



PILLAR FIRE HYDRANT WITH FRACTURE SYSTEM type LNH2

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

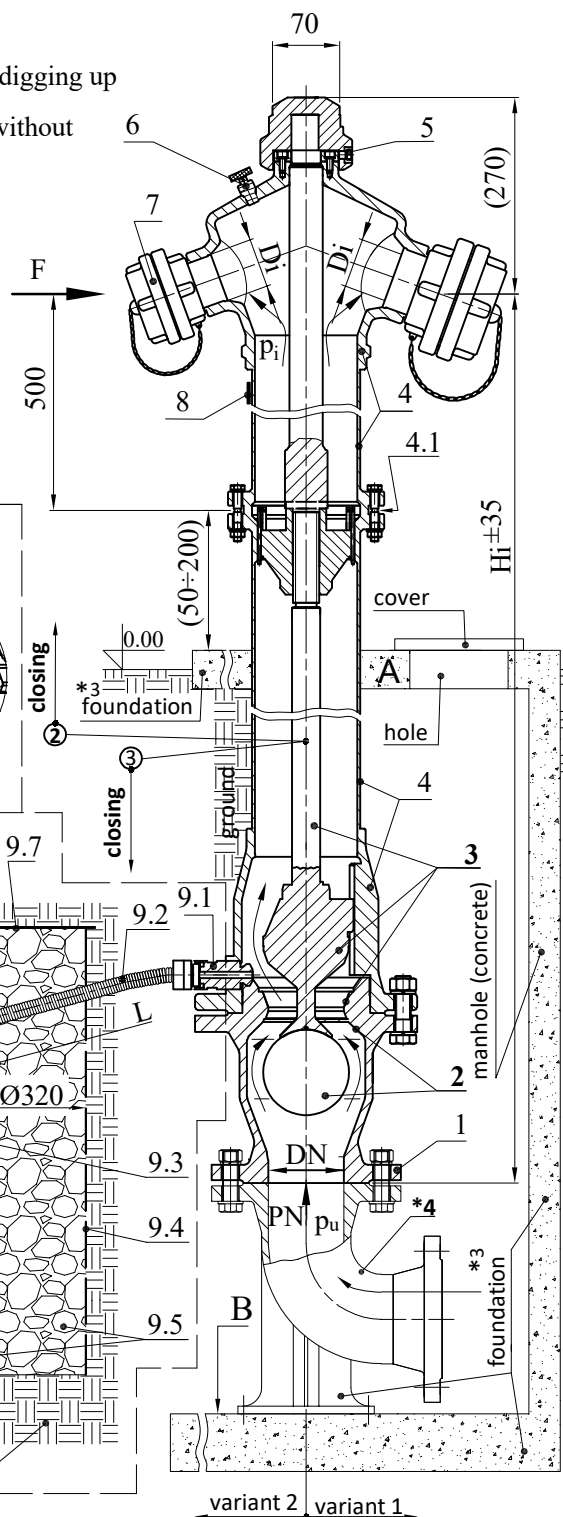
<Double reliability = use even when main valve is defective>

PROCUREMENT DATA*1

<high flow: $K_v=265 \text{ m}^3/\text{h}$ >



Appearance



- * Name: Break system pillar fire hydrant
- * Made in accordance with the standard EN14384*2
- * Nominal sizes: DN100, PN16
- * With isolating pre-valve *With control valve
- * Use even when the main valve seal is broken
- * With the blocking of unauthorized activation, or not
- * Flow K_v [m^3/h]: (for $D_i=2 \times 65$) \longrightarrow min 260
- * MOT activation moment: max. 65 Nm (Class 1)
- * Repair of the main valve: the other hydrants remain in operation, without digging up the ground and without dismantling the hydrant body
- * Break (4.1): without damage to the underground part of the hydrant, and without water leakage (with the condition "proper foundation"),*3

* Breaking force F: max 1500 daN

- * Input connection: $\left\{ \begin{array}{l} \text{Flange EN1092-2} \\ \text{(DN100, PN16) (DN150, PN16)} \end{array} \right. \longleftarrow$
- $\left\{ \begin{array}{l} \text{Particular request, "describe"} \end{array} \right. \longleftarrow$

* Nominal height H_i : $\left\{ \begin{array}{l} (1350) (1550) (1850) \text{ mm} \\ \text{Particular request, "describe"} \end{array} \right. \longleftarrow$

* Outlet opening D_i : $\left\{ \begin{array}{l} (2 \times 65 + 1 \times 100) \text{ mm} \\ \text{Particular request, "describe"} \end{array} \right. \longleftarrow$

