



**VALVE AND FLOW CONTROL SPECIALISTS**  
*SERVICE AND RELIABILITY*



## Special-Valves For Highest Demands

- free of cavities
- free of maintenance / self lubricating
- chemical resistant
- long durability
- PED 97/23EG
- TA - Luft approval
- AD -2000 / HP0 / TRD 201
- Firesafe acc. to API 607 / ISO 10497
- KTA 1401
- Type approvals
- DVGW approval

**Brisbane Melbourne Adelaide Perth Darwin**  
VALVE AND FLOW CONTROL SPECIALISTS PTY LTD  
E-mail [sales@valveandflowcontrolspecialists.com](mailto:sales@valveandflowcontrolspecialists.com)





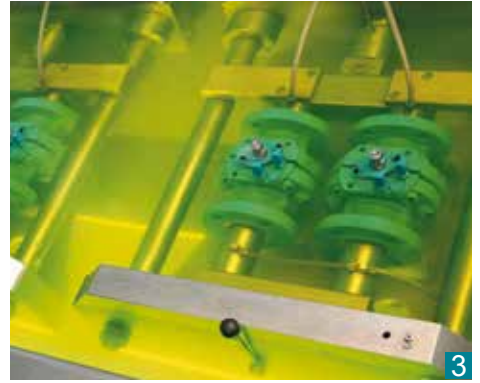
## In-house testing and process technology



1



2



3



3



4



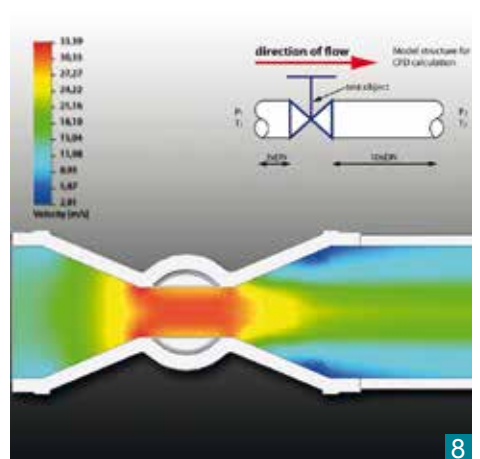
5



6



7



8

- 1 Dye penetrant test acc. to DIN EN 571
- 2 Material – spectral analysis
- 3 100% tightness testing with 6 bar air acc. to DIN EN12266 part 1 + 2
- 4 Helium leakage test by means of mass spectrometer acc. to DIN EN 1518
- 5 X-ray acc. to DIN EN 1435
- 6 TÜV approved welders using most up-to-date welding stations ( MIG, MAG, TIG and SMAW/MMA)
- 7 High voltage test acc. to ISO 2746 (15.000 volt)
- 8 3D-CAD computer-aided design with CFD computational fluid dynamic

### Special inspections by:

- Germanischer Lloyd
- Bureau Veritas
- TÜV / DEKRA
- DNV and others.
- Final certificates acc. to DIN EN 10204 – 3.1 are issued for each valve

## AZ-Armaturen - 50 years of experience!



AZ-Armaturen is an internationally active business with production facilities in Germany, Brazil (São Paulo), South Africa (Johannesburg) and China (Taicang), as well as two of its own foundries in Germany and Brazil. Numerous sales branches and service support centres, such as AZ-Benelux (Amsterdam), AZ-Poland (Warsaw), AZ-Italy (Milan) and AZ-Rhineland, guarantee our clients good technical assistance. There are approximately 400 people employed by the group of companies worldwide.

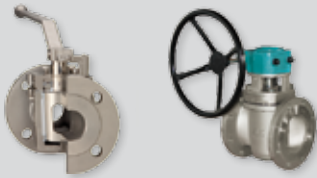


Typical application examples:

- **Chemistry/Petrochemistry:** Plug valves and sampling systems for aggressive, toxic, crystallising and polymerising media (e.g. acetic acid, melamine applications, TDI/MDI production processes etc.)
- **Refineries:** Heating jacket valves for bitumen, sulphur, sulphuric acid and for retrieving sulphur
- **Paper and pulp industry:** Plug valves for chlorine and sulphuric acid applications
- **Fertiliser industry:** Plug valves for ammoniac and urea applications
- **Shipbuilding:** Plug valves for heavy oil and diesel applications
- **Food industry:** Plug valves for steam applications, and plug valves with full circular passage for abrasive media
- **Sea water desalination:** Plug valves for osmosis plants
- **Production plants:** Plug valves for control applications

