

Foundries and forge shops



Shot blast systems, working in perfect harmony



Rösler shot blasting is synonymous with technological leadership in the field of mechanical surface treatment. Besides innovative products and services we offer our customers a comprehensive knowhow in surface treatment methods as well as the expertise for integrated manufacturing solutions.

With custom engineered technical solutions we bring a high degree of quality and cost efficiency to our customers, providing them with significant competitive advantages.

When it comes to the two most important surface treatment fields, namely mass finishing and shot blasting, Rösler is the only equipment supplier in the world who can offer both. You simply present your surface treatment problems to us, and we in turn will develop the economically and technically most suitable solution for you in our test and demonstration centres.



Rösler shot blasting machines generally distinguish themselves with many innovative technical details. Our company has successfully transformed decades of experience into modern equipment concepts. In both fields, mass finishing as well as shot blasting, we develop customer oriented solutions, which can be easily integrated into fully automatic manufacturing processes. Our shot blast surface finishing and surface preparation systems are generally characterised by their state-of-the-art technology and with the highest emphasis on cost efficiency.

If special importance are our patented blast turbines, which offer significant increases in productivity with, at the same time, reduced operating costs.

As the only single source manufacturer and supplier of mass finishing and shot blasting systems we are the global market leader for equipment and process technology in the field of surface treatment (deburring, descaling, polishing, grinding, etc.) of component parts made from various metals, plastics and other materials.



Our customers can be found in a wide variety of industries. They all rely on the fact that Rösler offers them by far the best surface treatment solutions in the market. "Innovation is our strength" is not just a slogan. We quickly react to the constantly changing technological market environment with up-to-date processing solutions. At the same time, we are constantly searching for new fields of applications for our technologies and, by doing so, we are able to develop innovative surface treatment processes combining a consistently high quality surface finish at the lowest possible costs.



DIN EN ISO 9001 and 50001



Test centres around the world

Complete process solutions

Team spirit

The test centre for mass finishing and shot blasting at the headquarters of the Rösler group in Untermerzbach, Germany has:

- ▶ Nearly 100 different mass finishing and shot blast machines
- ▶ On an area of about 2,700 m² (27,000 sqft)

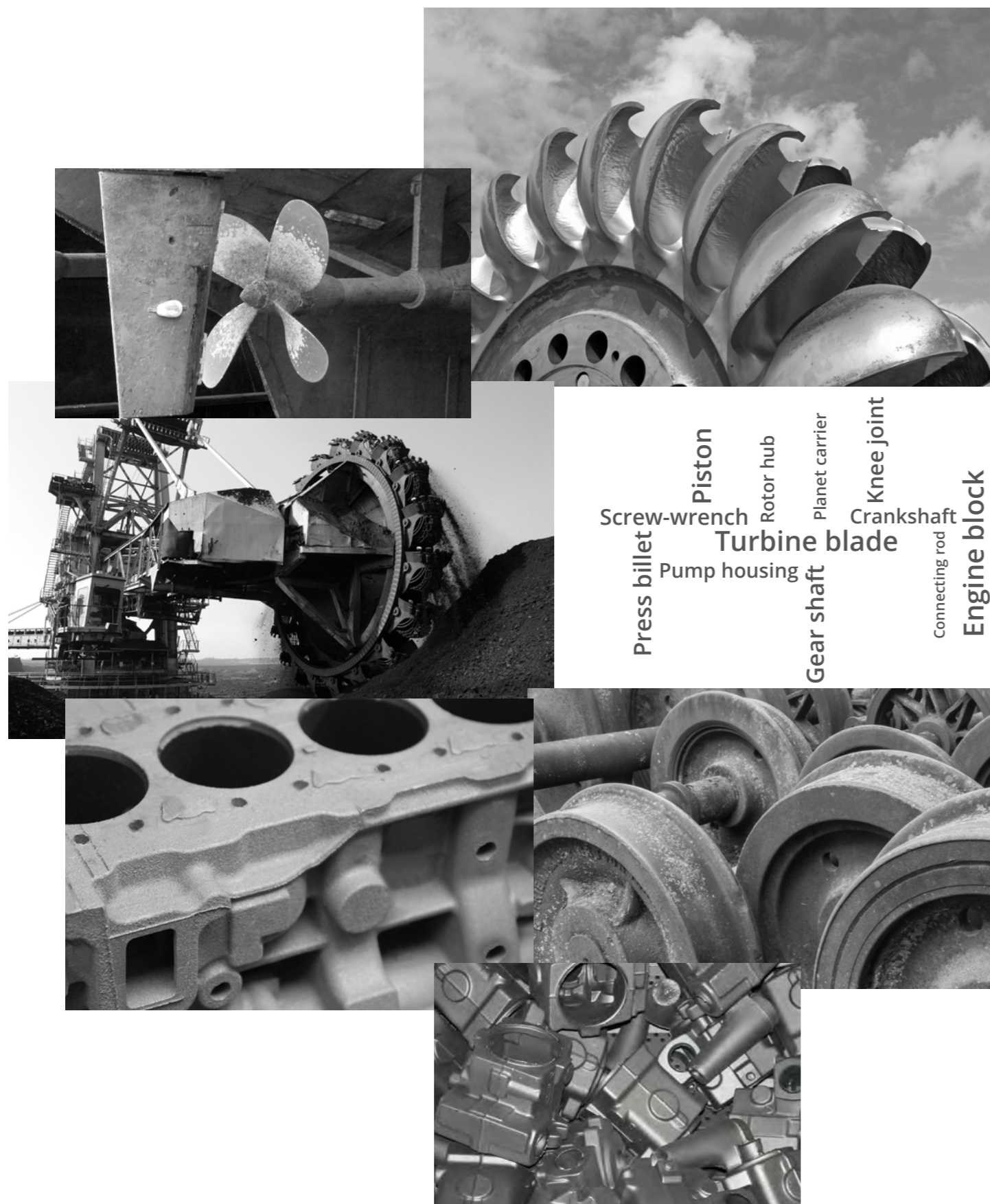
You will find similar test centres and expertise at our branches in USA, UK, France, Benelux, Spain, Turkey, Romania, Italy, Austria, Switzerland, Russia, Brazil, Serbia and India.

