BM-12	1 1/2"
BM-16	2"
BM-20	2 1/2"
BM-24	3"

REFRIGERATION STEEL FITTINGS

"STEEL 3000 & SCHEDULE 80"

"SOCKET WELD END" FORGED STEEL FITTINGS

DESCRIPTION

- All these steel fittings are identical to the steel fittings shown on the preceding pages but offer "SOCKET WELD END" assemblies only. See "SW" definition on page 143.

SPECIFICATION and NORMS

- ANSI-B 16-11-73 and BS-3799-74
- ANSI-B 16.5
(For all "butt weld" connections as BS and BS-S types)
- ASTM, AFNOR, AISI and DIN (see page 143)

PURPOSE

- REFRIGERATION
- AIR CONDITIONING
- MARINE and OIL industries
- Free welding steel pipes (norm NFE 20-001)
- Tarif 10 steel pipes (norm NFA 48-005)
- Low temperature refrigeration pipes
- Water, steam, oil, chemistry and high pressure pipes

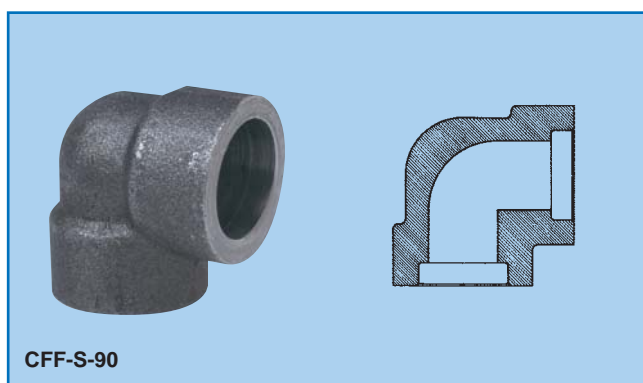
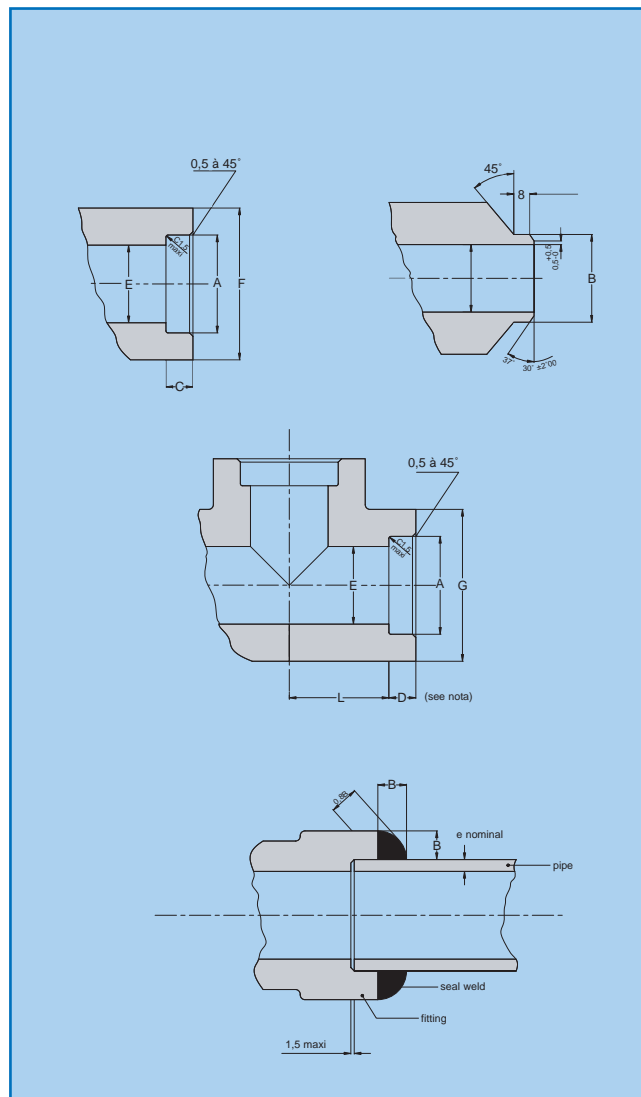
NOTE

e = Nominal pipe thickness.

B mini = 1,09 e (nominal) but never less than 3,2 mm (1/8")

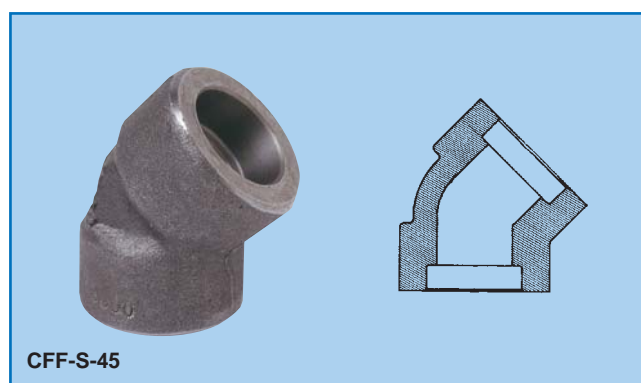
INSTALLATION

- To prevent crackings of the weld (socket weld ends), it is safer to withdraw the pipe approximately 1,5 mm (1/16") away from the bottom of the socket.



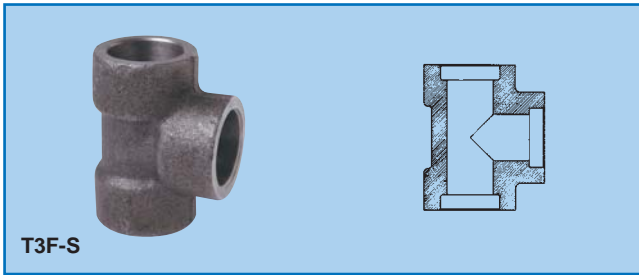
90° SOCKET FEMALE ELBOWS (SW x SW)

CFF-S-90-02	2 times	1/4"
CFF-S-90-03	2 times	3/8"
CFF-S-90-04	2 times	1/2"
CFF-S-90-06	2 times	3/4"
CFF-S-90-08	2 times	1"
CFF-S-90-10	2 times	1 1/4"
CFF-S-90-12	2 times	1 1/2"
CFF-S-90-16	2 times	2"
CFF-S-90-20	2 times	2 1/2"
CFF-S-90-24	2 times	3"



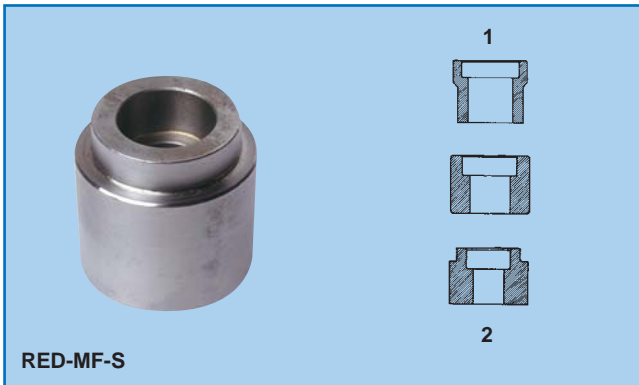
45° SOCKET FEMALE ELBOWS (SW x SW)

