

## WET BLAST SOLUTIONS

- Eliminates dust
- No heat warping with thin parts
- Holds tight tolerances
- Provides excellent surface for bonding and plating
- Eliminates need for chemicals
- Degrease and blast clean in single step



ADVANCED SURFACE TREATMENT TECHNOLOGY

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# What is WET BLASTING

### Reduced impact of blasting material on the surface, dust reduction and the elimination of static sparks can result in a very clean, smooth and controlled surface

Wet blasting is also known as slurry blasting, liquid honing, wet etching, liquid abrasive blasting and vapour blasting. Basically, any wet blast system uses water with abrasive to form slurry that is used for the blast effect. The velocity of the slurry along with the physical characteristics of the blast media is what makes fine blasting, cleaning or peening. Unlike dry blasting, wet blasting is a tempered blast due to the "cushioning effect" the water has.

Very fine media can be used for very delicate surfaces and substrates. Wet blasting does not impregnate media into the surface and creates no heat which eliminates part warping. Wet blasting is especially useful when working near public areas or areas of a delicate nature where dust cannot be tolerated. No breathing apparatus is required by the operator and it eliminates any danger to other staff or public near the work area.

FerroECOBlast® has developed high-performance self-contained wet abrasive blast systems that are environmentally friendly and highly effective. They all have minimal media and water consumption.







- Very fine media can be used
- No media impregnation into a substrate
- Reduced media breakdown rate due to water cushioning effect
- Without the use of harsh chemicals or dusty mechanical action
- Deeply cleans irregular surfaces
- Eliminates hand sanding
- Closed cabinet recycles media/slurry
- No heat warping with thin parts
- Consistent and reproducible surface treatment

- Holds tight tolerances & Highly controllable
- Solvent- and dust-free blasting process
- Leaves a very attractive satin finish of various products of varied geometry and material
- Provides an excellent surface for bonding
- Provides an excellent surface for plating
- Can degrease and blast clean in single step
- Laminar flow of abrasive slurry can hone and deburr surfaces
- Considerable process customization is possible

Good detection of customer challenges and clearly presented solutions in the form of know-how, are combined with carefully planned, modern equipped and accurately tested FerroECOBlast Europe machines. We are ranked among the most innovative companies in the field of surface treatment, due to our constant activities in the field of research and development.

Wet-blasting is effective for decontaminating low-level radioactive wastes.

### WET BLASTING MACHINES

#### MANUAL, AUTOMATIC, ROBOTIC VERSIONS



FerroECOBlast manufactures a wide range of wet blasting cleaning and degreasing systems, extending from small manual cabinets suitable for automotive workshops to large automatic machines used for special applications such as the surface preparation of cutting tools, wire and extruded products and full automatic cleaning processes of complex components, molds and dies.

Manually-operated wet-blasting cabinets or cells, for removing surface contamination on lower-level radioactive wastes of dismantled parts, due to the abolition of nuclear reactors, or reducing their contamination levels.

**Feature:** The closed system - reuse of water after removals - Iron powder retriever as well as sludge recovery unit collect abrasive particles and remove residues. This system does not discharge wastewater all the time because of the water circulation within the cell. Less secondary waste due to durable special stainless abrasives can be used. Water cooling systems available.







FerroECOBlast® wet blast systems are the most advanced, economical and high production surface preparation systems on the market today and are successfully being used in a variety of industries for a wide range of applications.

**Wet Blasting Media:** Virtually any type of abrasive commonly used with conventional dry blasting can be utilized with wet blasting. The most common abrasive used for wet blasting is aluminum oxide - electro corundum. Types of media for wet blasting: Round Media (glass bead, ceramic and SS-metal shot), Angular Grit Media (aluminium oxide, crushed glass, and SS-steel grit), Fine Angular Aluminum Oxide slurry and Plastic Angular Media slurry. The right choice of the abrasive media depends on the desired surface texture.

#### **Environmental Health and Safety**

Blasting operations create high noise levels, so hearing protection is a must for both the operator and nearby workers! Operators should also use heavy canvas or leather gloves, leather safety clothing, as well as safety shoes. When blasting is performed outside the blast cabinets, eye protection must be worn.

#### **Waste Management**

When removing paint and other hazardous materials or adding chemicals to the water, the liquids and debris must be collected and properly disposed of. Water runoff and blast debris should be handled in compliance with applicable safety and environmental regulations!

## WET BLASTING TECHNOLOGY

#### IS ESPECIALLY APLICABLE FOR:

- Heat scale and surface contamination removal
- Nuclear decontamination
- Cleaning molds & tools without surface damage
- · Cosmetic finishing, polishing
- Preparation for bonding, coating, encapsulation & cladding
- Remanufacturing precise engine parts (Automotive, Aeronautical...)
- Pre-cleaning & oxide removal of feedstock in preparation for follow on processes
- · Drawing lubricant/soap removal
- Band Saw blade honing, descaling, peening, satin polishing
- Carding wire processing (In-line automatic and manual systems)
- Pre & after treatment of carbide cutting tools
- Wet Shot Peening exceptional increase fatigue strength on the most critical metal parts
- Safety blasting of Titanium or Magnesium & Aluminium/Magnesium components (Ex and ATEX versions)

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