International Surface Technologies
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ISTblast
LEADER IN SURFACE TREATMENT

PNEUMATIC RECOVERY SYSTEM

FOR ABRASIVE BLAST ROOM MRS200 & MSW1200

Shown : MRS200

- Warranty
- Safety
- Operation
- Service Parts
- Accessory Information
- Registration Form

INSTRUCTION MANUAL

2018-10-29

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INTRODUCTION

Welcome to the ISTblast family of sandblasting products. This booklet contains helpful information and acquaints you with the operation and maintenance of your equipment. Please read carefully and follow our recommendations to assure trouble free operation. If you have any questions, please do not hesitate to contact your distributor or our technical service.

The products described in this manual, and the information relating to those products, is intended for knowledgeable, experienced users of abrasive blasting equipment.

No representation is intended or made as to the suitability of the products described herein for any particular purpose or application. No representations are intended or made as to the efficiency, production rate, or the useful life of the products described herein. Any estimate regarding production rates or production finishes are the responsibility of the user and must be derived solely from the user's experience and expertise, and must not be based on information in this manual.

The products described in this manual may be combined by the user in a variety of ways for purposes determined solely by the user. No representations are intended or made as to the suitability or engineering balance of the combination of products determined by the user in his selection, nor as to the compliance with regulations or standard practice of such combinations of components or products.

It is the responsibility of the knowledgeable, experienced users of the products mentioned in this manual to familiarize themselves with the appropriate laws, regulations and safe practices that apply to these products, equipment that is connected to these products and materials that may be used with these products.

It is the responsibility of the user to insure that proper training of operators has been performed and a safe work environment is provided.

Our company is proud to provide a variety of products to the abrasive blasting industry, and we have confidence

EQUIPMENT LIST

Be sure to identify correctly the components that you obtained. Check that they have not been damaged in transit.

(see pages 43-44)

1. Dust collector DCM200.
2. Cyclonic system.
3. Abrasive storage hopper.
4. Hopper floor, fittings and hoses.
5. Depressurization hose plate.
6. hose plate input to the sandblast room.

OPTIONS :

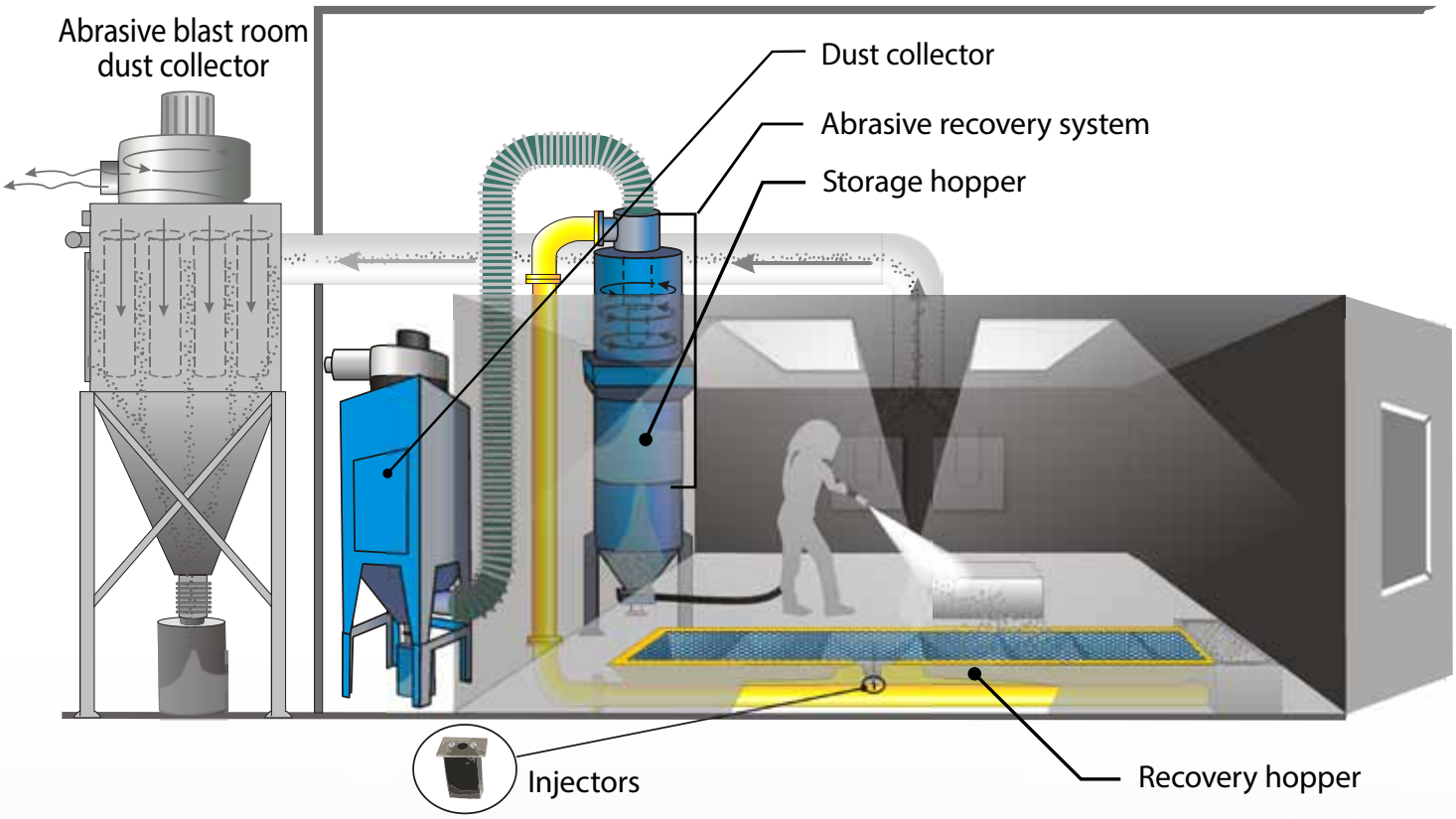
7. Sandblast jet (pressure vessel)
8. Dust collection barrel.
9. Muffler for fan.
10. Electrical control box.
11. 4 stages filtration system.
12. System doors security.

DESCRIPTION & HOW IT WORKS

The high performance pneumatic system consists of a high efficiency vacuum dust collector, a recycler with a 900 cfm capacity, a storage hopper to be installed on top of an existing pressure vessel or supplied with the system.

PRINCIPLE OF OPERATION

After sanding, abrasive that is found on the floor can be swept into the floor hopper. The high efficiency fan will carry the abrasive to the cyclonic system. The cyclonic system will separate the dust from good abrasive and the dust, will be transferred to the dust collector. The good abrasive is retained in the storage hopper until the pressure vessel requires filling.



CUSTOMER SUPPLIED SERVICES

Compressed air

The customer is responsible for providing a supply of clean, dry compressed air of 250 cfm depending of the size of the nozzle to supply the sandblasting system, the operator's air filtration system, the DCM dust collector and blastroom dust collector control dust chamber. All piping and hoses connected to the various components will be supplied and installed by the customer.

Electricity

The customer is responsible for providing a power supply to the main control panel in accordance with the service drawings and a 115V-15A circuit to power the 4 stage filtration system and the electronic cartridge's pulse cleaning system.

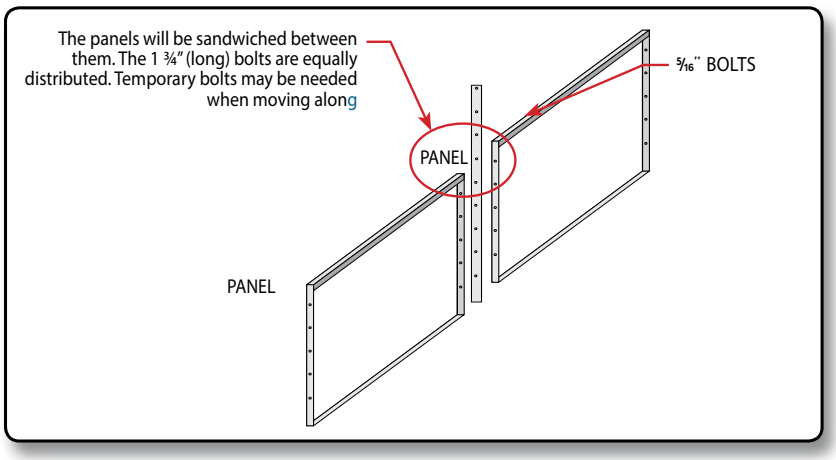
INSTALLATION

Locate your pnematic recovery system so as to have easy access to all the equipment to perform maintenance and as close as possible to your sandblasting room. You will need to access the door for changing the dust filter bags. The cyclonic system will require adjustment, and cyclonic screening tray cleaned, pressure vessel air supply piping and the air supply pipe of the pressure vessel should also be accessible. (See shop drawings provided by ISTblast).

ABRASIVE BLAST ROOM STRUCTURE - WALLS & CEILING

See the assembly drawings for more details on how to assemble your sanding chamber. These drawings are specific to your configuration and are included with each sanding chamber shipment.

The entire structure of the blast room is supplied reinforced, with 14 gauge galvanized steel - G9. All wall and ceiling panels are designed to be bolted together during installation. All panel joints are sealed with sealant during assembly to ensure a tight seal. Before installation, the foundation must be flat and square. All access doors are equipped with safety interlocks in order to be able to interrupt sanding if a door is opened



WALL PANELS

The panels are made from galvanized 14 gauge bolted together at every 6 " for maximum stiffness. The panels are fastened together with 5/16 " bolts and must be sealed with the caulk provided after assembly

CEILING PANELS

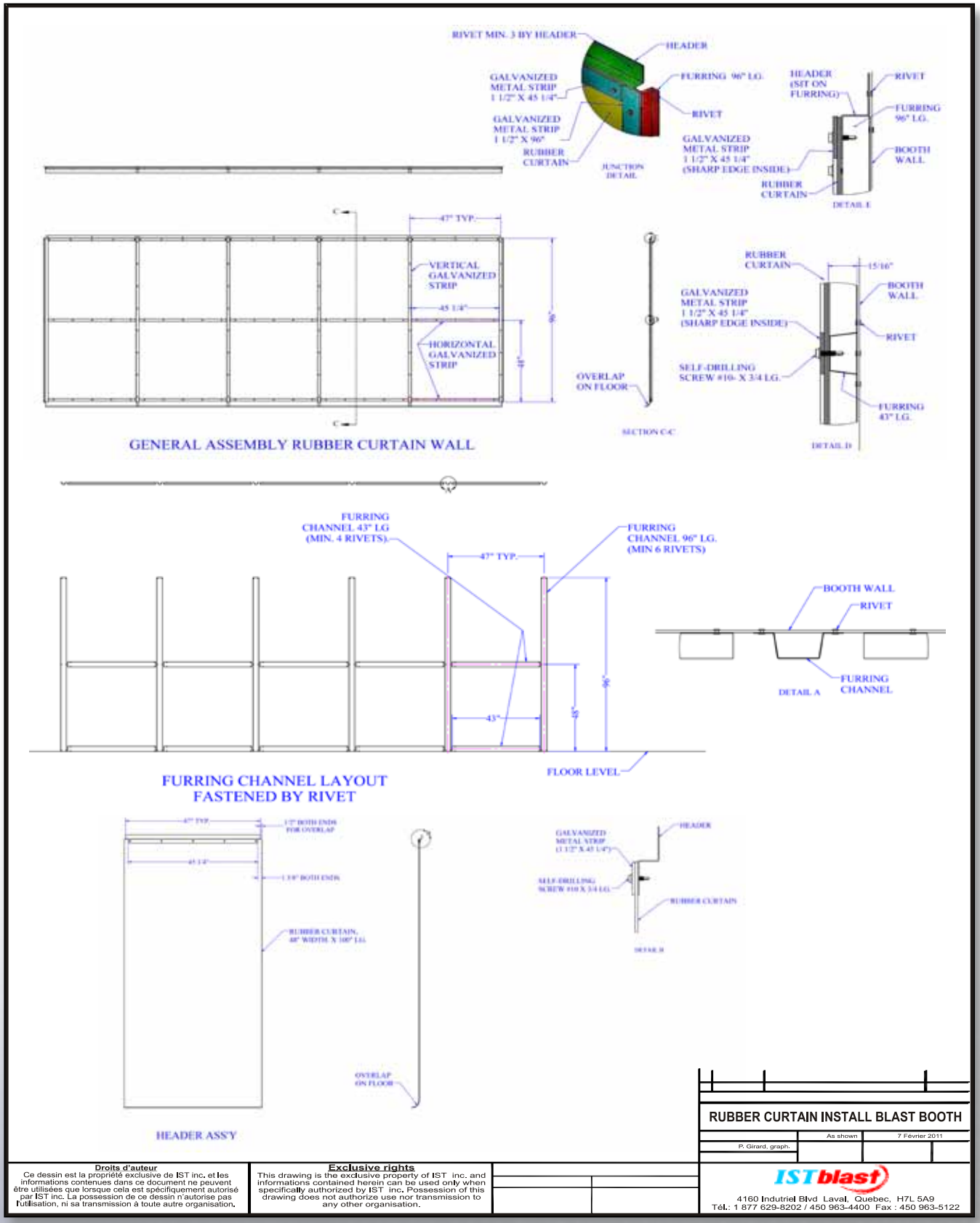
The panels are made of galvanized 14 gauge bolted together at every 6" for maximum rigidity. Panels are secured together with 5/16" bolts and must be sealed with the caulking provided after assembly.

