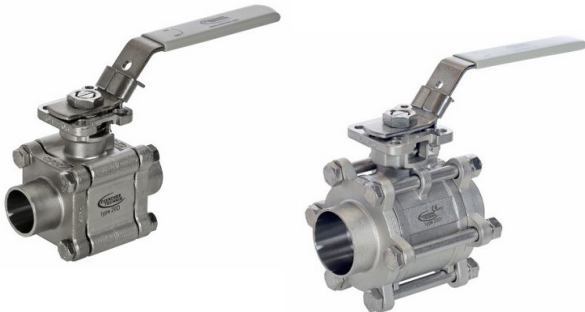
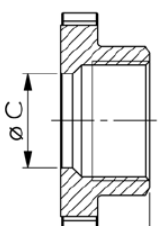
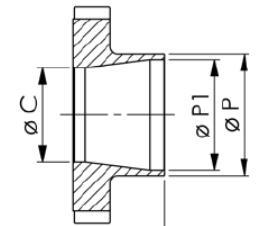
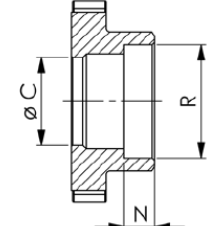
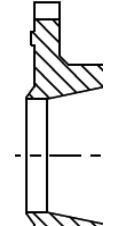


3-piece Ball Valve

Series A20D/AF20D



3-piece Ball valve, DN08—DN100 (DN 125 - DN 150 in Progress), full and reduced bore, antistatic, with locking device, modular construction with ISO-top-flange for direct mounting of stem extension or pneumatic or electric actuator. Certified FireSafe®-construction. Stainless- and Carbon steel available. Various connection types and sealing combinations available. Customized configurations are possible.

Threaded Connection ends BSP, NPT	Butt weld BW Connection ends BW ISO 1127-1 BW SCH40	Socket welded SW Connection ends	Firesafe® construction
Types A24D / A25D	Types A26D / A27D	Type A29D	Type AF2_D
			

