

USER AND MAINTENANCE INSTRUCTIONS **UNDERGROUND HYDRANT DN100**

Instructions for Use

Thank you for selecting a Valman product. With correct use, it will give long and reliable service. This manual has been prepared to assist you to safely install, operate and maintain underground hydrant to its maximum efficiency. For ease of reference, the manual has been divided into sections covering all aspects of use.

Health and Safety at Work

It is recommended that whenever maintenance work is being carried out on a hydrant, that this one is fully depressurised. For convenience, draining of the line may be beneficial.

It is essential that the user of the fire hydrant is also aware of the weight of the components and/or assemblies that must be handled and manipulated during installation and maintenance. It is the users responsibility to ensure that safe working practices are followed at all times.

Whenever hydrants are installed, operated, or maintained, it is essential that the staff that undertake these operations are adequately trained. The hazards associated with pressurised liquids and gasses can be severe, and it is the responsibility of the user to ensure that trained, competent staff to undertake these duties.

This manual has been designed to assist, but it can never fully replace quality training in the workplace.

Equipment is used and maintained in accordance with this manual. The user is advised to study this manual, and to make it available to all staff that may need it as a reference.

Any damaged parts of the replaced product can be recycled as well as the product if it is withdrawn from use and in accordance with the prescribed national environmental protection regulations.

We reserve the right to make any technical changes



Preduzeće za proizvodnju i usluge "VALMAN"

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Please read these instructions before use of this product.
No observance to the procedures from these instructions lead to cancelation of warranty.

a) Application:

Underground hydrant is installed on the pipeline for water supply for extinguishing the fire, street washing, filling the tank trailers, watering the green surfaces and similar.

b) Specifications:

MAXIMUM OPERATING PRESSURE: 10 / 16 bar

Underground hydrant is produced according to the standard EN 14339, flange drilling layout according to the standard EN1092-2 (PN10/PN16). Head, foot, clutch, upper edge of the hydrant are made of nodular casting, plasticized EWS protection (Epoxy-Dusty-Sinter) according to the standard DIN30677-2 and RAL-GZ 662 (GSK). Outer pipe could be from nodular cast or stainless steel. All inner parts are corrosion resistant. Drainage is provided so the water doesn't stay in hydrant after closing, whereby freezing of the water is prevented. Special maintenance is not necessary. Strength and tightness of Underground hydrants tested according to the standard EN12266-1 (P10, P11).

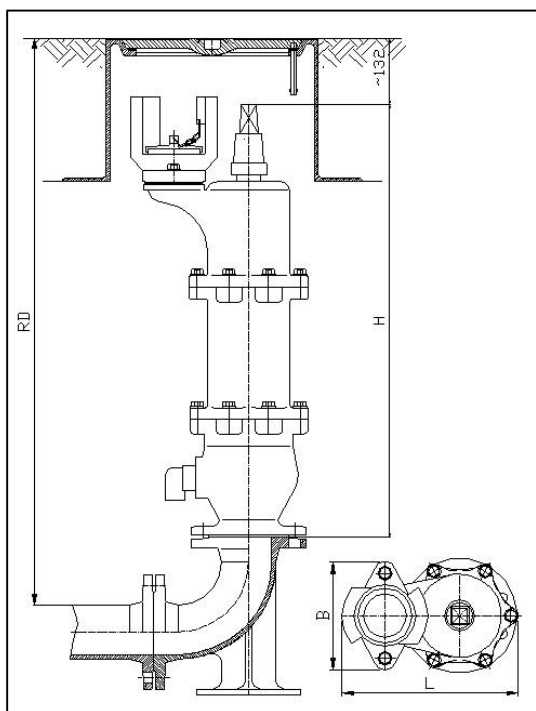


Table 1. Built-in dimensions of underground hydrant DN100.

