

## YAWM-1 Type Primary Pressure Regulating Valve for Water

The type YAWM-1 primary pressure regulating valve combines a main valve and an auxiliary valve. The main valve is operated by setting the pressure of the auxiliary valve. As a bypass valve for large capacity pumps, it discharges the increased amount of pressure resulting from load fluctuations and ensures that the discharge pressure of a pump remains constant.

### Features

- Based on its auxiliary valve function, it automatically opens and closes valves with a large diameter, without external power supply.
- Pressure balance structure enables it to delicately respond to load fluctuations.
- No water leakage : the diaphragm and disc are made of NBR.
- A speed control valve (needle valve) attached : possible to adjust the opening and closing speed of the main valve.



### Specification

|                         |            |                                                   |
|-------------------------|------------|---------------------------------------------------|
| Applicable fluid        |            | Clear water, industrial water, agricultural water |
| Primary pressure        |            | 200~250mm : 0.05~0.69MPa                          |
|                         |            | 300~400mm : 0.05~0.49MPa                          |
| Fluid temperature       |            | 80°C below                                        |
| End connection          |            | KS 10K RF FLANGE                                  |
| materials               | Body       | GC200                                             |
|                         | Disc, seat | NBR/CAC406                                        |
|                         | Diaphragm  | NBR                                               |
| Hydraulic test pressure |            | 1.5MPa                                            |
| Optional                |            | Pressure gauge                                    |

► Strainer (over 40 Mesh ) installation is required to ahead inlet when valve installing.

### Dimensions

(mm)

| Size     | L   | H1  | H2  | Cv   | Weight (kg) |
|----------|-----|-----|-----|------|-------------|
| 200(8")  | 640 | 210 | 390 | 640  | 253.2       |
| 250(10") | 740 | 250 | 481 | 1000 | 440         |
| 300(12") | 900 | 290 | 557 | 1440 | 516         |

► Made-to-orders are available for valves with a size of 300A or larger.

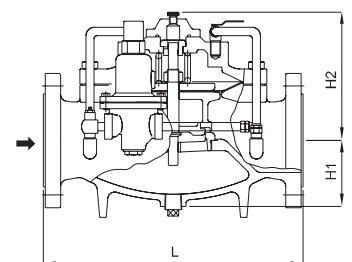
### Cautions to be taken when installing and primary pressure regulating valves

1. The control line installed outside the valve is an important part that has a direct effect on valve performance. Care should be taken so that the control line is not damaged from impact or when held by the hand in the process of moving or installing the valve.
2. Install a strainer on the inlet side to prevent valve malfunctions from foreign substances.
3. Settings for the opening/closing speed regulating device that is attached to the main body are made prior to product delivery, so the settings should not be arbitrarily changed.
4. The ball valve, installed on the main body, is for manual operations. Carry out a trial run after closing it.
5. The valve on the load device should be closed when conducting a trial run.

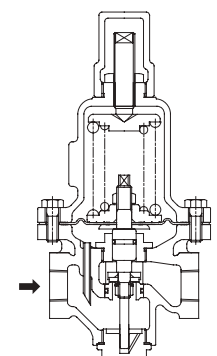
### How to adjust the pressure of primary pressure regulating valves

1. Cut off the stop valve that is connected to the load device.
2. Open the top cap of the pilot valve installed on the main body.
3. Loosen up the fixing nut, and slowly turn the adjustment screw clockwise, while checking the pressure gauge on the valve inlet side, until the desired pressure is obtained.
4. Firmly tighten the fixing nut once the desired pressure is obtained.
5. Check, with sufficient time, if the pressure increases on the pressure gauge on the inlet side.
6. If the pressure on the pressure gauge is fixed at the designated pressure, then the valve is operating normally.

