**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 heavy duty 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.

**Global network of test labs**

Test labs for mass finishing and shot blasting at the Rösler headquarters in Untermerzbach:
- More than 95 mass finishing and shot blast machines.
- About 2,700 m² (27,000 sqft) of workspace

Our teams in USA, Great Britain, France, Netherlands, Belgium, Spain, Turkey, Romania, Italy, Austria, Switzerland, Russia, Brazil, Serbia and India provide similar test lab services.

**Complete solutions**

Besides demanding high quality, environmentally safe and efficient products, 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 finishing results and absolute process safety. Our global service teams take care of the delivery and the installation for you. Qualified engineers train our customers right at their location. And, of course, our after-sales service members will answer all of your questions. Quick supply of all spare parts and professional consultation by our experienced process specialists ensure that your finishing processes are always running smoothly.

**Rösler Academy**

**Knowledge transfer in the fields of mass finishing and shot blasting from a single source**

As the only supplier in the world that offers both mass finishing and shot blasting, we are committed to passing our knowledge and knowhow to our customers through seminars covering a wide range of surface finishing subjects. Gain in depth knowledge of how mass finishing works, how blast media passes through a shot blast machine, and how you can increase your efficiency and productivity with optimum control and testing methods for cleaning and recycling your process water. You can find a complete list of our training seminars for mass finishing and shot blasting using the following link: www.rosler-academy.com.
Fields of application / Examples of applications

Overview

- Blast cabinet 6 - 9
- Swing table blast machine 10 - 11
- Satellite table blast machine 12 - 13
- Tumble belt blast machine 14
- Continuous feed belt blast machine 15
- Blast machine with swivel turntable 18 - 19
- Blast machine with L-shaped door 20 - 21
- Wet blast machine with revolving door 22 - 23
- Auxiliary equipment 24 - 25
- Blast machine with lateral trolley 16 - 17
- Retro-fit 26
- After Sales Service 27

If your smart phone is equipped with QR recognition software, you can directly view the technical data. Otherwise, you can call them off rosler.com.
Standard Rösler blast cabinets have proven themselves in a wide variety of industrial applications. In their “Basic” version, these fully operational units, equipped with suction or pressure blasting system and dust collector, are offered under the model name RSK. Outstanding features of the standard version are the front roll up access door and the large inspection window. The large frontal opening, facilitates loading and unloading of large work pieces by crane or fork lift truck. The cabin design is modular so that accessories such as a turntable or rotary basket can be easily added. In addition, numerous options are offered, to accommodate automatic nozzle movement, expansion of the blast media cleaning and recycling systems or additional wear linings. We will gladly configure the blast cabinet matching your requirements.

**Blast cabinet RSK**

**Turntable**
For processing of bulky and heavy work pieces the machine can be equipped with a turntable available in different sizes and with various payloads. The turntable can be rotated manually or with an electric motor. By installing a mechanical/pneumatic nozzle movement (horizontal/vertical) the blast process can be automated.

**Rotary basket**
The use of a rotary basket allows the processing of small work pieces. It can simply be mounted onto a star shaped frame and is driven by an electric motor placed outside of the cabinet. Since the work pieces are constantly cascading or tumbling over each other, optimum all-around blasting results are achieved.

**Work piece movement through double/triple rollers**
Cylindrical work pieces such as tubes, round bars, etc., are placed between mechanically driven rollers, which induce a rotational movement of the work pieces. By adding a powered horizontal nozzle movement the shot blast process can be automated.
Blast cabinet RSK

Lateral / horizontal pullout
For the processing of very large or very heavy components the blast cabinet can be equipped with a lateral trolley. This allows the placing the work pieces on the work area by crane.

Satellite turntable
In this version, components with rotationally symmetric shapes can be processed in larger batches by placing them on individual satellite stations. Between individual blast processes, the table indexes from one satellite station to the next. The blast cycle itself takes place with the table in the stationary position but under constant rotation of the satellite stations.

