



# **CLEAN & FLUSH**

## ***OIL CIRCULATION SYSTEM CLEANER***

### **FLUSHES AND CLEANS OIL CIRCULATION SYSTEMS SAFELY AND EFFECTIVELY**

Royal Purple's Clean & Flush is a safe, effective and inexpensive product for cleaning sludge and varnish from equipment while in service. Clean & Flush can be used in three ways: First, Clean & Flush can be added to an existing oil to clean varnish and sludge from equipment prior to draining the existing oil. Second, Clean & Flush can be used as a temporary oil fill to clean varnish and sludge from equipment before refilling with new Royal Purple oil. And third, Clean & Flush can be used as a temporary oil fill for cleaning and flushing a polyglycol oil that is incompatible with the new oil to be used (i.e. when changing from a polyglycol oil to a Royal Purple PAO or para-synthetic oil).

Clean & Flush is an undyed product.

### **CLEANING SLUDGE AND VARNISH FROM EQUIPMENT**

Clean & Flush may be used as a temporary replacement oil for cleaning equipment. When adding Clean & Flush to an existing oil to clean sludge and varnish, Royal Purple recommends a treat rate of 15 to 25 percent. Because Clean & Flush is available in only one viscosity and is not a fully formulated oil, machine loads, and oil viscosity requirements should be considered when deciding how best to use Clean & Flush. Cleaning time and effectiveness will vary depending upon such factors as the cleanliness of the system, the oil temperature, degree of oil agitation, the amount of Clean & Flush added to the system and the duration of cleaning.

Flushing / cleaning procedures can vary depending on the type of equipment, the number and location of oil drain points, how dirty the system is, the quality of filtration and the ability to monitor and / or change filters / screens in circulating systems and other service parameters. Clean & Flush has some anti-wear properties, but it is not a full formulated oil. It can be used as a lubricant to clean and flush equipment in service for short periods of time. Whenever possible, it is recommended that Clean & Flush be circulated throughout the oil system while the equipment is idle. General guidelines for system flushing / cleaning follow.

Please consult with Royal Purple's technical support group at 281-354-8600 for guidance on specific equipment or circumstances.

### **GUIDELINES FOR CLEANING SLUDGE AND VARNISH FROM OIL RESERVOIRS AND OIL CIRCULATING SYSTEMS**

In oil circulating systems, dirt, varnish, lacquer and sludge cleaned from the systems will become partially soluble in Clean & Flush and be carried to filters and oil pump intake screens. These should be closely monitored to assure continued oil flow. Deposits are also likely to settle to the lowest point of the oil reservoir. Large capacity, bypass or inline filtration is recommended during cleanup for many dirty systems since the standard filters lack capacity and can quickly plug.

### **FLUSHING POLYGLYCOL FLUIDS FROM ROTARY SCREW AIR COMPRESSORS**

Polyglycol fluids are not compatible with other mineral and synthetic oils. When a polyglycol based lubricant has been used in a compressor, the system must be cleaned to remove all traces of the polyglycol fluid before any other type of lubricant is introduced. Polyglycol fluids, especially in the presence of water, will gel with other synthetic or petroleum-based lubricants. These gels will clog filters, screens and separators and may even stop lubricant flow to critical bearings

Typical Properties*	Method	46
Density, lbs/gal	D4052	7.89
Viscosity	D445	
cSt @ 40°C		46
cSt @ 100°C		6.3
Viscosity Index	D2270	79
Flash Point, °F/°C	D92	470/243
Pour Point, °F/°C	D97	0/-18

*\*Properties are typical and may vary.*