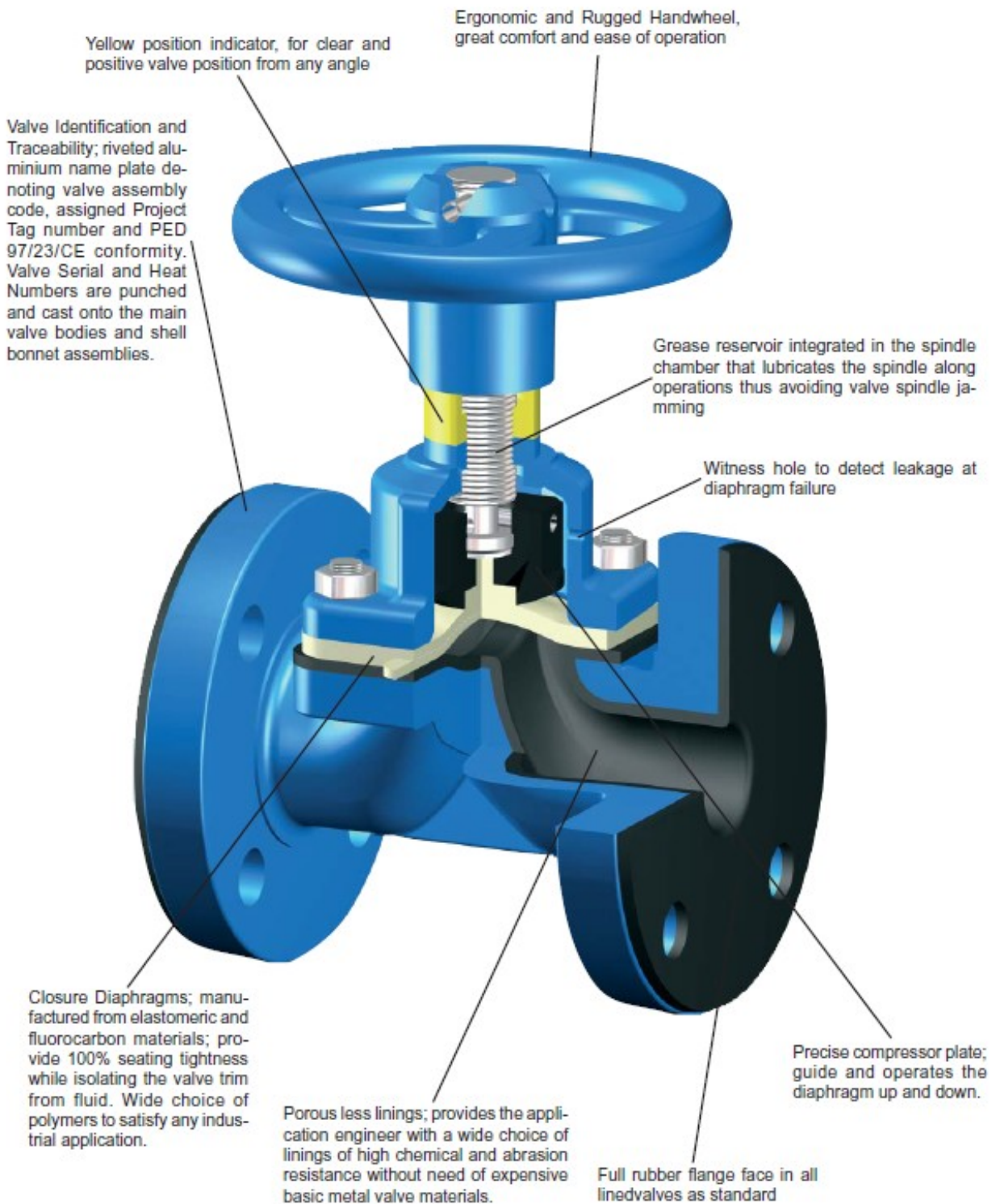
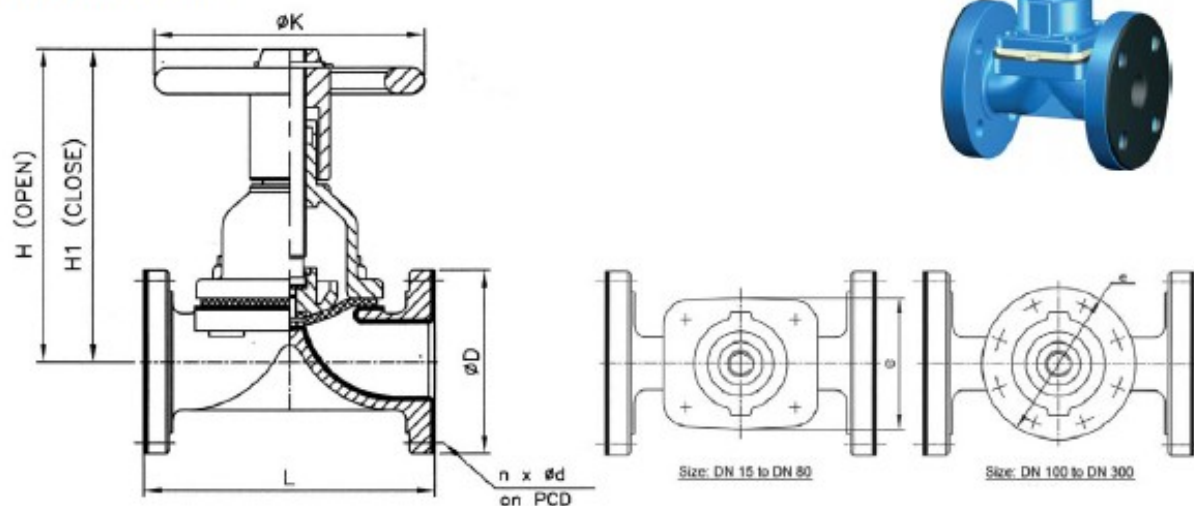