* Output couplings: \longrightarrow Specify label and standard

* Drainage: $\left\{ \begin{array}{l} \text{With } \left\{ \begin{array}{l} D1 \\ D2 \text{ (particular request)} \end{array} \right. \\ \text{Without} \end{array} \right. \longleftarrow$

* Medium: Water (technical) (drinking)

* Submit documents:

- "Prospect"; in Serbian,
- "Test Report", issued by "authorized body"; in Serbian, or a certified translation
- Valid "Certificate of Compliance", issued by "authorized body"; in Serbian, or a certified translation

*1 \longrightarrow "Omit/Add" as needed

*2 \longrightarrow **The standard determines the 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 force F
5. Blocking of unauthorized activation
6. Control valve (safety; sealing)
7. Output couplings
8. Identification plate ("CE", " K_v ", ...)
9. **Drainage drain:** (not defined by the standard)

type D1:

- 9.1 Drainage valve
- 9.2 Drain pipe
- 9.3 Stone*4 \longrightarrow (16÷31) mm

type D2:

- 9.1 Drain valve
- 9.2 Drain pipe \longrightarrow (L=?) mm
- 9.3 Distribution pipe
- 9.4 Wire basket
- 9.5 Stone*4 \longrightarrow (16÷31) mm
- 9.6 Cover
- 9.7 Plastic foil*4

*4 \longrightarrow **Provided by the buyer**





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

Basic technical characteristics:

<high flow: $K_v=265 \text{ m}^3/\text{h}$ >

* **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:** $K_v=265 \text{ m}^3/\text{h}$, for $D_i=2 \times 65$

* **moment of activation Mot:** max. 55Nm, (Class 1)

* **fracture force** $F=1350 \text{ daN}$

* **foundation**

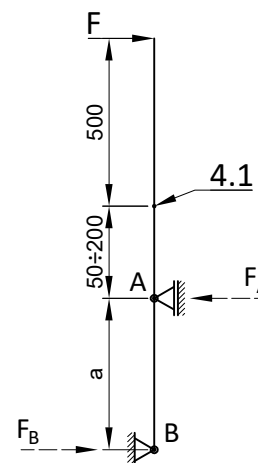
* **weight** $\sim (57-94) \text{ daN}$ for $H_i (1350-1850) \text{ mm}$

* materials:

- hydrant bodynodular cast / stainless steel
- obturator seatbrass
- outlet couplings.....aluminium
- spindle, and obturator seat.....stainless steel
- sealants.....polypropylene/elastomers



Load scheme (obligation under the standard)



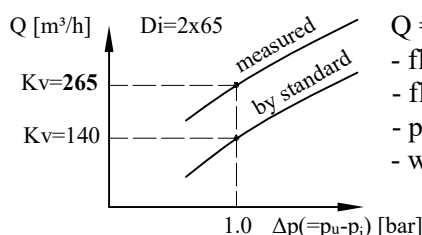
Advantages:

- * Isolation pre-valve (2) inside the hydrant, automatic, self-blocking, which enables:
 - use of the hydrant and in case the main valve (3) is broken,
 - that the other hydrants remain in operation even when the main valve seal is replaced
 - to omit a separate isolation valve in front of the hydrant,
 - lower cost of construction and maintenance of the hydrant network.
- * High flow; $K_v = 265 \text{ m}^3/\text{h}$, for $D_i = 2 \times 65$
- * In case of breakage due to force F : the hydrant remains closed, and the part of the hydrant below the breakage point remains undamaged,
- * Replacing the main valve seal: without digging up the ground and without disassembling the body,
- * The possibility of blocking (6) unauthorized activation
- * The main valve seal is conical, self-flushing = dirt retention prevented = longer service life of the seal,
- * Great strength of the obturator and the body of the hydrant, $M_sT > 250 \text{ Nm}$,
- * Easy activation: Class 1, MOT < 55 Nm (max. allowed 130 Nm; Class 3),
- * Quick activation: 1 turn until water appears, 10 turns until maximum flow (max. 15 turns allowed),
- * High reliability of the drainage system = two outlet openings, and self-flushing drainage valve
- * The possibility (6) of easy control of the correctness of closing and draining.
- * Great closing reliability; impermeability of the shutter even after 1000 activations,
- * The amount of residual water in the hydrant body, < 80 cm³ (max. allowed 150 cm³),
- * Quick drainage, $\leq 7 \text{ min}$ (max. allowed 10 min/m),
- * Easy replacement of main valve seat (3) and pilot valve seat (2),
- * Drainage valve (9.1) repair; from the outside, partial excavation, and without dismantling the hydrant body.(4)

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 [m^3/h]
- flow coefficient K_v [m^3/h]
- pressure difference Δp [bar]
- water density ρ [kg/m^3]