STEEL STUDS

Each joint between the wall and ceiling panels is reinforced with reinforced steel reinforcements formed, placed between the panels. These reinforcements are made of 3/16 " thick sheet steel.

ABRASIVE BLAST ROOM STRUCTURE - WALLS: RUBBERIZATION

The interior walls of the abrasive blast room are protected by 1/8 "thick black rubber neoprene curtains.



ABRASIVE BLAST ROOM STRUCTURE - AIR CIRCULATION

The suction fan, through the dust collector and conduit network, creates a negative pressure of 1/2 "w.g. (Nominal) at one end of the blowing room. This causes the outside air to be sucked through the air inlets at the opposite end of the chamber and the development of a cross-flow airflow. The exhaust outlet is diverted to allow only the transport of dust-laden air. The inputs and outputs are proportionally sized to ensure adequate volume and airflows.

Input Deflectors

Room air inlet

The dimensions and quantity of deflectors depend on the size of the abrasive blast room (they can also be on the doors)

Output deflectors

abrasive blast room air outputs

Go to the dust collector of the abrasive blast room. The dimensions and the quantity of deflectors depend on the size of the abrasive blast room

ABRASIVE BLAST ROOM STRUCTURE - DOORS

MAIN DOOR

The entrance / exit doors are manufactured with steel tube frames painted with 18-gauge steel and fixed to structural "C" studs. These doors are equipped with a weatherproof, closed-cell closed-cell foam rubber gasket around the perimeter and a neoprene rubber seal at the sill. The included mounting hardware includes an FM approved panic safety lock and door pulls.

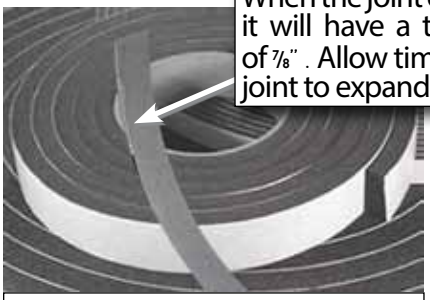
Exterior of the room

Type F screws have a fluted tip.

Hinge Bolts & Nuts 3/8 " x 1 " - 16

A pilot hole is drilled and the screw is placed in the pilot hole. Once the screw in it, it will make a net in the tube. The 16⁄64" bits are included in the same box as the nuts.

When the joint expands, it will have a thickness of ⅞" . Allow time for the joint to expand.

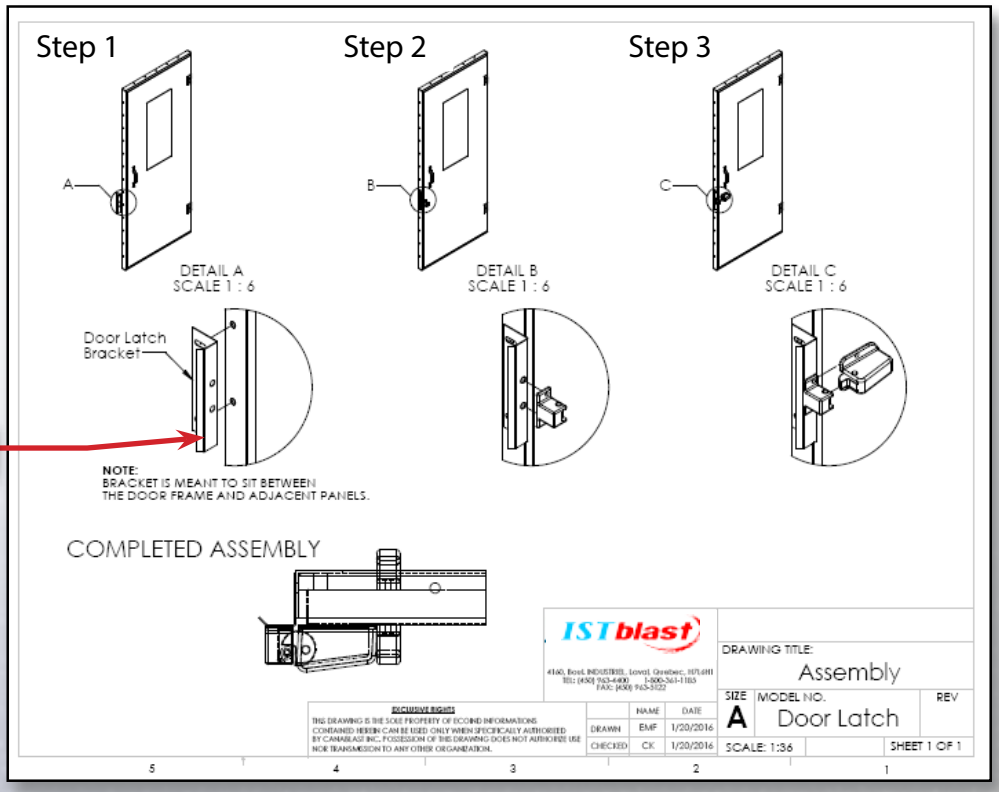


Foam door seal 1¼ " wide x 7/8 " thick. X roll 45 'long.

DOOR OPERATOR

One (1) 30 "x 84" - 18 gauge, pre-fixed steel door in an industrial grade steel frame is supplied ready for mounting to the abrasive blast room.

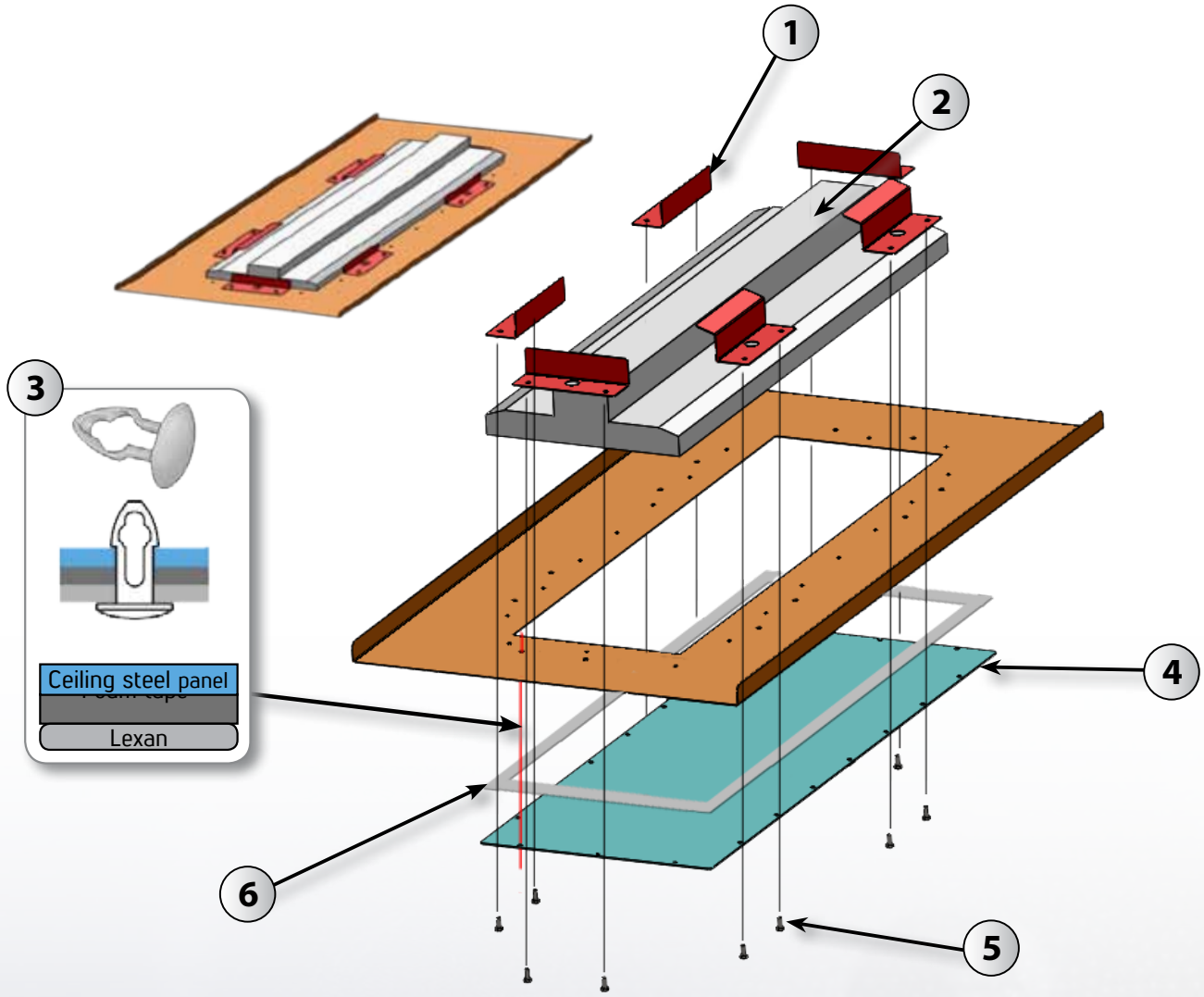
Install the hinge as shown.



ABRASIVE BLAST ROOM STRUCTURE - LED LIGHTING

Lighting is provided via 48 "long LED fixtures accessible from the top of the booth for easy replacement. Each is mounted behind a polycarbonate protective lens "Lexan" sealed from inside the abrasive blast room with a continuous neoprene rubber seal placed around the perimeter of the opening of the window light. All devices are UL listed and approved for proper use and placement. These will all be open-type luminaires. This energy efficient lighting system must be supplied by a 110V power source.

INSTALLATION

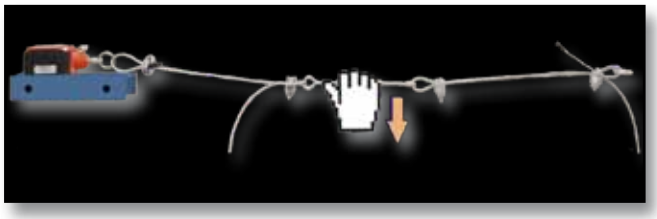


#	STOCK	DESCRIPTION
1	NPN	Bracket (shipped with the blast booth panels)
2	617193	Fixture
3	500652	20 x Plastic rivets to hold the Lexan in place

#	STOCK	DESCRIPTION
4	183502	Lexan D900
5	NPN	12 x bolt 5/16-18 to hold the brackets in place.
6	618306	Adhesive foam tape applied on the steel panel that will seal the fixture when the Lexan will be installed.

