

REFURBISHING

Repair & Enhance Coatings

We apply build-up coatings with infinite alloy composition, thickness and hardness to suit your needs. We refurbish and rebuild worn surfaces to better-than-new condition, out-performing OEM parts at a fraction of the cost. Because we can choose the build-up material, the repaired parts always out-perform the replacement parts.

We provide complete service including machine shop support. Therefore, our repair work can incorporate machining and grinding, including Diamond wheel grinding of hard tungsten carbide and ceramic materials. We even have expanded our machine shop capabilities to include the ability to manufacture various rolls, guide bars, nozzles, sleeves, shafts, clamps, etc., while meeting stringent quality standards and blue print specifications including iso 9002. Our coatings procedures are based on national standards from ASTM, AWS, SSPC, and other leading standards including Mil specs.

Typical Features:

Various alloys, carbon steels, stainless, (Ferrous & Non-ferrous).

Various hardness alloys (To finish by machining or grinding).

Un-surpassed bond strength (Will not separate or flake off).

No thickness limit (Typically from .001" to .250").

Metallurgical friendly (Will not distort the part).

Ability to touch up damages on large chrome rolls without re-plating the entire roll. (Can also be done "On-site").



MBI Refurbishing as an ENGINEERING TOOL:

Cost Control: Save money on parts and machinery by having them resurfaced with MBI as opposed to buying expensive new equipment. MBI can repair, machine, grind, coat, polish and fabricate your parts to new and/or better-than-new condition with a large selection of materials and properties at a fraction of the price of manufacturing new parts.



Minimize Downtime: When machinery breaks or a part fails, having a new one manufactured can take weeks if not months depending on the size and function. MBI can drastically reduce the time needed to get your equipment running to your standards, decreasing production downtime and maximizing efficiency.

Other advantages of MBI Refurbishing include:

- Wide material range has ability to meet any specification
- Customizable coating thickness allows for job-tailoring
- Refurbished parts improve on OEM standards
- Fabricating abilities allows for even severe damage to be repaired
- Machining, Grinding, Welding, and Polishing are all capable at MBI
- We offer an Expedited Turnaround option for emergency shutdowns



Application examples:

Industries Include: Any and All Industries. There is no limitations to MBI's refurbishing abilities. We apply hundreds of coatings that are designed for any application including: Repair, Wear, Corrosion, Heat oxidation, Non-stick, Release, Traction, Low friction, Di-electric, etc

Machine Parts of All Types Where Repair, Refurbishing, or Enhancement is needed, such as:

All Roller Surfaces

Crank Shaft Surfaces

Journal Repair

Turbine Repairs

Pump Parts

Granulator Parts

Wrap Replacements

Shaft/Roller Straightening

So much more, too many to list!.....

Typical Variations of REPAIR coatings:

We use certified coating materials with superior properties in terms of better bond (over 13,000 psi), wear resistance, corrosion and oxidation resistance. Below is a typical list of popular coatings:

AR-01 Pure Aluminum is popular in the Marine industry, and any application that requires excellent corrosion and weather resistance; suitable for prolonged submersion in saltwater. Aluminum is also used to repair cracks, holes, dings and porosity in large steel components as it can be easily hand ground and polished down to original dimensions.

AR-04 Babbitt Alloy made popular for bearing surfaces and housings. Can be applied to very high thicknesses (≥ 0.250 ") and is easily post machined.

AR-12 Chrome steel alloy is a popular & versatile arc sprayed material made from hard chrome steel alloy that exhibits high toughness and hardness (60 Rc). It can be applied at thicker layers for rebuilding of worn journals. It can be finished (preferably by grinding) to relatively low Ra as an ideal long-lasting bearing surface. This coating is ductile with high bond and tensile strengths. (AS series coatings are considered more economical than the HV series).

AR-13 Stainless steel is applied by arc spray producing coatings with medium hardness. It is economical to apply therefore it is considered an excellent coating for general build-up of stainless alloy. It has excellent adhesion strength (over 10,000 psi) and can be built up to varying thickness (.003" to .100") without any issues.

HV-15 Nickel-chrome-boron is applied by our Fusion-bond HVOF. It's a material suited as chrome plating replacement. Typical hardness is >60 Rc, therefore it can be finished with conventional grinding wheels. It has near zero porosity and high bond strength (over 10,000 psi).

Selective plating This plating process can be carried out in-house or on-site. Example: We can touch-up repair damaged spots on already chromed surfaces avoiding costly stripping & re-plating and at times without disassembling your roll / part to be worked on. The repairs blend in perfectly with existing parts.