

ABO valve
we make processes work

CONCENTRIC BUTTERFLY VALVES

Body design

Interflanged

Double flanged

WAFER type with through holes

LUG type with threaded holes

With through / threaded holes

Nominal size

Interflanged

Double flanged

DN32 - DN600

DN700 - DN1600 (Series 20)

DN50 - DN2200 (Series 13)

Working pressure

6 bar / 10 bar / 16 bar

Flange connection

PN6/PN10/PN16/Class 150

Working temperature

-40 °C / +150 °C

Working media

Potable water

Waste water

Hot industrial water

Heating water

Sea water

Chemicals

Gas / Oil and gas

Oil / Oil derivatives

Loose materials

Air

Beverages / Food

Malt

Sugar juice

Tightness

Class A

Features

Concentric design

Bidirectional valve

Body with safety

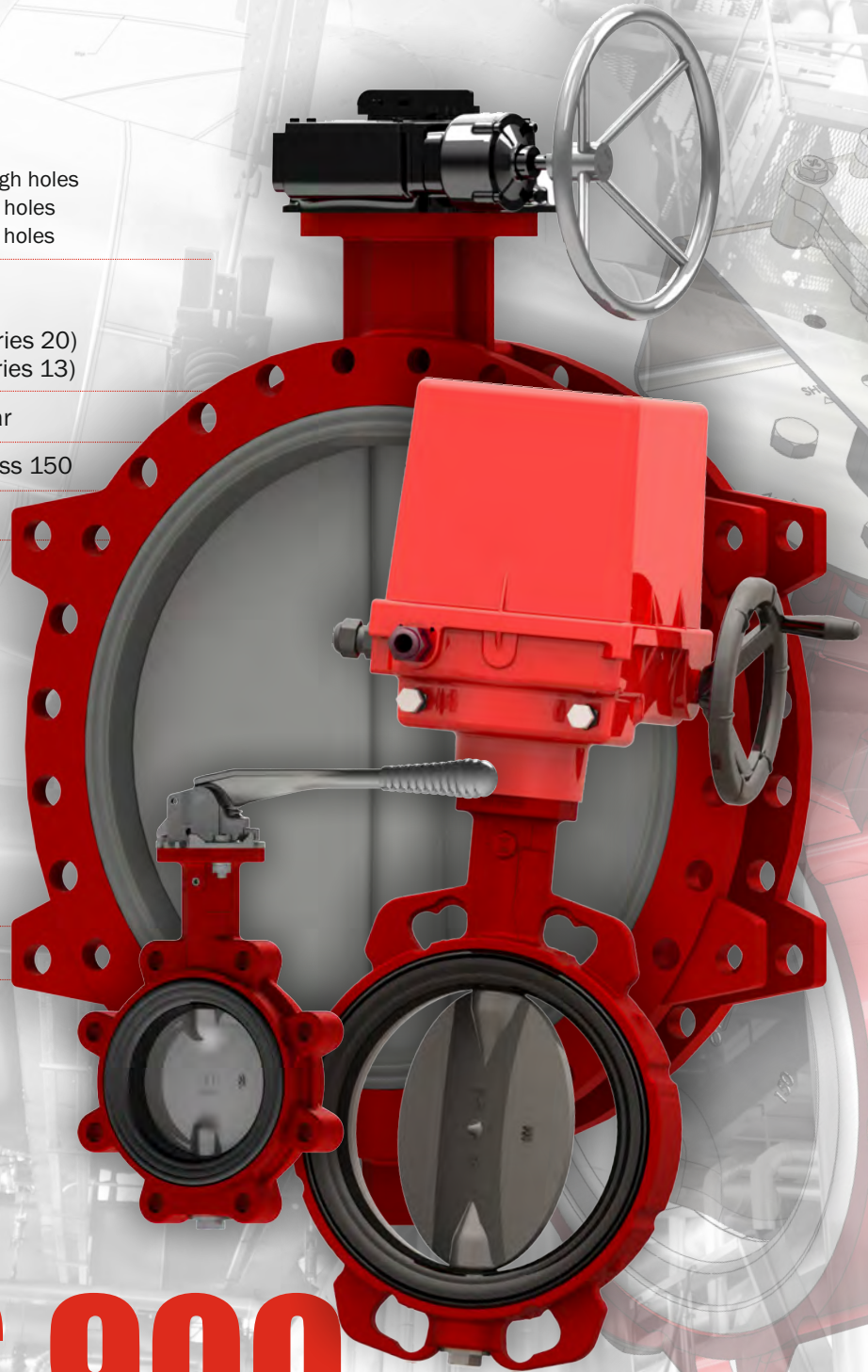
plug (up to DN400)

Body with pin cover

(DN450-DN600)

Demountable valve

Easy service



SERIES 900

industrial line

www.abovalve.com

GENERAL VALVE DESCRIPTION

Czech Industrial Valve Manufacturer

Wafer/Lug/Double flanged concentric butterfly valves of Series 900

are resistant soft-sealing valves designed for industrial applications like:

- purification, treatment and distribution of potable or waste water, waste slurry treatment
- heating, heating water distribution
- ventilation, air conditioning
- conveying and distribution of sea and industrial water
- distribution of light chemicals, pharmaceuticals, oils and oil derivatives
- distribution of sugar juice, food industry applications
- conveying loose materials
- pulp and paper industry
- gas distribution
- dust or gas explosive environment (zones 0, 1; 20 and 21; except mining environment)

Basic properties

- concentric design, bidirectional
- wafer/lug type with split stem
- disc is moved by stem with diagonally fit square-end stem
- pivot plug enables to dismantle the valve (valid for wafer/lug valves up to DN 400), pin cover at DN450-DN600
- body long neck according to the regulations of thermoprocessing equipment
- red epoxy coating acc. RAL 2002-80 µm
- certified by DWGV for potable water and gas
- ABS certified - PED certificate
- ACS certification

Based on customers' special requests we offer:

- bonded seat - for vacuum systems with maximum absolute pressure of 200 mbar
- NBR conduct - ATEX design for group II, category 1/2 GD TX
- special seat types certified by FDA for food industry
- WRAS certification for potable water
- material certificates 3.1/3.2
- customer tailored valve design - special body or disc coatings, stem extensions for non-standard valve control etc.

2 / ABO valve Czech



Type designation

9 2 4 B

Body design

- B - Wafer body with through holes
- T - Lug body with tapped holes
- U - Double flanged body with short face-to-face length (ISO 5752, Series 20)
- F - Double flanged body with long face-to-face length (ISO 5752, Series 13)

** upon request the valve body can be coated with various types of special protecting coatings (Rilsan/Halar/A4 etc.)*

Disc material

- 0 - Brass 2.0402
- 1 - Aluminium bronze 2.0975 (C95800)
- 2 - Stainless steel 1.4308 (CF8)
- 3 - Ductile iron 0.7040 (GGG40)*
- 4 - Stainless steel 1.4408 (CF8M)*
- 5 - HASTELLOY
- 6 - Stainless steel 1.4539 (Uranus B6)
- 7 - Titanium

** upon request the disc can be coated with special coatings (Rilsan/Halar)*

Seat material

- 1 - NBR
- 2 - EPDM
- 3 - NBR Carboxyle (XNBR)
- 4 - VITON (FPM)
- 5 - Steam silicone (MVQ)
- 6 - Silicone (VMQ)
- 7 - Epichlorhydrin (ECO)
- 8 - HYPALON® (CSM)
- 9 - NBR 70-AG

- NBR conduct

** other materials upon request*

Series designation

Series 900

Standards

Leak test

EN 12266-1, Class A
ISO 5208, Class A
API 598, Table 5
ANSI/FCI 70-2, Class VI

Face to face length

EN 558, Series 20/13
ISO 5752, Series 20/13
API 609, Table 2

Flange connection

EN 1092-1+A1, 2
ASME B16.5
ASME B16.47

Top flange

ISO 5211

Working standard

EN 593
EN 1074-1,2
DVGW W 363-(P)
DIN EN 13774



DESIGN MODELS



INTERFLANGED
DESIGN

B
WAFER
DESIGN



DN32-DN600

T
LUG
DESIGN



DN32-DN600

ATEX
CERTIFIED

DOUBLE FLANGED
DESIGN

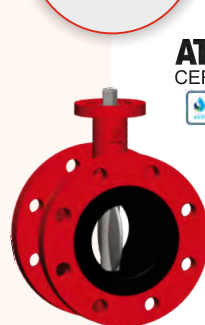
U
WAFER/LUG
DESIGN



DN700-DN1600

short face-to-face length
SERIES 20

F
WAFER/LUG
DESIGN

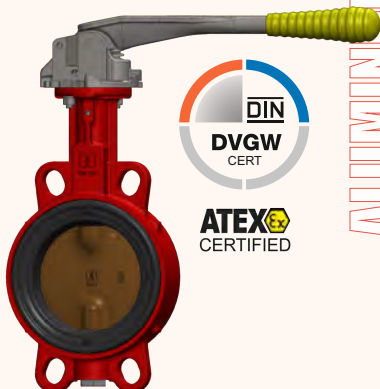


DN50-DN2200

long face-to-face length
SERIES 13

ATEX
CERTIFIED
WRAS

DVGW CERTIFICATION
GAS / POTABLE WATER



DN32-DN400

DIN
DVGW
CERT
ATEX
CERTIFIED

ALUMINIUM
BODY



DN32-DN300

Quality control

- ABO valve production facilities are certified in accordance with ISO 9001:2015 (ISO 14001, 45001)
- tightness test procedures according to standards 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% max. working pressure to ensure leak tightness according to standards - the 3.1, 3.2 material certificates can be issued
- all the actuators are adjusted and tested while assembled
- manual actuator, if delivered, is adjusted and tested while assembled
- all the certificates can be downloaded from www.abovalve.com

For natural gas interflanged distribution systems

are offered gas versions valves of the Series 99xx. The gas valves are fitted with a control lever with a yellow sleeve. The valves are designed for natural gas, are supplied with a special set of seat with **DVGW** certification, tightness class A, working pressure max. 10 bar.

For distribution of potable water

are offered valves of Series 900 with special set of seats with **DVGW/WRAS** certification. The valves are designed for cold water, inc. potable water, tightness class A, working pressure 10/16 bar. The valves are equipped with control lever with a green sleeve.

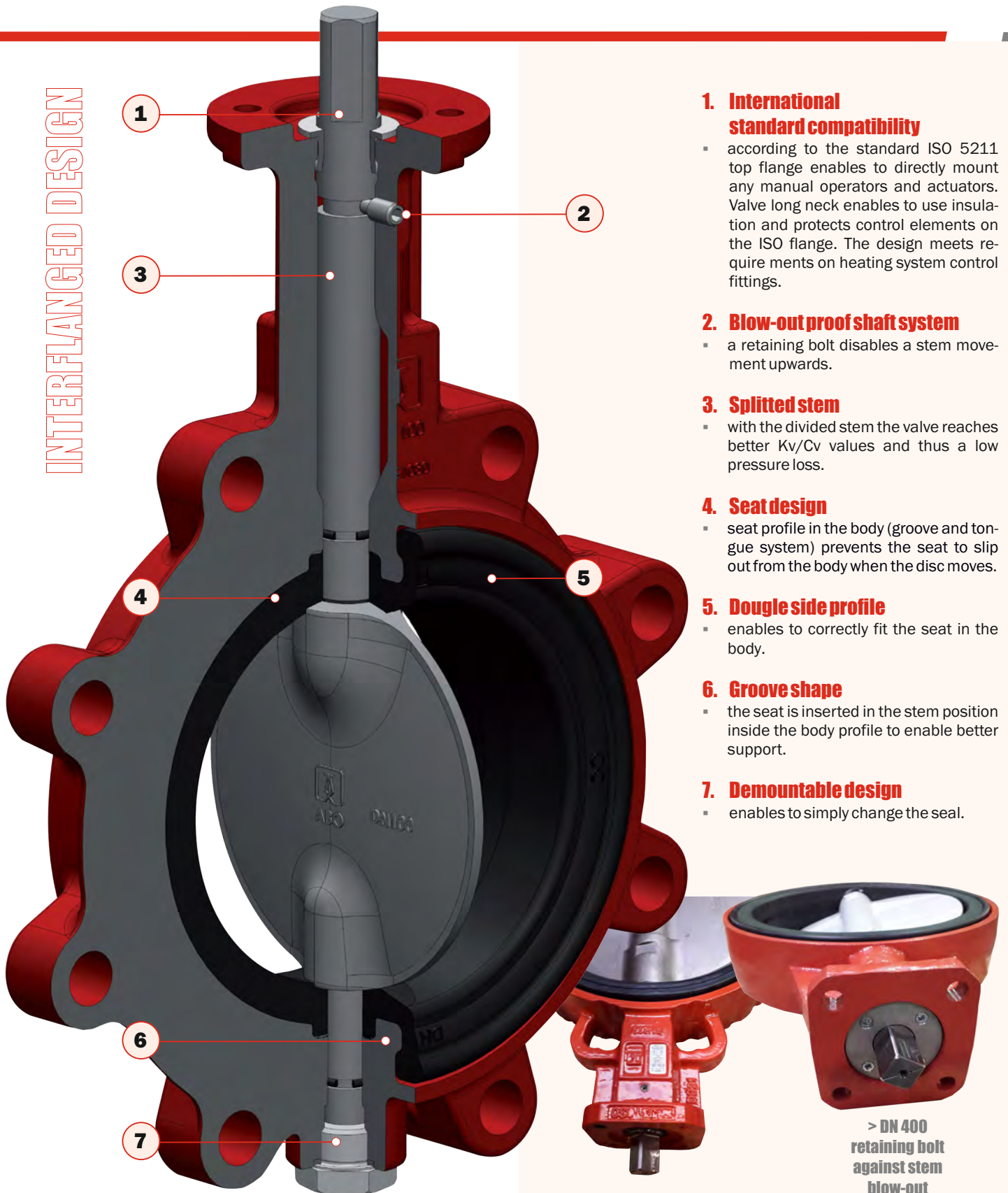
As a lightweight variant

(valves with lower weight) are offered valves of Series 900 with aluminium body, working pressure 10/16 bar, working temperature: -40°C / +150°C.