COMPONENTS ASSEMBLY- DOOR SECURITY SYSTEM & SANDBLAST HOSES INLET

EMERGENCY STOP PULL WITH DOOR SWITCH

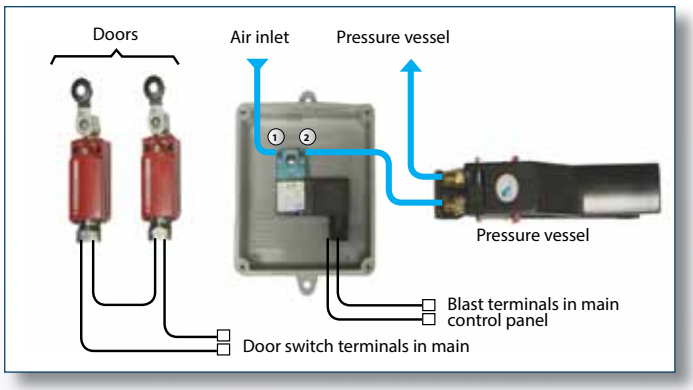


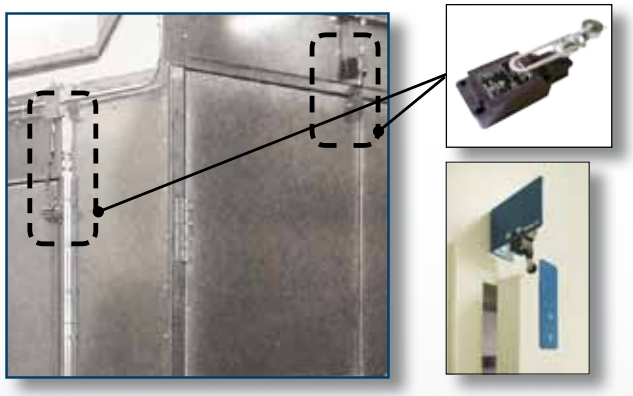
EMERGENCY STOP PULL SWITCH

Install the emergency pull cord with the supplied hardware. It must be installed on the inside wall of the abrasive blast room, in front of the access door. Make the electrical connection to the main panel.

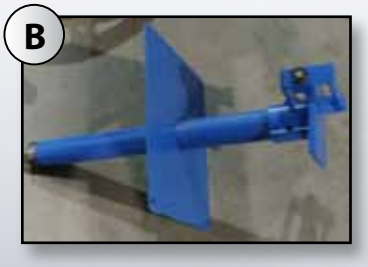
Mounting plate supplied with the pull cord kit.

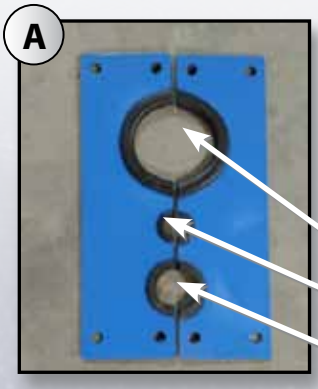
If you purchased this option, install contacts on each sandblast room door and connect to the central control panel or control box on the pressure vessel.





SANDBLAST HOSE & OTHER INLETS





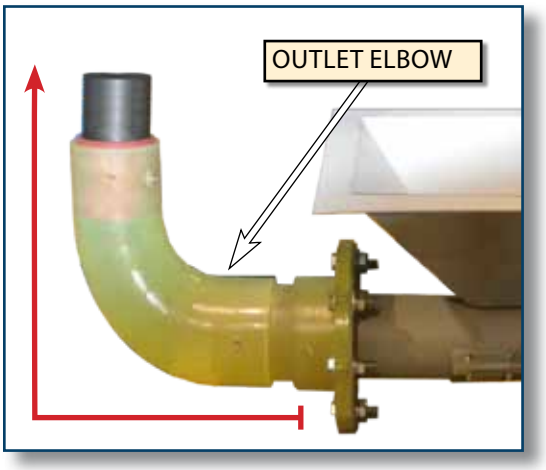
You must cut the openings in the blast chamber wall to properly install the inlet plate (A) to place the sandblast hose and air breathing hose in the blast chamber. Cutting is also necessary to install the pressure vessel pressure relief pipe, plate (B).

Sandblast hose

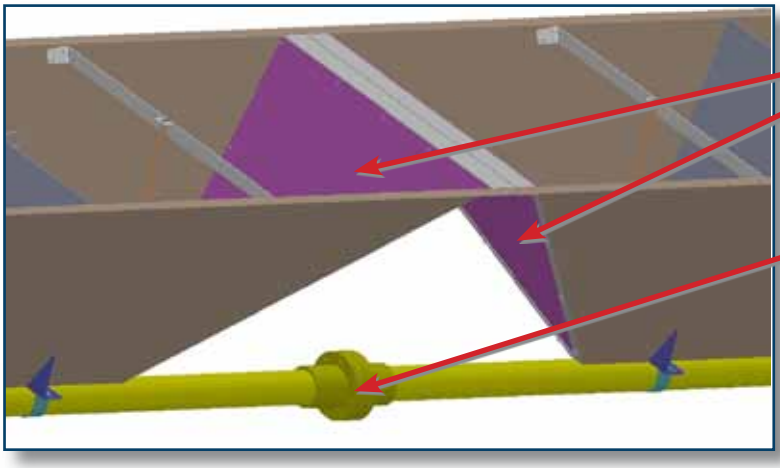
Air breathing hose

Remote control hoses

COMPONENTS ASSEMBLY - FLOOR RECOVERY HOPPER

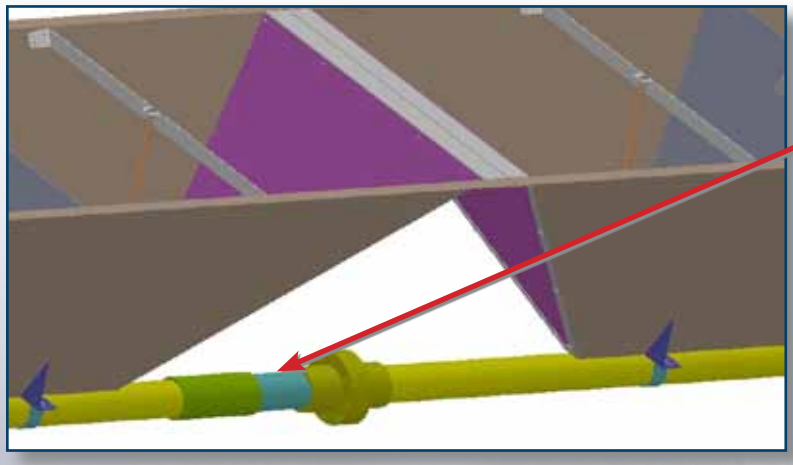


Install the floor hoppers as indicated on floor installation drawings and layout plans already provided for this purpose, and install the outlet elbow in vertical position.



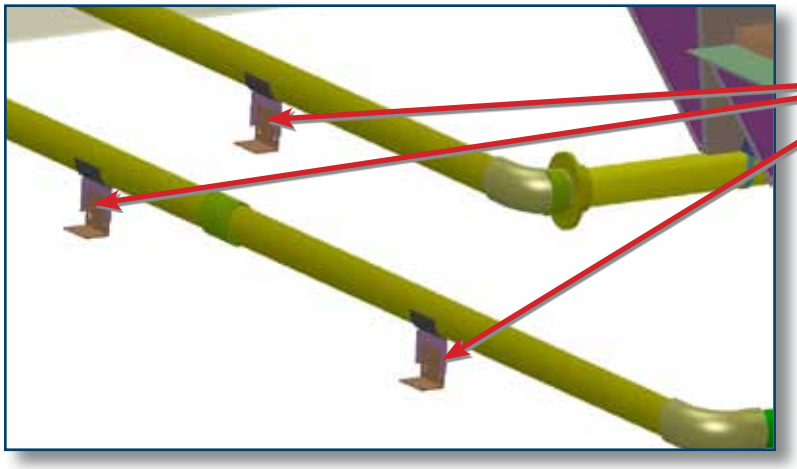
Remove the access door to access the urethane media transportation tube. The installation of the flange is required.

Flanges as to be installed to seal the media transportation tubes



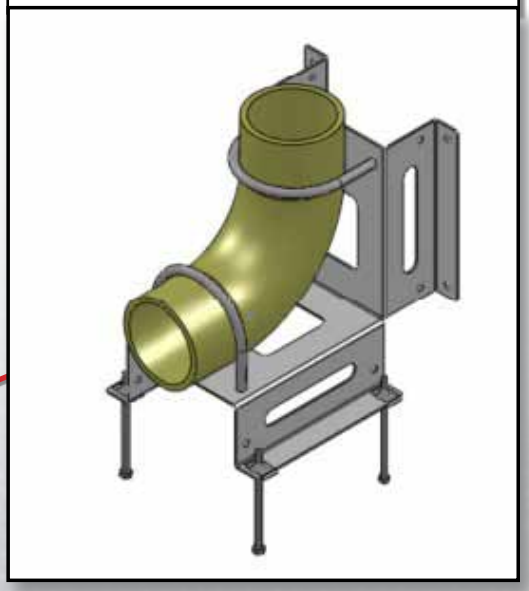
Depending on the configuration of your blast room you will have to add additional urethane couplings to match the length of the recovery hopper.

COMPONENTS ASSEMBLY - FLOOR RECOVERY HOPPER TO RECYCLING SYSTEM

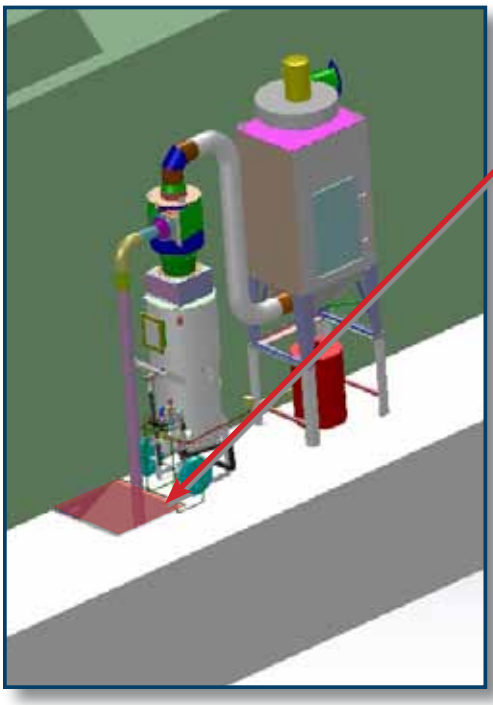


Depending on the configuration of your blast room you will have to add additonal steel support to avoid deflection of the urethane tube.

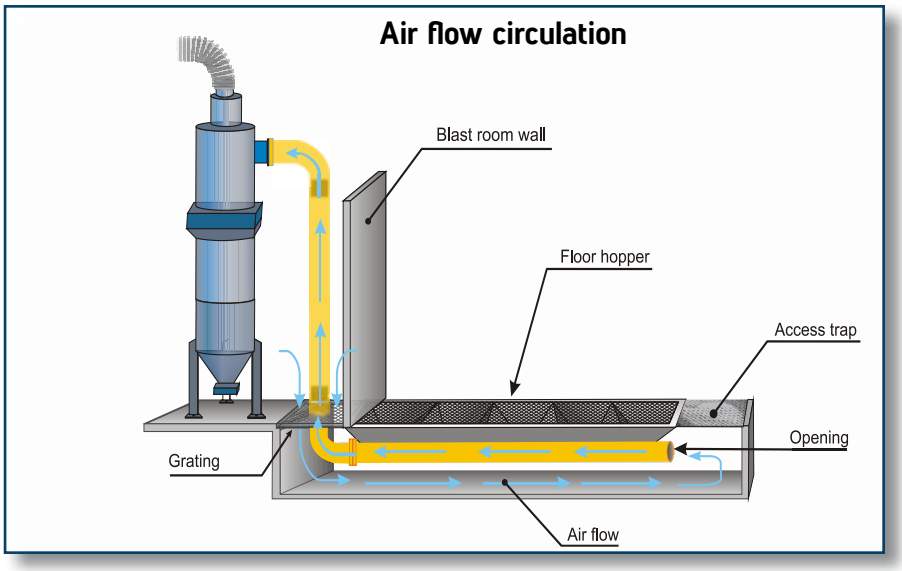
Depending on the configuration of your blast room you will have to install a corner steel support to avoid any vibration of the urethane tube.

