



BLAST ROOMS SOLITON®



WISTA

**TRADITION
INNOVATION
EFFECTIVENESS**



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**WE ARE
ONLINE**



www.wista.cz
www.wista-shop.cz
www.pujcovna-piskovacek.cz



INNOVATIONS FOR SUCCESS IN BUSINESS

"Satisfaction from having the blasting process under control!"

WISTA s.r.o. strives for constant advancement in surface treatment technologies.

Every new solution, design, and service is geared toward furthering the applicability of technology and improving the services provided by operators, maintenance, and management.

WISTA SOLITON facilitates order and orientation in the cutting-edge technology of abrasive blasting rooms and guides you toward success in business.



A TEAM THAT CARES FOR YOUR INVESTMENTS

"We administer high-level projects especially tailored to users' requirements that also boost their profits. We value our business relationships, fostering them through provision of a wide range of services. We appreciate and cultivate long-term business partnerships."

The Project Managers of WISTA s.r.o.



ISO 9001 : 2015



General Partners

SAVIM

OMSG



Partners

FESTO

rpb

SIEMENS

KENAMETAL

Nederman

ALMIG

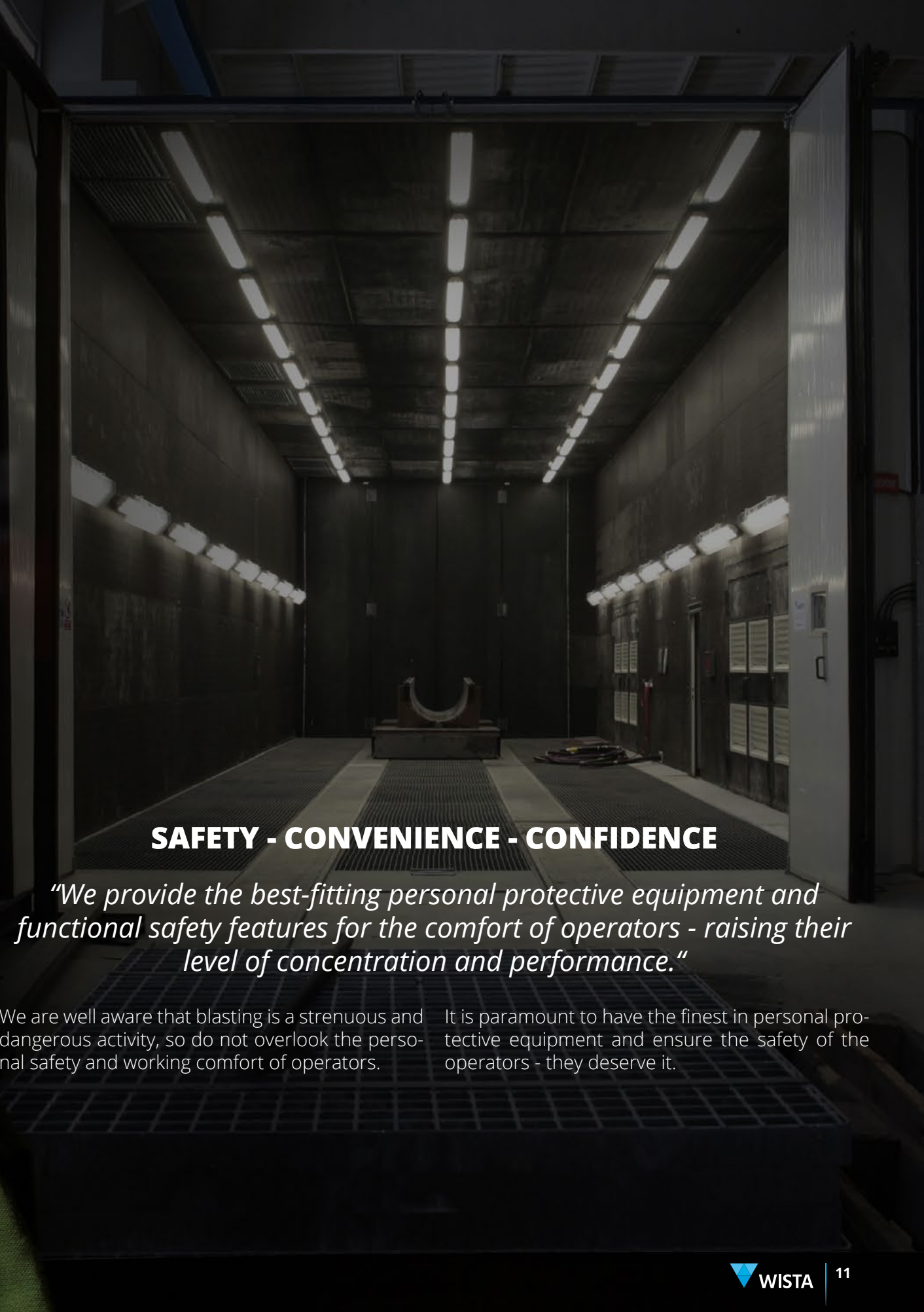


SEEKING PERFECTION IN THE BLASTING INDUSTRY

"WISTA's innovations are driven by its in-house R&D and production facilities, as well as through cooperating with tried-and-tested suppliers."

Ensuring sustainable development of our company and its products is a priority for us. Research and development on new products involves carefully selecting the most suitable materials and progressive technologies for them, while also seeking advancement in manufacturing technologies and processes.

The quality of our work is complemented by long-term cooperation with dependable suppliers, scientific institutions, and leading experts in the industry and related sectors.



SAFETY - CONVENIENCE - CONFIDENCE

"We provide the best-fitting personal protective equipment and functional safety features for the comfort of operators - raising their level of concentration and performance."

We are well aware that blasting is a strenuous and dangerous activity, so do not overlook the personal safety and working comfort of operators.

It is paramount to have the finest in personal protective equipment and ensure the safety of the operators - they deserve it.



PROFESSIONAL AND EFFECTIVE CUSTOMER CARE

"First-class customer care, high quality, and a wealth of support services."

Regular inspections provide valuable feedback for users on operating conditions and maintenance.

Technological audits identify the current status of the technology in place, and propose procedural optimizations according to the operating conditions of the equipment and operator, and regarding maintenance.

Remote control of the blast room - all main components can be directly monitored, facilitating effective maintenance and repair.

The SOLITON APP - at your fingertips get the latest data on the progress of current operations, as well as statistics and economic efficacy. Moreover, the app provides direct contact with the service

center, contains user guides and maintenance manuals, a list of spare parts, and other useful information.

Rent blasters and accessories, abrasive recovery systems, or entire blast rooms as a mobile solution.

Training - obtain high-level skills in operating, maintaining, and evaluating blast processes on a course especially tailored for your needs.

Consultancy and maintenance are provided by regional consultants and experienced service technicians who are ready to help you select the right technology and render services for its seamless operation and control.



FEEL EXCEPTIONAL

*“Keep operations and operational costs under control.
Benefit from constant rewards for initiative.”*

I was previously unfamiliar with the possibilities of modern blasting technologies. This changed after installing the new SOLITON solution from

WISTA, and their training courses afforded us the chance to exploit the potential of blasting technologies without wasting time or money.

Vilém Zuzáňák, Zeppelin CZ s.r.o.

WELCOME TO THE WORLD OF EFFICIENT BLASTING



SOLITON

"The solution for reliable and cost-effective blasting."

Introduced in 2008, our SOLITON solution represents the latest in blast room technology, which is compliant with stringent requirements for quality, performance, and low consumption of energy, abrasives and spare parts.

Under continuous development to seek out new solutions and procedures, users benefit from superior conditions for operation and maintenance.

It has been proven that SOLITON can save more than 1/4 of operating costs of blast rooms. Ultimately, savings such as these exceed the costs of acquiring the entire technology.

At WISTA, we know how to optimize operations, and are capable of designing and implementing the best solutions possible.

DID YOU KNOW...?

Soliton is synonymous with a natural phenomenon that permits the transport of fluid materials in combination with tremendous savings in energy.

It was first described in modern history by John Scott Russell, a Scottish engineer, who wrote in 1834:

"I was observing the motion of a boat being rapidly drawn along a narrow canal by a pair of horses when the boat suddenly stopped. However, not so the mass of water in the canal that the boat had put into motion, which accumulated round the prow of the vessel in a state of violent agitation, and rolled forward with great velocity along the canal - apparently without change in form or diminution of speed. I followed it on horseback and after a chase of one or two miles I lost it in the windings of the canal."



▲ WISTA – SOLITON COST SAVINGS
Example for 20.000 operating hours



STRUCTURE OF COSTS

“The cost of acquiring abrasive blasting technology is just the tip of the iceberg – operation is far more expensive. Smart investors look for quality that ultimately cuts operating costs.”

TECHNOLOGY

HUMAN RESOURCES

ENERGY

ABRASIVES

SERVICING



REDUCTION OF COSTS

- Compare acquisition and operating costs
 - Reduce the space given over to an installation
 - Implement an advanced and precise production process
 - Use high quality materials
 - Put in place efficient lighting
 - Utilize comfortable personal protection equipment
-
- Consider the organization of work
 - Introduce electronic operating records
 - Use remote technology and process management
 - Provide training programs for operators, maintenance technicians, and managers
-
- Increase the performance of the blaster
 - Use energy more efficiently
 - Diminish energy consumption
 - Reduce operating losses
 - Provide training programs for operators, maintenance technicians, and managers
-
- Utilize a precise metering system
 - Lower consumption
 - Test for correct choice of abrasive
 - Collect dust more efficiently
-
- Take out an integrated service plan
 - Check the availability of spare parts
 - Introduce remote repair and maintenance management
 - Have a control and prevention system
 - Keep a register of consumption; evaluate effectiveness



ENHANCED PERFORMANCE

"Time is money – we do away with wasteful activities."



SOLITON

PERFORMANCE
INCREASE

MORE ENERGY FOR THE JOB IN HAND

Reduced loss in compressed air via our sophisticated system for compressed air distribution - guaranteed pressure loss is max. 0.2 MPa = the best in the industry.



OPTIMUM BLASTING PROCESS, INCL. SUPERB CLEANING

Training programs to master operation, maintenance, and process management. An abrasive cleaning system with automated control of performance and cleaning intensity that adapts to the current flow of the given abrasive.



COMFORTABLE AND SAFE OPERATION

The G2 deadman boasts a robust and ergonomic construction, with a low profile and fast reaction –choose between pneumatic or electric drive. Comfortable personal protection equipment, a 30% larger helmet visor, a resistant but lightweight blast suit, easy maintenance, top quality accessories – a 1000 lx LED light, respirator, airline filter, CO monitors, etc.



