

# DBI

## Plug Valve Double Block & Bleed Inspection

- “double block & bleed” with only one valve
- reliable and tight

DN 25 - 600 / PN 10-40  
NPS 1 - 24 / Class 150-300



Reliably Working for our Customers

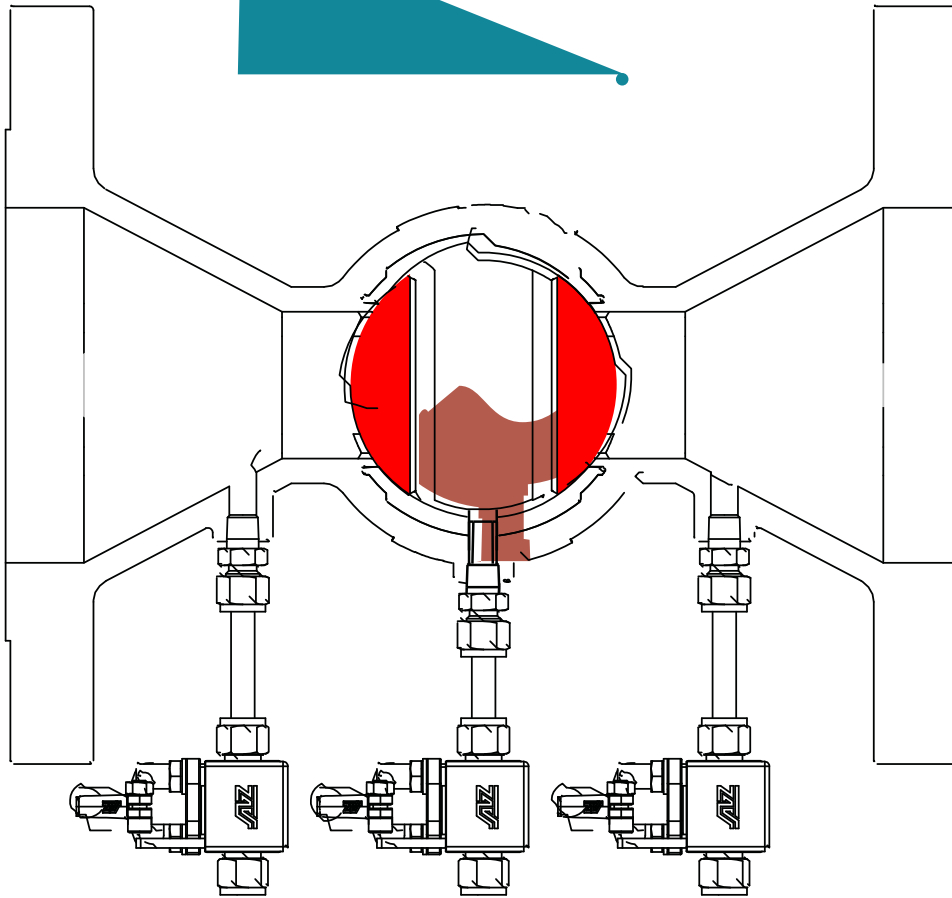
### Media

Oil & Gas • Refinery • Desulfurization • Chlorine oxide ClO<sub>2</sub>

## Functional Principle

Block 2

Block 1



Inspection  
valve II

Bleed  
valve

Inspection  
valve I

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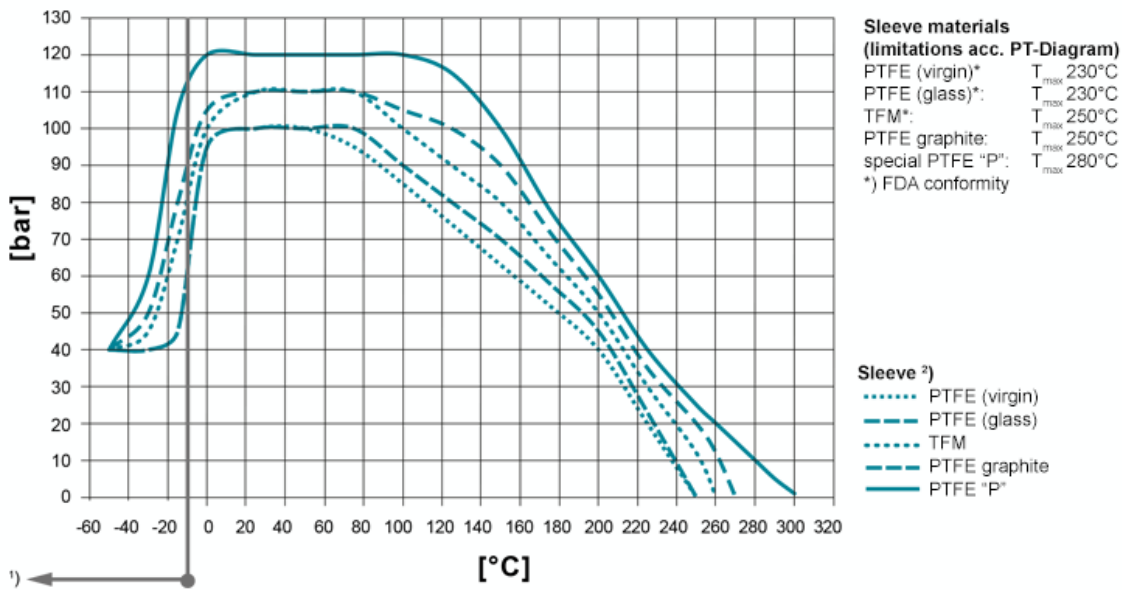
## Design Features

### 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

## PT-Diagram

General Pressure-Temperature-Diagram



