

Putzmeister

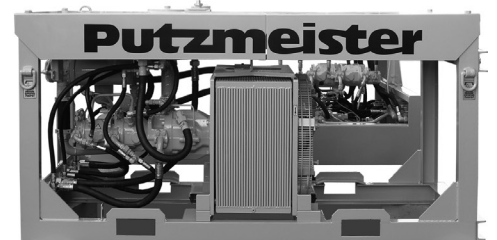
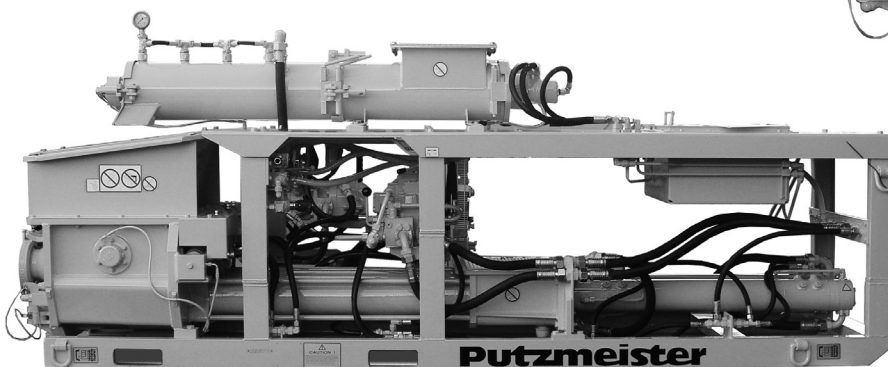
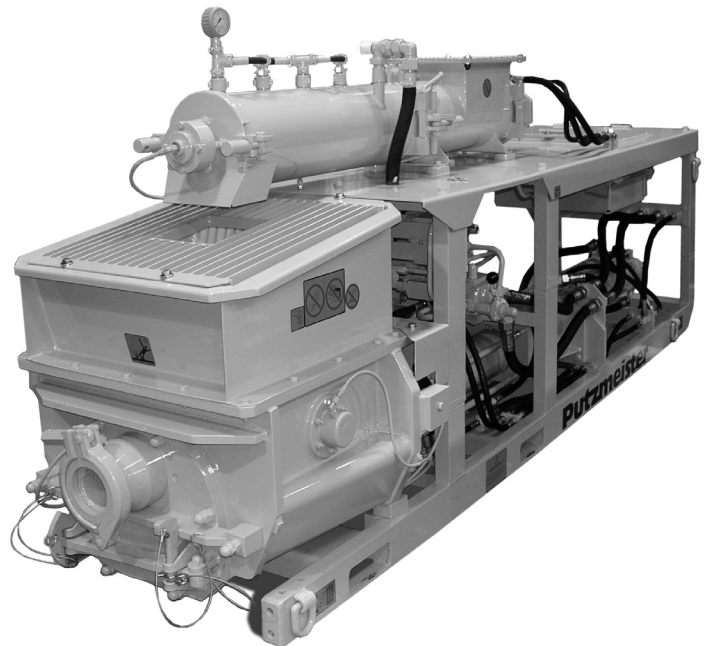
BSM 1002 E – Elefantino

The multi-purpose mortar and concrete pump for coal mining in explosion proof design according Directive 94/9/EC (ATEX)

The BSM 1002 E is a multi-purpose mortar and concrete pump fitted with an „S“-transfer tube system for use in coal mining. It is specially designed for high pressure pumping over long pumping distances and is used for spray application of mortar and concrete, backfilling and injection.

The compact design of the pump and power pack enables it to be transported in mine cages. Built in a steel frame on skids, the individual units can be transported with safety.

Among the main tasks which the BSM 1002 E can handle is the process of backfilling and spraying of mortar with a grain sizes ranging from 0 to 4 mm (0.16 inch), plus the pumping of concrete mixes for spray application, handling grain size from 0 to 8 mm (0.32 inch) or to 16 mm (0.64 inch).

