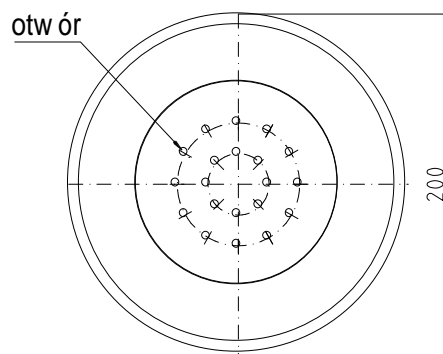
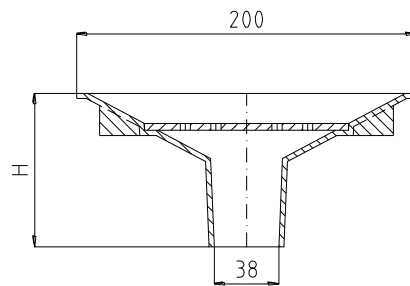


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|----------------------------|------------------------|-----------|
| <b>DATA SHEET</b>          | <b>BRIDGE ELEMENTS</b> | <b>MS</b> |
| <b>BRIDGE FILTER DRAIN</b> | <b>MS01, MS02</b>      |           |

1. Name of product:

**“ANCOR” BRIDGE FILTER DRAIN OF GLASS-RESIN LAMINATE, TYPE MS**



Rys. 1 Example of ANCOR bridge filter drain

2. Related documents:

National Technical Assessment no. IBDiM-KOT-2017/0073 „Filter drain of plastics for draining of bridge insulations”

3. Purpose of product:

“ANCOR” bridge filter drain is designed for point drainage of water from the level of hydro-insulation placed on flat surfaces in engineering constructions. The filter drain collects water that goes through layers of bridge pavement laid on hydro-insulation. The filter drain can be used without limitations on road and rail engineering constructions.

4. Description of product:

“ANCOR” bridge filter drain is made of glass-resin laminate reinforced with glass fiber. Thanks to this, it is very resistant to aggressive chemicals and variable temperatures in the range from -35°C to +230°C. The filter consists of two elements : a discharge filter cone with stabilizing wings and a strainer. The discharge filter cone with stabilizing wings consists of a plate and a discharge pipe. The strainer is installed in a plate, which has inlet openings on two circles.

|                            |                        |           |
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“ANCOR” bridge filter drains are produced in variants that differ in the diameter of a plate or the diameter of a discharge pipe. The diameter of the plate and discharge pipe can be adapted to an individual design of the bridge engineering structure. A design of the “ANCOR” bridge filter drain for a bridge structure is specified in the executive documentation prepared by a manufacturer and approved by the contracting authority.

### 5. Principles for installation:

A bridge filter drain should be embedded in a bridge deck before concreting that deck.

A discharge pipe of the filter cone should be extended with a pipe of diameter ca. 50mm made of e.g. polyethylene PE, polypropylene PP, polyester resin, stainless steel or polyvinyl chloride PVC, of length depending on a thickness of the bridge deck.

For objects subject to modernization, the filter drain should be placed in a pre-drilled hole, and the joint should be filled with non-shrink mortar.

### 6. Properties of glass-resin laminate reinforced with glass fiber

Table 1 presents requirements for properties of glass-resin laminate reinforced with glass fiber that the “ANCOR” bridge filter drain is made of :

**Table 1**

| Item | Designation of type                 | Properties   | Requirement  | Unit of measure | Research as per :  |
|------|-------------------------------------|--|--------------|-----------------|--------------------|
| 1    | 2                                   | 3  | 4            | 5               | 6                  |
| 1    | „ANCOR” bridge filter drain type MS | Guaranteed compressive strength  | $\geq 100$   | MPa             | PN-EN ISO 604:2006 |
|      |                                     | Guaranteed tensile strength when bending   | $\geq 100$   | MPa             | PN-EN ISO 178:2011 |
|      |                                     | Frost resistance after 150 cycles of freezing and defrosting in water in temp.: -18°C/18°C | $\geq F 150$ | -               | PN-B-06250:1988    |

### 7. Parameters of ANCOR bridge filter drain:

| Item | Designation of filter drain | Diameter of plate [mm] | Ext./Int. diameter of discharge pipe [mm] | Height H [mm] | Height of plate [mm] | Diameter of strainer [mm] | Number of inlet openings | Area of inlet openings [mm <sup>2</sup> ] |
|------|-----------------------------|------------------------|---|---------------|----------------------|---------------------------|--------------------------|---|
| 1    | 2                           | 3                      | 4   | 5             | 6                    | 7                         | 8                        | 9   |
| 1    | MS02                        | 200                    | 43/38                                     | 80            | 40                   | 120                       | 20                       | 565,2                                     |