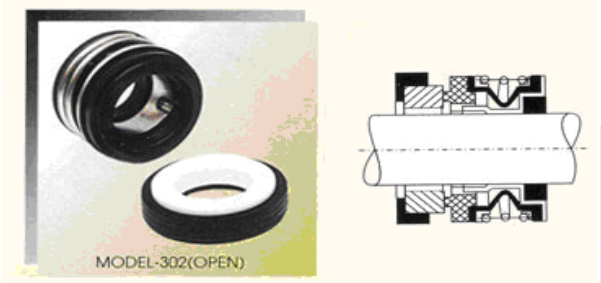
Cooling

Dynamic Seal Pack

COTB 0011

The seal pack consists of a spring-loaded stainless steel housing with the outer casing pressed into the pump body and the inner part fixed to the integral shaft and bearing set. Within this housing are the ceramic and carbon slip rings which are the active components of the sealing system. During normal operation the seal contact faces are lubricated and cooled by the coolant solution, for this reason the quality and cleanliness of the coolant solution is paramount. If the system has not been adequately cleaned and flushed prior to installation of the new pump then rapid wear and leakage is likely to occur. Similarly, when the system is refilled following installation of the new pump it is imperative to ensure that no air locks are present in the water pump cavity prior to starting the engine. Failure to observe this requirement will result in "dry running" of the seal causing overheating of the ceramic and carbon seal faces culminating in coolant leakage through the seals within a relatively short period of pump operation.

In certain instances a phenomena known as "stick-slip" can occur which leads to noise at low engine speeds such as a whirring or whistling noise. This may be the result of initial dry running on installation of the pump or increasingly by the use of harder carbon materials in the manufacture of the seal slip ring. The use of this harder carbon material in the seal slip ring however has greatly reduced the frequency of leakage.



TECHNICAL INFORMATION

FIRST LINE
THE ALL MAKES SPECIALIST

May 2012
www.firstline.co.uk