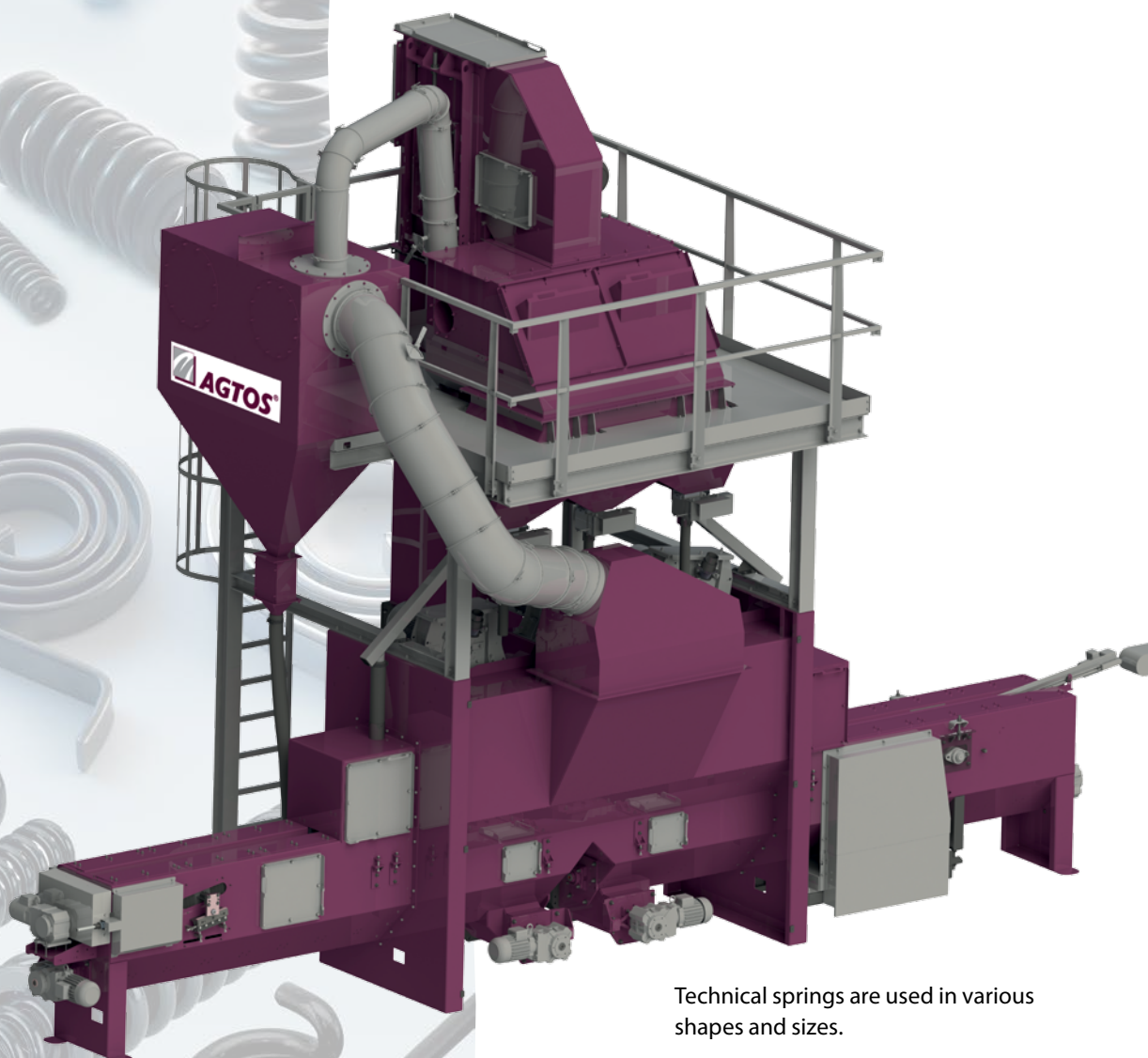




AGTOS®

Surface technology for manufacturers of technical springs

- Blast machines
- Second-hand machines
- Conveyor systems
- Service and spare parts



Technical springs are used in various shapes and sizes.

And because they are subject to severe stress, their surface must meet the highest standards. Over the years, **AGTOS** has planned and built many turbine-wheel shot blast machines for the spring manufacturing industry.