CFF-S-45-02	2 times	1/4"
CFF-S-45-03	2 times	3/8"
CFF-S-45-04	2 times	1/2"
CFF-S-45-06	2 times	3/4"
CFF-S-45-08	2 times	1"
CFF-S-45-10	2 times	1 1/4"
CFF-S-45-12	2 times	1 1/2"
CFF-S-45-16	2 times	2"
CFF-S-45-20	2 times	2 1/2"
CFF-S-45-24	2 times	3"



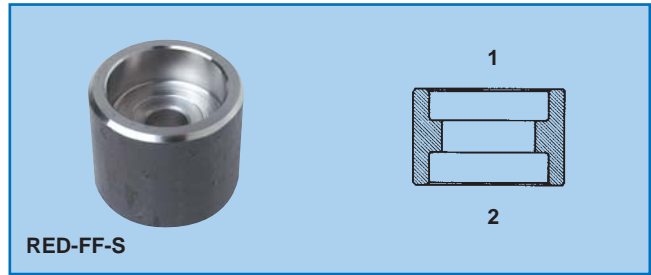
SOCKET FEMALE TEES (SW x SW x SW)

T3F-S-02	3 times	1/4"
T3F-S-03	3 times	3/8"
T3F-S-04	3 times	1/2"
T3F-S-06	3 times	3/4"
T3F-S-08	3 times	1"
T3F-S-10	3 times	1 1/4"
T3F-S-12	3 times	1 1/2"
T3F-S-16	3 times	2"
T3F-S-20	3 times	2 1/2"
T3F-S-24	3 times	3"



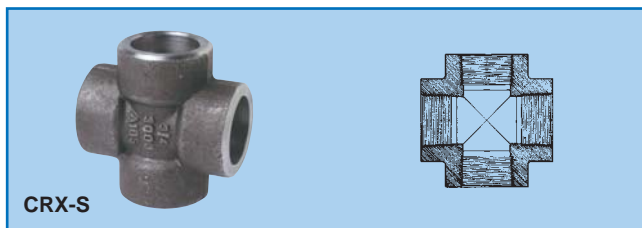
SOCKET REDUCER INSERTS (SW x SW)

RED-MF-S-0032	3/8"	x	1/4"
RED-MF-S-0042	1/2"	x	1/4"
RED-MF-S-0043	1/2"	x	3/8"
RED-MF-S-0062	3/4"	x	1/4"
RED-MF-S-0063	3/4"	x	3/8"
RED-MF-S-0064	3/4"	x	1/2"
RED-MF-S-0082	1"	x	1/4"
RED-MF-S-0083	1"	x	3/8"
RED-MF-S-0084	1"	x	1/2"
RED-MF-S-0086	1"	x	3/4"
RED-MF-S-0104	1 1/4"	x	1/2"
RED-MF-S-0106	1 1/4"	x	3/4"
RED-MF-S-0108	1 1/4"	x	1"
RED-MF-S-0122	1 1/2"	x	1/4"
RED-MF-S-0123	1 1/2"	x	3/8"
RED-MF-S-0124	1 1/2"	x	1/2"
RED-MF-S-0126	1 1/2"	x	3/4"
RED-MF-S-0128	1 1/2"	x	1"
RED-MF-S-1210	1 1/2"	x	1 1/4"
RED-MF-S-0164	2"	x	1/2"
RED-MF-S-0168	2"	x	1"
RED-MF-S-1610	2"	x	1 1/4"
RED-MF-S-1612	2"	x	1 1/2"
RED-MF-S-2016	2 1/2"	x	2"



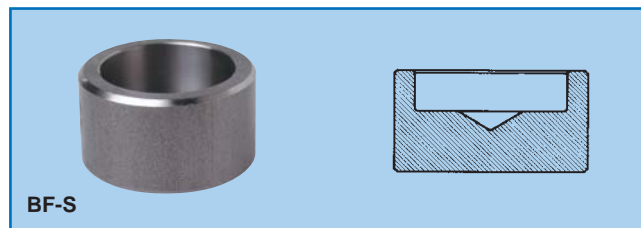
SOCKET FEMALE REDUCING COUPLINGS (SW x SW)

RED-FF-S-0021	1/4"	x	1/8"
RED-FF-S-0032	3/8"	x	1/4"
RED-FF-S-0042	1/2"	x	1/4"
RED-FF-S-0043	1/2"	x	3/8"
RED-FF-S-0062	3/4"	x	1/4"
RED-FF-S-0063	3/4"	x	3/8"
RED-FF-S-0064	3/4"	x	1/2"
RED-FF-S-0082	1"	x	1/4"
RED-FF-S-0083	1"	x	3/8"
RED-FF-S-0084	1"	x	1/2"
RED-FF-S-0086	1"	x	3/4"
RED-FF-S-0102	1 1/4"	x	1/4"
RED-FF-S-0103	1 1/4"	x	3/8"
RED-FF-S-0104	1 1/4"	x	1/2"
RED-FF-S-0106	1 1/4"	x	3/4"
RED-FF-S-0108	1 1/4"	x	1"
RED-FF-S-0122	1 1/2"	x	1/4"
RED-FF-S-0123	1 1/2"	x	3/8"
RED-FF-S-0124	1 1/2"	x	1/2"
RED-FF-S-0126	1 1/2"	x	3/4"
RED-FF-S-0128	1 1/2"	x	1"
RED-FF-S-1210	1 1/2"	x	1 1/4"
RED-FF-S-0162	2"	x	1/4"
RED-FF-S-0163	2"	x	3/8"
RED-FF-S-0164	2"	x	1/2"
RED-FF-S-0166	2"	x	3/4"
RED-FF-S-0168	2"	x	1"
RED-FF-S-1612	2"	x	1 1/2"
RED-FF-S-0208	2 1/2"	x	1"
RED-FF-S-2012	2 1/2"	x	1 1/2"
RED-FF-S-2016	2 1/2"	x	2"
RED-FF-S-2416	3"	x	1 1/2"
RED-FF-S-2416	3"	x	2"
RED-FF-S-2420	3"	x	2 1/2"



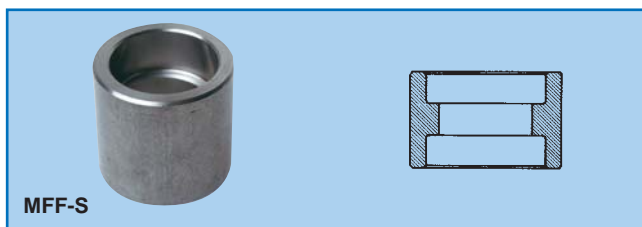
SOCKET FEMALE CROSSES (4 x SW)

