International Surface Technologies
istsurface.com

ISTblast
BEYOND THE SURFACE

SANDBLASTING BOOTHS

International Surface Technologies (IST) is a leading manufacturer and installer of abrasive blast rooms in North America. Our turnkey sandblasting solutions provide a safe and effective sandblasting environment, allowing you to operate independently of outdoor weather conditions, whatever your requirements or the size of the parts to be sandblasted.

MEDIA RECOVERY SYSTEMS

Pneumatic

By screw

Hybrid

Pneumatic with storage silo

With silo and loading cart feeding

GENERAL BROCHURE

2023-07-03

SANDBLASTING BOOTHS

Each ISTblast booth structure is custom designed with a modular panel system allowing for easy on-site assembly with the screws and bolts provided. The structure is supported by heavy-duty structural steel beams allowing for the installation of a hoist or monorail.

STEEL GALVANIZED PANELS

14 Gauge with natural finish. Other gauges and finish with powder coating are available in the color of your choice (upon request).

ACCESS DOOR FOR STAFF

Glazed standard size 36'' x 96''. Illuminated sign « Exit » (available upon request).

DOOR SECURITY SWITCH SYSTEM

Allows you to interrupt sandblasting when a door is open.

To Dust Collector Booth

EXHAUST PLENUM

Adjustable, connected to booth dust collector.

AIR INLET PLENUM

Adjustable, can be installed on a wall or a door.

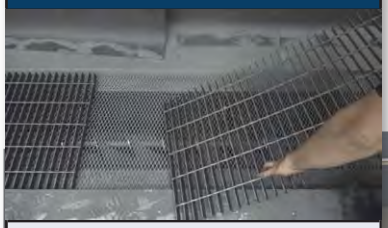
LOADING PARTS DOORS

Wide-opening and available in different versions (solid door, folding door with two or three leaflets, roll-up door with rubber curtain).

INSIDE THE SANDBLASTING BOOTH

The interior of the booth provides a completely sealed environment to control dust and media flakes produced by blasting operations.

MEDIA RECOVERY HOPPER



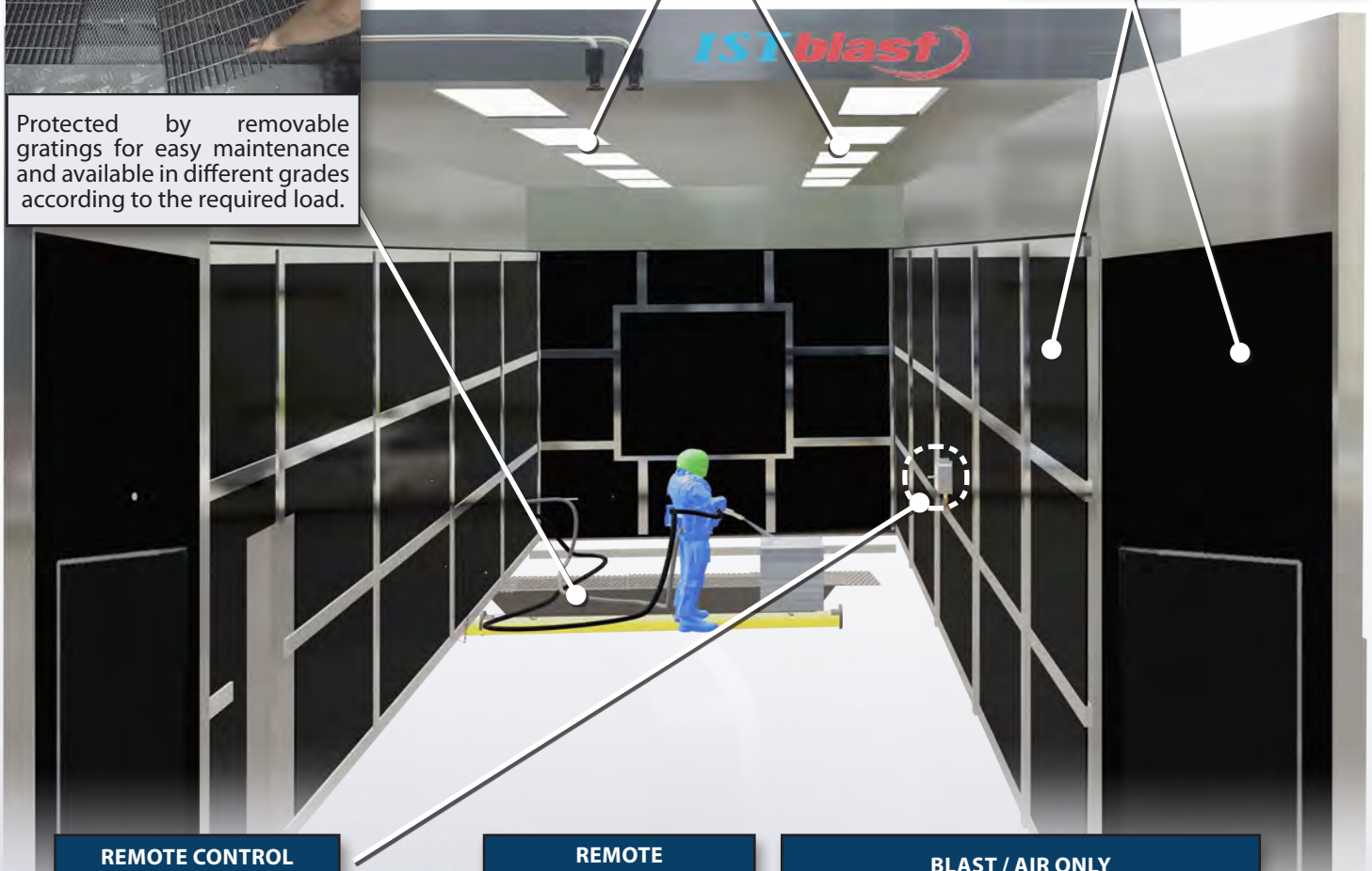
Protected by removable gratings for easy maintenance and available in different grades according to the required load.

DEL LIGHTING SYSTEM

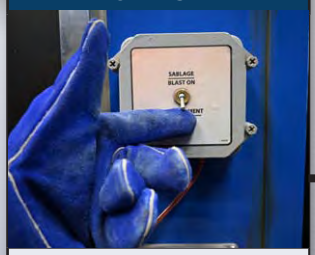
High-efficiency LEDs produce 65% more lumens and consume 90% less power.

RUBBER LINING

Optional ⅛'' SBR rubber panels protect the integrity of the booth while improving sound isolation.



REMOTE CONTROL SWITCH



Allows the operator to control his blasting vessel from inside the booth, without having to remove his safety equipment.

REMOTE DEPRESSURIZATION SWITCH

Fills the media tank from the reserve contained into the storage hopper.

