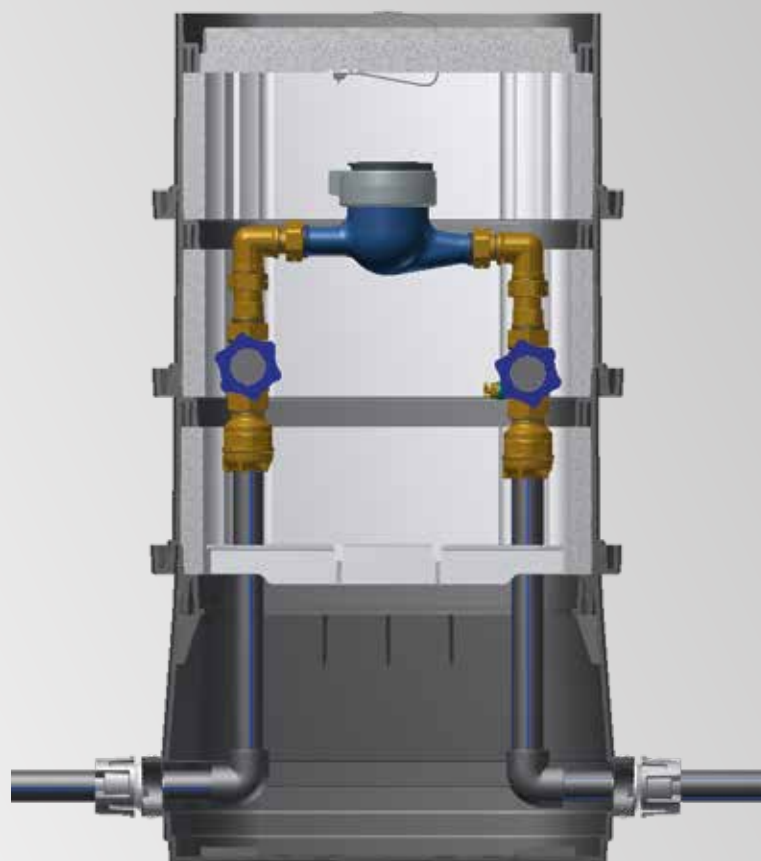




# The Water Meter Box.



**WZS**

**WE ARE  
DIFFERENT.**

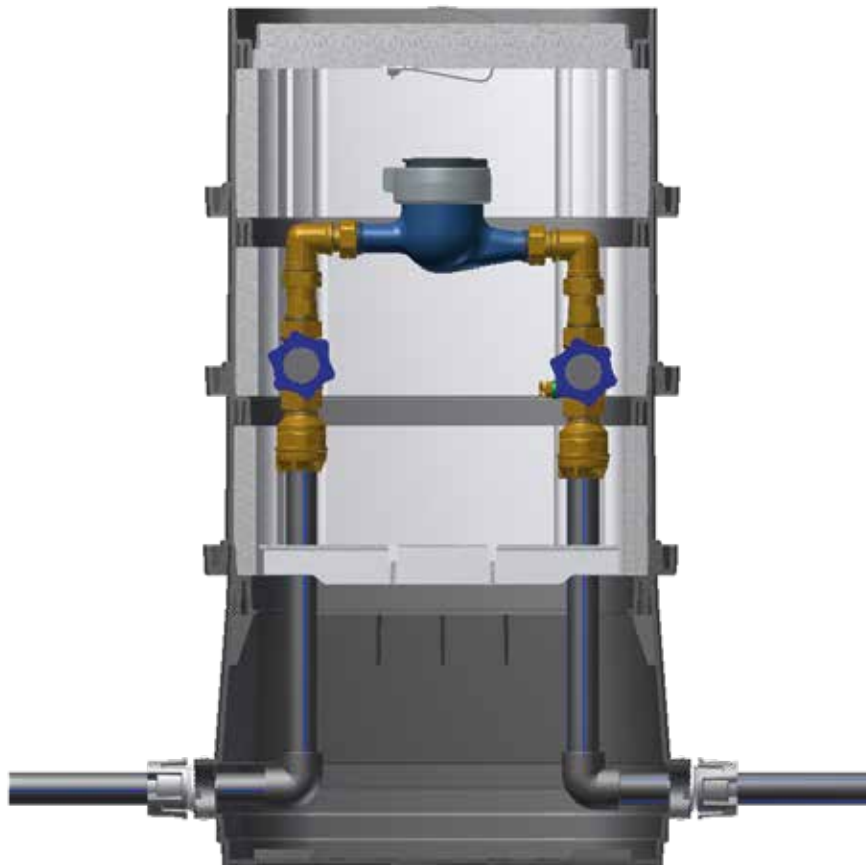
**WITH  
SUCCESS.**

# The Water Meter Box

With increasing frequency, new buildings and renovations of existing buildings are equipped without suitable rooms for house connections or utility rooms. A water meter box is thus an optimal and common alternative for the installation of a water meter facility.

Using a box, the water transfer point is shifted from the inside of the building to the property boundary – in this way the water supplier can access the water meter at any time. The BEULCO water meter box with protection from frost is intended for the installation of water meter systems outside buildings. It is not only suitable for the house connection, but also for the connection of cemeteries, parks, garden plots, camp sites, green areas or of similar fields.

Due to its small dimensions, the BEULCO water meter box is extremely lightweight. Additionally, its modular design enables an easy installation on site without complex earthworks.



Accessing the water meter box is not necessary and not possible. Thus, the appropriate accident prevention regulations concerning the access to box are not applicable.

The BEULCO water meter box belongs to the category of a not accessible box according to DVGW working sheet W538. (DVGW = German testing institute for gas and water).

### Characteristics

#### Modular design

The BEULCO water meter box is designed modularly and consists of a basic module, several top modules, a flexible one and a cover. The individual models are screwed together in order to be secured during transport. The basic module is already prepared and equipped with the conduits necessary for the connection as well as with the water meter system. The basic module can be individually increased by top modules. The final module is adjustable by 16 cm in height and inclination. Using the rectangular cover for load classes B125 and C250, the flexible module is not necessary. The final module is closed by a cover. The modular design makes the BEULCO box flexible for different installation situations and enables an easy installation and an adjustment on site.

