



VALFTEK®

PILLAR TYPE DRY BARREL FIRE HYDRANTS



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Introduction

In fire-fighting, a primary rule is that extinguishing equipments should be visible and accessible. Thus, above-ground dry barrel fire hydrant is a good solution against the unvisibility disadvantage of under-ground fire hydrants .

This is true that a fire develops depending on nature and characteristics of the plant or building subject to fire, however the important thing is duration of attempting to extinguish fire, which has to be the shortest possible. Above-ground dry barrel fire hydrants make it possible.

Applications

In factories, storages, industrial plants, buildings, forest areas, accommodations which are susceptible to fire, above-ground fire hydrants allow to extinguish fire quickly as well as offering another advantage as water supply to the fire brigade.

Automatic Drainage To Avoid Freezing

Frost can damage fire hydrants. In consideration of frost, the lowest temperatures in the region should be taken into account, not the average temperatures.

Therefore, both burying depth of hydrants and insulation of fire water pipelines are designed according to climatic characteristics of the region.

VALFTEK fire hydrant is protected against freezing by means of an automatic drain system which is a kind of check valve.

During operation of the hydrant, the drain system is closed and when the hydrant is closed, the drain system opens to discharge water remaining in the body automatically by gravity to avoid freezing.

Closing In Flow Direction

There are important advantages of disc (closing element) to close in the same direction of water flow.

Especially, closing in this way helps to improve sealing. Furthermore, in case of hydrant breakage due to any external hitting, sudden discharge of pressurized water from fire water pipelines is avoided and subsequently water not wasted. Another advantage is that pumping effect seen in hydrants which close in reverse direction to flow doesn't exist in hydrants closing in the same direction of flow.

In addition to closing in flow direction, thanks to its special construction of the disc like wing shape, the disc assures linear flow without turbulence, therefore enables to use hoses easily on fire.

Back-seated Disc

In VALFTEK fire hydrants, the discs are back seated in lower body when fully opens. This feature eliminates vibrations to happen during operation, resulting in minimized deformation and wear i.e. prolonged life time.

Hydrant Connection	Outlet Diameters (Coupling) ^(*)	Kv (m ³ /h) ^(**)		VALFTEK® Kv (m ³ /h)
		Single Outlet	Double Outlets	Double Outlets
DN 80	2"	40	60	121
DN 100	2½"	80	140	161

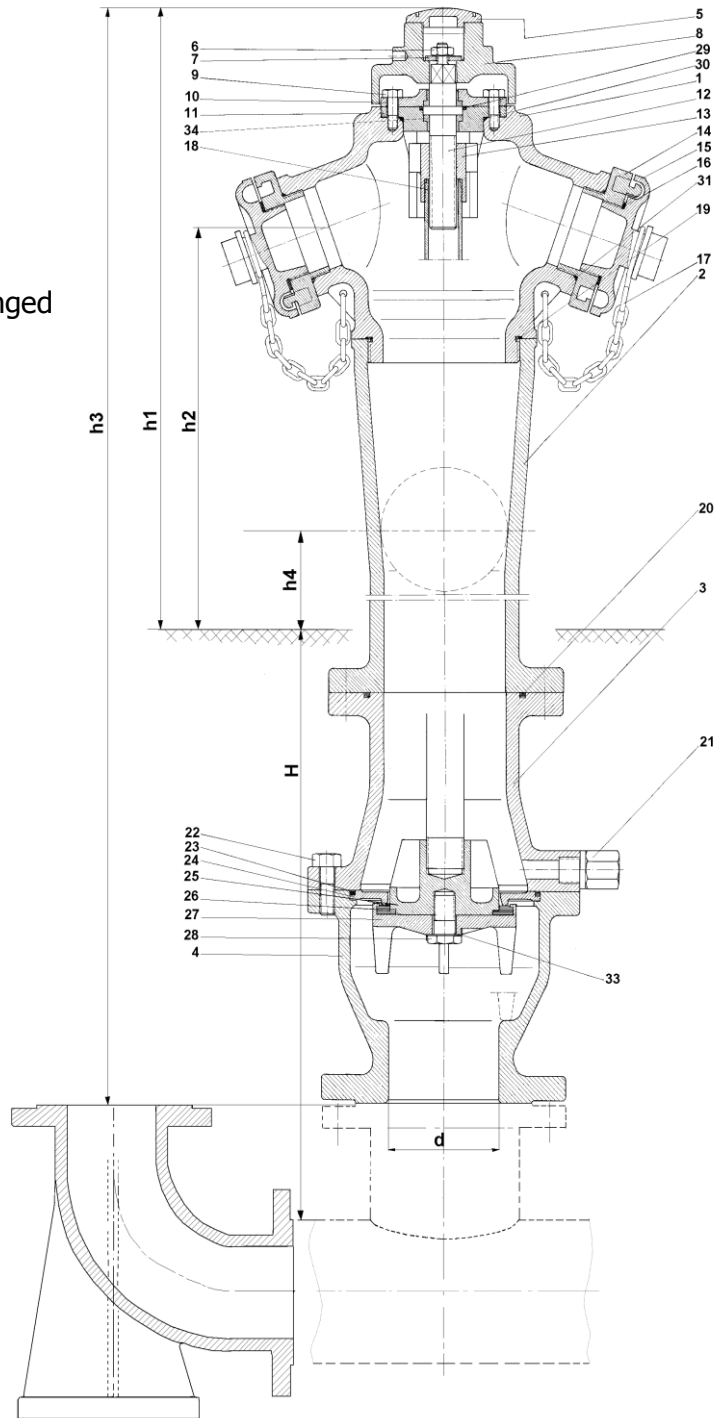
^(*) German type

^(**) Acc. to TS EN 14384 minimum flow rates (Kv)

