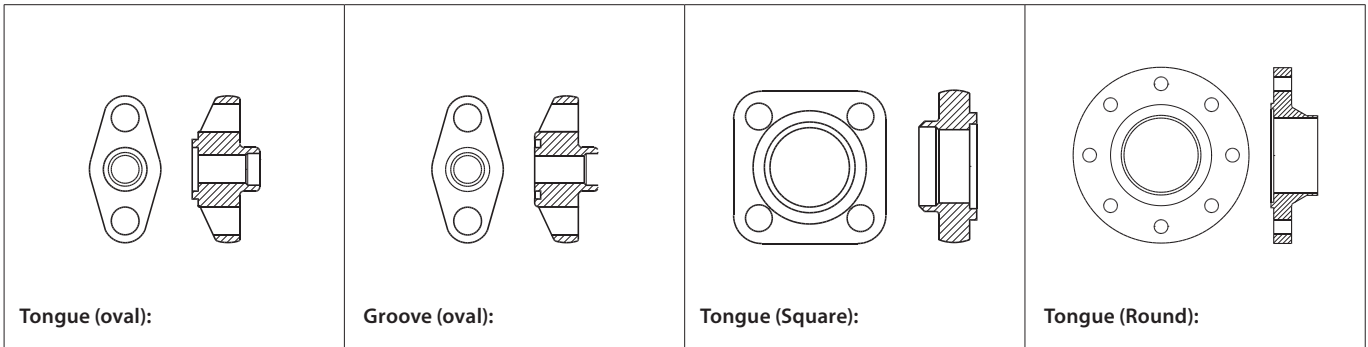


Data sheet

Spare parts and accessories

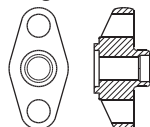
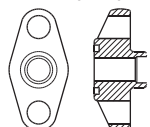
Flanges, gaskets, bolts and nuts for Industrial Refrigeration products



Valve type	See details on page #
Flanges, Gaskets, Bolts and nuts	
TEA/TEAT Expansion valves	2-3
EVRA/EVRAT Solenoid valves	4-5
ICF EVRAT - FA + solenoid valves	6-7
PML Solenoid valves	8
PMLX 2-step solenoid valves	9
PM Pilot operated servo valves	10-11
ICV PM Valve housings	12
PMC Pilot operated servo valves	13
CVMD Pressure regulating valves	14
FA Strainers	15-16
NRVA Check valves	17-18
NRVS Check valves	19
PMFL Liquid level regulating valves	20
PMFH Liquid level regulating valves	21
Dimensions	
Flange version 1	22-23
Flange version 2	24
Flange version 3	25
Flange version 4	26
Flange version 5	27
Flange version 6	28
Flange version 8	29
Flange version 10	30
Flange version 11	31
Flange version 12	32
Flange version 13	33
Flange version 14	34-35
Flange for NRVS	36

Flanges for TEA / TEAT Expansion valves

	For product	Connection size		Material	Flange type	Design	Connection standard	Connection type	Shape	Code no.
		[in.]	[mm]							

Tongue (oval):

Groove (oval):

Flange version 1

TEA 20 / TEAT 20	¼	6	Steel	Single	Tongue	EN 10220	Butt welding	Oval	006-1118
TEA 20 / TEAT 20	¼	6	Steel	Single	Groove	EN 10220	Butt welding	Oval	006-1119
TEA 20 / TEAT 20	⅜	10	Steel	Single	Tongue	EN 10220	Butt welding	Oval	006-1120
TEA 20 / TEAT 20	⅜	10	Steel	Single	Groove	EN 10220	Butt welding	Oval	006-1121
TEA 20 / TEAT 20	½	15	Steel	Single	Tongue	EN 10220	Butt welding	Oval	006-1122
TEA 20 / TEAT 20	½	15	Steel	Single	Groove	EN 10220	Butt welding	Oval	006-1123
TEA 20 / TEAT 20	¾	20	Steel	Single	Tongue	EN 10220	Butt welding	Oval	006-1124
TEA 20 / TEAT 20	¾	20	Steel	Single	Groove	EN 10220	Butt welding	Oval	006-1125
TEA 20 / TEAT 20	½	-	Brass	Single	Tongue	ASME B 16.22	Soldering	Oval	006-1160
TEA 20 / TEAT 20	½	-	Brass	Single	Groove	ASME B 16.22	Soldering	Oval	006-1161
TEA 20 / TEAT 20	⅝	-	Brass	Single	Tongue	ASME B 16.22	Soldering	Oval	006-1162
TEA 20 / TEAT 20	⅝	-	Brass	Single	Groove	ASME B 16.22	Soldering	Oval	006-1163
TEA 20 / TEAT 20	⅞	-	Brass	Single	Tongue	ASME B 16.22	Soldering	Oval	006-1176
TEA 20 / TEAT 20	⅞	-	Brass	Single	Groove	ASME B 16.22	Soldering	Oval	006-1177
TEA 20 / TEAT 20	1	-	Brass	Single	Tongue	ASME B 16.22	Soldering	Oval	006-1166

Flange version 1.2

TEA 20 / TEAT 20	-	15 x 15	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027B0181
TEA 20 / TEAT 20	⅝ x ⅞	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	006-1195

Flange version 1.3

TEA 20 / TEAT 20	½	15	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3253
TEA 20 / TEAT 20	⅜	10	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1112
TEA 20 / TEAT 20	½	15	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1115
TEA 20 / TEAT 20	¾	20	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1120
TEA 20 / TEAT 20	⅜	10	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N2020
TEA 20 / TEAT 20	½	15	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N2021
TEA 20 / TEAT 20	¾	20	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N2022
TEA 20 / TEAT 20	⅜	10	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2010
TEA 20 / TEAT 20	½	15	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2011
TEA 20 / TEAT 20	⅜	10	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1005
TEA 20 / TEAT 20	½	15	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1006
TEA 20 / TEAT 20	-	16	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1116
TEA 20 / TEAT 20	-	22	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1122
TEA 20 / TEAT 20	⅝	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1117
TEA 20 / TEAT 20	⅞	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1123

Flange version 3

TEA 85 / TEAT 85	1	25	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3014
TEA 85 / TEAT 85	¾	20	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3045
TEA 85 / TEAT 85	¾	20	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1220
TEA 85 / TEAT 85	1	25	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1225
TEA 85 / TEAT 85	1¼	32	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1230
TEA 85 / TEAT 85	¾	20	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3031
TEA 85 / TEAT 85	1	25	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3032
TEA 85 / TEAT 85	1¼	32	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3033
TEA 85 / TEAT 85	¾	20	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2001
TEA 85 / TEAT 85	1	25	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2002
TEA 85 / TEAT 85	¾	20	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1001
TEA 85 / TEAT 85	1	25	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1002
TEA 85 / TEAT 85	-	22	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1222
TEA 85 / TEAT 85	-	28	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1228
TEA 85 / TEAT 85	⅞	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1223
TEA 85 / TEAT 85	1⅞	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1229

Flange version 1: Each code no. includes one flange and one flange gasket.

Flange version 1.2: Each code no. includes two flanges, two flange gaskets, two staybolts (M12 × 135 mm / M12 × 127 mm) and four nuts (M12).

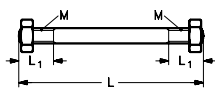
Flange version 1.3: Each code no. includes two flanges.

Flange version 3: Each code no. includes two flanges.

Flange gaskets

For flange version	Gasket dimensions ID x OD x h [mm]	Gasket dimensions ID x OD x h [in.]	Multipack qty	Code no.
1 + 1.2 + 1.3	22 × 32 × 1.0	0.866 × 1.260 × 0.039	40	020-2133

Set of staybolts and gaskets for flanges

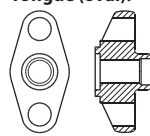


Set of staybolts and gaskets for	Material	Thread [M]	L ₁ [mm]	L ₁ [in.]	L [mm]	L [in.]	Staybolts qty	Nuts qty	Gaskets qty	Code no.
TEA 20 / TEAT 20 without filter	Steel	M12	19	0.748	115	4.527	2	4	3	006-1107
TEA 20 / TEAT 20 with filter	Steel	M12	19	0.748	170	6.693	2	4	3	006-1103
TEA 85 / TEAT 85 with filter	Steel	M12	25	0.984	206	8.110	2	4	3	006-1106

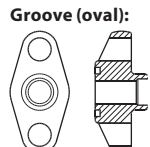
Flanges for EVRA / EVRAT Solenoid valves

	For product	Connection size		Material	Flange type	Design	Connection standard	Connection type	Shape	Code no.
		[in.]	[mm]							

Flange version 1

Tongue (oval): 

EVRA 3 / EVRA 10 / EVRA 15	¼	6	Steel	Single	Tongue	EN 10220	Butt welding	Oval	006-1118
EVRA 3 / EVRA 10 / EVRA 15	¼	6	Steel	Single	Groove	EN 10220	Butt welding	Oval	006-1119
EVRA 3 / EVRA 10 / EVRA 15	¾	10	Steel	Single	Tongue	EN 10220	Butt welding	Oval	006-1120
EVRA 3 / EVRA 10 / EVRA 15	¾	10	Steel	Single	Groove	EN 10220	Butt welding	Oval	006-1121
EVRA 3 / EVRA 10 / EVRA 15	½	15	Steel	Single	Tongue	EN 10220	Butt welding	Oval	006-1122
EVRA 3 / EVRA 10 / EVRA 15	½	15	Steel	Single	Groove	EN 10220	Butt welding	Oval	006-1123
EVRA 3 / EVRA 10 / EVRA 15	¾	20	Steel	Single	Tongue	EN 10220	Butt welding	Oval	006-1124
EVRA 3 / EVRA 10 / EVRA 15	¾	20	Steel	Single	Groove	EN 10220	Butt welding	Oval	006-1125
EVRA 3 / EVRA 10 / EVRA 15	½	-	Brass	Single	Tongue	ASME B 16.22	Soldering	Oval	006-1160
EVRA 3 / EVRA 10 / EVRA 15	½	-	Brass	Single	Groove	ASME B 16.22	Soldering	Oval	006-1161
EVRA 3 / EVRA 10 / EVRA 15	¾	-	Brass	Single	Tongue	ASME B 16.22	Soldering	Oval	006-1162
EVRA 3 / EVRA 10 / EVRA 15	¾	-	Brass	Single	Groove	ASME B 16.22	Soldering	Oval	006-1163
EVRA 3 / EVRA 10 / EVRA 15	⅞	-	Brass	Single	Tongue	ASME B 16.22	Soldering	Oval	006-1176
EVRA 3 / EVRA 10 / EVRA 15	⅞	-	Brass	Single	Groove	ASME B 16.22	Soldering	Oval	006-1177
EVRA 3 / EVRA 10 / EVRA 15	1	-	Brass	Single	Tongue	ASME B 16.22	Soldering	Oval	006-1166

Groove (oval): 

Flange version 1.2

EVRA 3 / EVRA 10 / EVRA 15	-	15 x 15	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027B0181
EVRA 3 / EVRA 10 / EVRA 15	⅝ x ⅞	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	006-1195

Flange version 1.3

EVRA 3 / EVRA 10 / EVRA 15	½	15	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3253
EVRAT 20	½	15	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3253
EVRA 3 / EVRA 10 / EVRA 15	¾	10	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1112
EVRA 3 / EVRA 10 / EVRA 15	½	15	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1115
EVRA 3 / EVRA 10 / EVRA 15	¾	20	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1120
EVRA 3 / EVRA 10 / EVRA 15	¾	10	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N2020
EVRA 3 / EVRA 10 / EVRA 15	½	15	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N2021
EVRA 3 / EVRA 10 / EVRA 15	¾	20	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N2022
EVRA 3 / EVRA 10 / EVRA 15	¾	10	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2010
EVRA 3 / EVRA 10 / EVRA 15	½	15	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2011
EVRA 3 / EVRA 10 / EVRA 15	¾	10	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1005
EVRA 3 / EVRA 10 / EVRA 15	½	15	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1006
EVRA 3 / EVRA 10 / EVRA 15	-	16	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1116
EVRA 3 / EVRA 10 / EVRA 15	-	22	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1122
EVRA 3 / EVRA 10 / EVRA 15	¾	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1117
EVRA 3 / EVRA 10 / EVRA 15	⅞	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1123

Flange version 3

EVRA 20 / EVRA 25	1	25	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3014
EVRA 20 / EVRA 25	¾	20	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3045
EVRA 20 / EVRA 25	¾	20	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1220
EVRA 20 / EVRA 25	1	25	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1225
EVRA 20 / EVRA 25	1¼	32	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1230
EVRA 20 / EVRA 25	¾	20	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3031
EVRA 20 / EVRA 25	1	25	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3032
EVRA 20 / EVRA 25	1¼	32	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3033
EVRA 20 / EVRA 25	¾	20	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2001
EVRA 20 / EVRA 25	1	25	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2002
EVRA 20 / EVRA 25	¾	20	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1001
EVRA 20 / EVRA 25	-	22	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1222
EVRA 20 / EVRA 25	-	28	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1228
EVRA 20 / EVRA 25	⅞	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1223
EVRA 20 / EVRA 25	1⅞	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1229

Flange version 1: Each code no. includes one flange and one flange gasket.

