



precise

innovative

Precision – Made in Germany

As a fast growing high-tech company, Schubert & Salzer Control Systems GmbH develops, produces and distributes highly precise control and on/off valves which are applied in the process industry. Whether it is in the production of chemical or pharmaceutical products, food and beverage processing or the production of plastics, steel, paper or glass, as well as in the textile industry – in short, wherever liquid or gaseous flows need to be controlled, we will be there for you.

We are part of the Schubert & Salzer Group headquartered in Ingolstadt. Our subsidiaries in Benelux, France, India, the UK and the USA as well as more than 40 international partners offer you and your customers quality products from Schubert & Salzer “Made in Germany”.



fast



target-oriented

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reliable

Seat valves by Schubert & Salzer

Seat valves are the extremely reliable all-rounders in the valve world. Our range includes on/off valves and control valves in stainless steel or bronze, with actuators either made of stainless steel, non-ferrous metal or lightweight plastic. They are available with a threaded or Tri-clamp connection as well as with welding ends or flanges. Actuation is either pneumatic or electric.

Angle seat valves

Angle seat valves in the form of on/off and control units offer a particularly compact construction and perform a very high number of switch cycles. In its many versions, the construction of the valve gives a highly efficient flow rate and can even be used in lightly contaminated media.

Globe valves

In larger sizes, globe valves are easier to remove from pipelines than screwed valves. This range is supplied to various connection standards as angle and straight flanged seat valves.

Three-way valves

Depending on its design, the three-way valve can perform a variety of functions: it can mix and distribute media flows or charge and discharge an operating component. It is installed in a pipeline by threaded connections.

consistent

high quality

Details

Spray water protection

Position indicator

Bonnet

Piston spring

Piston

Flange

Packing

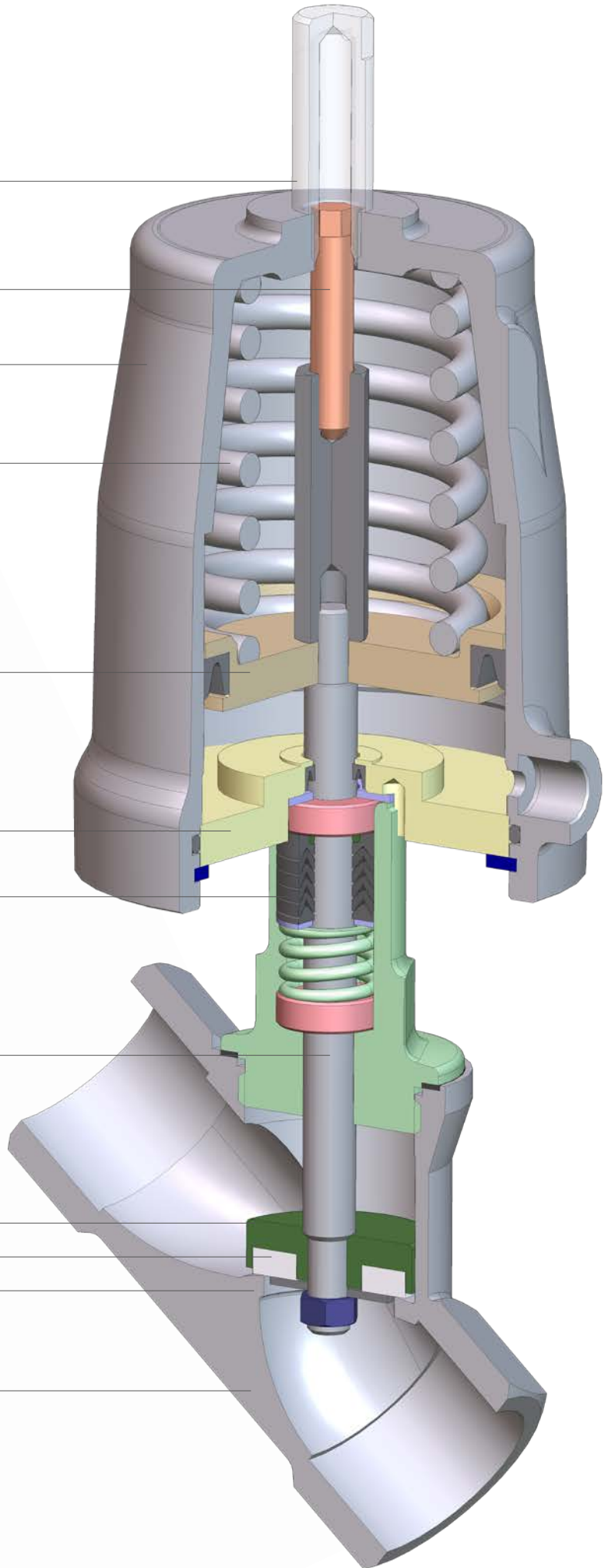
Valve stem

Disc

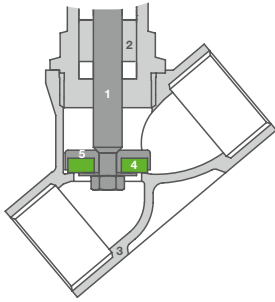
Seat seal

Body seat

Body

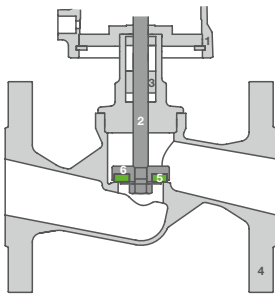


Angle seat valves (1) (2) (3)



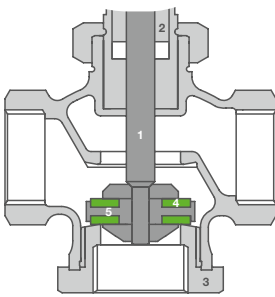
- 1 Piston rod
- 2 Packing
- 3 Body
- 4 Seat seal
- 5 Disc

Globe valves (4)



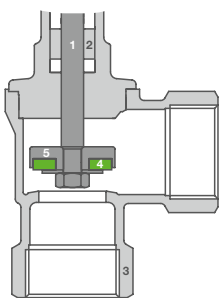
- 1 Bonnet
- 2 Piston rod
- 3 Packing
- 4 Flange body
- 5 Seat seal
- 6 Disc

Three-way valves (5)



- 1 Piston rod
- 2 Packing
- 3 Body
- 4 Seat seal
- 5 Disc

Right-angled valves (6)



- 1 Piston rod
- 2 Packing
- 3 Body
- 4 Seat seal
- 5 Disc





(1) Angle seat on/off valve 7010

Nominal size: DN 8 - 80
 Nominal pressure: PN 16, PN 40
 Media temperature:
 -30°C to +200°C,
 optional -100°C to +220°C
 Material: Bronze and stainless steel
 Also available as a hygiene version



(2) Angle seat control valve 7020

Nominal size: DN 8 - 80
 Nominal pressure: PN 40
 Media temperature:
 -30°C to +200°C,
 optional -100°C to +220°C
 Material: Stainless steel
 Positioner: pneumatic,
 analogue electro-pneumatic,
 digital electro-pneumatic,
 Ex-i version, AS-i bus connection



(3) Angle seat motor valve 7210

Nominal size: DN 8 - 80
 Nominal pressure: PN 16, PN 40
 Media temperature: -30°C to +200°C,
 optional -100°C to +220°C
 Material: Bronze and stainless steel
 Actuation: on/off and control actuation,
 optional position control and
 position feedback plus
 limit switch



(4) Globe valve 7032

Nominal size: DN 15 - 80
 Nominal pressure: PN 40,
 ANSI # 150
 Media temperature:
 -30°C to +200°C,
 optional -100°C to +220°C
 Material: Stainless steel
 Available with positioner as globe
 control valve 7037



(5) Three-way control valve 7082

Nominal size: DN 15 - 50
 Nominal pressure: PN 40
 Media temperature: -30°C to +200°C
 Material: Stainless steel
 Positioner:
 digital electro-pneumatic,
 Ex-i version, AS-i bus connection
 Available with pneumatic actuator as
 3/2-way on/off valve 7080/81 in
 stainless steel and bronze
 Combinations with motor actuators
 available



(6) Right angle motor valve 7250

Nominal size: DN 15 - 50
 Nominal pressure: PN 40
 Media temperature: -30°C to +200°C
 Material: Stainless steel
 Actuation: on/off and control actuation,
 optional position control and
 position feedback plus limit switch
 Available with pneumatic actuator as
 on/off valve 7050 and optionally
 with positioner as right angle control
 valve 7051

The sliding gate valve principle by Schubert & Salzer

This is how easy control can be. Over 35 years ago, Schubert & Salzer Control Systems took a new approach in control valves. We developed the sliding gate control valve: a handy, light and highly accurate valve. It operates based on a principle that had already excited Leonardo Da Vinci. Even today, it satisfies the most challenging requirements that are placed on a control valve.

The alternative when the demands are high

The sliding gate valve series controls liquid, vapour and gaseous media precisely, quickly and economically. A sealing disc (2) fixed in the body (1) at right angles to the flow direction has a certain number of crossways slots (3) of equal height. A moving disc (4) with the same arrangement of slots moves parallelly to the fixed disc, thereby changing the flow cross section. The prevailing differential pressure presses the moving disc (4) against the fixed disc (2) and seals it.

