RECLAIM ABRASIVE ON A BUDGET

Recycle durable abrasives for blasting with a much lower investment

Universal SR-24

Take advantage of blasting with and reusing durable abrasives such as:
- Aluminum oxide
- Steel grit
- Garnet
- Plastic media

but don’t go broke buying the equipment to use it.

Universal’s line of abrasive reclaimers can efficiently clean and store blast media for reuse in a standard 600 pound blast machine. In your shop or at the job site, Universal can save you money on abrasive purchase and disposal.

The lower cost made possible by the simplicity of design makes abrasive savings available for even small jobs.

Please call or write for additional information.

Maintenance Tips

Pros and Cons of Wet Abrasive Blasting

The advantages claimed for wet blasting compared with dry are:-
- The removal of soluble salts from the steel surface; it has been suggested that the water may also remove soluble contaminants from the surface of the grit itself. (This is particularly important in other parts of the world where the contamination level on the surface of the grit can be exceptionally high). Also, the use of a wet system allows the utilisation of abrasives which would not normally be used in a dry process.
- The reduction of weather downtime, allowing work to proceed during periods of high humidity. The limitation here is that conditions must be good enough to allow the subsequently-applied primer to form a film and develop adequate adhesion.
- The prevention of dust outfall over adjacent areas—a definite advantage when blasting has to be carried out near sensitive equipment such as turbines which will be damaged by the presence of airborne grit.

The prevention or encapsulation of dust also enables blasting to be carried out inside buildings or structures where dry grit-blasting processes are unacceptable because of the high volumes of ventilation required to enable the gritblaster to operate.

A further advantage resulting from encapsulation of dust is that hazardous coatings (e.g., old lead-containing paints) can be removed with less danger of inhalation of potentially toxic dusts.
- The reduction of potential spark dangers in hazardous areas.
- Wet abrasive blasting is also a means of preparing surfaces other than ferrous surfaces. It is ideally suited in some situations for the removal of coatings from concrete and masonry surfaces. Also for the removal of laitance from concrete. This is particularly important in situations where large volumes of dust are totally unacceptable, e.g., inside buildings, in congested built up areas such as town centres.
- The selective removal of coatings. The [UK] Ministry of Defence (Navy) have used wet abrasive blasting for the selective removal of antifouling paints from ships hulls for a number of years. The process is extremely useful for the removal of built-up layers of exhausted conventional type antifoulings from a sound protective system such as coal tar epoxy.
- The light abrading of old paint surfaces, and the “feathering” of edges of existing coatings. This can be done, but only if the contractor’s operator is experienced in the use of the equipment and fully aware of its versatility. This, regrettably is too rarely the case.

Some disadvantages are:—
- The operatives inability to use the equipment is a major problem.
- The steel surface is left wet, requiring the use of an inhibitor to prevent rapid rusting. Over-concentration on the surface can cause problems.
- The abrasive slurry tends to collect on the work-piece and on the operative’s visor, making it difficult for him to see what he has done.
- Surface tension of the water can hold abrasive particles on the steel surface causing grit inclusions.
- Work rate is generally slower than with dry blasting.
- When blasting into corners, the back pressure tends to cushion the impact of the blasting stream from the steel.
- Wet spent abrasive is difficult to clear away, collecting in corners and on ledges where it is more difficult to remove than dry dust.

Wet blasting has both advantages and disadvantages over dry grit blasting although contractors and operatives have mixed opinions about its usefulness.

From the client’s point of view, its advantages are definitely worthwhile, and some North Sea operators have continued to use it. It can only be hoped that contrac-

Ed’s Note: The above material was reprinted with permission from “Corrosion Control Engineering Joint Venture: The State of the Art of Wet Abrasive Blasting in the U.K. and Offshore (North Sea, British Sector). Second Draft.” The material was prepared by Task Group E5-1 of the Corrosion Control Engineering Joint Venture, Harry Foster, Chairman. It was published in Industrial Corrosion, March/April 1988.

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Performing a Prefabrication Spray Painting Demonstration
by Cory Allen,
RUST International Corporation

With the advent of high priced, complex, multiple coat systems applied by structural steel fabricators, the spray painting demonstration is becoming an increasingly useful practice for painting large tonnages of steel.

The spray painting demonstration is basically a trial run, in which a fabricator applies a coating system over several cleaned test beams in the presence of the owner and his engineer, for acceptance prior to the fabrication and painting of structural steel. The demonstration serves to define application parameters set by the owner and his engineer, to resolve any inconsistencies with the engineering specification, and to teach the application peculiarities of the coating system.

Because the spray painting demonstration allows owners, paint manufacturers, fabricators, and engineers to clarify and agree upon application procedures and job specifications before the actual project is begun, it reduces the risk of schedule delays and paint failures, each of which can result in lost revenue for the owner, paint manufacturer, fabricator, and engineer.

This article identifies the participants in the spray painting demonstration and explains how to perform the demonstration.

Participants
The spray painting demonstration is performed by the fabricator, the paint manufacturer's representative, the owner, and his engineer. The key participants are the fabricator's paint department and the paint manufacturer's representative. The fabricator's quality control department should monitor the demonstration to coordinate inspection activities with the paint department and to establish the necessary inspection requirements, such as equipment and frequency. The fabricator's engineering department should define the specified coating characteristics for his production personnel.

The paint manufacturer's representative plays a key role in providing technical guidance to the fabricator, as well as to the owner and his engineer. This guidance includes advising the fabricator's paint department on mixing the paint materials, spray equipment, spray techniques, and re-coat and handling cure times. The paint manufacturer's representative is the expert continued on page 96