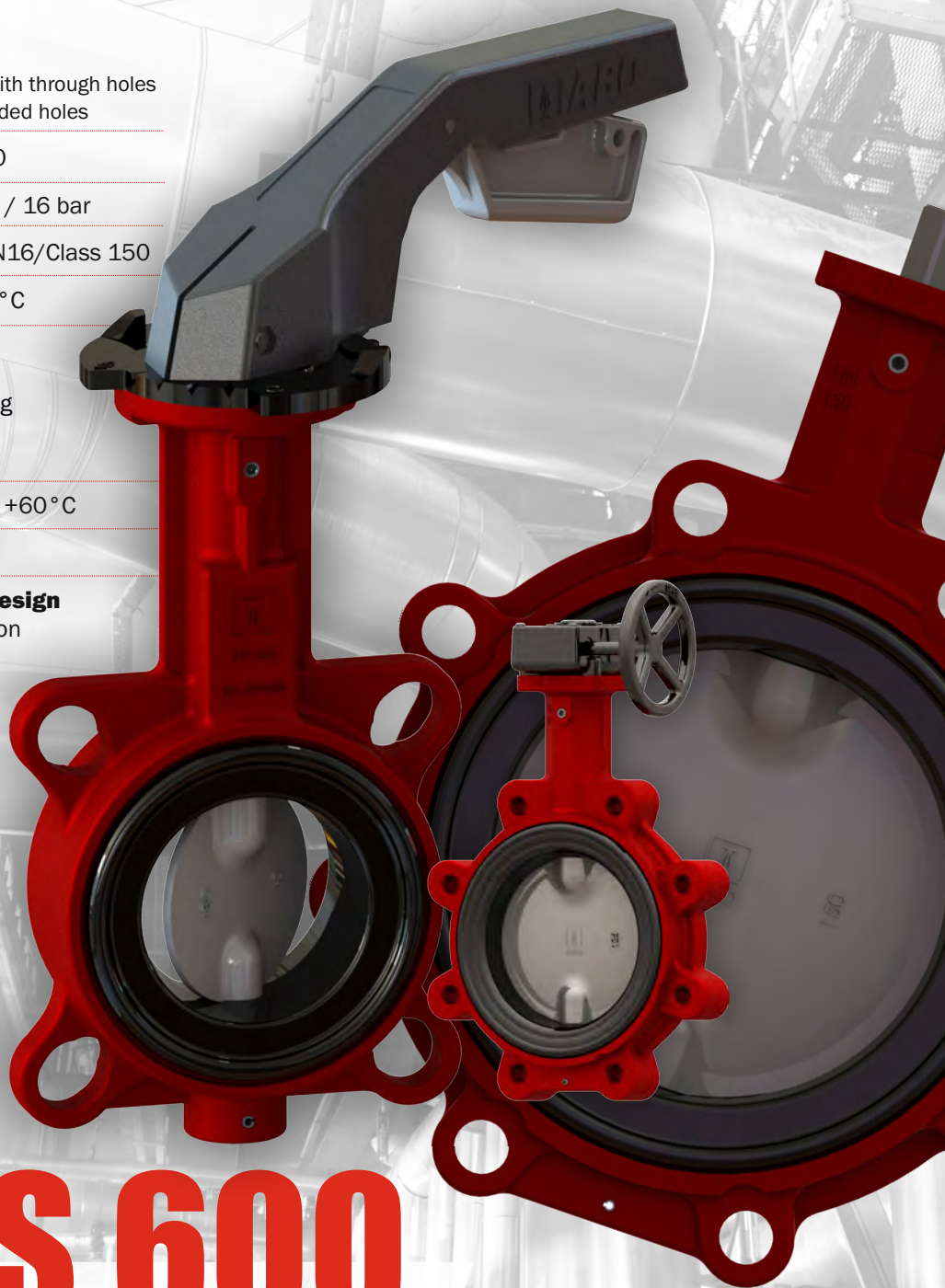


ABO valve
we make processes work

CONCENTRIC BUTTERFLY VALVES

Body design	WAFER type with through holes LUG with threaded holes
Nominal size	DN32 - DN150
Working pressure	6 bar / 10 bar / 16 bar
Flange connection	PN6/PN10/PN16/Class 150
Working temperature	-10°C / +125°C
Working medium	Potable water Hot water Air conditioning Air Natural gas
Gas version	PS6 / -10°C / +60°C
Tightness	Class A
Features	Concentric design Pin body version Gas version Possible control by float



