

## TECHNICAL DATA SHEET

### PUMPS FOR LEVELLING COMPOUNDS (UG 16)

The pump is the method of choice when the remit is to apply levelling compound in thick layers or to objects with a large surface area. There are various systems that can be used to pump levelling compounds. Usually a pump consists of a combination of a continuous mixer and a pump, or a combination of these two systems in one mixing pump. The material is usually put into a hopper from which it is then fed into the mixing unit. The water is added at constant pressure and the levelling compound is mixed together before it is pumped through the worm to the hose. Different types of worm are used depending on the properties of the levelling compound.

be pre-treated with an appropriate STAUF primer such as STAUF D 54 or STAUF VDP 130.

#### PROCESSING THE LEVELLING COMPOUND

Before embarking on the first machine application of levelling compounds, it is essential that you get the manufacturer of the machine to instruct you in the use of the machine.

In general, you can proceed as follows:

- ✓ Carefully select the location to avoid frequent pump changeovers.
- ✓ Always ensure that there is sufficient material available to the pump. In addition to the water connection with a water pressure of 2.5 bar and possibly a water pressure booster, you also need a power connection with the required output. The cleaning water must then be disposed of properly.

#### THE FOLLOWING TABLE GIVES AN OVERVIEW OF THE TYPES OF PUMP USED TODAY:

	Single chamber system	Dual-chamber system	Single-chamber sump Mixing pumps
<b>Handling</b>	easy to handle	more difficult than with single-chamber system	easy to handle
<b>Mixing</b>	both components are placed in chamber	first mixed, then pumped when ready	separate mixing area
<b>Delivery</b>	directly after mixing	downstream of mixing, from separate chamber	downstream of mixing, from separate chamber
<b>Delivery rate</b>	6–55 l/min.	1-60 l/min	6-50 l/min
<b>Maturation period</b>	very little	as long as necessary	similar to the dual-chamber system
<b>Delivery height and width</b>	low	significantly larger than with the single-chamber system	similar to the dual-chamber system
<b>Output</b>	230 V (1 stage)/400 V (adjustable)	400 V	400 V
<b>Cleaning</b>	time-consuming	simple	quick and easy

#### SUBFLOOR PREPARATION

Prepare the subfloor to ensure that it is ready for covering, in particular that it is clean, solid, has grip and is absorptive as necessary. The surface must also be permanently dry and free from cracks. Depending on the condition of the substrate, you should carry out mechanical pre-treatment, i.e. sweep, vacuum, machine brush, grind or mill the substrate. Fill any cracks or joints with STAUF casting resin and screed anchors to form a solid subfloor. Do not close the expansion joints or other construction joints specified by the planner. Large holes and hollows can be filled beforehand with a stable STAUF levelling compound. To remove residual dust and improve adhesion, the substrate must

- ✓ Operate the pump exactly as specified by the pump manufacturer.
- ✓ Adjust the consistency and water content:
  - ✓ Mix the levelling compound by hand in the mixing ratio (levelling compound / water) as specified in the technical data sheet.
  - ✓ Determine the flow spread with manually mixed levelling compound as a comparison with the pumped compound. Place a metal cylinder, measuring jug or similar vessel on a glass plate and fill the container with levelling compound. Draw the compound upwards slowly and after about one

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minute measure the spread in centimetres (diameter) after the levelling compound has stopped flowing.

- ✓ Adjust the water flow at the pump. Vary the water requirement until the spread of the pumped levelling compound is identical to the spread of the manually mixed compound.
- ✓ Check the spread regularly while applying the compound with the pump.
- ✓ Make sure that there is an even feed of the compound. Changes in the mixing ratio of water and levelling compound inevitably lead to fluctuations in the technical properties.
- ✓ Check the hopper regularly and clean it if necessary. Avoid lengthy waiting times due to the compound beginning to set. Depending on the temperature and waiting time, you should clean the device and hoses in the meantime.
- ✓ The setting of the levelling compound also varies greatly due to the climatic conditions on the building site.

### STAUF levelling compounds

The following STAUF levelling compounds are suitable for application with a pump:

**STAUF XP 40** is a cement-based selflevelling compound suitable for applying a thickness of up to 40 millimetres in one operation. This levels itself extremely well and is suitable for heavy-duty use in residential, commercial and industrial areas, such as in residential, commercial and industrial areas, including retail premises, shopping centres and industrial halls subjected to forklift truck loads.

**STAUF SSP Rapid** is a universal-use cement-based selflevelling compound suitable for applying a thickness of up to 20 millimetres in one operation. This compound also levels itself extremely well and is suitable for heavy-duty use in residential, commercial and industrial areas, such as in retail premises, shopping centres and industrial halls subjected to forklift truck loads. STAUF SSP Rapid is ready for covering after only two hours.

**STAUF XP 20** is a cement-based selflevelling compound suitable for applying a layer of up to 20 millimetres in one operation. This levels itself extremely well and is suitable for heavy-duty use in residential, commercial and industrial areas, such as in residential, commercial and industrial premises, including hospitals, retail premises, shopping centres and industrial halls.

**STAUF XP 10** is a cement-based selflevelling compound, primarily for resilient and textile floor coverings, but also for multi-layer parquet. Filling and levelling in one operation for applying a layer of up to 10 mm is possible in residential and commercial premises, such as blocks of flats and office buildings.

**STAUF GS** is a gypsum selflevelling compound, primarily for resilient and textile floor coverings and multilayer parquet, for smoothing, filling and levelling to obtain a layer of up to 30 millimetres in one operation. For medium-duty use in residential and industrial areas, such as blocks of flats, nursery schools and office buildings.

**STAUF GS Basic** is a gypsum selflevelling compound for resilient and textile floor coverings. Filling and levelling in one operation for applying a layer of up to 10 mm is possible in residential and commercial premises, such as blocks of flats and office buildings.

If you follow all these tips and instructions, nothing will stand in the way of successfully levelling your large surfaces properly.

The information provided above corresponds to the current state of the art. The information is purely indicative and non-binding, since we have no control over the laying process and because the actual laying conditions on site vary. Thus no claims can be made based on this information. The same is true for the commercial and technical advisory services that are provided without obligation and free of charge. We therefore recommend carrying out sufficient testing of your own in order to determine whether the result is suitable for the intended purpose. 01122020