Design Attributes of Weir Valves



Rubber lined valves with flanged ends

Main Dimensions



DN	EN-558-1 S1 (DIN 3202F1)		EN-558-1 S7 (BS 5156)		H (open)	H1 (closed)	EN 1092-1 PN10 BS 4504 T.10			ANSI 150#			ØK	e
	L	Weight	L	Weight			ØD	PCD	n x ød	ØD	PCD	n x ød		
15	130	3.0	114	2.6	112	106	95	65	4x14	89	60.3	4x16	100	52
20	150	4.0	123	3.5	120	112	105	75	4x14	98	69.8	4x16	100	67
25	160	5.5	133	5.0	143	133	115	85	4x14	108	79.4	4x16	120	75
32	180	8.0	152	7.0	145	134	140	100	4x18	117	88.9	4x16	120	88
40	200	9.5	165	8.5	175	155	150	110	4x18	127	98.4	4x16	120	110
50	230	14.5	196	13.0	193	169	165	125	4x18	152	120.6	4x19	164	127
65	290	20.0	222	19.0	233	198	185	145	4x18	178	139.7	4x19	220	146
80	310	27.0	260	25.0	245	205	200	160	8x18	191	152.4	4x19	240	188
100	350	38.0	313	36.0	330	279	220	180	8x18	229	190.5	8x19	270	Ø230
125	400	55.0	364	53.0	395	330	250	210	8x18	254	215.9	8x22	270	Ø260
150	480	79.0	414	73.0	472	394	285	240	8x22	279	241.3	8x22	360	Ø320
200	600	165.0	529	155.0	684	564	340	295	8x22	343	298.4	8x22	460	Ø420
250	730	242.0	643	227.0	806	661	395	350	12x22	406	361.9	12x26	600	Ø502
300	850	342.0	757	307.0	975	800	445	400	12x22	483	431.8	12x26	700	Ø569

* Approx. Weight in kg, based on Ductile Iron body material.

* Dimensions in mm, only orientative. Arrangement drawings for approval on request.

Manufacture Design Standards:

- Harmonised Standard EN13397 (November 2001), equivalent to MSS-SP-88-1993 (Reaffirmed 2001)
- QA certified to ISO 9001:2000
- According to Pressure Equipment Directive PED 97/23/EC Article 3 - Paragraph 3
- Testing standards EN12266-1 (March 2003) and BS6755 part 1 (1986)
- Marking according to EN 19 (April 2002)
- Face to face dimensions according to EN558-1 Series 1 (DIN 3202F1) or EN558-1 Series 7 (BS5156)
- Body end flanges according to EN 1092-1 PN10, BS 4504 T.10 or ANSI 150#

Operating parameters:

Valve bodies design pressure range: PN16 (DN15-50) PN10 (DN65-150)
PN6 (DN200) PN5 (250) PN4 (DN300)

See Data Sheet n° OP for complete overview of operating parameters

Rubber lined valves with flanged ends

Standard Materials

Part	Description	Material
01	Body	Ductile or Cast Iron
1A	Body lining	Rubber lined
02	Diaphragm	Rubber
03	Bonnet*	Ductile or Cast Iron
04	Compressor	Cast Iron
05	Compressor pin	Steel
06	Spindle	Steel
07	Handwheel	Cast Iron
08	Handwheel pin	Steel
09	Body studs **	Steel
10	Body nuts **	Steel
11	Thrust washer	Nylon

