

GF Piping Systems

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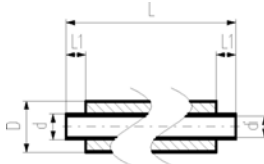
COOL-FIT® PE Plus Catalog

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COOL-FIT PE Plus

COOL-FIT PE Plus Pipes

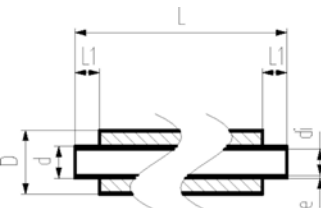


COOL-FIT PE Plus Pipe, d32 - d225

Model:

- Pre-insulated PE100 **SDR11/17** metric
- Insulation: PUR
- Outer Jacket: Impact and UV resistant
- Length: 16.4 ft (5 m)
- With free ends for electrofusion
- Color: black

d/D (mm)	SDR	PN (bar)	Part No.	weight (lbs/ft)	di (mm)	L1 (mm)	closest inch (inch)
32/90	11	16	738 173 108	0.948	26.2	36	1
40/110	11	16	738 173 109	1.380	32.6	40	1 ¼
50/110	11	16	738 173 110	1.492	40.8	44	1 ½
63/125	11	16	738 173 111	2.007	51.4	48	2
75/140	11	16	738 173 112	2.525	61.4	55	2 ½
90/160	11	16	738 173 113	3.238	73.6	62	3
110/180	11	16	738 173 114	4.166	90.0	72	4
160/250	17	10	738 173 117	6.667	141.0	90	6
225/315	17	10	738 173 120	11.168	198.2	110	8



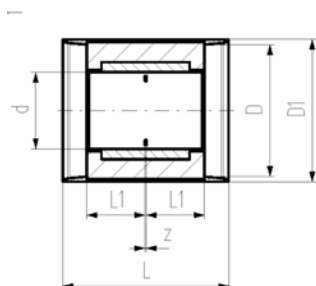
COOL-FIT PE Plus Pipe, d280-d450

Model:

- Pre-Insulated PE100 **SDR17** metric
- Insulation: PUR
- Outer jacket impact resistant.
- Length: 19.36 ft (5.9m)
- With free ends for electrofusion
- Color: black

d/D (mm)	PN (bar)	Part No.	weight (lbs/ft)	di (mm)	L1 (mm)	closest inch (inch)
280/400	10	738 173 022	15.21	246.8	126	10
315/450	10	738 173 023	19.09	277.6	133	12
355/500	10	738 173 024	23.76	312.8	148	14
400/560	10	738 173 125	29.61	352.6	150	16
450/630	10	738 173 126	37.29	396.6	165	18

COOL-FIT PE Plus Fittings

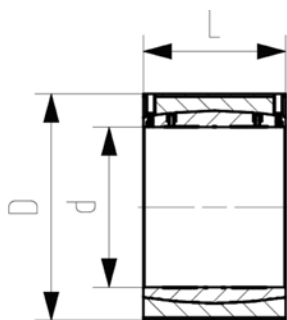


COOL-FIT PE Plus Coupler, d32-d225

Model:

- Pre-insulated PE100 SDR 11 metric
- Insulation: PUR
- Outer Jacket: Impact and UV resistant
- Color: black

d/D (mm)	Part No.	weight (lb)	D1 (mm)	L (mm)	L1 (mm)	z (mm)	closest inch (inch)
32/90	738 913 108	0.196	97	127	36	5	1
40/110	738 913 109	0.284	117	133	40	3	1 ¼
50/110	738 913 110	0.373	117	141	44	3	1 ½
63/125	738 913 111	0.529	132	149	48	3	2
75/140	738 913 112	1.146	147	163	55	3	2 ½
90/160	738 913 113	1.653	168	178	62	4	3
110/180	738 913 114	1.832	188	198	72	4	4
160/250	738 913 117	3.805	258	233	90	3	6
225/315	738 913 120	8.340	324	275	110	5	8

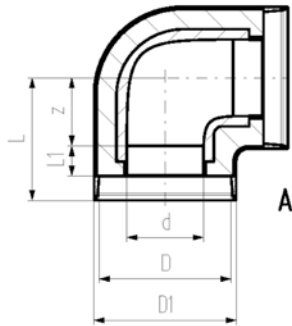


COOL-FIT PE Plus Coupler, d280-d315

Model:

- Pre-Insulated PE100 **SDR17** metric
- Insulation: PUR
- Outer Jacket: Impact and UV resistant
- Color: black

d/D (mm)	PN (bar)	Part No.	weight (lb)	L (mm)	closest inch (inch)
280/400	10	738 911 822	17.681	252	10
315/450	10	738 911 823	20.084	267	12
355/500	10	738 911 824	30.380	290	14
400/560	10	738 911 875	51.698	294	16
450/630	10	738 911 876	49.802	326	18



COOL-FIT PE Plus Elbow 90°, d32-d225

Model:

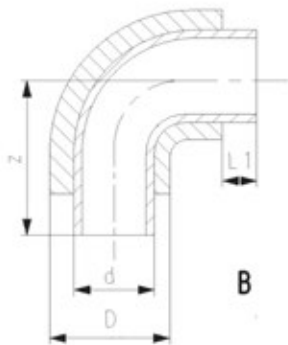
- Pre-insulated PE100 **SDR11**, metric
- Insulation: PUR
- Outer jacket impact resistant.
- Color: black

d/D (mm)	Part No.	weight (lb)	D1 (mm)	L (mm)	L1 (mm)	z (mm)	closest inch (inch)	Type
32/90	738 103 108	0.562	97	81	36	20	1	A
40/110	738 103 109	0.390	117	88	40	23	1 ¼	A
50/110	738 103 110	0.551	117	99	44	30	1 ½	A
63/125	738 103 111	0.820	132	107	48	34	2	A
75/140	738 103 112	1.764	147	120	55	40	2 ½	A
90/160	738 103 113	3.307	168	150	62	63	3	A
110/180	738 103 114	4.299	188	174	72	77	4	A
160/250	738 103 117	11.464	258	220	90	105	6	A
225/315	738 103 120	27.337	324	345	110	210	8	A

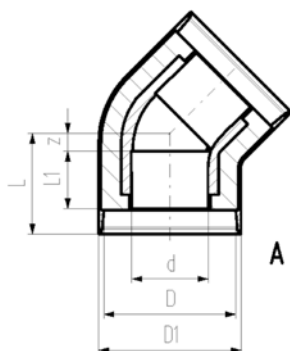
COOL-FIT PE Plus Bend 90°, d280-d450

Model:

- Pre-Insulated PE100 **SDR17** metric
- Insulation: PUR
- Outer jacket impact resistant.
- Color: black
- Type B: Spigot fitting with free ends (2 Electrofusion Couplers needed for joining)



d/D (mm)	PN (bar)	Part No.	weight (lb)	z (mm)	L1 (mm)	closest inch (inch)	Type
280/400	10	738 003 122	36.509	430	126	10	B
315/450	10	738 003 123	63.493	470	133	12	B
355/500	10	738 003 124	55.116	900	148	14	B
400/560	10	738 003 175	131.484	980	150	16	B
450/630	10	738 003 176	174.606	1070	165	18	B

**COOL-FIT PE Plus Elbow 45°, d32-d225****Model:**

- Pre-insulated PE100 **SDR11**, metric
- Insulation: PUR
- Outer jacket impact resistant.
- Color: black

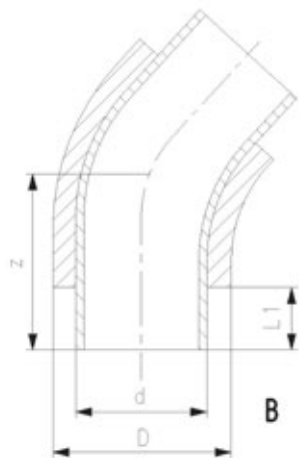
d/D (mm)	Part No.	weight (lb)	D1 (mm)	L (mm)	L1 (mm)	z (mm)	closest inch (inch)	Type
32/90	738 153 108	0.238	97	72	36	11	1	A
40/110	738 153 109	0.357	117	76	40	11	1 ¼	A
50/110	738 153 110	0.481	117	82	44	13	1 ½	A
63/125	738 153 111	0.694	132	89	48	16	2	A
75/140	738 153 112	1.433	147	98	55	18	2 ½	A
90/160	738 153 113	2.271	168	117	62	30	3	A
110/180	738 153 114	2.800	188	138	72	41	4	A
160/250	738 153 117	9.039	258	161	90	46	6	A
225/315	738 153 120	38.808	324	278	110	143	8	A

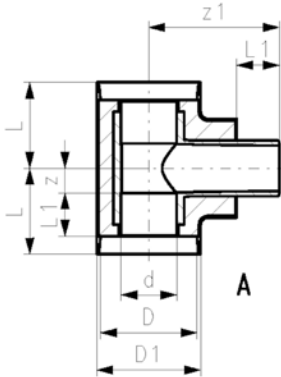
COOL-FIT PE Plus Bend 45°, d280-d450**Model:**

- Pre-Insulated PE100 **SDR17** metric
- Insulation: PUR
- Outer jacket impact resistant.
- Color: black
- Type B: Spigot fitting with free ends (2 Electrofusion Couplers needed for joining)



d/D (mm)	PN (bar)	Part No.	weight (lb)	L (mm)	L1 (mm)	z (mm)	closest inch (inch)	Type
280/400	10	738 053 122	39.683	460	126	460	10	B
315/450	10	738 053 123	47.091	535	133	535	12	B
355/500	10	738 053 124	41.271	620	148	620	14	B
400/560	10	738 053 175	96.827	650	150	650	16	B
450/630	10	738 053 176	119.843	680	165	680	18	B





COOL-FIT PE Plus Tee, d32-d225

Model:

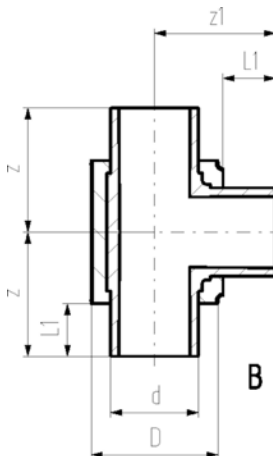
- Pre-insulated PE100 **SDR11**, metric
- Insulation: PUR
- Outer jacket impact resistant.
- Color: black

d/D (mm)	PN (bar)	Part No.	weight (lb)	D1 (mm)	L (mm)	L1 (mm)	z (mm)	z1 (mm)	closest inch (inch)	Type
32/90	16	738 203 108	0.355	97	79	36	18	118	1	A
40/110	16	738 203 109	0.567	117	87	40	22	132	1 ¼	A
50/110	16	738 203 110	0.754	117	94	44	25	138	1 ½	A
63/125	16	738 203 111	1.133	132	103	48	30	154	2	A
75/140	16	738 203 112	2.205	147	116	55	36	168	2 ½	A
90/160	16	738 203 113	3.086	166	130	62	43	187	3	A
110/180	16	738 203 114	5.512	188	154	72	57	207	4	A
160/250	16	738 203 117	12.346	258	192	90	77	263	6	A
225/315	16	738 203 120	36.923	324	355	110	220	337	8	A

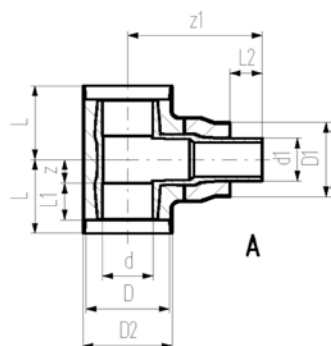
COOL-FIT PE Plus T90° equal, d280-d450

Model:

- Pre-Insulated PE100 **SDR17** metric
- Insulation: PUR
- Outer jacket impact resistant.
- Color: black
- Type B: Spigot fitting with free ends (3 Electrofusion Couplers needed for joining)



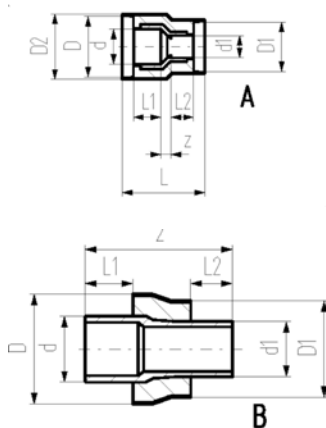
d/D (mm)	d (mm)	D (mm)	PN (bar)	Part No.	weight (lb)	L1 (mm)	z (mm)	z1 (mm)	closest inch (inch)	Type
250/355	250	355	10	738 203 121	26.455	123	500	500	10	B
280/400	280	400	10	738 203 122	49.163	126	500	500	10	B
315/450	315	450	10	738 203 123	47.355	133	500	500	12	B
355/500	355	500	10	738 203 124	67.461	148	650	700	14	B
400/560	400	560	10	738 203 175	92.594	150	650	700	16	B
450/630	450	630	10	738 203 176	148.151	165	700	750	18	B

**COOL-FIT PE Plus T90° reduced, d32-d225****Model:**

- Pre-insulated PE100 **SDR11**, metric
- Insulation: PUR
- Outer jacket impact resistant.
- Color: black

d/D (mm)	d1/D1 (mm)	PN (bar)	Part No.	weight (lb)
75/140	63/125	16	738 203 218	1.903
90/160	63/125	16	738 203 222	2.716
90/160	75/140	16	738 203 223	2.851
110/180	63/125	16	738 203 227	4.348
110/180	75/140	16	738 203 228	4.297
110/180	90/160	16	738 203 229	4.491
160/250	63/125	16	738 203 247	11.354
160/250	90/160	16	738 203 249	11.347
160/250	110/180	16	738 203 250	11.508
225/315	63/125	16	738 203 264	37.108
225/315	90/160	16	738 203 266	37.234
225/315	110/180	16	738 203 267	37.049
225/315	160/250	16	738 203 269	40.786

d/D (mm)	d1/D1 (mm)	D2 (mm)	L (mm)	L1 (mm)	L2 (mm)	z (mm)	z1 (mm)	closest inch (inch)	Type
75/140	63/125	147	116	55	48	36	228	2 ½ - 2	A
90/160	63/125	168	130	62	48	43	253	3 - 2	A
90/160	75/140	168	130	62	55	43	252	3 - 2 ½	A
110/180	63/125	188	154	72	48	57	267	4 - 2	A
110/180	75/140	188	154	72	55	57	268	4 - 2 ½	A
110/180	90/160	188	154	72	62	57	268	4 - 3	A
160/250	63/125	258	192	90	48	77	327	6 - 2	A
160/250	90/160	258	192	90	62	77	327	6 - 3	A
160/250	110/180	258	192	90	72	77	325	6 - 5	A
225/315	63/125	324	355	110	48	220	412	8 - 2	A
225/315	90/160	324	355	110	62	220	412	8 - 3	A
225/315	110/180	324	355	110	72	220	412	8 - 4	A
225/315	160/250	324	355	110	90	220	396	8 - 6	A



COOL-FIT PE Plus Reducer, d32-d225

Model:

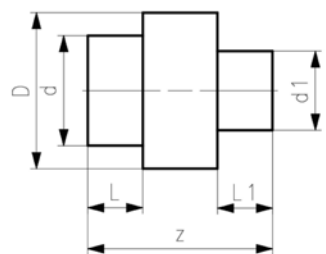
- Pre-insulated PE100 **SDR11**, metric
- Insulation: PUR
- Outer jacket impact resistant.
- Color: black
- Type B: Spigot Fitting with free ends

d/D (mm)	d1/D1 (mm)	PN (bar)	Part No.	weight (lb)	D2 (mm)	L (mm)	L1 (mm)	L2 (mm)	z (mm)	closest inch (inch)	Type
40/110	32/90	16	738 903 206	0.551	117	143	40	36	17	1 ¼ - 1	A
50/110	32/90	16	738 903 209	0.617	117	151	44	36	21	1 ½ - 1	A
50/110	40/110	16	738 903 210	0.705	117	149	44	40	15	1 ½ - 1 ¼	A
63/125	32/90	16	738 903 212	0.478	132	160	48	36	26	2 - 1	A
63/125	40/110	16	738 903 213	0.511	132	159	48	40	21	2 - 1 ¼	A
63/125	50/110	16	738 903 214	0.536	132	159	48	44	17	2 - 1 ½	A
75/140	63/125	16	738 903 318	0.582			55	48	170	2 ½ - 2	B
90/160	63/125	16	738 903 322	0.853			62	48	190	3 - 2	B
90/160	75/140	16	738 903 323	0.917			62	55	189	3 - 2 ½	B
110/180	63/125	16	738 903 327	1.248			72	48	204	4 - 2	B
110/180	75/140	16	738 903 328	1.272			72	55	205	4 - 2 ½	B
110/180	90/160	16	738 903 329	1.420			72	62	205	4 - 3	B
160/250	63/125	16	738 903 347	2.862			90	48	244	6 - 2	B
160/250	90/160	16	738 903 349	2.917			90	62	244	6 - 3	B
160/250	110/180	16	738 903 350	3.003			90	72	242	6 - 4	B
225/315	63/125	16	738 903 364	6.526			110	48	295	8 - 2	B
225/315	90/160	16	738 903 366	6.654			110	62	295	8 - 3	B
225/315	110/180	16	738 903 367	6.788			110	72	295	8 - 4	B
225/315	160/250	16	738 903 369	7.826			110	90	279	8 - 6	B

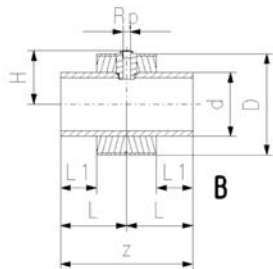
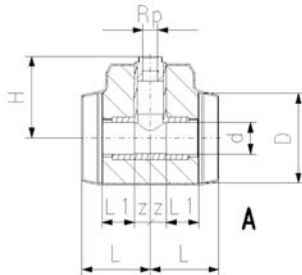
COOL-FIT PE Plus Reducer, d280-d450

Model:

- Pre-Insulated PE100 **SDR17** metric
- Insulation: PUR
- Outer jacket impact resistant.
- Color: black
- Type B: Spigot fitting with free ends (2 Electrofusion Couplers needed for joining)



d (mm)	D (mm)	PN	Part No.	weight (lb)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	Type
280	400	PN 10	738 903 829	10.362	225	126	110	335	B
315	450	PN 10	738 903 807	15.653	225	133	110	365	B
315	450	PN 10	738 903 806	14.991	280	133	126	365	B
355	500	PN 10	738 903 809	16.976	280	145	126	390	B
355	500	PN 10	738 903 810	18.298	315	145	133	390	B
400	560	PN 10	738 903 871	20.062	280	147	126	415	B
400	560	PN 10	738 903 872	25.133	315	147	133	415	B
400	560	PN 10	738 903 873	24.251	355	147	145	420	B
450	630	PN 10	738 903 874	29.101	280	163	126	389	B
450	630	PN 10	738 903 875	29.983	315	163	133	390	B
450	630	PN 10	738 903 876	30.203	355	163	145	393	B
450	630	PN 10	738 903 877	32.628	400	163	147	395	B



COOL-FIT PE Plus Instrument fitting type 313, d32-d225

Model:

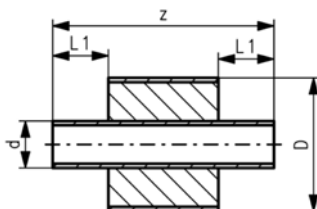
- Pre-insulated, PE100, SDR11, metric
- Insulation: PUR
- Outer Jacket: Impact and UV resistant
- Color: black
- With threaded branch for sensors (i.e temperature, pressure)

d/D	NPT	PN	Code	Weight	H	L	L1	z	Type
(mm)	(inch)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	
32/90	½	16	738 313 508	0.169	95	79	36	18	A
40/110	½	16	738 313 509	0.267	105	87	40	22	A
40/110	¾	16	738 313 559	0.269	108	87	40	22	A
50/110	½	16	738 313 510	0.354	107	94	44	25	A
50/110	¾	16	738 313 560	0.356	110	94	44	25	A
63/125	½	16	738 313 511	0.537	120	103	48	30	A
63/125	¾	16	738 313 561	0.539	123	103	48	30	A
75/140	½	16	738 313 512	0.773	127	116	55	36	A
75/140	¾	16	738 313 562	0.774	130	116	55	36	A
90/160	½	16	738 313 513	1.164	139	130	62	43	A
90/160	¾	16	738 313 563	1.165	142	130	62	43	A
110/180	½	16	738 313 514	1.944	151	154	72	57	A
110/180	¾	16	738 313 564	1.944	154	154	72	57	A
160/250	½	16	738 313 517	2.496	134	165	90	330	B
160/250	¾	16	738 313 567	2.489	134	165	90	330	B
225/315	½	16	738 313 520	5.155	166	185	110	370	B
225/315	¾	16	738 313 570	5.146	169	185	110	370	B

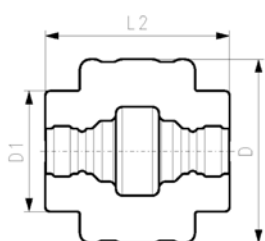
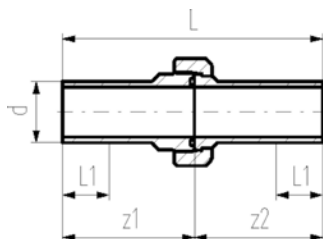
COOL-FIT PE Plus Barrel nipple with insulation, d32-d225

Model:

- Pre-insulated PE100 SDR11/17 metric
- Insulation: PUR
- Outer Jacket: Impact and UV resistant
- Color: black
- For short connections between COOL-FIT PE Plus Fittings Typ A



d/D	PN	SDR	Part No.	weight	L1	z	closest inch
(mm)	(bar)			(lb)	(mm)	(mm)	(inch)
32/90	16	11	738 913 408	0.278	36	151	1
40/110	16	11	738 913 409	0.414	40	155	1 ¼
50/110	16	11	738 913 410	0.498	44	163	1 ½
63/125	16	11	738 913 411	0.723	48	171	2
75/140	16	11	738 913 412	0.985	55	185	2 ½
90/160	16	11	738 913 413	1.391	62	199	3
110/180	16	11	738 913 414	2.048	72	219	4
160/250	10	17	738 913 417	3.474	90	255	6
225/315	10	17	738 913 420	7.174	110	295	8



COOL-FIT PE Plus Union PE/PE

Model:

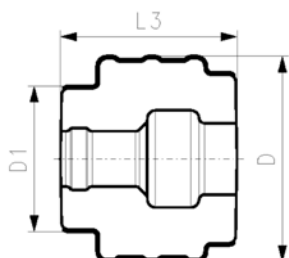
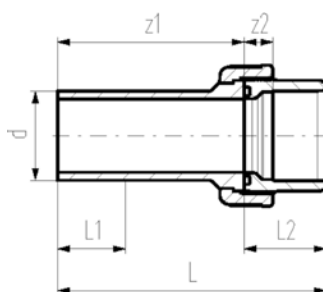
- Union bush: Spigot fitting PE100 SDR11
- Union End: Spigot fitting PE100 SDR11
- Gasket: O-ring EPDM Nr. 748 410 008-014
- Union Nut: Glass-Filled
- Including insulation half shells

d (mm)	PN (bar)	Part No.	weight (lb)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	L2 (mm)	z1 (mm)	z2 (mm)	closest inch (inch)
32	16	738 513 608	0.492	139	90	211	36	139	107	104	1
40	16	738 513 609	0.800	153	110	234	40	158	118	116	1 ¼
50	16	738 513 610	1.032	165	110	247	44	163	124	123	1 ½
63	16	738 513 611	1.287	185	125	268	48	176	136	132	2

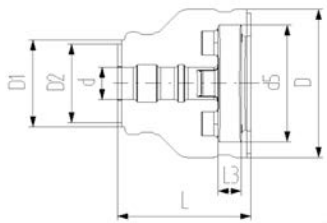
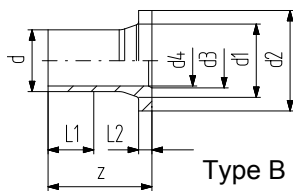
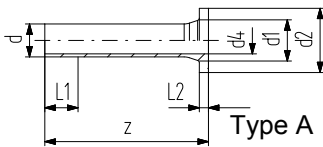
COOL-FIT PE Plus Adaptor Union PE/ABS

Model:

- Union bush: ABS Solvent cement socket
- Union End: Spigot fitting PE100 SDR11
- Gasket: O-ring EPDM Nr. 748 410 008-014
- Union Nut: ABS
- Including insulation half shells



d (mm)	PN (bar)	Part No.	weight (lb)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	z1 (mm)	z2 (mm)	closest inch (inch)
32	10	738 513 708	0.373	134	90	137	36	33	109	104	11	1
40	10	738 513 709	0.564	143	110	156	40	39	126	117	13	1 ¼
50	10	738 513 710	0.736	154	110	169	44	46	135	123	15	1 ½
63	10	738 513 711	1.151	172	125	190	48	58	152	132	21	2
75	10	738 513 712	2.196	210	140	211	55	62	170	149	18	2 ½
90	10	738 513 713	2.945	233	160	215	62	69	167	146	18	3
110	10	738 513 714	4.189	263	180	235	72	72	177	163	11	4



