

The logo for CRYOBEST INTERNATIONAL. The word "CRYO" is in white, bold, sans-serif font on a red rectangular background. The word "BEST" is in black, bold, sans-serif font to the right of "CRYO". Below "BEST" is the word "INTERNATIONAL" in a smaller, black, sans-serif font.

CRYOBEST
INTERNATIONAL

| MULTI-STAGE CRYOGENIC TREATMENT OF MATERIALS |

A large, semi-transparent, light grey version of the word "CRYOBEST" is positioned at the bottom of the page, spanning most of the width. The background of the entire page is a blurred image of a green and blue surface with a red digital display showing "1835".

CRYOBEST



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Improving the performance of materials has been and still is a constant concern in industry. Treatments at cryogenic temperatures have proven to have great potential for this purpose.

The CRYOBEST® multi-stage cryogenic process is an advanced method of treatment that enables the performance of a wide range of materials to be increased, sometimes spectacularly. For this purpose, they are subjected to temperatures that can reach $-180\text{ }^{\circ}\text{C}$ in different phases of the process, which is fully controlled at all stages.

Cryobest International, S.L. is a pioneering company in the field of cryogenic treatments in Europe, with the objective of making the advantages of this revolutionary technology available to as many companies as possible.



Wear and fatigue lead to incalculable economic and environmental costs for industry and society. CRYOBEST® multi-stage cryogenic treatment plays a part in resolving these problems, as well as being totally environmentally-friendly as the process produces no residue or waste.

CRYOBEST® multi-stage cryogenic treatment has countless applications in virtually all sectors: Metal-mechanical, automotive, aerospace, iron and steel, forestry, agriculture, mining, public works, etc. Wherever a problem of wear exists or the performance of a material needs to be increased, the process provides an opportunity for:

- Reducing manufacturing costs and increase productivity.
- Improving the performance of the manufactured products.

Endless Applications

The CRYOBEST® process causes a series of subtle changes that improve the microstructure of the material. This is displayed in significant improvements in certain areas of the materials' performance, particularly for wear resistance, fatigue life, conductivity or dimensional stability. It can be applied to steel (construction, tools, high speed, powdered metallurgy, stainless, etc.), cast iron, cemented carbide, bronze, brass, other copper alloys, aluminium, special metals and alloys, certain polymers, etc.

Tools of all kinds are a common field of application for the process: Blades (for metal, wood, paper, plastic, fabrics, etc.), saws, machining tools (drill bits, carbide inserts, taps, reamers, hobs, broaches, etc.), punches, dies, moulds, electrodes, etc.

Components of all kinds are also treated in order to increase their reliability, extend their working life or improve their dimensional stability: Gears, bearings, springs, brake disks, pistons, connecting rods, motors, cables, etc. are just some examples of this type of application.

The treatment has a permanent effect on the entire volume of the material, that is, it is not just a surface treatment. This means that a knife, for instance, can be sharpened as many times as you like without the need to re-treat it. Pieces subjected to the process do not change their appearance or suffer dimensional alterations. On the other hand, the treatment is compatible with other common anti-wear solutions in industry.



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Cryogenic treatment technology is still under development, and for this reason, at Cryobest we continue to invest many resources in R&D projects whilst actively collaborating with numerous European universities and Technology Centres.

The CRYOBEST® multi-stage process is more advanced and efficient than conventional cryogenic treatments which means it can be used to an advantage in most applications.

As well as its own process technology, Cryobest also develops and manufactures its own treatment equipment, meaning it is capable of offering tailor-made solutions for each customer's requirements.

CRYOBEST® multi-stage cryogenic treatment could be the answer to reducing your costs or increasing the performance of your products. Please do not hesitate to contact us to assess the viability of the application for your product.

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