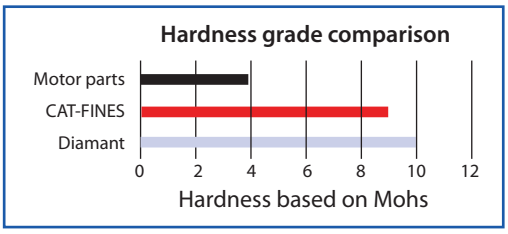
What the “IMO 2020” resolution means for filtration

Fuels that meet the requirements of the **“IMO 2020” resolution** can have a high accumulation of very hard solid particles known as CAT-FINES (10 - 25 µm in size). Their degree of hardness is significantly higher than that of engine parts, thus engines may be subject to increased wear and tear and the associated damage!



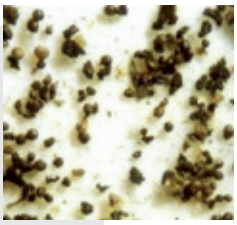
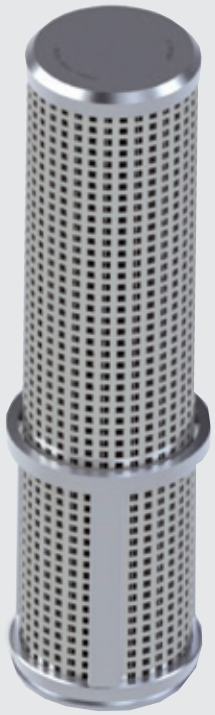


Figure CAT-FINES



New Fil-Tec filter element, 10 µm absolute, mesh 660/63 with specific sieve surface load of 0.8 l/cm²h

For this reason, leading engine manufacturers (such as WÄRTSILÄ, MAN or Caterpillar) are demanding an increase in the filtration degree to 10 µm absolute (previously 25 - 48 µm) to protect engines from increased wear and damage.

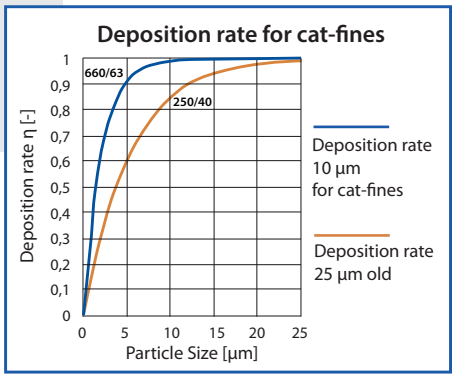
It is difficult to separate CAT-FINES using a separator, because inertial forces do not work well due to the particles’ low mass and porous characteristics. Even an increase in the separation temperature cannot bring the desired results.

The filtration of CAT-FINES is only possible with the mesh filter “660/63” (10 µm absolute), developed and manufactured in Germany.

There are two possibilities at your disposal

With a reduction of the filter fineness to 10 µm absolute, every technical solution must guarantee the given flow rate!

This results in two possibilities:



Possibility 1

Installation of a larger complete filter system, which has very high investment costs.

Possibility 2

With the FIL-TEC solution, it is not necessary to change various complete filter systems!

The solution can provide you with modified 10 µm filter elements, which ensure the same flow rate thanks to a larger filtration area.

You too will have to comply with the requirements of engine manufacturers. Get in touch with us. We will check which option is suitable for your filter system – free of charge. **FIL-TEC RIXEN GmbH®** has been aware of the problems associated with CAT-FINES for over 30 years. And we are prepared to provide solutions!

Over 35 years of experience with filter technology

QUALITY MADE IN GERMANY

FILTEC

QUALITY SYSTEM CERTIFICATION DNV ISO 9001

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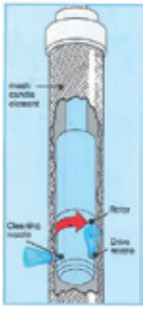
FILTEC

Optimum and highly effective cleaning of **star screens for IMO 2020** is only possible with **Fil-Tec ultrasound**

Conventional methods are unable to match the technically optimal cleaning effect of **Fil-Tec ultrasonic units.**

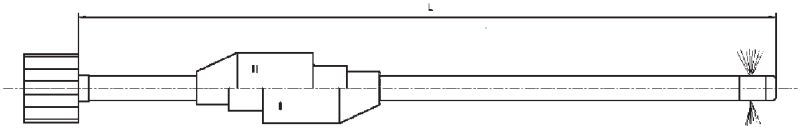
Even stubborn dirt in boreholes and hollow bodies is optimally removed during ultrasound treatment. No other cleaning methods can achieve anywhere near as good a result when it comes to cleaning filter elements.

Close open cartridges for the ultrasonic bath to prevent dirt from entering the cartridge during cleaning



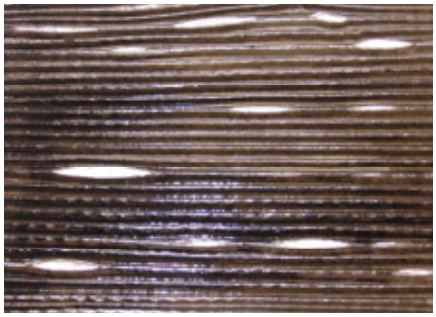
For final cleaning and removal of any residual dirt particles, we recommend **rotating cleaning lances FT2** from **FIL-TEC RIXEN GmbH®**.

Conventional high-pressure cleaning device
e.g.: Kärcher



Type:	L1 (mm)	L2 (mm)	L3 (mm)
FT2	300	600	900

Nevertheless, the cleaned filter elements should still be carefully inspected to avoid any possible mechanical damage and the resulting bypasses.



The defective mesh shown on the left would cause bypasses in the automatic filter and allow cat-fines to pass through unhindered. In addition, the differential pressure indicator would not show an increase due to a dirty mesh. The flushing cycles are depleted to just a few times. If a series-connected indicator filter (last-chance filter) is used, it should be checked whether frequent alarm messages are caused by a differential pressure increase. This is also an indication of dangerous bypasses in the automatic filter.

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