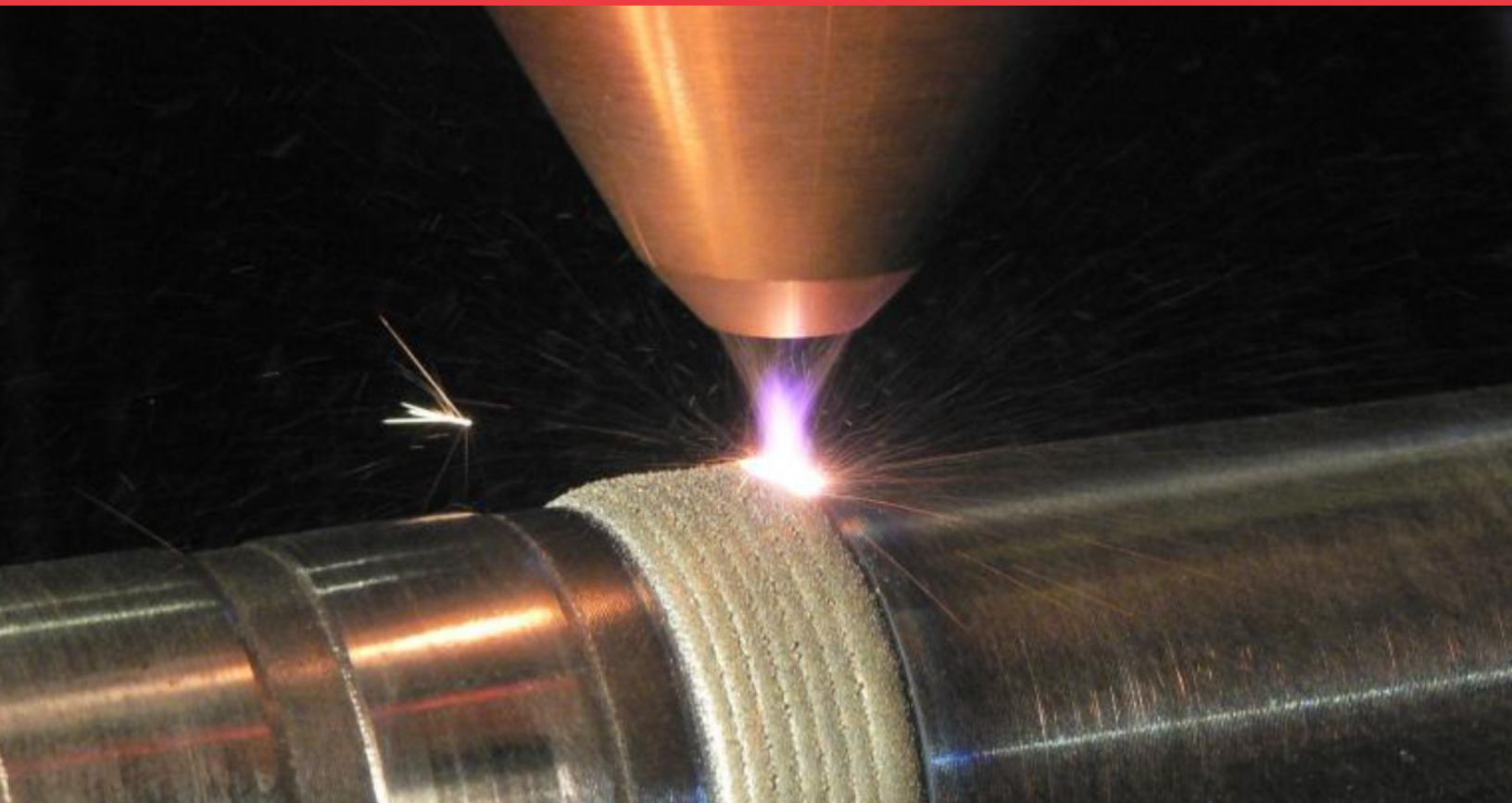


LASER CLADDING POWDERS PROTECTION AND RENOVATION OF INDUSTRIAL COMPONENTS

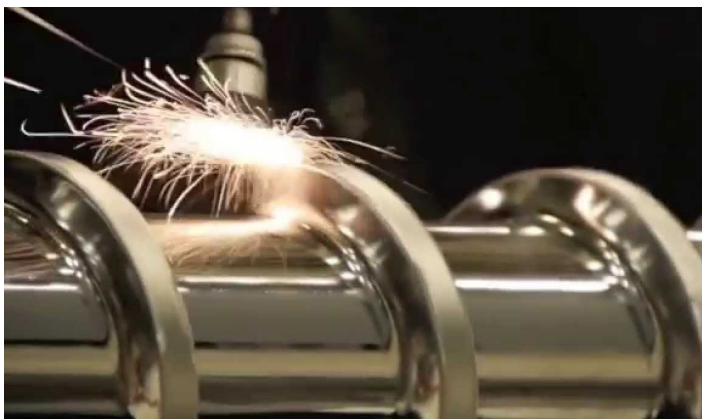


WALLCOLMONOY
SURFACING ALLOYS

PRECISION DEPOSITION. SUPERIOR PROTECTION. LASTING PERFORMANCE.

