MONITOR type MNH2

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

PROCUREMENT DATA*1 **<Double reliability = use even when main valve is defective>**

<High flow: Kv=265 m³/h>

Hydrant:

*Name: Above-ground fire hydrant
*Made in accordance with the standard EN14384*2 CE
*Nominal sizes: DN100, PN16
*With isolation "pre-valve" *With control valve,
*Possibility of use even when the main valve seal is broken;
*Activation without additional tools,
*With the blocking of unauthorized activation, or not
*Flow Kv [m3/h]:(for Di=2x65) → min 260
*Activation moment MOT: max. 50Nm (Class 1)
*Repair of the main valve: the other hydrants remain in operation, without digging up the soil and without dismantling the hydrant body;
*With a defined point of breaking (4.1) due to force F, or not
*Break (4.1): without pipeline damage,automatic stop of water discharge (with the condition "proper foundation"), *3
*Breaking moment: max 7800 Nm

*Input connection: → Flange EN1092-2 (DN100, PN16) (DN150, 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)
*Water launcher: Type(BV1) (BV2)

*Submit documents:
-"Prospect",
-"Test report", issued by the "authorized body"
-Valid "Certificate of Conformity", issued by an "authorized body",

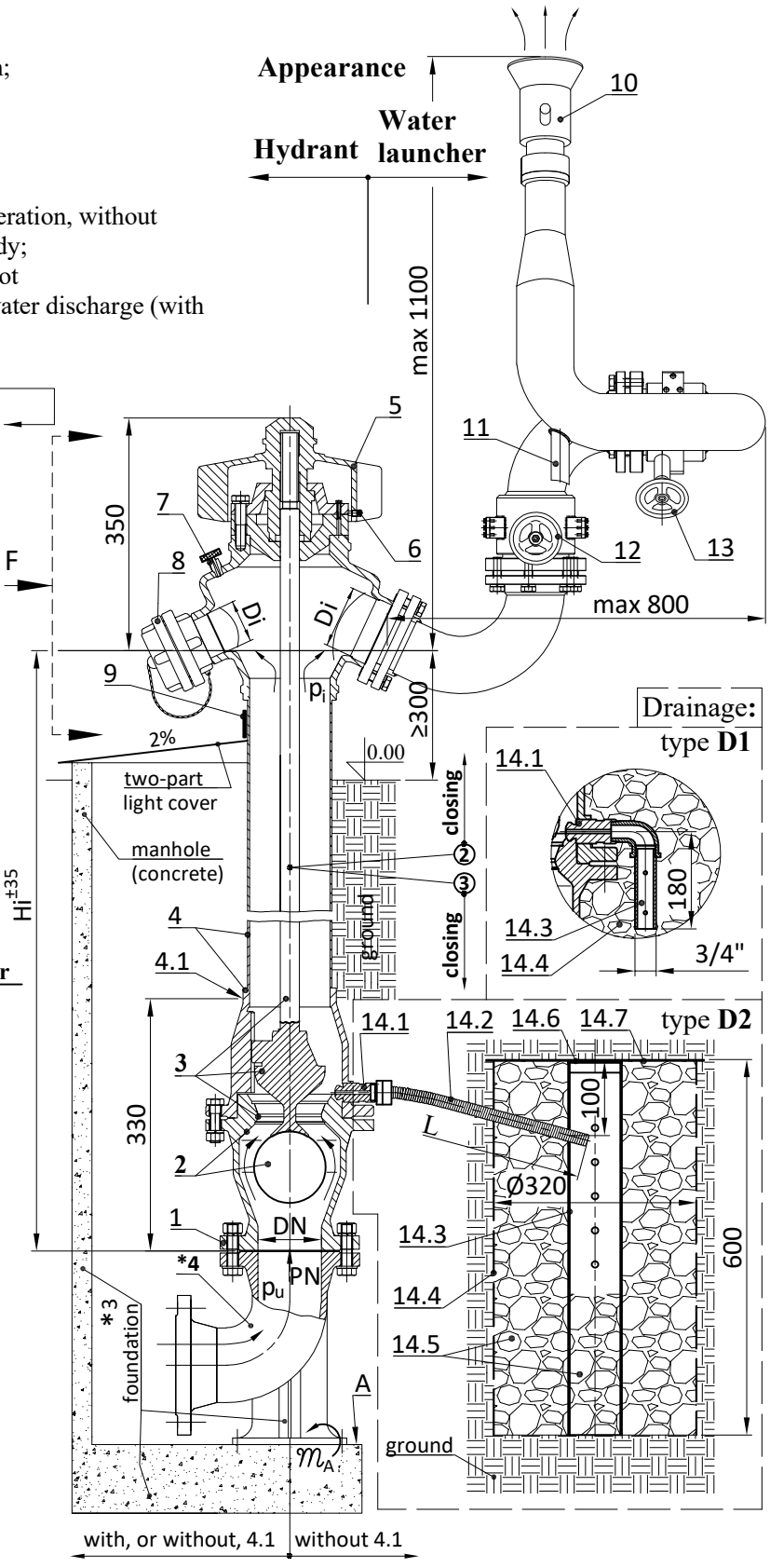
*1 → "Omit/Add" as needed
*2 → **The standard determines min. performance, and recommends the better**

