

Mix-Pump-Unit fully automatic

MPS 510-D-C-AUT

with diesel engine 68 kW JCB (Turbo)



Technical Data

Drive Diesel-hydraulic
Drive Power Diesel engine JCB Dieselmax 444 ECOMAX, 68 kW [92 HP] at 2.200 rpm, speed limit at 2.000 rpm
 4 cylinder in-line, 4,4 l displacement, with turbo charger and intercooler, electrical injection

Exhaust emission EU Step IIIb / U.S.EPA TIER 4 interim
Fuel consumption +/- 17 l Diesel/h [4,5 gal U.S.] depending on application
Fuel tank Made of steel, 150 l volume [40 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

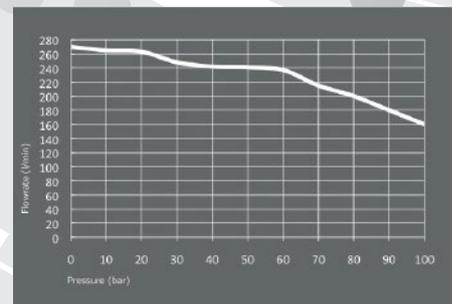
Outlets
Pressure line G 1 ¼ BSPP IG DN 32 - RD 55
Circulation line G 1 BSPP IG DN 25 - RD 32

Dimensions (L x W x H) 3.500 x 2.250 x 2.250 (mm)
Weight approx. 4.400 kg

Application Fully automatic mixing and pumping of cement, fly ash and bentonite suspensions at anchoring, fillings, flushings, pressings, piling and vibrating jobs, Soil-Mixing WSM (Single-Mix, Twin-Mix) and Cutter-Soil-Mixing CSM



Performance
 Mixer with weighing system
Hand feed up to 8,0 m³/h
Feed per screw conveyor up to 13,0 m³/h
Delivery Pump Pressure max. 120 bar¹⁾
 [max. 1.740 psi]¹⁾
 max. 270 l/min¹⁾
Flow rate [max. 71 gal U.S.]¹⁾



JCB Dieselmax 444 ECOMAX with turbo charger and intercooler (TIER 4 interim)

¹⁾ Infinitely variable. Both max. performances are not simultaneously possible. 1 bar = 1 x 10⁵ N / m²
 (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 transversal, machine room sound proofed, lockable doors, finishing 2K-paint RAL 5005 (signal blue) or on customer desire unicoloured

Diesel Drive

diesel engine JCB DIESELMAX 444 ECOMAX (Turbo), 68 kW [92 HP] at 2.200 rpm, speed limit at 2.000 rpm (infinitely variable speed adjustment), 4-cylinder in-line, with turbo charger and intercooler, 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 toothed wheel pumps, oil cooler with thermostat, main and control oil filter, oil filling and ventilation filter, electrical and optical 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 110 mm, flow rate per double stroke $V = 4,5$ l [1,18 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, automatic grease system for plunger sealing bushes and manually with plunger oil, protective grid with safety function

Delivery Pressure Measurement

Manometer 0-250 bar [3.626 psi] \varnothing 100 mm completely with stainless steel membrane

Water Metering

water storing and dosing tank $V = 380$ l [100 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 50 and water tank outlet valve DN 80 pneumatically controlled, fully-automatic water metering with fluid level indicator

Mixing Tank Colloid-Mixer

round tank with conical floor, volume 450 l [119 gal U.S.], effective volume 400 l [106 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 80 pneumatically controlled, NO DOSING SCREW CONVEYOR NECESSARY! Standard screw conveyor 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

3 fast turning mixing tools on one common drive shaft with pump down function, 2 mixing blades \varnothing 250 mm, 1 pumping wheel \varnothing 210 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 1.500 l [396 gal U.S.], effective volume 1.400 l [369 gal U.S.], agitator drive hydraulic motor (rotation speed infinitely variable), foldable and lockable tank covers, suspension inlet DN 65 with intake basket, suspension outlet DN 80 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], battery 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!