

Mix-Pump-Unit fully-automatic

MPS 510-E-F-AUT



Technical Data

Drive Electro-hydraulic
 Drive Power 45,0 kW
 Total Power Consumption approx. 57,0 kW

Connections
 Electrical CEE 125 A / 400 V AC, 50 Hz, IP 54
 Water inlet G 2 BSPP AG DN 50 - C-coupling
 G 1 BSPP IG DN 25 - GEKA

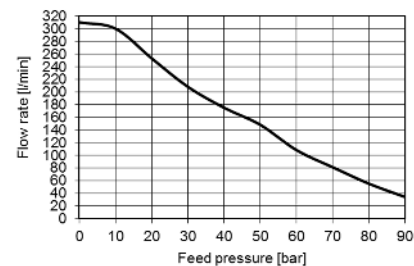
Outlet
 Pressure line G 1 ¼ BSPP IG DN 32 - RD 55
 Circulation line G 1 BSPP IG DN 25 - RD 32

Dimensions (L x W x H) 2.800 x 2.250 x 2.250 (mm)
 Weight approx. 3.900 kg

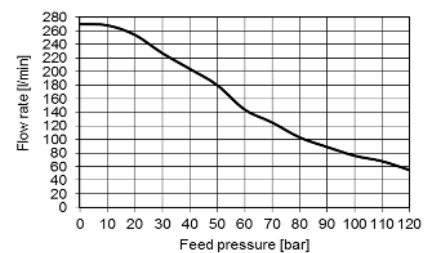
Application Fully automatic mixing and pumping of cement-, micro-cement, fly ash and bentonite suspensions at fillings, flushings, groutings, piling and vibrating jobs, Soil-Mixing WSM and Cutter-Soil-Mixing CSM

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 (RA = Ring Area)
 Pressure max. 90 bar¹⁾ [max. 1.305 psi]¹⁾
 Flow rate max. 310 l/min.¹⁾ [max. 82 gal U.S.]¹⁾



Delivery Pump (PA = Piston Area)
 Pressure max. 120 bar¹⁾ [max. 1.740 psi]¹⁾
 Flow rate max. 270 l/min.¹⁾ [max. 71 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 crosswise, machine room sound proofed, lockable doors, finishing 2K-paint RAL 5005 (signal blue) or on customer desire unicoloured

Electric Drive

electric motor 45,0 kW, 1.500 rpm, 400 V AC, 50 Hz, IP 54, automatic phase correction, motor safety switch, 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 pumps, oil cooler with thermostat, main and control oil filter, oil filling and ventilation filter, electrical oil filter pollution control, oil level and temperature indicator, manometer for hydraulic and control oil 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 sleeves 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, electronic pressure sensor 0-100 bar [1.450 psi] 4-20 mA G 1/2 BSPP AG

Water tank with Water Dosage

made of stainless steel (brushed), 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 100 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 450 l [119 gal U.S.], effective volume 400 l [106 gal U.S.], mixer drive hydraulic motor (rotation speed infinitely variable), two tank covers, each hinged and lockable with screw conveyor inlets and safety end switches, cover for screw conveyor inlet with inspection flap, hopper with bag ripper, circulation and pump down valves DN 80 pneumatically controlled, transport locking screws

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 with Fluid Level Control

made of stainless steel (brushed), 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 with safety end switches and inspection flap, suspension inlet DN 65 with inlet 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 per ultrasonic sensor, safety folding grate

Operating Elements

main switch, control lights POWER SUPPLY and CONTROL VOLTAGE, buttons HYDRAULIC MOTOR ON/OPERATION and HYDRAULIC MOTOR OFF/FAULT, button EMERGENCY-STOP, switch DRAINING SUSP./WATER / ALL VALVES, switch REMOTE CONTROL ON/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, valve for shutting-off/adjusting the mixer speed, valve for shutting-off/adjusting the agitator speed, **Connection Options:** socket ETHERNET, socket REMOTE CONTROL 14-pol. with EMERGENCY-STOP bridge plug, socket EXTENSION REMOTE CONTROL, sockets SCREW CONVEYOR 1 and 2, sockets VIBRATOR 1 and 2, sockets ULTRASONIC SENSOR and MIXTURE MONITORING, sockets EXTENSION 1 and EXTENSION 2 with respective EMERGENCY-STOP bridge plug, free socket outlet 400 V / 16 A, free sockets 230 V / 16 A (2x)

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 RECEPT -/+ 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!