BLAST / AIR ONLY REMOTE SWITCH

Turns the blast hose into a powerful blower producing high velocity compressed air that can be used to dust the freshly blasted workpiece or blow the abrasive residue to the floor recovery hoppers without effort.

PRESSURIZED SANDBLASTER AND MEDIA STORAGE

ISTblast offers a variety of blasting pots and accumulation hoppers that provide the blasting autonomy to meet your production goals without running out of media at critical times in the process. Our pressurized blasters are available in various sizes and can supply one or two blasters simultaneously.

646 Model

(1 operator)

(2 operators)

1046 Models

Specifications	PPB 646	PPB 1046
Loading capacity (A.S.M.E.)	6.5 ft³	10 ft³
Tank Diameter	24''	24''
Media Capacity (abrasive)	600 lb	1,000 lb
Lenght x Height x Width	32'' x 50'' x 35''	32''x 66'' x 35''
Weight	350 lb	575 lb
Operators Number	1	1 or 2

Designed to maximize your productivity and reduce pressure loss

Our pressure blasters are equipped with heavy-duty industrial valves and sealed plumbing to reduce pressure loss and maximize nozzle pressure and blasting performance.

Systems	Standard	Maxblast
Plumbing, valves and hoses*	1 ¼"	1 ½"
Recommended blasting nozzles*	¼", 5⁄16", ⅜", 7⁄16"	½", ⅝"
Perfect for	Indoor or outdoor blasting applications for precision and agility of the blaster	Maximize productivity and speed of execution on very large surfaces to be covered (shipyards, large and not very complex parts or structures, rail transport equipment or heavy vehicles, etc.)
Benefits	Malleability and lightness of the blasting hose Hose whip at the nozzle	Increased blast speed and blast coverage due to increased nozzle pressure Reduced pressure losses from 24% to 27% Increase in productivity by 36% to 40%%

** Inside diameter*

CHOICE OF STORAGE HOPPER

Our storage hoppers are available in 6.4, 10, 30, 50, 100 ft³ or more depending on the height of the building available and the target autonomy.

The storage hopper acts as a buffer between the recovery rate of the media recycling system and the opportune moment when the sandblaster must fill his pressurized vessel with media in order to maintain the desired production rate.

Air & Abrasive Consumption

Pressure

Opening	psi[1]	30	40	50	60	70	80	90	100[0]
1/8"	cfm[2]	8	10	11	13	15	17	19	20
	lb/h[3]	55	69	84	97	110	127	140	154
3/16"	cfm[2]	18	22	26	30	33	38	41	45
	lb/h[3]	130	160	170	192	220	243	268	297
1/4"	cfm[2]	34	41	47	54	61	68	74	81
	lb/h[3]	219	276	302	351	398	460	504	556
5/16"	cfm[2]	53	65	77	89	101	113	126	137
	lb/h[3]	410	495	526	601	680	756	832	910
3/8"	cfm[2]	76	91	108	126	143	161	173	196
	lb/h[3]	570	710	750	860	970	1080	1184	1296
7/16"	cfm[2]	100	124	147	170	194	217	240	254
	lb/h[3]	770	840	1008	1160	1320	1476	1630	1782
1/2"	cfm[2]	137	165	195	224	252	280	309	338
	lb/h[3]	1015	1230	1305	1500	1700	1890	2088	2277
5/8"	cfm[2]	212	260	308	356	404	452	504	548
	lb/h[3]	1325	1600	1875	2140	2422	2690	2973	3250

Recoverable Blasting Media

Spherical shaped media

Ceramic Beads | Glass Beads | Stainless Shot | Steel Shot

Angular shaped media

Aluminium Oxide | Ceramic Grit | Crushed Glass | Garnet | Plastic Media | Silicon Carbide | Stainless Grit | Steel Grit | Walnut Shells

Media Guide

	Glass Beads	Ceramic Grit	Stainless Cut Wire	Steel Shot	Steel Gri	Alumi-nium Oxide	Silicon Carbide	Garnet	Crushed Glass	Plastic Media	Walnut Shells
Finishing	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
Cleaning/Removal	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Peening	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO
Surface Profiling (Etch)	NO	NO	YES	NO	YES	YES	YES	YES	YES	YES	YES
Working Speed	MED.	MED.	MED.	MED.	MED.-HIGH	HIGH	VERY HIGH	HIGH	HIGH	MED.-HIGH	LOW-HIGH
Recyclability	HIGH-LOW	HIGH	HIGH	VERY HIGH	VERY HIGH	MED.-HIGH	MED.-LOW	MED.	MED.-LOW	MED.	LOW
Probability of Metal Removal	VERY LOW	VERY LOW	VERY LOW	VERY LOW	MED.	MED.-HIGH	MED.-HIGH	MED.	LOW-MED.	VERY LOW	VERY LOW
Hardness, MOH Scale (Rockwell RC)	5.5	7 (57-63)	6-7.5 (35-55)	6-7.5 (35-55)	8-9 (40-66)	8-9	9	8	5.5	3-4	1-4.5
Bulk Density (lb/cu.ft.)	100	150	280	280	230	125	95	130	100	45-60	40-80
Mesh Size	30-440	8-46	20-62	8-200	10-325	12-325	36-220	16-325	30-400	12-80	MANY
Typical Blast Pressure	20-55	20-90	20-90	20-90	20-90	20-90	20-90	30-80	20-50	20-60	10-40
Shapes : ● or ▲	●	●	●	●	▲	▲	▲	▲	▲	● or ▲	▲

** Above information is intended as a general reference guide*

RECOVERY AND RECYCLING SYSTEM FOR ABRASIVE MEDIA

Depending on the blasting process, residual abrasive media accumulated on the floor can be recovered, cleaned and recycled to reduce your media consumption while protecting your environment from harmful dust. Some media can be recycled and reused up to 100 times, which provides a much lower cost of ownership than disposable abrasives and better sanding quality.

ISTblast offers a variety of pneumatic, mechanical or hybrid recovery systems for blast rooms. Our solutions are suitable for all budgets and allow you to maximize the return on investment of your blasting process, whatever your objectives or implementation constraints.

OVERVIEW OF AVAILABLE SYSTEMS

Pneumatic system

The pneumatic recovery system is an efficient and inexpensive solution to recover used abrasive with minimal operator effort. This system is equipped with a high efficiency turbine dust collector and can handle the main recyclable abrasives available on the market, except for heavy media.

System with suction head

The vacuum head recovery system is an inexpensive solution for collecting abrasive residue from large tanks and hard-to-dispose-of containers. This system does not use a floor hopper and requires less care and maintenance than other pneumatic systems.

Mechanical system

The mechanical recovery system is the ideal solution for maximizing operator performance and offers unlimited configuration possibilities. This system collects the media residue through a floor screw conveyor system and conveys it to a cleaning system using a bucket elevator.

