

# Mix-Pump-Unit fully automatic

## MPS 100-D-B-AUT

with diesel engine 45 kW Perkins (Turbo)



### Technical Data

**Drive**  
 Drive Power Diesel-hydraulic  
 Diesel engine Perkins 404D-22T, 45 kW [61 HP]  
 at 3.000 rpm, speed limit at 2.000 rpm, 4-cylinder in-line  
 with turbo charger, 2,2 l displacement, water cooled  
 mechanical injection

**Exhaust emission** EU Step IIIa / U.S.EPA TIER 3

**Fuel consumption** +/- 7,5 l Diesel/h [2,0 gal U.S.] depending on application

**Fuel tank** Made of steel, 100 l volume [26 gal. U.S.]

**Connections**

**Electrical** 12 V / 24 V DC

**Hydraulic** quick couplings for screw conveyor

**Water inlet** G 2 BSPP AG DN 50 - C-coupling  
 G 1 BSPP IG DN 25 - GEKA

**Outlets**

**Pressure line** G 1 BSPP IG DN 25 - RD 38

**Circulation line** G 1 BSPP IG DN 25 - RD 32

**Dimensions (L x W x H)** 2.250 x 1.600 x 2.100 (mm)

**Weight** approx. 2.800 kg

**Application** Fully automatic mixing and pumping of cement, fly ash and bentonite suspensions at anchoring, groutings, fillings, flushings, pressings, piling and vibrating jobs



**Performance**

Mixer with weighing system

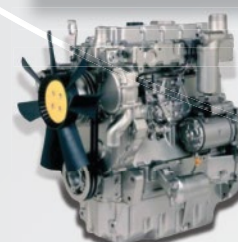
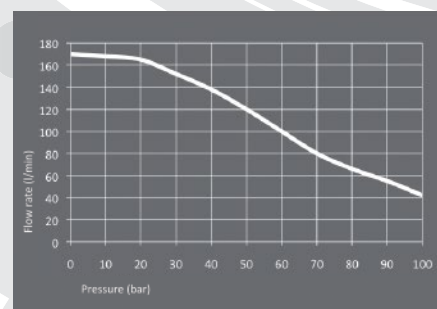
Hand feed up to 3,5 m<sup>3</sup>/h

Feed per screw conveyor 4,5 up to 8,0 m<sup>3</sup>/h

**Delivery Pump**

Pressure max. 100 bar<sup>1)</sup> [max. 1.450 psi]<sup>1)</sup>

Flow rate max. 170 l/min<sup>1)</sup> [max. 45 gal U.S.]<sup>1)</sup>



Perkins 404D-22T (Turbo)  
 TIER3 with water cooler

<sup>1)</sup> Infinitely variable. Both max. performances are not simultaneously possible. 1 bar = 1 x 10<sup>5</sup> N / m<sup>2</sup>  
 (Status April 2013 / technical changes reserved)

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## Standard Features

### Framework

skid steel frame, partially enclosed and with partition panel, floor and oil pan, central towing device, fork lift guides longitudinal and transversal, machine room sound proofed, lockable doors, finishing 2K-paint RAL 5005 (signal blue) or on customer desire unicoloured

### Diesel Drive

diesel engine Perkins 404D-22T (Turbo), 45 kW at 3.000 rpm, 4-cylinder in-line, with turbo charger and water cooler, speed limit at 2.000 rpm (infinitely variable speed adjustment), starter battery 12V, exhaust silencer approx. 30 dB/A, control voltage 24 V DC (for valves and remote control), operating hour meter

### Hydraulic

oil tank volume 170 l [45 gal. U.S.], axial piston pump and toothed wheel pump, oil cooler with thermostat, main oil filter, oil filling and ventilation filter, electrical oil filter pollution control, oil level and temperature indicator, manometer for hydraulic pressure, pressure and flow infinitely variable

### Delivery Pump

vertical two plunger pump  $\varnothing$  100 mm, flow rate per double stroke  $V = 2,8$  l [0,74 gal U.S.], pump valves (suction and pressure line) self-acting (ball valves), circulation and pump-down valves manually actuated, flow rate adjustment electro-proportional, manual grease system for plunger sealing bushes and manually with plunger oil, protective grid with safety function

### Delivery Pressure Measurement

Manometer 0-100 bar [1.450 psi]  $\varnothing$  100 mm completely with stainless steel membrane

### Water Metering

water storing and dosing tank  $V = 200$  l [53 gal U.S.], fixed overflow pipe, water connection C-coupling with flushing connection and butterfly valve DN 50 pneumatically controled, water tank inlet valve DN 25 and water tank outlet valve DN 50 pneumatically controlled, fully-automatic water metering with fluid level indicator

### Mixing Tank Colloid-Mixer

round tank with conical floor, volume 250 l [66 gal U.S.], effective volume 200 l [53 gal U.S.], mixer drive hydraulic motor (rotation speed infinitely variable), foldable and lockable tank covers, cover for screw conveyor inlet with inspection flap, hopper with bag ripper, circulation and pump down valves DN 50 pneumatically controlled

### Weighing System

weighing system with display (max. weight), three mixtures pre-selectable, producing mixtures manually or automatically, display for counting the mixtures, infinitely variable mixing time, pumping in circulation and pumping down automatically controlled, screw conveyor automatically controlled, all butterfly valves are pneumatically controlled

### Tools in Mixing Tank

2 fast turning mixing tools on one common drive shaft with pump down function, 1 mixing blade  $\varnothing$  250 mm, 1 pumping wheel  $\varnothing$  185 mm, drive shaft bearing above mixer fluid level (no stuffing box, so dry running possible w/o any problems!)

### Storing Tank

round tank with straight floor, volume 450 l [119 gal U.S.], effective volume 400 l [106 gal U.S.], agitator drive hydraulic motor (rotation speed infinitely variable), foldable and lockable tank covers, suspension inlet DN 50 with intake basket, suspension outlet DN 50 with pneumatically controlled valve and suction basket, cleaning cover sidewise, slowly turning agitator with a floor scraper and stream screen

### Fluid Level Control

fluid level control per ultrasonic sensor

### Operating Devices

rotary knob for max. delivery pressure adjustment bar [psi], rotary knob for max. flow rate adjustment l/min. [gal U.S.], valves for infinitely variable mixer and agitator rotation speed, flow rate counter l/min. [gal U.S.] and l/total [gal U.S./total] with zero-setting, auto pre-select counter for flow rate l/total [gal U.S./total], main switch, control lamp for control voltage and power, ON/OFF push-button for hydraulic motor, delivery pump, mixer and agitator, ON/OFF switch for remote control, START push-button for fully-automatic water metering, AUTOMATIC START push-button for delivery pump, switch DEWATERING ALL VALVES or SUSPENSION/WATER (dewatering winter time / flushing with water), EMERGENCY STOP switch

### Weighing System

pre-select switch for three mixtures, switch for AUTOMATIC, HAND or AUTO PRE-SELECT operation (mixtures), push-button AUTOMATIC START (mixtures), LCD display with adjustment of the weighing system for total weight (water and solid), batch pre-select counter with zero-setting for mixtures, LCD display for fluid level control (storing tank) per ultrasonic sensor

### Accessories (included)

operating instruction and spare part list, special tools for operation and maintenance, cable remote control 15 m and cable reel 100 m, circulation hose, remote control up to 800 m or 3 km range, high pressure cleaner with hydraulic drive, 950 rpm, 210 bar (3.045 psi, industrial device, fixed installed), air compressor with hydraulic drive (fixed installed), working lamps for mixing and storing tank

Further devices, special equipments and accessories on request!