### Dimensional drawing



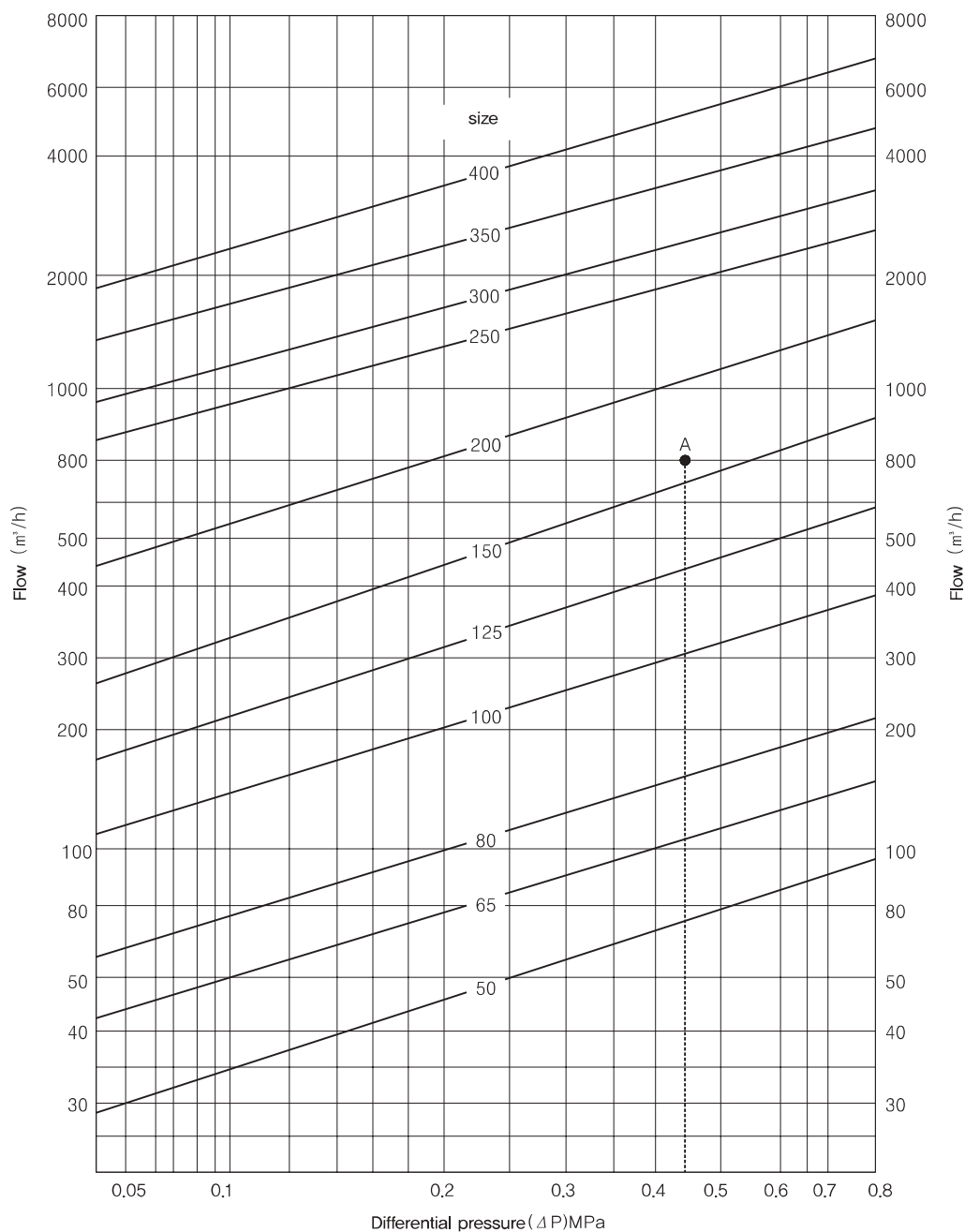
Main valve



Pilot primary pressure regulating valve

## YAWM-1 Type Primary Pressure Regulating Valve

### Chart on selecting a size



### How to select the size of a valve by the chart

Example) If the opening pressure is 5 kgf/cm²g, back pressure is 0.5 kgf/cm²g, and flow is 800 m³/h,

The differential pressure is (ΔP)  $5 - 0.5 = 4.5$  kgf/cm²g.

Determine "A" where a vertical line from the differential pressure (ΔP) (4.5 kgf/cm²g) meets the flow (800 m³/h).

Now that "A" is in between a size of 150 and 200, the diameter of 200 should be selected