DESIGN ADVANTAGES

Czech Industrial Valve Manufacturer

INTERFLANGED DESIGN



1. International standard compatibility

- according to the standard ISO 5211 top flange enables to directly mount any manual operators and actuators. Valve long neck enables to use insulation and protects control elements on the ISO flange. The design meets requirements on heating system control fittings.

2. Blow-out proof shaft system

- a retaining bolt disables a stem movement upwards.

3. Splitted stem

- with the divided stem the valve reaches better Kv/Cv values and thus a low pressure loss.

4. Seat design

- seat profile in the body (groove and tongue system) prevents the seat to slip out from the body when the disc moves.

5. Double side profile

- enables to correctly fit the seat in the body.

6. Groove shape

- the seat is inserted in the stem position inside the body profile to enable better support.

7. Demountable design

- enables to simply change the seal.

4 / ABO valve Czech

< DN 400
retaining washer
against stem
movement

> DN 400
retaining bolt
against stem
blow-out

BODY SURFACE TREATMENT / SEAT ANCHORING



Body surface treatment Epoxy coating

Standard ABO high quality epoxy coating system, complying with the C2 corrosion aggressiveness degree according to the standard ČSN EN ISO 12944-1, minimum coating thickness 80 µm.

Marine environment coating

Resistant coating suitable for marine environment or high corrosion risk environment. Available are variants resistant to corrosion aggressiveness grades C3, C4 and C5.

Rilsan

Highly resistant coating for very demanding applications of high flexibility, elasticity and excellent corrosion resistance. This coating option is recommended for applications such as seawater, cement, process water, food or media contaminated with chemicals.

Halar

Thermoplastic Fluoroplast coating to be installed in pipelines with aggressive media. The coatings of high chemical resistance are suitable also for joining material, sealing washers and similar.

InterZone 954

Coating provides superior protection in sea water environment. The coating is designed for bodies exposed to high humidity or other very arduous climate conditions. It is highly resistant to acid and solvent vapours and sprinkles, common and salt water.

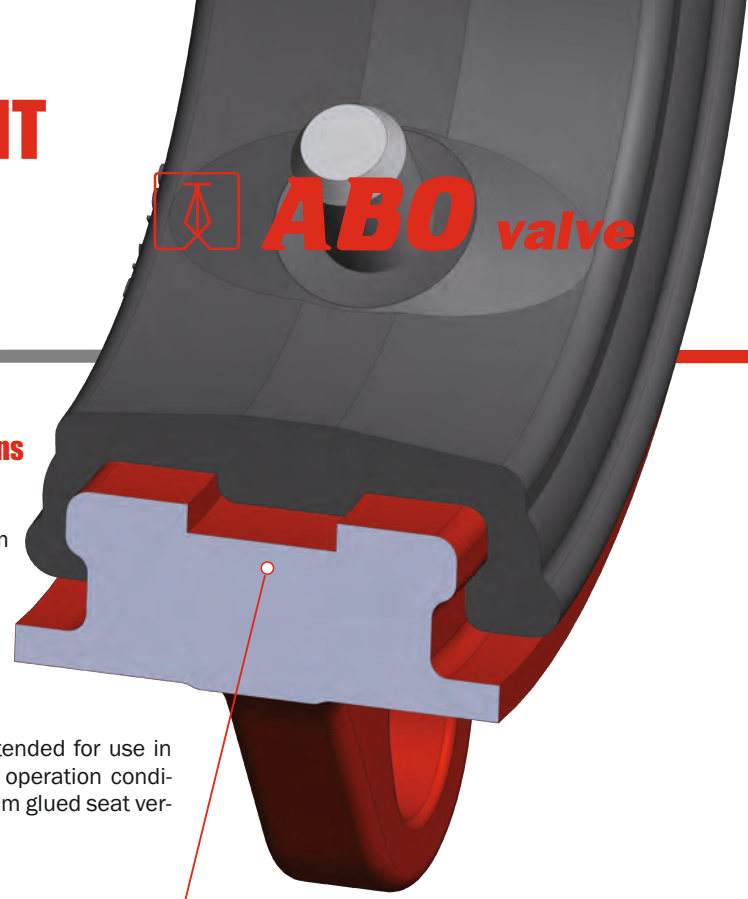
Seat anchoring options

Groove/tongue STANDARD

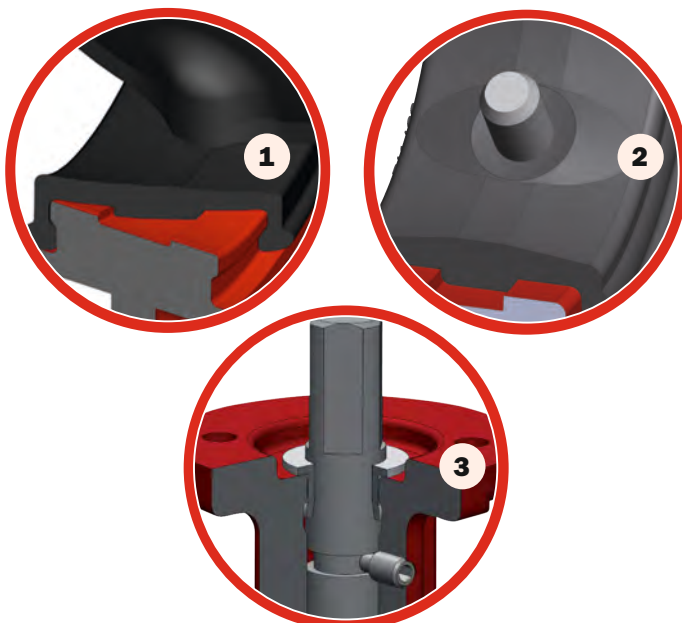
- groove/tongue system prevents seat movement
- reliability
- simple replacing seat

Vulcanized (bonded) seat UPON REQUEST

- vulcanized seat is intended for use in vacuum and difficult operation conditions. For lower vacuum glued seat version can be used.



The seat is anchored by a **groove/tongue system** enabling stable guiding and prevents unwanted seat movement.



3-stage sealing system guarantees 100% tightness, long term product lifespan and safe operation in the most demanding applications.

1. Primary sealing

- sealing surface of the seat in the contact area with disc, stem and pivot has a precisely defined geometry

2. Secondary sealing

- secondary sealing is created by the stem and pivot disc overlap depending on the seat diameter

3. Tertiary sealing

- stems and pivots are equipped with safety O-rings that further enhance operational performance and reliability
- O-rings protect stem bearings against penetration of abrasive particles from environment

VALVES FOR SPECIAL PURPOSES

Czech Industrial Valve Manufacturer



6 / ABO valve Czech

Valves with stem extension for special actuation requirements at inaccessible places

Stem extensions of various lengths are installed on valve stems according to particular projects. For inaccessible installations in vats, pits etc.



Valves with lightened aluminium body

Light weight valve. Suitable for installations in plastic pipes (pools).



Valve discs with special coatings

Discs are coated with high resistant coatings for aggressive environment (Rilsan/Halar).



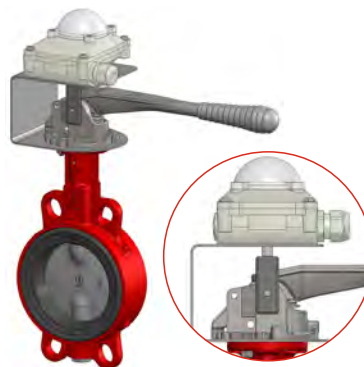
Aluminium bronze valve discs for seawater treatment systems

Specially designed for maritime and marine environment where a maximum product reliability is required in highly saline environment.



Polyurethane coated valve bodies

Specially designed for underground applications. Polyurethane coating protects the valve body against corrosion.



Valve with special lever and limit switches

Can be equipped with non-standard lever type (up to 10 position degrees). The disc position is scanned by limit switches connected to the valve stem.



Valve actuator installation according to customers' requirements

Standard - actuator on the side. Possibility to place valve actuator according the specific disposition or specific requirements.

VALVES FOR SPECIAL PURPOSES



ATEX design

For valves intended for explosive atmospheres i.e. where explosive mixtures of gases, vapours, fog or dust are created. DVGW certification.



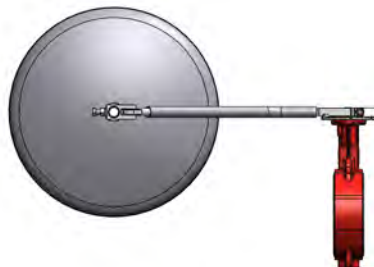
Valves with worm gear controlled by chain

Chain installed for worm gear control. The chain replaces handwheel. Suitable for inaccessible places.



Valves with stem extension

Stem extensions are used in hard-to-reach places where there is no direct access to the valve.



Float valve

For installations in tanks/reservoirs. The float controls valve opening by the level height.



Valves with FDA certified seats

For food industry. For potable water medium WRAS certification can be provided.



Additional equipment for pneumatic actuators

Pneumatic actuators can be equipped with positioners, solenoids, limit switch boxes, etc.





Valves with stainless flanges

Non-standard connection to pipelines. Connection flanges are screwed to the valve body.

www.abovalve.com / 7

SEATS / POSSIBLE APPLICATIONS

Czech Industrial Valve Manufacturer

| Industry | Medium | Marking | Seat material | Applications | Working temperature range |
|--|--|----------------|-----------------------------------|---|---------------------------|
|  Water management Potable water treatment | Potable water | EPDM | DRINKING WATER EPDM (EPDM-018) | WRAS, ACS. Certified by DVGW GmbH (DVGW W 363-P). | -20 °C .. + 90 °C |
| Water management Potable water distribution / Heating | Potable water Heating water | | DRINKING WATER EPDM-HT (EPDM-019) | For potable water purification, treatment and distribution - higher temperature resistance. | -20 °C .. + 130 °C |
| Water management Potable water distribution / Food industry | Beverages Juices / Malt Hot service water | | EPDM-HT*) (EPDM-022) | FDA certified. For sugar mills, beverage factories, malt houses. Seat colour - black. | -20 °C .. + 130 °C |
| Food industry | Beverages Juices Malt | | EPDM-014 (FDA) | FDA certified - for lower tempetaure ranges. Seat colour - white. Corresponds to standard 1935/2004. | -10 °C .. + 90 °C |
| Chemical industry Ventilation Air conditioning Water treatment | Air Non-aggressive acids and alkalines Non-aggressive minerals Water distribution | | EPDM-008/1 | For distribution of non-aggressive mild mineral acids, air distribution - ventilation and air conditioning. Suitable for water treatment installations.. | -20 °C .. + 90 °C |
|  Industrial production processes / Gas distribution | Gas | NBR | DVGW-GAS NITRILE | For natural gas transport and distribution. Certificated by DVGW CERT GmbH. | -10 °C .. + 60 °C |
| Oil industry Petrochemistry Fuel processing Waste oils processing Fat sorting Loose materials conveying Cement and lime industry | Abrasive media | NBR-X | CARBOXYLIC NITRILE | For oily media applications with present abrasive particles in transported media. Certified by FDA. | 0 °C .. + 90 °C |
| | | FLUCAST | FLUCAST AB/N | For oily media installations - crude oil distribution. | 0 °C .. + 90 °C |
| | | FLUCAST | FLUCAST AB/E | For abrasive resistant applications - for „wet“ media like sludges etc. | -5 °C .. + 90 °C |
| | | FLUCAST | FLUCAST AB/P | For abrasive resistant applications - for „dry“ media like loose materials, powder media (gypsum, carbon black, china clay, oxides), pneumatic conveying of cement and powder in mining industry. | -10 °C .. + 70 °C |
| | | FLUCAST | FLUCAST AB/T | For abrasive media with high temperature resistance. | -5 °C .. + 130 °C |

