

P 13 piston pump – complete data

Model	P 13 ^{DMR}	P 13 ^{DMR}	P 13 ^{EMR}	P 13 ^{EMR}	P 13 ^{SEMR}
Chassis	with brakes without brakes with brakes without brakes without brakes				
Type of pump	mechanical piston pump KA 139				
Output (KA 139)*	15-65 l/ min		30-75 l/ min		30-75 l/ min
Output (KK 139 - optional)	25-115 l/ min		25-115 l/ min		30-120 l/ min
Delivery pressure (theor.)*	40 bar		40 bar		40 bar
Delivery distance*/ height*	up to 300 m/ 100 m		up to 300 m/ 100 m		up to 500 m/ 100 m
Air compressor	2-cylinder compressor, 3.5 bar, 300 l/ min suction capacity				
Engine	2-cylinder diesel engine 12.5 kW at 2,800 rpm		e-motor 400 V 7.5 kW at 2,900 rpm		e-motor 400 V 11.0 kW at 2,900 rpm
Fuse	–	–	20 A	20 A	25 A
Weight	1,060 kg	990 kg	1,000 kg	990 kg	1,020 kg
Length	3,530 mm	3,000 mm	3,530 mm	3,000 mm	3,130 mm
Width	1,640 mm	1,640 mm	1,640 mm	1,640 mm	1,640 mm
Height	1,450 mm	1,450 mm	1,450 mm	1,450 mm	1,450 mm
Fill height	1,300 mm	1,300 mm	1,300 mm	1,300 mm	1,300 mm
Max grain size	8 mm	8 mm	8 mm	8 mm	8 mm
Discharge connection	M 50	M 50	M 50	M 50	M 50
Part no.	111 460.020	111 460.010	111 460.040	111 460.030	111 460.060

* Information is based on experience values and is depends on the material used.

■ Standard equipment P 13

2-cylinder air compressor, positive-action mixer, agitator in hopper, standard spray gun ID 35, box-type screen ID 10, truck automatic overrun brake, tools and ring hitch (ball hitch, on request)

■ Further accessories

Spray gun ID 25-40 made of glass-fibre reinforced plastic (20, 21)

straight, short 402 592
angled, long 404 479

ID 35 made of aluminium (22-24)

straight, short (standard) 001 306.004
angled, short 209 307.009
angled, long 209 308.008

■ Putzmeister Mörtelmaschinen GmbH

is a member of the Putzmeister-Group with headquarters in Aichtal near Stuttgart. Since 1958, Putzmeister has been manufacturer and worldwide supplier of mortar machines, fine plaster spray and paint pumps, tunnelling machines, industrial pumps, large robot technologie for cleaning complex systems and plants, and professional high-pressure cleaning systems. This strong union therefore offers both users and sales partners all over the world the ideal conditions for competency, investment safety and optimum service in all sectors.

Mortar nozzles

12 mm ø	214 753.004	1x Spray gun, short 700 m/m	209 307.009
14 mm ø	214 754.003	1x T-piece ID 50 for	071 554.006
16 mm ø	214 755.002	connecting pressure gauge	
18 mm ø with collar	001 329.007	1x Pressure gauge 100 bar	426 388
20 mm ø with collar	001 330.009	5x Seal ID 35	213 725.004
		5x Seal ID 50	213 266.000
		5x Sponge ball ID 35	065 044 001
		5x Sponge ball ID 50	000 212.005

Refurbishing spray gun (18)

1", with 12 mm nozzle	207 283.002		
V 35/ R1", with coupling	203 135.002		
1.5", with 12 mm nozzle with coupling	433 461	Mortar hoses	
		13.3 m, 35 mm ø, ID 35	207 615.007
		10 m, 25 mm ø, ID 25-40/ 35	207 809.004

Recommended mortar del. line (40 m)

2 x mortar hose 13.3 m, 50 mm ø	501 914	Order your free copy of our complete catalogue	
1 x mortar hose 13.3 m,		MM 2599 for details of other accessories.	
50/ 35 mm ø	207 616.006		
1 x air hose 40 m, 1/2"	214 734.007		

28



■ Your Putzmeister-Partner

Putzmeister

Putzmeister Mörtelmaschinen GmbH · Max-Eyth-Str. 10 · 72631 Aichtal · Germany · Tel +49 (0) 71 27 599-470 · Fax 599-743
eMail mm@pmw.de · Internet http://www.putzmeister.de/pmm

P 13 piston pump



P 13

The double-piston pumps in the P13 series are robust, extremely low-wearing, high-performance machines suitable for use on any construction site.

They are exceptionally versatile and can handle all types of site-mixed mortar and dry mortars up to 8 mm grain size. These highly reliable machines can be universally applied, particularly for heavy-duty continuous operation. Available electric or diesel driven.