Suction blasting
The suction method is the simplest air blast system. The blast media is collected in a funnel shaped hopper with hose connections to one or multiple blast guns. The application of compressed air creates a negative pressure in the gun body “sucking” the media from the hopper and accelerating it.

Through-feed system
The cabinet can be equipped with a through-feed system, for example, a conveyor belt. This allows the continual movement of the work pieces through the cabinet, below the blast nozzles.

Pressure blasting
Whenever bigger, larger sized blast media or a higher blast intensity is required, pressure blasting must be used in place of suction blasting. Compressed air, applied to a pressure pot filled with blast media, pushes the media to the blast gun(s). The pressure pot may be mounted under the collecting funnel of the cabinet or under the cyclone, placed adjacent to the blast cabinet.

Nozzle movement
Powered nozzle movement allows automation of the blast process. The movement can be vertical, horizontal or a combination of both.
Swing table blast machine RWT

The Rösler RWT swing table design allows for fully automatic blasting of relatively small quantities of rotational symmetric work pieces. The swing table is equipped with two rotating workstations, each located on opposite sides of the table which indexes by 180°. This has the advantage that while the work pieces are loaded/unloaded at one station, the actual blast process takes place in the opposite station. During the blast cycle the workstation rotates. At the end of each blast cycle the lift protection gate opens and the table indexes by 180°. Robotic loading/unloading can be easily integrated.

Swing table
Each 180° section of the swing table is equipped with a rotating workstation. A step geared motor induces the precise movement of the table. The rotation of the two workstations is generated by a belt drive with the drive motor placed outside of the cabin.

Blast chamber
A large maintenance door allows easy access to the blast chamber. Normally, the blast nozzles are mounted on stationary, specially designed fixtures. Powered vertical nozzle movement is optional. The area around the front door, load/unload station, is protected with easily replaceable rubber curtains.

Special RWT designs
The swing table concept can be modified to fully meet your requirements. Besides allowing installation of an expanded blast media cleaning and recycling system, for example, with an adjacent cyclone unit, this machine type can also be equipped with suction or pressure blast technology. This allows covering a wide spectrum of blast applications.
Satellite table blast machines are employed, whenever the work pieces are deemed critical or not allowed to touch each other during the process. The spectrum of applications ranges from delicate deburring to intensive shot peening. This machine type is particularly suitable for applications where only specific work piece areas require to be blasted. Turbine abrasive delivery technology as well as air blast systems can be installed.

**Applications:**
Treatment of rotational symmetric components, for which specially designed work piece fixtures can be mounted on to the satellite stations.

---

**Satellite table**

This machine type can be equipped with 6 and 8 satellite stations for single step movement or 8, 10 and 12 satellites for double step movement. A step geared motor induces the indexing of the table. The rotation of the satellite stations is generated by a belt drive.

---

**Blow-off station**

In a separate chamber segment residual blast media is removed from the finished work pieces using compressed air nozzles. These can be adapted to the work piece size and shape, thus ensuring the complete removal of blast media.

---

**Special RSA designs**

The satellite table concept can be modified to fully meet your requirements. Besides allowing installation of an enlarged blast media cleaning and recycling system, for example, with an adjacent cyclone unit, this machine type can also be equipped with suction or pressure blast technology. This allows covering a wide spectrum of blast applications.
This machine type is ideal for batch processing mass produced parts made from a wide variety and different materials. RMBC systems allow the treatment of, for example, from small, delicate duroplast parts, to large, heavy forgings. They can be equipped with rubber or steel slatted work belts. Rather than turbine blasting, the RMBC air blast system allows the use of a wide range of blast medias; starting with softer plastic, glass, ceramic, prunus medias to highly abrasive mineral blast materials. For intensive, cost efficient blast applications with mineral media we also offer the models RMBC 1.1 und RMBC 2.1 with pressure blast system.