Flange version 1.2: Each code no. includes two flanges, two flange gaskets, two staybolts (M12 × 135 mm / M12 × 127 mm) and four nuts (M12).

Flange version 1.3: Each code no. includes two flanges.

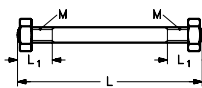
Flange version 3: Each code no. includes two flanges.

Flange gaskets

For flange version	Gasket dimensions ID x OD x h [mm]	Gasket dimensions ID x OD x h [in.]	Multipack qty	Code no.
1.1 + 1.2 + 1.3	22 × 32 × 1.0	0.866 × 1.260 × 0.039	40	020-2133

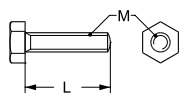
Flanges for EVRA / EVRAT Solenoid valves (continued)

Set of staybolts and gaskets for flanges



Set of staybolts and gaskets for	Material	Thread [M]	L ₁ [mm]	L ₁ [in.]	L [mm]	L [in.]	Staybolts qty	Nuts qty	Gaskets qty	Code no.
EVRA 10 (GGG 40.3)	Steel	M12	19	0.748	107	4.212	2	4	3	006-1101
EVRA 10 / EVRA 15 (GG 25) with filter	Steel	M12	19	0.748	188	7.401	2	4	3	006-1104
EVRA 20 / EVRA 25 (GG 25) with filter	Steel	M12	22	0.866	240	9.449	2	4	3	006-1105
EVRA 20 (GGG 40.3)	Steel	M12	19	0.748	127	5.000	2	4	3	006-1108

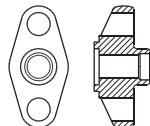
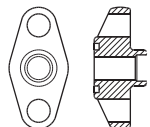
Bolts for flange connections



Type	Material	Material property class	M [mm]	L [mm]	L [in.]	Qty	Code no.
EVRA 20 / EVRA 25 / EVRAT 20	Stainless steel	Class A2/A4 to DIN 267	M12	45	1.772	4	027F2220
EVRA 10 / EVRA 15 / EVRAT 10 / EVRAT 15	Steel	Class 8.8 to ISO 898	M12	35	1.378	4	006-1139
EVRA 20 / EVRA 25 / EVRAT 20	Steel	Class 8.8 to ISO 898	M12	45	1.772	4	006-1141

Flanges for ICF EVRAT - FA + solenoid valves

	For product	Connection size		Material	Flange type	Design	Connection standard	Connection type	Shape	Code no.
		[in.]	[mm]							

Tongue (oval):

Groove (oval):

Flange version 1

ICF 15 EVRAT	¼	6	Steel	Single	Tongue	EN 10220	Butt welding	Oval	006-1118
ICF 15 EVRAT	¼	6	Steel	Single	Groove	EN 10220	Butt welding	Oval	006-1119
ICF 15 EVRAT	¾	10	Steel	Single	Tongue	EN 10220	Butt welding	Oval	006-1120
ICF 15 EVRAT	¾	10	Steel	Single	Groove	EN 10220	Butt welding	Oval	006-1121
ICF 15 EVRAT	½	15	Steel	Single	Tongue	EN 10220	Butt welding	Oval	006-1122
ICF 15 EVRAT	½	15	Steel	Single	Groove	EN 10220	Butt welding	Oval	006-1123
ICF 15 EVRAT	¾	20	Steel	Single	Tongue	EN 10220	Butt welding	Oval	006-1124
ICF 15 EVRAT	¾	20	Steel	Single	Groove	EN 10220	Butt welding	Oval	006-1125
ICF 15 EVRAT	½	-	Brass	Single	Tongue	ASME B 16.22	Soldering	Oval	006-1160
ICF 15 EVRAT	½	-	Brass	Single	Groove	ASME B 16.22	Soldering	Oval	006-1161
ICF 15 EVRAT	⅝	-	Brass	Single	Tongue	ASME B 16.22	Soldering	Oval	006-1162
ICF 15 EVRAT	⅝	-	Brass	Single	Groove	ASME B 16.22	Soldering	Oval	006-1163
ICF 15 EVRAT	⅞	-	Brass	Single	Tongue	ASME B 16.22	Soldering	Oval	006-1176
ICF 15 EVRAT	⅞	-	Brass	Single	Groove	ASME B 16.22	Soldering	Oval	006-1177
ICF 15 EVRAT	1	-	Brass	Single	Tongue	ASME B 16.22	Soldering	Oval	006-1166

Flange version 1.2

ICF 15 EVRAT	-	15 x 15	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027B0181
ICF 15 EVRAT	⅝ x ⅞	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	006-1195

Flange version 1.3

ICF 15 EVRAT	½	15	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3253
ICF 20 EVRAT	½	15	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3253
ICF 15 EVRAT	¾	10	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1112
ICF 15 EVRAT	½	15	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1115
ICF 15 EVRAT	¾	20	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1120
ICF 15 EVRAT	¾	10	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N2020
ICF 15 EVRAT	½	15	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N2021
ICF 15 EVRAT	¾	20	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N2022
ICF 15 EVRAT	¾	10	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2010
ICF 15 EVRAT	½	15	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2011
ICF 15 EVRAT	¾	10	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1005
ICF 15 EVRAT	½	15	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1006
ICF 15 EVRAT	-	16	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1116
ICF 15 EVRAT	-	22	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1122
ICF 15 EVRAT	⅝	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1117
ICF 15 EVRAT	⅞	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1123

Flange version 3

ICF 20 EVRAT	1	25	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3014
ICF 20 EVRAT	¾	20	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3045
ICF 20 EVRAT	¾	20	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1220
ICF 20 EVRAT	1	25	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1225
ICF 20 EVRAT	1¼	32	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1230
ICF 20 EVRAT	¾	20	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3031
ICF 20 EVRAT	1	25	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3032
ICF 20 EVRAT	1¼	32	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3033
ICF 20 EVRAT	¾	20	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2001
ICF 20 EVRAT	1	25	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2002
ICF 20 EVRAT	¾	20	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1001
ICF 20 EVRAT	-	22	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1222
ICF 20 EVRAT	-	28	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1228
ICF 20 EVRAT	⅞	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1223
ICF 20 EVRAT	1⅞	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1229

Flange version 1: Each code no. includes one flange and one flange gasket.

Flange version 1.2: Each code no. includes two flanges, two flange gaskets, two staybolts (M12 x 135 mm / M12 x 127 mm) and four nuts (M12).

Flange version 1.3: Each code no. includes two flanges.

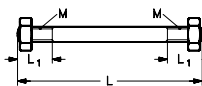
Flange version 3: Each code no. includes two flanges.

Flange gaskets

For flange version	Gasket dimensions ID x OD x h [mm]	Gasket dimensions ID x OD x h [in.]	Multipack		Code no.
			qty		
1.1 + 1.2 + 1.3	22 x 32 x 1.0	0.866 x 1.260 x 0.039	40		020-2133

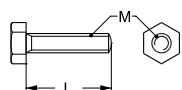
Flanges for ICF EVRAT - FA + solenoid valves (continued)

Set of staybolts and gaskets for flanges



Set of staybolts and gaskets for	Material	Thread [M]	L ₁ [mm]	L ₁ [in.]	L [mm]	L [in.]	Staybolts qty	Nuts qty	Gaskets qty	Code no.
ICF 15 EVRAT	Steel	M12	19	0.748	188	7.401	2	4	3	006-1104
ICF 20 EVRAT	Steel	M12	22	0.866	240	9.449	2	4	3	006-1105
ICF 20 EVRAT	Steel	M12	19	0.748	127	5.000	2	4	3	006-1108

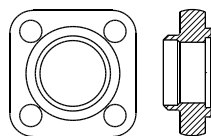
Bolts for flange connections



Type	Material	Material property class	M [mm]	L [mm]	L [in.]	Qty	Code no.
ICF 20 EVRAT	Stainless steel	Class A2/A4 to DIN 267	M12	45	1.772	4	027F2220
ICF 15 EVRAT	Steel	Class 8.8 to ISO 898	M12	35	1.378	4	006-1139
ICF 20 EVRAT	Steel	Class 8.8 to ISO 898	M12	45	1.772	4	006-1141

Flanges for PML Solenoid valves

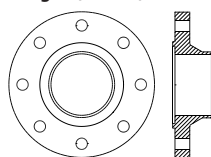
	For product	Connection size		Material	Flange type	Design	Connection standard	Connection type	Shape	Code no.
		[in.]	[mm]							

Tongue (Square):

Flange version 10

PML 32	1½	40	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	192H3016
PML 32	1¼	32	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2332
PML 32	1½	40	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2340
PML 32	1⅜	-	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2335

Flange version 11

PML 40	2	50	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	192H3018
PML 40	1½	40	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2440
PML 40	2	50	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2450
PML 40	1½	40	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Square	027N2004
PML 40	-	42	Steel	Set	Tongue/tongue	EN 1254	Soldering	Square	027L2442
PML 40	1⅝	-	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2441

Tongue (Round):

Flange version 12

PML 50	2½	65	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	192H3020
PML 50	2	50	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2550
PML 50	2½	65	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2565
PML 50	2	50	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Square	027N2005
PML 50	2⅞	54	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2554

Flange version 13

PML 65	2½	65	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2665
PML 65	3	80	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2680
PML 65	-	76	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2666
PML 65	2⅞	-	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2676

Flange version 14A

PML 80	4	100	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Round	027F2123
PML 80	4	100	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Round	027N3042

Flange version 14B

PML 100	5	125	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Round	027F2124
PML 100	5	125	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Round	027N3043

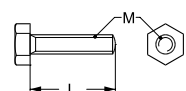
Flange version 14C

PML 125	6	150	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Round	027F2125
PML 125	6	150	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Round	027N3044

Flange version 10, 11, 12, 13, 14A, 14B, 14C: Each code no. includes two flanges.

