

CHECKED! "rb bertomeu" beco Mg, THE BEST
VANADIUM INHIBITOR FOR GAS TURBINES

Technical document: RB-29

We are pleased to introduce to you the ["rb bertomeu" beco Mg](#) Vanadium Inhibitor with **Magnesium Organic salts of Fatty acids (molecules - trade secret) soluble in hydrocarbons**, which neutralizes the incrustations and the Vanadium and Sodium corrosion in gas turbines, engines, boilers and furnaces fed with heavy fuel oil or crude oil.

The chemical synthesis process by "rb bertomeu" produces Magnesium Organic salts of Fatty acids completely soluble in hydrocarbons where the Magnesium particles are Mg^{2+} ions, with a radius of 72 picometers (1 picometer is 1,000 times smaller than a nanometer).

The surface reactivity of these Magnesium ions over conventional materials (Magnesium oxides and hydroxides) is about 10 times higher if the particles are nanometric and 100 times higher if the particles are micrometric.

The "rb bertomeu" additives with soluble Magnesium are the most reactive agents known to neutralize corrosion by Vanadium Pentoxide and Sodium Vanadates and cannot make any harm by hitting or corroding the gas turbine's blades because the Magnesium particles are molecules.

Being the additive in molecular form, it provides an active area ($\sim 1,800 \text{ m}^2/\text{g}$ of Mg) between 10 and 100 times higher than the one in nanometer-sized or micrometer-sized particles, and thereby increasing by a proportional factor the chemical reactivity.

"rb bertomeu" beco Mg does not contain solid micrometric particles which generate waste and soot during the combustion and cause incrustations on blades and gas circuit. Without incrustation of waste/soot, the intervals of time for cleaning are lengthened considerably, increasing the Gas turbine service factor.

To inhibit the fouling and corrosion by vanadium Pentoxide in Gas turbines, the required dose of the Vanadium inhibitor "rb bertomeu" beco Mg with **> 95% Molecular Magnesium** is 25% to 49% less than the necessary doses of **other inhibitors of Vanadium with Magnesium micrometric particles** depending on their concentration of Magnesium in weight.

If you are interested in obtaining the before-commented economic and technical benefits, we will be happy to inform you in detail and we will make you a study - free and without obligation - about the recommended dose and the benefits that you will get after using the "[rb bertomeu](#)" beco Mg Vanadium and Sodium Inhibitor or the "[rb bertomeu](#)" beco F1/ASF Vanadium and Sodium Inhibitor & dispersant additive.

For more information please read the following technical documents: [RB12](#) and [RB8](#)

So we can make the mentioned study, please provide us with the following information (*):

- Type of facility (engine, gas turbine, boiler or furnace)
- Brand, model and power
- Fuel consumption (in tons)
- Fuel analysis (we need to know, at least, the Vanadium and Sodium content)

(*) The information that you provide will be considered strictly confidential and will only be used to suggest the recommended dose of additive, to offer our products to you. Absolutely for nothing else.

You can find more information about these and other products at www.rbbertomeu.com

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