Besides demanding high quality, environmentally safe and efficient products, we find our customers also prefer to purchase all process components from one single source. That is why we offer not merely the processing equipment but the complete package, with perfectly matched consumables. This guarantees the best peening results, with absolute process safety. Our global service teams take care of the delivery and the installation. Qualified engineers train our customers, right on location. Of course, our after-sales service members will answer all your questions. A quick supply of all spare parts and professional consultation by our experienced process specialists, ensures that your finishing processes are always running smoothly.

Rösler is a dynamic company, in which the initiative and commitment of each single employee plays a key role. Systematic, ongoing training and a cooperative management style combined with a lean organisational structure are key elements of our people orientated philosophy. Naturally, our comprehensive apprentice program ensures that today we are already grooming the skilled employees of tomorrow.



Fields of application / Examples of applications

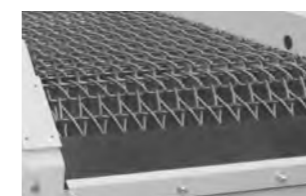


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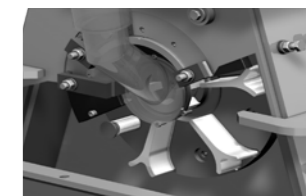
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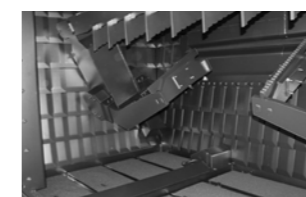
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Tumble belt blast machine, model range RMBC



RMBC tumble belt blast machines are ideal for blast cleaning work pieces in batches. Optimum blast results are achieved on small delicate metallic or plastic parts, to large, heavy castings, partially covered with sand or scale. During the shot blast process the work pieces are constantly cascading over each other resulting in effective all-around blast coverage. The continuous contact between the work pieces accelerates the deburring process and/or the loosening and discharge of sand cores from sand castings. Up to three high performance blast turbines guarantee homogeneous blasting results in extremely short cycle times. The endless belt can consist of high quality perforated rubber, or respectively, a hardened steel or manganese steel slat. Work piece specific mixing strips, either bonded on the rubber or welded on the slats ensure an optimised cascade action in combination with a selected belt speed.

Tumble belt blast machines of the RMBC range are ideal for de-scaling, deburring, de-sanding or core sand removal for all types of castings, forgings and heat-treated work pieces. Rösler tumble belt blast machines are available in five different sizes. Depending on the shot blasting task in hand they can be equipped with high performance blast turbines or with pressure blast systems. This allows us to offer an equipment alternative for any type of blast media, be it metallic, mineral, plastic or even organic media.



Slats made from hardened steel or manganese steel

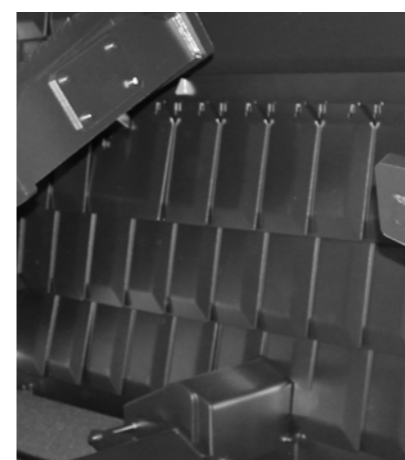
In the case of relatively high work piece weights the smaller RMBC models (up to RMBC 4.2) can be equipped with a steel slatted belt instead of the standard rubber belt. The bigger machines, RMBC 6.2 and larger, are only available with a steel slat belt, designed for individual work piece weights of up to 250 kg (550 lbs.) and batch weights of up to 3,000 kg (6,600 lbs.).

For applications requiring a very high wear resistance Rösler offers belts with slats made from manganese steel.



Automatic work piece loading and unloading

Tailor made work piece loading and unloading concepts increase the overall productivity, reduce unproductive times and keep the operator involvement at an absolute minimum. Our tumble belt blast machines can be easily integrated into complete manufacturing lines with fully automatic operation. Our large range of machine sizes and peripheral equipment allows us to offer a wide variety of customer specific solutions. For example, for gentle work piece loading and unloading we focus on minimising the various loading, unloading drop heights. And for the precise, weight specific sizing of work piece batches we have developed special weighing cell chargers and buffer conveyors.



