

**DOUBLE BLOCK AND BLEED  
DUAL EXPANDING  
PLUG VALVE**



**On/Off non-lubricated plug valve**

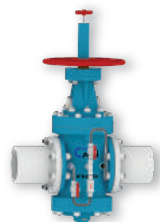
**Provable zero leakage**

Size	1" ~ 42" (up to unlimited)
Bore	Reduced or full (piggable)
Pressure	150# ~ 2500#
Temperature	-196°C ~ 250°C
Connections	Wide choice on request
Materials	Wide choice on request



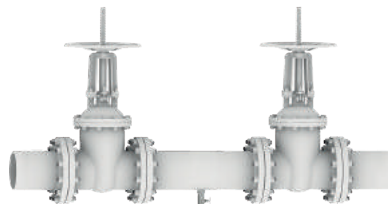
**GENERAL INFORMATION**

Single valve solution



Bleed system

Block valve



Bleed valve

- Less space required
- Less weight
- Shorter drain times
- One actuator instead of two

**Characteristics:**

- 100% tight shut off
- Friction-free opening and closing
- Pressure relief function
- Soft sealing
- In-line service
- Vertical or horizontal installation
- Wide choice of bleed systems

**APPLICATIONS**

**Airport fueling systems**

For safe isolation of fuel hydrants  
Salalah International Airport, Abu Dhabi International Airport, Schiphol Airport

**Metering systems for gas and oil**

For precise calibration of the flow meters  
FPSO OSX2 Petrobras, NMI Euroloops, Ras Tanura Saudi Aramco

**Tank storage**

For preventing loss and contamination  
Odfjell Terminal, Rotterdam Shell, Jazan Bulk Plant

**Fuel loading services**

For safe and reliable shutoff at rail, truck and ship loading manifolds  
Port of Gothenburg

**Multi-product manifolds**

For protection against contamination  
Cheonan Depot, Kingsbury and Blisworth

**Transport pipelines**

For elimination of frequent maintenance  
Thapline, Srirarcha Sanaburi pipeline

**Hydrocarbon services**

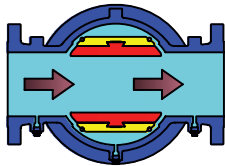
For safe and reliable shutoff  
Shell Pernis

**And many more...**

## HOW DBBV WORKS

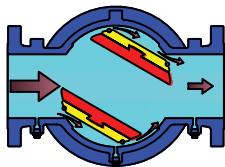
### Open

Valve is in fully open position. The slips (yellow) and seals are completely out of the flow.



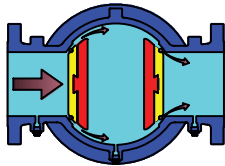
### Start to close

Plug (red) is rotating 90° to block flow. There is no contact between body and seals attached to the slips. No abrasion of the seals can occur. Non-friction design requires less torque to cycle.



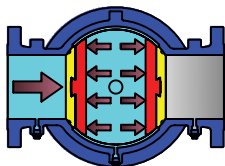
### Expanding

Plug / slips have rotated 90°. Plug starts expanding slips against body seating area without any rotational movement. Plug / slip assembly is kept centred in body by top and bottom bushings.

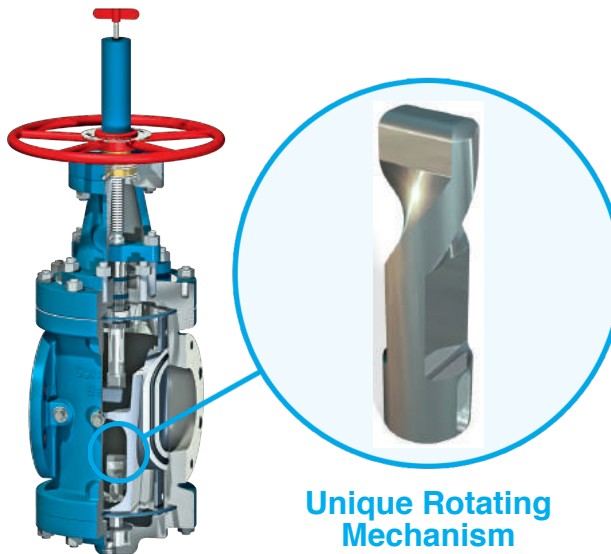


### Double Block and Bleed

Valve seated. Resilient seals have been compressed. Resilient seals cannot be damaged by operator over-torque. Zero leakage can be proved by bleed system.



## CONTROL SEAL BENEFITS



**Unique Rotating Mechanism**

### Fast Opening and Closing

Due to strong metal rotating mechanism

### Maintenance friendly

Due to self-lubricating rotating mechanism inside valve

### Less spare parts needed

Due to less moving parts

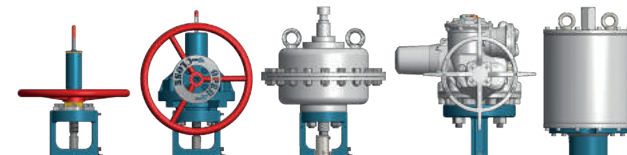
**Stemguides and gland packings can be adjusted while the valve is in service.**

**Top and bottom service entry for slips exchange**

## CUSTOMER REQUIREMENTS

### Produced project by project based on customer requirements:

- Valves can be supplied in a variety of materials and are also available in accordance with DIN standards
- Valves can be supplied with a variety of sealing materials, including Viton A, FFKM or even PTFE
- Stem extensions and gas column for cryogenic service
- Valves can be adjusted for underground service
- Valves can be supplied with handwheel, gearbox, electric actuator, pneumatic actuator, hydraulic actuator or any other actuation requested



- Various bleed systems based on request  
Automatic body bleed, Manual bleed valve, Thermal relief upstream, Manual bleed and thermal relief, and more...



## DESIGN STANDARDS

Design	API 6D, ASME B16.34
Face to Face dimensions	API 6D, ASME B16.10, B16.47
Flanges	ASME B16.5, B16.25
Fire Safe	ISO 10497, API 6FA, BS 6755
Fugitive Emission	ISO 15848, TÜV, Shell MESG SPE 77-312
Testing	API 598
Marking	CE, MSS-SP-25
Topworks	ISO 5210



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