PILLAR FIRE HYDRANT type NH1

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

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

PROCUREMENT DATA:*1 <great flow (Kv= 145 m³/h)=minor fire damage>

* Name: Pillar fire hydrant.
* Made in accordance with the standard EN14384, type "A" *2 CE
* Nominal sizes DN80, PN16. * Closing with the main valve "from above".
* With isolation "pre-valve", closing "from below". * With control valve.
* Possibility of use even when the main valve seal is defective.
* Activation without additional tools.
* The possibility of blocking unauthorized use.
* Flow (for Di=2x50); Kv=min 140m3/h.
* Activation moment: MOT= max. 40Nm.
* Repair of the main valve; the other hydrants remain in operation, without digging up the ground and without dismantling the hydrant body.
* Drainage system"all outside"; repair without dismantling the hydrant.
* Outlets tilted toward the ground for 25°.
* Breakage due to force F; without damage to the pipeline, automatic stop of water discharge. *3
* Breaking moment M= max 6500 Nm. *3
* Inlet connection: Flange EN1092-2 (Du80, PN16) (Du100, PN16); Particular request "describe"
* Nominal height Hi: (1300) (1500) (1800) mm; Particular request "describe"
* Outlets Di: (2x50+1x165) mm
* Outlet couplings: (2xC+1xB) DIN, system "storz"; Specify label and standard
* Drainage system: (D1) (D2); Without
* Medium: Water (technical) (drinking)
* Colors of external surfaces:
  - aboveground part (without pipe): red; special request
  - underground part: black
* **Warranty period: 5 years.**
* Submit documents:
- "Prospect";
- "Test Report", issued by an "authorized body";
- "Certificate of Conformity", issued by an "authorized body";

*1 → If necessary, "omit/add"

*2 → **The standard determines the min.performance ="the least good allowed" hydrant.**

Appearance:

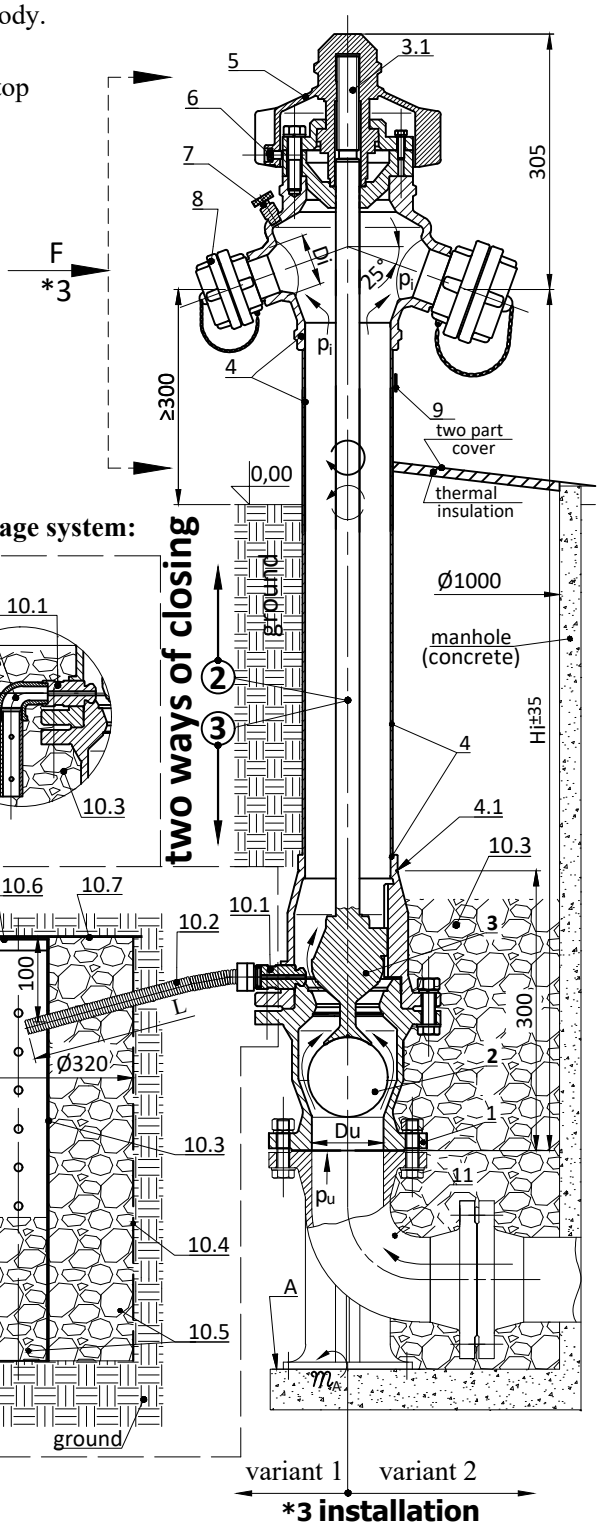
1. Inlet flange
2. Isolation **"pre-valve" (closing from below)**
3. Obturator - **"main valve" (closing from above)**
3.1 The threaded part of the obturator
4. Body **4.1 Place of breakage**, Due to the impact of force F
5. Cap (keyless activation)
6. Blocking of unauthorized use
7. **Control valve** (**safety**; sealing)
8. Outlet couplings
9. Identification plate ("CE", "K_v", ...)
10. **Drainage system:** (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 *4
10.5 Stone → (16÷31) mm *4
10.6 Cover 10.7 Plastic foil *4
11. Arch with foot EN545 *4