Product name	DN	RD*	H	B	L	Mass (kg)
Underground hydrant DN100 – RD750	100	750	525	192	310	38
Underground hydrant DN100 - RD1000	100	1000	750	192	310	47
Underground hydrant DN100 - RD1250	100	1250	1000	192	310	55

RD* – built-in depth

Figure 1. Scatch of building in the underground hydrant

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c) Storage conditions

- Recommended storage temperature is below 25 °C (77 °F).
- Product should be stored in such a way to avoid direct sunlight, keep on dry and at moderate humidity.
- In the storage room there should be no high voltage installation producing the electrical discharge.
- Protective cap for the connection of firebrigade hoses which were kept in the storage room closed, to avoid contamination with dirt.
- Product should be kept clean in storage room, periodically the dust should be wiped out with dry cloth.

d) Installation and testing of the underground hydrant

After installation of the underground hydrant, test the hydrant tightness.



Figure 1.

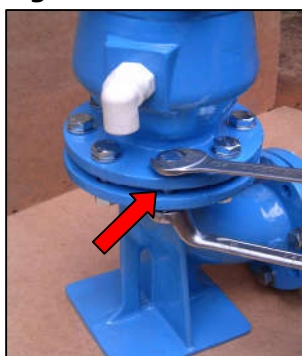


Figure 2



Figure 3.

Installation of the underground hydrant

- 1.) During installation of the hydrant the water supply system should not be under pressure.
- 2.) Before the installation of the hydrant on the new water supply system, the complete system should be washed out to remove dirt and foreign bodies. In counterpart the gaskets could be damaged.
- 3.) Before the installation of the hydrant on the water supply please check if the hydrant is closed. Hydrant cap (Figure 7) position 1 is turned 360°, to the right clockwise for closing, to the left counter clockwise for opening.

- During closing and opening of the hydrant the standard wrench for opening the hydrant is used.

- Extension bars should not be used to prevent damage to the hydrant gaskets.

- 4.) First, corresponding gasket should be placed on the flange (Figure 1)

- Hydrant is commonly connected to the water supply system with standard N or FF piece.

- 5.) Place the foot of hydrant on the flange and gradually fasten the bolts alternately (Figure 7). It is obligatory to place the washers to prevent damage to the plasticized surface (Figure 2).

Testing of the underground hydrant

- 1.) After installation perform the check out procedure of the hydrant (Appendix g – page 4, point 2).

Note: Installation of the underground hydrant could be made by 3 qualified persons for installation of fittings.



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e) Uninstalling of the Above ground hydrant



Figure 4.

Uninstalling of the hydrant

- 1.) During uninstalling of the hydrant the water supply system should not be under pressure.
- 2.) Before uninstalling of the hydrant from the water supply system check out if the hydrant is closed. Hydrant cap (Figure 6) position 1 is turned 360°, to the right clockwise for closing, to the left contraclockwise for opening.
 - During closing and opening of the hydrant the standard wrench for opening the hydrant is used.
 - Extension bars should not be used to prevent damage to the hydrant gaskets.
- 3.) Gradually release the bolts clockwise, while the upper part of the hydrant should be hold (Figure 4).
- 4.) Remove old gasket (Figure 5).



Figure 5.

Note: Installation of the Above ground hydrant could be made by 3 qualified persons for installation of fittings.

Spare parts

During servicing, it is necessary to contact technical department Valman doo for spare parts or any additional technical detail or instructions.

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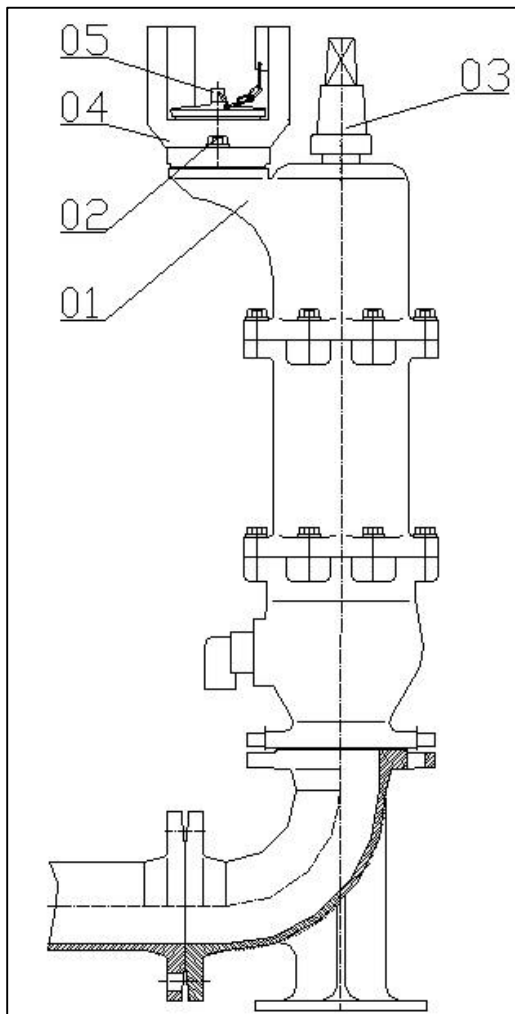


