Products for all industrial applications

PRODUCT RANGE
SAMSON PFEIFFER CHEMIE-ARMATURENBAU GMBH
## CONTROL VALVES

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<tr>
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<th>Description</th>
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## BUTTERFLY VALVES

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**SYSTEMS TECHNOLOGY**

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**CONTROL VALVES**

**BR 01a**

**PTFE-lined globe valve**
- DN 25 to 150/NPS 1 to 6
- 5 to 8 mm thick PTFE lining
- Optimal control design
- Trim in special materials
- Suitable for high differential pressures
- Standard with PTFE bellows

**BR 01d**

**PTFE-lined three-way valve**
- DN 25 to 150/NPS 1 to 6
- Designed as a three-way valve
- 5 to 8 mm thick PTFE lining
- Optimal control design
- Trim in special materials
- Suitable for high differential pressures
- Standard with PTFE bellows

**BR 01z**

**PTFE-lined globe valve**
- DN 20 to 100
- 5 to 8 mm thick PTFE lining
- Optimal control design
- Trim in special materials
- Suitable for high differential pressures
- Standard with PTFE bellows

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CONTROL VALVES

BR 06a

PTFE-lined micro-flow valve
- DN 6 to 15
- Min. 5 mm thick PTFE lining
- Trim in special materials
- Control of low flow rates possible
- Standard with PTFE bellows

BR 08a

PTFE-lined angle valve
- DN 15 to 50
- Min. 5 mm thick PTFE lining
- Parts subject to wear exchangeable
- Face-to-face dimensions according to DIN and ANSI
- Standard with PTFE bellows
- Trim or components in special materials

BR 03a

PTFE-lined bottom drain valve
- DN 100/80
- Min. 5 mm thick PTFE lining
- Trim in special materials
- Standard with PTFE bellows

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CONTROL VALVES

BR 01b

PFA-lined globe valve
- DN 25 to 100/NPS 1 to 4
- 3 to 5 mm thick PFA lining
- Easy to access for maintenance (modular design)
- Trim in special materials
- Backup PTFE V-ring packing
- Standard with PTFE bellows

BR 01c

PFA-lined aseptic valve
- DN 25 to 50/NPS 1 to 2
- 3 to 5 mm thick PFA lining
- Design free of cavities
- Materials with FDA approval
- Suitable for sterilization using superheated steam
- Suitable for media that crystallize
- EPDM diaphragm with PTFE coating

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BUTTERFLY VALVES

BR 10a

Double eccentric control and shut-off butterfly valve with M-PTFE lining

- DN 100 to 800/NPS 4 to 32
- PN 10 (16)/cl150
- 8 to 12 mm thick M-PTFE lining
- Wafer-type or lug-type body
- Double eccentric
- Bi-directional seal
- Wide control range
- Low breakaway torque
- PTFE V-ring packing (TA-Luft) loaded on both sides by Belleville washers
- Option: shaft/washer made of special material, PN 25 with special length

BR 10e

Centric control and shut-off butterfly valve with PTFE lining

- DN 50 to 400/NPS 2 to 16
- PN 10 and 16/cl150
- Min. 3 mm thick PTFE lining
- Long neck version
- Wafer-type or lug-type body
- Wafer type butterfly disk with PTFE liner or metal-seated (Duplex)
- PTFE packing (TA-Luft) loaded on both sides by Belleville washers
- Option: conductive PTFE lining, special primary seal

BR 11e

Centric control and shut-off butterfly valve with EPDM liner

- DN 50 to 1200/NPS 2 to 48
- PN 10 and 16/cl150
- Wafer-type or lug-type body
- Washer made of stainless steel
- Vulcanized EPDM liner

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BUTTERFLY VALVES

BR 14b

Double eccentric control and shut-off butterfly valve
- DN 50 to 800/NPS 2 to 32
- PN 10 to 40/cl150 and 300
- Extensive control range
- Wafer-type and lug-type body
- Low breakaway torque
- Flange drill pattern according to DIN and ANSI
- Blowout-proof shaft
- Long neck version
- Continuous raised face
- Soft seal or metal seal available
- Leakage class VI and DIN EN 12266, leakage rate A (bi-directional) possible

Excerpt from the options catalogue
- Double packing
- Additional primary seal available
- Components made of special material
- Valve sizes above DN 800 on request
- All types of steel and stainless steel
- –196 to 550 ºC
- Different temperature ranges on request
- Valve entirely made of special material, titanium, Hastelloy®, Monel®, zirconium etc.