Flange gaskets

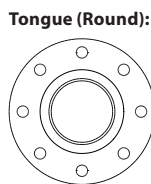
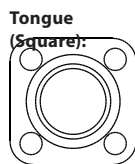
For flange version	Gasket dimensions ID x OD x h [mm]	Gasket dimensions ID x OD x h [in.]	Multipack		Code no.
			qty		
10	42.5 x 57.5 x 1.5	1.673 x 2.264 x 0.059	40		027F2176
11	51 x 65 x 1.5	2.008 x 2.559 x 0.059	40		027F2177
12	60.5 x 75.5 x 1.5	2.382 x 2.972 x 0.059	40		027F2178

Bolts and nuts for flange connections


Type	Material	Material property class	Description	M [mm]	L [mm]	L [in.]	Qty	Code no. Bolts	Code no. Nuts
PML 32 / PML 40	Stainless steel	Class A2/A4 to DIN 267	Bolts	M12	45	1.772	8	027F2221	-
PML 50	Stainless steel	Class A2/A4 to DIN 267	Bolts + nuts	M14	65	2.559	8	027F2222	-
PML 80	Stainless steel	Class A2/A4 to DIN 267	Bolts + nuts	M20	70	2.756	16	027F2224	-
PML 32 / PML 40	Steel	Class 8.8 to ISO 898	Bolts	M12	45	1.772	4	006-1141	-
PML 50	Steel	Class 8.8 to ISO 898	Bolts	M14	65	2.559	4	006-1142	-
PML 65	Steel	Class 8.8 to ISO 898	Bolts	M14	70	2.756	4	006-1143	006-1146
PML 80	Steel	Class 8.8 to ISO 898	Bolts + nuts	M20	70	2.756	16	027F2126	-
PML 100	Steel	Class 8.8 to ISO 898	Bolts + nuts	M20	75	2.953	16	027F2127	-

Flanges for PMLX 2-step solenoid valves

	For product	Connection size		Material	Flange type	Design	Connection standard	Connection type	Shape	Code no.
		[in.]	[mm]							


Flange version 10

PMLX 32	1½	40	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	192H3016
PMLX 32	1¼	32	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2332
PMLX 32	1½	40	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2340
PMLX 32	1⅜	-	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2335

Flange version 11

PMLX 40	2	50	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	192H3018
PMLX 40	1½	40	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2440
PMLX 40	2	50	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2450
PMLX 40	1½	40	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Square	027N2004
PMLX 40	-	42	Steel	Set	Tongue/tongue	EN 1254	Soldering	Square	027L2442
PMLX 40	1⅜	-	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2441

Flange version 12

PMLX 50	2	50	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2550
PMLX 50	2½	65	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2565
PMLX 50	2	50	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Square	027N2005
PMLX 50	2⅞	54	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2554

Flange version 13

PMLX 65	2½	65	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2665
PMLX 65	3	80	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2680
PMLX 65	-	76	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2666
PMLX 65	2⅞	-	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2676

Flange version 14A

PMLX 80	4	100	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Round	027F2123
PMLX 80	4	100	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Round	027N3042

Flange version 14B

PMLX 100	5	125	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Round	027F2124
PMLX 100	5	125	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Round	027N3043

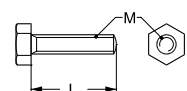
Flange version 14C

PMLX 125	6	150	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Round	027F2125
PMLX 125	6	150	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Round	027N3044

Flange version 10, 11, 12, 13, 14A, 14B, 14C: Each code no. includes two flanges.

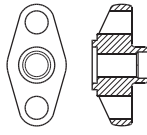
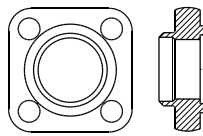
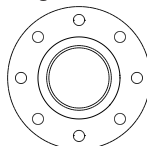
Flange gaskets

For flange version	Gasket dimensions ID x OD x h [mm]	Gasket dimensions ID x OD x h [in.]	Multipack		Code no.
			qty		
10	42.5 × 57.5 × 1.5	1.673 × 2.264 × 0.059	40		027F2176
11	51 × 65 × 1.5	2.008 × 2.559 × 0.059	40		027F2177
12	60.5 × 75.5 × 1.5	2.382 × 2.972 × 0.059	40		027F2178

Bolts and nuts for flange connections


Type	Material	Material property class	Description	M [mm]	L [mm]	L [in.]	Qty	Code no. Bolts	Code no. Nuts
PMLX 32-40	Stainless steel	Class A2/A4 to DIN 267	Bolts	M12	45	1.772	8	027F2221	-
PMLX 50	Stainless steel	Class A2/A4 to DIN 267	Bolts + nuts	M14	65	2.559	8	027F2222	-
PMLX 80	Stainless steel	Class A2/A4 to DIN 267	Bolts + nuts	M20	70	2.756	16	027F2224	-
PMLX 32-40	Steel	Class 8.8 to ISO 898	Bolts	M12	45	1.772	4	006-1141	-
PMLX 50	Steel	Class 8.8 to ISO 898	Bolts	M14	65	2.559	4	006-1142	-
PMLX 65	Steel	Class 8.8 to ISO 898	Bolts	M14	70	2.756	4	006-1143	006-1146
PMLX 80	Steel	Class 8.8 to ISO 898	Bolts + nuts	M20	70	2.756	16	027F2126	-
PMLX 100	Steel	Class 8.8 to ISO 898	Bolts + nuts	M20	75	2.953	16	027F2127	-

Flanges for PM Pilot operated servo valves

	For product	Connection size		Material	Flange type	Design	Connection standard	Connection type	Shape	Code no.
		[in.]	[mm]							
Flange version 3										
Tongue (Oval): 	PM 5 / PM 10 / PM 15	1	25	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3014
	PM 5 / PM 10 / PM 15	¾	20	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3045
	PM 5 / PM 10 / PM 15	¾	20	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1220
	PM 5 / PM 10 / PM 15	1	25	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1225
	PM 5 / PM 10 / PM 15	1¼	32	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1230
Tongue (Square): 	PM 5 / PM 10 / PM 15	¾	20	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3031
	PM 5 / PM 10 / PM 15	1	25	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3032
	PM 5 / PM 10 / PM 15	1¼	32	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3033
	PM 5 / PM 10 / PM 15	¾	20	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2001
	PM 5 / PM 10 / PM 15	1	25	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2002
	PM 5 / PM 10 / PM 15	¾	20	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1001
	PM 5 / PM 10 / PM 15	1	25	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1002
	PM 5 / PM 10 / PM 15	-	22	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1222
	PM 5 / PM 10 / PM 15	-	28	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1228
	PM 5 / PM 10 / PM 15	7/8	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1223
Tongue (Round): 	PM 5 / PM 10 / PM 15	1½	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1229
	PM 5 / PM 10 / PM 15	1½	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1229
Flange version 10										
	PM 32	1½	40	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	192H3016
	PM 32	1¼	32	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2332
	PM 32	1½	40	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2340
	PM 32	1¾	-	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2335
Flange version 11										
	PM 40	2	50	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	192H3018
	PM 40	1½	40	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2440
	PM 40	2	50	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2450
	PM 40	1½	40	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Square	027N2004
	PM 40	-	42	Steel	Set	Tongue/tongue	EN 1254	Soldering	Square	027L2442
	PM 40	1¾	-	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2441
Flange version 12										
	PM 50	2	50	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2550
	PM 50	2½	65	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2565
	PM 50	2	50	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Square	027N2005
	PM 50	2½	54	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2554
Flange version 13										
	PM 65	2½	65	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2665
	PM 65	3	80	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2680
	PM 65	-	76	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2666
	PM 65	2¾	-	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2676
Flange version 14A										
	PM 80	4	100	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Round	027F2123
	PM 80	4	100	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Round	027N3042
Flange version 14B										
	PM 100	5	125	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Round	027F2124
	PM 100	5	125	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Round	027N3043
Flange version 14C										
	PM 125	6	150	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Round	027F2125
	PM 125	6	150	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Round	027N3044

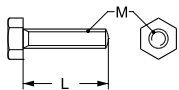
Flange version 3, 10, 11, 12, 13, 14A, 14B, 14C: Each code no. includes two flanges.

Flange gaskets

For flange version	Gasket dimensions ID x OD x h [mm]	Gasket dimensions ID x OD x h [in.]	Multipack		Code no.
			qty		
10	42.5 × 57.5 × 1.5	1.673 × 2.264 × 0.059	40		027F2176
11	51 × 65 × 1.5	2.008 × 2.559 × 0.059	40		027F2177
12	60.5 × 75.5 × 1.5	2.382 × 2.972 × 0.059	40		027F2178

Flanges for PM Pilot operated servo valves (continued)

Bolts and nuts for flange connections



Type	Material	Material property class	Description	M [mm]	L [mm]	L [in.]	Qty	Code no. Bolts	Code no. Nuts
PM 5 / PM 10 / PM 15	Stainless steel	Class A2/A4 to DIN 267	Bolts	M12	45	1.772	4	027F2220	-
PM 32 / PM 40	Stainless steel	Class A2/A4 to DIN 267	Bolts	M12	45	1.772	8	027F2221	-
PM 50	Stainless steel	Class A2/A4 to DIN 267	Bolts + nuts	M14	65	2.559	8	027F2222	-
PM 80	Stainless steel	Class A2/A4 to DIN 267	Bolts + nuts	M20	70	2.756	16	027F2224	-
PM 5 / PM 10 / PM 15 / PM 32 / PM 40	Steel	Class 8.8 to ISO 898	Bolts	M12	45	1.772	4	006-1141	-
PM 50	Steel	Class 8.8 to ISO 898	Bolts	M14	65	2.559	4	006-1142	-
PM 65	Steel	Class 8.8 to ISO 898	Bolts	M14	70	2.756	4	006-1143	006-1146
PM 80	Steel	Class 8.8 to ISO 898	Bolts + nuts	M20	70	2.756	16	027F2126	-
PM 100	Steel	Class 8.8 to ISO 898	Bolts + nuts	M20	75	2.953	16	027F2127	-

Flanges for ICV PM Valve housings

	For product	Connection size		Material	Flange type	Design	Connection standard	Connection type	Shape	Code no.
		[in.]	[mm]							
Flange version 3										
<p>Tongue (oval):</p> <p>Tongue (Square):</p>	ICV PM 25	1	25	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3014
	ICV PM 25	¾	20	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3045
	ICV PM 25	¾	20	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1220
	ICV PM 25	1	25	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1225
	ICV PM 25	1¼	32	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1230
	ICV PM 25	¾	20	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3031
	ICV PM 25	1	25	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3032
	ICV PM 25	1¼	32	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3033
	ICV PM 25	¾	20	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2001
	ICV PM 25	1	25	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2002
	ICV PM 25	¾	20	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1001
	ICV PM 25	1	25	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1002
	ICV PM 25	-	22	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1222
	ICV PM 25	-	28	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1228
	ICV PM 25	7/8	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1223
	ICV PM 25	1 1/8	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1229
Flange version 10										
ICV PM 32	1½	40	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	192H3016	
ICV PM 32	1¼	32	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2332	
ICV PM 32	1½	40	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2340	
ICV PM 32	1 3/8	-	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2335	
Flange version 11										
ICV PM 40	2	50	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	192H3018	
ICV PM 40	1½	40	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2440	
ICV PM 40	2	50	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2450	
ICV PM 40	1½	40	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Square	027N2004	
ICV PM 40	-	42	Steel	Set	Tongue/tongue	EN 1254	Soldering	Square	027L2442	
ICV PM 40	1 5/8	-	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2441	
Flange version 12										
ICV PM 50	2	50	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2550	
ICV PM 50	2½	65	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2565	
ICV PM 50	2	50	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Square	027N2005	
ICV PM 50	2 1/8	54	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2554	
Flange version 13										
ICV PM 65	2½	65	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2665	
ICV PM 65	3	80	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2680	
ICV PM 65	-	76	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2666	
ICV PM 65	2 5/8	-	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2676	

Flange version 3, 10, 11, 12, 13: Each code no. includes two flanges.

