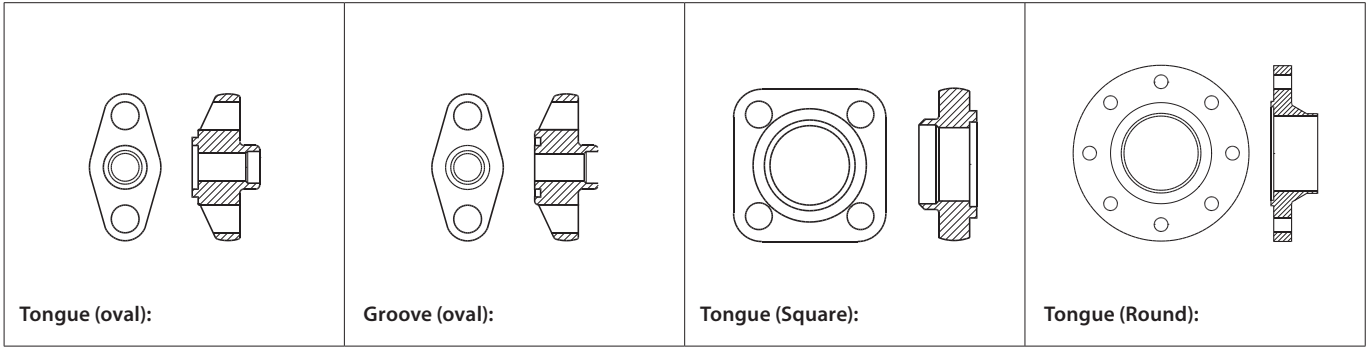


Data sheet

Spare parts and accessories

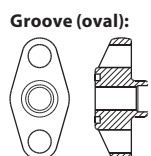
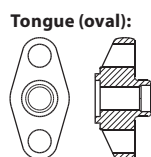
Flanges, gaskets, bolts and nuts for Industrial Refrigeration products



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]							


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).

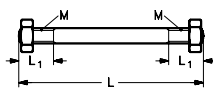
Flange version 1.3: Each code no. includes two flanges.

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

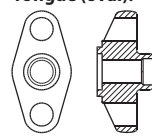


Set of staybolts and gaskets for	Material	Thread [M]	L ₁ [mm]	L ₁ [in.]	L [mm]	L [in.]	Staybolts qty	Nuts qty	Gaskets qty	Code no.
TEA 20 / TEAT 20 without filter	Steel	M12	19	0.748	115	4.527	2	4	3	006-1107
TEA 20 / TEAT 20 with filter	Steel	M12	19	0.748	170	6.693	2	4	3	006-1103
TEA 85 / TEAT 85 with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

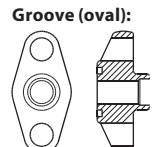
Flanges for EVRA / EVRAT Solenoid valves

	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	⅝	-	Brass	Single	Tongue	ASME B 16.22	Soldering	Oval	006-1162
EVRA 3 / EVRA 10 / EVRA 15	⅝	-	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	⅝	-	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.

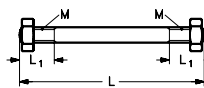
Flange version 1.2: Each code no. includes two flanges, two flange gaskets, two staybolts (M12 × 135 mm / M12 × 127 mm) and four nuts (M12).

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

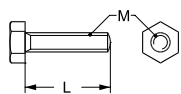
Flange version 3: Each code no. includes two flanges.

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


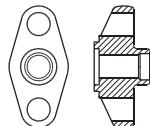
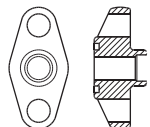
Set of staybolts and gaskets for	Material	Thread [M]	L ₁ [mm]	L ₁ [in.]	L [mm]	L [in.]	Staybolts qty	Nuts qty	Gaskets qty	Code no.
EVRA 10 (GGG 40.3)	Steel	M12	19	0.748	107	4.212	2	4	3	006-1101
EVRA 10 / EVRA 15 (GG 25) with filter	Steel	M12	19	0.748	188	7.401	2	4	3	006-1104
EVRA 20 / EVRA 25 (GG 25)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

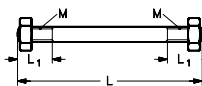
Flange version 3: Each code no. includes two flanges.

