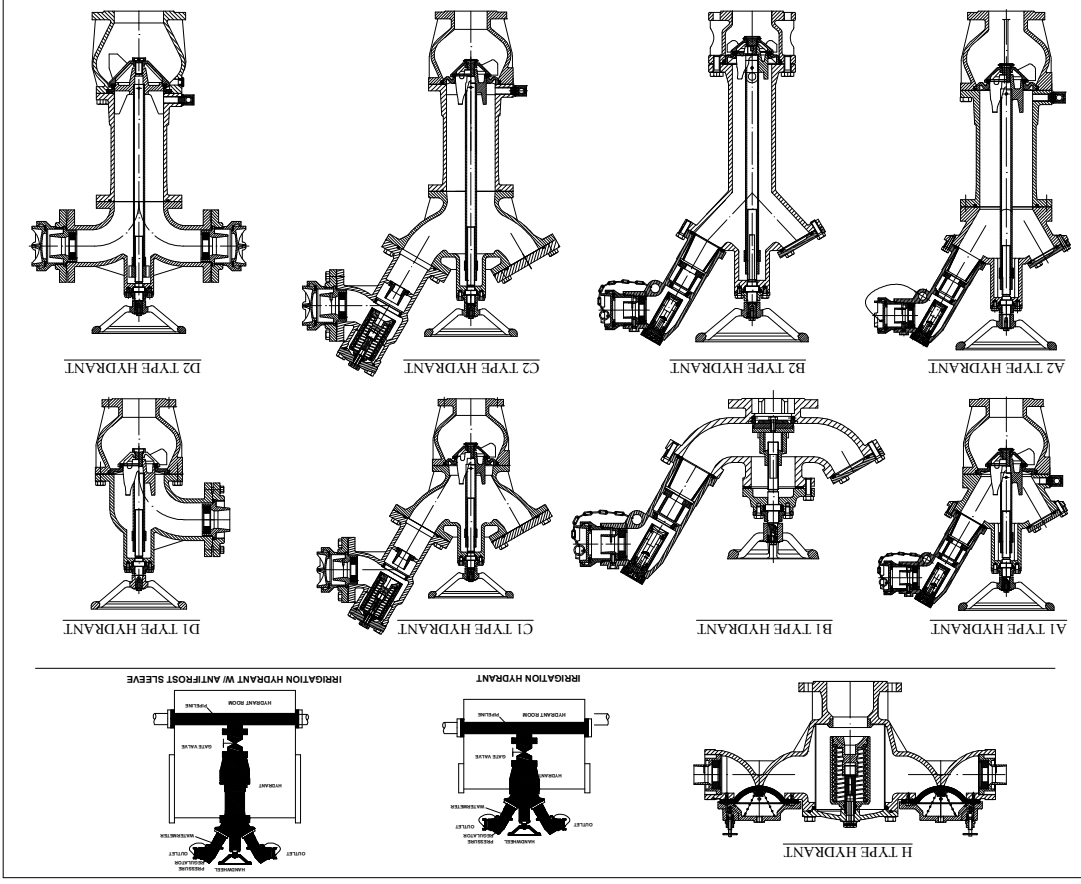


Size: DN80 – 100 – 150
Pressure Rating: PN10 – PN16



Our company guarantees supplying spare parts and after sales service for 10 years for the related items.
 Please consult our factory for supplying spare parts.

DOĞUŞ VANA LTD. ŞTİ. AOSB 10000sok No18 Cigli I ZMIR-TURKEY
 Tel: 0090 232 376 85 80 Fax: 0090 232 376 85 82 infodogus@dogusvana.com.tr www.dogusvana.com.tr

DESCRIPTION

Irrigation hydrants are used to connect the above ground network to the pressurized water distribution network. Irrigation Hydrants consist of a hydrant body and one or more nozzles. The user can get pre-determined pressure and flow from the nozzles independent of the main line pressure fluctuations. Moreover, with a proportional water meter, consumption is measured from each nozzle.

Irrigation Hydrants are designed to perform the below specified functions

- Open/Close function
- Connection to the irrigation network and distribution of water to several locations
- Metering water consumption
- Regulation of pressure
- Control of water flow

STORAGE

- Irrigation hydrants should be stored in a place where they will not be subjected to sunlight. They should be kept on wooden pallets, avoiding any direct contact of the valves with the ground.
- Irrigation hydrants should be protected from any external effects and mechanical damages in the storage place.
- During the storage, it should be assured that the sealing mechanism of the hydrants are in closed position.

INSTALLATION

- Irrigation hydrant should be installed inside a hydrant chamber for external protection and sufficient space around the hydrant assembly should be allowed for future maintenance/disassembly work.

PS: It is recommended that the hydrant chamber should be closed and has a hatchet.

- Before commissioning the pipeline, make sure there are no foreign particles in the pipeline. These particles can damage the irrigation hydrants.

A gate valve should be installed upstream of the hydrant for isolation purposes. This valve is used during maintenance.

- Irrigation hydrant should be connected as shown in the figure.

- Before commissioning the pipeline, check whether the hydrant is damaged during assembly.