As part of the design phase, we took into account the customer's requirements for the surface and the work piece quantities to be processed, as well as existing in-house transport.

This brochure illustrates some example solutions for many types of technical springs.

Surface treatment of coil springs and bow springs



AGTOS rubber belt tumble shot blast machine



Bow springs after blasting in a rubber belt tumble shot blast machine



Rubber belt tumble shot blast machine for hardening coil springs

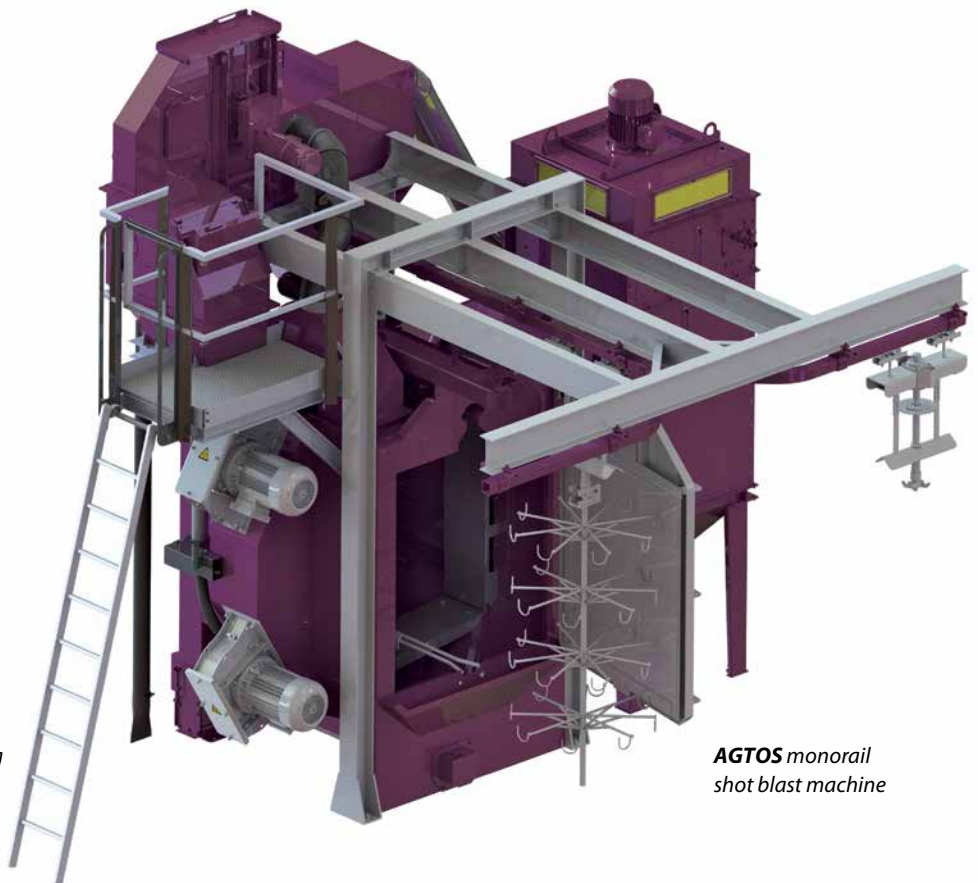
For coil springs, the spring wire is wound in the form of a helix. A distinction is made between tension springs and compression springs: the spring is pulled apart or pressed together in the direction of the coil axis. The outer shape can be cylindrical, conical or barrel shaped.

Pre-curved bow springs are mainly used as vibration dampeners. The structural design allows the largest possible angle of twist.

The primary aim of the blasting process is the hardening of the surface.



Hanger-type shot blast machine for processing coil springs. The blast chamber measures 1,700 x 1,700 mm.



