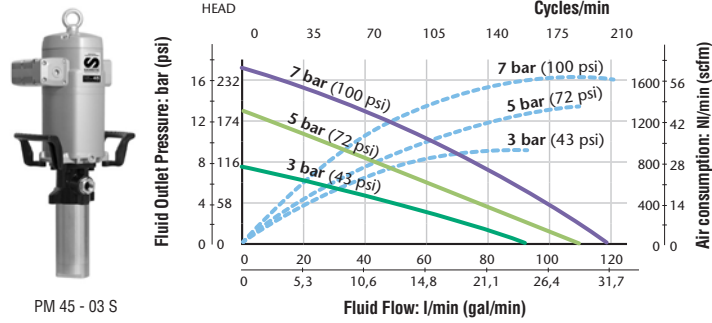
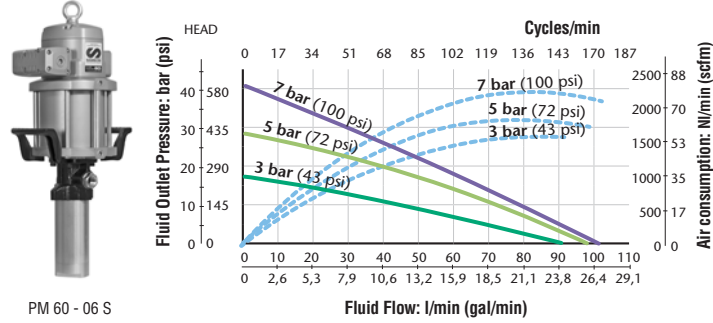


OIL PUMP PERFORMANCE CURVES

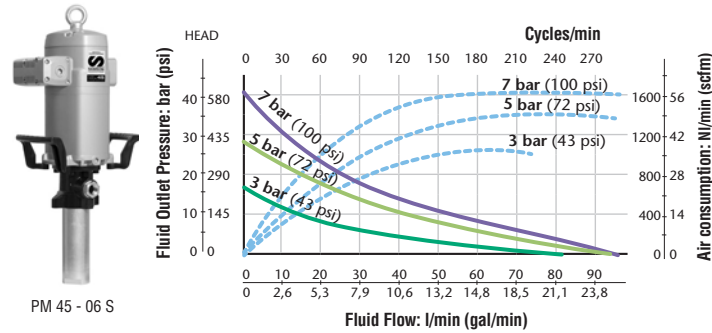
PM45 3:1 RATIO Very High-Flow / Low Pressure
Test Fluid: SAE 10 oil at 21 °C (70 °F)



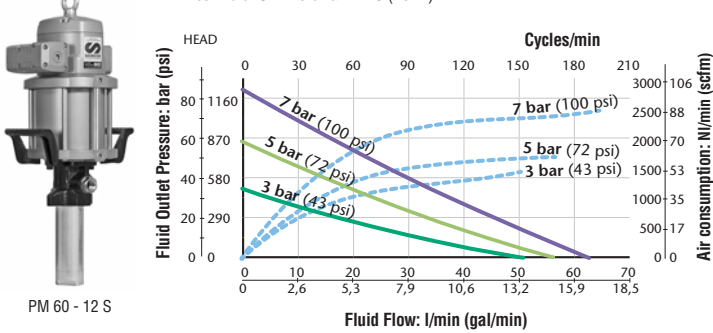
PM60 6:1 RATIO Very High-Flow / Medium Pressure
Test Fluid: SAE 10 oil at 21 °C (70 °F)



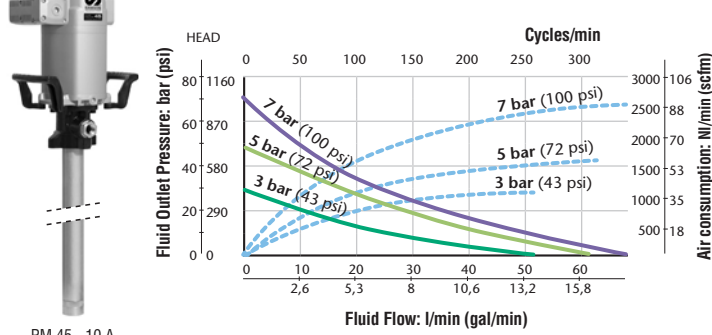
PM45 6:1 RATIO High-Flow / Medium Pressure
Test Fluid: SAE 10 oil at 21 °C (70 °F)



PM60 12:1 RATIO Long Distance / High-Flow / Medium Pressure
Test Fluid: SAE 10 oil at 21 °C (70 °F)



PM45 10:1 RATIO Long Distance / Medium Pressure
Test Fluid: SAE 10 oil at 21 °C (70 °F)



