



### STANDARD EQUIPMENT

No	Description	Qty	Type
1	MAIN VALVE HYTROL AE/GE/NGE	1	100-01
2	ISOLATION BALL VALVE	4	RB-117
3	STRAINER WITH INCORPORATED ORIFICE	1	X44-A
4	PRESSURE RELIEF CONTROL	1	CRL / CRL-60
5	PRESSURE REDUCING CONTROL	1	CRD
6	ONE-WAY FLOW CONTROL	1	CV
7	CHECK VALVE	2	CDC-1 (#)

### OPTIONAL FEATURES

No	Description	Qty	Type
C	ONE-WAY FLOW CONTROL (CLOSING SPEED)	1	CV
F	REMOTE SENSING	1	-

### 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 ▶ PRESURE REDUCING FEATURE

Pressure reducing control CRD (5) is a "normally open" control that senses main valve outlet pressure changes. An increase in outlet pressure tends to close pressure reducing control (5) and a decrease in outlet pressure tends to open pressure reducing control (5). This causes main valve cover pressure to vary and the main valve (1) to modulate (open and close) maintaining a relatively constant outlet pressure.

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

#### 1.2 ▶ PRESSURE SUSTAINING FEATURE

Pressure relief control CRL (4) is a "normally closed" control that senses main valve inlet pressure changes. Pressure relief control (4) is open if inlet pressure is higher than the set point of pressure relief control (4). This places pressure reducing control (5) in command of the main valve (1). If inlet pressure lowers to the set point of pressure relief control (4), control (4) closes. This pressurizes the main valve cover and the main valve (1) closes, sustaining the desired minimum pressure at the main valve (1) inlet.

**Pressure relief control (4) adjustment:** Turn the adjusting screw clockwise to increase the setting.

#### 1.3 ▶ CHECK VALVE FEATURE

When outlet pressure is higher than inlet pressure, check valve CDC-1 (7B) opens and CDC-1 (7A) closes. This directs the higher outlet pressure into the main valve cover and the main valve (1) closes.

#### 1.4 ▶ OPENING SPEED CONTROL

Flow control CV (6) regulates the opening speed of main valve (1).

**Flow control (6) adjustment:** Turn the adjusting screw clockwise to make the main valve open more slowly.

#### 1.5 ▶ (E\*) EUROPEAN STANDARDS

ITEM (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.

ITEM (3) - Y-Strainer with incorporated orifice:

The strainer X44-A (3) is installed in the pilot supply line to protect the pilot system from foreign particles. The strainer screen must be cleaned periodically.

#### 1.6 ▶ OPTIONAL FEATURES

Suffix (C) - Closing speed:

Flow control CV (C) regulates the closing speed of main valve (1).

**Flow control (C) adjustment:** Turn the adjusting screw clockwise to make the valve close more slowly.

Suffix (F) - Remote sensing:

Remote sensing is obtained from a point upstream of the main valve (1) inlet, by a pipe size Ø 12 mm (not furnished by CLA-VAL Europe), which must not have any high points and so formation of air pockets and avoid any pulsation of control.



### 1.7 ▶ 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.
- Periodical cleaning of the filter screen (3).
- Flow control (6) or [optional features (C)] open from 1 turn.
- Remote control line properly connected [optional feature (F)].