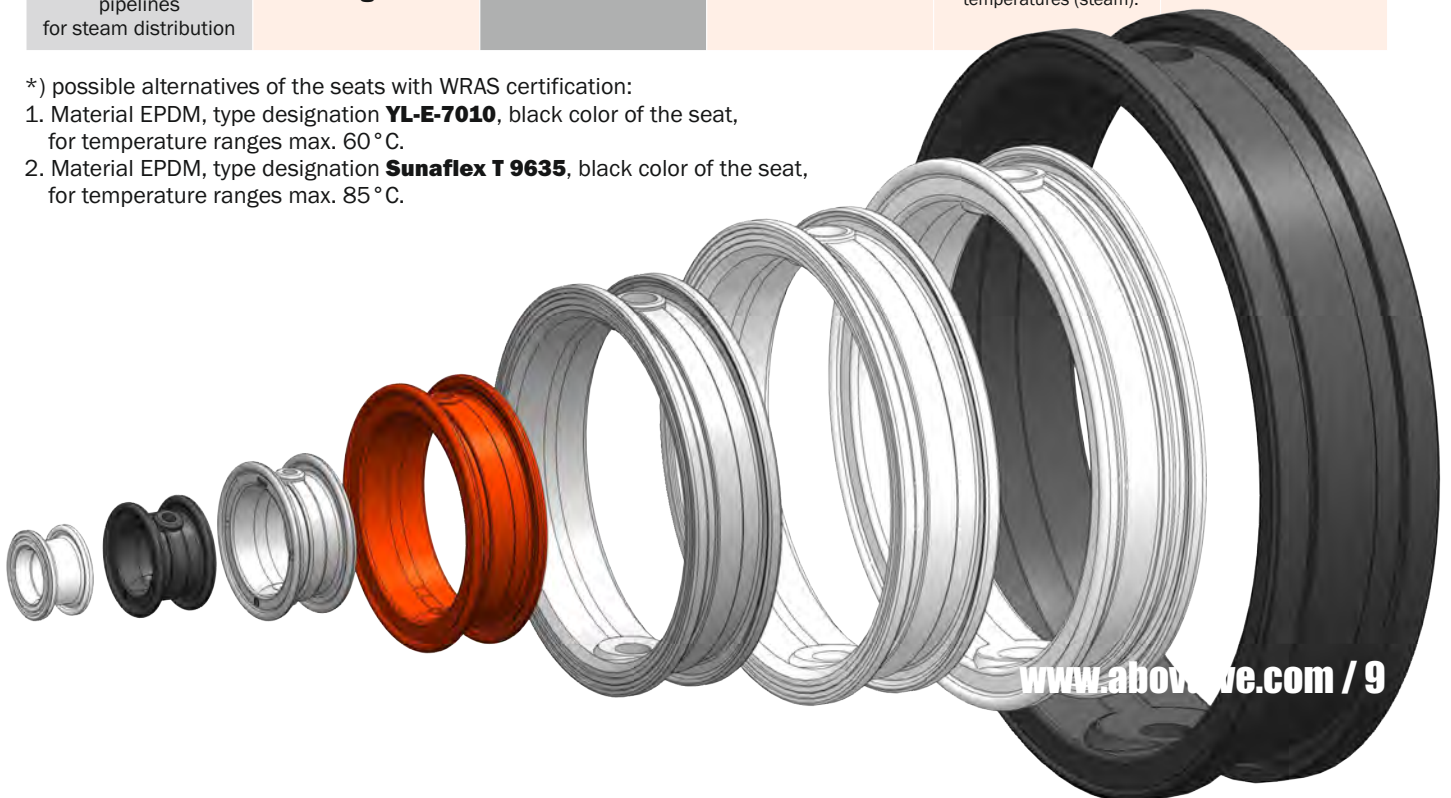
***) EPDM Super HT seat:** -10°C .. +150°C. This new EPDM Super HT seat has much better mechanical properties if we compare it to other rubber compounds used at high temperatures like silicones of fluorelastomers. In addition to being used for hot water, EPDM Super HT is also suitable for steam. Here it can replace f.e. steam silicone seat.

SEATS / POSSIBLE APPLICATIONS

| Industry | Medium | Marking | Seat material | Applications | Working temperature range |
|---|---|------------|--------------------------|--|---------------------------|
| Sea water treatment Water softening for industry in general Petrochemistry Fuel processing Biogas distribution | Salt water Biogas Crude oil Fuel | ECO | EPICHLORHYDRIN | For seawater, saltwater, gas/biogas, crude oil and fuel distribution applications. | -40 °C .. +90 °C |
| Chemical industry Recovery / Stem heating / Biogas distribution / System for production and distribution of pure steam | Steam Biogas Agressive acids Oils | FPM | VITON BIO | High fluorine contents (70%), suitable for distribution of acids and oils, high chemical resistance. | -5 °C .. +150 °C |
| | | | STANDARD VITON (FPM-002) | | |
| Chemical industry Petrochemistry | Industrial grease Oils Non-agressive acids | CSM | HYPALON | Suitable for applications with standard rubber mixtures lifespan limited by action of high temperatures - distribution of oils, diluted acids and alkalines. | -10 °C .. +100 °C |
| Chemical industry Recovery Steam heating Industrial pipelines for steam distribution | Steam | MVQ | STEAM SILICONE | For heat recovery, steam supply and distribution systems. | -40 °C .. +150 °C |
| Food industry | Food steam | VMQ | FOOD SILICONE | Steam distribution systems with higher work temperatures, certified by FDA. | -40 °C .. +150 °C |
| Chemical industry Recovery Steam heating Industrial pipelines for steam distribution | Steam - high temperature ranges | VMQ | SILICONE | For media requiring higher temperature resistance at negative and positive work media temperatures (steam). | -40 °C .. +160 °C |

*) possible alternatives of the seats with WRAS certification:

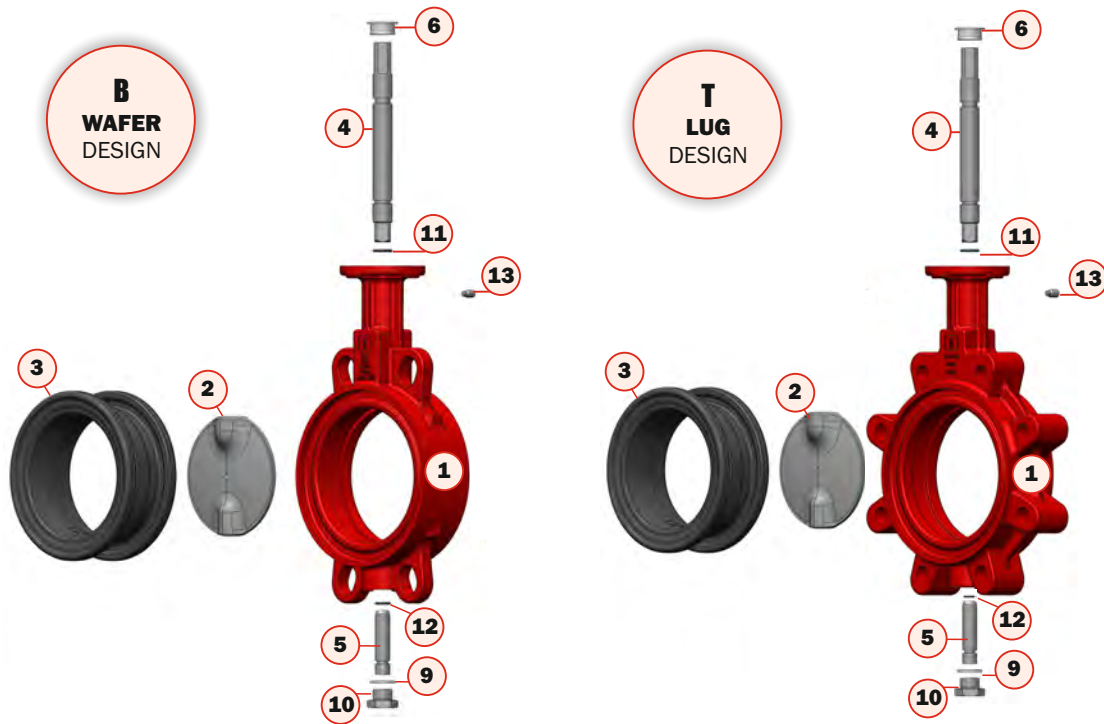
1. Material EPDM, type designation **YL-E-7010**, black color of the seat, for temperature ranges max. 60 °C.
2. Material EPDM, type designation **Sunaflex T 9635**, black color of the seat, for temperature ranges max. 85 °C.



MATERIAL PERFORMANCE

Czech Industrial Valve Manufacturer

INTERFLANGED DESIGN



| Pos. | Name | Material |
|----------|-------------|---|
| 1 | Body | Ductile iron 0.7040 (GGG40) epoxy coated Carbon steel 1.0446 (A216 WCB) Stainless steel 1.4408 (CF8M) Low carbon steel 1.1156 (LCC) Aluminium EN AC 4300 (C95500) Aluminium bronze 2.0975 (C95800) |
| 2 | Disc | 0 - Brass 2.0402 (UNS C38000) 1 - Aluminium bronze 2.0975 (C95800) 2 - Stainless steel 1.4308 (CF8) 3 - Ductile iron 0.7040 (GGG40) epoxy coated 4 - Stainless steel 1.4408 (CF8M) 5 - HASTELLOY 6 - Stainless steel 1.4539 (Uranus B6) 7 - Titanium |

| Pos. | Name | Material |
|-----------|-----------------------|---|
| 3 | Seat | 1 - NBR 2 - EPDM 3 - NBR Carboxyl 4 - Viton Bio 5 - Silicone steam (MVQ) 6 - Silicone (VMQ) 7 - Epichlorohydrin 8 - HYPALON® (CSM) 9 - NBR 70-AG - NBR conduct |
| 4 | Stem | Stainless steel 1.4021 (AISI 420) |
| 5 | Pivot | Stainless steel 1.4021 (AISI 420) |
| 6 | Bushing | Delrin (to DN 300) Brass (from DN 350) |
| 9 | Seal | Klingersil C-4400 |
| 10 | Plug | Stainless steel A2 |
| 11 | Stem O-ring | NBR, EPDM, optionally VITON |
| 12 | Pivot O-ring | NBR, EPDM, optionally VITON |
| 13 | Retaining bolt | Stainless steel A2 |

Other materials upon request.
Seat and disc materials are recommended based on particular inquiry.

INSTALLATION BETWEEN FLANGES



Installation between flanges DN32 to DN600 - Wafer/Lug design

| | DN | 32/40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
|----------|-----------|-------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| B | PN6 | | | | | | | | | | | • | • | • | • | • |
| | PN10 | | | | | | | | | | | | | | | |
| | PN16 | | | | | | | | | | | | | • | | |
| | Class 150 | | | | | | | | | | | • | • | • | • | • |
| T | PN6 | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| | PN10 | | | | | | | | | | | | | • | • | • |
| | PN16 | | | | | | | | • | • | • | • | • | • | • | • |
| | Class 150 | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |

standard

• upon request

• impossible

Installation between flanges DN700 to DN1600 - Double flanged design - Series 20

| | DN | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 |
|----------|-----------|-----|-----|-----|------|------|------|------|------|------|------|
| U | PN6 | • | • | • | • | • | • | • | • | • | • |
| | PN10 | | | | | | | | | | |
| | PN16 | • | • | • | • | • | • | • | • | • | • |
| | Class 150 | • | • | • | • | • | • | • | • | • | • |

standard

• upon request

Installation between flanges DN50 - DN2200 - Double flanged design - Series 13

| | DN | 50 - 2200 |
|----------|-----------|-----------|
| F | PN6 | • |
| | PN10 | |
| | PN16*) | • |
| | Class 150 | • |

• upon request

standard

*) PN16 for nominal sizes DN50-300 is standard, for nominal sizes bigger than DN300 PN16 upon request



VALVE ACTUATION

Czech Industrial Valve Manufacturer

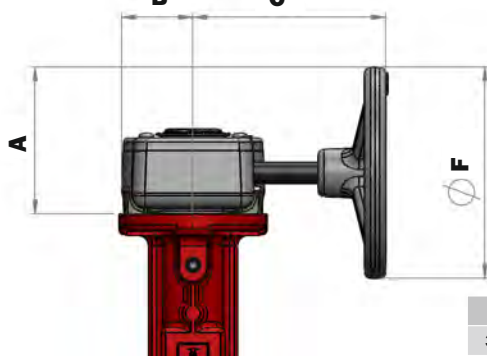
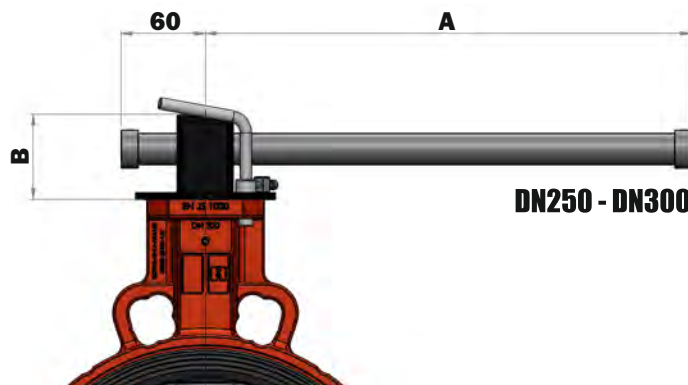
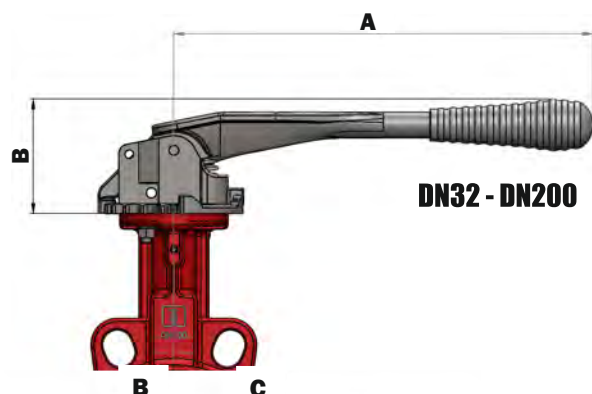
All the ABO valves can be equipped with hand levers, worm gears, pneumatic and electric actuators. The top flange design according to the standard ISO 5211 enables to directly assemble actuators on valves. Thus compatibility between valves and actuators is guaranteed.