Flange gaskets

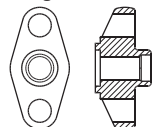
For flange version	Gasket dimensions ID x OD x h [mm]	Gasket dimensions ID x OD x h [in.]	Multipack	Code no.
			qty	
10	42.5 x 57.5 x 1.5	1.673 x 2.264 x 0.059	40	027F2176
11	51 x 65 x 1.5	2.008 x 2.559 x 0.059	40	027F2177
12	60.5 x 75.5 x 1.5	2.382 x 2.972 x 0.059	40	027F2178

Bolts and nuts for flange connections

Type	Material	Material property class	Description	M	L	L	Qty	Code no. Bolts	Code no. Nuts
				[mm]	[mm]	[in.]			
ICV PM 25	Stainless steel	Class A2/A4 to DIN 267	Bolts	M12	45	1.772	4	027F2220	-
ICV PM 32 / ICV PM 40	Stainless steel	Class A2/A4 to DIN 267	Bolts	M12	45	1.772	8	027F2221	-
ICV PM 50	Stainless steel	Class A2/A4 to DIN 267	Bolts + nuts	M14	65	2.559	8	027F2222	-
ICV PM 25-40	Steel	Class 8.8 to ISO 898	Bolts	M12	45	1.772	4	006-1141	-
ICV PM 50	Steel	Class 8.8 to ISO 898	Bolts	M14	65	2.559	4	006-1142	-
ICV PM 65	Steel	Class 8.8 to ISO 898	Bolts	M14	70	2.756	4	006-1143	006-1146

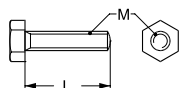
Flanges for PMC Pilot operated servo valves

	For product	Connection size		Material	Flange type	Design	Connection standard	Connection type	Shape	Code no.
		[in.]	[mm]							

Tongue (oval):

Flange version 3

PMC 5 / PMC 8 / PMC 12 / PMC 20	1	25	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3014
PMC 5 / PMC 8 / PMC 12 / PMC 20	¾	20	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3045
PMC 5 / PMC 8 / PMC 12 / PMC 20	¾	20	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1220
PMC 5 / PMC 8 / PMC 12 / PMC 20	1	25	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1225
PMC 5 / PMC 8 / PMC 12 / PMC 20	1¼	32	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1230
PMC 5 / PMC 8 / PMC 12 / PMC 20	¾	20	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3031
PMC 5 / PMC 8 / PMC 12 / PMC 20	1	25	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3032
PMC 5 / PMC 8 / PMC 12 / PMC 20	1¼	32	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3033
PMC 5 / PMC 8 / PMC 12 / PMC 20	¾	20	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2001
PMC 5 / PMC 8 / PMC 12 / PMC 20	1	25	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2002
PMC 5 / PMC 8 / PMC 12 / PMC 20	¾	20	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1001
PMC 5 / PMC 8 / PMC 12 / PMC 20	1	25	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1002
PMC 5 / PMC 8 / PMC 12 / PMC 20	-	22	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1222
PMC 5 / PMC 8 / PMC 12 / PMC 20	-	28	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1228
PMC 5 / PMC 8 / PMC 12 / PMC 20	7/8	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1223
PMC 5 / PMC 8 / PMC 12 / PMC 20	1 1/8	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1229

Flange version 3: Each code no. includes two flanges.

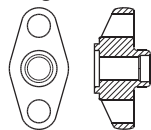
Bolts for flange connections


Type	Material	Material property class	M [mm]	L [mm]	L [in.]	Qty	Code no.
PMC 5 / PMC 8 / PMC 12 / PMC 20	Stainless steel	Class A2/A4 to DIN 267	M12	45	1.772	4	027F2220
PMC 5 / PMC 8 / PMC 12 / PMC 20	Steel	Class 8.8 to ISO 898	M12	45	1.772	4	006-1141

Flanges for CVMD Pressure regulating valves

	For product	Connection size		Material	Flange type	Design	Connection standard	Connection type	Shape	Code no.
		[in.]	[mm]							

Tongue (oval):



Flange version 1.3

CVMD	¾	20	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3254
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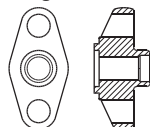
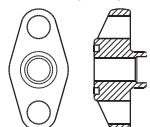
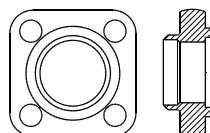
Flange version 1.3: Each code no. includes two flanges.

Flange gaskets

For flange version	Gasket dimensions ID x OD x h [mm]	Gasket dimensions ID x OD x h [in.]	Multipack	Code no.
			qty	
1.3	22 x 32 x 1.0	0.866 x 1.260 x 0.039	40	020-2133

Flanges for FA Strainers

	For product	Connection size		Material	Flange type	Design	Connection standard	Connection type	Shape	Code no.
		[in.]	[mm]							

Tongue (oval):

Groove (oval):

Tongue (Square):

Flange version 1.1

FA 15	3/8	10	Steel	Set	Groove	EN 10220	Butt welding	Oval	006-1111
FA 15	1/2	15	Steel	Set	Groove	EN 10220	Butt welding	Oval	006-1112
FA 15	3/4	20	Steel	Set	Groove	EN 10220	Butt welding	Oval	006-1113
FA 15	1/2	15	Brass	Set	Groove	ASME B 16.22	Soldering	Oval	006-1150
FA 15	5/8	16	Brass	Set	Groove	ASME B 16.22	Soldering	Oval	006-1151
FA 15	7/8	22	Brass	Set	Groove	ASME B 16.22	Soldering	Oval	006-1153
FA 15	1	25	Brass	Set	Groove	ASME B 16.22	Soldering	Oval	006-1158

Flange version 1.3

FA 20	3/4	20	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3254
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Flange version 2.1

FA 20	1/2	15	Steel	Set	Tongue/Groove	EN 10220	Butt welding	Oval	006-1114
FA 20	3/4	20	Steel	Set	Tongue/Groove	EN 10220	Butt welding	Oval	006-1115
FA 20	1	25	Steel	Set	Tongue/Groove	EN 10220	Butt welding	Oval	006-1116

Flange version 2.3

FA 20	-	22	Brass	Set	Tongue/Groove	EN 1254	Soldering	Oval	006-1180
FA 20	1 1/8	-	Brass	Set	Tongue/Groove	ASME B 16.22	Soldering	Oval	006-1157

Flange version 3

FA 20	3/4	20	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3045
FA 20	1	25	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3014
FA 20	3/4	20	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1220
FA 20	1	25	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1225
FA 20	1 1/4	32	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1230
FA 20	3/4	20	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3031
FA 20	1	25	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3032
FA 20	1 1/4	32	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3033
FA 20	3/4	20	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2001
FA 20	1	25	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2002
FA 20	3/4	20	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1001
FA 20	-	22	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1222
FA 20	-	28	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1228
FA 20	7/8	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1223
FA 20	1 1/8	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1229

Flange version 5

FA 20	1	25	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	006-1117
FA 25	1 1/4	32	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N1032
FA 25	1 1/8	-	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	006-1159

Flange version 1.1: Each code no. includes two flanges, two flange gaskets, two staybolts (M12 x 127 mm), and four nuts (M12).

Flange version 1.3: Each code no. includes two flanges.

Flange version 2.1: Each code no. includes two flanges, two flange gaskets, two staybolts, and four nuts.

Flange version 2.3: Each code no. includes two flanges.

Flange version 3: Each code no. includes two flanges.

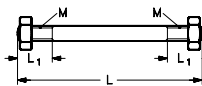
Flange version 5: Each code no. includes two flanges

Flange gaskets

For flange version	Gasket dimensions ID x OD x h [mm]	Gasket dimensions ID x OD x h [in.]	Multipack		Code no.
			qty		
1.1 + 1.3	22 x 32 x 1.0	0.866 x 1.260 x 0.039	40		020-2133
5	45.5 x 59.5 x 1.5	1.791 x 2.342 x 0.059	40		026H0050

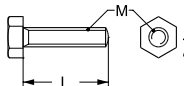
Flanges for FA Strainers (continued)

Set of staybolts and gaskets for flanges



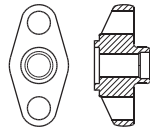

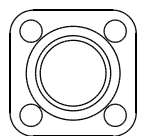
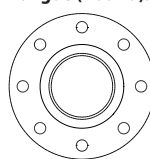
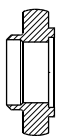
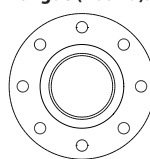



Set of staybolts and gaskets for	Material	Thread [M]	L ₁ [mm]	L ₁ [in.]	L [mm]	L [in.]	Staybolts qty	Nuts qty	Gaskets qty	Code no.
FA 15	Steel	M12	19	0.748	107	4.212	2	4	3	006-1101
FA 15 / FA 20	Steel	M12	19	0.748	127	5.000	2	4	3	006-1108
FA 20	Steel	M12	22	0.866	160	6.299	2	4	3	006-1136

Bolts for flange connections



Type	Material	Material property class	M [mm]	L [mm]	L [in.]	Qty	Code no.
FA 25	Steel	Class 8.8 to ISO 898	M12	35	1.378	4	006-1139

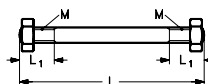
Flanges for NRVA Check valves

	For product	Connection size		Material	Flange type	Design	Connection standard	Connection type	Shape	Code no.
		[in.]	[mm]							
Flange version 1										
Tongue (oval): 	NRVA 15 / NRVA 20	¼	6	Steel	Single	Tongue	EN 10220	Butt welding	Oval	006-1118
	NRVA 15 / NRVA 20	¼	6	Steel	Single	Groove	EN 10220	Butt welding	Oval	006-1119
Groove (oval): 	NRVA 15 / NRVA 20	¾	10	Steel	Single	Tongue	EN 10220	Butt welding	Oval	006-1120
	NRVA 15 / NRVA 20	¾	10	Steel	Single	Groove	EN 10220	Butt welding	Oval	006-1121
Tongue (Square): 	NRVA 15 / NRVA 20	½	15	Steel	Single	Tongue	EN 10220	Butt welding	Oval	006-1122
	NRVA 15 / NRVA 20	½	15	Steel	Single	Groove	EN 10220	Butt welding	Oval	006-1123
	NRVA 15 / NRVA 20	¾	20	Steel	Single	Tongue	EN 10220	Butt welding	Oval	006-1124
	NRVA 15 / NRVA 20	¾	20	Steel	Single	Groove	EN 10220	Butt welding	Oval	006-1125
	NRVA 15 / NRVA 20	½	-	Brass	Single	Tongue	ASME B 16.22	Soldering	Oval	006-1160
	NRVA 15 / NRVA 20	½	-	Brass	Single	Groove	ASME B 16.22	Soldering	Oval	006-1161
	NRVA 15 / NRVA 20	⅝	-	Brass	Single	Tongue	ASME B 16.22	Soldering	Oval	006-1162
	NRVA 15 / NRVA 20	⅝	-	Brass	Single	Groove	ASME B 16.22	Soldering	Oval	006-1163
	NRVA 15 / NRVA 20	⅞	-	Brass	Single	Tongue	ASME B 16.22	Soldering	Oval	006-1176
	NRVA 15 / NRVA 20	⅞	-	Brass	Single	Groove	ASME B 16.22	Soldering	Oval	006-1177
Tongue (Round): 	NRVA 15 / NRVA 20	1	-	Brass	Single	Tongue	ASME B 16.22	Soldering	Oval	006-1166
	Flange version 1.2									
	NRVA 15 / NRVA 20	-	15 x 15	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027B0181
	NRVA 15 / NRVA 20	⅝ x ⅞	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	006-1195
Flange version 1.3										
	NRVA 15 / NRVA 20	¾	20	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3254
	NRVA 15 / NRVA 20	¾	10	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1112
	NRVA 15 / NRVA 20	½	15	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1115
	NRVA 15 / NRVA 20	¾	20	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1120
	NRVA 15 / NRVA 20	¾	10	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N2020
	NRVA 15 / NRVA 20	½	15	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N2021
	NRVA 15 / NRVA 20	¾	20	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N2022
	NRVA 15 / NRVA 20	¾	10	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2010
	NRVA 15 / NRVA 20	½	15	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2011
	NRVA 15 / NRVA 20	¾	10	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1005
	NRVA 15 / NRVA 20	½	15	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1006
	NRVA 15 / NRVA 20	-	16	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1116
	NRVA 15 / NRVA 20	-	22	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1122
	NRVA 15 / NRVA 20	⅝	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1117
	NRVA 15 / NRVA 20	⅞	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1123
	Flange version 4									
	NRVA 25 / NRVA 32	1	25	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N1026
	NRVA 25 / NRVA 32	1¼	32	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N1033
	NRVA 25 / NRVA 32	1	25	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Square	027N2023
	NRVA 25 / NRVA 32	1¼	32	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Square	027N2024
	NRVA 25 / NRVA 32	¾	20	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Square	027N2012
	NRVA 25 / NRVA 32	1	25	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Square	027N2013
	NRVA 25 / NRVA 32	1¼	32	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Square	027N2016
	NRVA 25 / NRVA 32	¾	20	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Square	027G1007
	Flange version 6									
	NRVA 40 / NRVA 50	1½	40	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N1042
	NRVA 40 / NRVA 50	2	50	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N1051
	NRVA 40 / NRVA 50	1½	40	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Square	027N2025
	NRVA 40 / NRVA 50	2	50	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Square	027N2026
	NRVA 40 / NRVA 50	2⅝	54	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2554
Flange version 8										
	NRVA 65	2½	65	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Round	027N1055
	NRVA 65	2½	65	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Round	027N2027

- Flange version 1: Each code no. includes one flange and one flange gasket.
- Flange version 1.2: Each code no. includes two flanges, two flange gaskets, two staybolts (M12 x 135 mm / M12 x 127 mm) and four nuts (M12).
- Flange version 1.3: Each code no. includes two flanges.
- Flange version 4: Each code no. includes two flanges.
- Flange version 6: Each code no. includes two flanges.
- Flange version 8: Each code no. includes two flanges.