#### Components

The water meter box is equipped with components in approved BEULCO quality. All materials which come in contact with drinking water meet the latest requirements of the European Drinking Water Directive 98/83/EC as well as the lists of the German Federal Environment Agency.

Components that come in contact with drinking water meet the requirements according to DIN 2000. All components are designed for a permissible operating pressure of PN 10.

The proven and maintenance-free Quickturn valves enable the change of water meters without problems, even after long times without activation. The upper parts of the valves are absolutely free of dead space and can be opened and closed quickly by only 2.5 turns.

#### Frost resistance

The box body is equipped with a polystyrene insulation inside. Permeating heat from the ground ascends inside the box and is collected in the upper part. Thus, a frost-free installation of the water meter below the cover is possible even in times with very low temperatures. The polystyrene insulation is suitable for all box covers and additionally prevents the penetration of dust and sand as well as conduces to protect the penetration of heat and coldness.

The choice of dimension has to be settled with the installation depth of the conduits and must be defined by the responsible person. In order to install the box frost-resistently, its ground has to be embedded in the frost-free area by minimum 20 cm.

#### Water permeability

Pressing ground water and penetrating surface water are often critical factors for the use of water meter box. The BEULCO water meter box is a specialist for these factors. It is quite consciously not a closed system and guarantees a fast leakage of ground and surface water. Due to the installation height of the water meter the components are safely protected against penetrating water. In contrast to closed box systems, the penetrating water runs safely and exactly through the discharge openings over the box ground into the rubble drain bed or in the soil.