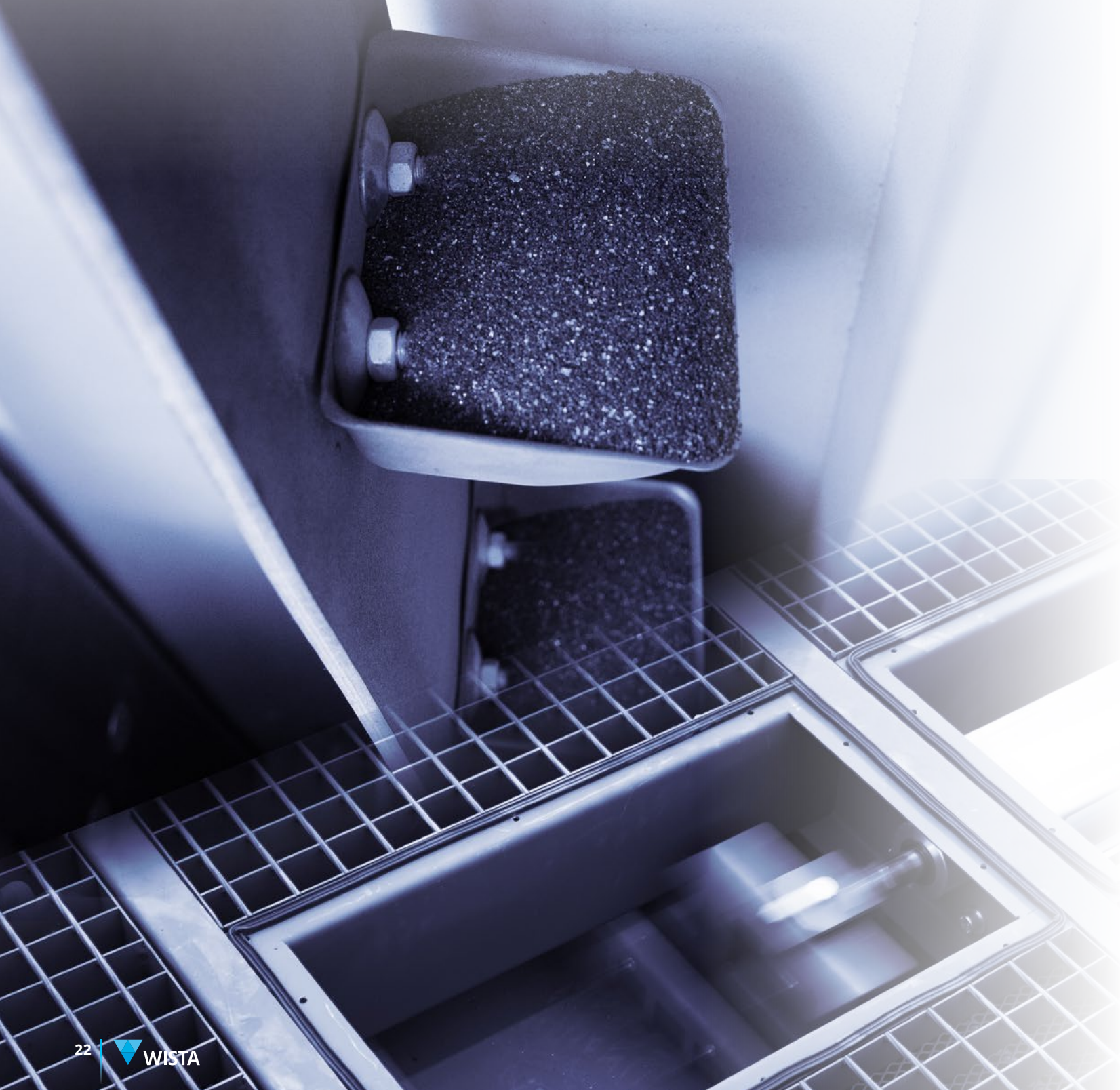
COMFORTABLE CONTROL OF BLAST OPERATION DIRECTLY FROM THE WORKPLACE

Control over the abrasive and operational modes of the blaster is facilitated from the control panel. The operator can oversee the refilling and metering of the abrasive media without leaving their workplace. They are able to initiate intensive cleaning by compressed air or the self-cleaning mode on the metering valve.



EXTENDED SERVICE LIFE

“Greater throughput and fewer repairs – a sophisticated management system, innovative technical solutions and high-quality materials.”



SOLITON

LONGER
LIFETIME

REVOLUTIONARY CONSTRUCTION OF TRANSPORT

The abrasive transport system with adaptable performance significantly reduces the number of cycles and energy consumption, while increasing transport capacity. Robust rack conveyor with abrasive-resistant rubber. High-quality roller rails with extreme resistance to wear and tear. Dust free covers of drives installed above the rack conveyors, inside the blasting room.



EXTENDED SERVICE LIFE OF FILTERS

Above-standard enlargement of the filter area. Innovated pleat-shaped design of the filter material and utilization of Nanofiber Ultra-Web filtration technology for greatly extended service-life.



ELEVATOR WITH MINIMAL WEAR AND TEAR

Sophisticated construction, high-quality materials, monitoring of conveyor-belt railing and tensioning, which results in reduced wear and tear and prevention of slip-page or damage.



MODE FOR SELF-CLEANING OF THE ABRASIVE SEPARATOR

Adaptable abrasive separation intensity and selective use of the vibration sieve with automatic mode for self-cleaning separates the abrasive precisely, increasing the reliability of the separator and facilitating its maintenance.



LOWER ENERGY CONSUMPTION

"Embrace modern solutions and generate decisive savings."



► SOLITON

**ENERGY
SAVING**

ADAPTABLE ABRASIVE RECLAIM SYSTEM

Collection of the abrasive with adaptable performance and variable energy consumption according to the current load. Automatic, autonomous setting of the transport speed and power of each transport system, as well as reduction in energy consumption for the performance required.



ENERGY SAVING AIR FILTRATION

Built-in filtration with economical use of electricity. The filtration system lies within the configuration of the blast room wall, without any inlet or outlet vent pipes



ENERGY SAVING LIGHTING

The LED lights, fitted with robust covers, offer high intensity output but with low consumption of energy. A lighting system especially designed for blast rooms. The lighting system is stable and intense in output. It illuminates the reference area throughout the unit's entire service life, while also being lower in energy consumption. The covers are replaceable.



LOWER CONSUMPTION AND HIGHER PERFORMANCE

Lower pressure drops and precise metering result in higher performance and reduction of time needed for the blasting job. Besides energy savings, this results in an increased blasting capacity and greater utilization of the entire technology.



LOWER ABRASIVE CONSUMPTION

"Check the correct setting of the metering valve at a glance."

► SOLITON

PRECISE REGULATION

Price regulation through accurate setting of the blasting process. Precise metering valves by SCHMIDT (Texas, USA) are utilized. These are renowned for being premium quality abrasive metering valves that significantly contribute to saving costs in the blasting process.

HIGHLY EFFICIENT ABRASIVE RECOVERY SYSTEM

The efficiency of the blast process is significantly benefitted by limiting the content of debris and particles in the abrasive. This is ensured through selection of optimum filter sieves, the stable dust collection system, and automatic vibration regulation, including a pre-set self-cleaning mode for the vibration sieve.

LOW PRESSURE DROPS

The finely-tuned design and application of proven, high-quality materials result in a greater extent of energy being directed into the blasting process, as well as more efficient use of the abrasive.

SELECTING A BLASTING TECHNOLOGY SYSTEM

It is best to choose between the various blasting technology options depending on the mode of utilization. For example, a shortened period given over to operating pressure build-up and relief will bring about reduction in losses of compressed air and abrasives. Proper selection of the control system means that your company will avoid issues like inconvenient vibration and ineffective operating delays.

LESS
ABRASIVE



HIGHER LEVEL OF MANAGEMENT AND CONTROL

“Leave inefficient systems to others and keep blasting operations under control.”

SOLITON

PROCESS
AUTOMATISATION

PLC-BASED MONITORING SYSTEM

Our advanced monitoring systems are equipped with tried-and-tested software to control different components of the technology and make sure everything functions harmoniously. The PLC system can monitor operating statuses, the silo level, energy consumption, and other operational data.



REMOTE MONITORING AND SERVICE ADMINISTRATION

When a change in configuration is made or a failure detected, the PLC system reports the event online to the approved service center; this permits verification of the equipment's condition and remote checking of the status of every energized component, in addition to troubleshooting or modification of operating parameters.



THE SOLITON APP - CONVENIENT ACCESS TO DATA AND STATISTICS

Our app provides users with information on the current operational status, consumption, and an overview of past progress, along with timeframe or contract filtering options. The app monitors operational consumption and can evaluate both productivity and recommended parameters for effective function. It also contains user guides and maintenance manuals, a list of spare parts, and online forms for ordering components or services. Available in full version for PCs or as a reduced preview for Android or iOS smartphones.



INNOVATION THAT NEVER ENDS

“For a product to be considered of premium standard, the qualities it boasts have to stand out. Ours feature more than their fair share, and even more are in the works...”



BLAST ROOMS CAN BE LOCATED DIRECTLY ON A FLAT BASE, YOU DO NOT NEED TO LAY FOUNDATIONS.

SOLITON

MUCH SMALLER INSTALLATION SPACE

Our technology demands little space, and there is no need to create deep foundations for conveyor belts or holes for other drives.

VARIABLE FLOOR

Variable load capacity of the floor, with concentrated loads of up to 3,500 kg. A system of adjustable supporting beams enables the operator to change the load capacity of the floor while maintaining the same height of the grates, which cuts costs and enables easy handling.

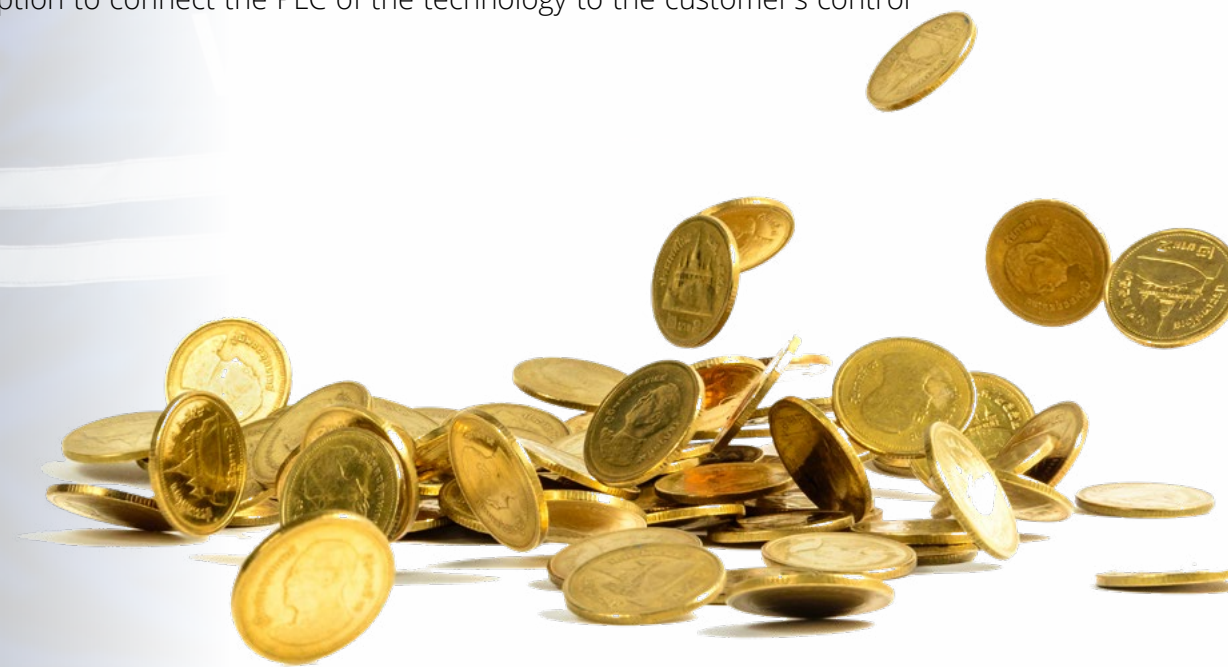
VARIABLE AND ECONOMICAL SOLUTION OF THE RECLAIM FLOOR

Single-layer or multi-level placement of longitudinal or lateral rake conveyors. Storage of collected abrasive without the need for building foundations. Cost-effective connection of longitudinal rake conveyors. Direct-drive transmission between longitudinal and lateral rake conveyors. A reclaim system around the entire perimeter. A fluctuating width of rake conveyors.

