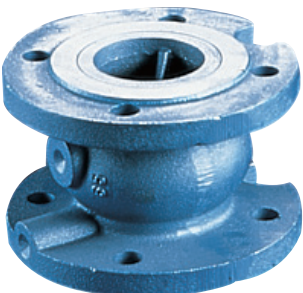





# CHECK VALVES FOR PUMP DISCHARGE



Background	Technical Data
<p>Two of the most common problems with check valves are reverse flow and water hammer. In both situations, a fast-closing valve is required. Reverse flow can be expensive, especially if it occurs at the discharge of a pump and the pump spins backwards. The cost to repair or replace the pump, plus the plant shut down time, far exceeds the cost of installing the right check valve in the first place.</p> <p>With water hammer, there is a need of fast-closing check valve to prevent pressure surges and the resulting shock waves that occur when the disc slams into the seat, sending noise, vibration, and hammering sounds that can rupture pipelines and damage equipment and pipe supports.</p> <p>These are one of numerous challenges for pump manufacturers who need to supply pumps units : optimization of energy consumption and preventing failures.</p>	<ul style="list-style-type: none"> <li>• Pressure 10 up to 25 bar</li> <li>• Horizontal / vertical operating position</li> </ul>
	<h3>Challenges</h3> <ul style="list-style-type: none"> <li>• Hydraulic efficiency</li> <li>• Reliability</li> <li>• Water tightness</li> </ul>



	Solution	Key points
	<p>The solution was found with the check valve type 402 (cast iron body : 402 ductile iron body : 402S) which addressed both problems of water hammering and tightness. The excellent tightness is achieved thanks to an EPDM flat seal insert in a machined groove located on the head of the closing system.</p> <p>Less pressure drop thanks to a hydraulic shaped body and shaped closing system.</p> <p>Short distance the closing system must travel with the spring assistance eliminate the reverse flow and therefore the forces necessary to produce water hammer are substantially reduced as a result.</p>	<ul style="list-style-type: none"> <li>✓ Expertise</li> <li>✓ Adapted product</li> <li>✓ 5 years warranty</li> </ul>
		<h3>Approvals</h3> <div style="display: flex; justify-content: space-around; align-items: center;">    </div>