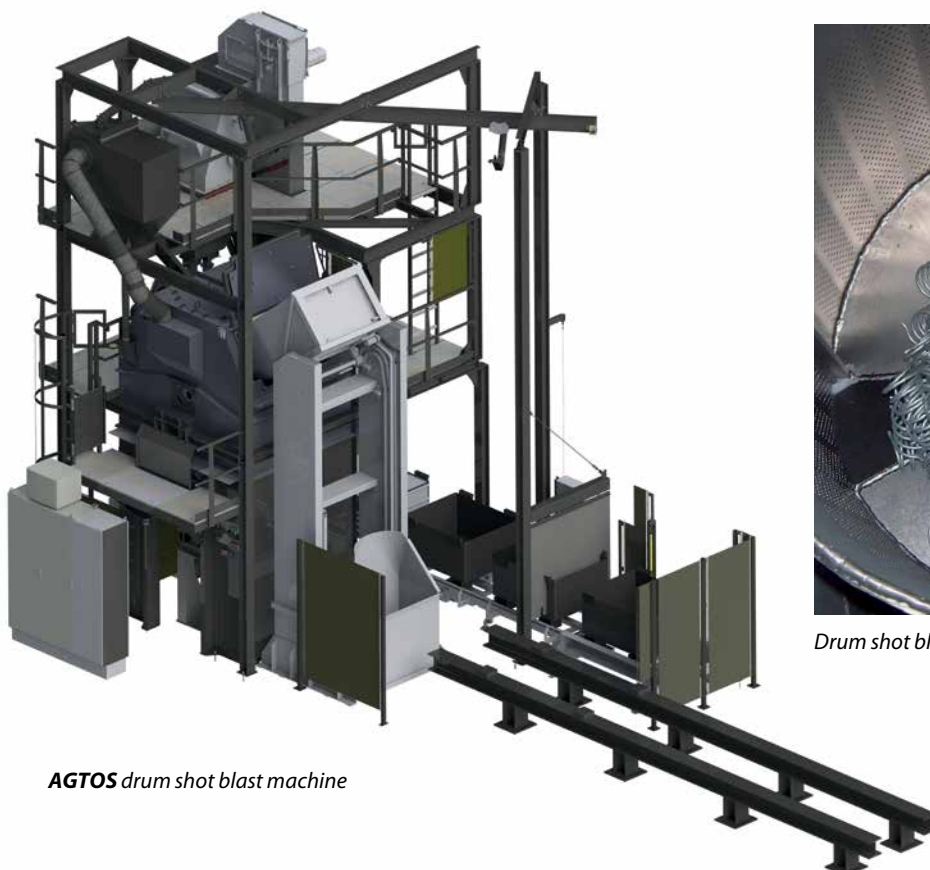
AGTOS monorail shot blast machine



AGTOS steel mill tumble blast shot machine



Steel mill tumble shot blast machine for the hardening of coil springs



AGTOS drum shot blast machine

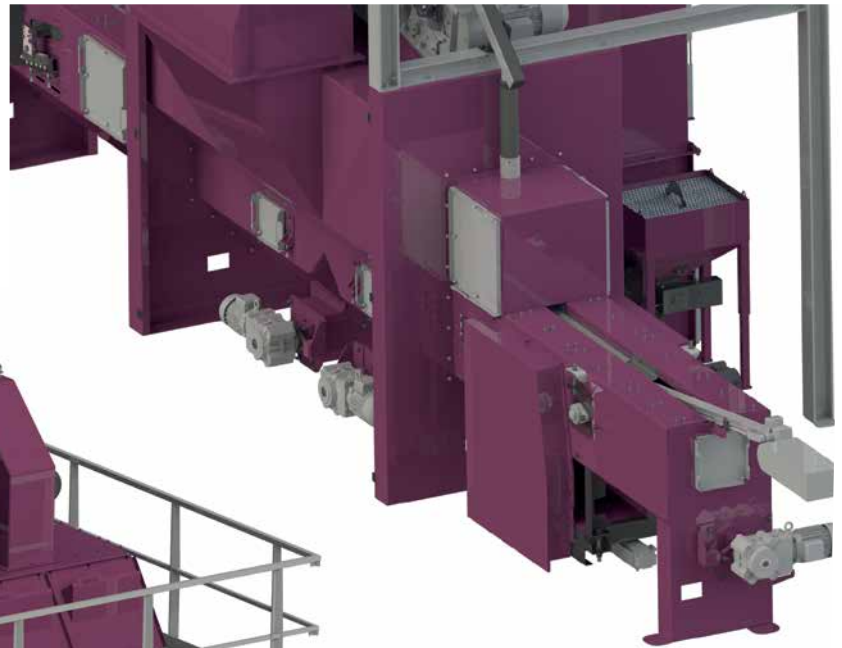