Versions

Type WTD
- Bi-directional soft seal
- PTFE V-ring packing
- Maintenance-free, loaded by Belleville washers (TA-Luft)

Type MTD
- Bi-directional metal seal
- Fire-safe according to API 5th edition
- PTFE V-ring packing/graphite packing
- Maintenance-free, loaded by Belleville washers (TA-Luft)

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**BUTTERFLY VALVES**

**BR 14e**

**Centric control butterfly valve**
- DN 50 to 600/NPS 2 to 24
- PN 10 to 40/cl150 and 300
- Stainless steel, special material
- Wafer-type and lug-type body
- Centric design
- PTFE V-ring packing (TA-Luft)
- Maintenance-free, loaded by Belleville washers
- Leakage rate ~0.5 % of Kv coefficient

**BR 14p – Type PSA**

**Control and shut-off butterfly valve suitable for pressure swing adsorption**
- DN 80 to 400/NPS 3 to 16
- PN 10 to 40/cl150 and 300
- Short opening and closing times (<1 second)
- Wafer-type and lug-type body
- Soft seal
- PTFE V-ring packing (TA-Luft)
- Maintenance-free, loaded by Belleville washers
- Bubble-free on both sides (zero leakage)
- Special face-to-face dimensions

**BR 14t**

**Triple eccentric butterfly valve**
- DN 80 to 500/NPS 3 to 20
- PN 10 to 40/cl150 and 300
- Self-centering seat ring
- Frictionless
- Wafer-type and lug-type body
- Metal seal
- Graphite packing (TA-Luft)
- Fire-safe according to API 5th edition
- Leakage class VI and DIN EN 12266, leakage rate A (bi-directional) possible

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<tr>
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<th><strong>BR 14e</strong></th>
<th><strong>BR 14p</strong></th>
<th><strong>BR 14t</strong></th>
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<tr>
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<td>DN 50 to 400/NPS 2 to 4</td>
<td>DN 80 to 500/NPS 3 to 20</td>
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<td>PN 10 to 40/cl150 and 300</td>
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<td><strong>Temperatures</strong></td>
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<td>-20 to 180 °C</td>
<td>-196 to 550 °C</td>
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<td>DIN EN 558, Series 20 and 16 · API 609 cl150 and 300</td>
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<td>1.0619/1.4408 and A216 WCB/A351 CF8M</td>
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<td>DB 14p–01_EN</td>
<td>TB 14t_EN</td>
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</table>
BALL VALVES

**BR 20a**

**PTFE-lined ball valve**
- DN 15 to 200/NPS 1 to 8
- Min. 5 mm thick PTFE lining
- Conductive PTFE lining optionally available
- Single-piece ball/shaft of stainless steel with PTFE liner
- PTFE V-ring packing
- Maintenance-free, loaded by Belleville washers

**BR 21a**

**PTFE-lined drain ball valve**
- DN 80/50 to 150/100
- Min. 5 mm thick PTFE lining
- Conductive PTFE lining optionally available
- Single-piece ball/shaft of stainless steel with PTFE liner
- PTFE V-ring packing
- Maintenance-free, loaded by Belleville washers

**BR 24s**

**PTFE-lined spacer**
- NPS 2/1 to NPS 3/3
- Min. 5 mm thick PTFE lining
- Multi-purpose connection

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<th>BR 21a</th>
<th>BR 24s</th>
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<td>DN 80/50 to 150/100</td>
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<td>cl150</td>
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<td>–10 to 200 °C</td>
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BALL VALVES

BR 20b

PFA-lined ball valves
- DN 15 to 200/NPS ½ to 4
- Min. 3 mm thick PFA lining
- Conductive PFA lining optionally available
- Single-piece ball/shaft of stainless steel with PFA liner
- PTFE V-ring packing
- Maintenance-free, loaded by Belleville washers