* With eye bolts in DN 200-300 to ease handling

** DN15-80: 4 Nos / DN100-125: 8 Nos / DN150: 10 Nos / DN200-300: 14Nos

Body Material Options

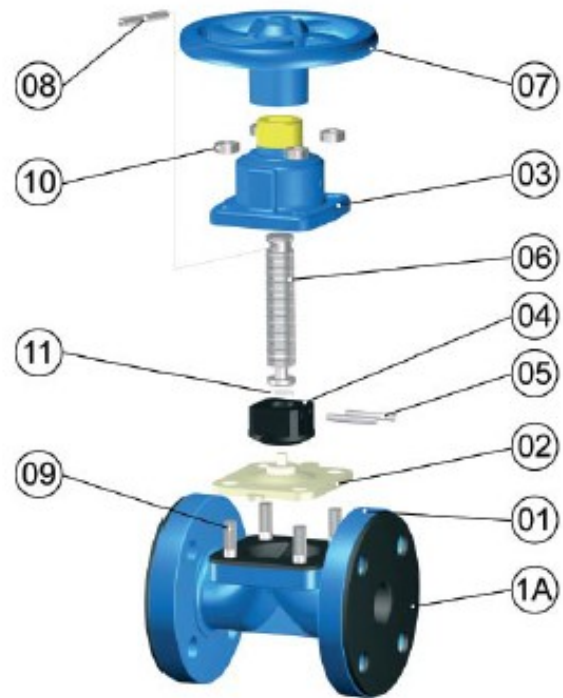
Cast Iron (Grey)	
EN1561	GJL-250 (GG-25)
ASTM	A 126 Class B
Ductile Iron (SG Iron)	
EN1563	GJS-400-15 (GGG-40)*
EN1563	GJS-450-10 (GGG-40.3)*
ASTM	A536 Grade 65-45-12
Carbon Steel	
EN10213	GP240GH+N (1.0619+N)
ASTM	A 216 WCB
Stainless Steel 316	
EN10088-1	X5CrNiMo17-12-2 (1.4401)
ASTM	A 351 CF8M
Stainless Steel 316L	
EN10088-1	X2CrNiMo17-12-2 (1.4404)
ASTM	A 351 CF3M
Bronze	
EN1982	CuSn5Zn5Pb5-C (CC491K)
EN1982	CuSn7Zn2Pb3-C (CC492K)
ASTM	B62
Iron Alloys	
Chromium Iron 24%, 30%, etc.	

a) Standard for unlined and rubber lined valves

b) Standard for fluoropolymer lined valves

Other Material Options

- Body studs and nuts in St. Steel A2 or A4
- Further material options available on request
- Materials given to be understood as minimum standard provided under name designation



Body Rubber Lining Material Options

Material	Identification
Hard Rubber - Ebonite (HR)	Sky Blue Spot
Butyl Rubber (BR)	Dark Blue Spot
Soft Rubber (SR)	White Spot
Neoprene® Rubber	Red Spot
Hypalon® Rubber	Green Spot
White Natural	
Linatex®	

Diaphragm Options

Material	Code
Natural Rubber	D10
White Natural Rubber	D15
EPDM Rubber	D20
Butyl Rubber	D30
Nitrile Rubber	D40
Neoprene® Rubber	D50
Hypalon® Rubber	D60
Viton® Rubber	D70
Linatex®	
PTFE/EPDM	D93/20
PTFE/Butyl Rubber	D93/30
PTFE/Viton®	D93/70

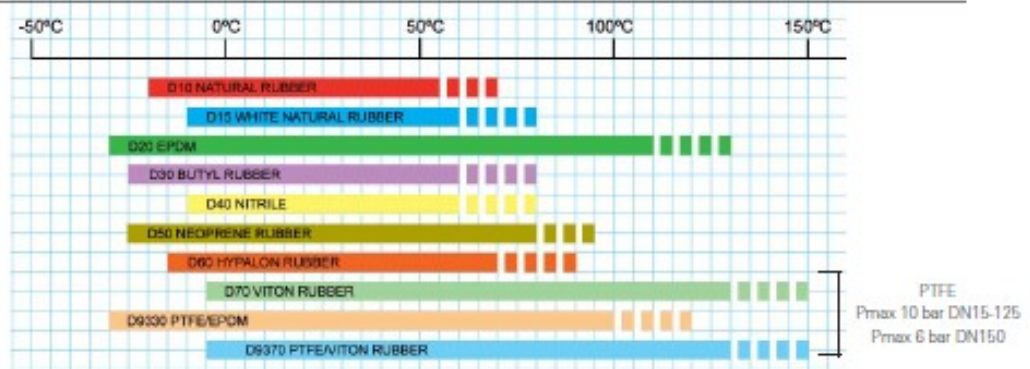
Special vacuum reinforced diaphragms add code letter [V] e.g. D10V