DN08 - DN25 full bore PN 125 DN32 - DN40 full bore PN100 DN50 - DN100 full bore PN 64 DN15 - DN32 reduced bore PN 125 DN40 - DN50 reduced bore PN 100 DN65 - DN100 reduced bore PN 64 DN125 - DN150 full and reduced bore in Progress	PED certified 2014/68/EU Firesafe tested acc. to API 607 and ISO 10497 ATEX declaration 2014/34/EU TA-Luft tested acc. to DIN EN ISO 15848-1 EAC TRCU 010/2011, 032/2013 SIL 3 certified, Elastomers acc. to FDA 21 CFR Elastomers acc. to EN 1935 / EU 10/2011
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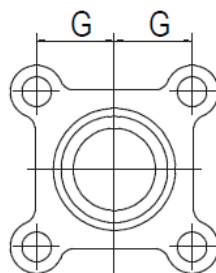
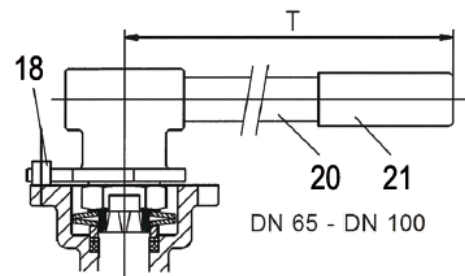
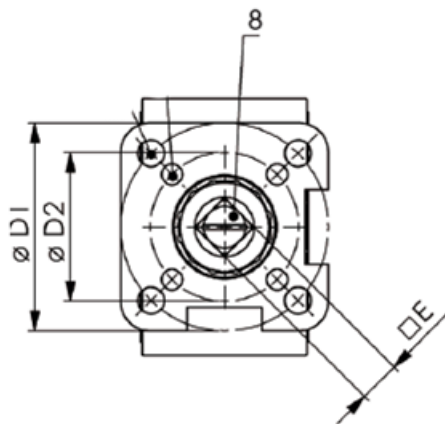
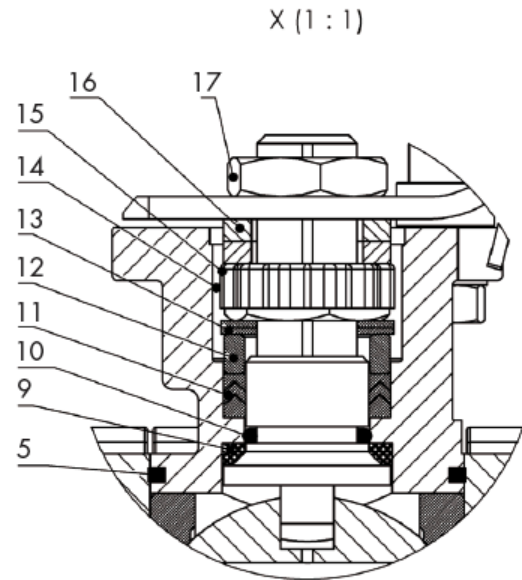
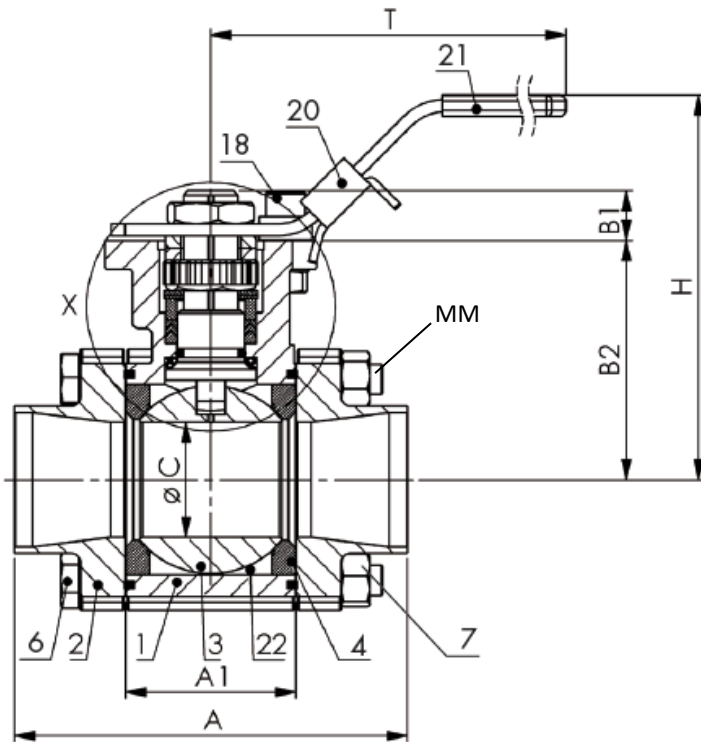


PED / TA-Luft

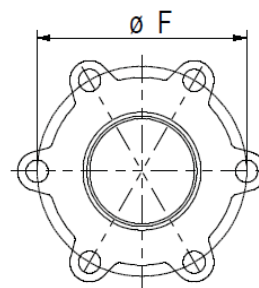


3-piece Ball Valve

Series A20D/AF20D



DN08—DN40 Full bore
DN15—DN50 Reduced bore



DN50—DN100 Full bore

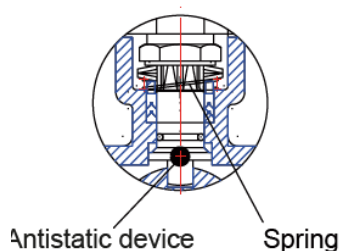
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3-piece Ball Valve

