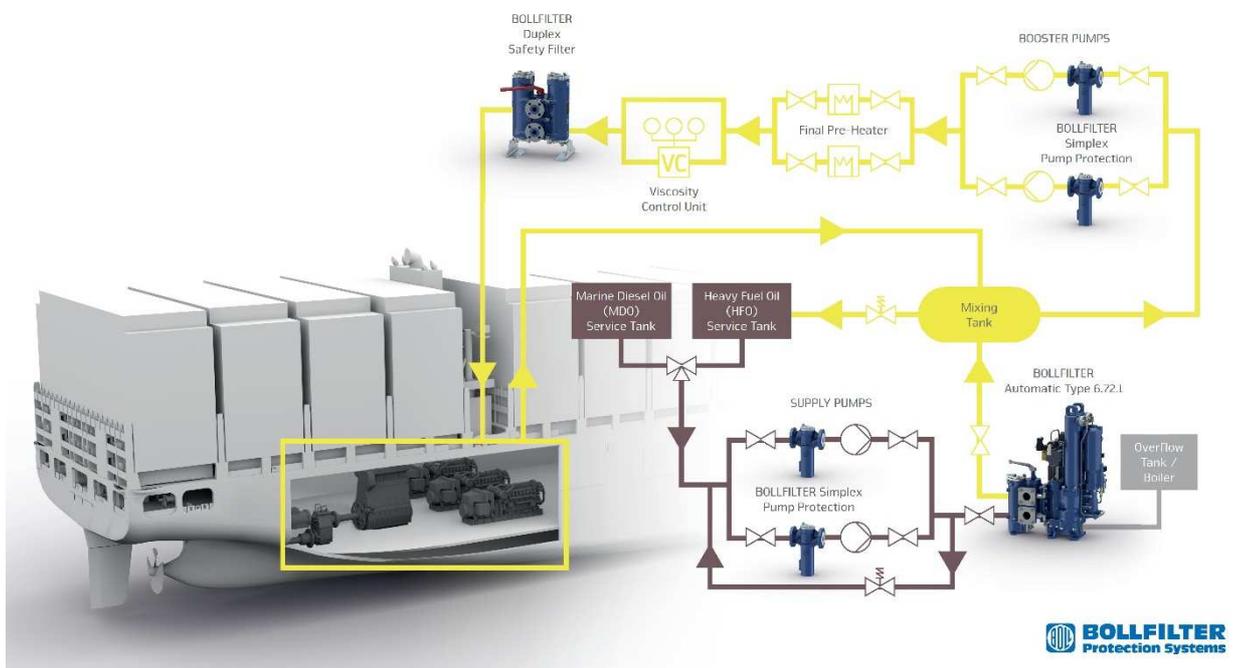


CAT FINE REMOVAL in Supply Systems

As filter specialist BOLL & KIRCH offers support to review existing systems as well as newbuilding layouts with regard to the best possible installation of the FO filter.

Fuel system in maritime applications

Fuel oil filtration in supply systems

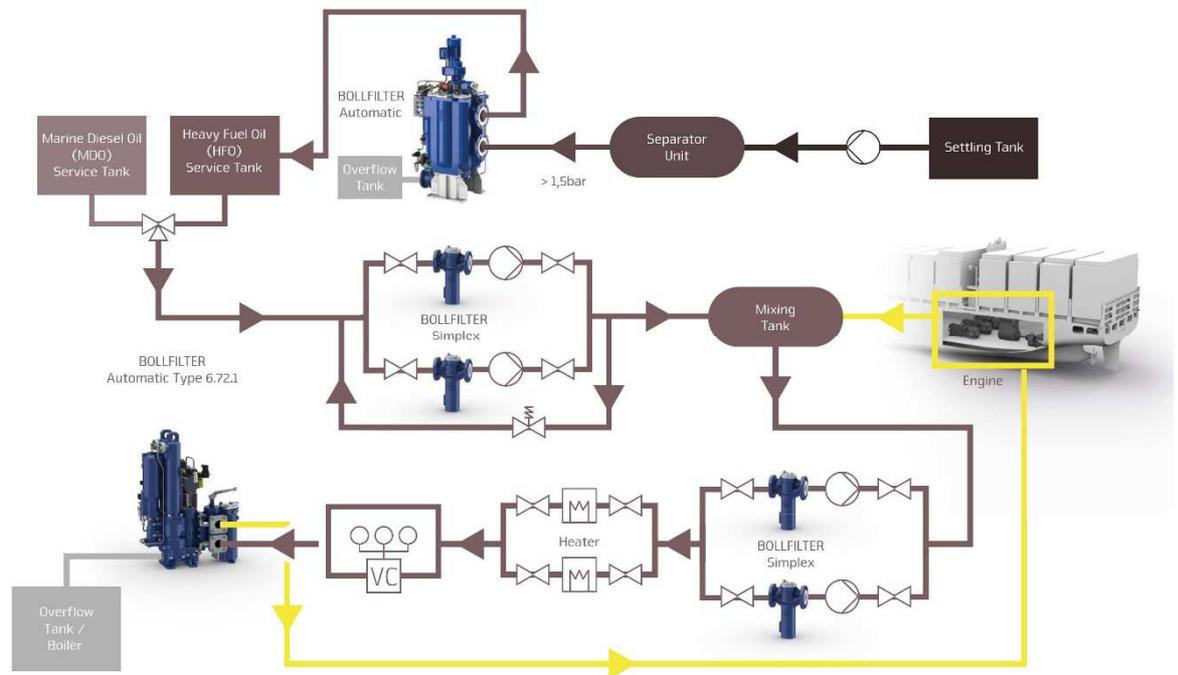


Picture 1: 10 µm abs FO BOLLFILTER installed inside supply system with safety duplex filter before engine

