

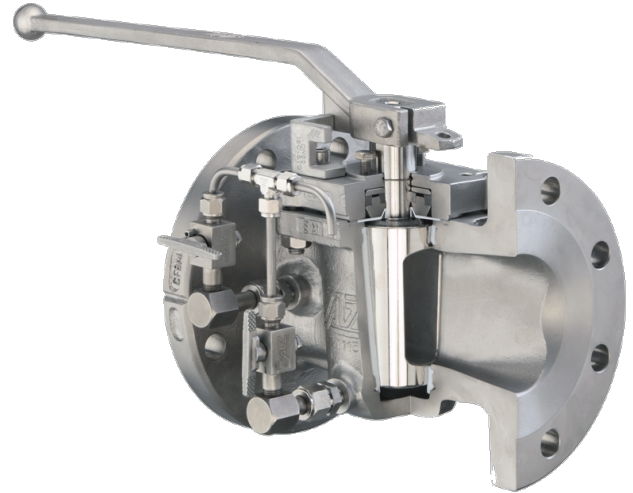
# DBI

## Plug valve for Double Block & Bleed and Inspection-Service

DIN-EN: DN 15 - 600 / PN 10 - 40

ASME: NPS ½" - 24" / class 150 - 300

PT range:  $-30 < T < 230/280^{\circ}\text{C}$ , vacuum 10-8 mbar

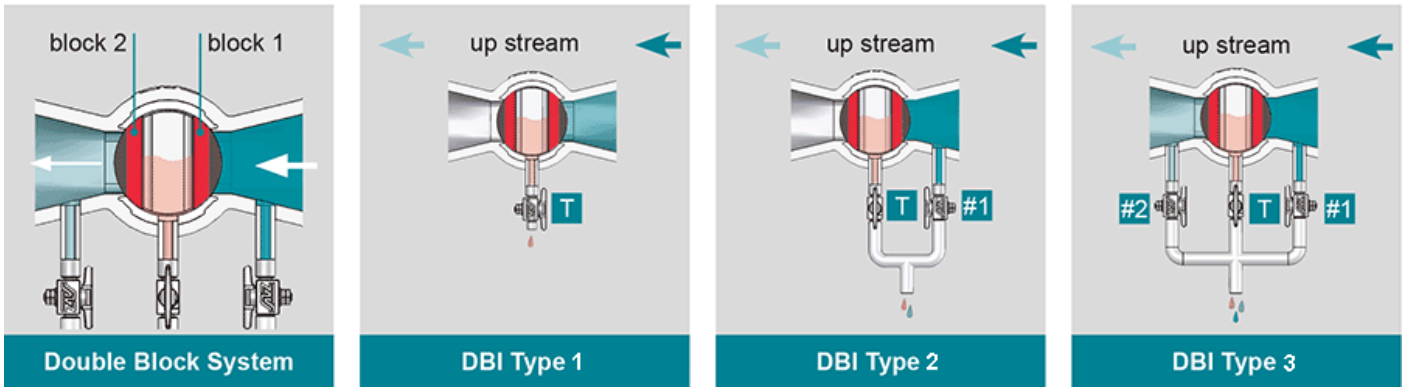


## Design Features

### Design Characteristics

- PTFE-sleeved plug for large sealing surface - reliable and tight
- "double block & bleed" possible with only one valve
- suitable for critical service
- long durability - adjustable plug
- outlet positions customized
- cost saving compared to 2 valve system
- alternative to traditional "lift and turn" plug valves
- Firesafe acc. to API 607 / ISO 10497 (only externally)
- TA - Luft approval

### Sample applications



### Type 1

Bleed valve for testing the tightness of closed valve

### Type 2

Bleed valve for testing the tightness of closed valve

Inspection valve "#1" upstream for inspection and revision services

### Type 3

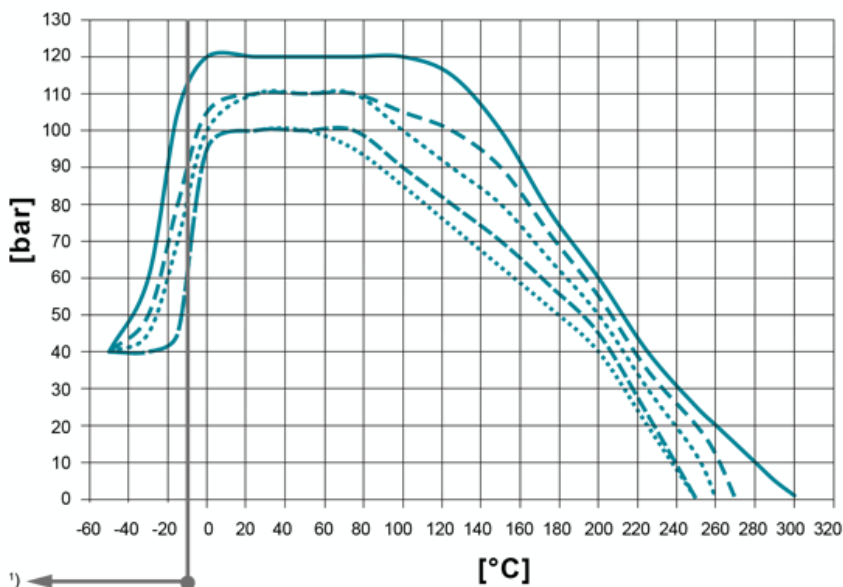
Bleed valve for testing the tightness of closed valve