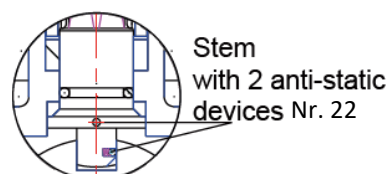
Series A20D/AF20D

Item Nr.	Description	Material Specification		Sealing Kit
		Stainless Steel	Carbon Steel	Spare Parts
1	Body	1.4408	1.0619	
2	Threaded connection	1.4408	1.0619	
	Welded connection	1.4409	1.0619	
3	Ball	1.4401	1.4401	
4	Seat	RPTFE*	CPTFE*	X
5	Body Sealing	RPTFE/Graphite	RPTFE/Graphite	X
6	Hexagon screw	A2-70	A2-70	
7	Hexagon nut	A2-70	A2-70	
8	Stem	1.4401	1.4401	
9	Sealing ring	RPTFE	RPTFE	X
10	O-ring	FKM	FKM	X
11	Shaft packing	CPTFE	CPTFE	X
12	Pressure ring	1.4401	1.4401	
13	Belleville spring washer	1.4301	1.4301	
14	Shaft nut	1.4301	1.4301	
15	Safety cap	1.4301	1.4301	
16	Spacer	1.4401	1.4401	
17	Lever nut	1.4301	1.4301	
18	Cylinder screw (stop)	1.4401	1.4401	
19	Lever	1.4301	1.4301	
20	Locking device	1.4401	1.4401	
21	Lever protection	PVC	PVC	
22	Antistatic devices (balls)	1.4401	1.4401	

DN08 - DN15



DN20 - DN100



3-piece Ball Valve

Fig. A20D/AF20D

Reduced Bore

DN	A SW BSP NPT	A BW	A1	B1	B2	Ø C	E	H	T	Ø F	G	MM	D1 D2	Ø P	Ø P1 Sch40	Ø P1 ISO 1127	Ø R	N
15 - 1/2"	75	75	24.5	7.6	42.6	10	9-7/16 UNF	76.6	140	-	19.1	M6	F03 F04	21.6	15.8	18.1	21.9	10
20 - 3/4"	73	75	24.5	7.6	42.6	15	9-7/16 UNF	76.6	140	-	19.1	M6	F03 F04	27.1	20.9	23.7	27.3	13
25 - 1"	86	90	31.4	8.6	46.8	20	9-7/16 UNF	81.7	140	-	22.1	M8	F03 F04	33.9	26.6	29.7	33.8	13
32 - 1 1/4"	106	110	41.3	10.4	59.3	25	11-9/16 UNF	98.3	165	-	25.1	M8	F04 F05	42.5	35.0	38.4	42.8	13
40 - 1 1/2"	111	115	48.4	10.4	62.6	32	11-9/16 UNF	101.6	165	-	28.6	M10	F04 F05	48.5	40.9	44.3	48.9	13
50 - 2"	130	130	56.3	13.4	79.0	38	14 - M18x2.5	128.0	217	-	33.3	M12	F05 F07	60.4	52.5	56.3	61.3	16
65 - 2 1/2"	143	143	71.4	13.4	87.7	50	14 - M18x2.5	137.0	217	114	-	M14	F05 F07	76.3	69.7	72.1	76.9	16
80 - 3"	185	185	86.6	16.8	108.7	65	17 - M24x3.0	167.5	380	139	-	M16	F07 F10	88.9	81.2	84.3	90.0	16
100 - 4"	205	205	99.0	17.8	117.7	80	17 - M24x3.0	176.5	450	160	-	M16	F07 F10	114.3	106.3	109.1	115.5	20
125 - 5"	-	240	127	17.8	133.7	100	17 - M24x3.0				-	M16		141.3	128.2	134.5	-	-
150 - 6"	-	260	151	28.0	180.0	125	27 - M27x3.0				-	M16		168.3	154.1	163.1	-	-

Gearbox
recommended

Weight in Kg	DN08	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150
Full bore	0.8	0.8	0.8	1.3	2.0	2.8	4.3	5.7	11.4	15.1	24.3		
Reduced bore			0.8	0.8	1.3	2.0	2.8	4.4	6.1	13.0	16.3		

Kv-Values (m3/h) for Full bore	DN08	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150
	8	8	11	28	50	71	102	205	275	500	867		

Starting torques (Nm) for Lubricating medias	DN08	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150
	8	8	10	11	18	30	37	55	61	90	106		
MAST (Nm)	39	39	39	39	81	81	105	214	214	483	509		

