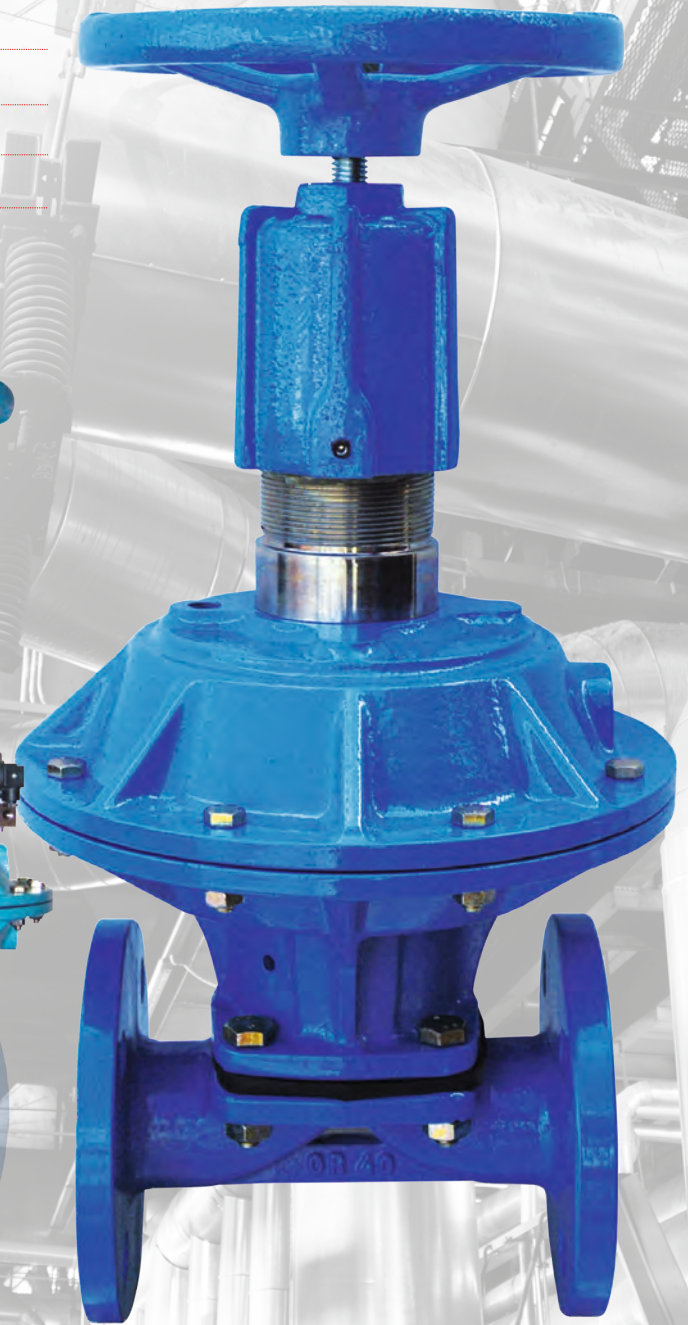


ABO *valve*

DIAPHRAGM VALVES

Nominal size	DN15 - DN300
Working pressure	up to 10 bar
Flange connection	PN10 / PN16 / Class 150
Working temperature	-25 °C / +125 °C
Working media	Waste water Potable water Chemical fluids Desalination Mining slurry Food Beverages Energy industry



SERIES **85&100**

www.abovalve.com

GENERAL INFORMATION

Czech Industrial
Valve Manufacturer

General characteristics

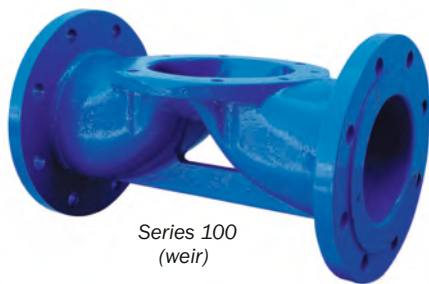
- DN15 - DN300
- monoblock bidirectional valve
- three part design bonnet
- total watertightness when closed and to the outside
- valve usable in any position
- simple & safe mechanism
- easy, infrequent maintenance
- bonnet lubricated for long working life
- suitable to work in vacuum environment
- no packing/gaskets inside the valve body
- TOP flange acc. to ISO 5211 allows connection with various kind of actuators (electric, pneumatic, hydraulic)



Applications

Diaphragm valves are suited for applications such as:

- water & wastewater
- potable water
- chemical processing
- desalination
- power generation
- mining slurry
- process industry