CRX-S-02	4 times	1/4"
CRX-S-03	4 times	3/8"
CRX-S-04	4 times	1/2"
CRX-S-06	4 times	3/4"
CRX-S-08	4 times	1"
CRX-S-10	4 times	1 1/4"
CRX-S-12	4 times	1 1/2"
CRX-S-16	4 times	2"
CRX-S-20	4 times	2 1/2"
CRX-S-24	4 times	3"



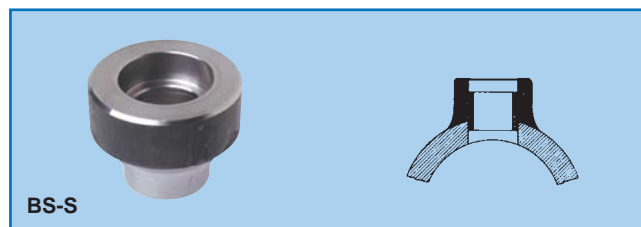
SOCKET FEMALE ROUND CAPS (SW)

BF-S-02	1/4"
BF-S-03	3/8"
BF-S-04	1/2"
BF-S-06	3/4"
BF-S-08	1"
BF-S-10	1 1/4"
BF-S-12	1 1/2"
BF-S-16	2"
BF-S-20	2 1/2"



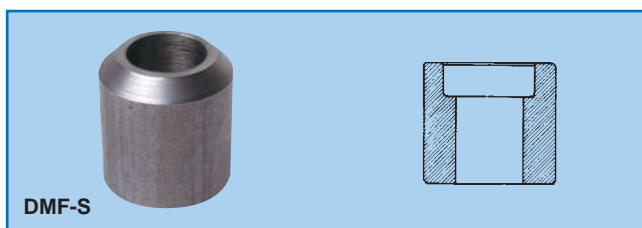
SOCKET FEMALE COUPLINGS (SW x SW)

MFF-S-02	2 times	1/4"
MFF-S-03	2 times	3/8"
MFF-S-04	2 times	1/2"
MFF-S-06	2 times	3/4"
MFF-S-08	2 times	1"
MFF-S-10	2 times	1 1/4"
MFF-S-12	2 times	1 1/2"
MFF-S-16	2 times	2"
MFF-S-20	2 times	2 1/2"
MFF-S-24	2 times	3"
MFF-S-32	2 times	4"



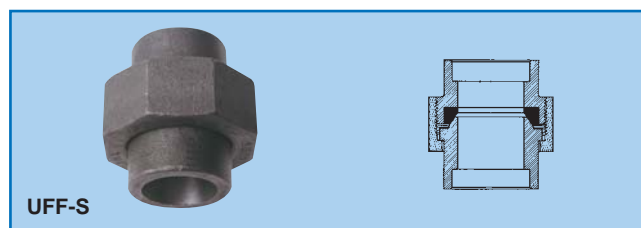
SOCKET WELD COUPLETS (SW x BUTT WELD)

BS-S-02	2 times	1/4"
BS-S-03	2 times	3/8"
BS-S-04	2 times	1/2"
BS-S-06	2 times	3/4"
BS-S-08	2 times	1"
BS-S-10	2 times	1 1/4"
BS-S-12	2 times	1 1/2"
BS-S-16	2 times	2"



SOCKET HALF COUPLINGS (SW x SW)

DMF-S-02	1/4"
DMF-S-03	3/8"
DMF-S-04	1/2"
DMF-S-06	3/4"
DMF-S-08	1"
DMF-S-10	1 1/4"
DMF-S-12	1 1/2"
DMF-S-16	2"
DMF-S-20	2 1/2"
DMF-S-24	3"



3 PIECES SOCKET UNIONS (SW x SW)

UFF-S-02	2 times	1/4"
UFF-S-03	2 times	3/8"
UFF-S-04	2 times	1/2"
UFF-S-06	2 times	3/4"
UFF-S-08	2 times	1"
UFF-S-10	2 times	1 1/4"
UFF-S-12	2 times	1 1/2"
UFF-S-16	2 times	2"
UFF-S-20	2 times	2 1/2"
UFF-S-24	2 times	3"

Part. nr.	Pdf file
2001-VG	see Service manifolds, gauges and charging hoses
2001-VG	see Service manifolds, gauges and charging hoses
203-FA	see Tube working tools
2041-BT-2	see Fluid control components
2041-BT-2	see Fluid control components
2041-BT-2S2	see Fluid control components
2041-BT-2S2	see Fluid control components
2041-BT-3	see Fluid control components
2041-BT-3	see Fluid control components
2041-BT-3S3	see Fluid control components
2041-BT-3S3	see Fluid control components
2041-BT-4	see Fluid control components
2041-BT-4	see Fluid control components
2041-BT-4S4	see Fluid control components
2041-BT-4S4	see Fluid control components
2041-BT-4S5	see Fluid control components
2041-BT-4S5	see Fluid control components
2041-BT-5	see Fluid control components
2041-BT-5	see Fluid control components
2041-BT-5S5	see Fluid control components
2041-BT-5S5	see Fluid control components
2041-BT-5S6	see Fluid control components
2041-BT-5S6	see Fluid control components
2041-BT-5S6	see Fluid control components
2041-BT-5S7	see Fluid control components
2041-BT-5S7	see Fluid control components
205-P06	see Evacuating and charging equipment
205-P06	see Refrigeration accessories
205-P1	see Evacuating and charging equipment
205-P1	see Refrigeration accessories
205-P4	see Evacuating and charging equipment
205-P4	see Refrigeration accessories
206-FB	see Tube working tools
20-A	see Automatic access valves & fittings
21702-0	see Evacuating and charging equipment
21751	see Evacuating and charging equipment
227-FA	see Tube working tools
2444-RC	see Refrigeration accessories
25563	see Electronic measurement and control instruments
25860	see Refrigeration accessories
25863	see Refrigeration accessories
25869	see Refrigeration accessories
25870	see Refrigeration accessories
260-FHA	see Tube working tools
268	see Electronic measurement and control instruments
26880	see Tube working tools
26-C	see Automatic access valves & fittings
270-F-06	see Tube working tools
270-F-08	see Tube working tools
270-F-10	see Tube working tools
270-F-12	see Tube working tools
270-F-14	see Tube working tools
270-F-16	see Tube working tools
270-F-18	see Tube working tools
271-F	see Tube working tools
275-FS	see Tube working tools
275-FSC	see Tube working tools
275-FSM	see Tube working tools
27805	see Tube working tools
27806	see Tube working tools
27806M	see Tube working tools
27808	see Tube working tools
27808M	see Tube working tools
27810	see Tube working tools
27810M	see Tube working tools
27812	see Tube working tools
27812M	see Tube working tools
27814M	see Tube working tools
27816M	see Tube working tools
27818M	see Tube working tools
27820M	see Tube working tools
27-C	see Automatic access valves & fittings
2802-BC	see Service manifolds, gauges and charging hoses
2802-BC	see Service manifolds, gauges and charging hoses
2802-BC/247	see Service manifolds, gauges and charging hoses
2802-BC/27	see Service manifolds, gauges and charging hoses
2802-BC/4	see Service manifolds, gauges and charging hoses
2802-BC/447	see Service manifolds, gauges and charging hoses
2802-BPC	see Service manifolds, gauges and charging hoses
2802-BPC	see Service manifolds, gauges and charging hoses
2802-BPC/410	see Service manifolds, gauges and charging hoses
2802-BPC/410	see Service manifolds, gauges and charging hoses
2802-BPC/410/27	see Service manifolds, gauges and charging hoses
2802-BPC-1.0/410	see Service manifolds, gauges and charging hoses
2802-G-BC	see Service manifolds, gauges and charging hoses
2802-G-BC/247	see Service manifolds, gauges and charging hoses
2802-G-BC/4	see Service manifolds, gauges and charging hoses
2802-G-BC/447	see Service manifolds, gauges and charging hoses
2802-G-BPC	see Service manifolds, gauges and charging hoses
2804-BC	see Service manifolds, gauges and charging hoses
2804-BC/247	see Service manifolds, gauges and charging hoses
2804-BC/27	see Service manifolds, gauges and charging hoses
2804-BC/4	see Service manifolds, gauges and charging hoses
2804-BC/447	see Service manifolds, gauges and charging hoses
2804-BPC	see Service manifolds, gauges and charging hoses
2804-G-BC	see Service manifolds, gauges and charging hoses

