

Mix-Pump-Container

MPC 1030-160-160-GEN

with new mixing plant control system AUT-2



Technical Data

Drive
Drive Power Generator

Diesel- and Electro-hydraulic
Diesel-Generator FG-Wilson P150P2 with diesel engine Perkins 1106D-E66TAG3, 120 kW [163 HP] at 1.500 rpm, 217 A, 50 Hz, 150 kVA, 6-cylinder-in-line, 6,6 l displacement, turbocharger and intercooler, mechanical injection
EU Step 2 / U.S. EPA Tier 2
+/- 32,5 l [8,6 gal U.S.] Diesel/h
made of steel, volume 280 l [74 gal U.S.] with electrical filling pump

Exhaust Emission
Fuel Consumption
Fuel Tank

Connections inlet
Electrical
Water

2 x CEE 125 A, 400 V AC, 50 Hz, IP 54
G 2 BSPP AG DN 50 - C-coupling
2 x G 1 BSPP IG DN 25 - GEKA

Connections outlet
Electrical

2 x free sockets 230 V, 16 A
1 x free socket CEE 400 V, 16 A
1 x free socket CEE 400 V, 32 A
3 x sockets screw-conveyor CEE 400 V, 16 A
3 x sockets vibrator CEE 400 V, 16 A
1 x sockets FKD²⁾ CEE 400 V, 16 A
1 x sockets FKD²⁾ 230 V, 16 A
G 1 ¼ BSPP IG DN 32 - 38 S
G 1 BSPP IG DN 25 - RD 38

Pressure line
Circulation line

Dimensions (L x W x H)
Weight

6.260 x 2.480 x 2.690 (mm)
approx. 11.300 kg

Application

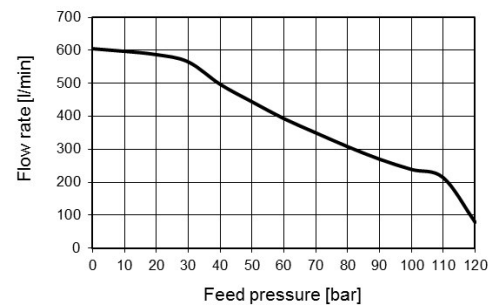
Fully automatic mixing and pumping of cement, fly ash and bentonite suspensions at anchorings, fillings, flushing, pressings, piling and vibrating jobs, slurry walls, Soil-Mixing WSM (Single-, Twin-, Triple) and Cutter-Soil-Mix CSM

Performance Mixer with weighing system

Feed per
Screw-conveyor up to 24,0 m³/h

Delivery Pump (KF = piston area - 160cm²)

Pressure max. 120 bar¹⁾ [max. 1.740 psi¹⁾
Flow rate max. 605 l/min.¹⁾ [max. 159 gal U.S.]¹⁾



¹⁾Infinitely variable. Both max. performances are not simultaneously possible. 1 bar = 1 x 10⁵ N/m²

²⁾FKD = liquid components dosage

(Status April 2016 / technical changes reserved)

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Standard Features

Framework

20ft-Container on a skid steel frame, partially enclosed and with partition panel, floor and oil pan, floor drain DN 50, mixing and storing tank in a separate room, four towing devices, machine room sound proofed, lockable doors, optional on a rolling base frame (multiliftsystem DIN 30722), foldable safety grids around the machine, finishing 2K-paint RAL 5005 (signal blue) or on customer desire unicoloured

Diesel Drive

diesel generator FG-Wilson P150P2 with diesel engine Perkins 1106C-E66TAG3 (Turbo), 120 kW [163 HP] at 1.500 rpm, 6-cylinder-in-line, intercooled, starter batteries 12 V, exhaust silencer approx. 30 dB/A

or Electric Drive

electric motor delivery pump 55 kW, 1.500 rpm, 400 V AC, 50 Hz, IP 54, electric motor mixer 11 kW, 1.500 rpm, 400 V, 50 Hz, IP 54 and gear motor agitator 3,0 kW, max. 30 rpm (infinitely variable, frequency controlled), automatic phase correction, motor safety switch, control voltage 24 V DC (for valves and remote control), operating hour meter

Hydraulic

oil tank volume 350 l [92 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 Ø 160 mm, flow rate per double stroke $V = 11,2 \text{ l}$ [2,96 gal U.S.], pump valves (suction and pressure line) self-acting (disc valves), circulation and pump-down valves manually actuated, flow rate adjustment electro-proportional, automatic grease system for plunger sealing sleeves, plunger oil tank

Delivery Pressure Measurement

manometer 0-250 bar [3.626 psi] Ø 100 mm completely with stainless steel membrane, electronic pressure sensor 0-250 bar [3.626 psi], 4-20 mA, G ½ BSPP AG with LCD display on switch cabinet

Water Metering

water storing and dosing tank $V = 600 \text{ l}$ [159 gal U.S.], fixed overflow pipe DN50, 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 150 pneumatically controlled, fully-automatic water metering with fluid level indicator via water pressure sensor and float

Mixing Tank Colloid-Mixer

round tank with conical floor, volume 1.000 l [264 gal U.S.], effective volume 800 l [211 gal U.S.], mixer drive electric motor 11,0 kW, foldable and lockable tank covers, cover for screw conveyor inlet with inspection flap, circulation and pump down valves DN 80 pneumatically controlled

NO DOSING SCREW CONVEYORS NECESSARY! Standard screw conveyors usable!

Tools in Mixing Tank

3 fast turning mixing tools on one common drive shaft with pump down function, 2 mixing blades Ø 280 mm, 1 pumping wheel Ø 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 3.000 l [792 gal U.S.], effective volume 2.900 l [766 gal U.S.], agitator drive electric gear motor 3,0 kW (rotation speed infinitely variable), foldable and lockable tank covers, suspension inlet DN 80 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

fluid level control per ultrasonic sensor

New Mixing Plant Control System

all parameters to control the mixing plant can be regulated via touch screen and are displayed on it (status indicator of mixing cycles). The machine is handled through robust changeover switches and key buttons on the control panel.

Basic functions:

Handling of the mixing plant in a manual or automatic mode, mixing process with water and three solid components plus liquid component possible (order freely selectable!).

Setting options for automatic mode via touch screen:

mixture ratio, weight and density of the single solid components, W/C factors and density of the finished suspension, necessary quantity of water and solid components, quantity of the finished suspension, automatic calculation of the density of the finished suspension, quantity of the finished suspension in liters [gal U.S.] and kilograms [lb], entry of several thousand recipes with name and short description, automatic calculation of missing parameters based on the available parameters, start of automatic cycles at the touch of a button, automatic mixing of two different mixing ratios on a rotating basis or after specification of the order of components for operation with an additional external storage container, data recording and evaluation of all mixing and pump parameters (read out via USB stick!), optional: connection of a second external pumping unit

Accessories (included)

operating manual and spare part list, special tools for operation and maintenance, cable remote control 15 m and cable reel 100 m, radio remote control, inductive flow meter (installed in suction line), circulation hose, high pressure cleaner 4 kW, 950 rpm, 200 bar [3.045 psi] (industrial device, fixed installed), air compressor (industrial device, fixed installed), heaters, working lamps for machine room, mixing and storing tank

Further devices, special equipments and accessories on request!