SERIES 600

economy line

www.abovalve.com

GENERAL VALVE DESCRIPTION / DESIGN MODELS

Czech Industrial Valve Manufacturer

Interflanged concentric butterfly valves Series 600 are used at various industries like:

- potable water treatment and production
- heating, distribution of hot water
- ventilation
- air conditioning
- natural gas
- propane and butane gas (bottle gas)
- coal gas

Basic properties

- concentric design
- split stem
- pressed connection (for brass disc)
- body long neck according to the regulations of thermoprocessing equipment
- red epoxy coating according to RAL 2002-80 µm

Quality control

- manufacturing at ABO valve is certified according to quality control standard ISO 9001:2015 (14001, 18001)
- leak tests according to standards: ČSN EN 12266-1, ISO 5208, ANSI/FCI 70-2
- production in accordance with the Pressure Equipment Directive 2014/68/EU - Equipment operating under pressure (Category III, module H)
- all the ABO valves are tested under the pressure of 110% nominal pressure to ensure leak tightness according to standards - the 2.2 pressure test certificate can be issued
- manual actuation, if delivered, is adjusted and tested during assembly
- all the input materials are tested according to PMI to verify material origin
- all the certificates can be downloaded from www.abovalve.com



Type designation

6 1 0 B G 100

- **Nominal size**
DN32 - DN150
- **Gas valve performance**
G
- **Body design**
B - Wafer body type with through holes
T - Lug body type with threaded holes
- **Disc material**
0 - Brass 2.0402
2 - Stainless steel 1.4308 (CF8)
3 - Ductile iron 0.7040 (GGG40) with epoxy coating
4 - Stainless steel 1.4408 (CF8M)
- **Seat material**
1 - NBR
2 - EPDM
- **Series marking**
Series 600