Series 100
(weir)



Series 85
(straight way)

Type designation

85 1 2 M

Type

- M - manual
- AD - air to close
- AD-V - air to close (with handwheel)
- AL-V - air to open

Material of diaphragm

- 1 - NBR
- 2 - EPDM
- 3 - Natural rubber
- 4 - Viton
- 5 - Butyl
- 6 - Silicone
- 7 - Neoprene
- 8 - Hypalon
- 9 - PTFE

Body material

- 0 - Bronze
- 1 - Cast iron 0.6025 (GG25)
- 2 - Stainless steel 1.4308 (CF8)
- 3 - Ductile iron 0.7040 (GGG40)
- 4 - Stainless steel 1.4408 (CF8M)
- 5 - Carbon steel 1.0446/1.0619/1.0625 (A216 WCB)

Series name

- Series 85
- Series 100

Standards

LEAK TEST

- EN 12266
- ISO 5208

FACE TO FACE

- DIN 3202
- BS 5156

CONNECTION BETWEEN FLANGES

- EN 1092
- DIN PN6/PN16
- ASME B16.5

TOP FLANGE

- ISO 5211

Working conditions

Working pressure:

- | | | |
|---------------------|---|---|
| a) handwheel | b) actuator (air close AD-V) | c) actuator (air open AL-V) |
| • DN 15-150: 10 bar | • DN 15-125: 10 bar | • DN 15-125: 10 bar |
| • DN 200-250: 8 bar | • DN 150-250: 8 bar | • DN 150: 6 bar |
| • DN 300: 4 bar | • DN 300: 4 bar | • DN 200-300: 3 bar |
| | <i>Recommended air supply pressure 4 bar.</i> | <i>Recommended air supply pressure 5 bar.</i> |

Working temperature:

Max. working temperature is subjected to the selected lining material. Please consult with ABO representatives for detailed information.

Body lining:

- unlined: GG25 epoxy coated
- rubber coated: GG25 + hard rubber lining
- plastic lined body: GG25 + halar lining

Coating:

- RAL 5015 (other coating types upon request)

Maximum temperatures for each seat material are accepted only for a specific medium and limited time exposure. Contact ABO for material selection for various media and conditions.

DESIGN BENEFITS



SHAFT DESIGN

Shaft designed to reduce friction for low operating torque.

WEIR TYPE DESIGN

Series 100 with its weir type design reduces diaphragm travel for extended service and fine control.

INTERNATIONAL STANDARD COMPATIBILITY

Top flange acc. to standard ISO 5211 enables direct mounting of manual operators and actuators. Longer neck of ABO butterfly valves result in insulation of ISO top flange (protection of mounted actuator) and meeting heating system requirements.

