

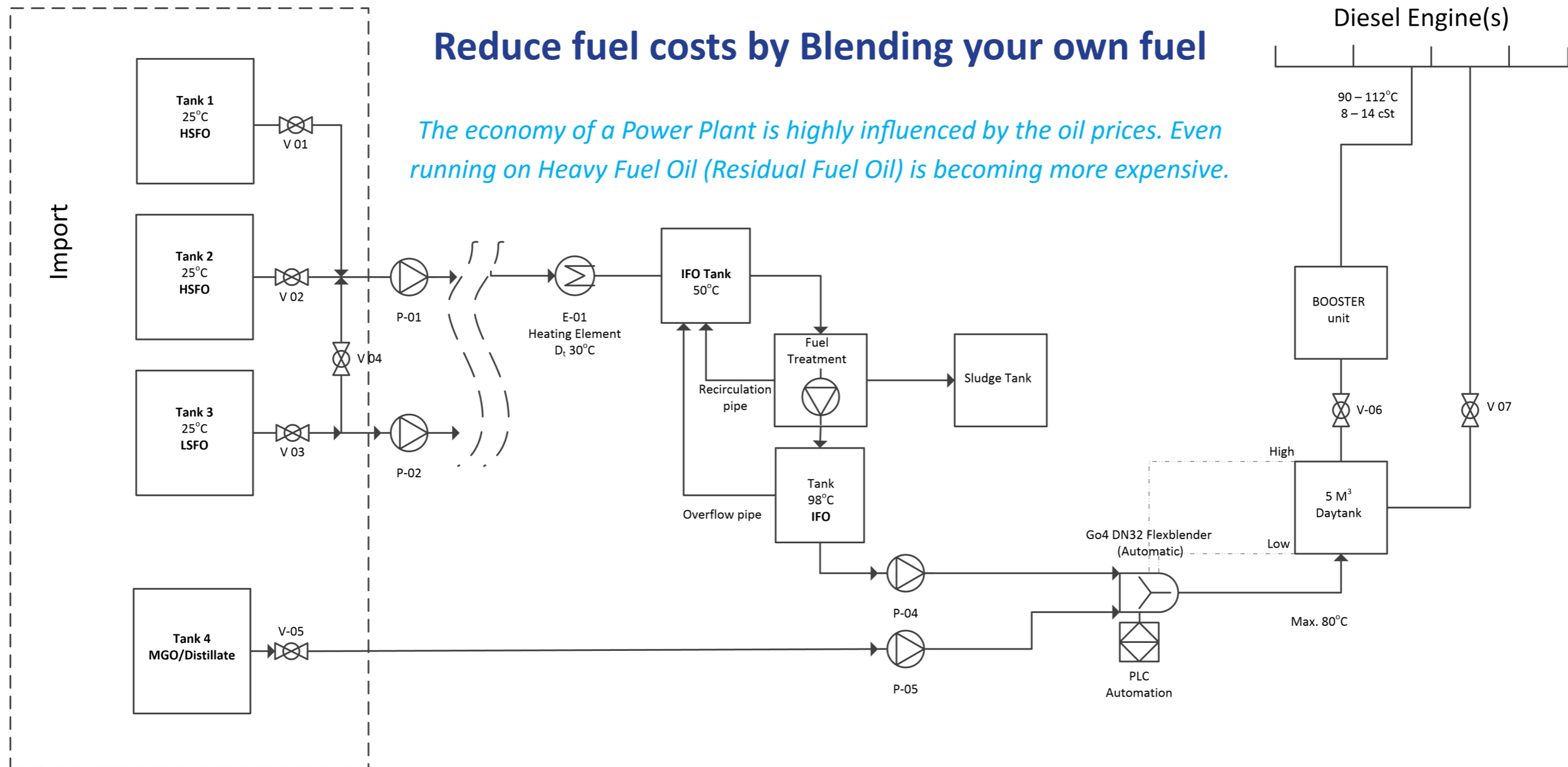
Convert Diesel Engines from Diesel to Heavy Fuel Oil

A 3D architectural rendering of an industrial facility. In the foreground, there is a long, rectangular array of numerous small, cylindrical storage tanks or filters, arranged in rows on a metal frame. In the background, a tall distillation column with red and white horizontal bands is supported by a metal lattice structure. To the right of the column, there is a complex network of pipes and larger cylindrical vessels, possibly part of a blending or treatment unit. The entire facility is set on a flat, light-colored ground, with a green field visible in the distance.

