

Anti-Cavitation Diffuser Device For Severe Service Pressure Control Valves

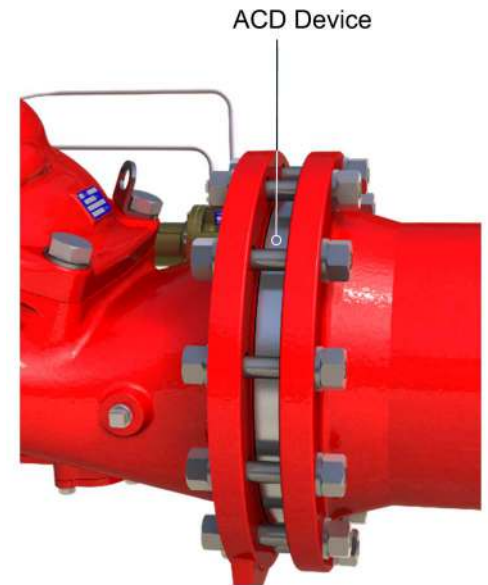
Model ACD

The Anti Cavitation Diffuser (ACD) is a device designed to prevent cavitation damage at source, also reducing noise levels and vibration.

This device replaces traditional anti-cavitation trims, and will prevent flashing and cavitation pitting of valves and piping operating at high pressure differentials.

The ACD should be installed at the outlet downstream of Pressure control or Pressure Relief valves thereby controlling the pipe velocity profile and the pressure characteristic across the control valve seat.

Effectively silencing and eliminating cavitation and minimizing erosion damage, the ACD will significantly extend operating life and minimize downtime in applications working in severe service conditions.



Features

- Prevents cavitation damage at source
- Reduces vibration and noise level.
- Suitable for very high pressure differentials
- Easy field / retro-fit installation, wafer body configuration
- No moving parts provides ultimate reliability
- Unobtrusive, installed downstream of a control valve using the same pipe size
- Straight through unobstructed flowpath - no danger of clogging
- Meets the NFPA 20 flow requirements
- Suitable for corrosive fluids
- Available for all valve sizes
- Stainless Steel construction, available in other corrosion resistant alloys
- Sized for each application, providing specific optimum performance

Typical Applications

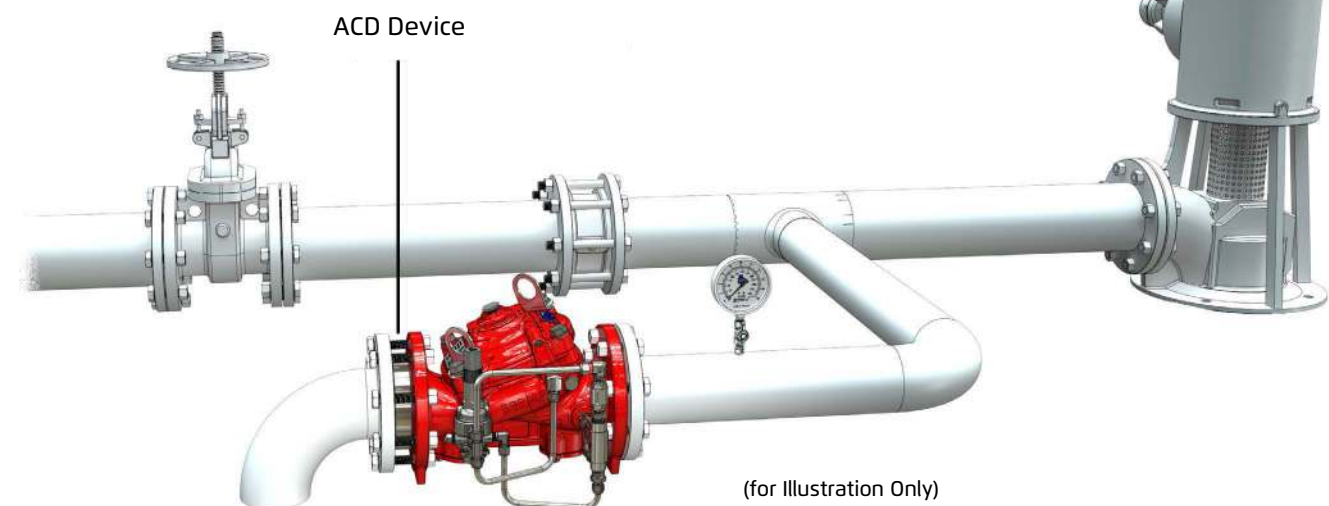
- High differential pressure relief valves
- Severe service pressure control valves
- Noise and vibration reduction
- Reservoir / tank filling
- Pump recirculation

Installation

The BERMAD Anti-Cavitation Diffuser (ACD) shall be installed any orientation, vertical or horizontal or otherwise it shall be mounted between two flanges downstream or at the outlet of a pressure relief/sustaining valve.

Make sure to install a proper gasket on each side of the ADC facing.

The upstream and the downstream piping shall be well supported to eliminate vibrations



Engineer Specifications

The anti-cavitation device shall be designed to protect a pressure relief/sustaining valve and downstream piping and components, operating under high differential pressure conditions.

The anti-cavitation device shall include no moving parts.

It shall be wafer mounted between two flanges at the outlet or downstream of a pressure relief/sustaining valve.

The anti-cavitation device shall be sized according to the manufacturer's instructions.

The device shall have a straight through flowpath, void of obstructions susceptible to clogging.

Installation shall not be orientation sensitive.

The anti-cavitation device shall be constructed of 316 Stainless steel.

The device shall be designed and constructed by a manufacturer certified to the ISO 9001 Quality Assurance Standard.

Dimensions Table

Valve / Pipe Size	Outside Diameter #150		Outside Diameter #300		Outside Diameter ISO PN16		Outside Diameter ISO PN25		Thickness	
	mm	in	mm	in	mm	in	mm	in	mm	in
2" - DN50	102	4.02	108	4.25	106	4.17	106	4.17	5	0.2
3" - DN80	133	5.24	146	5.75	141	5.55	141	5.55	5	0.2
4" - DN100	172	6.77	178	7.01	161	6.34	167	6.57	8	0.3
6" - DN150	219	8.62	248	9.76	217	8.54	222	8.74	8	0.3
8" - DN200	276	10.87	304	11.97	272	10.71	282	11.10	10	0.4
10" - DN250	336	13.23	359	14.13	327	12.87	339	13.35	10	0.4
12" - DN300	407	16.02	419	16.50	382	15.04	399	15.71	10	0.4
14" - DN350	447	17.60	482	18.98	442	17.40	456	17.95	12	0.47
16" - DN400	511	20.12	537	21.14	494	19.45	513	20.20	12	0.47

Note: Inside dimension calculated according to differential pressure and flow rate

Data:

Pressure differential & flow rate: Shall be specified for sizing

Materials: Stainless steel 304 or Stainless steel 316

Other materials on request. For further information consult Bermad

