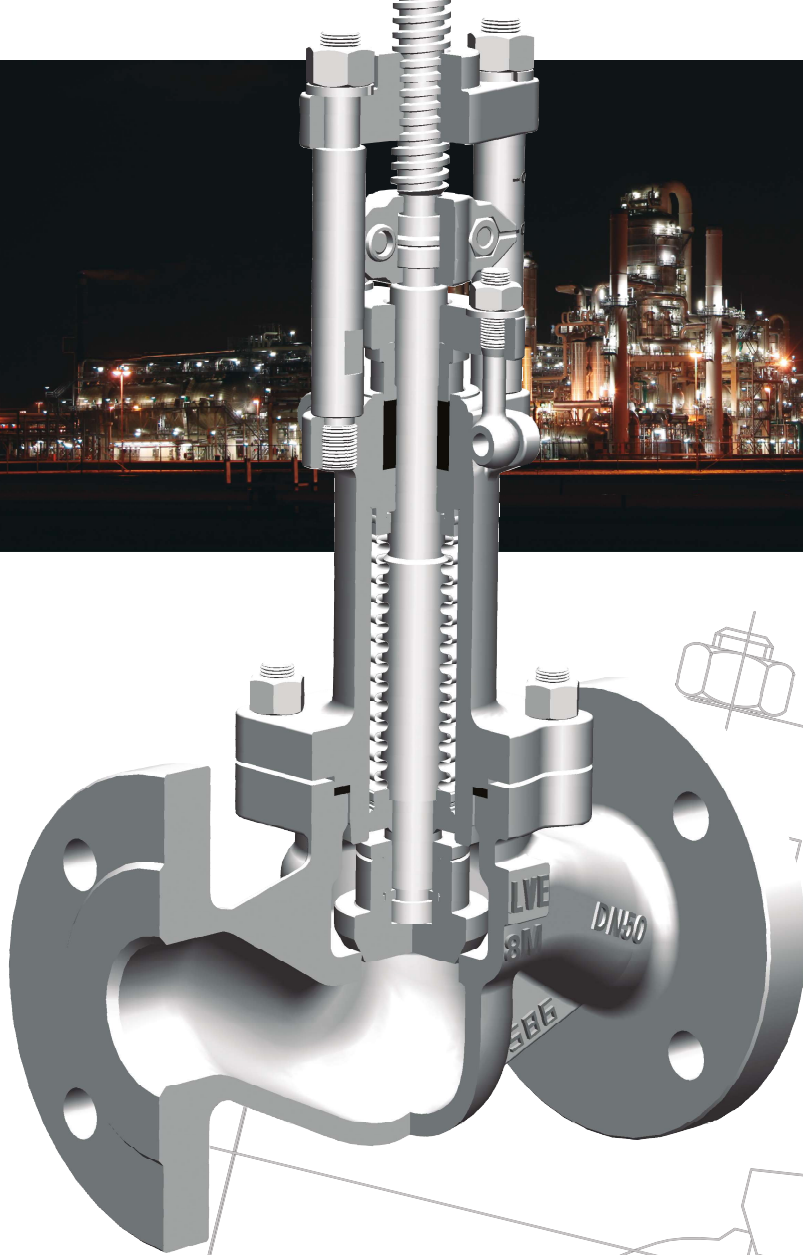


**B**VALVE®



**BV25066HP CHEMICAL APPLICATION**

# Features of high quality bellows sealed valves

## Easy and Safe Operation

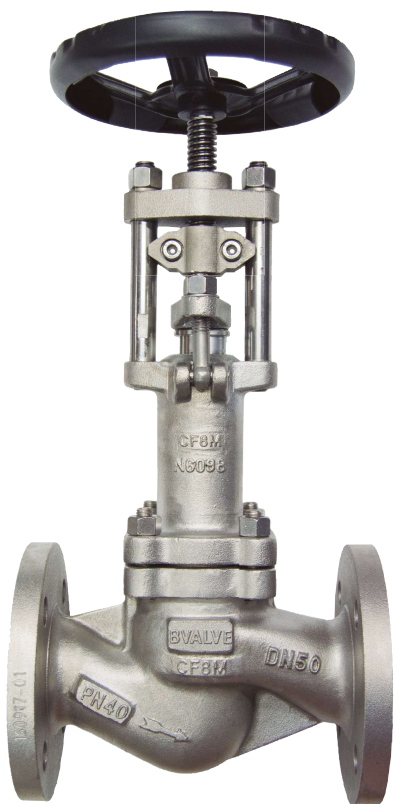
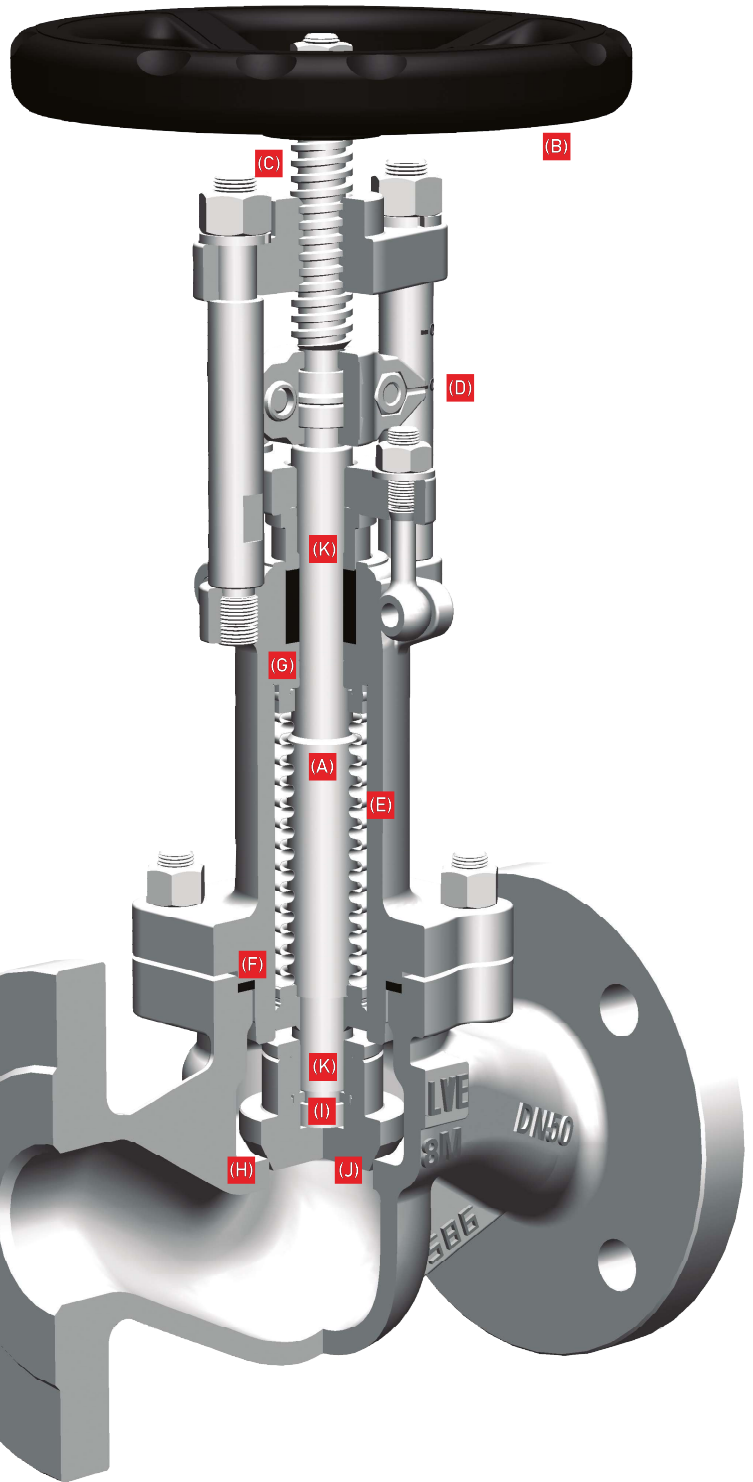
- » Metal-metal backseat provides mechanical stop which avoids stem from being ejected. (A)
- » Large diameter and robust nodular cast iron / steel hand-wheel. (B)
- » ACME oversized thread prevents valve from blocking under severe working conditions. (C)
- » Position indicator. (D)