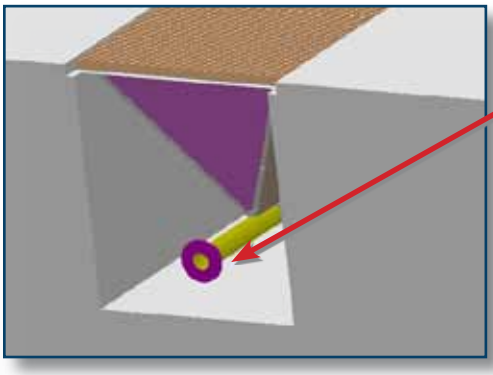


COMPONENTS ASSEMBLY - AIR FLOW CIRCULATION & ACCESS TRAP

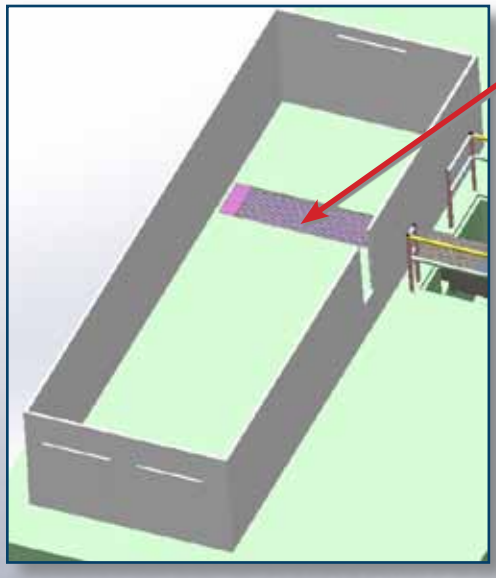


Install grating to prevent fall in the pit opening. Grating will provide an air inlet for the MRS. Do not install a solid plate as it will block the air inlet of the system.



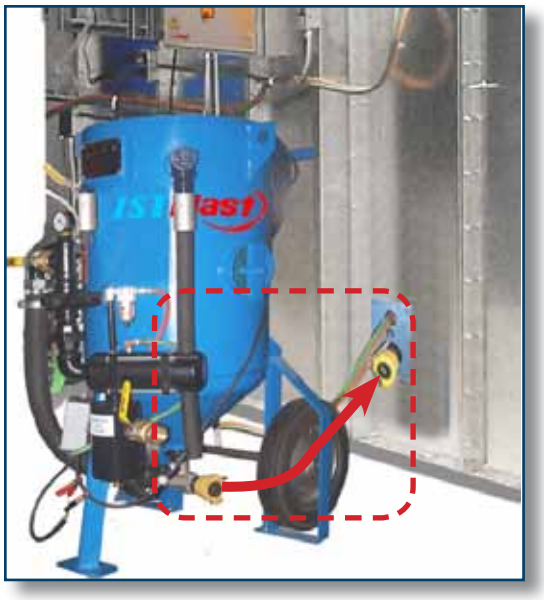


The end of the urethane tube under the pits as to be open to let the air in the MRS system.



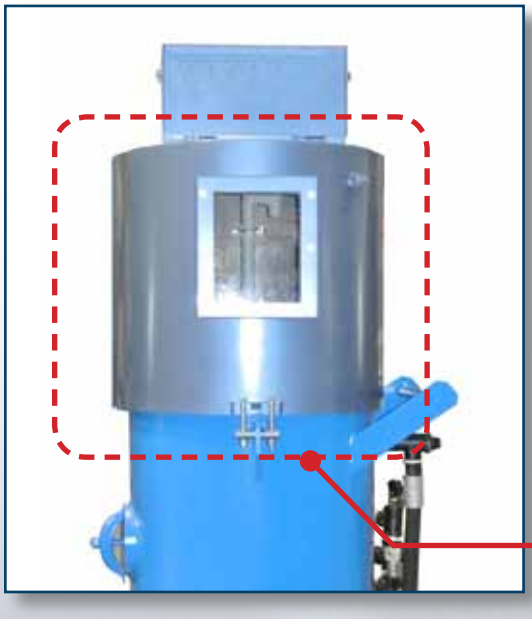
Access trap. Solid steel plate.

COMPONENTS ASSEMBLY - PRESSURE VESSEL & STORAGE HOPPER



PRESSURE VESSEL

Place the pressure vessel near the outlet elbow floor recovery pit. Make sure the output connection of the blasting hose on vessel pressure is directed as straight as possible to the sandblast room.



STORAGE HOPPER

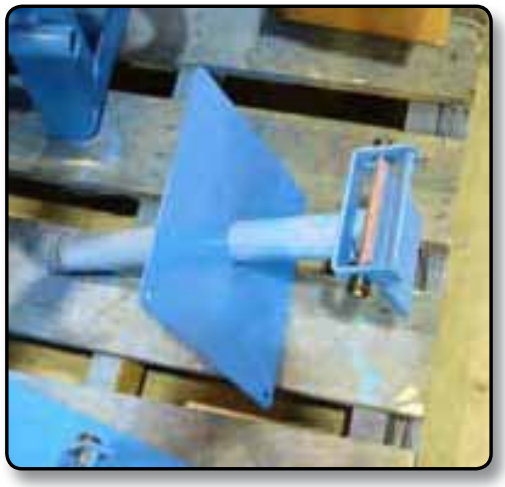
Install the storage hopper on the pressure vessel. When you drop the hopper on the pressure vessel, be careful not to damage the rubber seal under the hopper. Make sure to position the hopper so that the vision window is easily accessible during sanding operations.

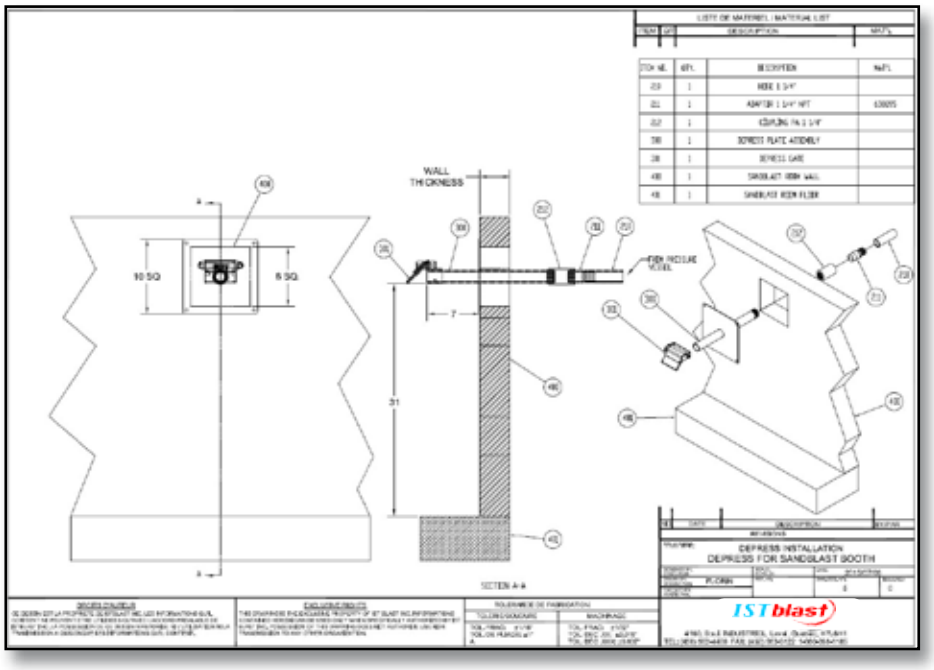
Take care to bolt the hopper using the hardware provided for this purpose.

COMPONENTS ASSEMBLY - PRESSURE VESSEL CONNECTIONS

MOUNTING KIT FOR DEPRESSURIZATION HOSE

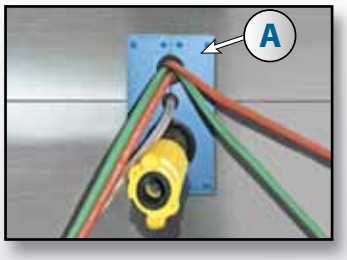
A mounting kit for depressurization is included with each pressure vessel of your abrasive blast room. This kit is used to facilitate the installation of the sandblast hose, air breathing hose, remote control hose and depressurizing hose through the wall of the abrasive blast room.



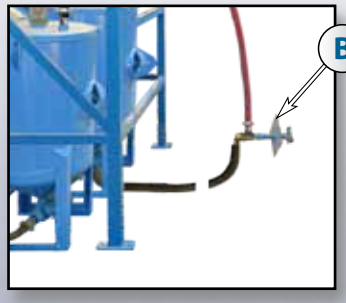


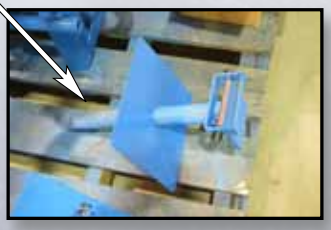
CONNECTIONS BETWEEN THE PRESSURE VESSEL AND THE ABRASIVE BLAST ROOM

As close as possible to the pressure vessel on the wall of the abrasive blast room, install the hose inlet plate (A) and depressurizing plate (B) closest to the pressure vessel on the wall of the room.



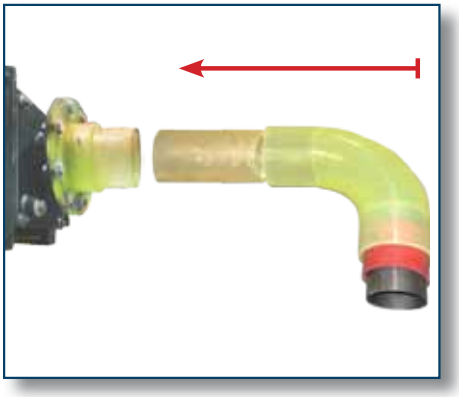
1. Connect the sandblasting and remote control hoses by sliding them from the inside of the room through the inlet plate (A) to the pressure vessel.





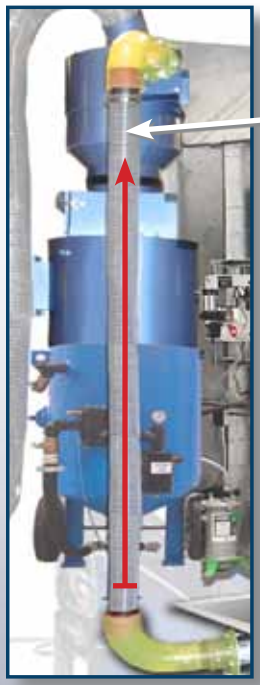
2. Connect the depressurization hose of the pressure vessel to the depressurizing hose plate (B).

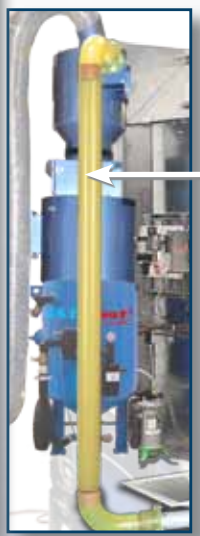
COMPONENTS ASS'Y - RECYCLER WITH CYCLONIC SEPARATOR



Install the elbow onto the urethane inlet flange on the recycler body.

Install the recycler body on the storage hopper, making sure to position it so that the inlet elbow and outlet elbow from the recovery pit are properly aligned.





Install the flexible hose between the outlet elbow of the recovery pit and the inlet elbow of the recycler. The hose should be **straight** and not curved. Cut off the excess if necessary.

Standard flexible hose

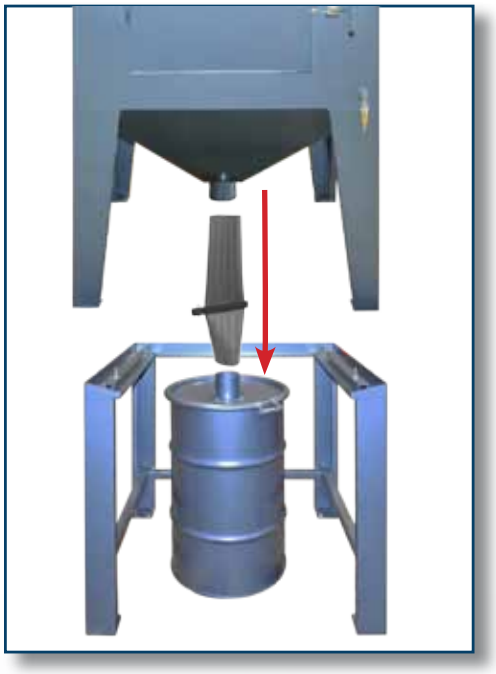
Optional rigid urethane hose

COMPONENTS ASS'Y- DUST COLLECTOR

Position the dust collector according to floor plan layout. Make sure the access door to the interior of the collector is easily accessible for servicing filter bags.* It must be positioned so that the hose connected from the dust collector to the recycler does not have any sharp curves.

