MONITOR type MNH2

No. 07.23/10.4.1
P 1/2

<Three in one = hydrant + water launcher + isolating pre-valve>

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

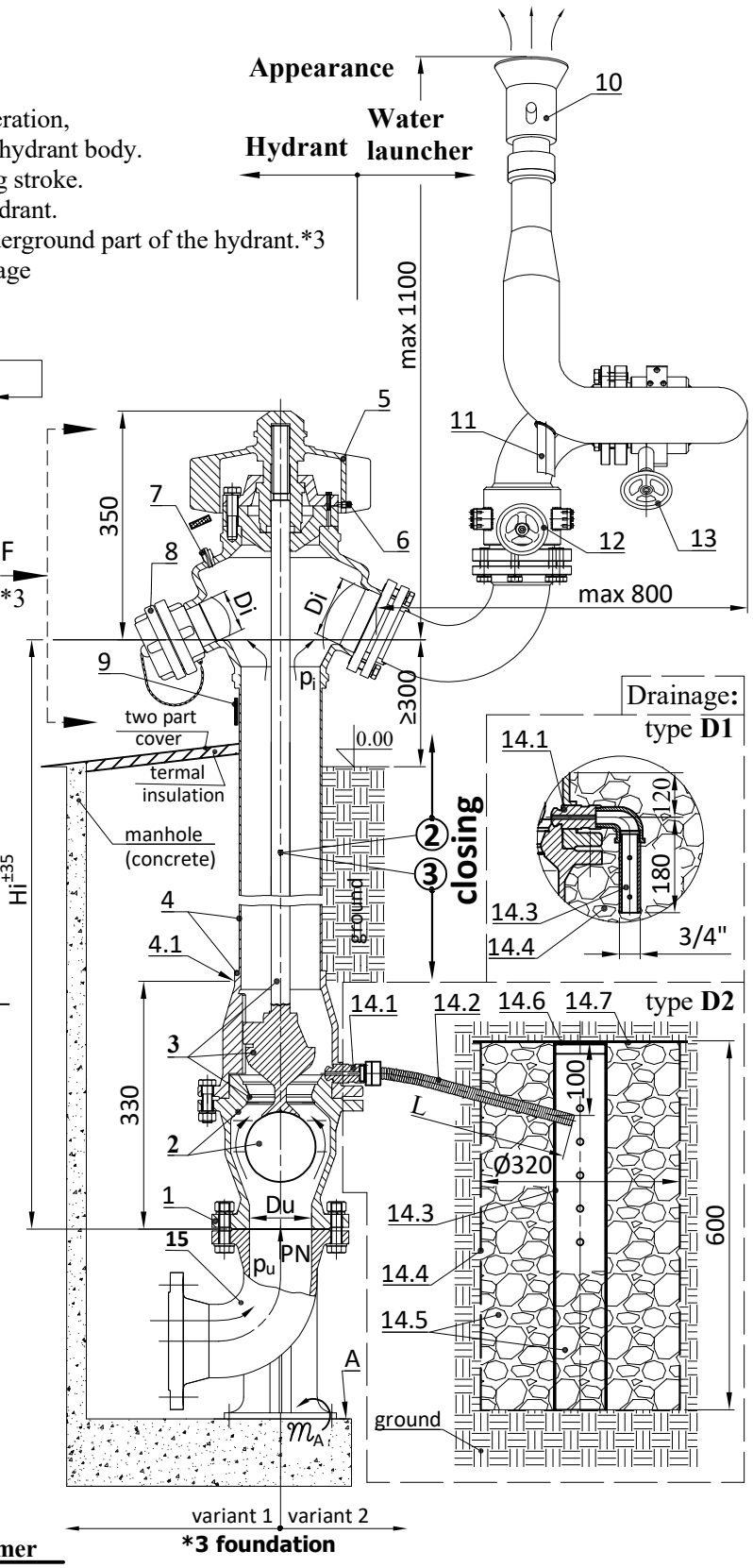
<great flow (Kv= 278 m^3/h)=minor fire damage>

