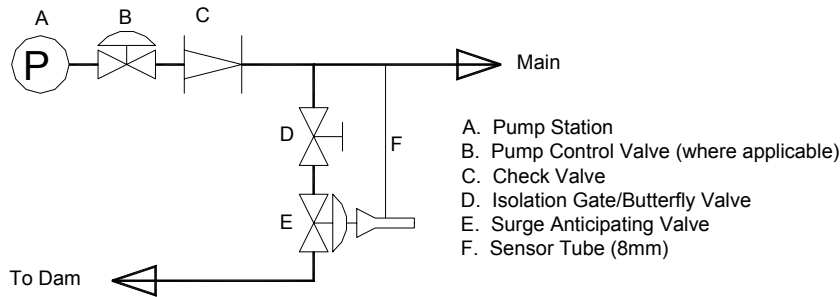


Surge Anticipation & Relief Valve with Dorot 66-300 Pilots

OPERATING INSTRUCTIONS

1. ASSEMBLY SCHEME



2. ADJUSTMENT

- Turn bolt (a1) counter-clockwise, bolt (b1) clockwise all the way. Do not over-tighten (b1).
- Close valves (d,e) and start the pump.
- When normal operating pressure is reached, open valve (e) and turn bolt (b1) counter-clockwise until water starts dripping from valve (e). Return until dripping stops and add 1 – 2 turns. High pressure opening is now set.
- Open valve (e) and execute the “Low pressure simulation” procedure. Generally, opening pressure should be approx. 2/3 of static pressure.
- Stop the pump. The Surge Anticipation valve will open on low-pressure wave.
- When high-pressure wave arrives, main pipe pressure should exceed the “low pressure opening” point by 5 – 10 m. If the pressure does not reach the required level, check the drainage flow using the isolating valve (d).
- Use Needle valve (f) to adjust closure pace.

3. LOW PRESSURE SIMULATION

The Low Pressure Simulation allows verification of low-pressure opening. It is advisable to execute it periodically (once in 3-4 months) to guarantee correct operation of the Surge Anticipation valve.

Below is the operating sequence of the simulation unit.

- Close isolating valve (j).
- Open slightly needle valve (k).
- Check pressure gauge (l). The pressure decreases.
- Allow pressure drop to the point where water starts leaking from valve (d) on pilot (a).
- Close needle valve (k) and open isolating valve (j). The Surge Anticipation valve is now in automatic mode ready for power failure occurrence.
- If set point does not comply with the required opening pressure (according to the initial design and the commissioning, readjust the pilot (a):
 - Opening point too high – turn adjustment bolt counter-clockwise, half a turn.
 - Opening point too low – turn the bolt clockwise, half a turn.
 - Repeat steps 1 to 5

Warning: never leave valves (d,j) in closed position. It cancels pipeline water hammer protection.

Components:

- a) 66-300 pilot (low pressure yellow spring)
- b) 66-300 Pilot (high pressure red spring)
- c) Basic valve
- d) Isolation ball valve
- e) Isolation ball valve
- f) Needle valve
- g) Finger filter
- j) Isolation ball valve
- k) Needle valve
- l) Pressure gauge