DIAPHRAGM BODY DESIGN

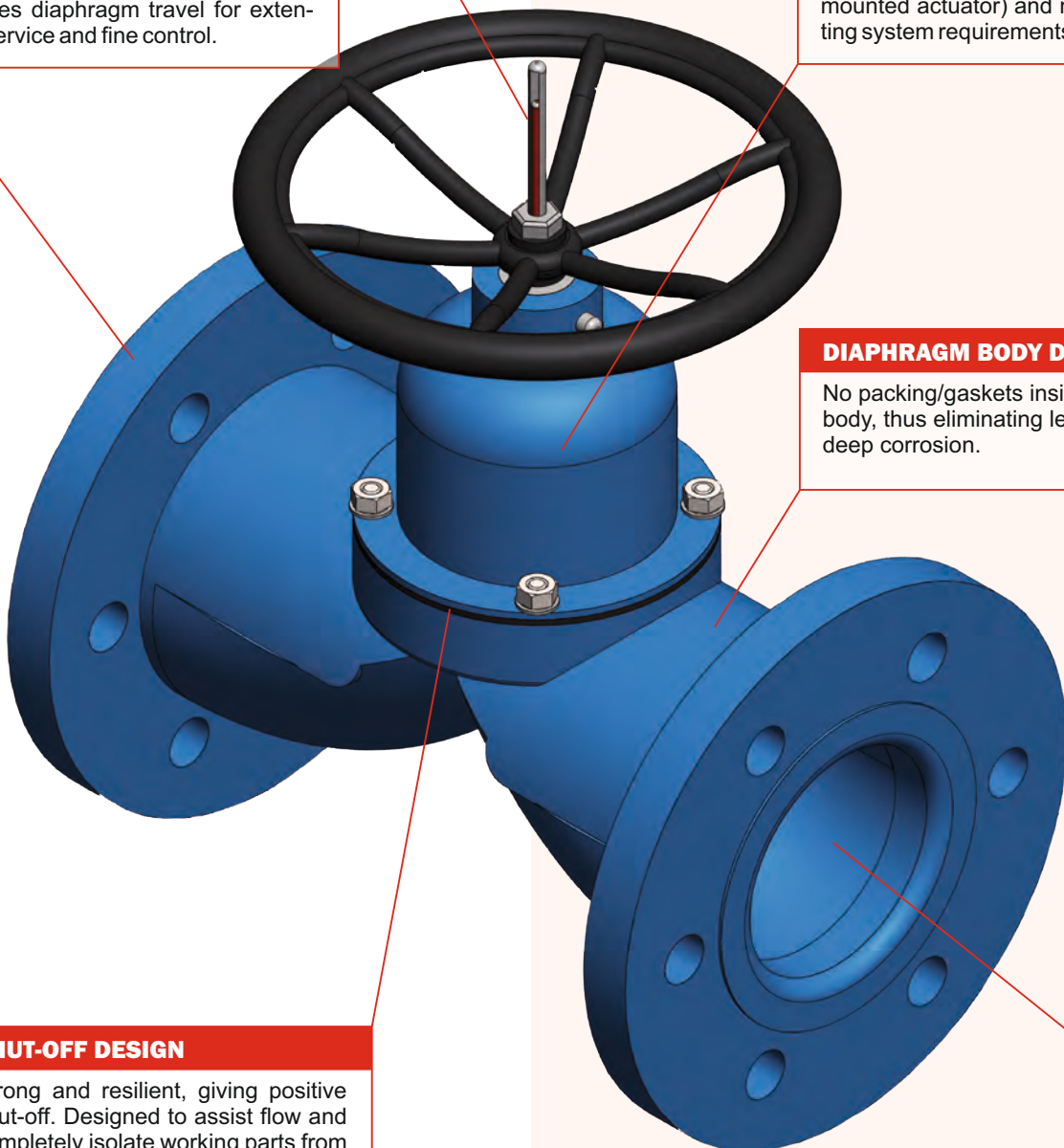
No packing/gaskets inside the valve body, thus eliminating leak path and deep corrosion.

SHUT-OFF DESIGN

Strong and resilient, giving positive shut-off. Designed to assist flow and completely isolate working parts from line fluids. Pocketless design for contamination free performance and smooth flow characteristics. No gasket costs or pipeline disturbance problems.

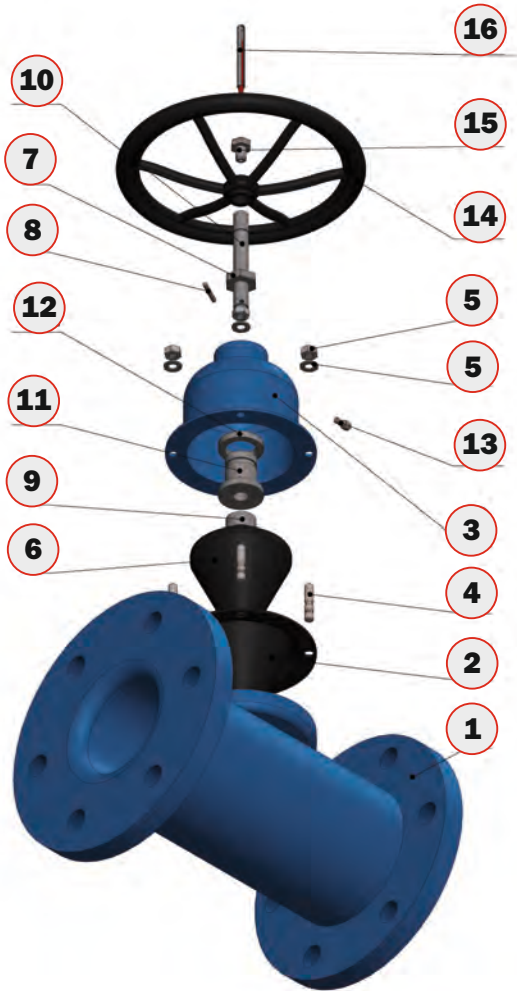
WIDE RANGE OF MEDIA

Suitable body & lining components for wide range of media - e.g. gas, oil, sea water, waste water, acids, slurry, industrial fluids.



