



### 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 WITH INCORPORATED ORIFICE	1	X44-A
4	ONE-WAY FLOW CONTROL	1	CV
5	PRESSURE REDUCING CONTROL	1	CRD

### OPTIONAL FEATURES

No	Description	Qty	Type
A	FLOW CLEAN STRAINER	1	X46A
C	ONE-WAY FLOW CONTROL (CLOSING SPEED)	1	CV
Y	HIGH CAPACITY STRAINER	1	X43-80/EP

### NOTES

AE/GE : DN 32 - DN 400 / NGE : DN 50 - DN 600

OPTIONAL FEATURES : \_\_\_\_\_  
 NOT FURNISHED BY CLA-VAL : \_\_\_\_\_

### ▶ Operating data

#### 1.1 ▶ PRESSURE REDUCING FEATURE

Pressure reducing control CRD (5) is a "normally open" control that senses main valve (1) outlet pressure changes. An increase in outlet pressure tends to close control (5) and a decrease in outlet pressure tends to open 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 ▶ OPENING SPEED CONTROL

Flow control CV (4) regulates the opening speed of main valve (1).

**Flow control (4) adjustment:** Turn the adjusting screw clockwise to make the main valve (1) open more slowly.

#### 1.3 ▶ (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 (2) 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.

#### 1.4 ▶ OPTIONAL FEATURES

Suffix (A) - Internal strainer self-cleaning:

In some applications the self-cleaning strainer CLA-VAL, type X46A screwed at the inlet of main valve (1) reduces maintenance generated by the cleaning of the standard strainer screen (3).

With this option (A) the strainer X46A replaces the strainer (3) and the orifice of the X44-A strainer (3) is replaced by the orifice assembly X58-CSA.

The cleaning of the strainer X46A (A) is requesting its removal from the main valve body (1).

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 main valve (1) close more slowly.

Suffix (Y) - High capacity filter:

When too many foreign particles are contained into the control pressure, it is recommended to replace the standard filter X44-A (3) by the high capacity filter X43/80-EP (Y), whose screen (Ø 80 mm x 110 mm) offers a much bigger filtration surface. However an additional union fitting, with incorporated calibrated orifice, model X52-VR must be mounted between the filter outlet and the T-piece connecting the main valve control chamber.



# CLA-VAL 90-01

## Pressure Reducing Valve

### 1.5 ► 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) or [optional features (Y)].
- Periodical checking of the self-cleaning strainer [optional feature (A)].
- Flow control (4) or [optional features (C)] open from 1 turn.