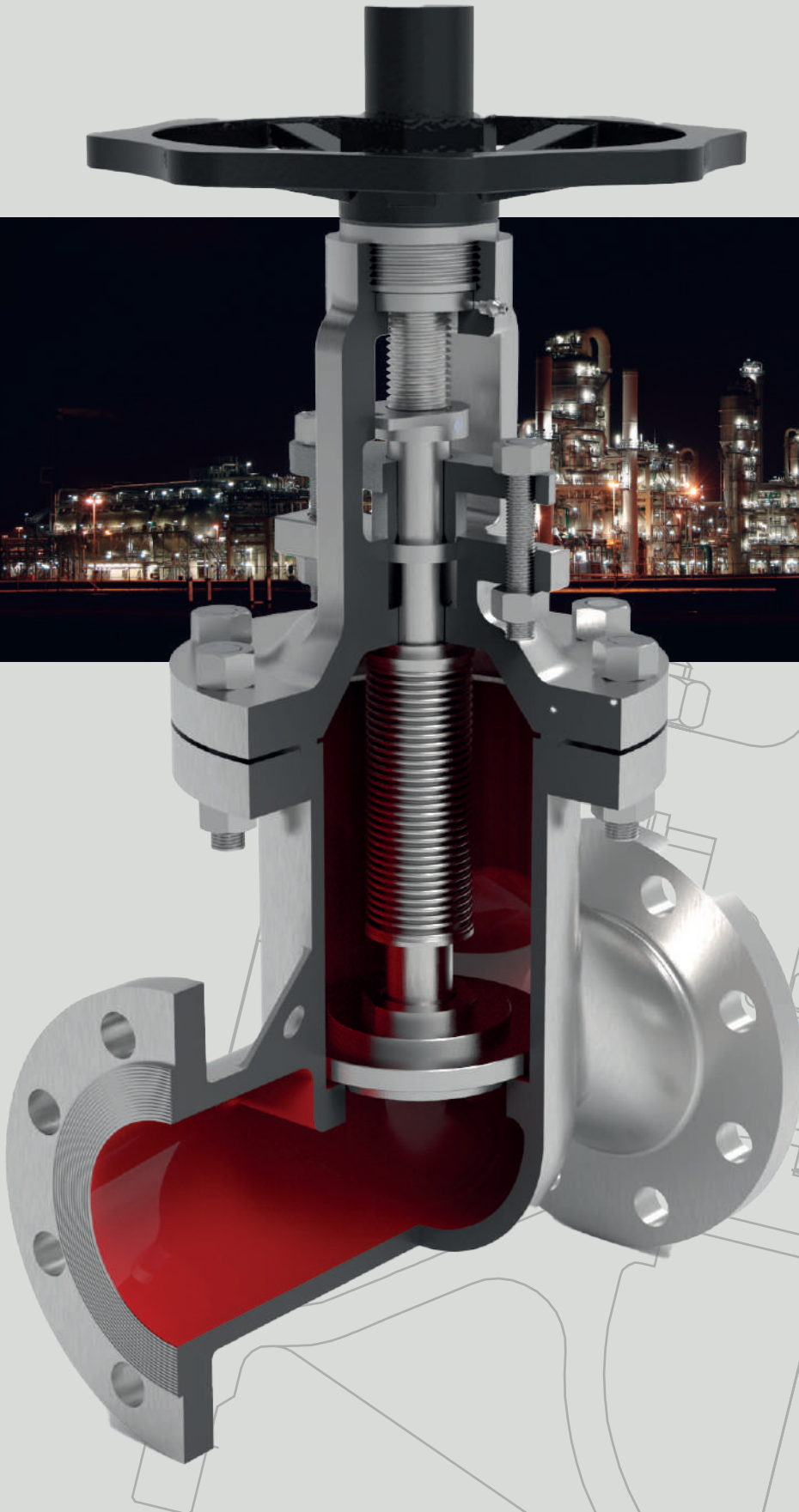


THE CHEMICAL VALVE



BVALVE[®]
Adding real value

Features of high quality bellows sealed valves

Easy and Safe Operation

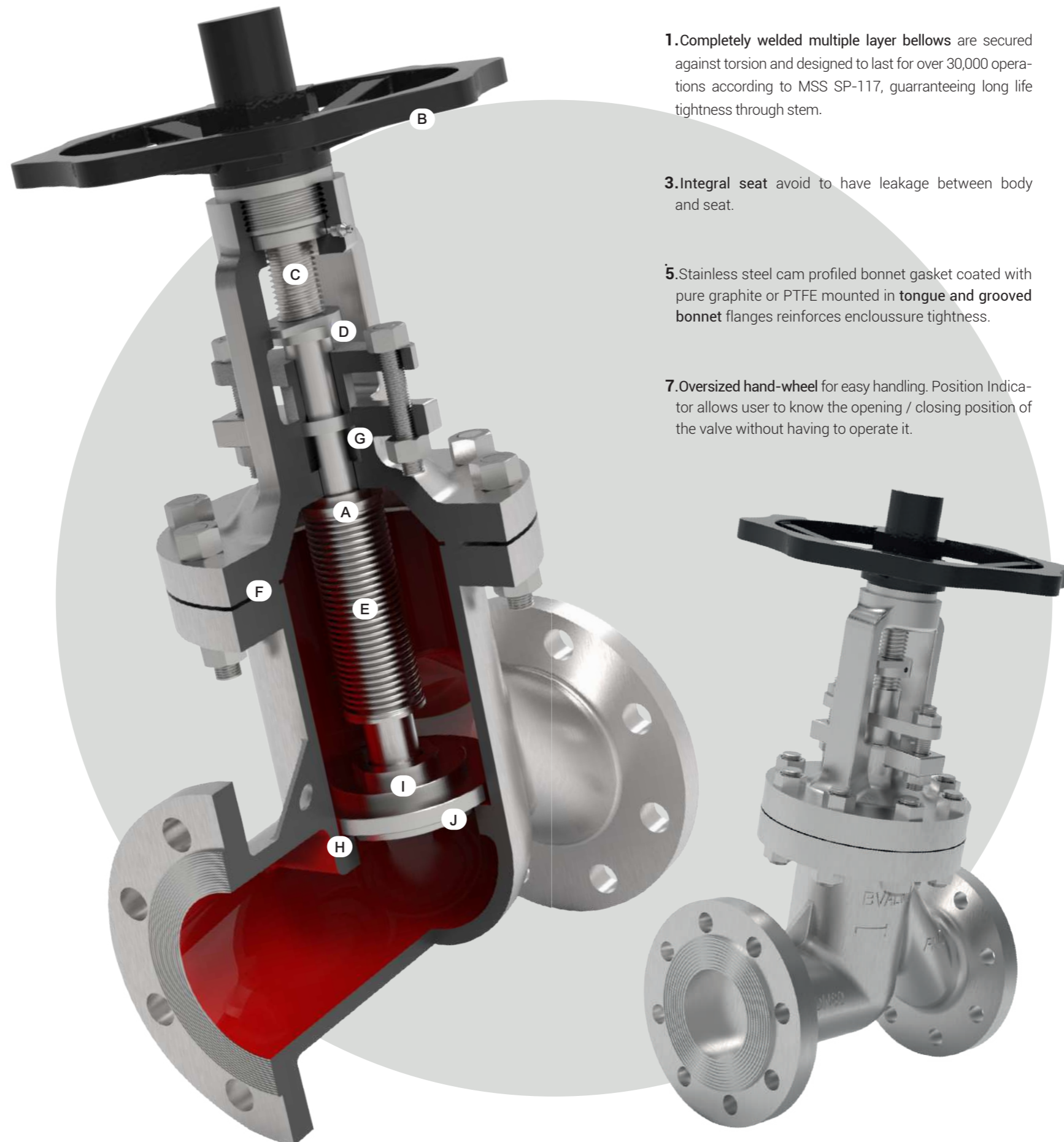
- » Metal-metal backseat provides mechanical stop which avoids stem from being ejected. (A)
- » Large diameter and robust nodular cast iron / steel hand-wheel. (B)
- » ACME oversized thread prevents valve from blocking under severe working conditions. (C)
- » Position indicator. (D)

