



NO. 02.23/10.4.1

L 1/2

PILLAR FIRE HYDRANT type NH2

<Two in one = hydrant + isolating pre-valve>

<Double reliability = use even when main valve is defective>

PROCUREMENT DATA: *1 <great flow ($K_v = 278 \text{ m}^3/\text{h}$)=minor fire damage>

*Name: Overhead fire hydrant.

*Made in accordance with the SRPS EN14384 standard.*2

*Nominal sizes: DN100, PN16.

*With isolation "pre-valve" *With control valve.

*Possibility of use even when the main valve seal is broken.

*Activation without additional tool.

*The possibility of blocking unauthorized use.

*Flow (for $D_i = 2 \times 65$): $K_v = \min 270 \text{ m}^3/\text{h}$.

*Activation moment: MOT= max. 50Nm (Class 1).

*Repair of the main valve: the other hydrants remain in operation, without digging up the ground and without dismantling the hydrant body.

*Drainage drain closed already at 20% opening stroke.

*Drainage drain repair: outside, without dismantling the hydrant.

*With a defined place of breakage due to impact, in the underground part.*3

*Fracture; without damage to the pipeline, automatic stop of water discharge.

*Breaking moment $M = \max 7800 \text{ Nm}$. *3

*Input connection:

Flange EN1092-2 (Du100, PN16) (Du150, PN16)

*Nominal height H_i :

(1350) (1550) (1850) mm

*Outlet opening D_i :

(2x65+1x100) mm

*Outlet couplings:

Specify label and standard

*Drainage:

With D1 Without D2 (particular request)

*Medium: Water

Drinking

*Colors of external surfaces:

- overhead part (not pipe):

- underground part: black

*Submit documents:

- "Prospect",

- "Test report", issued by the "authorized body",

- Valid "Certificate of Conformity", issued by an "authorized body",

*1 → "Omit/Add" as needed

*2 → The standard determines min. performance, and recommends the better

Appearance:

1. Inlet flange 2. Isolation "pre-valve"

3. Obturator - "main valve"

4. Body 4.1 Place of breakage, Due to the impact of force F

5. Cap 6. Blocking of unauthorized use

7. Control valve (safety; sealing)

8. Outlet couplings

9. Identification plate ("CE", "Kv",)

10. Drainage drain: (not defined by the standard)

type D1:

10.1 Drain valve 10.2 Drain pipe

10.3 Stone → (16÷31)mm *4

type D2:

