Blasting Technology: Energy-Saving Utilization Of Residual Energies (p. 18-19)
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.

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.

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
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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