Zero Emissions

- » German manufactured multilayer bellows. (E)
- » Backseat locks valve in open position avoiding any leakage in case of broken bellows. (A)
- » Tongue and grooved body and bonnet joint with graphite gaskets or PTFE. (F)
- » TA-LUFT certified graphite safety packing or PTFE. (G)

Zero Seat Leakage

- » Plug and seat stellite. (H)
- » 360° Free rotating plug enhances cleaning of impurities and allows closing surface to be different every cycle, decreasing wear down and guaranteeing tightness for longer. (I)
- » Conical plug reduces closing surfaces and therefore increases tightness. (J)
- » Integral seats



BVALVE Advantages

- 1. Completely welded multiple layer bellows** are secured against torsion and designed to last for over 30,000 operations according to MSS SP-117, guaranteeing long life tightness through stem.
- 2. Standard 360° free rotation and conical plug** provides a tighter closure while maintaining seat clean from shards. Both seat and plug are hardened with stellite.
- 3. Integral seat** avoid to have leakage between body and seat.
- 4. TA-LUFT certified** full size safety gland packing made of pure graphite or PTFE together with our bellows, provide a fully reliable 0 environmental emission rate.
- 5. Stainless steel cam profiled bonnet gasket** coated with pure graphite or PTFE mounted in **tongue and grooved bonnet flanges** reinforces enclosure tightness.
- 6. Metal back seat** is a key safety feature since it avoids stem from being ejected while stops leakage in case of a broken bellows.
- 7. Oversized hand-wheel** for easy handling. Position Indicator allows user to know the opening / closing position of the valve without having to operate it.
- 8. Extended Bellows and Bonnet** enhances safety for the operator since temperature effect is easily dissipated while increasing bellows life span.
- 9. Standard design** allow these valves to be **automated**, therefore becoming a control valve. This may also perform **regulation** when including throttling plug.

OUR MATERIALS FOR ALL MODELS

Our product range

Nº	COMPONENT	ALLOY 20	SS CG8M	CF8C	ALLOY 317MN	URANUS B6	MONEL 400	INCONEL 600	HASTELLOY C276	INCOLOY 825	STAINLESS STEEL 316Ti	DUPLEX Gr.4A	SUPER DUPLEX Gr.5A	SUPER DUPLEX 6A	
1	Body	A 351 Gr.CN7M (Alloy 20)	A 351 Gr.CG8M/CG3M	A 351 Gr.CF8C	317LMN(1.4439)	904/904L	A 494 Gr.M35-1	A 494 Gr.CY40	A 494 Gr.CW12MW	A 494 Gr.CU5MCuC	SS 316Ti	A 995 Gr.CD3MN(4A)	A 995 Gr.CE3MN(5A)	A 995 Gr.CD3MWCuN(6A)	
2	Bonnet	A 351 Gr.CN7M (Alloy 20)	A 351 Gr.CG8M/CG3M	A 351 Gr.CF8C	317LMN(1.4439)	904/904L	A 494 Gr.M35-1	A 494 Gr.CY40	A 494 Gr.CW12MW	A 494 Gr.CU5MCuC	SS 316Ti	A 995 Gr.CD3MN(4A)	A 995 Gr.CE3MN(5A)	A 995 Gr.CD3MWCuN(6A)	
3	Plug ¹	Alloy 20 / CN7M	SS 317/317L/CG8M/CG3M	SS 347/CF8C	317LMN(1.4439)	904/904L	MONEL 400/M35-1	A 494 Gr.CY40/INCONEL 600	HASTELLOY C/CW12MW	A 494 Gr.CU5MCuC Alloy 825	SS 316Ti	A 995 Gr.CD3MN(4A) S31803	A 995 Gr.CE3MN(5A) S32750	A 995 Gr.CD3MWCuN(6A) /S32760	
4	Integral seat ²	CN7M	CG8M/CG3M	CF8C	317LMN(1.4439)	904/904L	M35-1	A 494 Gr.CY40	A 494 GR.CW12MW	A 494 Gr.CU5MCuC	SS 316Ti	A 995 Gr.CD3MN(4A)	A 995 Gr.CE3MN(5A)	A 995 Gr.CD3MWCuN(6A)	
5	Bellow	SS 321/SS 316Ti/HASTELLOY C276/INCONEL 625													
6	Bottom Bellow collar	SS 321/SS 316L/HASTELLOY C276/INCONEL 625													
7	Stem	Alloy 20	SS 317 / 317L	SS 347	SS 317 LMN	904/904L	MONEL 400	INCONEL 600	HASTELLOY C 276	Alloy 825	SS 316Ti	SS31803	S32750 / S32760		
8	Stem Nut	Alloy 20	SS 317 / 317L	SS 347	SS 317 LMN	904/904L	MONEL 400	INCONEL 600	HASTELLOY C 276	Alloy 825	SS 316Ti	SS31803	S32750 / S32760		
9	Top Bellow collar	SS 321/SS 316L/HASTELLOY C276/INCONEL 625													
10	Gasket	SPW Alloy 20 + Graphite / PTFE	SPW 317/317L + Graphite / PTFE	SPW SS 347 + Graphite / PTFE	SPW SS 317L + Graphite / PTFE	SPW 904/904L + Graphite / PTFE	SPW MONEL 400+ Graphite / PTFE	SPW INCONEL 600+ Graphite / PTFE	SPW HC 276 + Graphite / PTFE	SPW Alloy 825 + Graphite / PTFE	SPW SS316Ti + Graphite / PTFE	SPW S31803 + Graphite / PTFE	SPW S32750 + Graphite / PTFE	SPW S32760 + Graphite / PTFE	
11	Packing	Graphite/PTFE													
12	Gland Bush Flange	ASTM A 351 Gr.CF8M/316													
13	Fastener	ASTM A 193 Gr.B8M/A194 Gr.8M													
14	Gland stud / Nut	ASTM A 193 Gr.B8M/A194 Gr.8M													
15	Indicator	ASTM A 351 Gr.CF8M/316													
16	Hand Wheel	SG IRON/CS/STAINLESS STEEL 316													
17	Hand wheel Nut	ASTM A 351 Gr.CF8M/316													

