



### 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 ▶ PRESURE REDUCING FEATURE

Pressure reducing control (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 (4) regulates the opening speed of main valve (1).

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

#### 1.3 ▶ (E\*) EUROPEAN STANDARDS

ITEM (2) - Isolation ball valve:

The isolation ball valves 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 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 **X44A** strainer (3) is replaced by the orifice assembly **X58-CSA**.

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

Suffix (C) - Closing speed:

Flow control (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 (Y) - High capacity filter:

When too many foreign particles are contained into the control pressure, it is recommended to replace the standard filter **X44** by the high capacity filter **X43/80-EP**, whose screen (Ø 80mm x 110mm) 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 valves **(2A)**, **(2B)** and **(2C)** open.
- Periodical cleaning of the filter screen **(3)** or of the self-cleaning strainer, option **(A)**].