Flanges for NRVA Check valves (continued)
Flange gaskets

For flange version	Gasket dimensions ID x OD x h [mm]	Gasket dimensions ID x OD x h [in.]	Multipack qty	Code no.
1 + 1.2 + 1.3	22 x 32 x 1.0	0.866 x 1.260 x 0.039	40	020-2133
4	42.5 x 57.5 x 1.5	1.673 x 2.264 x 0.059	40	027F2176
6	60.5 x 75.5 x 1.5	2.382 x 2.972 x 0.059	40	027F2178
8	94 x 110 x 2	3.701 x 4.331 x 0.079	40	020-2136

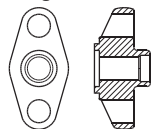
Set of staybolts and gaskets for flanges


Set of staybolts and gaskets for	Material	Thread [M]	L ₁ [mm]	L ₁ [in.]	L [mm]	L [in.]	Staybolts qty	Nuts qty	Gaskets qty	Code no.
NRVA 15 / NRVA 20	Steel	M 12	19	0.748	115	4.527	2	4	3	006-1107
NRVA 25 / NRVA 32	Steel	M 12	12	0.472	148	5.827	4	8	2	006-1135
NRVA 40 / NRVA 50	Steel	M 12	22	0.866	167	6.575	4	8	2	006-1137
NRVA 65	Steel	M 16	25	0.984	200	7.874	8	16	2	006-1138

Flanges for NRVS Check valves

	For product	Connection size		Material	Flange type	Design	Connection standard	Connection type	Shape	Code no.
		[in.]	[mm]							

Tongue (oval):



Standard + Special flange ¹⁾

NRVS 15	¾	20	Steel	Set	Groove/Tongue	EN 10220	Butt welding	Oval	027N1255
NRVS 25	1	25	Steel	Set	Groove/Tongue	EN 10220	Butt welding	Oval	027N1254

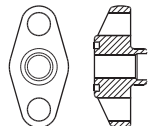
Standard + Special flange ²⁾

NRVS 15	¾	20	Steel	Set	Groove/Groove	EN 10220	Butt welding	Oval	027N1256
NRVS 25	1	25	Steel	Set	Groove/Groove	EN 10220	Butt welding	Oval	027N1257

¹⁾ Each code no. includes one standard flange and one special flange, one gasket and 2 bolts.

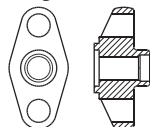
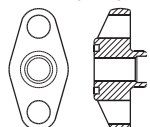
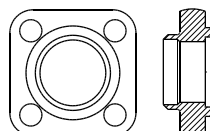
²⁾ Each code no. includes One standard flange and one special flange, two gasket, 2 bolts and 2 nuts.

Groove (oval):



Flanges for PMFL Liquid level regulating valves

	For product	Connection size		Material	Flange type	Design	Connection standard	Connection type	Shape	Code no.
		[in.]	[mm]							

Tongue (oval):

Groove (oval):

Tongue (Square):

Flange version 3

PMFL 80	1	25	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3014
PMFL 80	¾	20	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3045
PMFL 80	¾	20	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1220
PMFL 80	1	25	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1225
PMFL 80	1¼	32	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1230
PMFL 80	¾	20	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3031
PMFL 80	1	25	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3032
PMFL 80	1¼	32	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3033
PMFL 80	¾	20	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2001
PMFL 80	1	25	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2002
PMFL 80	¾	20	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1001
PMFL 80	1	25	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1002
PMFL 80	-	22	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1222
PMFL 80	-	28	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1228
PMFL 80	7/8	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1223
PMFL 80	1 1/8	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1229

Flange version 10

PMFL 125	1½	40	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	192H3016
PMFL 125	1¼	32	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2332
PMFL 125	1½	40	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2340
PMFL 125	1 3/8	-	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2335

Flange version 11

PMFL 200	2	50	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	192H3018
PMFL 200	1½	40	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2440
PMFL 200	2	50	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2450
PMFL 200	1½	40	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Square	027N2004
PMFL 200	-	42	Steel	Set	Tongue/tongue	EN 1254	Soldering	Square	027L2442
PMFL 200	1 5/8	-	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2441

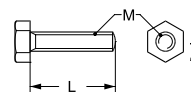
Flange version 12

PMFL 300	2	50	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2550
PMFL 300	2½	65	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2565
PMFL 300	2	50	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Square	027N2005
PMFL 300	2 1/8	54	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2554

Flange version 3, 10, 11, 12: Each code no. includes two flanges.

Flange gaskets

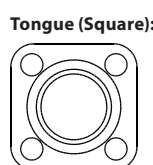
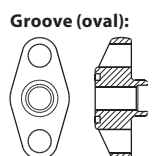
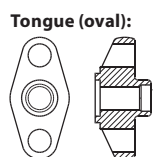
For flange version	Gasket dimensions ID x OD x h [mm]	Gasket dimensions ID x OD x h [in.]	Multipack		Code no.
			qty		
10	42.5 × 57.5 × 1.5	1.673 × 2.264 × 0.059	40		027F2176
11	51 × 65 × 1.5	2.008 × 2.559 × 0.059	40		027F2177
12	60.5 × 75.5 × 1.5	2.382 × 2.972 × 0.059	40		027F2178

Bolts and nuts for flange connections


Type	Material	Material property class	Description	M [mm]	L [mm]	L [in.]	Qty	Code no. Bolts	Code no. Nuts
PMFL 80	Stainless steel	Class A2/A4 to DIN 267	Bolts	M12	45	1.772	4	027F2220	-
PMFL 125	Stainless steel	Class A2/A4 to DIN 267	Bolts	M12	45	1.772	8	027F2221	-
PMFL 300	Stainless steel	Class A2/A4 to DIN 267	Bolts + nuts	M14	65	2.559	8	027F2222	-
PMFL 80 / PMFL 125 / PMFL 200	Steel	Class 8.8 to ISO 898	Bolts	M12	45	1.772	4	006-1141	
PMFL 300	Steel	Class 8.8 to ISO 898	Bolts	M14	65	2.559	4	006-1142	006-1146

Flanges for PMFH Liquid level regulating valves

	For product	Connection size		Material	Flange type	Design	Connection standard	Connection type	Shape	Code no.
		[in.]	[mm]							


Flange version 3

PMFH 80	1	25	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3014
PMFH 80	¾	20	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	192H3045
PMFH 80	¾	20	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1220
PMFH 80	1	25	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1225
PMFH 80	1¼	32	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Oval	027N1230
PMFH 80	¾	20	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3031
PMFH 80	1	25	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3032
PMFH 80	1¼	32	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3033
PMFH 80	¾	20	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2001
PMFH 80	1	25	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Oval	027N2002
PMFH 80	¾	20	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1001
PMFH 80	1	25	Steel	Set	Tongue/tongue	ANSI/ASME B1.20.1	FPT inside thread, NPT	Oval	027G1002
PMFH 80	-	22	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1222
PMFH 80	-	28	Brass	Set	Tongue/tongue	EN 1254	Soldering	Oval	027L1228
PMFH 80	7/8	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1223
PMFH 80	1½	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1229

Flange version 10

PMFH 125	1½	40	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	192H3016
PMFH 125	1¼	32	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2332
PMFH 125	1½	40	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2340
PMFH 125	1¾	-	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2335

Flange version 11

PMFH 200	2	50	Stainless steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	192H3018
PMFH 200	1½	40	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2440
PMFH 200	2	50	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2450
PMFH 200	1½	40	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Square	027N2004
PMFH 200	-	42	Steel	Set	Tongue/tongue	EN 1254	Soldering	Square	027L2442
PMFH 200	1¾	-	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2441

Flange version 12

PMFH 300	2	50	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2550
PMFH 300	2½	65	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2565
PMFH 300	2	50	Steel	Set	Tongue/tongue	ASME B 16.11	Socket welding	Square	027N2005
PMFH 300	2¾	54	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2554

Flange version 13

PMFH 500	2½	65	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2665
PMFH 500	3	80	Steel	Set	Tongue/tongue	EN 10220	Butt welding	Square	027N2680
PMFH 500	-	76	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2666
PMFH 500	2¾	-	Steel	Set	Tongue/tongue	ASME B 16.22	Soldering	Square	027L2676

Flange version 3, 10, 11, 12, 13: Each code no. includes two flanges.

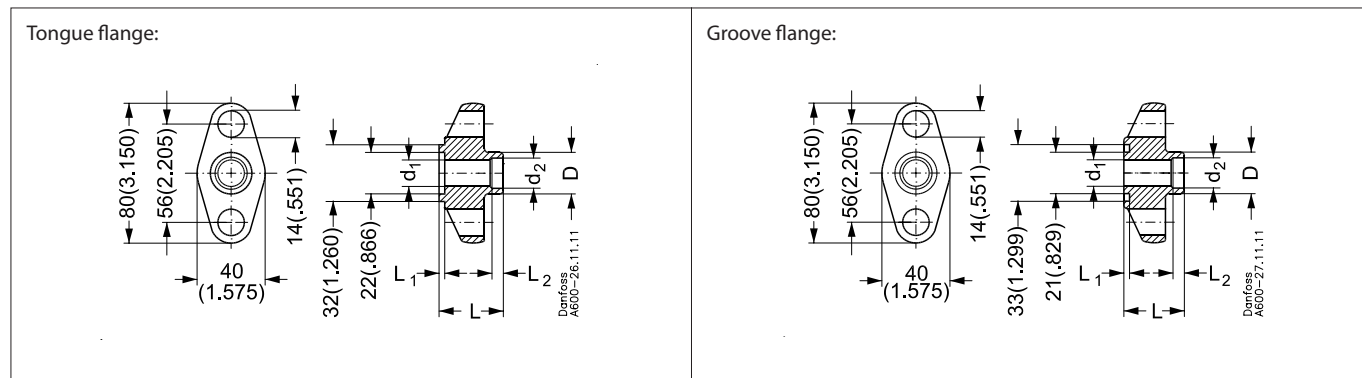
Flange gaskets

For flange version	Gasket dimensions ID x OD x h [mm]	Gasket dimensions ID x OD x h [in.]	Multipack		Code no.
			qty		
10	42.5 x 57.5 x 1.5	1.673 x 2.264 x 0.059	40		027F2176
11	51 x 65 x 1.5	2.008 x 2.559 x 0.059	40		027F2177
12	60.5 x 75.5 x 1.5	2.382 x 2.972 x 0.059	40		027F2178

Bolts and nuts for flange connections

Type	Material	Material property class	Description	M [mm]	L [mm]	L [in.]	Qty	Code no. Bolts	Code no. Nuts
PMFH 80	Stainless steel	Class A2/A4 to DIN 267	Bolts	M12	45	1.772	4	027F2220	-
PMFH 125 / PMFH 200	Stainless steel	Class A2/A4 to DIN 267	Bolts	M12	45	1.772	8	027F2221	-
PMFH 300	Stainless steel	Class A2/A4 to DIN 267	Bolts + nuts	M14	65	2.559	8	027F2222	-
PMFH 80 / PMFH 125 / PMFH 200	Steel	Class 8.8 to ISO 898	Bolts	M12	45	1.772	4	006-1141	-
PMFH 300	Steel	Class 8.8 to ISO 898	Bolts	M14	65	2.559	4	006-1142	006-1146
PMFH 500	Steel	Class 8.8 to ISO 898	Bolts	M14	70	2.756	4	006-1143	006-1146