Special heavy-duty foundry version

Thick manganese or cast steel plates completely protect the machine housing against premature wear, from even with the most aggressive blast media. This guarantees a long equipment life with a high uptime and low maintenance cost. Dual stage magnetic separators with an integrated air wash separator discharge all contaminants, which can negatively affect the shot blast process and can cause premature wear. Sand, scale and dust are safely removed during the process so that only clean media in the specified grain sizes is delivered back to the blast turbines.



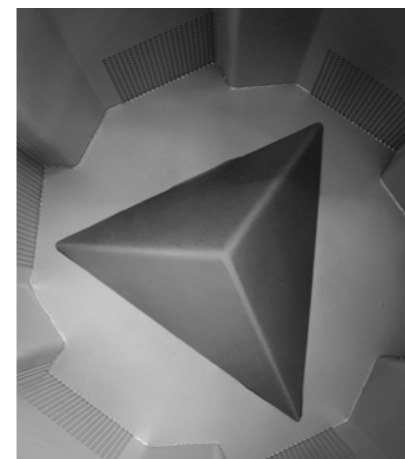
Multi Tumbler, model range RMT



When it comes to the integrity, consistency and stability of batch processing, multi tumbler meet the highest standards. Numerous customer ideas and requirements are reflected in the development of the RMT design. As multi-purpose machines, which can be used for de-scaling, surface roughening, and general blast cleaning or shot peening; multi tumbler blast machines are unmatched in their performance and productivity.

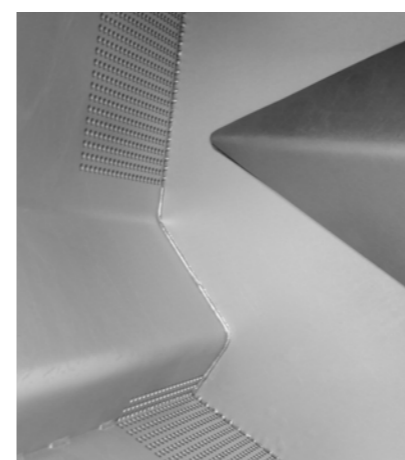
The innovative barrel geometry prevents the work pieces from jamming or nesting, thus averting any damage. Even very tiny work pieces with complex shapes can be processed safely. The spectrum of work pieces that can be processed in multi tumblers ranges from parts measuring just a few millimeters up to 600 mm long parts and weighing nearly 100 kg (220 lbs.).

With batch volumes from 80 to 1,200 liters (2.8 – 42 cuft) the Rösler multi tumbler machine range offers solutions for any shot blasting application. Multi tumblers are perfect machines for thoroughly removing sand, rust and scale, creating a homogeneous surface finish and achieving short cycle times.



Specially designed rotary barrel

At the heart of the RMT multi tumbler machines is the special geometry of the rotary barrel. While the inner wall consists of wavelike cams, the barrel bottom is shaped as a three-sided pyramid. This innovative barrel shape results in the unique “multi tumble” effect: When the barrel is rotating, the cams induce an intensive mixing of the work pieces. At the same time, the pyramid in the barrel bottom causes a thorough exchange of work pieces in the upper and lower position. This “double mixing” results in a perfect coverage of all surface areas by the blast media.



Special media drains for very small work pieces

Depending on the work piece shape & size and the blast media size, the screens in the barrel can be equipped with special perforations. This completely prevents small parts jamming in the media vacation holes and guarantees 100% batch integrity. Even very small work pieces can be perfectly processed in the RMT systems.



Custom engineered work piece loading / unloading

To ensure that the multi tumbler fully meets your production requirements, Rösler offers specially developed lift & tip loaders, movable vibratory hoppers, weighing cell chargers and a range of work piece transport systems. All load and unload modules are perfectly matched to the RMT blast systems. Batches of up to 4,000 kg (8,800 lbs.) can be handled without any problems. Of course, all load/unload systems can be adapted to the dimensions of the customer work piece bins.



Continuous feed tumble belt blast machine, model range RMBD



The functional principle of the continuous feed tumble belt blast machines is similar to the conventional batch tumble belt machines. But they offer significant advantages:

The loading of work pieces into the machine takes place continuously with a belt conveyor or a vibratory hopper. The gentle transfer of the work pieces into the machine from the component bins with low drop height is achieved by special material handling systems from Rösler. Upon entering the machine the work pieces, while gently cascading over each other, pass through an in-feed chamber into the actual blast chamber. The turbine speed and the speed of the transport system are adjustable with frequency inverters providing a high degree of flexibility for the shot blast process. The exit chamber is equipped with an integrated blast media drainage system ensuring that no blast media is carried out with the finished work pieces.

Technical features of the RMBD machines:

- ▶ The work pieces / components, move through the machine while gentle cascading over each other
- ▶ The specially shaped transport rods guarantee a gentle forward movement of the work pieces transport at a constant speed
- ▶ A wide range of differing components can be processed
- ▶ The short distance between the turbines and work pieces result in a high blast efficiency
- ▶ Up to 30 metric tons of steel parts can be processed per hour
- ▶ The complete transport system can be pulled from the machine housing on rails allowing exchange of the transport rods and easy access to any critical components
- ▶ RMBD machines can be equipped with automatic load/unload systems facilitating integration into existing manufacturing lines

Continuous feed loop belt blast machine, model range SBM



Having been on the market for a long time, these proven, robust machines are in operation all over the world.