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

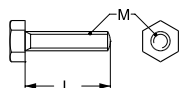
Flanges for ICF EVRAT - FA + solenoid valves (continued)

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

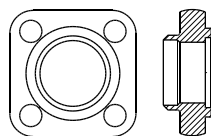
Bolts for flange connections



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

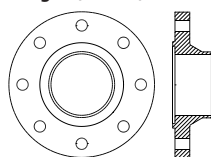
	For product	Connection size		Material	Flange type	Design	Connection standard	Connection type	Shape	Code no.
		[in.]	[mm]							

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	2⅝	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	2⅝	-	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

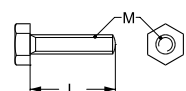
Flange version 14C

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

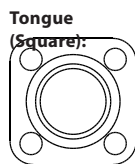
For flange version	Gasket dimensions ID x OD x h [mm]	Gasket dimensions ID x OD x h [in.]	Multipack		Code no.
			qty		
10	42.5 x 57.5 x 1.5	1.673 x 2.264 x 0.059	40		027F2176
11	51 x 65 x 1.5	2.008 x 2.559 x 0.059	40		027F2177
12	60.5 x 75.5 x 1.5	2.382 x 2.972 x 0.059	40		027F2178

Bolts and nuts for flange connections


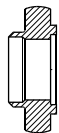
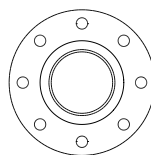
Type	Material	Material property class	Description	M [mm]	L [mm]	L [in.]	Qty	Code no. Bolts	Code no. Nuts
PML 32 / PML 40	Stainless steel	Class A2/A4 to DIN 267	Bolts	M12	45	1.772	8	027F2221	-
PML 50	Stainless steel	Class A2/A4 to DIN 267	Bolts + nuts	M14	65	2.559	8	027F2222	-
PML 80	Stainless steel	Class 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


Tongue (Round):

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

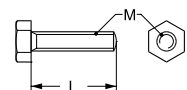
Flange version 14C

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.

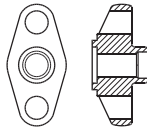
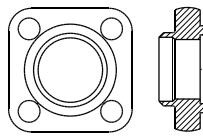
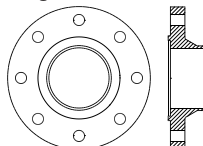
Flange gaskets

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
	PM 5 / PM 10 / PM 15	¾	20	Steel	Set	Tongue/tongue	ASME B 36.10M	Butt welding	Oval	027N3031
Tongue (Square): 	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
	PM 5 / PM 10 / PM 15	11/8	-	Brass	Set	Tongue/tongue	ASME B 16.22	Soldering	Oval	027L1229
Tongue (Round): 	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	21/8	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

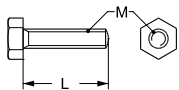
Flange version 3, 10, 11, 12, 13, 14A, 14B, 14C: Each code no. includes two flanges.

Flange gaskets

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

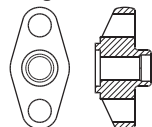
For flange version	Gasket dimensions ID x OD x h [mm]	Gasket dimensions ID x OD x h [in.]	Multipack	Code no.
			qty	
10	42.5 x 57.5 x 1.5	1.673 x 2.264 x 0.059	40	027F2176
11	51 x 65 x 1.5	2.008 x 2.559 x 0.059	40	027F2177
12	60.5 x 75.5 x 1.5	2.382 x 2.972 x 0.059	40	027F2178

Bolts and nuts for flange connections

Type	Material	Material property class	Description	M [mm]	L [mm]	L [in.]	Qty	Code no. Bolts	Code no. Nuts
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

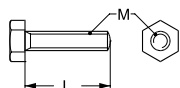
Flanges for PMC Pilot operated servo valves

	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.