Applications

Sliding gate valves are used to control gases, vapours and liquids

- Chemical and pharmaceutical industry
- Steel and aluminium plants
- Food and beverage industry
- Breweries
- Textile manufacturing
- Tyre production
- Plastics and rubber production
- Test bench technology
- Gas and compressed air production and utilisation
- etc.

fast

innovative

accurate



Details

Positioner

Pilot line

Diaphragm shell

Diaphragm disc

Coupling

Adjusting nut

Packing tube

Conical seal

Bellows

Column

Valve stem

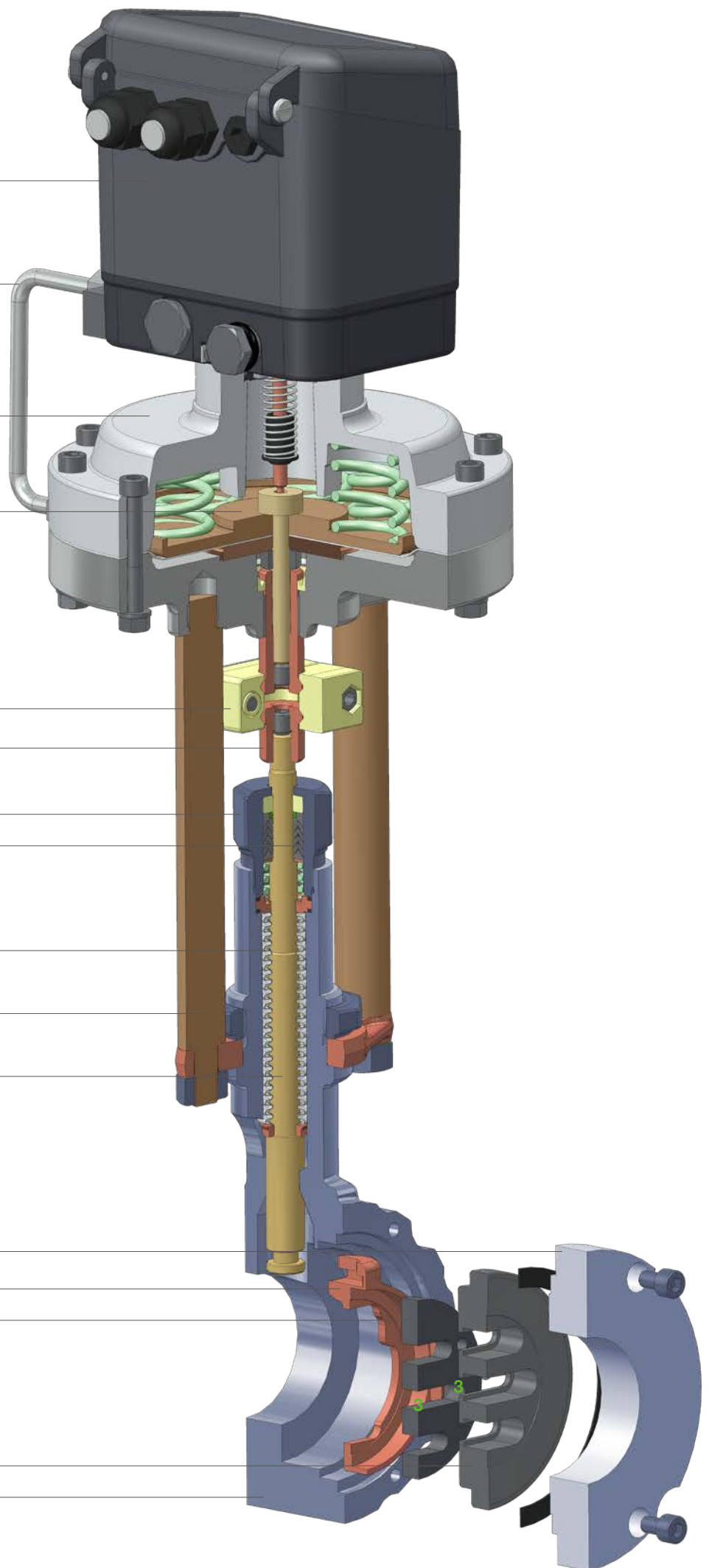
Body cover (1)

Coupling ring

Moving disc (4)

Fixed disc (2)

Body (1)



The advantages of sliding gate valves

fast

Compact design

Short installation length and extremely small actuators minimize the required space.

Variable K_{vs} values

A simple exchange of the fixed seal is all that's needed to change the K_{vs} value at any time - possible range of $K_{vs} = 0.018$ to 910.

Extremely low leakage rate

< 0.0001% of the K_{vs} value due to the self-lapping action of the moving disc and the pressure of the medium against the moving disc, using a surface seal instead of an annular seal.

Outstanding rangeability

30 : 1 to 160 : 1

Saves resources and climate-friendly

Sliding gate valves are more compact and weigh much less than standard seat valves. This results in conscious use being made of valuable resources and CO₂ being put to economical use in the production and during transportation. When in use, the GS valves benefit from a driving force that is reduced 10-fold. This reduces the energy consumption and is good for the climate and the environment.

Optimal flow control

Avoids cavitation problems in the valve and operates quietly by lowering turbulence.

Easy to install and maintain

Thanks to the compact construction, the low weight (e.g. DN 150 with actuation a mere of approximately 15 kg) and the clever disc design reduces the installation and maintenance effort to a minimum.



Size comparison between a normal seat valve and a [Schubert & Salzer sliding gate valve](#). In the example, the nominal size of both valves is identical.

individual

Minimal wear

Related to the effect of the force which is applied at 90° to the direction of flow and minimised by the highly effective pairing of the materials used for the moving and fixed discs.

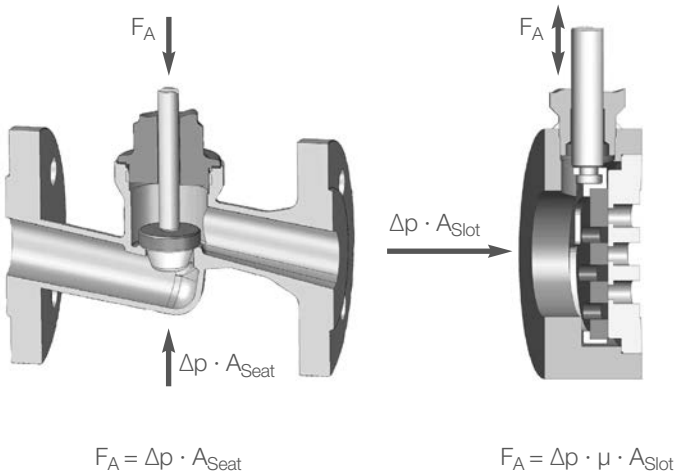
Maximum differential pressures

Using its unique compact design and low energy consumption, the GS valve gives accurate control of high differential pressures up to 160 bar.

precise



$$\frac{F_{A, \text{ Sliding gate valve}}}{F_{A, \text{ Seat valve}}} = \frac{\Delta p \cdot \mu \cdot A_{\text{Slot}}}{\Delta p \cdot A_{\text{Seat}}} \approx 10\%$$



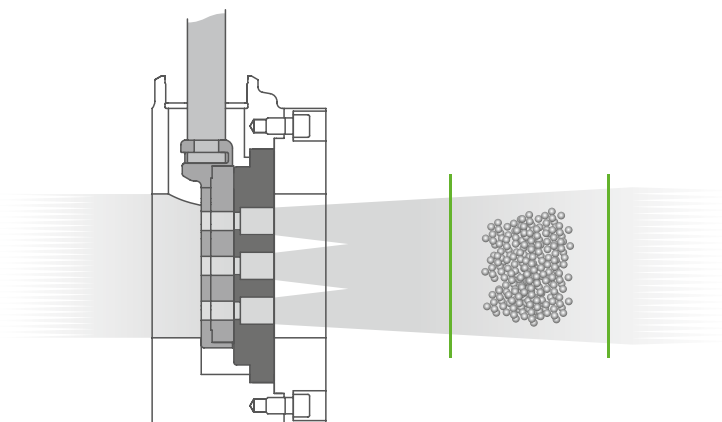
Efficiency

The outstanding feature of the sliding gate valve is the actuating force which is about just 10% of that needed to actuate a globe valve of the same nominal size and the same differential pressure. This permits the use of much smaller actuators even though both designs of the same nominal size have about the same flow rate!

This beneficial feature stems from the fact that, in the sliding gate valve, closure is transverse to the direction of flow and not against it, as with the globe valve.

