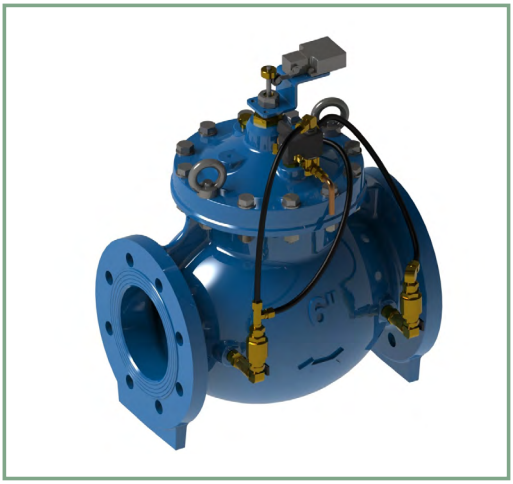
G-20

PUMP CONTROL VALVE



The G-20 hydraulic valve is intended for gradual pump startup and shutdown, as well as hydraulic check valve for protection of pumping equipment and pipeline networks against damage due to excessive operation blow intended pump curve as well as preventing backflow.

The G-20 valves can be used with any pump type. The valve is linked to the pump's electric control panel

PRINCIPLE OF OPERATION WITH A BOOSTER PUMP

Prior to startup, the valve is closed. When the pump is energized, the solenid valve (8) is activated and gradually relieves the pressure of the control chamber, leading to a gradual opening of the main valve (1). The flow and the pressure gradually increase to the nominal value of the main line. When the pump shuts down, the solenid valve (6) is inactivated, leadings to a gradual closing of the main valve. The pump's power supply is turned off via the limit switch (11) only after the complete closure of the valve.

In the event of an emergency shutdown of the pump or in a sudden power outage, the valve is hydraulically closed, performing the function of a check valve to prevent returning flow.

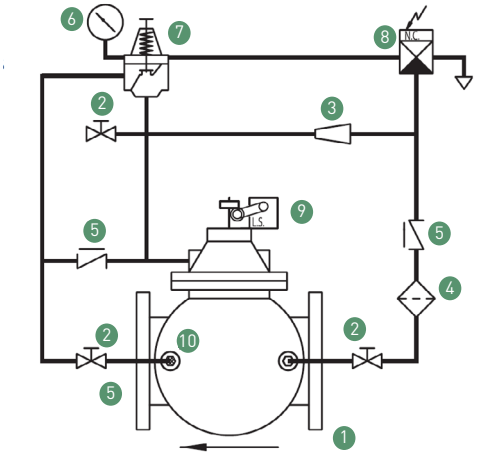
PRINCIPLE OF OPERATION WITH A SUBMERGED VERTICAL PUMP

The valve is installed in the pump discharge pipe by-pass, thus ensuring the start at low-head and gradually closing. When the pump is shut down, the valve opens gradually, thus gradually reducing the pressure in the pipeline.

The inletput pressure sustaining/pilot relief pilot (7) is set to perform, a safety valve if pressure surges above set performed

TYPICAL APPLICATIONS

The Pump Control Valve. **G-20** type valve is used for optimizing pumping stations operation leads to more effective exploitation of the equipment, lower costs and preventing damage.



G-20 Pressure Reducing & Sustaining Control Valve

Ref	Name
1	Main valve
2	Cock Valve
3	Needle Valve
4	Filter
5	Non-return Valve
6	Manometer
7	Pressure Sustaining Pilot
8	3-W Solenoid Valve
9	Limit Switch
10	Finger Filter