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

### Type FS

[read more \[...\]](#)

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 (adjustable) for additional stem sealing; Tmax 280°C

### Type FSN

[read more \[...\]](#)

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

[read more \[...\]](#)

Chemical safety sealing for fluctuating temperatures with 3x PTFE packing (adjustment) for additional stem sealing;  
Tmax 230°C

### Type CASN

[read more \[...\]](#)

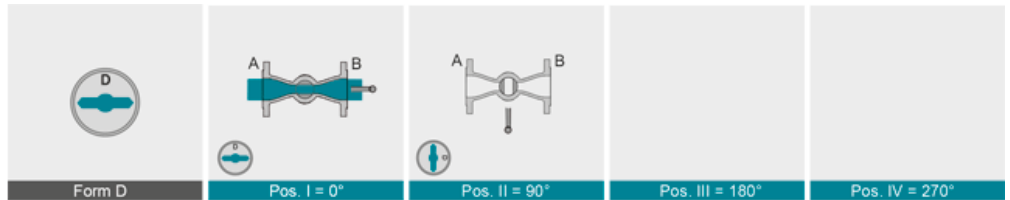
Chemical safety sealing for fluctuation temperatures with 3x PTFE packing (live loaded disc springs) for additional stem sealing; Tmax 230°C

### Type CASN-SL

[read more \[...\]](#)