The individual transport rods engineered from manganese steel or polyurethane are equipped with cams forming a unique “auger” like transport system that pushes the work pieces forward. The components are passing through the blast zone at a constant speed while gently tumbling over each other. This compact machine requires no foundation pit, and with its separate work piece load/unload sections is easily integrated into manufacturing lines to enable a fully automatic operation. Since their design concept is highly flexible, SBM machines can be quickly adapted to various processing requirements. All drives are equipped with frequency inverters for easy adjustment of the processing parameters.

Technical features of the SBM machines:

- ▶ Transport rods made from polyurethane, hardened steel or manganese steel allow the processing of a variety of different work pieces
- ▶ Highly efficient and easily accessible blast turbines
- ▶ High productivity at low operating costs
- ▶ Integrated or separate media shakeout drum with automatic blast media return
- ▶ The “auger” like part transport system provides component integrity, by reliably transporting the work pieces through the machine, preventing the mixing of different batch parts.
- ▶ SBM machines can be equipped with automatic load/unload systems facilitating integration into existing manufacturing lines



Spinner hanger blast machine, model range RHBE



Spinner hanger blast machines are considered as the “work horses” among the various machine types. These are highly flexible systems that can be used for many applications such as de-scaling, de-sanding, rust removal, paint stripping or simple, straightforward blast cleaning. The RHBE’s can pretty much meet any shot blast challenge.

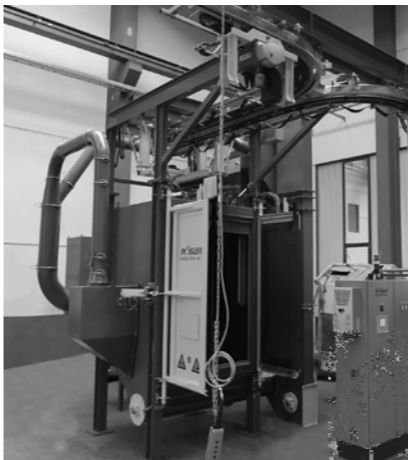
The Rösler spinner hanger blast machines come in different versions, from the standard (L) systems for relatively simple applications, to the high performance (HD) version for more complex shot blast tasks, to the special foundry version (F). This machine type is used for large, heavy work pieces that must not tumble over each other during the blast process, and can easily handle the most complex work piece shapes and extremely heavy components. The raw work pieces can either be loaded as a large single component for processing or loaded onto transport fixtures (“Christmas trees”). Once in the blast chamber these fixtures undergo a rotational and oscillating movement specially adapted to the work piece for optimised process and duration.

The transport systems can be simple single track or open and closed Y- track systems, which can be manual or fully automatic. The RHBE blast systems can be adapted to any customer requirement.



Standard version RHBE-L

The basic RHBE blast systems are available in four (4) different sizes. They do not require a foundation pit, are equipped with Rösler high performance blast turbines and the largest size can accommodate transport fixtures with a maximum height of 2,500 mm (98”) and width of 2,000 mm (79”). Depending on the blast application and the machine location, single track as well as open Y-track transport systems can be utilised. The blast media cleaning unit with the corresponding screen sizes allows the use of blast media with a grain size of max. 1.2 mm (S 460).



High performance version RHBE-HD

This machine type was developed for heavy-duty shot blast jobs in multi shift operations. It is generally characterised by a long expected life and low maintenance times. The blast chamber, consisting of manganese steel and welded in one piece, offers excellent wear resistance. Special seals in the ceiling prevent blast media spillage and reduce the noise level around the machine. The HD version of the Rösler spinner hanger blast machines can be easily constructed to the given work piece dimensions. Besides single track and open Y-track transport systems this machine type also allows the use of circular and continuous (T-version) transport systems, which can easily move work pieces weighing several tons. The spent blast media collected to the chamber hopper can be transported with augers or vibratory sort conveyors. The sturdy machine design allows the use of blast media with grain sizes of up to 2.0 mm (S 780).



Foundry version RHBE-F

These machines are specifically designed for the most demanding blast cleaning operations in foundries. The machine housing is made of 10 mm (0.4”) manganese steel with an additional wear protection in the blast chamber consisting of 25 mm (1.0”) thick replaceable liners. This provides excellent protection against wear from the loose molding and core sand. Rösler high performance blast turbines guarantee a high blast performance with short cycle times. Work piece debris and other relatively large contaminants are removed from the blast media with a vibratory screening deck, before it reaches the media classification system. Depending on the sand quantities on the work piece surface the F-version can be equipped with a magnetic separator that effectively removes the sand from the blast media with an efficiency > 99%. The F-machines can handle blast media with grain sizes of up to 3 mm (> S 780).



Spinner hanger blast machine RHBE



Blast chamber made from manganese steel

Like with all other Rösler shot blast machines the blast chamber of the RHBE models is completely engineered from manganese steel plate with a thickness of between 8 and 10 mm (0.32 – 0.4"). The blast chamber up to a certain model size is welded in one piece making the machines extremely tight and sturdy. For optimum wear protection the area exposed to the blast stream is lined with replaceable protective plates constructed in manganese steel. These overlapping liners are not bolted on but hung with a special system.



Unmatched leak-proof, tight machine design

Since the trolleys of the transport system travel through the machine ceiling, keeping the blast chamber tight against media & dust escapement represents a special design challenge for spinner hanger machines. Rösler met this challenge by developing a unique special multi-layer special sealing system. In combination with brush seals and rubber segments it keeps the machines nearly 100% tight. All hooks, eyelets and cross bars are adapted to the sealing system. This is a tremendous safety feature, as it prevents accidents that could be caused by media spillage.



