

# Mix-Pump-Station Fully Automated MPS 100-D-B-AUT Diesel Motor



## Technical Data

drive mechanism	diesel-hydraulic
drive power	37 kW / 2.800rpm, aspirated engine 4 cylinder in-line, 2.3 l / 0.6 gal U.S. displacement, automatic preheat
fuel consumption	7.5 l/hr - 2 gal U.S./hr + / -25%
fuel tank capacity	100 l / 26.4 gal U.S., made of steel
connections	
• electric	24V DC
• hydraulic	quick coupling for screw conveyor motor
• water	G 2 BSPP C-coupling DN50 + G 1 BSPP GEKA
outlet	
• feed pump pressure	G 1 BSPP internal thread DN25
• feed pump circulation	G 1 BSPP internal thread DN25
dimensions	
length x width x height	2250 x 1600 x 2100 (mm)
weight	approx. 2800 kg

## Application

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

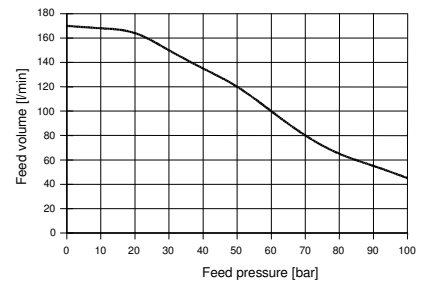
## Performance

Mixer with weighing system

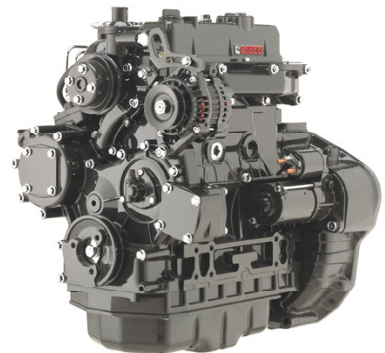
- hand feed up to 3.5 m<sup>3</sup>/h
- feed per screw conveyor from 4.5 m<sup>3</sup>/h up to 8.0 m<sup>3</sup>/h

Feed Pump

- pressure max. 100 bar<sup>1)</sup>  
max. 1450 psi
- flow rate max. 170 l/min<sup>1)</sup>  
max. 44.9 gal U.S./min



Dieselmotor Cummins A2300



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

1 bar = 1 x 10<sup>5</sup> N / m<sup>2</sup>

Status: February 2007  
Technical changes reserved

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## Standard Features

<b>Diesel Drive</b>	diesel engine Cummins A2300 37 kW, 2800rpm, max. speed limited to 2100rpm 4 cylinder water-cooled, silencer approx. 30 dB/A input voltage 24V DC, operating hour counter
<b>Hydraulic</b>	oil tank volume 150 l / 39.6 gal U.S., axial piston pump and gear pump oil/combination cooler
<b>Feed Pump</b>	vertical two-plunger pump, Ø100mm, flow rate per double stroke V = 2.8 l / 0.74 gal U.S., pump valves self-acting (ball valves) by-pass/circulation valve / pump down valve manually operated quantity adjustable electro-proportional
<b>Feed Pressure Measurement</b>	manometer 0-100 bar / 0-1450 psi, Ø100mm with stainless steel membrane
<b>Water Metering</b>	water distributor with flushing connector and pneumatic shut-off flap DN50 water reservoir and metering tank V = 200 l / 52.8 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
<b>Framework</b>	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)
<b>Reservoir</b>	round tank, cleaning lid, suction screen, run in basket 5mm reservoir covers, pneumatic shut-off flap DN50 volume 500 l / 132 gal U.S., effective volume 450 l / 118.9 gal U.S. slow turning agitator, revolutions per minute infinitely variable fluid control by sonar sensor
<b>Mixing Tank Colloid-Mixer</b>	weighing system with display and automatic control of screw conveyor 3 pre-selectable mixture ratios, adjustable by selector switch mixture preparation either automatically or manually display of mixture number circulation – and pump off automatically controlled round tank with conical floor volume 250 l / 66 gal U.S., effective volume 200 l / 52.9 gal U.S. covered screw conveyor intake, hopper with bag ripper hydraulic drive, rpm infinitely variable all shut-off flaps pneumatically controlled <b>No dosing screw conveyor necessary! Standard screw conveyor usable</b>
<b>Tools in Mixing Tank</b>	2 fast turning agitators on one common drive shaft with pump off function 1 agitator Ø250mm, 1 pump rotor Ø185mm drive shaft bearing above mixer fluid level no stuffing box so dry running possible w/o any problems
<b>Control Devices</b>	rotary knob for pressure control, rotary knob for flow rate control (l/min) cut-off/adjustment valve for mixer speed cut off/adjustment valve for agitator speed on/off push button for feed pump, mixer and agitator on/off push button for full automatic water metering on/off remote-control, switch connector, operating hour counter
<b>Weighing System</b>	hand/auto switch, pre-selector 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
<b>Accessories</b>	service manual and spare parts list, special tools for service and maintenance remote-control with cable and 100m cable reel, radio remote-control (no legal authorization necessary) available as extra equipment high pressure cleaner 210 bar / 3045 psi, low speed for industrial use rotor jet and 2 x 10m high pressure tube, unit is firmly installed
<b>Supplementary Devices</b>	control units, electronic data collection electronic data recording, control-measuring-system and computer evaluation, injection protocol generation “Ninja”

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## Views