## Port Forms

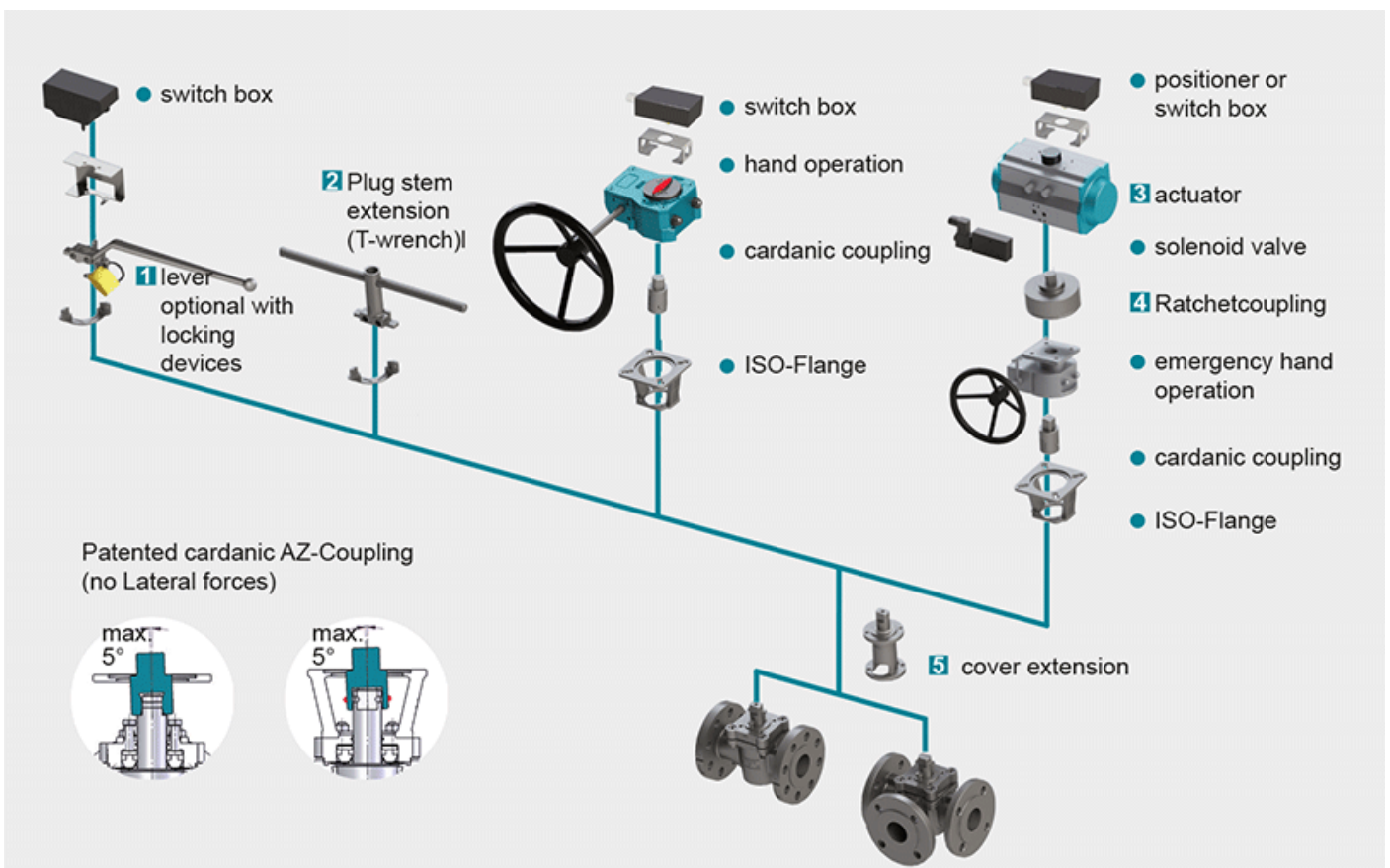




## Dimensions

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.  
read more [...]

### 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

[read more \[...\]](#)

### **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 =150.000 Nm

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### **4 Ratched coupling**

To use on multiport valves with standard 90° actuator for bigger switchpositions than 90°

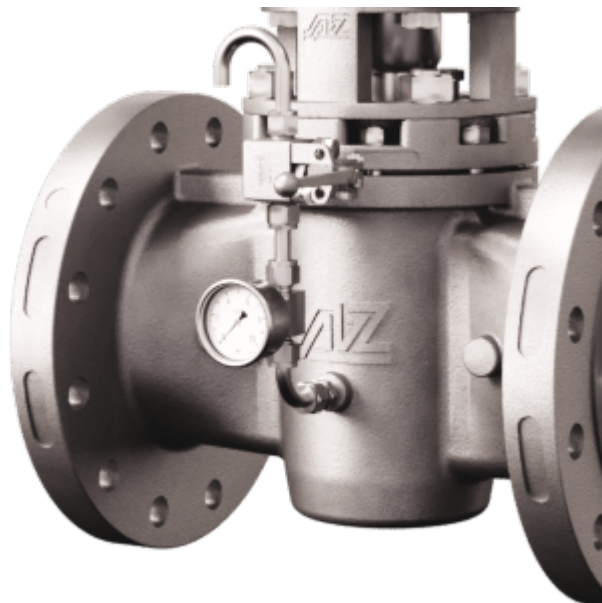
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### **5 Cover extension**

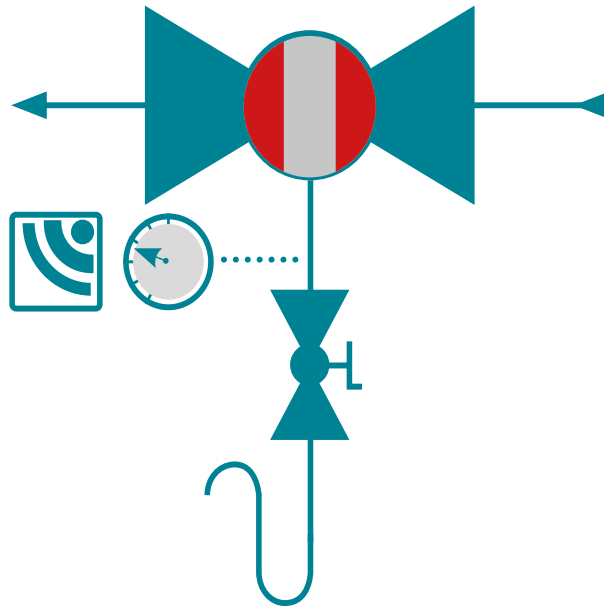
Solid construction in stainless steel, Standard extension 100 mm or 150 mm high, non standard lengths are available on request . Hexagonal bolts on adjustment ring freely accessible. Note: Don't use with sealing FSN/FSN-SL and CASN/CASN-SL

