

SPHERICAL VALVES



VORTEX HYDRA
innovation & engineering

since 1967



Your reliable partner for
**HYDRAULIC
WORKS**



COMPONENT	OFFERED MATERIAL
Valve body	Carbon Steel type S355J2 (or equivalent)
Valve shutter	Carbon Steel type S355J2 (or equivalent)
Disc trunnions	Stainless Steel or Carbon Steel with a stainless steel overlay
Bearings	Self lubricated type
Fix seat ring	Stainless Steel
Movable seat ring	Stainless Steel (of different hardness compared to the fix seat ring)
Other structural parts	Carbon Steel type S355J2 (or equivalent)
Internal bolts and nuts	Stainless Steel type A2-70 (or equivalent)
Structural bolts	Class 8.8, 10.9 or 12.9

FLEXIBLE AND CUSTOM MADE DESIGN SOLUTIONS

- The valve dimensions can be adapted to fit with the existing site conditions;
- The valve body and shutter can be made of welded steel or forged steel, depending on the nominal pressure of the valve;

VERSATILE OPERATING SYSTEM.

#1 or #2 hydraulic cylinders which could be

- A) single action:** opening by pressurized oil, closing by counterweight;
- B) double action:** opening and closing by pressurized oil or by penstock's water;
- C) double action:** opening by pressurized oil, closing by penstock's water.

LOW HEAD LOSSES

- the valve in the open position has approximately the same head losses as would occur in an equivalent length of pipe.

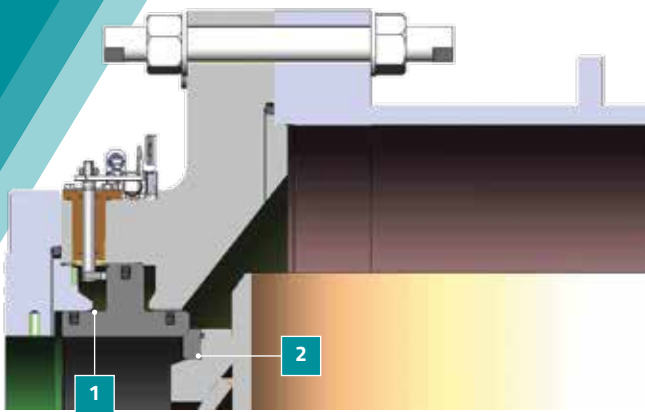


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MOVABLE SEAL DETAIL

DOUBLE SEALING SYSTEM

- the valve is equipped by a Service Sealing system and a Maintenance Sealing system, both made by a mobile seal ring, housed in the valve's body, that closes against a counter-seat ring bolted on the valve's shutter;
- the Service and Maintenance Sealing system re-operated by penstock pressurized water, properly controlled by a dedicated Water control Circuit;
- both seal **1** and seat **2** ring are made of stainless steel with different grade of hardness.
- optionally the Maintenance seal can be mechanically lockable.

POSSIBILITY TO SUPPLY A FULL SET OF ACCESSORIES

- Bypass system;
- Upstream connection pipe;
- Dismantling joint;
- Water control Circuit;
- Hydraulic Power unit;
- Electrical Cabinet;
- Original Spare Parts.

All construction phases, from design to testing, are carried out by Vortex Hydra in compliance with the UNI EN ISO 9001 Quality Management System.

Vortex Hydra has manufactured Spherical valves with Nominal Diameter up to 2700 mm.



UNI EN ISO 9001:2015
UNI EN ISO 14001:2015



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Technology for
**CONCRETE
PRODUCTS**



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VORTEX HYDRA S.R.L. ITALY • Via Argine Volano 355 • 44034 Fossalta di Copparo (FE) ITALY
+39 0532 879411 • f. +39 0532 866766 • vh.sales@vortexhydra.com

www.vortexhydra.com