INDUSTRIAL OIL PUMPS SELECTION

SIMULTANEOUS DISPENSING OUTLETS	TOTAL PUMP DISTANCE TO OUTLETS*	CONTAINER TYPE	
		55 Gal / 200 l (A)	Bulk container**
3 - 4	Up to 250 ft / 75 m	N/A	PM 45 - 3 S
3 - 4	Up to 500 ft / 150 m	N/A	PM 45 - 6 S PM 60 - 6 S
3 - 4***	Up to 750 ft / 230 m	PM 45 - 10 A	PM 45 - 10 S PM 60 - 12 S

* The hose length of the dispensing reels must be included in the total distance.
* The mentioned lengths refer to rigid pipelines made of at least 1" (25 mm) outside diameter and 0.05" (1.2 mm) thickness steel tubing with hydraulic type fittings.
** These pumps require a bracket and suction tube assemblies.
*** Except for PM 45 - 10 A and PM 45 - 10 S

OIL PUMP MOUNTING - DRUM SYSTEMS, BULK TOTES & TANKS

Drum-mount with 2"(M) bung adaptor

- Only for 10:1 oil pump with extension tube.
- Economical.
- Pump handles to facilitate pump removal and introduction.
- Rigid suction tube includes 2" bung adaptor.

Drum-mount with 2"(M) bung adaptor and hoist

- Only for 10:1 oil pump with extension tube.
- Air operated hoist raises and lowers the pump for easy drum changeover.
- Hoist rotates 360° and can serve one or more pumps.

Bracket-mount with dipped suction kit for drum

- For all types of stub oil pumps.
- Bracket includes screws to fix pump base.
- Bracket can be mounted to a wall, a frame or a tank.
- Rigid suction tube includes 2" bung adaptor.

Bracket-mount with dipped suction kit for tote

- For all type of stub oil pumps.
- Bracket includes screws to fix pump base.
- Bracket can be mounted to a wall, a frame or a tank.

Cover-mount with hoist

- For both stub flanged mounted pumps and 2"(M) bung pumps with extensions.
- Air operated hoist raises and lowers the pump and cover assembly.
- Cover seals against contamination.
- Hoist and cover rotate 360° to serve one or more drums.

Bracket-mount with suction hose and dipped rigid suction tube

- For all type of stub oil pumps.
- Bracket includes screws to fix pump base.
- Bracket can be mounted to a wall, a frame or a tank.
- Rigid suction tube includes 2" bung adaptor.



PUMP MASTER 45&60
Lubrication Pumps

HIGH PERFORMANCE VOLUME DISPENSING PUMPS FOR OIL

OIL

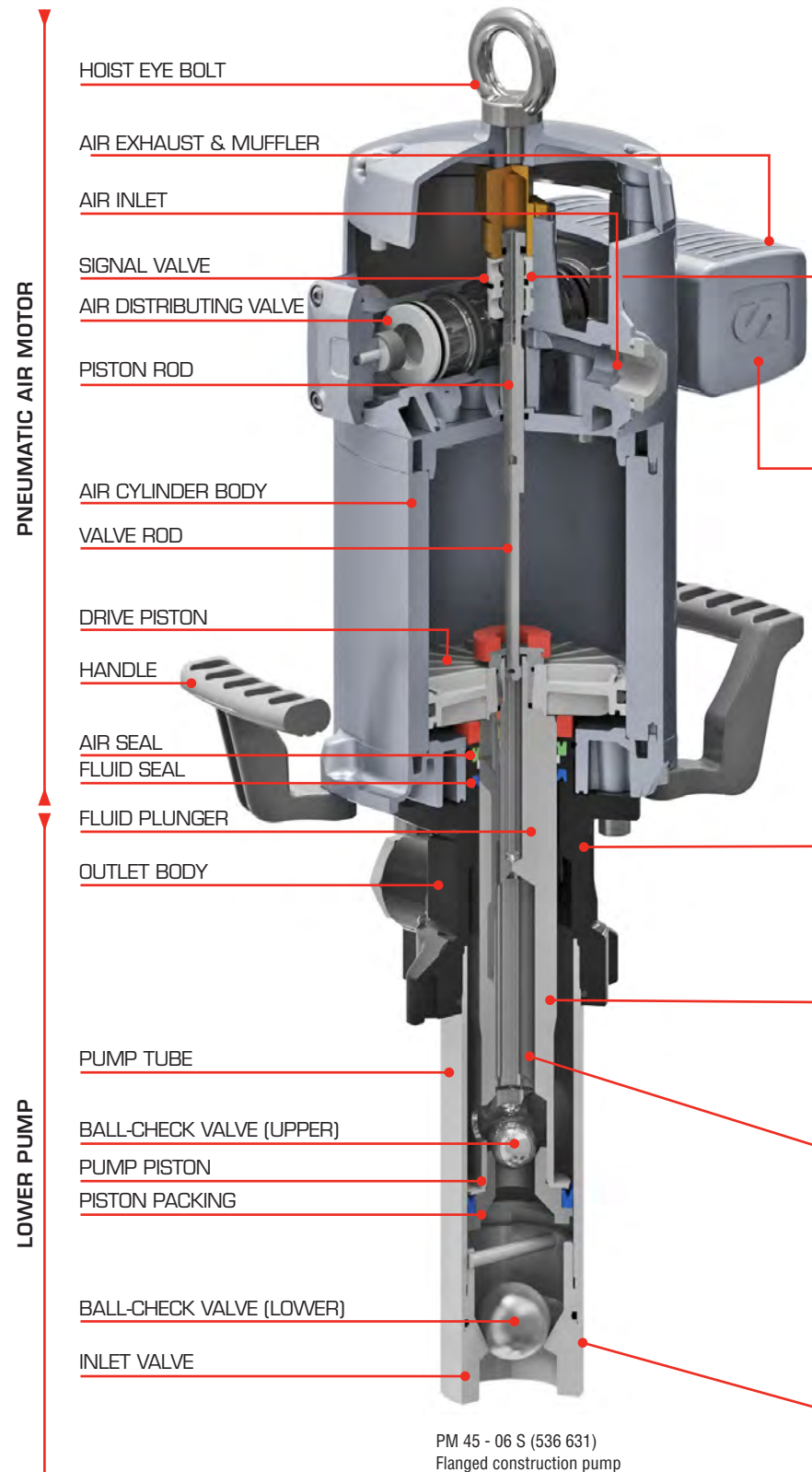
LARGE AUTOMOTIVE AND TRUCKS SERVICE • INDUSTRIAL PLANTS • MINING & CONSTRUCTION • MARINE