Versatile transport systems

Depending on the customer requirements, Rösler spinner hanger blast machines can be equipped with a variety of different transport systems. The single track arrangement transfers the transport fixture directly into the blast chamber and return. With the open Y-track system a transport fixture can be placed on each arm of the "Y". While the one is in the blast chamber the other can be off loaded and re charged. The closed Y-track provides a circular loop of two transport fixtures in front of the machine. The most elegant version is the continuous loop transport system. For this purpose the machines are equipped with a second door. Depending on cycle times and work piece volumes, in such continuous loop systems several transport fixtures can be simultaneously loaded and unloaded (T-version). The machine design is always determined by the customer's cycle time and the work piece quantities that must be processed. In all Rösler transport systems the simple hooks holding the transport fixtures can be equipped with electrical chain hoists. This permits the movement of heavy components by simply pushing a button.

Continuous feed spinner hanger blast machine RHBD-T



The RHBD-T continuous feed spinner hanger blast machines are designed for high work piece throughput and large work pieces. The work pieces can be loaded on the cross bars of a manual spinner hanger transport system, on power & free transport units or circular transport systems. In the case of very high loads electrical trolleys with built in lift can be used. The RHBD-T can be optionally equipped with pneumatic hinged or sliding doors. The blast chamber is completely made from manganese steel and equipped with replaceable protective wear liners. With door openings of up to 2,200 x 3,200 mm (87 x 126") the blast chamber is welded in one piece. The position and angle of the blast turbines is always adapted to the work pieces to be processed ensuring optimum blasting results. The work piece transport systems of all brand name suppliers can be integrated into the RHB shot blast machines. The Rösler continuous feed spinner hanger blast machines are available in standard sizes, but they can also be custom engineered for the specific customer requirements.



Wire mesh belt blast machine, model range RDGE



Wire mesh belt blast machines are the ideal solution for the all-around continuous blast cleaning of flat, large and complex shaped work pieces. The highly flexible machine concept guarantees a high operational efficiency for a wide spectrum of shot blasting applications, especially for deburring, blast cleaning, surface roughening, de-scaling and de-rusting. The position of the high performance turbines, optimally placed at a vertical as well as at a horizontal angle on the machine housing, ensures that complex surface areas like pockets and undercuts are completely reached by the blast stream. The work pieces are transported through the blast machine on an endless, highly wear resistant wire mesh belt. With this arrangement long components (plates and differently designed profiles) can be processed. But the wire mesh transport system also allows to efficiently shot blast components, which may be too small for a roller conveyor machine. These include sand and die castings, profiled and flame cut and car body parts as well as machined work pieces. Placing several small work pieces side by side on the wire mesh belt can significantly increase the machine throughput. Standard transport speeds vary between 0.6 – 6 m/min (2 – 20 ft/min). Rösler offers solutions for higher transport speeds and special customer requirements.

With machine widths from 600 to 1,600 mm (24 – 63") the RDGE wire mesh machines can practically handle any work piece size and throughput with minimum space requirements.

The extensions of the wire mesh belt transport system at the inlet and outlet side facilitate the integration of automated handling systems or robotic loading/unloading units. RDGE machines can be easily integrated into exiting or brand new manufacturing lines.



Wire mesh transport belt

The transport belt consists of a flat wire mesh available in different mesh sizes. The standard belts are made of highly wear resistant spring steel. For more aggressive applications or per customer specifications the transport belt can also be made from manganese steel. In this version the belt can easily last twice as long. To ensure that the belt is running properly and to prevent it from being damaged, the belt drive is equipped with a run and overload control system. The lower turbines only blast through one belt layer. This minimises the so-called shadowing (slight masking) effect.



Turbine placement

The turbines are situated on the roof and bottom of the cabin at a slight horizontal and vertical angle ensuring their optimum placement. This guarantees perfect shot blast results on work pieces with different sizes and shapes. Four (4) or eight (8) direct drive turbines arranged in a diagonal mirror image position guarantee an even, homogeneous blast stream over the complete belt width. Special blast media guide plates made from hard metal contribute to a further concentration of the "hot spot" resulting in a higher blast intensity and reduced machine wear.



Automated material handling

Since the wire mesh belt protrudes from the inlet and outlet vestibules, Rösler wire mesh belt blast machines can be easily linked with automatic work piece loading and unloading systems. For example, the raw work pieces can be transferred to the shot blast machine by conveyor belt or robot. The finished work pieces can be easily transferred to subsequent conveyor belts for automatic transport to the next manufacturing step or discharge station.



Rotary table blast machine, model range RDT



Rotary table blast machines are used for the targeted blast cleaning of single work pieces producing absolutely repeatable cleaning results. Placed on the slowly rotating table, the work pieces are exposed to the blast stream from the turbine(s) located on the wall & ceiling of the machine housing.

The shot blast process can take place in single batch mode or indexing with multiple batches placed on the rotary table. Depending on the processing mode, the table is completely open over 360° or divided into different segments. RDT rotary table blast machines can be equipped with different blast systems, namely blast turbines as well as injection (suction) and pressure blast units.

A wide variety of different work pieces can be processed in table blast machines, from sturdy components in different shapes and sizes to very delicate, fragile parts. Easy integration into complete manufacturing lines and the possibility of automated part loading and unloading make the RDT a truly all-round shot blast system.