1) STELLITED 6
2) STELLITED 21

OUR PRODUCT RANGE

VALVES ACCORDING DIN

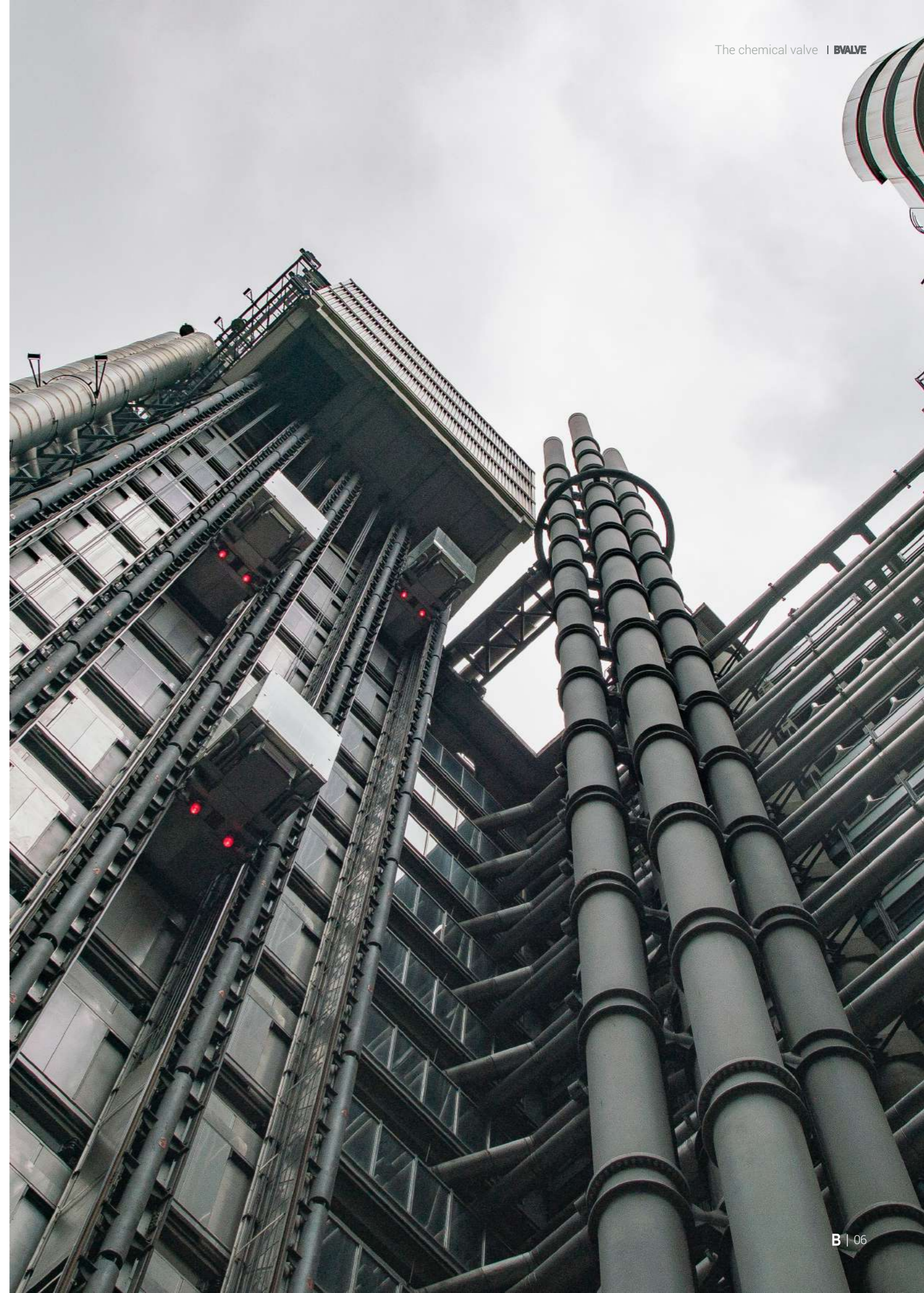
Design	EN 12516
Sizes	DN 15 to DN 300 mm
Connections	Flange DIN EN 1092-1RF/ Butt weld ends acc. to DIN EN 12627
PN	PN16/25/40
Distance face to face	According EN 558-1
Testing AS PER	EN 12266-RATE A

VALVES ACCORDING ASME

Design	B 16.34
Sizes	From ½"-12"
Connections	Flange B 16.10 RF/Butt weld ends acc. to ASME B16.25
Class	ANSI 150/300/600lbs
Distance face to face	B 16.10
Testing AS PER	API 598

OPTIONALS

Ratings	PN 63-PN160 ANSI 900-1500lbs
Sizes	DN350-500 mm 14"-20"



Critical applications

Bellows sealed valves have become highly popular nowadays due to the mass consumption industry demand has generated. Unfortunately this increase in demand has led to a drastic reduction in quality performance in searching of cheaper prices, and therefore missing this valve's main target, being a maintenance free stop valve. Overall, chemical applications must indeed comply with highest quality standards in order to guarantee safety in operation and therefore BVALVE rejects to follow this trend.

In turn, BVALVE is pleased to present its new premium BV25066CH, specially designed for chemical applications and manufactured in compliance with highest quality standards, while keeping highly competitive prices.

Application

BVALVE's figure BV25066CH is specifically designed for common and critical services in the chemical industry. These include applications with complex mediums such as corrosive, toxic, flammable, combustible and volatile gases or fluids.

Figure BV25066CH bellows is protected from the hazardous effects of medium's flow velocity, therefore displaying excellent performance in applications where erosion, vaporization and high velocity are present.

"Potential processes suitable for this valve are isocyanates, such as TDI, MDI or HDI, bleaches, alkylation processes, anhydrous hydrofluoric acid, sulfuric acid, hydrocyanic acid, pesticides, insecticides, chlorofluorocarbon compounds (CFC), hydrofluorocarbon compounds (HFC), PTFE, ethylene oxide, dry chlorine (Cl₂), phosgene or anhydrous hydrochloric acid among others."

Bellows as a Leakage Barrier

Our German manufactured bellows is welded to the stem, becoming a definitive metallic barrier between the process medium and the atmosphere, and hence guarantying zero leakage performance. Still, for a higher security, safety TA-LUFT approved packing is applied in design. Further more, our multiple layer bellows are designed to last at least 30.000 cycles according to MSS SP-117 manufacturing standard.



Materials

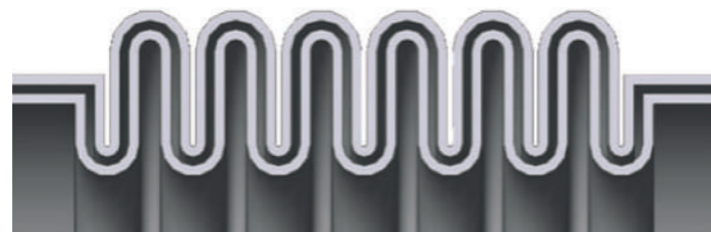
SS 321

SS 316Ti

INCONEL 625

HASTELLOY C276

Multi Layer Bellows



- » Double, triple and quadruple layer bellows depending on the size of the valve.
- » Bellows designed to support 30,000 operation cycles.
- » Bellows are welded to the stem and not to the disc, preventing the transmission of vibrations to the bellows, and therefore extending the life of the bellows.