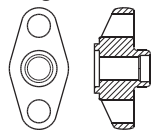
Bolts for flange connections


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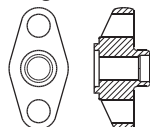
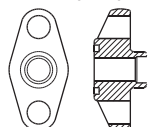
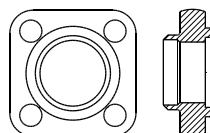
Flange version 1.3: Each code no. includes two flanges.

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 × 32 × 1.0	0.866 × 1.260 × 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.

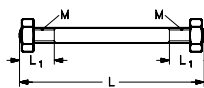
Flange version 5: Each code no. includes two flanges

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

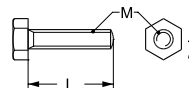
Flanges for FA Strainers (continued)

Set of staybolts and gaskets for flanges



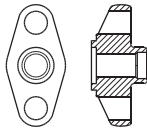
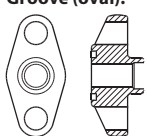
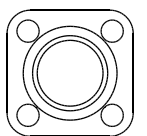
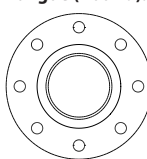
Set of staybolts and gaskets for	Material	Thread [M]	L ₁ [mm]	L ₁ [in.]	L [mm]	L [in.]	Staybolts qty	Nuts qty	Gaskets qty	Code no.
FA 15	Steel	M12	19	0.748	107	4.212	2	4	3	006-1101
FA 15 / FA 20	Steel	M12	19	0.748	127	5.000	2	4	3	006-1108
FA 20	Steel	M12	22	0.866	160	6.299	2	4	3	006-1136

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

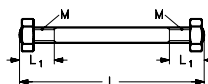
Flanges for NRVA Check valves

	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
Tongue (Round): 	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
	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

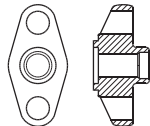
Set of staybolts and gaskets for flanges


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

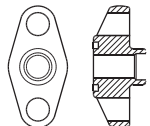
Standard + Special flange ²⁾

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.

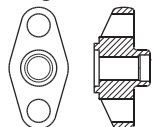
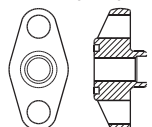
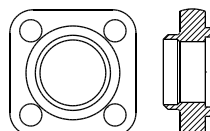
²⁾ Each code no. includes One standard flange and one special flange, two gasket, 2 bolts and 2 nuts.

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

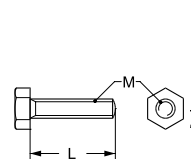
Flange version 12

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

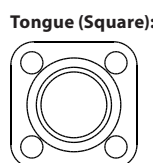
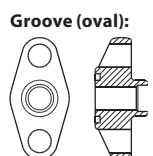
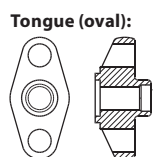
For flange version	Gasket dimensions ID x OD x h [mm]	Gasket dimensions ID x OD x h [in.]	Multipack		Code no.
			qty		
10	42.5 × 57.5 × 1.5	1.673 × 2.264 × 0.059	40		027F2176
11	51 × 65 × 1.5	2.008 × 2.559 × 0.059	40		027F2177
12	60.5 × 75.5 × 1.5	2.382 × 2.972 × 0.059	40		027F2178

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.

