



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	AUXILIARY VALVE HYTROL	2	100-KHR
5	NEEDLE VALVE	2	6120
6	3-WAY SOLENOID VALVE (NO)	2	311-D

OPTIONAL FEATURES

No	Description	Qty	Type
M	MANUAL OPERATOR	1	RB-117
M1	MANUAL OPERATOR (DRAIN TO ATMOSPHERE)	1	RB-117

NOTES

AE/GE : DN 150 - DN 400 / NGE : DN 200 - DN 600
 (#) = According to valve size this feature type could change

OPTIONAL FEATURES : _____
 NOT FURNISHED BY CLA-VAL : _____



▶ Operating data

1.1 ▶ SOLENOID CONTROL FEATURE

Controlled closing position (letter A):

Auxiliary valve (4B) closed.

Solenoid valve (6A) is a direct-acting, 3-way solenoid control that changes position when its coil is energized or de-energized. This applies pressure in the upper chamber of auxiliary valve (4A) which is switching into a closing position.

When auxiliary valve (4A) is open water flows into the main valve cover chamber until auxiliary valve (4A) is closed. Consequently main valve remains in a controlled closing position.

Controlled opening position (letter B):

Auxiliary valve (4A) closed.

Solenoid valve (6B) is a direct-acting, 3-way solenoid control that changes position when its coil is energized or de-energized. This relieves pressure in the upper chamber of auxiliary valve (4B) which is switching into an opening position.

When auxiliary valve (4B) is open, water flows out from the main valve cover chamber until auxiliary valve (4B) is closed. Consequently main valve remains in a controlled opening position.

1.2 ▶ (E*) EUROPEAN STANDARDS

ITEM (2) - Isolation ball valve:

The cocks are used to isolate the pilot system from main line pressure. These valves must be open during normal operation.

ITEM (3) - Strainer:

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

ITEM (5) - Flow control valve:

Flow controls (5A) and (5B) regulate the closing, respectively the opening speed of the main valve (1).

Flow control (5A) adjustment: Turn the adjusting screw clockwise to make the main valve (1) close more slowly or counter clockwise to close faster.

Flow control (5B) adjustment: Turn the adjusting screw clockwise to make the main valve (1) open more slowly or counter clockwise to open faster.

Note: Do not close completely flow control (5A) or (5B), otherwise the main valve (1) will not close or open anymore. Recommended opening degree = 2 turn open.

1.3 ▶ OPTIONAL FEATURES

Suffix (M) - Manual operator or (M1) Manual operator (discharge to atmosphere):

Isolation ball valve (2B) closed.

The opening of cock (MF) produces the closing of main valve (1); the opening of cock (MO) produces a partial [M] opening (depending of the rate of flow through the main valve) or a complete [M1] opening (regardless the rate of flow through the main valve). The closing of both cocks (MF) and (MO) permits to maintain the main valve (1) in any partial lift.

In normal service, the cock (2B) must be open and the two cocks (MF) and (MO) must be closed.



CLA-VAL 136-38

Dual Solenoid Control Valve

1.4 ► CHECK LIST FOR PROPER OPERATION

- System valve(s) open upstream and eventually downstream.
- Air removed from the main valve cover and pilot system at all high points.
- Cocks **(2)** open completely.
- Periodic cleaning of strainer screen **(3)**.
- Flow control valves **(5A)** and **(5B)** open at least 2 turns.
- Correct voltage to solenoid valves **(6A)** and **(6B)**.
- Manual override of solenoid valves **(6A)** and **(6B)** out of service.
- Cocks **(MF)** and **(MO)** closed (if provided).