# 1

## Plug-Valves metallic with PTFE - sleeve 2 - 7 ways

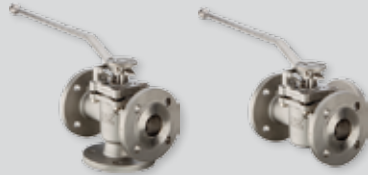


### ISO - STANDARD

Plug-Valve with ISO bracketflange

DN 15 - 600 / PN 10 - 40  
NPS ½" - 24" / class 150 - 300

1.1



### F-3 ISO - STANDARD

Threeway plug-valve vertical / horizontal

DN 15 - 600 / PN 10 - 40  
NPS ½" - 24" / class 150 - 300

1.2

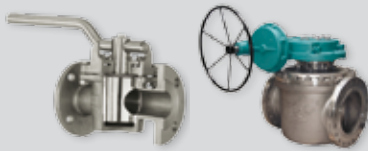


### F-4 / F-5 ISO - STANDARD

Four- and five-way plug-valve

DN 15 - 600 / PN 10 - 40  
NPS ½" - 24" / class 150 - 300

1.3

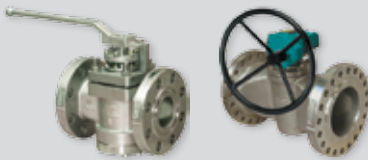


### Extra

Plug-Valve full bore design

DN 15 - 600 / PN 10 - 100  
NPS ½" - 24" / class 150 - 600

1.4



### HDS

Plug-Valve high pressure design

DN 15 - 600 / PN 100 - 160  
NPS ½" - 24" / class 600 - 900

1.5

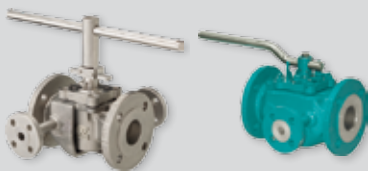


### TM

Plug-Valve with heating jacket (cast design)

DN 15 - 600 / PN 10 - 100  
NPS ½" - 24" / class 150 - 600

1.6

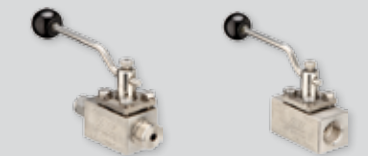


### HM

Plug-Valve with full heating jacket (cast design)

DN 15 - 600 / PN 10 - 100  
NPS ½" - 24" / class 150 - 600

1.7



### MGZ / MBZ / MB / WA

Screwed plug-valve

Size ½" to 2"  
Withworth pipe thread acc. to DIN ISO 228/1  
American Standard pipe thread NPT  
Others on request

1.8

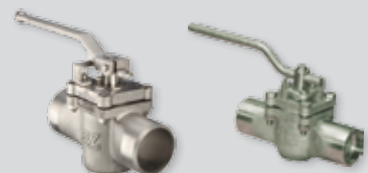


### MG

Screwed plug-valve (cast design)

Size ¼" to 2"  
NPT pipe thread acc. to ANSI B1.20.1  
Withworth pipe thread acc. to DIN ISO 228/1 and DIN2999  
GYROLOK / SWAGELOK Lock ring or Tube fitting

1.9



### SW / BW

Plug-Valve with welded ends

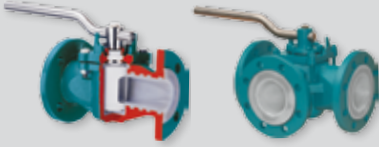
DN 10 - 600 / PN 10 - 100  
NPS ¾" - 24" / class 150 - 600

1.10

# 2

## Plug-Valves with FEP / PFA - lining 2 - 3 ways

2.1

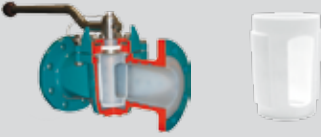


### STANDARD A

Plug-Valve with FEP / PFA - lining

DN 15 - 300 / PN 10 - 40  
NPS 1/2" - 12" / class 150 - 300

2.2



### AB 2000

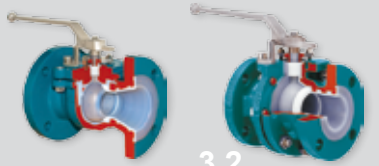
Plug-Valve with exchangeable PTFE - sleeve

