Solutions for modern building design

SHOWER BASE ELEMENT

with integrated floor drain pump – TUB-PUMP-S

www.luxelements.com
The problem:
The connection point to the downpipe is a few centimetres too high.
The solution!

Drainage without gravity flow

It is not always possible to install a flush with the floor shower without any obstructions. The gravitational force does not work wherever the wastewater cannot be drained with sufficient gradient to the downpipe. One of the most common challenges is, for example, replacing an old raised shower base with a modern flush with the floor shower. The connection point to the downpipe in older buildings is often a few centimetres too high.

The perfect solution for such cases is the installation of a shower base with an integrated and sealed-in floor drain pump. The first product on the market, which fulfills these requirements, is TUB-PUMP-S from LUX ELEMENTS.
The first flush with the floor shower base which pumps itself

The TUB-PUMP system combines tileable, hard foam shower base elements, with its factory-fitted seal and slope with an integrated, sealed floor drain pump. A range of substrate elements of differing thicknesses allows flexible height adjustment at the respective installation situation.

For any use a matching product
Choose between two product variants with different floor drain pump models.

TUB-PUMP-S, with an installation height of just 95 mm thickness without adhesive layers if used with a substrate element, is ideal when a flat solution is desirable or necessary.
In the case of TUB-PUMP a higher-performance floor drain pump is installed with respect to pumping height and flow rate (see technical data). Installation height without adhesive layers when using two substrate elements is 125 mm.

Both products are supplied as standard in two square and two rectangular formats.

Special formats
You can not find the right product? We also manufacture made-to-measure! Sizes, shapes, thicknesses etc., that do not correspond to the standard range can be enquired about separately at LUX ELEMENTS. After successful verification of the feasibility we will create a non binding offer. Once we receive your order, the order will be manufactured.
TUB-PUMP – the principle

at the example of TUB-PUMP-S

TUB-PUMP-S are hard foam shower base elements with integrated slope including a pre-installed, sealed floor drain pump plus substrate elements as installation aid. The same principle applies for the TUB-PUMP with higher-performance floor drain pump and higher installation height.

Hard foam support element 30/45 mm

Hard foam support material made of LUX ELEMENTS®-FOAM with dual-sided mortar coating and glass fibre fabric. 4-sided slope with sealing on the upper side.

Floor drain system

with floor drain pump

Independent of the water supply from the pipework. A float-controlled technology switches the floor drain pump on as soon as water hits the shower base. (Drainage capacity see technical data)

TUB-PUMP-S is not a lifting system according to BS EN 12050-2, but was specially designed to drain showers.

Substrate element

Two substrate elements (height 50 and 30 mm, used depending on the installation situation) made of LUX ELEMENTS® FOAM are supplied for height adjustment.
LUX ELEMENTS TUB®-PUMP-S
Shower base element with integrated floor drain pump

Benefits
at a glance

- **Innovative product**
  shower base with slope including sealed-in floor drain pump

- **Standard-compliant plate-type sealing**
  according to DIN 18534-6

- **Low maintenance**
  Pump mechanism accessible from above without dismantling

- **Problem-solving for renovations**
  flush with the floor shower even where there is no gravity flow to the downpipe

- **Design variety**
  four standard sizes and individually customised products

**2-part reversible grate**
made from stainless steel, the rear surface can be tiled, additional grate section made from stainless steel with slots and an attachable stainless steel profile

The schematic illustration shows the LUX ELEMENTS TUB®-PUMP-S MR 1200/900
**TUB-PUMP – technical data**

**Product Description**

LUX ELEMENTS®-TUB-PUMP are hard foam shower base elements with integrated and sealed floor drain pump and an incorporated slope including 2 substrate elements. The shower base elements consist of a hard foam core made from expanded polystyrene with a double-sided glass fibre fabric reinforced special mortar coating and topsurface, factory finished sealant.

**Applications**

LUX ELEMENTS®-TUB-PUMP shower base elements must be finished off with ceramic covering. The floor drain pump can be used wherever wastewater cannot reach the drainpipe by gravity flow. This can be the case, for example, in old buildings, in the attic or in the cellar. The shower base elements can be utilised for all applications where the applicable building and safety regulations prescribe the requirement for barrier free construction methods such as e.g. homes for the elderly, disabled person’s dwellings, etc. but, of course, also when comfort and optical appearance are deciding factors for modern constructions. Thus our shower bases ≥ 120 x 120 cm and ≤ 150 x 150 cm are certified according to the appropriate standards.

The LUX ELEMENTS®-TUB-PUMP products are equivalent to the bonded panel-type sealing materials described in DIN 18 534 Part 6. They are usable for the water action class W2 as AIVP. We would ask that you consult our Technical Department before using them in the water action class W3.

The LUX ELEMENTS®-TUB-PUMP shower base elements comply with the requirements for constructional waterproofing when utilised in conjunction with ceramic tiles and pavings in accordance with Building Regulation Lists A Part 2, current No. 2.50. The range of application refers to moisture exposure class A for directly exposed floor areas in rooms in which service or cleaning water is frequently or continuously used, such as e.g. transitional areas in swimming pools and shower units (public and private).

**General Building Authority Approved Test Certificate** No. P-AB/20802/05-2008 issued by Kiwa MPA Baustest GmbH Niederlassung TBU Greven.