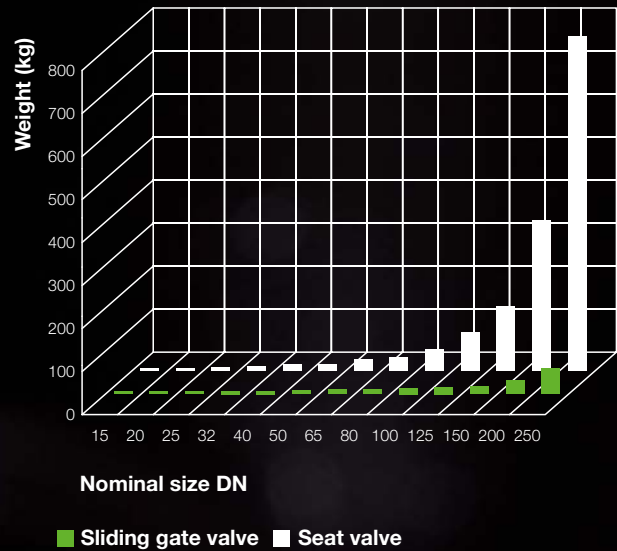
Cavitation

A high rate of flow through the narrowest cross section of a valve will lower the local pressure below the vapour pressure of the liquid. Vapour bubbles form which then collapse in the regions of higher pressure. When they come into contact with solid boundaries (valve body), the imploding bubbles can cause damage. In the case of a sliding gate valve, these dangerous cavitation zones are external, or more accurately, they are located about **1 - 2 m** beyond the valve. The cavitation bubbles then collapse around the centre of the pipeline where they can cause no harm.



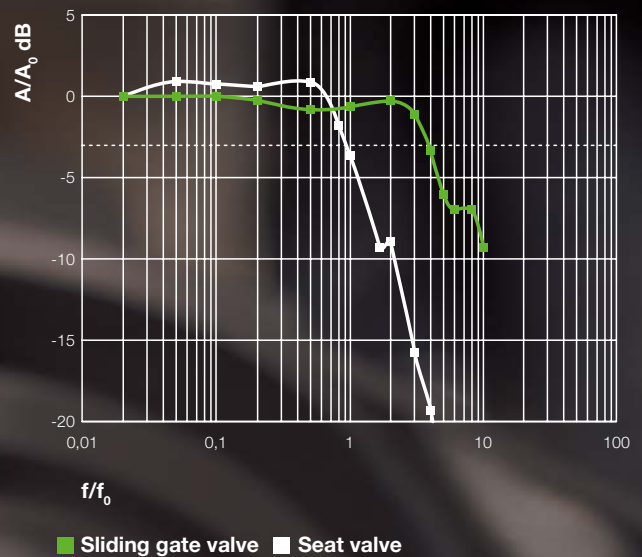
Weight

The low actuating force and short stroke allow the use of smaller actuator. Coupled with the space-saving wafer construction, weight and installation dimensions are minimised, particularly in the mid to large nominal sizes. This translates into about 150 kg for a seat globe valve in DN 150, whereas a sliding gate valve of the same nominal size weighs a mere 15 kg!



Vitality

Sliding gate valves are significantly “faster” than conventional control valves. This can be shown using the frequency response when the set point value to an installed positioner is taken as the input value and the resulting stroke amplitude as the output value. The progression of the frequency response affects the standard of control of the entire control circuit.





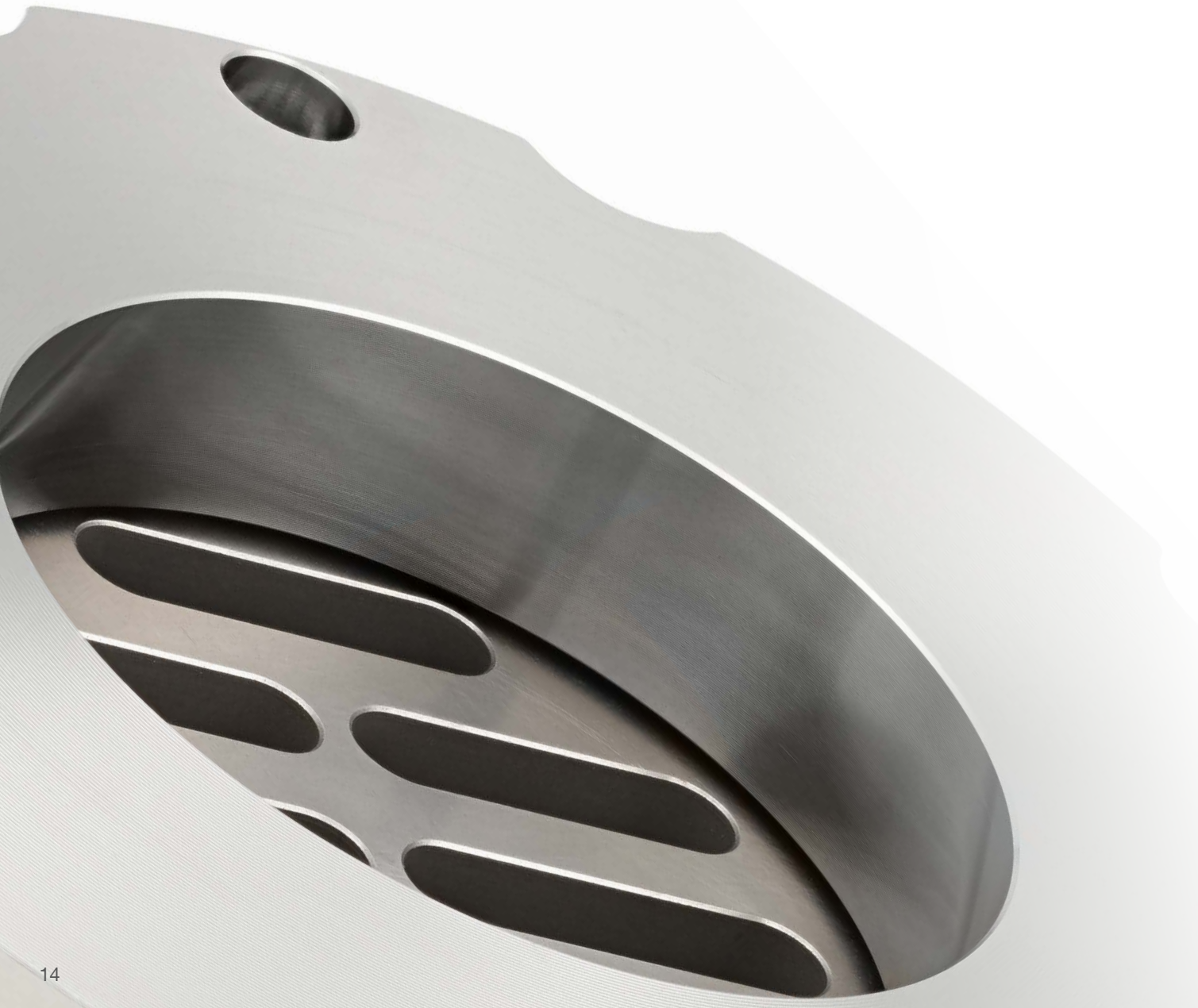
Sliding gate control valve 8021

Nominal size: DN 15 - 250
 Nominal pressure: PN 10 - 160,
 ANSI # 150 - 900
 Media temperature: -60°C to +350°C,
 optional -200°C to +530°C
 Material: carbon steel, stainless steel,
 Hastelloy
 Positioner: pneumatic, analogue
 electropneumatic, digital electro-
 pneumatic,
 Ex-i version, AS-i bus connection



Sliding gate control valve 8020

Nominal size: DN 15 - 250
 Nominal pressure: PN 10 - 100,
 ANSI # 150 - 600
 Media temperature: -60°C to +350°C,
 optional to +530°C
 Material: carbon steel, stainless steel,
 Hastelloy
 Available with or without positioner
 Positioner: pneumatic,
 analogue electro-pneumatic,
 digital electro-pneumatic,
 Ex-Version
 Special versions available!





Sliding gate motor valve 8230

Nominal size: DN 15 - 250
 Nominal pressure: PN 10 - 40,
 ANSI # 150 - 300
 Media temperature: -60°C to +350°C,
 Material: carbon steel, stainless steel
 Actuation: On/off and control actuation,
 optional positioning control and
 position feedback plus limit switch



Sliding gate control valve 8043/44

Nominal size: DN 15 - 250
 Nominal pressure: PN 10 - 40,
 ANSI # 150 - 300
 Media temperature: -60°C to +350°C
 Material: carbon steel, stainless steel
 Positioner: pneumatic,
 analogue electro-pneumatic,
 digital electro-pneumatic,
 Ex-i version, AS-i bus connection



Sliding gate motor valve 8037

Nominal size: DN 15 - 250
 Nominal pressure: PN 10 - 100,
 ANSI # 150 - 600
 Media temperature: -60°C to +350°C
 Material: carbon steel, stainless steel,
 Hastelloy
 Power supply: 24 ... 230 V AC/DC
 (Multi-zone power pack)
 Explosion-protected (gas version):
 II 2G Ex de [ia] IIC T6/T5
 Protection class: IP 66
 Actuation optionally also with 3-point
 control + position electronics obtainable



Sliding gate motor valve 8038

Nominal size: DN 15 - 250
 Nominal pressure: PN 10 - 100,
 ANSI # 150 - 600
 Media temperature: -60°C to +350°C
 optional -200°C to 530°C
 Material: carbon steel, stainless steel,
 Hastelloy
 Dead band: ± 0.2%
 Repeatability: ± 0.1%
 Stroking speed: adjustable between
 4,7 and 35 seconds
 Actuator: high resolution motor actuator
 for control and switching with stroke
 monitoring, limit switches and optional
 fail safe unit



Sliding gate pressure controller 8011

Nominal size: DN 15 - 150
 Nominal pressure: PN 10 - 40,
 ANSI # 150 - 300
 Media temperature: -60°C to +230°C
 optional to +300°C
 Pressure ranges: 0.3 to 10 bar
 Material: Stainless steel
 Self-acting pressure controller
 Enclosed spring housing



Sliding gate on/off valve 8040/41

Nominal size: DN 15 - 200
 Nominal pressure: PN 10 - 40,
 ANSI # 150 - 300
 Media temperature: -60°C to +350°C
 Material: carbon steel, stainless steel
 Accessories: metal bellows, pilot valve,
 limit switch, stroke limit



robust

Ball sector valves by Schubert & Salzer

The ball sector valve especially designed to handle arduous duties, slurries and viscous fluids is suitable for control and isolation.