High quality guaranteed

Inspection and Quality Control

All of the processes related with BV25066CH are performed according to ISO 9001, therefore guaranty a complete traceability of materials and tests applied. Besides, our manufacturing procedures are also approved by the TÜV organism.

"BV25066CH's standard tests are conducted according to EN 12266 and/or API 598. Moreover, 100% of our valves are tested at high pressures before being supplied, having to fulfill a zero bubble per minute criteria for them to be accepted. Still, other standards may be applied under request."

Certification

BV25066HP fulfills pressure equipment directive (PED)



ATEX 2019/34/UE



PED 2019/68/UE



AD-2000
MERKBLATT
W0/A4



TA-LUFT
VDI 2440



acc. API 607 5th



TS2712324-2026

Production license of special equipment
people's republic of China



Accessories, options and tests

Accessories

- » Automation by assembly of actuators
- » Mechanical Limit Switch Box
- » Inductive Limit Switch Box
- » Solenoids
- » Positioners
- » Throttling and Soft Sealing Plug
- » Chain Locking Device
- » Packing and Gasket in PTFE (+200°C) or Gylon (+280°C)
- » Soft Sealing in Gylon or PTFE

Optional features

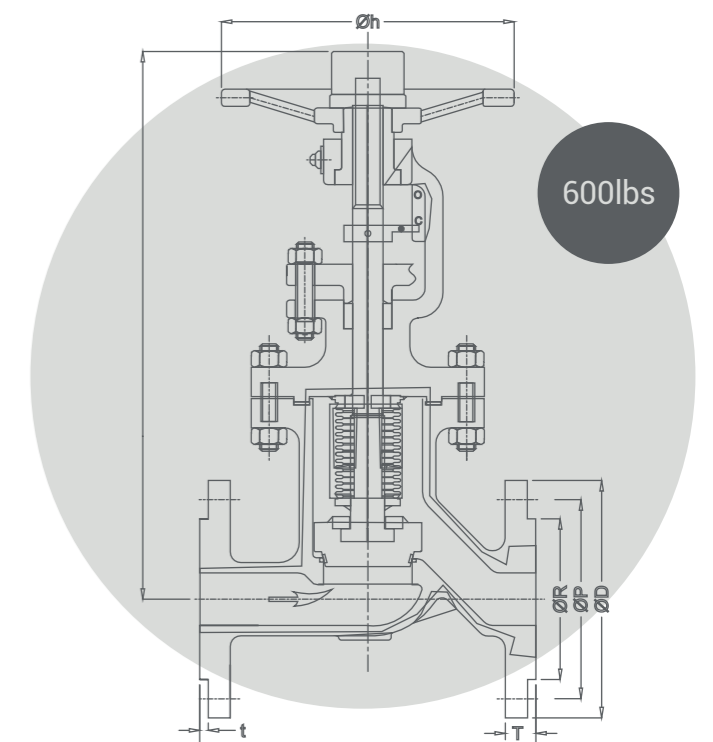
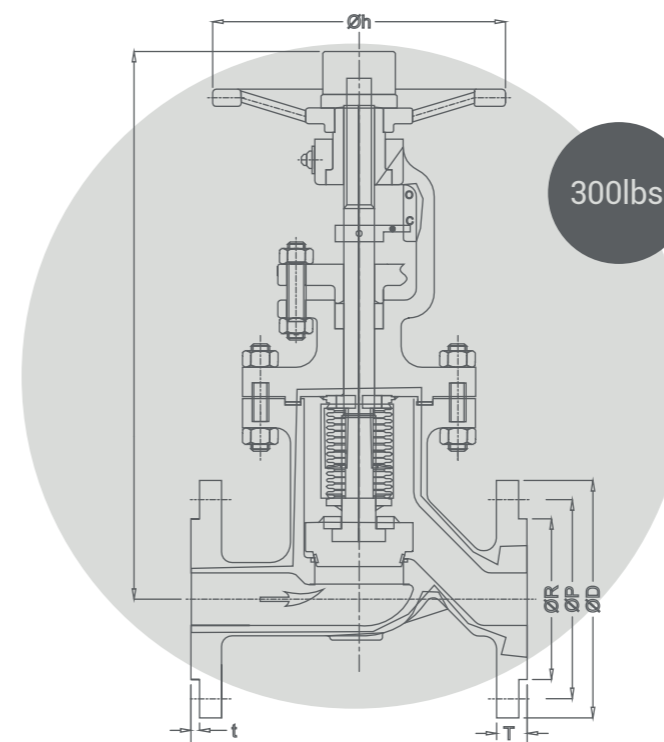
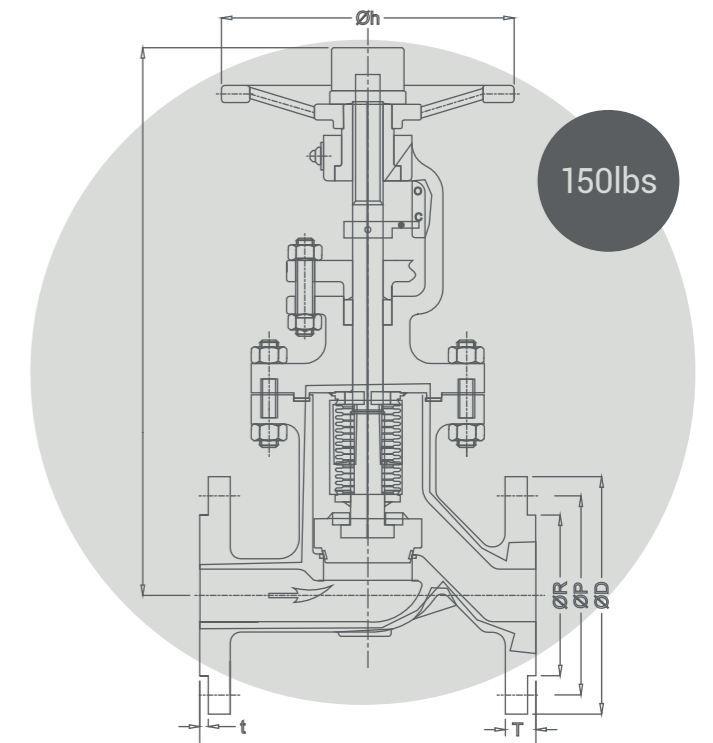
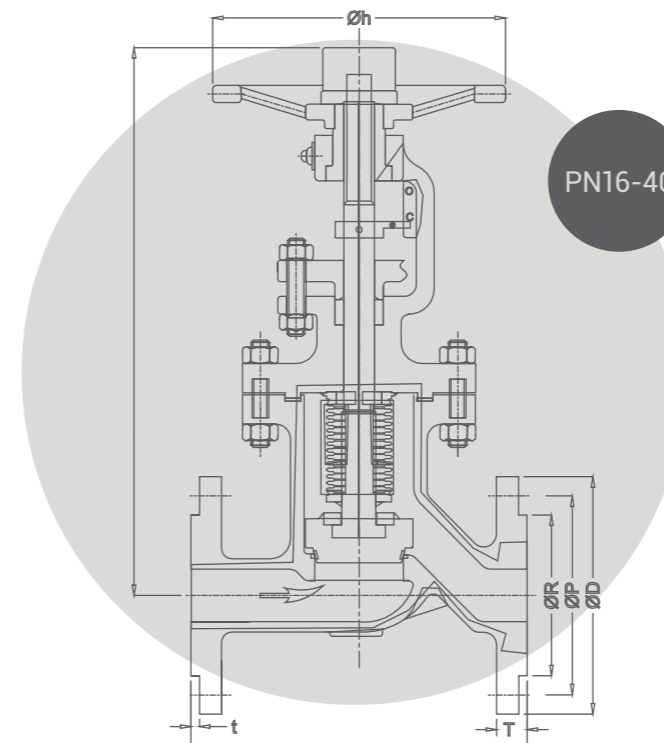
- » Special Flange Sealing Surface male/female
- » Free from Oil and Grease Treatment (Oxygen service)

