

Mix-Pump-Unit fully-automatic

MPS 100-D-B-AUT

with diesel engine Perkins 45kW (EU 3a / Tier 3)



Technical Data

Drive Diesel-hydraulic
 Drive Power 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 3a / U.S. EPA Tier 3
 Fuel consumption +/- 7,5 l Diesel/h. [2 gal U.S.]
 Fuel tank made of steel, approx. 100 l volume [26 gal U.S.]

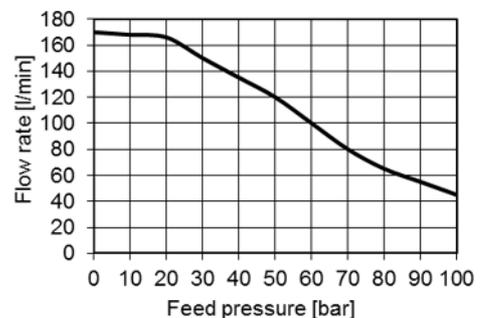
Connections
 Electrical 12 V / 24 V DC
 Hydraulic quick couplings for screw-conveyor
 Water inlet G 2 BSPP AG DN 50 - C-coupling
 G 1 BSPP IG DN 25 - GEKA

Outlet
 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. 3.000 kg

Application Fully automatic mixing and pumping of cement-, micro-cement, fly ash and bentonite suspensions at anchoring, injections, backfillings, groutings, flushings, sealings, piling and vibrating jobs

Performance Mixer with weighing system
 Hand feed up to 3,5 m³/h
 Feed per screw-conveyor 4,5 m³/h up to 8,0 m³/h
 Delivery Pump
 Pressure max. 100 bar¹⁾
 [max. 1.450 psi¹⁾]
 Flow rate max. 170 l/min.¹⁾
 [max. 45 gal U.S.]¹⁾



¹⁾Infinitely variable. Both max. performances are not simultaneously possible. 1 bar = 1 x 10⁵ N/m²
 (Status April 2016 / 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

Diesel Drive

Diesel engine Perkins 404D-22T (Turbo), 45 kW [61 HP] at 3.000 rpm, 4-cylinder in-line water cooled, speed limit at 2.000 rpm (infinitely variable speed adjustment), starter battery 12 V, 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 gear 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 Ø 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 sleeves and manually with plunger oil, protective grid with safety function

Delivery Pressure Measurement

manometer 0-100 bar [1.450 psi] Ø 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 controlled, 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 with safety switch, cover for screw conveyor inlet with inspection flap, hopper with bag ripper, circulation and pump down valves DN 50 pneumatically controlled

NO DOSING SCREW CONVEYORS NECESSARY! Standard screw conveyors usable!

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 blades Ø 250 mm, 1 pumping wheel Ø 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 with safety switch, suspension inlet DN 50 with inlet basket, suspension outlet DN 50 with pneumatically controlled valve and suction basket, cleaning cover sideways, 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./min.], valves for infinitely variable mixer and agitator speed, flow rate counter l/min. [gal U.S./min.] 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 voltage and power, ON/OFF push button for hydraulic motor, delivery pump, mixer and agitator, ON/OFF switch for remote control, START/STOP 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 manual and spare part list, special tools for operation and maintenance, cable remote control 15 m and cable reel 100 m, radio remote control, circulation hose, high pressure cleaner 4 kW, 950 rpm, 200 bar [3.045 psi] (industrial device, fixed installed), air compressor (industrial device, fixed installed), working lamps for machine room, mixing and storing tank

Further devices, special equipments and accessories on request!