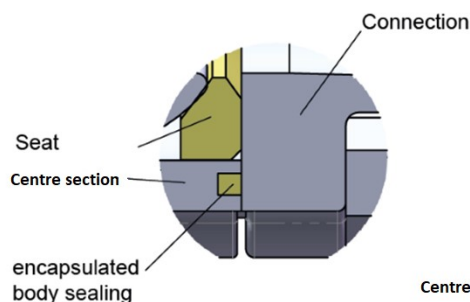
3-piece Ball Valve

Series A20D/AF20D

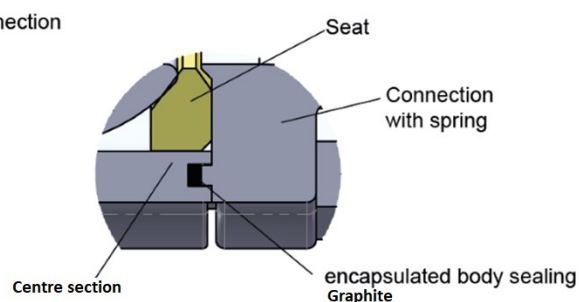
Full Bore

DN	A SW BSP NPT	A BW	A1	B1	B2	Ø C	E	H	T	Ø F	G	MM	D1 D2	Ø P	Ø P1 Sch40	Ø P1 ISO 1127	Ø R	N
08 - 1/4"	75	75	24.5	7.6	42.6	10	9 - 7/16 UNF	76.6	140	-	19.1	M6	F03 F04	13.7	9.2	10.3	14.4	10
10 - 3/8"	75	75	24.5	7.6	42.6	10	9 - 7/16 UNF	76.6	140	-	19.1	M6	F03 F04	17.2	12.5	14.0	17.5	10
15 - 1/2"	75	75	24.5	7.6	42.6	15	9 - 7/16 UNF	76.6	140	-	19.1	M6	F03 F04	21.6	15.8	18.1	21.9	10
20 - 3/4"	86	90	31.4	8.6	46.8	20	9 - 7/16 UNF	81.7	140	-	22.1	M8	F03 F04	27.1	20.9	23.7	27.3	13
25 - 1"	106	110	41.3	10.4	59.3	25	11 - 9/16 UNF	98.3	165	-	25.1	M8	F04 F05	33.9	26.6	29.7	33.8	13
32 - 1 1/4"	111	115	48.4	10.4	62.6	32	11 - 9/16 UNF	101.6	165	-	28.6	M10	F04 F05	42.5	35.0	38.4	42.8	13
40 - 1 1/2"	130	130	56.3	13.4	79.0	38	14 - M18x2.5	128.0	217	-	33.3	M10	F05 F07	48.5	40.9	44.3	48.9	13
50 - 2"	143	143	71.4	13.4	87.7	50	14 - M18x2.5	137.0	217	114	-	M12	F05 F07	60.4	52.5	56.3	61.3	16
65 - 2 1/2"	185	185	86.6	16.8	108.7	65	17 - M24x3.0	167.5	380	139	-	M14	F07 F10	76.6	69.7	72.1	76.9	16
80 - 3"	205	205	99.0	16.8	117.7	80	17 - M24x3.0	176.5	450	160	-	M16	F07 F10	88.9	81.2	84.3	90.0	16
100 - 4"	240	240	127	17.8	133.7	100	17 - M24x3.0	192.5	450	193	-	M16	F07 F10	114.3	106.3	109.1	115.5	20
125 - 5"	-	260	151	28.0	180.0	125	17 - M24x3.0	Gearbox recommended				M16		141.3	128.2	134.5		
150 - 6"	-	290	183	28.0	198.0	150	27 -					M16		168.3	154.1	163.1		