Drum shot blast machine for the hardening of coil springs

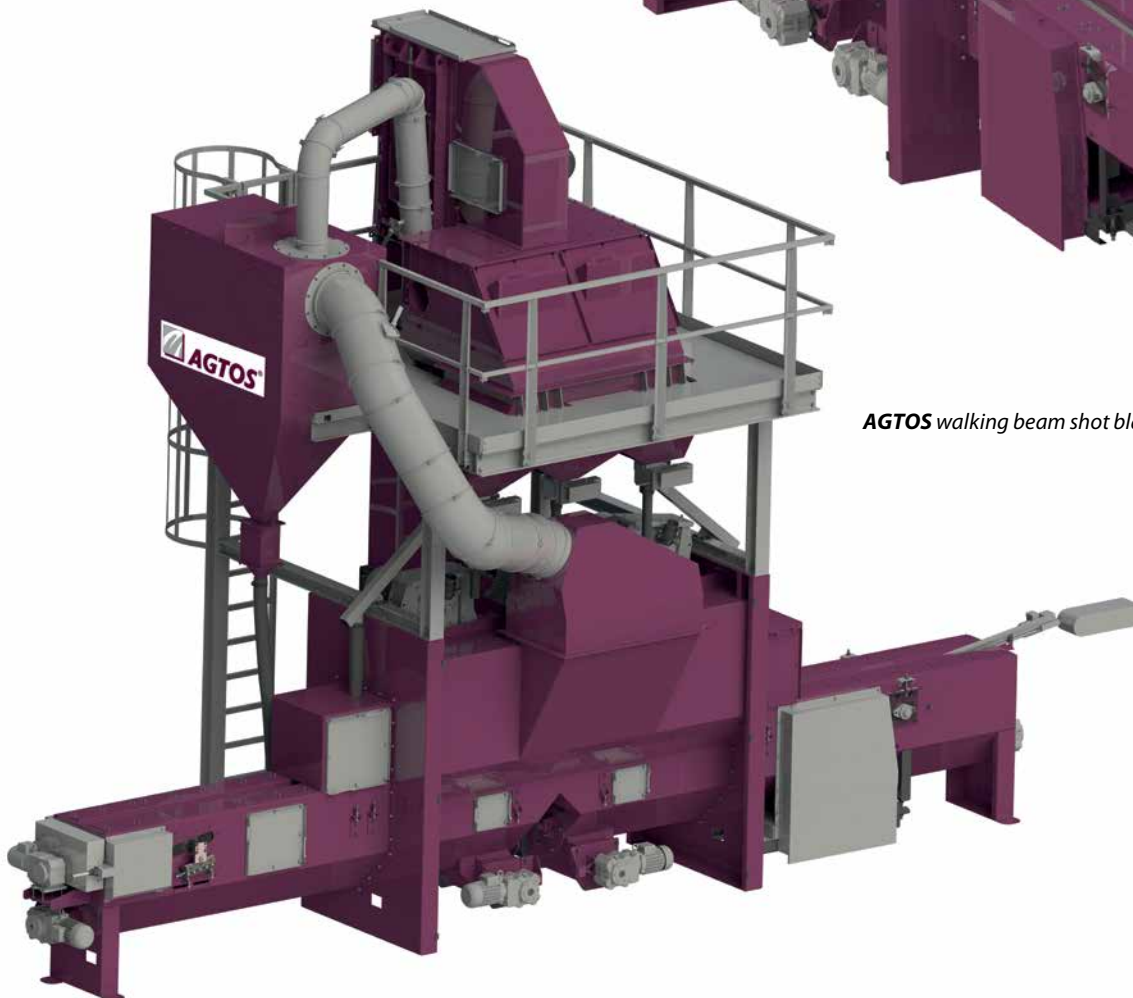
Surface treatment of long coil springs

Due to its instability, the risk of entangling of this spring type is high.

Therefore, this type of spring is processed preferably with a walking beam shot blast machine.



