

Mix-Pump-Unit fully-automatic

MPS 100-D-B-AUT

with diesel engine Perkins 50kW (EU 4 / Tier 4f)



Technical Data

Drive Diesel-hydraulic
 Drive Power Diesel engine Perkins 404F-E22TA, 50,0 kW [68 HP] at 2.800 rpm, max. Torque 208 Nm at 1.800 rpm, speed limit at 1.800 rpm, 4-cylinder in-line with turbo charger, 2,2 l displacement, water and intercooled, electrical injection
 Exhaust emission EU Step 4 / U.S. EPA Tier 4 final
 Fuel consumption +/- 12 l Diesel/h. [3,2 gal U.S.]
 Fuel tank made of steel, approx. 100 l volume [26 gal U.S.]

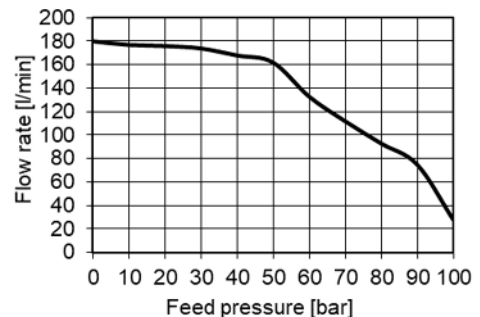
Connections
 Electrical 12 V / 24 V DC
 Hydraulic quick couplings for screw-conveyor
 Water inlet G 2 BSPP AG DN 50 - C-coupling
 G 1 BSPP IG DN 25 - GEKA

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. 3.050 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 psi]¹⁾
 Flow rate max. 180 l/min.¹⁾
 [max. 47 gal U.S.]¹⁾



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Standard Features

Framework

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

Diesel Drive

Diesel engine Perkins 404F-E22TA, 50,0 kW [68 HP] at 2.800 rpm, 4-cylinder in-line, turbo charger, water and inter cooled, max. torque 208 Nm at 1.800 rpm, speed limit at 1.800 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, electronic pressure sensor 0-100 bar [1.450 psi] 4-20 mA G ½ BSPP AG

Water tank with Water Dosage

made of stainless steel (brushed), 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) with Weighing

made of stainless steel (brushed), 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 end switches, cover for screw conveyor inlet with inspection flap, hopper with bag ripper, circulation and pump down valves DN 50 pneumatically controlled, transport locking screws

Tools in Mixing Tank

2 fast turning mixing tools on one common drive shaft with pump down function, 1 mixing blade 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 with Fluid Level Control

made of stainless steel (brushed), 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 end switches and inspection flap, suspension inlet DN 50 with inlet 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 per ultrasonic sensor

Operating Elements

battery main switch, control lights CONTROL VOLTAGE and OIL COOLER OPERATION, buttons EMERGENCY-STOP (2x), switch REMOTE CONTROL ON/OFF, buttons HIGH PRESSURE CLEANER ON and HIGH PRESSURE CLEANER OFF, switch DRAINING SUSP./WATER / ALL VALVES, switch LIGHT ON/OFF for inside rod lamp and switch LIGHT ON/OFF for outside working lamps, rotary knob for max. DELIVERY PRESSURE adjustment, valve for shutting/adjusting the mixer speed, valve for shutting/adjusting the agitator speed, **Connection Options:** Steckdose FERNBEDIENUNG 14-pol. mit NOT-HALT Brückenstecker, Steckdose ERWEITERUNG FERNBEDIENUNG, Steckdose FÖRDERSCHNECKE 24 V, Steckdose RÜTTLER 12 V, Steckdosen ULTRASCHALLSENSOR und MISCHUNGSÜBERWACHUNG, Steckdose LADEGERÄT 12 V, Steckdose ETHERNET

Engine Panel

LCD 7" colour display with lateral function keys for displaying and querying all relevant engine information such as engine speed, fuel consumption, fuel tank display, water temperature, oil and boost pressure, battery voltage, operating hours, date/time etc., ignition lock, warning lamps for LOW COOLING WATER and AIR FILTER POLLUTION, switch for RPM SETTING 0-1-2

Control Panel with Touch-Screen

warning lights WARNING and FAULT, button ACCEPT, button EMERGENCY-STOP, buttons FILL WATER TANK and EMPTY WATER TANK, buttons MIXER CIRCULATION and EMPTY MIXER, buttons MIXER/AGITATOR ON/OFF and SCREW CONVEYOR ON/OFF, button START MIXTURE, buttons PUMP OFF, SUSPENSION and WATER, switches RECEIPT +/- and COMPONENTS +/-, socket USB, potentiometers FLOW RATE and MIXING TIME, **Optional:** switches WATER INTERNAL/EXTERNAL or PUMPING/CIRCULATION

Touch-Screen for visualization of the operating parameters for the production of mixtures, as well as pumping of the suspension to the consumer. The following parameters are displayed and can be called up: Display of the current flow rate and the current delivery pressure, preselection counter flow rate target/actual, batch and preselection counter mixtures target/actual, current filling level of the mixing and storage tank, input of several recipes, display of error messages, display in different languages and much more.

Automatic Mode: production of the mixtures automatically or in manual mode, infinitely variable setting of the mixing time, automatic pumping in circulation and pump-off, automatic control of the screw conveyor, all shut-off flaps are pneumatically controlled

Accessories (included)

documentation, special tools for operation and maintenance, cable remote control 15 m and cable reel 100 m, radio remote control, circulation hose, high pressure cleaner 4,0 kW, 950 rpm, 200 bar [3.045 psi] (industrial device, fixed installed) with water inlet filter, air compressor (industrial device, fixed installed), corded LED rod lamp inside, LED work lamps for mixing and storing tank outside

Further devices, special equipments and accessories on request!