

Horizontal Blasting of Liquid Gas Storage Tanks

The STAG GmbH company implemented the AGTOS blasting plant with high-performance turbines in order to manage the existing plant can be operated much more economically than before.

STAG GmbH based in Genthin (Germany) has gone through a very eventful history. In the process, it has always been possible to expand its market position, so that in the meantime almost all well-known gas suppliers are on the customer list. In addition to the production of sustainable compact and individual container ranges, new technical

solutions are being sought and the manufacturing processes optimised. Flexibility and reliability are among the most important success factors.

Of course, in addition to various product-related certifications, the company has a certified QA system according to DIN EN ISO 9001 and UM system DEN EN ISO 14001. The blasting process



A glance into the combined blast room and turbine blasting plant. On the right the turbine carriage, on the left the workpiece (gas tank).



Workpieces (gas tanks)
after blasting. The bottoms
are also optimally cleaned.

is essential for cleaning and roughening the workpiece surfaces before coating. For this purpose, the company has been operating a combined blast room and turbine blasting plant for years.

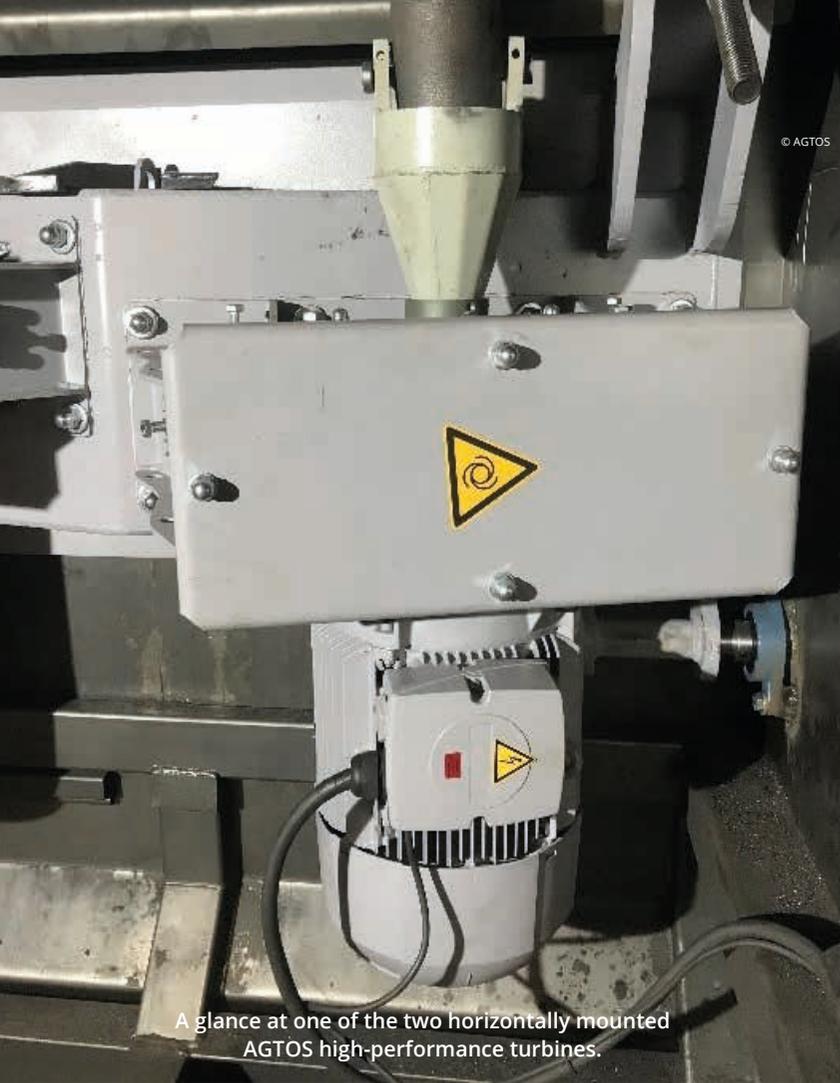
The gas containers to be processed are moved to the blast room on a rail wagon and processed there by two turbines also mounted on a rail wagon. These are AGTOS high-performance turbines, each with six blades attached to a single-disk blasting impeller. This system has the advantage over the previous one - it has better materials and fewer wear parts that need to be replaced due to the process.

The blades throw the cast steel abrasive at high speed onto the containers, which rotate slowly around their own axis. The abrasive is collected in the lower section of the blast machine, cleaned and fed back to the turbines via a conveyor belt.

The special feature is that the turbines are arranged horizontally, whereas in conventional blast machines they are mounted vertically. This fact places new demands on the inner workings of these components, especially on the seals of the motor bearings. After the turbines of the blast machine in particular had previously caused high repair costs, AGTOS replaced them with new, horizontal high-performance turbines. Thanks to the experience gained with other customers, these were developed in such a way that they are durable and work reliably.

From now on, the replacement of turbine motors and all wearing parts can be drastically reduced. The turbine now runs reliably and economically.