## 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. (F)
- » TA-LUFT certified graphite safety packing. (G)

## Zero Seat Leakage

- » Plug and seat stellited. (H)
- » 360° Free rotating plug enhances cleaning of impurities and allows closing surface to be different every cycle, decreasing wear down and guarranteeing tightness for longer. (I)
- » Conical plug reduces closing surfaces and therefore increases tightness. (J)
- » Two point guided stem (K)



# Nine Competitor Advantages

1. Completely welded **multiple layer stainless steel 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 made out of hardened chromium steel 1.4021 or hardened with stellite.
3. **TA-LUFT certified** full size safety gland packing made of pure graphite together with our bellows, provide a fully reliable 0 environmental emission rate.
4. Stainless steel cam profiled bonnet gasket coated with pure graphite, mounted in **tongue and grooved bonnet** flanges reinforces enclosure tightness.
5. **Metal back seat** is a key safety feature since it avoids stem from being ejected while stops leakage in case of a broken bellows.
6. **Oversized hand-wheel** for easy handling. Position Indicator allows user to know the opening / closing position of the valve without having to operate it.
7. **Two piece stem** stops closing torque from being transmitted to bellows and plug. Upper stem is easily changeable to adapt different actuators. Both temperature and dilatation in stem are reduced, diminishing probability of the valve blocking.
8. **Extended Bellows and Bonnet** enhances safety for the operator since temperature effect is easily dissipated while increasing bellows life span.
9. Columns included in standard design allow these valves to be **automated**, therefore becoming a control valve. This may also perform **regulation** when including throttling plug.



## Critical applications

DIN 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 search 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 BV25066HP, specially designed for chemical applications and manufactured in compliance with highest quality standards, while keeping highly competitive prices.

### Application

BVALVE's figure BV25066HP 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 BV25066HP's 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.

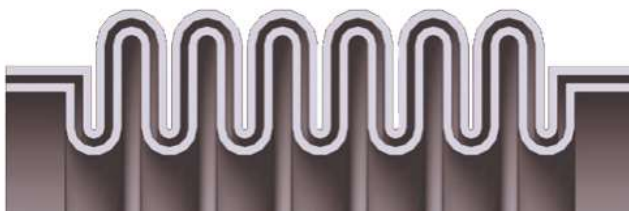
Potential processes suitable for this valve are isocyanates, such as TDI, MDI or HDI, bleaches, alkylation processes, anhydrous hydrofluoric acid, sulfuric acid, hydrocyanic acid, pesticides, insecticides, chlorofluorocarbon compounds (CFC), hydrofluorocarbon compounds (HFC), PTFE, ethylene oxide, dry chlorine (Cl<sub>2</sub>), phosgene or anhydrous hydrochloric acid among others.



### Bellows as a Leakage Barrier

Our Stainless Steel 316Ti 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.

### 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

### Applied Manufacturing Standards

BV25066HP is manufactured according to:

- » Design Standard: EN 12516-1
- » Face to Face Dimension: EN 558-1
- » Flanged Ends: EN 1092-1
- » Test & Inspection: EN 12266
- » Bellows Life Cycle: MSS SP-117
- » Unfired Pressure Vessels: EN 13445
- » Upper Stem Thread: ISO 2901 (GB/T5796)
- » Pressure Equipment Directive (PED): 2014/68/EU



### Inspection and Quality Control

All of the processes related with BV25066HP 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.

BV25066'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.

BV25066HP units go through inspection and material certificates according to EN 10204-3.1. Additionally to hydrostatic and leakage testing, others may be applied such as penetrant test (PT), magnetic test (MT) or radiographic test (RT).