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f) Maintenance

Every 6 months the following should be checked:



1.) Visually check the hydrant body (01), hydrant cap (02), hydrant edge (03), hydrant connection coupling (04), protection cap of the underground hydrant (05) for eventual physical damage during exploitation.

2.) Check the hydrant under the fluid pressure when the adequate water hose is connected to the connection coupling.

[Connect the adequate water hose to the connection coupling of the underground hydrant (04), then fully open the hydrant by turning the edge of the underground hydrant (03) in to the counter clockwise direction. When the underground hydrant is under the fluid pressure, check if there is a flow through the water hose.

After the test, close the hydrant by turning the edge (03) clockwise.

3.) After completing the procedure, replace the protective cap of the underground hydrant (05) to prevent penetration of the dirt into the underground hydrant.

Figure 6. Underground hydrant

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h.) Tightening the flange

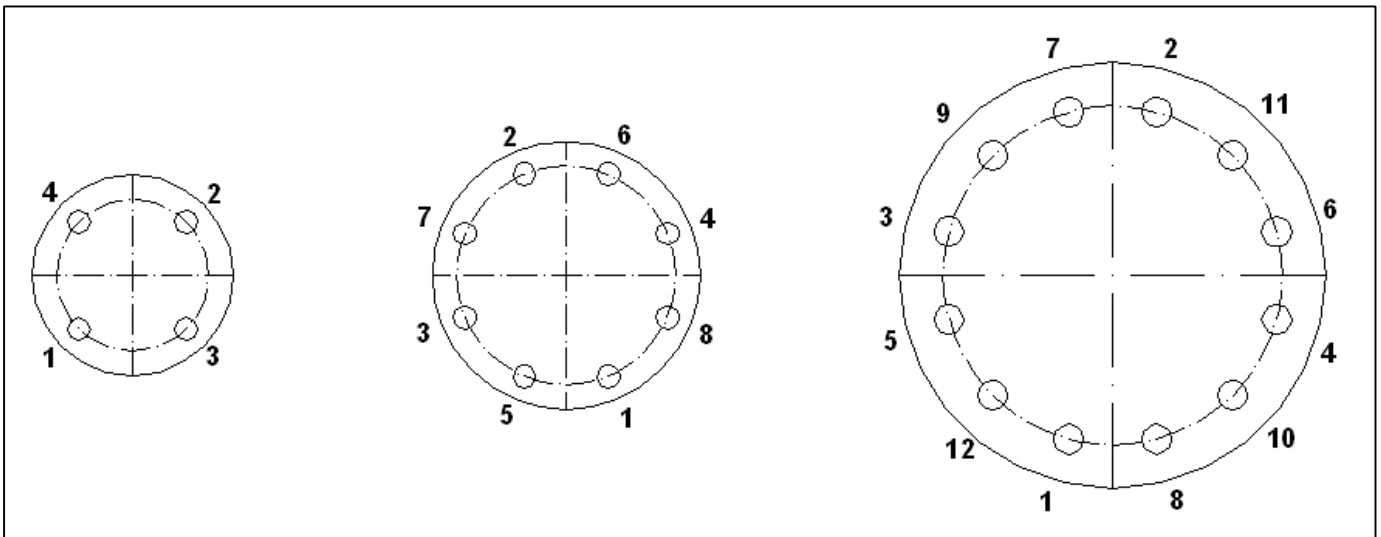


Figure 7. Sequence of tightening the flange

Recommended:

Table 2. Tightening the flange

Nominal diameter DN	40 - 65	80 - 200	80 - 150	250 - 300	200 - 300
Nominal pressure NP	10/16	10	16	10	16
Tightening torque Nm*	30	60		80	

* - Tightening torque measured by torque wrench

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