

AXISYMMETRIC SHUT-OFF VALVES

Shut-off valves with axial movement of locking device are intended for automatic prevention of the working fluid backflow. They are applied to piping of compressor stations with the purpose to protect the equipment from effect of the gas backflow during emergency shutdown of gas-compressor units, as well as to prevent gas leakage in case of the pipeline depressurization. These valves operate only due to the effect of the working fluid.

Shut-off valves are intended for installation on horizontal pipelines above or under the ground. Flanged joints or welding are used for connection to the pipeline. The valves are atmospherically tight.



Climatic version YXJI1 is according to ГOCT 15150-69

Manufacture and delivery are fulfilled as per TY3742-096-34390194-2005

Working fluid is non-aggressive natural gas

Working fluid temperature is -10°C up to $+80^{\circ}\text{C}$

Rate of working fluid is not more than 15 m/s

Ambient temperature is -60°C up to $+50^{\circ}\text{C}$

Time for complete closing during rate reduction down to zero is 5 sec

Pressure drop at gas rate 10 m/s is not more than 0,01MPa

Average service life of valves is 30 years

Materials used for manufacture:

Basic components – steels 09Г2С, 20ГМЛ

Connection pipes for welding, connecting flanges – steel 09Г2С

Design characteristics:

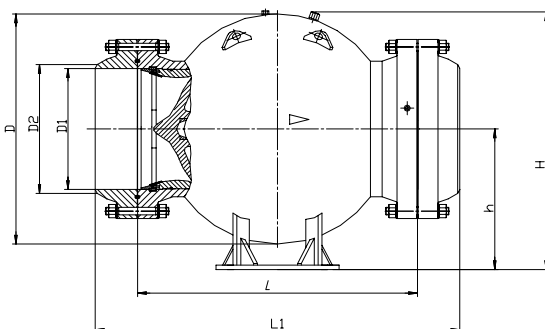
These shut-off valves are designed with axial location and translational displacement of the locking device. Their design includes damping device enabling smooth running and shock-free opening-out and closing-in of the locking device. The streamline contour of the inside running surface of the body contributes to reduction of the hydraulic friction to the working fluid flow and noise during valve operation. The design makes it possible to adjust the time of the valve closing-in.

Axisymmetric shut-off valves are highly reliable due to their shock-free operation.

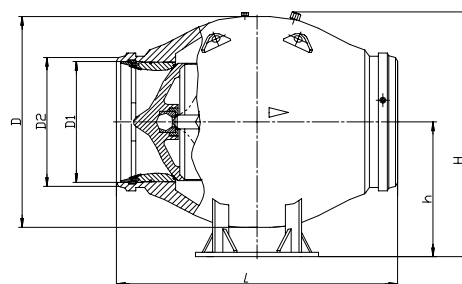
Basic performance data

Article reference designation	DN, mm	PN, MPa	Transmittance of working fluid in shut-off valve at pressure drop $\Delta P=PN$, dm^3/min , not more	Version as per type of connection to pipeline	Overall dimensions and dimensions of connecting ends for welding, mm						Weight, kg, not more	
					L	L1	D	H	h	D1		D2
ЦКБ К 41508-700	700	8,0	19,3	welded	1600	-	1200	1400	740	688	736	3170
ЦКБ К 41508-700-01				flanged joint		2100	1310	1500	800			5000
ЦКБ К 41503-700	700	10,0		welded	1600	-	1200	1400	740	688	736	3170
ЦКБ К 41503-700-01				flanged joint		2100	1310	1500	800			5000
ЦКБ К 41503-1000-04*	1000	12,5	27,6	welded	2100	-	1670	1960	1090	968	1046	7970

*Full-scale production is scheduled in 2008.



Flanged shut-off valve



Welded shut-off valve