Standards

Leak test

EN 12266-1, Class A
replaces DIN 3230 - Tightness 1
ISO 5208, Class A

Face to face length

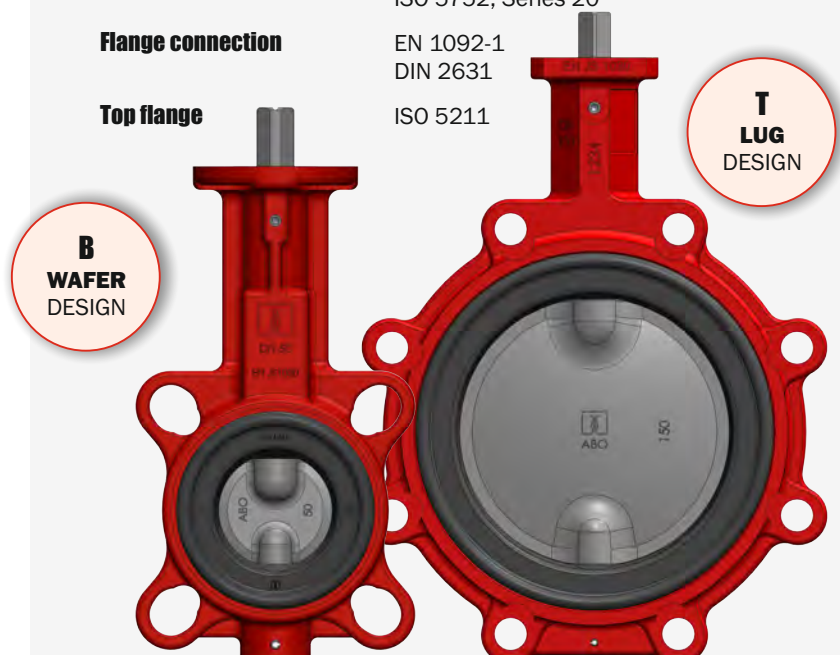
EN 558, Series 20
ISO 5752, Series 20

Flange connection

EN 1092-1
DIN 2631

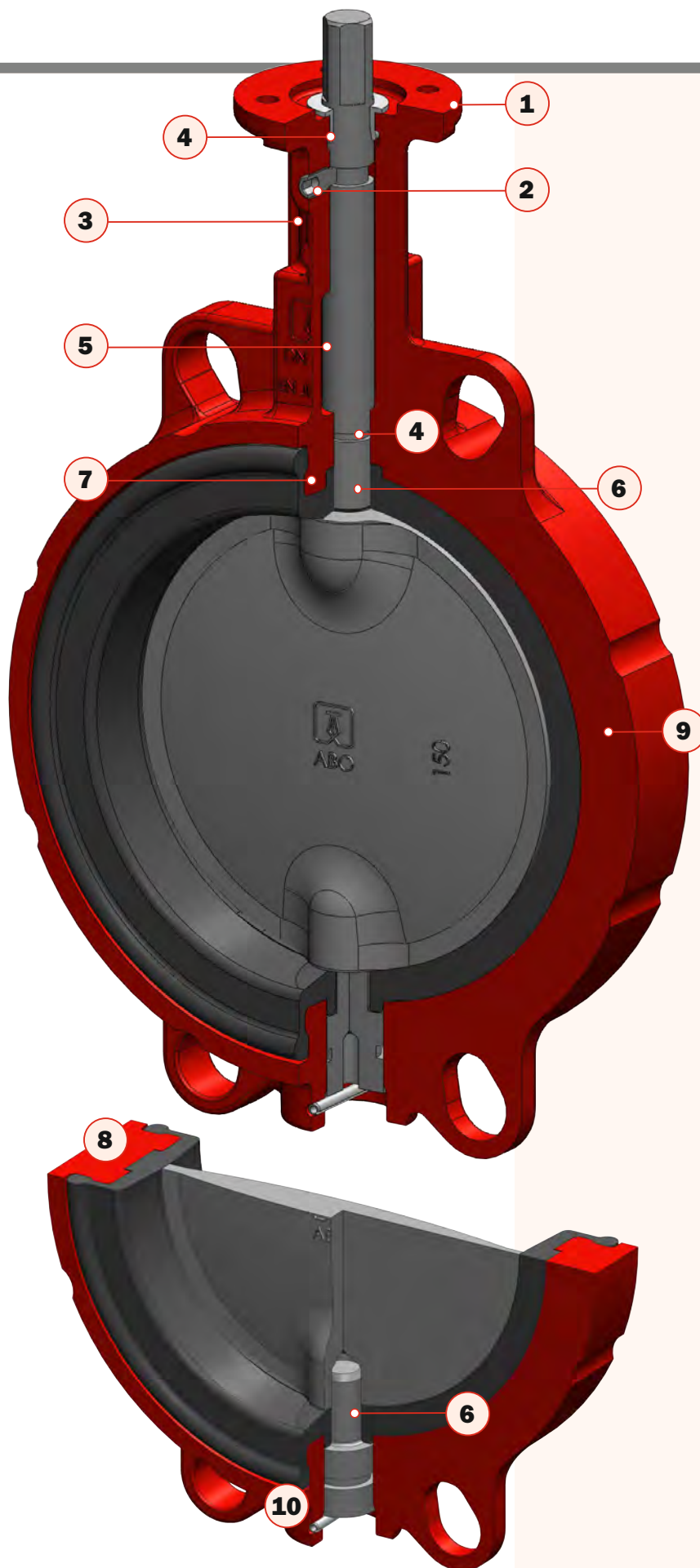
Top flange

ISO 5211



DESIGN ADVANTAGES

 **ABO** valve



1. Top flange

- according to the standard ISO 5211 enables to directly mount any manual actuator

2. Blow-out proof system

- a retaining bolt disables a stem movement upwards

3. Valve long neck

- enables to use insulation and protects control elements on the ISO flange. The design meets requirements on heating system fittings.

