

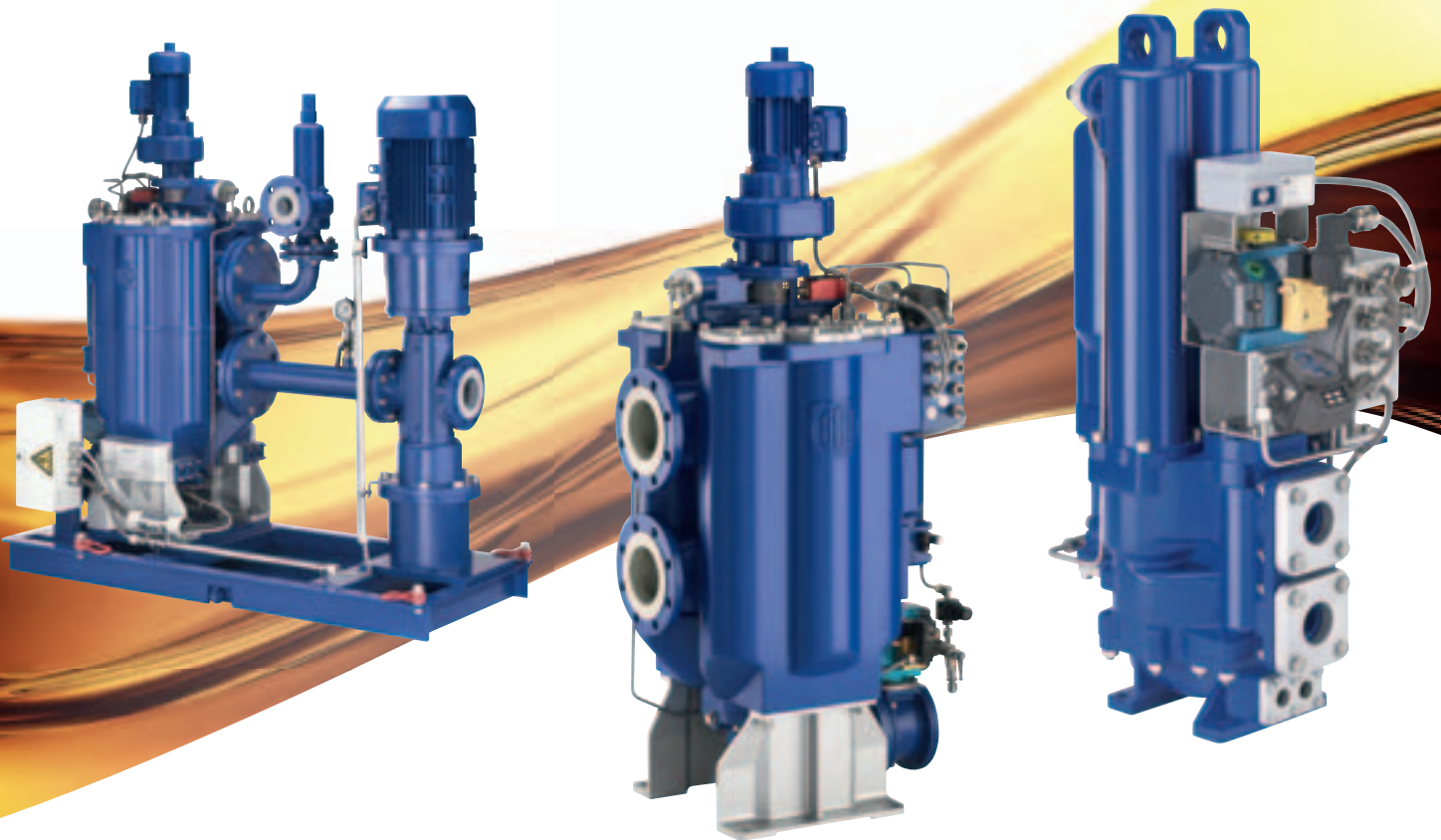


BOLLFILTER
Protection Systems

Marine & Power

**BOLL Filtrator TYPE
8.64/8.72**

**BOLLFILTER Automatic
TYPE 6.64/6.72**