BR 20c

PFA-lined ball valve for glass pipelines
- DN 25 and 50
- Min. 3 mm thick PFA lining
- Conductive PFA lining optionally available
- Single-piece ball/shaft of stainless steel with PFA liner
- PTFE V-ring packing
- Maintenance-free, loaded by Belleville washers
- Also available as wafer-type block ball valve

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<td>DN 25 and 50</td>
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</table>
Ball valves in steel, stainless steel and special steel alloys

- Maintenance-free and self-adjusting
- Two active seat rings in PTFE/TFM
- Maximum leak tightness, even with extreme pressure and temperature changes
- Long service life
- Small increase in torque as the temperature increases
- Blowout-proof shaft
- Connection according to DIN ISO 5211
- PTFE V-ring packing
- Maintenance-free, loaded by Belleville washers

Excerpt from the options catalogue

- Sets of seals made of plastic compounds
- Backup shaft sealing
- Heating jacket
- Flange types according to DIN EN 1092
- Control ball valve using calibrated seat rings
- Metal seal in the ball passage
- Fire-safe version
- Locking facility on lever

Versions

BR 26a

- DN 15 to 200/NPS ½ to 8
- Material 1.4571
- Special materials (e.g. Monel®, Hastelloy®, titanium)
- Optional special equipment and accessories (e.g. high-pressure or cryogenic version)

BR 26d

- DN 15 to 100/NPS ½ to 4
- Material 1.4408/1.4462

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<td>PN 10 to 40/cl150 and 300</td>
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<td>Temperatures</td>
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<td>−10 to 200 °C (optional −80 °C)</td>
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</table>
BALL VALVES

BR 26e and 26s

Ball valves in steel, stainless steel and special steel alloys
- Trunnion-mounted ball valve
- Active seat rings
- Maximum leak tightness, even with changes in pressure and temperature changes
- Long service life
- Small increase in torque as the temperature increases
- Blowout-proof shaft
- Seat rings in PTFE/TFM and compounds
- Connection according to DIN ISO 5211
- PTFE V-ring packing
- Maintenance-free, loaded by Belleville washers

Excerpt from the options catalogue
- Backup shaft sealing
- Heating jacket
- Flange types according to DIN EN 1092
- Control ball valve using calibrated seat rings
- Metal seal in the ball passage
- Version for granulate
- High-pressure version

Versions

BR 26e
- With trunnion-mounted ball
- DN 50 to 200/NPS 2 to 8
- Material 1.0460, 1.4408, 1.4571
- Special material

BR 26s
- DN 25 to 800/NPS 1 to 32
- Internally supported ball (DN 80 and larger)
- Material 1.0619 and 1.4408
- Special material

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<td>DN 25 to 800/NPS 1 to 32</td>
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BALL VALVES

BR 22a

Bottom drain ball valve made of stainless steel and special steels
- DN 50 to 300/NPS 2 to 12
- Two-piece body
- Tilted shaft
- Seat ring in PTFE/TFM
- PTFE V-ring packing
- Sealing system loaded by Belleville washers
- Optional equipment and accessories

BR 26l, 26t, 26v, 26w and 26x

Multi-port ball valves in steel, stainless steel and special steels

BR 26l
- Horizontal three-way version with L port

BR 26t
- Horizontal three-way version with T port

BR 26v
- Vertical three-way version with L port

BR 26w
- Horizontal 5/4-way version

BR 26x
- Horizontal four-way version
- DN 15 to 200/NPS ½ to 8
- Seat ring in PTFE/TFM
- PTFE V-ring packing
- Sealing system loaded by Belleville washers
- Optional equipment and accessories
- Optional high-pressure version

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<th>BR 26t</th>
<th>BR 26v</th>
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SPECIAL VALVES

BR 23e

PTFE-lined rotary plug valve
- DN 25, 50 and 80/NPS 1, 2 and 3
- 5 to 8 mm thick PTFE lining
- Single-piece plug/shaft connection
- PTFE V-ring packing
- Maintenance-free, loaded by Belleville washers

BR 51b

Safety shut-off ball valve for block and bleed applications
- DN 15 to 150/NPS ½ to 6
- Two-piece body
- Blowout-proof shaft
- Seat rings live-loaded on both sides
- PTFE V-ring packing
- Maintenance-free, loaded by Belleville washers