Hhybrid system

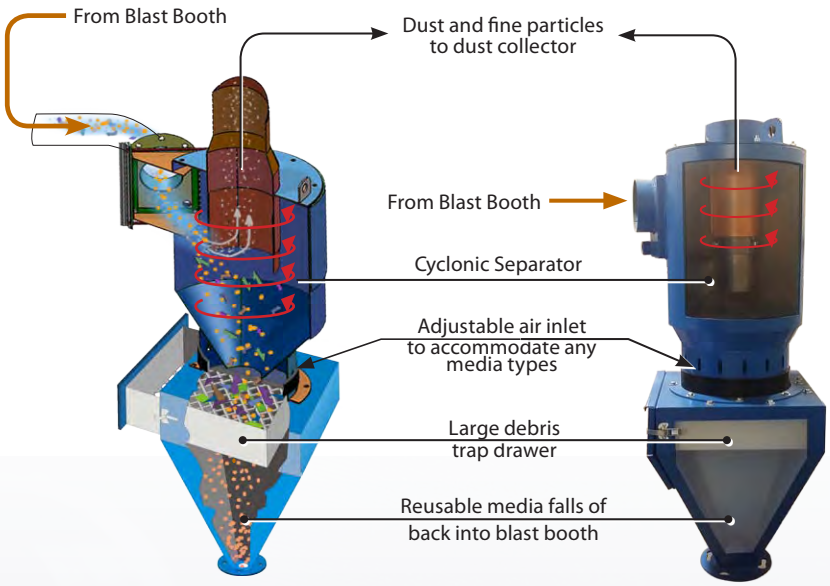
The hybrid system combines the benefits of the pneumatic recovery system with the mechanical system. Residual media is transferred to screw conveyors and then vacuumed by a high performance dust collector to separate the dust from the good media by means of the adjustable cyclone separator..

Mechanical loading system

The mechanical loading recovery system is the ideal solution for very large chambers or to maximize productivity in facilities where excavation is not permitted. Abrasive residue must be mechanically loaded into a discharge hopper to be recovered by the system. This system has very few mechanical components, which makes it easy to maintain and reduces the cost of implementation.

MEDIA CLEANING SYSTEM

Contaminated abrasive media recovered by the recovery systems are then routed to a cleaning system to separate light particles (such as dust, paint chips, rust, scale, broken media pieces, etc.) and discharge them to the dust collector. At the end of the cleaning process, only light particles are removed. At the end of the cleaning process, only the media particles in good condition are returned to the pressure blaster to be reused in the blasting process.

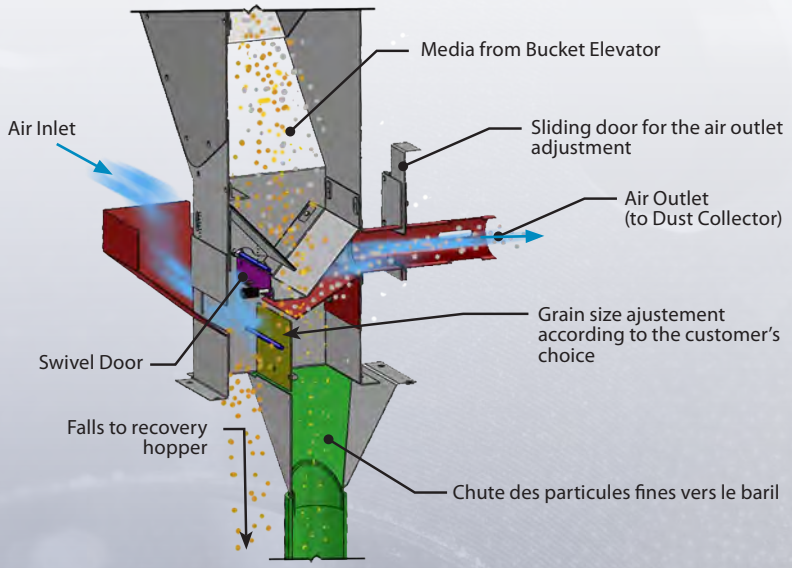


CYCLONIC SEPARATOR

Standard on our pneumatic recovery systems, the cyclone separator sorts out contaminated media particles using centrifugal force.

A circular air movement is generated by the passage of the air flow in a cylindrical housing of the cyclone separator.

To reduce premature wear caused by friction with the blasting media, an optional rubber lining can be bonded to the walls of the cyclone separator.



