

Special shotblasting equipment for the ceramics industry

www.roesler-surfacefinish.com

Profitability, reliability, and a long useful life of kiln furniture are important economic factors for producers of ceramics.

With our own experience, we are familiar with the problems related to the removal of remnants of material and worn engobe of kiln furniture. Up until now, this was often carried out in several steps (wet sanding, washing, drying, sandblasting), which was a time consuming and expensive procedure.

With our know-how as one of the leading manufacturers of shotblasting equipment, we have successfully reduced the coating removal process to only one work step. We were able to achieve this with the optimum combination of shotblasting machine, shotblasting media, workpiece transport, and (last but not least) extensive series of tests. No cracks due to trapped moisture can occur during firing because of the dry processing.

You can test the performance of our equipment with process trials that are especially tailored to your workpieces or requirements.

Our shotblasting laboratories are equipped with the latest technology and are available for your test requirements.



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- and 50 additional representatives worldwide



Special shotblasting equipment for the ceramics industry

Coating removal of kiln-furniture

The shotblasting procedure

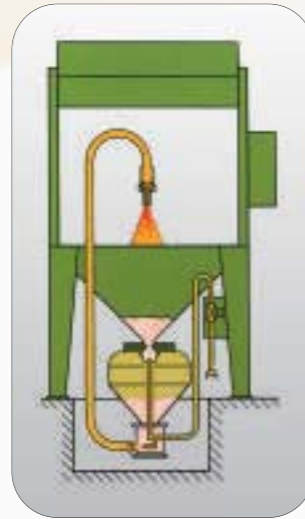
Pressure blasting

For applications that require high intensity continuous blasting pressure

In pressure blasting, the blast media is placed in a closed pressure chamber. A mixing valve is located at the outlet of this chamber. The blasting media from the chamber and compressed air flow through this mixing valve. The blasting media is pre-accelerated in the "blasting hose" connected to the blast gun, in order to attain final acceleration to the desired exit speed at the blast nozzle. With this method discharge speeds of up to 250m/s can be obtained.

Pressure blasting is primarily used in high-performance blasting cabinets and in shotblast rooms.

In comparison to injector blasting, **up to 5 times greater blasting performance** can be achieved.



Areas of application

Rösler **pressure blasting technology** allows much larger volumes of shotblasting media to impact on the surface of the workpiece, while at the same time achieving higher shotblasting speeds.

It is therefore suitable for:

kiln furniture, such as slabs, beams, supports, ceramic rollers, cranks, saggars, and U-shaped saggars.

Injector blasting

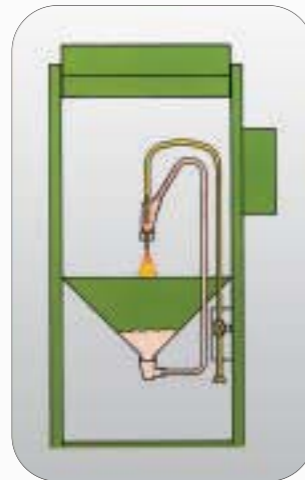
For general blasting requirements

The injector or venturi process works according to the principle of negative pressure or vacuum suction with a jet blast pistol. Blasting media is sucked up from the hopper by means of negative pressure and accelerated immediately before discharge via the blast nozzle.

This procedure is primarily used in manual shotblasting cabinets and makes flexible arrangement of one or more blast nozzles possible. All non-hygroscopic media can be used by injector blasting, even at very low blasting pressures with a comparably low consumption of compressed air.

The advantages of injector blasting are the low consumption of air and the precise dosing of the blasting media.

Please ask for our brochure **Blasting Cabinet**



Semi-automatic equipment

Type STD pressure blasting cabinet

Manual shotblasting cabinets with various table sizes. There are almost no limits to their use due to individual adaptation possibilities with revolving tables, shotblasting nozzle oscillation and pendulum devices, etc.

Construction characteristics/equipment

- ⊗ Front door on rollers, to be opened upwards, frees the entire front of the blasting cabinet up to the center of the table.
- ⊗ Easily removable workpiece grate, stiffened with supports, perforated
- ⊗ Highly wear-resistant boron carbide blast nozzles
- ⊗ Separate shotblasting media preparation equipment (air transport) with cyclone separator, shotblasting media supply hopper and pressure blasting chamber
- ⊗ External illumination
- ⊗ Various equipment options
- ⊗ High-performance cartridge filter (dry) with automatic filter cleaning



Application example with **horizontal oscillating blasting jet, linear pivot movement, and integrated cleaning jet** (semi-automatic operation)



Application example with **revolving table** and side slide-in opening



Technical data

	STD 1000	STD 1400
Dimensions of the shotblasting area (width x depth x height) (approx. mm)	990 x 1.000 x 710	1.390 x 1.230 x 810
Height of the work grate (approx. mm)	800	800
Overall required space (width x depth x height) (approx. mm)	1.550 x 2.150 x 2.200	2.000 x 2.400 x 2.200
Carrying capacity – work grate (approx. kg)	50	50
Shotblasting pistol (jet holder)	SPD 38	SPD 38
Shotblasting nozzle (with attachment jet, mm)	10 (boron carbide)	10 (boron carbide)
Compressed air consumption (approx. m ³ /min at 5 bar) Pressure Chamber	4.5	4.5
Shotblasting capacity (l)	12 or 24	12 or 24
Electrical connection value (without filter, approx. kW)	0.5	0.5
Weight of the equipment (without filter, approx. kg)	500	800

Special sizes upon request

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Fully automatic equipment

Continuous Belt shotblasting machine Type RBD 500-D

Continuous belt shotblasting machine designed for the constant processing of kiln furniture. All functions in the machine take place automatically. The workpieces are placed in and removed from the machine manually with the basic model. If needed, the appropriate additional equipment can provide for automatic workpiece handling.

Construction characteristics/equipment

- ⊗ Horizontal oscillating pressure blast gun
- ⊗ Highly wear-resistant boron carbide blast nozzle
- ⊗ Shotblasting procedure is controlled by the workpiece recognition device
- ⊗ Front access lift door with a safety switch
- ⊗ Parts transport by means a flat, wear-resistant special rubber belt with speed control
- ⊗ Bucket elevator with wear-resistant buckets, bolted onto a special bucket elevator belt (optional)
- ⊗ Separate shotblasting media recirculation equipment with air flow separation, vibration sieve device, shotblasting media supply hopper, and pressure blasting chamber (optional)
- ⊗ System control by means of SPS control (Siemens SIMATIC 57) with an operating device OP7
- ⊗ High-performance cartridge filter (dry) with automatic filter cleaning



Pressure blasting container with level indicator

Technical data

	RBD 500-D
Dimensions of the shotblasting area (width x depth x height) (approx. mm) Loading	1.400 x 1.100 x 840
Workpiece loading height (approx. mm)	1.000
Overall required space (width x depth x height) (approx. mm)	4.100 x 2.500 x 4.050
Beltwidth (approx. mm)	490
Inlet gate (approx. mm)	490 x 30
Shotblast nozzle (with attachment jet, mm)	10 (boron carbide)
Compressed air consumption (approx. m ³ /min at 5 bar)	4.5
Shotblasting chamber capacity (l)	32
Electrical connection value (without filter, approx. kW)	6
Weight of the equipment (without filter, approx. kg)	1.250

Special sizes upon request; can also be supplied with rollers



Application example

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