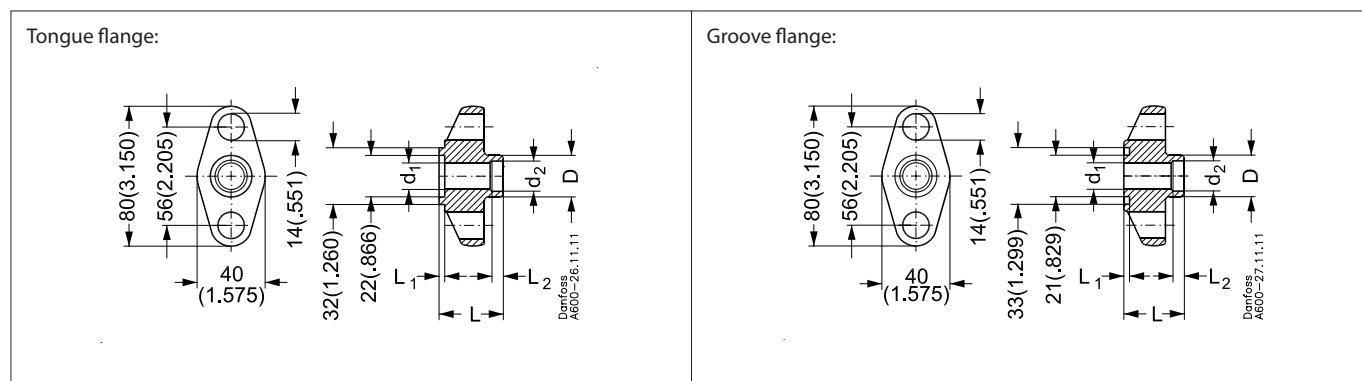
Flange gaskets

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	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	⅜	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	⅜	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
-	⅞	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
-	⅞	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	⅜	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	⅜	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:

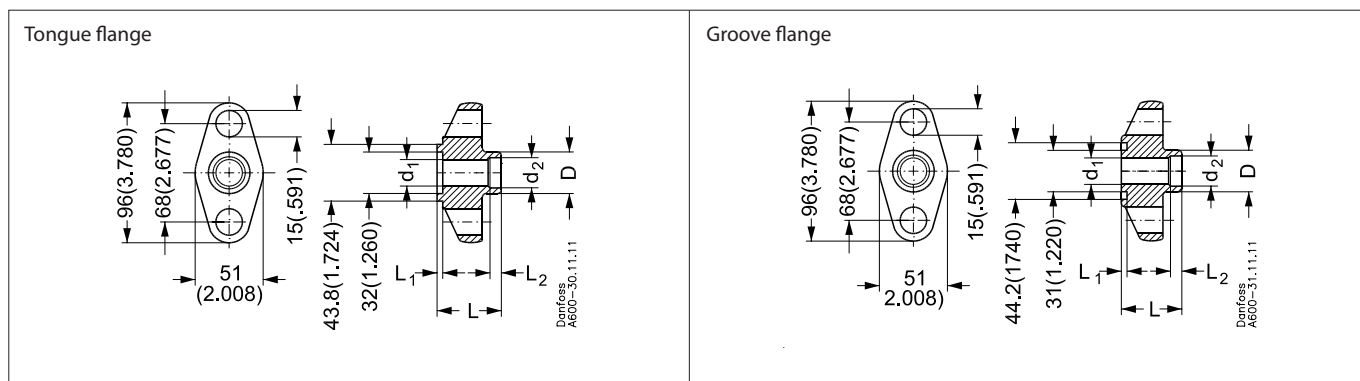
Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₁ [mm]	L ₁ [in.]
10	3/8	26	1.024	14.3	0.563	3/8 in.-18 NPT	3/8 in.-18 NPT	32.5	1.477	3	0.118
15	1/2	31.6	1.244	17.8	0.701	1/2 in.-14 NPT	1/2 in.-14 NPT	32.5	1.280	3	0.118

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.]
-	1⅞	34	1.338	26	1.024	28.6	1.126	33	1.299	3	0.118	26	1.024

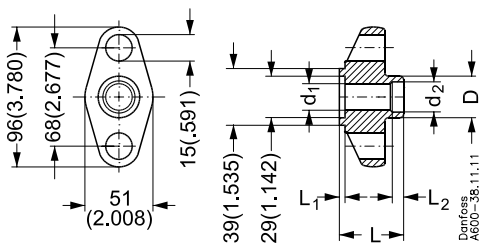
Soldering ASME B 16.22

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.]
-	1⅞	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

