NENCINI®
CUSTOM-MADE WATERWORKS VALVES

A member
of OMB Valves
Group

AXIAL CONTROL VALVE

Established since 1967, **Nencini** has over fifty years of design and manufacturing experience. As a result, Nencini can accomplish any job efficiently and effectively Research and Development is an important part of the company strategy and we pride ourselves in our ability to provide modern and effective design solutions with our fully customizable valves. Our experience covers the complete range of hydraulic valves and structures, i.e. flow control valves, on/off and safety valves, automatic valves, discharge valves, penstocks, radial gates, slide gates for high pressure outlets, stop logs, etc.

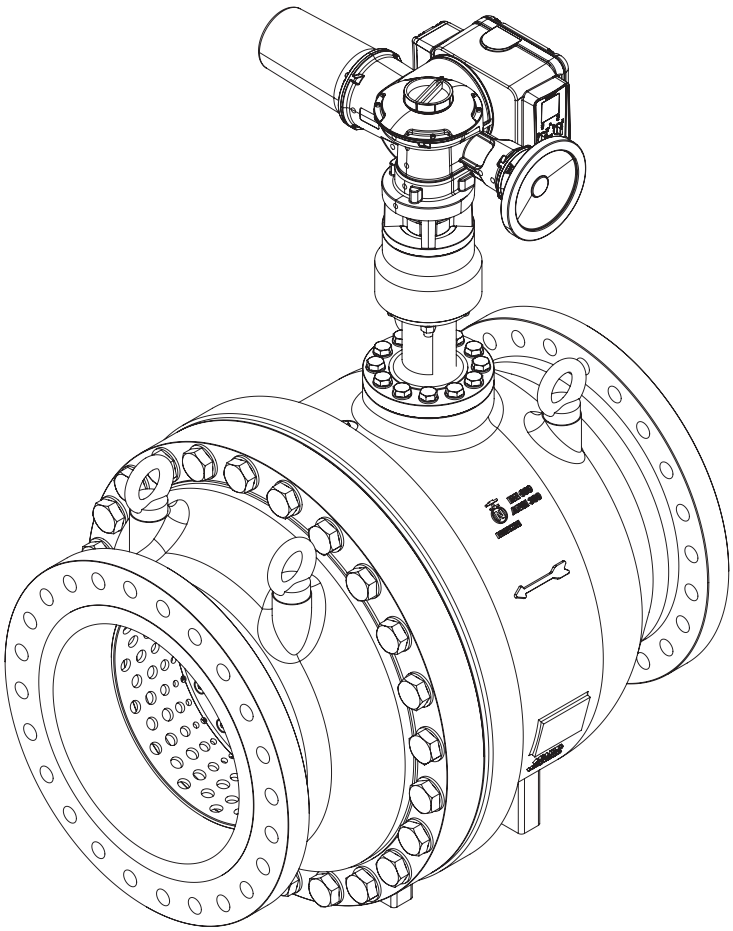
AXIAL CONTROL VALVE

The control valve axial type is a flow/pressure control valve that does not restrict the cross-sectional area and does not change the flow direction. It retains the streamlined symmetrical flow path throughout the whole valve.

The advantages of this valve style, when compared to different control valve types (e.g. globe, ball, etc.), is a lower turbulence and noise level, no vibration and erosion, a very fine and accurate flow control and an extremely high dissipation capacity.

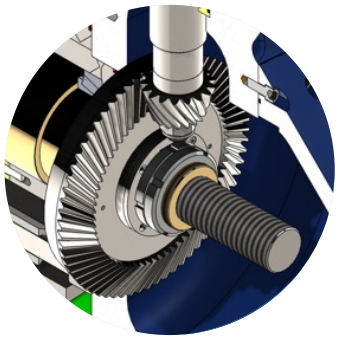
Nencini has been designing and manufacturing the axial control valve for more than fifty years, supplying them all over the world, delivering world-leading performance even under the most stringent conditions.