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SAMPLING TECHNOLOGY

System solutions

BR 27f side-mounted with BR 26k
BR 27d/27e with adapter
BR 27a/27c
BR 27f/27p horizontal
BR 27d/27e
BR 27f vertical
Bottle holder
BR 27f side-mounted
BR 27g
BR 27f side-mounted
BR 27s
BR 27h
BR 27i
BR 27 Continuous Sampling System

- Pressureless sampling of liquids
- Sampling at overpressure
- Representative sampling thanks to installation directly in the pipeline
- Defined sampling quantity
- Free of dead spaces
- Material according to customer specification

Excerpt from the options catalogue
- Special material
- Heating or cooling jacket

Version

BR 27f – IPVH
- Inline sampling valve for horizontal installation

BR 27f – IPVV
- Inline sampling valve for vertical installation

BR 27f – IPVK with or without bellows
- Inline sampling valve short design for horizontal installation

BR 27f – EPVL
- End-of-line sampling valve for lateral installation

BR 27f – IPVF
- Inline sampling valve with bellows for horizontal installation

BR 27p – IPVH with or without bellows
- Inline sampling valve for horizontal installation

BR 27p – IPVK with or without bellows
- Inline sampling valve short design for horizontal installation

Supplementary equipment
- Safety cabinet
- Bottle support in safety cabinet
- Linear actuator
- Dead man’s handle
- Control unit
- Monitoring with sensors
- Further on request

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<th>BR 27f</th>
<th>BR 27f</th>
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<td>EPVL</td>
<td>IPVF</td>
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1) Special face-to-face dimensions on request
## SAMPLING TECHNOLOGY

### BR 27 Discontinuous Sampling Valves

#### Sampling valves
- Defined sampling volume
- Sampling under high pressures or vacuum possible
- PTFE V-ring packing
- Maintenance-free, loaded by Belleville washers

#### Supplementary equipment
- Safety cabinet
- Bottle support in safety cabinet
- Pneumatic switching cabinet
- Pneumatic timer
- Further on request

#### Excerpt from the options catalogue
- Special material
- Body heating

### Versions

**BR 27a – IPHH**
- Inline sampling ball valve for horizontal installation
- Body, ball and shaft made of stainless steel

**BR 27d – IPHH**
- Inline sampling ball valve for horizontal installation
- Body lined with PFA, ball/shaft with PTFE coating

**BR 27g – IPHV**
- Inline sampling ball valve for vertical installation
- Body, ball and shaft made of stainless steel

**BR 27h – EPHB**
- End-of-line sampling ball valve for mounting on the tank bottom
- Body, ball and shaft made of stainless steel

**BR 27i – EPHV**
- End-of-line sampling ball valve for vertical installation
- Body, ball and shaft made of stainless steel

**BR 27l – EPHV**
- End-of-line sampling ball valve for vertical installation
- Body lined with PFA, ball and shaft made of stainless steel

### Table: Technical Specifications

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<th>BR 27h</th>
<th>BR 27i</th>
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<td>TB 27h_EN</td>
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<td>TB 27l_EN</td>
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1) DN 80/NPS 3 and larger: Series 14 possible  
2) DN 80/NPS 3 and larger: Series 27 possible  
3) DN 50 and larger: Series 1 possible
BR 27 Continuous Sampling Valves

**Sampling valves**
- Variable sampling volume
- Dead man’s handle
- PTFE V-ring packing
- Maintenance-free, loaded by Belleville washers

**Excerpt from the options catalogue**
- Special material
- Body heating

**Supplementary equipment**
- Safety cabinet
- Bottle support in safety cabinet
- Rotary actuator
- Control unit
- Monitoring with sensors
- Further on request

**Versions**

**BR 27b – IPHH**
- Inline sampling ball valve for horizontal installation
- Body, ball and shaft made of stainless steel

**BR 27c – IPHH**
- Inline sampling ball valve for horizontal installation
- Body, ball and shaft made of stainless steel

**BR 27e – IPHH**
- Inline sampling ball valve for horizontal installation
- Body lined with PFA, ball/shaft with PTFE coating

**BR 27k – EPHV**
- End-of-line sampling ball valve for vertical installation
- Body, ball and shaft made of stainless steel