standard

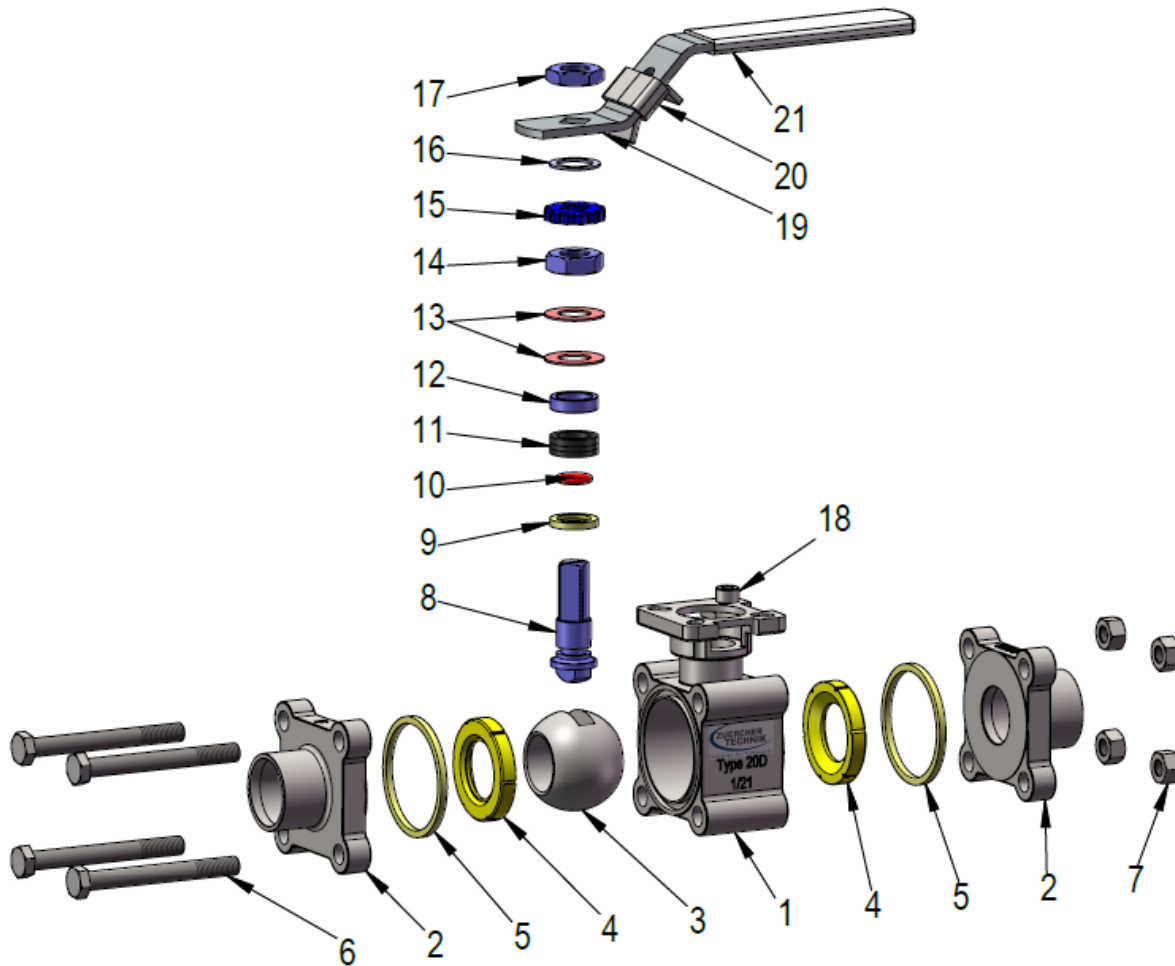


fire-safe



3-piece Ball Valve

Series A20D/AF20D



Item Nr.	Description	Material Specification		Sealing kit
		Stainless steel	Carbon steel	
1	Body	1.4408	1.0619	
2	Threaded connection	1.4408	1.0619	
	Weld connection	1.4409	1.0619	
3	Ball	1.4401	1.4401	
4	Seat	RPTFE*	CPTFE*	X
5	Body sealing	RPTFE / Grafit	RPTFE/Grafit	X
6	Hexagon screw	A2-70	A2-70	
7	Hexagon nut	A2-70	A2-70	
8	Stem	1.4401	1.4401	
9	Sealing ring	RPTFE	RPTFE	X
10	O-Ring	FKM	FKM	X

Item Nr.	Description	Material Specification		Sealing kit
		Stainless steel	Carbon steel	
11	Shaft packing	CPTFE	CPTFE	X
12	Pressure ring	1.4401	1.4401	
13	Bellville spring washer	1.4301	1.4301	
14	Shaft nut	1.4301	1.4301	
15	Safety cap	1.4301	1.4301	
16	Spacer	1.4401	1.4401	
17	Lever nut	1.4301	1.4301	
18	Cylinder scew (stop)	1.4401	1.4401	
19	Lever	1.4301	1.4301	
20	Locking device	1.4401	1.4401	
21	Lever protection	PVC	PVC	