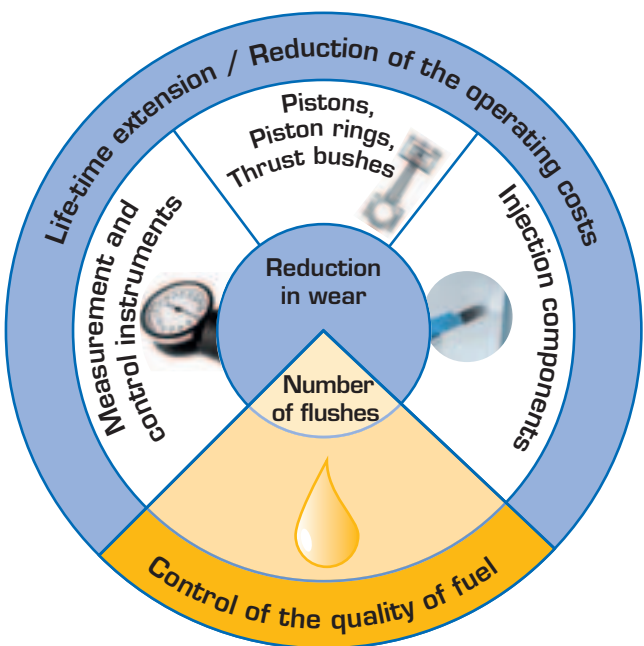


***Innovative filtration systems
for fuel treatment***

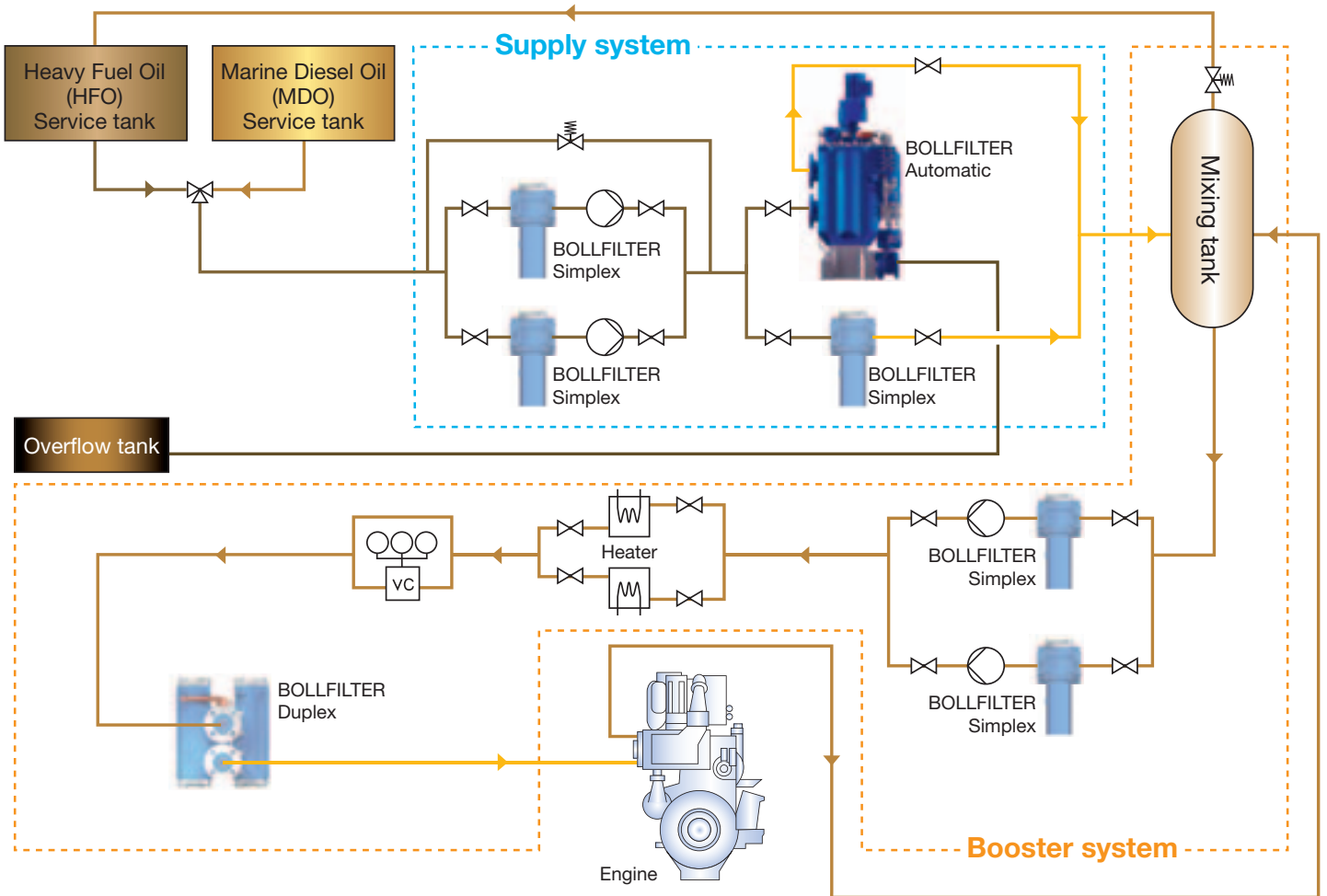
Fine filtration of fuels for technically advanced engines

