

# Technical Datasheet

## Dynamic Cone Penetrometer



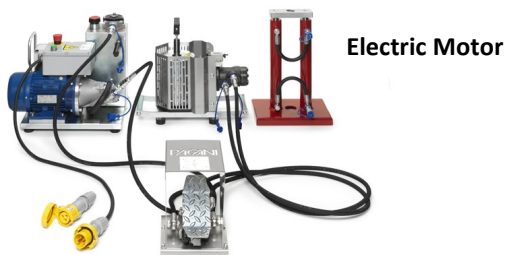
Portable device for dynamic penetrometric tests

### Description

The DPM30 penetrometer allows exclusively continuous dynamic penetrometric tests to be performed. For the dynamic tests, the penetrometer is equipped with a 66 pound (30 kg) hammer with a 7.87 inch (200 mm) stroke, operated by a hydraulic motor. It is driven by a motor-pump unit, where the motor can be either electric (220v or 110v) or a gas engine. A hydraulic extractor is used to extract rods, lining tubes and samplers. The penetrometer is controlled via a pedal-operated distributor. The hydraulic connections on the various components use quick connectors.

### Advantages

- A power supply suited to any application
- For the dynamic tests, the penetrometer is equipped with a 66 pound (30 kg) hammer with a 7.87 inch (200 mm) stroke, operated by a hydraulic motor. It is driven by a motor-pump unit, where the motor can be either electric or a gasoline-powered.



The DPM30 can be used not only for dynamic tests, but also for soil sampling with limited disturbance, which guarantees improved ability to interpret the penetrometric data.

### Gasoline Engine

Part	Weight
Gasoline Engine-Pump Unit	71.2 lbs (32.3 kg)
Percussion System	104.7 lbs (47.5 kg)
Hydraulic Extractor	35.3 lbs (16 kg)
Pedal-Operated Distributor	21.4 lbs (9.7 kg)
<b>TOTAL</b>	<b>232.6 lbs (105.5 kg)</b>

### Electric Motor

Part	Weight
Gasoline Engine-Pump Unit	84.9 lbs (38.5 kg)
Percussion System	104.7 lbs (47.5 kg)
Hydraulic Extractor	35.3 lbs (16 kg)
Pedal-Operated Distributor	21.4 lbs (9.7 kg)
<b>TOTAL</b>	<b>264.3 lbs (111.7 kg)</b>



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## DP Tests

Hammer	Fall height	Rods	Cone
66 lb (30 kg)	7.87 inch (200 mm)	.79 inch (Ø 20 mm)	1.6 inch <sup>2</sup> (10 cm <sup>2</sup> ) 60°

## Gasoline Engine\*

Type	Single-cylinder, 4 stroke, unleaded gas, forced air-cooling w/ muffler
Starter	Hand starter
Power	2.94 kW (4 HP) @ 3060 rpm
Displacement	7.74 in <sup>3</sup> (127 cm <sup>3</sup> )
Torque	66 inch / pound (0.76 kgm, 7.5Nm) @ 3060 rpm
Air Filter	Pre-filter & cartridge filter
Consumption	Variable from 1.22 to 0.32 gallons per hour (0.54 to 0.14 liters per hours) depending on power requested

\* Gas unit cannot be sold or used in California

## Electric Motor

Type	Asynchronous single-phase engine
Absorbed watts	1700
Current used	115Vac AC 60 Hz
Power	1.7 kW (2.3 Hp) @ 3420 rpm
Ignition controls	Integrated electrical box with emergency push buttons
Connection to the mains	The box has a built-in 2-pole plug (plus ground). A 20A and 130V 2-pole plug is always supplied (plus ground).

## Hydraulic System

Circuit capacity	0.26 Gallons (1 liter)
Maximum operating pressure	2176 psi (150 bar, 15000 kPa)
Pumps	No. 1
Filter	Cartridge filter with 25µm filtering capacity

## Hydraulic extractor

Maximum extraction speed	0/1.584 inches per second (0/4 centimeters per second)
Hydraulic extractor piston stroke	11.42 inches (290 millimeters)

## Refueling

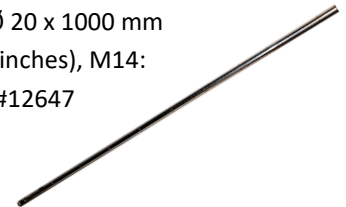
Fuel tank capacity	1 gallon (3.8 liters)
Hydraulic oil tank capacity	2.1 gallons (7.8 liters)

## Accessories

Rod Extraction Clamp:  
Item #12646



Rod Ø 20 x 1000 mm  
(39.3 inches), M14:  
Item #12647



Drive cap Ø 30 x 50mm, M14  
Item #12648



Expendable point holder for  
rod Ø 20 mm, M14  
Item #12649



Expendable drive tips 10cm<sup>2</sup>,  
angle 60° - box of 120  
Item #12650



Drive cone 10cm<sup>2</sup>, 60°, M14  
Item #12651



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