*4 → **Provided by the buyer**

Appearance



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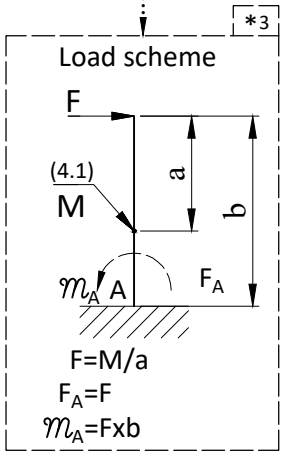
PILLAR FIRE HYDRANT type NH1

<two in one = hydrant + isolating **pre-valve>**
<double reliability = use even when main valve is defective>
<great flow (Kv= 145 m³/h)=minor fire damage>

Basic technical characteristics:

* **Safe = compliant with** the requirements of the standard **EN 14384** = CE
* **Purpose:** Taking water from underground pipelines **for fire fighting and communal needs**
* **See "Procurement data" P1/2**
* **Flow: Kv=145 m³/h**, for Di=2x50
* **Moment of activation MOT: max. 30 Nm (Class 1)**
* **Moment of breakage** (at point 4.1) due to force F ..... M=6300 Nm
* **Foundation** .....
* **Weight** ..... ~ (51÷65) daN for Hi (1300÷1800) mm
* **Materials**:
  - hydrant body castings ..... nodular cast
  - cap, and output couplings ..... aluminium
  - pipe of body, spindle, and obtutator seat ..... stainless steel
  - sealants ..... polypropylene/elastomers



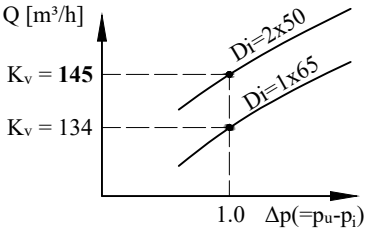
Advantages:

* **Two ways of use = double reliability**.
  - closing with the **main valve (3)**, from above **(regular work)**,
  - closing with a **pre-valve (2)**, from below **(extraordinary work)**,
* 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 the main valve (3) is malfunction.**
* **Large flow: (Kv = 145 m³//h**, for Di = 2 x 50); **less fire damage.**
* **Control valve (7) = great safety of the executor, prevention of hydrant freezing.**
* **Prevented damage to the supply pipeline = breakage at point 4.1**, due to force F.
* **Activation without additional tools**, by turning the cap (5).
* **Easy activation: (class 1, MOT < 30 Nm) longer service life**.
* **Possibility of blocking (6) unauthorized use.**
* **High reliability of closing**: impermeability even after 1000 closings.
* **Outlets tilted (25°) down, longer service life** of fire hoses.
* **The main valve seal is conical, self-flushing** = dirt retention prevented = **longer service life.**
* **Very easy hydrant maintenance**:
  - **Replacing the main valve seal (3)**; **without digging up the ground and without dismantling the body (4).**
  - **The threaded part of the closure (3.1)** is outside the flow of water, **permanently lubricated**, **maintenance-free** throughout it`s 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**.
* **Long warranty period (5 years)**.
* **Probably the best, and the most economical hydrant available.**

Documents accompanying delivery of hydrant:

* Declaration of Performance
* Instruction for safety work (installation, handling, inspection, maintenance, warranty)

Flow of hydrant:



$Q = K_v \times (1000\Delta p / \rho)^{1/2}$
- flow..... Q [m³/h]
- flow coefficient..... K_v [m³/h]
- pressure difference..... Δp [bar]
- water density..... ρ [kg/m³]

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