

## ● DESCRIPTION

Armaş "SA" model surge anticipating control valve is the safety control valve designed to protect system in relatively longer water supply network elevating line by damping energy waves formed by energy interruptions in pumping systems and by releasing water-hammers which are caused from sudden changes in water flow rate to atmosphere automatically and quickly. Valve is opened quickly by sensing diminished pressure wave previously by means of pressure signal tube it owned. When line pressure reached normal level, it is closed slowly and automatically as wholly sealed.

## ● PURCHASE SPECIFICATIONS

The valve will be direct diaphragm closing automatic hydraulic control valve which works with line pressure. No wearable parts such as stem, bearing and seat exist in main valve body. The valve position will be controlled by a hand operated selector valve.

## ● ORDER INFORMATION

Please submit following information to our sales department while ordering.

Maximum flow rate	: m <sup>3</sup> /h
Maximum network/line pressure	: bar
Main line size	: mm
Valve connection type	: ---
Maximum pump pressure	: bar
Length of main pipe line	: m

## ● CONTROL SYSTEM COMPONENTS

- |                             |                         |
|-----------------------------|-------------------------|
| 1 Low Pressure Pilot Valve  | 4 In-line Finger Filter |
| 2 High Pressure Pilot Valve | 5 Pressure Gauge        |
| 3 Ball Valves               | 6 Needle Valve          |

## ● QUICK SIZING

• Surge Anticipating valve is mounted on network in TE configuration.

• Since valve's function is to release pressure, valve diameter may be selected as equal to or in closest smaller size than main pipe diameter. Valve diameter should be selected as smaller than main pipe diameter. Following empirical formula may be used in determining diameter of quick pressure relief control valve. Where;

$$D = \sqrt{\frac{250 \times Q}{\sqrt{H_m}}}$$

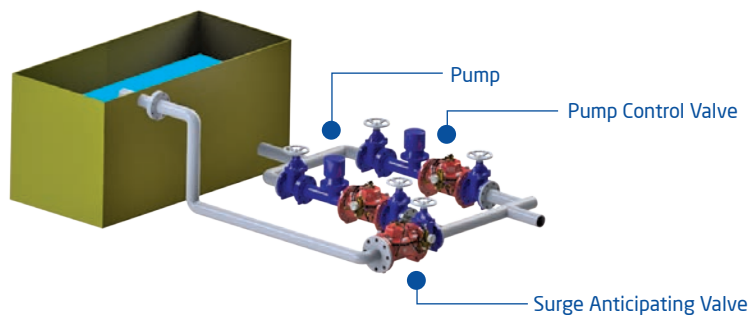
D = Diameter of surge anticipating valve (mm)

Q = System Flow Rate (m<sup>3</sup>/h)

H<sub>m</sub> = System Operating Pressure (meter → 1 bar ≈ 10 meter)

• Valve closing time is proportional with pipe length. As system pipe length increases, valve closing time should be increased.

## TYPICAL APPLICATION



Armaş Surge Anticipating Valves protect pipe-line against to impacts due to water hammer and unexpected pump shut-off.