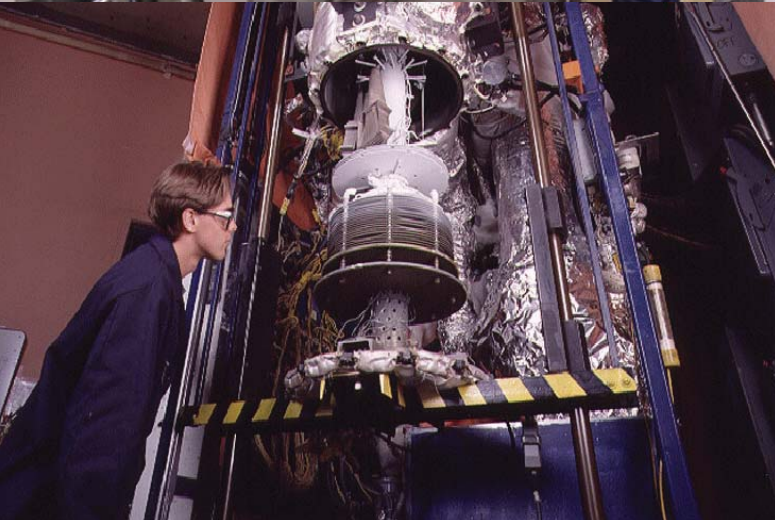




First in Rejuvenation



Liburdi Engineering has pioneered in the development of several unique vapor coating processes capable of depositing wear resistant and oxidation resistant coatings. In addition to providing these coating services, Liburdi designs and builds Chemical Vapor Deposition (CVD) and Physical Vapor Deposition (PVD) coating systems for installation at customer's facilities.

Erosion Resistant Compressor Airfoils Coating

The Reactive Ion Coating RIC™ process is plasma assisted electron beam evaporation Physical Vapor Deposition (PVD) process used to deposit hard, erosion resistant Titanium Nitride coatings.

Enhanced Slurry Coatings for Turbine Blades and Vanes

Liburdi has developed a group of coatings using a unique slurry application technology for turbine blades and vanes. The application process is used to produce modified diffusion aluminides such as Silicon Aluminide as well as MCrAlY coatings without relying on conventional high velocity spray processes.

Gas Phase Internal Coating for Airfoils

The Liburdi LOM™ coating process is a Chemical Vapor Deposition (CVD) process which applies a high purity aluminum coating over the exterior and (if required) internal surfaces of turbine blades. The unique process enables very complex shapes and internal passages to be successfully coated with tight control over uniformity of coating thickness.



First in Rejuvenation

Coatings Guide

Turbine Engine Temperature Gauge

AIR INTAKE COMPRESSOR

COMBUSTOR

TURBINE

EXHAUST

Erosion Resistance

High Temperature Corrosion / Oxidation

Thermal Fatigue - Oxidation

Type 1 & 2 Corrosion / Sulfidation / Oxidation

-40°F

0°F 800°F

2000°F

2800°F

2200°F

1800°F

0°F

0°F to 1200°F

2000°F to 2800°F

2800°F to 2200°F
Cooled Components

2200°F to 1800°F
Cooled Components

1800°F to 0°F
Cooled and Uncooled Components

RIC™ - Titanium Nitride

Allied Signal Honeywell T55 Compressor Blades and Vanes
GE T64 Compressor Blades, Vanes
Frame 7EA VGVs
Rolls Royce AE 1107 Vanes and Stators
T56/501D Compressor Blades

APS MCrAlY + APS TBC

Alstom 11N2 Cooling Tiles
Frame 3 Liners
Frame 3 Transitions
Frame 5 Liners
Frame 5 Transitions
Frame 6B Liners
Frame 6B Transitions
Frame 7EA Liners
Frame 7EA Transitions
Frame 7FA Liners
Frame 7FA Transitions
Frame 9 Compressor Liners
Frame 9 Transitions
PGT 16 Transitions
W251 Transitions

HVOF MCrAlY + APS TBC + Internal Aluminate

Alstom 11N2 Row 1 Blades
Frame 7FA+E Row 2 Buckets
Frame 6B Row 1 Buckets
V84.2 Row 1 Vanes
V84.2 Row 1 Blades
W251 Row 1 Nozzles

HVOF MCrAlY + Dense Vertically Cracked TBC + Internal Aluminate

Frame 7FA+E Row 1 Buckets

HVOF MCrAlY + APS TBC

Alstom 11N2 Row 1 Nozzles
RB211-24G HP Nozzles
W501D5A Row 1 Blades
W501F Row 1 and 2 Buckets
V84.2 Row 2 Vanes & Blades
V84.3A1 Row 1 Vanes

HVOF MCrAlY + External + Internal Aluminate

Frame 6B Row 1 Buckets
Frame 6F Row 1 Buckets
Frame 7E/EA Row 1 Buckets
Frame 7F Row 1 Buckets
Frame 9E Row 1 Buckets
V84.3A1 Row 1 Blades
V84.3A1 Row 2 Blades
V84.3A1 Row 2 Vanes

Platinum Aluminate + Internal Aluminate

LM2500 HP1 Blades
LM2500 HP2 Blades

Platinum Aluminate

RB211-24G HP Blades
T56/501D HP Blades
Ruston TB5000 CT Blades & Vanes
PGT-10 Blades

APS MCrAlY + APS TBC

Frame 6B Row 1 Nozzle
Frame 6B Row 2 Nozzles
Frame 6F Row 1 Nozzle
Frame 7EA Row 1 Nozzles
Frame 7FA Tip Seals
Frame 7FA+E Row 1 Nozzles
Frame 7FA Row 2 Nozzles
Frame 9 Row 1 Nozzles
W501F Row 1 and 2 Nozzles
W501F Tip Seals

HVOF MCrAlY + Aluminate

Alstom 11N2 Row 2 Nozzles
Frame 3 Row 1 Bucket
Frame 5 Row 1 Bucket
V84.3A1 Row 3 Nozzles

HVOF MCrAlY

W251 Row 1 and 2 Blades

APS MCrAlY

Frame 5 Row 1 Nozzles
Frame 9 Row 1 Nozzles

APS Atmosphere Plasma Spray

CrAl Chrome Aluminum

MCrAlY Metal Chromium Aluminum Yttrium

HVOF High Velocity Oxy-Fuel

RIC™ Reactive Ion Coating

TBC Thermal Barrier Coating