

A particularly robust high-pressure control valve with multi-stage axial flow limitation



> Type AC, front view

> Type AC, sectional view

Product features

- Cavitation-free, multi-stage vortex plug with an axial flow direction under high pressure
- Linear characteristic curve or according to valve design
- Screwed-on housing cover
- Wear free
- Designed for extreme high pressure control and to avoid cavitation damage
- The multi-stage axial plug with vortex system operates in the axial flow direction, is extremely robust and special material combinations enable it to also be used with complex water mixtures and other media

Applications

- High-pressure control valve for the power plant and process industry as well as for offshore applications
- Also suitable as pump protection for minimum flow control
- Suitable for the control of the high pressure injection



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Technical data

Nominal diameter	DN 25-400 / NPS 1-16	
Pressure class	PN 100-640/Class 600 -4500	
Temperature (max.)	280 °C / 536 °F	
Housing material	1.0460 / A105 1.5415 1.7335 / A182F12CI.2 1.7383 / A182F22CI.3 1.4903 / A182F91 1.6368 1.4404 / A182F316L	
Housing type	Forged	
Media	Water, water mixtures	
Flanges	EN 1092-1, ASME B16.5, ISO 7005, JIS, JPI, welding ends on request	
Designs	Angle type, globe type, z-type	
Actuators	Electric, pneumatic, hydraulic	
Number of stages (max.)	8	
Number of controlled stages (max.)	8	
Operating range (max.)	1:15	



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Function

The AC valve reduces the pressure over multiple controlled stages with different cross-sectional constrictions. As a result, the pressure reduction takes place step by step without cavitation risk and independently of the stroke position. A control range below 5% is usually considered separately. Higher load ranges can also be achieved by combining other contol units (see also the combination valve type AVC).



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Sectional drawing (angle type)







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Sectional drawing (globe type)









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Sectonal drawing (z-type)









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Parts list (angle type, global type, z-type)

Pos.	Item	Material
1	Housing	*
2	Сар	*
2.1	Bushing	1.4404
3	O-Ring	**
3.1	O-Ring	**
3.1	Glyd ring	**
3.2	O-Ring	**
4	Vortex bushing	1.4122
4.1	Ring	1.4122
5	Valve body	1.4122
6	Valve spindle	1.4122
9	Packing follower	1.4122
11.1	Packing	PTFE
11.2	Packing	PTFE/Grafit
17	Hexagon nut	**
19	Stud bolt	**
20	Spacer bolt	1.1181
21	Flange	1.0460/A105
35	Hexagon nut	8
41	Spiral gasket	1.4541/Grafit
46	Pin	1.4301
48	Lock washer	1.8159
52	Stud bolt	**
53	Gland plate	*
54	Hexagon nut	**

* See table "Technical data"

** Depending on customer requirements

Parts list as an example of the standard configuation