DN 15 - 300 / PN 10 - 40  
NPS 1/2" - 12" / class 150 - 300

# 3

## Ball-Valves with FEP / PFA - lining

3.1



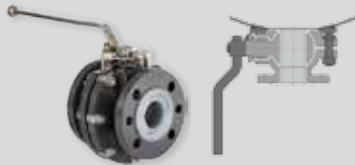
### NONOBLOC / NVN

Ball-Valve with FEP / PFA - lining

DN 15 - 200 / PN 10 - 25  
NPS 1/2" - 8" / class 150

3.2

3.3



### NEO-VAL / KA

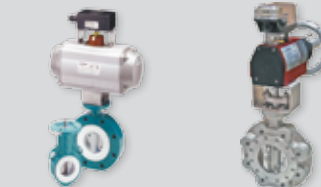
Ball- and vessel-outlet-valve

DN 15 - 200 / PN 10 - 25  
NPS 1/2" - 8" / class 150

# 4

## Butterfly-Valves with PTFE / PFA - lining

4.1



### CV

Chemistry butterfly- and control-valve

DN 15 - 600 / PN 10 - 25  
NPS 1" - 24" / class 150  
Lug and Wafer design  
Body materials; Aluminium / epoxy, GGG40.3 / epoxy, Stainless steel, C-steel

# 5

## Check-Valves with FEP / PFA - lining

5.1



### GLOBUS / DELTA

Lined ball-check-valves

DN 15 - 250 / PN 10 - 40  
NPS 1" - 4" / class 150 - 300  
Available with sight glass for visual function control  
Temperature  $T_{max} = 150^{\circ}C$

# 6

## Sight glasses, Strainers with FEP / PFA-lining

6.1



### OCULAR / BASKET

Lined and metallic

DN 15 - 250 / PN 10 - 40  
NPS 1" - 4" / class 150 - 300  
Also available with heating jacket  
Temperature  $T_{max} = 200^{\circ}C$

# 7

## Sampling System for liquids, liquid gas and gas

7.1



### CONTIFLOW

Sampling system for liquids and solids  
 DN 15 - 100 / PN 10 - 40  
 NPS ½" - 4" / class 150 - 300  
 No flow interruption  
 Piggable

- representative sample
- pressureless sample
- defined sample quantity
- closed system

7.2



### VARIO

Sampling system for liquids  
 DN 15 - 100 / PN 10 - 40  
 NPS ½" - 4" / class 150 - 300  
 Free definable sampling quantity

- representative sample
- pressureless sample
- defined sample quantity
- closed system

7.3



### SAMPLING

Sampling system for liquids  
 DN 15 - 100 / PN 10 - 40  
 NPS ½" - 4" / class 150 - 300  
 Spilling eliminated no contamination

- representative sample
- pressureless sample
- defined sample quantity
- closed system

7.4



### GSP

Sampling system for liquid - gas - liquid gas  
 DN 15 - 100 / PN 10 - 40  
 NPS ½" - 4" / class 150 - 300  
 Integrated system purge available  
 No contamination

- representative sample
- defined sample quantity
- closed system

7.5



### SAMPLING SIC

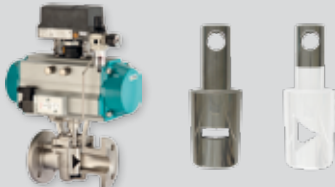
For two-phase liquids  
 DN 15 - 100 / PN 10 - 40  
 NPS ½" - 4" / class 150 - 300  
 Representative long term sample

- representative sample
- pressureless sample
- defined sample quantity
- closed system

# 8

## Control-Valves metallic or with FEP / PFA - lining

8.1



### RH / RHS

Control-Valve  
 DN 15 - 450 / PN 10 - 40 - 63 - 100  
 NPS ½" - 18" / class 150 - 300 - 600  
 Linear and equal percentage characteristics  
 Standardized  $K_{vs}$ - values SRI - IV

