PILLAR FIRE HYDRANT WITH FRACTURE SYSTEM type LNH2

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

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

PROCUREMENT DATA: *1 <great flow (Kv= 278 m^3/h)=minor fire damage>

* Name: Pillar fire hydrant with fracture system
* Made in accordance with the SRPS EN14384 standard:*2 CE
* Nominal sizes: DN100, PN16.
*With isolation "pre-valve". *With control valve.
* Activation without or with an additional tool.
* The possibility of blocking unauthorized use.
* Flow (for Di=2x65): Kv=min 270m3//h.
* Activation moment MOT= max. 65 Nm (Class 1).
* The drainage drain is already closed at 20% of the opening stroke.
* Repair of the main valve: the other hydrants remain in operation, without digging up the ground and without dismantling the hydrant body.
* Fracture; without damage to the pipeline, automatic stoppage of water flow (with the condition "proper foundation").
* Breaking moment M= max 1

* Input connection: 500 daN.*3; Flange EN1092-2 (Du100, PN16) (Du150, PN16); Particular request, "describe"
* Nominal height Hi: (1350) (1550) (1850) mm; Particular request, "describe"
* Outlet opening Di: (2x65+1x100) mm; Particular request, "describe"
* Output couplings: Specify label and standard
* Drainage: With D1, D2 (particular request); Without
* Medium: Water (technical) (drinking)
*Colors of external surfaces:
- overhead part (not pipe): red; special request
- underground part: black

Deliver documents:
- "Prospect";
- "Test Report",issued by an "authorized body";
- Valid "Certificate of Conformity", issued by an "authorized body"

*1 → If necessary, "omit/add"

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

Appearance:

1. Inlet flange 2. Isolation "**pre-valve**"
3. Shutter - "**main valve**"
4. Body **4.1 Place of breaking**,Due to the impact of force F
5. Cap 6. Blocking of unauthorized use
7. Control valve (safety; tightness)
8. Output couplings
9. Ident plate ("CE", "Kv",...)
10. **Drainage drain**: (not defined by the standard)

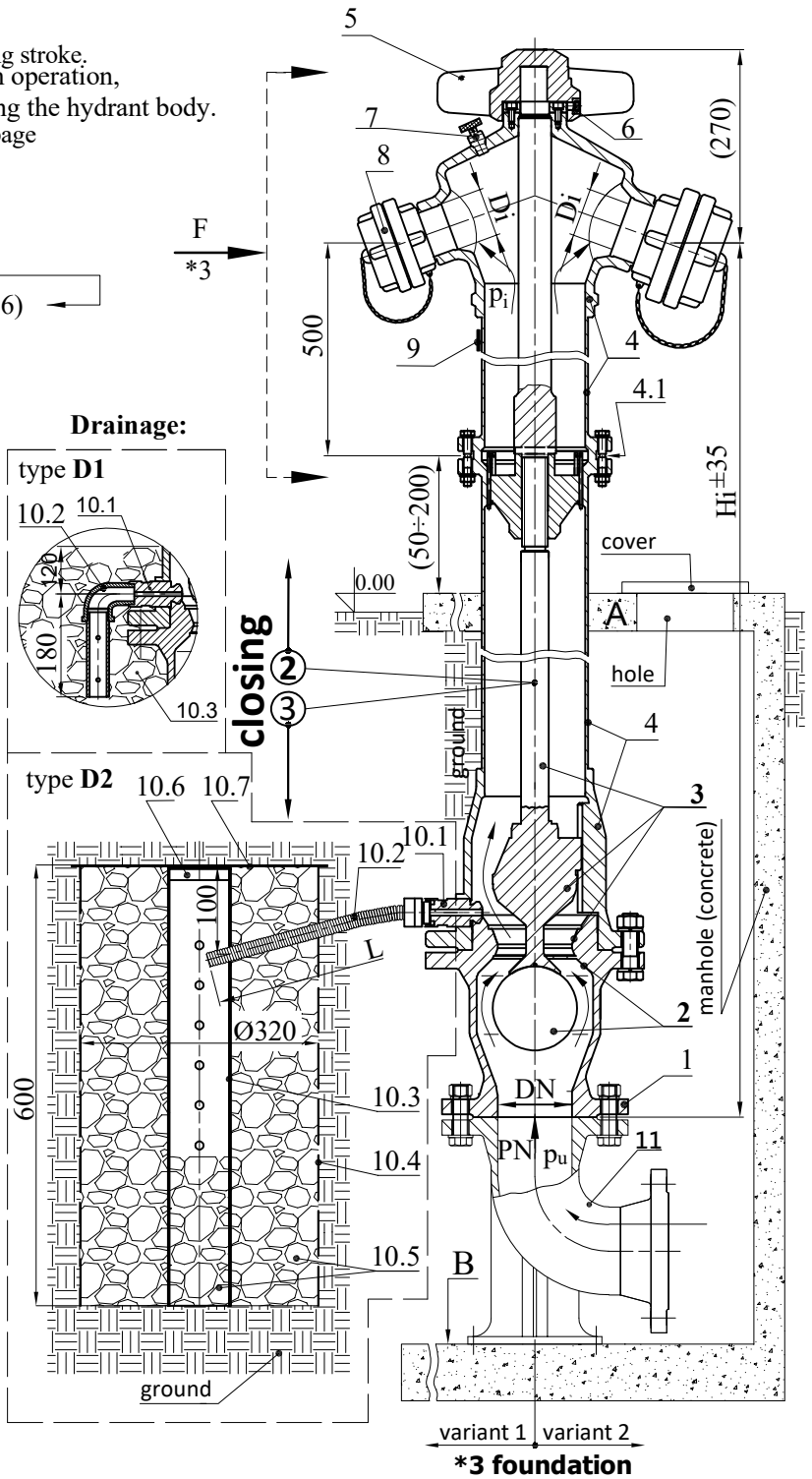
type **D1**:
10.1 Drain valve 10.2 Drain pipe
10.3 Stone → (16÷31) mm*4

