



# UNDERGROUND FIRE HYDRANT type PH1

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

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

<high flow:  $K_v = 104 \text{ m}^3/\text{h}$ >



## PROCUREMENT DATA\*1

- \* Name: Above-ground fire hydrant
- \* Made in accordance with the EN14339 standard
- \* Nominal sizes:(DN80; DN100), PN16\*2
- \* With isolation „pre-valve"
- \* Possibility of use even when the main valve seal is defective
- \* Flow  $K_v$  [ $\text{m}^3/\text{h}$ ]: min 100
- \* Momentum of activation MOT: <40 Nm
- \* Repair of the main valve: the other hydrants remain in operation, without digging up the ground, and without dismantling the hydrant body

- \* Input connection:
  - Flange EN1092-2 (DN80, PN16) (DN100, PN16)
  - Particular request, "describe"

- \* Nominal height  $H_i$ :
  - (700) (850) (1000) mm
  - Particular request, "describe"

- \* Outlet opening  $D_i$ :
  - 65 mm
  - Particular request, "describe"

- \* Output coupling: Specify label and standard

- \* Drainage:
  - With
    - D1
    - D2 (particular request)
  - Without

- \* Medium: Water (technical) (drinking)
- \* Submit documents:
  - "Prospect"; in Serbian, or certified translation
  - "Test Report", issued by an "authorized body"; in Serbian, or a certified translation
  - Valid "Certificate of Conformity", issued by an "authorized body"; in Serbian, or a certified translation

\*1 If necessary, "omit/add"

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

## Appearance:

- Inlet flange
- Isolation "pre-valve"
- Obturator - "main valve"
- Body
- Adapter
- Outlet coupling
- Identification plate ("CE", " $K_v$ ", ...)
- Drainage drain:**

### type D1:

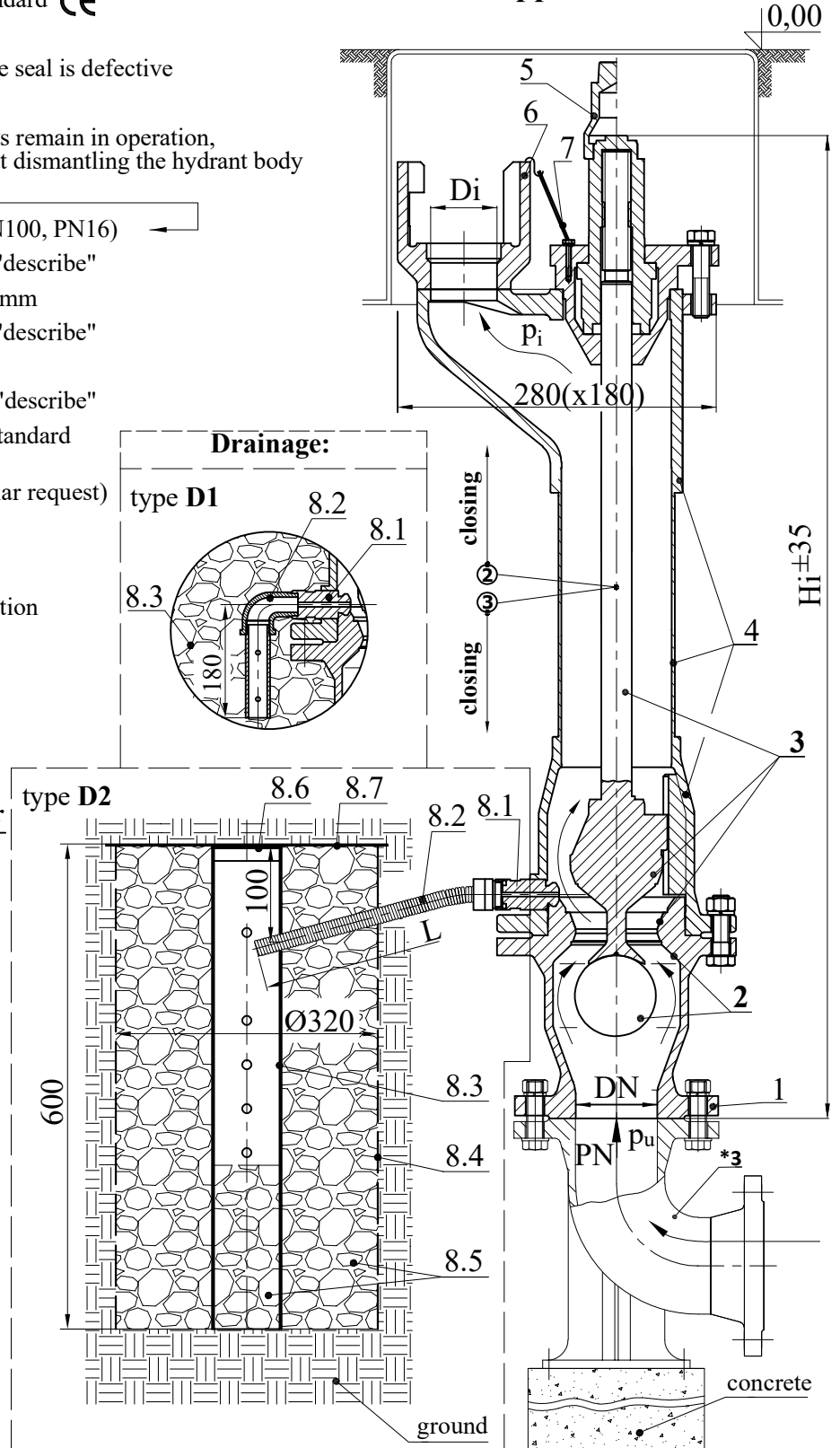
- Drainage valve
- Drainage pipe
- Stone\*3 (16÷31) mm

