

Piston valve / Emergency Dump Valve

Type : 605N

From DN 80 to DN 250 – PN 20 to PN250

- Fabricated (welded)
- Carbon steel, Stainless steel
- Crust breaking action
- Pneumatic, electric actuator



Functions – Piston valve

- Tank or reactor bottom outlet valve
- Feeding valve : side mounted or upright
- Sampling or injection valve : at tank bottom or laterally / on a section of piping
- Walls cleaning by spraying or streaming : installed on reactor dome
- In-line stop valve, no dead areas

Piston Diverter valve

Type : 604N

From DN 80 to DN 250 – PN 20 to PN250

- Cast, Fabricated (welded)
- Carbon steel, Stainless steel
- Handwheel, electric actuator
- Tri clamp ends



No dead space, particularly suitable for high viscosity and polymerizing fluids

DN 15 to DN 250

1/2" to 10"

PN 10 to PN 420 acc. to size

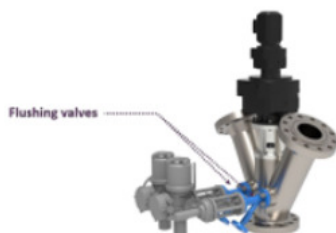
150 to 2500 lbs. acc. to DN

Piston valve/ Flush water valve DN 25 flanged

Type : 605N

DN 25

- Cast construction
- Cast, Fabricated (welded)
- Carbon steel, Stainless steel
- 2xflush / cleaning injection valves nozzles connected to Diverter valve
- T-piece (spool piece)
- Handwheel, electric actuator
- Flush & Dissolve residual paste into the valve body



Uses

- Service conditions:** High pressure, Abrasion, Corrosion, Reliability, Dead space free
- Types of fluids:** Liquids, Liquids with solid particles, Powder and powdery media, High viscosity fluids

Construction

- Construction materials:** Carbon Steel (CS), Stainless Steel (SS), Duplex & Super Duplex, Titanium, Zirconium, Uranus® B6, Tantalum, Nickel, Hastelloy®, Monel
- Construction methods:** Fabricated (Welded), Cast, Solid

Mining operation consists of extracting the underground backfill to be sent to the surface, leaving some empty spaces/chambers, which must be filled. To that end, an underground piping connected to a cement plant to the surface supplies the cavities with cement to plug the wall or completely fill empty spaces and avoid collapse. This operation is performed through a pump gravity system. One of the major concerns for the mine operators is to ensure the proper distribution of this cemented paste all along the underground piping. The piping cleaning is essential to avoid cement clogging and erosion. It is performed with high pressure water., The extreme operating conditions of this process (plug/viscous, abrasive fluid and high pressure (gravity) require some robust, adapted and custom-made equipment (valves and pipes). Guichon valves designs and manufactures special valves meeting mining operations issues, such as tank bottom valves, piston valves, multiway, filling and safety valves, rinsing valves.

Piston valve



Sealing system

- ◆ Conical metal-to-metal piston seating
- ◆ Radial soft seating with packing, O'ring, etc.

Operation

Handwheel or crank according to size, handle + return spring (dead man handle), double acting pneumatic actuator, single acting pneumatic actuator (acc. to DN, Class and/or stroke), hydraulic actuator, electric actuator, air cylinder.

Closing device

piston with conical seating, straight piston

DN 15 to DN 250

1/2" to 10"

PN 10 to PN 420 acc.
to size

150 to 2500 Lbs acc.
to DN

Options – Piston valve

- adaptation to any type of connection
- [contoured piston to match the tank or line profile \(no dead area\)](#)
- crust breaking function
- hard faced seating surfaces according to media and/or pressure
- vacuum tight
- firesafe design
- [heating jacket](#)
- FDA grade gaskets and packings
- [leak detector at stuffing box](#)
- [interchangeable seat](#)
- inside and/or outside polishing
- additional draining and/or cleaning nozzles
- [stroke limit or proximity switches](#)
- manual override for pneumatic actuator
- dry air actuator
- stainless steel pneumatic actuator
- pneumatic actuator with stroke damper if trip time > 50 mm/s
- actuator locking system (safety)
- manual operator with locking mechanism
- chain handwheel
- manual operator extension, if required with cardans
- manual operator mounted on ISO base for later adaptation of actuator
- [electric actuator with local/remote controls](#)

CAUTION : some options are not compatible

Specialty Valve Paste Backfill Processing



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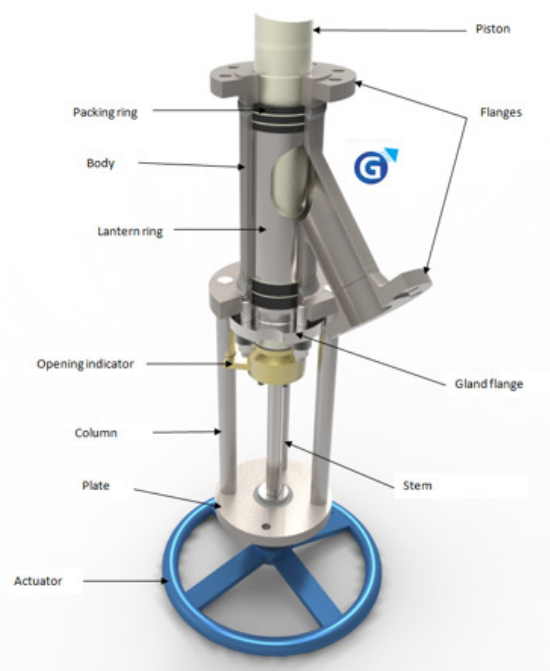


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Operating principle – Piston valve

- Shutter : Right Piston and polished ([stellite](#) in option)
- Process/Atmosphere sealing with stuffing box (repackable in service)
- Full bore
- Low pressure drop



For more information about the Guichon benefits, please contact your local Chess Controls Representative at 705 682 2828 or by email at sales@chesscontrols.com