CONTROL AND MONITORING SYSTEMS

We constantly expand the range of our sophisticated solutions for autonomous control and monitoring of the blasting process, machine maintenance and repairs. We offer an option to connect the PLC of the technology to the customer's control systems.

OTHER BENEFITS



CATALOGUE

"Build and assembly that suits you best!"

CLASSIC

This is an economical, yet highly performant system comprising SOLITON blast room technology. Its progressive design boasts a number of innovative solutions, complimented by traditional added value. The sophisticated solutions of the system's components and units, enhanced by a number of technical improvements, ensure practical, reliable and highly-efficient operation.

EXECUTIVE

This is a solution focused on high performance with low operating costs. It is equipped with the latest high-performance and cost-efficient technologies, while its PLC controls enable the entire blasting process to be monitored, permitting the user to schedule maintenance and repairs. Hooking the unit up to the internet also ushers in the benefits of remote service administration.

ACTIVE

This is a solution with a high degree of technological operational control. It features devices that monitor the operation of the machine, media consumption, the condition of components, and wear and tear. The PLC of the EXECUTIVE assembly has been extended with a user application that displays, analyzes, and evaluates current and past data.

SUPRA 4.0

This set comprises extended ACTIVE equipment, plus a control system ready to be integrated into central organization and control systems, making the technology truly ready for Industry 4.0.

Ask our sales representatives for more details.

BLAST ROOM EQUIPMENT LEVELS - SOLITON II

AREA	PART	FUNCTION	CLASSIC	EXECUTIVE	ACTIVE	SUPRA 4.0	REMARK
Room Construction	Frame	System frame construction	✓	✓	✓	✓	
	Enclosure	Trapezoidal metal sheet	✓	✗	✗	✗	
		Sandwich panels	+	✓	✓	✓	
	Wall clading	Bisonyl	✓	✓	✓	✓	
		Steel sheets - at request	+	✓	✓	✓	
	Door	Mechanical	✓	✓	+	+	
		Electrical - folding or fold-up	+	+	✓	✓	
	Lighting	Fluorescent	✓	✓	+	+	
		LED	+	+	✓	✓	

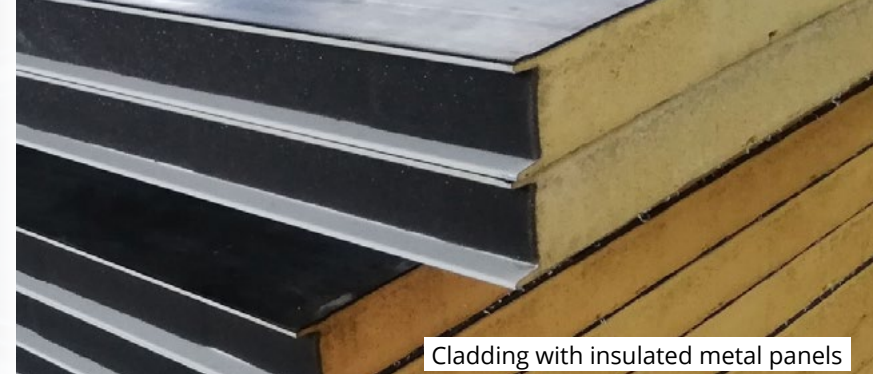
AREA	PART	FUNCTION	CLASSIC	EXECUTIVE	ACTIVE	SUPRA 4.0	REMARK
Control	Control system	PLC-S-LOGO - operation control	✓	✗	✗	✗	
		PLC -S-1200 - operation control + servicing + maintenance	✗	✓	✗	✗	
		PLC-S-1200 - operation control + servicing + management	✗	+	✓	✗	
		PLC-S-1500 - operation control + servicing + maintenance + management / Industry 4.0	✗	✗	+	✓	
		4" touchscreen display	✗	✓	✗	✗	
		7" touchscreen display	✗	+	✓	✓	
	Floor conveyors	Start / Stop	✓	✓	✓	✓	
		Automatic adjustment according to current load	✗	✓	✓	✓	
	Dust collection	Start / Stop	✓	✓	✓	✓	
	Abrasive vertical transport	Start / Stop	✓	✓	✓	✓	
	Abrasive recovery system	Suction control - mechanical	✓	✓	✓	✓	
		Suction control - pneumatic and manual	+	✓	✓	✓	
		Suction control - electronic	✗	+	✓	✓	
		Adaptable vibration sieve	✗	+	✓	✓	
	Lighting	One-circuit track	✓	✓	✗	✗	
		Two-circuit track	✓	+	✓	✓	
		Three-circuit track	✗	+	+	+	
		Blast helmet light kit	+	+	✓	✓	
	Blaster	Start / Stop D2 remote control	✓	✓	✓	✓	
		Open system	✓	✗	✗	✗	
		Abrasive hold system	✗	✓	✗	✗	
		Pressure and abrasive hold system	✗	+	✓	✓	
		Cut-off system	✗	+	✓	✓	
		Metering valves controlled remotely, self-cleaning mode, configurable delay in opening	✗	+	✓	✓	
		Emergency exit lights	✓	✓	✓	✓	
	Security features	Door switches with blasting activation	✓	✓	✓	✓	
		Warning light before the door	✓	✓	✓	✓	
		Stack light	+	✓	✓	✓	
		Alarm	+	+	+	+	

AREA	PART	FUNCTION	CLASSIC	EXECUTIVE	ACTIVE	SUPRA 4.0	REMARK
Servicing	Floor conveyors	Speed control	✓	✓	✓	✓	
		Roller sealing testing system	✗	+	✓	✓	
	Abrasive vertical transport	Continuity of conveyor movement	✓	✓	✓	✓	
		Conveyor tensioning	✗	+	✓	✓	
	Abrasive recovery system	Cleaning intensity control	✓	✓	✓	✓	
		Cleaning intensity remote control to adjust performance according to current load	✗	✗	✓	✓	
	Abrasive level	Abrasive level in silo	✗	✗	✓	✓	
	Dust collection	Filter cartridge replacement indicator	✓	✓	✓	✓	
	Control system	Remote control - internet router	✗	+	✓	✓	
		Remote control - mobile with a T-mobile SIM-card	✗	+	+	+	
		Interface for production control - INDUSTRY 4.0	✗	✗	✗	✓	

AREA	PART	FUNCTION	CLASSIC	EXECUTIVE	ACTIVE	SUPRA 4.0	REMARK
Operating statistics	Blast room switchboard	Total electricity consumption	✗	+	✓	✓	
		Operating time / STAND-BY	✗	✓	✓	✓	
	Compressed air vessel	Electricity consumption	✗	✗	✓	✓	
		Produced air volume	✗	✗	✓	✓	
		Discharge pressure	✗	✗	✓	✓	
	Compressed air supply	Pipe pressure monitoring	✗	✓	✓	✓	
		Operating pressure monitoring	✗	+	✓	✓	
		Pressure regulator - mechanical	+	+	✗	✗	
		Pressure regulator - analog	✗	+	✓	✓	
		Pressure drop monitoring	✗	+	✓	✓	
	Abrasive silo	Abrasive flow volume	✗	✗	✓	✓	
	Additional silo	Volume of newly fed abrasive	✗	✗	✓	✓	
	Blaster	Operating time - blasting	✗	✓	✓	✓	
		Operating time - blow-off	✗	✓	✓	✓	
		Used abrasive volume	✗	✗	✓	✓	
	Floor conveyor	Number of roller strokes	✗	✓	✓	✓	
		Air consumption	✗	✗	✓	✓	
	Soliton App	Operational data	✗	+	✓	✓	
		Maintenance log	✗	+	✓	✓	
		Data history	✗	+	✓	✓	
		Plan of servicing and spare parts delivery	✗	+	✓	✓	
		Efficiency evaluation	✗	✗	✓	✓	
		Real-time servicing	✗	+	✓	✓	
		Information portal	✗	+	✓	✓	

LEGEND	
Included	✓
Cannot be included	✗
Can be purchased as an option	+

CONSTRUCTION OF THE ROOM



Cladding with insulated metal panels



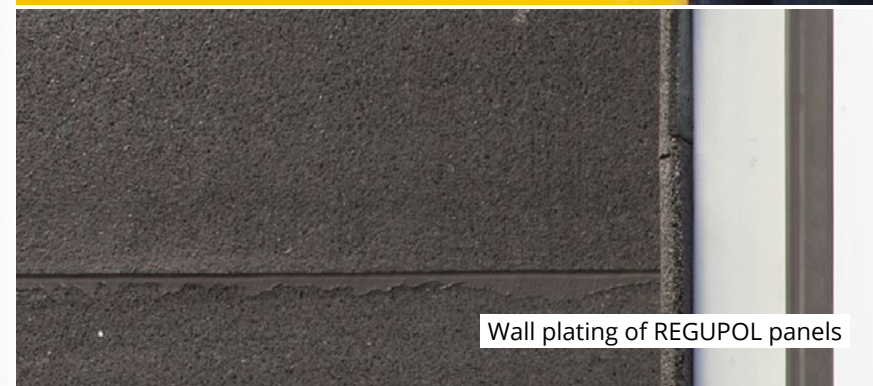
Sheathing with trapezoidal steel sheets



Abrasive resistant rubber lining



Wall plating of resistant PUR panels



Wall plating of REGUPOL panels



FRAME CONSTRUCTION

A modular system of supporting frames and reinforcing beams, ready for assembly of the peripheral shell.

Benefits

- Modular system
- Quick assembly without welding works
- Flat floor assembly
- Compact installation space

STEEL WALL COVERS

A system of heavy-duty steel plates and fixing cover slats for absolute protection of side walls against abrasion. Options in height.

Benefits

- Modular solution
- Easy replacement
- Direct connection to floor conveyor belts



Steel wall coverings



Wall coverings of Bisonyl curtains

BLAST ROOM DOORS



Double-wing door



Multiple-wing door



FOLD-UP DOOR

A modern design of door made from soft, flexible PVC. Reliable sealing of the blast room prevents abrasive leakage and reduces noise transmission.