Spare Diaphragms



Operating Parameters

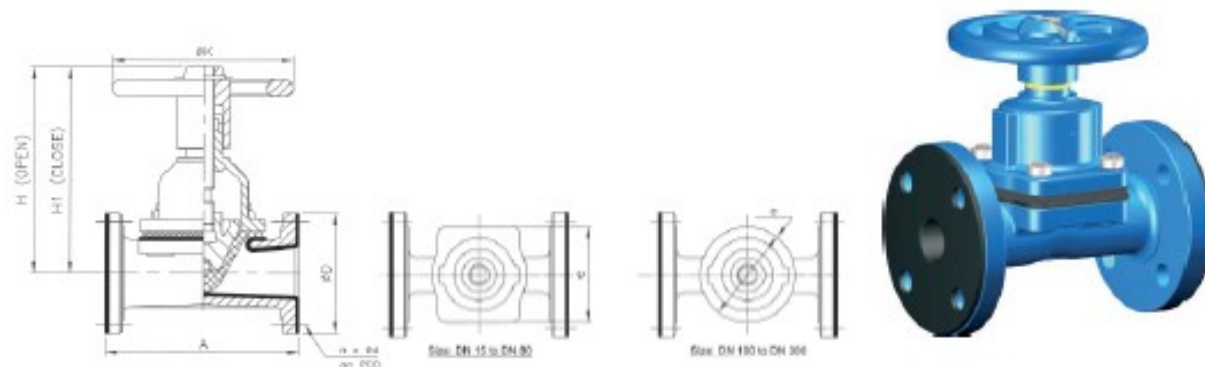
GRADE	POLYMER TYPE	TEMPERATURE RANGE
D10 Natural Rubber	<u>Natural Rubber Polyisoprene/SBR</u> Sulphur cured and carbon black reinforced	-20 to + 55...70°C
D15 White Natural Rubber	<u>Natural Rubber Polyisoprene/SBR</u> Sulphur cured and white	-10 to + 60...80°C
D20 EPDM	<u>Ethylene Propylene Diene (EPDM)</u> Organic peroxide cured, carbon black reinforced	-30 to + 110...130°C
D30 Butyl Rubber	<u>Isobutylene Isoprene (IIR)</u> Sulphur cured and carbon black reinforced	-25 to + 60...80°C
D40 Nitrile	<u>Butadiene Acrylonitrile</u>	-10 to + 60...80°C
D50 Neoprene ®	<u>Polychloroprene</u> Non sulphur cured carbon black reinforced	-25 to + 80...95°C
D60 Hypalon ®	<u>Chlorosulphonated polyethylene</u> Non sulphur cured carbon black reinforced	-15 to + 70...90°C
D70 Viton ®	<u>Vinylidene fluoride-hexafluoro propylene copolymer</u> Carbon black reinforced	-5 to + 130...150°C
D9320 PTFE/EPDM	<u>Virgin PTFE + Ethylene Propylene Diene</u> Two piece Bayonet fitting	-30 to + 100...120°C P max: 10 bar DN15-125 P max: 6 bar DN150
D9320 PTFE/BUTYL	<u>Virgin PTFE + IIR</u> Two piece Bayonet fitting	-20 to + 100...130°C P max: 10 bar DN15-125 P max: 6 bar DN150
D9370 PTFE/Viton®	<u>Virgin PTFE + Vinylidene fluoride-hexafluoro propylene copolymer</u> Two piece Bayonet fitting	-5 to + 130...150°C P max: 10 bar DN15-125 P max: 6 bar DN150



Temperature Values are not plotted against any pressure parameter, the application engineer should consider that working limits are affected by the actual pressure / temperature relationship. Temperature values also depends on medium through the valve.

Straight Through Type Rubber lined valves with flanged ends

Main Dimensions



DN	EN-558-1 S1 (DIN 3202F1)		EN-558-1 S7 (BS 5156)		H (open)	H1 (Closed)	EN1092-1 PN10 BS 4504 T.10			ANSI 150#			ØK	e
	L	Weight	L	Weight			ØD	PCD	nxØd	ØD	PCD	nxØd		
15	130	4.1	114	3.6	113	105	95	65	4x14	89	60.3	4x16	100	71
20	150	4.5	123	4.0	113	105	105	75	4x14	98	69.8	4x16	100	71
25	160	5.0	133	4.5	136	123	115	85	4x14	108	79.4	4x16	120	85
32	180	8.0	152	7.0	136	123	140	100	4x18	117	88.9	4x16	120	85
40	200	9.0	165	8.0	136	123	150	110	4x18	127	98.4	4x16	120	85
50	230	14	196	12	198	180	165	125	4x18	152	120.6	4x19	164	115
65	290	18	222	17	223	199	185	145	4x18	178	139.7	4x19	220	130
80	310	27	260	24	282	252	200	160	8x18	191	152.4	4x19	240	170
100	350	34	313	32	298	265	220	180	8x18	229	190.5	8x19	270	Ø200
125	400	48	364	46	314	276	250	210	8x18	254	215.9	8x22	270	Ø234
150	480	71	414	65	417	366	285	240	8x22	279	241.3	8x22	360	Ø290
200	600	121	529	115	480	417	340	295	8x22	343	298.4	8x22	460	Ø350
250	730	190	643	175	600	527	395	350	12x22	406	361.9	12x26	525	Ø430
300	850	278	757	263	752	657	445	400	12x22	483	431.8	12x26	600	Ø512

* Approx. Weight in kg, based on Ductile Iron body material.