Wall Colmonoy's laser cladding powders are specifically engineered for high laser absorption, consistent particle flow, and clean application - creating protective layers that extend the service life of critical components.

Laser cladding is a highly consistent and repeatable, automated process that produces metallurgically bonded coatings with minimal dilution and a negligible heat-affected zone (HAZ). This is due to its localized, short-duration, high-energy molten pool, which provides a rapid heating and solidification rate promoting a finer grain structure.



Colmonoy® 7301-60 Laser Cladded on plastic extrusion screw flights

Laser cladding allows for the precise application of thin, uniform coatings with minimal heat input—preserving the base material's mechanical properties while enhancing surface durability and reducing post-coating finish machining requirements.

High-Speed Laser Cladding, also known as EHLA (Extreme High-Speed Laser Application), is an advanced variation of the laser cladding process that operates at significantly higher deposition speeds.

EHLA enables ultra-thin coatings with even lower dilution, making it ideal for large surface areas or components requiring precise wear or corrosion protection at minimal layer thickness.

This advanced surfacing technique is ideal for high-value parts that demand tight tolerances and corrosion or abrasion protection.

Applications:

Waste-to-Energy - superheater tubes, boiler tubes, panels, and coal nozzles

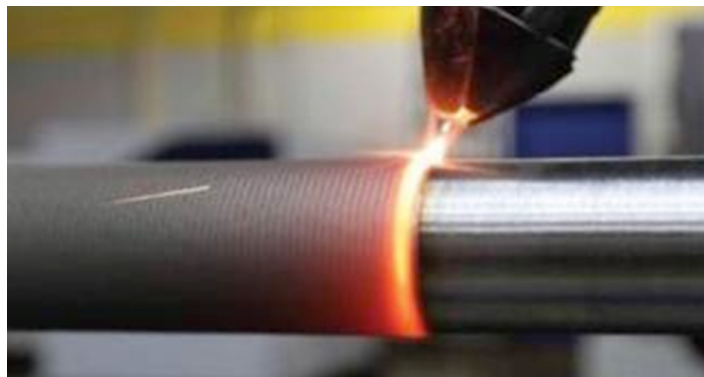
Oil & Gas - pump shafts, rods, couplings, valves, seats, and downhole drilling tools such as stabilizers and sleeves

Steel Production - continuous caster rolls

Rubber & Plastics - extrusion screw flights

Aerospace - turbine blades, components

Glass Container - industry neck rings and moulds, and more.



Colmonoy® 88 Laser Cladded on boiler tube for Waste-to-Energy

Industries

With nearly 90 years of alloy innovation and surfacing expertise, Wall Colmonoy partners with customers across industries to solve their toughest wear challenges—ensuring long-term performance with every powder delivery.



Glass Container



Oil & Gas



Pumps & Valves



Mining



Agriculture



Power Gen



Automotive



Rubber & Plastics



Steel

Products for Laser Cladding

Wall Colmonoy offers a wide range of Colmonoy® nickel-, Wallex® cobalt-, and Colferoloy™ iron-based powders formulated for laser cladding and high-speed laser cladding, available in tailored particle size distributions and alloy chemistries. These powders provide dense, defect-free overlays with superior resistance to wear through impact, abrasion, and corrosion—even in extreme environments.

Wall Colmonoy's Laser Cladding alloys are supplied as -150+53µm, high speed laser cladding alloys in -53+20µm. Other sizes are available upon request.

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WALLCOLMONOY

Wall Colmonoy. Making Metals Work Harder Since 1938.

MADISON HEIGHTS | LOS LUNAS | CINCINNATI | OKLAHOMA CITY | CANADA | WALES (U.K.) | SUZHOU (CHINA)

The information provided herein is given as a guideline to follow. It is the responsibility of the end user to establish the process information most suitable for their specific application(s). Wall Colmonoy assumes no responsibility for failure due to misuse or improper application of this product, or for any incidental damages arising out of the use of this material.