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Part. nr.	Pdf file
CRISTAL CLEAR	see Service manifolds, gauges and charging hoses
CRISTAL CLEAR	see Service manifolds, gauges and charging hoses
CRPEN	see Electronic measurement and control instruments
CRPENB	see Electronic measurement and control instruments
CRPENB	see Electronic measurement and control instruments
CRPENR	see Electronic measurement and control instruments
CRPENR	see Electronic measurement and control instruments
CRX-02	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
CRX-03	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
CRX-04	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
CRX-06	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
CRX-08	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
CRX-10	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
CRX-12	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
CRX-S-02	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
CRX-S-03	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
CRX-S-04	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
CRX-S-06	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
CRX-S-08	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
CRX-S-10	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
CRX-S-12	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
CRX-S-16	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
CRX-S-20	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
CRX-S-24	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
CSL-144-S	see Fluid control components
CSL-145-S	see Fluid control components
CSL-146-S	see Fluid control components
CSL-147-S	see Fluid control components
CSL-149-S	see Fluid control components
CST-080	see Electronic measurement and control instruments
CST-120	see Electronic measurement and control instruments
CT-34	see Service manifolds, gauges and charging hoses
CT-ACP	see Refrigeration accessories
CTP-1	see Tube working tools
CV-1G	see Automatic access valves & fittings
CV-2G	see Automatic access valves & fittings
CV-3G	see Automatic access valves & fittings
CW08-22	see Tube working tools
CW08-32	see Tube working tools
CW10-22	see Tube working tools
D02050	see Copper tubes, coils & solder fittings (Inch & Metric)
D03050	see Copper tubes, coils & solder fittings (Inch & Metric)
D04050	see Copper tubes, coils & solder fittings (Inch & Metric)
D05050	see Copper tubes, coils & solder fittings (Inch & Metric)
D06050	see Copper tubes, coils & solder fittings (Inch & Metric)
D08050	see Copper tubes, coils & solder fittings (Inch & Metric)
D-1 (WS-33)	see Refrigeration accessories
D10050	see Copper tubes, coils & solder fittings (Inch & Metric)
D12050	see Copper tubes, coils & solder fittings (Inch & Metric)
D14050	see Copper tubes, coils & solder fittings (Inch & Metric)
D18050	see Copper tubes, coils & solder fittings (Inch & Metric)
D22050	see Copper tubes, coils & solder fittings (Inch & Metric)
D26050	see Copper tubes, coils & solder fittings (Inch & Metric)
DB-009	see Refrigeration accessories
DB-061	see Refrigeration accessories
DB-152	see Refrigeration accessories
DB-157	see Refrigeration accessories
DB-162	see Refrigeration accessories
DC-5150	see Tube working tools
DETX	see Refrigeration accessories
DLC-1415C	see Electronic measurement and control instruments
DHC-06x09 mm	see Refrigeration accessories
DHC-06x09/1M	see Refrigeration accessories
DLC-040	see Electronic measurement and control instruments
DLC-040-E	see Electronic measurement and control instruments
DLC-052	see Electronic measurement and control instruments
DLC-060	see Electronic measurement and control instruments
DLC-080	see Electronic measurement and control instruments
DLC-080-E	see Electronic measurement and control instruments
DLC-120	see Electronic measurement and control instruments
DLC-120-E	see Electronic measurement and control instruments
DLC-160	see Electronic measurement and control instruments
DLC-160-E	see Electronic measurement and control instruments
DLC-200	see Electronic measurement and control instruments
DLC-240	see Electronic measurement and control instruments
DLC-240-E	see Electronic measurement and control instruments
DLC-320	see Electronic measurement and control instruments
DLC-360	see Electronic measurement and control instruments
DLC-400	see Electronic measurement and control instruments
DM-120C	see Electronic measurement and control instruments
DM-1676	see Fluid control components
DM-1677	see Fluid control components
DM-1678	see Fluid control components
DM-1679	see Fluid control components
DMF-S-02	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
DMF-S-03	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
DMF-S-04	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
DMF-S-06	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
DMF-S-08	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
DMF-S-10	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
DMF-S-12	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
DMF-S-16	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
DMF-S-20	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
DMF-S-24	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
DPS-300C	see Electronic measurement and control instruments

