



# Downstream pressure reducer-stabilizer

## Mod. VRCD-M for fresh water

The CSA direct acting pressure reducing valve Mod. VRCD-M reduces and stabilizes the downstream pressure to a constant value, regardless of flow rate and upstream pressure variations. It can be used for fresh water in general.

Name of the Manufacturer: CSA s.r.l.

Full Address of the Factory: Strada San Giuseppe 15, Località Ponteghiara, 43039 Salsomaggiore Terme (PR), Italy

Brand: CSA

Model: VRCD-M

Body Marking:  , VRCD, size in DN,  , GJS450, batch number, production date (week/ year)



### Technical features and benefits

- Flanged version DN 65-150.
- Upstream and downstream pressure balanced, to stabilize the downstream pressure to a pre-set (and adjustable) value regardless of upstream pressure variations without creating unwanted upsurges.
- Ductile cast iron for body
- Diaphragm in EPDM
- Innovative self cleaning piston technology (patent pending) to improve performances reducing maintenance operations.
- Mobile block composed of components in gun metal/stainless steel obtained by CNC to ensure the maximum accuracy and sliding precision, this is to avoid friction and unexpected leakage.
- Upstream/downstream pressure outlets for gauges.
- Large expansion chamber to reduce noise and to provide an excellent resistance to cavitation.

### Applications

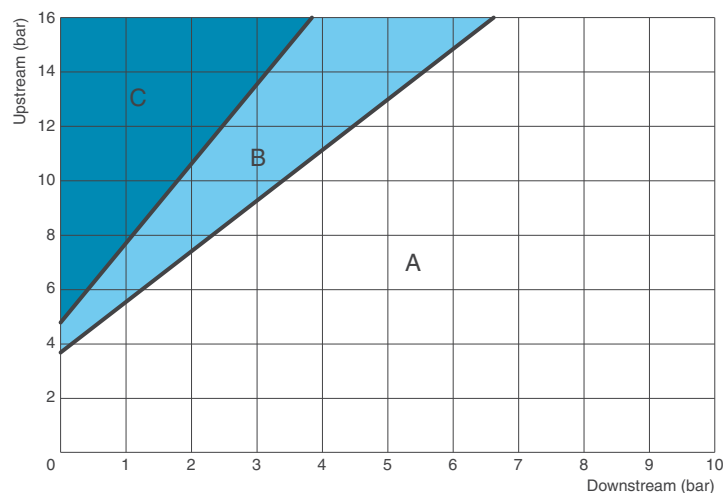
- Water distribution systems.
- Buildings and civil installations.
- Irrigations.
- Cooling systems.
- Fire protection systems and in general whenever the pressure reduction has to be ensured.

## Technical data

DN mm	65	80	100	150
Kv (m <sup>3</sup> /h)/bar	47	72	116	172

### Head loss coefficient

Kv coefficient representing the flow rate which is flowing through the valve fully open, and producing a head loss of 1 bar.

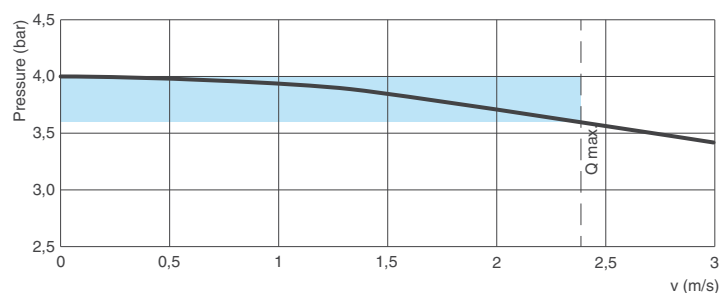


### Cavitation chart

- A: Recommended working conditions;
- B: Incipient cavitation;
- C: Damage cavitation.

Ensure that the working point, obtained connecting upstream (y axis) and downstream (x axis) pressure conditions, falls on the A zone with the smallest valve to meet the required flow.

The chart is to be used for valves modulating with an opening percentage between 35-40% at standard water temperature and elevation below 300 m. For continuous pressure reduction the maximum allowed  $\Delta p$  shall not exceed 24 bar.



### Reduced pressure falloff

The plot is showing the reduced pressure falloff that occurs through the valve when the flow increases. Ensure that the operating conditions fall on the area depicted in blue for the recommended fluid flow velocity through the valve.

### Working conditions

Treated water with a maximum temperature of 70°C.

Upstream pressure (inlet): maximum 16 bar.

Downstream pressure (outlet): adjustable from 1,5 to 6 bar.

### Standard

Certified and tested in compliance with EN 1074/5.

Flanges according to EN 1092/2. Epoxy painting applied through fluidized bed technology blue RAL 5005.

### Recommended flow rate

DN (mm)	65	80	100	150
Flow rate min. (l/s)	0.5	0.8	1.2	2.6
Flow rate max. (l/s)	8.6	13	20	45
Exceptional (l/s)	11	17	27	61

### Weights and dimensions

DN (mm)	65	80	100	150
A (mm)	290	310	350	480
B (mm)	93	100	110	150
C (mm)	320	350	420	690
Weight (kg)	19	24	34	74

### Material

Components	Material	Material Grade	
Body	Ductile Iron	EN-GJS-450-10	①
Shaft	Stainless Steel	1.4301	②
Diaphragm Holder	Stainless Steel	1.4301	③
Diaphragm	EPDM	/	④
Seat	Stainless Steel	1.4301	⑤
Piston	Stainless Steel	1.4301	⑥
Bonnet	Ductile Iron	EN-GJS-450-10	⑦