### Certification

BV25066HP fulfills pressure equipment directive (PED) under TUV notified body assessment.



# Accessories and options

## End Connections

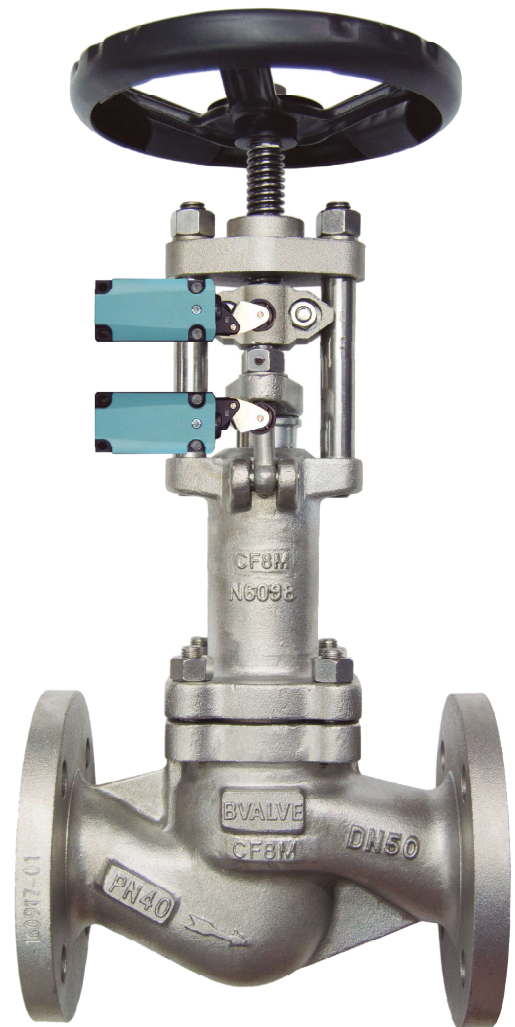
- » Flanges DIN PN40 Acc. EN 1092-1 RF
- » Butt Weld DIN PN40 Acc. EN 12627 Fig.4.

## Accessories

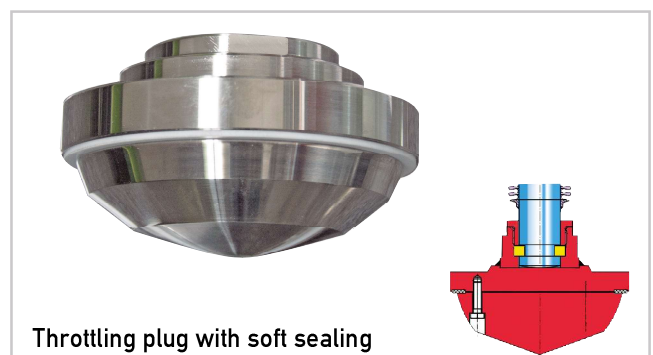
- » Automation by assembly of actuators
- » Mechanical Limit Switch Box
- » Inductive Limit Switch Box
- » Solenoids
- » Positioners
- » Throttling and Soft Sealing Plug
- » Change-over Valves
- » Chain Locking Device
- » Packing and Gasket in PTFE (+200°C) or Gylon (+280°C)
- » Soft Sealing in Gylon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

## Optional features

- » Special Flange Sealing Surface
- » Free from Oil and Grease Treatment
- » X Ray Test for Flange Connection
- » X Ray Test for Butt Weld Connection



## Optional plug types



# BV25066HP PN40 EN 1092-1

Stainless Steel CF8M (1.4408)

