

# **chromeclad**<sup>TM</sup>

## **Stop the Clock on Corrosion & Erosion**

### FOR INDUSTRIAL PROCESS EQUIPMENT

Whertec Europe believes there is no such thing as “acceptable” levels of tube wastage. Now corrosion and erosion can be stopped thanks to ChromeClad. Our unique process outperforms other coatings to provide superior protection by effectively stopping the permeation of corrosive elements, prolonging the time periods between required maintenance.



### **Innovative protection, from a superior system.**

The concept is simple: we prepare your metal surfaces and apply an optimised arc spray coating which is then densified with our exclusive Tube Armor ceramic coating. This one-of-a-kind system of protection not only excels in the face of extreme conditions, but also can be customised to fit your exact operational requirements. ChromeClad is applied faster than any other thermal spray system.



### **A no-compromise solution for extreme environments**

Thanks to ChromeClad’s advanced composite system, your operation can experience exceptional protection even in the most challenging conditions.

- ✔ Superior bond strength: will not flake, spall or crack
- ✔ ChromeClad thickness is measurable: it is a readable, verifiable coating
- ✔ Erosion resistant surface is impervious to airborne particulates, impermeable to corrosion and resistant to thermal shock
- ✔ Non-catalytic: prevents salt cake and slag build-up



### **Typical ChromeClad uses:**

- ✔ Water walls
- ✔ Soot blower lanes
- ✔ Nose arch and slope tubes
- ✔ Lower slopes
- ✔ Superheaters and reheat tubes
- ✔ Economisers
- ✔ Evaporators
- ✔ Heat exchangers
- ✔ Scrubbers ducting
- ✔ ID fans
- ✔ Pulverised coal fired boilers
- ✔ Circulating fluidised bed boilers
- ✔ Waste-to-Energy boilers
- ✔ Waste heat units
- ✔ Air preheated baskets
- ✔ Back pass areas
- ✔ Burners
- ✔ Chutes and ducts

# STOP THE CLOCK ON CORROSION & EROSION

## chromeclad AR

A coating having an excellent corrosion resistance coupled with an outstanding erosion resistance. This high chromium alloy containing ultra hard phases has been designed to produce very high quality coatings in combination with our Tube Armor ceramic coating which prevents slag build-up.

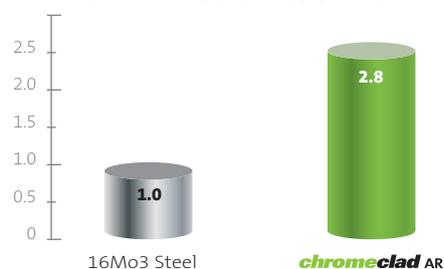
### Chemistry

Chromium	< 38%
Nickel	< 35%
Iron	< 30%
Others	< 6%

### Properties

- Porosity content: < 1%
- Microhardness
- Coating: 465 HV<sub>0.3</sub>
- Hard phases: >1300 HV<sub>0.1</sub>

### RELATIVE EROSION RESISTANCE



Using quartz particles at 30° impact angle at 550°C

## chromeclad XC

A nickel based coating providing outstanding resistance within extreme corrosive environments. The proprietary alloy based top coat is applied over an extremely dense bond coat which literally seals the weak ferrous substrate and ensures excellent bonding. Our Tube Armor ceramic layer is applied over this coating to prevent slag build-up.

### Chemistry

Chromium	< 22%
Molybdenum	< 12%
Niobium	< 4%
Boron	< 3%
Others	< 6%
Nickel	bal

### Properties

- Porosity content: < 1%
- Microhardness: 540 HV<sub>0.3</sub>



## More than a coating...

It is not just the composition of ChromeClad that makes it a superior choice for preventing tube wastage. Whertec Europe's thorough and detailed application and quality control procedure ensures optimum results. It includes:

- Inspections and mapping to determine wear rates
- Documentation of customer operational goals
- Customisation of ChromeClad to meet or exceed requirements
- Application of the complete ChromeClad system by our certified technicians
- Final inspection and quality control report to customer
- Delivery of warranties

