



Light Beam Technology, Inc.

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Boyd Machine & Repair Company

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BMR provides expert services in equipment repair, modification, and salvage for waste water treatment and processing facilities throughout the Midwest. **We specialize in thermal-sprayed coatings, laser materials processing and welded overlays** to help you combat the effects of component wear in your plant.

Our goal is to **keep your plant operating at peak efficiency**. Tough coating materials applied to severe wear areas can prolong your equipment life and help you *save hundreds of hours of down-time*. Because of our expertise with these durable coatings and overlays, we help our customers *save thousands of dollars every year*.

BMR offers you a wide variety of materials for coated and overlaid surfaces, from **tungsten carbide to stainless alloys to ceramics**, depending on your needs and application. We use a variety of different coating processes, according to the type of material you need for the coating and the intended application of your part.



BMR also specializes in repair, modification, rebuild, and salvage of many different types of components used in virtually every waste water treatment application, like these in the table below.

Valves	Pump Components	Other Components
Gate valves	Sleeves & shafts	Armature/stator shafts
Butterfly valves	Impellers	Cylinders, rods & pistons
Sliding valves	Casings & Housings	Comminuters
Valve stems	Complete overhaul	Wearing rings

Finally, **BMR** offers laser hardening on carbon based steels to 60 RHC and case depths of 0.080 inch with **virtually no distortion**. And we provide other laser materials processing services like surface remelting and cladding.

Industrial Services for Waste Water Treatment

BMR - Committed To Extending Equipment Life

Over the past 30 years, **BMR** has developed extensive skills in **repairing, modifying, and salvaging** all types of industrial machinery and equipment damaged by catastrophe or every-day operation. And we've become expert in building new components from prints and specifications.

With our **unique machining capabilities and vast coating and overlay expertise**, **BMR** can repair damage to your pumps, blowers, and large valves as well as to components like impellers, shafts, and bearings. We can build up worn surfaces and finish them to their original dimensions and specifications. We even do complete rebuilds of pumps and blowers. These services save you from spending time and money on new equipment.

We know that you don't make money unless your equipment components are installed and working properly. So we provide the unique services that help you prevent costly shutdowns from wear and equipment failure.

BMR employs many different metal spraying and welding techniques to ensure the highest quality coatings and overlays for our customers. We select the proper coating material and process based on your requirements and the application of your part. Primary coating processes are:

HVOF Spray System - High Velocity Oxygen Fuel uses high pressure liquid fuel and oxygen to deposit a very even uniform coating. HVOF is used for many different metallic coatings, although carbides are the most commonly used metals.

Plasma Spray System - This process uses a plasma flame to produce a dense high quality coating. The most commonly sprayed coatings are ceramics.

Arc Wire Spray System - This process is used to spray materials on a contour. The most common materials are 400 and 300 series stainless steel, low and high carbon steels, nichrome, monel, nickel, bronze A, brass, copper, aluminum and zinc.

Welding Overlays - Used to combat a wide range of problems from corrosion to gouging/galling to low-impact wear. Application methods include MIG, TIG, and plasma welding. A wide range of corrosion- and wear-resistant materials are used.

Combustion Powder Spray System - This process applies a smooth deposit on any contour. When used to deposit Spray and Fuse alloys, the deposit is fused to the base metal, resulting in a metallurgical bond between the overlay and the base metal.



For information on how BMR can help you, call one of our sales technicians

Gary (219) 944-8801

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Specializing in Thermal-Sprayed Coatings and Laser Materials Processing