

ECONOMIZER TREATMENT LIQUID

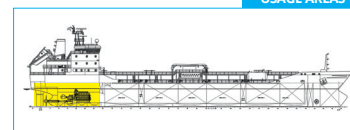
Soot Deposits Liquid-Preventer in Exhaust Gas Boilers at Low Temperature

Technical Information

PHYSICAL DATA

Appearance:	Green/blue coloured neutral product containing special metal salts. Fully miscible with water.
Specific gravity:	aprox. 1.19 Kg/ltr.
Flash point:	none
pH (1% solution):	aprox. 7
Contains:	Nitrates inorganic NOS

USAGE AREAS



DESCRIPTION

Active blend of mineral based salts, containing slag modifiers and carbon oxidation catalyst. Each stick contains approximately 0,5 Kg of SOOT REMOVER.

ADVANTAGES

- Effective above 200°C
- An easily dosed liquid
- Complete coverage of entire exhaust gas unit
- Greatly improved heat transfer
- Neutralises sulphuric acid
- Reduces corrosion and fire risk

APPLICATION

Today's main propulsion units have low exhaust gas outlet temperatures. This is due to increased engine and turbo blower efficiency. Lower gas temperatures are also the result of running at reduced power. The low temperature and reduced gas volume gives increased soot deposition and subsequent corrosion. The increased deposition greatly reduces the thermal efficiency of the economizer. As "dew point" is often reached in the unit, causing the generation of sulphuric acid, the corrosion process is greatly accelerated. Economizer Treat Liquid is a specially developed liquid which is easily dosed into the system, using a special UNIservice injection unit. The special air assisted nozzles create a fine mist so that the liquid vaporizes on contact with the hot gas. The vapor mixes intimately with the exhaust gases and the active material is dispersed throughout the system in microscopic particles. These tiny particles have an extremely large "active surface area" and being light, remain in the gas fully dispersed. This ensures that all parts of the economizer are covered efficiently. In the past, powder products have been developed for this purpose. However, their large particle size and greater weight makes them difficult to inject efficiently, so they cannot reach all areas requiring treatment. This leads to product wastage and ineffective cleaning of the upper areas, where most of the soot is deposited. Economizer Treat Liquid catalyses the post combustion process, resulting in modified soot particles which are dry and non adherent. The resulting deposit is more friable and can be more easily removed by the action of the soot-blowers.

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DIRECTIONS FOR USE

Economizer Treat Liquid is designed to prevent major build ups of soot in service. If the economizer is badly fouled we strongly recommend a pre-cleaning of the unit using Uniservice Gas Side Cleaner or Alkaclean

Dosage Instructions

1-2 litres of Economizer Treat Liquid is required for every 1000 m² of heating surface area. This amount should be increased / decreased dependant on economizer design and fuel consumption.

Dosage Period

Economizer Treat Liquid should be injected daily or twice daily after soot-blowing.

Dosing Equipment

The product must be dosed via the specially developed Uniservice-Injection unit which is made of materials suitable for prolonged contact with Economizer Treat Liquid.

Injection Points

In most cases a single injector can be put into the exhaust system immediately after the turbo charger gas outlet. Uniservice Engineers will inspect and make detailed recommendations for exact positioning.

PRODUCT DOSE

Uniservice Gas Side Cleaner Liquid provides a portable Economiser Washdown Unit for low and high pressure jetting of economisers etc. This is a complete pump, hose and lance system which takes suction directly from the Gas Side Cleaner Liquid drum. Vessels with permanent semi or fully automatic water washing systems can have a Uniservice Pre-Wash Injection Unit retrofitted. This can be custom built to give total control over the timing of the whole operation. Please contact Uniservice Unisafe Srl for further details.