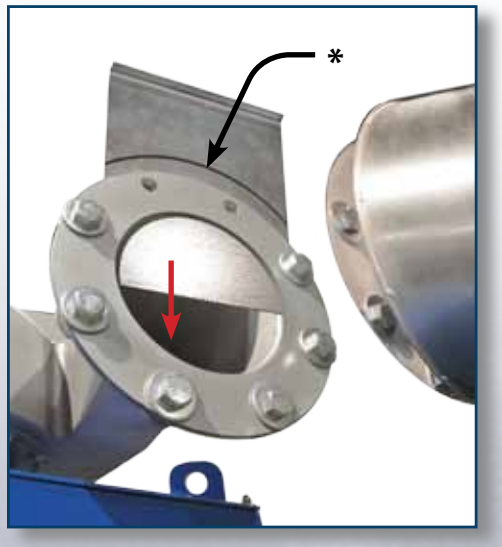
Install dust recovery hose between recycler and dust collector. Cut off excess hose if necessary.

Ensure that the access door inside the dust collector is easily accessible for the filter bags maintenance.



IF YOU HAVE THE DUST COLLECTOR DRUM OPTION:

- Place the support in a position to receive the collector.
  Pay attention to the position of the access door to bags.
- Place the dust collector in position on the support.
- Place the dust collecting drum under the dust collector and connect it by using the flexible hose.
- At the end of the installation, make sure to properly anchor the dust collector to the ground.



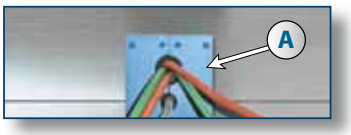
IF YOU HAVE THE DCM200 MUFFLER OPTION :

- it should be bolted directly to the output of the fan located on the dust collector. Make sure the exhaust gate valve is between the fan and the muffler. If required, adjust the gate valve to the black mark on the housing *

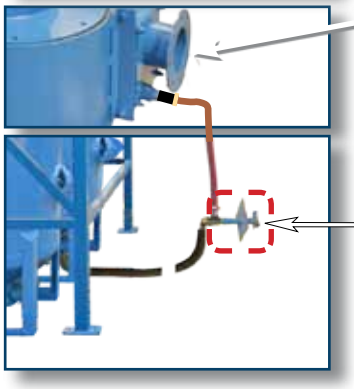
  *Black mark = Factory calibration.

COMPONENTS ASS'Y - PRESSURE VESSEL CONNECTIONS

As close as possible to the pressure vessel, on the blastroom wall, install the hose inlet plate (A) and the depressurising plate (B) closest to the pressure vessel on the room's wall.



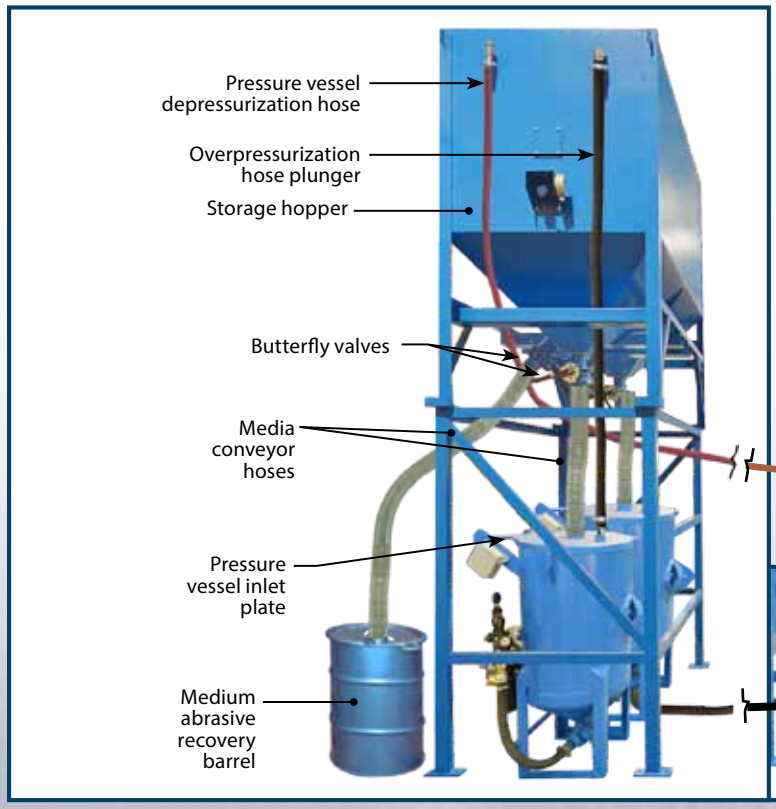
1. Connect the blasting and remote control hoses by sliding them from the interior of the room, throught the inlet plate (A) to the pressure vessel.



2. Connect the pressure vessel depressurization hose, from under the inlet plate of the recycler to the depressurization hose inlet plate (B).

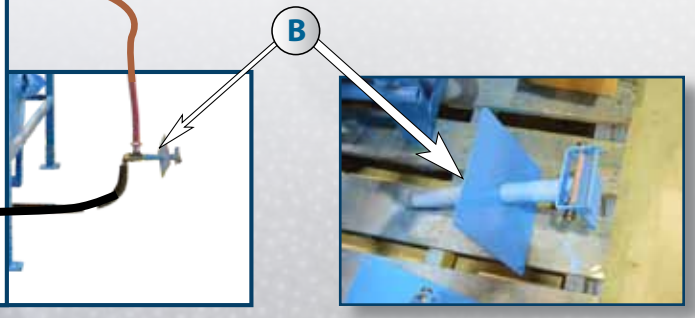
OPTIONAL

Connections between the pressure vessel and double or simple large storage hopper (Silo)



1. Connect the media conveyor hoses between the butterfly valves under the storage hopper to the inlet plate of the pressure vessel and to the dust barrel

2. Connect the depress hoses between the side of storage hopper and the inlet plate of the pressure vessel and to the depressurization hose plate (B).



PROTECTIVE EQUIPMENT FOR THE OPERATOR

The operator of the blast chamber is provided with protective clothing and a respiratory helmet with a controlled environment, which is suitable for working in a dusty atmosphere. This operator protection equipment is designed to comply with the standards of the National Institute of Occupational Safety and Health. (NIOSH)

1 - SUPPLIED AIR RESPIRATOR (HELMET)

The operator's helmet is based on the latest available air respirator technology. It is made of high density polyethylene, and manufactured in accordance with NIOSH approval. The helmet is equipped with a hood that extends 36 "below the helmet, a removable inner collar, and an adjustable padded suspension. The replaceable air inlet fitting is located at the back of the center of the helmet. The visor is large and includes a system of (3) three lenses; A perforated outer lens, an intermediate lens and a fixed inner lens. Fifty (50) replacement replacement lenses are included with the headset.

2 - AIR TUBE COOLER

The cooling air tube (up to 18 ° C) is evaluated at 20 cfm and is of the vortex type. The control of cold air to the helmet is located on the fresh air tube unit, within range of the operator. This unit carries NIOSH approvals as part of the complete system and with the same approval numbers..

3 - AIR TUBE HEATER

The air tube heater (up to 30 ° C) is evaluated at 20 cfm and is of the vortex type. The hot air adjustment control on the helmet is located on the hot air tube unit, within range of the operator. This unit carries NIOSH approvals as part of the complete system and with the same approval numbers.

4 - SANDBLASTING SUIT

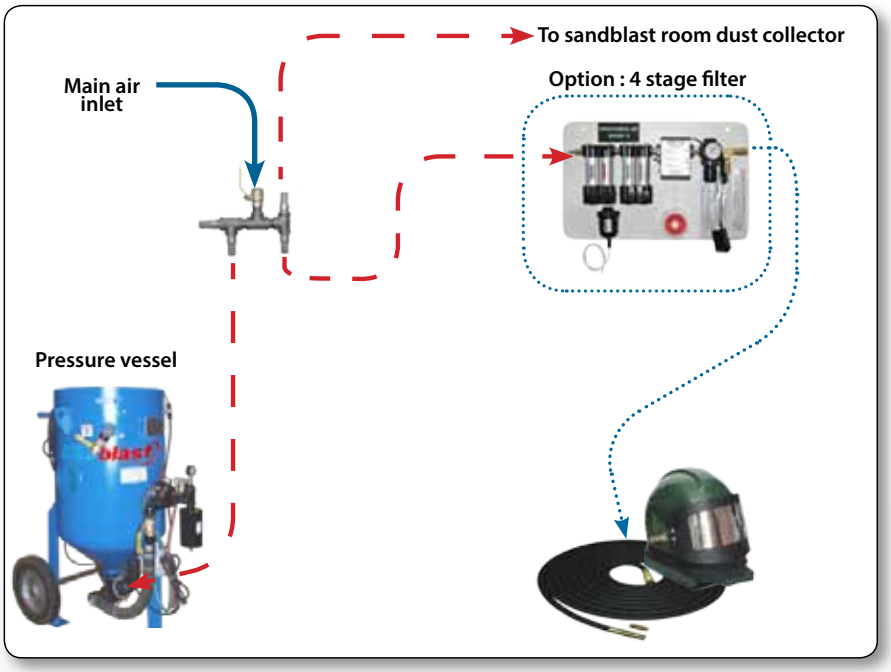
The exterior of the suit is wear-resistant leather on the front and porous cotton for the rest. The combination includes fastening straps to each cuff and to the bottom of the leg. A pair of leather gloves completes the set.

5 - NOISE LEVELS

The noise levels generated by the respiratory system are measured inside the helmet at a maximum air flow rate which can be obtained according to the pressure and pipe length requirements and do not exceed 80 dBA.

AIR BREATHER SYSTEM WITH CARBON MONOXIDE AND ALARM CONTROL

Model 50-2 is a 50 cfm carbon monoxide monitor / alarm system designed to detect carbon monoxide in breathing air supply applications. When it detects a CO level of 10 ppm (for US) and 5 ppm (for Canada) or more, the unit activates an alarm.



Components assembly

Connect your air supply line to the inlet of the pressure vessel. (It is recommended that an air pressure regulator be installed at the inlet of the pressure vessel and set at 100 psi).

Also connect the air filtration system (4 stage) for the operator's hood (see diagram opposite)

4 stage filtration System

You must install an air supply hose from the main line to the inlet of the air filter to be fed to the operator's hood.

COMPONENTS ASSEMBLY - ELECTRICAL CONNECTIONS

BEFORE CONNECTING THE UNIT to an electric current, make sure that the current is the same as that indicated on the identification plate of the sanding equipment. An electric current higher than specified may seriously injure the user and also damage the system. If you have any doubts, do not connect the unit.

All electrical connections to the ISTblast system should be made by a qualified electrician and must comply to the codes, standards, and procedures specified by the local authority having jurisdiction.

The customer is responsible for providing appropriate disconnecting means adjacent to the equipment for each incoming power circuit.

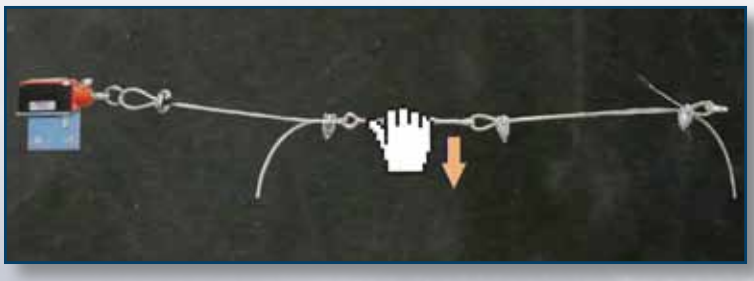
It is important to connect the ISTblast system to an Earth Ground to bleed off static electricity, which may be generated while blasting. The Earth Ground may also reduce the discomfort an operator may experience when static electricity is discharged.

OPTIONS

Main control panel

If you purchased this option, proceed to the installation of the panel according to the lay out plan provided for this purpose.

Make the electrical connections of the various components, according to the electrical plan supplied with the panel.



Emergency pull

Install emergency pull with hardware provided for this purpose. It must be installed on the inside wall of the sandblast room, opposite to the access door. Make the electrical connection to the main panel.

ROOM DUST COLLECTOR - MODELS LIST

The dust-laden air enters the hopper side of the dust collector, under vacuum or under pressure. The air is then filtered through the cartridge and out through the venturis into the clean air plenum. Purified air can be extracted outdoors or recycled, depending on the application.

The automatic cleaning system works as follows:

For each row of cartridges, there is a diaphragm valve connected to an air tank. This diaphragm valve is actuated by a solenoid valve: An electronic controller opens successively each valve.

Short pulses of compressed air are ejected through orifices calibrated by the blowing tube in the venturi. The small primary flow of air through the venturi generates a much greater secondary flow of pure air from the distribution chamber; The combined air flow creates a pressure wave traveling down the cartridge, which breaks the dust cake accumulated on the cartridge.