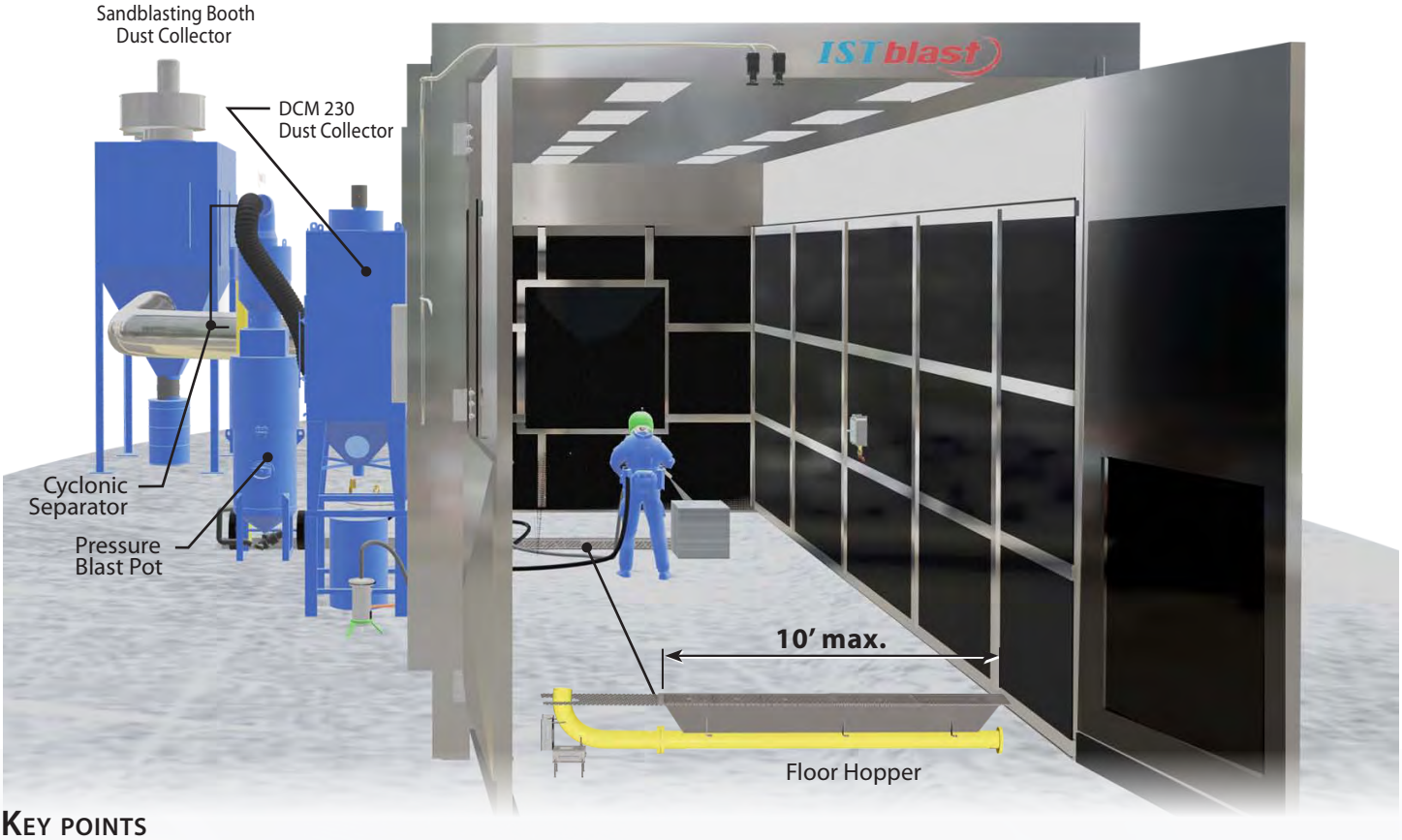
AIRWASH

The airwash separates dust and foreign particles from the reusable abrasive media by means of a propelled air stream whose flow rate is fully adjustable according to the density of the media used in the process and the contaminants generated.

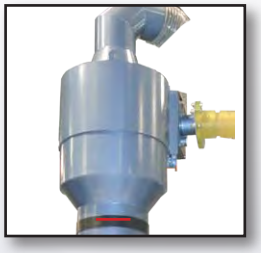
À l'intérieur du séparateur à air, un ensemble de déflecteurs ajustables permet de contrôler la chute du média de manière à l'exposer, de façon optimale au rideau d'air afin d'optimiser le procédé de nettoyage.

