



Introducing a new breed of Full Synthetic Vacuum Pump Lubricants that save money!

Vacuum Pump Operation

The operation of a Vacuum Pump is similar to a compressor but in reverse.

The rotation of the pump rotor, which is mounted eccentrically in the pump cylinder, traps entering vapour between rotor vane segments. As rotation continues, vapour is compressed and discharged into the exhaust box. Vapours then pass through several stages of internal oil and mist eliminators to remove 99.9% of lubricating oil from the exhaust. Oil is then returned to the oil reservoir.

Vacuum Pump Types.

There are a number of designs ranging from the reciprocating piston type for rough industrial vacuum, to the more conventional oil sealed rotary vacuum pump, and the high vacuum diffusion pump. Not all vacuum pumps use oil. Vacuum pumps are commonly used in industrial applications such as Food Manufacturing and for evacuating refrigeration and air conditioning systems. Smaller vacuum pumps (left) are used to service vehicle air conditioning systems.



Vacuum Pump Oil.

Pro-lon P.T.F.E. Pro-Vac Full Synthetic, Vacuum Pump Oil's are designed specifically for

- reciprocating and rotary type pumps

Pro-Vac Full Synthetic Vacuum Pump Oil meets the special requirements necessary for effective operation and long life.

The primary requirements of the oil are:

- High resistance to oxidation.
- High wear protection.
- The correct viscosity.
- A low vapour pressure.
- Corrosion protection.



Pro-lon P.T.F.E. Pro-Vac Full Synthetic, Vacuum Pump Oil's are made from a **PAO Synthetic base oil** with the **latest ester and polymer technology**. The formula also contains anti-oxidant, anti-corrosive and anti-foam treatment. This combination of features ensures long pump life due to the anti-wear treatment in the oil and protection against corrosion caused by moisture entrained in the gas stream. Used in high quality equipment, absolute pressures down to one hundredth of a millibar can be attained. Pro-lon P.T.F.E. Full Synthetic Vacuum Pump Oil's are capable of providing highly increased savings and more reliable operation.

Pro-lon and AnglomOil have produced this premium formulation, Full Synthetic polymer, and ester blended vacuum oil rated as an 8000hr service oil. It is most suited to 24/7 manufacturing.

Significant savings are generated quickly:

One client reported clamp testing showed a 3-5% **drop in energy consumption** immediately.

Benefits.

When we introduced our Synthetic Vacuum Oil over two years ago, we noticed most servicing was done using a mineral oil or semi-synthetic lubricant, which generally has a service life of around 2000-4000 hrs. This means, two to four services a year, with filter screen changes each time. Companies using our Full Synthetic oil, change internal filters, once a year. One company claims over \$60,000.00 savings on internal filters alone in 12 months.



Another benefit with the "Enhanced Polymer Technology" we employ, is the significant effect it has on noise and operating temperatures with clients reporting drops of 10-12 degrees and 8-10 db lower noise levels. One engineer claims "you think the pumps have stopped till you get closer, big difference".

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There are no special requirements when changing to our full synthetic vacuum oil, except for the usual common sense filter changing and servicing. Any traces of the old mineral oil will be further reduced or eliminated at the next service.

Take note of the varnish build up inside the pump housing while servicing and if excessive consider servicing at 2000-3000hrs or when the oil shows signs of darkening.

Should resistance be encountered from your current service agent we are able to be available to provide them with full technical data and show them the product on your behalf but if still reluctant we could introduce you to a service agent very familiar with the benefits of this product having used this oil since it's conception.

If you treat the exercise as research and development you could select a group of vacuum pumps or one on its own, take noise and temperature readings and even clamp test current draw then service and check the difference over the next few weeks and months.

Technical Information

Vacuum Pump Oil						Indicative Properties		
Product Name:	Base Fluid	ISO Grade	Viscosity cSt	SAE Grade		Spec. Gravity @ 15.6°C	Flash Point°C	Pour Point °C
			40°C	100°C				
Vacuum Pump Oil 46	PAO	46	47	7.8	10	0.83	270°C	-50°C
Vacuum Pump Oil 68	PAO	68	65	10.2	20	0.84	250°C	-50°C

Available in 20L drums.

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