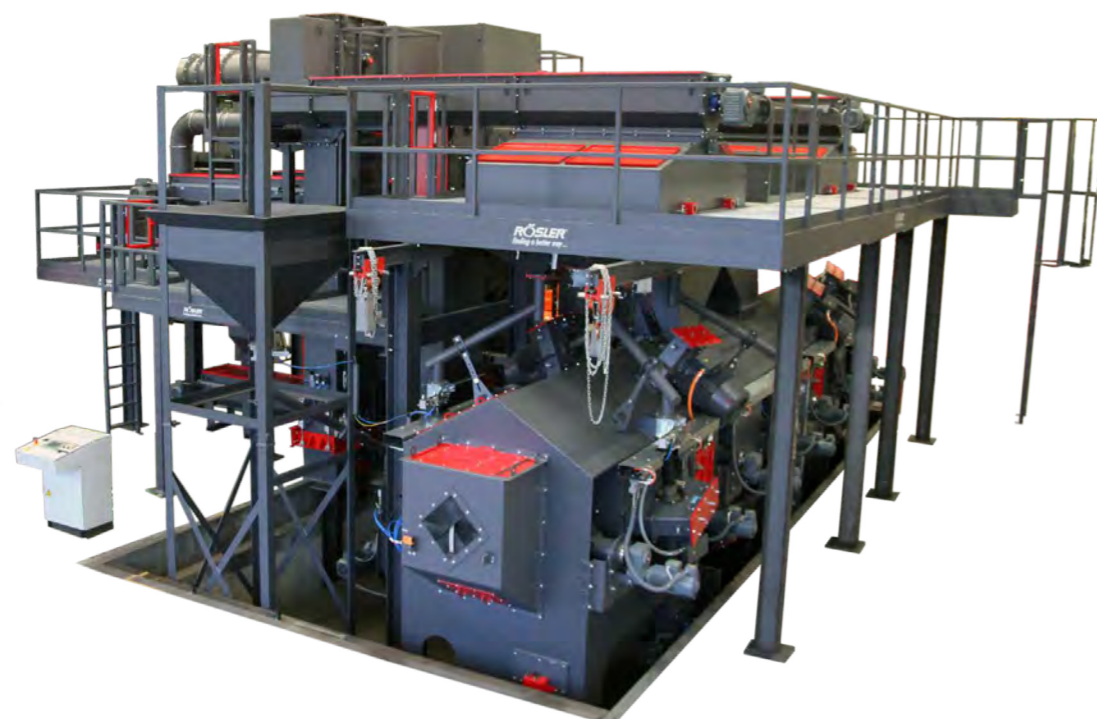
Swing chamber blast machine, model RWK



RWK swing chamber blast machines combine the features of spinner hanger machines with the possibility of fully automatic operation. This machine type consists of a round chamber made from manganese steel divided into two (2) 180° segments. Each segment is equipped with a rotating workstation. While one batch of work pieces in one chamber segment is processed in the blast section, the operator or a robot can already load another batch onto the workstation in the other chamber segment. This helps minimize costly unproductive times and increases the overall cost efficiency. RWK systems can be used for high volume production producing absolutely repeatable, homogeneous shot blasting results.



Continuous feed single strand blast machine, models RKL & REDL



The continuous feed single strand blast systems, model RKL and REDL are characterised by their enormous productivity. They are designed for shot blasting various types of billets or special steel profiles with single work piece weights of up to 5,000 kg (11,000 lbs). Different sizes of steel wire can also be de-scaled and cleaned in this machine type.

The unique blast chamber design allows very high transport and processing speeds, which – depending on the work piece type – can reach up to 3.0 m/sec (10 ft). Another key feature of these machines is their energy efficient, eco-friendly operation.

RKL and REDL systems distinguish themselves by a very compact machine design. A 3D computer simulation determined the sequential arrangement of the two blast chambers allowing the placement of the powerful blast turbines in an extremely small space. Each blast chamber is equipped with six (6) turbines arranged to achieve an optimum all around blast coverage. The forward movement of the work pieces takes place on precisely arranged transport rollers made from hardened tool steel. For lightweight, thin work pieces special pressure rollers prevent slippage of the parts ensuring a steady movement of the work pieces through the two blast chambers.

For certain work pieces and blast cleaning tasks the turbines of the second blast chamber can be turned on or off. This helps reduce the overall machine wear and saves energy. Essential for the energy saving operation is the fact that the installed power of the turbines on the RKL and REDL machines could be reduced from the normally required 45 kW down to 37 kW without any loss in blast cleaning quality or capacity.

Engine block blast machine, model RMBS



The technical features of Rösler engine block blast machines include a fully automatic shot blast process, excellent blast cleaning results and extremely short cycle times.

Depending on the size and weight of the engine blocks to be processed, a suitable RMBS design can be selected from the portfolio of systems already built and adapted to the specific task at hand. The work piece spectrum extends from small car engines to heavy maritime diesel engines. At the center of the RMBS blast systems is the specially designed gripper equipped with two gripper (2) jaws allowing the treatment of one large or several small work pieces in one blast cycle. After the blast chamber door has been closed, the gripper with the work piece(s) rotates through the blast zone producing the specified blast cleaning results within extremely short cycle times. Depending on the required degree of automation and the single work piece weights the part loading and unloading can be arranged by transport belt, lifting carts or robots.



