

Mix-Pump-Station Fully Automated MPS 510-D-C-AUT Diesel Engine 60 kW



Technical Data

| | |
|-------------------------|---|
| drive mechanism | diesel-hydraulic |
| diesel engine | Cummins B3.3 60 kW@2.200rpm, in-line 4 cylinder with turbocharger, displacement 3.3 l / 0.87 gal U.S. water-cooled mech. injection, exhaust U.S. EPA TIER2 |
| fuel consumption | 12 l/h / 3.2 gal U.S. +/- 25 % |
| fuel tank capacity | approx. 120 l / 31.7 gal .U.S. |
| connections | |
| • electric | 12V/24V DC |
| • hydraulic | quick coupling for screw conveyor motor |
| • water inlet | C-coupling DN50 + G 1 BSPP GEKA |
| outlets | |
| • feed pump pressure | G 1 1/4 BSPP - internal thread DN32 |
| • feed pump circulation | G 1 1/4 BSPP - internal thread DN32 |
| dimensions | |
| length x width x height | 2800 x 2350 x 2200 (mm) |
| weight | approx. 4100 kg |

Application

Mixing and pumping of cement-, flying ash-, bentonite- and insulation suspensions at backfillings, jetting drillings, pressings, pilings and vibrating jobs.

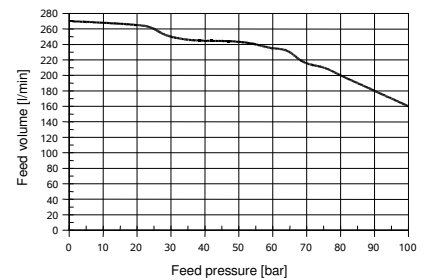
Performance

Mixer with weighing system

- hand feed up to 8 m³/h
- feed per screw conveyor up to 12.5 m³/h

Feed Pump

- pressure max. 100 bar¹⁾
max. 1450 psi
- flow rate max. 265 l/min¹⁾
max. 70.0 gal U.S./min



Diesel engine Cummins B3.3



¹⁾ pressure and flow rate infinitely variable.
Both max. performances are not simultaneously possible, please refer to graph.

1 bar = 1 x 10⁵ N / m²

Status: February 2007
Technical changes reserved

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Standard Features

| | |
|--------------------------------------|--|
| Diesel Engine | diesel engine Cummins B3.3 60 kW@2.200rpm, turbocharged voltage 24V DC, for control system, operating hour counter |
| Hydraulic | oil tank volume 150 l / 39.6 gal U.S., axial piston pump and gear pump, oil cooler |
| Feed Pump | vertical two-plunger pump Ø110mm, flow rate per double stroke V = 4.5 l / 1.18 gal U.S., pump valves self-acting (ball valves) quantity adjustable electro-proportional by-pass/circulation valve / pump down valve manually operated |
| Feed Pressure Measurement | manometer 0-100 bar / 0-1450 psi, Ø100mm with stainless steel membrane |
| Water Metering | water distributor with flushing connector and pneumatic shut-off flap DN50 water reservoir and metering tank V = 380 l / 100 gal U.S., fixed overflow pneumatically operated draw-off tab DN50 water distributor with C-coupling and shut-off flap DN50 full automatic water metering with fluid level indicator |
| Framework | partially enclosed steel frame with runners and partition panel floor panel and oil drip pan, central towing device fork lift guide transversal and longitudinal finishing 2 K – paint RAL 5005 (signal blue) |
| Reservoir | round tank, cleaning lid, suction screen, run in basket 5mm reservoir covers, pneumatic shut-off valve DN 50; capacity 1.400 l / 370 gal U.S. cubic capacity 1.300 l / 343 gal U.S., container cover, slow turning agitator fluid control by sonar sensor; drive mechanism hydraulic revolutions per minute infinitely variable |
| Mixing Tank Colloid-Mixer | weighing system with display and automatic screw conveyor control 3 pre-selectable mixture ratios, adjustable by selector switch mixture preparation automatically or manually controlled display of mixture number circulation and pump off automatically controlled round tank with conical floor, capacity 450 l / 118.9 gal U.S. cubic capacity 400 l / 105.6 gal U.S.; covered screw conveyor intake hopper with bag ripper, drive mechanism hydraulic all shut-off valves pneumatically controlled NO DOSING SCREW NECESSARY! Standard screw conveyor usable |
| Tools in Mixing Tank | 2 fast turning agitators on one common drive shaft incl. pump off function 2 agitators Ø250mm, 1 pump rotor Ø210mm drive shaft bearing above mixer fluid level no stuffing box, so dry running possible w/o any problems |
| Control Devices | rotary knob for pressure control rotary knob for flow rate control adjustment / cut off valve for mixer speed adjustment / cut off valve for agitator speed on/off push-button for feed pump, mixer and stirring device on/off push-button for full automatic water metering on/off remote-control, pre-selection counter, flow rate counter |
| Weighing System | hand/auto switch, pre-selection switch for three mixing proportions auto-start push-button, LED-display scale and adjustment total weight for water and solids, push-button for total mixtures and total weight |
| Accessories | service manual and spare parts list, special tools for service and maintenance pre-selector switch for total flow rate setting, flow rate meter w. / w.o. zero setting remote-control with cable and 100m cable reel, radio remote control (no legal authorization necessary) available as extra equipment air compressor with maintenance unit high pressure cleaner 210 bar / 3045 psi, low speed device for industrial use with flat jet nozzle and 2 x 10m high pressure tube, unit is firmly installed |
| Supplementary Devices | control units, electronic data collection electronic data recording, control-measuring-system and computer evaluation, injection protocol generation "Ninja" |