

# Yanmar Marine Diesels and Pencool

Category: Coolants  
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## Introduction:

From time to time, owners of Yanmar engines who have successfully used Pencool brand supplemental additives for years come across a Yanmar Service Advisory that recommends the use of organic acid inhibited antifreeze and suggests that traditional, proven products, such as Pencool 3000, are "incompatible" or may damage some Yanmar cooling system component (s). Penray has evidence to the contrary.

## Pencool in Yanmar Diesel Engines:

Customer and service professionals' experience in using Pencool technology to provide optimum cooling system performance is well known and laboratory testing demonstrates the benefits of the product in protecting all engine metals, including aluminum. As with any application, customers will want to properly use the product. Proper use requires 3% Pencool in 50/50 diesel specification antifreeze or 5% in pure water, if antifreeze protection is not required. Proper use will also involve periodic testing, using a Penray Two-Way Heavy Duty Test Strip (TS-100 and TS-102) to detect possible dilution or contamination of the system. In the event that additive levels are found to be low, additional Pencool may be added to restore protection.

Unlike other diesel engine manufacturers, YANMAR has not yet adopted extended service coolant practices. Therefore, the coolant will have to be changed at 500 hour / 12 month intervals (the 6LP interval is 250 hours / 12 months), whichever comes first. More detailed information is found on Technical Bulletin 01.012.

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