Picture 1 shows the installation of the 10 µm abs. BOLLFILTER in the supply system. Due to the lower temperature at this point the thermal load on the filter is lower. On the other side, an additional FO indicator BOLLFILTER (usually a duplex filter 34 µm) must be installed directly in front of the engine as the last barrier before the fuel is injected. Moreover, as the fuel only passes the BOLLFILTER one time, there is no efficiency increase through multiple passes. Such an installation can be applied both in newbuildings and retrofits. In the case of a retrofit, the existing BOLLFILTER housing may be upgraded with 10 µm abs. BOLLFILTER candles without changing the housing.

Installation before the service tank

Filtrator without pump with sufficient refilling pressure

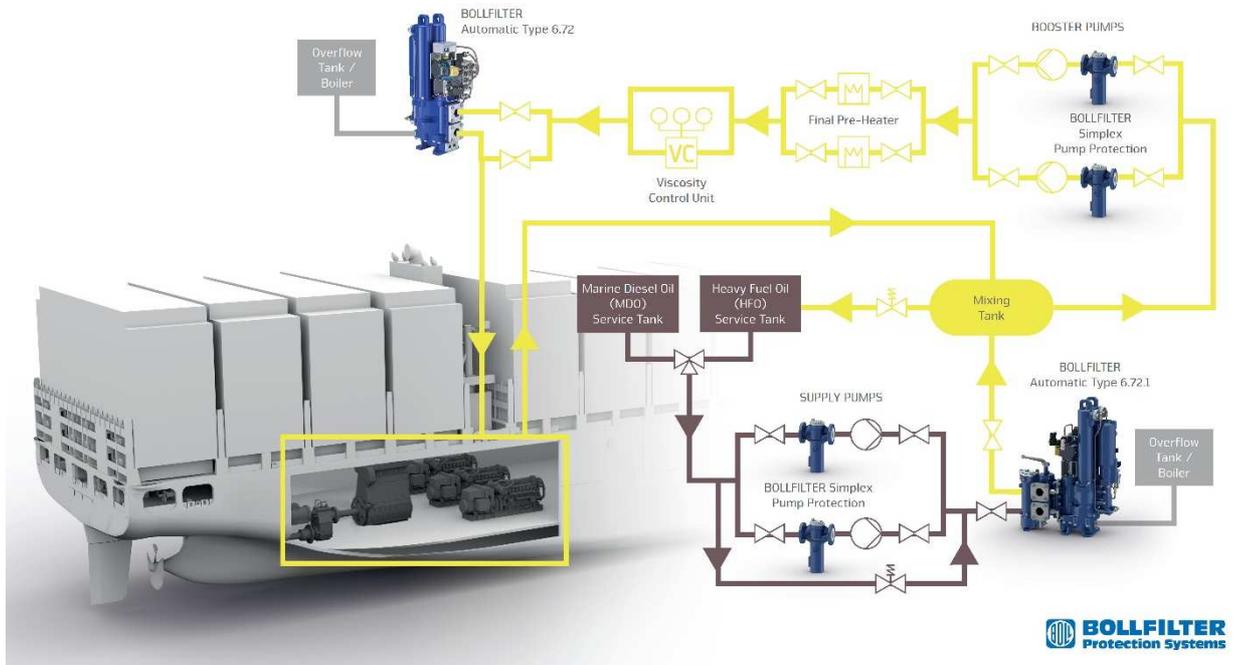


Picture 2: Installation before the service tank

Picture 2 shows the direct coaction of the purifier and the 10 μm abs. filter. Here the BOLLFILTER is installed downstream of the purifier before the service tank. A major advantage of this installation is that the number of backflushes of the filter can give a direct indication about the FO quality or the purifier efficiency (e.g. purification temp.) before the FO is stored in the service tank. Thus, both components can best be adjusted to each other (e.g. parallel operation of 2 purifiers). As usual a part of the FO is recirculated in the settling tank, a multiple passage of the FO through purifier and filter is achieved. This will have a positive effect on the separation efficiency of the purifier and the filter. Such an installation can be realized for newbuildings as well as for retrofits. As the cat fines are discharged in such an early stage, the accumulation of cat fines in the service tank can be prevented. For retrofits the advantage is that no changes on an existing supply and booster system must be made.

Fuel system in maritime applications / Retrofit additional 10µm automatic filter

Fuel oil filtration in supply systems



Picture 3: Additional 10µm abs BOLLFILTER in FO system

Picture 3 shows an additional installation of a 10 µm abs. BOLLFILTER in an existing FO system as a retrofit solution. It can be checked if in this case the FO indicator filter can be replaced by this 10 µm abs. automatic filter. Prior to installation the flushing flow of the existing filter and the backflushing demand of the additional filter must be considered and it must be checked if this does not limit the FO supply to the engine.