



WATER IN FUEL EMULSION UNIT (WFE)

Management & Treatment

WATER IN FUEL EMULSION UNIT (WFE)

Device to reduce NOx and PM emissions

The Water In Fuel Emulsion is a proven wet NOx / PM reduction method. It creates stable Water-Fuel-Emulsion with HFO and MGO. This will lead to a reduction of NOx / PM formation and will improve the atomization of the fuel. In result: a more complete combustion.

Water in Fuel Emulsion is prepared by a homogenizer. For more information see the homogenizer brochure.

For MDO or gas oil an Emulsifying Agent is needed.



Features:

- » Stable Water-Fuel-Emulsion with HFO / MDO
- » Improved combustion process
- » Automatically controlled emulsification
- » Compact and modular design
- » Small footprint
- » Adjustable water amount
- » Combine with scrubber installation (scrubber SOx reduction / WFE – Particle matter (PM) reduction)

Benefits:

- » Reduce NOx / PM emissions
- » Lower opacity of plume
- » Reduced deposits in combustion chamber and exhaust gas system
- » Economical solution for emissions reduction
- » Modular design on request of application



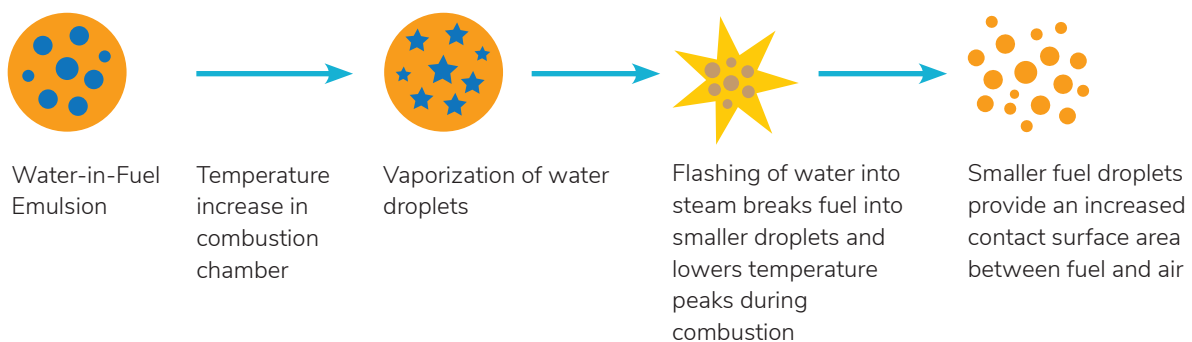
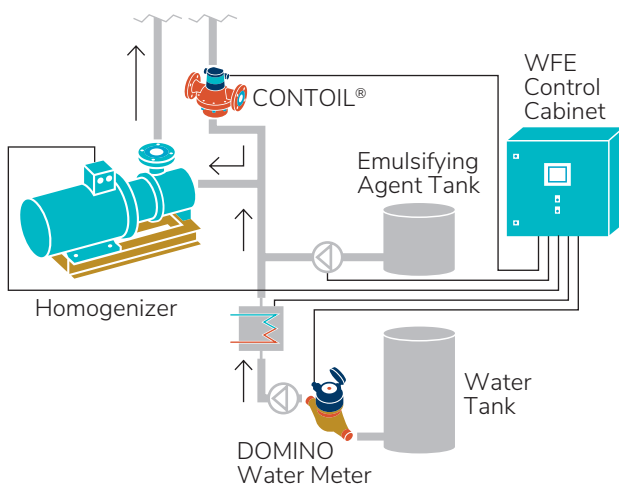
FUNCTION

Water in Fuel Emulsion is a cost-effective and proven wet NO_x reduction method. The introduction of fuel with water in engine cylinders lowers the peak combustion temperature. Thus, reduces the formation of NO_x / PM emissions and improves atomization of the fuel, resulting in more complete combustion.

Improved fuel atomization will result in less unburned fuel, therefore less particulate matter, while improving overall fuel consumption.

SYSTEM OVERVIEW

Combustion improvement in fuel circulation system



COMPACT AND MODULAR DESIGN

Customized design for new buildings and retrofits.

» **WSM:**

Water Supply Module
- with or without water tank

» **WPM:**

Water Preheating Module
- steam or electrical preheater

» **EM:**

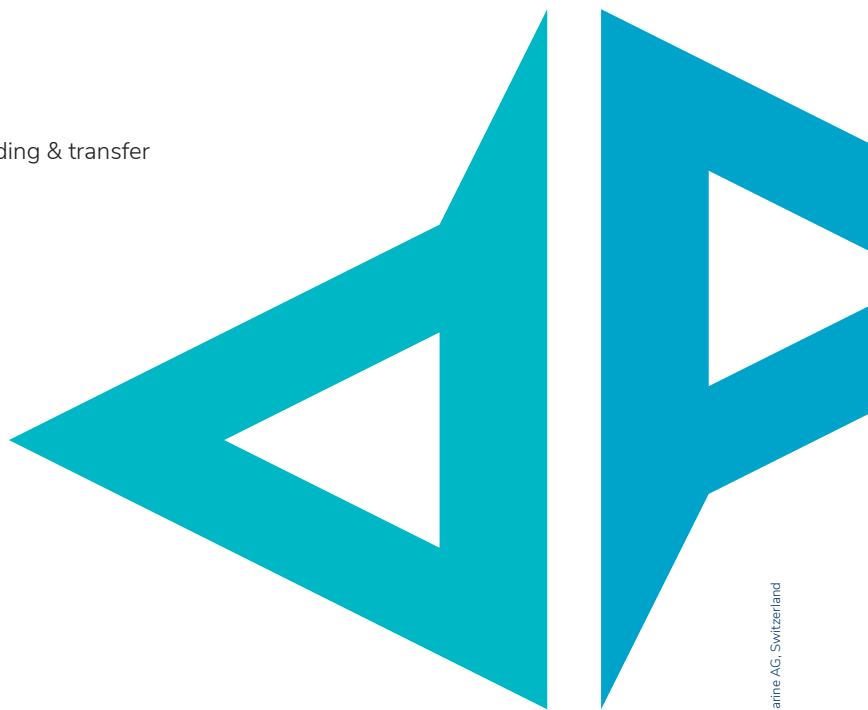
Emulsifier Dosing Module
- only for distillate fuel oils required

» **WFH:**

Water-Fuel-Homogenizer
- homogenizing water in fuel

» **WFECC:**

WFE Control Cabinet
- PLC/touch screen/monitoring system/data recording & transfer



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