

Mix-Pump-Unit standard

MPS 100-D-B

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.]

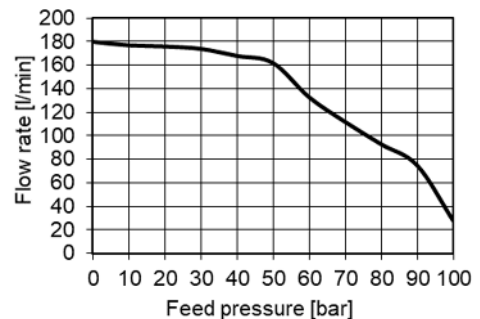
Connections
Electrical 12 V / 24 V DC
Hydraulic quick couplings for screw-conveyor
Water inlet G 2 BSPP AG DN 50 - C-coupling
 G 1 BSPP IG DN 25 - GEKA

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. 2.950 kg

Application 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
Hand feed up to 3,5 m³/h
Feed per dosing screw-conveyor up to 4,5 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

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 manually actuated, water tank inlet valve DN 25 electrical and water tank outlet valve DN 50 manually actuated, semi-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 switch, cover for screw conveyor inlet with inspection flap, hopper with bag ripper, circulation and pump down valves DN 50 manually actuated

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

made of stainless steel (brushed), 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 manually actuated valve and suction basket, cleaning cover sidewise, slowly turning agitator with a floor scraper

Operating Elements

battery main switch, control lights CONTROL VOLTAGE, OIL COOLER OPERATION and MIXER/AGITATOR ON/OFF, warning lights OIL FILTER PUMP, OIL FILTER MIXER/AGITATOR, OIL COOLER FAULT and OIL FILTER CONTROL OIL, button MIXER/AGITATOR ON/OFF, buttons PUMP ON and PUMP OFF, button WATER DOSAGE START/STOP, buttons EMERGENCY-STOP (2x), switch REMOTE CONTROL ON/OFF, switch MANUAL/AUTO, buttons HIGH PRESSURE CLEANER ON and HIGH PRESSURE CLEANER OFF, switch LIGHT ON/OFF for inside rod lamp and switch LIGHT ON/OFF for outside working lamps, rotary knob for max. DELIVERY PRESSURE adjustment, potentiometer FLOW RATE, flow rate counter l/min. and l/total with zero setting (2x), auto-preset counter flow rate l/total, valve for switch-off / adjustment of mixer speed, valve for switch-off / adjustment of agitator speed, **Connection Options:** socket REMOTE CONTROL 14-pin with EMERGENCY-STOP bridge plug, socket CHARGER 12V

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

Accessories (included)

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

Accessories (optional)

spare part kits, grouting hoses, suction hoses, fittings, grouting grippers

Supplementary Devices

storing tanks for solid suspensions, dosing devices, screw-conveyors, radio remote control, control devices, electronic data acquisition and recording, regulating and measuring systems RMS with computer evaluation per USB and injection journal, flow meter with delivery pressure measuring, electronic delivery pressure devices (pressure transmitter) at injection place, devices for radio data transmission

Further devices, special equipments and accessories on request!