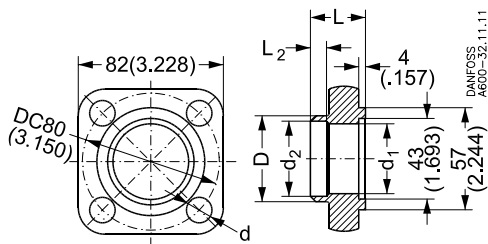
Soldering ASME B 16.22

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

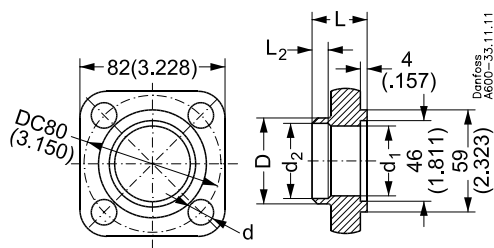
Soldering ASME B 16.22

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

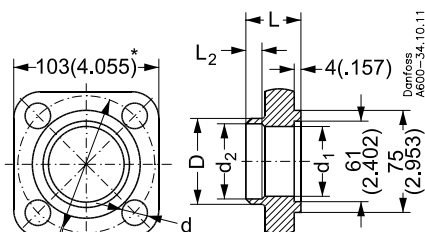
Butt welding EN 10220

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.]
-	1⅞	37	1.457	26	1.024	28.6	1.126	32	1.260	28	1.102	15	0.591
-	1⅞	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:

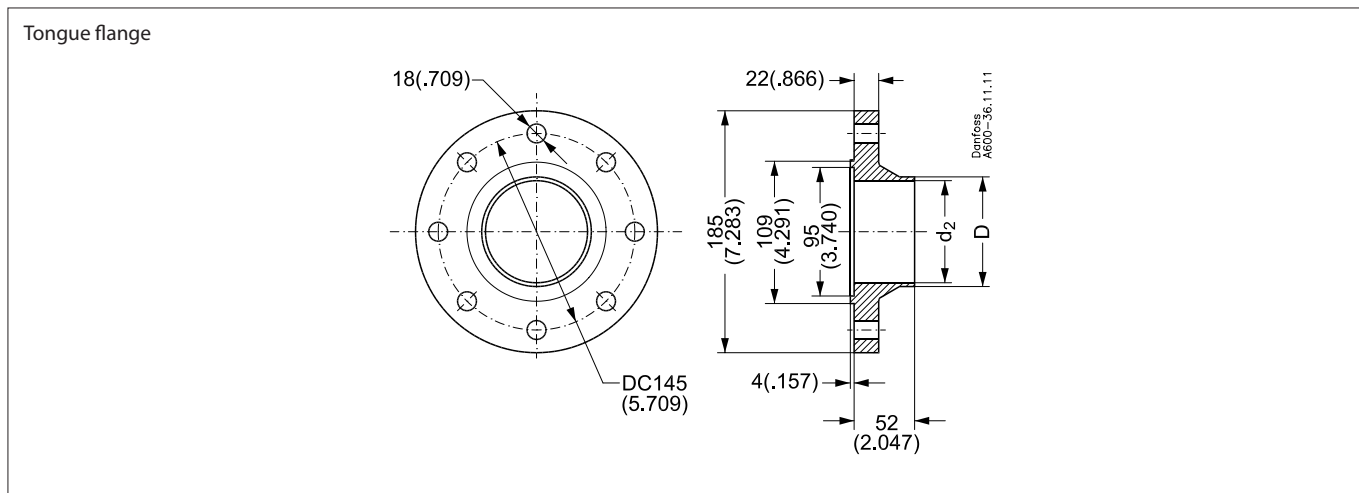
Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	d [mm]	d [in.]
54	-	64	2.520	50	1.969	54	2.130	45.5	1.791	33	1.299	16	0.630