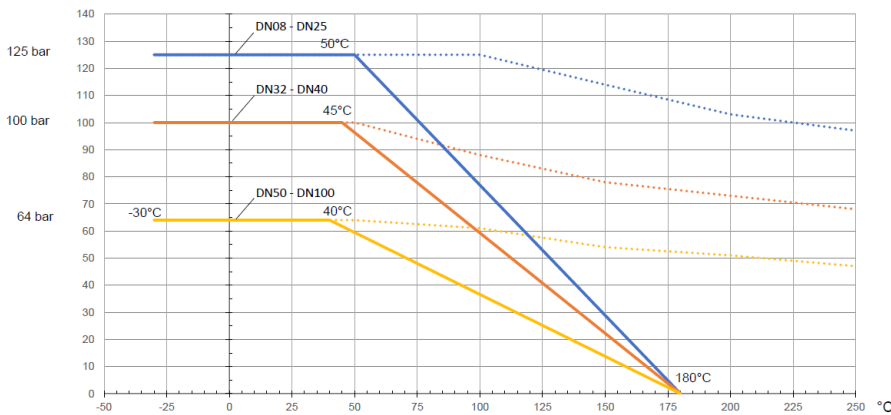
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3-piece Ball Valve

Series A20D/AF20D

Pressure / Temperature charts

PTFE



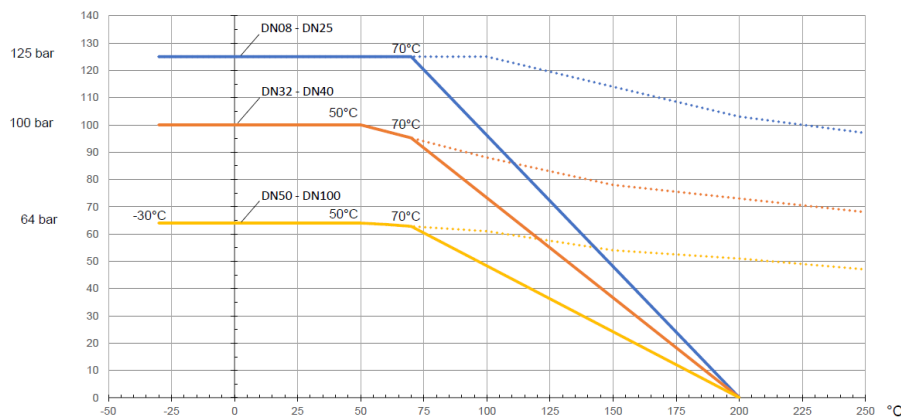
PTFE virgin

PTFE (Teflon®) is the most used sealing material for ball valves with excellent resistance against almost all medias.

Color: pale white

Tests: FDA approved, USP cl. VI

RPTFE



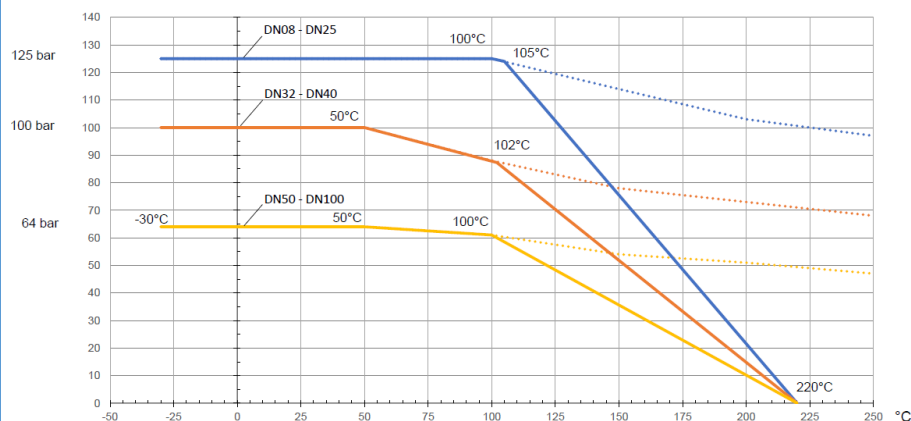
RPTFE

PTFE virgin, reinforced with a part of glass fibre ca. 15%, same chemical resistance as PTFE virgin, but higher resistance of load changes consistency compared to PTFE and use at higher p/ T values.