Benefits

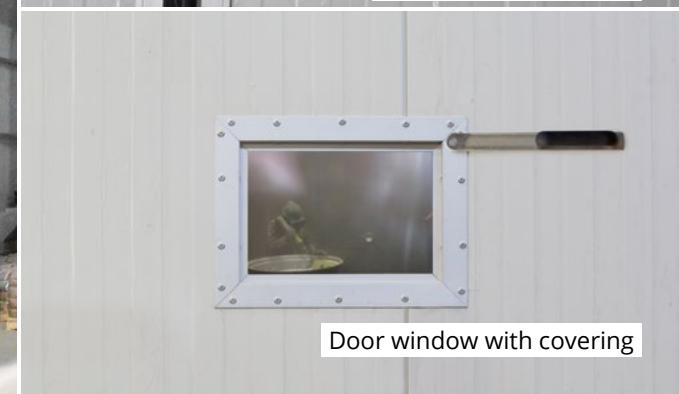
- Suitable for covering large or small areas
- Side-guided mechanism without rotating parts
- No wear and tear of the door material through the effect of rubbing
- Electrical drive
- Reduced noise transmission
- Easy replacement and repair



Segmented door



Door drive mechanism



Door window with covering

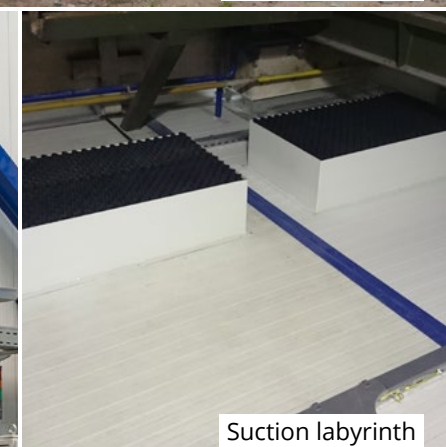
DUST COLLECTORS



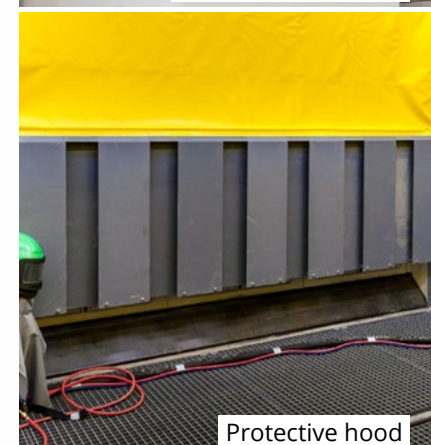
DFE filter system



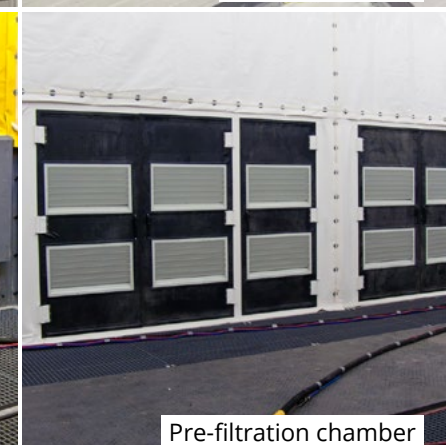
Absolute HEPA filter



Suction labyrinth



Protective hood



Pre-filtration chamber



Pipelines



Backflap



Direct installation

ECB FILTRATION

The ECB filtration system uses Nano-layer technology for improved filtration and cleaning with compressed air. The built-in pre-filtration chamber (equipped with a suction labyrinth mounted in the filter door or with protective shields) captures large particles that might otherwise damage the filtration material.

Benefits

- Savings on construction and operating costs
- Reduction in power consumption (by 50% on average)
- Wall-mounting saves space
- The environment is kept clean through the fixture of dust hoppers, and maintenance and repairs are carried out inside the blast room
- Our revolutionary design minimizes pressure losses inside the filter chamber and the connected inlet and outlet

ABRASIVE BLASTERS

"Superior blasting ushers in optimum quality, high performance, and savings in abrasive."

The blasters manufactured under the SCHMIDT license (Texas, USA) boast excellent stability and the possibility of elevation, while also maintaining the possibility of being transported on wheels. The use of short air ducts with 1 1/4" and 1 1/2" diameters and special valves reduce the ultimate pressure loss of the entire blaster to less than 0.1 bar.

Benefits

- Reduced consumption of abrasive media by about 50%
- Lower pressure loss leads to higher blasting performance
- Stable, long-term, high performance
- Simple operation, control and servicing



Abrasive blaster SCH50

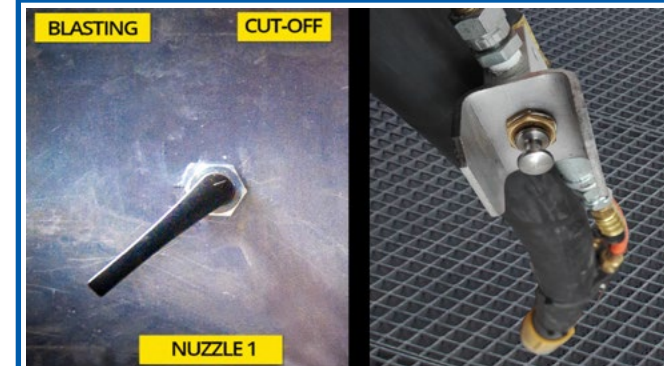
Abrasive blaster SCH100

Abrasive blaster SCH200



Abrasive blaster SCH340

Abrasive blaster SCH340 double chamber



CUT-OFF SYSTEM

The Venturi nozzle - for cleaning the surface of products or the blast room environment - affords maximum available air pressure and its acceleration. It can be wall-mounted, installed inside the blast room, or on the blast hose on the remote control panel.

Benefits

- Option to clean products and working environment
- The Venturi nozzle doubles the speed of air on the outlet

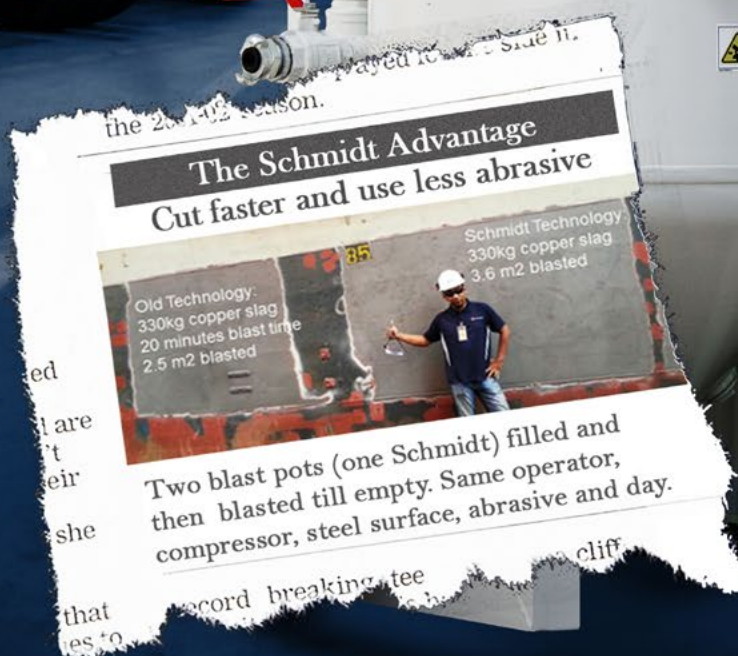


REMOTE CONTROL

Electro-pneumatic actuation of Thompson Valve and TERA metering valves. Adjusting the valve position via electro-pneumatic adjustment of the valve opening, equipped with a calibrated spring.

Benefits

- Adjustment of the metering valve without the need to interrupt operation or leave the workplace
- Cut-off and choke mode (pulse valve cleaning) are included in the installation
- Adjustable time delay to ensure smooth commencement of blasting without any "kick"



ACCESSORIES



Digital; pressure gauge



Analog pressure gauge



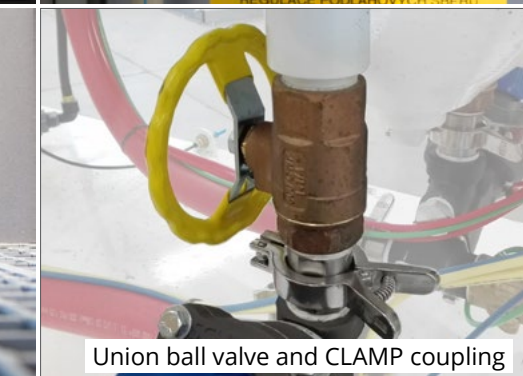
Shut-off valve and pressure regulator



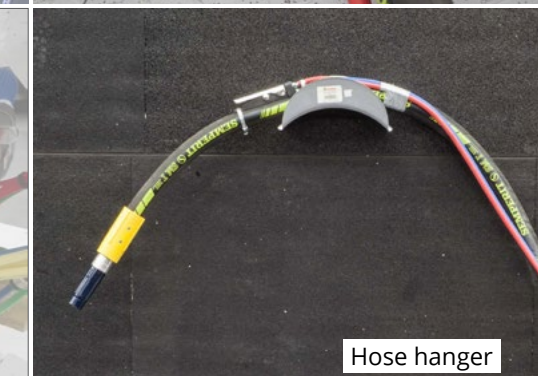
Hose grommet



Exhaust hose



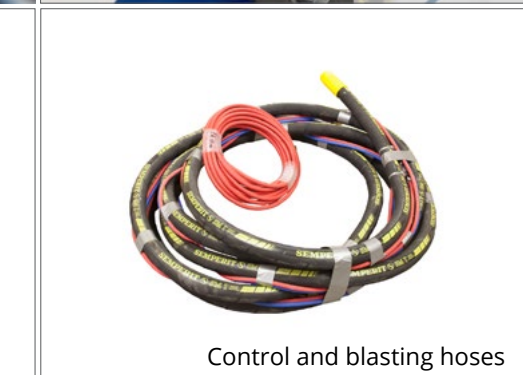
Union ball valve and CLAMP coupling



Hose hanger



Volumetric blowdown suppression VBSII



Control and blasting hoses



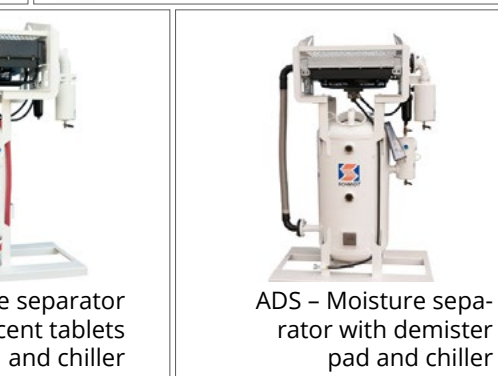
Electrical deadman
Pneumatic deadman



Moisture separator with demister pad

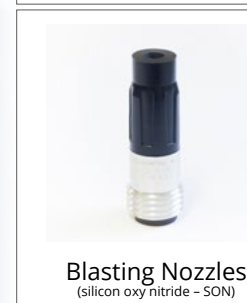


Moisture separator

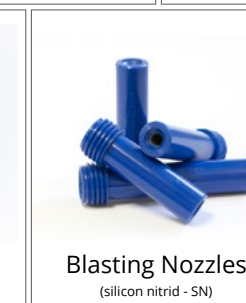


ACS - Moisture separator with deliquescent tablets and chiller

ADS - Moisture separator with demister pad and chiller



Blasting Nozzles
(silicon oxy nitride - SON)