PNEUMATIC RECOVERY SYSTEM – MSW1200

How it works



Key points



100% adjustable cyclonic separator

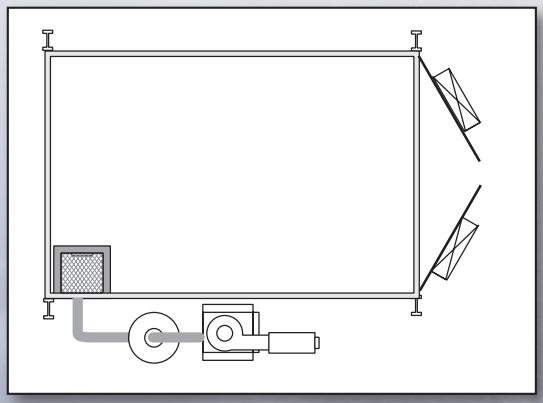
Dust collector DCM230

Pneumatic recovery system with floor hoppers

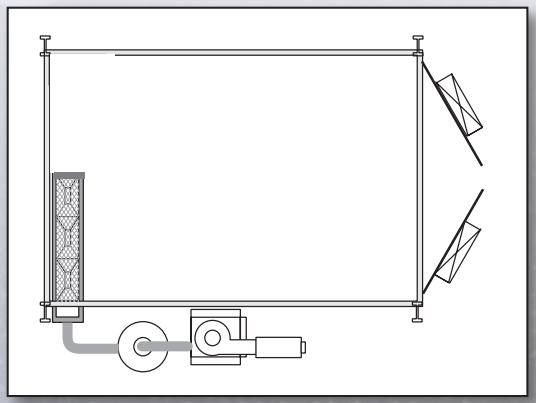
Recovery system capacity

Light abrasive only

Recovery hoppers layouts available



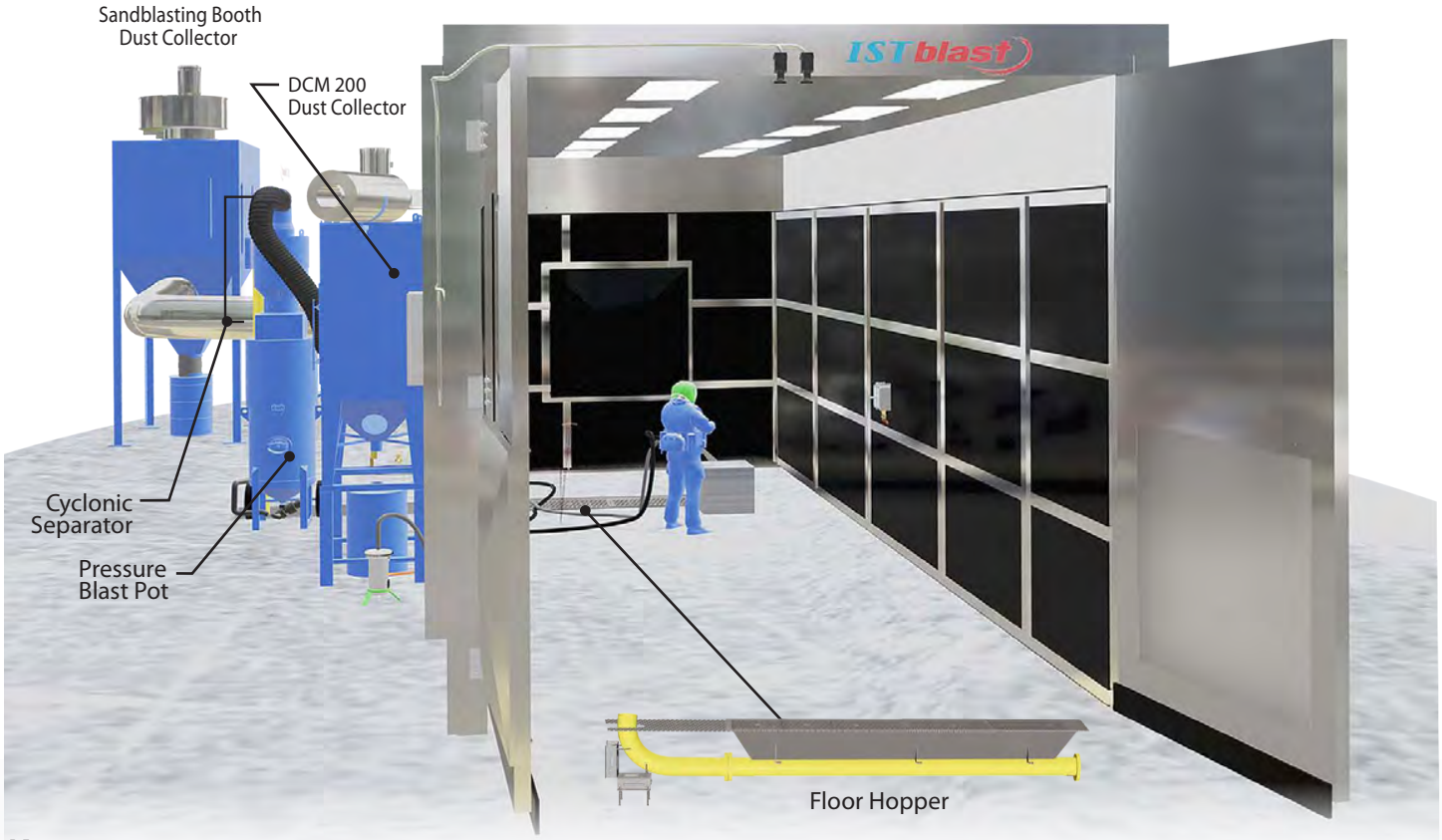
Corner shoot / Shoveling



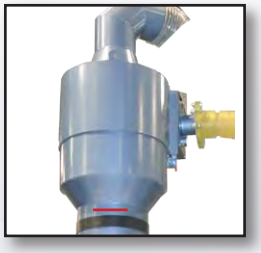
Single in ground pneumatic through

PNEUMATIC RECOVERY SYSTEM - MRS200

How it works



Key points



100% adjustable cyclonic separator

High efficiency dust collector DCM200

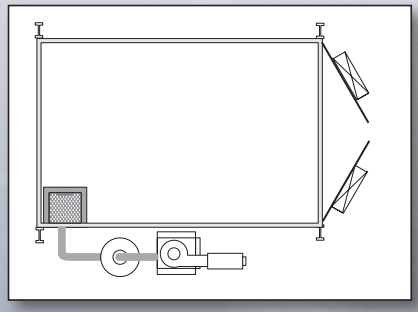
Pneumatic recovery system with floor hoppers

Recovery system capacity

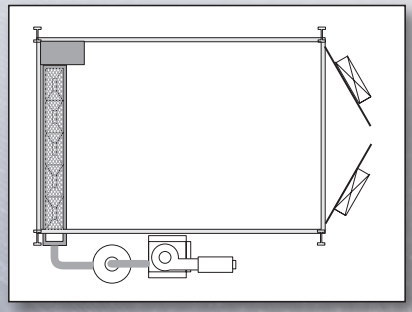
Can handle most abrasives*

** Except steel grit GH-36 or bigger and steel shot S-230.*

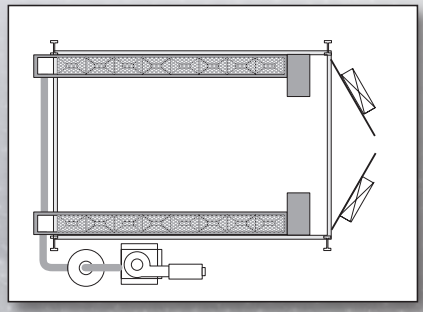
Floor hoppers layouts available



Corner shoot / Shoveling



Single in ground pneumatic through

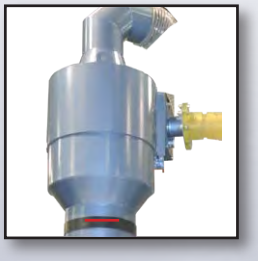


Double in ground pneumatic through

PNEUMATIC ABRASIVE BLAST ROOMS – MRS500

How it works

Key points

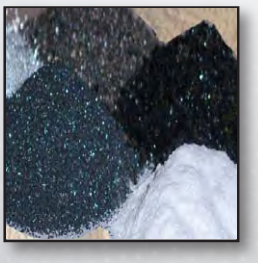


100% adjustable cyclonic separator

High efficiency dust collector DCM200 with 20 hp impeller

Vacuum recovery system using handy suction head (gulper)