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Part. nr.	Pdf file
HC-2341-1	see Electronic measurement and control instruments
HC-2341-150	see Electronic measurement and control instruments
HC-234-150	see Electronic measurement and control instruments
HC-2341-50	see Electronic measurement and control instruments
HC-234-50	see Electronic measurement and control instruments
HCT-212	see Tube working tools
HCT-B	see Tube working tools
HCTK-239	see Electronic measurement and control instruments
HCT-P	see Tube working tools
HCT-S	see Tube working tools
HDA-120-B	see Service manifolds, gauges and charging hoses
HDA-120-R	see Service manifolds, gauges and charging hoses
HDA-120-Y	see Service manifolds, gauges and charging hoses
HDA-36-B	see Service manifolds, gauges and charging hoses
HDA-36-R	see Service manifolds, gauges and charging hoses
HDA-36-Y	see Service manifolds, gauges and charging hoses
HDA-60-B	see Service manifolds, gauges and charging hoses
HDA-60-R	see Service manifolds, gauges and charging hoses
HDA-60-Y	see Service manifolds, gauges and charging hoses
HDA-60-Y/410	see Service manifolds, gauges and charging hoses
HDA-60-B	see Service manifolds, gauges and charging hoses
HDA-60-R	see Service manifolds, gauges and charging hoses
HDA-60-R/410	see Service manifolds, gauges and charging hoses
HDA-60-Y	see Service manifolds, gauges and charging hoses
HDA-60-Y/410	see Service manifolds, gauges and charging hoses
HDA-72-B	see Service manifolds, gauges and charging hoses
HDA-72-R	see Service manifolds, gauges and charging hoses
HDA-72-Y	see Service manifolds, gauges and charging hoses
HDA-72-Y/V	see Service manifolds, gauges and charging hoses
HDCS-36-B/410/V	see Service manifolds, gauges and charging hoses
HDCS-36-R/410/V	see Service manifolds, gauges and charging hoses
HDS-120-B/V	see Service manifolds, gauges and charging hoses
HDS-120-R/V	see Service manifolds, gauges and charging hoses
HDS-120-Y/V	see Service manifolds, gauges and charging hoses
HDS-12-B/V	see Service manifolds, gauges and charging hoses
HDS-12-R	see Service manifolds, gauges and charging hoses
HDS-12-R/V	see Service manifolds, gauges and charging hoses
HDS-12-Y	see Service manifolds, gauges and charging hoses
HDS-12-Y/V	see Service manifolds, gauges and charging hoses
HDS-36-B/V	see Service manifolds, gauges and charging hoses
HDS-36-R/V	see Service manifolds, gauges and charging hoses
HDS-36-Y/V	see Service manifolds, gauges and charging hoses
HDS-60-B/V	see Service manifolds, gauges and charging hoses
HDS-60-R/V	see Service manifolds, gauges and charging hoses
HDS-60-Y/V	see Evacuating and charging equipment
HDS-60-Y/V	see Evacuating and charging equipment
HDS-60-Y/V	see Service manifolds, gauges and charging hoses
HD56-12-B/V	see Service manifolds, gauges and charging hoses
HD56-12-R/V	see Service manifolds, gauges and charging hoses
HD56-12-Y/V	see Service manifolds, gauges and charging hoses
HD56-36-B	see Service manifolds, gauges and charging hoses
HD56-36-B/V	see Service manifolds, gauges and charging hoses
HD56-36-R	see Service manifolds, gauges and charging hoses
HD56-36-R/V	see Service manifolds, gauges and charging hoses
HD56-36-Y	see Service manifolds, gauges and charging hoses
HD56-36-Y/V	see Service manifolds, gauges and charging hoses
HD56-60-B	see Service manifolds, gauges and charging hoses
HD56-60-B/V	see Service manifolds, gauges and charging hoses
HD56-60-R	see Service manifolds, gauges and charging hoses
HD56-60-R/V	see Service manifolds, gauges and charging hoses
HD56-60-Y	see Service manifolds, gauges and charging hoses
HD56-60-Y/V	see Service manifolds, gauges and charging hoses
HD56-72-B	see Service manifolds, gauges and charging hoses
HD56-72-B/V	see Service manifolds, gauges and charging hoses
HD56-72-R	see Service manifolds, gauges and charging hoses
HD56-72-R/V	see Service manifolds, gauges and charging hoses
HD56-72-Y	see Service manifolds, gauges and charging hoses
HD56-72-Y/V	see Service manifolds, gauges and charging hoses
HD56-72-B/V	see Service manifolds, gauges and charging hoses
HD56-72-R/V	see Service manifolds, gauges and charging hoses
HD56-72-Y/V	see Service manifolds, gauges and charging hoses
HER-319	see Fluid control components
HNS4-04	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
HNS4-06	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
HNS4-08	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
HNS4-10	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
HNS4-12	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
HP-3700	see Fluid control components
HP-3701	see Fluid control components
HP-3702	see Fluid control components
HP-3703	see Fluid control components
HP-3704	see Fluid control components
HP-3706	see Fluid control components
HP-3738	see Fluid control components
HPBV-04P	see Fluid control components
HPBV-06MMP	see Fluid control components
HPBV-06P	see Fluid control components
HPBV-08P	see Fluid control components
HPBV-10MMP	see Fluid control components
HPBV-10P	see Fluid control components
HPBV-12MMP	see Fluid control components
HPBV-12P	see Fluid control components
HPBV-14P	see Fluid control components
HPBV-16MMP	see Fluid control components
HPBV-18P	see Fluid control components
HPBV-19MMP	see Fluid control components
HPBV-22MMP	see Fluid control components

Part. nr.	Pdf file
MF-1150C-048U	see Fluid control components
MF-1150C-230U	see Fluid control components
MF-1360C-110U	see Fluid control components
MF-1900C-024U	see Fluid control components
MF-4	see Evacuating and charging equipment
MF-4+LP-4	see Evacuating and charging equipment
MF-F-5-02	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MF-F-5-03	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MF-F-5-04	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MF-F-5-06	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MF-F-S-08	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MF-F-S-10	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MF-F-S-12	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MF-F-S-16	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MF-F-S-20	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MF-F-S-24	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MF-F-S-32	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
M-HDL-12-B	see Service manifolds, gauges and charging hoses
M-HDL-12-R	see Service manifolds, gauges and charging hoses
M-HDL-12-Y	see Service manifolds, gauges and charging hoses
M-HDL-6	see Evacuating and charging equipment
M-HDL-6-B	see Service manifolds, gauges and charging hoses
M-HDL-6-R	see Service manifolds, gauges and charging hoses
MI-CAP	see Fluid control components
MIR-1	see Service manifolds, gauges and charging hoses
MIR-1	see Tube working tools
MIR-1R	see Tube working tools
MIR-2	see Tube working tools
MIR-2	see Service manifolds, gauges and charging hoses
MIR-2R	see Tube working tools
MIR-3	see Tube working tools
MIR-3R	see Tube working tools
MIR-4	see Tube working tools
MIR-4R	see Tube working tools
MIR-5	see Tube working tools
MIR-5R	see Tube working tools
MK-040-DS	see Evacuating and charging equipment
MK-060-DS	see Evacuating and charging equipment
MK-120-DS	see Evacuating and charging equipment
MK-180-DS	see Evacuating and charging equipment
MK-240-DS	see Evacuating and charging equipment
MK-280-DS	see Evacuating and charging equipment
M-MM-02	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
M-MM-03	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
M-MM-04	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
M-MM-06	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
M-MM-08	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
M-MM-10	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
M-MM-12	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
M-MM-16	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MMS-200	see Fluid control components
MMS-80	see Fluid control components
MP-02	see Refrigeration accessories
MP-02C	see Refrigeration accessories
MP-03	see Refrigeration accessories
MP-03C	see Refrigeration accessories
MP-04	see Refrigeration accessories
MP-04C	see Refrigeration accessories
MP-06	see Refrigeration accessories
MP-06C	see Refrigeration accessories
MP-08	see Refrigeration accessories
MP-08C	see Refrigeration accessories
MP-12	see Refrigeration accessories
MP-12C	see Refrigeration accessories
MP-18	see Refrigeration accessories
MP-18C	see Refrigeration accessories
MPF-M10	see Refrigeration accessories
MPF-M12	see Refrigeration accessories
MPF-M16	see Refrigeration accessories
MPR-M08	see Refrigeration accessories
MPR-M10	see Refrigeration accessories
MPR-M12	see Refrigeration accessories
MPR-M16	see Refrigeration accessories
MR-14-BH	see Service manifolds, gauges and charging hoses
MR-14-RH	see Service manifolds, gauges and charging hoses
MR-14-VK	see Service manifolds, gauges and charging hoses
MR-14-VS	see Service manifolds, gauges and charging hoses
MR-MM-032	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MR-MM-042	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MR-MM-043	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MR-MM-064	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MR-MM-082	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MR-MM-084	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MR-MM-086	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MR-MM-106	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MR-MM-108	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MS-04	see Fluid control components
MS-06	see Fluid control components
MS-08	see Fluid control components
MS-10	see Fluid control components
MS-12	see Fluid control components
MS-14	see Fluid control components
MS-18	see Fluid control components
MS-22	see Fluid control components
MS-26	see Fluid control components

