

PRESS RELEASE

For immediate Publication

Surcotec's sister company, Thermaspray, has recently purchased a laser cladding machine capable of refurbishing worn or mis-machined components that traditionally could not be refurbished. This technology targets the automotive, petrochemical, offshore oil and gas, mining, pumps and valves, and turbomachinery industries.

Laser cladding, unlike laser welding, is a weld build-up process that applies a metallic overlay material, usually in powder form, to primarily metallic substrates using a laser as the heat source. Laser cladding is the ideal solution to effectively protect component surfaces since the non-porous weld overlays are metallurgically-bonded to the component's surface. These overlays are resistant to mechanical impact and capable of withstanding severely abrasive, corrosive and/or erosive environments.

Laser cladding is effective for component refurbishment because of these non-porous, metallurgically bonded overlays, exceptionally low dilution between the overlay material and the component surface, localised application and exceedingly low heat-input produced by the weld pool. This means that heat-treatment can often be omitted altogether, and component distortion does not occur. Components can be refurbished to near-net shape through applying layers as thin as 0.2mm, reducing the need for post-machining.

Laser clad coatings range from tungsten carbides for extreme wear resistance to Stellites, stainless steels and Inconels for dimensional restoration and corrosion resistance.

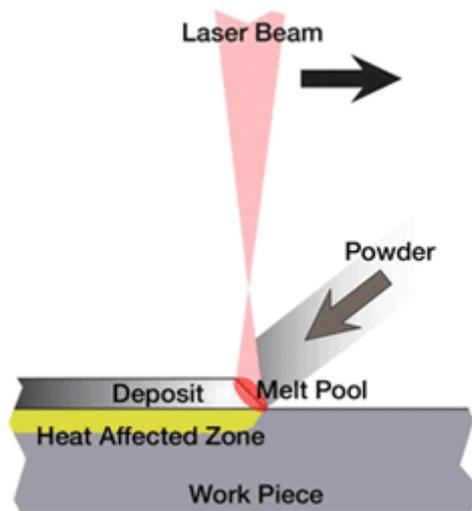


Figure 1 - The laser cladding process.

In foreign markets, laser cladding has been used for many years as a reliable and cost-effective solution for the refurbishment of expensive or sensitive components, and for the protection of new components.



Surcotec is proud to introduce this technology to industries in South Africa. The four-kilowatt fibre-coupled diode laser is housed in a booth specifically built for this purpose; the process is digitally controlled, and a six-axis robotic manipulator ensures process repeatability and stability.

Surcotec offers its customers turnkey solutions that are tailored to their specific needs, on a job-specific basis. Surcotec also provides thermal spray, plasma transferred arc welding, and finishing facilities. As Surcotec is an ISO 9001 certified company, customers can trust that their refurbishment and surface engineering needs will be met with the highest quality solutions, by a team with extensive experience and know-how, in a facility that can process all components from start to finish.

About Surcotec

Surcotec is the oldest established thermal spray coating company in the Western Cape. The company has a wealth of experience in thermal spray coatings and mechanical component refurbishing. Surcotec's coating services are supported by a fully equipped engineering workshop and an on-site machining division. A level 1 B-BBEE company, Surcotec is TNV ISO 9001 Quality Management certified and is certified as a level 2 nuclear supplier to Eskom.

About Thermaspray

Thermaspray, headquartered in Olifantsfontein, Johannesburg, has more than 20 years' experience in wear- and corrosion-resistant thermal spray coatings. In addition to providing a comprehensive range of support coating finishing technologies in the bespoke finishing shop, Thermaspray also refurbishes industrial components damaged by wear and corrosion. The company's in-house, metallurgical laboratory is the only dedicated facility of its kind in Africa's thermal spray industry and is equipped to undertake world-class developments and quality control. Thermaspray is a DQS ISO 9001 Quality Management and Eskom level 1 certified company.

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