## Used materials

The box body consists of a high-quality polypropylene (PP) cover with a polystyrene insulation inside. The construction of the components provides a special stability of the whole body. The box covers are made of polypropylene with a load height up to 1.5 tons or of gray cast iron with load heights up to 12.5 tons and 25 tons.

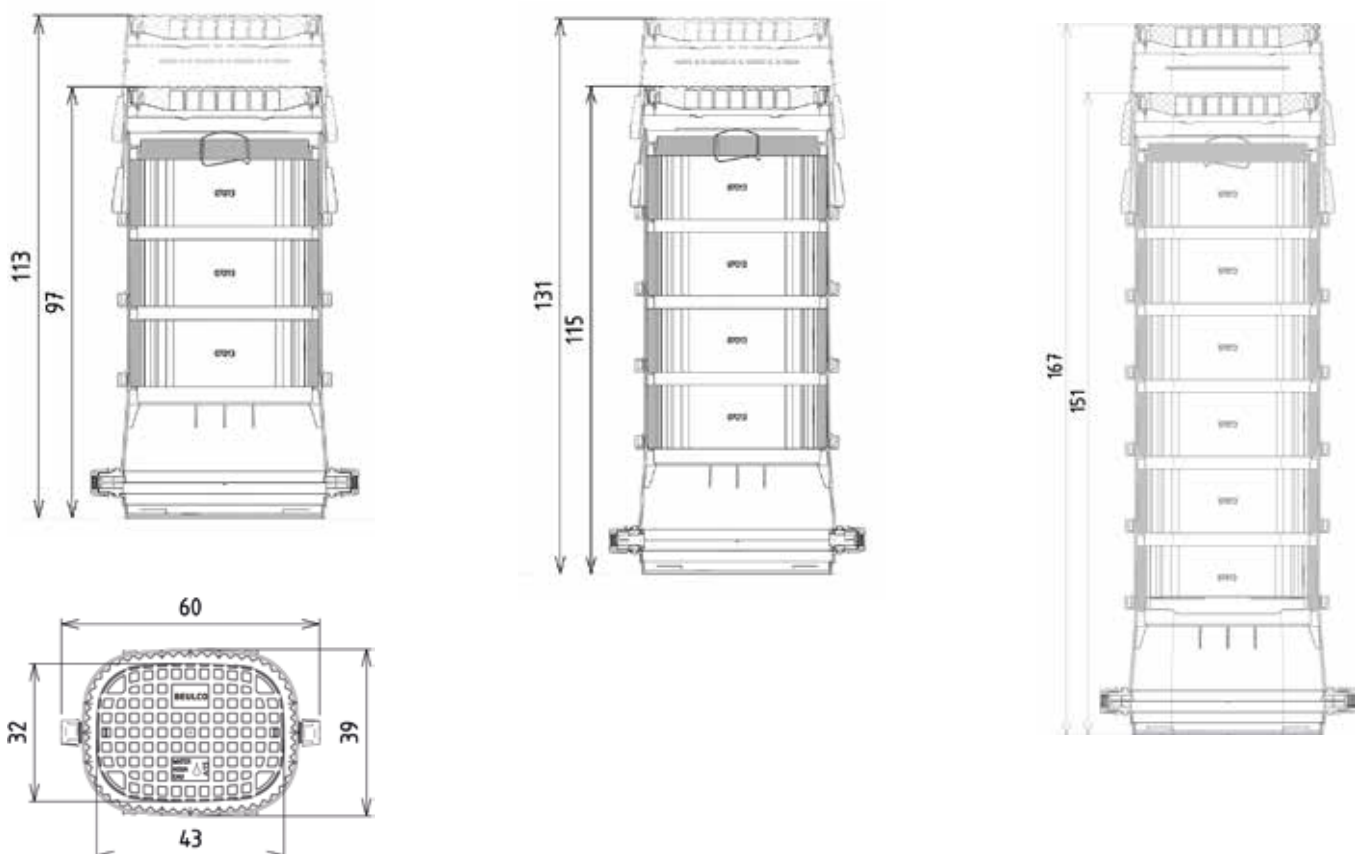
The connecting conduits are made of plastic proved by DVGW. All brass components with contact to drinking water are made of alloys according to the European Drinking Water Directive 98/83/EC and the valuation basis of German Federal Environment Agency of DVGW.