Handlever

For manual actuation ABO offers carbon steel lever suitably painted to improve resistance to corrosion, abrasion and shock. Stainless lever on request. Top flange connection according to ISO standards F05 for DN50 to DN65 and F07 for DN80 to DN200. Controlled lever upon request. The levers can be equipped with a lock to ensure an optimized position. The levers can be supplemented with limit switches.

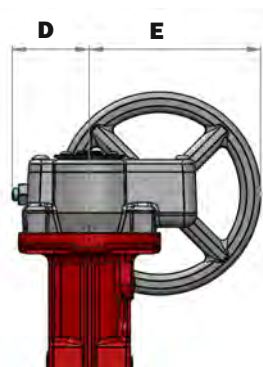
Dimensions are mentioned in mm, weight in kg.

| DN | 32-100 | 125 | 150-200 | 250 | 300 |
|---------------|--------|-------|---------|-------|-------|
| A | 270 | 270 | 362 | 450 | 750 |
| B | 75 | 75 | 75 | 135 | 135 |
| Weight | 1,24 | 1,26 | 1,40 | 2,20 | 3,10 |
| Shaft | 14x14 | 17x17 | 17x17 | 22x22 | 22x22 |



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 hand-wheel 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 | PN | ISO FLANGE | SHAFT | A | B | C | D | E | F | Kg |
|--------------|----|------------|-------|-------|-----|-----|-----|-----|-----|------|
| 32/40 | 16 | F05 | 14x14 | 70 | 35 | 91 | 38 | 84 | 100 | 1,2 |
| 50 | 16 | F05 | 14x14 | 70 | 35 | 91 | 38 | 84 | 100 | 1,2 |
| 65 | 16 | F05 | 14x14 | 70 | 35 | 91 | 38 | 84 | 100 | 1,2 |
| 80 | 16 | F05 | 14x14 | 70 | 35 | 91 | 38 | 84 | 100 | 1,2 |
| 100 | 16 | F05 | 14x14 | 70 | 35 | 91 | 38 | 84 | 100 | 1,2 |
| 125 | 16 | F07 | 17x17 | 127,5 | 46 | 139 | 59 | 141 | 200 | 2,2 |
| 150 | 16 | F07 | 17x17 | 127,5 | 46 | 139 | 59 | 141 | 200 | 2,2 |
| 200 | 16 | F07 | 17x17 | 127,5 | 46 | 139 | 59 | 141 | 200 | 2,2 |
| 250 | 16 | F10 | 22x22 | 134 | 57 | 156 | 60 | 155 | 200 | 4,2 |
| 300 | 16 | F10 | 22x22 | 134 | 57 | 156 | 60 | 155 | 200 | 4,2 |
| 350 | 10 | F12 | 27x27 | 183 | 57 | 210 | 95 | 205 | 300 | 4,5 |
| 350 | 16 | F12 | 27x27 | 238 | 67 | 255 | 131 | 267 | 400 | 6,5 |
| 400 | 10 | F14 | 27x27 | 292 | 78 | 350 | 169 | 331 | 500 | 11,0 |
| 400 | 16 | F14 | 27x27 | 341 | 78 | 350 | 219 | 381 | 600 | 12,0 |
| 450 | 10 | F14 | ø 38 | 348 | 110 | 346 | 196 | 405 | 600 | 26,0 |
| 450 | 16 | F14 | ø 38 | 348 | 110 | 346 | 196 | 405 | 600 | 26,0 |
| 500 | 10 | F14 | ø 42 | 348 | 110 | 346 | 196 | 405 | 600 | 26,0 |
| 500 | 16 | F14 | ø 42 | 405 | 143 | 387 | 220 | 480 | 700 | 35,0 |
| 600 | 10 | F16 | ø 50 | 405 | 143 | 387 | 220 | 480 | 700 | 35,0 |
| 600 | 16 | F16 | ø 50 | 455 | 143 | 387 | 270 | 530 | 800 | 37,0 |

12 / ABO valve

Dimensions are mentioned in mm.

VALVE ACTUATION



Actuators

Pneumatic actuators

Pneumatic actuators ABO Series 95 can be assembled to valves in two options: single-acting or double-acting.

Electric actuators

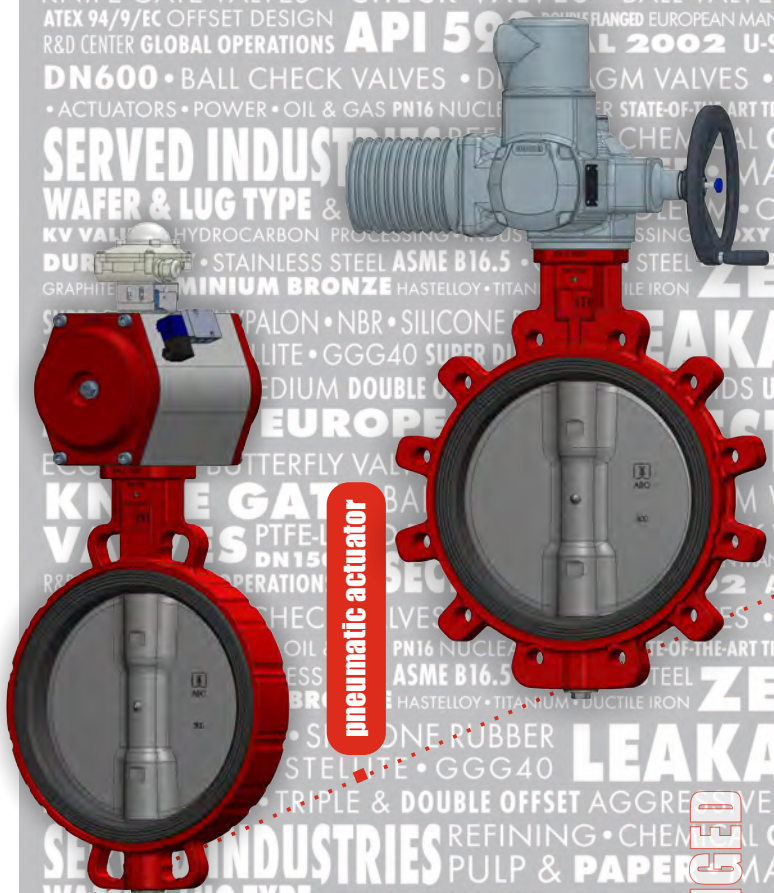
Electric drives ABO Series 97 are designed quarter-turn. Electric actuators can be installed on ABO valves for voltages of 24 V, 230 V or 400 V.

Special actuators types

Valves are equipped with special actuator types from major world suppliers (Auma, Regada, Valpes etc.).



electric actuator



pneumatic actuator

special actuators

Operating torques (Nm) vs working pressure (bar)

| DN | 32/40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
|-------------------------------|-------|----|----|----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|
| p_{MAX} 6bar | 8 | 11 | 15 | 20 | 38 | 55 | 70 | 100 | 160 | 235 | 480 | 750 | 1180 | 1380 | 2050 |
| p_{MAX} 10 bar | 9 | 12 | 17 | 25 | 46 | 70 | 80 | 125 | 200 | 290 | 530 | 1200 | 1550 | 2050 | 2700 |
| p_{MAX} 16 bar | 10 | 12 | 20 | 30 | 55 | 85 | 100 | 150 | 290 | 380 | 580 | 1650 | 2100 | 2700 | 3750 |

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 NBR and VITON (FPM) seats multiply by 1,4. For specific work conditions contact manufacturer to get advised the actuation type choice.

MADE IN EUROPE 100% TESTED
CONCENTRIC BUTTERFLY VALVES
HIGH PERFORMANCE BUTTERFLY VALVES

KNIFE GATE VALVES • CHECK VALVES • BALL VALVES DN150
ATEX 94/9/EC OFFSET DESIGN
R&D CENTER GLOBAL OPERATIONS API 598
DN600 • BALL CHECK VALVES • DIAPHRAGM VALVES • FILTERS

SERVED INDUSTRIES
WAFER & LUG TYPE

KV VALUES • HYDROCARBON PROCESSING • INDUSTRIAL PROCESSING
DURABLE • STAINLESS STEEL ASME B16.5 • GRAPHITE • ALUMINIUM BRONZE HASTELLOY • TITANIUM • DUCTILE IRON