Tests available under request

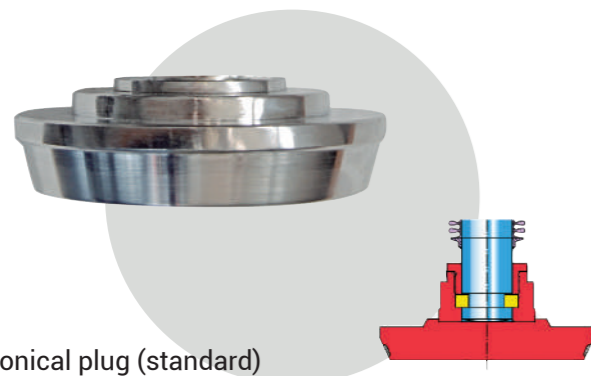
- » Radiography (RT)
- » Ultrasonic examination (UT)
- » Magnetic particle examination (MT)
- » Liquid penetrant test (PT) on wedge ends and machined part
- » PMI



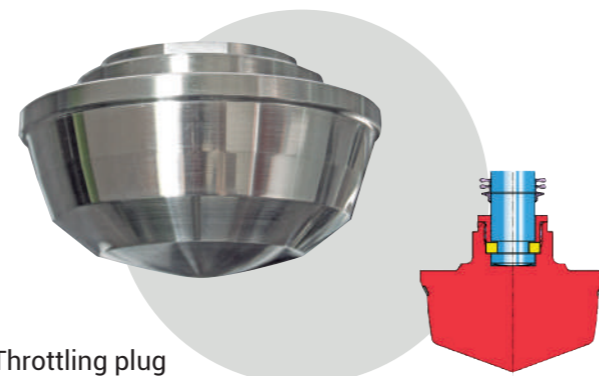
One valve for multiple chemical applications



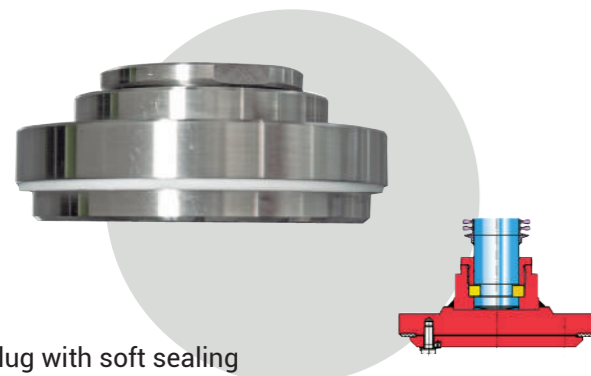
Optional plug types



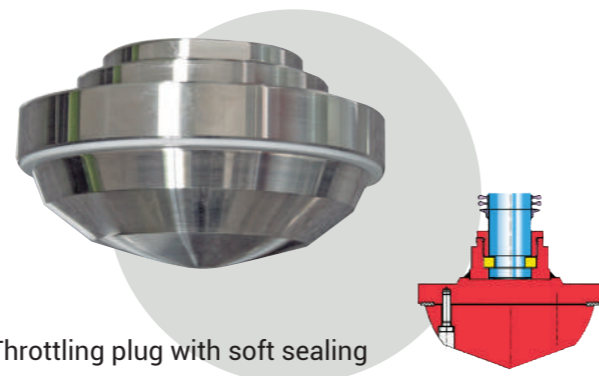
Conical plug (standard)



Throttling plug



Plug with soft sealing

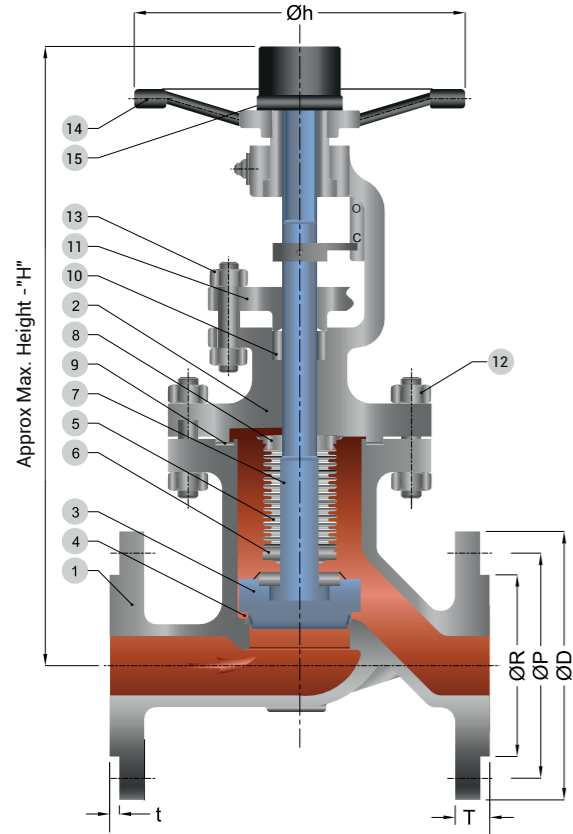


Throttling plug with soft sealing

BV25066CH PN40

Testing pressure in bar

Hydro	Body	60
	Seat	44
Air	Seat	07



N°	COMPONENT	MATERIALS
1	Body	1.4408 / ASTM - A 351 Gr.CF8M
2	Bonnet	1.4408 / ASTM - A 351 Gr.CF8M
3	Plug	1.4408 / ASTM - A 351 Gr.CF8M + Stellite Gr.6
4	Integral seat	1.4408 / ASTM - A 351 Gr.CF8M + Stellite Gr.21
5	Bellow	1.4571 / AISI - 316Ti
6	Bottom Bellow collar	1.4401 / ASTM - A 276 TYPE 316
7	Stem	1.4401 / ASTM - A 276 TYPE 316
8	Top Bellow collar	1.4401 / ASTM - A 276 TYPE 316
9	Gasket	SPW - SS 316 + GRAPHITE/PTFE
10	Packing	GRAPHITE/PTFE
11	Gland Bush Flange	1.4408 / ASTM - A 351 Gr.CF8M
12	Fastener	ASTM - A193 Gr.B8M / A194 Gr.8M
13	Gland stud/Nut	ASTM - A193 Gr.B8M / A194 Gr.8M
14	Hand Wheel	MILD STEEL / NODULAR CAST IRON
15	Hand Wheel Nut/Cap	1.4401 / AISI - 316