Due to the current status of engine development, a fine filtration of fuel in heavy fuel oil operation is practically indispensable. This relates to the varying fuel qualities, but especially to the increasing application of common rail engine technology. Therefore, leading engine manufacturers as well as scientific and technical studies recommend a fine filtration downstream of the separation. The requirements for filtration systems have considerably increased.

BOLL Filtrators and automatic filters have proved to be particularly successful in this field of application. They reliably separate solid particles down to a size of 10 and 6 micron. This increases the service life and operational safety of pistons, piston rings and thrust bushes, injection components as well as measurement and control instruments. Overall, this leads to a more reliable engine function and lower operating costs.



Installation after the day tank/ service tank



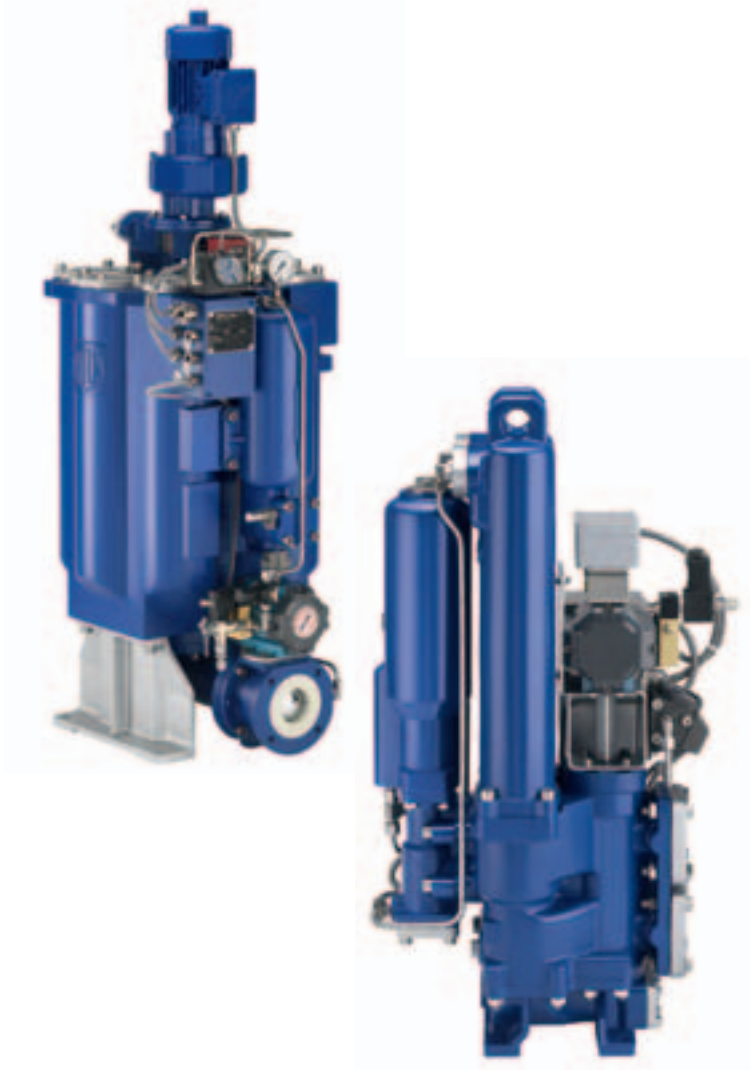
The BOLL & KIRCH product range offers the finest HFO filters, alongside further system components for the process of fuel treatment.