Since only one row of cartridges is cleaned in a given time, the dust collector can run continuously.

SPECS / DCM MODEL	Type	Capacity (cfm)	Filtration Area (sq ft)	Media	Compresssed Air Required (psi)	Cartridges number	Number of valves	Number of hoppers	Weight (lb)
3000	Pulse cartridge	3000	1350	80/20 Paper	3.75	6	2	1	1599
4000		4000	2025		5	9	3	1	1989
6000		6000	2700		7.5	12	4	1	2607
8000		8000	3600		10	16	4	1	2830
10 000		10 000	4500		12.5	20	4	1	3019
12 000		12 000	5400		15	24	6	1	4214
14 000		14 000	6750		17.5	24	6	2	4498
16 000		16 000	6750		20	30	6	2	4498
18 000		18 000	8100		22.5	36	6	2	6066
20 000		20 000	9000		25	40	8	2	6476
22 000		22 000	10800		27.5	48	8	2	6476
24 000		24 000	11250		30	48	8	2	6476
26 000		26 000	13500		32.5	48	8	2	5887
30 000		30 000	14400		37.5	64	8	2	7570
35 000		35 000	15750		43.75	64	8	2	7570
40 000		40 000	18900		50	84	10	2	8728
45 000		45 000	21600		56.25	96	12	2	9758
50 000		50 000	25200		62.5	112	14	3	11694

ROOM DUST COLLECTOR - INSTALLATION

The required foundations must be prepared in advance, using the dimensions and weights shown in the overall drawing.

The dust collector is partially assembled in our installations but is supplied in sections (housing, hopper and structural supports), it can also be equipped with additional ladders, gangways and accessories.

The turbine must be bolted to the top opening of the abrasive blast room.

Dust collector housing

Dust collector hopper

According to the model, it will be necessary to install structural supports.

The installation material is shipped inside the dust collection drum

1st Step

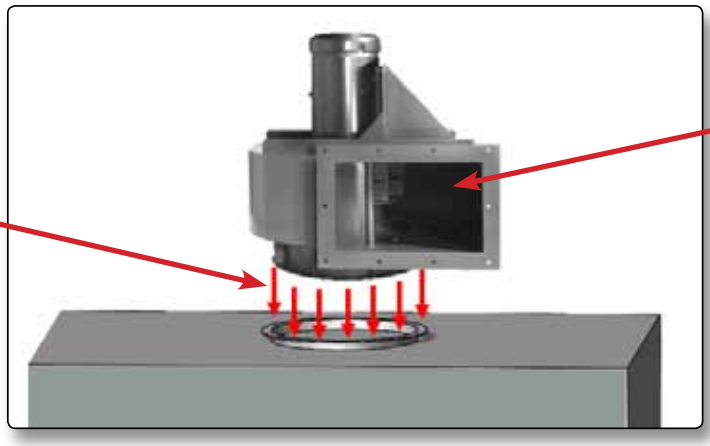
Screw the housing onto the hopper. You should properly seal this junction. The dust collector must be waterproof.

Secure the structural supports to the foundation. Supply of material not included.

ROOM DUST COLLECTOR - INSTALLATION (CONT'D)

2nd Step

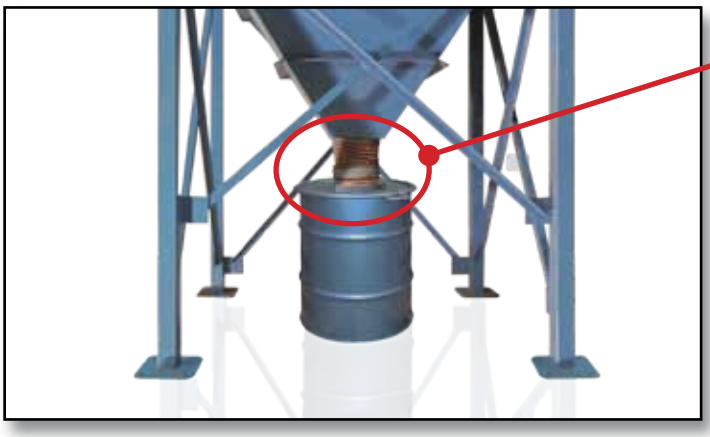
Screw the housing onto the hopper. You will need to properly seal this junction. The dust collector must be waterproof.



If your dust collector is equipped with an adjustable baffle barrier, adjust it to the maximum opening.

3rd Step

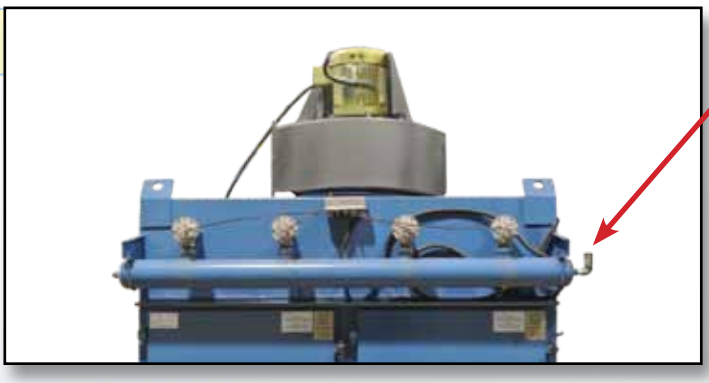
Install the dust collection barrel under the hopper and use screw clamps to secure the dust hose.



The dust transfer hose connections and the barrel cover must be airtight.

4th Step

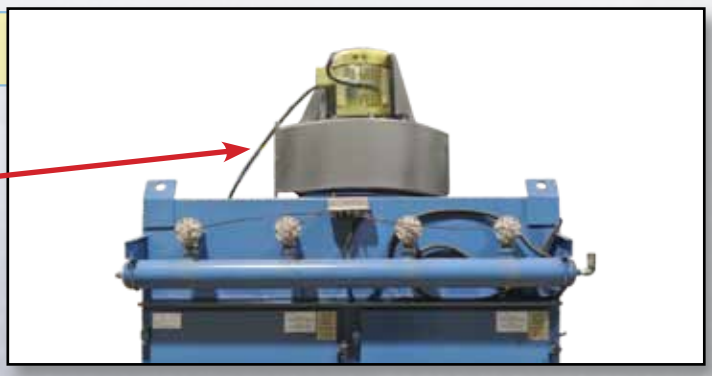
Ensure the air supply is clean, dry and oil free.



Connect the air supply to the pulse cartridge cleaning system. An air regulator must be used to maintain the air pressure at 70 psi in the accumulation tank. The pipe and fittings must be ¾" inside diameter.

5th Step

Connect the turbine power supply to the main electrical panel supplied with the abrasive blast room



WARNING

Never drill holes in the housing or hopper of the dust collector. The use of self-drilling screws is also prohibited in order to keep the dust collector airtight.

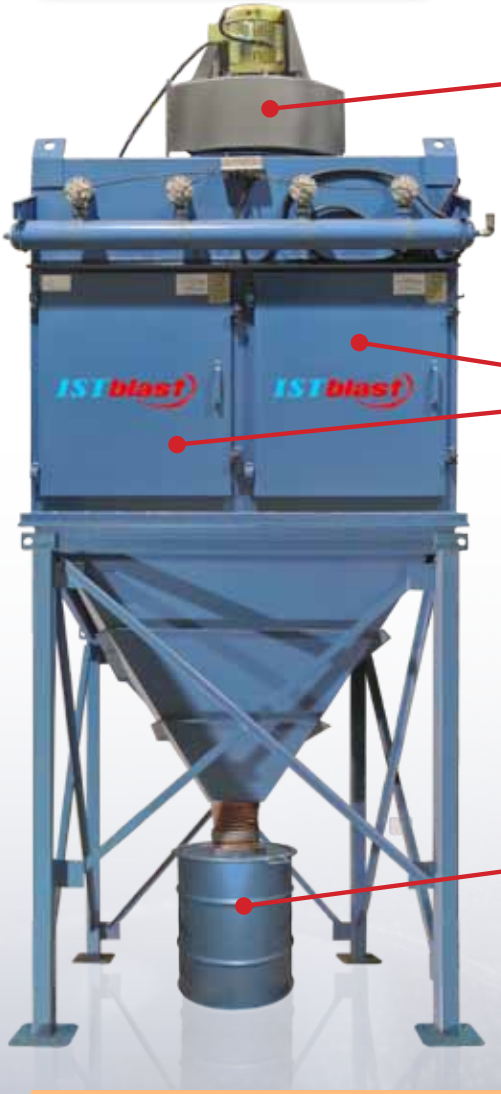
ROOM DUST COLLECTOR - CARTRIDGES

CONSTRUCTION

The standard unit is constructed of 3/16 "and 10 ga hot-rolled steel. The dust collection unit is formed and reinforced to maintain structural integrity at 25" w.g. All valves, wires, air hoses, solenoid valves and diaphragm valves are installed outside the housing. The size of the inlet and outlet flange will determine the size of the dust collector (refer to your dust collector manual)

CARTRIDGE

The operation of automatic cleaning of the cartridge is carried out by an inverse pulse of compressed air one row at a time. The cartridges are made of filters (cellulose / polyester). The negative pressure limit of these cartridges is 20 Hg. The maximum air flow allowed by each cartridge is 500 cfm. The filtration efficiency of this medium is 99.7% for the 0.3 microns.



Impeller

Installed on top of the dust collector housing or on the floor, the impellers vary in size from 5 hp to 150 hp. Adjust the power of the impeller according to the needs of your application.

Cartridge access doors

The cartridge access doors are located on the front of the dust collector housing. These doors are used for the maintenance of the cartridges

Dust collector barrel

One barrel (or more depending on model of dust collector) of 55 gal included with dust collector

For more details, refer to the appropriate manual for the DCM 3,000 TO 50,000 SERIES DUST COLLECTORS.

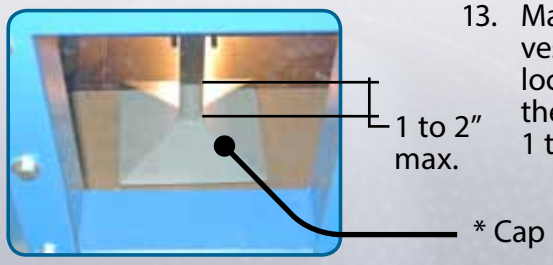
MRS STARTING PROCEDURE WITHOUT MAIN PANEL

1. Turn on the sandblast room dust collector.
2. Start the pneumatic recovery system and pour the abrasive in the recovery pit and wait until it is completely emptied. Make sure that the level of abrasive in the pressure vessel is maximum : 2000 pounds of steel grit, 800 pounds for aluminium oxide or glass bead. Check through the inspection window of storage hopper located above the vessel, you should see a slight accumulation above the cap* located above the upper opening of the vessel* (maximum 1 to 2 inches above) again.
3. Open the main air supply valve and adjust the air pressure at the inlet of pressure vessel to the desired blasting pressure.
4. Put on the operator's vented hood and take care to adjust the air flow (if required)

5. Pressurize the pressure vessel with the control unit by turning the switch to "**PRESSURIZED VESSEL**". The vessel should pressurize at the blasting pressure already preset.

5a. If you have completed the installation of a security system on sandblast room doors, make sure that all doors are closed.