Flange version 1 (1, 1.1, 1.2, 1.3)



Butt welding EN 10220

Tongue flanges:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₁ [mm]	L ₁ [in.]	L ₂ [mm]	L ₂ [in.]
6	¼	14	0.551	8	0.315	10	0.394	32.5	1.279	3	0.118	6	0.236
10	¾	18	0.709	10	0.394	14	0.551	32.5	1.279	3	0.118	6	0.236
15	½	22	0.866	14	0.551	17	0.669	32.5	1.279	3	0.118	6	0.236
20	¾	27	1.063	19	0.748	22	0.866	32.5	1.279	3	0.118	6	0.236

Butt welding EN 10220

Groove flanges:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₁ [mm]	L ₁ [in.]	L ₂ [mm]	L ₂ [in.]
6	¼	14	0.551	8	0.315	10	0.394	32.5	1.279	2	0.079	6	0.236
10	¾	18	0.709	10	0.394	14	0.551	32.5	1.279	2	0.079	6	0.236
15	½	22	0.866	14	0.551	17	0.669	32.5	1.279	2	0.079	6	0.236
20	¾	27	1.063	19	0.748	22	0.866	32.5	1.279	2	0.079	6	0.236

Soldering ASME B 16.22

Tongue flanges:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₁ [mm]	L ₁ [in.]	L ₂ [mm]	L ₂ [in.]
-	½	17	0.669	10	0.394	12.7	0.500	29.5	1.161	3	0.118	17.5	0.689
-	⅝	21	0.827	13	0.512	15.9	0.626	29.5	1.161	3	0.118	20.5	0.807
-	¾	27	1.063	19	0.748	22.2	0.874	29.5	1.161	3	0.118	22	0.866
-	1	30	1.181	18	0.709	25.5	1.004	29.5	1.161	3	0.118	22	0.866

Soldering ASME B 16.22

Groove flanges:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₁ [mm]	L ₁ [in.]	L ₂ [mm]	L ₂ [in.]
-	½	17	0.669	10	0.394	12.7	0.500	26.5	1.043	3	0.118	17.5	0.689
-	⅝	21	0.827	13	0.512	15.9	0.626	26.5	1.043	3	0.118	20.5	0.807
-	¾	27	1.063	18	0.709	22.2	0.874	26.5	1.043	3	0.118	22	0.866

Butt welding ASME B 36.10M

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₁ [mm]	L ₁ [in.]	L ₂ [mm]	L ₂ [in.]
10	¾	17.1	0.673	10.7	0.421	10.7	0.421	32.5	1.280	3	0.118	6	0.236
15	½	21.3	0.839	13.9	0.547	13.9	0.547	32.5	1.280	3	0.118	6	0.236
20	¾	26.9	1.059	18.9	0.744	18.9	0.744	32.5	1.280	3	0.118	6	0.236

Socket welding ASME B 16.11

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₁ [mm]	L ₁ [in.]	L ₂ [mm]	L ₂ [in.]
10	¾	26	1.024	12.5	0.492	17.8	0.701	32.5	1.280	3	0.118	10	0.394
15	½	31.6	1.244	15.8	0.622	22	0.866	32.5	1.280	3	0.118	10	0.394

Flange version 1 (1.1, 1.2, 1.3) - continued

FPT inside thread, NPT (ANSI/ASME B 1.20.1)

Tongue flange sets:

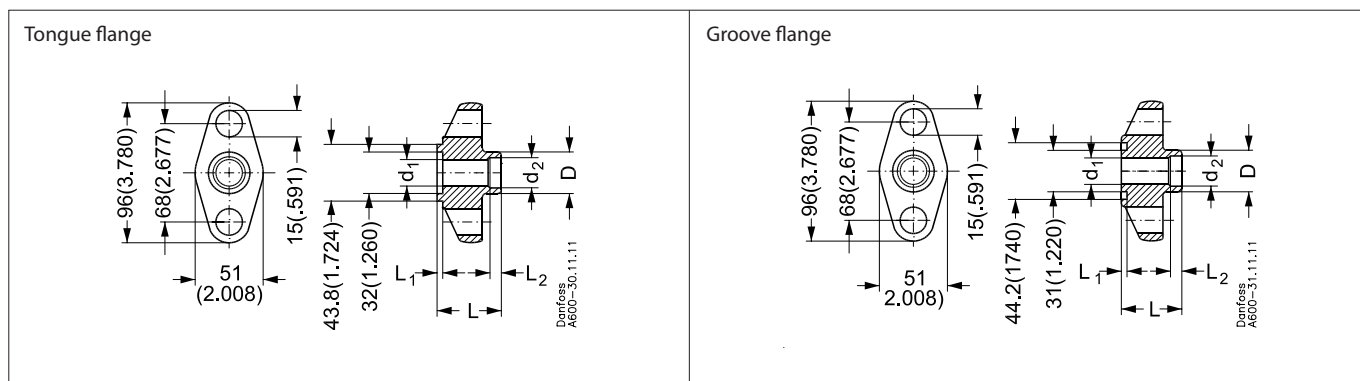
Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₁ [mm]	L ₁ [in.]
10	3/8	26	1.024	14.3	0.563	3/8 in.-18 NPT	3/8 in.-18 NPT	32.5	1.477	3	0.118
15	1/2	31.6	1.244	17.8	0.701	1/2 in.-14 NPT	1/2 in.-14 NPT	32.5	1.280	3	0.118

Soldering EN 1254

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₁ [mm]	L ₁ [in.]	L ₂ [mm]	L ₂ [in.]
16	-	21	0.827	13	0.512	16	0.630	29.5	2.122	3	0.118	15	0.591
22	-	27	1.063	19	0.748	22.1	0.869	29.5	1.161	3	0.118	22	0.866

Flange version 2 (2.1)



Butt welding EN 10220

Tongue flanges:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₁ [mm]	L ₁ [in.]	L ₂ [mm]	L ₂ [in.]
15	½	22	0.866	14	0.551	17	0.669	35	1.378	3	0.118	6	0.236
20	¾	27	1.063	19	0.748	22	0.866	35	1.378	3	0.118	6	0.236
25	1	34	1.338	26	1.024	18	1.102	37.5	1.476	3	0.118	6	0.236

Butt welding EN 10220

Groove flanges:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₁ [mm]	L ₁ [in.]	L ₂ [mm]	L ₂ [in.]
15	½	22	0.866	14	0.551	17	0.669	34.5	1.358	3	0.118	6	0.236
20	¾	27	1.063	19	0.748	22	0.866	34.5	1.358	3	0.118	6	0.236
25	1	34	1.338	26	1.024	18	1.102	34.5	1.358	3	0.118	6	0.236

Soldering EN 1254

Tongue/groove flanges:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₁ [mm]	L ₁ [in.]	L ₂ [mm]	L ₂ [in.]
22	-	27	1.063	19	0.748	22	0.866	30	1.181	3	0.118	22	0.866
22	-	27	1.063	19	0.748	22	0.866	30	1.181	3	0.118	22	0.866

Soldering ASME B 16.22

Tongue flanges:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₁ [mm]	L ₁ [in.]	L ₂ [mm]	L ₂ [in.]
-	1 1/8	34	1.338	26	1.024	28.6	1.126	33	1.299	3	0.118	26	1.024

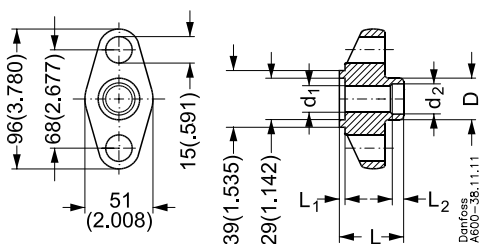
Soldering ASME B 16.22

Groove flanges:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₁ [mm]	L ₁ [in.]	L ₂ [mm]	L ₂ [in.]
-	1 1/8	34	1.338	26	1.024	28.6	1.126	30	1.181	3	0.118	26	1.024

Flange version 3

Tongue flange


Butt welding EN 10220

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d_1 [mm]	d_1 [in.]	d_2 [mm]	d_2 [in.]	L [mm]	L [in.]	L_1 [mm]	L_1 [in.]	L_2 [mm]	L_2 [in.]
20	¾	27	1.063	19	0.748	22	0.866	35	1.378	3	0.118	6	0.236
25	1	34	1.339	26	1.024	28	1.102	37.5	1.476	3	0.118	6	0.236
32	1¼	43	1.693	26	1.024	37	1.457	37.5	1.476	3	0.118	6	0.236

Butt welding ANSI (B 36.10)

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d_1 [mm]	d_1 [in.]	d_2 [mm]	d_2 [in.]	L [mm]	L [in.]	L_1 [mm]	L_1 [in.]	L_2 [mm]	L_2 [in.]
20	¾	26.9	1.059	18.9	0.744	18.9	0.744	33	1.299	3	0.118	6	0.236
25	1	33.7	1.327	24.5	0.965	24.5	0.965	37.5	1.476	3	0.118	6	0.236
32	1¼	42.4	1.669	26	1.024	32.6	1.283	37.5	1.476	3	0.118	6	0.236

Socket welding ASME B 16.11

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d_1 [mm]	d_1 [in.]	d_2 [mm]	d_2 [in.]	L [mm]	L [in.]	L_1 [mm]	L_1 [in.]	L_2 [mm]	L_2 [in.]
20	¾	37.4	1.472	21	0.827	27.4	1.079	33	1.299	3	0.118	13	0.512
25	1	45.6	1.795	26.6	1.047	34.1	1.343	33	1.299	3	0.118	13	0.512

FPT inside thread, NPT, ANSI/ASME (B 1.20.1)

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d_1 [mm]	d_1 [in.]	d_2 [mm]	d_2 [in.]	L [mm]	L [in.]	L_1 [mm]	L_1 [in.]	L_2 [mm]	L_2 [in.]
20	¾	37.4	1.472	23	0.906	¾ in.-14 NPT	¾ in.-14 NPT	33	1.299	3	0.118	3	0.118
25	1	45.6	1.795	29	1.142	1 in.-11.5 NPT	1 in.-11.5 NPT	33	1.299	3	0.118	3	0.118

Soldering EN 1254

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d_1 [mm]	d_1 [in.]	d_2 [mm]	d_2 [in.]	L [mm]	L [in.]	L_1 [mm]	L_1 [in.]	L_2 [mm]	L_2 [in.]
22	-	34	1.338	19	0.748	22	0.866	32	1.260	4	0.157	16.5	0.650
28	-	34	1.338	26	1.024	28	1.102	34	1.338	4	0.157	26	1.024

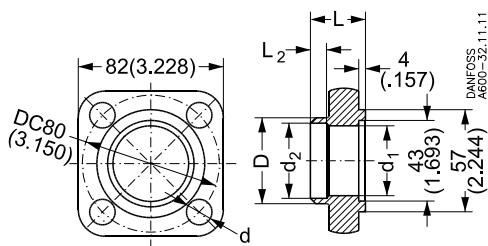
Soldering ASME B 16.22

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d_1 [mm]	d_1 [in.]	d_2 [mm]	d_2 [in.]	L [mm]	L [in.]	L_1 [mm]	L_1 [in.]	L_2 [mm]	L_2 [in.]
-	7/8	34	1.338	19	0.748	22.2	0.874	32	1.260	4	0.157	16.5	0.650
-	1½	34	1.338	26	1.024	28.6	1.126	34	1.338	4	0.157	26	1.024

Flange version 4

Tongue flange


Butt welding EN 10220

Tongue flange set:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	d [mm]	d [in.]
25	1	34	1.338	26	1.024	28	1.102	32	1.260	6	0.236	15	0.590
32	1¼	43	1.693	35	1.378	37.5	1.476	32	1.260	6	0.236	15	0.590

Butt welding ANSI (B 36.10)