**BR 27m – EPHV**
- End-of-line sampling ball valve for vertical installation
- Body lined with PFA, ball and shaft made of stainless steel

**BR 22 – EBHP**
- End-of-line bottom drain ball valve as a sampling device
- Body, ball and shaft made of stainless steel

<table>
<thead>
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<th>BR 27c</th>
<th>BR 27e</th>
<th>BR 27k</th>
<th>BR 27m</th>
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<td>DN 25 to 150 NPS 1 to 6</td>
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<td>PN 16 and 40 cl150 and 300</td>
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<td>PN 16/40 cl150 and 300</td>
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</table>

1) DN 80/NPS 3 and larger: Series 14 possible
2) DN 80/NPS 3 and larger: Series 27 possible
Example: plant construction

Single pig system:

Double pig system:
PIGGING TECHNOLOGY

Pipe dimensions according to DIN 2430

<table>
<thead>
<tr>
<th>Valve size</th>
<th>Pressure rating</th>
<th>Inside diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>DN*</td>
<td>PN</td>
<td>ID</td>
</tr>
<tr>
<td>DN 50</td>
<td>PN 25 and 40</td>
<td>54.5 mm</td>
</tr>
<tr>
<td>DN 80</td>
<td>PN 25 and 40</td>
<td>82.5 mm</td>
</tr>
<tr>
<td>DN 100</td>
<td>PN 25 and 40</td>
<td>107.1 mm</td>
</tr>
<tr>
<td>DN 125</td>
<td>PN 25 and 40</td>
<td>131.7 mm</td>
</tr>
<tr>
<td>DN 150</td>
<td>PN 25 and 40</td>
<td>159.3 mm</td>
</tr>
<tr>
<td>DN 200</td>
<td>PN 25 and 40</td>
<td>206.5 mm</td>
</tr>
</tbody>
</table>

* Other dimensions on request

BR 28 Pigs

**BR 28m – Pig TWIN I**
- Solid elastomeric pig
- Cold cast
- Solid pig made of VMQ or PU

**BR 28m – Pig TWIN II**
- Solid elastomeric pig
- Vulcanized
- Solid pig made of VMQ, EPDM, FKM etc.

**BR 28m – Pig TWIN III**
- Lip pig
- High resistance
- Lip pig with replaceable lips made of HDPE, TFM, VMQ etc.

<table>
<thead>
<tr>
<th>Valve size</th>
<th>BR 28m – Pig TWIN I</th>
<th>BR 28m – Pig TWIN II</th>
<th>BR 28m – Pig TWIN III</th>
</tr>
</thead>
<tbody>
<tr>
<td>DN 50 to 200/NPS 2 to 8</td>
<td>DN 50 to 200/NPS 2 to 8</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>–10 to 200 °C</td>
<td>–10 to 200 °C</td>
<td>–10 to 200 °C</td>
<td>–10 to 200 °C</td>
</tr>
<tr>
<td>TB 28m_EN</td>
<td>TB 28m_EN</td>
<td>TB 28m_EN</td>
<td>TB 28m_EN</td>
</tr>
</tbody>
</table>
PIGGING TECHNOLOGY

BR 28 and 29 Piggable Valves

Pigging valves
- DN 50 to 200/NPS 2 to 8
- Pipe inside diameter according to DIN 2430
- Active seat rings in low-maintenance design
- Maximum leak tightness, even with extreme pressure and temperature changes
- Long service life
- Small increase in torque as the temperature increases
- Blowout-proof shaft
- PTFE/TFM seals
- PTFE V-ring packing
- Maintenance-free, loaded by Belleville washers
- Connection according to DIN ISO 5211

Excerpt from the options catalogue
- Pig signaller strap in automatic systems to mount magnetic-inductive sensors
- Pig sensing device for manual detection
- Different inside diameters possible on request
- Contamination safeguarding for automatic leakage detection at the ball valve
- Valves also available in a low dead-space design

