

Goggle Valves

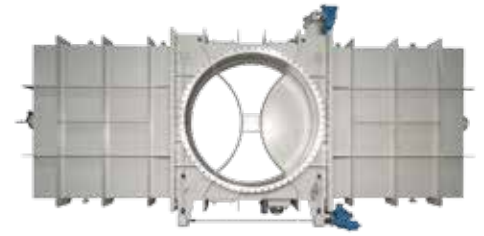


*Engineering
GREAT Solutions*

Man-safe slide valves

Goggle Valves

IMI TH Jansen Goggle Valves are typically used for gaseous media, even with high dust content. Our valves comply with safety regulations for man-safe shut-off devices, which in a closed position must positively prevent the ingress of toxic gas into accessible ducts for maintenance or inspection purposes. Even in the event of a leakage the gas can either escape to the atmosphere (open design) or is collected in the hoods of the enclosure and can be safely extracted (enclosed design).



Open or enclosed designs available

Key features

- > Sealing system
 - A clamping sleeve with an integrated expansion joint is bolted into the body and is moved in an axial direction to release the valve plate consisting of goggle and blind. After traversing, the valve plate is clamped between the sealing surfaces of the clamping sleeve and the opposite body surface and is sealed by elastic seals inserted into grooves on the sealing faces of goggle and blind.
 - Different sealing materials are used according to the operating temperature and medium, from elastomeric seals (e.g. CR, FKM/FPM, VMQ) to encased fibre gaskets and sealing systems consisting of a soft sealing material with an additional metallic seal (Morton edge).
- > Actuation
 - On all IMI TH Jansen Goggle Valves, the actuation sequence of clamping and unclamping the valve plate is achieved by two independent actuating systems: one system for the clamping sleeve and a separate system for traversing the valve plate.
 - Hand and chain wheels, electric or hydraulic systems available.
 - Electric control cabinets for automatic operation as well as hydraulic units are available.
- > Comply with the appropriate safety regulations
- > Open or enclosed design
- > Three different duct installation positions have been developed.



For use in petrochemical and iron & steel industries

Benefits

- > Refined sealing system
- > Successfully used world-wide
- > Automated and simplified operating sequence without compromising safety principles
- > Can be built to accommodate various operating temperatures
- > Choice of actuation to suit your needs
- > Variety of duct installation positions to fit specific customer needs.



Site installation of an open type Goggle Valve

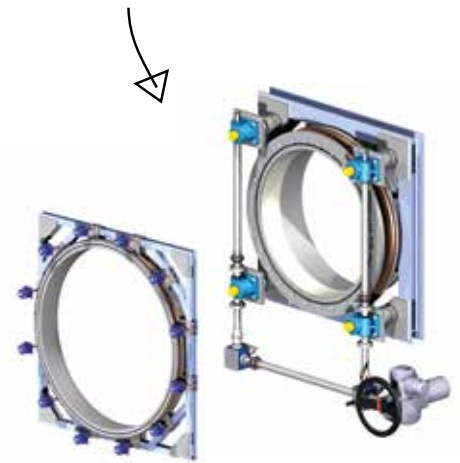
Clamping & unclamping

The actuating system for clamping and unclamping is available in either a mechanical or hydraulic version.

- > Hydraulic version-type 320
 - The clamping of the clamping sleeve is carried out by a series of hydraulic jacks evenly arranged around the circumference. Cup springs integrated in the jacks generate the clamping movement whilst compensating for pipe loads

- > Mechanical version-type 310
 - Four capsuled jacking elements are connected via bevel gears to give a synchronised operation and guarantee a smooth movement during clamping and unclamping. Cup spring couplings ensure the compensation of pipe loads arising from temperature changes in the line.

Mechanical or hydraulic actuating system

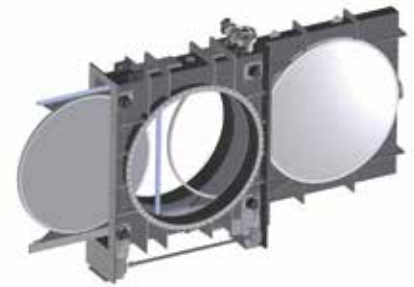


Movement of the valve plate

Three different duct installation positions are possible in relation to the way the actuation system moves the valve plate

- > Vertical duct - horizontal movement of the valve plate
 - Two gear wheels mounted on a common shaft move the valve plate by means of rollers via two toothed racks.
- > Horizontal duct - horizontal movement of the valve plate
 - A gear wheel moves the valve plate by means of rollers via a toothed rack.

- > Horizontal duct - vertical movement of the valve plate
 - Two roller chain wheels mounted on a common shaft move the valve plate vertically. The weight of the goggle and blind is compensated by a counter weight.



Specialised solutions

- > Swing type goggle valve
 - The Swing Type Goggle Valve achieves the movement of the valve plate not by a linear movement but by a rotation around an axis. Where there is limited space this valve offers the advantage of a relatively slight horizontal overhang when compared to the standard design. All versions and actuation types of the Goggle Valve are available. A range of nominal diameters of DN 400 up to DN 2600 is available with other nominal diameters on request.

- > Schmidt's Spectacles
 - The Schmidt's Spectacles are a simple, manually operated and low-priced version used in the case of infrequent operation. Both body halves are released by loosening toggle clamping bolts or hexagonal clamping nuts, allowing the blind to be brought into the required position. The expansion occurring during changeover is best taken up by means of an expansion joint. A range of nominal diameters of DN 100 up to DN 1200 is available with other nominal diameters on request.



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