COOL-FIT PE Plus Flange adaptor

Model:

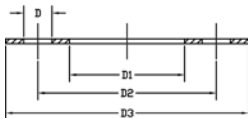
- PE100 **SDR11**, metric
- Type 1 without chamfer, Type 2 with chamfer
- Separate Fittings type A needed for joining

Note:

Backing ring and gasket not included

d	DN	PN	Part No.	weight
(mm)	(mm)			(lb)
32	25	16	738 710 108	0.112
40	32	16	738 710 109	0.165
50	40	16	738 710 110	1.984
63	50	16	738 710 011	0.381
75	65	16	738 710 012	2.668
90	80	16	738 710 113	2.630
110	100	16	738 710 014	3.470
160	150	16	738 710 017	3.854
225	200	16	738 710 020	23.016

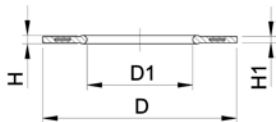
d	DN	D	D1	D2	L	L1	L2	L3	z	d1	d2	d3	d4	d5	Type
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
32	25	135	90	75	162	36	10	26	190	40	68		26	121	A
40	32	170	110	90	165	40	11	28	197	50	78		32	146	A
50	40	180	110	90	178	44	12	30	214	61	88		40	156	A
63	50	200	125	110	230	48	14	32	270	75	102		51	171	A
75	65	220	140	125	232	55	16	34	279	89	122		61	191	B
90	80	240	160	140	245	62	17	35	299	105	138	78	73	206	B
110	100	270	180	160	254	72	18	36	320	125	158	100	90	235	B
160	150	358	259		332	90	25	34	412	174	213	151	131	295	B
225	200	423	325		383	110	32	37	483	233	268	209	184	354	B



Full Face, Flange Gasket EPDM

- Full Face Flange Gasket EPDM
- Connecting dimension: ANSI/ASME B 16.5 class 150 and BS 1560
- Bolt circle class 150
- AL: Number of holes

Size	Part No.	weight	D	D1	D2	D3	AL
(inch)		(lb)	(inch)	(inch)	(inch)	(inch)	
1/2	150 400 306	0.002	0.63	0.84	2.38	3.50	4
3/4	150 400 307	0.066	0.63	1.06	2.75	3.88	4
1	150 400 308	0.077	0.63	1.31	3.13	4.25	4
1 1/4	150 400 309	0.088	0.63	1.66	3.50	4.63	4
1 1/2	150 400 310	0.088	0.63	1.90	3.88	5.00	4
2	150 400 311	0.141	0.75	2.38	4.75	6.00	4
2 1/2	150 400 312	0.194	0.75	2.88	5.50	7.00	4
3	150 400 313	0.216	0.75	3.50	6.00	7.50	4
4	150 400 314	0.278	0.75	4.50	7.50	9.00	8
5	150 400 316	0.002	0.88	5.56	8.50	10.00	8
6	150 400 317	0.348	0.88	6.63	9.50	11.00	8
8 & 9	150 400 319	0.549	0.88	8.63	11.75	13.50	8
10	150 400 321	0.002	1.00	10.75	14.25	16.00	12
12	150 400 323	0.002	1.00	12.75	17.00	19.00	12

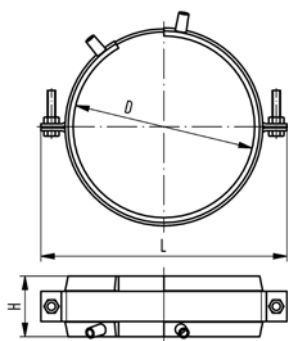


Profile Gasket ANSI with Steel Reinforcement Ring

Model:

- Suitable for flange adaptors PP/PE
- Hardness: 70° Shore **EPDM**
- The seal is designed so that it is centered by the flange bolts. The dimension D is in accordance with the centering on the inner diameter of the bolt circle.
- Dimension D is in accordance with the inner diameter of the bolt circle.

d (mm)	EPDM Part No.	D (mm)	D1 (mm)	H (mm)	H1 (mm)
25	748 440 502	54	27	4	3
32	748 440 503	64	33	4	3
50	748 440 505	83	48	4	3
63	748 440 506	102	60	5	4
90	748 440 508	133	89	5	4
110	748 440 509	171	115	6	5
160 / 180	748 440 717	218	160	8	6
225	748 440 720	273	220	8	6
250	748 440 517	337	273	8	6
315	748 440 518	406	325	8	6
355	748 440 519	448	356	10	7
400	748 440 520	512	406	10	7
450	748 440 521	547	457	10	7



COOL-FIT PE Plus fixed point

Model:

- The product consists of two components namely electrofusion tapes and pipe brackets.
- Electrofusion welded tape as permanent connection to transmit the forces that occur in the pipe to the fixed point.
- The delivered pipe brackets are needed to deliver welding pressure during installation and give stability during operation.
- For welding capability, use an MSA2.x, MSA4.x, MSA250, 300, 350, or 400
- When using an MSA fusion machine from Georg Fischer Piping Systems, the 799 350 339 fusion adapter is needed
- Please take note of the maximum allowable forces for this fixed point fitting noted below
- **Fixed point brackets and cross braces have to be calculated and obtained by the installer. They are not included in the fixed point set from GF.**

D (mm)	d (mm)	Part No.	weight (lb)	L (mm)	H (mm)	max Force (kN)	closest inch (inch)
90	32	738 912 013	1.973	170	60	2.0	1 ¼ - 1 ½
110	40 - 50	738 912 014	1.993	180	60	3.0 / 5.0	2
125	63	738 912 015	2.432	215	60	8.0	2 ½
140	75	738 912 016	2.619	220	60	10.0	3
160	90	738 912 017	2.595	255	60	10.0	4
180	110	738 912 018	3.373	255	60	10.0	4
315	225	738 912 023	5.265	400	60	10.0	8
355	250	738 912 024	5.265	420	60	10.0	10

COOL-FIT PE Plus Accessories



COOL-FIT PE Plus Assembly Aid-Kit

Model:

- For mounting of COOL-FIT PE Plus Fitting on COOL-FIT PE Plus Pipe

d (mm)	D (mm)	Part No.	weight (lb)	pieces/kit
32 - 225	90 - 315	799 738 501	12.346	2 / Dimension
32	90	799 738 511	0.847	6
40 - 50	110	799 738 512	1.005	6
63	125	799 738 513	1.111	6
75	140	799 738 514	1.243	6
90	160	799 738 515	1.402	6
110	180	799 738 516	1.561	6
160	250	799 738 519	1.367	4
225	315	799 738 522	1.676	4



COOL-FIT PE Plus Insulation for welding indicator-kit

Model:

- Type A suitable for COOL-FIT PE Plus Fittings d32-d110
- Type B suitable for COOL-FIT PE Plus Fittings d160 and coupler d225
- Type C suitable for COOL-FIT PE Plus Fittings d225 except coupler
- Optional: Each fitting comes with the necessary insulation plugs

d (mm)	Part No.	weight (lb)	Type	pieces/kit
32 - 110	738 010 052	0.198	A	20
160 - 225	738 010 053	0.441	B	10
225	738 010 054	0.073	C	10



COOL-FIT PE Plus adhesive ring

Model:

- Double sided, for sealing compact connections between fittings, where sealing lip has been removed

d (mm)	D (mm)	Part No.	weight (lb)
32	90	738 010 013	0.004
40, 50	110	738 010 014	0.007
63	125	738 010 015	0.007
75	140	738 010 016	0.007
90	160	738 010 017	0.011
110	180	738 010 018	0.011
160	250	738 010 021	0.020
225	315	738 010 023	0.060



COOL-FIT PE Plus Sealing tape

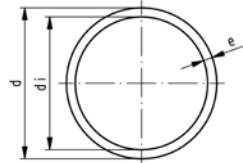
Model:

- 30m on a roll, 25mm width, buthylene rubber-based

d (mm)	D (mm)	Part No.	weight (lb)
32 - 225	90 - 315	738 013 031	3.086

COOL-FIT PE Uninsulated

COOL-FIT PE Pipe

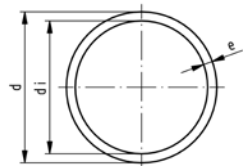


Polyethylene pipe SDR11/PN16/S5

Model:

- Material: PE100
- Dimension: acc. to DIN 8074/75
- Color: black
- Pipe length: 16ft (5m), with plain ends

d (mm)	Part No.	weight (lbs/ft)	e (mm)	di (mm)
20	193 017 156	0.079	2.0	16.2
25	193 017 157	0.116	2.3	20.4
32	193 017 158	0.189	3.0	26.2
40	193 017 159	0.292	3.7	32.6
50	193 017 160	0.452	4.6	40.8
63	193 017 161	0.712	5.8	51.4
75	193 017 162	0.995	6.8	61.4
90	193 017 163	1.438	8.2	73.6
110	193 017 164	2.137	10.0	90.0



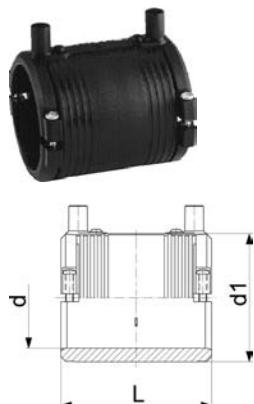
Polyethylene pipe SDR17,6/PN10/S8,3

Model:

- Material: PE100
- Dimension: acc. to DIN 8074/75
- Color: black
- Pipe length: 16ft (5m), with plain ends

d (mm)	PN (bar)	Part No.	weight (lbs/ft)	e (mm)	di (mm)
160	10	193 017 117	2.957	9.1	141.8
225	10	193 017 120	5.806	12.8	199.4
280	10	193 017 122	8.937	15.9	248.2
315	10	193 017 123	11.356	17.9	279.2
355	10	193 017 124	14.380	20.1	314.8
400	10	193 017 125	18.278	22.7	354.6
450	10	193 017 126	23.049	25.5	400.0

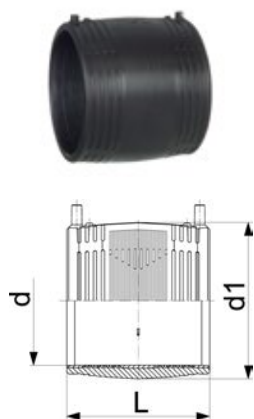
COOL-FIT PE Electrofusion Fittings



Coupler With integral pipe fixation

- PE 100 SDR 11 (ISO S5)
- 4mm pin connectors
- Limited path fusion indicators
- Removable center stop

d (mm)	Part No.	d1 (mm)	L (mm)	SDR pipe
32	753 911 608	44	72	9-11
40	753 911 609	54	80	9-11
50	753 911 610	66	88	9-11
63	753 911 611	81	96	9-17.6



Coupler

- PE 100 SDR 11 (ISO S5)
- 4mm pin connectors
- Limited path fusion indicators
- Removable centre stop up to d160

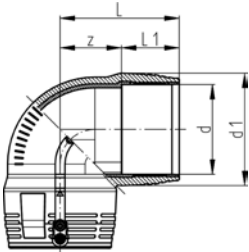
d (mm)	Part No.	weight (lb)	d1 (mm)	L (mm)	SDR pipe
75	753 911 612	0.622	96	110	9-17.6
90	753 911 613	0.895	113	125	9-17.6
110	753 911 614	1.526	138	145	9-17.6
160	753 911 617	3.003	196	180	9-17.6
225	753 911 620	7.339	273	225	9-17.6
280	753 911 622	16.535	340	252	9-17.6
315	753 911 623	17.950	382	267	9-17.6



Elbow 90° With integral pipe fixation

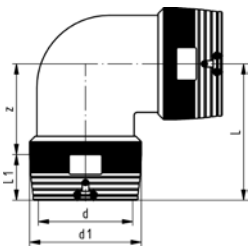
- PE 100 SDR 11 (ISO S5)
- 4mm pin connectors
- Limited path fusion indicators

d (mm)	Part No.	weight (lb)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	SDR pipe
32	753 101 608	0.207	44	53	36	17	9-11
40	753 101 609	0.282	54	62	39	23	9-11
50	753 101 610	0.432	66	71	43	28	9-11
63	753 101 611	0.688	81	81	48	32	9-17.6

**Elbow 90°**

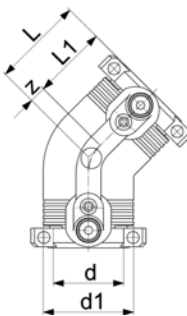
- PE 100 SDR 11 (ISO S5)
- 4mm pin connectors
- Limited path fusion indicators

d (mm)	Part No.	weight (lb)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	SDR pipe
75	753 101 612	0.915	97	94	54	40	9-11
90	753 101 813	1.825	115	122	62	60	9-17.6
110	753 101 814	2.698	140	147	72	76	9-17.6
160	753 101 817	8.444	196	191	92	103	11-17.6

**Elbow 90°**

- PE 100 SDR 11 (ISO S5)
- 4mm pin connectors
- Limited path fusion indicators
- Two separate fusion zones

d (mm)	Part No.	weight (lb)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	SDR pipe
225	753 101 820	29.145	280	318	112	206	11-26

**Elbow 45°
With integral pipe fixation**

- PE 100 SDR 11 (ISO S5)
- 4mm pin connectors
- Limited path fusion indicators

d (mm)	Part No.	weight (lb)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	SDR pipe
32	753 151 608	0.165	44	44	36	8	9-11
40	753 151 609	0.234	54	50	39	11	9-11
50	753 151 610	0.377	66	56	43	13	9-11
63	753 151 611	0.556	81	63	48	15	9-17.6

**Elbow 45°**

- PE 100 SDR 11 (ISO S5)
- 4mm pin connectors
- Limited path fusion indicators

d (mm)	Part No.	weight (lb)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	SDR pipe
75	753 151 612	0.732	97	71	54	17	9-11
90	753 151 813	1.285	115	91	62	29	9-11
110	753 151 814	2.172	140	112	72	40	9-17.6
160	753 151 817	6.735	196	135	92	42	11-17.6

**Elbow 45°**

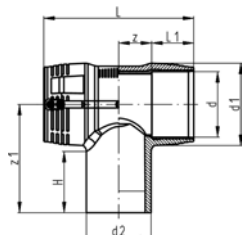
- PE 100 SDR 11 (ISO S5)
- 4mm pin connectors
- Limited path fusion indicators
- Two separate fusion zones

d (mm)	Part No.	weight (lb)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	SDR pipe
225	753 151 820	24.912	280	247	112	135	11-26

**Tee 90° equal
With integral pipe fixation**

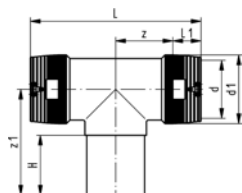
- PE 100 SDR 11 (ISO S5)
- 4mm pin connectors
- Limited path fusion indicators

d (mm)	Part No.	weight (lb)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	z1 (mm)	H (mm)	SDR pipe
32	753 211 608	0.260	44	102	34	15	100	74	9-11
40	753 211 609	0.386	54	119	39	21	114	82	9-11
50	753 211 610	0.556	66	135	42	24	126	90	9-11
63	753 211 611	0.897	81	151	46	28	150	102	9-17.6

**Tee 90° equal**

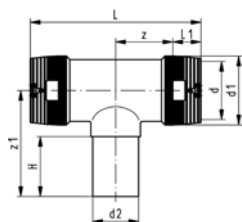
- PE 100 SDR 11 (ISO S5)
- 4mm pin connectors
- Limited path fusion indicators

d (mm)	Part No.	weight (lb)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	z1 (mm)	H (mm)	SDR pipe
75	753 211 612	1.254	97	178	54	35	143	87	9-17.6
90	753 201 813	1.964	115	205	62	41	161	94	9-17.6
110	753 201 814	3.474	140	255	72	56	184	104	9-17.6
160	753 201 817	9.669	196	325	92	71	206	103	11-17.6

**Tee 90° equal**

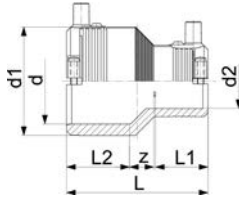
- PE 100 SDR 11 (ISO S5)
- 4mm pin connectors
- Limited path fusion indicators
- Two separate fusion zones

d (mm)	Part No.	weight (lb)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	z1 (mm)	H (mm)	SDR pipe
225	753 201 820	35.053	280	636	112	206	270	122	11-26

**Tee 90° reduced**

- PE 100 SDR 11 (ISO S5)
- 4mm pin connectors
- Limited path fusion indicators
- Two separate fusion zones

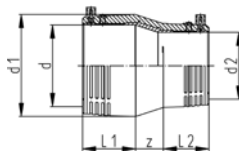
d (mm)	d2 (mm)	Part No.	weight (lb)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	z1 (mm)	H (mm)	SDR pipe
110	90	753 211 034	3.642	140	255	72	56	245	80	9-17.6
160	63	753 211 037	12.478	200	493	90	127	174	65	11-17.6
160	90	753 211 039	12.143	200	492	90	158	190	79	11-17.6
160	110	753 211 040	11.369	200	491	90	158	200	85	11-17.6
225	90	753 211 069	28.881	280	666	112	217	228	80	11-26
225	110	753 211 070	28.881	280	670	112	217	238	85	11-26
225	160	753 211 073	29.983	280	667	112	217	258	105	11-26



Reducer With integral pipe fixation

- PE 100 SDR 11 (ISO S5)
- 4mm pin connectors
- Limited path fusion indicators

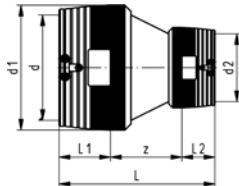
d (mm)	d2 (mm)	Part No.	weight (lb)	d1 (mm)	L (mm)	L1 (mm)	L2 (mm)	z (mm)	SDR pipe
40	32	753 901 646	0.209	54	88	33	39	13	9-11
50	32	753 901 651	0.273	66	96	35	43	18	9-11
50	40	753 901 652	0.262	66	96	39	43	14	9-11
63	32	753 901 656	0.348	81	105	35	48	23	9-11
63	40	753 901 657	0.388	81	105	39	48	19	9-11
63	50	753 901 658	0.388	81	105	43	48	15	9-11



Reducer

- PE 100 SDR 11 (ISO S5)
- 4mm pin connectors
- Limited path fusion indicators

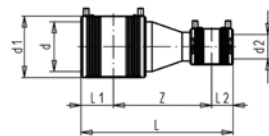
d (mm)	d2 (mm)	Part No.	weight (lb)	d1 (mm)	L (mm)	L1 (mm)	L2 (mm)	z (mm)	SDR pipe
90	63	753 901 831	0.849	113	146	63	47	36	9-17.6
110	63	753 901 832	1.420	140	184	71	58	55	9-11
110	90	753 901 833	1.543	138	173	73	63	38	9-17.6
160	90	753 901 839	3.527	202	227	90	72	65	9-17.6



Reducer

- PE 100 SDR 11 (ISO S5)
- 4mm pin connectors
- Limited path fusion indicators
- Two separate fusion zones

d (mm)	d2 (mm)	Part No.	weight (lb)	d1 (mm)	L (mm)	L1 (mm)	L2 (mm)	z (mm)	SDR pipe
225	160	753 901 838	13.228	280	385	112	90	183	11-26



Reducer (kit)

- PE 100 SDR 11 (ISO S5)
- Integral pipe fixation (up to d63)
- 4mm pin connectors
- Limited path fusion indicators
- Supplied as kit including ELGEF® Plus Coupler and Spigot Reducer

d (mm)	d2 (mm)	Part No.	weight (lb)	d1 (mm)	L (mm)	L1 (mm)	L2 (mm)	z (mm)
75	40	193 280 992	1.265	96	265	55	40	170
75	50	193 280 993	1.373	96	269	55	44	170
75	63	193 280 994	1.543	96	273	55	48	170
90	50	193 280 958	1.889	113	297	63	44	190
90	75	193 280 995	2.361	113	308	63	55	190
110	75	193 280 996	3.298	138	333	73	55	205
160	125	193 280 952	7.169	196	414	90	79	245

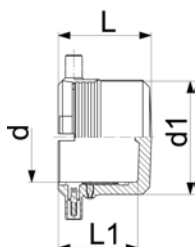


COOL-FIT PE Plus Barrel nipple

Model:

- PE100, SDR11/17
- For the shortest possible connection between fittings

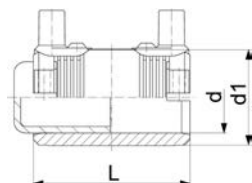
d (mm)	SDR	PN	Part No.	weight (lb)	z (mm)	closest inch (inch)
32	11	16	738 910 408	0.044	72	1
40	11	16	738 910 409	0.075	80	1 ¼
50	11	16	738 910 410	0.130	88	1 ½
63	11	16	738 910 411	0.223	96	2
75	11	16	738 910 412	0.357	110	2 ½
90	11	16	738 910 413	0.582	124	3
110	11	16	738 910 414	1.001	144	4
160	17	10	738 910 417	1.759	180	6
225	17	10	738 910 420	4.156	220	8



End cap With integral pipe fixation

- PE 100 SDR 11 (ISO S5)
- 4mm pin connectors
- Limited path fusion indicators

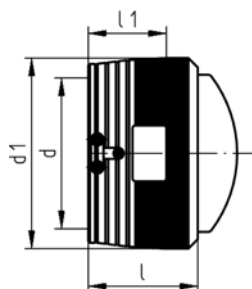
d (mm)	Part No.	weight (lb)	d1 (mm)	L (mm)	L1 (mm)	SDR pipe
32	753 961 608	0.128	44	52	44	9-11
40	753 961 609	0.141	54	56	47	9-11
50	753 961 610	0.340	66	60	49	9-11
63	753 961 611	0.313	81	66	54	9-17.6



End cap (kit)

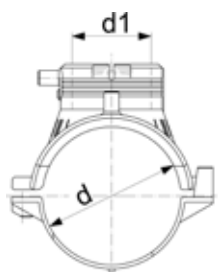
- PE 100 SDR 11 (ISO S5)
- 4mm pin connectors
- Limited path fusion indicators
- Supplied as kit including ELGEF® Plus Coupler

d (mm)	Part No.	weight (lb)	d1 (mm)	L (mm)
75	753 961 712	0.983	96	110
90	753 961 713	1.462	113	125
110	753 961 714	2.403	133	145
160	753 961 717	5.251	197	180
225	753 961 720	12.901	296	224

**End cap**

- PE 100 SDR 11 (ISO S5)
- 4mm pin connectors
- Limited path fusion indicators

d (mm)	Part No.	weight (lb)	d1 (mm)	L (mm)	L1 (mm)	SDR pipe
160	753 961 617	3.929	200	143	90	11-17.6
225	753 961 620	9.921	280	170	112	11-26

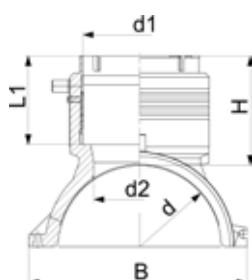


L = length / Länge

Branch saddle outlet 63mm

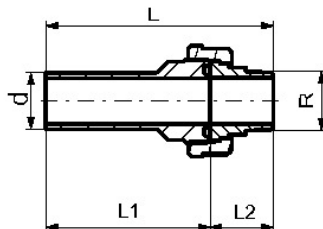
- PE 100 SDR 11 (ISO S5)
- Complete with lower part
- 4mm pin connectors
- Limited path fusion indicators

d (mm)	d1 (mm)	SDR pipe	Part No.	weight (lb)	L (mm)
63	63	9 - 11	193 131 037	0.717	165
75	63	9 - 11	193 131 047	1.003	165
90	63	9 - 17.6	193 131 057	0.915	165
110	63	9 - 17.6	193 133 067	1.080	182
125	63	9 - 17.6	193 131 077	1.107	165
160	63	9 - 17.6	193 133 097	1.197	182
180	63	9 - 26	193 131 107	1.323	165
200	63	9 - 26	193 131 117	1.398	165
225	63	9 - 26	193 131 127	1.362	165
280	63	9 - 26	193 131 147	0.791	165
315-355	63	9 - 33	193 131 157	0.822	165
400	63	9 - 33	193 131 177	0.785	165

**Branch saddle outlet 90 - 110mm**

- PE 100 SDR 11 (ISO S5)
 - 4mm pin connectors
 - Limited path fusion indicators
- * Delivered without lower part. Pipe fixation with multiple use assembly tool no. 193.281.027

d (mm)	d1 (mm)	Part No.	weight (lb)	H (mm)	L (mm)	L1 (mm)	B (mm)	d2 (mm)	SDR pipe
110	90	193 135 009	2.478	101	220	82	164	65	9-17.6
110	110	193 135 010	2.698	107	220	88	164	65	9-17.6
160	90	193 135 039	3.194	102	240	82	215	65	9-17.6
160	110	193 135 040	3.488	108	240	88	215	86	9-17.6
180	90	193 135 049	3.686	102	260	82	237	65	9-17.6
225	90	193 135 069	4.422	102	260	82	287	65	9-17.6
225	110	193 135 070	5.291	108	260	88	287	86	9-17.6



