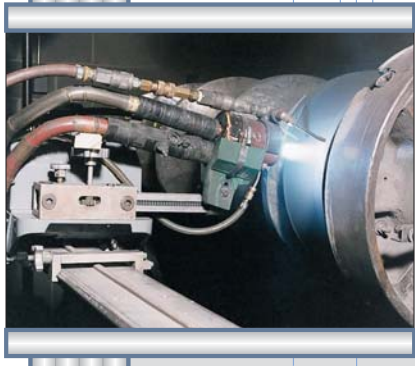


During the last twenty years, METAL 7 has designed several coatings which has allowed companies to improve their market position, to become more competitive and/or to develop new technological opportunities.

### VERSATILES PROCESS

METAL 7 possesses a wide array of equipment which is constantly being renewed in response to technological advances. Whether it is in the workshop or on-site, METAL 7 has a process adapted to your needs.



Plasma spraying process.

#### Thermal Spray Coating

- Plasma
- H.V.O.F.
- Electric Arc
- Flame

#### Coatings with a metallurgical link

- Plasma transferred arc (P.T.A.)
- Rapid arc
- Spray & Fuse
- Stud Welding
- MIG

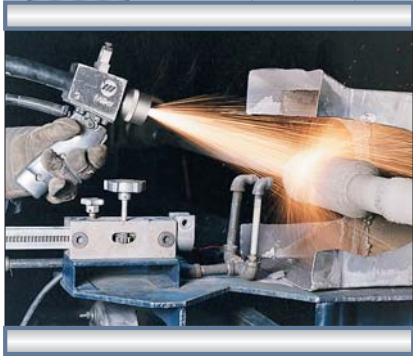


H.V.O.F. technology.

### PROCESS COMPARISON

PROCESS	MATERIALS	ADHERENCE	SPEED (m/s)	DILUTION	TEMPERATURE
Flame	Metals, ceramics	Mechanical	50 - 100	None	3,500°C
Twin Arc	Metals	Mechanical	50 - 100	None	Electric Arc
H.V.O.F.	Metals	Mechanical	500 - 1,200	None	5,500°C
Plasma	Metals, ceramics	Mechanical	300 - 1,000	None	15,000°C
Spray & fuse	Metals	Metallurgical	-	Weak	3,500°C
Rapid Arc	Metals	Metallurgical	-	Moderate	Electric Arc
Stud welding	Metals	Metallurgical	-	None	Electric Arc
P.T.A.	Metals	Metallurgical	-	Moderate	Electric Arc
MIG	Metals	Metallurgical	-	High	Electric Arc

# METAL7



Coating with a Twin Arc system.



Hardfacing by Rapid Arc.

## WIDE VARIETY of PERFORMANT MATERIALS

METAL 7 is able to coat objects with hundreds of different materials that can be developed to your specific needs.

- Ceramics ( $\text{Cr}_2\text{O}_3$ ,  $\text{Al}_2\text{O}_3$ ,  $\text{TiO}_2$ ,  $\text{ZrO}_2$ ,  $\text{TiO}_2$ ,  $\text{SiO}_2$ , ...)
- Composites (Wc-Co, Wc-CoCr, WC-Ni,  $\text{Cr}_3\text{C}_2$ -NiCr, ...)
- Pure Metals (Al, Zn, Ni, Cu, ...)
- Alloys (Stainless Steel, inconel, bronze)
- Metals and alloys (Mo & Ta base)
- Precious Metals (silver alloys)
- Semi-Conductors (titanium oxide)
- Solid Lubricant (graphite base, boron nitrate);
- Super Alloys (cobalt, nickel & iron base)

## UNIQUES PROPERTIES

METAL 7 disposes of a vast assortment of coatings to be able to respond to your requests. The research team is always available to develop coatings to meet your requirements.

- Resistance to wear, erosion, adhesion;
- Resistance to atmospheric corrosion, chemical solutions;
- Resistance to high temperatures;
- Resistance to molten metals;
- Resistance to cavitation;
- Thermal barrier;
- Dielectric;
- Electrical conductivity;
- Biomedical coating;
- Controlled ruggedness for optimal traction;
- Anti-adherence for cleaning ease.

## VAST INDUSTRIAL EXPERTISE

At METAL 7 the first priority is the quality of the work and respecting the deadlines. Whether it is for the development of a prototype or the production of thousands of parts, METAL 7 possesses the infrastructure to respond to your needs in different industrial sectors as :

NATURAL RESOURCES · MINERAL EXPLORATION · PULP & PAPER · METALLURGY  
PRODUCTION OF ELECTRICITY · TRANSFORMATION · PETROCHEMICAL · MARINE INDUSTRY

Do not hesitate to contact a representative for further information.



285, des Pionniers · C.P. 1590  
Sept-Îles (Québec) Canada,  
G4R 4X9

Tél. : (418) 968-5822  
Fax : (418) 962-7066

E-mail : metalrd@quebectel.com