IMPORTANT NOTICE

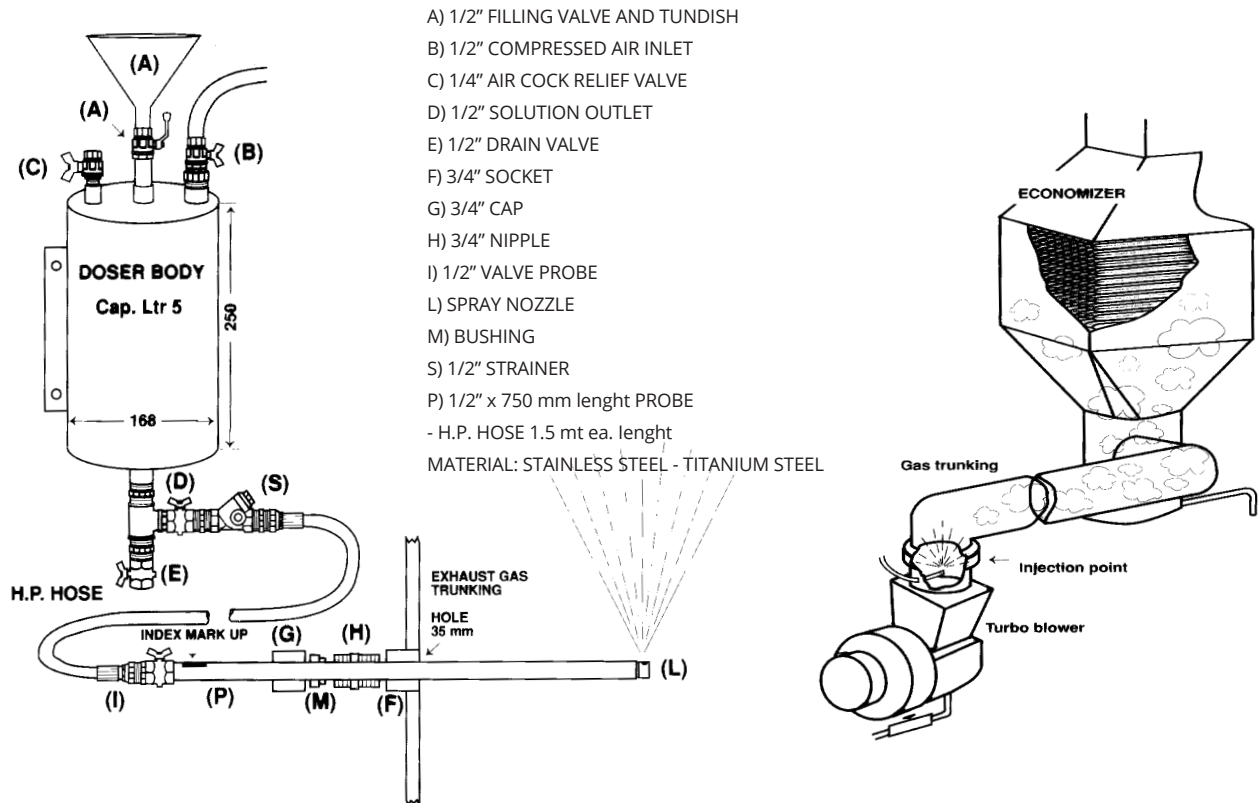
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Exhaust Gas Cleaning System

For Dosing Economizer Treat - Soot Remover (Liquid) For Low Temperature Exhaust Gas



ASSEMBLING INSTRUCTION

Choose a position in the GAS TRUNK about 1 or 2 meters above the turbo blower where the probe has to be positioned. Drill an Hole of 35 mm into the plate of the gas trunk and weld the 3/4" socket (F). Insert the probe inside the 3/4" socket and screw in the 3/4" nipple (H). The PROBE can slide inside and outside for the regulation of the exact position of the spray nozzle into the middle of the trunk. Tight well the (G) union.

Probe can be pulled out for repair, cleaning of nozzle (if it has not been used for a long time) just releasing the (G) union. WHEN ASSEMBLING THE PROBE, TAKE CARE TO PUT ON UPRIGHT POSITION THE INDEX MARK. The doser should be rigidly plumbed into the pipework system with the tundish vertical and uppermost the drain valve should be piped to a nearby open drain. Access should be left above the tundish to pour liquid into the unit. The air cock should be accessible from the front of the unit.

OPERATING PROCEDURE

1. Ensure that all valves of the doser are closed.
2. Open the drain valve (E) and air cock (C) and allow the doser to empty. Close the drain valve (E).
3. Measure the chemical to be added into a small jug or bucket and ensure there are no undissolved particles.
4. Open the filling valve (A) and slowly pour the chemical into the tundish, taking care not to overflow the tundish.
5. When the tundish is empty, close the filling valve (A) and the air cock (C).
6. Open the compressed air inlet valve (B) immediately after the outlet valve (D) and (I) to the injection probe (P).
7. When, after few minutes all chemical has been injected, fill up the doser with fresh water and repeat the above operation in order to flush the system.

Note: average dosage is 5 liters every 3 days of ECONOMIZER TREAT (SOOT REMOVER). Dosage can be increased or decreased according the heating surface area.