SEALING MATERIALS: HYPALON • NBR • SILICONE RUBBER • VITON • PTFE • STELLITE • GGG40 SUPER DUPLEX A4

EUROPEAN MANUFACTURER
MEDIUM DOUBLE OFFSET AGGRESSIVE ACIDS URANUS B6

MADE IN EUROPE 100% TESTED
CONCENTRIC BUTTERFLY VALVES

KNIFE GATE VALVES • CHECK VALVES • BALL VALVES DN150

ATEX 94/9/EC OFFSET DESIGN
R&D CENTER GLOBAL OPERATIONS API 598

DN600 • BALL CHECK VALVES • DIAPHRAGM VALVES • FILTERS

SEALING MATERIALS: HYPALON • NBR • SILICONE RUBBER • VITON • PTFE • STELLITE • GGG40 SUPER DUPLEX A4

EUROPEAN MANUFACTURER
MEDIUM DOUBLE OFFSET AGGRESSIVE ACIDS URANUS B6

MADE IN EUROPE 100% TESTED
CONCENTRIC BUTTERFLY VALVES

KNIFE GATE VALVES • CHECK VALVES • BALL VALVES DN150

ATEX 94/9/EC OFFSET DESIGN
R&D CENTER GLOBAL OPERATIONS API 598

DN600 • BALL CHECK VALVES • DIAPHRAGM VALVES • FILTERS

SEALING MATERIALS: HYPALON • NBR • SILICONE RUBBER • VITON • PTFE • STELLITE • GGG40 SUPER DUPLEX A4

EUROPEAN MANUFACTURER
MEDIUM DOUBLE OFFSET AGGRESSIVE ACIDS URANUS B6

MADE IN EUROPE 100% TESTED
CONCENTRIC BUTTERFLY VALVES

KNIFE GATE VALVES • CHECK VALVES • BALL VALVES DN150

ATEX 94/9/EC OFFSET DESIGN
R&D CENTER GLOBAL OPERATIONS API 598

DN600 • BALL CHECK VALVES • DIAPHRAGM VALVES • FILTERS

SEALING MATERIALS: HYPALON • NBR • SILICONE RUBBER • VITON • PTFE • STELLITE • GGG40 SUPER DUPLEX A4

EUROPEAN MANUFACTURER
MEDIUM DOUBLE OFFSET AGGRESSIVE ACIDS URANUS B6

MADE IN EUROPE 100% TESTED
CONCENTRIC BUTTERFLY VALVES

KNIFE GATE VALVES • CHECK VALVES • BALL VALVES DN150

ATEX 94/9/EC OFFSET DESIGN
R&D CENTER GLOBAL OPERATIONS API 598

DN600 • BALL CHECK VALVES • DIAPHRAGM VALVES • FILTERS

SEALING MATERIALS: HYPALON • NBR • SILICONE RUBBER • VITON • PTFE • STELLITE • GGG40 SUPER DUPLEX A4

EUROPEAN MANUFACTURER
MEDIUM DOUBLE OFFSET AGGRESSIVE ACIDS URANUS B6

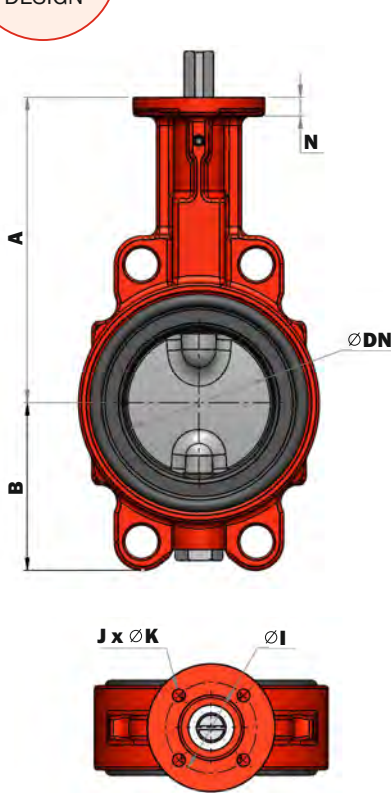
www.abovalve.com / 13

VALVE BASIC DIMENSIONS

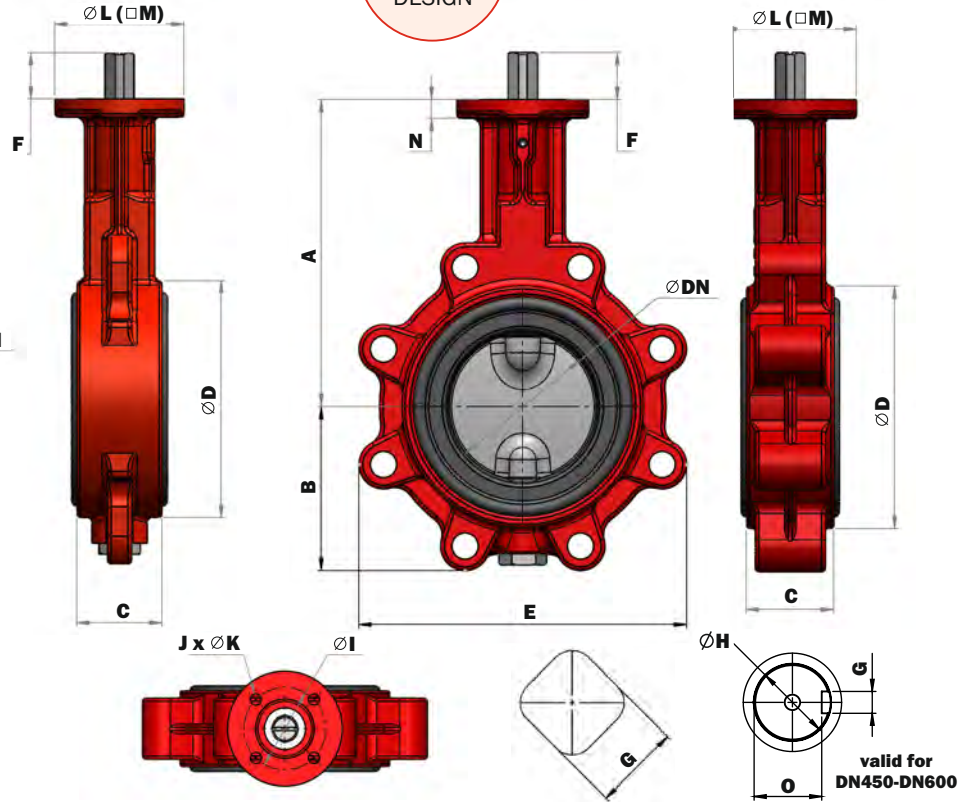
Czech Industrial Valve Manufacturer

INTERFLANGED DESIGN

B
WAFER
DESIGN



T
LUG
DESIGN



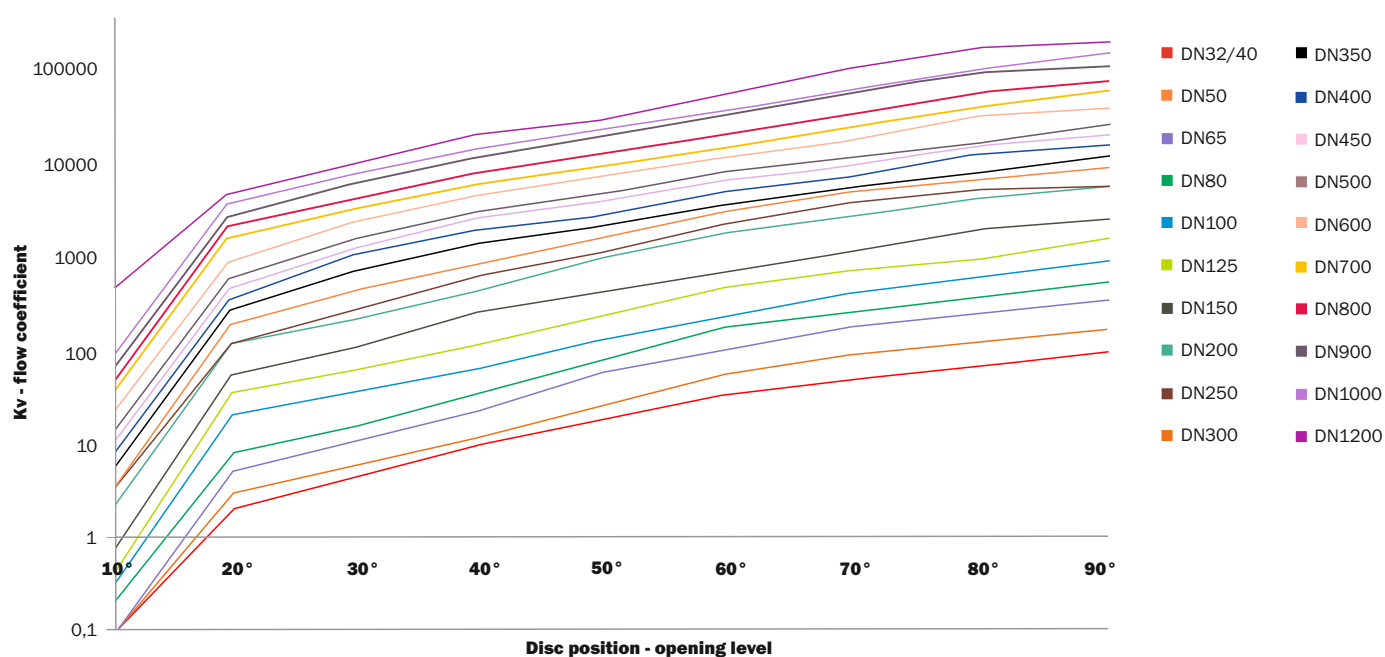
| | DN | 32/40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | |
|----------------------------|---------------|--------|-----|-----|-----|-----|-----|------|------|------|------|------|------|-------|-------|-------|-----|
| Valve dimensions | A | 136 | 146 | 154 | 163 | 173 | 193 | 205 | 234 | 270 | 310 | 325 | 365 | 375 | 485 | 565 | |
| | B | 54 | 64 | 72 | 89 | 105 | 119 | 130 | 166 | 202 | 237 | 271 | 314 | 330 | 368 | 464 | |
| | C | 33 | 43 | 46 | 46 | 52 | 56 | 56 | 60 | 68 | 78 | 78 | 102 | 114 | 127 | 154 | |
| | D | 78 | 96 | 113 | 128 | 150 | 184 | 212 | 268 | 320 | 378 | 435 | 488 | 544 | 590 | 695 | |
| | E | 110 | 115 | 129 | 174 | 204 | 234 | 255 | 319 | 396 | 465 | 509 | 590 | 610 | 682 | 810 | |
| Endshaft dimensions | F | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 30 | 30 | 36 | 36 | 80 | 80 | 80 | |
| | G | 14 | 14 | 14 | 14 | 14 | 17 | 17 | 17 | 22 | 22 | 27 | 27 | 10 | 12 | 14 | |
| | H | - | - | - | - | - | - | - | - | - | - | - | - | Ø38 | Ø42 | Ø50 | |
| | O | - | - | - | - | - | - | - | - | - | - | - | - | 33,3 | 37,1 | 44,5 | |
| Flange dimensions | I | 50/70 | 50 | 50 | 50 | 50 | 70 | 70 | 70 | 102 | 102 | 125 | 140 | 140 | 140 | 165 | |
| | J | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | K | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 11 | 11 | 14 | 18 | 18 | 18 | 23 | |
| | L | - | 70 | 70 | 70 | 70 | - | - | - | - | - | - | - | - | 175 | 175 | 210 |
| | M | 70 | - | - | - | - | 70 | 70 | 70 | 105 | 105 | 130 | 140 | - | - | - | |
| | N | 8 | 8 | 8 | 8 | 8 | 12 | 12 | 14 | 17 | 17 | 17 | 21 | 22 | 27 | 27 | |
| Weight (kg) | Ver. B | 1,9 | 2,7 | 3,2 | 3,7 | 4,7 | 6,7 | 8,4 | 13,3 | 22,0 | 29,3 | 46,4 | 69,8 | 83,0 | 112,0 | 216,0 | |
| | Ver. T | 2,3 | 3,0 | 3,7 | 4,8 | 6,1 | 9,2 | 10,2 | 15,3 | 28,4 | 41,2 | 62,0 | 96,3 | 130,0 | 149,0 | 288,0 | |
| ISO Flange | | F05/07 | F05 | F05 | F05 | F05 | F07 | F07 | F07 | F10 | F10 | F12 | F14 | F14 | F14 | F16 | |

NOMINAL FLOW VALUES



| DN | 10° | 20° | 30° | 40° | 50° | 60° | 70° | 80° | 90° |
|--------------|-----|------|-------|-------|-------|-------|-------|--------|--------|
| 32/40 | 0,1 | 2 | 4 | 9 | 17 | 30 | 45 | 61 | 84,4 |
| 50 | 0,1 | 3 | 6 | 11 | 23 | 50 | 81 | 110 | 147 |
| 65 | 0,1 | 5 | 10 | 21 | 53 | 90 | 160 | 210 | 290 |
| 80 | 0,2 | 8 | 15 | 33 | 76 | 160 | 238 | 340 | 450 |
| 100 | 0,3 | 20 | 35 | 60 | 122 | 220 | 362 | 520 | 730 |
| 125 | 0,4 | 35 | 60 | 110 | 223 | 430 | 626 | 797 | 1260 |
| 150 | 0,7 | 54 | 105 | 248 | 400 | 640 | 987 | 1630 | 1990 |
| 200 | 2 | 120 | 210 | 410 | 915 | 1630 | 2331 | 3446 | 4396 |
| 250 | 3 | 129 | 274 | 590 | 1037 | 2000 | 3210 | 4164 | 4500 |
| 300 | 3 | 188 | 424 | 820 | 1500 | 2710 | 4180 | 5433 | 6800 |
| 350 | 5 | 265 | 685 | 1327 | 1990 | 3214 | 4690 | 6292 | 8900 |
| 400 | 7 | 345 | 1000 | 1825 | 2550 | 4383 | 6090 | 9779 | 11500 |
| 450 | 9 | 449 | 1200 | 2518 | 3680 | 5929 | 7840 | 11925 | 15000 |
| 500 | 12 | 586 | 1511 | 2909 | 4340 | 7167 | 9508 | 12762 | 18800 |
| 600 | 19 | 847 | 2217 | 4203 | 6560 | 9863 | 14614 | 23621 | 27600 |
| 700 | 31 | 1554 | 3118 | 5686 | 8569 | 12810 | 19511 | 29904 | 42416 |
| 800 | 39 | 2045 | 4105 | 7486 | 11815 | 17633 | 29902 | 41231 | 52776 |
| 900 | 53 | 2614 | 5767 | 10917 | 17326 | 27849 | 44987 | 68209 | 74979 |
| 1000 | 72 | 3584 | 7194 | 13117 | 20702 | 30991 | 47201 | 72344 | 102614 |
| 1200 | 390 | 4597 | 10146 | 19195 | 26221 | 43873 | 79092 | 119966 | 131962 |

1KV = 0,854701 CV



DN>600 / DOUBLE FLANGED DESIGN - SERIES „U”

Czech Industrial Valve Manufacturer

Body design

Double flanged Body with threaded / tapped holes

Design performance

Series „U” Short face-to-face length, Series 20
According to ISO 5752-20

Nominal size

Design „U” DN700 - DN1600

Working pressure

1,0 MPa - 1,6 MPa (PN10 / PN16)

Leak test

1,1 MPa - 1,76 MPa

Working temperature

Seat NBR -10°C / +90°C
Seat EPDM -20°C / +125°C *)

Features

Concentric design

Top flange according to ISO 5211
Flange connection according to BS4504/DIN/ANSI
Design complies with API609

*) other alternatives upon request

1. International standard compatibility

- according to the standard ISO 5211 the top flange enables to directly assemble any manual operators and actuators. Valves are usually delivered with worm gear actuators. A wide scale of pneumatic or electric actuators can be assembled, too.

2. Blow-out proof system

- a retaining washer disables shaft movement upwards.

