44-x-HY/PR1

INSTALLATION

OPERATION

MAINTENANCE

This document specifies the operating concept of DOROT Hydraulic Hydrant Valve model 44-x-HY/PR1 (x refers to valve size in Inch)

HYDRANT VALVE MODEL 44-x-HY/PR1

General description

“DOROT” Hydrant valve model 68-x-HY/PR1 is a weir-type hydraulic valve, activated manually.
The valve is the connection point for fire- extinguishing flexible hose, that enables controlled filling of the hose, Preventing water hammer due to too-fast filling-up of the hose and the Pressure when the system is at full-operation.
The valve can be opened or closed effortlessly, using a selector valve which is part of the control circuit.

Fig. 1- DY/PR1 valve

Operating description:

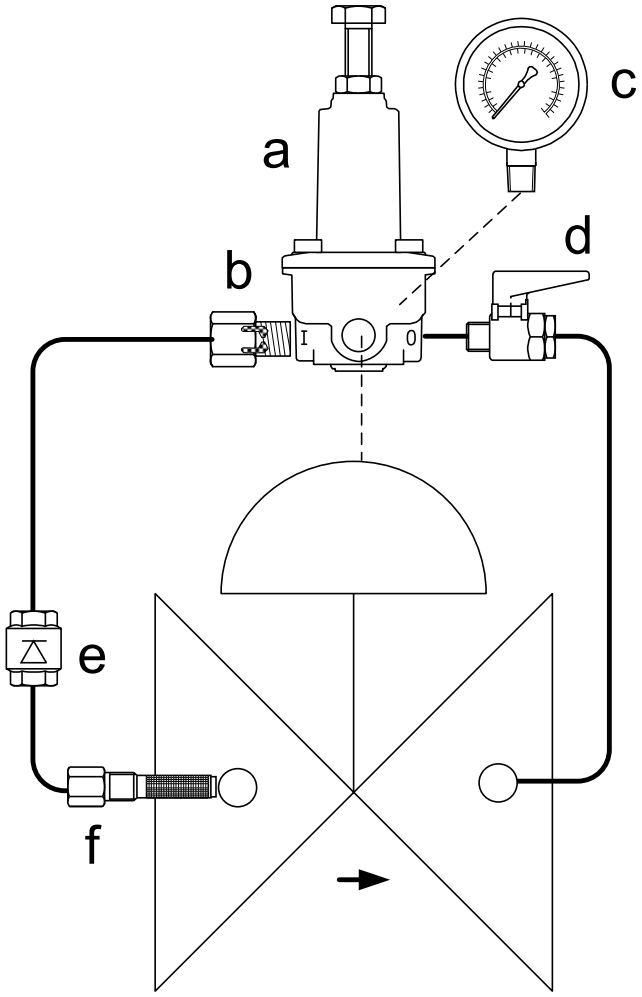
1. The valve opens instantly when the selector is turned to “open” position.
2. The filling of the hose is controlled by the the Pressure- control pilot valve. Turning the adjusting bolt in clockwise direction accelerates the initial stage of the fire hose filling and the water pressure.
3. When the water has reached the hose nozzle, the Pressure is maintained at a preset maximum vallue by the PR pilot.
4. The valve can be closed instantly by the selector valve
5. An inline, self-flushing screen filter, assembled in the valve body, guarantees clog-free performance of the piloting system

DELUGE VALVE MODEL 44-x-HY/PR1

Installation recommendations

1. The valve installation position should be horizontal, to facilitate convenient connection of the hose.
2. It is essential to enable free and easy access to the selector valve and the pilot adjusting wheel

Fig. 2- Control scheme



Main parts:

a. 68-410 PR pilot
b. Restricting nozzle
c. Downstream pressure gauge
d. Selector valve
e. Check valve
f. Inline, self-flushing filter

DELUGE VALVE MODEL 44-x-HY/PR1

Operating instructions (refer to “control scheme”)

1. Opening:
   - Connect the fire hose
   - Open the selector valve [d]
2. Closure:
   - Close the selector valve.

HYDRANT VALVE MODEL 44-x-HY/PR1

Design Data

Operating conditions:

Valve size		Max. recommended flow		Flow factor		Equal pipe length*	
mm	inch	m3/h	gpm	Kv	Cv	m	Feet
50	2	32	140	102	119	8	25
80	3	80	350	155	181	7	22
100	4	130	570	210	245	11	38
150	6	270	1200	605	710	11	36
200	8	510	2250	870	1020	24	78
250	10	800	3500	1147	1340	45	148

* Calculated for V=5m/s (15ft/s), nominal pipe, Chw=100

1.1. Max. recommended flow velocity 5.5m/s (18 ft./s)
1.2. Pressure Rating 12 bar (175psi)
1.3. Min. system PR1essure 1.5 bar (22 psi)
1.4. Mod. 44,84 are available at 2”, 3” sizes only

Maintenance

- Extract the inline filter [f] and clean it, in case the valve fails to close.
- Inspect the pressure adjustment periodically. Correct if necessary by tightening the adjiusting bolt (increasing pressure) or lossening it (reducing pressure.