Adapter Union PE100 Long Spigot x Stainless Steel Male NPT

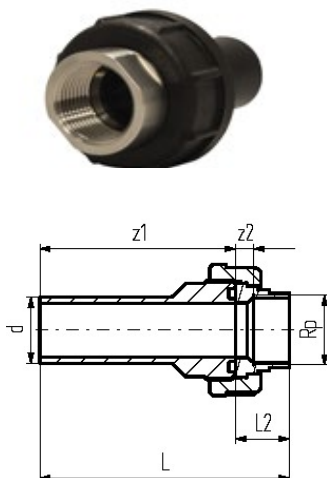
- *PE 100 SDR 11 (ISO S5)
- Only for ELGEF Plus Couplers and Fittings

d	NPT	D	EPDM	L	L1	L2
(mm)	(inch)	(mm)	Part No.	(mm)	(mm)	(mm)
32	¾	65	153 541 007	105.0	60.0	45.0
32	1	65	153 541 008	105.0	60.0	45.0
40	1 ¼	79	153 541 009	112.5	63.0	51.5
50	1 ½	91	153 541 010	117.5	65.0	53.5
63	2	111	153 541 011	126.5	69.0	57.5

Adapter Union PE100 Long Spigot x Stainless Steel Female NPT

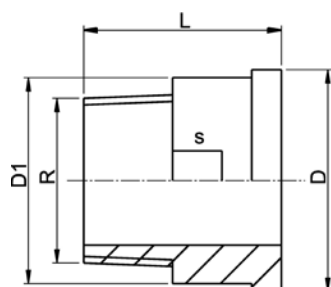
- *PE 100 SDR 11 (ISO S5)
- Only for ELGEF Plus Couplers and Fittings

d	NPT	D	Part No.	L	L1	L2	z1	z2
(mm)	(inch)	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)
32	¾	65	153 541 707	89.0	60.0	40.0	60.0	29.0
32	1	65	153 541 708	89.0	60.0	40.0	60.0	29.0
40	1 ¼	79	153 541 709	102.0	63.0	40.0	63.0	39.0
50	1 ½	91	153 541 710	102.0	63.0	40.0	63.0	38.0
63	2	111	153 541 711	110.0	69.0	45.0	69.0	42.0



Union End Stainless Steel Male NPT with Adapter Ring for 546 Ball Valve

- This set has to be used in combination with the 546 ball valve
- Stainless Steel (304L) union end with NPT thread
- Perfect transition from 546 ball valve to NPT

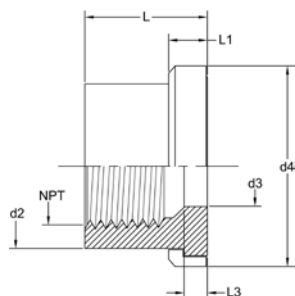


d	R	Part No.	weight	D	D1	L
(mm)	(inch)		(lb)	(mm)	(mm)	(mm)
25	¾	150 481 725	0.375	38.8	36.0	40.50
32	1	150 481 732	0.531	44.7	41.5	45.00
40	1 ¼	150 481 740	0.941	56.5	53.0	51.50
50	1 ½	150 481 750	1.111	62.6	59.0	53.50
63	2	150 481 763	1.821	78.4	74.0	57.50



Union End Stainless Steel Female NPT with Adapter Ring for 546 Ball Valve

- This set has to be used in combination with the 546 ball valve
- Stainless Steel (304L) union end with NPT thread
- Perfect transition from 546 ball valve to NPT

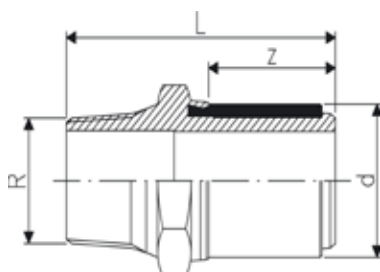


NPT (inch)	d (mm)	Part No.	weight (lb)	d2 (mm)	d3 (mm)	d4 (mm)	L (mm)	L1 (mm)	L3 (mm)	Refrigeration size (inch)
3/8	25	150 481 025	0.243	36.07	21.08	43.94	25.91	6.09	5.08	3/8
1	32	150 481 032	0.320	40.89	25.91	53.09	28.97	7.87	6.09	1 1/8
1 1/4	40	150 481 040	0.595	52.80	32.70	56.40	30.50	6.50	5.50	1 3/8
1 1/2	50	150 481 050	0.728	58.00	40.10	62.20	34.20	7.10	5.90	1 1/2
2	63	150 481 063	1.124	73.30	53.80	78.30	33.50	8.20	7.20	2

Transition Adaptor PE/SS Male thread NPT

- PE 100 SDR 11 (ISO S5)
- Only for ELGEF Plus Couplers and Fittings

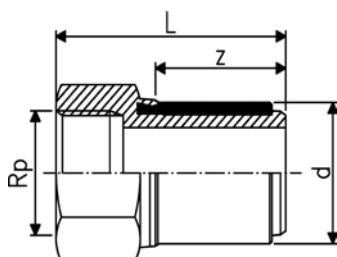
d (mm)	NPT (inch)	Part No.	weight (lb)	L (mm)	z (mm)
25	3/8	153 924 707	0.320	76	33
32	1	153 924 708	0.485	80	35
40	1 1/4	153 924 709	0.849	86	39
50	1 1/2	153 924 710	1.146	90	43
63	2	153 924 711	1.543	98	47



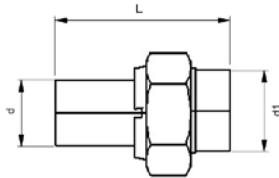
Transition Adaptor PE/SS Female thread NPT

- PE 100 SDR 11 (ISO S5)
- Only for ELGEF Plus Couplers and Fittings

d (mm)	NPT (inch)	Part No.	weight (lb)	L (mm)	z (mm)
32	1	153 924 208	0.408	71	35
40	1 1/4	153 924 209	0.606	77	39
50	1 1/2	153 924 210	0.805	81	43
63	2	153 924 211	1.213	89	47



Adapter Union Copper for sweating PE100 long spigot ends

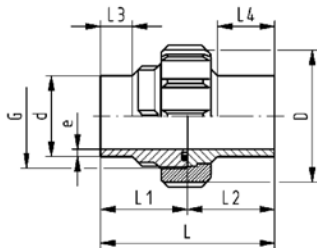


Model:

- Gasket: O-ring EPDM Nr. 748 410 008-014
- Union End: Copper Inch size socket
- Union Nut: brass
- Union bush: Spigot fitting PE100 SDR11

d (mm)	d1 (inch)	Refrigeration Size (inch)	PN (bar)	EPDM Part No.	L (mm)	closest inch (inch)
32	3/4	3/8	10	153 512 207	86.4	3/4
32	1	1 1/8	10	153 512 208	86.4	1
40	1 1/4	1 3/8	10	153 512 209	99.1	1 1/4
50	1 1/2	1 5/8	10	153 512 210	111.8	1 1/2
63	2	2 1/4	10	153 512 211	127.0	2

Transition adaptor PE/ABS PE100 SDR11 long spigot end



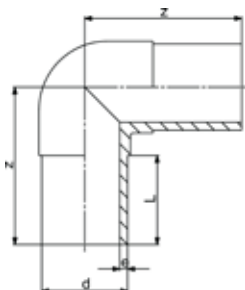
Model:

- PE100 **SDR11**, metric
- Gasket: O-Ring EPDM or FKM
- IR = Infrared-(IR Plus®) compatible.
- Union End: Solvent cement socket metric

d (mm)	PN (bar)	EPDM Part No.	D (mm)	e (mm)	G (inch)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
32	10	153 518 608	60	3.0	1 1/2	87	60	27	40
40	10	153 518 609	74	3.7	2	94	63	31	40
50	10	153 518 610	83	4.6	2 1/4	98	65	33	40
63	10	153 518 611	103	5.8	2 3/4	109	69	40	40

Elbow 90° PE100 SDR11

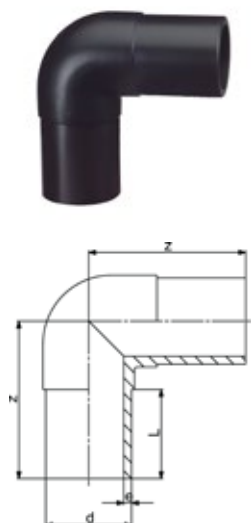
- Long spigot version



d (mm)	Part No.	weight (lb)	e (mm)	L (mm)	z (mm)
32	753 101 008	0.123	3.0	54	85
40	753 101 009	0.196	3.7	57	95
50	753 101 010	0.344	4.6	63	105
63	753 101 011	0.604	5.8	65	115
75	753 101 012	0.913	6.8	72	130
90	753 101 013	1.552	8.2	81	150
110	753 101 014	2.553	10.0	86	165

Elbow 90° PE100 SDR17/17,6

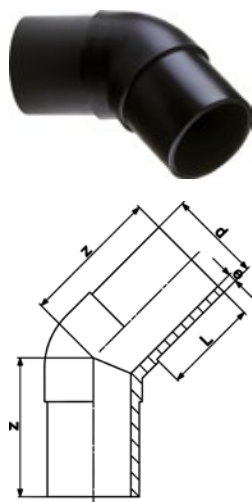
- Long spigot version



d (mm)	Part No.	weight (lb)	e (mm)	L (mm)	z (mm)
160	753 100 817	5.258	9.5	102	210
225	753 100 820	12.928	13.4	120	270
280	753 100 822	24.974	16.6	140	320
315	753 100 823	35.003	18.7	150	370

Elbow 45° PE100 SDR11

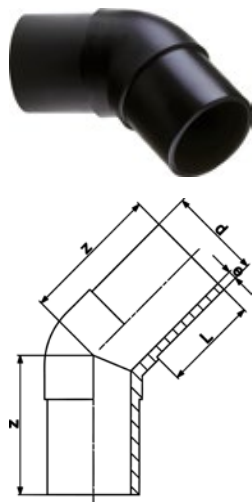
- Long spigot version



d (mm)	Part No.	weight (lb)	e (mm)	L (mm)	z (mm)
32	753 151 008	0.110	3.0	54	80
40	753 151 009	0.190	3.7	57	85
50	753 151 010	0.293	4.6	63	90
63	753 151 011	0.500	5.8	65	95
75	753 151 012	0.772	6.8	72	105
90	753 151 013	1.246	8.2	81	120
110	753 151 014	2.030	10.0	86	130

Elbow 45° PE100 SDR17/17,6

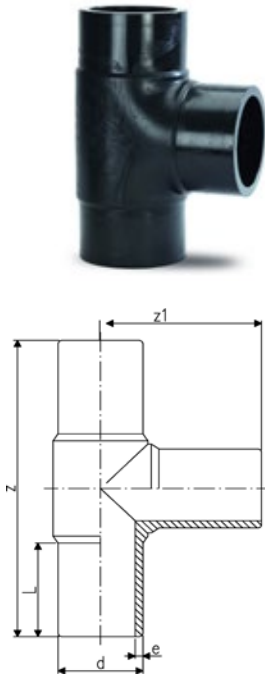
- Long spigot version



d (mm)	Part No.	weight (lb)	e (mm)	L (mm)	z (mm)
160	753 150 817	4.191	9.5	102	162
225	753 150 820	9.791	13.4	123	205
280	753 150 822	16.510	16.6	140	230
315	753 150 823	22.317	18.7	150	250

Tee 90° equal PE100 SDR11

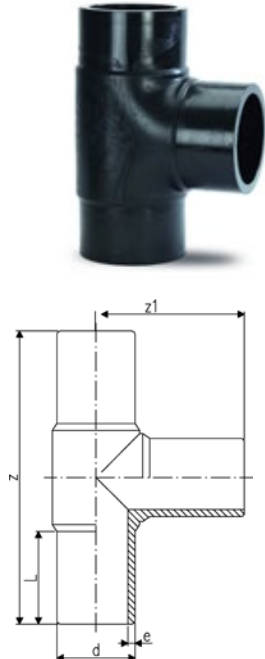
- Long spigot version



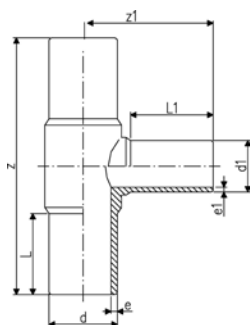
d (mm)	Part No.	weight (lb)	e (mm)	L (mm)	z (mm)	z1 (mm)
32	753 201 008	0.170	3.0	54	170	85
40	753 201 009	0.287	3.7	57	190	95
50	753 201 010	0.472	4.6	63	210	105
63	753 201 011	0.829	5.8	65	230	115
75	753 201 012	1.321	6.8	72	264	132
90	753 201 013	2.251	8.2	81	300	150
110	753 201 014	3.554	10.0	86	330	165

Tee 90° equal PE100 SDR17/17,6

- Long spigot version

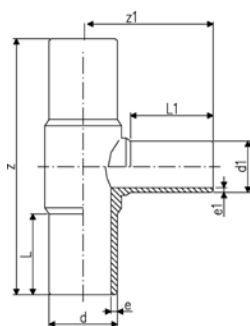


d (mm)	Part No.	weight (lb)	e (mm)	L (mm)	z (mm)	z1 (mm)
160	753 200 817	7.057	9.5	104	428	214
225	753 200 820	17.386	13.4	122	540	270
280	753 200 802	29.432	16.6	139	615	308
315	753 200 803	39.650	18.7	150	695	346
355	753 200 124	57.541	21.1	170	820	410
400	753 200 125	78.705	23.7	190	900	450
450	753 200 126	108.908	26.7	200	980	490

**Tee 90° reduced PE100 SDR11****Model:**

- Molded
- Long spigot version

d	d1	Part No.	weight	e	e1	L	L1	z	z1
(mm)	(mm)		(lb)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	40	753 201 026	0.688	5.8	3.7	67	58	230	107
63	50	753 201 021	0.661	5.8	4.6	65	59	218	100
75	32	753 201 023	1.003	6.8	3.0	73	46	248	98
75	50	753 201 024	1.069	6.8	4.6	73	58	248	109
75	63	753 201 025	1.146	6.8	5.8	73	65	248	118
90	50	753 201 027	1.750	8.2	4.6	79	55	280	120
90	63	753 201 029	1.709	8.2	5.8	79	63	282	127
90	75	753 201 055	1.764	8.2	6.8	80	75	286	132
110	63	753 201 028	3.106	10.0	5.8	87	63	322	148
110	75	753 201 031	2.692	10.0	6.8	83	68	305	148
110	90	753 201 032	2.811	10.0	8.2	86	79	322	164

**Tee 90° reduced
PE100 SDR17/17.6****Model:**

- Molded
- Long spigot version
- See general information for maximum allowable operating pressure
- **PE 100 SDR 17** (ISO S8)
- * With welded reducer

d	d1	Part No.	weight	e	e1	L	L1	z	z1
(mm)	(mm)		(lb)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
160	63	753 200 834	5.631	9.5	3.8	86	63	330	130
160	75	753 200 835	4.259	9.5	4.5	98	74	343	180
160	90	753 200 836	4.348	9.5	5.4	98	79	410	188
160	110	753 200 837	5.988	9.5	6.6	98	82	410	195
225	75	753 200 839	15.715	13.4	4.5	120	70	555	277
225	90	753 200 840	10.432	13.4	5.4	127	80	555	226
225	110	753 200 841	10.362	13.4	6.6	127	82	555	235
225	160	753 200 842	13.056	13.4	9.5	127	98	555	253
315	110	753 200 851	34.438	18.7	6.6	150	82	695	277
315	160	753 200 852	26.896	18.7	9.5	150	102	695	296
315	225	753 200 853	32.781	18.7	13.4	170	145	650	335

Reducer PE100 SDR11

- Long spigot version



d (mm)	d1 (mm)	Part No.	weight (lb)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	z (mm)
32	20	753 901 042	0.060	3.0	3.0	55	53	122
32	25	753 901 041	0.073	3.0	3.0	55	53	122
40	20	753 901 048	0.095	3.7	3.0	56	50	127
40	25	753 901 047	0.099	3.7	3.0	55	50	128
40	32	753 901 046	0.104	3.7	3.0	55	52	128
50	20	753 901 055	0.141	4.6	3.0	62	50	147
50	25	753 901 054	0.152	4.6	3.0	62	50	139
50	32	753 901 053	0.148	4.6	3.0	62	54	140
50	40	753 901 052	0.174	4.6	3.7	62	55	138
63	32	753 901 060	0.249	5.8	3.0	65	53	150
63	40	753 901 059	0.269	5.8	3.7	65	57	150
63	50	753 901 058	0.282	5.8	4.6	65	62	150
75	40	753 901 063	0.408	6.8	3.7	72	51	170
75	50	753 901 064	0.414	6.8	4.6	72	65	170
75	63	753 901 065	0.461	6.8	5.8	72	65	170
90	50	753 901 072	0.637	8.2	4.6	81	61	190
90	63	753 901 071	0.697	8.2	5.8	81	65	190
90	75	753 901 070	0.728	8.2	6.8	81	72	190
110	63	753 901 078	1.074	10.0	5.8	85	65	205
110	75	753 901 077	1.105	10.0	6.8	84	72	205
110	90	753 901 076	1.210	10.0	8.2	85	81	205

Reducer PE100 SDR17/17,6

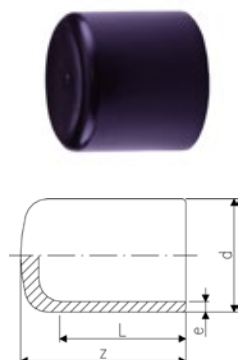
- Long spigot version



d (mm)	d1 (mm)	Part No.	weight (lb)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	z (mm)
160	90	753 900 888	1.658	9.5	5.4	120	85	248
160	110	753 900 890	2.050	9.5	6.6	100	85	245
225	160	753 900 896	4.453	13.4	9.5	120	100	280
280	225	753 900 899	8.955	16.6	13.4	140	120	335
315	225	753 900 807	13.669	18.7	13.4	150	120	365
315	280	753 900 806	13.095	18.7	16.6	150	140	365
355	280	753 900 809	14.833	21.1	16.6	165	140	390
355	315	753 900 810	15.961	21.1	18.7	165	150	390
400	280	753 900 811	17.483	23.7	16.6	180	140	415
400	315	753 900 812	21.934	23.7	18.7	180	150	415
400	355	753 900 813	21.208	23.7	21.1	180	165	420
450	280	753 900 814	25.353	26.7	16.6	195	140	389
450	315	753 900 815	26.026	26.7	18.7	195	150	390
450	355	753 900 816	26.235	26.7	21.1	195	164	393
450	400	753 900 817	28.581	26.7	23.7	195	179	395

Cap PE100 SDR11

- Long spigot version

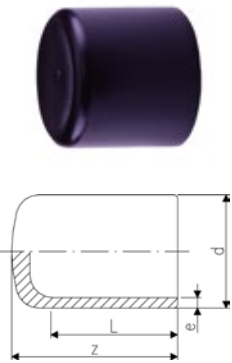


d (mm)	Part No.	weight (lb)	e (mm)	L (mm)	z (mm)
32	753 961 008	0.044	3.0	54	54
40	753 961 009	0.073	3.7	57	57
50	753 961 010	0.119	4.6	63	63
63	753 961 011	0.190	5.8	65	65
75	753 961 012	0.322	6.8	72	80
90	753 961 013	0.529	8.2	81	90
110	753 961 014	0.822	10.0	86	98

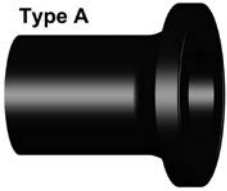
Cap PE100 SDR17/17,6

- Long spigot version

d (mm)	Part No.	weight (lb)	e (mm)	L (mm)	z (mm)
160	753 960 817	2.028	9.5	102	120
225	753 960 820	4.993	13.4	122	148
280	753 960 822	7.767	16.6	139	235
315	753 960 823	10.490	18.7	150	255
355	753 960 824	14.352	21.1	165	280
400	753 960 825	20.607	23.7	180	310
450	753 960 826	39.238	26.7	195	265



Type A



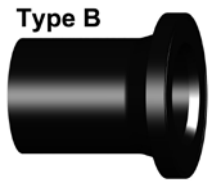
Flange adaptor SDR11 ANSI

Combined jointing face: flat and serrated

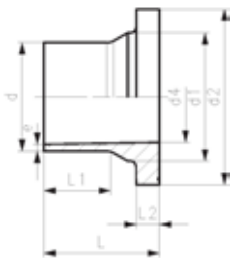
Model:

- Material: PE100
- Long spigot for Butt fusion or Electrofusion
- Suitable for flange connections to **ANSI/ASME B 16.5**
- Gasket d20-d630: Profile flange gasket NBR No. 45 44 07, EPDM No. 48 44 07
- Type A without chamfer, Type B with chamfer

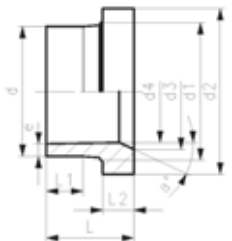
d (mm)	FM	Part No.	weight (lb)	d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	e (mm)	L (mm)	L1 (mm)	L2 (mm)	Type
32	IR	753 800 058	0.101	40	63		26	3.0	91.5	61.0	10	A
40	IR	753 800 059	0.154	50	73		32	3.7	94.5	61.5	11	A
50	IR	753 800 060	0.216	61	82		40	4.6	105.0	55.0	12	A
63	IR	753 800 011	0.412	75	102		51	5.8	98.0	69.0	14	A
75	IR	753 800 012	0.692	89	122	66	61	6.8	125.0	89.0	16	B
90	IR	753 800 063	0.933	105	133		73	8.2	140.0	85.0	17	B
110	IR	753 800 014	1.583	125	158	100	90	10.0	160.0	114.0	18	B



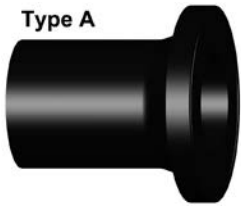
Type A



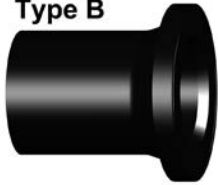
Type B



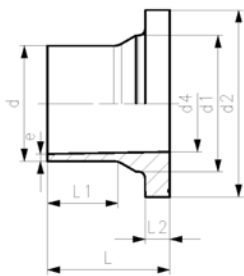
Type A



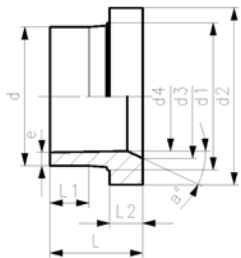
Type B



Type A

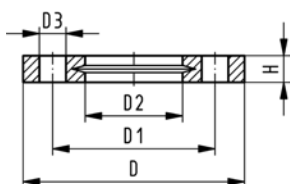
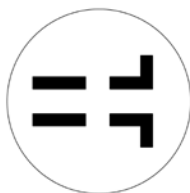


Type B

**Flange Adaptor PE100 SDR17/17.6****Model:**

- Material: PE100
- Long spigot for Butt fusion or Electrofusion
- Suitable for flange connections to metric (from d110 also to ANSI/ASME B16.5)
- Gasket d20-d630: Profile flange gasket NBR No. 45 44 07, EPDM No. 48 44 07
- Type A without chamfer, Type B with chamfer

d (mm)	Part No.	weight (lb)	d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	e (mm)	L (mm)	L1 (mm)	L2 (mm)	Type
160	753 800 092	2.959	175	212	151	141	9.5	200	147	25	B
225	753 800 095	5.415	235	268	210	198	13.4	200	138	32	B
280	753 800 097	8.333	291	320	265	246	16.6	230	154	35	B
315	753 800 098	12.059	335	370	300	277	18.7	242	166	36	B
355	753 800 299	15.653	373	430	346	310	21.1	260	170	33	B
400	753 800 300	21.164	427	482	395	350	23.7	282	185	36	B
450	753 800 301	36.156	514	585		400	26.7	316	205	46	A



V-Flange Ring For Butt Fusion Systems

Model:

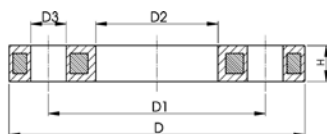
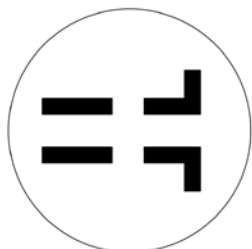
- Full-plastic flange PP-GF (30% glass-fiber reinforced), with V-groove which applies force evenly on collar
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**
- UV-resistant

AL: number of holes

All sizes suitable for butt fusion. Sizes 20-75mm also for socket fusion.

