



### PRINZ wall drainage technology

Reconstruction of horizontal insulation in existing building by means of the sawing process



# PRINZ draining of brickwork through sawing process

## Moisture in building walls can be traced back to a number of causes:

- direct effect of water due to defective roofs, down spouts, water pipes or splashed water,
- formation and accumulation of condensation as a result of improper ventilation or faulty construction,
- capillary moisture in wall due to missing or faulty waterproofing; this requires particularly careful treatment.

Draining of brickwork by means of the sawing process is gaining importance in the building sanitation industry. Here one can achieve a 100% sealing effect against moisture, provided that the work is done professionally and conscientiously.

### Overview of work

1. Remove connections or other hindrances. Release construction joint in brick wall.







2. Sectional removal of the wall work with PRINZ chainsaw PMS 25, EED 3,5 or PES 1300 for brick walls similarly removal with PRINZ diamond rope saw LP1 for rubble stone or mixed walls. Thus, the length of cut of up to 1,0 m is suited to the constructional and static conditions present.

3. Introduction of a capillary waterproof blocking layer made of glass fibre reinforced plastic plates (thickness min. 1,2mm), or HD-polyethylene plates (thickness 2,0mm) including plaster residue.

Overlapping of the plate size minimum 10 cm.





4. Finally fastening the cut joint with static load bearing plastic wedge plates, at a distance of maximum 25 cm over the entire wall cross section (load bearing capacity minimum 500 kg/cm²).

5. Filling of mortar on all sides of the cut joint and installation of pipe connections between the wedges with final positive compaction of hollow area with the PRINZ concrete injection pump BMP6, containing contraction-free, hardening mortar that is sulphate resistant.





#### Why it is worth choosing the PRINZ method when drying a building:

Permanent and immediate elimination of capillary moisture is ensured directly after the service has been provided.

If the method is carried out professionally, it guarantees 100% protection against capillary moisture until the end of the building's technical life.

Horizontal insulation is made of thick and massive polyethylene boards or polyester reinforced fiberglass boards, which are resistant to damage and various chemical compounds present in the walls; additionally, they do not corrode.

Irrespective of the construction material and the degree of moistness of the building walls, the same insulation materials are used, which protect against moisture completely and in all circumstances.

The PRINZ technology does not affect the statics and settling of the structure. Properly selected linear speed of cutting machines and slow movements do not generate significant vibrations when undercutting. Cutting in metre segments and suitable wedging prevent the building from settling. Moreover, the problems with the cracking of walls are eliminated. The method is completely safe for the building. All defects in the walls are replenished with mortar injected under the pressure of 4-5 bars, with the use of auxiliary agents causing, among others, mortar expansion when setting.

As compared to other techniques of drying, the effectiveness of this method is not affected by factors such as electromagnetic interference or potential energy failures. It is not necessary to perform further maintenance tests and examine the degree of moistness.

Quick and efficient provision of the service e.g. installing new horizontal insulation in a single-family house with dimensions of  $10 \times 10$  m and wall thickness of 0.5 m (approximately  $20 \text{ m}^2$  wall surface in total) takes about 3 working days.

The fixed cost of the service is calculated on the basis of one square metre of insulated wall surface, regardless of its thickness or degree of moistness.



Partner:		