Blasting Nozzles
(silicon nitrid - SN)



Blasting Nozzles
(borkarbid - BC)



Blasting Nozzles
(XL Performance)



Blasting Nozzles
(Bazooka)



Blasting Nozzles
(Venturi)

PERSONAL PROTECTIVE EQUIPMENT



RBP® Blast Suit



RBP® Nova 2000®

RBP® Nova 3®

RBP® Nova 1®

Blast helmets



RBP® RADEX® Airline Filter



RBP® L4 LED Lighting for RBP® Nova 3® Blast Helmet



RBP® GX4® Gas Monitor



RBP® Knee pads



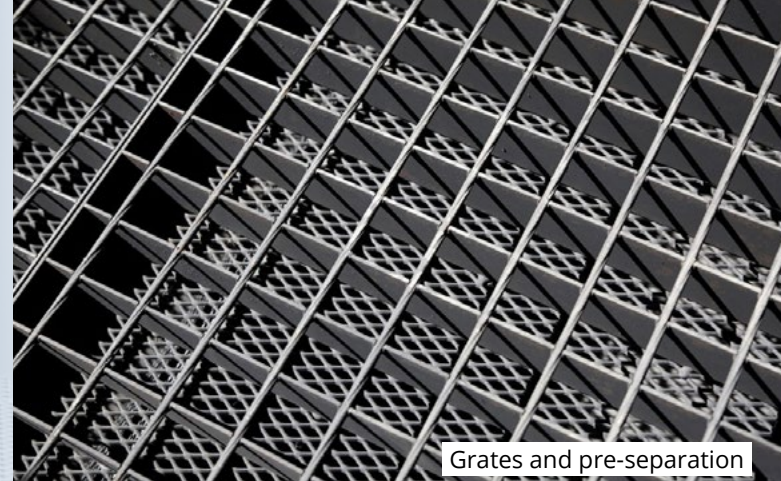
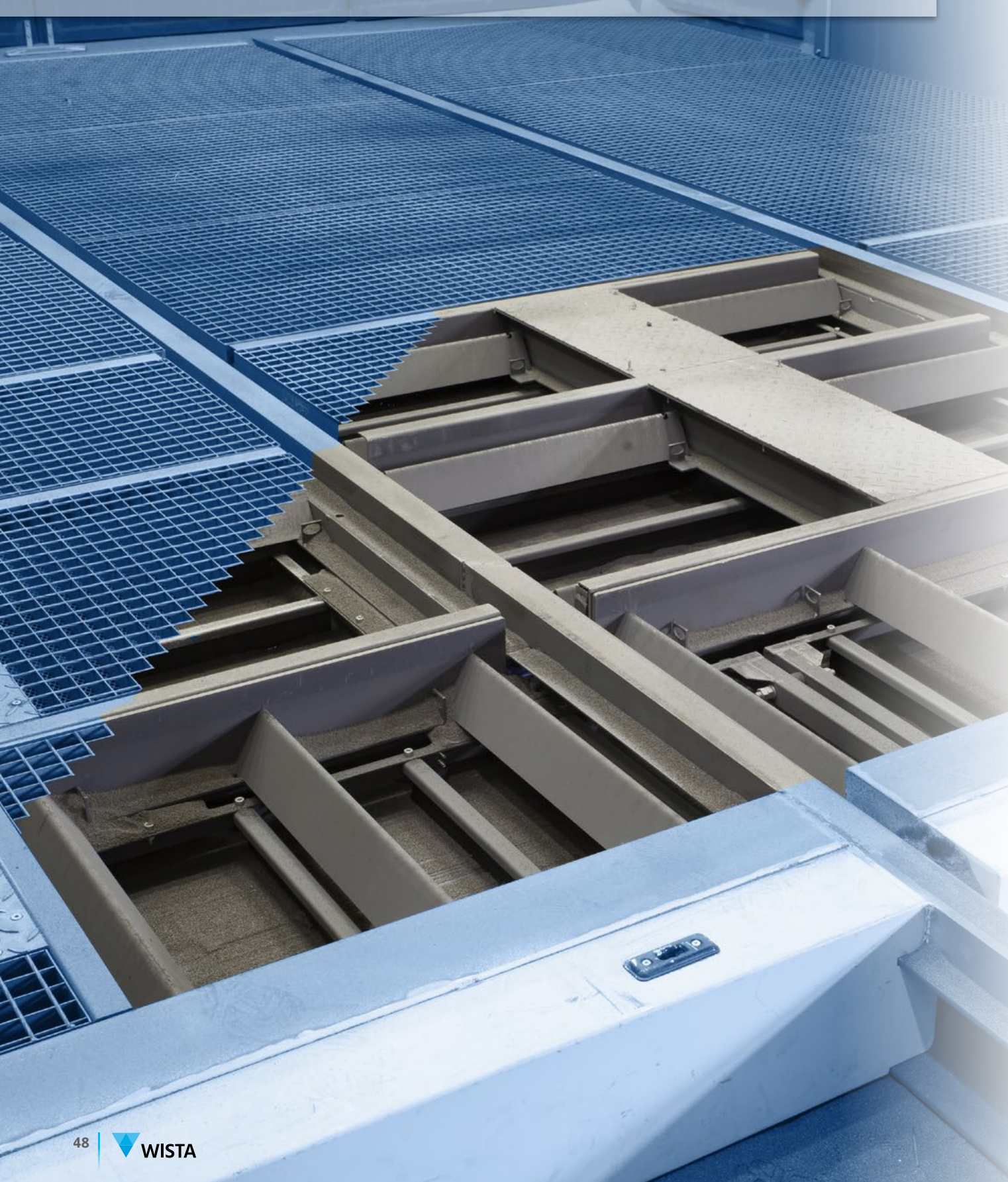
RBP® Leather Blast Gloves



Nova Talk™ Communication System

*A complete range is available
at our e-shop:*
WISTA-SHOP.CZ

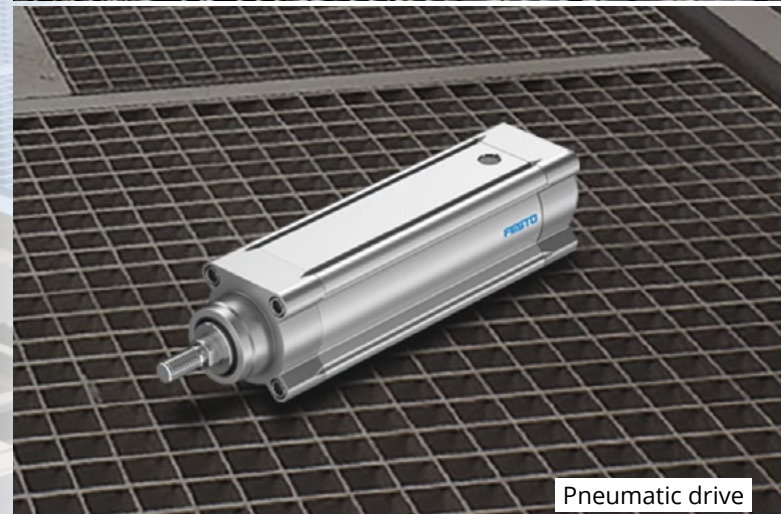
ABRASIVE RECLAIM FLOOR



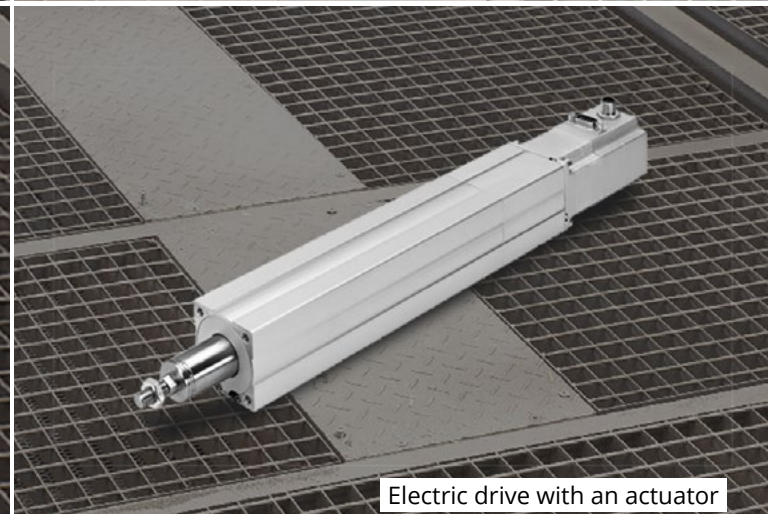
Grates and pre-separation



Drive connection to conveyor belt with a cover



Pneumatic drive



Electric drive with an actuator



Rack conveyor



Rollers



A Crossbeam



Transmission

BUCKET ELEVATORS



DOUBLE-ROW ELEVATOR

Innovative solutions for vertical transport of abrasives. Two rows of buckets deliver the abrasive from the rack conveyor belts to the recycling unit, and then to silos. Ours is a proven design with independent, dual-row media transportation.