### type D2:

- Drainage valve
- Drainage tube (L=? ) mm
- Distribution pipe
- Wire basket
- Stones\*3 (16÷31) mm
- Cover
- Plastic foil\*3

\*3 Provided by the buyer

## Appearance



# UNDERGROUND FIRE HYDRANT type PH1

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

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

<high flow:  $K_v = 104 \text{ m}^3/\text{h}$ >



## Basic technical characteristics:

- \* **Safe = compliant with the requirements of the standard = CE**
- \* **Purpose:** Taking water from underground pipelines for fire fighting and communal needs
- \* **See "Order information" P1/2**
- \* **Flow:**  $K_v = 104 \text{ m}^3/\text{h}$
- \* **Moment of activation Mot:** max. 30 Nm (Class 1)
- \* **Weight**..... ~ (42÷48) daN for Hi (700÷1000) mm
- \* **Materials:**
  - hydrant body .....nodular cast / stainless steel
  - spindle and obturator seat.....stainless steel
  - sealant.....polypropylene/elastomers

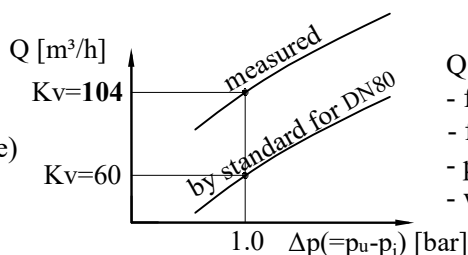
## Advantages:

- \* Isolation pre valve (2) **inside the hydrant**, automatic, self-blocking, **which enables:**
  - **to omit a separate isolation valve in front of the hydrant,**
  - **use of the hydrant and in case the main valve is defective,**
  - **that the other hydrants remain in operation even when the main valve seal is replaced**
  - **lower cost of procurement and maintenance of the hydrant network.**
- \* **High flow:**  $K_v = 104 \text{ m}^3/\text{h}$
- \* **Replacing the main valve seal: without digging up the ground and without disassembling the body,**
- \* **The threaded part of the obturator is:** out of the water flow, **permanently lubricated, maintenance-free** throughout its working life,
- \* **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 < 30 Nm** (max allowed 125 Nm; Class 3),
- \* **Ability to prevent (5) unauthorized activation,**
- \* **Quick activation:** 1 turn until water appears, 8 turns until maximum flow (max. 15 turns allowed),
- \* **High reliability of the drainage system = two outlet openings, and self-flushing drainage valve,**
- \* **Obturator tightness even after 1000 activations,**
- \* **The amount of residual water** in the hydrant body,  $< 80 \text{ cm}^3$  (max. allowed  $100 \text{ cm}^3$ ),
- \* **Quick drainage,  $\leq 5 \text{ min}$**  (max. allowed 10 min/m),
- \* **Easy replacement of seat, main valve (3) and pre-valve (2)**
- \* **Drainage valve (8.1) repair; only 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.....  $Q \text{ [m}^3/\text{h]}$
- flow coefficient.....  $K_v \text{ [m}^3/\text{h]}$
- pressure difference.....  $\Delta p \text{ [bar]}$
- water density.....  $\rho \text{ [kg/m}^3]$