Part. nr.	Pdf file
MS-34	see Fluid control components
MSK-08	see Tube working tools
MSSK-26	see Tube working tools
MT-02	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MT-03	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MT-04	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MT-06	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MT-08	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MT-10	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MT-12	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MT-16	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MT-20	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MT-24	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MTS-04	see Fluid control components
MTS-06	see Fluid control components
MTU-06	see Copper tubes, coils & solder fittings (Inch & Metric)
MTU-08	see Copper tubes, coils & solder fittings (Inch & Metric)
MTU-10	see Copper tubes, coils & solder fittings (Inch & Metric)
MTU-12	see Copper tubes, coils & solder fittings (Inch & Metric)
MTU-15	see Copper tubes, coils & solder fittings (Inch & Metric)
MTU-16	see Copper tubes, coils & solder fittings (Inch & Metric)
MTU-18	see Copper tubes, coils & solder fittings (Inch & Metric)
MTU-22	see Copper tubes, coils & solder fittings (Inch & Metric)
MTU-28	see Copper tubes, coils & solder fittings (Inch & Metric)
MTU-35	see Copper tubes, coils & solder fittings (Inch & Metric)
MULTI-R-COMBI/V2	see Evacuating and charging equipment
MV-0077	see Automatic access valves & fittings
MV-0099	see Automatic access valves & fittings
MV-0101	see Automatic access valves & fittings
MV-0111	see Automatic access valves & fittings
MV-1010	see Automatic access valves & fittings
MV-1050	see Automatic access valves & fittings
MV-1060	see Automatic access valves & fittings
MV-1080	see Automatic access valves & fittings
MV-1200	see Automatic access valves & fittings
MV-1212	see Automatic access valves & fittings
MV-1414	see Automatic access valves & fittings
MV-1414C	see Automatic access valves & fittings
MV-1428	see Automatic access valves & fittings
MV-1438	see Automatic access valves & fittings
MV-1440	see Automatic access valves & fittings
MV-1441	see Automatic access valves & fittings
MV-1444	see Automatic access valves & fittings
MV-1446	see Automatic access valves & fittings
MV-1454	see Automatic access valves & fittings
MV-1777	see Automatic access valves & fittings
MV-1808	see Automatic access valves & fittings
MV-1818	see Automatic access valves & fittings
MV-1818C	see Automatic access valves & fittings
MV-2000	see Automatic access valves & fittings
MV-2010	see Automatic access valves & fittings
MV-2010 (QC-E4)	see Automatic access valves & fittings
MV-2012	see Automatic access valves & fittings
MV-2014	see Automatic access valves & fittings
MV-2018	see Automatic access valves & fittings
MV-2019	see Automatic access valves & fittings
MV-2020	see Automatic access valves & fittings
MV-2022	see Automatic access valves & fittings
MV-2022	see Automatic access valves & fittings
MV-2024	see Automatic access valves & fittings
MV-2028	see Automatic access valves & fittings
MV-2035	see Automatic access valves & fittings
MV-2037	see Automatic access valves & fittings
MV-2038	see Automatic access valves & fittings
MV-2041	see Automatic access valves & fittings
MV-2050	see Automatic access valves & fittings
MV-2060	see Automatic access valves & fittings
MV-2070	see Automatic access valves & fittings
MV-2070	see Automatic access valves & fittings
MV-2090	see Automatic access valves & fittings
MV-2094	see Automatic access valves & fittings
MV-2098	see Automatic access valves & fittings
MV-2120	see Automatic access valves & fittings
MV-2140	see Automatic access valves & fittings
MV-2160	see Automatic access valves & fittings
MV-2210	see Automatic access valves & fittings
MV-2215	see Automatic access valves & fittings
MV-2216	see Automatic access valves & fittings
MV-2219	see Automatic access valves & fittings
MV-2220	see Automatic access valves & fittings
MV-2225	see Automatic access valves & fittings
MV-2235	see Automatic access valves & fittings
MV-2243	see Automatic access valves & fittings
MV-2245	see Automatic access valves & fittings
MV-2245	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
MV-2250	see Automatic access valves & fittings
MV-2380	see Automatic access valves & fittings
MV-2500	see Automatic access valves & fittings
MV-2525	see Automatic access valves & fittings
MV-2540	see Automatic access valves & fittings
MV-2541	see Automatic access valves & fittings
MV-2542	see Automatic access valves & fittings
MV-2580	see Automatic access valves & fittings
MV-2594	see Automatic access valves & fittings
MV-2595	see Automatic access valves & fittings