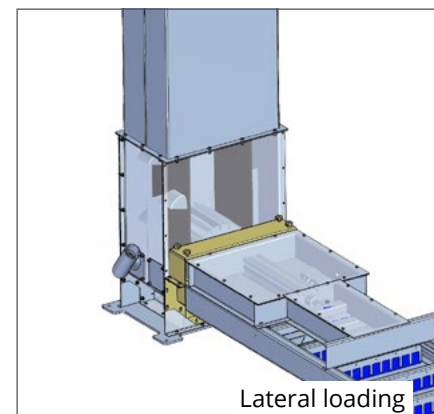
Benefits

- Reduced height of the technology by 1.5 m
- Shorter and wider belts
- Longer service intervals
- longer service periods

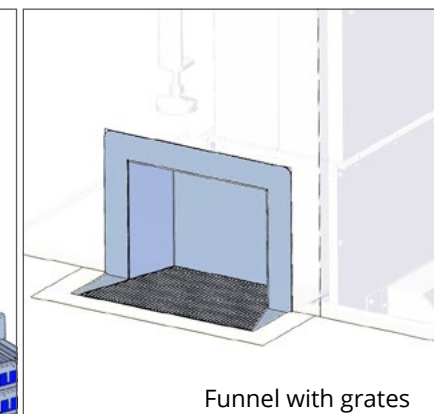
Double row bucket elevator

Single-row bucket elevator

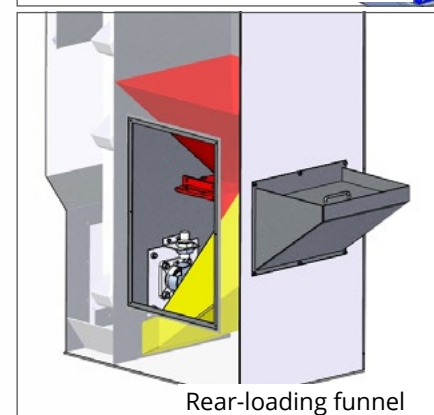
TYPES OF CONNECTION



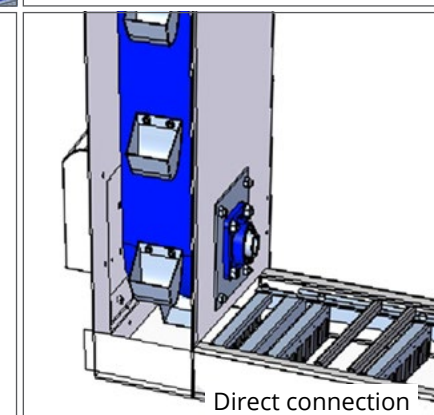
Lateral loading



Funnel with grates

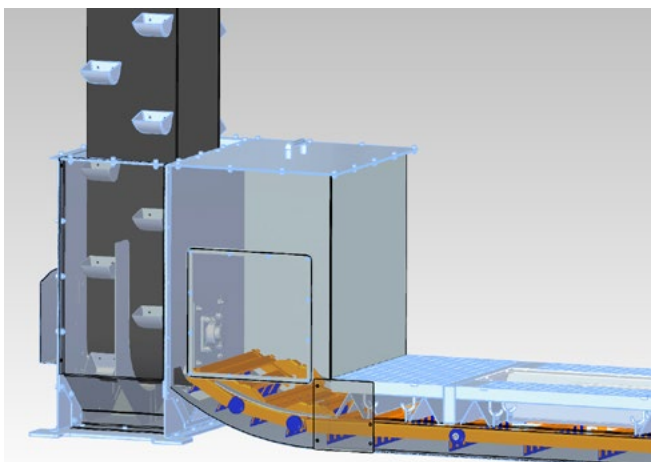


Rear-loading funnel



Direct connection

PICK-UP RAMP



The abrasive arrives to the bucket elevator in the same level as its base, and then it is lifted by set of rakes into the elevator's hopper.

Benefits

- Optimized filling of the buckets
- Reduced risk of abrasive dust sedimentation
- High capacity for transportation
- Suits well for floors without foundations
- especially suitable for baseless floors

ABRASIVE RECOVERY SYSTEM AND SILO



Abrasive separator and silo type 500



Abrasive separator and silo type 900



Abrasive separator and silo type 2000



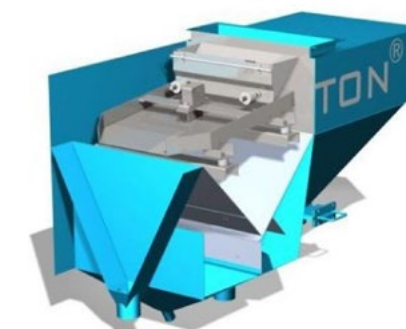
Abrasive separator and silo type 4000



Magnetic drum separator



Magnetic separator control unit



ABRASIVE RECOVERY SYSTEM

This constitutes a professionally designed, precisely engineered and proven system for feeding, metering, and separating (by vibration and air purge) reusable abrasive from broken-down abrasive and debris.

Benefits

- Precise settings for all types of abrasives
- Compact installation space
- Low energy requirements
- Minimum friction of surfaces, use of abrasion-resistant materials, high resistance to wear and tear



AIR MOVER

Providing stable, accurate, and reliable abrasive recovery, this air nozzle system maintains a constant vacuum in the abrasive cleaner. Regulation is possible pertaining to setting the required suction of airborne dust.

Benefits

- Maintenance-free device without mechanical or rotating parts
- Stable suction power independent of the filter system settings or alteration in filter suction parameters, depending on the degree of clogging of filter cartridges or power changes of the fan

BLAST AND RECOVERY UNITS

RECOBLAST™

BRAND-NEW
IN 2020



RECOBLAST 50



RECOBLAST 100



RECOBLAST 200



RECOBLAST 340



RECOBLAST™

Compact blast and recovery units ready to be installed as part of abrasive blasting facilities or inside mobile blast rooms. They either function independently or can be connected to an abrasive recovery floor system.

Main Parts

- Abrasive blaster
- Storage hopper
- Abrasive recovery system
- Bucket elevator
- Electric switchboard & control panel
- Pressure air piping & regulation

Benefits

- Factory assembled and tested
- Easy to transport and quick to install
- Space saving and clear layout
- Maintenance and service access to all parts
- A variety of PLC systems according customers needs and requirements
- Additional equipment on request (remote service control, workflow monitoring, efficiency control - SOLITON App, soundproof and dust-proof cladding, etc.)

Product line

RECOBLAST 50 – compact solution, ideal for fitting into standard shipping containers; continuous abrasive feed system; standard connection to a loading hopper or a conveyor.

RECOBLAST 100 – compact solution, suitable for HI-CUBE shipping containers or limited blast workplaces to ensure ultimate blast & recovery process; ready for connection of a loading hopper or floor transport of abrasive media.

RECOBLAST 200 – modular high-performance blast & recovery unit with a large-volume and highly efficient abrasive blaster, ready for connection of a loading hopper or floor transport of abrasive media.

RECOBLAST 340 – premium model of a blast & recovery unit, ideal for demanding industrial operations with high productivity and effectiveness of work; a modular solution can be used by two operators at the same time.

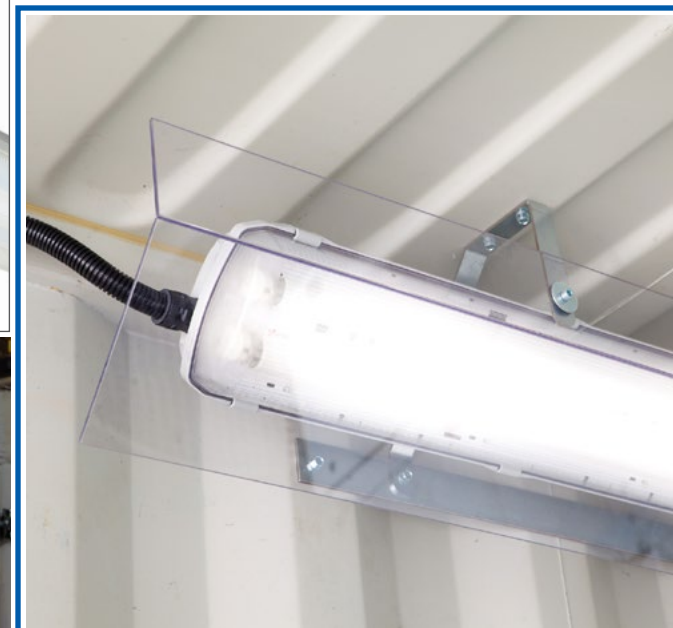
ELECTRICAL EQUIPMENT



Fluorescent lights



LED lights

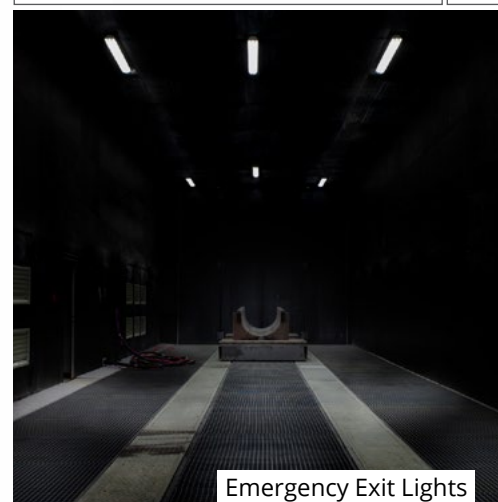


LIGHT PROTECTION SHIELDS

These are made from PC and feature an anti-static surface, their purpose being to protect lights from the direct impact of the abrasive. Special brackets act as a supporting element of the lights and ensure proper positioning for optimum illumination of the workplace.

Benefits

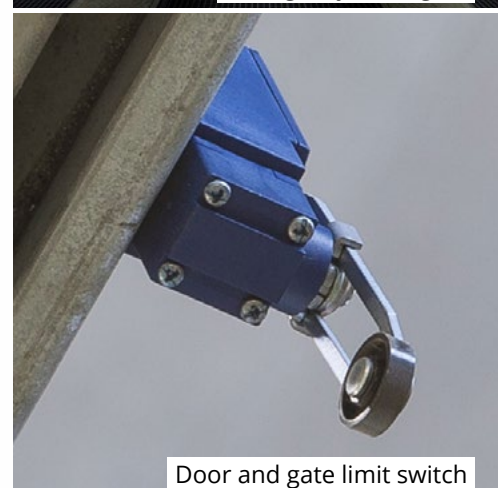
- Extended service life of lights
- Ergonomic shape of the shield enables easy maintenance of the light and shield
- The construction enables access to all parts of the light, or its disassembly without having to remove the shield
- Neither the light nor the brackets prevent free movement and easy maintenance of the protective tarpaulin or other protective sheets on the blast room walls



Emergency Exit Lights



Stack light



Door and gate limit switch



Main switch



Emergency switch



Electrical switchboard with control panel



Electrical wiring

CONTROL SYSTEMS



Touchscreen KTP400 (4")



Touchscreen KTP700 (7")



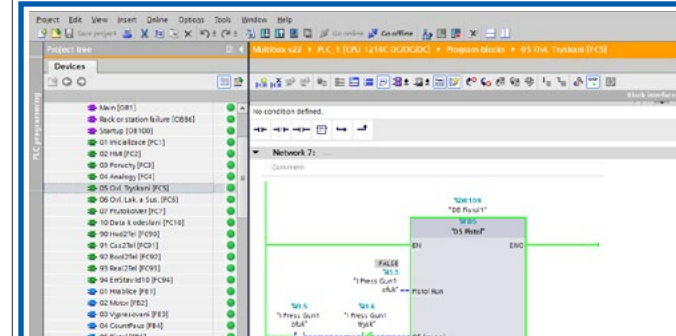
PLC typ S-LOGO



PLC typ S7-1200



PLC typ S7-1500



REMOTE CONTROL

Secured online transmission of data between the PLC S7-1200 or 1500 and the WISTA service center. Depending on the level of electronics used in the technology, the system provides data on current settings and operating conditions.

Benefits

- The option to control and set up the system (or to ensure a PLC upgrade) without the need of onsite intervention
- Shortened maintenance and service response times
- Control of operating conditions, incl. past progress
- Enhanced quality of operating conditions for the provision of operational information and rapid maintenance and repair services
- Direct access to the PLC system



SOLITON APP

This gathers and processes data from the PLC system of the blasting technology, with subsequent storage in a secured cloud data-base. It allows you to display current data and the past progress of operations on a PC, or in a simplified form on a smart phone. The app permits direct contact with the service center, and contains user guides and maintenance manuals, a list of spare parts, and other useful information.