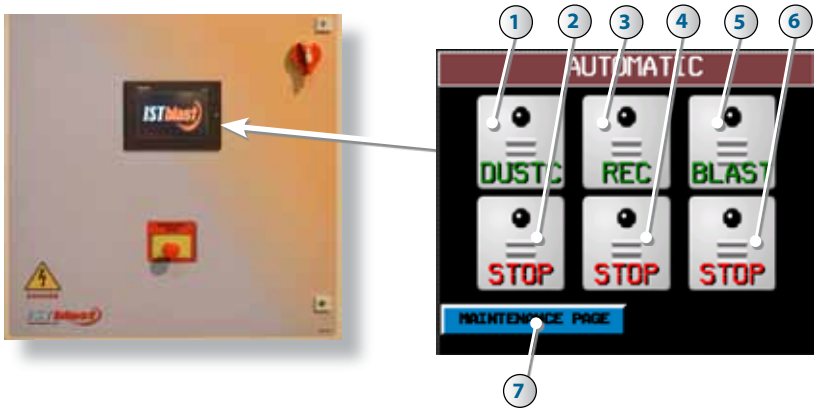
6. Hold blasting hose and nozzle firmly and press on the remote control lever.
7. The air and the abrasive will come out after the remote control lever has been pressed. Wait a few seconds in order for the stream to stabilise.
8. If the amount of abrasive seems insufficient or too important, please make an adjustment. Adjust the amount of abrasive to the nozzle by using the abrasive metering valve below the abrasive pressure vessel. Rotate clockwise to decrease the amount, and counterclockwise to increase. (for reference, see manual pressure vessel PPB 346-646). If necessary repeat again.
9. After a certain period of sandblasting, pressure vessel will be emptied of its contents, and the stream will consist solely of air.
10. Release the remote control trigger to stop the jet.
11. Depressurize pressure vessel by pushing the depressurising switch to "**DEPRESSURIZED VESSEL**" on the control box (see step 5)
12. If your sandblasting room floor has a pit partially covering it, it may be that the majority of the abrasive was sprayed on the floor next to the pit. Push all of the abrasive in the pit so that the recovery system can draw the abrasive towards the pressure vessel, and wait until all of the abrasive is transferred to the pressure vessel.



13. Make sure that the level of abrasive is at maximum in the pressure vessel. look through the inspection window of storage hopper located above the vessel, we should see a slight accumulation over the cap * located above the top opening of the vessel * (maximum 1 to 2 inches above)

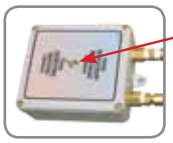
MRS STARTING PROCEDURE WITH MAIN PANEL OPTION

OPERATION IN AUTOMATIC MODE



1	Dust Collector Start Up Button
2	Dust Collector Stop Button
3	MRS Start up Button
4	MRS Stop Button
5	Sandblasting Start Button
6	Sandblasting Stop Button
7	Maintenance Menu

1. Turn on the sandblast room dust collector. (1)
2. Start the recovery system "**REC**" (3) and pour the abrasive in the recovery pit and wait until it is completely emptied. Make sure that the level of abrasive in the pressure vessel is maximum : 2,000 pounds of steel grit, 800 pounds for aluminium oxide or glass bead. Check through the inspection window of storage hopper located above the vessel, you should see a slight accumulation above the cap* located above the upper opening of the vessel* (maximum 1 to 2 inches above) again.
3. Open the main air supply valve and adjust the air pressure at the inlet of pressure vessel to the desired blasting pressure.
4. Put on the operator's vented hood and take care to adjust the air flow (if required)



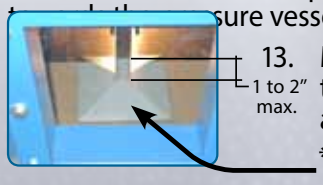
5. Pressurize the pressure vessel with the control unit by turning the switch to "**PRESSURIZED VESSEL**". The vessel should pressurize at the blasting pressure already preset.

5a. If you have completed the installation of a security system on sandblast room doors, make sure that all doors are closed.

6. Press the button "**ON**" under "**BLAST**" (5)

6a. Hold blasting hose and nozzle firmly and press on the remote control lever.

7. The air and the abrasive will come out after the remote control lever has been pressed. Wait a few seconds in order for the stream to stabilise.
8. If the amount of abrasive seems insufficient or too important, please make an adjustment. Adjust the amount of abrasive to the nozzle by using the abrasive metering valve below the abrasive pressure vessel. Rotate clockwise to decrease the amount, and counterclockwise to increase. (for reference, see manual pressure vessel PPB 346-646-1046). If necessary repeat again.
9. After a certain period of sandblasting, pressure vessel will be emptied of its contents, and the jet will consist solely of air.
10. Release the trigger remote control to stop the jet.
11. Depressurize pressure vessel by pushing the depressurising switch to "**DEPRESSURIZED VESSEL**' of the control box (see step 5)
12. If your sandblasting room floor has a pit partially covering it, it may be that the majority of the abrasive was sprayed on the floor next to the pit. Push all of the abrasive in the pit so that the recovery system can draw the abrasive t[illegible]sure vessel, and wait until all of the abrasive is transferred to the pressure vessel.



13. Make sure that the level of abrasive is at maximum in the pressure vessel. look through the inspection window of storage hopper located above the vessel, we should see a slight accumulation over the *cap located above the top opening of the vessel * (maximum 1 to

MRS STARTING PROCEDURE - ADDING ABRASIVE & RECYCLER INFORMATION

ADDING ABRASIVE

Start the recovery system and drain completely into the pit abrasive recovery and expect that it is completely emptied, and check the level again.

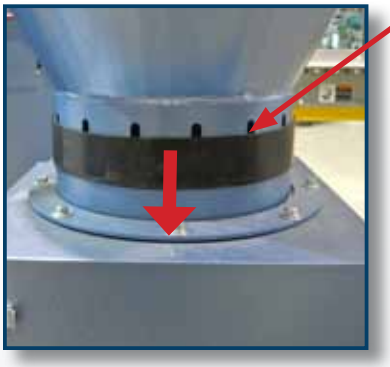
Optional : abrasive level sensor detector

This option is installed in order to limit the amount of abrasive accumulated in the storage hopper. When the abrasive level reaches the abrasive level detector (13), the blast room recovery system shuts down automatically.

You must then stop sanding and depressurise the pressure vessel to transfer abrasive from hopper to the pressure vessel.

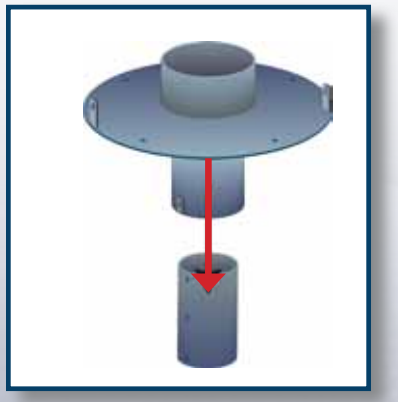
RECYCLER INFORMATION

Although the recycler is factory set, it is possible to increase the amount of fine dust to be sucked up by the dust collector. There are two methods to change those settings:



1. Adjustment of the SBR ⅛" x 2 " rubber band

This adjustment will influence the quantity of dust that will be evacuated to the dust collector. Proceed step by step, moving down the rubber band 1/4" at the time, covering or uncovering the slots behind it. **A wider opening will draw up more dust to the dust collector; a smaller opening will reduce that quantity. The equipment has to run for approx. two (2) hours** before any changes can be noticed. Repeat as needed.

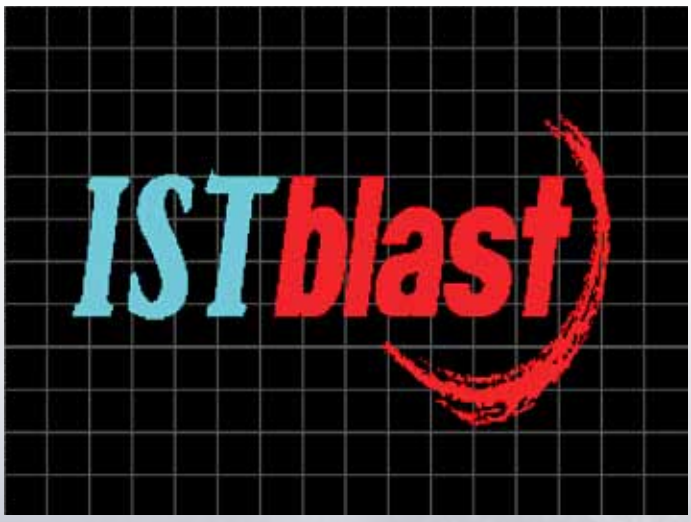


2. Adjustment of the telescopic tube, inside of recycler

If, after a few tests, the rubber band adjustments should prove to be insufficient, you will have to proceed to the telescopic tube adjustment. This will be necessary if you have to change the abrasive type or granulometry. Proceed step by step, moving the tube up or down, 1 inch at the time. **The equipment has to run for approx. two (2) hours** before any changes can be noticed. Repeat as needed. **Moving the tube downward will increase the quantity of dust** drawn up by the dust collector, **moving it up will** decrease that quantity.

HMI (HUMAN MACHINE INTERFACE)

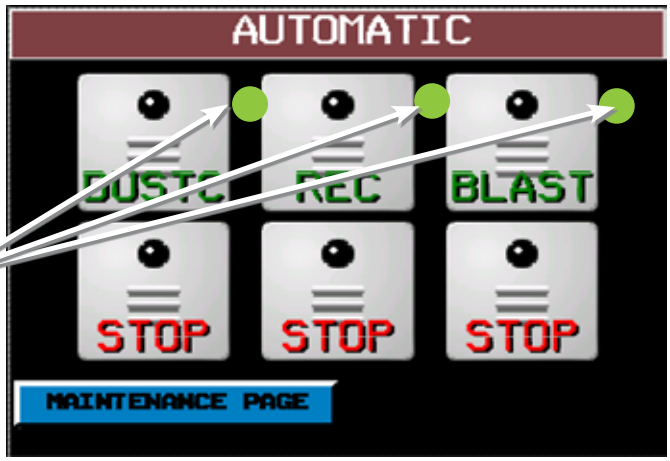
SCREEN SAVER MODE



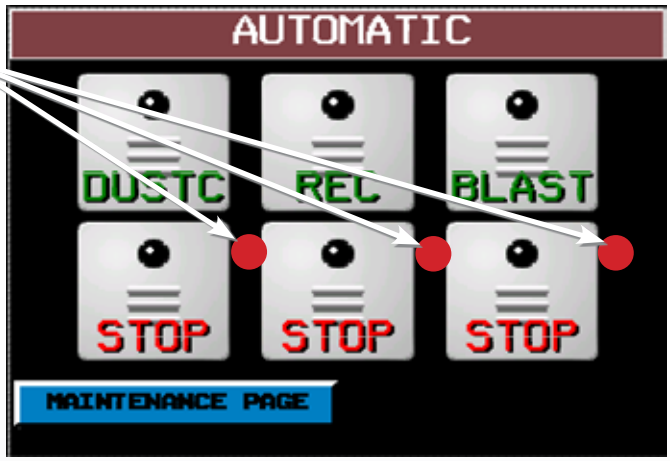
ISTblast screen saver will display after 4 minutes of inactivity.

HMI - AUTOMATIC MODE OPERATION

Green lights will display active systems

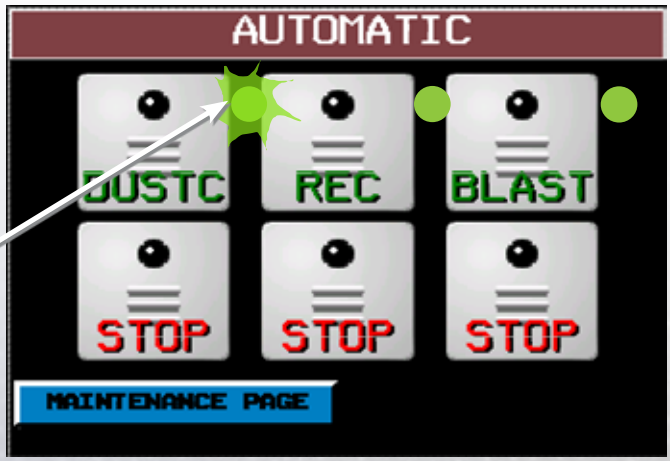


Red lights will be displayed momentarily when the Stop buttons have been pushed.



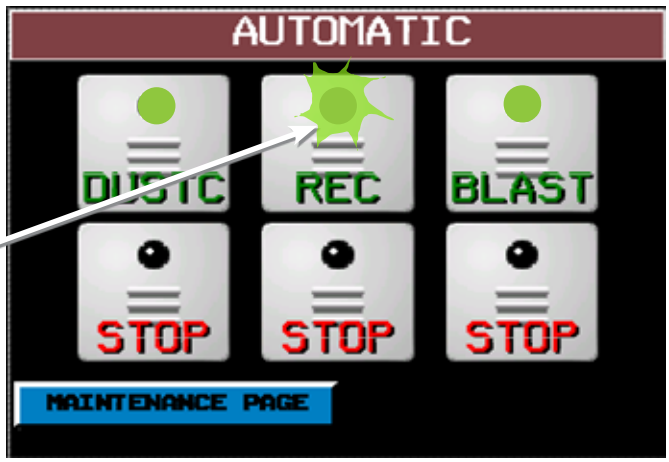
The green start up light for the Dust Collector System will begin to flash during start up.