Appearance:
1. Inlet flange
2. Isolation **"pre-valve"**
3. Obtutator - **"main valve"**
4. Body 4.1 Place of failure, due to force F
5. Cap 6. Blocking of unauthorized activation
7. Control valve (safety; sealing)
8. Outlet couplings
9. Identification plate ("CE","K_v",...)
10. Nozzle
11. Jet direction positioning lever
12. Fixing the horizontal direction
13. Fixing the vertical direction
14. **Drainage drain:** (not defined by the standard)

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

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

***4 → Provided by the buyer**



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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>
<High flow: Kv=265 m³/h>

Basic technical characteristics:

Hydrant:

* **Safe = compliant with the** requirements of the standard **EN 14384** = CE
* **See "Procurement data" L1/2**
* **flow: Kv= 265 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** ..... ~ (55÷92) daN for Hi (1350÷1850) mm
* **materials**:
  - hydrant body .....nodular cast / stainless steel
  - spindle and obturator seat .....stainless steel
  - sealants.....polypropylene/elastomers
  - cap, and outlet couplings.....aluminium

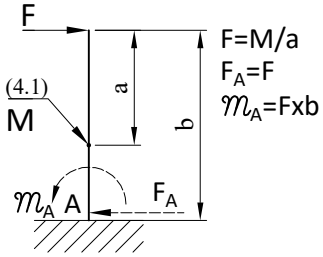
Water launcher:

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



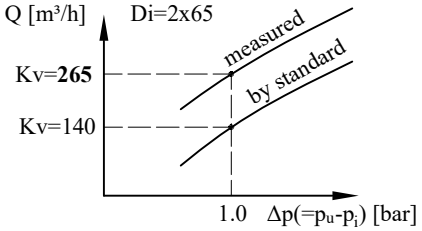
Advantages:

* 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
  - automatic stop of water leakage, 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.**
* **High flow: Kv=265 m³/h,** for Di=2x65
* **Replacing the** main valve seal(3)**: without digging up the ground and without disassembling the body**(4),
* **The threaded part of the obturator is:** out of the water flow**,**
  permanently lubricated, maintenance-free throughout its working life,
* **Prevented damage to the supply pipeline = breakage at point 4.1,** due to force F,
* **Activation without additional tools,** by turning the cap (5) on top of the hydrant,
* **Possibility of blocking** (6) **unauthorized activation**
* **The** main valve **seal is conical, self-flushing =** dirt retention prevented **= longer service life of the seal,**
* **High strength** of the obturator and body of the hydrant**,** MsT > 250 Nm,
* **Easy activation: Class 1, MOT < 45 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 (7) of easy control of the correctness of closing and draining.**
* **Obturator tightness even after 1000 activations,**
* **Amount of residual water** in the body of the hydrant, < 80 cm³ (max. allowed 150 cm³),
* **Fast draining, ≤5 min** (permitted max. 10 min/m),
* **Easy replacement of seat,** main valve (3) and pre-valve (2)
* **Drain valve repair** (14.1); from the outside, partial excavation, and **without dismantling the hydrant body.**(4)

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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