The used elastomers and plastics meet the regulations of KTW (recommendation of the German Federal Health Agency) and the DVGW working sheet W 270.

## Dimensions

In order to guarantee the professional installation in all situations, the box is available in different versions. If it turns to be too small on site, the height of the box can be changed optionally by additional modules. In this case the pre-installed water meter system can be heightened by special BEULCO couplings as needed.

By the use of a flexible box module (inclination cover) the box cover can be changed by up to 16 cm in height and inclination angle, e.g. if the water meter box has to be installed in uneven areas. The water meter box is available in three basic versions, further lengths on request.



### Connections

The connecting conduits in the basic versions are equipped with pipes, diameter 32 (DN25), proven by DVGW. Both conduits consist of a pipe instead of a thread connection and can be joined comfortably by means of various PE pipe connectors, either by screwing, plugging-in or welding.

### Box covers - referring to DIN 1229 and DIN EN 124

#### Load class A15

This class comprises green areas and traffic areas which are used exclusively by pedestrians and cyclists.

The maximum load limit is 1,5 tons.



#### Load class B125

For the use in sectors with load class B125, a separate cover made of cast iron is necessary. There are two types available: constructed analogously to the rounded plastic cover or in a rectangular form\* with a frame for ideal adaption in paved traffic areas.

With these covers the water meter box can be installed in traffic areas which are loaded by max. 12.5 tons, e.g. pavements, pedestrian zones, parking lots or similar areas.



#### Load class C250\*

A box cover for load class C250 is available on request.

The load limit can be extended up to 25 tons.



\*The rectangular covers are secured by a provided screw.

The covers of load class B125, C250 and possibly higher classes have to be installed with concrete. For other box covers an installation with concrete is recommended.

## Norms and Regulations

Assembly, installation and execution of the necessary activities have to comply with the legal regulations of the European Drinking Water Directive 98/83/EC, the accident prevention regulations and all applicable standards and regulations including the generally accepted technical regulations. The operating instructions of the appropriate clients or the implementing companies have to be respected, also the RSA 95 "Guidelines for safety of working places at streets".

Please note in particular:

- DIN EN 805: „Water supply – requirements to water supply systems and their components outside of buildings“
- DIN EN 806: „Technical regulations for the drinking water installation“
- DIN 1988: „Technical Regulations for the drinking water installation“, German national addition to DIN EN 806
- DVGW working sheet W 570: „Fittings for the drinking water installation“
- DVGW working sheet W 270: „Increase of microorganisms on materials for the drinking water sector“
- KTW Guidelines of the German Federal Environment Agency
- List "Metallic materials suitable for drinking water hygiene" of the German Federal Environment Agency

## BEULCO Water Meter Box

### Preparing Activities and placing the box

Before application, the water meter box has to be checked for damages or impurity. A damaged box or a damaged component cannot be used.