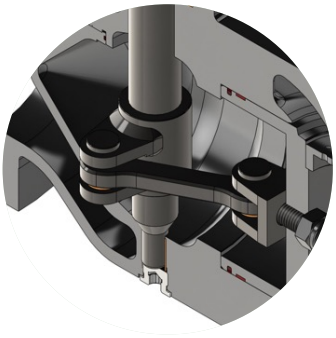
Our axial control valve design is evolutionary and a direct result of our know-how due to decades of experience. For this reason, choosing a Nencini axial control valve will give you the confidence of real world proven reliability and performance.



⊕ OPERATIVE PRINCIPLE AND ACTUATION

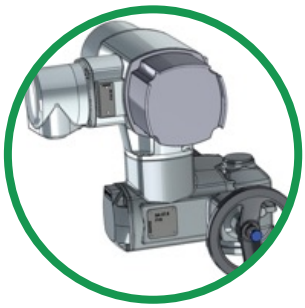
In most cases the shutter of the Nencini axial control valve is driven by an internal gear coupling connected with an external multi-turn unit; the result is a flow control valve that can perform very fine regulation with sensitive flow control, even with very small opening grade variations.

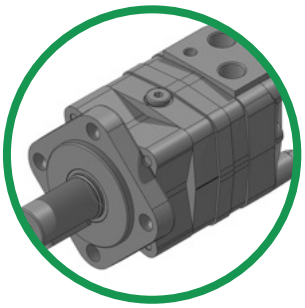




For projects where very quick control and / or emergency operation is required, the valve shutter can be controlled by an internal lever coupling connected with an external partial turn unit (usually less than 60°).

The valve is typically actuated by a manual gear box or by an electric actuator. Depending on the internal coupling the actuation can also be achieved by a hydraulic piston, electro-hydraulic actuator and by actuation with emergency automatic safe closing (or opening) operation.



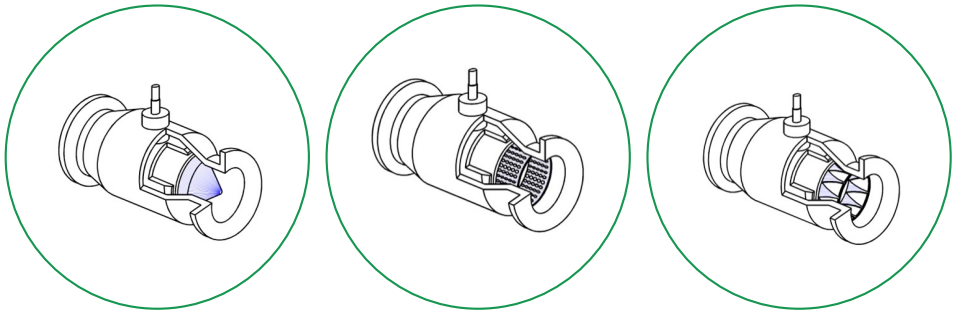


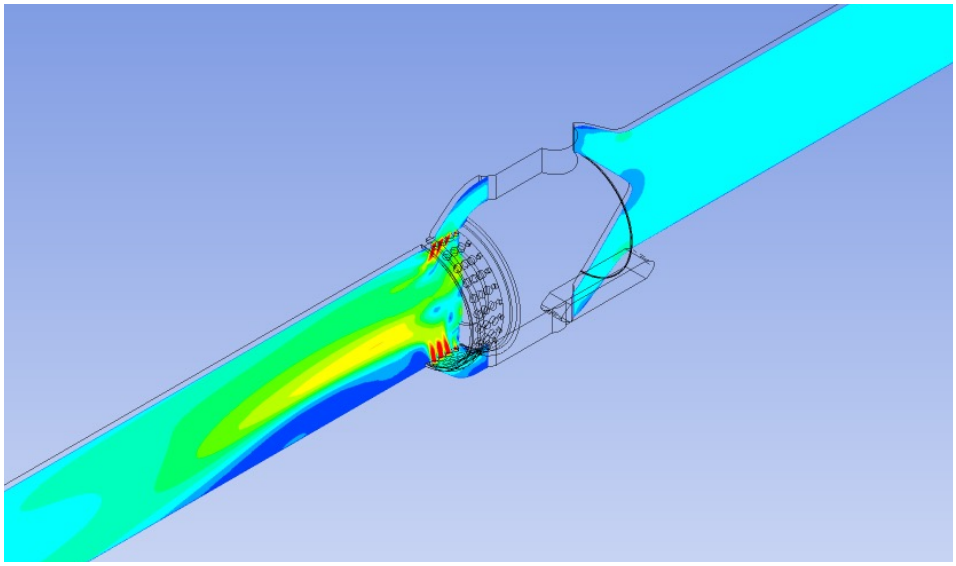
These types of actuation can be easily interlocked with a Nencini control panel, enabling automatic regulation, locally and remotely.