Above Ground Fire Hydrant Type : VYH 80 - 100

Connections : DN80 – DN100
Pressure Rating : PN16
Design : Acc. to TS EN 14384
Outlets : Acc. to TS 12258 (*)
Flanges : Acc. to TS ISO 7005 PN16 Flanged
Flanged Elbow : Acc. to DIN 28538

No	Part name	Material
1	Upper barrel	JL 1040 (GG-25 Cast iron)
2	Intermediate barrel	JL 1040 (GG-25 Cast iron)
3	Conical Intermediate barrel	JL 1040 (GG-25 Cast iron)
4	Lower barrel	JL 1040 (GG-25 Cast iron)
5	Cap	Al
6	Nut	5
7	Washer	St
8	Operating head	JL 1040 (GG-25 Cast iron)
9	Bolt	5.6
10	Upper bearing cap	JL 1040 (GG-25 Cast iron)
11	Lower bearing cap	JL 1040 (GG-25 Cast iron)
12	Spindle	Stainless steel 1.4021
13	Spindle bush	Ms58
14	Storz coupling	Al
15	Coupling cap	Al
16	Coupling gasket	EPDM
17	Coupling chain	Galvanized steel
18	Disc connection pipe	St 42
19	Gasket	EPDM
20	O-ring	Nitrile rubber
21	Automatic drain valve	MS 58
22	Bolt	5.6
23	O-ring	Nitrile rubber
24	Seat	Stainless steel 1.4086
25	Disc upper part	JL 1040 (GG-25 Cast iron)
26	Sealing ring	Shore A 80 Silicone
27	Disc lower part	JS 1049 (GGG40 Nod. CI)
28	Bolt	Stainless steel 1.4301
29	O-ring	Nitrile rubber
30	O-ring	Nitrile rubber
31	O-ring	Nitrile rubber
32	Pin	Ms58
33	Security washer	Stainless steel 1.4301
34	Spindle bearing	Ms58



Type	Nom. size d	Height over pipe H	h ₁ min	h ₂ min	h ₃ ±80	h ₄	Outlets		Weight (Kg)	
							Upper	Lower		
VYH 80	80	550	1030	630	1435	350	2 x 50 (R 2")	(*)	Short	91
		900					2 x 65 (R2½")	1 x 100 (R4")(*)	Medium	100
VYH 100	100	1250			2150				Long	111

- Dimensions in mm.

- (*) In DN80 hydrants, 4" lower outlets are not available acc. to TS EN 14384.

- On request, 4" outlet can be provided on intermediate barrel (standard) or upper barrel (on request) for DN100.

- The standard colour of paint is red.

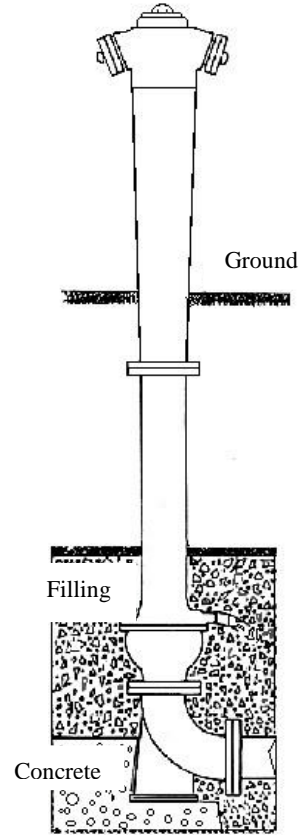
- We reserve the right to change design and material without notice.

Technical information

- ❖ Durations of fire extinguishing will depend on "Danger class" and "Inflammability". Therefore existing fire protection directives should be considered. In such directives, it is suggested to select hydrants according to danger classes, flow rates, water pressures, water supply durations and other factors.
- ❖ Overall heights of hydrants (h3) vary acc. to weather conditions of location (i.e. burying depth of fire water pipeline) and there are three lengths of hydrants in production for this purpose; 2150mm, 1750mm and 1435mm. For cold places where there is more risk for frost, burying depth of pipeline will be higher and so hydrant will be higher or visa versa.

Location and Installation

- ❖ Hydrants should be located around storages, factories, plants, high buildings, etc. so that no dead zone will exist by taking into consideration of hose lengths. Distances between two hydrants depend on risk levels of the plant; for the highest risk it may be app. 50 m. and for the lowest risk 150 m.
- ❖ In order not to damage hoses during hydrant usage and for easy water supply, distance between outlet axis and ground level should not be less than 305 mm.
- ❖ Not to be affected from high temperature and smoke during fire fighting, hydrants should be located at sufficient distance from buildings. It is recommended to install hydrants between 5-15 m. from buildings.
- ❖ A shut-off valve can be installed before hydrant. If not possible, it is suggested to design pipeline in ring form and install shut-off valves in some groups.
- ❖ For maintenance requirements and because of automatic drain system, hydrants should not be intalled in concrete, instead, in fillings like sand, gravel, etc.
- ❖ Especially, in new pipelines, pipes must be flushed with pressurized water or air otherwise some solid particles and foreign matters can block the inlet and damage seat and disc when hydrant is fully closed and then leakage starts.



All fire hydrants are fine unless you need them....



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