# 9

## Automation pneumatic, electrical and hydraulical

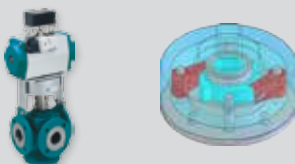
9.1



### Actuators

Double and single acting  
 Multiposition actuators  
 With spring centered middle position  
 Turning degree > 90°

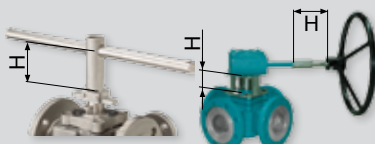
9.2



### SSK

Ratchetcoupling for multiport-valves  
 Possible Positions 90°, 180°, 270° und 360°  
 Possible Positions 120°, 240° und 360°





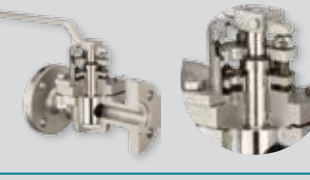
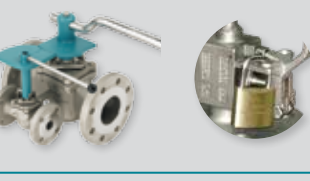
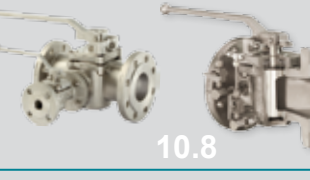
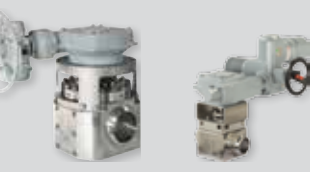
9.3



### KSV

Plug-stem-extension  
 Available for all AZ - valves  
 Length (H) on desire  
 For remote control  
 For thick walled insulating tubes

# 10 Special-Valves and Special Designs

<p>10.1</p> 	<p><b>FM-100</b>            Manometer plug-valve            90°-safety-valve            For pressure gauges and instrument leads            Safe-guarded ventilation for the pressure relief of the manometer            Pressure range up to PN 160</p>
<p>10.2</p> 	<p><b>UK</b>            Cross-over-combination            All types of AZ-valves combinable            For heating and cooling cycles            For reactor cycles            Cross-over valves for filter cycles</p>
<p>10.3</p> 	<p><b>SAVA</b>            Special cross-over valve for safety (relief) valves            Full-flow, round bore            100% tight shut-off (DIN EN 12266-1)            Operation errors impossible because of position indication            Safe backflow of blow off capacity</p>
<p>10.4</p> 	<p><b>BMH</b>            Special-valve for safe flushing of pipe systems            Defined plug positions            Easy depressurizing of the flushing hose            Space- saving design            Safe operation</p>
<p>10.5</p> 	<p><b>SAFETY SEALING</b>            for AZ plug-valves            Hightemperature- chemical sealings            Additional safety "to atmosphere"            FIRE-SAFE certificate acc. to API 607            "TA-Luft 2002" approval</p>
<p>10.6</p> 	<p><b>LOCKING DEVICE</b>            for AZ plug-valves            Pilot valve combination            Linear key conception            Indexing plunger arrestor            Pad lock eyelets</p>
<p>10.7</p> 	<p><b>SP / DBBC / DBI</b>            Special valves with flushing device / double block and bleed            For plug bore cross-flushing            For media which tend to stick, harden, cristallize or polimerize            Double plug-valve combination with pressure expansion            Special combinations with flushing device / inspection connection</p>
<p>10.10</p> 	<p><b>NUCLEAR</b>            High-pressure Plug-valve for nuclear facilities            High-pressure design, forged steel            Replacement of sleeve of installed valve            Nuclear approval            Complete chain of documentation for all parts</p>

## Materials:

### Standard body materials:

- Ductile Iron EN-GJS-400-18 (GGG40.3)  
ASTM A395
- Carbon Steel 1.0619 (GS-C 25)  
ASTM A216 WCB
- Stainless Steel 1.4408  
ASTM A351 CF8M

### Special body materials / plug materials:

- Hastelloy B / C
- Inconel
- Monel
- Nickel
- Zirconium
- Titanium
- Tantalum

### Standard plug materials:

- Stainless steel 1.4408  
ASTM A351 CF8M
- Stainless steel 1.4308  
ASTM A351 CF8

