

## COMPRESSOR OIL SERVICE LIFE

In getting the optimum use from Chemlube® Synthetic Compressor Oils, it is important to recognize less than ideal conditions which can contribute to shorter oil life.

Following are some conditions we have encountered in the field that have necessitated more frequent oil change intervals.

### Contaminants

1. Other lubricants or "performance additives" - Chemlube Synthetic Compressor Oils are in themselves fully formulated products and do not require any graphite, molybdenum, teflon, viscosity improvers or other type of additive to perform the way they were intended. In fact, additives or other lubricants can cause premature oil failure or breakdown.
2. Airborne dust or particulate matter - examples of this include chicken feathers, cement dust, tobacco dust, etc. If these conditions exist, proper air intake filtration must be maintained. Excessive amounts make it necessary to change oil and filters more frequently.
3. Solvent fumes - including ammonia, ink solvents, chlorinated degreasers, plastic molding fumes, etc. These can shorten oil life considerably.
4. Strong acids and oxidizers - various acids, chlorine, ozone, exhaust from forklifts, boilers, or air craft, welding fumes, etc. will lead to decreased oil life.

### Heat

Petroleum oils may begin to varnish at 180-190°F. Chemlube Synthetic Compressor Oils are designed and manufactured to withstand a much wider temperature range. However, heat is still an important factor to consider.

One reason many choose Chemlube 501 and 751 for use in reciprocating compressors, is the ability of these oils to withstand the high temperatures found on valves that would cause petroleum oils to varnish rapidly.

It is best to keep the compressor as cool as possible to allow for optimum oil change intervals. High heat will reduce the time available between oil change intervals for both petroleum and synthetic oils.

## USEFUL LIFE RECOMMENDATIONS (NORMAL OPERATING CONDITIONS)

### Rotary Compressors

Chemlube 215, 221, 228, 229, 230, and 268 can be expected to give a useful service life of 8000 hours in rotary screw machines under normal operating conditions. Useful life in rotary vane machines can be expected to be approximately 4000 hours, primarily because of higher temperatures associated with vanes. Chemlube 501 is highly recommended for vane machines and has proven successful.

Chemlube Plus 10 has increased thermal and hydrolytic stability and can give up to 10,000 hours of life under good operating conditions.

Omnilube® H-1 food grade oils can be expected to give a useful service life of 2000 to 4000 hours in rotary screw machines under good operating conditions.

### Reciprocating Machines

Chemlube 501 and 751 can be expected to give useful service life of 8000 hours in reciprocating compressors and vacuum pumps in crankcase use. As an upper cylinder lube, they are excellent for reducing and eliminating valve deposits and the formation of varnish