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Part. nr.	Pdf file
PMK-10-ALL	see Evacuating and charging equipment
PMK-11-ALL	see Evacuating and charging equipment
PMK-29-ALL	see Evacuating and charging equipment
PMK-30-ALL	see Evacuating and charging equipment
PO-230	see Refrigeration accessories
PPL-10	see Tube working tools
PRH-4D-24	see Tube working tools
PROBE-01/V2	see Electronic measurement and control instruments
PROBE-03/V2	see Electronic measurement and control instruments
PROBE-06/V2	see Electronic measurement and control instruments
PRT-8020	see Electronic measurement and control instruments
PSA-200B	see Electronic measurement and control instruments
PSA-200R	see Electronic measurement and control instruments
PSBD-606	see Refrigeration accessories
PSBD-606M	see Refrigeration accessories
PSBS-02	see Refrigeration accessories
PSBS-03	see Refrigeration accessories
PSBS-04	see Refrigeration accessories
PSBS-05	see Refrigeration accessories
PSBS-10	see Refrigeration accessories
PS-HP200-150	see Refrigeration accessories
PS-HP250-150	see Refrigeration accessories
PS-HP300-200	see Refrigeration accessories
PS-HP350-250	see Refrigeration accessories
PS-HP400-200	see Refrigeration accessories
PS-HP450-250	see Refrigeration accessories
PS-LP05-20	see Refrigeration accessories
PS-LP25-80	see Refrigeration accessories
PS-LP40-80	see Refrigeration accessories
PS-MC-HP-440	see Refrigeration accessories
PS-MF-HP-410	see Refrigeration accessories
PSO-2B	see Fluid control components
PSO-2ES	see Fluid control components
PSO-3B	see Fluid control components
PSO-3ES	see Fluid control components
PSO-4B	see Fluid control components
PSO-4ES	see Fluid control components
PSO-5B	see Fluid control components
PSO-5ES	see Fluid control components
PSO-7S	see Fluid control components
PSO-9S	see Fluid control components
PSS-100B	see Electronic measurement and control instruments
PSS-100R	see Electronic measurement and control instruments
PSS-200B	see Electronic measurement and control instruments
PSS-200R	see Electronic measurement and control instruments
PT-100	see Electronic measurement and control instruments
PT-109	see Tube working tools
PT-14285	see Tube working tools
PTCB-340	see Tube working tools
PTCB-350	see Tube working tools
PTCB-360	see Tube working tools
PTCB-370	see Tube working tools
PTCB-380	see Tube working tools
PTCB-390	see Tube working tools
PTR-1	see Service manifolds, gauges and charging hoses
PTR-1	see Tube working tools
PTR-1B	see Tube working tools
PTR-2	see Tube working tools
PV3P-10102	see Tube working tools
PVB-10102	see Tube working tools
PVC-200/2 mm	see Refrigeration accessories
PVC-300/3 mm	see Refrigeration accessories
PVC-CLIP-200	see Refrigeration accessories
PVC-CLIP-300	see Refrigeration accessories
PVC-RAIL	see Refrigeration accessories
PW-5014	see Tube working tools
PW-5036	see Tube working tools
QAA-04	see Service manifolds, gauges and charging hoses
QAA-04	see Automatic access valves & fittings
QAA-05	see Automatic access valves & fittings
QAA-06	see Automatic access valves & fittings
QAG-04	see Automatic access valves & fittings
QAG-05	see Automatic access valves & fittings
QAG-06	see Automatic access valves & fittings
QAI-04	see Automatic access valves & fittings
QAI-05	see Automatic access valves & fittings
QAI-06	see Automatic access valves & fittings
QC-13445-134a	see Automatic access valves & fittings
QC-2342	see Automatic access valves & fittings
QC-48-3/4	see Fluid control components
QCA-5/16x1/4	see Service manifolds, gauges and charging hoses
QCA-5/16x1/4	see Automatic access valves & fittings
QCCA	see Tube working tools
QC-E3	see Evacuating and charging equipment
QC-E64	see Automatic access valves & fittings
QCF-04	see Automatic access valves & fittings
QCF-06	see Automatic access valves & fittings
QCM-04	see Automatic access valves & fittings
QCM-06	see Automatic access valves & fittings
QC-S2	see Automatic access valves & fittings
QC-S4	see Automatic access valves & fittings
QC-S46	see Automatic access valves & fittings
QC-S4A	see Automatic access valves & fittings
QC-S4A-134a	see Automatic access valves & fittings
QC-S4B	see Automatic access valves & fittings

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Part. nr.	Pdf file
SUNISO-4GS-20	see Refrigeration accessories
SUNISO-5G-04	see Refrigeration accessories
SUNISO-SL32-04	see Refrigeration accessories
SUPER-3790	see Refrigeration accessories
SUPER-947	see Refrigeration accessories
SV2W-38/110	see Evacuating and charging equipment
SV2W-38/220	see Evacuating and charging equipment
SV2W-38/627-VRP-110	see Evacuating and charging equipment
SV2W-38/627-VRP-220	see Evacuating and charging equipment
SWM-4D-41	see Tube working tools
T1-04A	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T1-04B	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T1-04C	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T1-06B	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T1-06C	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T1-08C	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T1-08D	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T1-10C	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T1-10D	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T2-04	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T2-05	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T2-06	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T2-08	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T2-10	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T2-12	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3-04A	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3-04B	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3-06B	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3-08D	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3-10D	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3-12E	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3F-02	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3F-03	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3F-04	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3F-06	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3F-08	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3F-10	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3F-12	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3F-16	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3F-S-02	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3F-S-03	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3F-S-04	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3F-S-06	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3F-S-08	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3F-S-10	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3F-S-12	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3F-S-16	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3F-S-20	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
T3F-S-24	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
TE-4	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
TAHL-5	see Electronic measurement and control instruments
TB-03	see Tube working tools
TB-06	see Tube working tools
TB-06	see Service manifolds, gauges and charging hoses
TB-16	see Tube working tools
TB-16	see Service manifolds, gauges and charging hoses
TB-364-04	see Tube working tools
TB-364-05/8mm	see Tube working tools
TB-364-05/8mm	see Tube working tools
TB-364-06	see Tube working tools
TB-364-06mm	see Tube working tools
TB-364-08	see Tube working tools
TB-364-10	see Tube working tools
TB-364-10mm	see Tube working tools
TB-364-12	see Tube working tools
TB-364-12/H	see Tube working tools
TB-364-12mm	see Tube working tools
TB-364-15mm	see Tube working tools
TB-364-16mm	see Tube working tools
TC-0316	see Tube working tools
TC-0316-H	see Tube working tools
TC-0328	see Tube working tools
TC-0328-H	see Tube working tools
TC-0432-ZR	see Tube working tools
TC-0432-ZRH	see Tube working tools
TC-0638-R	see Tube working tools
TC-0638-RH	see Tube working tools
TC-1000	see Tube working tools
TC-1000-SP	see Tube working tools
TC-10168-Z	see Tube working tools
TC-10168-ZC	see Tube working tools
TC-1020	see Tube working tools
TC-1050	see Tube working tools
TC-1050-SP	see Tube working tools
TC-127	see Service manifolds, gauges and charging hoses
TC-127	see Tube working tools
TC-2050	see Tube working tools
TC-206	see Tube working tools
TC-274	see Service manifolds, gauges and charging hoses
TC-274	see Service manifolds, gauges and charging hoses
TC-274	see Tube working tools
TC-274	see Service manifolds, gauges and charging hoses
TC-307	see Service manifolds, gauges and charging hoses
TC-307	see Tube working tools
TC-312	see Tube working tools