Versions

**BR 28a**
- Cavity-free piggable metering valve

**BR 28e**
- Docking pig ball valve

**BR 28t**
- Piggable three-way ball valve

**BR 28u**
- Cavity-free piggable segmented ball valve

**BR 28y**
- Piggable ball valve in flanged and block version

**BR 28z**
- Cavity-free piggable end station

<table>
<thead>
<tr>
<th></th>
<th>BR 28a</th>
<th>BR 28e</th>
<th>BR 28t</th>
<th>BR 28u</th>
<th>BR 28y</th>
<th>BR 28z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valve size</td>
<td>DN 50 to 200/NPS 2 to 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressure rating</td>
<td>PN 25 and 40/cl 150 and 300</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Temperatures</td>
<td>–10 to 200 °C (&gt;200 °C on request)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Face-to-face dimensions</td>
<td>Special face-to-face dimensions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Data sheet</td>
<td>TB 28a_EN</td>
<td>TB 28e_EN</td>
<td>TB 28t_EN</td>
<td>TB 28u_EN</td>
<td>TB 28y_EN</td>
<td>TB 28z_EN</td>
</tr>
</tbody>
</table>
PIGGING TECHNOLOGY

BR 28 and 29 Piggable Valves

**BR 29a**
- 3/2-way diverting valve with large bending radius
- 3/3-way diverting valve with step gear

**BR 29b**
- Multi-way diverting valve
- With a large bending radius as a product distributor
- Version as:
  - 5/4-way diverting valve
  - 7/6-way diverting valve
  - 9/8-way diverting valve

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<table>
<thead>
<tr>
<th></th>
<th>BR 29a</th>
<th>BR 29b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valve size</td>
<td>DN 50 to 200/NPS 2 to 8</td>
<td></td>
</tr>
<tr>
<td>Pressure rating</td>
<td>PN 25 and 40/cl150 and 300</td>
<td></td>
</tr>
<tr>
<td>Temperatures</td>
<td>−10 to 200 °C (≥200 °C on request)</td>
<td></td>
</tr>
<tr>
<td>Face-to-face dimensions</td>
<td>Special face-to-face dimensions</td>
<td></td>
</tr>
<tr>
<td>Data sheet</td>
<td>TB 29a_EN</td>
<td>TB 29b_EN</td>
</tr>
</tbody>
</table>
PIGGING TECHNOLOGY

BR 28 and 29 Piggable Valves

BR 28p Piggable Loading System
- Pig end station for truck loading
- Version as single or double pig systems
- Options:
  - Top or bottom filling
  - Overfill protection
  - Heating or insulation

BR 28s Control Panel
- In a head station for pig change and automatic pig drive
- In an end station for automatic pig drive
- Suitable for single or double pig system
- Gas or liquid propellent
- Right and left design

<table>
<thead>
<tr>
<th></th>
<th>BR 28p</th>
<th>BR 28s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valve size</td>
<td>DN 50 to 100</td>
<td>DN 15 and 20/NPS ½ and ¾</td>
</tr>
<tr>
<td>Pressure rating</td>
<td>PN 25 and 40</td>
<td>PN 25/cl150</td>
</tr>
<tr>
<td>Temperatures</td>
<td>−10 to 200 °C</td>
<td>−10 to 200 °C</td>
</tr>
<tr>
<td>Data sheet</td>
<td>TB 28p_EN</td>
<td>TB 28s_EN</td>
</tr>
</tbody>
</table>
Combinations

**BR 28b Metering Valve**
Combination of:
- One piggable double T-piece
- Two BR 28a Metering Valves

**BR 28c Metering Valve**
Combination of:
- One piggable T-piece
- One BR 28a Metering Valve
- One piggable BR 28y Ball Valve

**BR 28d Metering Valve**
Combination of:
- One piggable double T-piece
- Two BR 28a Metering Valves
- One piggable BR 28y Ball Valve

**BR 28h Head Station**
Combination of:
- One piggable T-piece
- One BR 28a Metering valve
- One BR 28e Head Station
- One piggable BR 28y Ball Valve

**BR 28i Head Station**
Combination of:
- One piggable double T-piece
- Two BR 28a Metering Valves
- One BR 28e Head Station
- One piggable BR 28y Ball Valve

**BR 28k Head Station**
Combination of:
- One piggable pipe piece
- One BR 28e Head Station
- One piggable BR 28y Ball Valve

**BR 28n Head Station**
Combination of:
- One piggable T-piece
- One BR 28a Metering Valve
- Two piggable BR 28y Ball Valves