⊕ VALVE PERFORMANCES

Nencini axial control valves belong to the highest tightness class (API 6D Cl.5) and are of the metal-to-metal type. This results in a design of the valve that can be hermetically closed, without degradation over time, such that it's maintenance free and over the entire lifetime its tightness is assured;

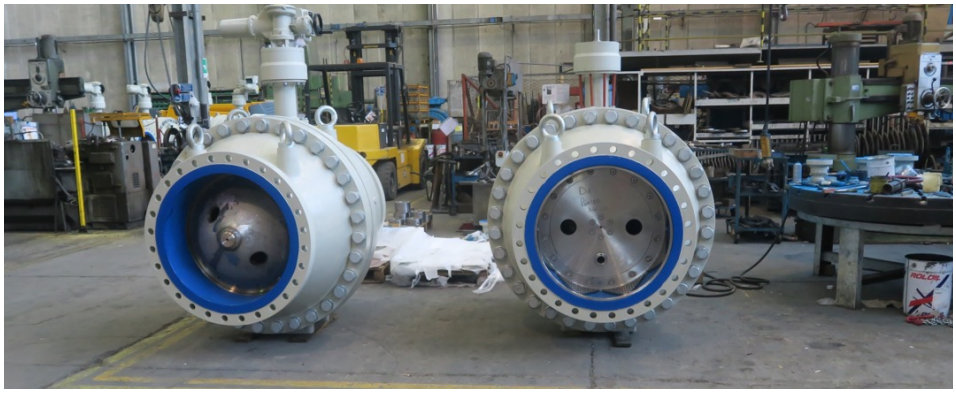
Different trims, by multi-orifice device, are available and selected to best match its application and the specific flow conditions. This is done to avoid vibration / cavitation and to obtain the best suitable valve operating range. Due to our extensive experience, Nencini can always design a customized trim style for critical applications.





Due to the very high flow capacity of the axial control valve, it is possible to size the valve down, leading to reduced costs. By using a pressure balanced trim, the required torque for the opening and closing of the valve is minimized. This also allows the use of smaller and more efficient actuators.

⊕ APPLICATIONS



VALVE DN mm(inch)	PRESSURE RATING			
	PN20 (ANSI 150)	PN 50 (ANSI 300)	PN 64 (ANSI 400)	PN 100 (ANSI 600)
< 1200 (48”)	Casted	Casted	Caster	Casted
< 3200 (126”)	Welded	Welded		

Due to its design the Nencini axial control valve is perfect for main water piping systems (e.g. potable water, sea water, irrigation, treatment plant, controlled discharges, intake and distribution applications) and for oil & gas systems too.

The valve materials and the related lining and / or painting application are tailored to the project specification and clients’ requests. Moreover, the main valve body can either be casted or welded, so that the client material and dimensional requirements can always be met.

⊕ QUALITY SYSTEM

Nencini follows the international quality system standard EN ISO 9001:2015.

However, the real testimony to the quality of our products are our satisfied customers around the world for the last 50 years, including many renowned engineering consultancy companies.

Through close collaboration with our clients, we can provide support ranging from defining the system specifications to performing accurate performance analysis (e.g. Finite Element Method and Computational Fluid Dynamics) based on the project requirements.

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