These include:

- Suction filters as Simplex and Duplex filters in order to protect pumps,
- Safety filters suitable for high temperatures, installed directly onto the engine or in its immediate proximity.

All system components are optimally coordinated with regard to filter fineness, filtration area load and arrangement in the system.

BOLLFILTER Automatic TYPE 6.64/6.72



The installation of the automatic filter after the day tank offers major advantages in a fuel system with a supply and circulation system making the heavy fuel oil operation more secure and reliable:

- Application of the 10 micron and 6 micron Filtrator separation technique
- Control of fuel quality after separator and day tank by monitoring the flushing frequency
- Removal of solids having passed the separator and of dispersed sediments from the day tank
- Low filtration area load and long service life of seals due to low operating temperature,
- Significant reduction of manual cleaning required at the Duplex safety filters as they will have mesh width 3-4 times larger in the circulation system.

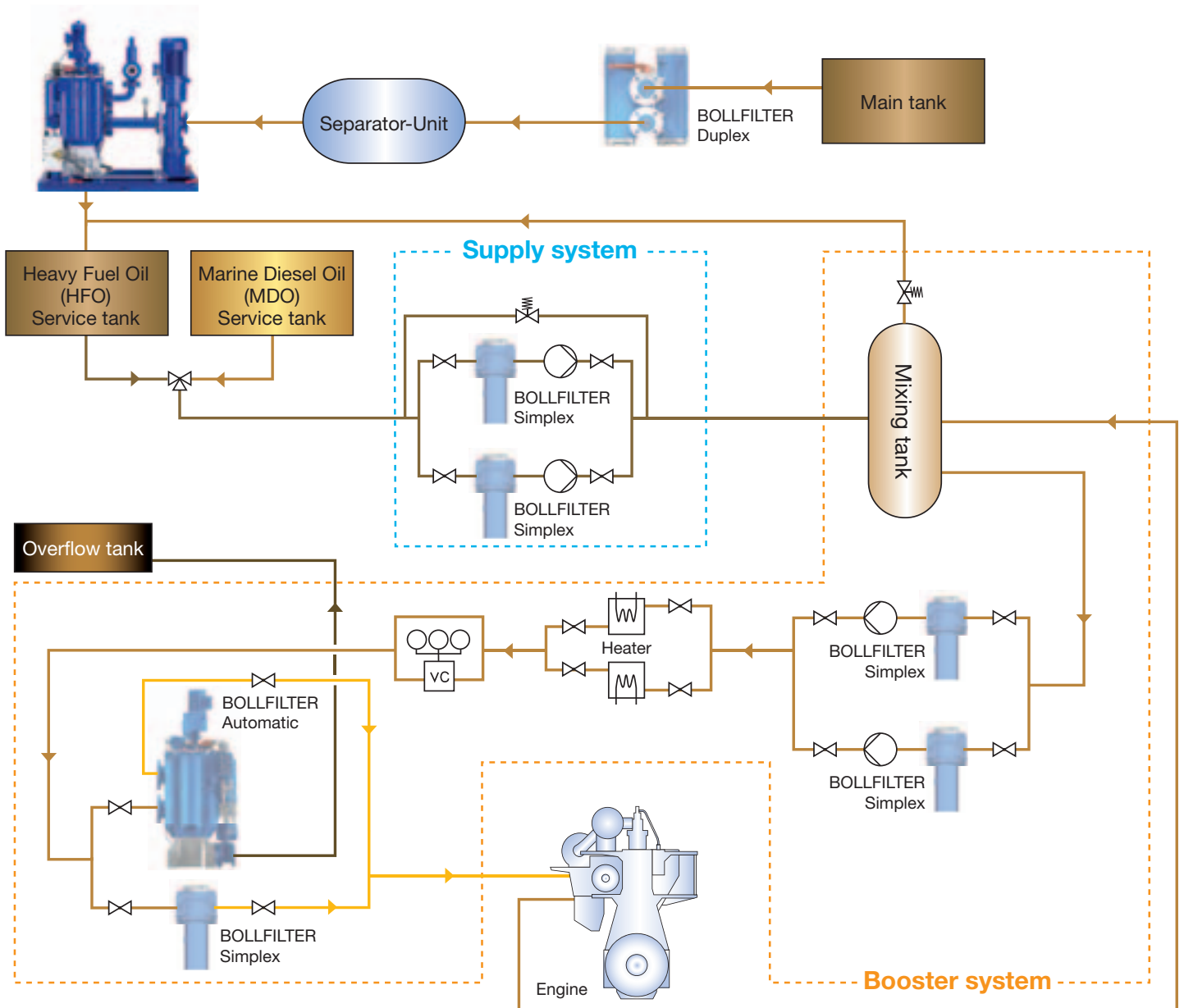
BOLL Filtrator TYPE 8.64



Installed in front of the day tank, the Filtrator has the following tasks:

- Post-cleaning of the clean fuel discharge from the separator. The Filtrator effectively removes those solids which the separators cannot due to physical reasons or fluid dynamics.
- The Filtrator removes those particles that have passed the separator due to incorrect setting of the separator or because of changing operating conditions.
- Reduction of filtration area load and extension of service life of seals as a result of low operating temperature.

Installation before the day tank/service tank



Due to their compact design, BOLL Filtrators are particularly suitable for retrofitting.