[read more \[...\]](#)

## **Product Range**



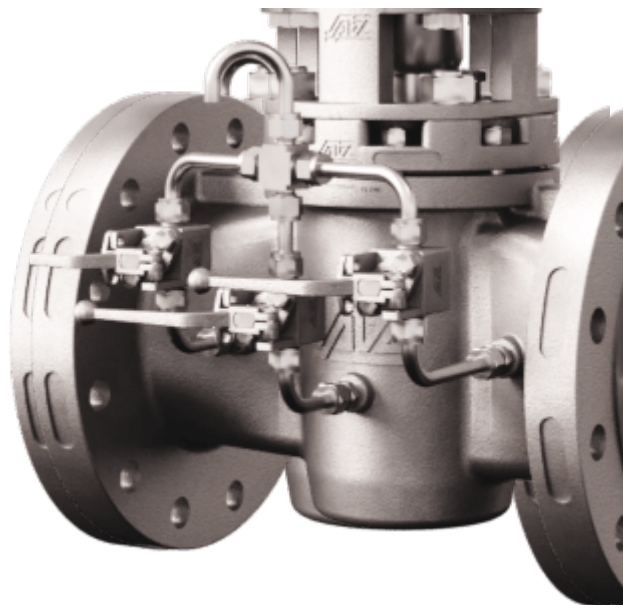
**DBI-B**

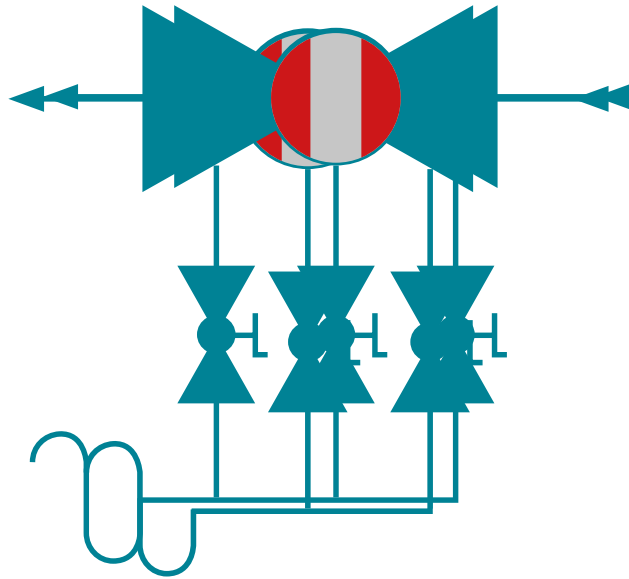


- bleed valve to check tightness when main valve is closed
- bleed outlet standard with “goose neck” pipe

Accessories:

- bleed outlet standard with “goose neck” pipe
- pressure transmitter
- valve automation
- locking device

