



# TwinArc X Thermal Spray System In Field or Shop



*Experience the X Factor*

"Where Innovative Alloys meet the Economy of the Process"

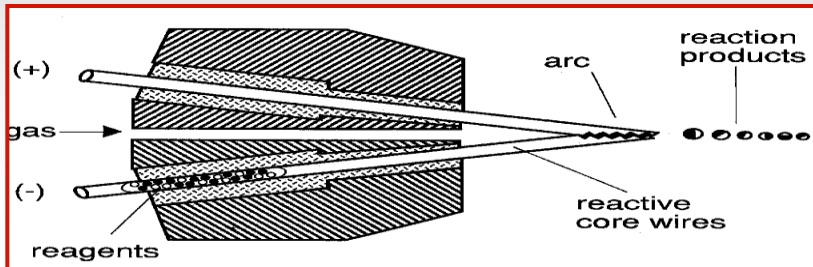
## SYSTEM FEATURES AND BENEFITS

- SYSTEM FEEDS BOTH SOLID AND CORED WIRES
- AUTO START FEATURE WHICH PRESETS THE INITIAL START-UP WIRE GAP
- SPRAY RANGE FROM 1/16" TO 3/16" DIAMETER
- **HIGHER** VOLUMES & **HIGHER** PRODUCTIONS
- EASY TO OPERATE, ALLOWS FOR VERSATILITY IN THE FIELD OR SHOP!!!

# WearX® 210 Sprayed Coating Characteristics

## Spray-Synthesis Process

**WearX® 210** special cored wire is precisely formulated to produce sprayed coatings rich in borides (iron boride, complex boride of Fe-Cr, Fe-Ni-Cr,...). These borides are compounds possessing high hardness and excellent chemical stability.



## Micro-Alloying Process

The unique micro-alloying process involving reaction between the metal sheet and core elements rich in boron produces sub-micron spherical crystallites of borides, such as  $Fe_2B$ ,  $(Fe,Cr)_2B$ ,  $Cr_2B$ .

The micro-alloying synthesis process at least two-fold increases the quantity of hard phases normally present in arc-sprayed coatings. These high quantity boride crystallites are responsible for excellent anti-wear properties.

**WearX® 210** arc-sprayed coatings containing **10 wt.% chromium** are tailored to contain more than **80% in volume of boride crystallites** and 20% in steel. They are composed of:

- lamellae very rich in sub-micron boride spherical crystallites.
- lamellae more ductile containing less sub-micron spherical boride crystallites.

The stacking of hard and more ductile phases forms a lamellar composite coating having very high wear resistance.

Hard phases ensure wear resistance. More ductile phases give coating cohesive strength and toughness required in wear resistant applications.

**WearX® 210** arc-sprayed coatings are tailored to be used in high temperature erosive environments in preference of **WearX® 208** sprayed coatings.

The **WearX® 210** cored wire can be:

- arc sprayed,
- arc sprayed and fused (thickness of about 0.080 inch),
- deposited by TIG and MIG welding processes for forming ¼ inch thick overlays.

For low temperature, dry environment applications it is recommended to use **WearX® 208** in preference of **WearX® 210**. With these applications **WearX® 208** presents higher erosion resistance.

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