3. Lengthened neck

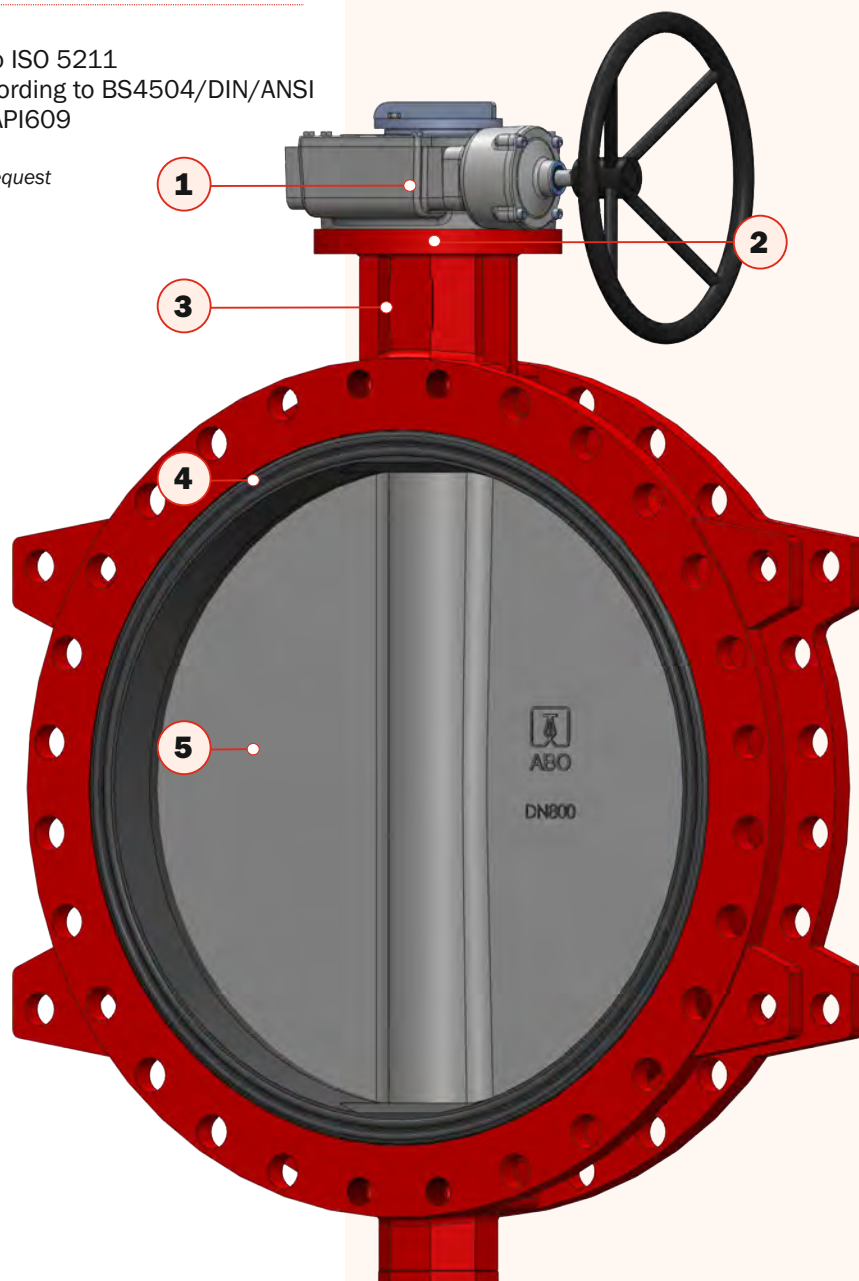
- enables to insulate the actuator from conveyed media warm effects and thus meets requirements on heating systems controls.

4. Seat design

- seat movement or incorrect position is impossible - seat can be vulcanized. Vulcanization leads to decreasing torque values needed to handle the valve. Valve inner part is fully rubber lined and thus protected against corrosive effects.

5. Disc design

- disc with polished edges is protective to seat and provides a long lifespan. Symmetric disc profile improves valve performance by increasing Kv (Cv) values, decreases turbulence and minimizes pressure loss.

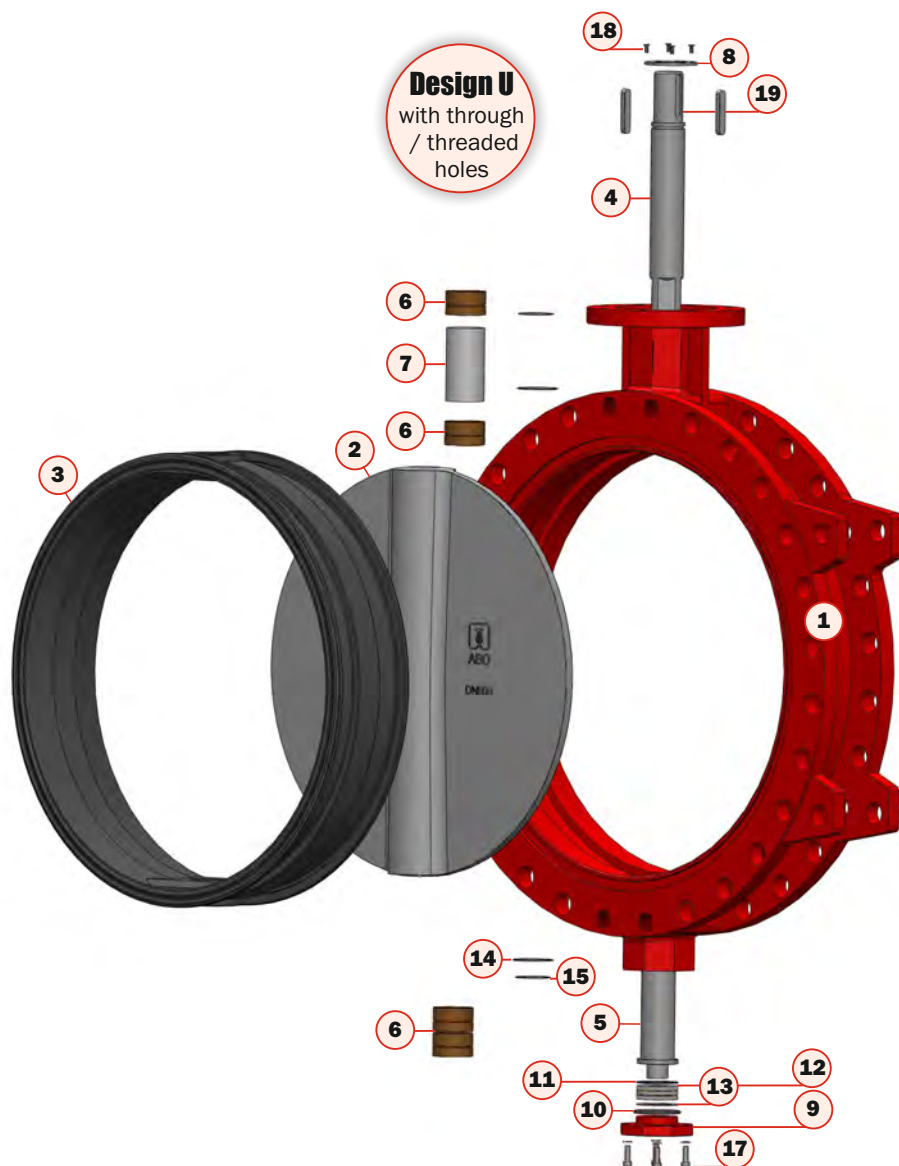


DN>600 / DOUBLE FLANGED DESIGN - SERIES „U”



DN700-DN1600 / PN10

| Pos. | Name | Material |
|------|------------------|---------------|
| 1 | Body | 0.7040 |
| 2 | Disc | upon request |
| 3 | Seat | upon request |
| 4 | Shaft | 1.4021 |
| 5 | Pivot | 1.4021 |
| 6 | Bushing | Bronze |
| 7 | Supporting liner | 1.4301 |
| 8 | Retaining ring | 1.4401 (316) |
| 9 | Cover | 0.7040 |
| 10 | Washer | 1.4301 (304) |
| 11 | Washer | 1.4301 (304) |
| 12 | Bearing | upon standard |
| 13 | O-ring | upon request |
| 14 | O-ring | upon request |
| 15 | O-ring | upon request |
| 16 | Washer | A4 |
| 17 | Bolt | A4 |
| 18 | Bolt | A4 |
| 19 | Spring | A4 |



Advantages of concentric shut-off valve double-flanged design

- 100 % tightness
- 0% leakiness
- vulcanized seat
- actuation by various actuator types - manual, electric, pneumatic or special types
- on/off and for regulation
- fully sealed stem, medium is not in contact with stem and body
- bi-directional tightness
- low body weight
- disc aerodynamic design minimising pressure loss
- disc with polished edges, high throughput profile

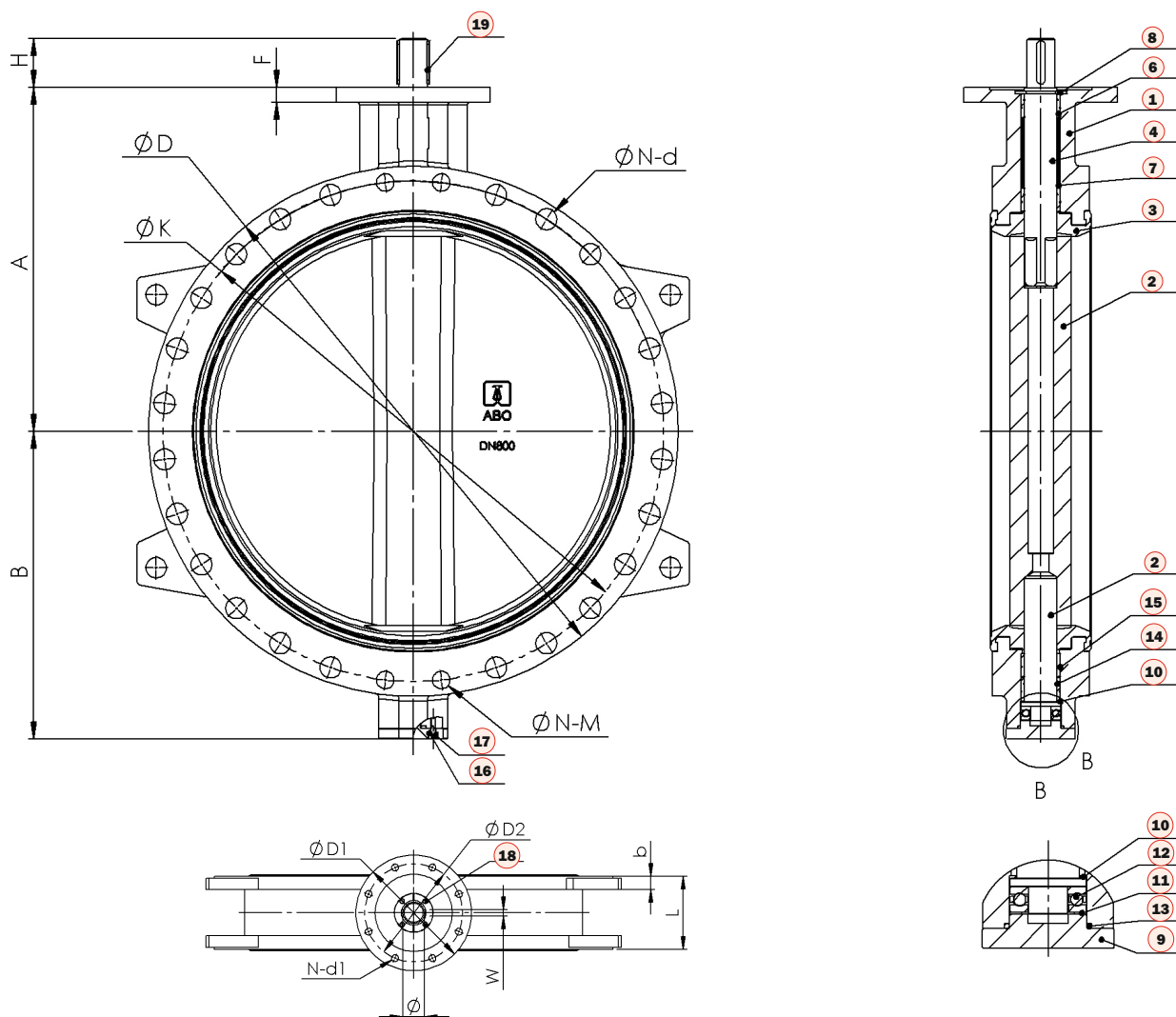
Material options Body / Disc / Seat / Shaft

| | |
|--------------|---|
| Body | Grey cast iron / Ductile iron / Carbon steel / Stainless steel / Epoxy coating / Coating C4, C5 |
| Disc | Ductile iron / Stainless steel / Aluminium Bronze / Duplex / Super Duplex / HC276 / RILSAN, HALAR coating |
| Seat | NBR / EPDM / EPDM for potable water/FPM/Silicone |
| Shaft | AISI420 / AISI431 / F51/ F55 or |

*) special materials upon request

DN>600 / DOUBLE FLANGED DESIGN - SERIES „U”

Czech Industrial Valve Manufacturer



DN700 - DN1600 / PN10

| | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1400 | 1600 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| A | 624 | 672 | 720 | 800 | 900 | 941 | 1040 | 1150 |
| B | 535 | 606 | 670 | 735 | 830 | 878 | 1009 | 1138 |
| H | 95 | 95 | 130 | 130 | 135 | 150 | 150 | 180 |
| D | 910 | 1025 | 1125 | 1255 | 1355 | 1485 | 1685 | 1930 |
| K | 840 | 950 | 1150 | 1160 | 1270 | 1390 | 1590 | 1820 |
| N-d | 20-31 | 20-34 | 24-34 | 24-37 | 28-37 | 28-41 | 32-44 | 36-50 |
| N-M | 4-M27 | 4-M30 | 4-M30 | 4-M33 | 4-M33 | 4-M36 | 4-M39 | 4-M45 |
| L | 165 | 190 | 203 | 216 | 254 | 254 | 279 | 318 |
| b | 32,5 | 35 | 37,5 | 40 | 42,5 | 45 | 46 | 49 |
| D1 | 300 | 300 | 300 | 300 | 350 | 350 | 415 | 415 |
| D2 | 254 | 254 | 254 | 254 | 298 | 298 | 356 | 356 |
| N-d1 | 8-18 | 8-18 | 8-18 | 8-18 | 8-22 | 8-22 | 8-33 | 8-33 |
| F | 30 | 30 | 34 | 34 | 34 | 34 | 40 | 50 |
| Ø | 55 | 55 | 75 | 85 | 105 | 105 | 120 | 160 |
| W | 16 | 16 | 20 | 22 | 28 | 28 | 32 | 40 |

Dimensions are mentioned in mm.
PN16 / Class 150 upon request.

