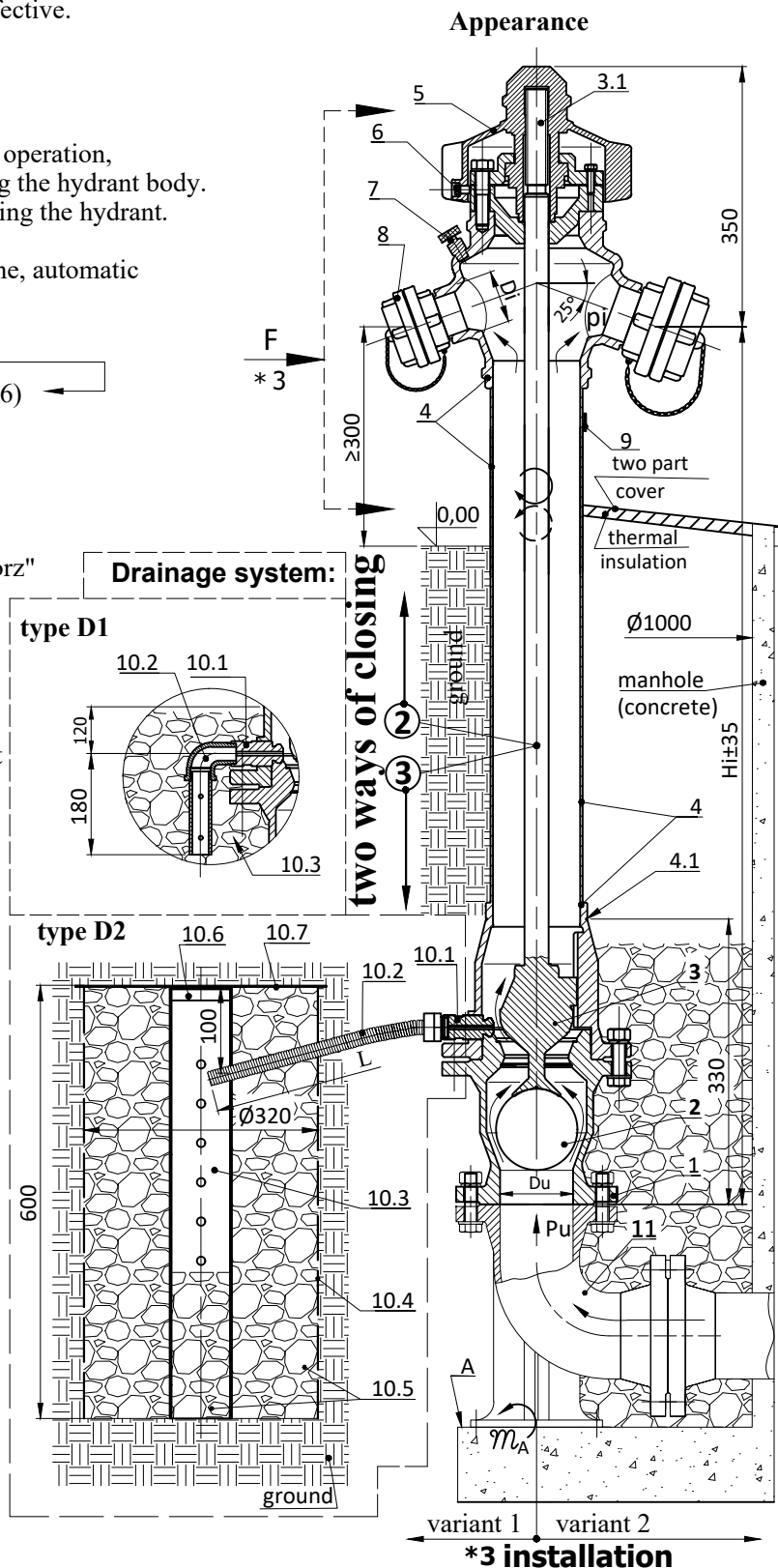


PROCUREMENT DATA: #1 <great flow (Kv= 278 m³/h)=minor fire damage>



PILLAR FIRE HYDRANT type NH2

- <Two in one = hydrant + isolating pre-valve>
- <Double reliability = use even when main valve is defective>
- <great flow ($K_v = 278 \text{ m}^3/\text{h}$)=minor fire damage>

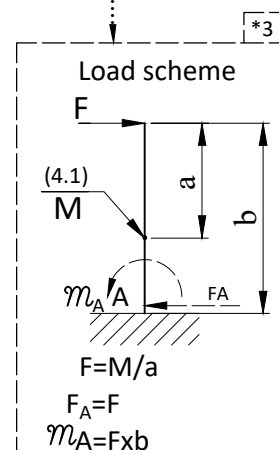
Basic technical characteristics:

- * **Safe** = compliant with the requirements of the standard EN 14384 = **CE**
- * **Purpose:** Using water from underground pipelines for fire fighting and communal needs
- * See "Procurement Data" P1/2
- * **Flow:** $K_v = 278 \text{ m}^3/\text{h}$, for $D_i = 2 \times 65$
- * **Moment of activation MOT:** max 45 Nm, (Class 1)
- * **Moment of breakage** (at point 4.1) due to force F..... $M = 7500 \text{ Nm}$
- * **Foundation**
- * **Weight** $\sim (65 \div 76) \text{ daN}$ for $H_i (1350 \div 1850) \text{ mm}$
- * **Materials:**
 - hydrant body castings nodular cast,
 - cap, and output couplings aluminium,
 - pipe of body, spindle, and obturator seat stainless steel,
 - sealants polypropylene/elastomers,



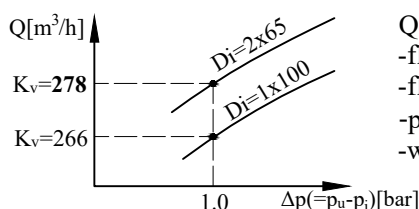
Advantages:

- * **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: ($K_v = 278 \text{ m}^3/\text{h}$, for $D_i = 2 \times 65$); 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 its 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:

$$Q = K_v \times (1000 \Delta p / \rho)^{1/2}$$

- flow Q [m³/h]
- flow coefficient K_v [m³/h]
- pressure difference Δp [bar]
- water density ρ [kg/m³]