ABO valve
Industrial Valve Manufacturer

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 151
Working temperature	-10 °C / +125 °C
Working media	Potable water Hot water Air conditioning Air Natural gas
Gas version	PS6 / -10 °C / +90 °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

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, 45001)
- 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 (Module H)
- manual actuation, if delivered, is adjusted and tested during assembly
- all certificates are downloadable 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

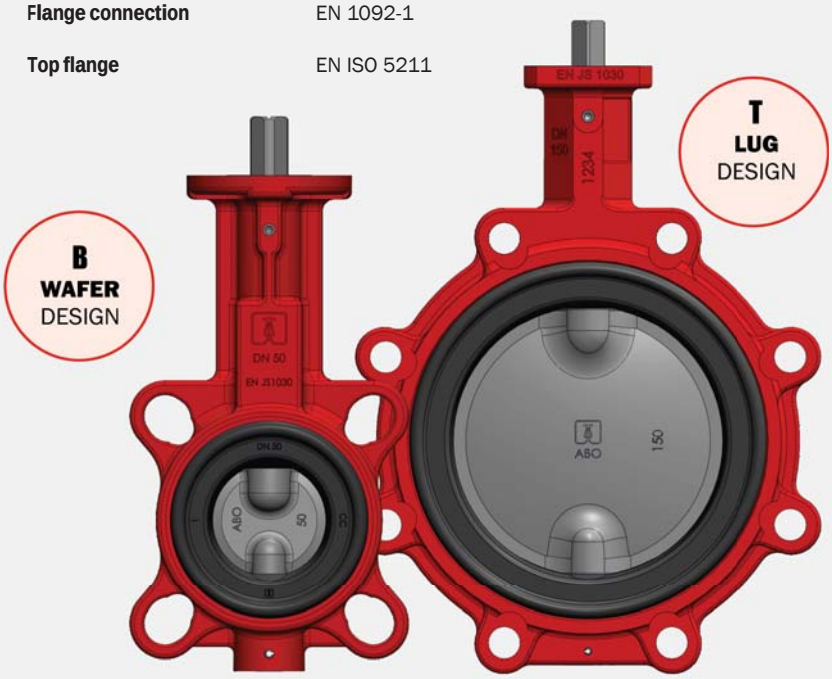
Disc material
0 - Brass 2.0402
2 - Stainless steel 1.4308 (CF8)
3 - Ductile iron 0.7040 (GGG40) with epoxy coating
4 - Stainless steel 1.4408 (CF8M)

Seat material
1 - NBR
2 - EPDM

Series name
Series 600

Standards

Leak test	EN 12266-1, Class A ISO 5208, Class A
Face to face lenght	EN 558, Series 20 ISO 5752, Series 20
Flange connection	EN 1092-1
Top flange	EN 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 shaft 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. Dougle side profile
- eliminates a risc 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

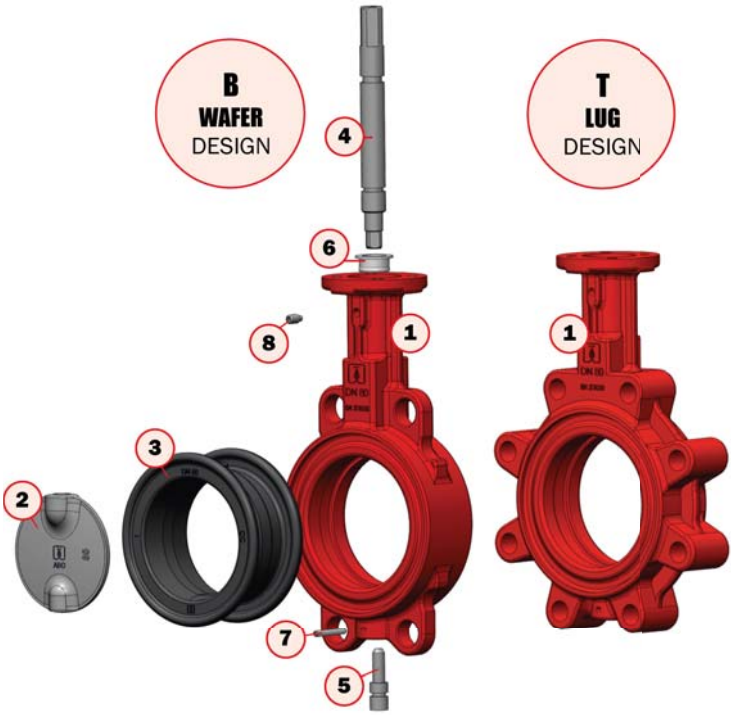
7. Special seat shape
- closely fits to the stem and the pivot

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



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.