Due to their especially designed ball sectors they are self-cleaning and with pneumatic and electrical actuators, it is the best choice for very precise control in for example the mining, paper, steel, chemical, building materials and effluent industries.

precise

efficient

Details

Positioner

Control pipe

Actuator

Drive adapter

Bracket

Plain bearing sleeve

Plain bearing

Packing

Plain bearing

Bearing pin

Ball sector

Seat support ring

O-ring

Seat ring

Seat retaining ring

Bearing pin

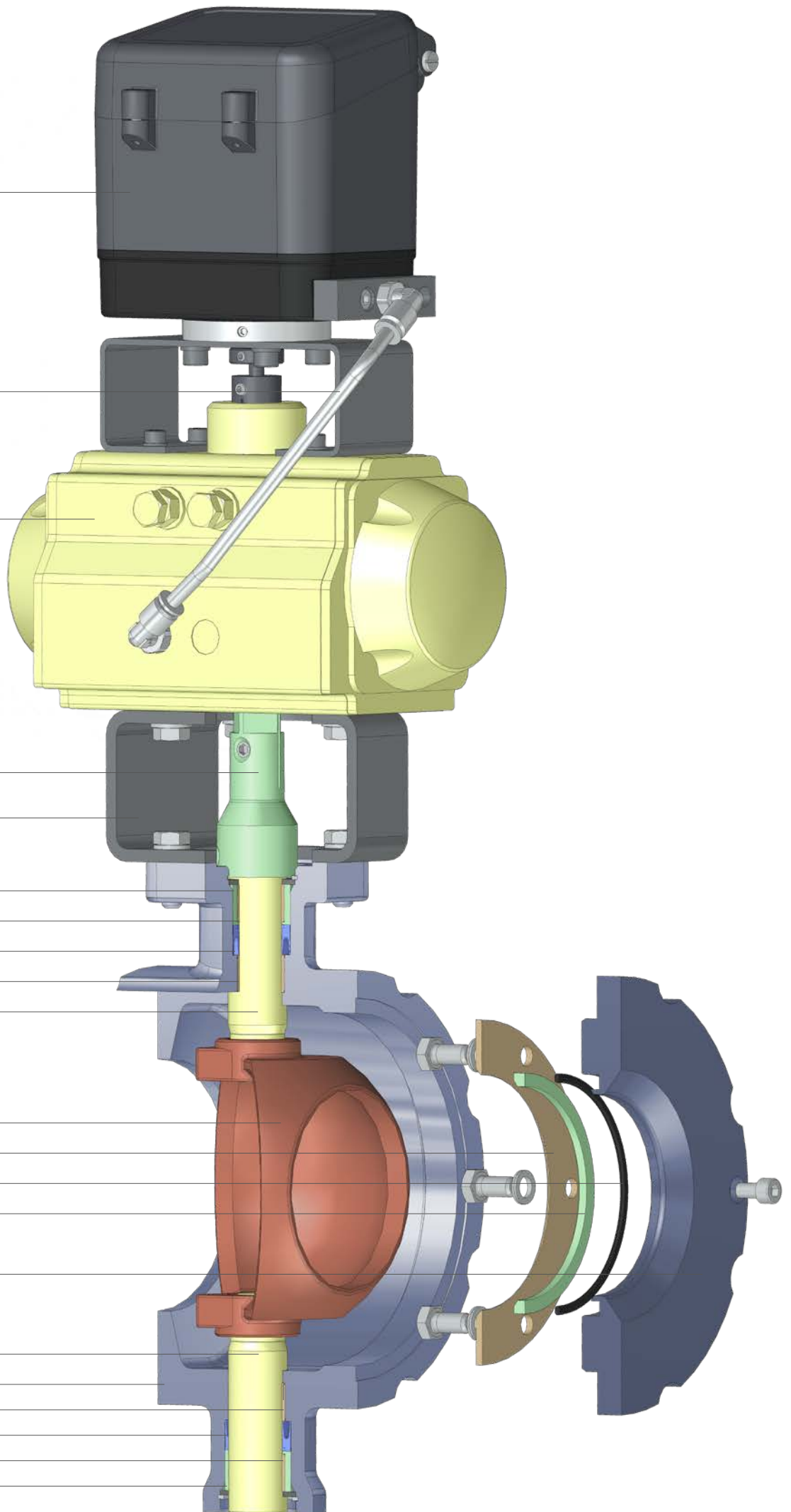
Body

Plain bearing

Packing

Plain bearing

Plain bearing sleeve

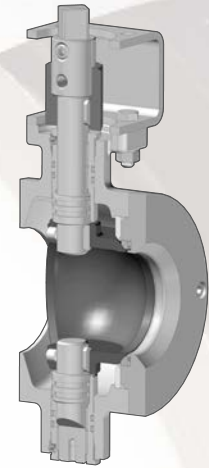


Construction

General Construction

Ball sector valves provide outstanding performance in challenging applications.

In a closed position conventional butterfly and ball segment valves expose their critical sealing components to the highest wear in the valve (see pictures on page 20). Due to the special design of the ball sector, the seal seals through a surface part less exposed to wear. In order to avoid abrasion caused leakage, the ball sector valve facilitates sealing through less exposed areas of the ball sector. The fact that the sealing surface is not exposed to high flow velocities increases the service life of the ball sector valves significantly.



Technical Information

Design	Flangeless, wafer type (DN 300 flanged)	
Nominal sizes	DN 25 up to DN 300	
Body material	Cast parts	1.4408 (CF8M)
	Turned parts	1.4404 (316L)
Bearing material	High temperature plain bearing	
Connection to the actuator	Mounting kit DIN/ISO 5211	
Nominal pressure	DN 25 - DN 50	PN 40 (for flanges PN 10 - PN 40), ANSI 300, ANSI 150
	DN 80 - DN 100	PN 25 (for flanges PN 10 - PN 25), ANSI 150
	DN 150 - DN 300	PN 16 (for flanges PN 10 - PN 16), ANSI 150
	Other pressure ranges on request	
Fluid temperature	-40°C up to +220°C	depending on the sealing
Ambient temperature	-40°C up to +80°C	depending on the actuator
Characteristic	Modified equal percentage	
Rangeability	300 : 1	

Details

Compact top mount
Schubert & Salzer
digital positioner

Wide range of
accessories available,
mounting to
NAMUR standard

Pneumatic actuator
(double or single
acting) or motor
actuator mounting to
DIN/ISO 5211

Mounting kit
according to
DIN/ISO 5211

Wafer body designed
to suit ANSI or
DIN standards
up to DN 250
(DN 300 flanged)

Centric and
maintenance-free, high
temperature bearings

Visual
position indication

Tubing

Adjustable
travel stops

Close toleranced
coupling to ensure
precise positioning
and repeatability

Ball sector option-
al with hardened
surface treatments
for demanding media
and modified equal
percentage flow
characteristic with
rangeability
of 300:1

Seat retaining ring and
valve seat available in
various material
combinations; easy to
install and maintain

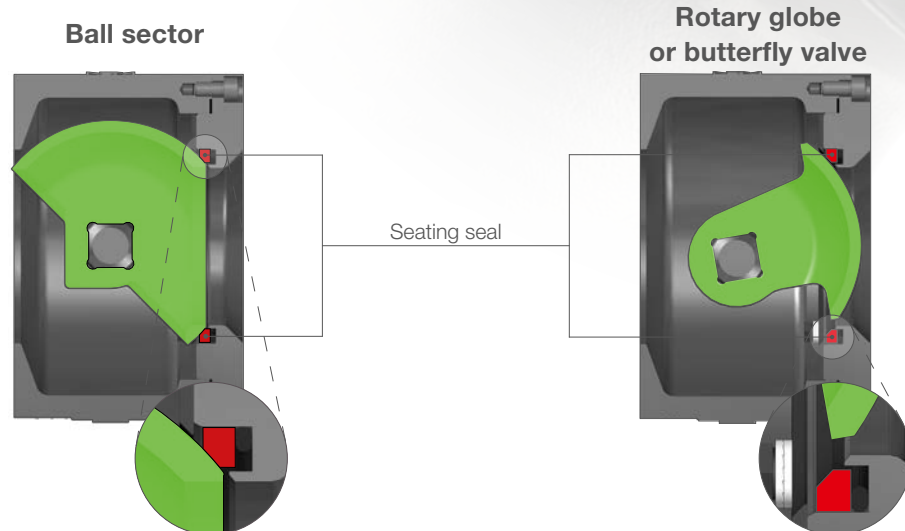


The advantages of ball sector valves

Wear resistance

Generally ball segment or rotary globe valves use eccentric shaft, which cause the ball or plug to lift up from the valve seat when starting to open. Thus, sealing areas are instantly exposed to permanent wear. Moreover, particles get between seal ring and ball/plug, where they cause damage leading to leakage.