ZERO LEAKAGE:
bubble tight

DIN:
Rate A acc.EN12266-1

Face to face acc. to EN558-1. Flanges acc. to EN 1092-1 form B

DN	PN	ØD (outer flange diameter)	ØP (Bolt circle)	ØR	T (FGL.THK)	t	NO.OF HOLE / Ø	L (Face to face)	Øh	STROKE	H (closed)	Weight (kg)
15	40	95	65	45	16	2	4/Ø14	130	180	9	260	5,4
20	40	105	75	58	18	2	4/Ø14	150	180	9	265	6,4
25	40	115	85	68	18	2	4/Ø14	160	180	10.5	280	7,7
32	40	140	100	78	18	2	4/Ø18	180	180	11	290	9,2
40	40	150	110	88	19	3	4/Ø18	200	200	15	318	14,1
50	40	165	125	102	20	3	4/Ø18	230	200	16	335	19,2
65	40	185	145	122	22	3	8/Ø18	290	250	19	415	27,3
80	40	200	160	138	24	3	8/Ø18	310	300	22,8	440	33,4
100	40	235	190	162	24	3	8/Ø22	350	300	29	515	50,6
125	40	270	220	188	26	3	8/Ø26	400	350	36	600	76
150	40	300	250	218	28	3	8/Ø26	480	400	43	655	110
200	40	375	320	285	34	3	12/Ø30	600	450	54	788	199
250	40	450	385	345	38	3	12/Ø33	730	600	70	930	330
300	40	515	450	410	42	4	16/Ø33	850	600	80	1.140	426

all dimensions in mm.

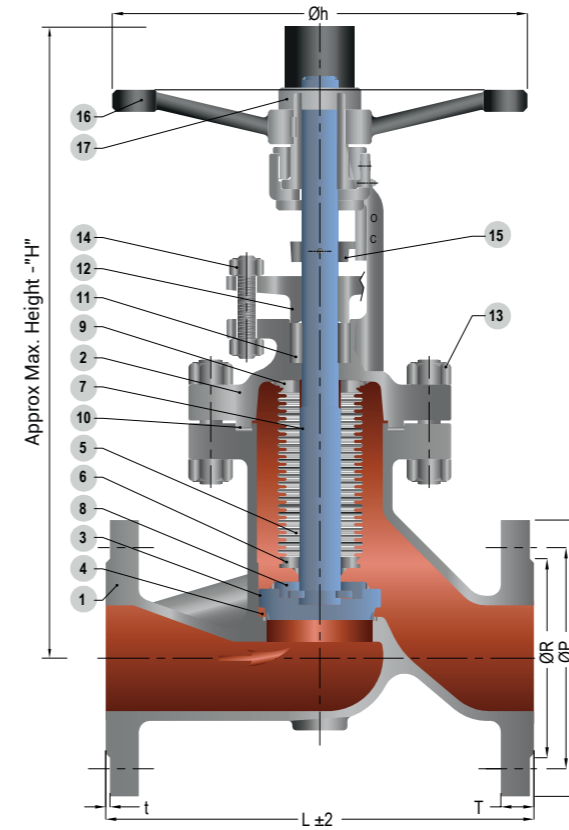
WORKING CONDITIONS									
Temperature °C	-196/-10	-10/100	150	200	250	300	350	400	
Pressure Bar	40	40	36,3	33,7	31,8	29,7	28,5	27,4	

*PN40 Stainless Steel valves can be used up to -196 °C acc. AD 2000

BV25066CH SS 150#

Testing pressure in bar

Hydro	Body	29
	Seat	21
Air	Seat	07



N°	COMPONENT	MATERIALS
1	Body	ASTM - A 351 Gr.CF8M (1.4408)
2	Bonnet	ASTM - A 351 Gr.CF8M (1.4408)
3	Plug	ASTM - A 351 Gr.CF8M (1.4408) + Stellite Gr.6
4	Integral seat	ASTM - A 351 Gr.CF8M (1.4408) + Stellite Gr.6
5	Bellow	AISI - 316Ti
6	Bottom Bellow collar	ASTM - A 276 Type 316
7	Stem	ASTM - A 276 Type 316
8	Stem Nut	ASTM - A 276 Type 316
9	Top collar	ASTM - A 276 Type 316
10	Gasket	SPW - SS 316 + Graphite/PTFE
11	Packing	Graphite/PTFE
12	Gland Bush/Flange	ASTM - A 351 Gr.CF8M
13	Fastener	ASTM-A193 Gr.B8M/A194 Gr.8M
14	Gland stud/Nut	ASTM-A193 Gr.B8M/A194 Gr.8M
15	Indicator	ASTM - A 351 Gr.CF8M
16	Hand Wheel	SG Iron / IS 2062 Gr. E 250 A
17	Hand Wheel Nut/Cap	AISI - 316

ZERO LEAKAGE:
bubble tight

DESIGN AS PER:
ASME B 16.34

Face to face acc. to ASME B 16.10 TESTING STD.- API 598

DIMENSIONS

NPS	Class Rating	ØP (outer flange diameter)	ØP (Bolt circle)	ØR	T (FGL.THK)	t	NO.OF HOLE / Ø	L (Face to face)	Øh	STROKE	H (closed)	Weight (Kg)
½"	150	90	60.3	34.9	9.6	2	4/Ø16	108	172	5	277	7.0
¾"	150	100	69.9	42.9	11.2	2	4/Ø16	117	172	5	280	8.5
1"	150	110	79.4	50.8	12.7	2	4/Ø16	127	172	7	290	9.4
1 ½"	150	125	98.4	73.0	15.9	2	4/Ø16	165	200	10	327	17
2"	150	150	120.7	92.1	17.5	2	4/Ø19	203	200	13	355	19
2 ½"	150	180	139.7	104.8	20.7	2	4/Ø19	216	250	16	430	33
3"	150	190	152.4	127.0	22.3	2	4/Ø19	241	300	19	430	39.5
4"	150	230	190.5	157.2	22.3	2	8/Ø19	292	300	26	516	56
6"	150	280	241.3	215.9	23.9	2	8/Ø22	406	400	38	655	105
8"	150	345	298.5	269.9	27.0	2	8/Ø22	495	450	51	785	180
10"	150	405	362.0	323.8	28.6	2	12/Ø25	622	600	64	945	310

all dimensions in mm.