Inspection valve "#1" upstream for inspection and revision services

Inspection valve "#2" downstream for inspection and revision services

## PT-Diagram

General Pressure-Temperature-Diagram



### Sleeve materials (limitations acc. PT-Diagram)

PTFE (virgin)*	T <sub>max</sub> 230°C
PTFE (glass)*:	T <sub>max</sub> 230°C
TFM*:	T <sub>max</sub> 250°C
PTFE graphite:	T <sub>max</sub> 250°C
special PTFE "P":	T <sub>max</sub> 280°C

\*) FDA conformity

### Sleeve \*)

.....	PTFE (virgin)
-----	PTFE (glass)
.....	TFM
-----	PTFE graphite
————	PTFE "P"

Operating temperatures < -30°C and > 220 °C have to be checked and approved by AZ according to

## the operating conditions.

Besides the P/T value of the sleeve the limitations of the valve bodies also have to be considered. Please refer to the EN 12516-1 resp. ASME B16.34 in order to choose a proper pressure rating (PN/class). The shown values refer to austenitic stainless steel 1.4408 (A351 Gr. CF8M).

- 1) For operating temperatures below -10°C low temperature / austenitic steels are required.
- 2) Sleeve: There are different sleeve materials / compounds available.

## Materials

### Standard body materials

- Carbon Steel 1.0619, ASTM A216 WCB
- Stainless Steel 1.4408, ASTM A351 CF8M
- Stainless Steel 1.4308, ASTM A351 CF8
- Unalloyed stainless steel casting (low Temp.) 1.1138, LCC/LCB/A352

### Standard plug materials

- Stainless Steel 1.4408, ASTM A351 CF8M
- Stainless Steel 1.4308, ASTM A351 CF8

### Special materials

- Alloy
- Monel
- Nickel
- Zirconium
- Titan
- Tantal
- other materials on request

## Sealing Systems

Standard sealing for all major applications;

Tmax 230°C

### Type STD

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Firesafe safety sealing (API 607) for fluctuating temperatures

with 3x graphite packing (adjustable) for additional stem sealing; Tmax 280°C

### Type FSN

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Firesafe sealing (API 607) with graphite packing for additional stem sealing; Tmax 230°C

### Type FS

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Chemical sealing to prevent fugitive emission of aggressive and toxic media with PTFE packing for additional stem sealing;

T<sub>max</sub> 230°C

### Type CA

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Firesafe safety sealing (API 607) for fluctuating temperatures with 3x graphite packing (live loaded disc springs) for additional stem sealing; Tmax 280°C

### Type FSN-SL

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Chemical safety sealing for fluctuating temperatures with 3x PTFE packing (adjustment) for additional stem sealing;

Tmax 230°C

### Type CASN

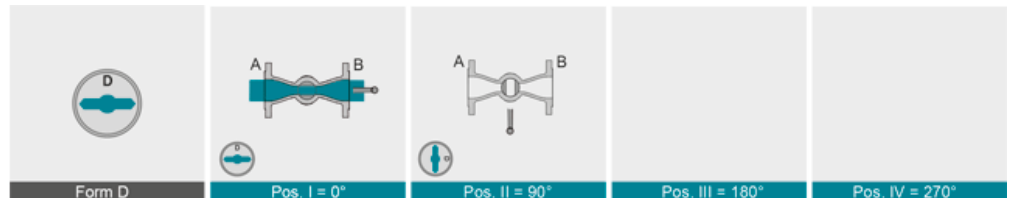
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Chemical safety sealing for fluctuation temperatures with 3x PTFE packing (live loaded disc springs) for additional stem sealing; Tmax 230°C