Standard

● On request

Working conditions

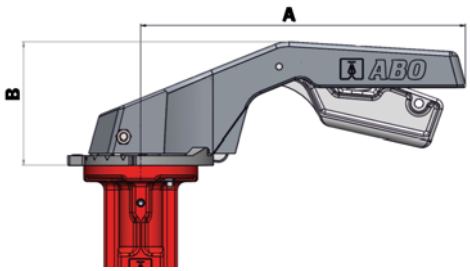
working pressure	Seat temperature ratings
16 bar (max.)	Seat **EPDM:** -10 °C up to +125 °C*)
	Seat **NBR:** -10 °C up to +90 °C

**) 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 barO.*

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

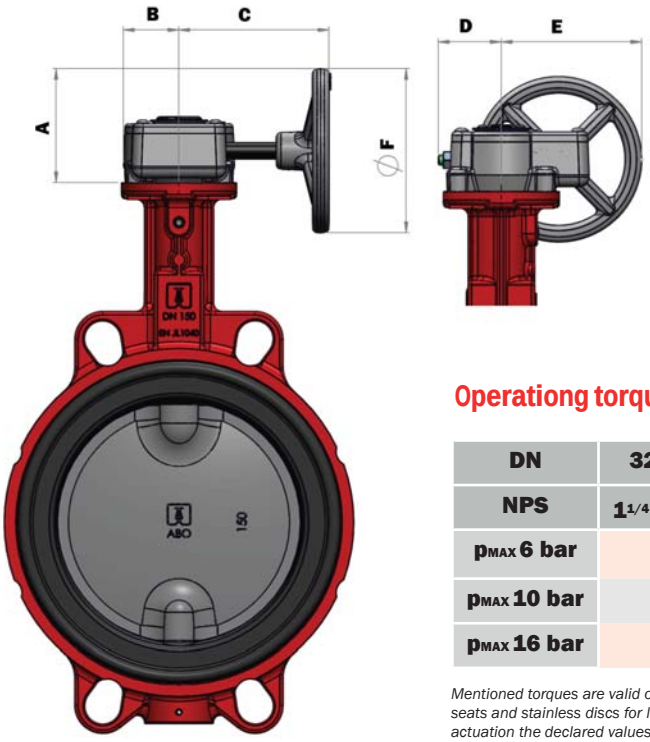
Dimensions are declared in mm.

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.



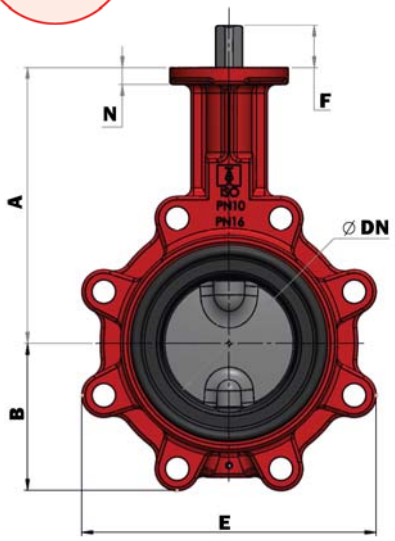
Operationg torques (Nm) vs. working pressure (bar)

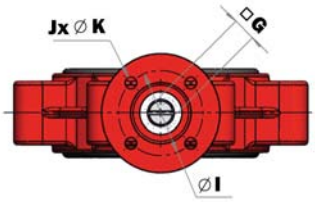
DN	32/40	50	65	80	100	125	150
NPS	1¼“-1½“	2“	2½“	3“	4“	5“	6“
p_{MAX} 6 bar	6	7	11	17	28	38	85
p_{MAX} 10 bar	9	10	15	22	37	44	98
p_{MAX} 16 bar	12	14	24	27	44	58	130

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.

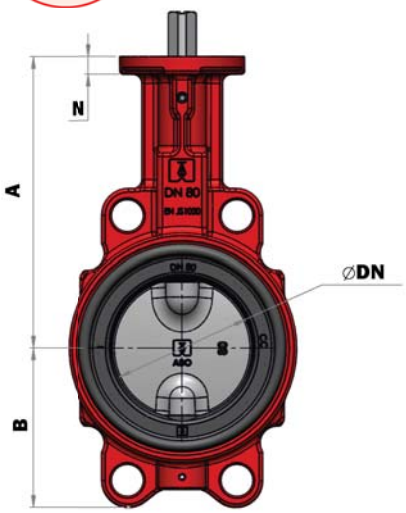
VALVE
BASIC DIMENSIONS

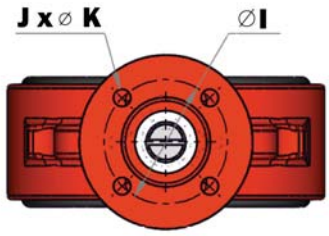
T
LUG
DESIGN

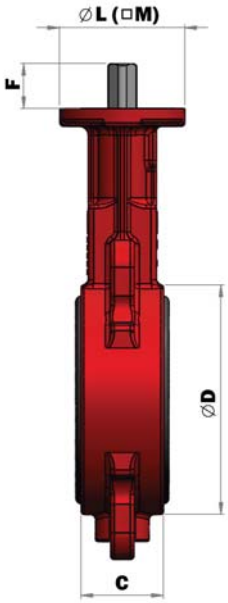




B
WAFER
DESIGN







	DN	32/40	50	65	80	100	125	150
	NPS	1¼"-1½"	2"	2½"	3"	4"	5"	6"
	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	9,4
	Ver. T	2,3	3,0	3,7	4,8	6,1	9,2	10,2
ISO flange		F05/F07	F05				F07	