Benefits

- 24/7 control of operations
- Data processing by time or contract
- The ability to predict servicing requirements
- Data portal

COMPRESSED AIR



Two-stage compressor



Compressor with variable speed control



Pressure tank



Air filtration



Dryer



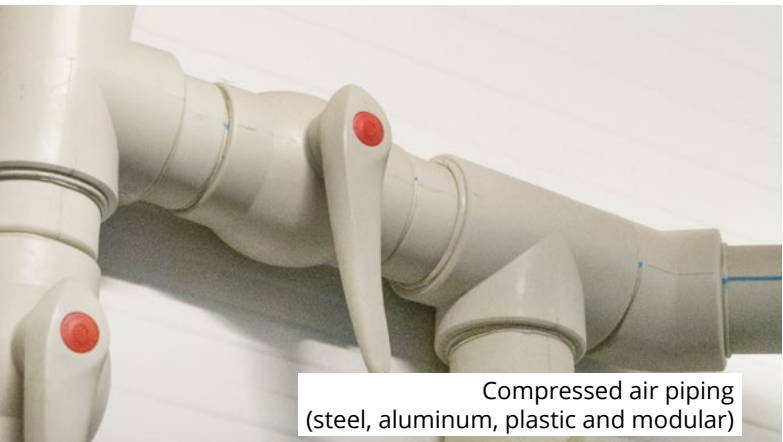
Water and oil separator



Automatic condensate trap



Switchboard



Compressed air piping (steel, aluminum, plastic and modular)



Air ducts (summer/winter items)

TRANSPORT SYSTEMS

LOADING CARTS



Loading cart mechanic



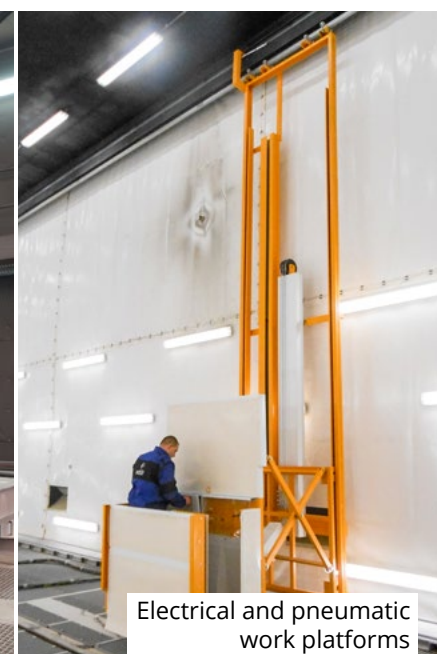
Battery loading cart



WORK PLATFORMS



Fixed work platforms



Electrical and pneumatic work platforms

RAIL GAUGE CONVEYOR

The rack conveyor system is designed to fit into the space between the rails optimally to ensure the smooth flow of abrasive media; the grates are secured against movement, and enough space is available for wheel flanges.

Benefits

- A perfectly clean surface without abrasive residue including a groove groove
- The entire space between the rails is provided with an abrasive transport system
- The transport system has the same construction height as the rail system
- Easy accessible and controlled rack conveyor and the transport system
- Using a standard box system
- „A“ beam and grates with pre-separation sieve

RAILS



Rails S21



Rails R65



Rails 40/41

VACUUM TRANSPORT OF ABRASIVES



PRE-ASSEMBLED SYSTEMS



Vacuum cleaner 722A



Vacuum cleaner 710A



Vacuum cleaner 570A



Vacuum cleaner 600A

ACCESSORIES



Suction head NE64
Suction head NE74
Suction head NE76
Suction head NE97



Vacuum cleaner 600A



Accessories



Suction hoses

DRAIN VALVES



Hand flap



Gravity flap



Pneumatic flap



Linatex valve



Pneumatic valve



Electric control system

ADDITIONAL INFORMATION

*PRESSURE INCREASE BY 1 BAR = ENERGY CONSUMPTION INCREASE BY **10%***
*PRESSURE DROP BY 1 BAR = PERFORMANCE LOSS BY **22%***

DEPENDANCE OF AIR CONSUMPTION ON PRESSURE AND NOZZLE DIAMETER				
NOZZLE DIAMETER (mm)	NOZZLE CODE	AIR CONSUMPTION IN m³/h DEPENDING ON PRESSURE (MPa) AND NOZZLE DIAMETER:		
		0,6	0,7	0,8
6,5	SN 450	140	160	180
8	SN 550	240	260	280
9,5	SN 650	350	370	390
11,5	SN 750	450	470	490
13,5	SN 850	540	560	580

*) Optimum pressure for blasting = 7 bar
**) This applies to surface blasting in general; change to this possible depending on the given conditions

MATCHING NOZZLE SIZE AND COMPRESSOR SIZE FOR REQUIRED PRODUCTION RATE					
PRODUCTION RATE REQUIRED (M²/HR)	BLAST NOZZLE ORIFICE (MM)	PRODUCTION RATE AT 6.9 BAR NOZZLE PRESSURE	PRODUCTION RATE AT 6.2 BAR NOZZLE PRESSURE	PRODUCTION RATE AT 5.5 BAR NOZZLE PRESSURE	COMPRESSOR SIZE M³/H AT 6.9 BAR NOZZLE PRESSURE
Up to 9.3 9.4 - 14.9	6.4 7.9	100 160	85 136	70 112	314 m³/h 30 - 37kW 425 m³/h 45 - 56kW
15 - 21.3 21.4 - 29.4	9.5 11.1	230 317	195 270	161 222	637 m³/h 56 - 75kW 764.5 m³/h 93kW
29.5 - 37.1	12.7	400	340	280	1019 m³/h 112kW

This chart is estimated and based upon use of a long venturi nozzlelem SSPC-6 commercial blast specification.

SERVICE LIFE COMPARISONS - APPROXIMATE SERVICE LIFE IN HOURS			
NOZZLE MATERIAL	STEEL SHOT/GRIT	SLAG	ALUMINUM OXIDE
Aluminum Oxide Tungsten Carbide TC	20 - 40 500 - 800	10 - 30 300- 400	1 - 4 20 - 40
BP200 SiAlON Silicium Nitride SN	500 - 800* 600 - 1000	300 - 400 400 - 600	50 - 100 80 - 150
Bron Carbide BC	1500 - 2500	750 - 1500	200 - 1000

Estimated values for comparison. Actual service life will vary depending on blast pressure, media size, and particle shape.
* Not recommended for 'H' hardness steel shot/grit.

DIAMETERS OF COMPRESSED AIR PIPELINES AT THE PRESSURE OF 0.8 MPa				
NOZZLE DIAMETER	COMPRESSED AIR CONSUMPTION AT THE NOZZLE PRESSURE of 0.7 MPa (m³/h)	AIR HOSE DN (INCH = mm)	MAX. IDENTICAL LENGTH of PIPELINE (m)	BLASTS HOSE (ID x OD) (mm)
No.4 = 1/4" (6,35 mm)	155*)	1 = 25 1 ¼ = 32 1 ½ = 38	40 100 200	25 x 40 32 x 48 ---
No.5 = 5/16" (8 mm)	240*)	1 = 25 1 ¼ = 32 1 ½ = 38 2 = 51	20 50 100 200	25 x 40 32 x 48 38 x 48 ---
No.6 = 3/8" (9,5 mm)	350*)	1 = 25 1 ¼ = 32 1 ½ = 38 2 = 51 2 = 51	5 15 35 100 200	25 x 40 32 x 48 32 x 48 38 x 54 ---
No.7 = 7/16" (11 mm)	460*)	1 ¼ = 32 1 ½ = 38 2 = 51 2 = 51 2 = 51	5 15 50 100 200	32 x 48 32 x 48 38 x 54 38 x 54 ---
č.8 = 1/2" (12,7 mm)	600*)	1 ¼ = 32 1 ½ = 38 2 = 51 2 ½ = 63 2 ½ = 63	5 15 50 100 200	32 x 48 32 x 48 38 x 54 38 x 54 ---
No.10 = 5/8" (16 mm)	940*)	2 = 51 2 ½ = 63 3 = 76 3 = 76	30 50 100 200	38 x 54 38 x 54 44 x 62 ---
No.12 = 3/4" (19 mm)	1350*)	3 = 76 4 = 100	50 200	44 x 62 ---

*) Designing the capacity of the compressor unit, we recommend you to add:

- Required capacity of other supply points
- 20% for increased consumption of used nozzle
- 10% to offset any decreased compressor performance in case of permanent operation (for more than 30 minutes)
- 10% to offset any decreased compressor performance by age (if older than 3 years)

IDENTICAL LENGTH OF PIPELINES (m) / DIAMETER (DN)							
	DN 25	DN 40	DN 50	DN 80	DN 100	DN 125	DN 150
	8	10	15	25	30	50	60
	1,2	2	3	4,5	6	8	10
	0,3	0,5	0,7	1	1,5	2	2,5
	1,5	2,5	3,5	5	7	10	15
	0,3	0,5	0,6	1	1,5	2	2,5
	0,15	0,25	0,3	0,5	0,8	1	1,5
	2	3	4	7	10	15	20
	0,5	0,7	1	2	2,5	3,5	4

GREAT PERFORMANCE OF FINEST EQUIPMENT

"Our unsurpassed technical knowhow and state-of-the art technology deliver the highest productivity, reduce the consumption of abrasive media, and offer professionals much more besides."

More than 40 years ago, the founders of SCHMIDT Mfg endeavored to produce a productive blasting facility that would contribute to a safer work environment. Together with a team of devotees, experienced welders, engineers, and staff, they went on to devise a high quality product that sold across the globe, which has since become

the most renowned and recognized standard for abrasive flow control. Axxiom Manufacturing, Inc. is proud to build on this heritage and continue on with the same vision. Boasting more than 40 years' experience and development in the sector, the company delivers the finest in blasting technologies and compressed air treatment.



Blasting machines are manufactured by WISTA under a SCHMIDT license (TX, USA) according to European Union (CE) standards



MicroValve - MV3



ThompsonValve - TVII



TERA

BLASTING SYSTEMS

"An ideal one exists for each application."

Non Hold System

After shutdown, the pressure vessel releases the air and abrasive. The system has to be re-pressurized during start-up. The metering valve remains open.

Benefits

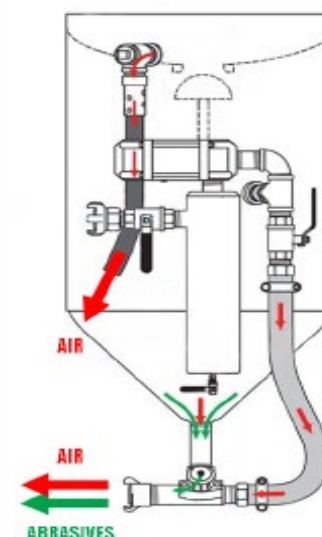
- Low acquisition costs

Drawbacks

- Loss of air and abrasive during every break
- Long durations necessary for operating pressure build-up and relief
- Frequent switching on/off can result in accelerated wear and tear

Application

Free blasting, blasting of large areas where there is no need to switch off the blast process frequently; suitable for utilization of cheap abrasives; low cost of compressed air.