Combined version, metric-ANSI

Size (inch)	d (mm)	Part No.	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
½	20	727 701 406	95	60	28	16	16	4	M12
¾	25	727 701 407	105	70	34	16	17	4	M12
1	32	727 701 408	115	79	42	16	18	4	M12
1 ¼	40	727 701 409	140	89	51	16	20	4	M16
1 ½	50	727 701 410	150	98	62	16	22	4	M16
2	63	727 701 411	165	121	78	19	24	4	M16
2 ½	75	727 701 412	185	140	92	19	26	4	M16
3	90	727 701 513	200	152	108	19	27	4	M16
4	110	727 701 514	229	190	128	19	28	8	M16
6	160	727 700 517	285	240	178	22	32	8	M20
8	200	727 700 519	340	295	235	22	34	8	M20
8	225	727 700 520	340	295	238	22	34	8	M20
10	250	727 701 521	406	362	288	26	38	12	M20
10	280	727 701 522	406	362	294	26	38	12	M20
12	315	727 701 523	483	432	338	26	42	12	M20



Backing flange PP-Steel For butt fusion systems Inch/ANSI

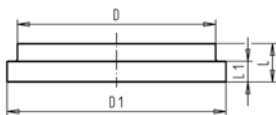
Model:

- UV-resistant.
- **Bolt circle class 150**

AL: number of holes

d (mm)	d (inch)	PN (bar)	Part No.	weight (lb)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
20	1/2	16	727 701 206	0.470	95	60	28	16	12	4	M12
25	3/4	16	727 701 207	0.573	105	70	34	16	12	4	M12
32	1	16	727 701 208	0.917	115	79	42	16	16	4	M12
40	1 1/4	16	727 701 209	1.609	140	89	51	16	16	4	M16
50	1 1/2	16	727 701 210	1.784	150	98	62	16	18	4	M16
63	2	16	727 701 211	1.909	165	121	78	19	18	4	M16
75	2 1/2	16	727 701 212	2.463	185	140	92	19	18	4	M16
90	3	16	727 701 213	3.289	200	152	110	19	20	4	M16
110	4	16	727 701 214	3.737	229	190	133	19	20	8	M16
160	6	16	727 700 717	7.696	285	241	178	22	26	8	M20
200	8	16	727 700 719	12.346	340	297	235	22	29	8	M20
225	8	16	727 700 720	12.198	340	297	238	22	29	8	M20
250/280	10	10	727 701 321	13.228	406	362	293	25	30	12	M24
315	12	10	727 701 322	26.015	483	432	338	25	34	12	M24
355	14	10	727 701 323	39.463	540	476	376	29	42	12	M27
400	16	10	727 701 324	54.013	597	539	429	29	44	16	M27
450/500	20	10	727 701 325	74.075	712	635	540	32	53	20	M30

Blind Flange PE Metric

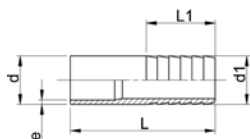


d (mm)	DN (mm)	PN (bar)	Part No.	weight (lb)	D (mm)	D1 (mm)	L (mm)	L1 (mm)
63	50	16	753 960 611	0.340	75	102	30	14
75	65	16	753 960 612	0.591	89	122	30	16
90	80	16	753 960 613	0.800	105	138	30	17
110	100	16	753 960 614	1.080	125	158	30	18
160	150	16	753 960 617	2.637	175	212	40	25
225	200	16	753 960 620	4.506	235	268	50	32
280	250	16	753 960 622	9.165	291	320	60	35
315	300	16	753 960 623	11.572	335	370	65	35
355	350	16	753 960 624	16.971	373	430	70	40
400	400	16	753 960 625	26.863	427	482	75	46
450	500	10	753 960 626	43.252	510	585	80	60

Hose connector PE100 SDR11 metric

Model:

- Material: PE100
- With butt fusion spigot SDR11 and parallel hose connection



d (mm)	d1 (mm)	FM	Part No.	weight (lb)	e (mm)	L (mm)	L1 (mm)
32	32	IR	753 968 608	0.051	2.9	82	36
40	40	IR	753 968 609	0.075	3.7	84	42
50	50	IR	753 968 610	0.126	4.6	90	48
63	60	IR	753 968 611	0.209	5.8	100	50

Machines for PE
MSA Electrofusion



MSA 2.0 Automatic Electrofusion Unit (230V)

The MSA 2.0 automatic electro fusion unit combines light weight and high efficiency, thanks to its inverter technology. The unit is extremely fast and simple, with three basic operations required to operator: connect, scan, start the fusion.

The MSA 2.0 has 350 protocols permanently stored in the internal memory.

It is robust, safe and ergonomic.

All is meant to simplify the job: the barcode scanner, for long distance reading, the cooling system to joint in series, the icon system, to keep the interaction between user and machine intuitive.

The entire welding process is controlled and regulated with energy output compensation depending on ambient temperature and the indication of cooling time.

Scope of delivery includes: transport box, 1 pair of angle adapter clips 4.0 mm and operating instructions.

Technical Data:

- Operating temperature: -20°C to +50°C
- Mains frequency: 50-60 Hz
- Mains voltage: 230V (190V - 265V)
- Fusion current: 90 A (max)
- Suggested power generators: 3.5 kVA
- Welding technique: Voltage controlled
- Fusion voltage: 8-42 V (48 V)
- Fittings range: d16-1200 mm
- Fusion data input mode: bar code, manual
- Internal memory capacity: 350 protocols
- USB Port: Type A
- Protection factor: Class 1 / IP 65
- Mains cable: 13.1 ft (4 m)
- Fusion cable: 3 m
- Dimensions: 280 x 420 x 280 mm
- Weight: ca. 26.2 lbs (11.9 kg)
- Display: Graphical LCD, adjustable contrast
- Languages support: all

Type	Part No.	SP	weight lb
Barcode scanner, transport case	790 156 001	1	44.093



MSA 2 CF @ 115V - Automatic Electrofusion Unit with protocols retrieval

The MSA 2 CF electro fusion unit combines light weight and high efficiency, thanks to its power switching technology and furthermore provides fusion documentation in PDF. The unit is extremely fast and simple, like COOL-FIT installations, with three basic operations required to the operator: connect, scan, start the fusion.

It is robust, safe and ergonomic.

All is meant to simplify the job: the barcode scanner, for long distance reading, the cooling system to joint in series, the icon system, to keep the interaction between user and machine intuitive. The entire welding process is controlled and regulated with energy output compensation depending on ambient temperature and the indication of cooling time.

The unit has 1000 protocols permanently stored in the internal memory. The user can copy the fusion reports in an USB stick to print them out in PDF format.

Scope of delivery includes: transport box, standard and long angle adapters (4.0 mm), operating instructions, START/STOP badge and USB memory stick with PC applications.

Technical Data:

- Operating temperature: -20°C to +50°C
- Mains voltage: 90V - 135V AC
- Mains frequency: 50-60 Hz
- Fusion voltage: 8-42 V
- Fusion data input mode: bar code, manual
- Fusion current: 90 A (max)
- Suggested power generators: 3.5 kVA
- Fittings range: d20-d450 (inner diameter) COOL-FIT 2.0/4.0
- Protocols format: PDF and binary (compatible with mini Welding Book)
- USB Port: Type A
- Protection factor: Class 1 / IP 65
- Mains cable: 13.1 ft (4 m)
- Fusion cable: 13.1 ft (4 m)
- Weight: ca 12.5 kg
- Display: Graphical LCD, adjustable contrast
- Languages support: all

Type	Part No.	weight (lb)
Barcode scanner, transport case, mini Welding Book	790 156 023	39.652



COOL-FIT Y cables kit

- The COOL-FIT Y cables are used to speed up the installation of the fixed points electrofusion tapes. The Y cables allow the welding in parallel of 2 E-Tapes, halving the total duration of the fusion process.
- Compatible with MSA 210-230, MSA 330-340, MSA 250 – 400, MSA 250 – 400 PLUS

Type	Part No.	weight (lb)
4 leads cable with 2mm plugs in output	790 156 032	0.849



Long adapters

- Required adapters for Electrofusion units with 4 mm connectors.
- Longer version, suitable for all COOL-FIT PE Plus dimensions.

Type	Part No.	weight (lb)	Description
4,0 mm	790 128 035	0.128	Angle adapter, black



COOL-FIT PE Plus Foam removal and peeling tool

Model:

- Optional: Manual tool required for foam removal and peeling of COOL-FIT PE Plus pipes
- Rental tools available, contact factory

d (mm)	Part No.	weight (lb)
32-90	799 738 001	23.149
110-225	799 738 003	36.376
250-450	799 738 004	156.528



COOL-FIT PE Plus Powered foam removal and peeling tool

Model:

- Optional: Manual tool required for foam removal and peeling of COOL-FIT PE Plus pipes
- For usage in combination with drill drivers (not included)
- Rental tools available, contact factory

d (mm)	Part No.	weight (lb)
32-63	799 738 201	23.149



Double clamp with universal link

- Recommended for the installation of fittings COOL-FIT PE Plus and ELGEF
- The clamping allows installation without tension and avoids movement during fusion and cooling time
- The centrally located adjustable universal link allows installation of electrofusion couplers, elbows and reducers
- Universal use; works above, below and alongside the joint
- Adaptor for use with Tee-pieces available (see accessories)

d (mm)	d1 (mm)	Part No.	weight (lb)	Description	B (mm)	H (mm)	L (mm)
40	200	799 301 490	9.259	Scope of delivery: 2 x V-block, 2 x Straight bar, 1 x Universal link, Transport bag (600x380x250)	290	230	960
160	630	799 301 496	31.085	Scope of delivery: 2 x V-block, 2 x Straight bar, 1 x Universal link, Transport bag (780x780x580)	670	550	1300



Quadruple clamp with universal link

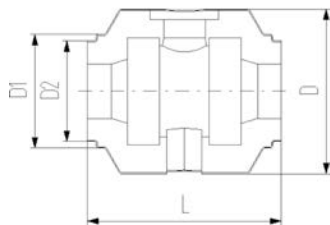
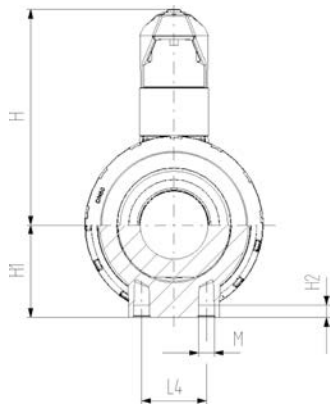
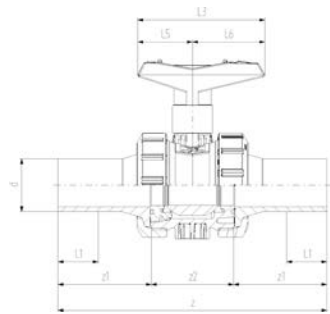
- Recommended for the installation of fittings COOL-FIT PE Plus and ELGEF
- The clamping allows installation without tension and avoids movement during fusion and cooling time
- The centrally located adjustable universal link allows installation of electrofusion couplers, elbows and reducers
- Universal use; works above, below and alongside the joint
- Adaptor for use with Tee-pieces available (see accessories)

d (mm)	d1 (mm)	Part No.	weight (lb)	Description	B (mm)	H (mm)	L (mm)
40	200	799 301 489	18.298	Scope of delivery: 4 x V-block, 2 x Straight bar, 1 x Universal link, Transport bag (600x380x250)	290	230	960
160	630	799 301 495	51.368	Scope of delivery: 4 x V-block, 2 x Straight bar, 1 x Universal link, Transport bag (780x780x580)	670	550	1300

Valves

COOL-FIT PE Plus Valves

Manual Valve



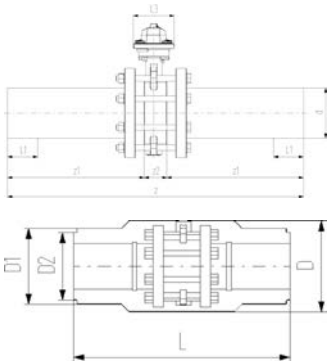
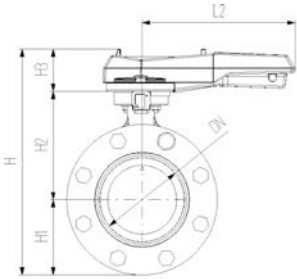
COOL-FIT PE Plus Ball valve type 546

Model:

- Material: ABS with spigot PE100 SDR11, metric
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Including insulation half shells

d	closest inch	DN	PN	EPDM	weight
(mm)	(inch)	(mm)		Part No.	(lb)
32	1	25	10	138 546 108	1.195
40	1 ¼	32	10	138 546 109	1.956
50	1 ½	40	10	138 546 110	2.568
63	2	50	10	138 546 111	4.630
75	2 ½	65	10	138 546 112	11.299
90	3	80	10	138 546 113	15.814

d	closest inch	DN	D	D1	D2	L	L1	L3	H	H1	H2	z	z1	z2
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
32	1	25	135	97	82	152	36	97	98	36	12	223	76	76
40	1 ¼	32	157	117	97	170	40	128	119	44	15	249	82	82
50	1 ½	40	169	117	97	184	44	128	125	51	15	271	91	91
63	2	50	204	132	117	227	48	152	150	64	15	321	110	110
75	2 ½	65	235	147	132	276	55	270	194	85	15	386	125	125
90	3	80	255	168	147	297	62	270	200	105	15	421	140	140

**COOL-FIT PE Plus Insulate Butterfly valve type 567****Model:**

- Material: ABS with spigot PE100 SDR11, metric
- Including valve, flange adaptors, backing flanges PP-Steel, hardware and insulation half shells

d	closest inch	DN	PN	EPDM	weight
(mm)	(inch)	(mm)		Part No.	(lb)
110	4	100	10	138 567 114	19.731
160	5	150	10	138 567 117	39.628
225	8	200	10	138 567 120	62.426

d	closest inch	DN	D	D1	D2	L	L1	L2	L3	H	H1	H2	H3	z
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
110	4	100	310	188	168	556	72	255	106	325	104	167	55	696
160	5	150	358	259		720	90	255	115	143	143	203	55	895
225	8	200	409	325		776	110	408	149	465	170	210	85	996

d	closest inch	DN	z1	z2
(mm)	(inch)	(mm)	(mm)	(mm)
110	4	100	320	56
160	5	150	412	72
225	8	200	462	73

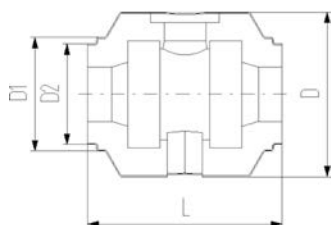
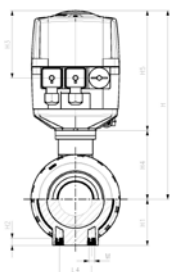
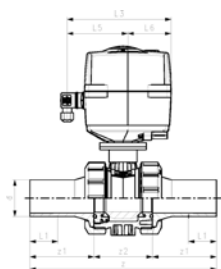
Actuated Valve



COOL-FIT PE Plus Electric Actuated Insulated Ball valve type 179

Model:

- Material: ABS with spigot PE100 SDR11, metric
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Voltage 100-230V, 50-60Hz
- Factory set control range 90°
- Including insulation half shells



d	closest inch	DN	PN	Part No.	weight
(mm)	(inch)	(mm)	(bar)		(lb)
32	1	25	10	138 546 208	6.257
40	1 ¼	32	10	138 546 209	6.997
50	1 ½	40	10	138 546 210	7.610
63	2	50	10	138 546 211	9.866
75	2 ½	65	10	138 546 212	15.776
90	3	80	10	138 546 213	28.660

d	closest inch	DN	D	D1	D2	L	L1	L3	L4	H	H1	H2	z	z1
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
32	1	25	135	97	82	152	36	190	25	228	36	12	223	76
40	1 ¼	32	157	117	97	170	40	190	45	240	44	15	249	82
50	1 ½	40	169	117	97	184	44	190	45	246	51	15	271	91
63	2	50	204	132	117	227	48	190	45	263	64	15	321	110
75	2 ½	65	235	147	132	276	55	190	70	322	85	15	386	125
90	3	80	255	168	147	297	62	190	70	357	105	15	421	140

d	closest inch	DN	z2	M
(mm)	(inch)	(mm)	(mm)	
32	1	25	71	M6
40	1 ¼	32	85	M8
50	1 ½	40	89	M8
63	2	50	101	M8
75	2 ½	65	136	M8
90	3	80	141	M8



COOL-FIT PE Plus Electric Actuated Insulated Butterfly valve type 145

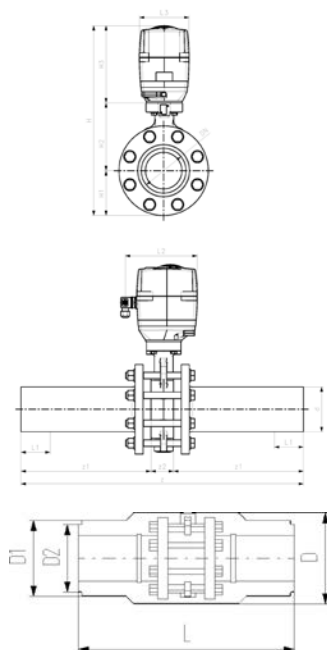
Model:

- Material: ABS with spigot PE100 SDR11, metric
- Voltage 100-230V, 50-60Hz
- Factory set control range 90°
- Including valve, flange adaptors, backing flanges PP-Steel, hardware and insulation half shells

d	closest inch	DN	PN	EPDM weight
(mm)	(inch)	(mm)		Part No. (lb)
110	4	100	10	138 567 214 29.366
160	6	150	10	138 567 217 49.264
225	8	200	10	138 567 220 79.448

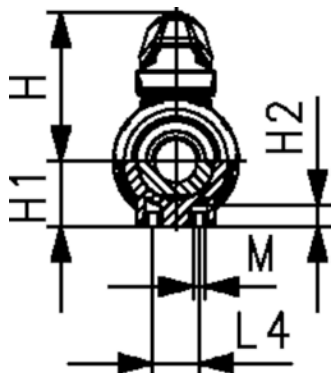
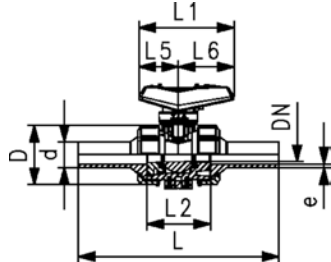
d	closest inch	DN	D	D1	D2	L	L1	L2	L3	H	H1	H2	H3	z
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
110	4	100	310	188	168	552	72	179	122	460	104	167	190	696
160	6	150	358	259		720	90	179	122	535	143	203	190	895
225	8	200	409	325		776	110	179	122	580	170	210	200	996

d	closest inch	DN	z1	z2
(mm)	(inch)	(mm)	(mm)	(mm)
110	4	100	320	56
160	6	150	412	72
225	8	200	462	73



Uninsulated Valves

Manual valves



Ball valve type 546 pro
With butt fusion spigots long
PE100 SDR11 metric

Model:

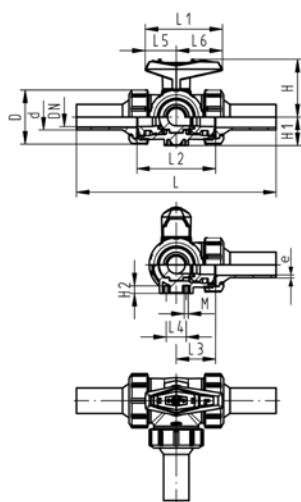
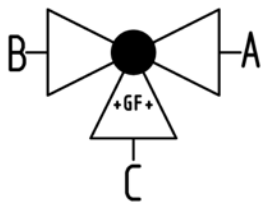
- Lockable lever as standard (DN10-DN50)
- Designed for easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Z-dimension, valve end and union nut **are compatible** with type 546 (1st Generation)

Option:

- Interface-module with position feedback sensor, incl. LED feedback (DN10-50)
- Manual spring return lever ("Dead man") (DN10-50)
- Pneumatic or electric actuators from GF
- Contact customer services for customization
- Multifunctional module with integrated limit switches (DN65-100)

d (mm)	closest inch (inch)	DN (mm)	PN (bar)	EPDM Part No.	weight (lb)
32	1	25	10	800 015 141	0.683
40	1 ¼	32	10	800 015 142	1.168
50	1 ½	40	10	800 015 179	1.631
63	2	50	10	800 015 143	3.020
75	2 ½	65	10	800 045 326	8.598
90	3	80	10	800 045 327	8.598
110	4	100	10	800 045 328	8.598

d (mm)	closest inch (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	e (mm)
32	1	68	80	36	12	223	105	71	25	44	62	M6	2.9
40	1 ¼	84	95	44	15	249	131	85	45	57	74	M8	3.7
50	1 ½	97	102	51	15	271	131	89	45	57	74	M8	4.6
63	2	124	117	64	15	320	152	101	45	66	86	M8	5.8
75	2 ½	166	150	85	15	387	269	136	70	64	206	M8	6.8
90	3	200	161	105	15	421	269	141	70	64	206	M8	8.2
110	4	238	178	123	22	484	319	164	120	64	256	M12	10.0



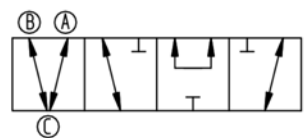
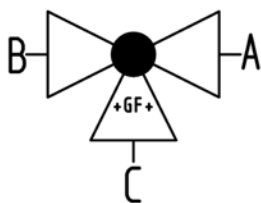
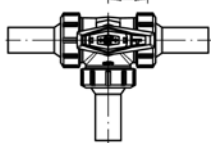
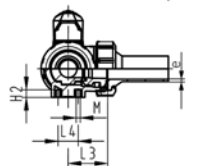
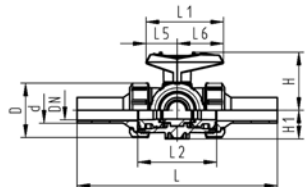
ecoFIT
3-Way Ball Valve Type 543 ABS
Horizontal/L-port
With butt fusion spigots long
PE100 SDR11 metric

Model:

- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d (mm)	closest inch (inch)	DN (mm)	PN (bar)	EPDM Part No.	weight (lb)
32	1	25	10	169 543 304	0.992
40	1 ¼	32	10	169 543 305	1.680
50	1 ½	40	10	169 543 306	2.560
63	2	50	10	169 543 307	5.531

d (mm)	closest inch (inch)	D (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	H (mm)	H1 (mm)	H2 (mm)	M (mm)	e (mm)
32	1	68	251	97	99	50	25	39	58	73	36	8	6	2.9
40	1 ¼	84	283	128	120	60	45	54	74	90	45	9	8	3.7
50	1 ½	97	319	128	137	69	45	54	74	97	51	9	8	4.6
63	2	124	399	152	179	89	45	66	87	116	65	9	8	5.8



ecoFIT 3-Way Ball Valve Type 543 ABS
with long spigot PE100 SDR11 metric ends
Horizontal/T-Port
for Butt fusion or Electrofusion

Model:

- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

d (mm)	closest inch (inch)	DN (mm)	PN (bar)	EPDM Part No.	weight (lb)
32	1	25	10	169 543 324	0.992
40	1 ¼	32	10	169 543 325	1.680
50	1 ½	40	10	169 543 326	2.560
63	2	50	10	169 543 327	5.531

d (mm)	closest inch (inch)	D (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	H (mm)	H1 (mm)	H2 (mm)	M (mm)	e (mm)
32	1	68	251	97	99	50	25	39	58	73	36	8	6	2.9
40	1 ¼	84	283	128	120	60	45	54	74	90	45	9	8	3.7
50	1 ½	97	319	128	137	69	45	54	74	97	51	9	8	4.6
63	2	124	399	152	179	89	45	66	87	116	65	9	8	5.8

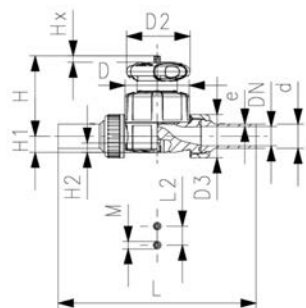
Diaphragm Valve Type 514 ABS
with long spigot PE 100 SDR 11 metric True Union Ends
for Electrofusion

Model:

- Material: ABS metric
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism

Option:

- Self adjusting multifunctional module with integrated limit switches



d (mm)	closest inch (inch)	PN (bar)	Part No.	weight (lb)
32	1	10	169 514 314	1.517
40	1 ¼	10	169 514 315	2.937
50	1 ½	10	169 514 316	5.324
63	2	10	169 514 317	7.097

D (mm)	D2 (mm)	D3 (mm)	L (mm)	L2 (mm)	H (mm)	H1 (mm)	H2 (mm)	M (mm)	Lift = Hx (mm)
88	87	58	234	25	107	22	12	6	13
101	87	72	260	45	115	26	15	8	15
117	135	85	284	45	148	32	15	8	19
144	135	100	321	45	166	39	15	8	25



Lugstyle butterfly valve type 578 ABS

Hand lever with ratchet settings

Model:

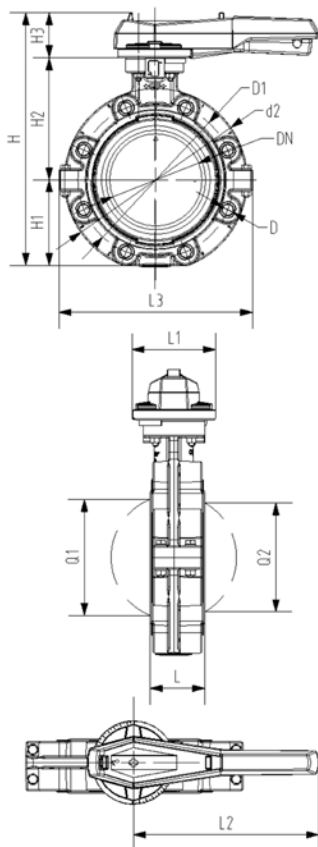
- Housing material: PP-GF30 with 316SS lug inserts
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

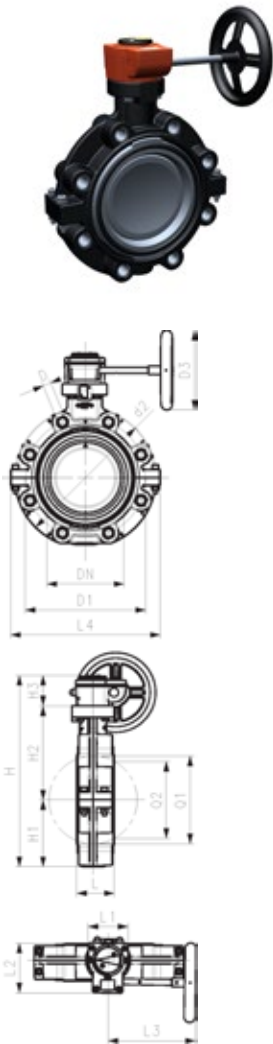
Option:

- Optional accessory: Integrated position feedback with limit switches (sold separately)

d	Size	DN	PN	EPDM	weight
(mm)	(inch)	(mm)	(bar)	Part No.	(lb)
63	2	50	10	169 578 102	3.968
75	2 ½	65	10	169 578 103	4.178
90	3	80	10	169 578 104	4.963
110	4	100	10	169 578 105	6.936
140	5	125	10	169 578 106	10.274
160	6	150	10	169 578 107	14.176
225	8	200	10	169 578 108	19.015
280	10	250	10	169 578 109	43.052
315	12	300	10	169 578 110	57.554

d	Size	d2	D	D1	H	H1	H2	H3	L	L1	L2	L3	Q1	Q2
(mm)	(inch)	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	2	160	UNC 5/8	120.6	265	77	134	54	45	106	205	165	40	
75	2 ½	180	UNC 5/8	139.7	277	83	140	54	46	106	205	182	54	35
90	3	195	UNC 5/8	152.4	289	89	146	54	49	106	205	210	67	50
110	4	226	UNC 5/8	190.5	328	106	167	55	56	106	255	240	88	74
140	5	258	UNC 3/4	215.9	357	121	181	55	64	106	255	272	113	97
160	6	284	UNC 3/4	241.3	377	133	189	55	72	106	255	300	139	123
225	8	341	UNC 3/4	298.4	436	159	210	67	73	140	408	360	178	169
280	10	412	UNC 7/8	362.0	536	205	264	67	113	140	408	440	210	207
315	12	482	UNC 7/8	431.8	586	234	285	67	113	140	408	510	256	253





Lugstyle butterfly valve type 578 ABS

Reduction gear with handwheel

Model:

- Housing material: PP-GF30 with 316SS lug inserts
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Optional accessory: Integrated position feedback with limit switches (sold separately)

d	Size	DN	PN	EPDM weight
(mm)	(inch)	(mm)	(bar)	Part No. (lb)
63	2	50	10	169 578 122 7.643
75	2 ½	65	10	169 578 123 7.959
90	3	80	10	169 578 124 8.662
110	4	100	10	169 578 125 10.657
140	5	125	10	169 578 126 13.995
160	6	150	10	169 578 127 17.877
225	8	200	10	169 578 128 20.620
280	10	250	10	169 578 129 43.052
315	12	300	10	169 578 130 57.554

d	Size	d2	D	D1	D3	H	H1	H2	H3	H4	L	L1	L2	L3
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	2	160	UNC 5/8	120.6	150	273	77	134	62	23	45	78	112	179
75	2 ½	180	UNC 5/8	139.7	150	285	83	140	62	23	46	78	112	179
90	3	195	UNC 5/8	152.4	150	297	89	146	62	23	49	78	112	179
110	4	226	UNC 5/8	190.5	150	335	106	167	62	23	56	78	112	179
140	5	258	UNC 3/4	215.9	150	364	121	181	62	23	64	78	112	179
160	6	284	UNC 3/4	241.3	160	384	133	189	62	23	72	78	112	179
225	8	341	UNC 3/4	298.4	160	431	159	210	62	23	73	78	112	179
280	10	412	UNC 7/8	362.0	200	524	205	264	55	23	113	130	140	440
315	12	482	UNC 7/8	431.8	200	574	234	285	55	23	113	130	140	510

d	Size	L4	Q1	Q2
(mm)	(inch)	(mm)	(mm)	(mm)
63	2	165	40	
75	2 ½	182	54	35
90	3	210	67	50
110	4	240	88	74
140	5	272	113	97
160	6	300	139	123
225	8	360	178	169
280	10	200	210	207
315	12	200	256	253

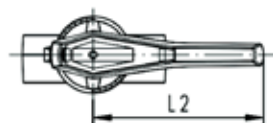
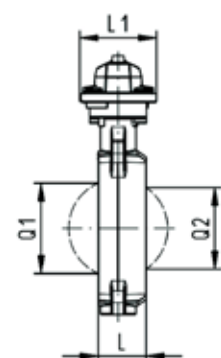
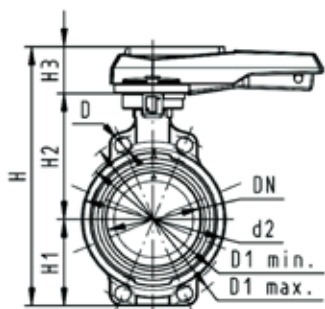


Butterfly valve type 567 ABS

Hand lever with ratchet settings

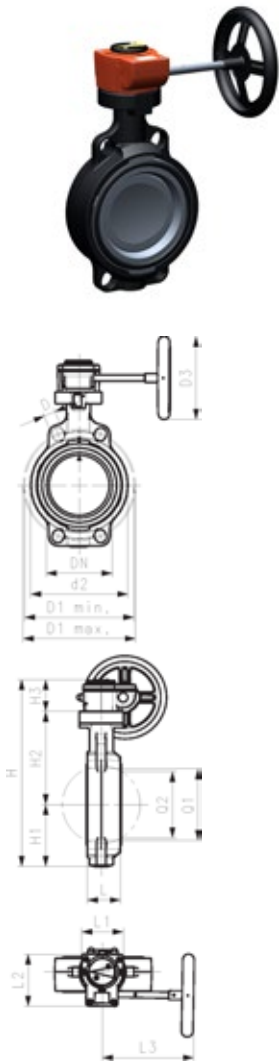
Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5
Class 150, BS 1560: 1989, BS 4504, JIS B 2220



d (mm)	closest inch (inch)	DN (mm)	PN (bar)	EPDM Part No.	weight (lb)
63	2	50	10	169 567 002	2.617
75	2 ½	65	10	169 567 003	2.826
90	3	80	10	169 567 004	3.131
110	4	100	10	169 567 005	4.453
140	5	125	10	169 567 006	5.591
160	6	150	10	169 567 007	7.357
225	8	200	10	169 567 008	12.804
280	10	250	10	169 567 009	31.588
315	12	300	10	169 567 010	41.665

d (mm)	closest inch (inch)	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)
63	2	104	19	120.0	125.0	265	77	134	54	45	106	205	40	
75	2 ½	115	19	139.7	145.0	277	83	140	54	46	106	205	54	35
90	3	131	19	150.0	160.0	289	89	146	54	49	106	205	67	50
110	4	161	19	175.0	190.5	326	104	167	55	56	106	255	88	74
140	5	187	23	210.0	215.9	353	117	181	55	64	106	255	113	97
160	6	215	24	241.3	241.3	374	130	189	55	72	106	255	139	123
225	8	267	23	290.0	295.0	435	158	210	67	73	140	408	178	169
280	10	329	25	353.0	362.0	554	205	264	85	113	149	408	210	207
315	12	379	25	400.0	432.0	598	228	285	85	113	149	408	256	253



Butterfly valve type 567 ABS Reduction gear with handwheel

Model:

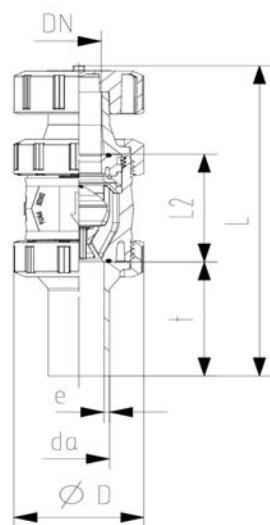
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5
Class 150, BS 1560: 1989, BS 4504, JIS B 2220

d (mm)	closest inch (inch)	DN (mm)	PN (bar)	EPDM Part No.	weight (lb)
63	2	50	10	169 567 022	6.786
75	2 ½	65	10	169 567 023	7.057
90	3	80	10	169 567 024	7.185
110	4	100	10	169 567 025	7.701
140	5	125	10	169 567 026	9.978
160	6	150	10	169 567 027	11.283
225	8	200	10	169 567 028	14.085
280	10	250	10	169 567 029	28.656
315	12	300	10	169 567 030	42.194

d (mm)	closest inch (inch)	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
63	2	104	19	120	125	160	273	77	134	62	45	78	112	179
75	2 ½	115	19	140	145	150	285	83	140	62	46	78	112	179
90	3	131	19	150	160	150	297	89	146	62	49	78	112	179
110	4	160	19	175	191	150	333	104	167	62	56	78	112	179
140	5	187	23	210	216	150	360	117	181	62	64	78	112	179
160	6	215	24	241	241	160	381	130	189	62	72	78	112	179
225	8	267	23	290	295	160	430	158	210	62	73	78	112	179
280	10	329	25	353	362	200	538	205	264	69	113	97	130	198
315	12	379	25	400	432	200	582	228	285	69	113	97	130	198

d (mm)	closest inch (inch)	Q1 (mm)	Q2 (mm)
63	2	40	
75	2 ½	54	35
90	3	67	50
110	4	88	74
140	5	113	97
160	6	139	123
225	8	178	169
280	10	210	207
315	12	256	253

ABS Base Valve

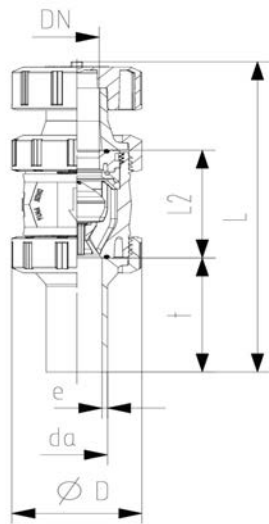


Ventilating and bleed valve type 591 With PE100 SDR11 long spigot ends

Model:

- Material: ABS with spigot PE100 SDR11, metric
- With protection cap up to DN50 made from PP-GF, DN65-100 made from POM
- Floater made of PP-H
- Designed for easy installation and removal
- Compact installation length

d	closest inch	DN	PN	EPDM	weight	D	L	L2	t	e
(mm)	(inch)	(mm)	(bar)	Part No.	(lb)	(mm)	(mm)	(mm)	(mm)	(mm)
32	1	25	16	150 591 204	0.564	68	207	71	76	2.90
40	1 ¼	32	16	150 591 205	0.968	84	230	85	82	3.70
50	1 ½	40	16	150 591 206	1.512	97	254	89	91	4.60
63	2	50	16	150 591 207	2.641	124	298	101	110	5.80
75	2 ½	65	16	150 591 208	5.644	166	334	136	125	6.80
90	3	80	16	150 591 209	9.028	200	360	141	140	8.20
110	4	100	16	150 591 210	14.288	238	411	164	160	10.00



Ventilating valve type 595 With PE100 SDR11 long spigot ends

Model:

- Material: ABS with spigot PE100 SDR11, metric
- With protection cap up to DN50 made from PP-GF, DN65-100 made from POM
- Floater made of PP-H
- Designed for easy installation and removal
- Compact installation length

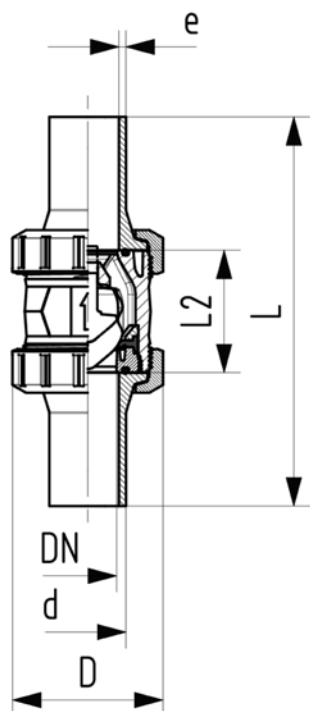
d	closest inch	DN	PN	EPDM	weight	D	L	L2	t	e
(mm)	(inch)	(mm)	(bar)	Part No.	(lb)	(mm)	(mm)	(mm)	(mm)	(mm)
32	1	25	16	150 595 204	0.564	68	207	71	76	2.90
40	1 ¼	32	16	150 595 205	0.968	84	230	85	82	3.70
50	1 ½	40	16	150 595 206	1.512	97	254	89	91	4.60
63	2	50	16	150 595 207	2.641	124	298	101	110	5.80
75	2 ½	65	16	150 595 208	5.644	166	334	136	125	6.80
90	3	80	16	150 595 209	9.028	200	360	141	140	8.20
110	4	100	16	150 595 210	14.288	238	411	164	160	10.00



Check valve type 561
With PE100 SDR11 long spigot ends

Model:

- Material: ABS with spigot PE100 SDR11, metric
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- For vertical installation



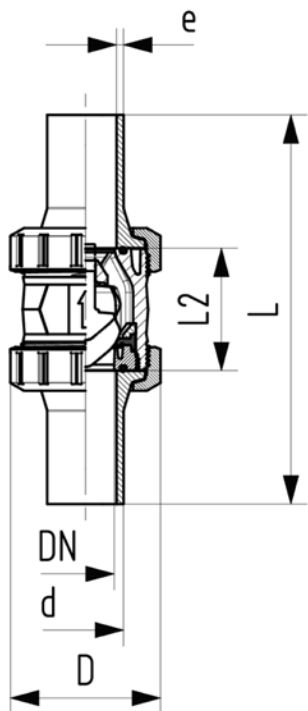
d	closest inch	DN	PN	EPDM	weight	D	L	L2	e
(mm)	(inch)	(mm)	(bar)	Part No.	(lb)	(mm)	(mm)	(mm)	(mm)
32	1	25	16	169 561 304	0.538	68	223	71	3.00
40	1 ¼	32	16	169 561 305	0.913	84	249	85	3.70
50	1 ½	40	16	169 561 306	1.442	97	271	89	4.60
63	2	50	16	169 561 307	2.588	124	321	101	5.80
75	2 ½	65	16	169 561 308	5.952	166	386	136	6.80
90	3	80	16	169 561 309	9.436	200	421	141	8.20
110	4	100	16	169 561 310	15.260	238	484	164	10.00



Check valve type 562 With butt fusion spigots long PE100 SDR11 metric

Model:

- Material: ABS with spigot PE100 SDR11, metric
- Designed for easy installation and removal
- Spring loaded, spring made of stainless steel (1.4310)
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546
- For horizontal or vertical installation

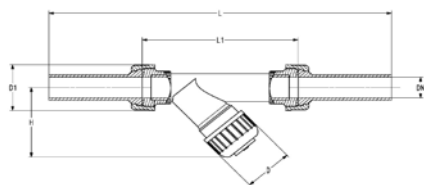


d	closest inch	DN	PN	EPDM	weight	D	L	L2	e
(mm)	(inch)	(mm)	(bar)	Part No.	(lb)	(mm)	(mm)	(mm)	(mm)
32	1	25	16	169 562 304	0.538	68	223	71	3.00
40	1 ¼	32	16	169 562 305	0.913	84	249	85	3.70
50	1 ½	40	16	169 562 306	1.442	97	271	89	4.60
63	2	50	16	169 562 307	2.588	124	321	101	5.80
75	2 ½	65	16	169 562 308	5.952	166	386	136	6.80
90	3	80	16	169 562 309	9.436	200	421	141	8.20
110	4	100	16	169 562 310	15.260	238	484	164	10.00

Line Strainer type 305 With PE100 SDR11 long spigot ends

Model:

- Protects valves, pumps, etc. from becoming damaged
- Easy dismantling to clean or replace the screen
- Screen in stainless steel operable temperature range up to -40°F to 140°F (-40°C to 60°C)
- Union Nut: ABS
- Gasket: O-ring EPDM Nr. 748 410 008-014



d	closest inch	DN	Part No.	weight	D	D1	H	L	L1
(mm)	(inch)	(mm)		(lb)	(mm)	(mm)	(mm)	(mm)	(mm)
32	1	25	150 305 904	0.732	62	65	90	306	174
40	1 ¼	32	150 305 905	1.274	71	77	104	352	188
50	1 ½	40	150 305 906	1.953	88	84	124	380	222
63	2	50	150 305 907	3.263	103	105	148	429	264



Stainless Steel Screen for Type 306 30 mesh, 1/64" hole

Model:

- Stainless Steel A4 Quality (AISI 316)
- For line strainers Type 306/305

d (mm)	closest inch (inch)	Part No.	D (mm)	L (mm)
32	1	161 486 102	24	60
40	1 ¼	161 486 103	30	71
50	1 ½	161 486 104	38	87
63	2	161 486 105	48	106
75	2 ½	161 486 106	61	100
90	3	161 486 107	73	118



Diaphragm valve type 317 ABS With flanges

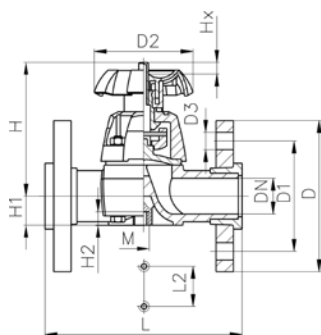
Model:

- Flat sealing faces
- DN 80-150 with fixed flange

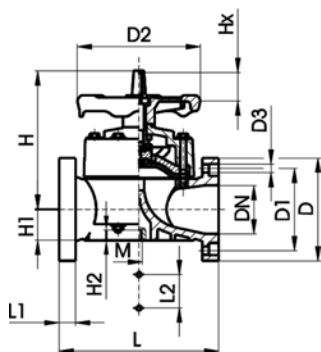
d (mm)	closest inch (inch)	DN (mm)	PN (bar)	EPDM Part No.	weight (lb)
75	2 ½	65	10	169 317 423	10.430
* 90	3	80	10	169 317 024	18.409
110	4	100	10	169 317 025	25.726



d (mm)	closest inch (inch)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	M	Lift = Hx (mm)
75	2 ½	185	145	152	18	201	46	15	290		70	M8	30
* 90	3	200	160	270	18	265	57	23	310	35	120	M12	40
110	4	225	180	270	18	304	69	23	350	35	120	M12	50



DN 15-65



DN 80-100

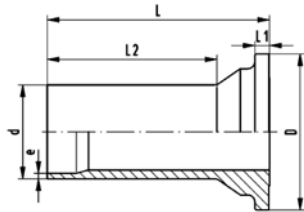
Spare Parts



**COOL-FIT PE Valve End Type 546 and 543
PE100 SDR11 metric long spigots**

Model:

- Material: PE100



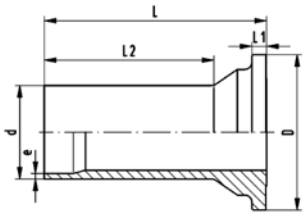
d (mm)	PN (bar)	Part No.	weight (lb)	D (mm)	e (mm)	L (mm)	L1 (mm)	L2 (mm)
32	16	193 480 154	0.071	53	2.9	76	5	58
40	16	193 480 155	0.119	65	3.7	82	5	61
50	16	193 480 156	0.190	77	4.6	91	6	63
63	16	193 480 157	0.364	99	5.8	110	7	77
75	16	193 480 158	0.617	125	6.8	125	9	89
90	16	193 480 159	0.985	150	8.2	140	10	103
110	16	193 480 160	1.612	180	10.0	160	11	117



**ecoFIT Valve End Type 546 and 543
PE100 SDR17.6 metric long spigots**

Model:

- Material: PE100



d (mm)	PN (bar)	Part No.	weight (lb)	D (mm)	e (mm)	L1 (mm)	L (mm)	L2 (mm)
75	16	193 480 168	0.573	125	4.3	9	125	89
90	16	193 480 169	0.915	150	5.1	10	140	103
110	16	193 480 170	1.506	180	6.3	11	160	117

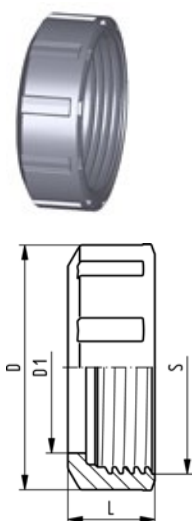


Spare parts for valve body type 514 PE100 metric long spigot

Model:

- Material: PE100

d (mm)	PN (bar)	PE100 long Part No.	weight (lb)
32	16	721 500 408	0.060
40	16	721 500 409	0.106
50	16	721 500 410	0.152
63	16	721 500 411	0.265

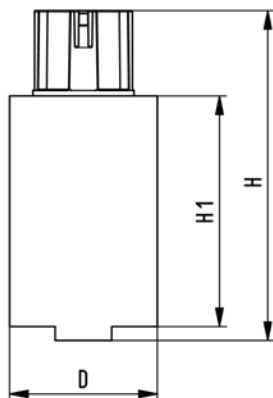
**Union nut 546 and 543 ABS**

d (mm)	DN (mm)	Part No.	weight (lb)	D (mm)	D1 (mm)	L (mm)	S (mm)
32	25	169 480 715	0.066	68	47	24	58
40	32	169 480 716	0.104	84	57	27	71
50	40	169 480 717	0.148	97	65	30	84
63	50	169 480 718	0.306	124	79	36	106
75	65	169 480 719	0.959	166	94	48	135
90	80	169 480 720	1.506	200	113	54	135
110	100	169 480 721	2.310	238	137	60	198

**Handle extension for Ball valve type 546, 75-110mm****Model:**

- Height Variable
- Multiple use in succession possible.

d-d (mm)	Part No.	SP	weight (lb)	H (mm)	D (mm)	H1 (mm)
75 - 90	161 490 920	1	0.712	143	58	100
-- 110	161 490 921	1	0.911	143	64	100

**COOL-FIT PE Plus Insulation for Ball valve type 546****Model:**

- Set consisting of half shells and clamps

d (mm)	Part No.	weight (lb)
32	738 990 308	0.353
40	738 990 309	0.503
50	738 990 310	0.622
63	738 990 311	1.098
75	738 990 312	2.061
90	738 990 313	2.277



COOL-FIT PE Plus Insulation for Butterfly valve type 567

Model:

- Set consisting of half shells and clamps

d (mm)	Part No.	weight (lb)
110	738 990 324	4.528
160	738 990 327	8.101
225	738 990 330	10.606



546 Ball Valve Insulation Kit

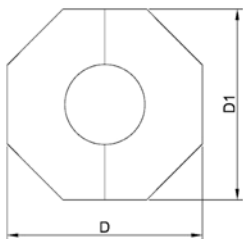
Model:

- Insulation made from PE
- Outer jacket UV resistant
- For Ball Valve Type 546

* handle extension for ball valve recommended, d75/90 161.490.920, d110 161.490.921



d (mm)	Part No.	SP	weight (lb)	L (mm)	D (mm)	closest inch (inch)	D1 (mm)
32	738 990 139	1	0.220	121	96	1	94
40	738 990 140	1	0.220	143	110	1 ¼	110
50	738 990 141	1	0.220	156	122	1 ½	120
63	738 990 142	1	0.220	181	150	2	147
* 75	738 990 143	1	0.220	235	190	2 ½	185
* 90	738 990 144	1	0.220	255	226	3	221
* 110	738 990 145	1	2.425	300	268	4	262



Actuated Valves



Ball valve type 127 ABS 100-230V
With manual emergency override
With PE100 SDR11 long spigot ends

Model:

- Built with electric actuator EA15
- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Heating element, position feedback (Open/Close)
- Integrated stainless steel mounting inserts