Color: white

Tests: FDA approved

CPTFE



CPTFE

PTFE virgin, reinforced with a higher part of carbon fibre ca. 25%, to use for higher temperature range and higher consistency of load changes compared to RPTFE.

Color: black

Manufacturer standard: acc. EC 1935/2004

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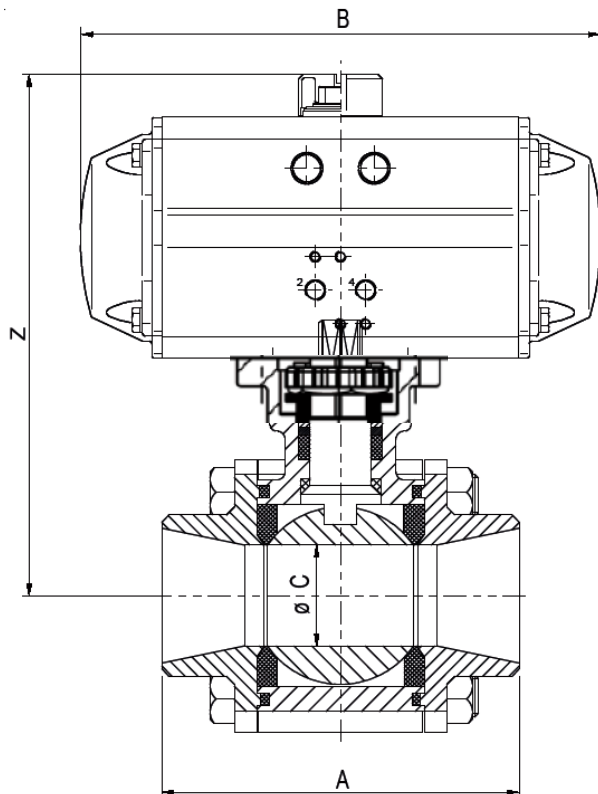
3-piece Ball Valve

Series A20D/AF20D

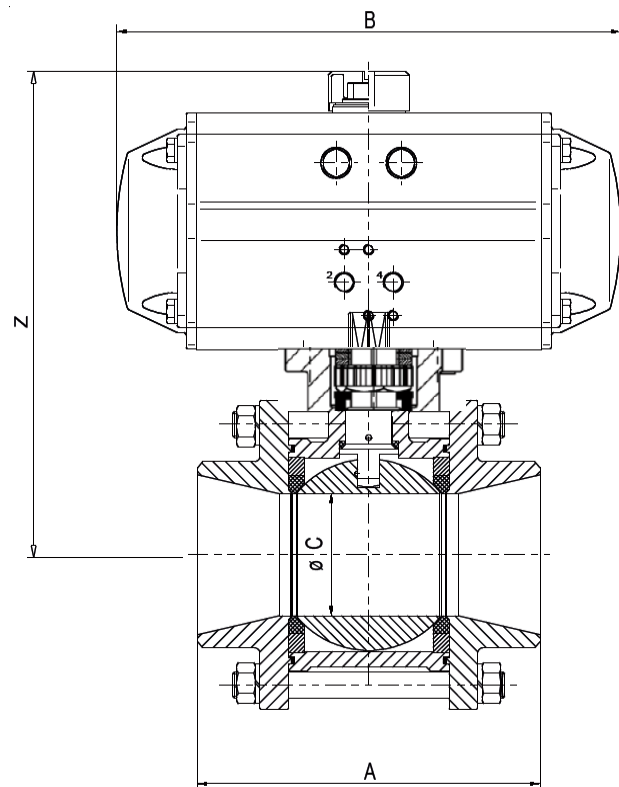
Automatization

(calculation for 6 bar supply air, maximum delta p 10 bar, lubricating medias)