type **D2**:
10.1 Drain 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*4
11.Arch with foot EN545*4

*4 → **Provided by the customer**

Appearance

Drainage:



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<great flow (Kv= 278 m³/h)=minor fire damage>

Basic technical characteristics:

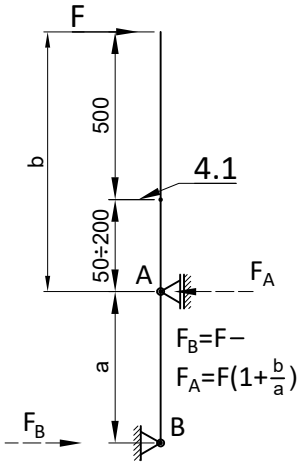
* **Safe = compliant with** the requirements of the standard **EN 14384** = CE
* **Purpose:** Taking water from underground pipelines **for fire fighting and communal needs**
* **See "Procurement data" L1/2**
* **flow: Kv= 278m³/h**, for Di=2x65

* **momenat of activation Mot: max. 55Nm, (Class 1)**
* **fracture force** ..... F=1350 daN
* **foundation** .....
* **weight** ..... ~ (57÷94) daN for Hi (1350÷1850) mm
* **materials**:

-hydrant body castings..... nodular cast
-cap, and output couplings..... aluminium
-sealants.....polypropylene/elastomers
-pipe of body, spindle, and obtutator seat..... stainless steel

*3

Load scheme
(obligation under the standard)



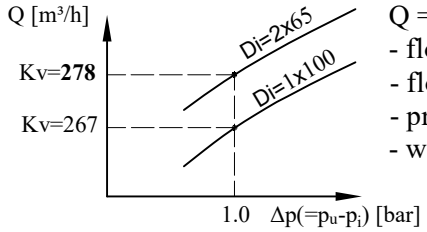
Advantages:

* 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,**
  - **to omit** a separate isolation **valve in front of the hydrant,**
  - **lower cost** of procurement and maintenance of the **hydrant network,**
  - **the use of a hydrant even when the main valve (3) is defective,**
* **Large flow: (Kv=278 m3//h**; for Di=2x65); **minor fire damage.**
* **The possibility of using** a hydrant (drainage drain closed) **at a flow rate of (20÷100)%.**
* **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 < 55 Nm) longer service life**.
* **Great closing reliability**; impermeability even after 1000 closures.
* **High reliability** of the drainage system = two outlet openings, **self-flushing drainage valve.**
* **High strength** of the closure and hydrant body, MsT > 250 Nm.
* **Very easy hydrant maintenance:**
  - **Replacing the main valve seal (3)**; **without digging up the ground and without disassembling the body (4).**
  - **Possibility (7) of checking the correctness of the drain and main valve.**
  - **Repair of the drainage valve** (9.1); from the outside, partial excavation, and **without dismantling the hydrant.**
  - **Easy replacement of seat**, 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,
  or Certificate of Constancy 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 [m³/h]
- flow coefficient..... K_v [m³/h]
- pressure difference..... Δp [bar]
- water density..... ρ [kg/m³]

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