STATIC TEST PROCEDURE ON THE SYSTEM

Opening of the Hydrant in Static Conditions

NOTE:

Before commissioning the pipeline, make sure there are no foreign particles in the pipeline. If necessary, flush the pipeline by opening the drain valves.
 Make sure that sufficient pressure is available in the upstream of the hydrant.

- Close the hydrant by turning the handwheel clock-wise and open the isolation valve in the upstream side of the hydrant.
- Check the flange connections for water leakage.
- Open the hydrant by turning the handwheel counter clock-wise. Water will flow from the nozzles.

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- Check the hydrant body, nozzles and nozzle connections for water leakage.

Closing of the Hydrant in Static Conditions

- Turn the handwheel clock-wise to close the hydrant. Water flow will stop.

NOTE:

At the end of the irrigation season, close the isolation valve upstream of the hydrant and open the nozzle outlets. The hydrant will not be affected from freezing as a result of this pre-caution. If it is possible, open the hydrant and isolation valve and drain the network by opening the drain valves located at the bottom of the network. This will provide a better solution to prevent freezing affects.

OPERATION

- The operating pressure of the hydrant is specified on the body. The system pressure should not exceed the specified operating pressure. The hydrant should be protected from surges and extreme pressures.
- Close the isolation valve located in the upstream side of the hydrant.
- Fill the pipeline with water.
- Flush the pipeline by opening the drain valves located on the network.
- Connect the nozzle outlets to the irrigation system. If the nozzle will not be used, plug the nozzles with blind flanges. (Water will flow from all the nozzles when it is open)
- Open the isolation valve located in the upstream side of the hydrant.
- Open the hydrant by turning the handwheel clock-wise. Water will flow from the nozzles.
- Check whether the water meter is working properly.
- The commissioning process of the hydrant is completed.

DISMANTLING

- In order to dismantle the hydrant, the isolation have should be closed and pipeline that is located on both sides of the hydrant should be drained.
- Hydrant should be secured to a crane or lifting equipment that is capable of lifting the hydrant. Hydrant should be connected to the crane from the lifting eye or from the flange holes. Lifting the hydrant from another direction is extremely dangerous for the workers and may damage the hydrant beyond repair.
- All flange bolts and nuts must be removed.
- Hydrant should be lifted with the help of the crane and stored according to storage instructions.

MAINTANANCE

- Inspect hydrants regularly and pay attention to the hydrants that are only operated occasionally. If the hydrant is not providing sealing even if it is fully closed, a foreign substance could be stuck to the seat or sealing rings could be damaged. Please dismantle the sealing assembly and act accordingly.
- Nozzle water meter filter should be dismantled and cleaned on periodic basis.

OPTIONS

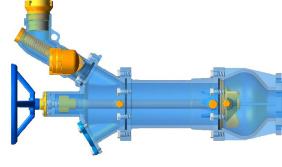
- **Working Mechanism:** Mechanic – Hydraulic
- **# of Nozzles:** 1 – 2 – 3 – 4
- **Accessories:** Flow Limiter – Pressure Regulator – Water meter

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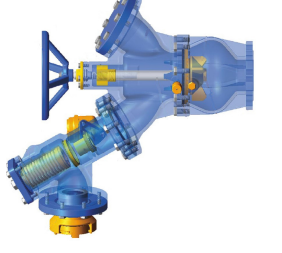
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TROUBLESHOOTING

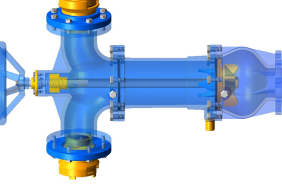
PROBLEM	REASON	SOLUTION
Hydrant is not closing or opening	Handwheel key is damaged A foreign substance such as stone etc. is stuck under the seat Threads of the stem, attached to the handwheel are damaged	Check the handwheel key. If damaged, replace it. Close the isolation valve, dismantle the hydrant and check inlet of the hydrant Check the nut that is inside the hydrant by dismantling it
Hydrant is not decreasing the pressure	Pressure regulator inside the nozzle is not working properly	Close the hydrant. Take out the pressure regulator and clean it. Check the spring and o-ring inside the regulator. PS: Be careful when opening the regulator. A pressed spring is located which can bounce when dismantling and can hurt the user.
Hydrant water meter is not working properly	Filter on the inlet of the water meter is clogged Internal mechanism of the water meter is clogged Water meter is damaged	Dismantle the flow limiter inside the nozzle and check the rubber material. If the rubber is damaged, replace it. If any foreign particle is stuck, clean the rubber. Dismantle the nozzle and clean the filter inside the nozzle. Open the water meter and clean the mechanism. Replace the water meter.



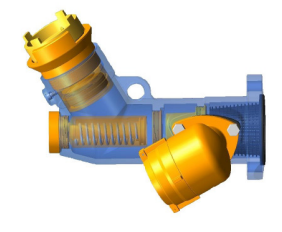
A Type Irrigation Hydrant



C Type Irrigation Hydrant



D Type Irrigation Hydrant



Nozzle

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