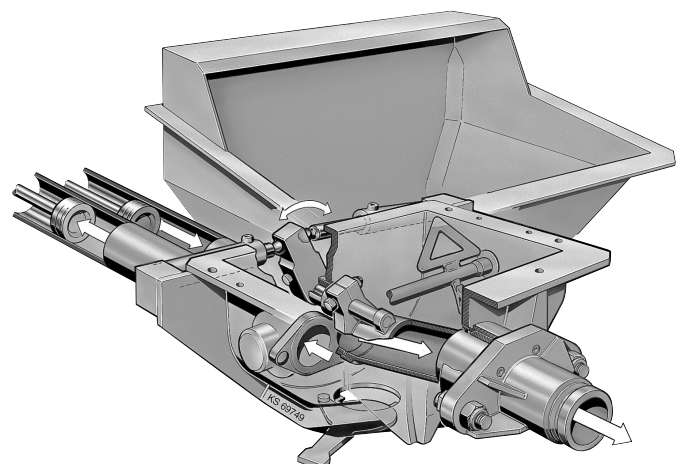


Modular design (Pump and hydraulic unit)

The „S“-transfer tube system used in this type of machine – equipped with a self-sealing ring, the so-called „automatic ring“ – even allows the pumping of water-thin injection mixtures. The „S“-tube pivots back and forth in front of the cylinder ports, in which the material pressure during pumping presses the selfsealing ring against the collar plate of the cylinder port.

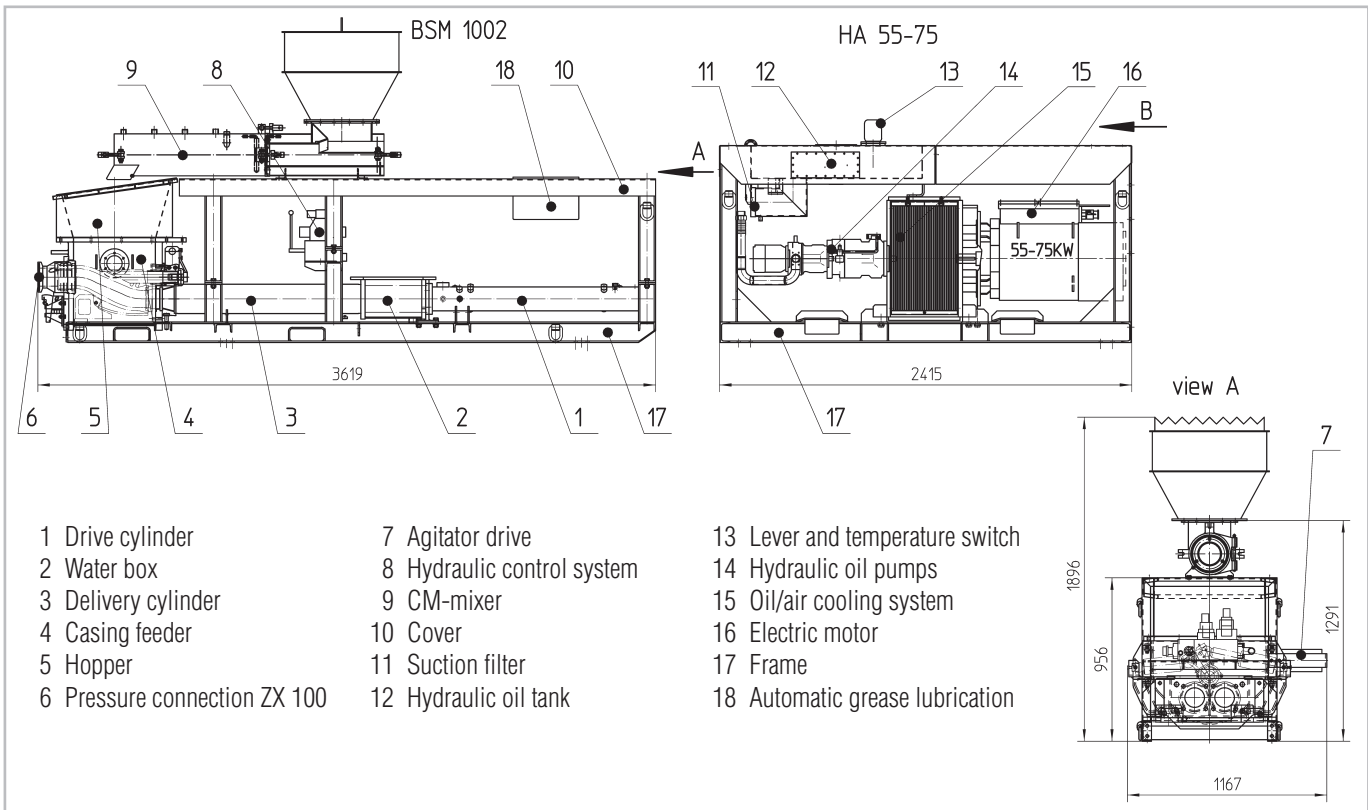
The only interface joint in this Putzmeister slide system is thus reliably sealed.