Roboblaster®, model RROB



The applications for this high performance shot blast system equipped with a single arm robot extend from simple deburring and blast cleaning tasks to sophisticated shot peening of delicate work pieces in a wide range of sizes. With its robotic work piece handling and the subsequent high degree of automation the Roboblaster® offers excellent operational efficiency.

These shot blast systems are custom engineered for every single processing task. Of course, this includes defining the size, power and other technical parameters of the robot to be selected as well as the choice of the technically and economically best-suited work piece transport system. One of the key Roboblaster® features is the patented seal system. By simply placing its docking disk on the opening of the blast chamber the robot completely seals the opening. This simple, ingenious design eliminates any kind of mechanical locking devices resulting in shorter cycle times, less wear and lower maintenance costs.

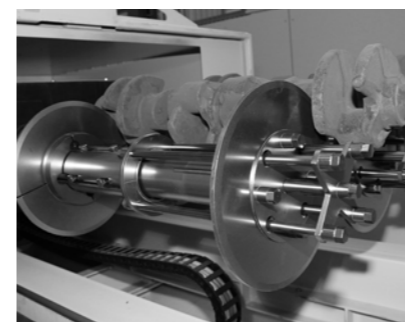
The design of the blast machine housing must always take into account work piece size and shape, the respective shot blast application, blast chamber opening and the number of turbines or the specifications of the compressed air system. Over the past years Rösler has provided numerous Roboblaster® systems in many variants.

Crankshaft blast machine, model RKWS



The Rösler crankshaft blast machine fits perfectly into modern manufacturing lines. It was developed for the all-around de-sanding and de-scaling of cast and forged crankshafts for engines from one (1) up to eight (8) cylinders. This versatile shot blast system can be quickly adapted to processing various sizes and shapes of crankshafts within just a few seconds, automatically adapting the work piece fixtures and the blast pattern to the new requirements. In addition to the standard work piece rotation an oscillation movement is possible in order to reliably clean the vertical "cheek" sections of the crankshafts. The exchangeable turbine casings allow quick adaptation of the performance and number of turbines to different shot blasting tasks or an increasing work piece spectrum. This flexibility makes the RKWS a low risk investment.

Other operational features of the RKWS are that it requires no foundation pit and can be easily maintained by easy access to all critical machine service areas.



Work piece fixture

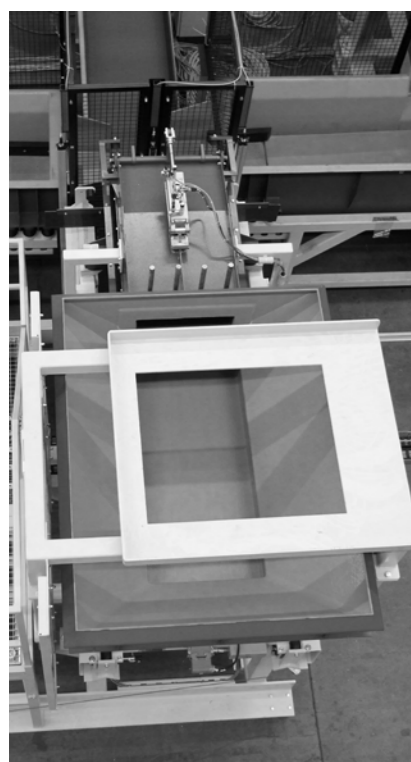
The specially designed work piece fixture made from tool steel can be used for a wide range of different crankshafts. Through the different shot blast programs stored in the PLC, the fixture automatically adjusts itself to the crankshaft length and contours, and it places the crankshaft in an optimum position relative to the blast pattern. The additional oscillating work piece movement produces a multitude of different blast stream impact angles.

Auxiliary equipment



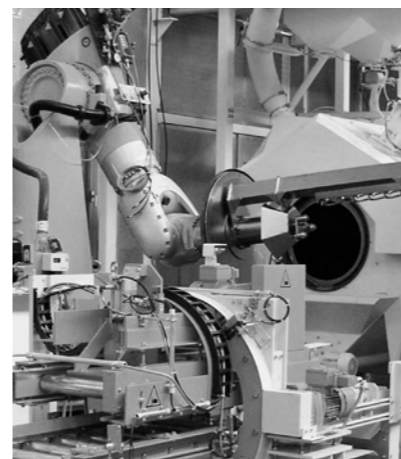
Dust collectors

Rösler offers a broad range of dust collector systems. The program includes cartridge filters, explosion protected cartridge filters and wet dust collectors. The residual clean air dust load of $<1 \text{ mg/Nm}^3$ achieved with Rösler cartridge dust collectors is well below the legal limits of 3 – 5 mg/Nm^3 in Germany. For this reason, additional fine or post (police) filters are not required. Because of the low residual dust load the clean air from the dust collector can be returned into the building without any restrictions. The capacity in terms of air volume extends from 1,000 to 25,000 m^3/h (590 – 14,600 cfm). The filter cartridges are easily accessible and can be quickly replaced. The differential pressure switch allows cleaning of the cartridges by a compressed air burst at regular intervals, which considerably extends the cartridge life. For foundry applications Rösler offers special sand resistant cartridges. A special coating makes them less susceptible to wear from the fine sand in the dust-loaded air. The coating also reduces the adhesion of the bonding agents from the casting mold.