4. Stem support at two points

- makes easier valve operation

5. Lightened stem guide

- eliminates a risk of immobilisation after a longer shut-down

6. Split stem

- with the split stem valves reach better Kv/Cv values and thus a low pressure loss

7. Special seat shape

- closely fits to the stem and the pivot

8. Seat and body alignment

- enables a correct seat position and fixes the seat in the body; thus prevents the seat to slip out from the body while opening or closing the valve

9. Surface treatment

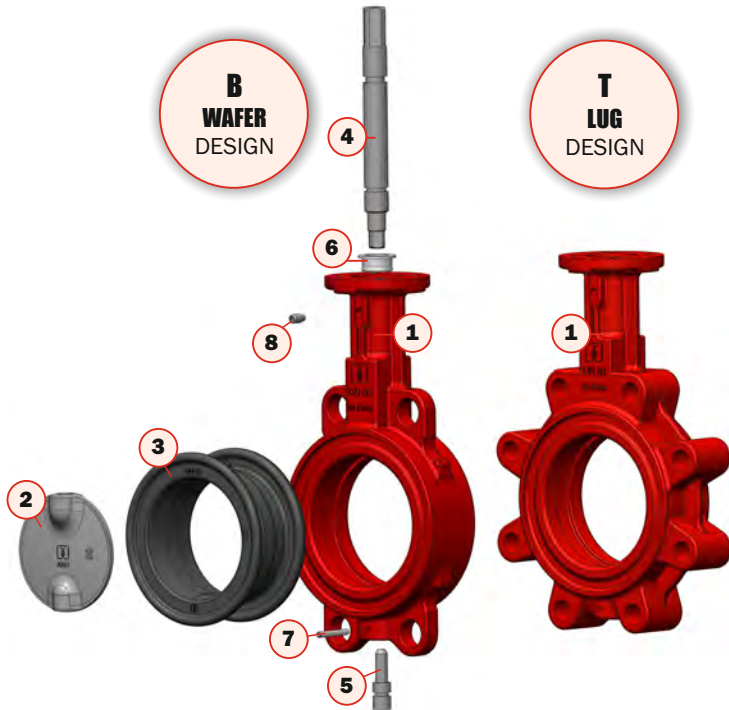
- epoxy coating 80 µm

10. Retaining pin

- prevents against stem blow-out

MATERIAL PERFORMANCE / FLANGE CONNECTION

Czech Industrial Valve Manufacturer



Item	Name	Material
1	Body - „B” *) (WAFER type)	DN32/40 Ductile iron 0.7040 (GGG40) epoxy coated
		DN50-DN150 Grey cast iron 0.6025 (GG25) epoxy coated
2	Disc	0 - Brass 2.0402
		2 - Stainless steel 1.4308 (CF8)
		3 - Ductile iron 0.7040 (GGG40) (epoxy coated)
		4 - Stainless steel 1.4408 (CF8M)
3	Seat	1 - NBR
		2 - EPDM
4	Stem	Stainless steel 1.4021 (AISI 420)
5	Pivot	Stainless steel 1.4021 (AISI 420)
6	Bushing	Delrin
7	Flexible pin	Stainless steel A2
8	Adjusting bolt	Stainless steel A2

*) Body „T” (LUG type): **DN32/40-DN150**
Ductile iron 0.7040 (GGG40) epoxy coated

Installation between flanges

	DN	32/40	50	65	80	100	125	150
	NPS	1¼"-1½"	2"	2½"	3"	4"	5"	6"
B	PN6							
	PN10							
	PN16							
	Class 150							
T	PN6	•	•	•	•	•	•	•
	PN10							
	PN16							
	Class 150	•	•	•	•	•	•	•

For JIS 5K/10K, please consult with ABO.