AGTOS walking beam shot blast machine



Walking beam shot blast machine for the hardening of long spiral springs



Inlet and outlet of a walking beam shot blast machine for the cleaning of coil springs

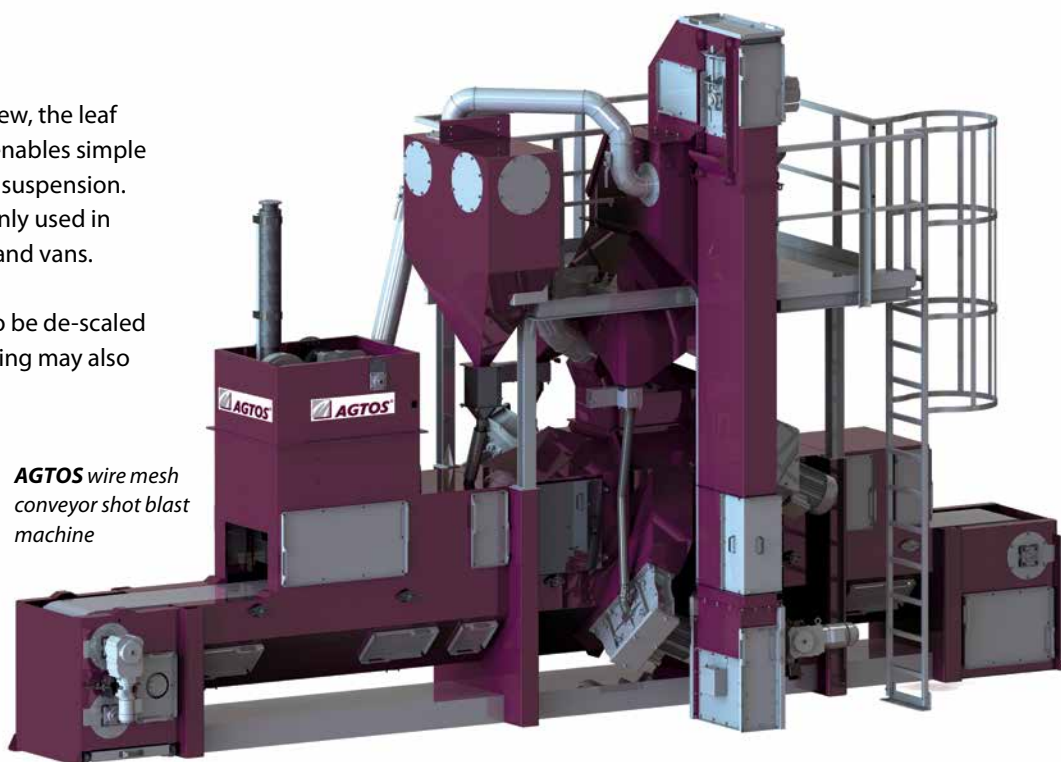


Surface treatment of leaf springs

From a design point of view, the leaf spring (elliptical spring) enables simple and cost-effective wheel suspension. This type of spring is mainly used in trucks, off-road vehicles and vans.

The surface usually has to be de-scaled and hardened. Pre-stressing may also be required.

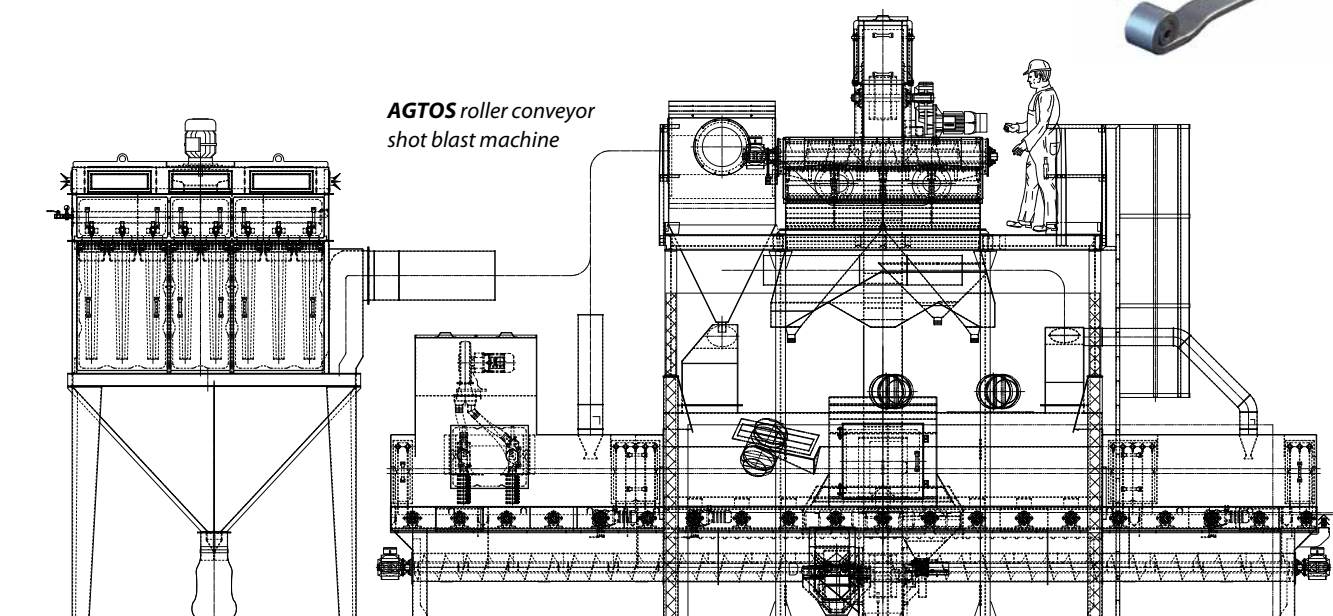
AGTOS wire mesh conveyor shot blast machine