Continuous feed belt blast machines are used for cleaning, stripping and surface preparation prior to bonding or coating tasks in continuous feed operations. They are ideal for continuous manufacturing operations with relatively high work piece volumes. Practically no productive time is lost through work piece loading and unloading. The blast media is always thrown from above the belt. Oscillating movement of the blast nozzle(s) ensures optimum blast coverage.
Blast machine with lateral trolley ATT

This machine type offers a high degree of flexibility in terms of work pieces and available processes. The ATT meets practically any shot blast challenge and can be used for such diverse applications as cleaning, surface preparation before plasma coating, shot peening and many more. Even wet blasting or wet peening is possible with a slightly modified equipment design. The Rösler ATT machines are available in different versions, from standard units for relatively simple applications, up to high performance versions for more complex shot peening and shot blasting tasks. Larger work pieces (e.g. fan rings) as well as smaller parts (e.g. turbine blades) can be efficiently treated in this machine type.

The trolley can be equipped with various types of turntables and fixtures to handle a wide range of part shapes and sizes. For example, the turntable can be fitted with several satellite stations to treat multiple parts in one cycle without the parts ever touching each other. The trolley moves automatically.

Operated by two-handed safety control buttons placed in front of the loading station, it allows perfect access for loading and provides an ergonomic work environment for the operator. The blast system can be adapted to any customer requirement and blasting specification ranging from automotive to aerospace.

Gantry System

The gantry system can be delivered in different versions and a variety of processes. From economic belt drive systems to high precision CNC trolleys, we can supply you with every kind of movement. Starting at 1 axis, the nozzle movement can be upgraded to 4 axes allowing the treatment of the most complex work pieces.

Controls

Whether you require PLC or CNC, we can supply the desired system controls. For movements not requiring interpolation we recommend our Rösler designed PLC that allows easy, intuitive programming for all kinds of movements. If the movement path is more complex or must be synchronized with the turntable, we recommend CNC controls customized by our automation specialists to perfectly meet your requirements. All of our controls can be linked to a PC supervisor providing 100% supervision of the entire process.

Nozzles and Nozzle holders

The quantity of nozzles and the type of fixture is flexible and will be adapted to your requirements. We can supply standard nozzles in different sizes as well as special nozzles specifically designed for your blast process. Benefit from our many years of experience to establish a process that guarantees perfect blasting results.
This machine type was developed for shot blasting complex work pieces, especially components requiring external as well as internal treatment. All kinds of processes from paint stripping to shot peening can be run with this machine. With its high degree of precision blasting and wear resistant design the AST fulfills practically all industry requirements.

The Rösler AST machines can be equipped with a gantry system or a robot for accurate and reliable movement of the nozzles. A special feature is the optional internal blasting lance placed on the roof of the cabinet to treat internal work piece areas. Thanks to different machine sizes parts up to 1,500 mm in diameter and 2,000 mm in height can be processed. Some work piece examples are drums, shafts, landing gear components, casings or other similar components. The turntable swivels in and out automatically allowing easy loading and unloading of the work pieces with a crane. This eliminates the need for any other material handling equipment.

The blast system and controls can be adapted to the customer requirements and any automotive or aerospace shot blast specification. One of many options is a computer system called "PC Supervisor" for user-friendly supervision and control of all process parameters. This system also allows creating treatment protocols and connection to a company network.

Robot
In the case of complex work pieces we recommend an industrial robot for the movement of the nozzle(s). This guarantees not only a high degree of precision but also maximum movement flexibility. For further simplification of the whole process we can implement a semi-automatic or fully automatic tool change system. This helps minimise set up times and process interruptions. For certain applications the use of dual robot systems - the simultaneous treatment with two robots in the same machine - can further reduce the cycle times.

Internal blasting of long parts
A roof mounted blast lance allows the internal treatment of long parts. The lance is controlled as a separate axis and, if required, can also work parallel to the robot. The stroke of the lance can be chosen in line with the height of the parts. A special adjustment system on the duct in the roof allows positional adjustment of the lance and its calibration to the turntable center. With this system external and internal treatment is possible with only one setup. Of course, multi axis treatment is also possible allowing the simultaneous treatment of external and internal surface areas.