Recovery system capacity

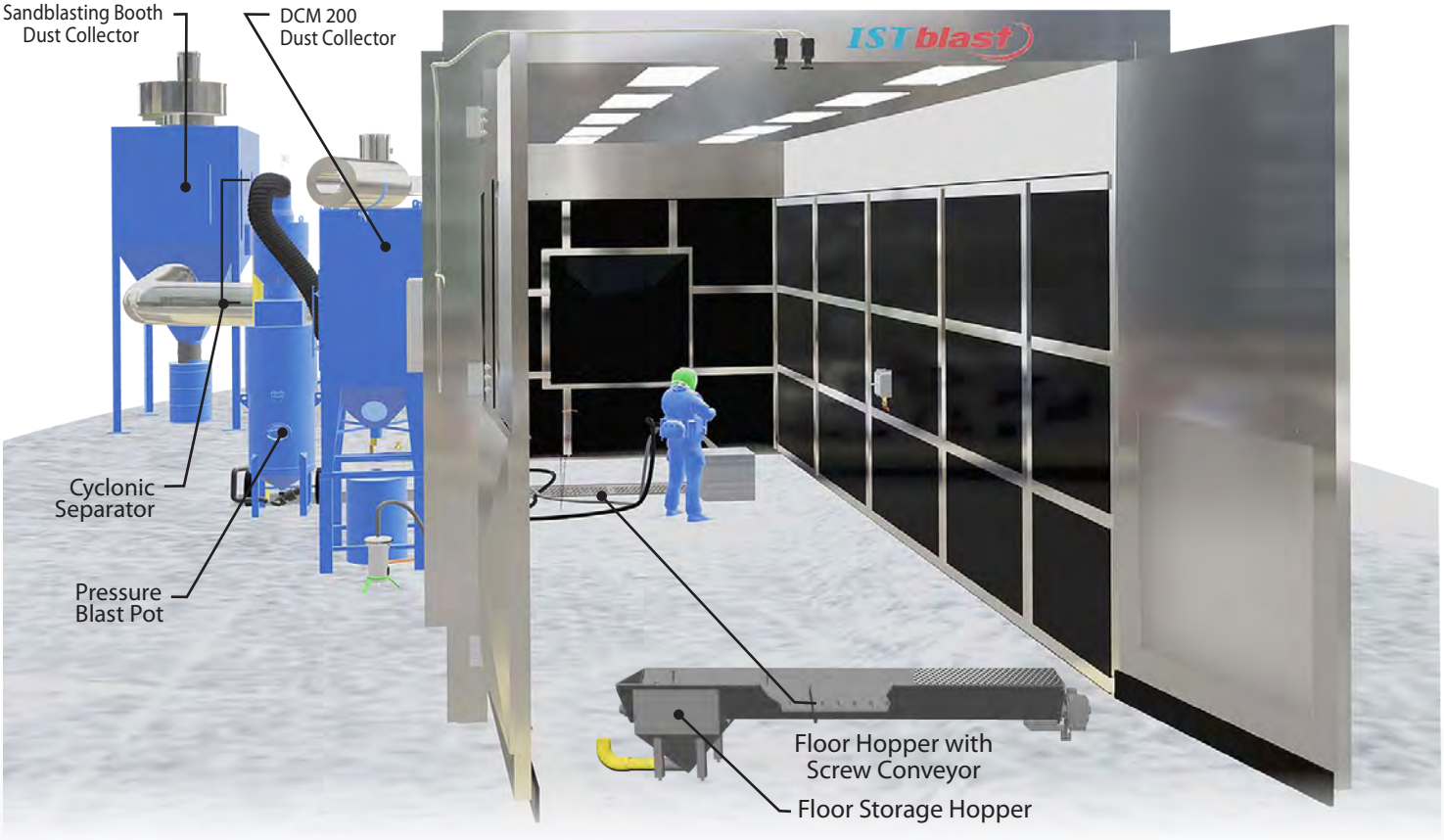


Can handle most abrasives*

** Except steel grit GH-36 or bigger and steel shot S-230.*

HYBRID PNEUMATIC AND MECHANICAL RECOVERY SYSTEM

How it works



Key points

100% adjustable cyclonic separator

High efficiency DCM200 dust collector

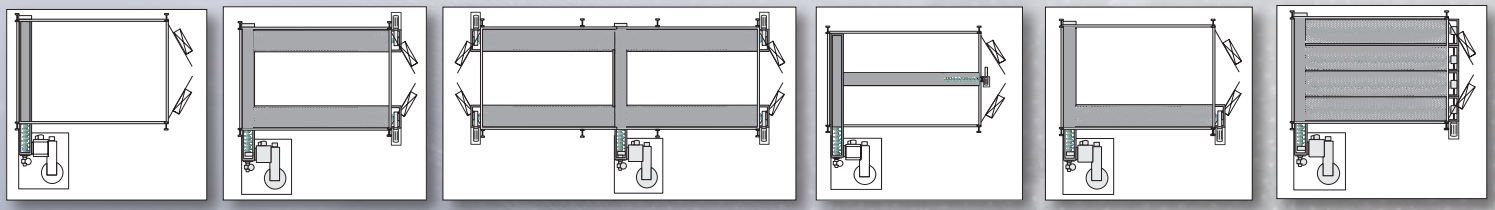
Screw conveyor recovery system & floor hopper

Recovery system capacity

Can handle most abrasives*

** Except steel grit GH-36 or bigger and steel shot S-230.*

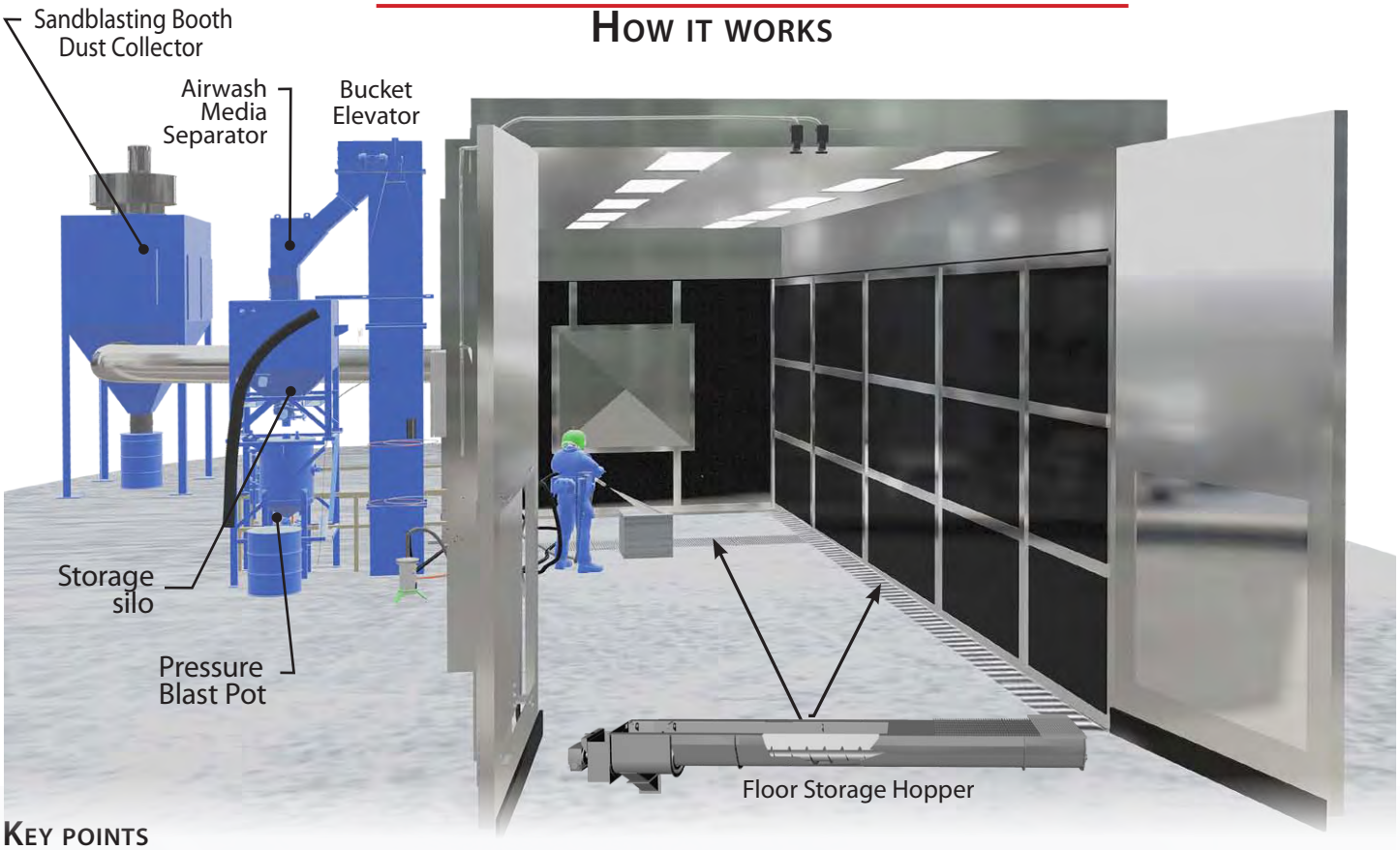
Choice of floor hoppers



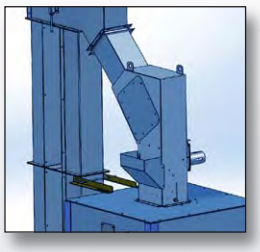
With simple screw | "U"-shaped | "H"-shaped | "L"-shaped | "T" -shaped | Complete single floor

MECHANICAL ABRASIVE BLAST ROOM (SCREW)