Working conditions

Working pressure	Seat temperature ratings
16 bar (max.)	Seat EPDM : -10 °C up to +125 °C*)
	Seat NBR : -10 °C up to +60 °C

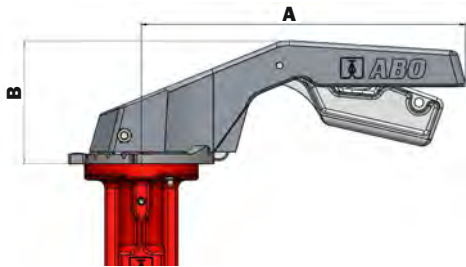
*) at medium temperature above 120 °C is the max. allowed pressure reduced from 16 bar to 14,4 bar and from 10 bar to 9 bar

VALVE ACTUATION



Manual lever

For manual actuation ABO offers an aluminium lever suitably coated to improve abrasion and shock resistance.

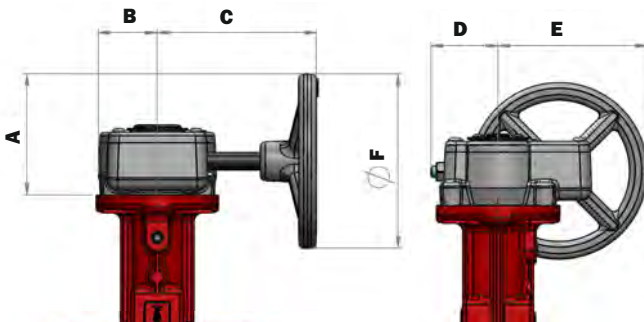


DN	32 - 80	100 - 150
NPS	1¼" - 3"	4" - 6"
A	200	275
B	76	76
Weight (kg)	0,35	0,4

Dimensions are declared in mm.

Worm gear with handwheel

Manual gearbox casing is made from cast iron with suitable surface treatment and protection degree class IP 67. Self-locking design of the worm gear enables both to set basic positions open/shut and to control (throttle) media flow. The worm gearbox is simply controlled handwheel of a suitable diameter. End positions of the worm gearbox are adjusted by screws. The gearbox can be equipped with a lockable system secured by a padlock. The worm gearbox as well as the hand lever can be completed with limit switch boxes.



DN	32 - 150
NPS	1¼" - 6"
A	70
B	35
C	91
D	38
E	84
F	100
Weight (kg)	1,2

Dimensions are declared in mm.

Operationg torques (Nm) vs. working pressure (bar)

DN	32/40	50	65	80	100	125	150
NPS	1¼"-1½"	2"	2½"	3"	4"	5"	6"
p _{MAX} 6 bar	6	7	11	17	28	38	85
p _{MAX} 10 bar	9	10	15	22	37	44	98
p _{MAX} 16 bar	12	14	24	27	44	58	130

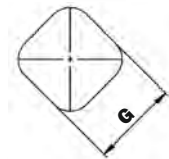
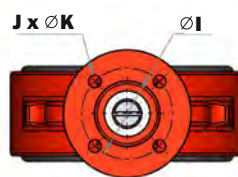
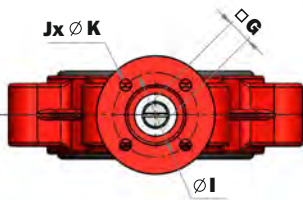
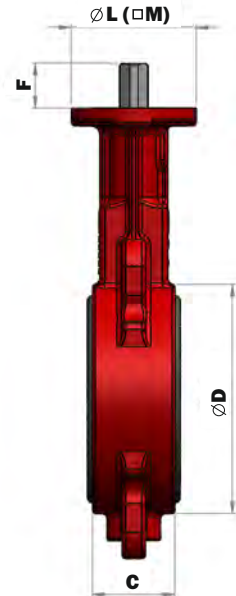
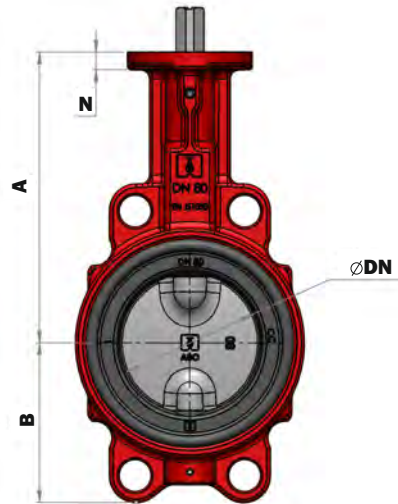
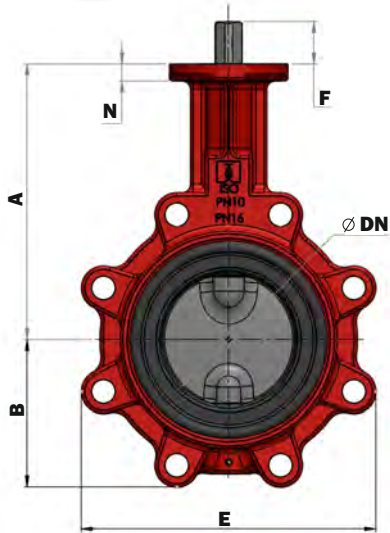
Mentioned torques are valid only for valves with EPDM seats and stainless discs for liquid media. For valve actuation the declared values must be multiplied by 1,2. For NBR seats to be multiplied by 1,4. For gas media or media with abrasive particles use secondary coefficient 1,35. For VITON (FPM) seats multiply by 1,4. For specific work conditions contact manufacturer to get advise for the actuation.