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

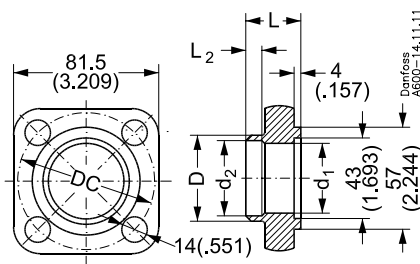
Butt welding ANSI (B 36.10)

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

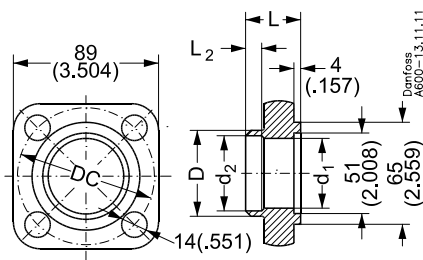
Soldering ASME B 16.22

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

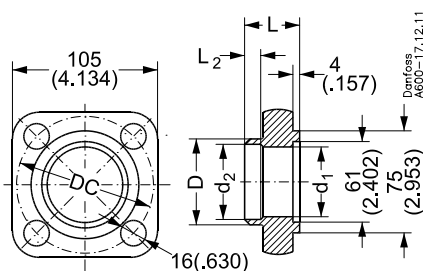
Soldering ASME B 16.22

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

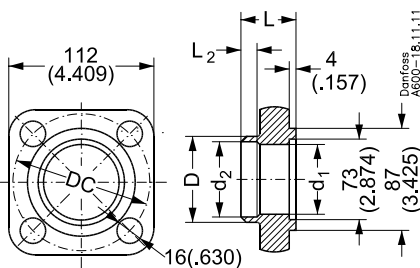
Soldering ASME B 16.22

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:

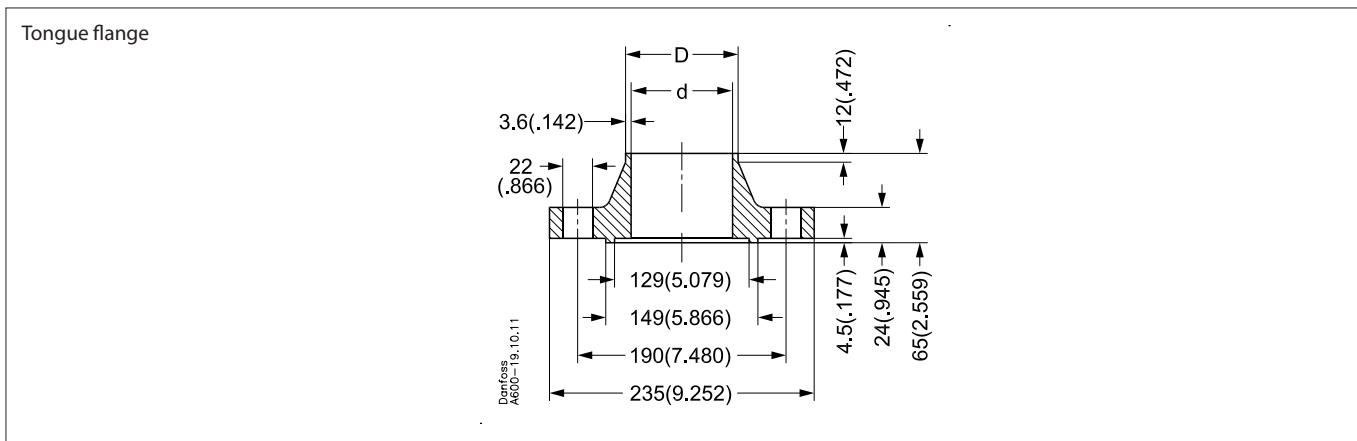
Size [mm]	Size [in.]	D [mm]	D [in.]	d ₁ [mm]	d ₁ [in.]	d ₂ [mm]	d ₂ [in.]	L [mm]	L [in.]	L ₂ [mm]	L ₂ [in.]	DC [mm]	DC [in.]
76	-	81	3.189	63	2.480	66.8	2.630	45.5	1.791	33	1.299	118	4.646

