# Do-it-yourself

How do you save half the cost of a new shot blast machine?
Build it yourself using custom-designed engineering drawings
from Betta Blast Services.

Business today is running faster and tighter than ever before. And no more pronounced is this trend than in the shot blast cleaning industry. While other industries, such as the home building industry, have had a do-it-yourself option for some time now, the trend to fabricate a custom shot blast machine internally is now just taking off.

Norm Davey, principal of Betta Blast Services, is no stranger to airless shot blast cleaning. His company is pioneering a new approach to shot blast equipment that sees professionally-designed engineering drawings customized to individual applications and then handed to the client to allow them to self-fabricate the equipment.
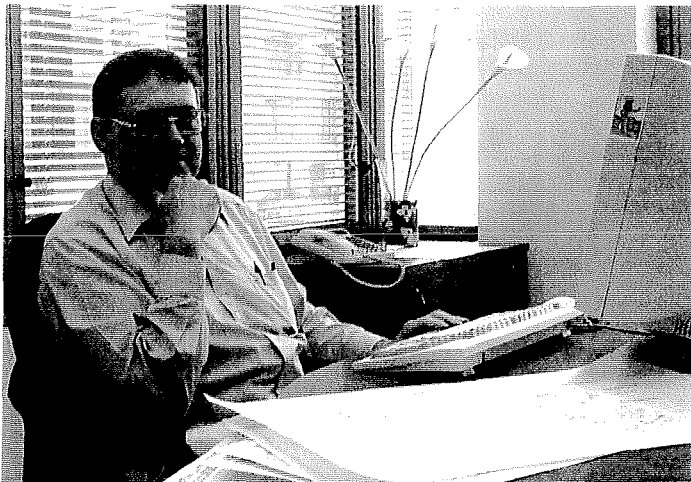
"This approach can save companies hundreds of thousands of dollars, as they are pocketing the profits of the shot blast machine suppliers."

Norm Davey

Norm suggests that after taking into account the reduction of overheads and the ability to control the project internally, a typical return on investment of around 40% should be expected over buying the machine from an equipment manufacturer.

Another advantage of DIY supply is that the savings you make can be re-invested on the important equipment that might otherwise be bypassed. As Norm points out, "this means you can afford items such as additional or thicker wear liners, additional rubber curtains, or that additional fork truck or overhead crane to feed more work to the new machine."

Build or buy?

In the new economy where phases such as 'total cost of ownership' and 'return on investment' reign supreme, is it the best idea to take on the risk and do it yourself? "The difficulty in building a shot blast machine is in the design – once the design is correct any boiler-maker or steel fabricator can read engineering drawings and build a shot blast machine," says Norm. "In fact, the DIY solution can reduce the technical risk of a project, as the drawings are progressively sent to the customers during the design process, and can be independently scrutinized before fabrication begins."

Norm also points out that many shot blast equipment suppliers have had a significant staff turnover in recent times and have had trouble bottling the knowledge of the senior designers. "Some newcomer engineers to the industry are now repeating some of the mistakes that were made 35 years ago," says Norm.

"Almost 40 years in the blast cleaning industry, the first 20 of which working with Wheelabrator and Pangborn here in Australia, has taught me that taking shortcuts and compromising design good practices will end up costing the end user a lot of money," explains Norm. "There are certain parameters that shot blast designers should never bypass, but they do at times and it is usually due to inexperience or cutting corners."

A design specialty

Norm's company, Betta Blast Services, provides consulting and engineering services to define, scope and design a custom-built shot blast machine to suit a company's processing needs. His product is a set of engineering manufacturing drawings and specifications that allow his customers to construct their shot blast machine themselves.

"My customers either have fabricators in-house that can build these machines, or they contract external fabricators for the project," explains Norm. "Either way there is a dramatic cost saving, often upwards of 40%. For large projects this can translate into hundreds of thousands of dollars, something no company can ignore."

Betta Blast Services has been building shot blast equipment and providing consulting services for over

19 years. For the past five years, however, a fabrication workshop has not been needed as all of Betta Blast Services' products have been delivered electronically over the internet. The manufacturing drawings, which are produced in AutoCAD, can be emailed anywhere in the world into the customer's computer in his office. The benefits with this type of supply to the customer are enormous, with savings on postage and quick turn around when modifications, additions or changes need to made.

The internet has allowed Betta Blast Services to shift its focus from the local market to the international marketplace. Norm's company now services companies in Australia, Europe, Asia and India, and has interest from many other countries.

Customized off-the-shelf solutions

Betta Blast Services is currently building a library of pre-designed shot blast equipment components, which reduces the time-to-market but still allows for customization for individual requirements. This approach allows various components such as blast wheel, air wash separators, bucket elevators and dust collectors to be matched with a range of pre-designed machines that range from a rotary barrel to a six wheel

plate and section descaling machine (a machine just completed for a European company), to deliver a product in a short timeframe with all the customizations that an individual solution needs.

And the approach seems to be working. Betta Blast Services' website is handling more and more inquiries from companies curious to see how a DIY solution can work for them. "DIY is certainly not for everybody, but it is well worth the time to investigate the benefits," says Norm.
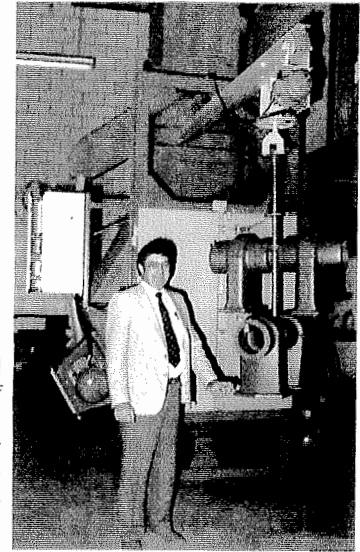
Two direct drive 10 hp wheel monorail with a work circle of 39" (1000) high x 39" (1000) dia able to clean the four castings shown inside and out in a 10 min blast cycle

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For more information, visit www.bettablast.com
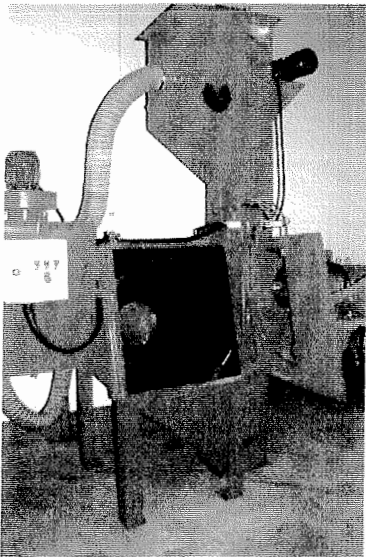
Single direct drive 10 hp wheel rotary barrel 26" (660mm) dia x 24.5" (625mm) deep used mainly in the auto brake bonding industry and some peening applications such as small coil spring makers

Descaler with 6 direct drive blast wheels mounted on 20 hp motors, able to clean 6' - 6" (2000) wide plate or 18" (450) high section. The equipment is equipped with height adjustable abrasive removal rotary bush and blow off assembly