PROCUREMENT DATA:*1

* Name: Monitor
* Hydrant is made in accordance with the 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. 50 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.
* The drainage drain is already closed at 20% of the opening stroke.
* Drainage drain repair: outside, without dismantling the hydrant.
*With a defined place of breakage due to impact, in the underground part of the hydrant.*3
* Fracture; without damage to the pipeline, automatic stoppage of water flow (with the condition "proper foundation").
* Breaking moment M= max 7800 Nm.*3

*Input connection: Flange EN1092-2 (Du100, PN16) (Du150, PN16); Particular request "describe"
*Nominal height Hi: (1350) (1550) (1850) mm; Particular request, "state"
*Outlet opening Di: (2x65+1x100) mm; Particular request, "describe"
*Outlet 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
*Water launcher: Type(BV1) (BV2)
*Submit documents:
-"Prospect",
-"Test report", issued by the hydrant "authorized body"
-Valid "Certificate of Conformity" hydrant, issued by an "authorized body",

***1** "Omit/Add" as needed
***2** **The standard determines min. performance, and recommends the better**



Appearance:
1. Inlet flange
2. Isolation "pre-valve"
3. Shutter - "main valve"
4. Body **4.1 Place of brekaking,** Due to the impact of force F
5. Cap 6. Blocking of unauthorized use
7. Control valve (safety; tightness)
8. Output couplings
9. Identity plate ("CE","K/v",...)
10. Nozzle
11. Lever for positioning the jet direction
12. Fixing the horizontal direction
13. Fixing the vertical direction
14. Drainage drain: (not defined by the standard)

type D1:
14.1 Drainage valve 14.2 Drain pipe
14.3 Stone → (16÷31) mm*4

type D2:
14.1 Drain valve 14.2 Drain pipe → (L=?) mm
14.3 Distribution pipe
14.4 Wire basket
14.5 Stone → (16÷31) mm*4
14.6 Cover
14.7 Plastic foil*4
15. Arch with foot EN545*4

***4** **Provided by the customer**

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MONITOR type MNH2

<Three in one = hydrant + water launcher + isolating **pre-valve>**
<Double reliability = use even when main valve is defective>
<great flow (Kv= 278 m³/h)=minor fire damage>

Basic technical characteristics:

Hydrant:

* **Safe = compliant with the** requirements of the standard **EN 14384** = CE
* **See "Procurement data" L1/2**
* **flow: Kv= 278 m³/h,** for Di = 2x65
* **moment of activation Mot<45 Nm, Class 1**
* **moment of breakage** (at point 4.1) due to force F..... M=7500 Nm
* **foundation** .....
* **weight** ..... ~ (65÷76) 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

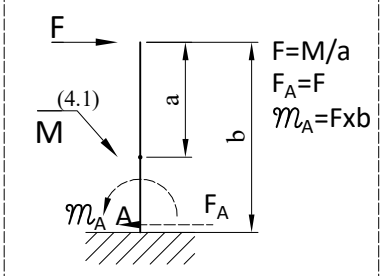
Water launcher:

type BV 1 **type BV 2**

- nominal openings.....Di = 65 mm.....Di = 100 mm
- nominal pressure .....PN 16 bar
- choice of jet shape
- choice of jet direction .....vertically / horizontally
- fixing the selected jet position
- weight.....40 daN.....60 daN
- materials:
  - body .....steel
  - nozzle.....aluminium
  - sealants .....elastomers

*3

Load scheme



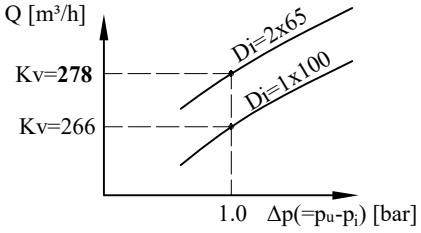
Advantage:

* 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 in the case when the main valve (3) is broken.**
* **Large flow: (Kv = 278 m3//h**, for Di = 2 x 65); **minor fire damage.**
* **The possibility of using** a hydrant (drainage drain closed) **at a flow rate of (20÷100)%.**
* **Prevented damage to the supply pipeline = breakage at point 4.1**, due to force F.
* **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 < 45 Nm) longer service life**.
* **High reliability of closing**: tightness even after 1000 closings.
* **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).**
  - **The threaded part of the closure** 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**.
  - **Easy replacement of the seat** of the 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,
* 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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