Pneumatically driven industrial pumps for long delivery lines or systems with multiple outlets.



INDUSTRIAL LUBRICATION PISTON PUMPS: THE HEART OF A LUBRICATING SYSTEM

SAMSON industrial oil pumps have been specifically designed to deliver through long delivery lines or to multiple dispensing points simultaneously all kinds of synthetic and petroleum oils at continuous-duty, high flow rates. In line with our group philosophy, we do this demanding job while leading the competition in technology, innovation and value provided to the end user. SAMSON manufactures a full range of Heavy-Duty, high efficiency, air powered, double acting, positive displacement piston pumps. Our wide range of pumps provides the necessary confidence to offer practical and dependable solutions for quickly moving large volumes of oil at distances between 100 ft (30 m) and 750 ft (230 m).



Pneumatic Air Motors: Our air motors are actuated by a mechanically linked signal valve mounted on a trip rod (piston rod) which senses when the drive piston has reached the end of a stroke. This sends an instantaneous air signal to the air distributing valve and holds it in a stable fixed position supplying air to the drive side of the piston side while simultaneously evacuating the air on the exhaust side. This system results in the fast reciprocating action of the air motor, minimizing air consumption and wasted energy due to valve overlap. This simple concept eliminates the possibility of stalling. This time-tested pneumatic air motor only has three moving parts and no springs, which could fail or consume energy and runs without external lubrication.

Air exhaust: The aluminium air motor provides good heat transfer and incorporates high-thermal efficiency, large diameter, air exhaust manifolds together with a free-flow exhaust pathway at the distributing valve that literally opens the exhaust side of the power chamber to the atmosphere, eliminating pump performance variability caused by changing environmental conditions and icing-up. The supplied muffler element reduces the noise to meet or exceed OSHA requirements at all recommended operational air pressures. The muffler can also be removed to connect the exhaust port through a hose directly to a remote location for quieter operation.

Modular design: The robust, modular pump design permits multiple-combinations of assemblies of the air-motor and lower-pump end. This versatile pump construction allows for easy service and maintenance and provides a comprehensive range of operating output pressures and flow-rates to accommodate virtually any amount of dispensed lubricant.

Integral in-line design: Our corrosion resistant hardened plunger and the integral in-line configuration aligns the air motor and the plunger rod and piston assembly for low-friction operation and minimizes wear to maximize seal life.

High quality materials: Aluminium die-cast pneumatic air motor with hard anodized aluminium cylinder; light weight drive piston; stainless steel trip rod assembly; "u-cup" design polyurethane seals; cast outlet body; thick-wall polished tube; high tensile hard chrome plated steel on fluid plunger rod; piston and inlet valve made of hardened steel and polyurethane piston packing.