* Dimensions in mm, only orientative. Arrangement drawings for approval on request.

Manufacture Design Standards:

- Harmonised Standard EN13397, equivalent to MSS-SP-88
- QA certified to ISO 9001
- According to Pressure Equipment Directive PED 97/23/EC Article 3 - Paragraph 3
- Testing standards EN12266-1 and BS6755 part 1
- Marking according to EN 19
- Face to face dimensions according to EN558-1 Series 1 (DIN 3202F1) or EN558-1 Series 7 (BS5156)
- Body end flanges according to EN 1092-1 PN10, BS 4504 T.10 or ANSI 150#

Operating parameters:

Valve bodies design pressure range: PN10 (DN15-100) PN6 (DN125-150)
PN3,5 (DN200-300)

See Data Sheet Operating Parameters for further information

Standard Materials

Part	Description	Material
01	Body	Ductile or Cast Iron
1A	Body lining	Unlined
02	Diaphragm	Rubber
03	Bonnet*	Ductile or Cast Iron
04	Compressor	Cast Iron
05	Spindle	Steel
06	Handwheel	Cast Iron
07	Handwheel pin	Steel
08	Body studs **	Steel
09	Body nuts **	Steel

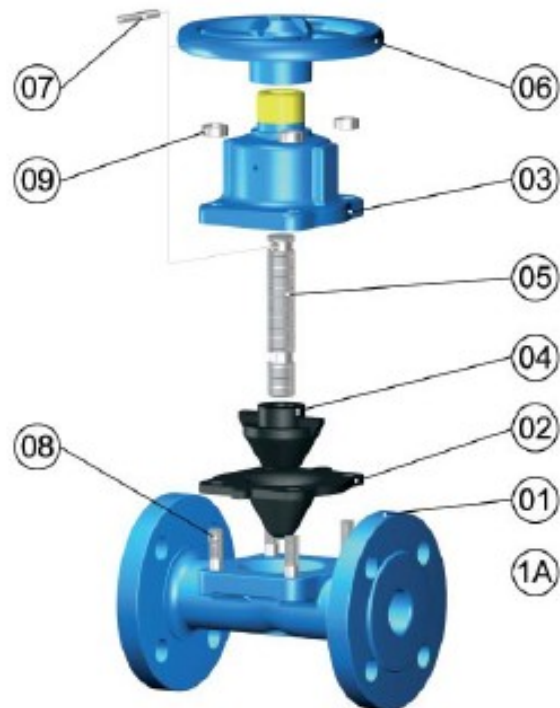
*With eye bolts in DN 200-300 to ease handling
 ** DN15-80: 4 Nos / DN100: 6 Nos / DN125-200: 8 Nos /
 DN250: 12 Nos / DN300: 16 Nos

Body Material Options

Cast Iron (Grey)	
EN1561	EN JL1040/GJL-250 (GG-25)
ASTM	A 126 Class B
Ductile Iron (SG Iron)	
EN1563	EN JS1030/GJS-400-15 (GGG-40)
ASTM	A536 Grade 65-45-12
Carbon Steel	
EN10213	GP240GH+N (1.0619+N)
ASTM	A 216 WCB
Stainless Steel 316	
EN10088-1	X5CrNiMo17-12-2 (1.4401)
ASTM	A 351 CF8M
Stainless Steel 316L	
EN10088-1	X2CrNiMo17-12-2 (1.4404)
ASTM	A 351 CF3M
Bronze	
EN1982	CuSn5Zn5Pb5-C (CC491K)
EN1982	CuSn7Zn2Pb3-C (CC492K)
ASTM	B62
Iron Alloys	
Chromium Iron 24%, 30%, etc.	

Other Material Options

- Body studs and nuts in St. Steel A2 or A4
- Further material options available on request
- Materials given to be understood as minimum standard provided under name designation



Other Body Lining Material Options

Rubber Lining	Fluoropolymer Lining
Hard Rubber - Ebonite (HR)	Sky Blue Spot
Butyl Rubber (BR)	Dark Blue Spot
Soft Rubber (SR)	White Spot
Neoprene® Rubber	Red Spot
Hypalon® Rubber	Green Spot
White Natural	
Linatex®	

Diaphragm Options

Material	Code
Natural Rubber	D10
White Natural Rubber	D15
EPDM Rubber	D20
Butyl Rubber	D30
Nitrile Rubber	D40
Neoprene® Rubber	D50
Hypalon® Rubber	D60
Viton® Rubber	D70
Linatex®	