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	d [mm]	d [in.]
25	1	33.7	1.327	24.5	0.965	24.5	0.965	32	1.260	10	0.394	15	0.591
32	1¼	42.4	1.669	32.6	1.2834	32.6	1.283	32	1.260	10	0.394	15	0.591

Socket welding ASME B 16.11

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	d [mm]	d [in.]
20	¾	37.4	1.472	21	0.827	27.4	1.079	32	1.260	10	0.394	15	0.591
25	1	45.7	1.799	26.6	1.047	34.1	1.343	32	1.260	10	0.394	15	0.591
32	1¼	55.3	2.177	35	1.378	42.9	1.689	39	1.535	15	0.591	15	0.591

FPT inside thread, NPT, ANSI/ASME (B 1.20.1)

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	d [mm]	d [in.]
20	¾	37.4	1.472	23	0.905	¾ in.-14 NPT	¾ in.-14 NPT	32	1.260	10	0.394	15	0.591
25	1	45.6	1.795	29	1.142	1 in.-11.5 NPT	1 in.-11.5 NPT	32	1.260	10	0.394	15	0.591

Soldering DIN (2856)

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	d [mm]	d [in.]
35	-	47	1.850	32	1.260	35	1.378	36.5	1.437	25	0.984	14	0.551

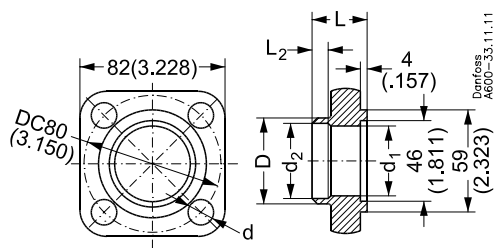
Soldering ASME B 16.22

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	d [mm]	d [in.]
-	1⅜	47	1.850	32	1.260	35	1.378	36.5	1.437	25	0.984	14	0.551

Flange version 5

Tongue flange



Butt welding EN 10220

Tongue flange set:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	d [mm]	d [in.]
25	1	34	1.338	26	1.024	28	1.102	32	1.260	6	0.260	15	0.591
32	1¼	43	1.693	35	1.378	37.5	1.476	32	1.260	6	0.260	15	0.591
40	1½	49	1.929	40	1.575	43	1.693	32	1.260	7	0.275	15	0.591

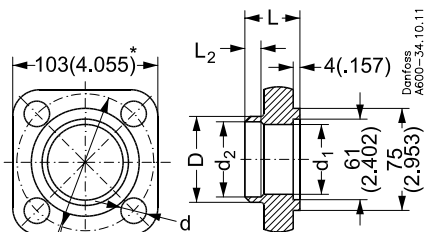
Butt welding EN 10220

Tongue/tongue flange set:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	d [mm]	d [in.]
-	1⅛	37	1.457	26	1.024	28.6	1.126	32	1.260	28	1.102	15	0.591
-	1⅝	52	2.047	38	1.496	41.3	1.626	32	1.260	10	0.394	15	0.591

Flange version 6

Tongue flange



DC = 100(3.937) for weld flanges
 DC = 108(4.252) for solder flanges
 * = 105(4.134) for solder flanges

Butt welding EN 10220

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	d [mm]	d [in.]
40	1½	49	1.929	40	1.575	43	1.693	39	1.535	7	0.275	15	0.591
50	2	60.5	2.382	52	2.047	54	2.126	39	1.535	8	0.315	15	0.591

Butt welding ANSI (B 36.10)

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	d [mm]	d [in.]
40	1½	48.3	1.902	38.1	1.500	38.1	1.500	39	1.535	15	0.591
50	2	60.3	2.374	52.5	2.067	52.5	2.067	39	1.535	15	0.591

Socket welding ASME B 16.11

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	d [mm]	d [in.]
40	1½	61.9	2.437	40.8	1.606	49	1.929	39	1.535	13	0.512	15	0.591

Soldering DIN (2856)

Tongue flange sets:

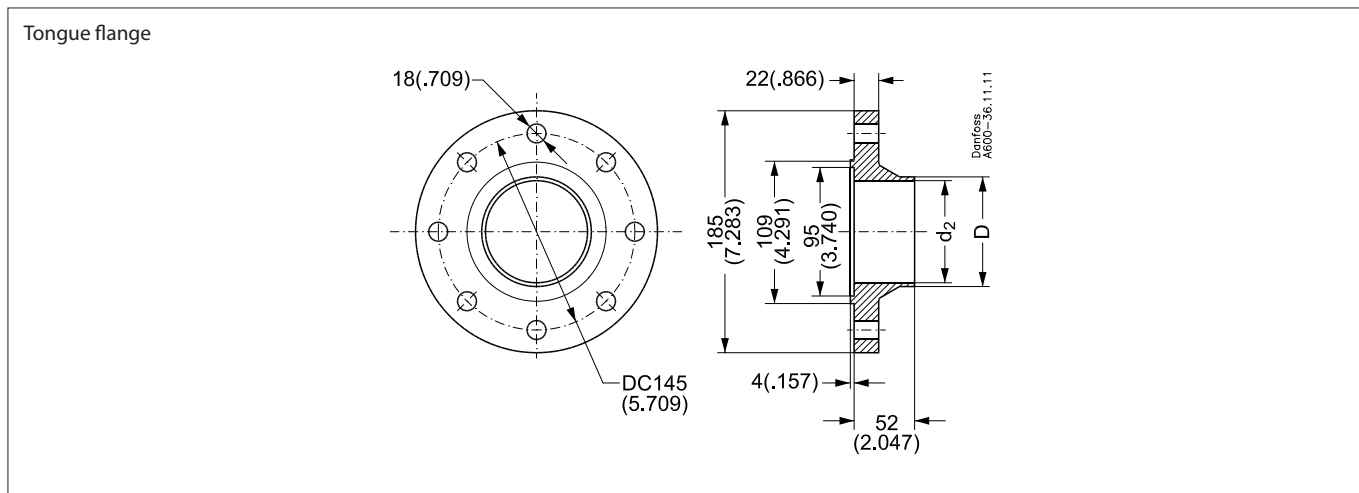
Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	d [mm]	d [in.]
54	-	64	2.520	50	1.969	54	2.130	45.5	1.791	33	1.299	16	0.630

Soldering ASME B 16.22

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	d [mm]	d [in.]
-	2⅞	64	2.520	50	1.969	54	2.130	45.5	1.791	33	1.299	16	0.630

Flange version 8



Butt welding EN 10220

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₂ [mm]	d ₂ [in.]
65	2½	76	2.992	70.3	2.768

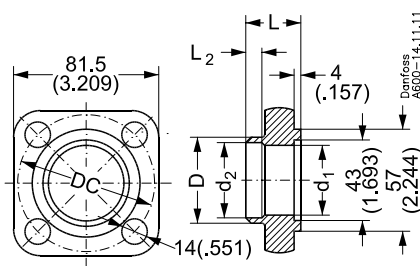
Butt welding ANSI (B 36.10)

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₂ [mm]	d ₂ [in.]
65	2½	73	2.874	62.5	2.461

Flange version 10

Tongue flange



Butt welding EN 10220

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	DC [mm]	DC [in.]
32	1¼	43	1.693	37	1.457	37	1.457	36.5	1.437	15	0.590	80	3.150
40	1½	49	1.929	38	1.496	43	1.693	36.5	1.437	15	0.590	80	3.150

Butt welding ASME B 16.22

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	DC [mm]	DC [in.]
32	1¼	42.4	1.669	32.6	1.283	32.6	1.283	36.5	1.437	80	3.150
40	1½	48.3	1.902	38.1	1.500	38.1	1.500	36.5	1.437	80	3.150

Socket welding ASME B 16.11

Tongue flanges:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	DC [mm]	DC [in.]
32	1¼	52	2.047	35	1.378	42.9	1.689	36.5	1.437	13	1.512	80	3.150

Soldering DIN (2856)

Tongue flanges:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	DC [mm]	DC [in.]
35	-	47	1.850	32	1.260	45	1.378	36.5	1.437	25	0.984	14	0.551

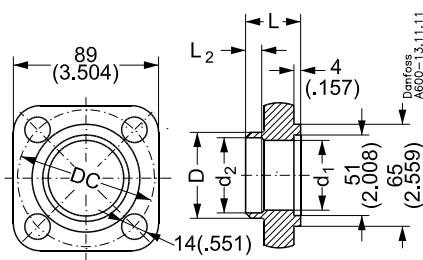
Soldering ASME B 16.22

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	DC [mm]	DC [in.]
-	1⅜	47	1.850	32	1.260	45	1.378	36.5	1.437	25	0.984	14	0.551

Flange version 11

Tongue flange



Butt welding EN 10220

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	DC [mm]	DC [in.]
40	1½	49	1.929	43	1.693	43	1.693	43.5	1.712	15	0.590	90	3.543
50	2	60.5	2.382	49	1.929	54	2.126	43.5	1.712	15	0.590	90	3.543

Butt welding ANSI (B 36.10)

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]			DC [mm]	DC [in.]
40	1½	48.2	1.898	38.1	1.500	38.1	1.500	43.5	1.713			90	3.543
50	2	60.3	2.374	49	1.929	49	1.929	43.5	1.713			90	3.543

Butt welding ASME B 16.11

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	DC [mm]	DC [in.]
40	1½	61.9	2.437	40.8	1.606	48.9	1.925	43.5	1.713	13	0.512	90	3.543

Soldering din (2856)

Tongue flange set:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	DC [mm]	DC [in.]
42	-	54	2.126	38	1.496	41	1.614	43.5	1.712	28	1.102	90	3.543

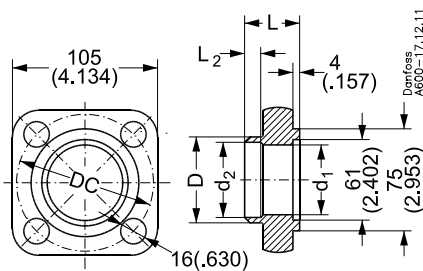
Soldering ASME B 16.22

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	DC [mm]	DC [in.]
-	1⅝	54	2.126	38	1.496	41	1.614	43.5	1.712	28	1.102	90	3.543

Flange version 12

Tongue flange



Butt welding EN 10220

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	DC [mm]	DC [in.]
50	2	60.5	2.382	54	2.126	54	2.126	45.5	1.791	21	0.827	108	4.252
65	2½	76.5	3.012	59	2.323	70	2.756	45.5	1.791	21	0.827	108	4.252

Butt welding ANSI (B 36.10)

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	DC [mm]	DC [in.]
50	2	60.3	2.374	52.5	2.067	52.5	2.067	45.5	1.791			108	4.252
65	2½	73	2.874	59	2.323	62.5	2.461	45.5	1.791	6	0.236	108	4.252

Socket welding ASME B 16.11

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	DC [mm]	DC [in.]
50	2	75.5	2.972	61	2.402	61.4	2.417	45.5	1.791	17	0.669	108	4.252

Soldering DIN (2856)

Tongue flange set:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	DC [mm]	DC [in.]
54	-	65	2.559	50	1.969	54.1	2.130	45.5	1.791	33	1.299	108	4.252

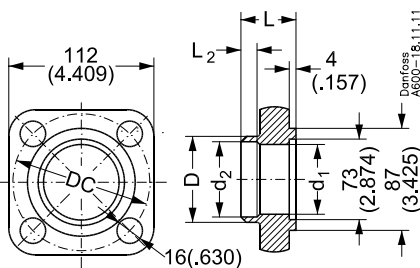
Soldering ASME B 16.22

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	DC [mm]	DC [in.]
-	2⅞	65	2.559	50	1.969	54.1	2.130	45.5	1.791	33	1.299	108	4.252

Flange version 13

Tongue flange



Butt welding EN 10220

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	DC [mm]	DC [in.]
65	2½	76.5	3.012	70	2.756	70	2.756	47.5	1.870	21	0.827	118	4.646
80	3	89	3.504	71	2.795	82	3.228	47.5	1.870	21	0.827	118	4.646

Butt welding ANSI (B 36.10)