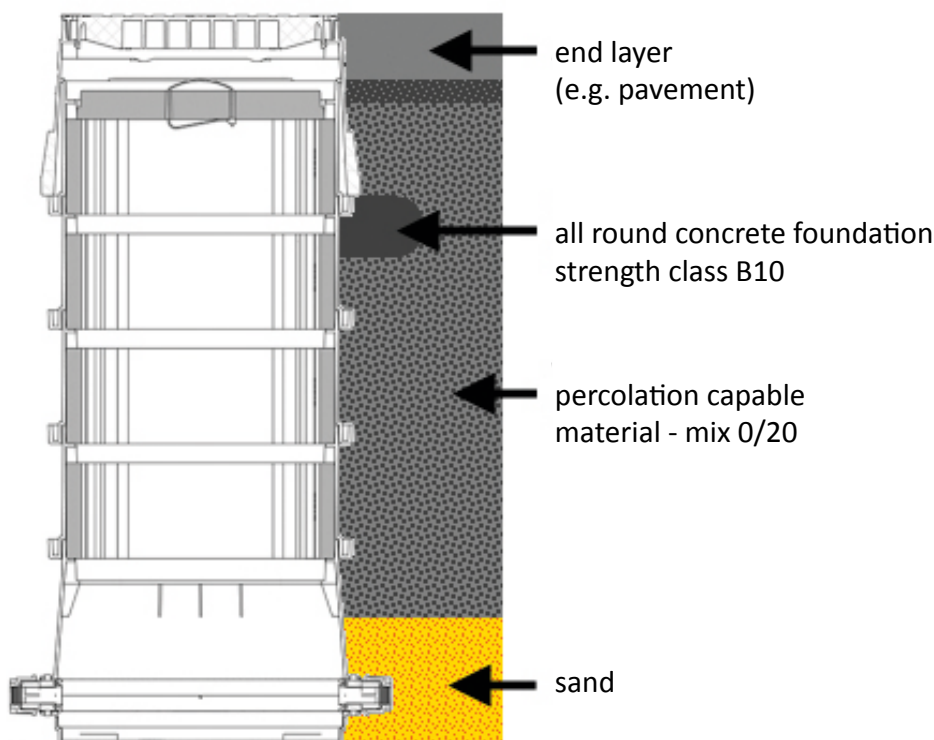
The water meter box is delivered ready to use and can be placed in the prepared trench. The trench bottom must be flattened as planned and pre-sealed, so that the box stands vertical and even. While placing, please mind the flow direction of water.

### Connection of conduits

The water-bearing pipelines have to be placed directly to the box outside. Thus no further thread connections are necessary. The BEULCO water meter box can be connected comfortably via different PE pipe connectors. Among others, welded, plug-in or compression connections are possible. Suitable connection sets are available as accessories (see page 11). Before connecting the box, ensure that the pipeline is flushed and no substances can get into the system.

### Filling the trench

After successful leak testing of the conduits and the connection, the trench can be filled. Ensure, that the trench is filled in layers and that the filling process happens very even in order to guarantee a safe sealing.



The covers of load class B125, C250 and possibly higher classes have to be installed with concrete. For other box covers an installation with concrete is recommended.

If it is necessary to prevent the penetration of roots or insects into the box, it is possible to use a layer of geotextile beneath the basic module.



**Installation during temporary ground level**

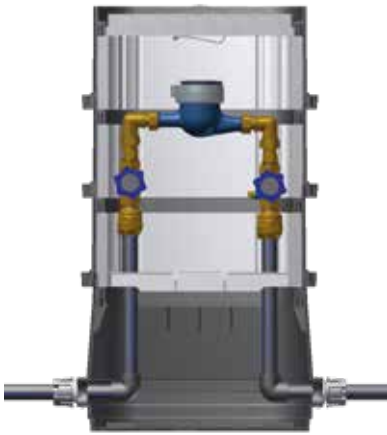
Particularly with new buildings it is a challenge to adjust the water meter box to the later and final ground level. Often, the final surface layout and the height of the water meter installation is not yet certain.

The BEULCO water meter box offers support with simple means. As a temporary solution, you can place the box at the designated position. Let the completing module and cover on the lowest level and fill the trench as described. During later work on the ground surface (e.g. subsequent pave work), the module can easily be revealed and adjusted to the final ground level. Only then you build the concrete foundation all around the flexible box module and refill the upper section.

**Startup operations and installation of water meter**

Before installing the water meter, flushing the circuits is necessary. Please use the delivered bridging pipe for that purpose. It serves as a placeholder for the water meter and for testing the pressure in the installation. Do not use it for continuous operation.