10.1 Drainage valve 10.2 Drain pipe → (L=?) mm

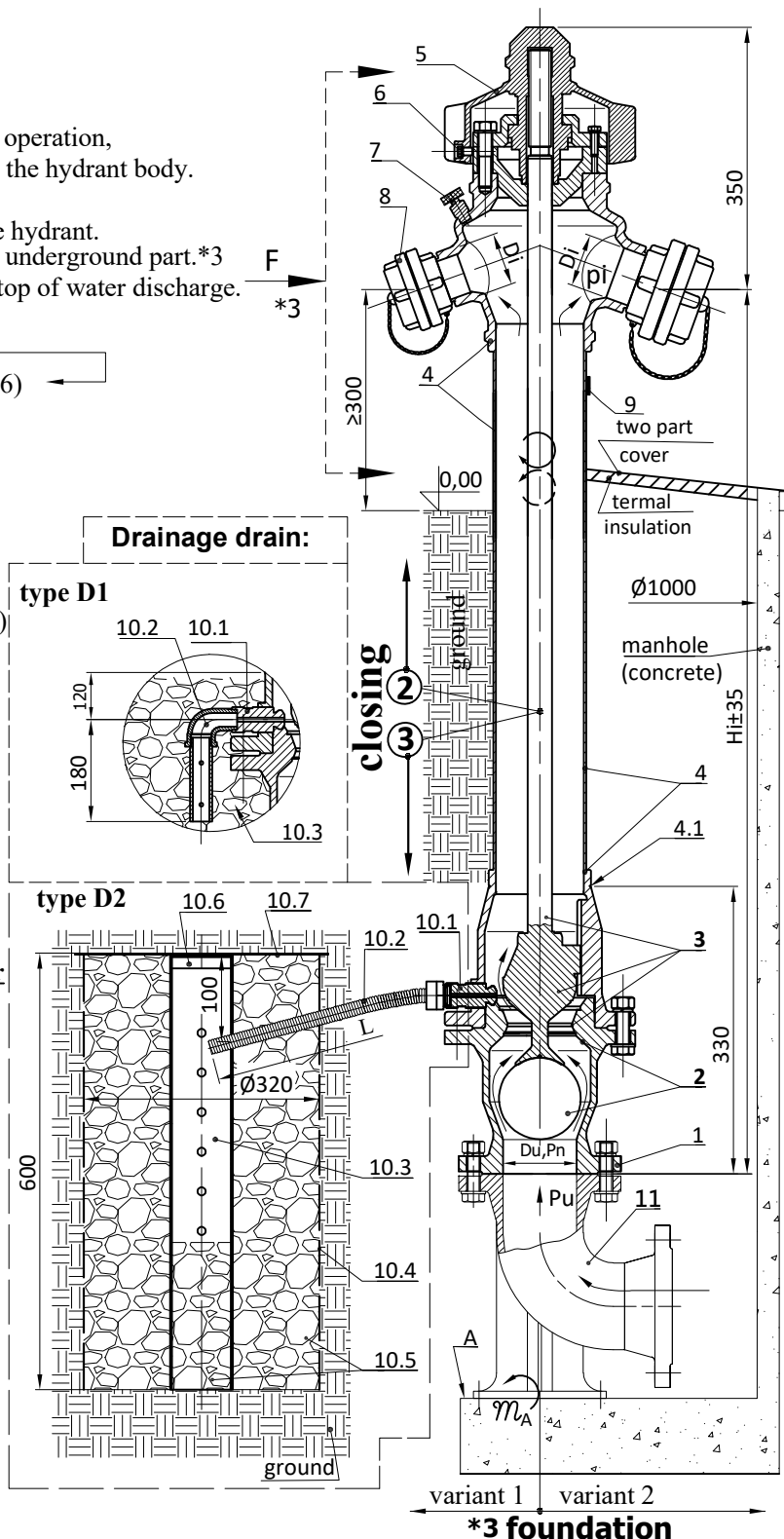
10.3 Distribution pipe 10.4 Wire basket

10.5 Stone → (16÷31) mm *4

10.6 Cover 10.7 Plastic foil

11. Arch with foot EN545 *4

*4 → Provided by the buyer

Appearance

*3 foundation



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L 2/2

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<Two in one = hydrant + isolating pre-valve>

<Double reliability = use even when main valve is defective>

<great flow ($K_v = 278 \text{ m}^3/\text{h}$)=minor fire damage>**Basic technical characteristics:***Safe = complies with the requirements of the standard EN 14384 = **CE**

*Purpose: Using water from underground pipelines for fire fighting and communal needs

* — See "Procurement Data" L1/2

*Flow: $K_v = 278 \text{ m}^3/\text{h}$, for $D_i = 2 \times 65$ *moment of activation M_{ot} : max 45Nm, (Class 1)*moment of breakage (at point 4.1) due to force F..... $M = 7500 \text{ Nm}$

*foundation

*weight..... $\sim (65 \div 76) \text{ daN}$ for $H_i (1350 \div 1850) \text{ mm}$

*materials:

-hydrant body castings..... nodular cast

-cap, and output couplings..... aluminium

-sealants..... polypropylene/elastomers

-pipe of body, spindle, and obturator seat..... stainless steel

**Advantage:**

* Isolation pre-valve (2) inside the hydrant, automatic, self-blocking, which enables:

- that the other hydrants remain in operation even when the main valve (3) malfunction,
- automatic stop of water flow, in case of breakage (4.1) due to force F,
- to omit a separate isolation valve in front of the hydrant,
- lower cost of construction and maintenance of the hydrant network,
- the use of a hydrant even in the case when the main valve (3) is broken.

* Large flow: ($K_v = 278 \text{ m}^3/\text{h}$, for $D_i = 2 \times 65$); minor fire damage.

* The possibility of using a hydrant (drainage drain closed) at a flow rate of (20÷100)%.

* Prevented damage to the supply pipeline = breakage at point 4.1, due to force F.

* Activation without additional tools, by turning the cap (5).

* Possibility of blocking (6) unauthorized use.

* Possibility to control (7) the correctness of the drainage and main valve, greater operator safety.

* Easy activation: (class 1, $MOT < 45 \text{ Nm}$) longer service life.

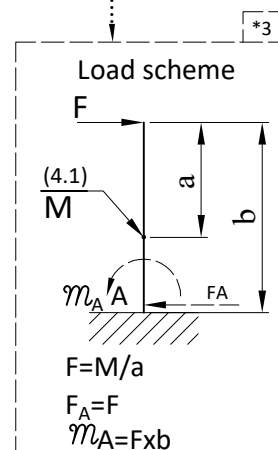
* High reliability of closing: tightness even after 1000 closings.

* High reliability of the drainage system = two outlet openings, self-flushing drainage valve.

* High strength of the closure and hydrant body, $M_sT > 250 \text{ Nm}$.

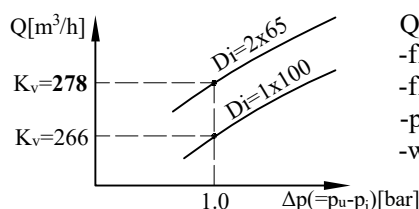
* Very easy hydrant maintenance:

- Replacing the main valve seal (3) ; without digging up the ground and without disassembling the body (4).
- The threaded part of the closure is outside the flow of water, permanently lubricated maintenance-free throughout its working life.
- Possibility (7) of checking the correctness of the drain and main valve.
- Repair of the drainage valve (10.1); from the outside, partial excavation without dismantling the hydrant.
- Easy replacement of the seat of the main valve (3) and pre-valve (2).
- The main valve seal is conical, self-flushing = dirt retention prevented = longer service life.

**Documents with the delivery of hydrant:**

*Declaration of Performance

*Instruction for safety work (installation, handling, inspection, maintenance, guarantee)

Flow of hydrant:

$$Q = K_v \times (1000 \Delta p / \rho)^{1/2}$$

- flow..... $Q [\text{m}^3/\text{h}]$
- flow coefficient..... $K_v [\text{m}^3/\text{h}]$
- pressure difference..... $\Delta p [\text{bar}]$
- water density..... $\rho [\text{kg}/\text{m}^3]$

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