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:

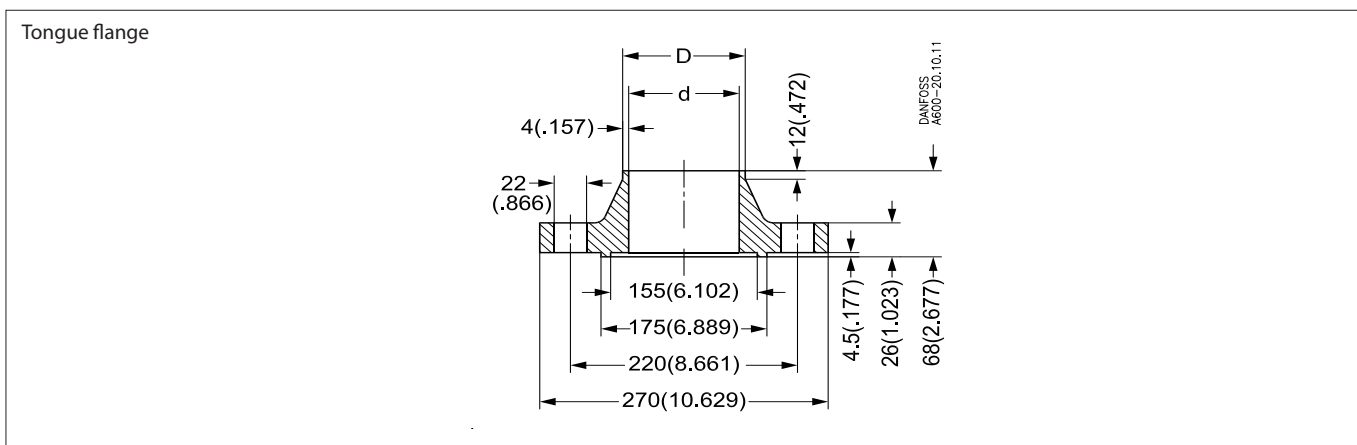
Size [mm]	Size [in.]	D [mm]	D [in.]	d [mm]	d [in.]
100	4	114.3	4.500	107.1	4.217

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:

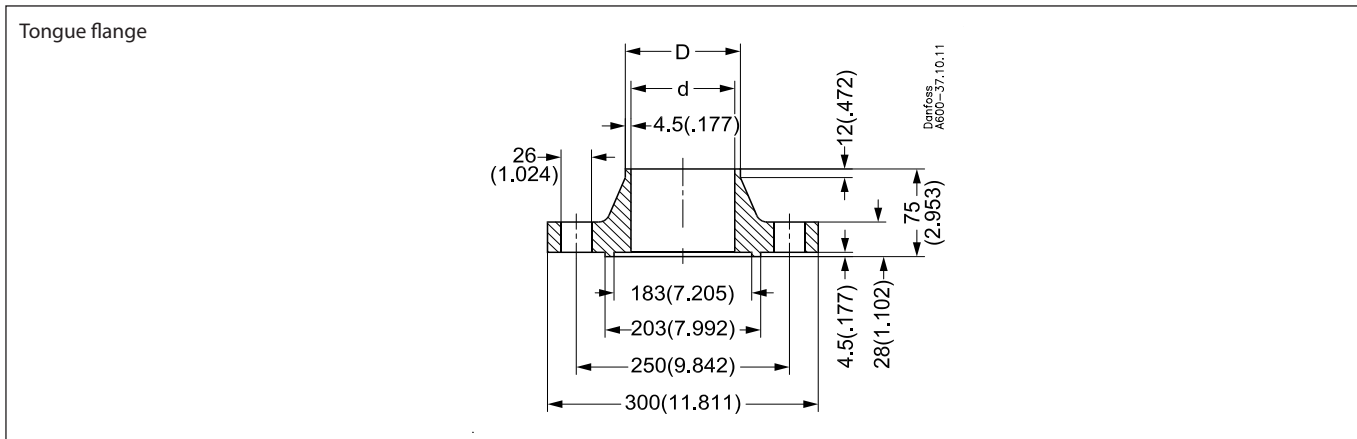
Size [mm]	Size [in.]	D [mm]	D [in.]	d [mm]	d [in.]
125	5	139.7	5.500	131.7	5.185