Stub / Universal Pumps: Double-Valve stub style pump tube used for positive priming and pumping of all grades of oil. Extensions, rigid or flexible, that screw directly into the pump inlet valve allow the pump to accommodate different size drums and tanks.

PUMP MASTER 45&60

Lubrication Pumps

INDUSTRIAL OIL PUMPS

PNEUMATICALLY DRIVEN OIL PUMPS

SAMSON PM45 and PM60 air operated oil pump range consist of the following models based on the use of two air motors combined with three different pump piston sizes. This configuration allows each pump to be fine-tuned providing the perfect performance to match any application and give years of trouble free, reliable operation.

The pumps cover a wide range of applications whether for pumping, metering, lubricating, filling or transferring engine oils, gear oils, hydraulic oils and automatic transmission fluids (ATF) from original refinery drums or tanks through long delivery lines to multiple dispensing points or hose reels. They are suited for use in large automotive and trucks service, industrial plants, mining and construction, lube trucks and in marine applications.



	PUMPMASER 45	PUMPMASER 60
Air motor effective diameter	4 1/2" - 115 mm	6" - 150 mm
Stroke	4" - 100 mm	4" - 100 mm
Air pressure range	20 - 170 psi / 1.5 - 12 bar	
Air inlet port	1/2" NPT (F)	
Air exhaust	Exhaust Muffler included (3/4" (F) threaded port for remote exhaust)	
Noise level @ 100 psi - 7 bar	80 dB (A) / 3 ft (1 m)	
Air Motor & Pump Assembly	Flanged construction pump	
Wetted Materials	Cast iron, Chromed steel, Zinc plated steel, Polyurethane, Nitrile	
Fluid outlet port:	3/4" NPT (F)	
Fluid inlet port: 3:1, 6:1, 10:1 & 12:1 Stub / Universal supply oil pump: 10:1 Long / 55 gal (200 l) with 2" (M) bung adaptor:	1 1/2" NPT (F) Plain with down tube	

Description	Model Number	Air Motor Size (Ø)	Pump Ratio	Pump Mount Container type	Dimensions X-Y-Z	Max. Air Pressure	Max. Fluid Pressure	Displacement Per cycle	Flow rate* @ 80 or 60 cpm	Maximum** Flow Rate	Weight
PM 45 - 03 S ■	536 331	4 1/2"	3:1	Wall Bracket	19,8 - 8 - 3,5 (in)	180 psi	540 psi	34,8 cu-in	11,9 gal/min	31,7 gal/min	37 lb
PM 45 - 06 S ▲	536 631	4 1/2"	6:1	Wall Bracket	19,8 - 8 - 2,8 (in)	180 psi	1.100 psi	19,5 cu-in	6,6 gal/min	25,1 gal/min	37 lb
PM 45 - 10 S ★	536 031	4 1/2"	10:1	Wall Bracket	19,8 - 8 - 2 (in)	180 psi	1.800 psi	11,6 cu-in	4,0 gal/min	17,2 gal/min	36 lb
PM 45 - 10 A ★	536 011	4 1/2"	10:1	55 Gal 2" Bung	19,8 - 33,6 - 2 (in)	180 psi	1.800 psi	11,6 cu-in	4,0 gal/min	17,2 gal/min	37 lb
PM 60 - 06 S ▲	537 631	6"	6:1	Wall Bracket	20,3 - 8 - 3,5 (in)	180 psi	1.100 psi	34,8 cu-in	9,3 gal/min	26,4 gal/min	42 lb
PM 60 - 12 S ★	537 131	6"	12:1	Wall Bracket	20,3 - 8 - 2,8 (in)	180 psi	2.160 psi	19,5 cu-in	5,3 gal/min	17,2 gal/min	42 lb

All industrial oil pumps include a set of two handles that attach to the air motor base for easy pump handling.

* Indicated Flow rates at 100 psi - 7 bar air inlet pressures.

** Maximum delivery with no fluid back pressure and 100 psi - 7 bar air inlet pressure. SAMSON recommends operation at 80 cycles per minute for "PM-45" series air motors and 60 cycles per minute for "PM-60" series air motors.

■ Very high flow, low pressure pump for large maintenance shops, up to 250 ft (75 m) pump distance. Facilities dispensing engine oil, gear oil, ATF and hydraulic fluid.

▲ High flow, medium pressure pump for large maintenance shops, up to 500 ft (150 m) pump distance. Facilities dispensing engine oil, gear oil, ATF and hydraulic fluid.

★ Long distance, medium pressure pump for large maintenance shops, up to 750 ft (230 m) pump distance. Facilities dispensing engine oil, gear oil, ATF and hydraulic fluid.