Putzmeister

MM 3588-6 GB

All information subject to change. Right to make technical amendments reserved. © 2007 by Putzmeister Mörtelmaschinen GmbH. All rights reserved. Maximum output and pressure cannot be achieved simultaneously. Specifications subject to change without prior notice. Always refer to the appropriate operator's manual for safe and proper operation of Putzmeister equipment. Photos and drawings are for illustrative purposes only. For available options, please contact the factory. (30904 SD)

P 13 piston pump – veritable “master of the trade” when it comes to applying site-mixed and wet mortars from batching plants

2



3



4



5



For more than 40 years the P 13 piston pump has been renowned for its reliability, sturdy design, long service life, minimum costs for wear and tear and maximum performance.

This type of plastering machine is to be found on construction sites over the world where they are often used in extreme conditions.

Low operating costs and simple and unproblematic application have contributed to their reputation as being “veritable masters in the plastering business” as the translation of the name of the German company “Putzmeister” already implies.

The P 13 can handle almost all of the commercially available types of plaster and mortar. They can be used for plastering, rendering, wet spraying, pumping, filling, injecting and grouting – the range of applications is practically endless.

Many companies are still using their own mixes, prepared on the construction site.

Mortars prepared in this way have two decisive advantages: on the one hand, the costs are reasonably low, as sand and binders can be obtained locally. On the other hand, the mix can be prepared exactly to match the material from which the wall is made (e.g. clay bricks) and local weather conditions.

■ Spraying and pumping

The P 13 is a complete mixing and pumping unit incorporating a positive-action mixer, pump and compressor, allowing a particularly wide range of applications. For example, primer mortar, base-coat plaster, texture plaster, renders, scratch plaster, dry mortar and wet mortar (Fig. 2-5).

■ Injecting and grouting

The P 13 can handle cement mortars with up to 8 mm grain size and at 40 bar maximum pump pressure (Fig. 7). Cement and bentonite slurries are equally easy to mix and pump.

■ Filling and back-filling

The P 13 also demonstrates its qualities when used for filling large volumes using long hoses (Fig. 6).

It can also be used for filling in cavity walls.

■ Refurbishing

The P 13 is particularly suitable for use when applying high-quality, large-grain mortar (e.g. cement-bonded refurbishing mortar up to 8 mm) (Fig. 8).

A further ideal field of application for the P 13 is shotcreting using up to grain size 8 mm.

Piston pumps operate according to the principle “simple but functional” – an ideal combination. The simple and complete design of the pump, drive unit, positive-action mixer, agitator housing and compressor make the P 13 the plastering machine par excellence.



6

In addition to standard operations such as base-coat plastering or spray plastering, the P 13 is excellently suited for use where large volumes must be pumped, for example, when infilling formwork.



7

Here, the P 13 is seen raising carriageway slabs using a cement mortar.



8

Coarse-grain shotcrete (here 8 mm) can only be handled using a P 13 type piston pump.

3

P 13 piston pump – robust, reliable and hardwearing

9



■ The high pressure piston pump

Standard for the P 13 is the KA 139 double-piston pump. It is capable of pumping up to 75 l/min. A working piston and a compensating piston are driven via camshafts. The compensating pump allows to abandon on „air chamber“ which is required in single-piston pumps. Even when operating at great pumping heights and pressures, this principle guarantees keeping material flowing smoothly and evenly. This also means that the spray gun is practically pulsation-free thus guaranteeing a clean and smooth spray pattern.

The spraying air for the P 13 is simultaneously the air remote control so the pump can be easily switched on and off from the spray gun.

The particularly low-wear P 13 piston pump is made of top-grade, robust components, for example a hard-chromium plated delivery cylinder. Wear and tear is optimal, likewise operating costs and thus the machine has a particularly long service life.

A safety device ensures that the pump is switched off when reaching the set pressure. If pressure falls below this set value, then the pump restarts automatically. The P 13 can therefore also be used as an injection pump with maintained pressure.

Should a higher performance be required, the KK 139 double-piston pump can be installed. This features 2 working pistons doubling the performance of the KA pump.

■ The robust power units

The P 13 is available with 2 different kinds of drive units: The DMR version features a 2-cylinder 12.5 kW diesel engine that is particularly reliable and extremely robust. The EMR-version features a 400 V electric motor with either 7.5 kW or 11.5 kW (SEMR version). These models are especially suitable for use in environments where noise levels must be taken into consideration. Once installed, the electric motors are practically maintenance-free.

■ The positive-action mixer

The positive-action mixer makes sure that the quality of the mix is optimal. The large, practical discharge opens the mixer directly downwards into the bottom mortar hopper. The P 13 allows continuous pumping with a mixer volume of 150 l and a mortar hopper volume of 200 l.

The mortar hopper features a vibrating screen that is moved mechanically. It retains oversize particles and ensures a smooth flow of mortar.

The rotating agitator in the bottom of the mortar hopper prevents the mortar from “settling”.