VALVE BASIC DIMENSIONS

Czech Industrial Valve Manufacturer

T
LUG
DESIGN

B
WAFER
DESIGN



	DN	32/40	50	65	80	100	125	150	
	NPS	1¼"-1½"	2"	2½"	3"	4"	5"	6"	
Valve dimensions	A	136	146	153,5	163	172,5	192,5	205	
	B	54	64	72	89	100	112	128	
	C	33	43	46	52	56			
	D	78	96	113	128	150	184	212	
	E	110	116	131	173	192	235	258	
Stem end	F	25							
	G	14							
ISO Top flange	I	50/70	50					70	
	J	4							
	K	7/9	7					9	
Flange dimensions	L	-	70					-	
	M	70	-					105	
	N	8					9,5		
Weight (kg)	Ver. B	1,9	2,7	3,2	3,7	4,7	6,7	8,4	
	Ver. T	2,3	3,0	3,7	4,8	6,1	9,2	10,2	
ISO flange		F05/F07			F05			F07	

Dimensions are mentioned in mm.

6 / ABO valve Czech

VALVE GAS DESIGN



For natural gas, propane and butane and coal gas



an economy ABO valve gas version is offered (is not designed for bio-gas). The valves of Series 600 designed for gas are suitable for pipelines and pump stations. The gas valves are simply recognizable: actuation lever is distinctly marked yellow and the valve body is marked with a series label with a „G“ letter. This valve is offered with special set of O-rings.