Special vacuum reinforced diaphragms
 add code letter [V] e.g. D10V

Spare Diaphragms



Application Guide

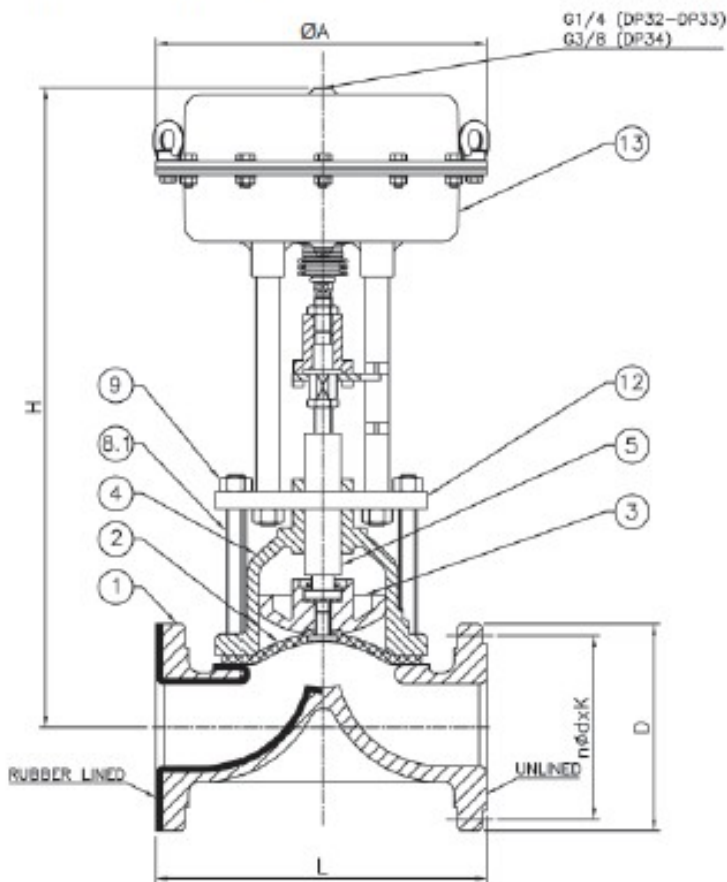
GRADE	POLYMER TYPE	TEMPERATURE RANGE
D10 Natural Rubber	<u>Natural Rubber Polyisoprene/SBR</u> Sulphur cured and carbon black reinforced	Inorganic salt solutions, dilute mineral acids, alkalies and salts. Abrasive services Not resistant to oxidizing media, oils or most organic solvents will attack it.
D15 White Natural Rubber	<u>Natural Rubber Polyisoprene/SBR</u> Sulphur cured and white	Food and pharmaceuticals, toothpaste, brewing, dairy
D20 EPDM	<u>Ethylene Propylene Diene (EPDM)</u> Organic peroxide cured, carbon black reinforced	Salts in water, acids and alkalies, ozone, Intermittent steam. Sterilisation
D30 Butyl Rubber	<u>Isobutylene Isoprene (IIR)</u> Sulphur cured and carbon black reinforced	Dilute mineral acids and alkalies, gases, acidic slurries, chlorine free hydrochloric acid, resistance to concentrated acids is good with some important exceptions as nitric or sulphuric acids
D40 Nitrile	<u>Butadiene Acrylonitrile</u>	Oily air, lubricating oil, cutting oils, fuel oils, animal and vegetable oils, aviation kerosen, LPG Generally resistant to oils and solvents.
D50 Neoprene®	<u>Polychloroprene</u> Non sulphur cured carbon black reinforced	Abrasive slurries containing hydrocarbons, oily air, natural gas Resistant to attack by ozone, sunlight, oils, gasoline, and aromatic or halogenated solvents but easily permeated by water
D60 Hypalon®	<u>Chlorosulphonated polyethylene</u> Non sulphur cured carbon blackreinforced	Outstanding resistance to ozone and oxidizing agents except fuming nitric and sulfuric acids. Oil resistance is good. Dilute / Medium acids, sodium hypochlorite, chlorine gas
D70 Viton®	<u>Vinylidene fluoride-hexafluoro propylene copolymer</u> Carbon black reinforced	Strong sulphuric acid, chlorine gas, oils, certain aromatic solvents
Linatex®	<u>Specially compounded "RED" coloured soft material</u>	"WET" slurry application

Vacuum reinforced diaphragms are available and will contain a steel stud and be designated by additional code letter (V) e.. D10V

Because of the steel stud these diaphragms can be used on services where conventional bronze studs are prohibited e.g. use of D40V on acetylene.