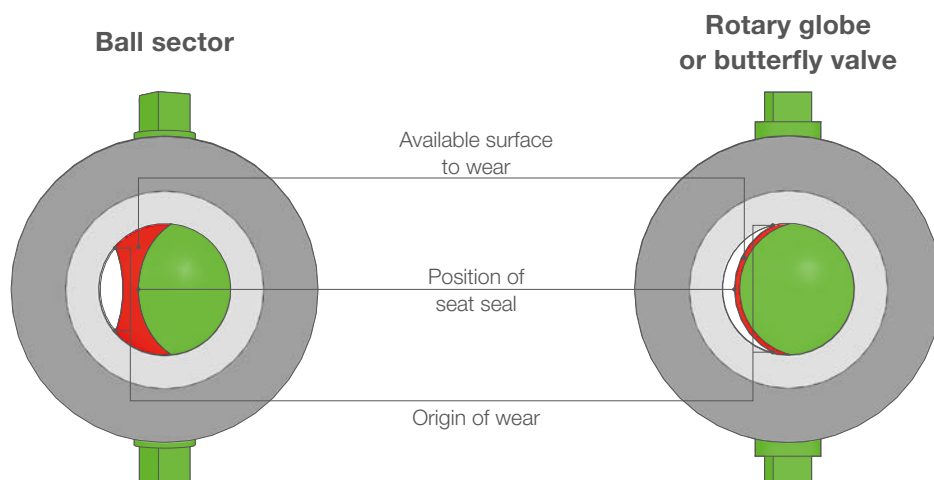
The ball sector valve has centric and robust trunnions which allows the ball sector to maintain constant contact with the valve seat, eliminating contamination by the media. The permanent actuation torque is not affected by changes in the differential pressure.



Life span

This smart seal design, combined with a variety of materials and finishing degrees for ball sector and valve seat increases the life span of the valve

substantially over butterfly valves or alike. It is therefore particularly suitable for abrasive, high viscosity or fiber containing media.





Ball sector valve 4040

Nominal size: DN 25 - 300
 Nominal pressure: PN 10 - 40,
 ANSI # 150 - 300
 Material: stainless steel 1.4408 (CF8M)
 and 1.4404 (316L)
 Various seat material combinations
 Single or double acting on/off actuators
 Positioner: pneumatic, analogue electro-
 pneumatic, digital electro-pneumatic,
 Ex-i version
 As an open/close valve, it is also availa-
 ble with an optional limit switch box and
 a manual actuator.



Motorized ball sector valve 4030

Nominal size: DN 25 - 300
 Nominal pressure: PN 10 - 40,
 ANSI # 150 - 300
 Material: stainless steel 1.4408 (CF8M)
 and 1.4404 (316L)
 Various seat material combinations
 With an electric actuator for controlling
 and for the open/close function incl. a
 position feedback.
 With an optional limit switch.
 Other electrical actuators available.



Highly precise ball sector valve 4032

Nominal size: DN 25 - 250
 Nominal pressure: PN 10 - 40,
 ANSI # 150 - 300
 Material: stainless steel 1.4408 (CF8M)
 and 1.4404 (316L)
 Various seat material combinations
 Actuator: electric actuator, highly precise
 (1500/8000 steps)



Ex-motorized ball sector valve 4037

Nominal size: DN 25 - 100 (others on
 request), DN 25 - 80 also available
 with spring return
 Nominal pressure: PN 10 - 40,
 ANSI # 150 - 300
 Material: stainless steel 1.4408 (CF8M)
 and 1.4404 (316L)
 Various seat material combinations
 Actuator: Ex-certified motor actuator
 II2G/D EEx ia IIC T6/T5 and IEC Ex

robust

durable

Segmented disc valves by Schubert & Salzer

Perfect and variable control with high precision over a wide flow range, this is made possible by the segmented disc valves by Schubert & Salzer.

Due to the robust design and the reciprocal flow direction, segmented disc valves are suitable for fluids as well as vapours, even if these are contaminated by particles. The wide range of applications includes areas such as building materials, chemical and power plants, pipelines, water supply and disposal, as well as shipbuilding. An ingeniously simple but effective valve design!

back sealing



Details

Analogue actuation
(such as 4-20 mA
or 3-point actuation)

Electric actuator
(customised specifica-
tions possible)

Actuators available
in various voltages
and accessories

Gear rack rotating
the moving disc

Optical position
indication

Adjustable gland
nut packing

Spring pre-tension-
ing of the sealing
disc, this means
control opposite to
the flow direction is
possible as well

Body with space-
saving wafer design
in stainless steel
or carbon steel

Hardened or coated
discs, the special
contour of the
sealing disc provides
durability in case of
contaminated media



Functional principle of segmented disc valves

Segmented disc valves work on a very simple but effective principle.

The central throttling element - the segmented discs that glide and seal against each other - are positioned in the valve body perpendicular to the flow direction. On a non-rotatable aligned segmented disc whose geometry determines the flow rate and characteristic, a movable disc having the same number of segments is shifted by a tangentially engaging rod in such a way that the free cross-sectional area of the segments changes continuously.

The movable segmented disc is constantly pressed onto the fixed disc by a spring assembly regardless of the prevailing pressure difference. As a result, the flow direction is variable and the valve can be installed in any position. This special



design makes segmented disc valves one of the few valves that combine control precision even in extreme operating conditions with a high seal tightness and very low exposure to wear, even with slightly particle-charged fluids.

Technical Information

Design	Wafer design for flanges according to DIN EN 1092-1 type B	
Nominal sizes	DN 25 to DN 300 (on request up to DN 800)	
Nominal pressure	DN 25 - DN 150 DN 200 DN 250 - DN 300	PN 25 according to DIN 2401 (also suitable for flanges PN 10 - PN 25) PN 25 according to DIN 2401 PN 16 according to DIN 2401
Media temperature	-60°C to +220°C (higher temperatures on request)	
Ambient temperature*	-30°C to +100°C	
Characteristic	Modified linear	
Rangeability	60 : 1	
Leakage rate % of K_{vs}	< 0.001	

* Note limits of the positioner!