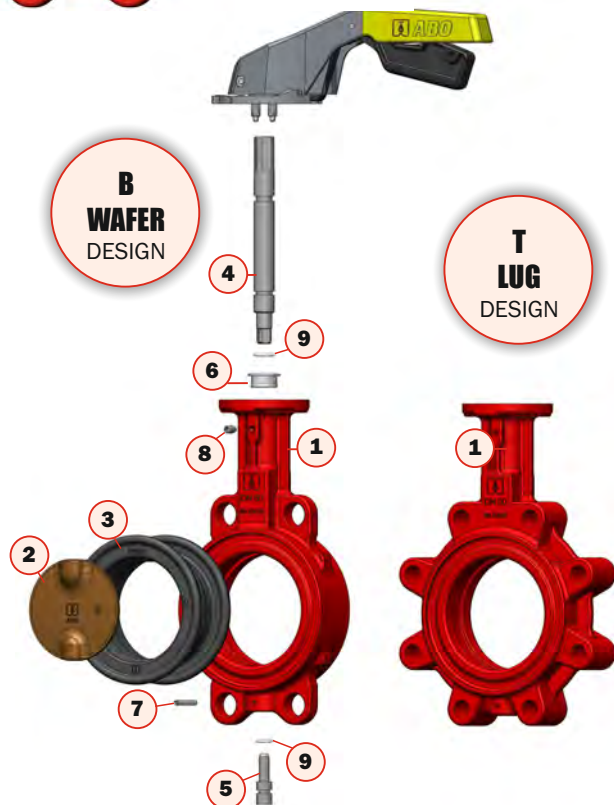
Installation between flanges

	PN6	PN10	PN16	Class 150
B				
T	•			•

Standard	
Upon request	•

Working conditions

Working pressure	Seat temperature rating
6 bar max.	Seat NBR: -10°C / +60°C



Material performance

Item	Name	Material
1	Body	DN32/40 Ductile iron 0.7040 (GGG40) epoxy coated
		DN50-DN150 Grey cast iron 0.6025 (GG25) epoxy coated
2	Disc	0 - Brass 2.0402
		1 - Aluminium bronze 2.0975
		2 - Stainless steel 1.4308 (CF8)
		3 - Ductile iron 0.7040 (GGG40) (epoxy coated)
3	Seat	4 - Stainless steel 1.4408 (CF8M)
		1 - NBR
4	Stem	Stainless steel 1.4021 (AISI 420)
5	Pivot	Stainless steel 1.4021 (AISI 420)
6	Bushing	Delrin
7	Flexible pin	Stainless steel A2
8	Adjusting bolt	Stainless steel A2
9	O-ring	NBR

Basic properties

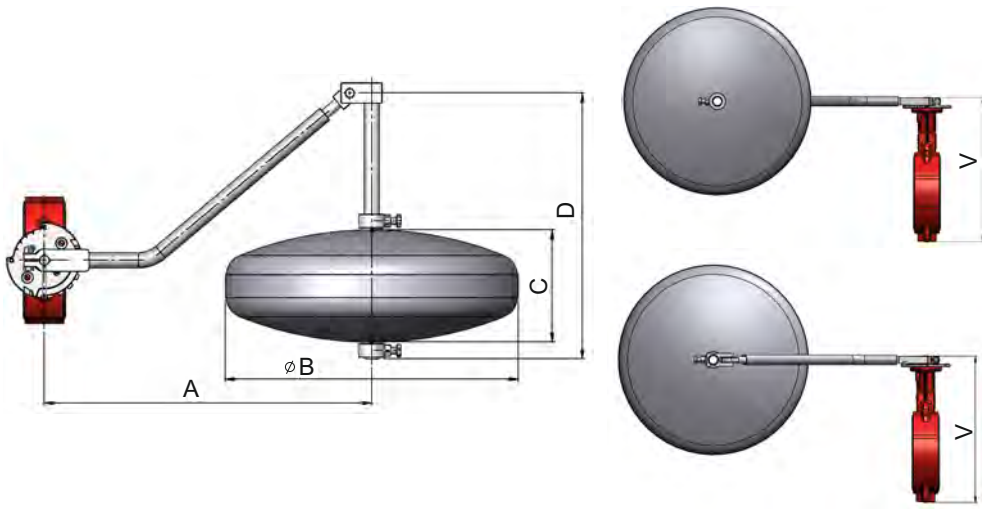
- nominal diameter DN32- DN150
- concentric design
- suitable for shut-off and regulating
- split stem
- BG version with through holes
- TG version with threaded holes

FLOAT CONTROLLED VALVE

Czech Industrial Valve Manufacturer

Brief description

The float valve is a bidirectional fitting. Valve disc is fit concentrically on a stem and a pivot. The stem is assembled in slide bearings, the lower pivot is fixed in the body. The float shuts (opens) the valve when the level rises (sinks). Lift is limited by end bolts.



Assembly and maintenance

- valve can be mounted in horizontal and vertical pipes between flanges
- valve stem must always be in horizontal position
- float must always move in vertical direction

Use

- float valves are used as shut-off elements for automatic control of liquid inflow or outflow into/from reservoirs according to current level height. For water or other non-aggressive liquid media at temperatures of up to 100 °C.

DN	32/40	50	65	80	100	125	150
NPS	1¼"-1½"	2"	2½"	3"	4"	5"	6"
A	300		500			1000	
B	476						
C	240					310	
D	1035					1550	
V	215	235	250	273	303	333	356
Weight (kg)	10	11	12	12,5	13	18	19,5
Float volume (l)	25					35	

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