DOUBLE FLANGED DESING - SERIES „U”



Operating torques (Nm) vs working pressure (bar) SERIES 20

| DN | PN10 | PN16 |
|------|-------|-------|
| | Nm | Nm |
| 700 | 3500 | 4200 |
| 750 | 3800 | 4800 |
| 800 | 4600 | 5600 |
| 900 | 5800 | 7800 |
| 1000 | 8800 | 10800 |
| 1100 | 11240 | 15600 |
| 1200 | 13800 | 19320 |
| 1300 | 16900 | 23660 |
| 1400 | 20000 | 28000 |
| 1500 | 25000 | 35000 |
| 1600 | 29000 | 40600 |
| 1800 | 39900 | 55860 |
| 2000 | 52250 | 73150 |

Mentioned torques are valid for valves of Series 20 with interchangeable seats. The data do not include values of the safety factor. Using seat EPDM multiply the values by 1,2. Using seats NBR/VITON/SILICONE multiply the values by 1,3.

Operating torques (Nm) vs working pressure (bar) SERIES 13

| DN | PN10 | PN16 |
|------|-------|-------|
| | Nm | Nm |
| 50 | 17 | 17 |
| 65 | 25 | 25 |
| 80 | 38 | 38 |
| 100 | 56 | 56 |
| 125 | 90 | 90 |
| 150 | 124 | 124 |
| 200 | 233 | 233 |
| 250 | 392 | 392 |
| 300 | 560 | 560 |
| 350 | 736 | 988 |
| 400 | 1011 | 1479 |
| 450 | 1355 | 1887 |
| 500 | 1807 | 2444 |
| 600 | 2825 | 4054 |
| 700 | 4410 | 6204 |
| 750 | 5080 | - |
| 800 | 5812 | 8782 |
| 900 | 7092 | 12142 |
| 1000 | 10584 | 16122 |
| 1050 | 12172 | - |
| 1200 | 16935 | 26984 |
| 1400 | 22000 | 34500 |

Mentioned torques does not include safety factor. Please use a factor of 1.3.



VALVE ACTUATION Worm gearbox 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 hand-wheel 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.

Actuators Pneumatic actuators

Two standard designs: single-action/double-action.

Electric actuators

Electric actuators can be installed for voltages of 24 V, 230 V or 400 V.

Special actuators types

Made by suppliers Auma, Regada, Valpes, etc.

DOUBLE FLANGED DESIGN - SERIES „F”

Czech Industrial Valve Manufacturer

Body design

Double Flanged Body with through / threaded holes

Design performance

Series „F” Increased face-to-face length, Series 13
According to ISO 5752-13

Nominal size

Design „F” DN50 - DN2200

Working pressure

1,0 MPa - 1,6 MPa (PN10 / PN16)

Leak test

1,1 MPa - 1,76 MPa

Working temperature

Seat NBR -10 °C / +90 °C **vulcanized**
Seat EPDM -20 °C / +125 °C **vulcanized ***)

Features

Concentric design

Top flange according to ISO 5211
Flange connection according to S4504/DIN/ANSI
Design complies with API609

*) other alternatives upon request

1. International standard compatibility

- according to the standard ISO 5211 the top flange enables to directly assemble any manual operators and actuators. Valves are usually delivered with worm gear actuators. A wide scale of pneumatic or electric actuators can be assembled, too.

2. Blow-out proof system

- a retaining washer disables shaft movement upwards.

3. Lengthened neck

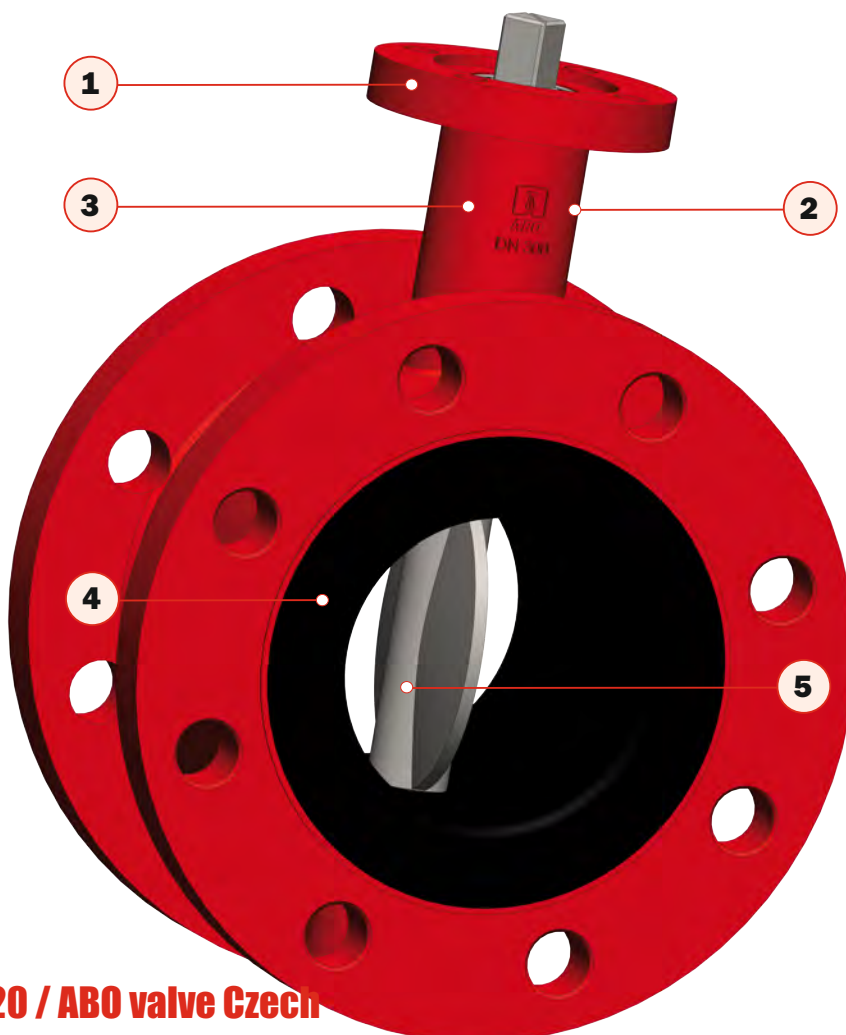
- enables to insulate the actuator from conveyed media warm effects and thus meets requirements on heating systems controls.

4. Seat design

- seat movement or incorrect position is impossible - seat can be vulcanized. Vulcanization leads to decreasing torque values needed to handle the valve. Valve inner part is fully rubber lined and thus protected against corrosive effects.

5. Disc design

- disc with polished edges is protective to seat and provides a long lifespan. Symmetric disc profile improves valve performance by increasing Kv (Cv) values, decreases turbulence and minimizes pressure loss.



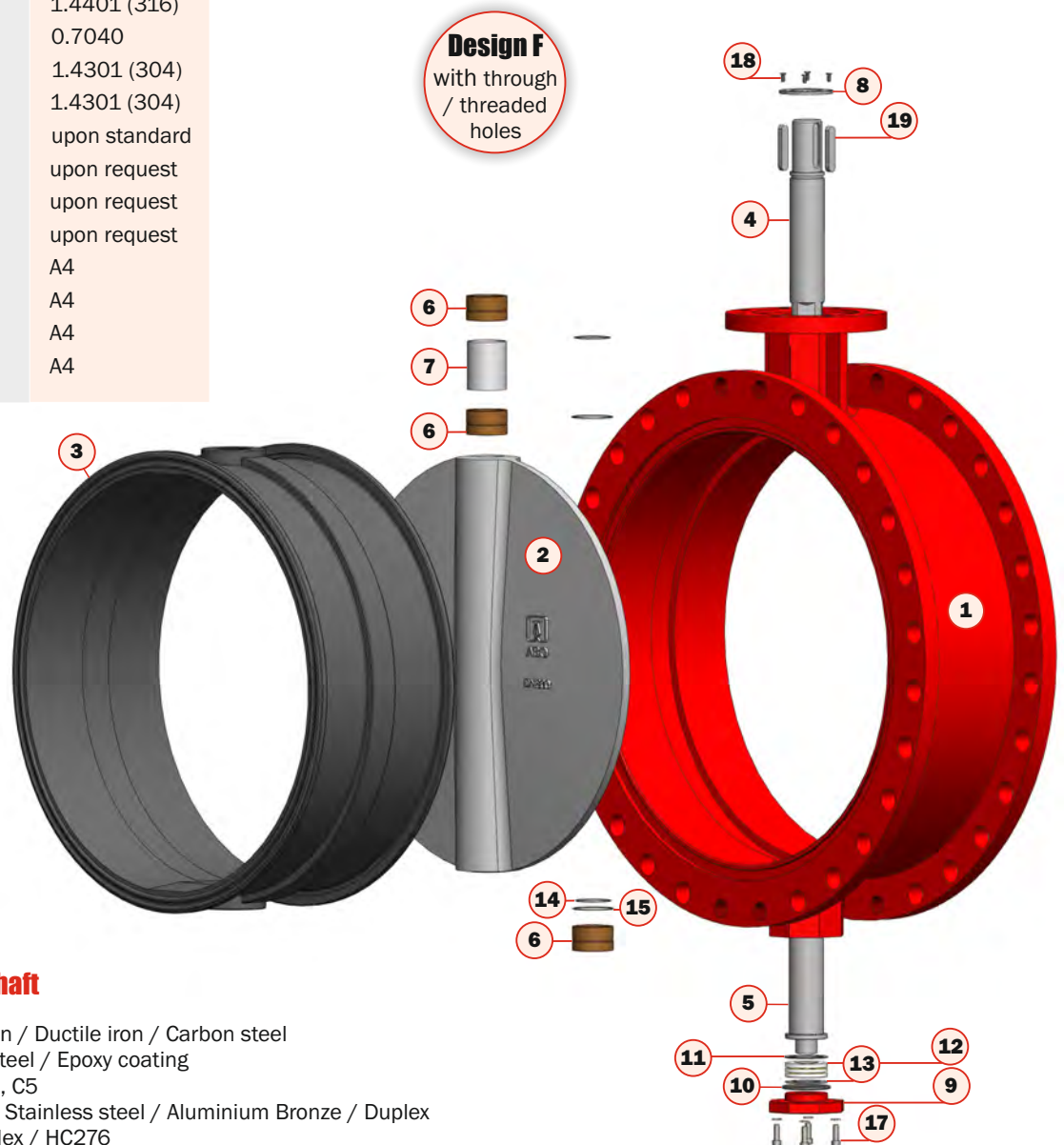
DOUBLE FLANGED DESIGN - SERIES „F”



ABO valve

DN50-DN2200 / PN10

| Pos. | Name | Material |
|------|------------------|---------------|
| 1 | Body | 0.7040 |
| 2 | Disc | upon request |
| 3 | Seat | upon request |
| 4 | Shaft | 1.4021 |
| 5 | Pivot | 1.4021 |
| 6 | Bushing | Bronze |
| 7 | Supporting liner | 1.4301 |
| 8 | Retaining ring | 1.4401 (316) |
| 9 | Cover | 0.7040 |
| 10 | Washer | 1.4301 (304) |
| 11 | Washer | 1.4301 (304) |
| 12 | Bearing | upon standard |
| 13 | O-ring | upon request |
| 14 | O-ring | upon request |
| 15 | O-ring | upon request |
| 16 | Washer | A4 |
| 17 | Bolt | A4 |
| 18 | Bolt | A4 |
| 19 | Spring | A4 |