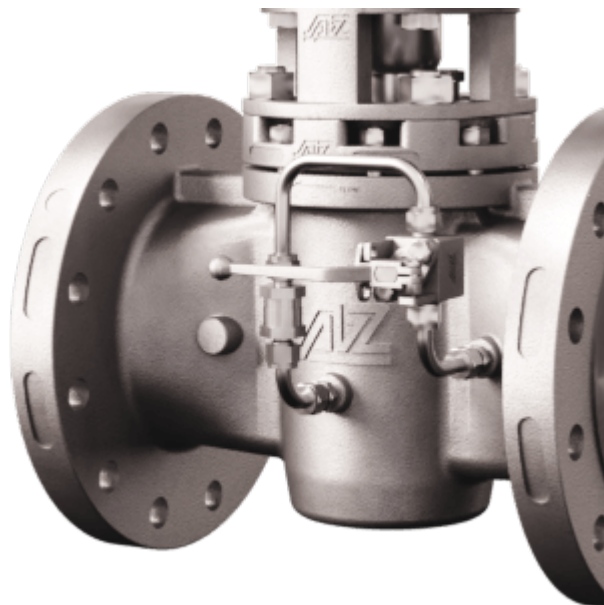




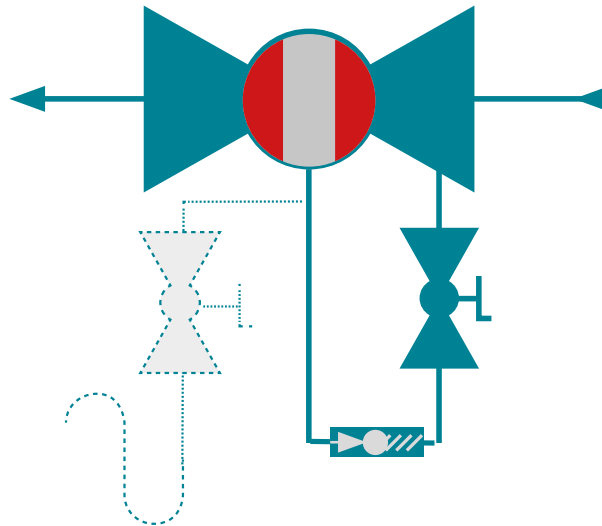
- bleed valve to check if high pressure remains in valve is closed
- inspection valve for inspection and revision services

Accessories:

- manometer/pressure gauge
- pressure transmitter
- valve automation
- locking device



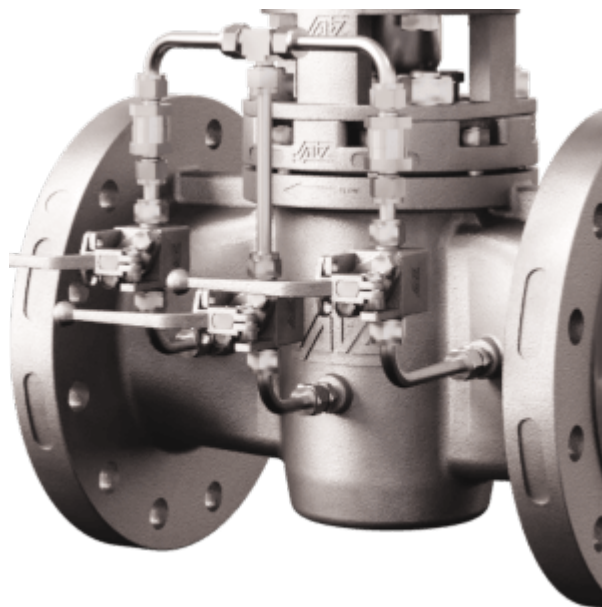
**DBI-TR1**



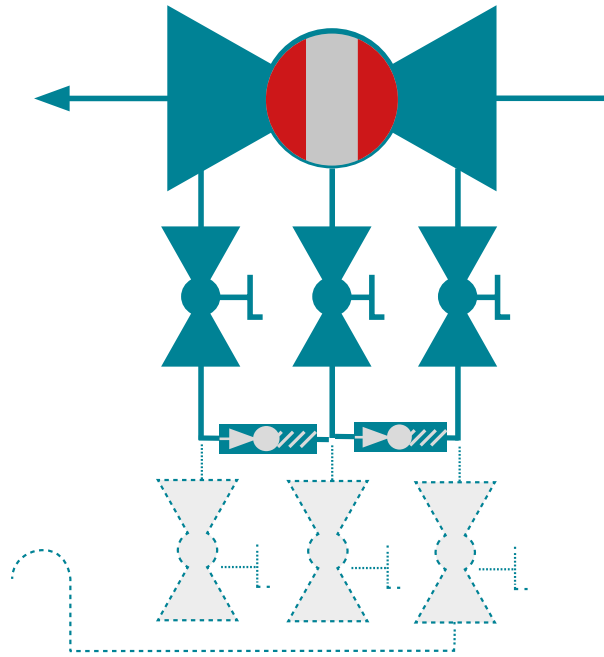
- thermal relief system to prevent pressure build-up due to thermal expansion in the plug
- isolation valve in case of service

Accessories:

- bleed valve
- manometer/pressure gauge
- pressure transmitter
- valve automation
- locking device



**DBI-TR2**



- thermal relief system to prevent pressure build-up due to thermal expansion in the plug and downstream pipeline
- isolation valves in case of service

Accessories:

- bleed valves
- inspection valves
- manometer/pressure gauge
- pressure transmitter
- valve automation
- locking device