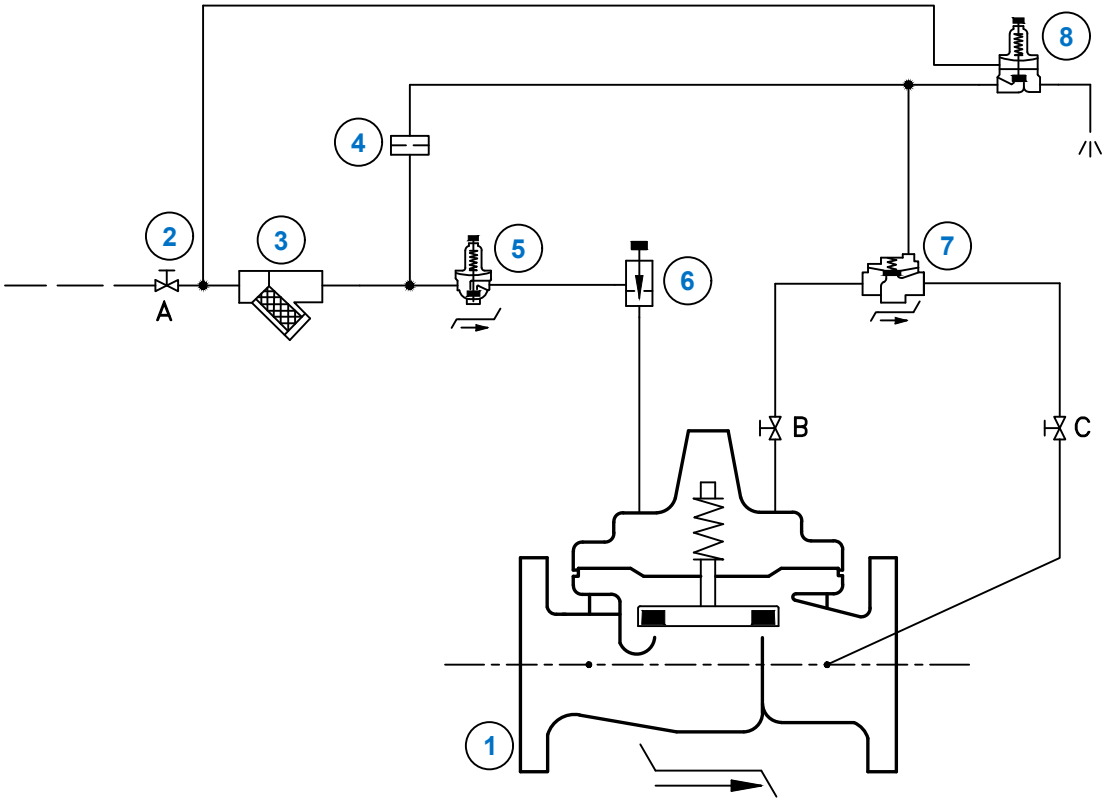
CLA-VAL 50-55F

Surge Control Valve with High Opening Speed and Progressive Closing Speed



STANDARD EQUIPMENT			
No	**Description**	**Qty**	**Type**
1	MAIN VALVE HYTROL AE/GE/NGE	1	100-01
2	ISOLATION BALL VALVE	3	RB-117
3	STRAINER	1	X43
4	RESTRICTION ASSEMBLY	1	X58C-CSA
5	PRESSURE REDUCING CONTROL	1	CRD-R
6	NEEDLE VALVE	1	6120
7	AUXILIARY VALVE HYTROL	1	100-KHR
8	PRESSURE RELIEF CONTROL	1	CRL-7

OPTIONAL FEATURES			
No	**Description**	**Qty**	**Type**

NOTES

AE/GE : DN 32 - DN 400 / NGE : DN 50 - DN 600
(#) = According to valve size this feature type could change

OPTIONAL FEATURES : —— —— —— ——
NOT FURNISHED BY CLA-VAL : —— – —— – ——

Operating data

1.1 PRESSURE RELIEF FEATURE

Pressure relief control CRL (**8**) remains closed when upstream pressure is less than the set point of control (**8**). When upstream pressure exceeds set point of control (**8**), it opens.

The auxiliary valve 100-KHR (**7**) is under command of pressure relief control (**8**). When control (**8**) opens, the auxiliary valve (**7**) opens too. This relieves pressure from the main valve cover and the main valve (**1**) opens fast until normal upstream pressure is restored.

Pressure relief control (8) adjustment: Turn the adjusting screw clockwise to increase the setting.

1.2 CLOSING SPEED CONTROL

Pressure reducing control CRD (**5**) and needle valve 6120 (**6**) control the closing speed of the main valve (**1**). Pressure reducing control (**5**) remains open when upstream pressure is lower than low pressure set point. When inlet pressure exceeds the low pressure set point, pressure reducing control (**5**) closes, which blocks the closing of main valve (**1**).

Needle valve (**6**) controls the closing speed of the main valve (**1**).

Needle valve (6) adjustment: Turn the adjusting stem of control (**6**) clockwise to make the main valve close more slowly.

Note: Do not close needle valve (**6**) completely or the main valve (**1**) will not open (suggested initial setting of needle valve is 1 turn open).

Pressure reducing control (5) adjustment: Turn the adjusting screw clockwise to increase the setting.

Note: Pressure reducing control (**5**) recommended setting is 1 bar less than pressure relief control (**8**).

1.3 STANDARD EQUIPMENT

No (**2**) - Isolation ball valve:

The isolation ball valves RB-117 (**2**) are used to isolate the pilot system from main line pressure. These isolation ball valves must be open during normal operation.

No (**3**) - Strainer:

The strainer X43 (**3**) is installed in the pilot supply line to protect the pilot system from foreign particles. The strainer screen must be cleaned periodically.

1.4 CHECK LIST FOR PROPER OPERATION

- ☐ System valves open upstream and downstream.
- ☐ Air removed from the main valve cover and pilot system at all high points.
- ☐ Isolation ball valves (**2**) open.
- ☐ Periodic cleaning of strainer (**3**) is recommended.
- ☐ Needle valve (**6**) open at least 1 turn.
- ☐ Remote control line properly connected to isolation ball valves (**2A**).