Details

Positioner

Pilot tube

Diaphragm shell

Diaphragm plate

Coupling

Adjusting nut

Column

End positions

Protection tube

Toothed rack

Packing

Fixed segmented disc

Moving segmented disc

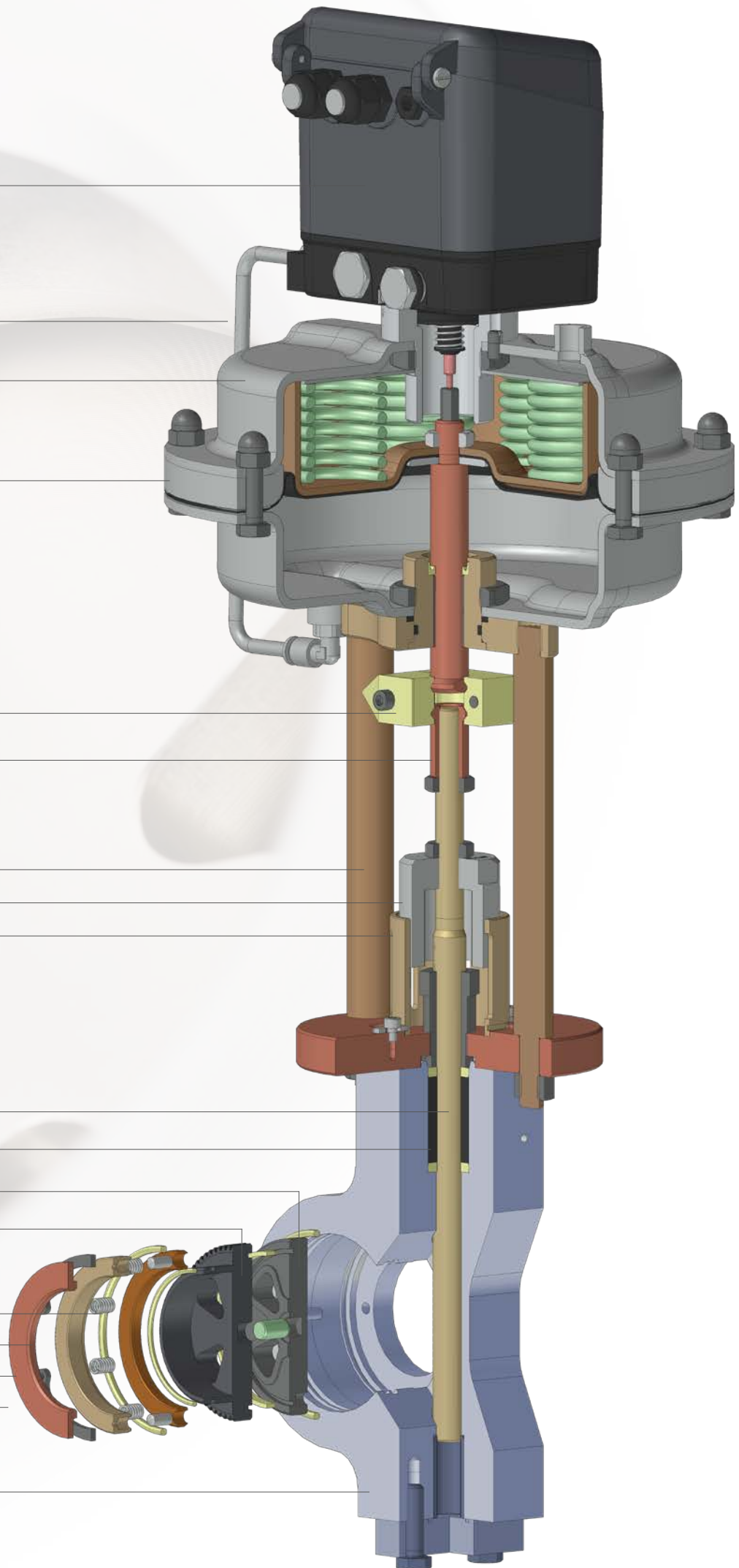
Sliding ring

Spring retainer

Circlip

Retaining ring

Body





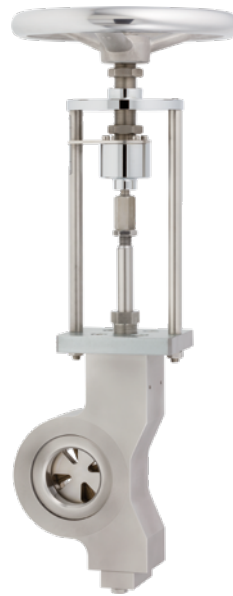
**Segmented disc valve
with motor actuator 5030**

Nominal size: DN 25 - 300 (on request
up to DN 800)

Nominal pressure: PN 25 (PN 16 for
DN 250 and larger)

Material: Stainless steel (also available
in carbon steel as for DN 150 and
larger)

Actuator: Various electrical actuators
available, on/off and control actuators,
optional position control and position
feedback plus limit switch



**Segmented disc valve
with manual actuator 5050**

Nominal size: DN 25 - 200 (on request
up to DN 800)

Nominal pressure: PN 25

Material: Stainless steel (also available
in carbon steel for DN 150 and larger)

Actuator: Smooth-running ball-bearing
manual actuation



**Segmented disc valve
with pneumatic actuator 5020**

Nominal size: DN 25 - 300 (on request up to DN 800)

Nominal pressure: PN 25 (PN 16 for DN 250 and larger)

Material: Stainless steel (also available in carbon steel for DN 150 and larger)

Available with and without positioner

Positioner: pneumatic, analogue electro-pneumatic, digital electro-pneumatic,

Ex-i version

Segmented disc orifices

Adjustable orifice for the precise adjustment of a defined flow.

- **Adjustable while installed**
- **Defined characteristics**
- **Space-saving wafer design**
- **Low weight**
- **Low-noise operation**
- **High K_{vs} values**



Technical Information

Design	Wafer design for flanges according to DIN EN 1092-1 type B (other connections on request)	
Nominal sizes	DN 25 up to DN 300	
Nominal pressure	PN 16 according to DIN 2401 (also suitable for flanges PN 10)	
Media temperature	Carbon steel body	-10°C to +220°C
	Bronze body	-30°C to +170°C
Seals	NBR	-30°C to +100°C
	EPDM	-30°C to +140°C
	FKM	-15°C to +180°C
	PTFE	-30°C to + 220°C

sterile

Sterile valves by Schubert & Salzer

The cleanability of valves is becoming more and more important in many segments. The Schubert & Salzer sterile valves comply with the highest cleanability requirements whilst also maintaining maximum efficiency. The valves are CIP and SIP-capable in order to avoid accumulation of bacteria and residue from the production process. A particular focus has been placed eliminating dead spaces across the entire stroke area.

reliable

efficient



Details

Positioner

Sensing pin

Bolt

Spring for piston

Pilot line

Piston

Flange

Bonnet

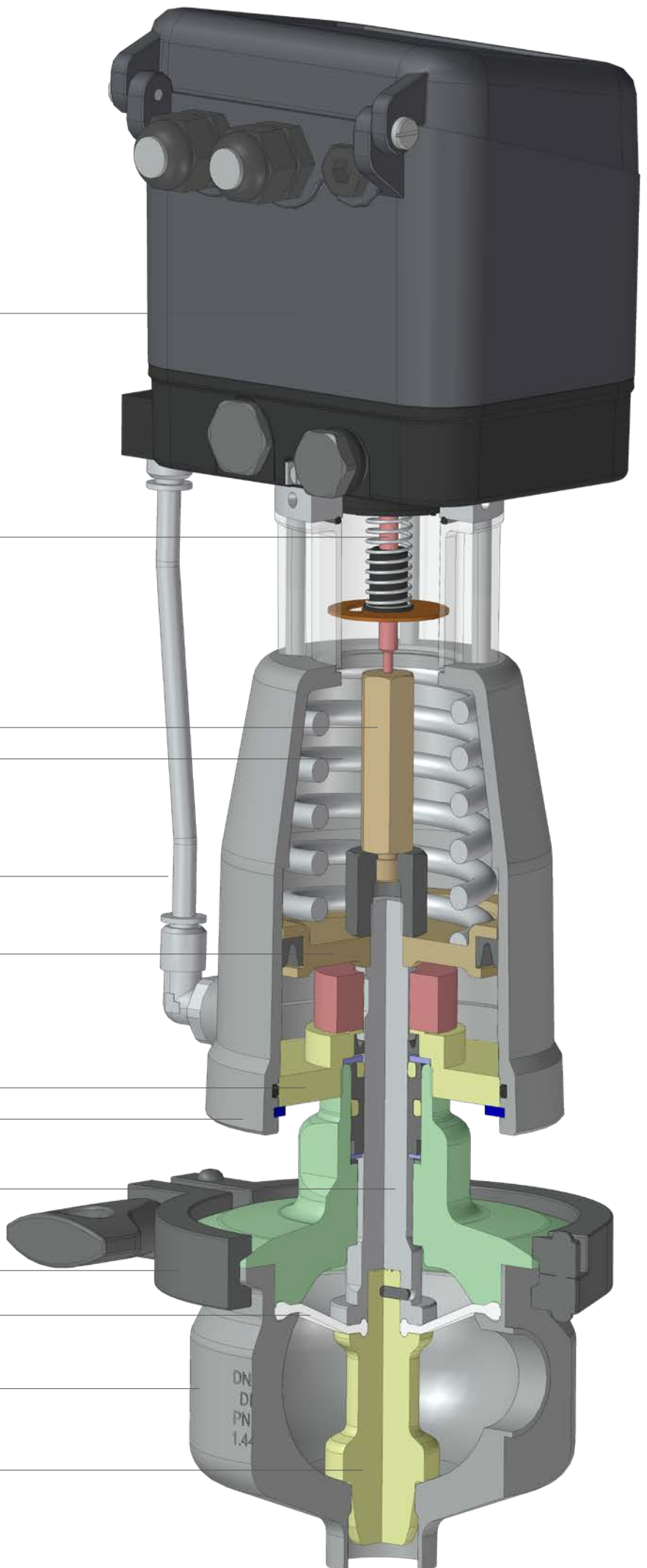
Valve stem

Tri-clamp

Diaphragm

Body

Control cone



ultra-clean



Aseptic angle valves

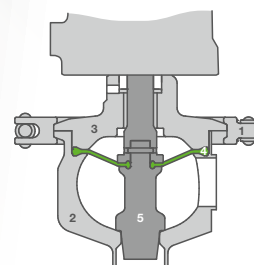
High control accuracy and ideal hygienic conditions are often difficult to unite. The 6051 aseptic angle valves from Schubert & Salzer with top-mounted positioner perfectly satisfy both demands. Using flow analyses, all areas that come into contact with the media were optimised in terms of maximum wall shear stresses throughout the development process. Thanks to the utilisation of all available calculation and construction methods, an EHEDG-certified aseptic valve boasting excellent range properties as well as a temperature and chemically resistant diaphragm taper construction is now available. These angle valves not only meet almost all of the requirements stipulated by the pharmaceutical and cosmetics industry; they also meet those of biotechnology as well as food and beverage. The installed components are FDA conform, correspond to USP Class VI and directives (EC) 1935/2004 and (EU) 10/2011. In terms of control accuracy, flow characteristics and the dead space-free design of the clamping points, this product is significantly better than the conventional hygienic valves currently on the market.

precise

aseptic



Aseptic angle valves



- 1 Clamp connection
- 2 Body
- 3 Head section
- 4 Diaphragm
- 5 Control cone



Aseptic angle control valve 6051

Nominal size: DN 15 - 50

Nominal pressure: PN 16

Media temperature: -20°C to +140°C

Material: Stainless steel 1.4435

Diaphragm material:

EPDM with PTFE-foil

Positioner: pneumatic,

analogue electro-pneumatic,

digital electro-pneumatic,

Ex-i version, AS-i bus connection

Available with pneumatic on/off actuator



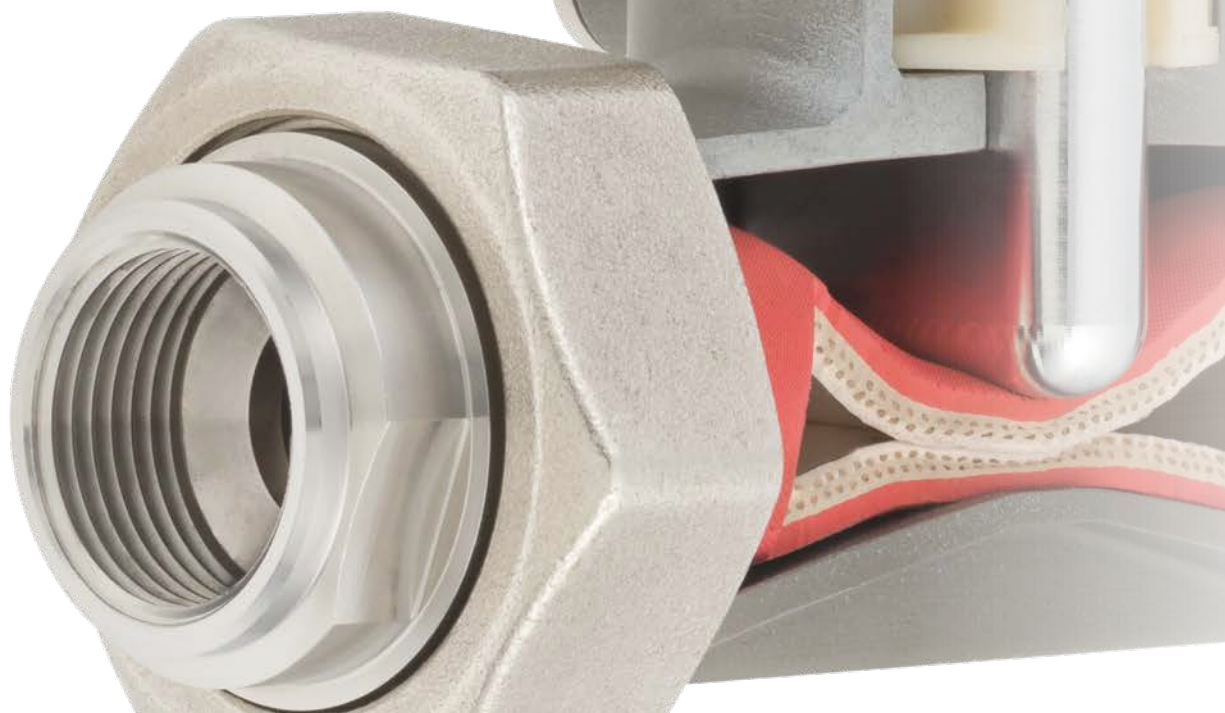
versatile

Pinch valves by Schubert & Salzer

The 7071, 7072 and 7077 control valves for endless tubes offers a modern alternative to conventional pinch or diaphragm valves. These pinch valves can be used at any position on an endless tube for on/off and control operations. With absolutely no dead space, the highest hygienic demands can be met. As an alternative, the pinch control valves 7078/7079 are available for use in static piping systems. These valves can also be used in food-related and sterile processes. In addition, pinch valves are a perfect fit in applications with contaminated abrasive and viscous fluids. Pinch valves can also be operated as control valves by fitting a positioner.

resilient

straight



Details

Positioner

Sensing pin

Pilot line

Piston spring

Bonnet

Piston

Valve stem

Flange

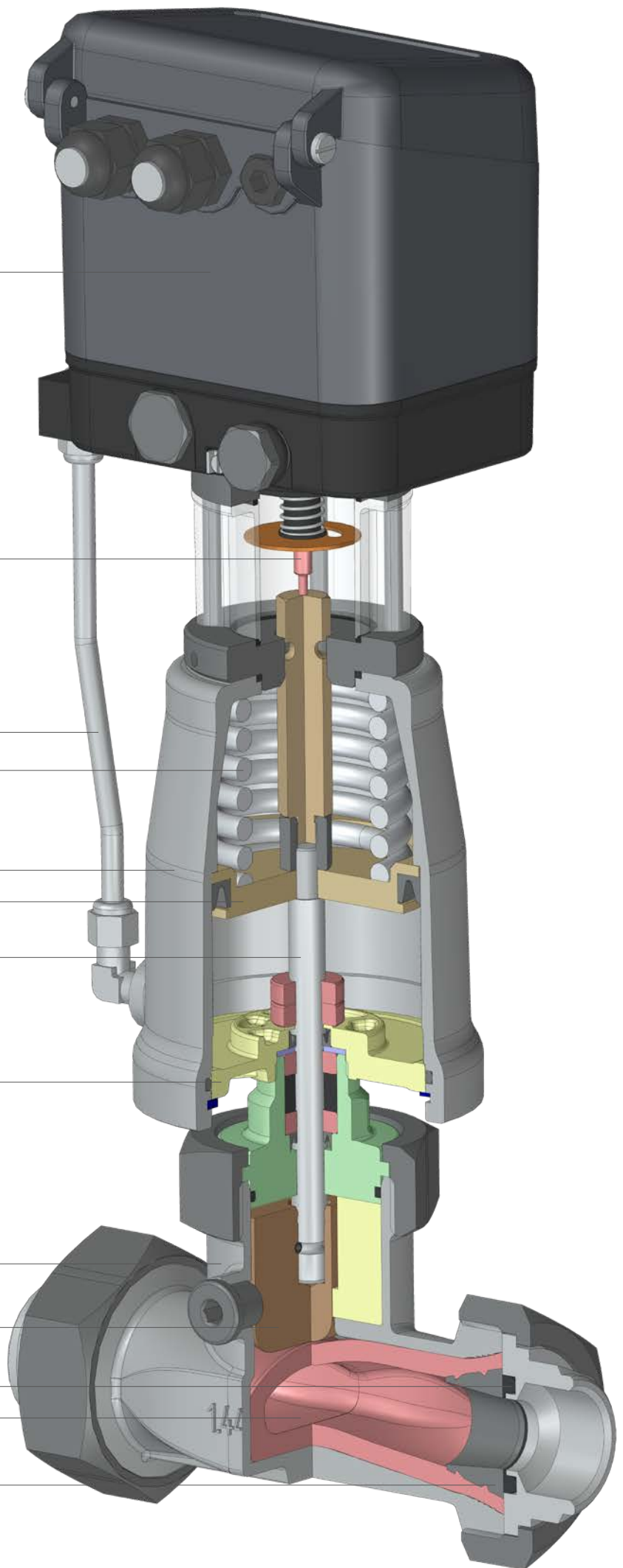
Valve body

Actuating pin

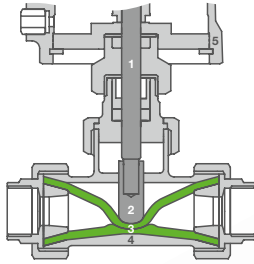
Seal ring

Tube

Collet



Pinch valves



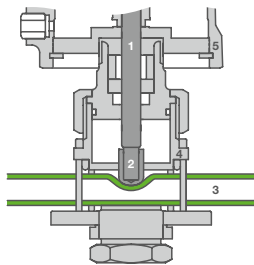
- 1 Piston rod
- 2 Actuating pin
- 3 Tube
- 4 Body
- 5 Bonnet



Pinch control valve 7079

Nominal size: DN 15 - 50
 Operating pressure: to 6 bar
 Media temperature: -30°C to +130°C
 Tube material: NBR and EPDM (conforming to FDA), FKM, and more
 Positioner: pneumatic, analogue electro-pneumatic, digital electro-pneumatic,
 Ex-i version, AS-i bus connection
 Type 7078 with pneumatic on/off actuator

Endless tube pinch valves



- 1 Body
- 2 Actuating pin
- 3 Tube
- 4 Body
- 5 Bonnet



Endless tube control valve 7077

Tube external diameter: 10 - 18 mm
 Operating pressure: to 4 bar (depending on tube)
 Media temperature: -30°C to +170°C (depending on tube)
 Material: Stainless steel
 Positioner: pneumatic, analogue electro-pneumatic, digital electro-pneumatic,
 Ex-i version, AS-i bus connection
 Type 7072 with pneumatic on/off actuator

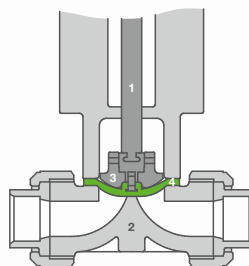




Plastic diaphragm valves

In contrast to other valve designs, only two diaphragm valve components come into contact with the operating media: the diaphragm itself and the valve housing. The long service life, reliability, safety and resistance against aggressive and abrasive media, combined with the excellent control quality of the directly mounted digital positioner result in an ideal control valve with minimal maintenance effort and low operating costs. With its pneumatic actuator and proven Schubert & Salzer positioner, the diaphragm valve 7069 equipped with plastic housing is not only a true control valve alternative for applications in the fields of chemistry, cosmetics, environmental engineering and water treatment, it is also ideal for galvanising technology as well as for the food and beverage industry. A true all-rounder.