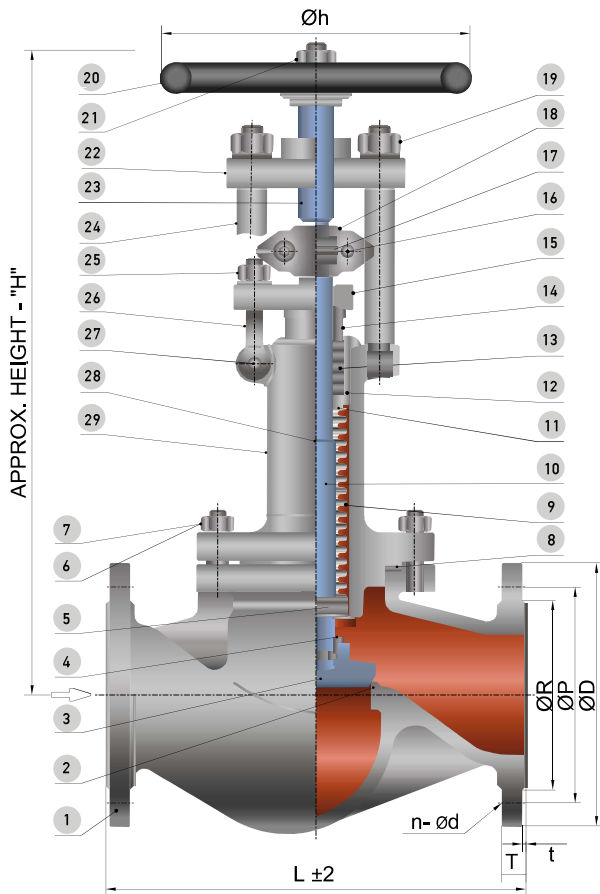
Temperature min. -60°C

Temperature max. +400°C



Testing pressure in bar

Hydro	Body	60
	Seat	44
Air	Seat	07



N°	COMPONENT	MATERIALS
1	Body	1.4408 / A351 CF8M
2	Seat	1.4408 / A351 CF8M + Stelled 21
3	Disc	1.4408 / A351 CF8M + Stelled 6
4	Disc nut	1.4401 / A276 316
5	Lower collar	1.4404 / A182 316L
6	Studs	A193 B8M
7	Nuts	A194 8M
8	Gasket	SPW SS316 + Graphite
9	Bellows	1.4571 / A182 316Ti
10	Lower stem	1.4401 / A276 316
11	Upper stem	1.4404 / A182 316L
12	Stuffing box	1.4404 / A276 316L
13	Packing	Flexible graphite
14	Gland Sleeve	1.4401 / A276 316
15	Gland flanged	A351 CF8
16	HEX bolt	A193 B8
17	Prevent friction sheet	A29 1045
18	Locator	A351 CF8
19	Nut	A194 8M
20	Handwheel	Ductile iron / Steel
21	Nut	A194 8M
22	Strud nut	1.4406 / A351 CF8M
23	Upper stem	1.4406 / A276 410
24	Strud	1.4021 / A276 420
25	Jack nut	A194 8M
26	Jack bolt	A193 B8
27	Pin	A276 304
28	Back seat	A276 316
29	Bonnet	1.4408 / A351 CF8M

ZERO LEAKAGE:

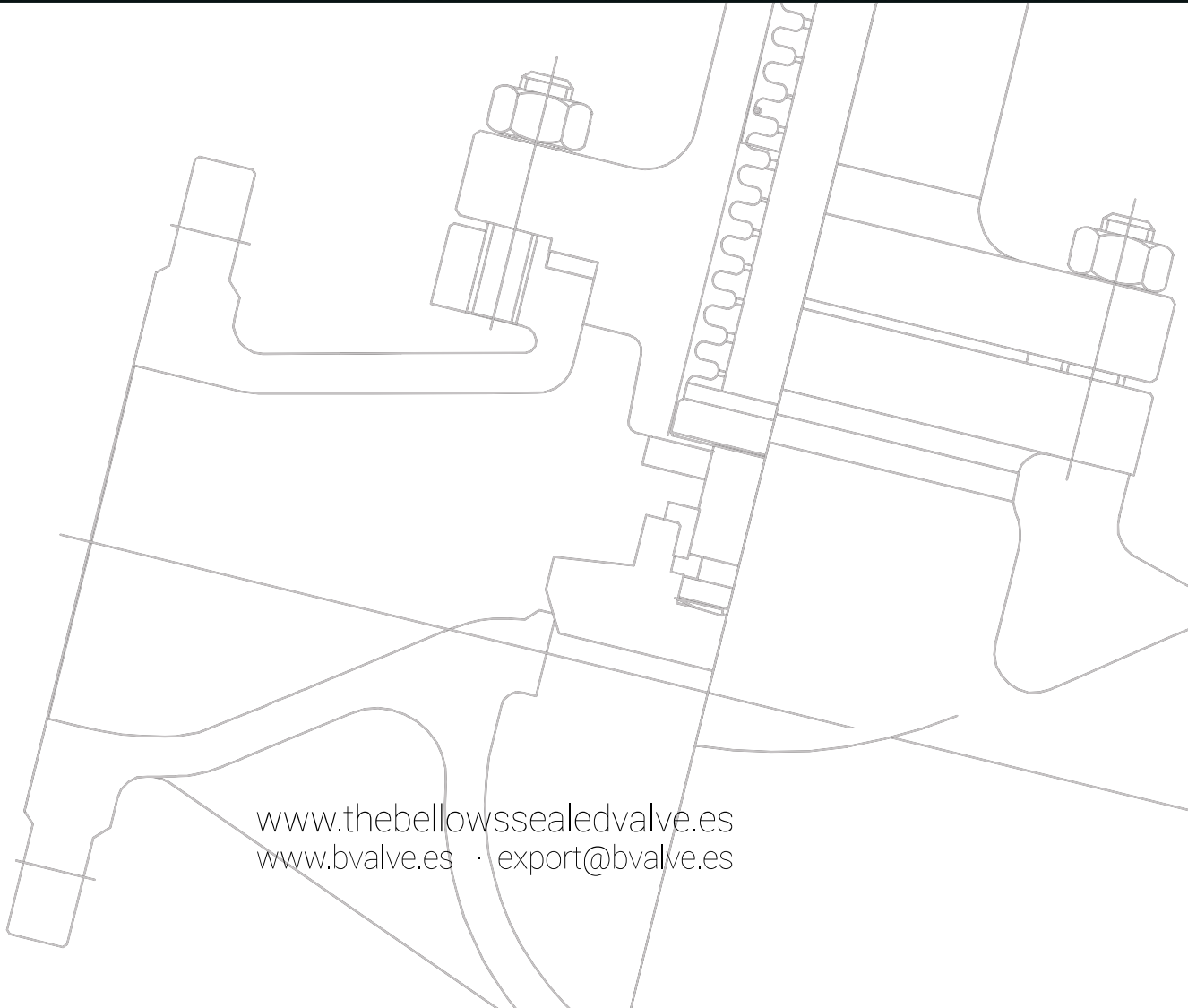
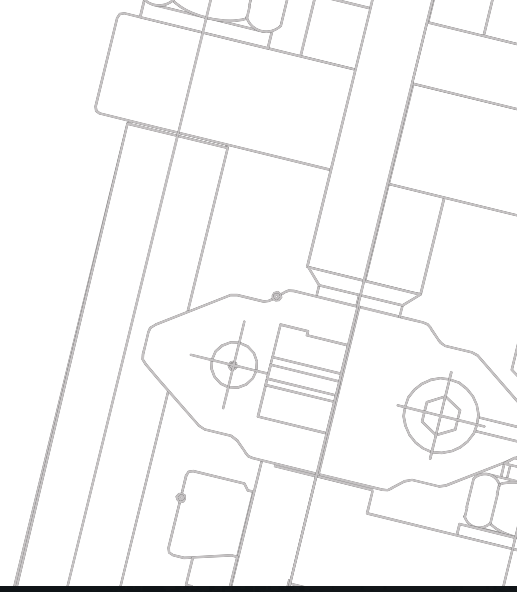
DIN: Rate A acc.EN12266-1

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

### WORKING CONDITIONS

Temperature °C	-60/-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



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