PC Supervisor System
We supply two versions of PC Supervisor systems. Both are delivered in an industrial PC case for protection against dust and damage. The "PC Supervisor SPC" is for controlling the blast process and automatically generates treatment protocols or Almen curves. The "PC Supervisor Master" expands these functions with a complete visualisation of the machine, its blast system and the control of the machine by the PC. Various additional options are available. Numerous additional functions are available as options. In terms of production supervision or user interface these systems fulfill all conceivable requirements.
Blast machine with L-shaped door ALS

Developed for different landing gear components with up to 3,000 mm length, this machine can handle all types of large work pieces. The high flexibility of the robot is complemented by the possibility to perform internal and external peening in one step. As with all of our specialised machines the process is very flexible and can be adjusted to your requirements. From the stripping of coatings to high precision shot peening everything is possible. The ALS, equipped with a horizontal as well as vertical turntable, offers the highest flexibility and accuracy combined with a wear resistant design to meet all your requirements.

This setup allows the treatment of practically any work piece shape in one machine with minimal setup times. Moreover, the Rösler ALS machines can be equipped with a manual or automatic counter-point to clamp components of different lengths with a minimum of manual horizontal adjustment. Another machine feature is the blasting lance placed on the sidewall of the cabinet to treat internal work piece areas. The door is shaped like an “L” and can be completely opened. This provides access to the whole blast chamber by a workshop crane, forklift truck or other handling equipment. Also, the operators can easily and safely access the cabinet. The controls consist of our PC Supervisor Master, which can be adapted to all customer specifications and meets the latest IT requirements. One option of many is a computer system called “PC Supervisor” to supervise and control all parameters and components in a user-friendly manner, create treatment protocols and connect to a company network.

Tilting Turntable
For various types of parts and complex geometries we use several types of precision turntables allowing a high degree of process flexibility. Be it for rotation only, precise positioning or tilting, Rösler offers the best solution. To keep operator times as low as possible, we can install several types of satellite workstations on the turntable allowing the treatment of multiple parts in one single batch.

Internal blasting of horizontal parts
A blast lance mounted on the sidewall of the cabinet allows the internal blasting of long components mounted horizontally. The lance is controlled as a separate axis and, if required, can work parallel to the robot. With this system you can treat parts externally and internally with only one setup. A security cage providing perfect safety for the operator encloses the lance.

Blast Systems
From simple suction units up to high precision pressure shot peening systems, Rösler offers a wide range of processes. We are at your disposal for any questions and discussions to create a blasting process perfectly adapted to your requirements. With our proven equipment components and many years of experience we meet all common standards like “AMS 2430”, “AMS 2432” or any other blasting specification.
Optimised for wet peening or wet cleaning of small to midsize mass produced workpieces, this machine type is known to improve throughput rates and finishing results. Whether used with a CNC gantry, PLC gantry or a robot for nozzle movement, the ARD offers high precision and a minimum of non-productive time. As with all of our specialised machines the process is very flexible and can be adjusted to your requirements.

Many equipment and process options are available like, for example, fully automatic concentration control, screening devices, water recycling and many more. Of course the ARD machines can also be used for dry blast processes. From the simple blast cleaning of castings to high precision shot peening of shafts and gears, everything is possible. The ARD is characterised by a large capacity, high accuracy and a wear resistant design meeting all your wet blast requirements. The revolving door moves round 180° and is equipped with 2 workstations, one on each side of the door. This swing table principle allows the treatment of one batch of parts, while another batch is loaded/unloaded on the outside.

This minimises unproductive times. The ergonomic loading station in front of the machine can be operated manually or upgraded for automatic loading devices. The controls consist of Siemens PLC or CNC and/or our PC Supervisor Master that can be adapted to all customer specifications and meet the latest IT requirements.

For high part volumes we can provide several satellites on each side of the door to treat more parts simultaneously or sequentially. Whether only rotation or precision positioning is required, Rösler offers the best solution. The satellites are custom designed for your requirements and can be equipped with several fixtures.