SERIES 85

Czech Industrial Valve Manufacturer

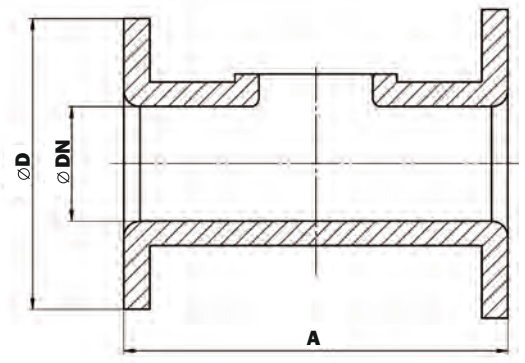


Item	Name	Material
1	Body	0 - Bronze 1 - Cast iron 0.6025 (GG25) 2 - Stainless steel 1.4308 (CF8) 3 - Ductile iron 0.7040 (GGG40) 4 - Stainless steel 1.4408 (CF8M) 5 - Carbon steel 1.0446, 1.0619, 1.0625 (A216 WCB)
		1 - NBR 2 - EPDM 3 - Natural rubber 4 - Viton 5 - Butyl 6 - Silicone 7 - Neopreno 8 - Hypalon 9 - PTFE
3	Bonnet	Cast iron 0.6025 (GG25)
4	Studs	Steel
5	Nut and washer	Steel
6	Compressor	Cast iron 0.6025 (GG25)
7	Nut	Stainless steel
8	Pin	Stainless steel
9	Stem nut	Stainless steel
10	Stem	Stainless steel 303
11	Bushing	PTFE
12	Ring	Stainless steel 303
13	Greasing	Standard
14	Handwheel	Cast iron 0.6025 (GG25)
15	Nut indicator	Stainless steel
16	Indicator	Stainless steel

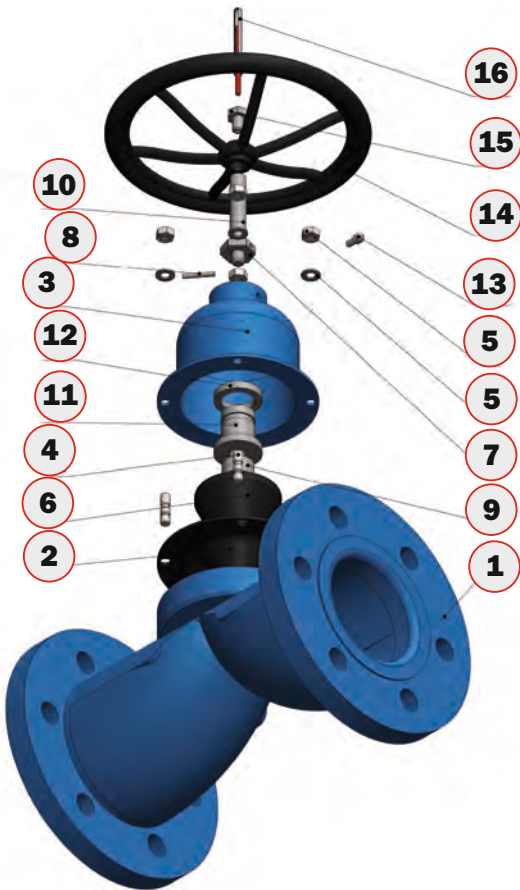
Other material execution upon request.

Dimensions mentioned in mm.

DN	Ø D		A	
	PN 10/16	ANSI 125 / 150	DIN 3202	BS 5156
15	95	89	130	108
20	105	99	150	117
15	115	108	160	127
32	140	118	180	146
40	150	127	200	159
50	165	153	230	190
65	185	178	290	216
80	200	190	310	254
100	220	228	350	305
125	250	254	400	356
150	285	280	480	406
200	340	343	600	521
250	395	406	650	635
300	445	483	735/750/850	749