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	DC [mm]	DC [in.]
65	2½	73	2.874	62.6	2.465	62.6	2.465	47.5	1.870	10	0.394	118	4.646
80	3	88.9	3.500	71	2.795	77.9	3.067	47.5	1.870	10	0.394	118	4.646

Socket welding ASME B 16.11

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	DC [mm]	DC [in.]
65	2½	91.9	3.618	64	2.520	74.2	2.921	47.5	1.870	17	0.669	118	4.646

Soldering DIN (2856)

Tongue flange sets:

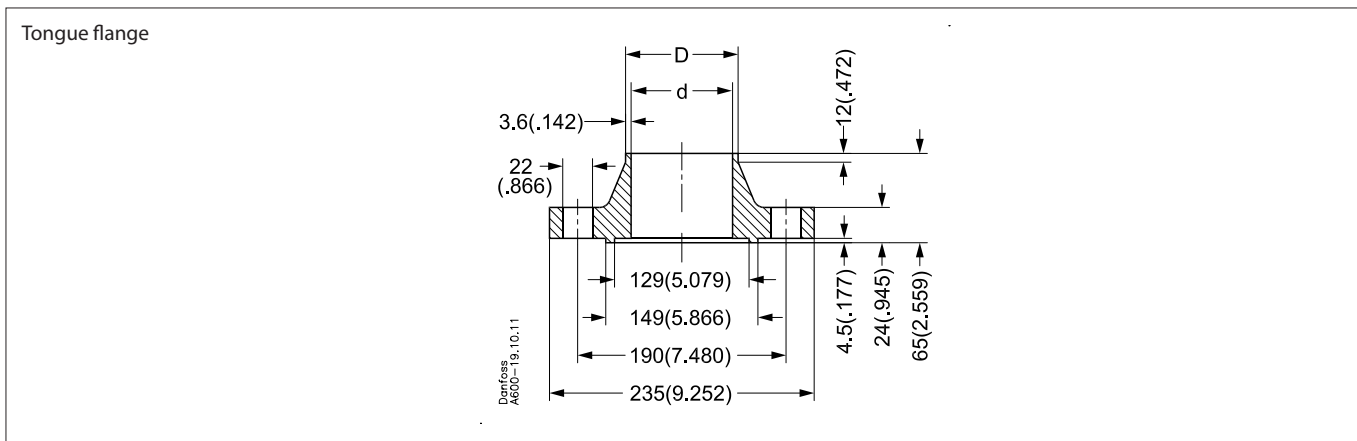
Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	DC [mm]	DC [in.]
76	-	81	3.189	63	2.480	66.8	2.630	45.5	1.791	33	1.299	118	4.646

Soldering ASME B 16.22

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	DC [mm]	DC [in.]
-	2½	88	3.464	70	2.756	76	2.992	47.5	1.870	33	1.299	118	4.646

Flange version 14A



Butt welding EN 10220

Tongue flange sets:

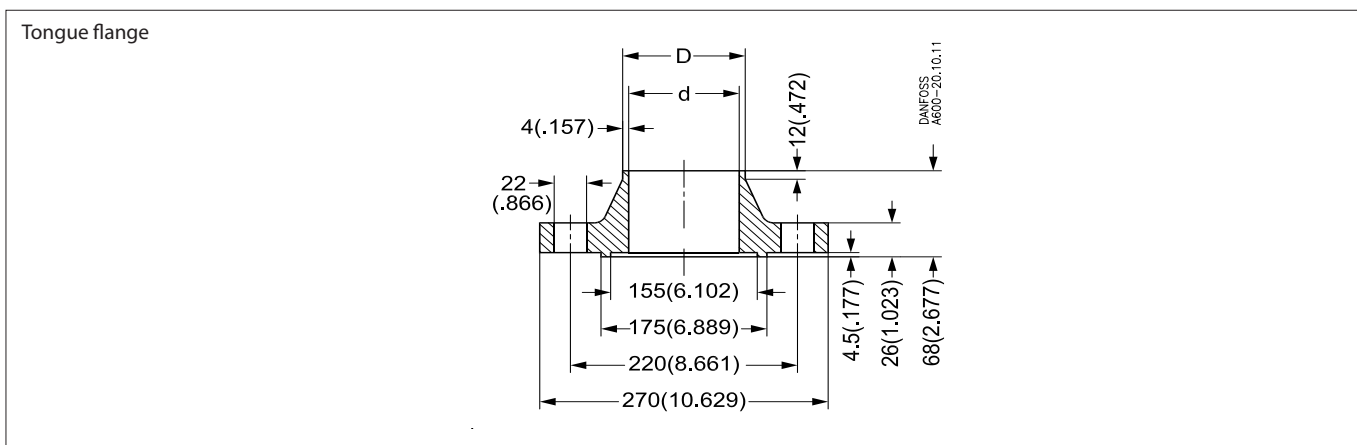
Size [mm]	Size [in.]	D [mm]	D [in.]	d [mm]	d [in.]
100	4	114.3	4.500	107.1	4.217

Butt welding ANSI (B 36.10)

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d [mm]	d [in.]
100	4	114.3	4.500	102.3	4.028

Flange version 14B



Butt welding EN 10220

Tongue flange sets:

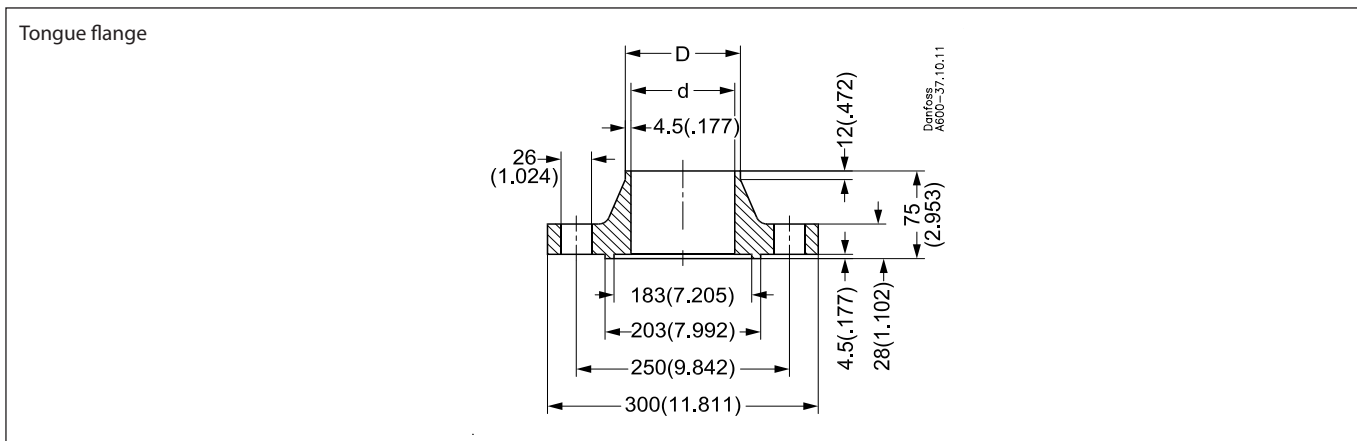
Size [mm]	Size [in.]	D [mm]	D [in.]	d [mm]	d [in.]
125	5	139.7	5.500	131.7	5.185

Butt welding ANSI (B 36.10)

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d [mm]	d [in.]
125	5	141.3	5.563	128.2	5.047

Flange version 14C



Butt welding EN 10220

Tongue flange sets:

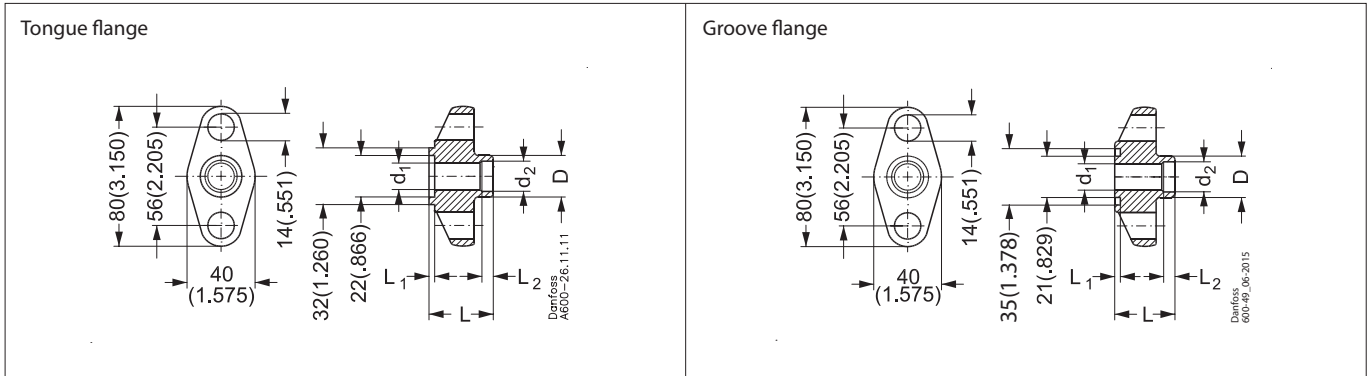
Size [mm]	Size [in.]	D [mm]	D [in.]	d [mm]	d [in.]
150	6	168.3	6.626	159.3	6.272

Butt welding ANSI (B 36.10)

Tongue flange sets:

Size [mm]	Size [in.]	D [mm]	D [in.]	d [mm]	d [in.]
150	6	168.3	6.626	154.1	6.067

Flange for NRVS



Butt welding EN 10220

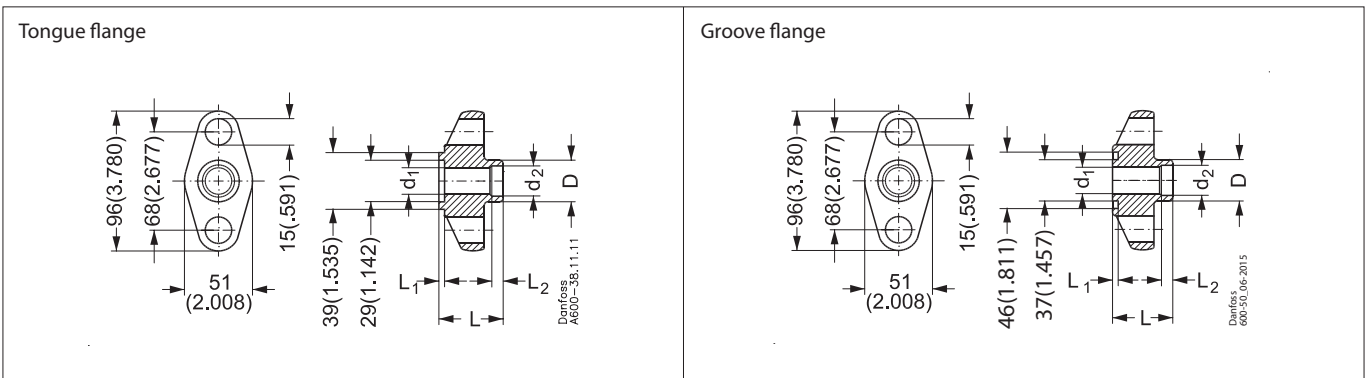
Tongue flanges:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₁ [mm]	L ₁ [in.]	L ₂ [mm]	L ₂ [in.]
20	¾	27	1.063	19	0.748	22	0.866	33	1.299	3	0.118	6	0.236

Butt welding EN 10220

Groove flanges:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₁ [mm]	L ₁ [in.]	L ₂ [mm]	L ₂ [in.]
20	¾	27	1.063	19	0.748	22	0.866	36	1.417	3	0.118	6	0.236



Butt welding EN 10220

Tongue flanges:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₁ [mm]	L ₁ [in.]	L ₂ [mm]	L ₂ [in.]
25	1	34	1.338	26	1.024	28	1.102	38	1.496	3	0.118	6	0.236

Butt welding EN 10220

Groove flanges:

Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₁ [mm]	L ₁ [in.]	L ₂ [mm]	L ₂ [in.]
25	1	34	1.338	26	1.024	28	1.102	38	1.496	3	0.118	6	0.236

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