DN08—DN40 voller Durchgang



DN50—DN100 voller Durchgang



DN (Full bore)	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150
A (BW)	75	75	75	90	110	115	130	143	185	205	240	260	290
B (single/ double acting)	141/ 141	141/ 141	141/ 141	159/ 141	211/ 159	211/ 159	248/ 211	269/ 211	315/ 248	315/ 248	315/ 248		
Z (single/ double acting)	132/ 132	132/ 132	132/ 132	152/ 136	182/ 165	165/ 168	235/ 210	256/ 225	256/ 244	293/ 253	309/ 269		
Single acting Actuator Type Spring kit	AT050 S8	AT050 S8	AT050 S8	AT100 S12	AT200 S12	AT200 S12	AT250 S12	AT300 S12	AT300 S12	AT350 S12	AT350 S12		
Double acting Actuator Type	AT050D	AT050D	AT050D	AT050D	AT100D	AT100D	AT200D	AT200D	AT250D	AT250D	AT250D		

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3-piece Ball Valve

Series A20D/AF20D

How to order code / codification

Code 1	Body material, Series
02	Carbon steel, series A20D
2	Stainless steel, series A20D

Code 4	Connection selection / Connection 2
2	Threaded male
4	Threaded female BSPP
5	Threaded female NPT
6	Butt weld ends BW acc. SCH40s
7	Butt weld ends BW ISO 1127-1
9	Socket weld ends SW
X	Special


Code 2	Connection selection / Connection 1
2	Threaded male BSP (EN 228-1)
4	Threaded female BSP (EN 228-1)
5	Threaded female NPT (B1.20.1)
6	Butt weld ends BW acc. SCH40s
7	Butt weld ends BW ISO 1127-1
9	Socket weld ends SW (B16.11)
X	Special

Code 5	Design
01	-
02	Stem O-Ring FPM/TA-Luft, Standard
03	Stem with O-Ring FEP
X	Special

Code 3	Sizes		
	DN	Reduced bore RB	Full bore FB
	8 - 1/4"	-	11
	10 - 3/8"	-	12
	15 - 1/2"	03	13
	20 - 3/4"	04	14
	25 - 1"	05	15
	32 - 1 1/4"	06	16
	40 - 1 1/2"	07	17
	50 - 2"	08	18
	65 - 2 1/2"	09	19
	80 - 3"	36	35
	100 - 4"	46	45
	125 - 5"	56	55
	150 - 6"	66	65

Code 6	Sealing configuration / Sealing material specification					
	Types	Seat ring	Body sealing	Stem packing	Stem seal	
C	CRCR	PTFE+25% carbon	PTFE+15% glass	PTFE+25% carbon	PTFE+15% glass	Standard
K	PRCR	PEEK®	PTFE+15% glass	PTFE+25% carbon	PTFE+15% glass	
R	RRCR	PTFE+15% glass	PTFE+15% glass	PTFE+25% carbon	PTFE+15% glass	
T	TRCR	PTFE virgin	PTFE+15% glass	PTFE+25% carbon	PTFE+15% glass	
F	CGGR	PTFE+25% carbon	Graphite	Graphite	PTFE+15% glass	Fire-Safe
FR	RGGR	PTFE+15% glass	Graphite	Graphite	PTFE+15% glass	
FT	TGGR	PTFE virgin	Graphite	Graphite	PTFE+15% glass	
P	PGGR	PEEK®	Graphite	Graphite	PTFE+15% glass	
X	Special					

Ball valve series A20D, Stainless steel, DN25, full bore, butt weld ends BW ISO, seat RPTFE

Code 1	Code 2	Code 3	Fix	Code 4	Code 5	Code 6	
2	7	15	D.	7	02	R	

Remark: further adders at Article Nr.(z.B. ...comp.z...) are needed acc. to internal system

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3-piece Ball Valve

Series A20D/AF20D

Options

Extended tube connection	Clamp connection	Compression fitting connection	Flange connection	Threaded male connection	Kamlok®-connection
					
Cavity fillers	Heating jacket	V-port ball	Spring return lever	Free of oil and grease execution	Gear box
		 30° 60°		 <small>OL UNO PESTRINI! FREE OF OIL AND GREASE SANS HUILE NI GRAISSE</small> 	
Positioner	Limit switches		Solenoid valves	Silencer	Throttle plate valve
					
Ball valve manual DN08—DN40	Ball valve manual DN50—DN 150	Ball valve with stem extension	with direct mounted pneum. actuator	with direct mounted pneum. actuator and stem extension	
					

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