Vibratory hoppers

Rösler vibratory hoppers can be used for the batching or intermediate storage of work pieces. The vibratory hoppers can be loaded with lift & tip loaders or conveyor belts. By including the functions of these material handling systems in the PLC programs, fully automatic operation, including work piece loading and unloading, can be easily achieved. Their sturdy welded construction and lining with wear resistant sprayed-on polyurethane guarantees a high uptime under the most severe operating conditions. Equipped with vibratory motors allowing different transport speeds and pneumatically activated gates, the vibratory hoppers guarantee a gentle and precise transfer of the work pieces into the shot blast machine. Depending on the respective shot blast machine design the vibratory hoppers can be designed for pneumatic movement into and out of the blast chamber.



Automation increases productivity and guarantees repeatability of the blasting results

High process integrity and safety, short load and unload cycles, high single work piece weights and absolute repeatability of the blasting results, these are the requirements that make the utilisation of robots and handling systems in today's manufacturing environment indispensable. Rösler has successfully proven many times over that these requirements can be successfully met even for the most complex shot blasting tasks. Beginning with the first preliminary concepts all the way to the detailed process definition, cycle time analysis and operating cost calculations, Rösler is your reliable partner for all aspects of equipment automation. The integration of shot blast systems into complex manufacturing lines is one of the Rösler specialties. Customer specific components such as gripper systems for the work pieces are designed, built and exhaustively tested in close cooperation with customers. Rösler experts for robotic automation and programming can quickly make technical changes and optimise your handling systems.



Magnetic separator

The Rösler magnetic separator was developed to reliably remove contaminants such as molding and core sand from carbon steel blast media. The separation takes place by utilising rotating drums with electro-magnets inside. The magnetic separation can take place in two stages, or with very critical applications even, three, stages. The mix of blast media and sand passes over the first rotating electro-magnetic drum. Special wipers remove the blast media from the drum to be returned to the media hopper. With the additional second, or even third, rotary electro-magnetic drum a nearly one hundred percent separation of blast media and contaminants is achieved.



Vibratory screening machines

For foundry applications Rösler has developed special vibratory screening machines. Placed under the shot blast machine and equipped with screens they allow the discharge of molding and core sand as well as mold debris. In certain applications they may have to cope with several tons of sand and debris per minute. The contaminants are removed from the foundation pit with optionally available conveyor belts. The special imbalance motors on the screening units ensure a continuous forward movement. The conveyor belts are available in wear resistant rubber or with overlapping steel plates.

RetroFit - modernisation of existing shot blast machine



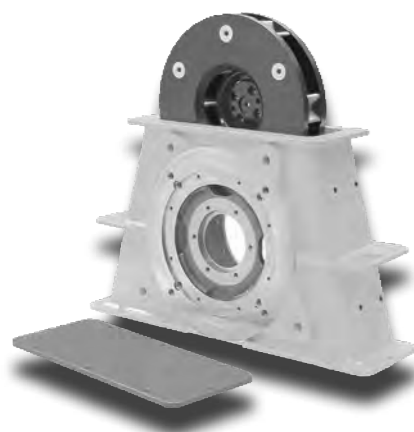
Higher productivity and cost efficiency – these are hot subjects in the field of surface treatment. To remain competitive, the owners of older shot blast machines must update their shot blast systems to bring them up to modern technical standards. Our “TuneUp” division is specialised in the technical modernisation of shot blast machinery of all makes. As market leader we can offer a wide portfolio of blast turbines and upgrade solutions for practically every conceivable application. This means not only exploiting cost saving possibilities by utilising energy efficient and low maintenance components, but also the cost effective adaptation of existing shot blast machines to changed operational requirements such as, for example, improved blasting results or higher work piece throughput.

Technical possibilities – blast turbines

Rösler possesses the technical knowhow and system components to optimise your shot blast equipment. This includes the ingenious “RUTTEN-Gamma” and “Gamma G” high performance turbines.

Take advantage of the benefits of our equipment modernisation program:

- ▶ Lower maintenance costs
- ▶ Lower cycle times
- ▶ Lower energy consumption
- ▶ Lower blast media consumption



After-Sales-Service



Round the clock technical support - for the entire life of the machine!

Whatever problems or questions you may have, we will provide you with expert support in practically any area:

- ▶ Conducting of BUS measurements
- ▶ Technical support for all kinds of processing issues
- ▶ Test centers and laboratories all over the world
- ▶ Blast media analysis
- ▶ 24 hour hot line - round the clock problem solving support
- ▶ Spare and wear parts, also for equipment not supplied by Rösler
- ▶ Customised maintenance agreements
- ▶ Training of operating and maintenance personnel
- ▶ Modernisation and relocation of existing equipment
- ▶ Support in fulfilling all relevant legal requirements
- ▶ Control and calibration of dust collectors
- ▶ Conducting tests for ground wires
- ▶ Regulations for accident prevention

Maintenance and repair service

Our qualified service team stands ready to serve you in case of an emergency, as well as for scheduled repairs or maintenance work. With short reaction times and well-equipped service vehicles we can quickly repair your machine or perform maintenance work on site.



Spare and wear parts – also for non-Rösler equipment

All shot blast machines are exposed to a certain amount of wear. Rösler maintains a large part inventory to guarantee a high availability combined with a quick delivery. If necessary we also deliver over night.





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