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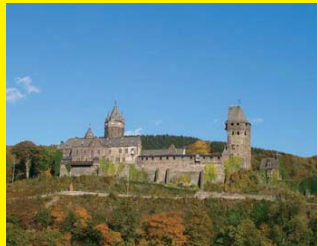
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Optional practical evening classes

**MFN Shot Peening
Workshop in Germany
4-6 April, 2017
(see page 61)**



**MFN Shot Peening
Workshop in Holland
9-11 May, 2017
(see page 61)**



**Separate Print: Vol. 18, January issue, 2017
Blasting Technology: Energy-Saving Utilization
Of Residual Energys (p. 18-19)**

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Blasting Technology: Energy-Saving Utilization Of Residual Energy

The manufacturer AGTOS has developed a completely new type of turbine-wheel blasting equipment used for energy-saving pre-blasting of cast parts. The company from Emsdetten near Münster thus underlines its innovative strength in turbine-wheel blasting technology.

When developing the new system, AGTOS's engineers took into account important aspects for optimizing processes, which are used daily in many foundries. For instance, many foundries apply abrasive-blasting twice, which involves relatively high energy and handling costs. "The first abrasive-blasting only removes sandy deposits, which then allows visual examination. But in practice, the energy should be utilized for finish-blasting", explains Andreas Sterthaus, AGTOS's specialist sales engineer.

Handling costs are often very high because each time parts are blasted, they must be placed into the loader or onto hangers. After pre-blasting, the parts are usually deburred and sanded

manually. The subsequent shot-blasting should only provide uniform appearance and in some cases directly prepare parts for coating.

In order to simplify the process, AGTOS's developers also considered automatically blasting the parts, including the recycled parts, after the vibrating conveyor. The advantage of this is that the material will be clean and therefore not affect casting quality. In addition, according to Andreas Sterthaus, a steel mill shot-blasting machine often causes "blow defects", which are increasingly unacceptable from the standpoint of today's quality requirements demanded by customers. Furthermore, you can avoid excessive blasting ("overblasting"). This is an important aspect in quality control.

The development of the new shot-blasting machine is based on the so-called ricochet effect (French for bounce/rebound). The main idea behind this is that the residual energy of the rebounded abrasive is utilized. This reduces the energy consumption, since you can use fewer turbines with a lower power and operating cost. In addition, the process involves abrasive, which in a previous process would move past the workpiece and therefore would have no effects. Another advantage is reduced wear inside the shot-blasting machine.

Overall, pre-blasting is possible with significantly lower energy consumption. Blow defects are avoided because there is no drum rotation in the process. "What was important to us in this development was not to waste energy but to use and to redirect it in an effective way", Andreas Sterthaus concludes. However, he noted that it was still under development yet the first enquiries from European foundries had already been received.

Founded in 2001

AGTOS was founded in 2001 in Emsdetten by employees with experience in this area. In Emsdetten, the headquarters of the company, new concepts are developed and turbine-wheel blasting machines are designed. The main manufacturing site is located in the Polish city of Konin, near Poznań. This location has been considerably expanded. The construction of a new assembly shopfloor with large foundation pits as well as a modern office building doubled the production area. Now, more than 160 people are employed at the two sites.

The constant focus on the requirements of customers has led to the fact that the company is regarded as a specialist in the design and manufacture of turbine-wheel blasting equipment for roughing, cleaning, removing rust, descaling and hardening. Therefore customers on all five continents work with shot-blasting machines from AGTOS.

The range of application possibilities of shot-blasting machines is very large. With the processing of millimetre-sized



Casted parts before blasting with the ricochet Blaster

chain parts right through to the building of steel structures of the size of overseas containers, there are virtually no restrictions on the operating capability and size of the equipment.



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Casted parts after the blasting process

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