The mortar or concrete is drawn from the approx. 220 litre (58.12 gal) hopper using its full cross sectional capacity. In addition, an agitator installed in the hopper assists the feeding operation. The output can be infinitely adjusted within 0 to 20 m³/h (88 gpm). It is possible to operate the pump at a maximum pumping pressure of 100 bar (1450 psi).

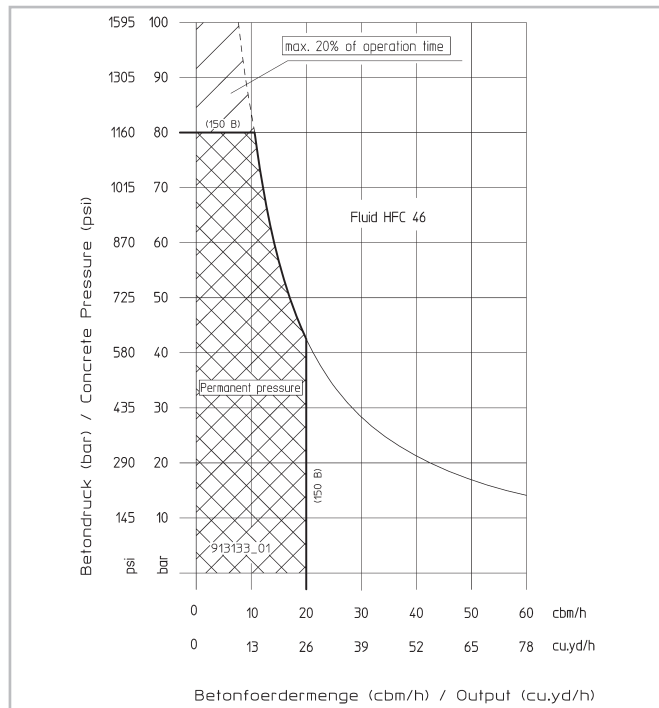


In the coal mining version, Putzmeister supplies the BSM 1002 E in explosion proof design, i.e. fire damp design. In this version, it is entirely hydraulically-mechanically driven without any electrical control.

The BSM 1002 E will be manufactured as a 3-circuit-version, i.e. one hydraulic circuit for the pump, a second for the agitator and a third for driving a mixer. Putzmeister recommends the continuous flow through mixer CM 4020-150-H for mortar with a grain size up to 5 mm (0.2 inch).



Performance diagram



Technical data

Type	BSM 1002 E	
Delivery cylinder Ø	150 mm	5.91 in
Delivery cylinder length	1000 mm	39.37 in
Max. output	20 m ³ /h	88 gpm
Max. delivery pressure	100 bar	1450 psi
Hydraulic cylinder	110/63 mm	4.33/2.48 in
Hydr. transmission ratio	1:1.86	
Hopper capacity	220 l	58.12 gal
Electro motor	55 – 75 kW, 1470 rpm 400/500/660/1000 V, 50 Hz, EEx I	
Weight		
BSM 1002 E with CM mixer	approx. 2040 kg	approx. 4497 lb
HA 75 with E-motor and oil	approx. 1760 kg	approx. 3880 lb

Conversions:

1 bar = 14.5 psi

1 US gallon = 3.785 l

1 inch = 25.4 mm

1 kg = 2.2046 lb

All data maximum theoretical