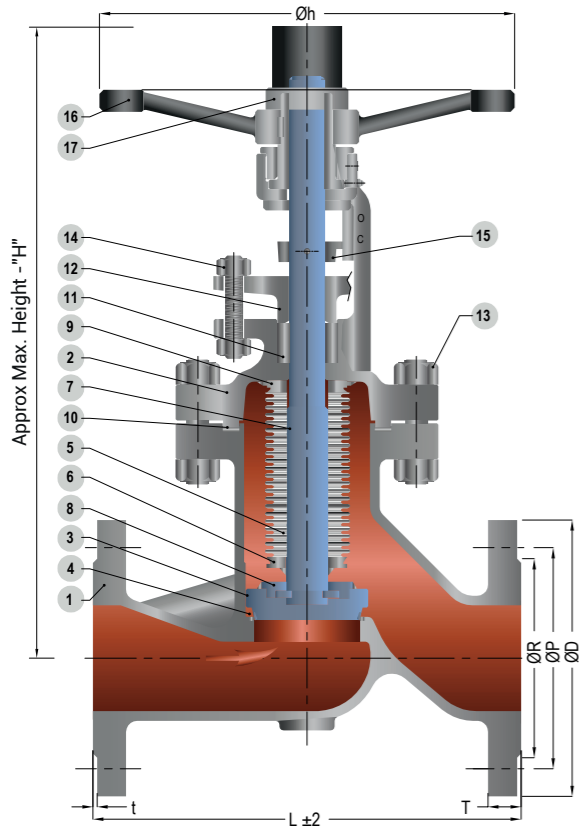
WORKING CONDITIONS							
Temperature °C	-196/38	100	150	250	325	375	400
Pressure Bar	19,0	16,2	14,8	12,1	9,3	7,4	6,5

*CF8M valves can be used up to -196 °C

BV25066CH SS 300#

Testing pressure in bar

Hydro	Body	75
	Seat	66
Air	Seat	07



N°	COMPONENT	MATERIALS
1	Body	ASTM - A 351 Gr.CF8M (1.4408)
2	Bonnet	ASTM - A 351 Gr.CF8M (1.4408)
3	Plug	ASTM - A 351 Gr.CF8M (1.4408) + Stellite Gr.6
4	Integral seat	ASTM - A 351 Gr.CF8M (1.4408) + Stellite Gr.6
5	Bellow	AISI - 316Ti
6	Bottom Bellow collar	ASTM - A 276 Type 316
7	Stem	ASTM - A 276 Type 316
8	Stem Nut	ASTM - A 276 Type 316
9	Top collar	ASTM - A 276 Type 316
10	Gasket	SPW - SS 316 + Graphite/PTFE
11	Packing	Graphite/PTFE
12	Gland Bush/Flange	ASTM - A 351 Gr.CF8M
13	Fastener	ASTM-A193 Gr.B8M/A194 Gr.8M
14	Gland stud/Nut	ASTM-A193 Gr.B8M/A194 Gr.8M
15	Indicator	ASTM - A 351 Gr.CF8M
16	Hand Wheel	SG Iron / IS 2062 Gr. E 250 A
17	Hand Wheel Nut/Cap	AISI - 316

ZERO LEAKAGE:
bubble tight

DESIGN AS PER:
ASME B 16.34

Face to face acc. to ASME B 16.10 TESTING STD.- API 598

DIMENSIONS

NPS	Class Rating	ØP (outer flange diameter)	ØP (Bolt circle)	ØR	T (FGL.THK)	t	NO.OF HOLE /Ø	L (Face to face)	Øh	STROKE	H (closed)	Weight (Kg)
½"	300	95	66.7	34.9	12.7	2	4/Ø16	152	172	5	290	9.2
¾"	300	115	82.6	42.9	14.3	2	4/Ø19	178	172	5	290	9.8
1"	300	125	88.9	50.8	15.9	2	4/Ø19	203	172	7	305	12.5
1 ½"	300	155	114.3	73.0	19.1	2	4/Ø22	229	200	10	335	22
2"	300	165	127.0	92.1	20.7	2	8/Ø19	267	200	13	355	25
2 ½"	300	190	149.2	104.8	23.9	2	8/Ø22	292	250	16	440	40
3"	300	210	168.3	127.0	27.0	2	8/Ø22	318	300	19	450	58
4"	300	255	200.0	157.2	30.2	2	8/Ø22	356	300	26	545	79
6"	300	320	269.9	215.9	35.0	2	12/Ø22	444	400	38	690	137
8"	300	380	330.2	269.9	39.7	2	12/Ø25	559	450	51	810	260
10"	300	445	387.4	323.8	46.1	2	16/Ø28	622	600	64	950	395

all dimensions in mm.

WORKING CONDITIONS

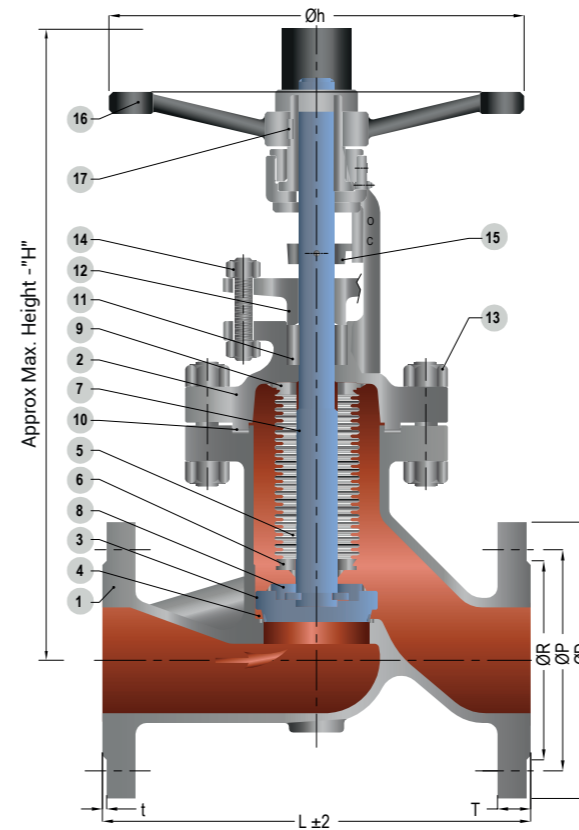
Temperature °C	-196/38	100	150	250	325	375	400
Pressure Bar	49,6	42,2	38,5	33,4	30,9	29,9	29,4

*CF8M valves can be used from -196 °C

BV25066CH SS 600#

Testing pressure in bar

Hydro	Body	148
	Seat	103
	Bellow	103
Air	Seat	07



N°	COMPONENT	MATERIALS
1	Body	ASTM - A 351 Gr.CF8M (1.4408)
2	Bonnet	ASTM - A 351 Gr.CF8M (1.4408)
3	Plug	ASTM - A 351 Gr.CF8M (1.4408) + Stellite
4	Integral seat	ASTM - A 351 Gr.CF8M (1.4408) + Stellite
5	Bellow	AISI - 321
6	Bottom Bellow collar	ASTM - A 276 TYPE 316
7	Stem	ASTM - A 276 TYPE 316
8	Stem Nut	ASTM - A 276 TYPE 316/A351 Gr.CF8M
9	Top Bellow collar	ASTM - A 276 TYPE 316
10	Gasket	SPW - SS 316 + GRAPHITE/PTFE
11	Packing	GRAPHITE/PTFE
12	Gland Bush Flange	ASTM - A 351. Gr.CF8M
13	Fastener	ASTM - A193 Gr.B8M / A194 Gr.8M
14	Gland stud/Nut	ASTM - A193 Gr.B8M / A194 Gr.8M
15	Indicator	ASTM - A 351 Gr.CF8M
16	Hand Wheel	SG Iron / IS 2062 Gr. E 250 A
17	Hand Wheel Nut/Cap	ASTM - A 439 Gr.CF8