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:

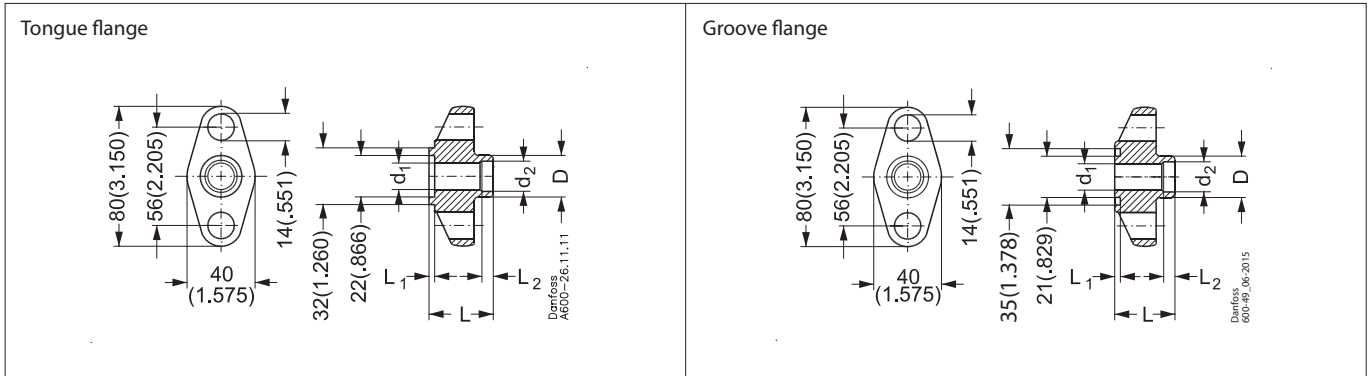
Size [mm]	Size [in.]	D [mm]	D [in.]	d [mm]	d [in.]
150	6	168.3	6.626	159.3	6.272

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

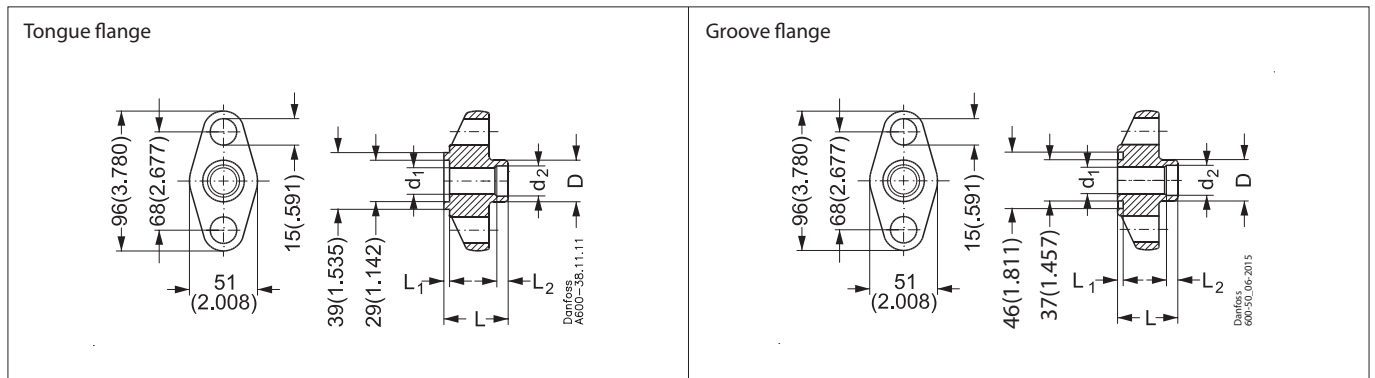
Tongue flanges:

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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