Material options Body / Disc / Seat / Shaft

| | |
|--------------|---|
| Body | Grey cast iron / Ductile iron / Carbon steel / Stainless steel / Epoxy coating / Coating C4, C5 |
| Disc | Ductile iron / Stainless steel / Aluminium Bronze / Duplex / Super Duplex / HC276 / RILSAN, HALAR coating |
| Seat | NBR / EPDM / EPDM for potable water/FPM/Silicone |
| Shaft | AISI420 / AISI431 / F51 / F55 |

*) special materials upon request

www.abovalve.com / 21

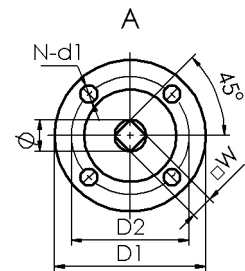
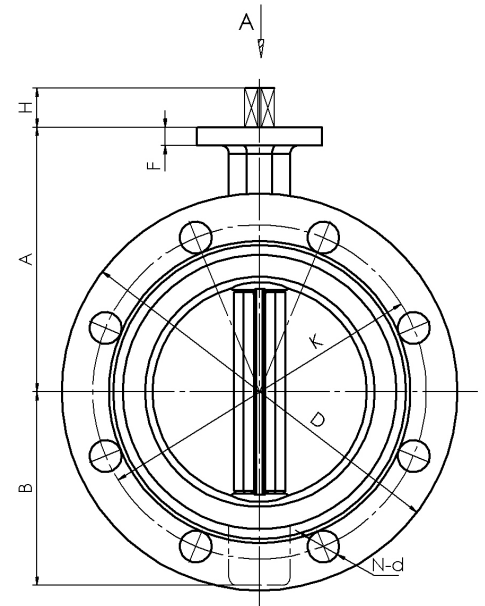
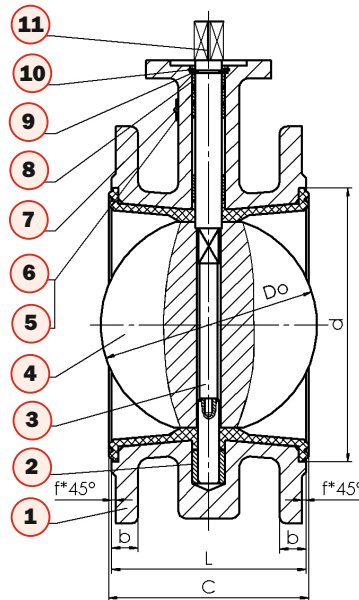
DESIGN PARAMETERS

/ SERIES - „F”

Czech Industrial Valve Manufacturer

DN50 - DN350 / PN10

| Pos. | Name | Material |
|------|----------------|---------------|
| 1 | Body | 0.7040 + EPDM |
| 2 | Bushing | Bronze |
| 3 | Pivot | SS 1.4021/420 |
| 4 | Disc | 1.4408 (CF8M) |
| 5 | Rivet | SS A2 |
| 6 | Label | 1.4301/SS304 |
| 7 | Bushing | Bronze |
| 8 | O-ring | EPDM/NBR |
| 9 | Washer | 1.4301/SS304 |
| 10 | Retaining ring | SS A2 |
| 11 | Shaft | SS 1.4021/420 |



| | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 |
|-------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| A | 120 | 130 | 145 | 155 | 170 | 190 | 205 | 235 | 280 | 310 | 340 |
| B | 80 | 89 | 95 | 114 | 125 | 139 | 170 | 198 | 223 | 254 | 306 |
| H | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 30 | 30 | 36 | 36 |
| D | 165 | 135 | 200 | 220 | 250 | 285 | 340 | 395 | 445 | 505 | 580 |
| K | 125 | 145 | 160 | 180 | 210 | 240 | 295 | 350 | 400 | 460 | 525 |
| N-d | 4-19 | 4-19 | 8-19 | 8-19 | 8-19 | 8-23 | 8-23 | 12-23 | 12-23 | 16-23 | 16-31 |
| Do | 52,6 | 64,3 | 78,8 | 104 | 123,3 | 155,7 | 202,4 | 250,4 | 301,5 | 333,3 | 389,6 |
| d | 89 | 106 | 120 | 144 | 170 | 197 | 252 | 305 | 350 | 415 | 460 |
| L | 108 | 112 | 114 | 127 | 140 | 140 | 152 | 165 | 178 | 190 | 216 |
| C | 111 | 115 | 117 | 130 | 143 | 143 | 155 | 168 | 182 | 194 | 221 |
| b | 19 | 19 | 19 | 19 | 19 | 19 | 20 | 22 | 24,5 | 24,5 | 28 |
| f | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 |
| D1 | 65 | 65 | 65 | 90 | 90 | 90 | 125 | 125 | 125 | 150 | 175 |
| D2 | 50 | 50 | 50 | 70 | 70 | 70 | 102 | 102 | 102 | 125 | 140 |
| N-d1 | 4-7 | 4-7 | 4-7 | 4-10 | 4-10 | 4-10 | 4-12 | 4-12 | 4-12 | 4-14 | 4-18 |
| F | 13 | 13 | 13 | 13 | 13 | 13 | 15 | 15 | 20 | 20 | 22 |
| ∅ | 12,6 | 12,6 | 12,6 | 15,77 | 18,92 | 18,92 | 22,1 | 28,45 | 31,6 | 31,6 | 37,95 |
| W | 14 | 14 | 14 | 14 | 17 | 17 | 17 | 22 | 22 | 27 | 27 |

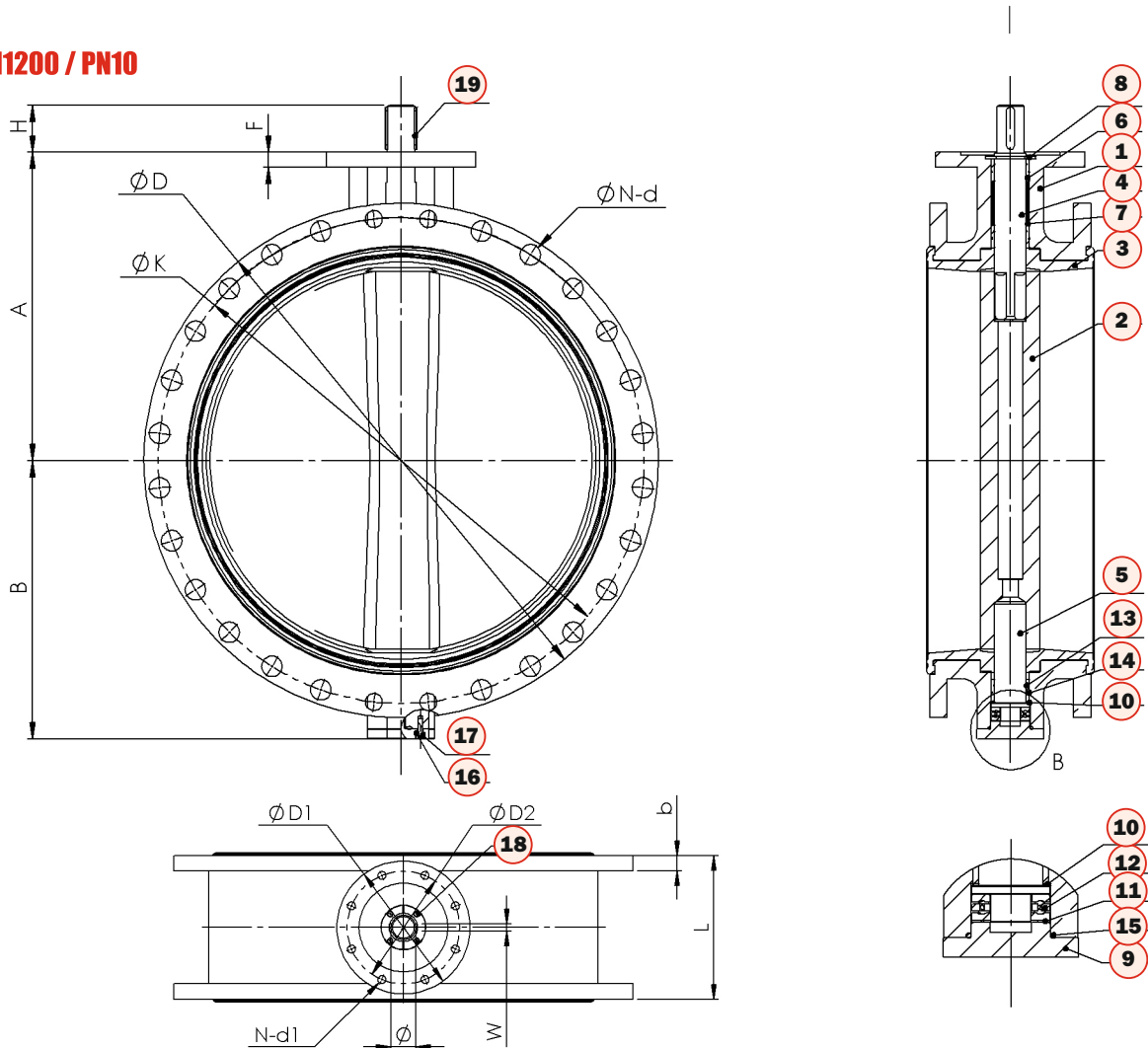
*) PN16 upon request

DESIGN PARAMETERS

/ SERIES - „F”



DN450- DN1200 / PN10



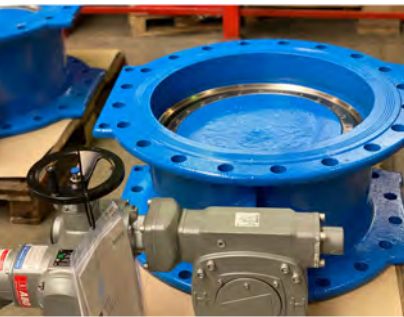
| | 450 | 500 | 600 | 700 | 800 | 900 | 1000 | 1200 |
|-------------|-------|-------|-------|-------|-------|-------|-------|--------|
| A | 375 | 430 | 500 | 560 | 620 | 685 | 735 | 917 |
| B | 345 | 378 | 440 | 510 | 560 | 638 | 705 | 815 |
| H | 80 | 80 | 80 | 95 | 95 | 130 | 130 | 150 |
| D | 615 | 670 | 780 | 895 | 1015 | 1115 | 1230 | 1455 |
| K | 565 | 620 | 725 | 840 | 950 | 1050 | 1160 | 1380 |
| N-d | 20-28 | 20-28 | 20-31 | 24-31 | 24-34 | 28-34 | 28-37 | 32-41 |
| Do | 440,5 | 491,6 | 592,5 | 695 | 794,7 | 864,7 | 965 | 1160,6 |
| d | 510 | 560 | 660 | 770 | 871 | 972 | 1080 | 1270 |
| L | 222 | 229 | 267 | 292 | 318 | 330 | 410 | 470 |
| C | 227 | 234 | 272 | 299 | 325 | 337 | 417 | 478 |
| b | 25,5 | 26,5 | 30 | 32,5 | 35 | 37,5 | 40 | 45 |
| f | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 |
| D1 | 175 | 175 | 210 | 300 | 300 | 300 | 300 | 350 |
| D2 | 140 | 140 | 165 | 254 | 254 | 254 | 254 | 298 |
| N-d1 | 4-18 | 4-18 | 4-22 | 8-18 | 8-18 | 8-18 | 8-18 | 8-22 |
| F | 22 | 22 | 22 | 30 | 30 | 34 | 34 | 34 |
| ∅ | 38 | 42 | 50 | 55 | 55 | 75 | 85 | 105 |
| W | 10 | 12 | 14 | 16 | 16 | 20 | 22 | 28 |

*) sizes above DN1200 upon request

*) PN16 on request

CONTACT US

Czech Industrial Valve Manufacturer



Czech Republic

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

Slovak Republic

ABO Slovakia, s.r.o.
Banská Bystrica
tel.: +421 484 145 633
aboslovakia@aboslovakia.sk

Germany

ABO Armaturen GmbH
Monchengladbach
tel.: +49 (0)152 262 29501
d.bogatzki@abovalve.com

Russia

ABO Armatura LLC
Smolensk
tel.: +7 (4812) 240 020
aboarmatura@yandex.ru

Ukraine

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

Turkey

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

China

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

India

ABO Controls Pvt. Ltd.
Mumbai
tel.: +91 99 2002 9994
dsouza@abovalve.com

Singapore

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

United Arab Emirates

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

Bahrain

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



Follow us on:



www.abovalve.com



The technical information described in this leaflet is tentative and for general use only and does not constitute a recommendation or guarantee for any specific service or application requirement. Please consult ABO representative or factory for specific requirements and material selection for your intended application. The right to change or modify product design or product without prior notice is reserved. ABO valve accepts no liability for damages caused by bad interpretation or use of the information included in this brochure.