SERIES 100

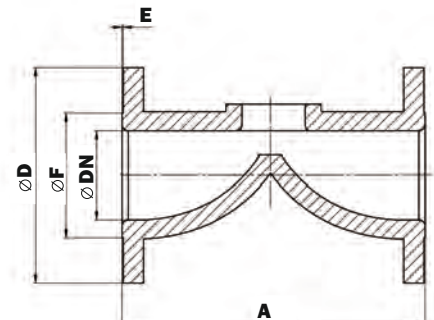


Item	Name	Material
1	Body	0 - Bronze
		1 - Cast iron 0.6025 (GG25)
		2 - Stainless steel 1.4308 (CF8)
		3 - Ductile iron 0.7040 (GGG40)
		4 - Stainless steel 1.4408 (CF8M)
2	Diaphragm	5 - Carbon steel
		1.0446, 1.0619, 1.0625 (A216 WCB)
		1 - NBR
		2 - EPDM
		3 - Natural rubber
		4 - Viton
		5 - Butyl
		6 - Silicone
		7 - Neopreno
8 - Hypalon		
9 - PTFE		
3	Bonnet	Cast iron 0.6025 (GG25)
4	Studs	Steel
5	Nut and washer	Steel
6	Compressor	Cast iron 0.6025 (GG25)
7	Nut	Stainless steel
8	Pin	Stainless steel
9	Stem nut	Stainless steel
10	Stem	Stainless steel 303
11	Bushing	PTFE
12	Ring	Stainless steel 303
13	Greasing	Standard
14	Handwheel	Cast iron 0.6025 (GG25)
15	Nut indicator	Stainless steel
16	Indicator	Stainless steel

Other material execution upon request.

Dimensions mentioned in mm.

DN	Ø D		A		Ø F	E
	PN 10/16	ANSI 125 / 150	DIN 3202	BS 5156		
15	95	89	130	108	50	2
20	105	99	150	117	58	2
15	115	108	160	127	68	2
32	140	118	180	146	78	2
40	150	127	200	159	88	3
50	165	153	230	190	102	3
65	185	178	290	216	122	3
80	200	190	310	254	138	3
100	220	228	350	305	158	3
125	250	254	400	356	188	3
150	285	280	480	406	212	3
200	340	343	600	521	268	3
250	395	406	650	635	320	3
300	445	483	735/750/850	749	372	4
350	505	533	750	-	440	4



ACTUATION TORQUES, COATING

Czech Industrial Valve Manufacturer

Actuation possibilities

All ABO manual operators and actuators can be mounted directly to ABO diaphragm valves without the need for brackets or coupling. This allows for simple installation in the field, minimizes possible misalignment, and decreases overall height. All actuated diaphragm valves are equipped with auxiliary handwheel to secure proper closing/opening.

Manual actuation

Handwheel

For manual actuation, ABO offers handwheel in cast iron material. The ABO ergonomic and robust handwheel allows for great comfort and ease of operation.

Actuators

Pneumatic

ABO pneumatic actuators available: double acting actuator (air open/air close), spring to close (to secure the closing when air fails), spring to open (to secure the opening when air fails).

Electric

ABO electric actuators available in 24V, 230V and 400V.

Accessories

ABO diaphragm valves can be automated using pneumatic and electric actuators fitted with a wide range of accessories including:

- Solenoid valves
- Switch enclosures
- Electro-pneumatic positioners
- Limit stops
- Emergency handwheel over-rides

	standard
	upon request

Installation between flanges DN15-DN300

DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300
PN6	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PN10														
PN16														
Class 150	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Valid since: 02/2022

Czech Republic

ABO valve, s.r.o.
Dalimilova 285/54
783 35 Olomouc
tel.: +420 585 224 087
sales@abovalve.com

Russia

ABO Armatura LLC
Smolensk
tel.: +7 (4812) 240 020
sales.ru@abovalve.com

China

ABO Flow Control
Shanghai
tel.: +86 136 01 522 831
sales.cn@abovalve.com

USA

ABO Controls LLC
Houston
tel.: +(1) 832.291.4929
sales.us@abovalve.com



Follow us on:



Slovak Republic

ABO Slovakia, s.r.o.
Banská Bystrica
tel.: +421 947 902 862
sales.sk@abovalve.com

Ukraine

ABO Ukraine LLC
Dnipro
tel.: +38 056 733 95 70
sales.ua@abovalve.com

India

ABO Controls Pvt. Ltd.
Mumbai
tel.: +91 773 820 4779
sales.in@abovalve.com

United Arab Emirates

Sales representation
Abu Dhabi
tel.: +971 56 9207964
bharti@abovalve.com

Germany

ABO Armaturen GmbH
Essen
tel.: +49 (0)152 262 29501
sales.de@abovalve.com

Turkey

ABO Armaturen LTD STI
Istanbul
tel.: +90 216 527 36 34
sales.tr@abovalve.com

Singapore

ABO Valve Pte. Ltd.
Singapore
tel.: +65 9169 4562
sales.sg@abovalve.com

Bahrain

Sales representation
Manama
tel.: +973 3444 9065
jim@michen@abovalve.com

www.abovalve.com



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