The existing saddle plate on which the turbines are mounted was completely replaced. A threaded spindle allows the angle of



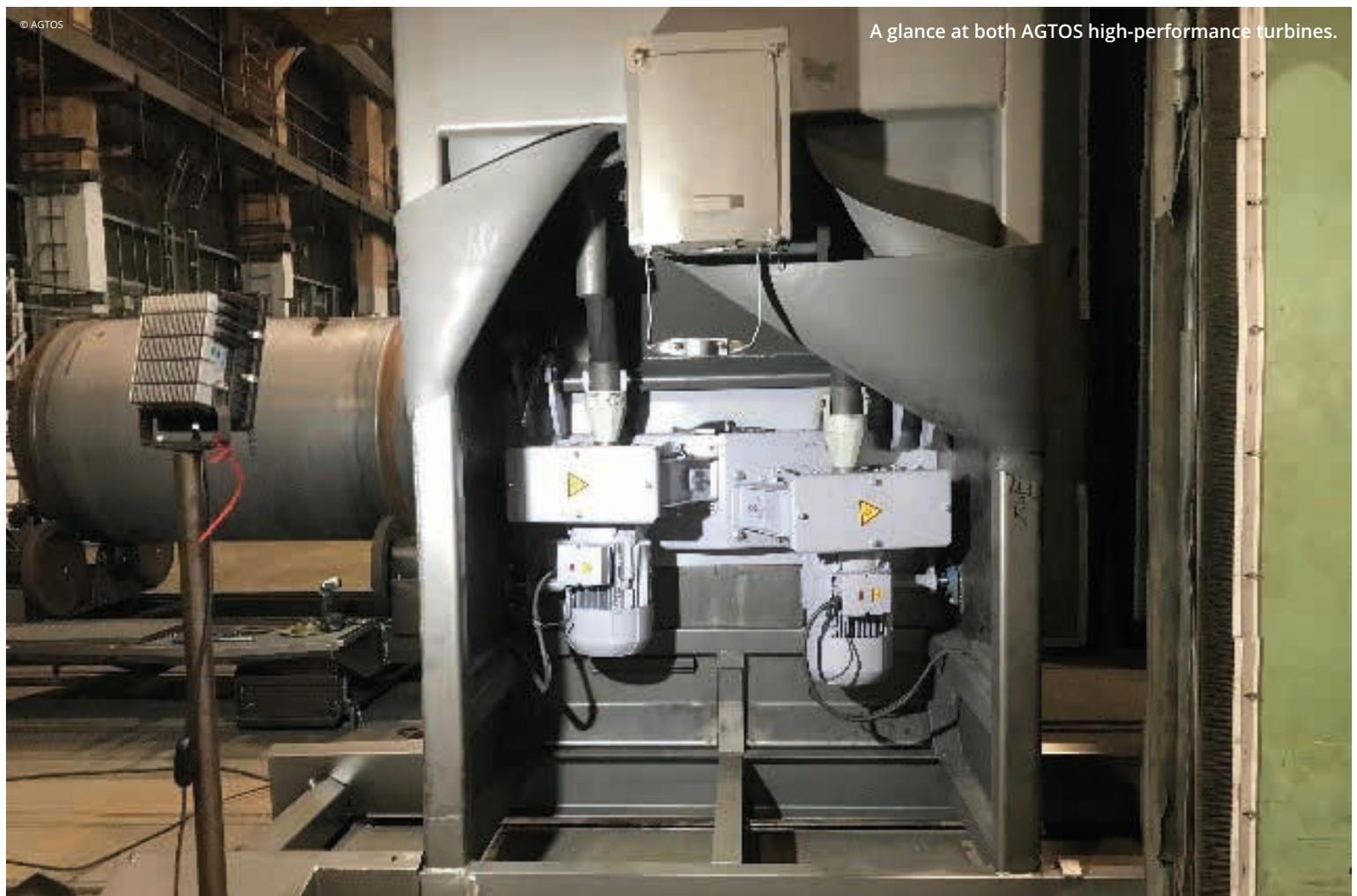
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A glance at one of the two horizontally mounted AGTOS high-performance turbines.

inclination of this saddle plate to be adjusted by means of a rotary axis. This also allows the turbine jet to be adjusted to the horizontal centre of the gas tanks. A necessity, as these vary in diameter from 600 to 1400 mm. The new saddle plate has also been further developed into a wedge saddle. From now on, the sides and also the bottoms of the tanks are processed more effectively. This is because the turbine jet now hits the rounded bottoms at a more pointed angle. This considerably reduces the need for manual blasting of the bottoms.

Wear-resistant guiding plates additionally direct the turbine jet in such a way that the abrasive hits the workpieces directly. No abrasive can miss. The rubber lining of the blasting chamber is therefore optimally protected. This means that it too can continue to exist in a more sustainable and cost-effective manner.

This described modernisation took place in 2019. Since then, the new concept has proven itself and worked to the customer's advantage. <



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A glance at both AGTOS high-performance turbines.