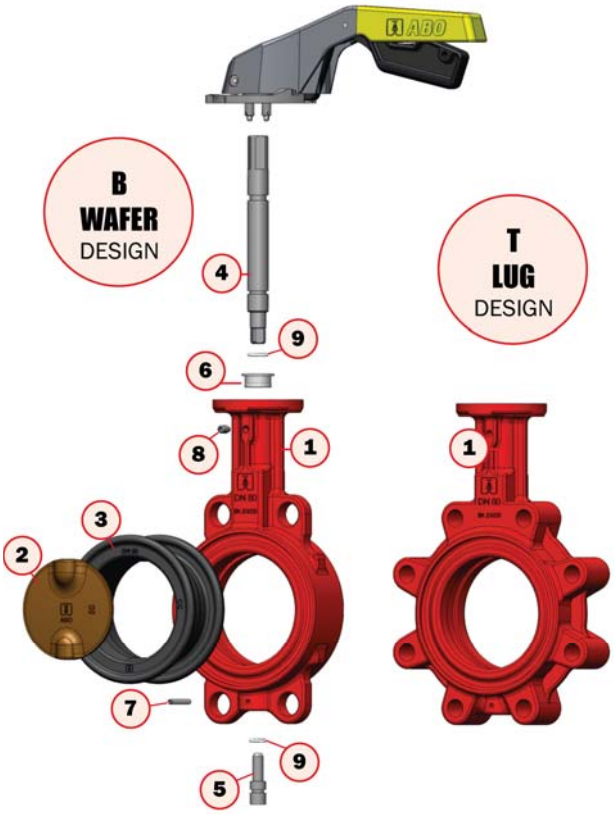
Dimensions are mentioned in mm.

VALVE GAS DESIGN

ABO valve

For natural gas, propane and butane and coal gas

an economy ABO valve gas version is offered (is not designed for biogas). 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.



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

Installation between flanges

	PN6	PN10	PN16	Class 150
B				
T	•			•

Standard	
On request	•

Working conditions

Working pressure	Seat temperature rating
6 bar max.	Seat NBR: -10°C / +90°C

Material performance

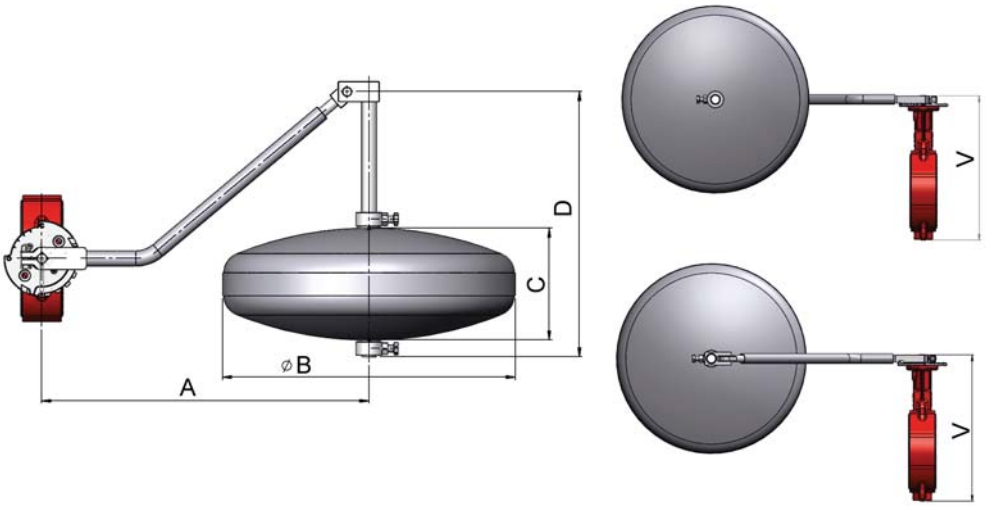
Item	Name	Material
1	Body	**DN32/40** Ductile iron 0.7040 (GGG40) epoxy coated **DN50-DN150** Grey cast iron 0.6025 (GG25) epoxy coated
2	Disc	0 - Brass 2.0402 1 - Aluminium bronze 2.0975 2 - Stainless steel 1.4308 (CF8 3 - Ductile iron 0.7040 (GGG40) (epoxy coated) 4 - Stainless steel 1.4408 (CF8M)
3	Seat	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

FLOAT CONTROLLED VALVE

Industrial Valve Manufacturer

Manual lever

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 closes (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 ele ments 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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