**BR 28o Head Station**
Combination of:
- One piggable double T-piece
- Two BR 28a Metering Valves
- Two piggable BR 28y Ball Valves
Actuators

BR 30a

Pneumatic multi-turn diaphragm actuator
- Seven actuator sizes
- Operating torque up to 5619 Nm
- Housing made of spheroidal graphite iron
- Rolling diaphragm of NDR
- Adjustable end stops
- Outstanding control properties
- Connections according to
  - DIN EN ISO 5211
  - VDI/VDE 3845
- Angle of rotation 90° ±3°
- Long stroke

BR 31a

Pneumatic quarter-turn actuator
- 16 actuator sizes
- Suitable for on-off and throttling service
- Housing with Alodur® coating
- Adjustable end stops
- Torques up to 10000 Nm
- Connections according to
  - DIN EN ISO 5211
  - VDI/VDE 3845
- Improved transmission of force and running properties by means of involute toothing
- Angle of rotation 90° (–5° to +15°, 175 to 95°)
- Actuators with extended angle of rotation range 120° and 180°
- Dosing actuator with adjustable mid-position
- Three-step actuator
- Actuator with hydraulic damping
- Actuator with hydraulic adjustment of rotating speed

<table>
<thead>
<tr>
<th></th>
<th>BR 30a</th>
<th>BR 31a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating torque</td>
<td>Up to 5619 Nm</td>
<td>Up to &gt;10000 Nm</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>~35 to 90 °C</td>
<td>~40 to 80 °C</td>
</tr>
<tr>
<td>Material</td>
<td>EN-JS 1049 (0.7043)</td>
<td>Aluminium with Alodur® coating</td>
</tr>
<tr>
<td>Data sheet</td>
<td>TB 30a_EN</td>
<td>TB 31a_EN</td>
</tr>
</tbody>
</table>
SAMSON AT A GLANCE

STAFF
- Worldwide 4,000
- Europe 3,300
- Asia 500
- Americas 200
- Frankfurt am Main, Germany 1,600

MARKETS
- Chemicals and petrochemicals
- Power and energy
- District heating and cooling, building automation
- General industry
- Industrial gases
- Food and beverages
- Metallurgy and mining
- Oil and gas
- Pharmaceuticals and biotechnology
- Marine equipment
- Water and wastewater
- Pulp and paper

PRODUCTS
- Valves
- Self-operated regulators
- Actuators
- Valve accessories
- Signal converters
- Controllers and automation systems
- Sensors and thermostats
- Digital solutions

SALES SITES
- More than 50 subsidiaries in over 40 countries
- More than 200 representatives

PRODUCTION SITES
- SAMSON Germany, Frankfurt, established 1916
  Total plot and production area: 150,000 m²
- SAMSON France, Lyon, established 1962
  Total plot and production area: 23,400 m²
- SAMSON Turkey, Istanbul established 1984
  Total plot and production area: 11,053 m²
- SAMSON USA, Baytown, TX, established 1992
  Total plot and production area: 9,200 m²
- SAMSON China, Beijing, established 1998
  Total plot and production area: 10,138 m²
- SAMSON India, Pune district, established 1999
  Total plot and production area: 18,000 m²
- SAMSON Russia, Rostov-on-Don, established 2015
  Total plot and production area: 5,000 m²
- SAMSON AIR TORQUE, Bergamo, Italy
  Total plot and production area: 27,684 m²
- SAMSON CERA SYSTEM, Hermsdorf, Germany
  Total plot and production area: 14,700 m²
- SAMSON KT-ELEKTRONIK, Berlin, Germany
  Total plot and production area: 1,060 m²
- SAMSON LEUSCH, Neuss, Germany
  Total plot and production area: 18,400 m²
- SAMSON PFEIFFER, Kempen, Germany
  Total plot and production area: 35,400 m²
- SAMSON RINGO, Zaragoza, Spain
  Total plot and production area: 18,270 m²
- SAMSON SED, Bad Rappenau, Germany
  Total plot and production area: 10,370 m²
- SAMSON STARLINE, Bergamo, Italy
  Total plot and production area: 26,409 m²
- SAMSON VDH PRODUCTS, Netherlands
- SAMSON VETEC, Speyer, Germany
  Total plot and production area: 27,090 m²