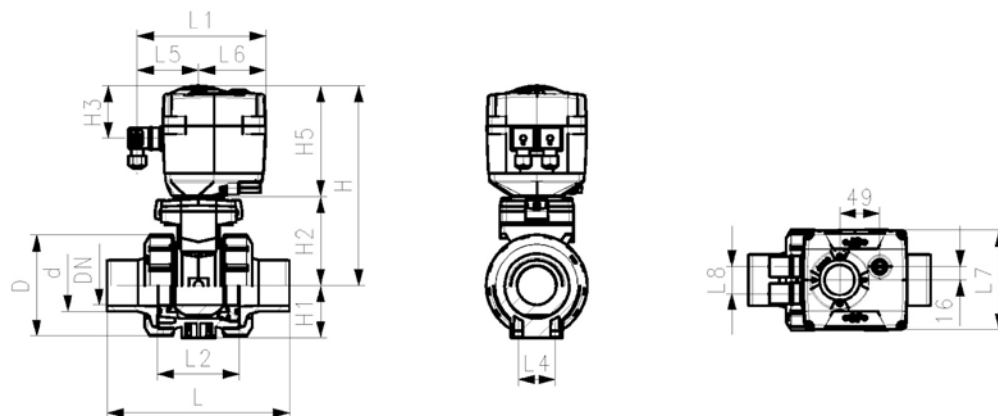
Option:

- Fail-safe return unit

d	closest inch	DN	PN	EPDM	weight
(mm)	(inch)	(mm)	(bar)	Part No.	(lb)
32	1	25	10	199 127 385	5.020
40	1 ¼	32	10	199 127 386	5.789
50	1 ½	40	10	199 127 387	6.632
63	2	50	10	199 127 388	7.480

d	closest inch	D	H	H1	H2	H3	H5	L	L1	L2	L3	L4	L5	L6
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
32	1	68	209	36	73	64	137	223	161	71	160	25	77	83
40	1 ¼	84	220	44	84	64	137	249	161	85	180	45	77	83
50	1 ½	97	220	51	84	64	137	271	161	89	200	45	77	83
63	2	124	243	64	106	64	137	320	161	101	230	45	77	83

d	closest inch	L7	L8	z
(mm)	(inch)	(mm)	(mm)	(mm)
32	1	122	33	79
40	1 ¼	122	33	94
50	1 ½	122	33	95
63	2	122	33	107





Ball valve type 127 ABS 24V
With manual emergency override
With PE100 SDR11 long spigot ends

Model:

- Built with electric actuator EA15
- Voltage 24V AC/DC
- Factory set control range 90°<
- Heating element, position feedback (Open/Close)
- Integrated stainless steel mounting inserts

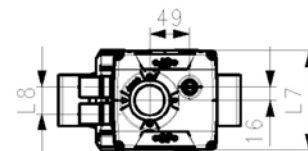
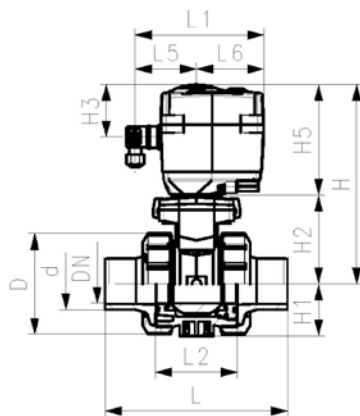
Option:

- Fail-safe return unit

d	closest inch	DN	PN	EPDM	weight
(mm)	(inch)	(mm)	(bar)	Part No.	(lb)
32	1	25	10	199 127 395	5.020
40	1 ¼	32	10	199 127 396	5.789
50	1 ½	40	10	199 127 397	6.632
63	2	50	10	199 127 398	7.480

d	closest inch	D	H	H1	H2	H3	H5	L	L1	L2	L3	L4	L5	L6
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
32	1	68	209	36	73	64	137	223	161	71	160	25	77	83
40	1 ¼	84	220	44	84	64	137	249	161	85	180	45	77	83
50	1 ½	97	220	51	84	64	137	271	161	89	200	45	77	83
63	2	124	243	64	106	64	137	321	161	101	230	45	77	83

d	closest inch	L7	L8	z
(mm)	(inch)	(mm)	(mm)	(mm)
32	1	122	33	79
40	1 ¼	122	33	94
50	1 ½	122	33	95
63	2	122	33	107





Ball valve type 179 ABS 100-230V
With manual emergency override
With PE100 SDR11 long spigot ends

Model:

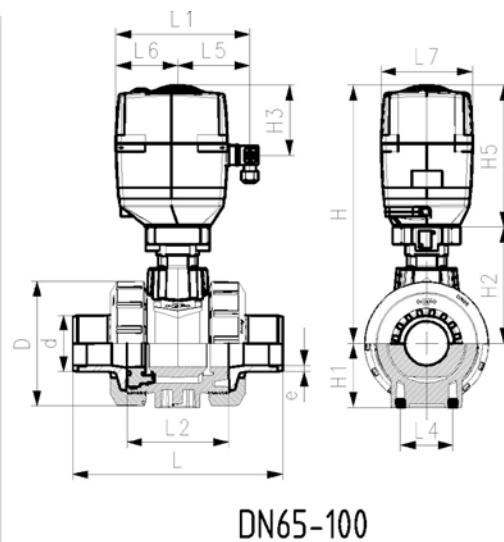
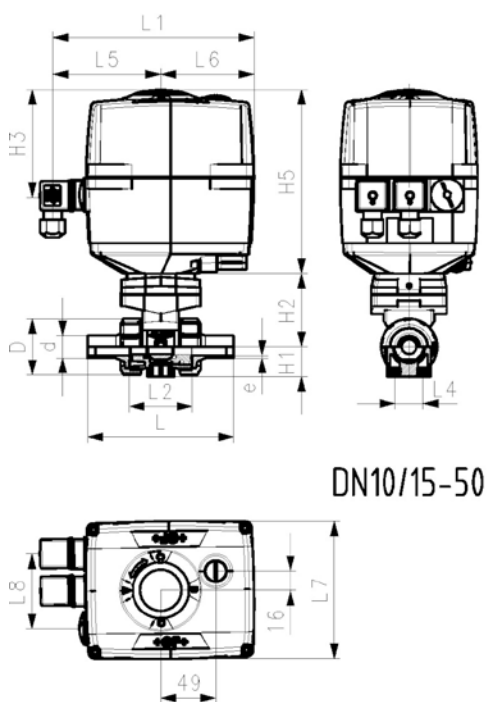
- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Integrated stainless steel mounting inserts

Option:

- Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d	closest inch	D	DN	PN	EA	EPDM	weight
(mm)	(inch)	(mm)	(mm)	(bar)		Part No.	(lb)
32	1	68	25	10	EA25	150 179 205	5.884
40	1 ¼	84	32	10	EA25	150 179 206	6.479
50	1 ½	97	40	10	EA25	150 179 207	6.821
63	2	124	50	10	EA25	150 179 208	8.960
75	2 ½	166	65	10	EA45	150 179 209	17.220
90	3	200	80	10	EA120	150 179 210	22.509
110	4	238	100	10	EA120	150 179 211	32.589

d	closest inch	H	H1	H2	H3	H5	L	L1	L2	L4	L5	L7	z
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
32	1	209	36	73	64	137	223	161	71	25	77	122	79
40	1 ¼	251	44	84	94	167	249	180	85	45	97	122	94
50	1 ½	251	51	84	94	167	271	180	89	45	97	122	95
63	2	273	64	106	94	167	321	180	101	45	97	122	107
75	2 ½	346	85	156	94	190	386	180	136	70	98	122	144
90	3	358	105	168	94	190	421	180	141	70	98	122	151
110	4	365	123	175	94	190	484	180	164	120	98	122	174





Ball valve type 179 ABS 24V
With manual emergency override
With PE100 SDR11 long spigot ends

Model:

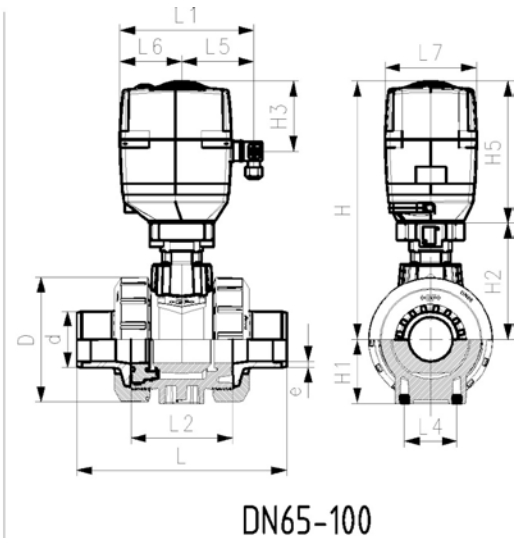
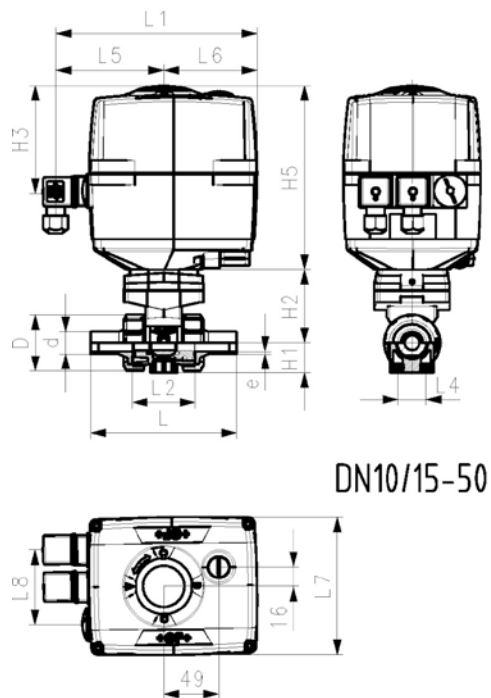
- Voltage 24V AC/DC
- Factory set control range 90°<
- Integrated stainless steel mounting inserts

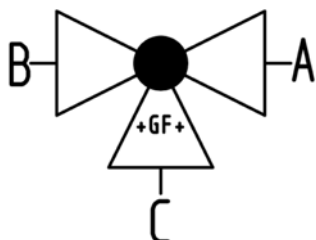
Option:

- Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d	closest inch	D	DN	PN	EA	EPDM	weight
(mm)	(inch)	(mm)	(mm)	(bar)		Part No.	(lb)
32	1	68	25	10	EA25	150 179 245	5.884
40	1 ¼	84	32	10	EA25	150 179 246	6.479
50	1 ½	97	40	10	EA25	150 179 247	6.821
63	2	124	50	10	EA25	150 179 248	8.960
75	2 ½	166	65	10	EA45	150 179 249	17.220
90	3	200	80	10	EA120	150 179 250	22.509
110	4	238	100	10	EA120	150 179 251	32.589

d	closest inch	H	H1	H2	H3	H5	L	L1	L2	L4	L5	L7	z
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
32	1	240	36	73	94	167	233	180	71	25	97	122	79
40	1 ¼	251	44	84	94	167	249	180	85	45	97	122	94
50	1 ½	251	51	84	94	167	271	180	89	45	97	122	95
63	2	273	64	106	94	167	321	180	101	45	97	122	107
75	2 ½	346	85	156	94	190	386	180	136	70	98	122	144
90	3	358	105	168	94	190	421	180	141	70	98	122	151
110	4	365	123	175	94	190	484	180	164	120	98	122	174





Ball valve type 167 ABS
Horizontal/L-port 100-230V
With manual emergency override
With PE100 SDR11 long spigot ends

Model:

- Voltage 100-230V, 50-60Hz
- Integrated stainless steel mounting inserts

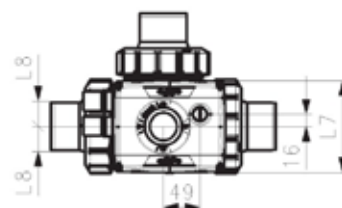
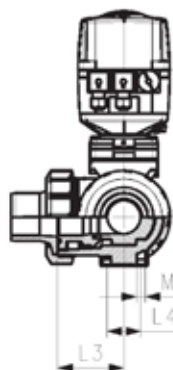
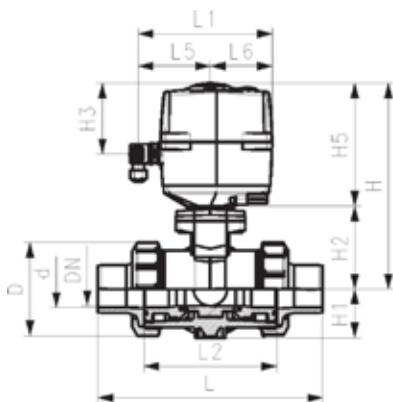
Option:

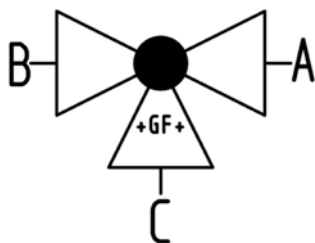
- Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d	closest inch	D	DN	PN	EA	EPDM	weight
(mm)	(inch)	(mm)	(mm)	(bar)		Part No.	(lb)
32	1	68	25	10	EA25	150 167 205	6.014
40	1 ¼	84	32	10	EA25	150 167 206	8.190
50	1 ½	97	40	10	EA25	150 167 207	7.637
63	2	124	50	10	EA25	150 167 208	9.317

d	closest inch	H	H1	H2	H3	H5	H6	L	L1	L2	L4	L5	L6	L7
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
32	1	240	36	73	94	167	8	251	180	99	25	97	83	122
40	1 ¼	251	44	84	94	167	9	283	180	120	45	97	83	122
50	1 ½	251	51	84	94	167	9	319	180	137	45	97	83	122
63	2	273	65	106	94	167	9	399	180	179	45	97	83	122

d	closest inch	L8	M	z	z1
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)
32	1	33	6	79	54
40	1 ¼	33	8	94	65
50	1 ½	33	8	95	72
63	2	33	8	107	92





Ball valve type 167 ABS
Horizontal/L-port 24V
With manual emergency override
With PE100 SDR11 long spigot ends

Model:

- Voltage 24V AC/DC
- Integrated stainless steel mounting inserts

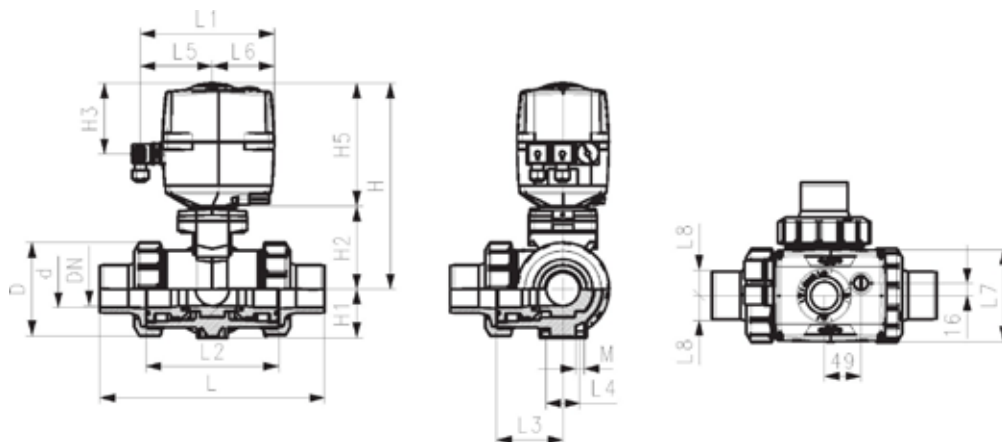
Option:

- Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d	closest inch	D	DN	PN	EA	EPDM	weight
(mm)	(inch)	(mm)	(mm)	(bar)		Part No.	(lb)
32	1	68	25	10	EA25	150 167 245	6.014
40	1 ¼	84	32	10	EA25	150 167 246	8.190
50	1 ½	97	40	10	EA25	150 167 247	7.637
63	2	124	50	10	EA25	150 167 248	9.317

d	closest inch	H	H1	H2	H3	H5	H6	L	L1	L2	L4	L5	L6	L7
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
32	1	240	36	73	94	167	8	251	180	99	25	97	83	122
40	1 ¼	251	44	84	94	167	9	283	180	120	45	97	83	122
50	1 ½	251	51	84	94	167	9	319	180	137	45	97	83	122
63	2	273	65	106	94	167	9	399	180	179	45	97	83	122

d	closest inch	L8	M	z	z1
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)
32	1	33	6	79	54
40	1 ¼	33	8	94	65
50	1 ½	33	8	95	72
63	2	33	8	107	92





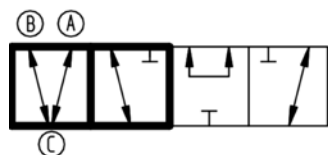
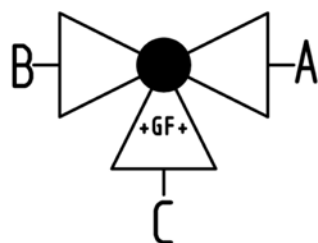
Ball valve type 167 ABS
Horizontal/T-port 100-230V
With manual emergency override
With PE100 SDR11 long spigot ends

Model:

- Voltage 100-230V, 50-60Hz
- Integrated stainless steel mounting inserts

Option:

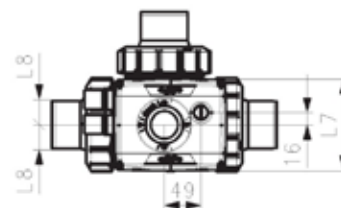
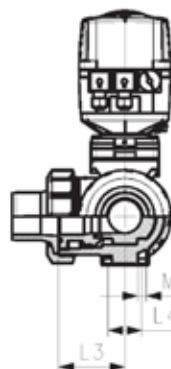
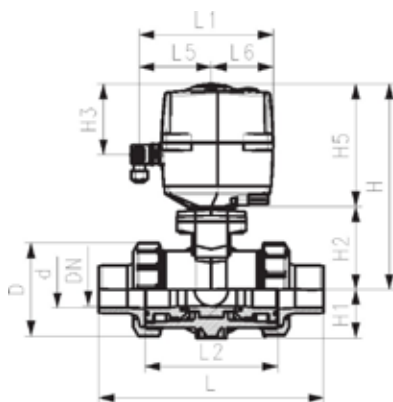
- Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

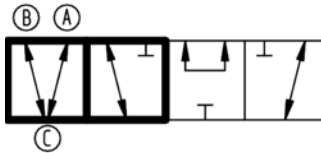
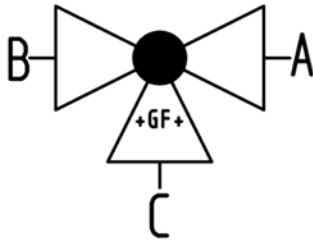


d	closest inch	D	DN	PN	EA	EPDM	weight
(mm)	(inch)	(mm)	(mm)	(bar)		Part No.	(lb)
32	1	68	25	10	EA25	150 167 215	5.148
40	1 ¼	84	32	10	EA25	150 167 216	5.895
50	1 ½	97	40	10	EA25	150 167 217	6.770
63	2	124	50	10	EA25	150 167 218	9.242

d	closest inch	H	H1	H2	H3	H5	H6	L	L1	L2	L4	L5	L6	L7
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
32	1	240	36	73	94	167	8	251	180	99	25	97	83	122
40	1 ¼	251	44	84	94	167	9	283	180	120	45	97	83	122
50	1 ½	251	51	84	94	167	9	319	180	137	45	97	83	122
63	2	273	65	106	94	167	9	399	180	179	45	97	83	122

d	closest inch	L8	M	z	z1
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)
32	1	33	6	79	54
40	1 ¼	33	8	94	65
50	1 ½	33	8	95	72
63	2	33	8	107	92





Ball valve type 167 ABS
Horizontal/T-port 24V
With manual emergency override
With PE100 SDR11 long spigot ends

Model:

- Voltage 24V AC/DC
- Integrated stainless steel mounting inserts

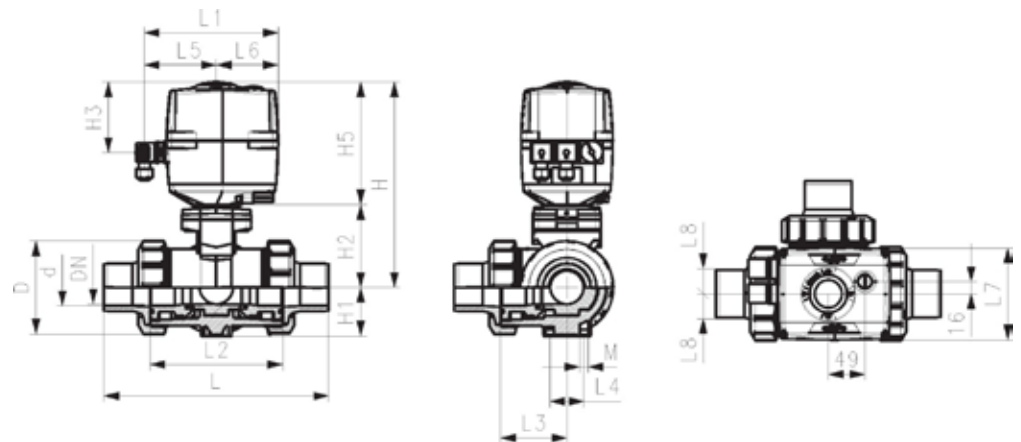
Option:

- Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d	closest inch	D	DN	PN	EA	EPDM	weight
(mm)	(inch)	(mm)	(mm)	(bar)		Part No.	(lb)
32	1	68	25	10	EA25	150 167 255	5.148
40	1 ¼	84	32	10	EA25	150 167 256	5.895
50	1 ½	97	40	10	EA25	150 167 257	6.770
63	2	124	50	10	EA25	150 167 258	9.242

d	closest inch	H	H1	H2	H3	H5	H6	L	L1	L2	L4	L5	L6	L7
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
32	1	240	36	73	94	167	8	251	180	99	25	97	83	122
40	1 ¼	251	44	84	94	167	9	283	180	120	45	97	83	122
50	1 ½	251	51	84	94	167	9	319	180	137	45	97	83	122
63	2	273	65	106	94	167	9	399	180	179	45	97	83	122

d	closest inch	L8	M	z	z1
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)
32	1	33	6	79	54
40	1 ¼	33	8	94	65
50	1 ½	33	8	95	72
63	2	33	8	107	92



Ball valve type 230 ABS (Fail safe to close)
With manual emergency override
With PE100 SDR11 long spigot ends

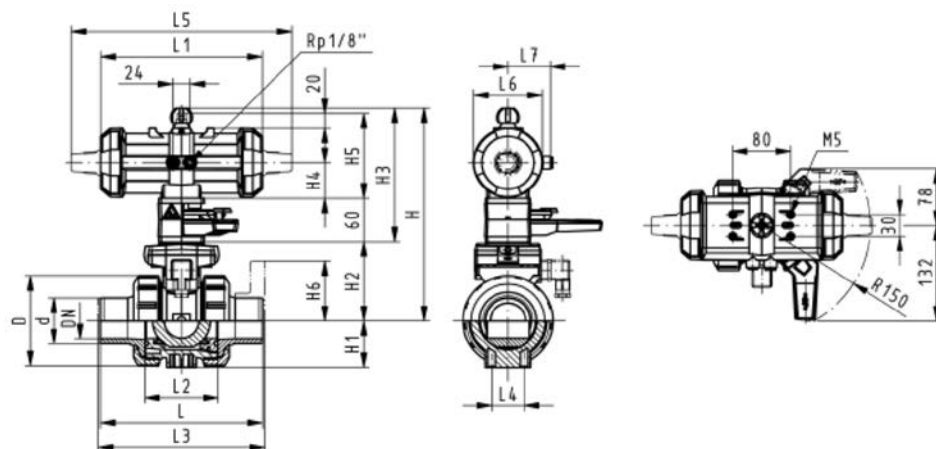


Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- Integrated stainless steel mounting inserts

d	closest inch	DN	PN	Part No.	weight
(mm)	(inch)	(mm)	(bar)		(lb)
32	1	25	10	199 230 985	3.258
40	1 ¼	32	10	199 230 986	5.445
50	1 ½	40	10	199 230 987	6.080
63	2	50	10	199 230 988	7.982

d	D	H	H1	H2	H3	H4	H5	L	L1	L2	L4	L5	L6	L7
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
32	68	239	36	71	168	40	77	223	194	71	25	261	76	48
40	84	271	44	84	187	51	99	249	224	85	45	305	95	59
50	97	271	51	84	187	51	99	271	224	89	45	305	95	59
63	124	293	64	106	187	51	99	321	224	101	45	305	95	59





