

# TRUE GRIT

## WINOA GROUP, FORMERLY WHEELABRATOR ALLEVARD HAS DEVELOPED A NEW ABRASIVE RECLAMATION AND RECYCLING SYSTEM THAT ALLOWS STEEL ABRASIVES TO BE USED IN THE FIELD

For many years, on-site grit blasting of large metallic structures has been carried out using an abrasive such as copper slag or garnet. This is due to the fact that it has been difficult, often impossible, to reclaim and reuse the abrasive. In these circumstances, it has been sensible to use the cheapest abrasive available, even though it may not be the most effective in terms of speed of blasting and quality of surface finish. The need to enclose blasting areas to allow recovery of abrasive was also a problem, though recent legislation has made this an essential requirement in most countries.

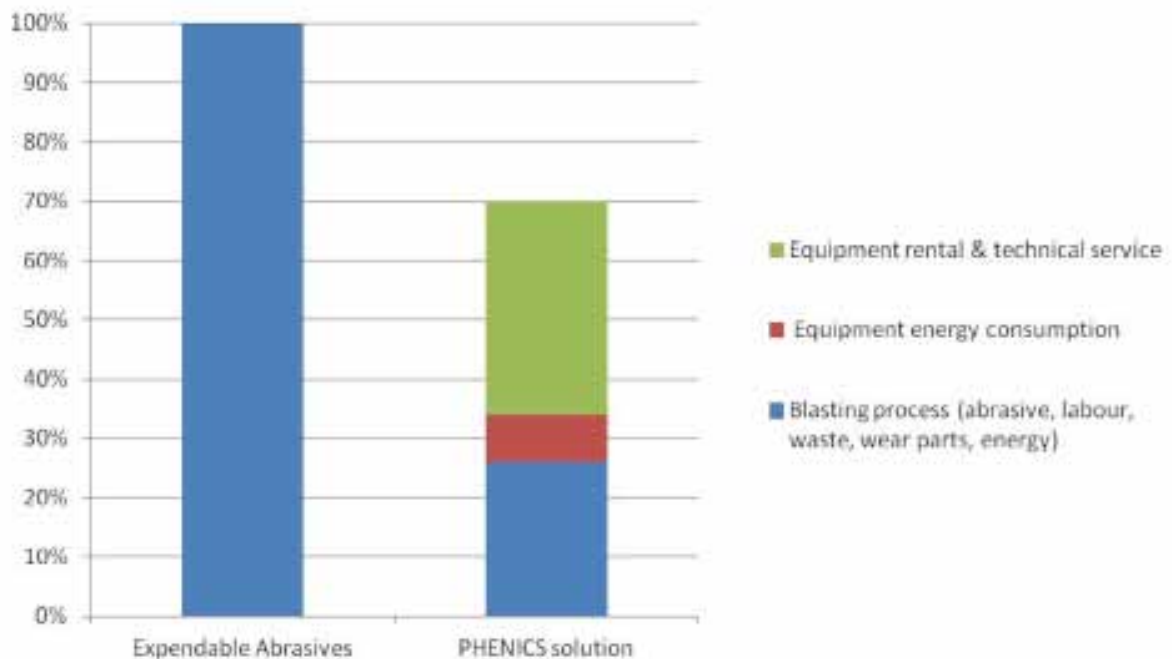
However, new equipment is now available which could revolutionise site blasting. Winoa Group, formerly Wheelabrator Allevard, is the world market leaders in the manufacture and supply of high quality steel abrasives. Winoa has developed a mobile reclamation and recycling system which does more than simply make the use of recyclable abrasive viable. It promises to deliver very considerable cost savings, typically 30% of the total cost of the blasting operation. These savings are achieved through faster blasting, reduced overall

abrasive costs and a very significant reduction in the amount of waste product to be disposed of. With waste disposal costs at record levels, especially disposal costs for hazardous waste, this is a key point. Contamination of abrasive when removing lead based paint has, for many years, been seen as an impediment to using recyclable abrasive but with the new equipment, marketed as 'Phenics' this is overcome, such is the efficiency of the abrasive cleaning system.

Phenics uses a suction head at the end of a length of hose up to 300m in length, allowing continuous blasting with two to four 2-4 operators blasting while 1-2 operators use the suction head.

### Two versions

Two versions are available for hire, the compact 'Combi' unit on which both the suction and reclamation equipment are enclosed in a single unit and the 'XL' unit, used for larger projects, where the suction and reclamation equipment is housed each in its own unit. On the Combi unit the used abrasive is drawn





into a 3-stage air separation system incorporating a scalping drum to remove coarse contamination, an air separator and finally a magnetic separator to recover any abrasive particles removed by the air separator. On the XL version, two air separators are used to cope with the greater volume of abrasive, dust and other waste materials being processed. Dust removal is 99.9% efficient with both versions. The working conditions of operators are improved dramatically due to a result of lower dust levels and better visibility for operators is an added bonus

Phenics is suitable for most site blasting projects, including enclosed areas such as large tanks, and a number of projects have been successfully completed across Europe. The weight of steel abrasive required to blast a given area is typically 5% of the weight of copper slag. Although steel abrasive is significantly more expensive per tonne purchased, the reduction in the amount required renders significant savings. When the savings arising from faster blasting and the reduction in waste disposal costs are taken into account, Phenics becomes a very cost effective option. A breakdown of costs associated with blasting using typical expendable abrasives and the Phenics solution with recyclable steel grit, is shown below.

One of the regular users of Phenics is the French

industrial painting company, Battaglino. "The solution proposed by Phenics enabled the use of steel grit blasting and recycling, which was previously reserved for workshops, for on-site works," says Guillaume Perrin, a Director of Battaglino. "We achieved a considerable decrease in the amount of waste by recycling steel grit which is a real environmental advantage. The use of Phenics also helped facilitate the organisation at the worksite, through continuous suction of dust, paint flakes and grit, thus preventing the accumulation of materials on the scaffolding. In addition to these advantages, the quality of the surface profile obtained is better, improving the anti-corrosion coating adhesion."

### Hiring costs

The hiring costs of Phenics include three days of onsite technical assistance from Wino's leading technical expert per two weeks hire. Guidance and assistance in both the use of Phenics and general blasting best practices are provided. A higher level of presence can be arranged at extra cost. Prior to any decision on whether to hire Phenics, a technical expert will take full details of the planned project and calculate all costs as well as the savings to be made in comparison with the use of non-recyclable abrasives.