Outlet of a wire mesh conveyor shot blast machine for the hardening of leaf springs



Pre-stressing machine for leaf springs before processing in a roller conveyor shot blast machine



AGTOS roller conveyor shot blast machine

Surface treatment of diaphragm springs



AGTOS satellite turntable
shot blast machine for the processing
of diaphragm springs

Diaphragm springs are usually thin, elastic, circular plates. They are mostly used in mechanical clutches of motor vehicles. In the inner part, the slightly tapered ring is dissolved in radial tongues. These serve as an actuating lever in order to engage the clutch and invert the peripheral edge. In the non-inverted state, the pre-stressed ring edge – comparable to a disc spring – represents the normal force of this friction type clutch.



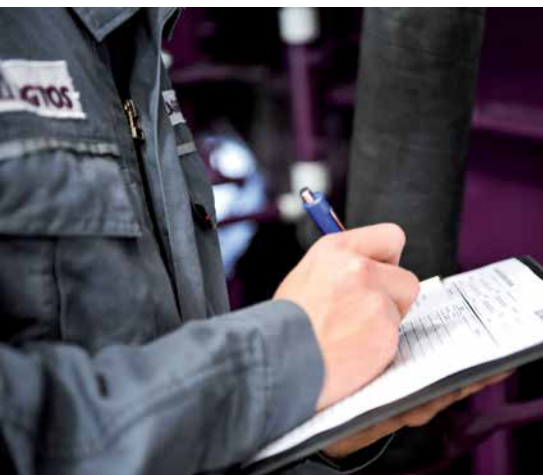
Diaphragm springs before...

... and after the blasting process

Modernisation and professional service

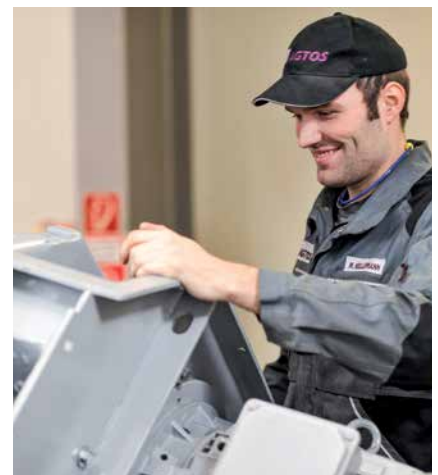


Pre-owned shot blast machine before and after overhaul



Pre-owned shot blast machines are stored and in case of a project are refurbished according to demand and adapted to the new requirements and painted.

This allows the user to receive a machine appropriate for his needs at a favourable price. Many customers bridge production and supply shortages with pre-owned machines. Flexibility in the sales department (leasing, rental) and in the technology (quick provision and delivery) as well as the complete service including the supply of spare parts are possible.



We place special value on perfect service. And not just for **AGTOS** shot blast machines but also for many other brands.

Our services include:

- Spare parts
- Modernisation
- (Remote) maintenance
- Repairs
- Inspection
- Consultation





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