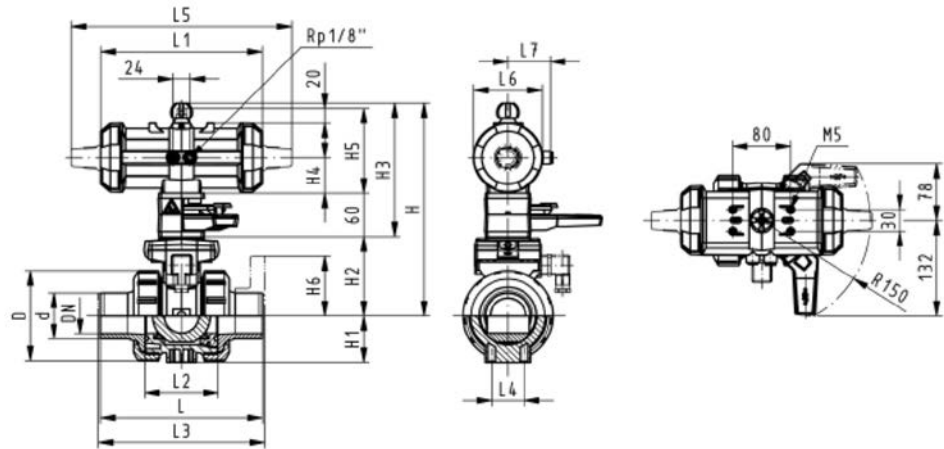
Ball valve type 230 ABS (Fail safe to close)
PE100 SDR11 metric long spigot ends

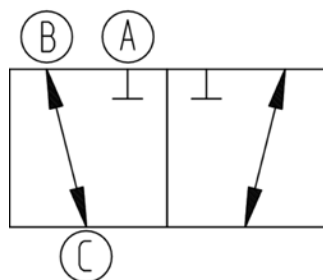
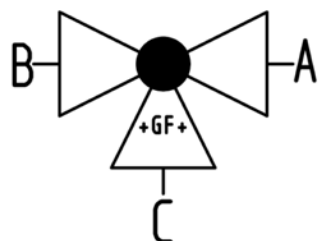
Model:

- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-2s
- Integrated stainless steel mounting inserts

d	closest inch	DN	PN	Part No.	weight
(mm)	(inch)	(mm)	(bar)		(lb)
32	1	25	10	150 230 225	3.801
50	1 ¼	40	10	150 230 227	6.140
40	1 ½	32	10	150 230 226	6.982
63	2	50	10	150 230 228	9.072
75	2 ½	65	10	150 230 229	15.388
90	3	80	10	150 230 230	19.864
110	4	100	10	150 230 231	29.943

d	H	H1	H2	H5	L	L1	L2	L4	L5	L6	L7	z
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
32	168	36	71	77	223	194	71	25	261	76	48	79
50	202	51	84	99	271	224	89	45	305	95	59	95
40	271	44	84	99	249	224	85	45	305	95	59	94
63	293	64	106	99	321	244	101	45	305	95	59	107
75	262	85	156	70	386		136	70	276	65		144
90	281	105	168	78	421		141	70	341	72		151
110	292	123	175	86	484		164	120	369	80		174





3-Way ball valve type 285 ABS
Horizontal/L-port FC (Fail safe to close)
With PE100 SDR11 long spigot ends

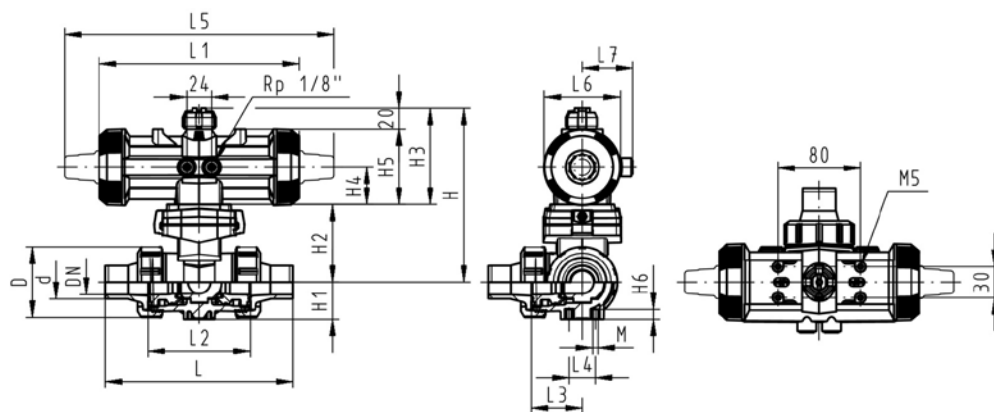
Model:

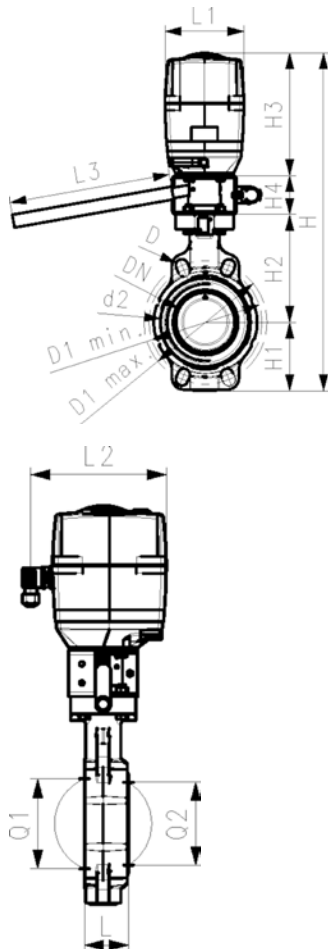
- Ball seals PTFE
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Integrated stainless steel mounting inserts
- Control time 90° 1-3 s

d (mm)	d closest inch (inch)	DN (mm)	PN (bar)	EPDM Part No.	weight (lb)
32	1	25	10	199 285 635	3.168
40	1 1/4	32	10	199 285 636	5.672
50	1 1/2	40	10	199 285 637	6.801
63	2	50	10	199 285 638	10.000

d	D	H	H1	H2	H3	H4	H5	H6	L	L1	L2	L3	L4	L5	L6
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
32	68	168	36	71	97	40	77	8	182	194	99	50	25	261	76
40	84	203	45	84	119	51	99	9	209	224	120	60	45	305	95
63	124	225	65	106	119	51	99	9	242	224	179	89	45	305	95
50	97	203	51	84	119	51	99	9	302	224	137	69	45	305	95

d	L7	M
(mm)	(mm)	(mm)
32	48	6
40	59	8
63	59	8
50	59	8





Butterfly valve type 145 ABS 100-230V With manual override

Model:

- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220

Option:

- Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d (mm)	closest inch (inch)	DN (mm)	PN (bar)	EPDM Part No.	weight (lb)
63	2	50	10	199 145 482	12.518
75	2 ½	65	10	199 145 483	12.745
90	3	80	10	199 145 484	12.917
110	4	100	10	199 145 485	14.099
140	5	125	10	199 145 486	11.881
160	6	150	10	199 145 487	17.015
225	8	200	10	199 145 488	29.826

d (mm)	closest inch (inch)	Actuator unit type	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	L (mm)	L1 (mm)
63	2	EA-120	104	19	120	125	475	77	134	188	75	45	122
75	2 ½	EA-120	115	19	140	145	488	83	140	188	75	46	122
90	3	EA-120	131	19	150	160	488	89	146	188	60	49	122
110	4	EA-120	161	19	175	191	520	104	167	188	60	56	122
140	5	EA-120	187	23	210	216	547	117	181	188	60	64	122
160	6	EA-120	215	24	241	241	568	130	189	188	60	72	122
225	8	EA-250	267	23	290	295	635	158	210	208	60	73	122

d (mm)	closest inch (inch)	L2 (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)
63	2	180	250	40	
75	2 ½	180	250	54	35
90	3	180	250	67	50
110	4	180	250	88	74
140	5	180	250	113	97
160	6	180	250	139	123
225	8	180	250	178	169



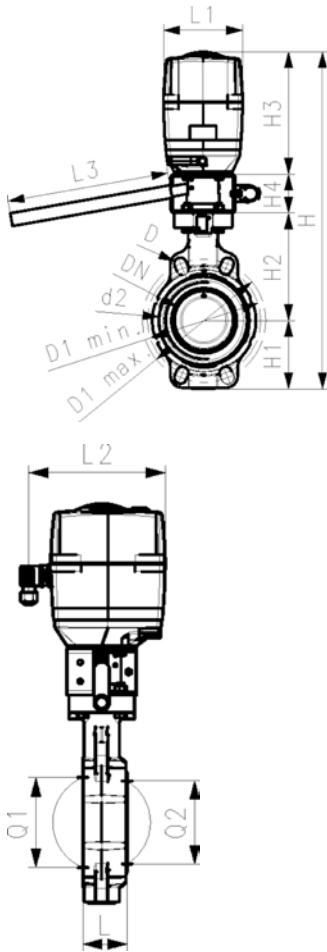
Butterfly valve type 145 ABS 24V With manual override

Model:

- Voltage 24V AC/DC
- Factory set control range 90°<
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220

Option:

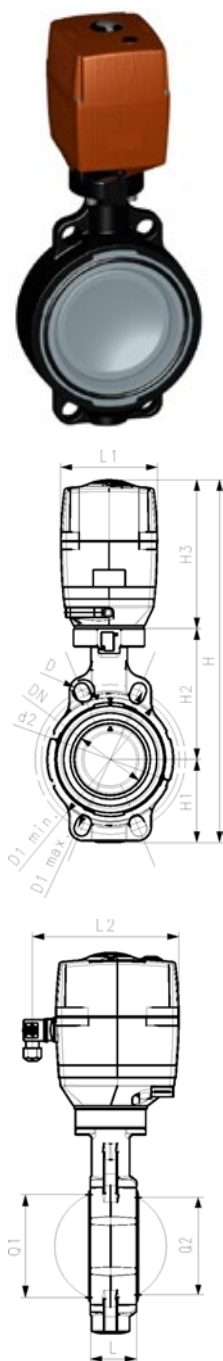
- Fail-safe return unit, Monitoring board, Position controller, Profibus DP board



d (mm)	closest inch (inch)	DN (mm)	PN (bar)	EPDM Part No.	weight (lb)
63	2	50	10	199 145 522	9.173
75	2 ½	65	10	199 145 523	9.385
90	3	80	10	199 145 524	12.917
110	4	100	10	199 145 525	14.099
140	5	125	10	199 145 526	11.881
160	6	150	10	199 145 527	21.848
225	8	200	10	199 145 528	29.826

d (mm)	closest inch (inch)	Actuator unit type	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	L (mm)	L1 (mm)
63	2	EA-120	104	19	120	125	475	77	134	188	75	45	122
75	2 ½	EA-120	115	19	140	145	488	83	140	188	75	46	122
90	3	EA-120	131	19	150	160	488	89	146	188	60	49	122
110	4	EA-120	161	19	175	191	520	104	167	188	60	56	122
140	5	EA-120	187	23	210	216	547	117	181	188	60	64	122
160	6	EA-120	215	24	241	241	568	130	189	188	60	72	122
225	8	EA-250	267	23	290	295	635	158	210	208	60	73	122

d (mm)	closest inch (inch)	L2 (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)
63	2	180	250	40	
75	2 ½	180	250	54	35
90	3	180	250	67	50
110	4	180	250	88	74
140	5	180	250	113	97
160	6	180	250	139	123
225	8	180	250	178	169



Butterfly valve type 145 ABS 24V Without manual override

Model:

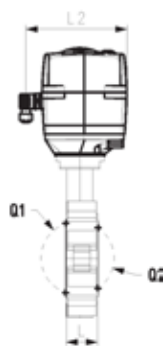
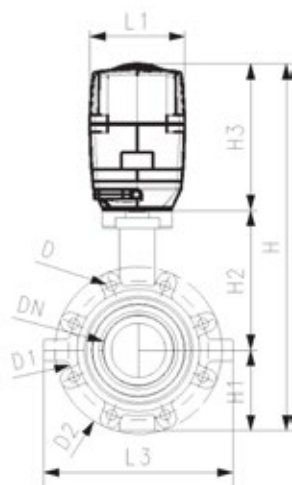
- Voltage 24V AC/DC
- Factory set control range 90°<
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220

Option:

- Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

d (mm)	DN (mm)	PN (bar)	EPDM Part No.	weight (lb)
63	50	10	199 145 542	9.211
75	65	10	199 145 543	7.092
90	80	10	199 145 544	9.610
110	100	10	199 145 545	10.792
140	125	10	199 145 546	9.647
160	150	10	199 145 547	13.708
225	200	10	199 145 548	26.519
280	250	6	199 145 549	31.601
315	300	6	199 145 550	43.092

d (mm)	Actuator unit type	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)
63	EA-45	104	19	120	125	415	77	134	188	45	122	180	40	
75	EA-45	115	19	140	145	428	83	140	188	46	122	180	54	35
90	EA-120	131	19	150	160	428	89	146	188	49	122	180	67	50
110	EA-120	161	19	175	191	460	104	167	188	56	122	180	88	74
140	EA-120	187	23	210	216	487	117	181	188	64	122	180	113	97
160	EA-120	215	24	241	241	508	130	189	188	72	122	180	139	123
225	EA-250	267	23	290	295	575	158	210	208	73	122	180	178	169
280	EA-250	329	25	353	362	677	205	264	208	113	122	180	210	207
315	EA-250	329	25	353	362	677	205	264	208	113	122	180	210	207



Lugstyle butterfly valve type 147 ABS 24V Without manual override

Model:

- Voltage 24V AC/DC
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- Factory set control range 90°<)

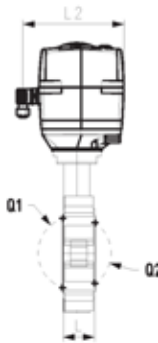
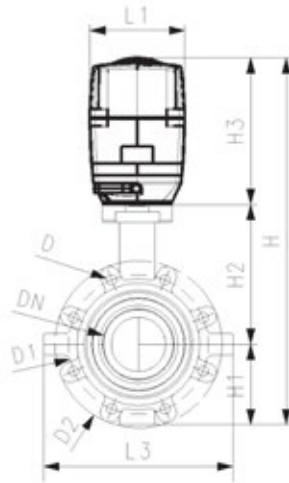
Option:

- Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

Size (inch)	DN (mm)	PN (bar)	EPDM Part No.	weight (lb)
2	50	10	199 147 542	9.478
2 ½	65	10	199 147 543	9.824
3	80	10	199 147 544	10.364
4	100	10	199 147 545	12.359
5	125	10	199 147 546	15.697
6	150	10	199 147 547	19.579
8	200	10	199 147 548	30.038
10	250	6	199 147 549	53.760
12	300	4	199 147 550	68.158

Size (inch)	Actuator unit type	d2 (mm)	D	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Q1 (mm)
2	EA-45	160	UNC 5/8	121.0	399	77	134	188	45	122	180	165	40
2 ½	EA-45	180	UNC 5/8	139.7	411	83	140	188	46	122	180	182	54
3	EA-120	195	UNC 5/8	152.4	423	89	146	188	49	122	180	210	67
4	EA-120	226	UNC 5/8	190.5	461	106	167	188	56	122	180	240	88
5	EA-120	258	UNC 3/4	215.9	490	121	181	188	64	122	180	272	113
6	EA-120	284	UNC 3/4	241.3	510	133	189	188	72	122	180	300	139
8	EA-250	341	UNC 3/4	298.4	577	159	210	208	73	122	180	360	178
10	EA-250	329	UNC 7/8	362.0	677	205	264	208	113	122	180	440	210
12	EA-250	412	UNC 7/8	431.8	727	205	285	208	113	122	180	510	256

Size (inch)	Q2 (mm)
2	
2 ½	35
3	50
4	74
5	97
6	123
8	169
10	207
12	253



Lugstyle butterfly valve type 147 ABS 100-230V Without manual override

Model:

- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<)
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

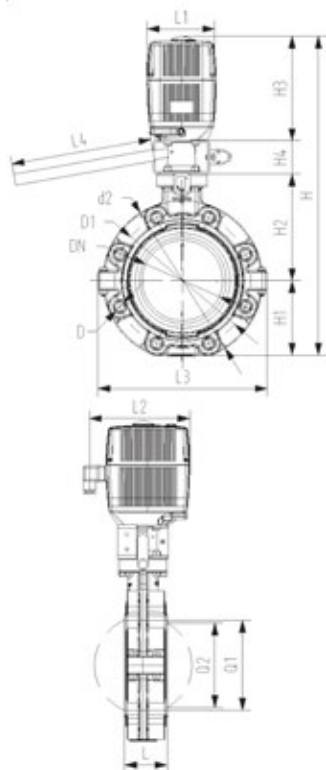
Option:

- Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

Size (inch)	DN (mm)	PN (bar)	EPDM Part No.	weight (lb)
2	50	10	150 147 502	9.478
2 ½	65	10	150 147 503	9.824
3	80	10	150 147 504	10.364
4	100	10	150 147 505	12.359
5	125	10	150 147 506	15.697
6	150	10	150 147 507	19.579
8	200	10	150 147 508	30.038
10	250	6	150 147 509	53.760
12	300	4	150 147 510	68.158

Size (inch)	Actuator unit type	d2 (mm)	D	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Q1 (mm)
2	EA-45	160	UNC 5/8	121.0	399	77	134	188	45	122	180	165	40
2 ½	EA-45	180	UNC 5/8	139.7	411	83	140	188	46	122	180	182	54
3	EA-120	195	UNC 5/8	152.4	423	89	146	188	49	122	180	210	67
4	EA-120	226	UNC 5/8	190.5	461	106	167	188	56	122	180	240	88
5	EA-120	258	UNC 3/4	215.9	490	121	181	188	64	122	180	272	113
6	EA-120	284	UNC 3/4	241.3	510	133	189	188	72	122	180	300	139
8	EA-250	341	UNC 3/4	298.4	577	159	210	208	73	122	180	360	178
10	EA-250	329	UNC 7/8	362.0	677	205	264	208	113	122	180	440	210
12	EA-250	412	UNC 7/8	362.0	677	205	264	208	113	122	180	440	210

Size (inch)	Q2 (mm)
2	
2 ½	35
3	50
4	74
5	97
6	123
8	169
10	207
12	207



Lugstyle butterfly valve type 147 ABS 24V With manual override

Model:

- Voltage 24V AC/DC
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- Factory set control range 90°<)

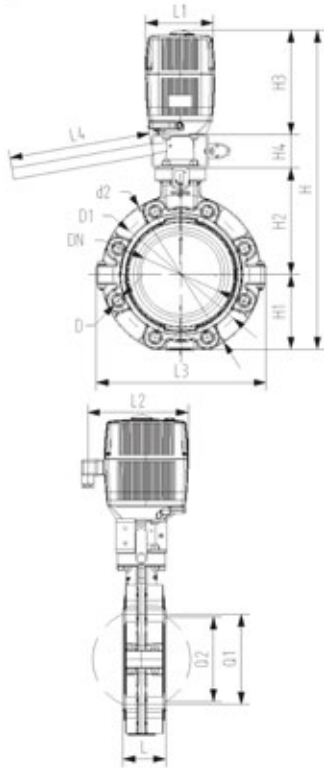
Option:

- Optional accessory: Integrated position feedback with limit switches (sold separately)

Size (inch)	DN (mm)	PN (bar)	EPDM Part No.	weight (lb)
2	50	10	150 147 522	12.785
2 ½	65	10	150 147 523	13.131
3	80	10	150 147 524	13.671
4	100	10	150 147 525	15.666
5	125	10	150 147 526	19.004
6	150	10	150 147 527	22.886
8	200	10	150 147 528	33.345

Size (inch)	Actuator unit type	d2 (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
2	EA-120	160	UNC 5/8	121	459	77	134	188	60	45	122	180	165
2 ½	EA-120	180	UNC 5/8	140	471	83	140	188	60	46	122	180	182
3	EA-120	195	UNC 5/8	152	483	89	146	188	60	49	122	180	210
4	EA-120	226	UNC 5/8	191	521	106	167	188	60	56	122	180	240
5	EA-120	258	UNC 3/4	216	550	121	181	188	60	64	122	180	272
6	EA-120	284	UNC 3/4	241	570	133	189	188	60	72	122	180	300
8	EA-250	341	UNC 3/4	298	637	159	210	208	60	73	122	180	360

Size (inch)	L4 (mm)	Q1 (mm)	Q2 (mm)
2	200	40	
2 ½	200	54	35
3	200	67	50
4	250	88	74
5	250	113	97
6	250	139	123
8	250	178	169



Lugstyle butterfly valve type 147 ABS 100-230V With manual override

Model:

- Voltage 100-230V, 50-60Hz
- Factory set control range 90°<
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Optional accessory: Integrated position feedback with limit switches (sold separately)

Size (inch)	DN (mm)	PN (bar)	EPDM Part No.	weight (lb)
2	50	10	150 147 482	12.785
2 ½	65	10	150 147 483	13.131
3	80	10	150 147 484	13.671
4	100	10	150 147 485	15.666
5	125	10	150 147 486	19.004
6	150	10	150 147 487	22.886
8	200	10	150 147 488	33.345

Size (inch)	Actuator unit type	d2 (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
2	EA-120	160	UNC 5/8	121	459	77	134	188	60	45	122	180	165
2 ½	EA-120	180	UNC 5/8	140	471	83	140	188	60	46	122	180	182
3	EA-120	195	UNC 5/8	152	483	89	146	188	60	49	122	180	210
4	EA-120	226	UNC 5/8	191	521	106	167	188	60	56	122	180	240
5	EA-120	258	UNC 3/4	216	550	121	181	188	60	64	122	180	272
6	EA-120	284	UNC 3/4	241	570	133	189	188	60	72	122	180	300
8	EA-250	341	UNC 3/4	298	637	159	210	208	60	73	122	180	360

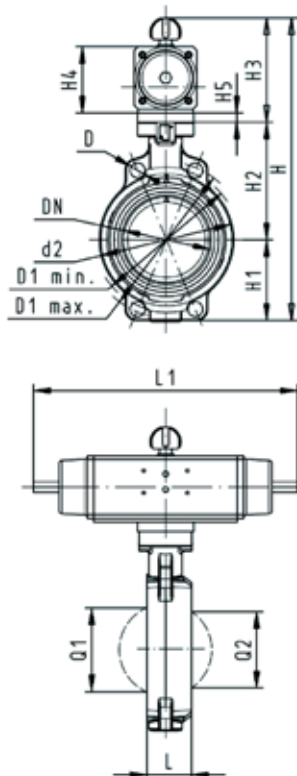
Size (inch)	L4 (mm)	Q1 (mm)	Q2 (mm)
2	200	40	
2 ½	200	54	35
3	200	67	50
4	250	88	74
5	250	113	97
6	250	139	123
8	250	178	169



Butterfly valve type 240 ABS
FC (Fail safe to close)
Without manual override

Model:

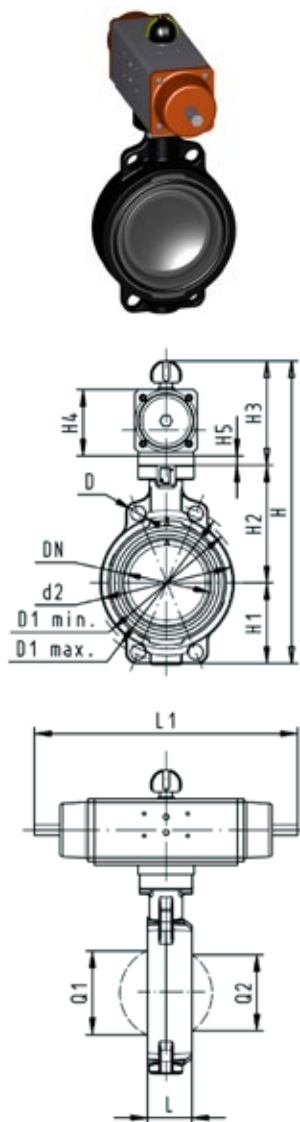
- Control range 90 °
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5
 Class 150, BS 1560: 1989, BS 4504, JIS B 2220



d (mm)	closest inch (inch)	DN (mm)	PN (bar)	EPDM Part No.	weight (lb)
63	2	50	10	199 240 402	7.432
75	2 ½	65	10	199 240 403	6.834
90	3	80	10	199 240 404	7.494
110	4	100	10	199 240 405	11.316
140	5	125	10	199 240 406	15.049
160	6	150	10	199 240 407	21.559
225	8	200	10	199 240 408	29.826
280	10	250	10	199 240 409	62.170
315	12	300	10	199 240 410	79.807

d (mm)	closest inch (inch)	Actuator unit type	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)
63	2	PA-30 FC	104	19	120	125	327	77	134	117	70	15
75	2 ½	PA-30 FC	115	19	140	145	340	83	140	117	70	15
90	3	PA-35 FC	131	19	150	160	361	89	146	126	78	15
110	4	PA-40 FC	161	19	175	191	400	104	167	129	86	0
140	5	PA-45 FC	187	23	210	216	436	117	181	139	96	0
160	6	PA-50 FC	215	24	241	241	468	130	189	149	106	0
225	8	PA-55 FC	267	23	290	295	529	158	210	161	118	0
280	10	PA-65 FC	329	25	353	362	808	205	264	191	148	0
315	12	PA-70 FC	379	25	400	432	866	228	285	196	157	0

d (mm)	closest inch (inch)	L (mm)	L1 (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)
63	2	45	276	65	40	
75	2 ½	46	276	65	54	35
90	3	49	326	72	67	50
110	4	56	370	80	88	74
140	5	64	411	90	113	97
160	6	72	423	100	139	123
225	8	73	452	112	178	169
280	10	113	648	137	210	207
315	12	113	663	145	256	253