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Part. nr.	Pdf file
TP19-010	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-012	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-015	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-018	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-022	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-028	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-030	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-035	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-042	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-048	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-054	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-060	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-064	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-070	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-076	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-080	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-089	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-102	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-108	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-114	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-125	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-133	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-140	see Copper tubes, coils & solder fittings (Inch & Metric)
TP19-160	see Copper tubes, coils & solder fittings (Inch & Metric)
TPM-1/V2	see Electronic measurement and control instruments
TPM-2/V2	see Electronic measurement and control instruments
TPM-58	see Electronic measurement and control instruments
TPM-62	see Electronic measurement and control instruments
TR2-00446	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
TR2-00664	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
TR2-00668	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
TR2-00886	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
TRACE2-118	see Refrigeration accessories
TRACE2-3790	see Refrigeration accessories
TRACE2-474	see Refrigeration accessories
TRAX-300	see Refrigeration accessories
TRAX-40	see Refrigeration accessories
TSPM-1/V2	see Electronic measurement and control instruments
TSPM-2/V2	see Electronic measurement and control instruments
TSPM-3	see Electronic measurement and control instruments
TS-RC	see Tube working tools
TS-SC	see Tube working tools
TSMW-10	see Electronic measurement and control instruments
TSMW-2/V2	see Electronic measurement and control instruments
TSMW-30	see Electronic measurement and control instruments
TSMW-35	see Electronic measurement and control instruments
TSMW-35/EXT	see Electronic measurement and control instruments
TT1-001	see Refrigeration accessories
TT2-001	see Refrigeration accessories
TU-041	see Copper tubes, coils & solder fittings (Inch & Metric)
TU-061	see Copper tubes, coils & solder fittings (Inch & Metric)
TU-081	see Copper tubes, coils & solder fittings (Inch & Metric)
TU-101	see Copper tubes, coils & solder fittings (Inch & Metric)
TU-121	see Copper tubes, coils & solder fittings (Inch & Metric)
TU-141	see Copper tubes, coils & solder fittings (Inch & Metric)
TU-161	see Copper tubes, coils & solder fittings (Inch & Metric)
TU-181	see Copper tubes, coils & solder fittings (Inch & Metric)
TU-221	see Copper tubes, coils & solder fittings (Inch & Metric)
TU-261	see Copper tubes, coils & solder fittings (Inch & Metric)
TU-341	see Copper tubes, coils & solder fittings (Inch & Metric)
TU-421	see Copper tubes, coils & solder fittings (Inch & Metric)
TU-501	see Copper tubes, coils & solder fittings (Inch & Metric)
TU-581	see Copper tubes, coils & solder fittings (Inch & Metric)
TU-661	see Copper tubes, coils & solder fittings (Inch & Metric)
TU-661	see Copper tubes, coils & solder fittings (Inch & Metric)
TWM-1/V2	see Electronic measurement and control instruments
TX-9	see Tube working tools
TX-9	see Service manifolds, gauges and charging hoses
U1-03A	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
U1-04A	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
U1-04B	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
U1-04C	see Evacuating and charging equipment
U1-04C	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
U1-04D	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
U1-04M14	see Evacuating and charging equipment
U1-04M14	see Service manifolds, gauges and charging hoses
U1-05A	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
U1-05B	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
U1-05C	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
U1-06A	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
U1-06B	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
U1-06C	see Evacuating and charging equipment
U1-06C	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
U1-06D	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
U1-06E	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
U1-06M14	see Evacuating and charging equipment
U1-06M14	see Service manifolds, gauges and charging hoses
U1-08A	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
U1-08B	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
U1-08C	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
U1-08D	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
U1-08E	see Forged brass & steel fittings "NPT" & "NPT 45" SAE"
U1-100-S03	see Fluid control components
U1-100-S05	see Fluid control components
U1-100-S06	see Fluid control components

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Part. nr.	Pdf file
VASC-10 mm	see Fluid control components
VASC-11	see Fluid control components
VASC-12 mm	see Fluid control components
VASC-16 mm	see Fluid control components
VASC-18 mm	see Fluid control components
VASC-22 mm	see Fluid control components
VASC-28 mm	see Fluid control components
VASC-35 mm	see Fluid control components
VASC-42 mm	see Fluid control components
VASC-54 mm	see Fluid control components
VASC-82	see Fluid control components
VASC-83	see Fluid control components
VASC-84	see Fluid control components
VASC-85	see Fluid control components
VASC-86	see Fluid control components
VG-10	see Tube working tools
VG-12	see Tube working tools
VG-12ING	see Tube working tools
VG-14	see Tube working tools
VG-14G	see Tube working tools
VG-14I	see Tube working tools
VG-15	see Tube working tools
VG-16	see Tube working tools
VG-17	see Tube working tools
VG-18	see Tube working tools
VG-19	see Tube working tools
VN—05-13/1056/V2	see Refrigeration accessories
VN—10-20/1103/V2	see Refrigeration accessories
VNT—18-30/46/V2	see Refrigeration accessories
VNT—25-40/25/V2	see Refrigeration accessories
VNT—34-45/25/V2	see Refrigeration accessories
VOC-10	see Tube working tools
VOC-10	see Fluid control components
VOC-15	see Tube working tools
VOC-15	see Fluid control components
VOC-18	see Tube working tools
VOC-18	see Fluid control components
VPC-40	see Evacuating and charging equipment
VPF-40	see Evacuating and charging equipment
VT-400	see Evacuating and charging equipment
W3-V-80	see Service manifolds, gauges and charging hoses
WA-1000	see Tube working tools
WB-1	see Tube working tools
WBO-100	see Refrigeration accessories
WBO-100N	see Refrigeration accessories
WBO-120	see Refrigeration accessories
WBO-120N	see Refrigeration accessories
WBO-150R	see Refrigeration accessories
WBO-250	see Refrigeration accessories
WBO-K10	see Refrigeration accessories
WBO-K10N	see Refrigeration accessories
WBO-K12	see Refrigeration accessories
WBO-K12N	see Refrigeration accessories
WBO-K15	see Refrigeration accessories
WBO-K15R	see Refrigeration accessories
WBO-K25	see Refrigeration accessories
WCP-010/230V	see Refrigeration accessories
WCP-020/230V	see Refrigeration accessories
WDT-128-BODY	see Electronic measurement and control instruments
WDT-128C	see Electronic measurement and control instruments
WDT-128R	see Electronic measurement and control instruments
WKL-5	see Tube working tools
WM-80-B	see Service manifolds, gauges and charging hoses
WM-80-R	see Service manifolds, gauges and charging hoses
WPP-9	see Tube working tools
WS-005	see Electronic measurement and control instruments
WS-005-1L-1/4	see Electronic measurement and control instruments
WS-005-1L-5/16	see Electronic measurement and control instruments
WS-005-1L-7/16	see Electronic measurement and control instruments
WS-055	see Electronic measurement and control instruments
WS-150	see Electronic measurement and control instruments
WS-30	see Evacuating and charging equipment
WS-AC	see Electronic measurement and control instruments
WS-AC-EU	see Electronic measurement and control instruments
WS-AC-UK	see Electronic measurement and control instruments
WS-AC-USA	see Electronic measurement and control instruments
WS-ASV	see Electronic measurement and control instruments
WT-389	see Electronic measurement and control instruments
WT-389/P	see Electronic measurement and control instruments
XLD-6050	see Electronic measurement and control instruments
XPC-06M	see Tube working tools
XPC-07I	see Tube working tools
XPC-T	see Tube working tools
ZERICE	see Refrigeration accessories
ZEROL-150-5L	see Refrigeration accessories