

The use of a PFT HM 5 in a machine combination with a PFT ZP 3 S conveying pump showed that properly matched equipment saves time, labour and money. A helpful accessory, the PFT level sensor, ensured a fully automatic material flow.



Cavity Filling by One Man and the Optimal Machine Combination



The museum management of Liesborn Abbey (North-west Germany) had charged the construction firm Heinrich Freitag, based in Wadersloh-Liesborn, with

the filling of a cavity containing a special wall heating system in a newly built annex to the abbey. This heating system had been fixed to the calcium-silicate brick walls of the building and subsequently covered with brickwork 11.5 cm in thickness. The job of Freitag was to fill the space between these walls.

An Economical Solution

To be able to efficiently and economically perform this task, Freitag asked the construction machinery supplier Stelster-Bautechnik in Gütersloh about the optimal equipment. Since a conveying distance of 80 metres had to be overcome, Mr. Wortmeier, an employee of Stelster, suggested using a PFT ZP 3 S conveying pump. The filling material was supplied by Spenner Zement. It was important to use a quick-setting material, so that the pressure exerted on the brickwork that covered the heating system would not be high enough to displace

this 11.5 cm wall.

The lightweight mortar used was mixed by a PFT HM 5 horizontal continuous mixer flanged to the silo. This machine fed the mixed material to a PFT ZP 3 S conveying pump standing under the silo.

To overcome conveying distances of up to 80 metres, a PFT R 8 3 rotor and stator pump unit was employed.

An especially clever element in this machine combination was one of our practical PFT accessories: the PFT level sensor.

The Operating Principle of the PFT Level Sensor

When attached to the inside of the material container of the PFT ZP 3 S, the level sensor ensures that the HM mixer is switched off as soon as a certain material level in the hopper of the conveying pump is reached and the material flow is interrupted. While the mixer is switched off, the PFT ZP 3 S has enough time to pump the mixed material to the place of application. When the material level in the conveying pump hopper falls below the level sensor, the continuous mixer is restarted and feeds new material to the conveying pump.

Thanks to the use of a PFT level sensor and

a remote control, the filling material was conveyed in a fully automatic procedure.

Thomas Freitag, certified civil engineer and project supervisor, and Michael Freitag, the manager of the company, were very pleased with the trouble-free workflow on the building site. They particularly appreciated the fact that, thanks to the use of the PFT level sensor, the void-free filling of the cavity which contained the wall heating system could be accomplished by one workman. ■



The construction firm Freitag was charged with the void-free filling of the cavity between a concrete wall and a brickwork wall in which a heating system had been installed.