

# High performance coating

# HD8



SERVICES



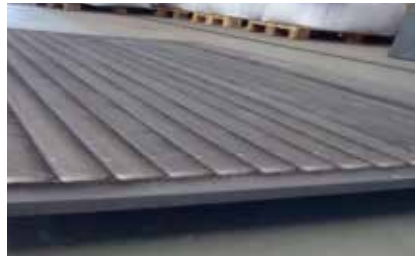
## Extreme wear-resistant coating

- Very high density of tungsten carbides in a nickel-based matrix.
- Smooth surface ideal for protection against extreme abrasion or erosion.
- Plates as well as customized parts available.





Regular surface



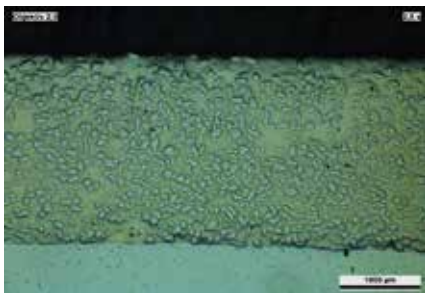
Flat plate after welding



In operation

## HD8 wear-resistant coating

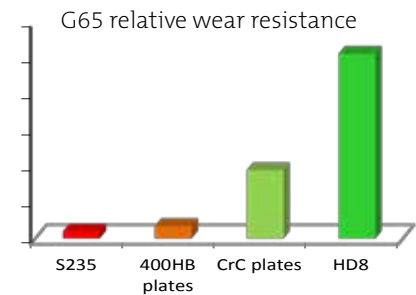
HD8 is an extremely wear-resistant coating made with an innovative, high-deposition welding technique. This coating has been specifically developed by our engineers in Wiener Neudorf Castolin Services who aimed to get a very high density of tungsten carbides homogeneously distributed within a nickel-based matrix at high deposition rates. The critical parameters of the process, in particular the temperature, are automatically controlled in order to avoid severe carbide dissolution as it may happen in standard welding techniques. Furthermore, the coating is optimized with a low dilution and consequently the overlay chemistry is not negatively affected by the base material. The wear resistance is far superior than steel hardened plates or usual chromium carbide wearplates as it is measured with ASTM G65 test.



Tungsten carbides with minimized dissolution evenly distributed inside the overlay



Highly controlled innovative automated process



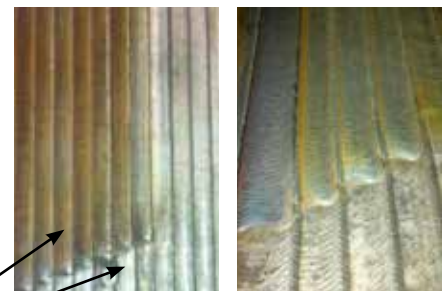
Wear resistance comparison

## Wear-resistance optimization

In order to provide the optimum wear-resistance, our automated changeover allows producing on the same surface continuous beads of different alloys. This ensures a smooth and regular surface which is critical in high demanding applications. Consequently, the area that is exposed to the highest wear can be coated with HD8 while an iron-based powder can be deposited where the wear phenomena is not severe. This optimizes the part service life and offers the best cost-efficient solution.

## Ideal for extremely demanding applications

With its extreme wear-resistance, smooth and regular surface HD8 is the ideal solution for applications where standard chromium carbides wearplates are too heavy and not resistant enough, in particular where large production throughput is required. For instance, expensive heavy duty fans are exposed to extreme erosion and have to be regularly replaced. HD8 increases service life and consequently reduces the costs associated to new parts and changeovers in high demanding industries such as for instance mining, power generation or cement.



Iron-based overlay  
HD8



## Plates and customized parts

HD8 is provided exclusively by Castolin Services workshop. You can have it directly on your parts and also as full plates.

Your sales representative will be happy to explain this concept more in detail. Do not hesitate to contact him for additional information.

HD8 plates	
Base plate thickness (mm)	HD8 thickness (mm)
6	3
8	3
10	3
12	3
15	3
20	3

Other thicknesses on special request