Butterfly valve type 240 ABS
FO (Fail safe to open)
Without manual override

Model:

- Control range 90 °
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220

d (mm)	closest inch (inch)	DN (mm)	PN (bar)	EPDM Part No.	weight (lb)
63	2	50	10	199 240 422	7.432
75	2 ½	65	10	199 240 423	6.834
90	3	80	10	199 240 424	7.494
110	4	100	10	199 240 425	11.316
140	5	125	10	199 240 426	15.049
160	6	150	10	199 240 427	21.559
225	8	200	10	199 240 428	29.826

d (mm)	closest inch (inch)	Actuator unit type	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)
63	2	PA-30 FO	104	19	120	125	327	77	134	117	70	15
75	2 ½	PA-30 FO	115	19	140	145	340	83	140	117	70	15
90	3	PA-35 FO	131	19	150	160	361	89	146	126	78	15
110	4	PA-40 FO	161	19	175	191	400	104	167	129	86	
140	5	PA-45 FO	187	23	210	216	436	117	181	139	96	
160	6	PA-50 FO	215	24	241	241	468	130	189	149	106	
225	8	PA-55 FO	267	23	290	295	529	158	210	161	118	

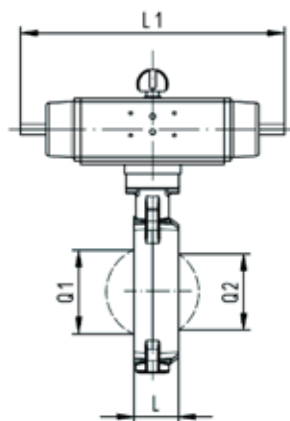
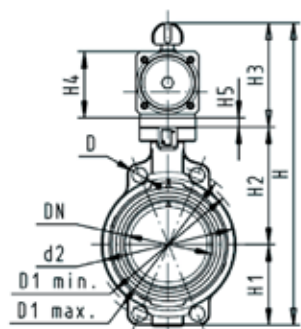
d (mm)	closest inch (inch)	L (mm)	L1 (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)
63	2	45	276	65	40	
75	2 ½	46	276	65	54	35
90	3	49	326	72	67	50
110	4	56	370	80	88	74
140	5	64	411	90	113	97
160	6	72	423	100	139	123
225	8	73	452	112	178	169



Butterfly valve type 240 ABS
DA (Double acting)
Without manual override

Model:

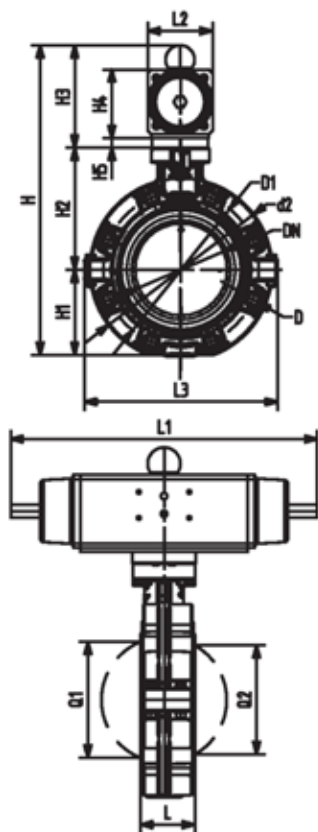
- Control range 90 °
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220



d (mm)	closest inch (inch)	DN (mm)	PN (bar)	EPDM Part No.	weight (lb)
63	2	50	10	199 240 442	4.896
75	2 ½	65	10	199 240 443	5.108
90	3	80	10	199 240 444	6.019
110	4	100	10	199 240 445	7.463
140	5	125	10	199 240 446	8.986
160	6	150	10	199 240 447	13.797
225	8	200	10	199 240 448	16.599

d (mm)	closest inch (inch)	Actuator unit type	d2 (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)
63	2	PA-35 DA	104	19	120	125	317	77	134	107	60	15
75	2 ½	PA-35 DA	115	19	140	145	330	83	140	107	60	15
90	3	PA-40 DA	131	19	150	160	348	89	146	113	66	15
110	4	PA-45 DA	161	19	175	191	372	104	167	102	71	
140	5	PA-45 DA	187	23	210	216	408	117	181	111	78	
160	6	PA-55 DA	215	24	241	241	448	130	189	129	86	
225	8	PA-55 DA	267	23	290	295	507	158	210	139	96	

d (mm)	closest inch (inch)	L (mm)	L1 (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)
63	2	45	177	55	40	
75	2 ½	46	177	55	54	35
90	3	49	190	60	67	50
110	4	56	235	65	88	74
140	5	64	235	72	113	97
160	6	72	279	80	139	123
225	8	73	279	90	178	169



**Lug Style butterfly valve Type 244 ABS
FC (Fail safe to close)
Without manual override**

Model:

- Housing material: PP-GF30 with 316SS lug inserts
- Control range 90 °
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Optional accessory: Integrated position feedback with limit switches (sold separately)

d	Size	PN	EPDM
(mm)	(inch)	(bar)	Part No.
63	2	10	199 244 402
75	2 ½	10	199 244 403
90	3	10	199 244 404
110	4	10	199 244 405
140	5	10	199 244 406
160	6	10	199 244 407
225	8	10	199 244 408

d	Size	Actuator unit	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1
(mm)	(inch)	type	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	2	PA-30 FC	160	UNC 5/8	120.6	328	77	134	117	70	15	45	276
75	2 ½	PA-30 FC	180	UNC 5/8	139.7	340	83	140	117	70	15	46	276
90	3	PA-35 FC	195	UNC 5/8	152.4	361	89	146	126	78	15	49	326
110	4	PA-40 FC	226	UNC 5/8	190.5	402	106	167	129	86		56	370
140	5	PA-45 FC	258	UNC 3/4	215.9	441	121	181	139	96		64	411
160	6	PA-50 FC	284	UNC 3/4	241.3	471	133	189	149	106		72	423
225	8	PA-55 FC	341	UNC 3/4	298.4	530	159	210	161	118		73	452

d	Size	L2	L3	Q1	Q2
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)
63	2	65	165	40	
75	2 ½	65	182	54	35
90	3	72	210	67	50
110	4	80	240	88	74
140	5	90	272	113	97
160	6	100	300	139	123
225	8	112	360	178	169



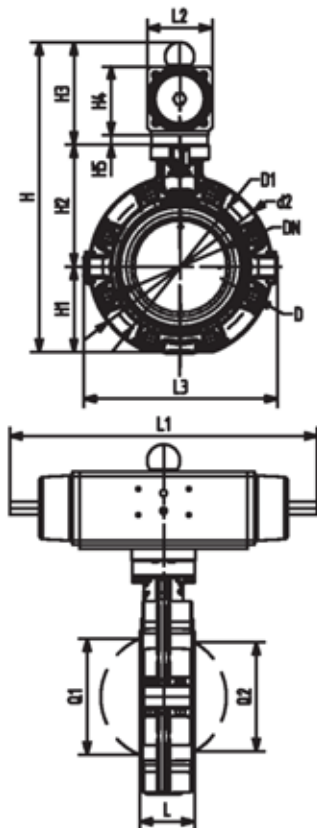
Lug Style butterfly valve type 244 ABS
FO (Fail safe to open)
Without manual override

Model:

- Housing material: PP-GF30 with 316SS lug inserts
- Control range 90 °
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Optional accessory: Integrated position feedback with limit switches (sold separately)



d	Size	PN	EPDM
(mm)	(inch)	(bar)	Part No.
63	2	10	199 244 422
75	2 ½	10	199 244 423
90	3	10	199 244 424
110	4	10	199 244 425
140	5	10	199 244 426
160	6	10	199 244 427
225	8	10	199 244 428

d	Size	Actuator unit	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1
(mm)	(inch)	type	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	2	PA-30 FO	160	UNC 5/8	120.6	328	77	134	117	70	15	45	276
75	2 ½	PA-30 FO	180	UNC 5/8	139.7	340	83	140	117	70	15	46	276
90	3	PA-35 FO	195	UNC 5/8	152.4	361	89	146	126	78	15	49	326
110	4	PA-40 FO	226	UNC 5/8	190.5	402	106	167	129	86		56	370
140	5	PA-45 FO	258	UNC 3/4	215.9	441	121	181	139	96		64	411
160	6	PA-50 FO	284	UNC 3/4	241.3	471	133	189	149	106		72	423
225	8	PA-55 FO	341	UNC 3/4	298.4	530	159	210	161	118		73	452

d	Size	L2	L3	Q1	Q2
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)
63	2	65	165	40	
75	2 ½	65	182	54	35
90	3	72	210	67	50
110	4	80	240	88	74
140	5	90	272	113	97
160	6	100	300	139	123
225	8	112	360	178	169



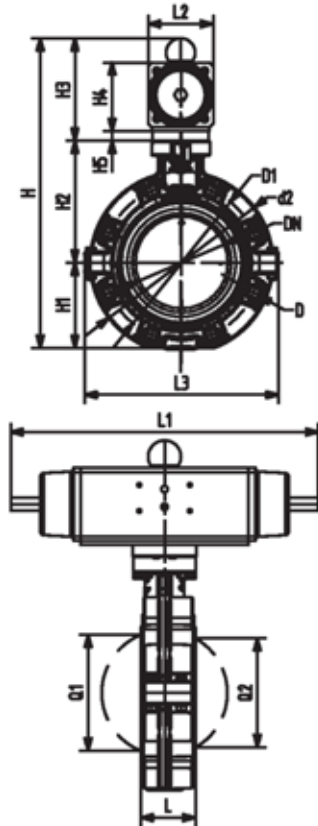
Lug Style butterfly valve type 244 ABS
DA (Double acting)
Without manual override

Model:

- Housing material: PP-GF30 with 316SS lug inserts
- Control range 90 °
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Optional accessory: Integrated position feedback with limit switches (sold separately)



d	Size	PN	EPDM
(mm)	(inch)	(bar)	Part No.
63	2	10	199 244 442
75	2 ½	10	199 244 443
90	3	10	199 244 444
110	4	10	199 244 445
140	5	10	199 244 446
160	6	10	199 244 447
225	8	10	199 244 448

d	Size	Actuator unit	d2	D	D1	H	H1	H2	H3	H4	H5	L	L1
(mm)	(inch)	type	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	2	PA-35 DA	160	UNC 5/8	120.6	318	77	134	107	60	15	45	177
75	2 ½	PA-35 DA	180	UNC 5/8	139.7	330	83	140	107	60	15	46	177
90	3	PA-40 DA	195	UNC 5/8	152.4	348	89	146	113	66	15	49	190
110	4	PA-45 DA	226	UNC 5/8	190.5	384	106	167	111	78		56	235
140	5	PA-45 DA	258	UNC 3/4	215.9	413	121	181	111	78		64	235
160	6	PA-55 DA	284	UNC 3/4	241.3	461	133	189	129	96		72	279
225	8	PA-55 DA	341	UNC 3/4	298.4	508	159	210	139	96		73	279

d	Size	L2	L3	Q1	Q2
(mm)	(inch)	(mm)	(mm)	(mm)	(mm)
63	2	55	165	40	
75	2 ½	55	182	54	35
90	3	60	210	67	50
110	4	65	272	88	74
140	5	72	272	113	97
160	6	90	300	139	123
225	8	90	360	178	169

General Terms and Conditions of Sale

These GF Piping Systems USA Terms and Conditions (Rev.11/2018) supersede all previous Terms and Conditions for Georg Fischer LLC and Georg Fischer Harvel LLC.

It is the responsibility of the Distributor, Dealer, or Agent to provide a current copy of these Terms and Conditions to the Consumers of Georg Fischer Piping products.

Always check for the most current General Terms and Conditions and Warranty Statement at www.gfpiping.com under "Price Lists," which supersede and replace these General Terms and Conditions and Warranty Statement. If unable to access this website please request a copy at (714) 731-8800.

Acceptance of Terms and Conditions

Acceptance by Customer of GF Piping Systems USA, (hereinafter "Seller") offer of Products for sale is hereby expressly conditioned upon Customer's acceptance of these General Terms and Conditions of Sale and these General Terms and Conditions of Sale will be deemed accepted, as written, despite any language in Customer's purchase order and/or other documentation which is either conflicting or supplemental, unless promptly after this offer, Customer specifically advises Seller of each term and condition not so accepted and Seller accepts Customer's conflicting and/or supplemental term(s) in writing.

Order Acceptance

Seller reserves the right to accept or reject any order. Possession of a price list by Customer does not constitute an offer to sell.

Credit Approval and Minimum Order Charge

Customer credit approval is required prior to any shipment.

The minimum order is \$100 net.

List Price, Discount or Freight Charges

List prices, discount, and freight terms are subject to change without notice. All prices are F.O.B. Seller's factory or authorized warehouse at Seller's discretion.

Quotes

All prices provided by the Seller are in US currency and cover only the goods expressly specified. Quotations are valid for a period of 30 days unless otherwise specified. HDPE Pipe pricing is valid for seven (7) days after quote issuance unless otherwise stated or unless there has been fundamental change to our cost exposure within the seven (7) day period.

Payment Terms

Net 30, from date the invoice is issued unless otherwise stated in a specific quotation. No unauthorized deductions allowed, such as deductions for pending Return Material Transactions that are subject to review. Seller reserves the right to apply a finance charge to the balance of any past-due invoice (over 30 days from date of invoice) at a rate of 1.5% per month, 18% per annum. Payment terms on fusion machine rentals net 30; see rental agreement for more details.

Taxes

Seller charges Customer for all sales, excise and other taxes and governmental charges Seller is required to collect from Customer. Customers claiming exemption must furnish documentation required by law, which is satisfactory to Seller to permit Seller to refrain from collecting such charges.

Order Changes or Cancellations

Cancellation or modifications of orders may be possible only with prior written consent from Seller. Since all orders are individually entered for processing immediately upon receipt, Seller reserves the right to charge back to the Customer costs incurred from either order cancellation or order modification. Seller also reserves the right to consider all order additions as new orders and subject to all terms and conditions. Seller will not cancel orders for custom or non-cancelable products if Seller has already produced the product or incurred expenses toward producing the product at the time the Customer seeks to cancel.

Delivery

Seller disclaims liability for consequential damages from late deliveries unless seller assumes liability for such damages in writing when the order is placed. Further, Seller disclaims liability where delivery delays caused by strike, differences with workmen, or causes beyond Seller's control, including but not limited to fires, floods, accidents, government actions, shortages of labor, raw materials, production facilities, or transportation. Where delivery delays are caused by labor problems, Seller is not obligated to seek or obtain any settlement, which, in Seller's judgment, is not in Seller's best interest.

Standard Packaging

Seller will accept orders from Customer exclusively in multiples of the standard packaging quantity or boxed quantity. Seller reserves the right to reject any order that is not a standard packaging or boxed quantity of a Product.

Always check for the most current General Terms and Conditions and Warranty Statement at www.gfpiping.com under "Catalogs and Pricing"

Freight

Continental US – Full freight will be paid on the following orders:

1. Pipe \$8,000 net or greater in one of the following categories:

Combination of products to meet freight allowance is at the sole discretion of the Seller.

2. Fittings, Valves, & Actuation \$2,200 net or greater

Freight allowed orders will be sent by a designated carrier of Seller's choice. Additional charges will be invoiced to Customer for special handling and airfreight when requested. Standard Pipe lengths require long truck beds for shipping and may be shipped separately from valves and/or fittings purchased on the same order. Valves and/or fittings will be shipped using practical shipping methods.

Freight will not be paid on the following orders:

Unless otherwise specified, shipments are surface, prepaid and added to invoice.

Mode of Shipment and Packaging

Seller reserves the right to ship orders in the most economical manner, as long as the product is shipped on or before the promised ship date. If product ships after the promised ship date, Seller may automatically adjust the shipping method to help improve delivery of the delayed shipment, at no additional cost. If Seller pays freight, Seller may hold shipment until all items become available. Customer bears extra cost of non-standard packaging or handling requested by Customer.

Transfer of Ownership

All products are FOB Seller's facility and title of merchandise transfers when product is loaded onto carrier. Claims for damaged merchandise should be made to carrier by Customer.

Non-Conforming Shipments

Customer must notify Seller in writing within 7 days after receipt of shipments not conforming with Customer's order, stating specifically Customer's claim of non-conformity, or Customer is deemed to accept the shipment as is. If Seller is satisfied the shipment is non-conforming, Seller will (i) credit Customer for the price of defective goods or goods shipped but not ordered (including allocated outbound and return freight) upon return of goods; (ii) promptly ship omitted items waiving Seller's new order charges. Customer is required to make timely payment to Seller of any amount, which is undisputed, or not subject to such claims.

Return of Goods for Credit

Seller accepts returns of certain Engineered Piping Products, Valve and Actuation Products, Signet Instrumentation Products, Waste and Containment Products, PVC/CPVC/HDPE Fittings and Accessories for a standard restock charge of 25%. Pipe and Custom Products are not returnable. Products denoted with a caret (^) symbol in front of the part number in the current Master Distributor Price List have a 40% restock and products denoted with an asterisk (*) symbol are non-cancelable/non-returnable. Only products purchased within the past six (6) months, in original "like new" packaging (full carton quantities), of current design, and listed in the current Master Distributor Price List shall be considered for returns. All products qualifying for return are subject to review for marketability (quantities in question in relationship to historical stock movement) before issuance of a Return Material Authorization (RMA) number. Returns due to Seller's product warranty or order entry/shipping error will not be charged a restock fee. Product for credit consideration should be returned to location designated by Seller. All returns are subject to inspection upon receipt. No credit will be issued until the returned material has been inspected, accepted, and processed. Customers will be contacted if quantity differences and/or non-acceptable material are found during inspection. Any credit issued will reflect only quantities actually received and accepted by Seller. Disposition (return to Customer or scrap) of returned product not accepted back by Seller must be provided by Customer within 10 business days, otherwise it will be subject to disposal. All material returns must be accompanied by a valid Return Material Authorization (RMA) number. RMA numbers may be obtained from the Inside Sales Department. When requesting a RMA, the original purchase order number and date of purchase must be provided. All material returns must be received within thirty (30) days of the RMA issuance. All material returns must be shipped freight prepaid and arrive to Seller's location in saleable condition. No collect shipments will be accepted by Seller. Restock charges and prepaid freight do not apply to warranty defective merchandise or returns due to Seller order entry or shipping errors.

Return of Goods for Warranty Evaluation

When requesting a RMA for material evaluation, Customer must first complete and submit a Material Safety Disclosure sheet and Request For Evaluation form obtained from Customer Service. Material arriving to Seller without a valid RMA number will be returned to the customer/distributor, freight collect. RMA numbers must be clearly referenced on all shipping documents and shipping containers.

Technical Documentation and Intellectual Property

Unless specified otherwise, technical documents such as drawings, descriptions, illustrations and the like constitute only an approximate guide. Seller reserves the right to make any changes considered necessary. Seller expressly reserves any and all intellectual property rights therein.

Warranty and Limitations

Seller's Products are carefully inspected for manufacturing defects; however, it is not always possible to detect hidden defects.

Seller warrants that its products and/or services shall conform to the description of such products or services as provided to Customer by Seller through Seller's catalog, analytical data or other literature. **THIS WARRANTY IS EXCLUSIVE, AND SELLER MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR COURSE OF DEALING OR USAGE OF TRADE – WHICH ARE HEREBY DISCLAIMED.**

Seller's warranties made in connection with the sale of Products shall not be effective if Seller has determined, in its sole discretion, that Customer has misused the products in any manner, has failed to use the products in accordance with industry standards and practices, or has failed to use the products in accordance with instructions, if any, furnished by Seller. Seller does not warrant any Products or Services obtained through an unauthorized Distributor, Dealer, or Agent.

Limitations of Remedy

Seller's sole and exclusive liability and Customer's exclusive remedy with respect to products proved to Seller's satisfaction to be defective or nonconforming shall be repair or replacement of such products without charge or refund of the purchase price, in Seller's sole discretion, upon the return of such products in accordance with Seller's instructions. **SELLER SHALL NOT IN ANY EVENT BE LIABLE FOR INDIRECT, DIRECT, INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY KIND RESULTING FROM ANY USE OR FAILURE OF THE PRODUCTS, OR IN CONNECTION WITH ANY SERVICES, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE INCLUDING, WITHOUT LIMITATION, LIABILITY FOR LOSS OF USE, LOSS OF WORK IN PROGRESS, DOWN TIME, LOSS OF REVENUE OR PROFITS, FAILURE TO REALIZE SAVINGS, LOSS OF PRODUCTS OF CUSTOMER OR OTHER USE, ANY LIABILITY OF CUSTOMER TO A THIRD PARTY ON ACCOUNT OF SUCH LOSS, OR FOR ANY OTHER EXPENSE, DAMAGE OR LOSS OCCASIONED BY SUCH PRODUCT OR SERVICE, INCLUDING PERSONAL INJURY OR PROPERTY DAMAGE.**

Any and all claims of Customer against Seller must be brought within one (1) year of Seller's tender of delivery, regardless of their nature.

Services

In the event Seller provides any technical or other information, advice, suggestions, assistance, work, training, or services of any kind to Buyer ("Services"), whether or not for a fee, **SELLER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, ORAL OR WRITTEN, WITH RESPECT TO SUCH SERVICES, EXCEPT AS STATED IN THESE TERMS AND CONDITIONS.** The willingness of Seller to provide the Services is based upon Buyer's acceptance of and agreement to the terms, conditions, and obligations set forth herein and in any related Service Agreement signed by Buyer.

Welder Certifications

Training and certifications, for example, Level I, II, III (Welder Certifications) are provided based on the agreement of Buyer to follow and conform to all instructions, recommendations, and requirements of such certifications and related training. Buyer shall indemnify, defend and forever hold Seller and its directors, officers, employees, agents, suppliers, parents, affiliates, subsidiaries, successors and assigns harmless from any and all fines, penalties, suits, actions, claims, liabilities, judgments, costs, and expenses (including reasonable attorneys' fees) resulting or arising from the acts or omissions of Buyer, its directors, officers, employees, agents, suppliers, customers, parents, affiliates, subsidiaries, successors and assigns (all collectively referred to herein as "Buyer") related to or arising from Welder Certifications, or the performance of any related work by Buyer. The foregoing shall apply, but shall not be limited to, injury to person (including death) or damage or harm to property or the environment. Buyer shall not be obligated to indemnify Seller for any fine, penalty, suit, action, claim, liability, judgment, cost, or expense to the extent attributable to Seller's negligence or willful misconduct.

Export Law Compliance

Buyer represents that Products will not be diverted, transshipped, exported or re-exported to any country whatsoever, except in accordance with all applicable United States laws and regulations, including, but not limited to the Export Administration Act of 1979, and the regulations issued thereunder.

EU GDPR Compliance

Seller affiliates are subject to the European Union's General Data Privacy Regulation [Regulation (EU) 2016/679] (the "GDPR") when acting as a controller or processor of personal data of an individual data subject located in the European Union, as those terms are defined in the GDPR. Buyer acknowledges and agrees that it may be acting as a processor of personal data for Seller or its affiliates under these Terms and Conditions and that all applicable requirements of the GDPR are incorporated by reference herein. Buyer represents and warrants that (1) it is aware of and understands its compliance obligations under GDPR; (2) it will process personal data received from Seller or its affiliates only in accordance with Seller instructions and only in compliance with GDPR; and (3) with regard to its obligations under these Terms and Conditions it shall comply with all applicable requirements of the GDPR to the same extent as required for Seller.

Assignment

Customer may not assign its rights under or interest in any purchase order without the prior written consent of Seller. These terms and conditions of sale shall be binding upon and inure to the benefit of Customer and Seller, their successors and permitted assigns.

Applicable Law

The sale and purchase of Products and/or Services shall be governed by, and these terms and conditions shall be interpreted in accordance with the laws of the State where the Products purchased hereunder are manufactured or Services purchased hereunder are performed. All disputes hereunder shall be resolved in courts of competent jurisdiction located within the State where the Products sold or Services performed hereunder are manufactured or performed. The parties hereby waive the right to trial by jury.

Relationship of the Parties

The relationship between the parties shall be that of Seller and independent contractor. Neither Party shall be the agent of the other or have authority to act on behalf of the other party, except in a manner and to the extent provided herein or otherwise agreed to in writing. There is no special relationship between the parties or between Seller and any customer of Buyer. This Agreement creates a contractual relationship among the parties hereto, and creates no other relationship, including but not limited to a franchise, partnership, joint venture, agency, or any form of fiduciary or special relationship. Buyer agrees that it will never represent itself to third parties as having any relationship with Seller other than that of independent contractor.

Entire Agreement

These terms and conditions constitute the entire and complete agreement between Seller and Buyer concerning the sale and purchase of Products or Services. Neither party shall claim any modification, amendment or release from any of these terms and conditions unless the parties have entered into a mutual agreement to that effect, signed by Buyer and Seller.