After the conduits are flushed successfully, the bridging pipe has to be removed and replaced by the water meter. Because of the heightened position of the water meter, the use of wireless or smart-meters is possible without problems. A contact with water that might be on the box ground is not possible due to the open construction.



**WATER METER BOX**

**Model 69000**

completely prepared for water meter Qn 2,5 (before Q<sub>3</sub> = 4), without cover consisting of:

- basic module with connecting circuits 32 mm
- 3, 4 or 6 top modules (depending on the version)
- inner insulation
- no cover
- Quickturn inlet/outlet valve 1" with non-return valve in front
- bridging pipe

Item may differ from the picture.

| version | basis      | min. height | max. height | weight  | D | W | pkg. unit | EAN no. 4027848 |
|---------|------------|-------------|-------------|---------|---|---|-----------|-----------------|
| 1,0 m   | 60 x 40 cm | 97 cm       | 113 cm      | 15,5 kg | ● | ● | 1         | 370979          |
| 1,2 m   | 60 x 40 cm | 115 cm      | 131 cm      | 17,5 kg | ● | ● | 1         | 370993          |
| 1,6 m   | 60 x 40 cm | 151 cm      | 167 cm      | 23,5 kg | ● | ● | 1         | 375790          |

**Covers**



**PLASTIC COVER A15**

**Model 69300**

rounded, incl. flexible module for adjustment of height and inclination

Item may differ from the picture.

| load capacity | weight | pkg. unit | EAN no. 4027848 |
|---------------|--------|-----------|-----------------|
| up to 1,5 t   | 4 kg   | 1         | 371020          |



**CAST IRON COVER B125**

**Model 69300**

rounded, incl. flexible module for adjustment of height and inclination

Item may differ from the picture.

| load capacity | weight  | pkg. unit | EAN no. 4027848 |
|---------------|---------|-----------|-----------------|
| up to 12,5 t  | 10,5 kg | 1         | 371037          |

APPLICATION D ● = Drinking water  
W ● = Water



**CAST IRON COVER B125**

Model 69300

rectangle, hinged with collar, lockable

Item may differ from the picture.

| load capacity | weight | pkg. unit | EAN no. 4027848 |
|---------------|--------|-----------|-----------------|
| up to 12,5 t  | 21 kg  | 1         | 371044          |



**CAST IRON COVER C250**

Model 69300

rectangle, hinged with collar

Item may differ from the picture.

| load capacity | weight | pkg. unit | EAN no. 4027848 |
|---------------|--------|-----------|-----------------|
| up to 25 t    | 21 kg  | 1         | 371051          |

**Accessories**



**EXTENSION MODULE**

Model 69100

for individual height adjustment  
incl. insulation

Item may differ from the picture.

| height | pkg. unit | EAN no. 4027848 |
|--------|-----------|-----------------|
|        |           |                 |

**The following products are suitable to connect the water meter box:**

Please order two items each.

**Compression fitting with loose insert pipe - product group A2**

Coupling standard or reduced

| DN | PE pipe connection | EAN no. 4027848- |
|----|--------------------|------------------|
| 25 | 32                 | 117406           |
| 32 | 40 - 32            | 117932           |



**Plug-in connector without insert pipe - product group A11**

Coupling standard or coupling with reduction set

| DN | PE pipe connection | EAN no. 4027848- |
|----|--------------------|------------------|
| 25 | 32                 | 340842           |
| 32 | 40 - 32            | 341214 + 350285  |



**Compression fitting without insert pipe - product group A3**

Coupling standard or reduced

| DN | PE pipe connection | EAN no. 4027848- |
|----|--------------------|------------------|
| 25 | 32                 | 123506           |
| 32 | 40 - 32            | 123582           |



**Compression fitting BEULCO BlackLine - product group A4**

Coupling standard or reduced

| DN | PE pipe connection | EAN no. 4027848- |
|----|--------------------|------------------|
| 25 | 32                 | 371723           |
| 32 | 40 - 32            | 371808           |





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