Plastic diaphragm valves



- 1 Valve stem
- 2 Body
- 3 Thrust piece
- 4 Diaphragm



Plastic diaphragm valve 7069

Nominal size: DN 15 - 100
Nominal pressure: PN 10
Media temperature: 0°C to +60°C,
optional up to +120°C
Material: PVC or PVDF
Diaphragm material: EPDM or
PTFE/EPDM
Positioner: pneumatic,
analogue electro-pneumatic,
digital electro-pneumatic

Positioners by Schubert & Salzer

Compact positioners in analogue and digital versions mounted on pneumatic control valves.

- By mounting the positioner on top of the valve actuation, no moving parts (stroke return) are accessible from the outside. This increases operating efficiency, eliminating the risk of accidents
- Compact dimensions, saving space when integrating into systems
- Configuration and diagnosis function via free "DeviceConfig" software
- Suitable even for short strokes
- Visual display of position possible between positioner and valve actuation

digital

innovative

precise

Digital Positioner 8049

Connections: G 1/8", NPT 1/8"
Input signal: 0/4 - 20 mA,
optional 0/2 - 10 V
Adaptation to actuator: self-learning
Adaptability: 3 - 28 mm (sliding stem),
optional to 50mm (sliding stem),
max. 270° (rotary stem)
Versions: 2- and 4-wire
Configuration: via PC software
Ambient temperature: -20°C to +75°C
Also in ATEX version
Optional feedback module available
Version for rotational actuation available
Accessories: Set point signal
AS-i profile



Digital Positioner 8049 (stainless steel)

Entirely in stainless steel
Connections: G 1/8", NPT 1/8"
Accessories: Set point signal
AS-i profile
Input signal: 0/4 - 20 mA, optional
0/2 - 10 V
Adaptation to actuator: self-learning
Stroke range: 3 - 28 mm
Versions: 2- and 4-wire
Configuration: via PC software
Ambient temperature:
-20°C to +75°C
Also in ATEX version

Digital Positioner 8049 IPC

Positioner with process
controller integrated
Input signal: 0/4 - 20 mA, PT-100
Sampling rate: ca. 50 ms
Set point setting: external/internal
Configuration: via PC software
Ambient temperature:
-20°C to +75°C



Positioner 8047 i/p + p/p

Input signal range:
electro-pneumatic 0/4 - 20 mA
pneumatic 0.2 - 1 bar
Stroke range: 5 - 22 mm
(depending on stroke return spring)
Pilot energy: 3 - 6 bar
Hysteresis: $\pm 1\%$
Air consumption: 400 - 600 NI/h
(depending on air supply)
Also in ATEX version

DeviceConfig by Schubert & Salzer

Maximum efficiency and performance – with the configuration and diagnosis software, “DeviceConfig”, you have control over all of the digital positioners and motor actuators from Schubert & Salzer.

- Calibration and optimisation of the positioners and motors to the used valve with just a few clicks.
- Numerous diagnosis functions provide for a fast and simple fault analysis.
- Configuration of individual maintenance settings.
- Connections is possible via Bluetooth or USB using a connector
- At least compatible with the following types: 8049, 2040, 2030, 2032 (others on request).



Electric actuators

Besides a precise throttling element, a precise actuator is also required for solving complex control tasks.

This requirement is met in full by the two electrical Schubert & Salzer actuators type 2030 and type 2032. The development particularly focused on control accuracy, high positioning speed and

reliability. As with all electronic components by Schubert & Salzer, communication and settings of all parameters are handled via the configuration software DeviceConfig.



Actuator 2030

Fast and high-resolution actuator
Regulating speed up to 0.75 s/mm
Dead band: $\pm 0.2\%$ of the valve stroke
Repeatability: approx. $\pm 0.1\%$
Actuating force: 2.0 kN and 5.0 kN
Protection class: IP67
Ambient temperature: $-10\text{ }^{\circ}\text{C}$ to $+60\text{ }^{\circ}\text{C}$
Low temperature version up to $-40\text{ }^{\circ}\text{C}$
Automatic valve adaption
Diagnostics functions
Also available with safety position in case of power failure



Actuator 2032

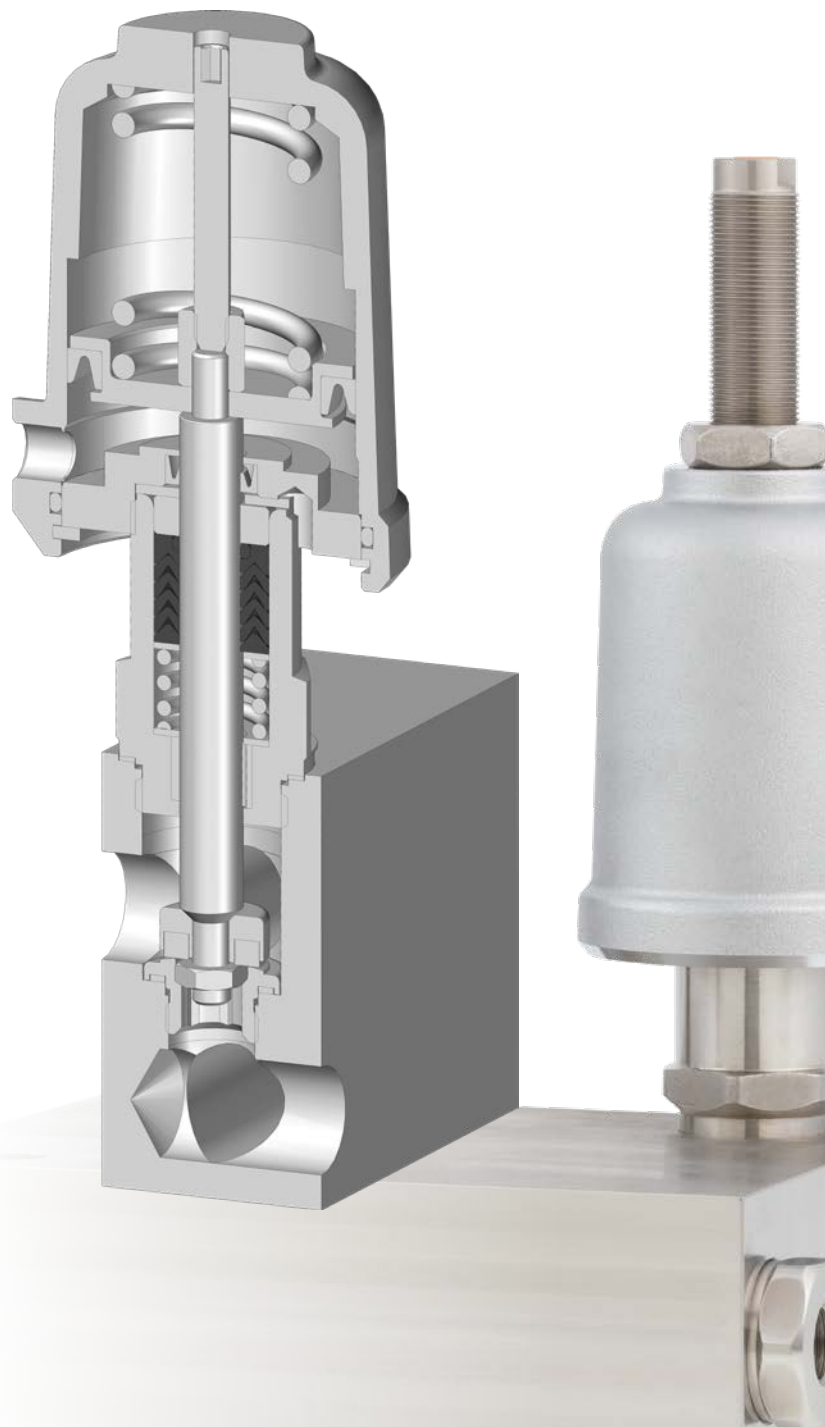
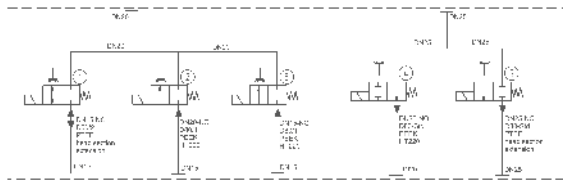
Compact and precise actuator
Regulating speed up to 1.5 s/mm
Dead band: $\pm 0.6\%$ of the valve stroke
Repeatability: approx. $\pm 0.3\%$
Actuating force: 0.8 kN
Protection class: IP65
Ambient temperature: $-10\text{ }^{\circ}\text{C}$ to $+60\text{ }^{\circ}\text{C}$
Automatic valve adaption
Diagnostics functions
Also available with safety position in case of power failure

Customised solutions

Compact valve manifolds

Less piping effort, reduced maintenance time and minimized investment costs.

In many systems, processes demand connecting multiple valves for different media so that they can together carry out a special process function. A connection system well-known from the field of hydraulics and adapted to the respective application, allows for the intelligent combination of several valves in a customer-specific manifold. All necessary connections between the individual process valves are integrated in the manifold. On the customer side, connections for hydraulic fluid input and output in the desired number are available depending on the requirement. Manifolds can be manufactured either completely from stainless steel or solid carbon steel with screwed valve seats. Additional pressure and temperature sensors can be integrated at any time. The manifolds are developed and manufactured individually according to your P&I diagrams.



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