



TwinArc X Thermal Spray System In Field or Shop



Experience the X Factor

"Where Innovative Alloys meet the Economy of the Process"

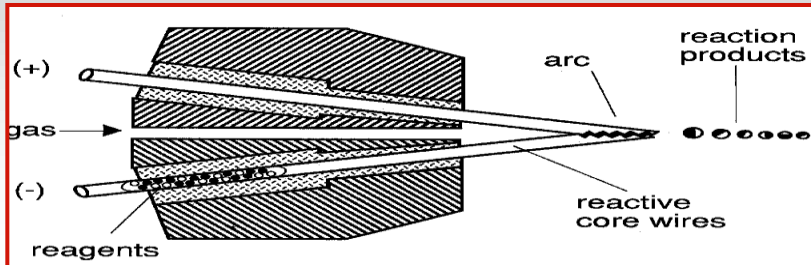
SYSTEM FEATURES AND BENEFITS

- 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!!!

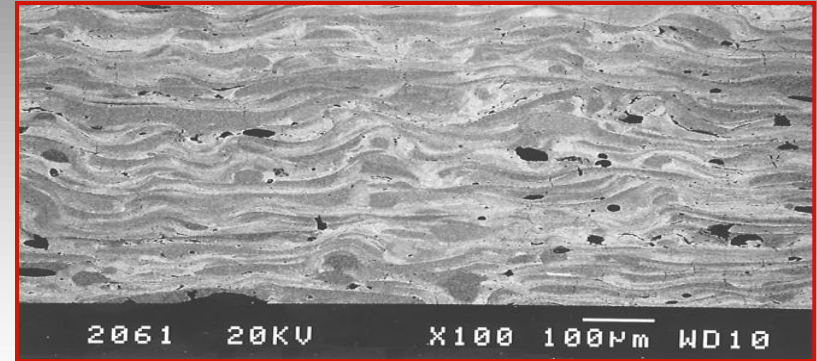
WearX® 208 Sprayed Coating Characteristics

Spray-Synthesis Process

WearX® 208 special cored wires are precisely formulated to produce upon spraying 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.



Microstructure of WearX 208 Arc Sprayed Coatings



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 , $(\text{Fe,Cr})_2\text{B}$, $(\text{Fe-Cr-Ni})_2\text{B}$

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

WearX® 208 arc-sprayed coatings 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 (dark phases).
- lamellae more ductile containing less sub-micron spherical boride crystallites (lighter phases).

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

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

Thermal Spray Solutions, Inc.

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