ZERO LEAKAGE:
bubble tight

DESIGN AS PER:
ASME B 16.34

Face to face acc. to ASME B 16.10 TESTING STD.- API 598

DIMENSIONS

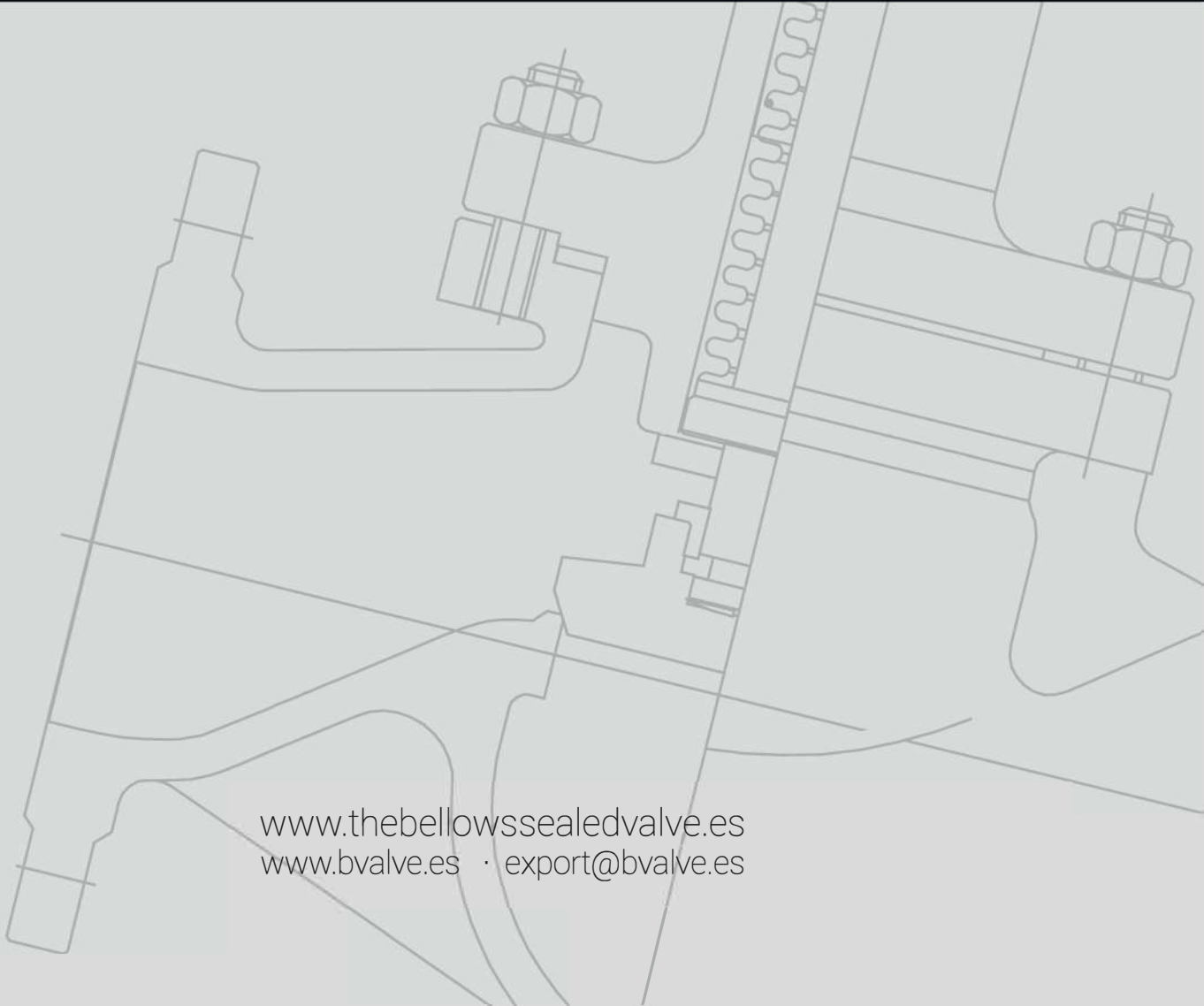
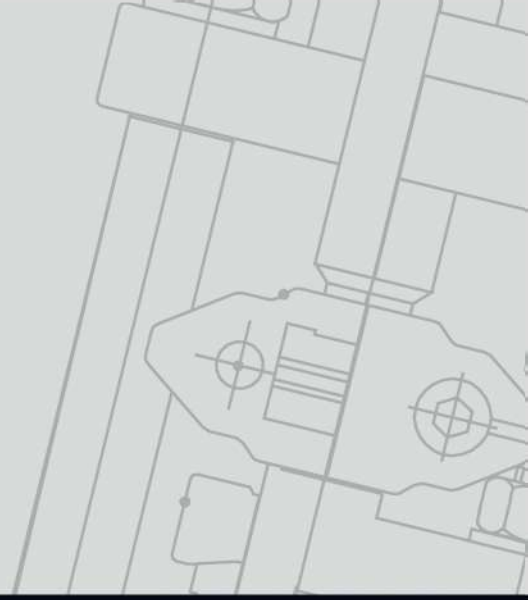
NPS	Class Rating	ØP (outer flange diameter)	ØP (Bolt circle)	ØR	T (FGL.THK)	t	NO.OF HOLE /Ø	L (Face to face)	Øh	STROKE	H (closed)	Weight (Kg)
½"	600	95	66.7	35	14.3	7	4/Ø16	165	172	5	330	12,5
¾"	600	115	82.6	43	15.9	7	4/Ø19	190	172	5	382	19,5
1"	600	125	88.9	51	17.5	7	4/Ø19	216	172	6.5	390	21
1 ½"	600	155	114.3	73.0	22.3	7	4/Ø22	241	250	10	487	33
2"	600	165	127.0	92..	25.4	7	8/Ø19	292	250	13	495	38
2 ½"	600	190	149.2	104.8	28.6	7	8/Ø22	330	300	16	545	64
3"	600	210	168.3	127.0	31.8	7	8/Ø22	356	300	19	571	75
4"	600	275	215.9	157.2	38.1	7	8/Ø25	432	350	26	699	168
6"	600	355	292.1	215.9	47.7	7	12/Ø28	559	450	38	837	388
8"	600	420	349.2	269.9	55.6	7	12/Ø32	660	600	50	1100	495
10"	600	510	323.8	323.8	63.5	7	16/Ø35	787	600	63	1170	700

all dimensions in mm.

WORKING CONDITIONS

Temperature °C	-196/38	100	150	250	325	375	400
Pressure Bar	99,3	84,4	77	66,8	61,8	59,8	58,9

*CF8M valves can be used from -196 °C



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