Abrasive Hold System

After shutdown, the pressure vessel releases the air, not the abrasive; it has to be re-pressurized after being switched on. The metering valve closes pneumatically.

Benefits

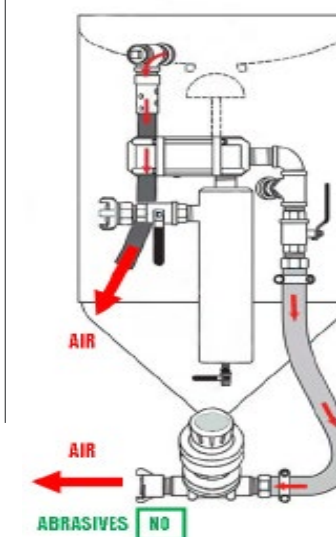
- No loss of abrasive
- Option for automatic refill of the abrasive after shutdown

Drawbacks

- Loss of compressed air
- Long durations necessary for operating pressure build-up and relief

Application

Cost-efficient blasting of large areas. The blast process can be switched off and on frequently. Especially suitable for small pressure vessels (ca. 50 - 100L); uses expensive abrasive media; low cost of compressed air.



Pressure Hold System

The pressure vessel holds both air and abrasive after shutdown; the metering valve and the air inlet are closed.

Benefits

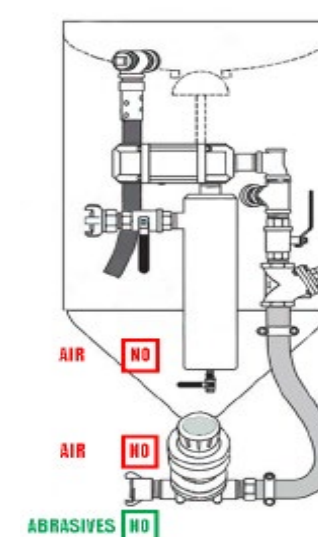
- Rapid switching between on/off without any loss in the abrasive or energy
- Option to switch to purge of compressed air

Drawbacks

- After abrasive blasting, the air has to be drained away and the abrasive refilled

Application

Large pressure vessels. Multiple operators connected to one vessel. Continuous abrasive feed systems for high volume production environments. Extreme in requirements for economical blasting. Suitable for air purge systems or autonomous valve cleaning.



Contact our sales representative to obtain a comprehensive offer of the equipment from SCHMIDT (Texas, USA), incl. metering valves.

AUTONOMOUS CONTROL OF FLOOR CONVEYORS

"Our abrasive reclaim system has never been so efficient, energy- saving, powerful and reliable."

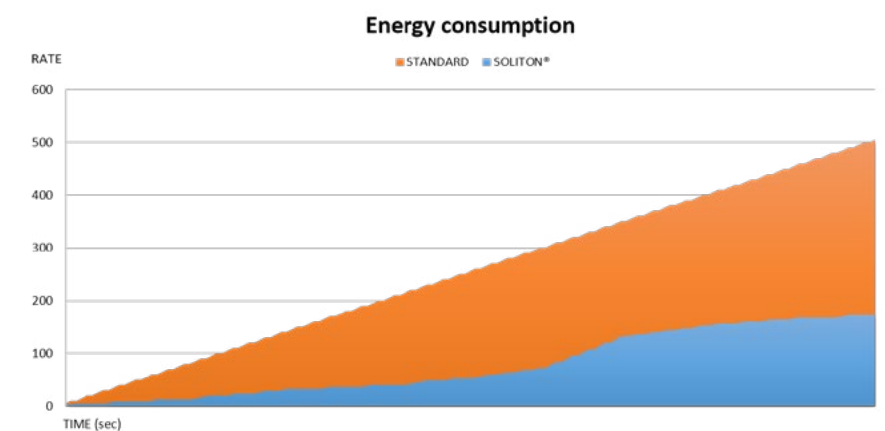
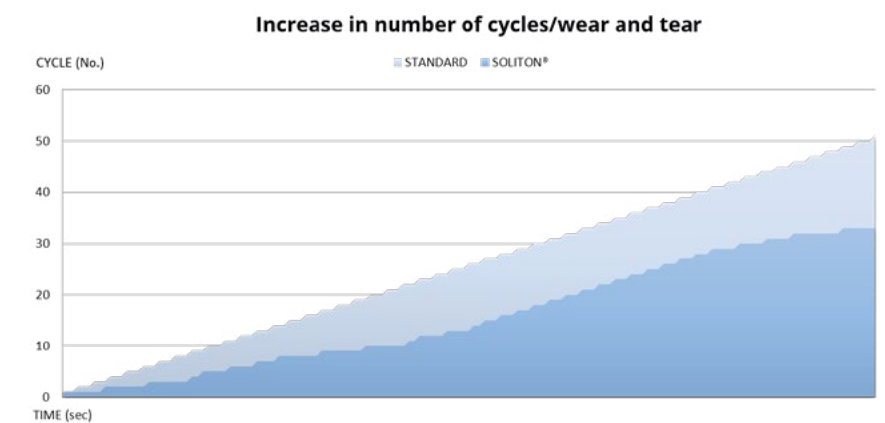
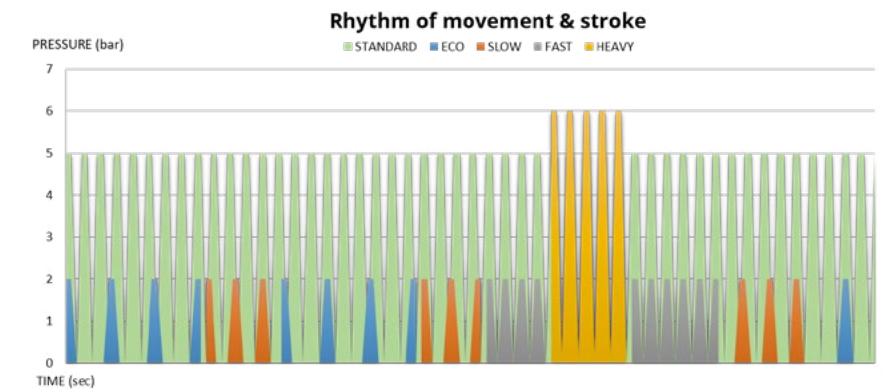
A revolutionary abrasive reclaim system, it comes equipped with a control unit that selects between pre-defined operating modes, which it is also able to modify autonomously in order to achieve optimal performance according to the actual reclaim load.

The sophisticated drive mechanism of the rack conveyor adapts to the intensity of movement and the conveyor's stroke according to the amount of the media transported.

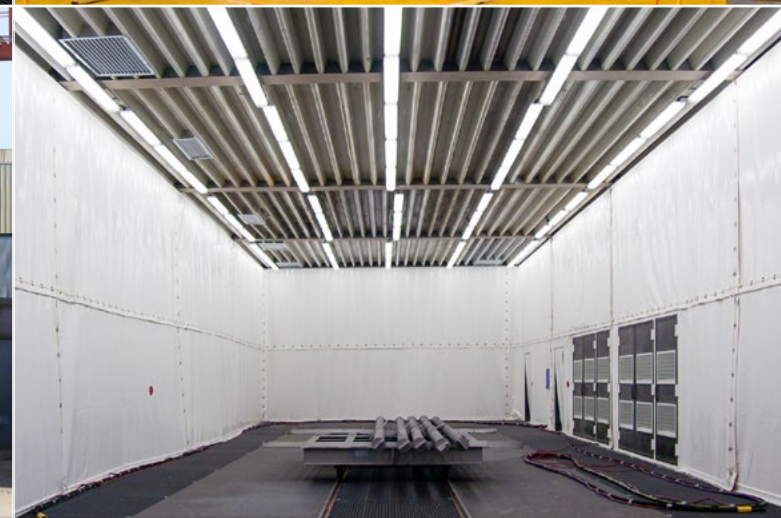
The conveyor systems are covered with lightweight grates with a pre-separation sieve, underpinned with adjustable beams, which allow the user to modify the load capacity of the entire reclaim floor.

Benefits

- Significantly reduced operating costs
- Reduced energy consumption by approx. 50%
- Extended service life of conveyors, by more than double
- Minimal requirements for structural alteration
- Higher maximum loading capacity by at least 20%.
- Information on each conveyor load
- Modular system of grates with optional loading capacity up 3.5t.



EXAMPLE INSTALLATIONS



PRODUCT PORTFOLIO

COMBINED PAINT AND DRYING ROOMS

LARGE PAINT SHOPS

POWDER PAINT TECHNOLOGY

COMBINED BLAST, PAINT AND DRYING ROOMS

SHOT BLASTING MACHINES

VOC ABATEMENT

ARC SPRAYING

BLAST CABINETS

MOBILE BLASTING SYSTEMS

MOBILE FILTER UNITS



ABRASIVE BLASTERS



BLASTING CONTAINERS



SERVICE PORTFOLIO

TECHNOLOGICAL AUDITS



SERVICING



TRAINING SYSTEM



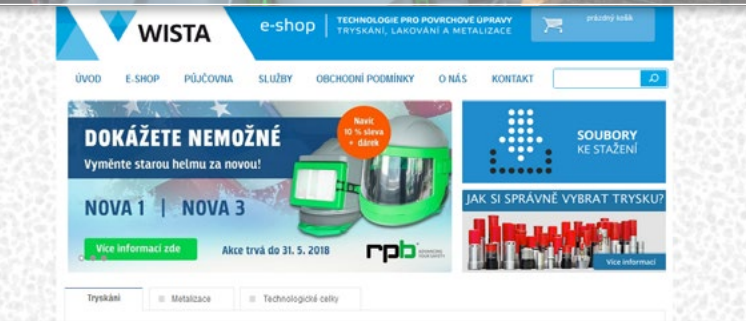
PROFESSIONAL SEMINARS



DEMONSTRATIONS & TESTINGS



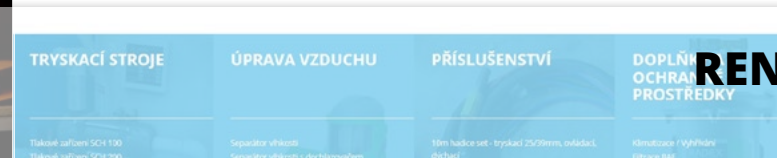
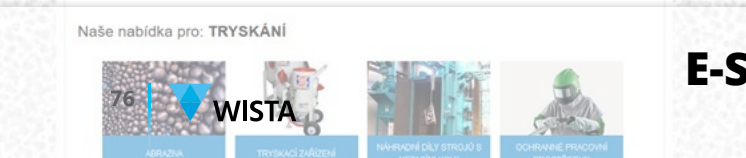
CONFERENCES & EVENTS



E-SHOP



RENTAL





ISO 9001 : 2015



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763 02 Zlín - Louky
Tschechische Republik

TRADITION
INNOVATION
EFFECTIVENESS