



# Alfa Laval FlowSync

## Automatic separator feed pump control system



Alfa Laval FlowSync Touch Control, an integral part of Alfa Laval FlowSync, which saves energy, increases separation efficiency and further reduces cat fine levels in the cleaned fuel oil.

The Alfa Laval FlowSync is an automatic separator feed pump control system for use in the vessel fuel treatment system. It synchronizes the flow of fuel to the separators based on actual fuel consumption, while monitoring and ensuring that the daily service tank is filled to a safe working level.

### Application

Slow steaming not only reduces fuel consumption, but also creates opportunities to reduce energy consumption and increase the separation performance of fuel treatment systems.

When ships are slow steaming, a large portion of the clean oil is recirculated from the day tank to the settling tank. Oil is then pumped and separated a second time, which increases energy costs.

FlowSync simultaneously manages and optimizes the operations of all fuel separators on board. Any fuel system can be configured using only one FlowSync.

FlowSync reduces the flow of fuel oil to the separators in relation to the actual fuel consumption, thereby improving

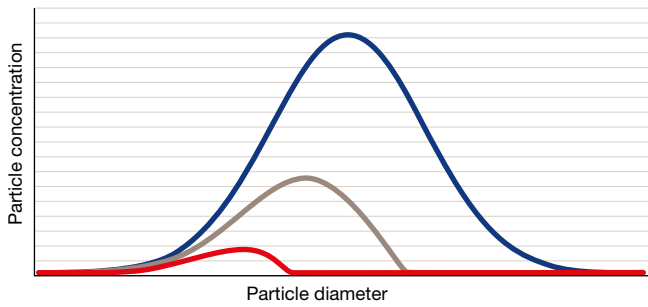
separation efficiency by increasing fuel retention time in the separator bowl. Only the fuel that is required by the engine is cleaned. This significantly reduces the amount of energy required to feed the separators and to pump the oil out of the separators.

FlowSync is intended to upgrade the separation systems of fuel treatment systems on ships in service as well as to be installed on newbuilds.

### Benefits

- Manages the complete separation system from a single, centralized control panel
- Saves electric pumping energy when the ship is slow steaming, reducing energy costs and carbon footprint
- Increases separation efficiency and reduces cat fine levels in the cleaned fuel oil
- Integrates easily with all fuel system layouts and configurations
- Reduces normal fuel-related engine wear
- Easy to install with standardized components
- Easy to operate using the intuitive Alfa Laval 2Touch controller

FlowSync effect on separation efficiency



- **Feed**  
The area below the blue curve represents the amount of cat fines present in the feed.
- **Cleaned oil without Alfa Laval FlowSync**  
The area below the gray curve shows the amount of cat fines remaining in the cleaned oil after normal separation.
- **Cleaned oil with Alfa Laval FlowSync**  
The area defined by the red curve represents the amount of cat fines remaining in the cleaned oil after separation using a separator in combination with Alfa Laval FlowSync when the ship is slow steaming.

**Standard configuration and supply**

- Variable frequency drive for each pump
- A single control cabinet that configures and optimizes the entire fuel oil separator installation, regardless of the setup on board
- Configurable software
- One Alfa Laval 2Touch touchscreen operator panel
- High-precision constant pressure valve in each separator's clean oil outlet
- Position switch for each separator's three-way recirculation valve

**Ship supply**

- Flow meter signal representing actual fuel consumption
- Tank level signal from level switch or analog monitor

**Working principle**

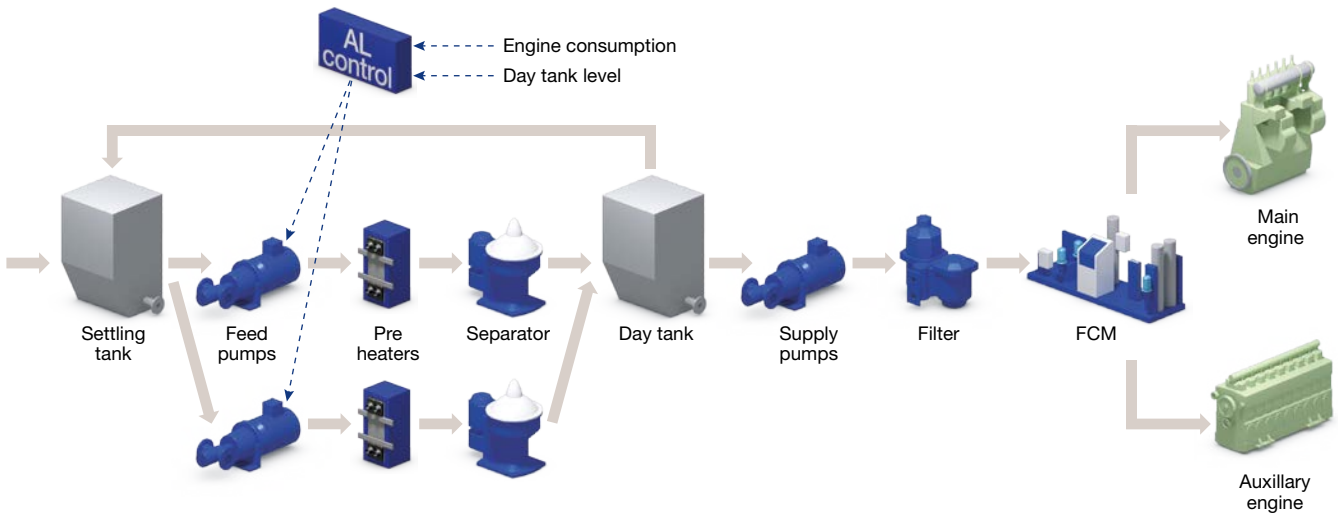
Used in conjunction with Alfa Laval's market leading S separators, Alfa Laval FlowSync provides a complete energy-efficient separation system with top certified flow rate values and Alfa Laval Alcap technology, which automatically adjusts separation performance to the nature of the fuel oil.



FlowSync control cabinet.

FlowSync regulates the flow of fuel to the separators based on a fuel consumption signal while supervising the level of fuel in the day tank. The system communicates with the engine control room and any generic flow meter with the required accuracy and output signal.

Flow chart of fuel system with FlowSync automatic separator feed pump control.



Alfa Laval reserves the right to change specifications without prior notification.

**How to contact Alfa Laval**

Up-to-date Alfa Laval contact details for all countries are always available on our website at [www.alfalaval.com](http://www.alfalaval.com)