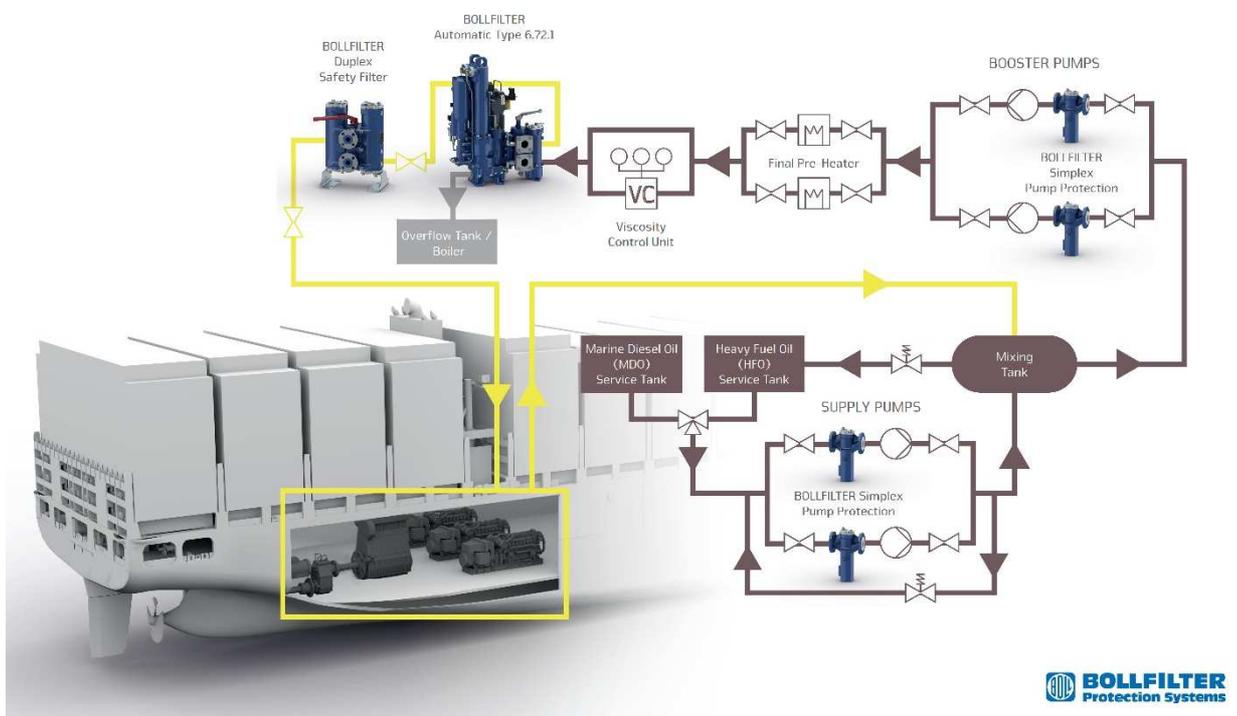


CAT FINE REMOVAL in Booster Systems

All below systems show state of the art technology for FO treatment systems in coaction of the purifier and the FO filter. 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 booster systems

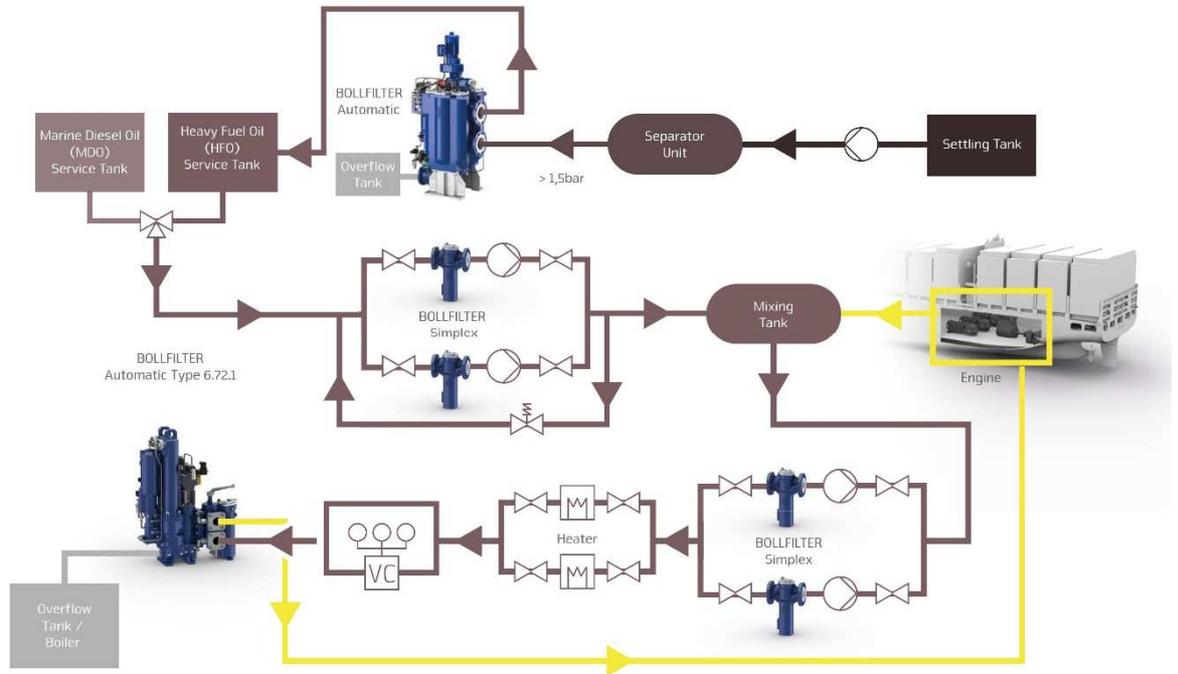


Picture 1: 10 μ m abs FO BOLLFILTER installed inside booster system

Picture 1 shows an example for an installation of the FO filter as it is recommended today by many engine makers. The 10 μ m abs. BOLLFILTER will be installed as close to the engine as possible. The fine filtration protects the engine from those cat fines, which could pass the purifier or those that were stirred up in the day tank. Additionally, the risk that any contamination originating from the heat exchanger or elsewhere in the piping system being injected to the engine is eliminated. So if the BOLLFILTER automatic is installed correctly, the indicator filter can be replaced as well. Another positive effect is that the fuel is passing the filter multiple times as some of the fuel is recirculated in this system. This multi passage generally increases the cleanness of the fuel. Such an installation can be applied both in newbuildings and retrofits. The higher temperature in this system might have an effect on the lifetime of the gaskets.

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.