The backflushing is carried out within fixed time periods. If the differential pressure exceeds the maximum permissible value within the time period due to increasing amounts of solids, the backflushing will be initiated and signaled at the same time.

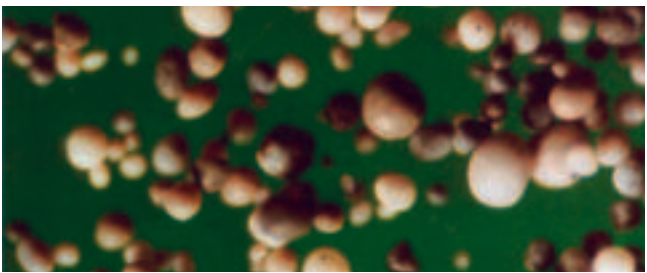
Reliable removal of smallest abrasive particles

BOLLFILTER systems, equipped with filter elements of 10 and 6 micron, guarantee operational safety of the fuel system. When installed before the day tank, they supplement and compliment the separator by removing the particles the separator cannot.

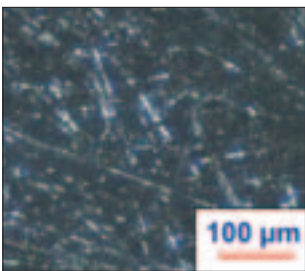
BOLL Filtrators and automatic filters

- Separate catalytic fines. The separator cannot separate these fine-grained, abrasive residues of the refining process as they have a lower specific weight than the fuel itself.
- Remove also solids reaching the fuel circuit only after the separator due to system's ventilation and abrasion of wear parts.

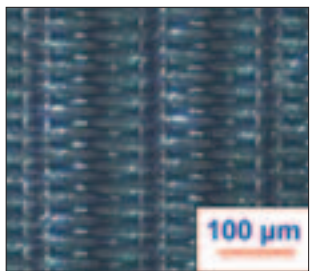
Fine filtration takes over the decisive role during the processing of fuel.



Catalyst residues (catalytic fines)



6 µm absolute filter fleece



10 µm absolute filter mesh

To guarantee safety and reliability, all filter elements pass strict tests on a multi pass test rig according to ISO16889.



Data and facts at a glance

Flow rates

		Filtration grade	
		6 µm abs.	10 µm abs.
BOLL-Filtrator Type	Size	flow rate [m³/h]	flow rate [m³/h]
8.72	DN 65	1,5	2,5
8.72	DN 80	2,5	4,2
8.64	DN 100	4,5	7,5
8.64	DN 125	7,5	12
8.64	DN 150	10	17

Filtrator sizes and standard flow rates of heavy fuel oil not considering the specific operating conditions.

Operating pressure:	1 – 16 bar
Air pressure:	5 - 7 bar
Heating:	Steam or thermal oil
Consumption of compressed air:	0,02 – 0,13 Nm³/h
Filter elements	6 µm absolute, 10 µm absolute



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