

### CLEAN & FLUSH™

OIL SYSTEM CLEANER AND FLUSHING FLUID

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-up soft deposits and sludge from equipment prior to draining the existing oil. Second, Clean & Flush can be used as a temporary oil fill to clean varnish, soft deposits, 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 any other fluid).

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 grade 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 unloaded or under low load, or idle. General guidelines for system flushing / cleaning follow.

#### **USAGE GUIDELINES**

# 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.



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#### **TECHNICAL DATA**

Property	Test Method	46
ISO Viscosity Grade	ISO 3448	46
Viscosity @ 40°C, cSt	ASTM D445	46
Viscosity @ 100°C, cSt	ASTM D445	6.3
Viscosity Index	ASTM D2270	79
Specific Gravity	ASTM D4052	0.945
Flash Point, °C/°F	ASTM D92	243 (470)
Pour Point, °C/°F	ASTM D97	-18 (0)