

NO. 02.23/10.4.1

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 (Kv= 278 m³/h)=minor fire damage> *Name: Pillar fire hydrant. *Made in accordance with the EN14384 standard, type "A".*2 *Nominal sizes DN100, PN16. *Closing wiht 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. Appearance *Activation without additional tools. *The possibility of blocking unauthorized use. *Flow (for Di=2x65); Kv=min 270m3//h. *Activation moment: MOT= max. 50Nm. *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 towards the ground for 25°. *Breakage due to force F; without damage to the pipeline, automatic stop of water discharge.*3 *Breaking moment M= max 7800 Nm. *3 Flange EN1092-2 (Du100, PN16) (Du150, PN16) *Inlet connection: Particular request, "describe" **−**(1350) (1550) (1850) mm two part *Nominal height Hi:--Particular request, "describe" cover 7777 *Outlets Di: -(2x65+1x100) mm thermal insulation ► (2xB+1xA) DIN, system "storz" Drainage system: *Outlet couplings: Specify label and standard Ø1000 type D1 **-**(D1) (D2) -Without Technical *Drainage system: 10.1 manhole *Medium:Water Drinking (concrete) *Colors of external surfaces: - aboveground part (without pipe):—red - underground part: black *Warranty period: 5 years. Wavs *Submit documents: -"Prospect", -"Test Report", issued by the "authorized body", -"Certificate of Conformity", issued by an "authorized body",
*1 → If necessary, type D2 10.7 10.6 "omit/add" *2— The standard determines min. performance =
Appearance: "the least good allowed" hydrant. 10.2 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. Ø320[∑] 4. Body 4.1 Place of breakage, Due to the impact of force F. 5. Cap (keyless activation) 6.Blocking of unauthorized use 10.3 7. Control valve (safety; sealing) 8. Outlet couplings 9. Identification plate ("CE", "K_v",) 10. **Drainage system:** (not defined by the standard) type **D1**: 10.4 10.1 Drain valve 10.2 Drain pipe —(16÷31)mm***4** 10.3 Stone 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** 10.7 Plastic foil*4 10.6 Cover



11. Arch with foot EN545*4

-Provided by the buyer

TECOOP - ENG D.O.O

INDUSTRIJSKI INŽENJERING

Srbija - 26000 PANČEVO, Savska 12 - 14. Tel. +381 13 346226 Tel./Fax +381 13 346042 www.tecoop.co.rs / tecoopeng@mts.rs

variant 1

variant 2

*3 installation



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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 = (
- *Purpose: Useing water from underground pipelines for fire fighting and communal needs
- *See "Procurement Data" P1/2
- *Flow: Kv=278m³/h, for Di = 2x65.....
- *Moment of activation MOT: max 45Nm, (Class 1)
- *Moment of breakage (at point 4.1) due to force F.... M=7500 Nm
- *Foundation
- *Weight $\sim (65 \div 76)$ daN for Hi $(1350 \div 1850)$ 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=278m³/h, for Di=2x65); 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 < 45 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 the delivery of hydrant:

*Declaration of Performance

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

Flow of hydrant:

$$\begin{split} Q &= K_v \; x \; (1000 \Delta p \; / \; \rho) \! / \! 2 \\ \text{-flow} &= Q \; [m^3/h] \\ \text{-flow coefficient} &= K_v \; [m^3/h] \\ \text{-pressure difference} &= \Delta p \; [bar] \\ \text{-water density} &= \rho \; [kg/m^3] \end{split}$$



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