*Other speciality customised diaphragm material available to suit individual requirement made out of various polymers

Main Dimensions assembled with Weir Type Diaphragm Valves - Rubber Diaphragm



DN	L			H	ØA
	DIN* 3202F1 UL/RL	BS5156			
	UL	RL			
15	130	108	114	415	250
20	150	117	123	427	250
25	160	127	133	434	250
32	180	146	152	444	250
40	200	159	165	476	250
50	230	190	196	471	250
65	290	216	222	503	250
80	310	254	260	520	250
100	350	305	313	736	405
125	400	356	364	786	405
150	480	406	414	856	405

Certified Drawings

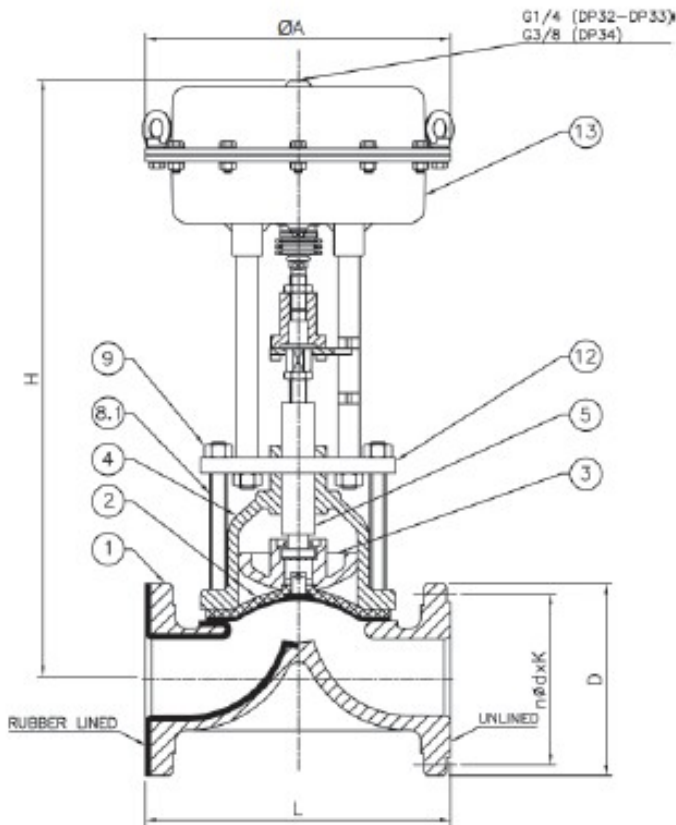
Dimensions are based on the serialized manufacture and should be taken as preliminary.

Our engineering section can issue certified drawings if required and on specific projects.

Please bear in mind the service clearance area when planning a skid or when installation happens in a very tight area.

* DIN 3202 F1: EN 558-1 Series 1
BS 5156: EN 558-1 Series 7

Main Dimensions assembled with Weir Type Diaphragm Valves - PTFE Diaphragm



DN	L				ØA
	DIN* 3202F1 UL/RL	BS6156 UL RL		H	
15	130	108	114	415	250
20	150	117	123	427	250
25	160	127	133	434	250
32	180	146	152	444	250
40	200	159	165	476	250
50	230	190	196	471	250
65	290	216	222	503	250
80	310	254	260	520	250
100	350	305	313	736	405
125	400	356	364	786	405
150	480	406	414	856	405

Certified Drawings

Dimensions are based on the serialized manufacture and should be taken as preliminary.

Our engineering section can issue certified drawings if required and on specific projects.

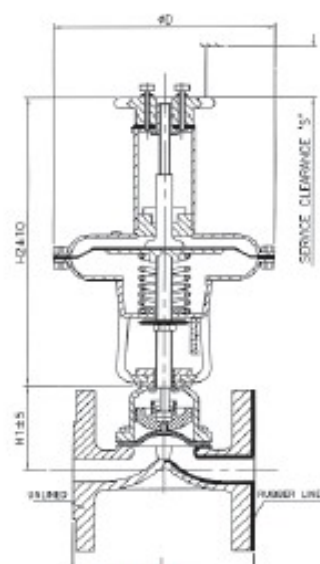
Please bear in mind the service clearance area when planning a skid or when installation happens in a very tight area.