How it works



Key points



100% adjustable abrasive air wash

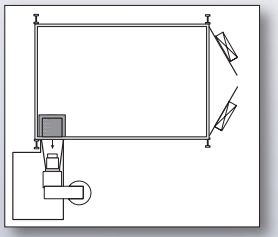
Screw conveyor recovery system

Bucket elevator

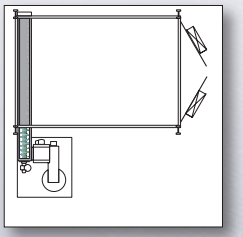
Recovery system capacity

Can handle all types of abrasives

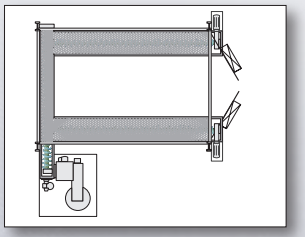
Choice of floor hoppers



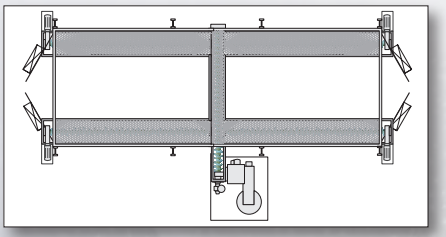
Corner shoot / Shoveling



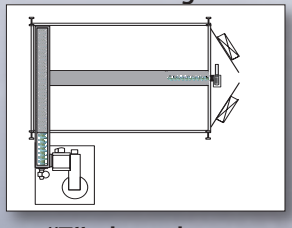
With simple screw



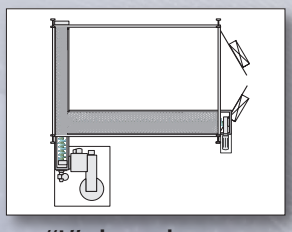
"U"-shaped



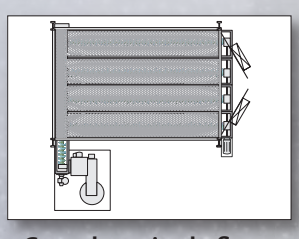
"H"-shaped



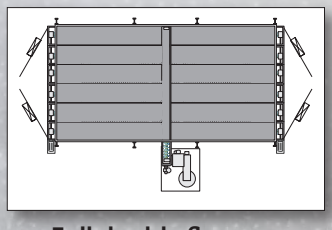
"T" -shaped



"L"-shaped



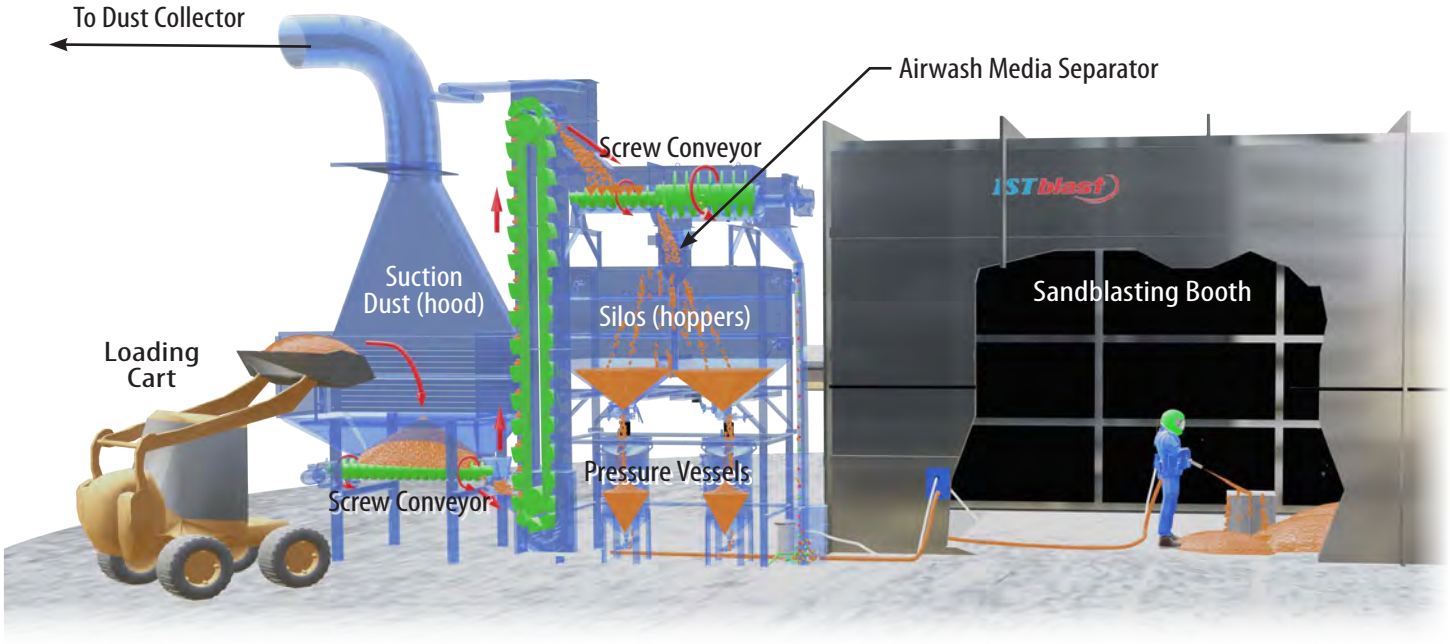
Complete single floor



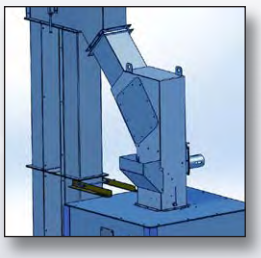
Full double floor

MECHANICAL LOADING RECOVERY SYSTEM

How it works



Key points

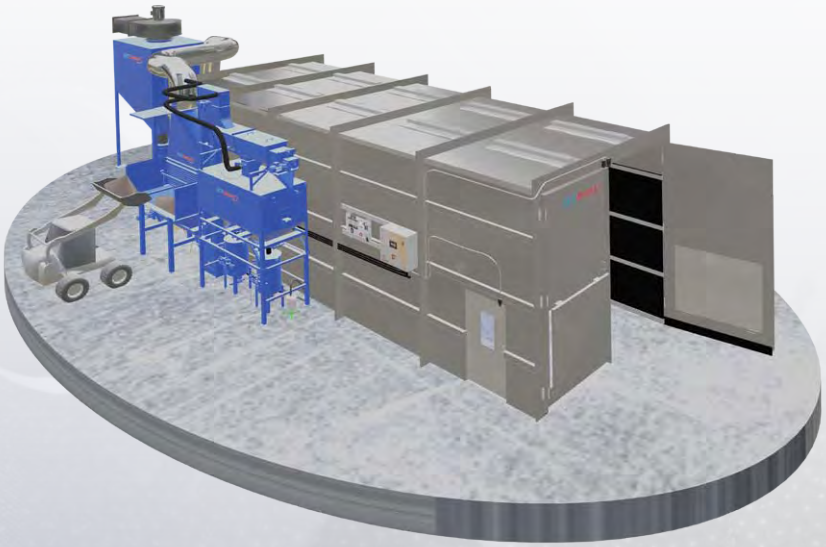


100% adjustable abrasive air wash

Bucket elevator

Recovery system capacity

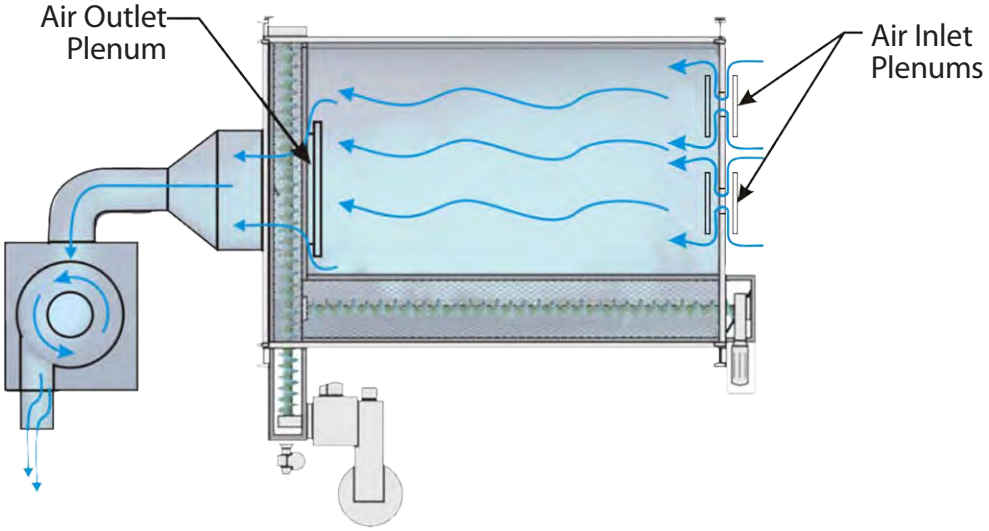
Can handle all types of abrasives

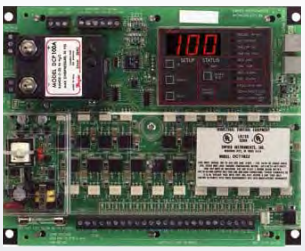


Discharge hopper integrated in the recovery system, Media supply and recovery in the sandblasting chamber by forklift. Allows the use of large quantities of media without the need to dig a collection hopper.

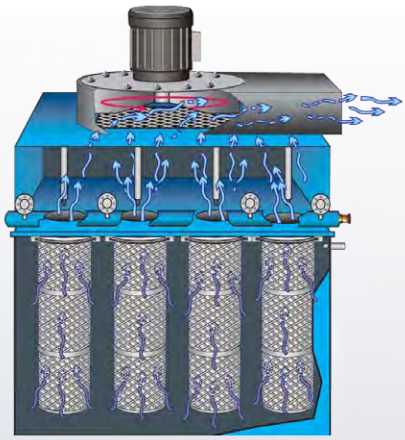
SANDBLASTING BOOTH DUST COLLECTORS

ISTblast blast chambers come with a powerful cartridge dust collector to extract dust and airborne contaminants generated by the blasting process. At each end of the chamber are adjustable inlet and exhaust vents to achieve optimum airflow which increases sandblaster visibility and reduces wear on mechanical parts.

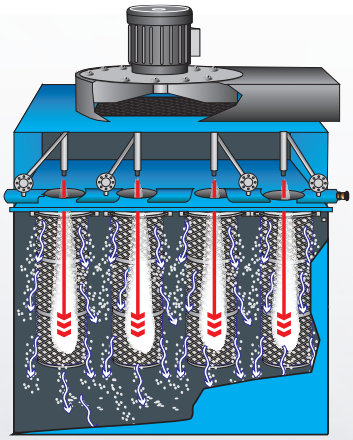




DCT1000



Dust Extraction



Unclogging Cartridges

KEY POINTS

1. Nanofiber cartridges to filter 99.9% of particles with dimensions of one (1) micron (µm) or more
2. Equipped with an automatic cartridge cleaning system by reverse pulsation
3. Motor available in different powers ranging from 2,000 to 50,000 cfm or more
4. Cartridge saturation monitoring system reported live on a controller module accessible inside the building (DCT1000)
5. Several explosion-proof options available (sprinklers, explosion-proof panel, backdraft damper, etc.)

PERSONAL PROTECTION SYSTEMS (PPS)