Furthermore, the LUX ELEMENTS®-TUB-PUMP shower base elements are system components for the LUX ELEMENTS®-WATERTIGHT SOLUTION sealing system and fulfil the directive for the European Technical Approval for ‘Watertight covering kits for wet room floors and or walls – Part 3: Kits based inherently on watertight boards’, ETAG 022-3.
System components

- **LUX ELEMENTS®-DRY-DB** is a sealing tape fleece backed on both sides, which is ideally suited for wall/floor connections and for the formation of wall corners.
  - Width: 100 mm
  - Thickness: approx. 0.6 mm

- **LUX ELEMENTS®-DRY-DBIE/AE** are deep drawn interior or exterior corners fleece backed on both sides, which are ideally suited for fast and secure formation of corner seals (suitable for LUX ELEMENTS®-DRY-DB).

- **LUX ELEMENTS®-DRY-ASK** is a single-component, water-impermeable, crack-bridging and flexible sealing compound.

- **LUX ELEMENTS®-COL-FLEX** is a flexible cement powder adhesive suitable for the thin-bed adhesion in accordance with DIN 18157 Part 1 of:
  - Ceramic tiles, panels and mosaic
  - Fine stoneware
  - Discolouration-resistant natural stone panels
  - Ceramic coatings in pools

LUX ELEMENTS®-COL-FLEX meets the C2TE-S1 requirements according to EN 12004 and EN 12002

Substrate

- Rigid, load-bearing, clean and vibration-free mineral or wooden floors

Recommended use

LUX ELEMENTS recommends the LUX ELEMENTS®-TUB-TSM for sound-decoupled installation.

Die LUX ELEMENTS®-TUB-PUMP shower base elements can be shortened. In all cases, a 50 mm wide margin must remain, measured from the edge of the floor drain pump. We must hereby draw attention to the fact that LUX ELEMENTS®-TUB-PUMP shower base elements, which are not circumferentially shortened with the same dimensions, will have different external thicknesses due to the built-in drain-off slope and will therefore have an offset to the adjacent floor. Holes (Ø 5 mm) can be drilled all round in the edge above the factory seal for the secondary drainage. Please pay attention to the ‘LUX ELEMENTS®-TUB-PUMP Instructions for assembly’

Covering materials

The LUX ELEMENTS®-TUB-PUMP shower base elements have been specially designed for cladding with ceramic covering materials. The ceramic covering undertakes the function of the load distribution layer. The loads that can be anticipated in use are to be specified by the specialist planner. The covering must be selected according to the specified load.

Irrespective of minimum loads or higher resistance requirements (e.g. wheelchairs of up to 200 kg), the front elevation can be clad with adhered mosaic ≥ 20 x 20 x 4 mm in conjunction with adhesive and grouting with reactive resin. If the size of the tiles is ≥ 50 x 50 mm, tile adhesive of quality grade C2 can be used for gluing and a cementitious grout material for joining. Please pay attention to our General Building Authority Approved Test Certificate No. P-AB/20802/05-2008 from tBU GmbH and/or our European Technical Approval according to ETAG 022-3 when covering our shower base elements with covering materials. The breaking strength of the tiles and/or mosaics must be considered accordingly. The shower base element should not be subjected to loads greater than 0.1 N/mm².

LUX ELEMENTS®-TUB-PUMP shower base elements must be protected against damage to the sealing between the installation and the subsequent tiling. Even if subjected to incorrect use, e.g. stepladders for repair work, make sure load is evenly distributed.

The hydraulics of the floor drain pump can be removed from the motor, without the need for tools, for any maintenance/repair works.
TUB-PUMP – technical data

Technical Specification of the shower base element

- Overall height of shower base element 45 mm [*]
- Integrated slope from 45 mm to 30 mm [*]. The design of descending gradients and directions must be executed by the technical planner. Special designs up to a maximum thickness of 65 mm are possible apart from the descending gradients stated here.
- Pressure strength of 0.1 N/mm²
* Standard (other values possible)

Technical Specification of the floor drain pump

- Pump: Horizontal, one-stage pump with efficient, maintenance-free synchronised motor with blocking-free hydraulics. Winding thermostat for protecting the drive unit against overheating, automatic switching via the float switch. Pressure connector [1"] with integrated non-return valve. VDE-Approval
- Material: Base draining pump made from high-resistant synthetic material. Grate and attachable profile from stainless steel 1.4301, load class K3 (up to max. 300 kg)
- Seal: Internal seals made from NBR.

Electrical data

- Power supply: AC
- Voltage [V]: 1/N/PE~230
- Motor performance: P1: 30 W (TUB-PUMP-S …); 65 W (TUB-PUMP …)
- Current: 0.20 A (TUB-PUMP-S …); 0.44 A (TUB-PUMP …)
- Motor protection: in the winding
- Plug: N/A
- Cable length: 5 m

Performances

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<th>Pumping height H [m]</th>
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<th>0.75</th>
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<td>Output volume Q [l/s]</td>
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<td>Output volume Q [l/s]</td>
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Characteristic curve

- Approved material for pressure drainage pipe is PVC (DIN 8062), PE-HD (DIN 8074) and PP (DIN 8077).
- Manufacturer of the floor drain pump: JUNG PUMPEN GmbH, Industristraße 4–6, 33803 Steinhagen, Phone +49 (0) 52 04 / 17-0, Fax +49 (0) 52 04 / 8 03 68, info@jung-pumpen.de, www.jung-pumpen.de
Installation on concrete slabs

In general

Please note that with flush with the floor shower bases, in the case of a low slope, rough ceramics, the lack of a shower enclosure, unfavourable shower head placement, high water pressure or high quantity of water (e.g. in the case of flood showers) water can run out of the shower area or accumulate. Please refer to our planning aids and FAQ’s for the planning of shower bases on our website [www.luxelements.com].