The mixer shaft and agitator shaft are driven by V-belts that can be switched on and off using a V-belt tensioner.

Yet another good example illustrating that practical solutions do not necessarily result in higher costs.

■ The engine canopy

The enemies of any machine are dust and mortar splashes. The motor, compressor and gears of the P 13 are protected by means of a sturdy canopy that also reduces the noise level. As the operating components such as switch-gear, mixer flap, clutch and mixer shaft drive are all exposed when the canopy is raised. The hood remains closed during operation.

■ The delivery output

The delivery output is adjustable. You can select between 3 stages. The first is about 15 l/min, the second about 30 l/min and the third about 65 l/min. Depending on the version (electric/diesel or KA/ KK piston pump) the output per stage can vary.

10



The screen features a mechanical vibratory drive installed in the galvanized mortar storage hopper. It may be removed for cleaning.

11



The large trap mixer guarantees perfect mixing results.

12



The discharge connection of the P 13 for hose connection.

5

P 13 piston pump – the flexible plastering machine using electric or diesel power... and lot of accessories

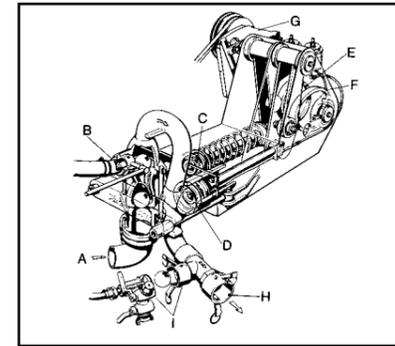
13



■ Piston pump variants

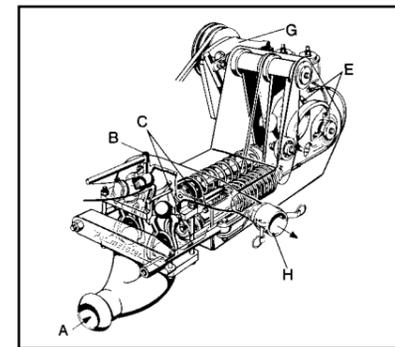
KA 139 (series)

max. 75 l/ min output, 1 working piston, 1 compensating piston



KK 139 (optional)

max. 120 l/ min output, 2 working pistons



■ Special version

On request you receive the piston pump P 13 even as the further version with larger pump heading. This contains larger passages and distribution seats balls for pumping larger grain (up to 10 mm) and difficult materials.

■ Accessories

Sponge balls (17)

45 mm ø 065 044.001
60 mm ø 000 212.005

Pressure gauge (19)

with grease buffer
0-25 bar 426 387
0-40 bar 420 989
0-100 bar 426 388

T-piece ID 50 for connection to a pressure gauge 071 554.006

Air hoses

10 m, 1/2" 001 682.003
20 m, 1/2" 001 665.004
40 m, 1/2" 214 734.007

Construction site extension leads 5x4 mm² CEE plug, coupl. 32 Amp.

25 m 062 922.003
50 m 062 923.002

Miscellaneous

Spray gun (14) 000 210.007

Hose holder made of (15) leather 000 206.008

Hand lever (16) 000 211.006

Grease gun with hose 000 113.007

Grease cartridge (400 g) 000 113.007

Cleaning brush 000 100.007

Water metering fitting with water meter 002 705.002

Sound insulation for P 13 D 002 741.008

Drawbar adapter bent 207 070.008

Ring hitch eye for braked version 212 700.004

un-braked version 212 154.003

Bill hitch for braked version 212 704.000

un-braked version 212 153.004

Please refer to the following pages for further accessories.

25



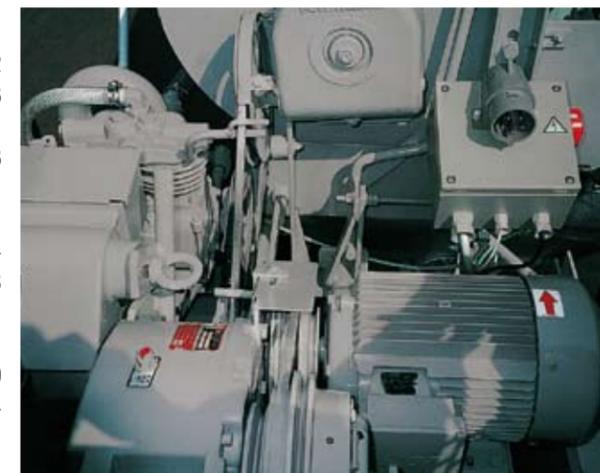
The double-piston pump (here the KK 139 with up to 120 l/ min pump output) means pulsation-free operation of the spray gun.

26



The 2-cylinder diesel engine is extremely robust and requires next to no maintenance. Output is 12.5 kW.

27



The powerful 400 V electric motor has an output of 7.5 kW and the S-version even 11 kW.

7