**Fuel Treatment
Blending Unit ISO8217
Booster Unit for Fuel-Loop
to engines**

Reduce fuel costs by Blending your own fuel

The economy of a Power Plant is highly influenced by the oil prices. Even running on Heavy Fuel Oil (Residual Fuel Oil) is becoming more expensive.



Fuel oil blending unit

The Go4 DN32 Flexblender is able to cut some of the cost.

with the same attention to detail and safety.

If, like most power plants, you buy your HFO from an oil company or a terminal, the price will be influenced by several factors - chiefly the market price, but also the cost to blend the viscosity you require, storage of the finished product and risk.

For upstream oil operations, making use of locally available fuels to generate the power required is a key requirement, as facilities are often located in remote onshore locations or offshore with no or limited access to an electricity grid system; and transportation of large quantities of expensive premium fuels to the site location is problematic and uneconomic.

Because, as a power plant you buy large quantities, you can buy a very heavy (high viscosity) HFO on the open market and BLEND it with a distillate (MGO/MDO/ADO or the like) and reach the exact viscosity you require.

With the Go4 Fuel Blending System you remove guesswork and uncertainty from the blending process.

The system is a scaled down version of similar systems used by professional fuel oil suppliers around the world and



Fuel oil treatment units

Not all oils are created equal, as can be seen from the International Organization for Standardization guidelines (ISO 8217) categorizing fuel oil types.

Despite these guidelines, there are no clear definition of categories for heavy fuel oils, marine diesel oils and lubricating oils. Due to their density and other properties, they represent various process issues with regards to separation.

At one end of the scale are the residual oils or heavy fuel oils, with different densities and viscosities, which may have harmful impurities. These fuels require the highest separation methods to ensure good separation

and prevent catalytic impurities from damaging the engine.

At the other end of the scale are lighter fuel oils, such as marine diesel oils and distillates.

In between are a whole range of separation requirements.

Main Features

- Maximum reliability and safety due to shell type heaters and separate viscosity and temperature controllers
- Fast and easy installation due to compact design
- Easy operation and maintenance
- Long life span and flawless operation due to the best components, carefully chosen materials





Booster units

The fuel oil module is fitted between the oil-transport line from the day tank to the main engine. This allows for a constant supply of heavy fuel oil over pump systems.

Heaters are used to reach the required viscosity. The control valves and gauges are there for safety.

The components all need to work well together - as the components are the core of the engine room.

The system is adapted for different engine types providing the required injection viscosity (e.g. 8 – 25 cSt) and the corresponding temperature (e.g. 90 – 150°C).

The Go4 fuel oil modules are used for heavy fuel oil up to 700 cSt and comply with international standards.

The core of our systems is the viscosity measuring and control unit (Bunker Monitor System).

Go4 DN32 Flex Blender

The blending process is simple

You purchase a higher viscosity Fuel Oil e.g. IFO380 or 500 and mix it with a low viscosity product (MGO/MDO/Cutter Stock) to create the exact viscosity you need and in accordance with ISO8217:2012.

Optional versions

Manual system

A low cost basic blending system for attended operation, but the same high quality components.

Semi-Automatic System

The same basic blending system as the manual system, but with automatic viscosity measurement. Blending adjustments must be made manually.

DN32 Description	Specifications
Production Capacity	3,6 - 7,8 m ³ per Hour
HFO Fuel Line	DN50 / 2"
MGO Fuel Line	DN40 / 1½"
Blended Fuel Line	DN50 / 2"
Mains Supply	400 VAC 50 Hz 10A
Max Operating Pressure	6,8 bar
Measurements (LxWxH)	1120x1120x1250 mm
Weight	450 kg /1,000 lbs

Fully Automatic System

The operation is constantly monitored by a PLC that makes all necessary adjustments to the blender. (See Go4 Bunker Monitor for further information)

Can be combined with high/low level sensors on the day-tank to re-fill when necessary.

Go4 Bunker Monitor

The control of quality parameters like viscosity, density and temperature are fulfilled through the use of the Go4 Fuel Monitor system which ensures an optimal and consistent quality to the exact ISO8217 product specification throughout the entire blending process.

The reference Viscosity is shown on an LCD display where the Operator can control the actual viscosity at reference temperature (50°C) and adjust the blending ratio if required.