From simple wet cleaning up to high precision wet peening systems, Rösler offers a wide range of processes. We are at your disposal for any questions and discussions to create a blasting process perfectly adapted to your requirements. With our proven equipment components and many years of experience we meet all common standards like “AMS 2430”, “AMS 2432” or any other blasting specification.

Based on our experience in the field of vibratory finishing Rösler developed and improved various water treatment systems. We manufacture and supply centrifuges to clean the process water and use it in a closed loop. This helps to significantly reduce the water consumption. Count on our experience to also assist you in improving your wastewater treatment.
Auxiliary equipment

Dust collectors
The Rösler dust collectors can be used for a wide spectrum of applications. Our program includes standard and explosion protected cartridge filters as well as wet dust collectors. All our systems guarantee optimum and safe removal of dust irrespective of what machine type they are connected to. With a residual dust load of <1 mg/Nm³ in the clean air, our dry collectors produce results that are significantly below the allowable values in Germany of 3 - 5 mg/Nm³. This practically eliminates the need for additional fine or post filters. Frequently, the dust collector is placed above the blast chamber resulting in a small overall system footprint. All our dry collectors can be equipped with a rotary valve and the wet collectors with a sludge scraper.

Automation increases productivity and process stability
Stable finishing processes, short work piece loading/unloading cycles, high work piece weights and reliable process repeatability are important factors making the use of robots and handling systems indispensable in today's manufacturing environment. Of course, the same is true for shot blast systems and has been implemented by Rösler in numerous equipment designs. From initial conceptual studies to detailed process definitions and cycle time calculations – even down to the costs per work piece - Rösler is your competent partner for all aspects of automation. The integration of shot blast systems into highly complex manufacturing centers is a Rösler specialty. In close cooperation with the customer, special gripper systems for handling of the work pieces are designed, manufactured and continuously improved by Rösler. Specialists in robotic automation and programming are available throughout the Rösler global organisation and can quickly implement changes and system optimisations.

Noise reducing cabins
Depending on the machine design and the number of turbines, the noise level emitted by shot blast machines can significantly exceed 80 dB(A). Rösler offers perfectly matched noise reducing cabins for all blast machines. They consist of high-grade double-wall elements with an inner liner and are designed to meet the specified noise level around the machine(s). As much as possible Rösler noise reducing enclosures are only installed around the machine components with the highest noise levels. This keeps the costs low without negatively affecting the overall efficiency. Depending on the cabin design, the standard version is equipped with multiple inspection windows. Double wing doors allow easy access. If a complete enclosure is required, the noise reducing cabins can also be supplied with a roof.

Internal blasting
Special internal blast nozzles are available for blasting the inside of cylindrical components. For such applications mainly pressure blasting is utilised. We stand ready to develop solutions for your individual shot blast requirements.
RetroFit – modernisation of existing shot blast machines

Improvement of productivity, efficiency and effectiveness are hot subjects of discussion in the field of surface finishing and surface preparation. Upgrades of existing shot blast machines with the latest technological developments are essential to maintain and improve the competitive edge of a company. Our team ‘TuneUp’ specialises in modernising shot blast equipment made by different manufacturers. As market leader we can offer a broad portfolio of blast turbines and other system components for practically any conceivable application. By installing low maintenance and energy efficient components you will be able to significantly reduce your costs. And at the same time your existing shot blast equipment can be modified to fulfill changing requirements such as improved blasting results and increased 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 single source support – throughout the life of your equipment!

Whatever surface finishing and surface preparation questions you may have, we will gladly support you with a wide range of services:

- 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

Whether you have an emergency, a scheduled repair or maintenance – our experienced and competent service team is available to you at any time. Through fast response times and well equipped service vehicles we can repair and maintain your equipment quickly with a minimum of downtime.

Spare and wear parts, also for equipment not supplied by Rösler

All shot blast machines are subject to a certain wear. Rösler maintains a comprehensive stock of parts to guarantee quick delivery times and thus, high equipment uptimes. If required, we also deliver over night!