



BOILER TREAT COMBI

Organic boiler water treatment for pH, corrosion, scale sludge control and condensate.

FEATURES & BENEFITS



- Environmentally safe, non-toxic product
- Highly specialised combined polymer technology
- Organic corrosion control
- Prevents hardness scale and sludge deposit build-up
- Elevates pH 10.5 - 11.0
- Operates with low dissolved solid levels
- All-round treatment for low- and medium-pressure boilers
- Protection against 4 elements of the boiler water when used with good quality make-up water: boiler pH, hardness scale, condensate pH, boiler coagulant
- Liquid boiler water treatment for simplified dosing & handling
- Prevents scaling and corrosion to the boiler system
- Suitable for boilers up to 35 bar pressure
- Contains volatile amines to neutralise acid in the condensate system
- Contains pH controllers and liquid coagulant to assist in blowdown
- Increases boiler system and condensate system life and reliability
- Quick, simple and accurate testing

PRODUCT DESCRIPTION

BOILER TREAT COMBI is a liquid combination of low molecular weight components, neutralised organic acids and corrosion, scale and sludge conditioners. The specialised blended low molecular weight compounds are designed to elevate boiler water pH to levels, which reduce corrosion to the minimum possible in boilers (pH 10.5 - 11.0) with pressure of 7 to 35 bar. Use of these compounds also prevents under deposit corrosion, which is caused primarily by excess hardness in standard conventional treatments. The advanced polymer technology will condition hardness salts, modifying their crystalline structure as they precipitate at elevated temperature. The resulting crystal is non-adherent, light and remains in circulation with the water, enabling it to blowdown easily. At the same time an organic compound is formed throughout the boiler protecting it from corrosion.

APPLICATIONS

BOILER TREAT COMBI is suitable for all auxiliary boiler plants on motor ships including dual-pressure boiler primary systems. BOILER TREAT COMBI is suitable for boilers up to 35 bar, for best results we strongly recommend continuous dosage into the feed system, via a VECOM MARINE dosing pump and tank unit.

For product characteristics and for the nature of special risks and safety advice consult our MSDS.
www.vecom-marine.com - sales@vecom-marine.com



DIRECTIONS FOR USE

BOILER TREAT COMBI should be added directly to the feedwater via a dosing unit. The dosing unit should be installed direct to the boiler feed line after the return to the hot well. BOILER TREAT COMBI can also be dosed with HYDRAZIDE (oxygen scavenger) depending on the feed water temperature and also CONDENSATE TREAT depending on the size of the condensate system and condensate pH. We strongly recommend using a VECOM MARINE dosing pump/tank unit.

Boiler water parameters should be as per the boiler operating manual. Our recommendations are:

P-alkalinity:	100 - 200 ppm CaCO ₃ (ideal level P-alkalinity is 150 ppm)
M-alkalinity:	Below two time P-alkalinity
Boiler chloride:	Max. 90 ppm
Boiler pH:	9.5 - 11.0
Condensate pH:	8 - 10
Oxygen scavenger	0.8 - 1.5 ppm

NOTE: Under no circumstance should ALKALINITY CONTROL be dosed with combined treatments, as this will affect the other elements of the combined treatment. Always use VECOM MARINE test kits for testing.

INITIAL DOSAGE

BOILER TREAT COMBI is dosed at 0.4 l/m³ boiler water. Allow the boiler water to be conditioned for 24 hours and then carry out a P-alkalinity test. Adjust product dosage as necessary to obtain a P-alkalinity of 100 - 150 ppm. At the same time determine the chloride content. If the chlorides are too high, give the boiler a top and bottom blowdown.

DAILY DOSAGE

Recheck P-alkalinity and increase dosage of BOILER TREAT COMBI if necessary to maintain pH or P-alkalinity level. A minimum of 0.2 l/day should be dosed to maintain correct treatment levels in conjunction with regular top to bottom blowdown. This dosage can vary according to conditions, i.e. size of the boiler system, make-up quality, etc.

STANDARD PACKING

BOILER TREAT COMBI is usually available in plastic cans of 25 l.

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