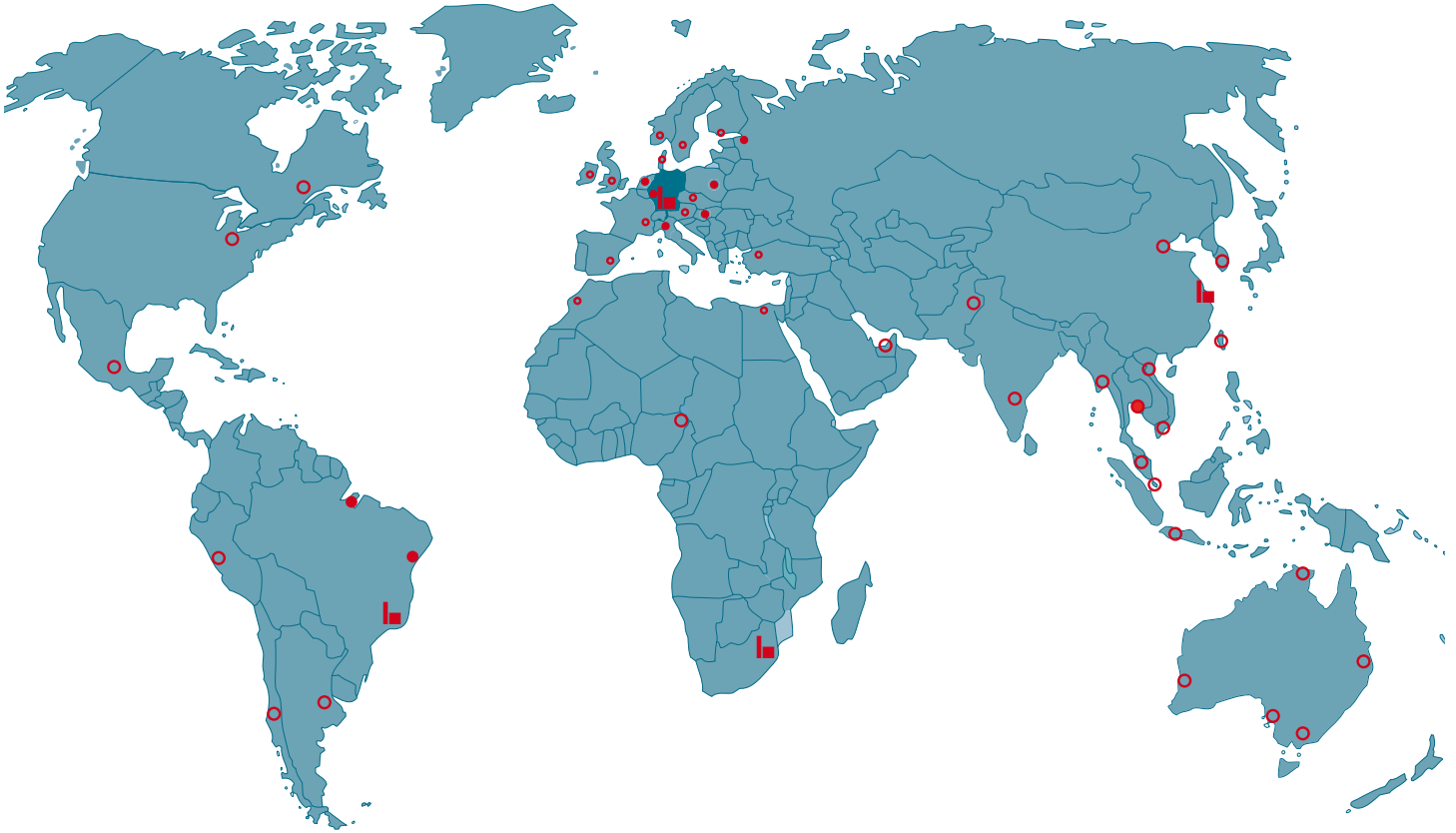
### Standard lining materials:

- FEP
- PFA
- PFA conductive
- PVDF

Standard operation temperature for PTFE - sleeves:  $T_{max} = 220^{\circ}\text{C}$   
 Higher temperature and special design on request



AZ- Armaturen - All over the World



Brisbane O gndqwt pg'''Cf gndkf g Rgtvj '''Darwin  
VALVE AND FLOW CONTROL SPECIALISTS PTY LTD  
E-mail sales@valveandflowcontrolspecialists.com