

AIR OPERATED OIL PUMPS

Air Operated Oil Pumps are the most effective and practical way to transfer oil from drums to bulk tanks or to vehicles being served in an automotive workshop.

Air Operated Pumps come in various sizes and types. Each individual workshop needs to be assessed for the most suitable pump for their everyday application.

The pumps performance is governed by the figure that is called the pumps ratio. The ratio controls the amount of fluid that the pump dispenses and over what distance the product is pumped.

All Air Operated Pumps have a pressure to fluid ratio. How this works is that the ratio of the pump controls the pressure of the fluid being dispensed. For a 1:1 ratio pump, this works like this:

Air pressure from compressor into the pump : 100psi (pounds per square inch)

Fluid pressure at outlet : 100psi (pounds per square inch)

This means that the pressure into the pump equals the fluid pressure coming out of the pump so this explains the 1:1 ratio.

For a 3:1 pump the answer is as follows:

Air pressure from compressor into the pump : 100psi (pounds per square inch)

Fluid pressure at outlet : 300psi (pounds per square inch)

The air motor on the pump is able to generate three times the pressure with the fluid at the outlet thus multiplying the pressure by 3.

The same with the 5:1 pumps. Air inlet pressure is 100psi so fluid outlet pressure would be 500psi.

What does this all mean?

With the increase in the fluid outlet pressure, the oils are not necessarily pumped at a faster rate but are able to be pumped over longer distances. The lower the ratio (1:1) the higher the flow rate but the less distance it can be pumped. The higher the ratio (5:1) the further the product can be pumped at a lower flow rate.

There are some exceptions to this as some 3:1 & 5:1 pumps have larger air motors or are double acting pumps which can deliver higher volumes over longer distances. These pumps are more expensive and would be more practical in truck or larger machinery workshops.

Applicable Fluids

STM Australia Air Operated Pumps are suited for the following fluids:

Motor Oil, Synthetic Oil, Hydraulic Oil, Gear Oil, Automatic Transmission Fluid, Coolants

OPERATION NOTES

To prolong the life of all air operated pumps and ensure satisfactory service, an air service unit should be fitted.

This consists of an Air Filter, Lubricator and Regulator. (DITI AC2000)

When air pumps are used in oil bars and similar installations, it is imperative that a foot operated air valve or faucet operated air valve is used. An installation without these valves will impose a continuous pressure on the pumps. This will result in leaks and unsatisfactory operation. If the air pumps are not to be used for long periods it is advisable to turn off the air supply to the pumps.

STM reserves the right to alter products or specifications at any time without prior notice

AIR OPERATED PUMPS

PHONE : 1300 131 531

WEBSITE : www.stm.net.au

FAX : 1300 308 508





Pump Recommendations

When recommending a pump, it should be considered that most cars, especially some imported ones, are not capable of filling at a rate of more than 5 litres per minute. The higher volume pumps should be used in a truck or machinery workshop.

1:1 Ratio Air Operated Pump

To be used for short distance transfer up to 6 metres. Can only be used on applications with one outlet. Ideal for decanting from 205 litre drums/bulk tanks or for use with oil bars. Not recommended for gear oils over 120.

Fluids:

Motor Oil, Hydraulic Oil, Automatic Transmission Fluid, Gear Oils up to 120, Coolants

Models:

CK 602 - Pump with tap for filling containers

DITI 1701003KIT - Transfer kit with 4 metres of hydraulic hose and dispensing gun

DITI 1701001 - Basic pump for tanks or wall mounting

DITI 1701003 - Basic pump for 205 litre drums

DITI 1701004 - High volume basic pump for tanks or wall mounting

DITI 1701006 - High volume basic pump for 205 litre drums

3:1 Ratio Air Operated Pump

To be used for pumping through medium sized hose reel systems up to 50 metres in length with up to 3 outlets.

Fluids:

Motor/Diesel Oil, Hydraulic Oil, Automatic Transmission Fluid, Gear Oil, Coolants

Models:

DITI 1701031 - Basic pump for tanks or wall mounting

DITI 1701033 - Basic pump for 205 litre drums

DITI 1701034 - High volume basic pump for tanks or wall mounting

DITI 1701036 - High volume basic pump for 205 litre drums

5:1 Ratio Air Operated Pump

To be used for pumping through large hose reel systems with between 4-10 outlets and a distance of up to 100 metres.

Fluids:

Motor/Diesel Oil, Hydraulic Oil, Automatic Transmission Fluid, Gear Oils, Coolants

Models:

DITI 1701051 - Basic pump for bulk tanks or wall mounting

DITI 1701053 - Basic pump for 205 litre drums

DITI 1701054 - High volume basic pump for bulk tanks or wall mounting

DITI 1701056 - High volume basic pump for 205 litre drums

Information on ALL Air Operated Oil Pumps can be found on the STM website at www.stm.net.au or in the STM Catalogue (Section : Pneumatic Equipment)

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