* DIN 3202 F1: EN 558-1 Series 1
BS 5156: EN 558-1 Series 7

Main Dimensions assembled with Weir Type Diaphragm Valves

DN	L				ACTUATOR					
	DIN* 3202F1	BS 5156			Model	H2	Ød	S	Weight	
15	130	108	114	63	109WT	280	110	200	12	
					1018WT	430	185	200	12	
20	150	117	123	70	109WT	280	110	200	13	
					1018WT	430	185	200	13	
25	160	127	133	77	109WT	280	110	200	14	
					1018WT	430	185	200	15	
32	180	146	152	82	1018WT	430	185	200	17	
					1035WT	440	235	200	20	
40	200	159	165	109	1018WT	430	185	200	19	
					1035WT	440	235	200	21	
50	230	190	196	99	1018WT	430	185	200	24	
					1035WT	440	235	200	26	
					1001WT	470	276	200	32	
65	290	216	222	126	1018WT	430	185	200	29	
					1035WT	440	235	200	32	
					1001WT	470	276	200	37	
					1002WT	540	330	250	50	
					1003WT	560	390	250	70	
80	310	254	260	138	1035WT	440	235	200	39	
					1001WT	470	276	200	44	
					1002WT	540	330	250	54	
					1003WT	560	390	250	62	
100	350	305	313	165	1002WT	540	330	250	65	
					1003WT	560	390	250	73	
					1004WT	740	450	300	106	
125	400	356	364	202	1003WT	560	390	250	90	
					1004WT	740	450	300	123	
150	480	406	414	252	1004WT	740	450	300	114	
					1005WT	770	600	300	147	
					A1-300WT	825	616	300	179	
					1005DDWT	1010	600	350	199	
					A1-300DDWT	1025	616	350	225	
200										
250										
300										

* DIN 3202 F1: EN 558-1 Series 1



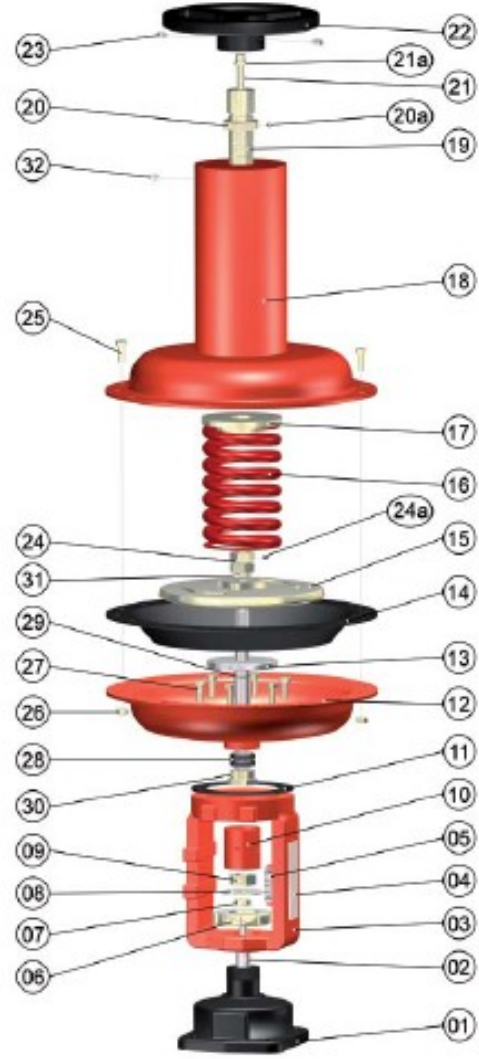
Certified Drawings

Dimensions are based on the serialized manufacture and should be taken as preliminary.

Our engineering section can issue certified drawings if required and on specific projects.

Please bear in mind the service clearance area when planning a skid or when installation happens in a very tight area.

Part	Description	Material
01	Valve Bonnet	-
02	Valve spindle	-
03	Yoke	Ductile Iron
04	Label	Aluminium
05	Scale indicator	St. Steel SS304
06	Lock nut-yoke	Steel Plated
07	Lock nut valve spindle	Steel Plated
08	Travel indicator	St. Steel SS304
09	Stopped nut	Steel
10	Adjustable mech. Stop*	Steel
11	Gasket	Neoprene
12	Lower casing assembly	Steel Pressed
13	Actuator stem	St. Steel SS410
14	Actuator Diaphragm	Nitrile with nylon fabric.
15	Diaphragm Plate	Cast Iron
16	Actuator Spring	Spring Steel
17	Spring retainer	Steel
18	Upper casing assly	Steel
19	Handwheel spindle	Steel Plated
20	Check nut	Steel
20a	Grub screw	Steel
21	Lifting screw	Steel Plated
22	Handwheel	Cast Iron
23	Retainers (2 Nos)	Steel
24	Actuator plate lock nut (2 Nos)	Cast Iron
24a	Spindle	Steel
25	Actuator bolts	Steel
26	Actuator nuts	Steel
27	Lower casing bolts	Steel
28	U-seals (2 Nos)	Neoprene
29	O ring	Neoprene
30	U-seals bush	Cast Iron
31	Split washer	Steel
32	Grease nipple	Steel



Genmak Makina Elektrik Elektronik San. Tic

İkitelli Organize Sanayi Bölgesi Aykosan Sanayi Sitesi

Dörtlü D Blok No:189 Başakşehir - istanbul - Turkey

Tel: +90 212 671 23 49 - +90507 403 03 22 - +90532 254 54 11

E-mail: genmakmakine@hotmail.com