IST is an authorized distributor of RPB Safety products in order to offer its customers the best respirators and breathing air systems designed for sandblasters. This operator protective equipment is designed to comply with National Institute of Occupational Safety and Health (NIOSH) standards.

SANDBLASTING RESPIRATORS

RPB sandblaster respirators are supplied with a choice of six cap designs.

Nova 2000

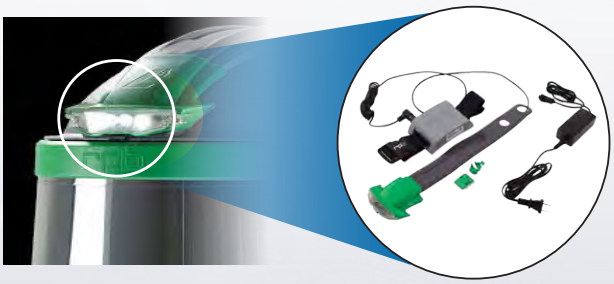
Nova 3

CLIMATE CONTROL DEVICES

The climate control devices can increase or decrease incoming air to control the temperature of supply air to the blaster for optimal comfort.

AUXILIARY HEAD LIGHT

The LED L4 Light provides up to 650 lumens of concentrated light to the operator's field of view for increased vision and safety while blasting.



INTEGRATED COMMUNICATION SYSTEM

The Nova Talk is a wireless radio communication system that fits securely inside the headtop allowing operators to communicate effortlessly with team members.

AIR MONITORING, FILTRATION, AND SUPPLY

RADEX INLINE FILTER

The Radex Inline Air Filter is a 6-stage air purifier that extracts and captures liquid and solid contaminants potentially hazardous to the sandblaster.

GX4 GAS MONITOR

The GX4 gas monitor detects when gases are present in the air supply source, alerting when carbon monoxide, oxygen and hydrogen sulphide are at levels above/below grade D breathing requirements.·

ABOUT THE COMPANY

WHO WE ARE

IST is a leading manufacturer of equipment for the surface treatment industry and the solvent recycling industry. Our extensive line of equipment includes batch units and automated machines designed to achieve the highest manufacturing standards.

MISSION

IST works tightly with their customers to transform industrial processes to improve their quality, productivity, and environmental footprint.

OUR SERVICES

- Custom Design & Fabrication
- Installation & Startup
- Preventative Maintenance Program
- Private Labels
- Testing Lab
- 24/7 Technical Support

INDUSTRIES WE SERVE

- Aerospace & Aviation
- Aluminium Smelters
- Automotive
- Construction & Civil Engineering
- Flexography (labelling) & Lithography
- Foundry & Forge
- General Manufacturing
- Military
- Power & Energy
- Rail & Mass Transit
- Shipyards
- Wood finishing

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