### Type CASN-SL

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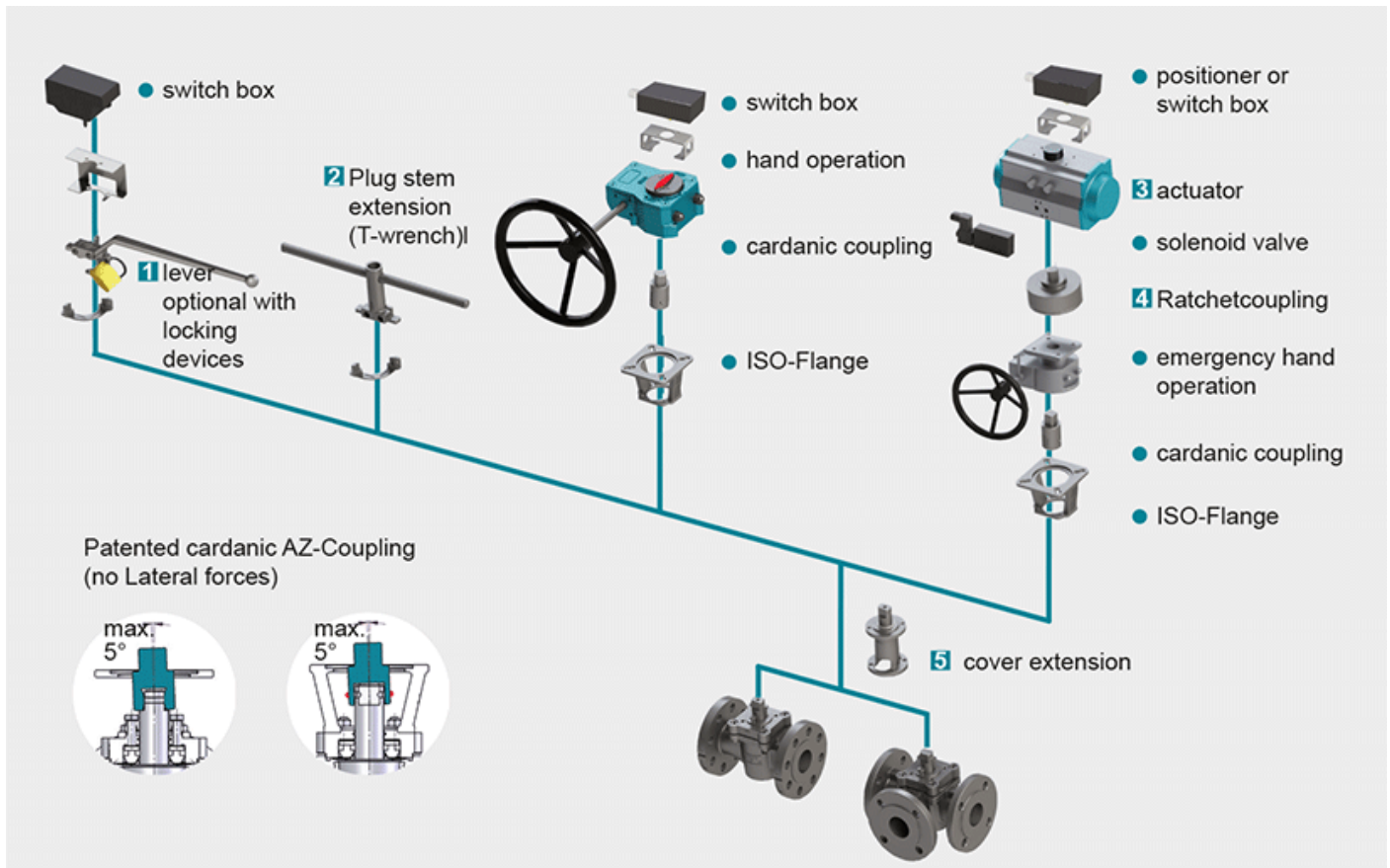
## Port Forms



## Dimensions

The valve type DBI is available in all common sizes acc. to DIN / ASME

## Actuation



### 1 Locking Devices

Pilot valve combinations, pad lock eyelets, linear key conception, indexing plunger arrestor.  
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### 2 Plug stem extension

Solid construction in stainless steel with T-wrench, Standard extension 100 mm or 150 mm, non standard lengths are available on request  
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### 3 Actuators

Actuators for mounting-flange acc. to DIN ISO 5211  
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NEW: Pneumatic actuator AIR GEAR for plug valves with high torque  $\geq 150.000$  Nm  
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### 4 Ratched coupling

To usw on multiport valves with standard 90° actuator for bigger switchpositions than 90°  
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### 5 Cover extension

Solid construction in stainless steel, Standard extension 100 mm or 150 mm high, non standard lengths are available on request . Hexagonal bolts on adjustment ring freely accessible. Note: Don't use with sealing FSN/FSN-SL and CASN/CASN-SL  
[read more \[...\]](#)