This delay will prevent overloading of the dust collector motor.

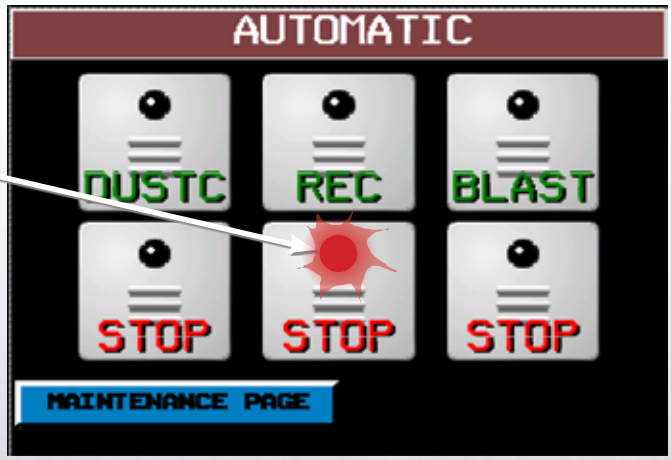


HMI - AUTOMATIC MODE OPERATION (CONT'D)

The green start-up light for the Pneumatic Conveyor and Recovery System will begin to flash to advise that the motors will be brought online.



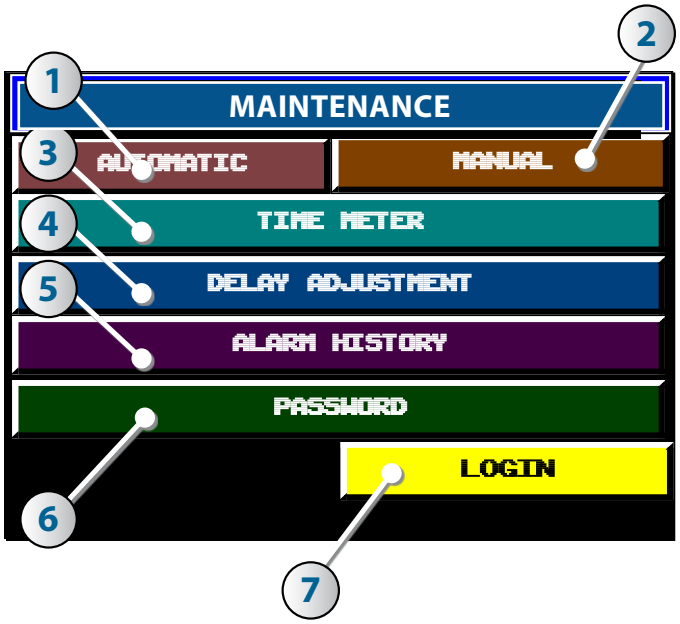
The red shut-down light for the Pneumatic Conveyor and Recovery System will begin to flash indicating that the motors will be shut down.



HMI - MAINTENANCE PAGE & MANUAL MODE OPERATION

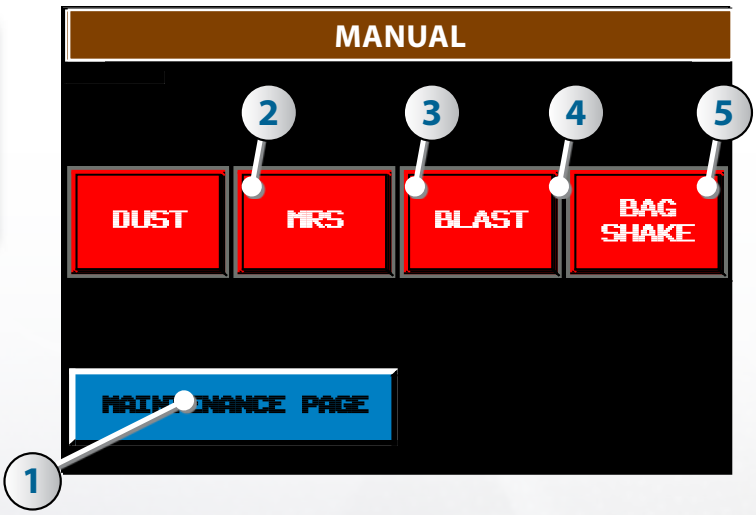
MAINTENANCE PAGE

1	Access the Operation Screen under Automatic Mode
2	Access the Operation Screen under Manual Mode
3	Access the time meter menu
4	Access the adjustment menu
5	Access alarm history section
6	Change Password Section
7	Unlock to the protected operation screens



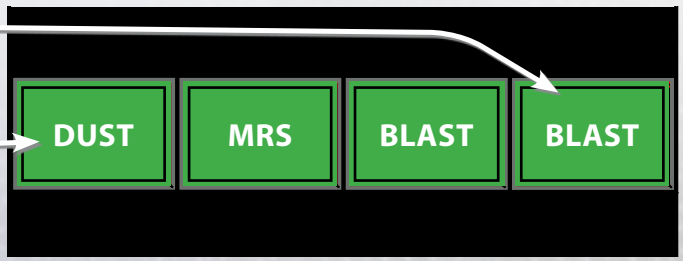
MANUAL MODE OPERATION SCREEN

1	Return to Maintenance page
2	Start the dust collector
3	Start the pneumatic recovery
4	Start the blasting system
5	Start the bag shake of dust collector



Bag shake

The redbuttons become green during manual mode operations.



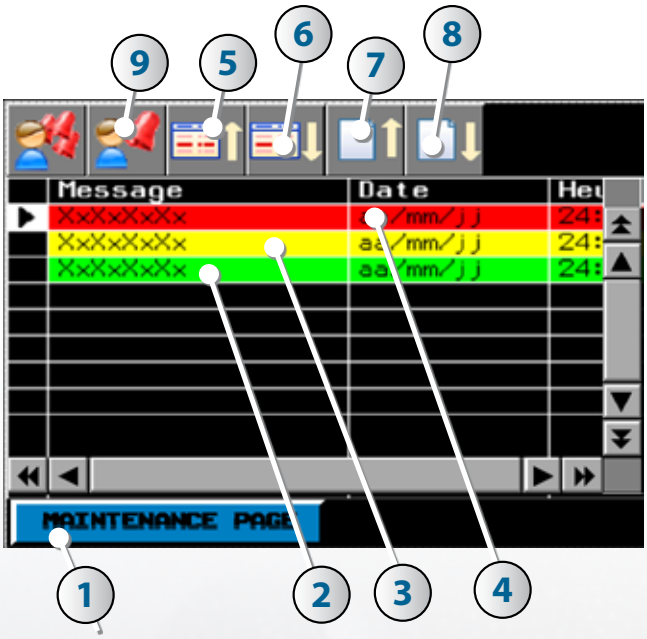
HMI - DATE/TIME CHANGE & ALARM HISTORY MENUS

DATE/TIME CHANGE MENU

When a value-field is selected a keyboard will be displayed to enter a value.

ALARM HISTORY MENU

1	Return to Maintenance Menu
2	Error Message (Green type) (error resolved)
3	Error Message (Yellow type) (acknowledgement)
4	Error Message (Red type) (Error in Progress)
5	Move error message towards the top
6	Move error message towards the bottom
7	Previous Page
8	Subsequant Page
9	Acknowledgment of Error Message



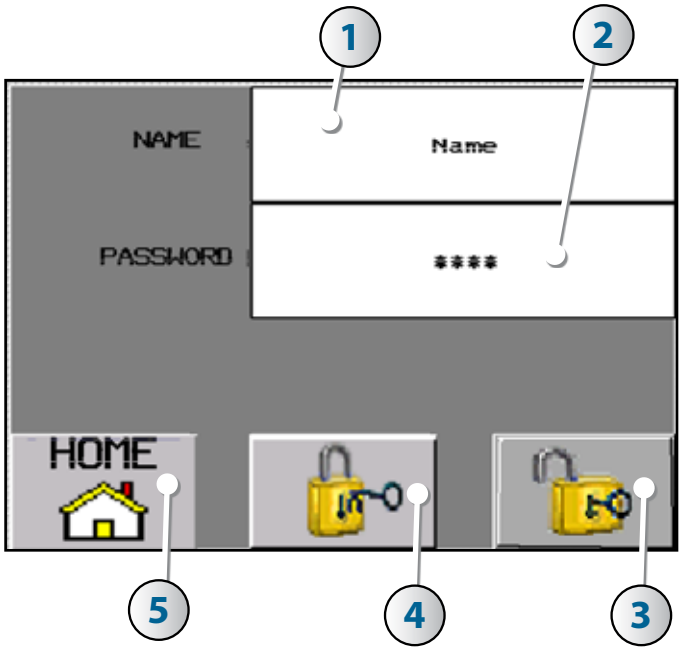
Possible Error Messages

EMERGENCY BUTTON
MEDIA HIGH
OVERLOAD MRS200
OVERLOAD DUST COLLECTOR
EMERGENCY ROPE

HMI - UNLOCK & ALARM MENUS

UNLOCK MENU

1	Enter Username
2	Enter password
3	Unlock Menus
4	Lock Menus
5	Return to Automatic-Mode Operations



When a value-field is selected a keyboard will be displayed to enter a value.

ALARM MENU

1	Warning display message
2	See list of possible error messages
3	Ignore error message

Possible Error Messages

EMERGENCY BUTTON
MEDIA HIGH
OVERLOAD MRS200
OVERLOAD DUST COLLECTOR
EMERGENCY ROPE

AIR CONSUMPTION - PRESSURE SYSTEM

Orifice	Air/ Consump.	PRESSURES (psi[1]) 20	25	30	35	40	45	50	60	70	80	90	100[0]	120
1/8"	cfm[2]	7	7	8	9	10	12	13	14	15	17	19	20	25
	lb/h[3]	48	48	55	62	69	83	77	82	110	127	140	154	192
3/16"	cfm[2]	15	16	18	20	22	24	26	30	33	38	41	45	55
	lb/h[3]	94	101	114	127	140	153	166	192	220	243	268	297	363
1/4"	cfm[2]	27	30	34	37	41	45	49	55	61	68	74	81	97
	lb/h[3]	174	193	219	251	276	303	329	369	398	460	504	556	666
5/16"	cfm[2]	42	46	53	57	65	70	76	88	101	113	126	137	152
	lb/h[3]	254	278	320	345	394	425	462	528	680	756	832	910	1010
3/8"	cfm[2]	55	63	76	82	91	100	109	126	143	161	173	196	220
	lb/h[3]	374	428	517	558	620	682	744	860	970	1080	1184	1296	1454
7/16"	cfm[2]	72	85	100	112	124	137	149	170	194	217	240	254	300
	lb/h[3]	488	576	678	759	840	835	908	1160	1320	1476	1630	1782	2104
1/2"	cfm[2]	96	112	129	146	165	179	195	224	252	280	309	338	392
	lb/h[3]	629	734	845	976	1103	1197	1305	1500	1700	1890	2088	2277	2640
5/8"	cfm[2]	173	195	212	239	260	282	308	356	404	452	504	548	611
	lb/h[3]	1081	1219	1325	1470	1600	1716	1875	2140	2422	2690	2973	3250	3623

LEGEND

[0] Optimal pressure
[1] psi : pounds per square inch
[2] cfm : compressed air required in cubic feet minute
[3] lb/h : abrasive consumption in pounds per hour

CHECKING INSTALLATION

A. Check motor rotation on dust collectors as per arrow indicators placed on each fan :

- Check that the emergency pull and door security options work properly.
- Check that the pulse controller for the blast room dust collector activates solenoides on pulsation system (see manual DCM 3,000-50,000)

B. Install the sandblast nozzle on the hose and also the sanding control handle.

1. Check that all pipe and hose connections are tightly fastened and air tight.
2. Check that all electrical box covers are securely installed.
3. Check that the dust drum (option) under the dust collector is sitting firmly and is center.
4. Start the dust collector

MAINTENANCE

1 **The recycler screen will require periodic cleaning. The frequency of cleaning will depend on the volume of debris produced. All the media in the pressure vessel will be used up after an extended period of blasting. The operator must release the remote control handle to stop the blast and depressurize the vessel. After a wait of approximately 2 minutes, media will fill the pressure vessel and blasting can resume**

2 **After the media has blasted the part, the reclaiming system vacuums up the abrasive, dust andforeign material through the conduit at the bottom of the room to the recycler. The reusable abrasive is separated from the dust and foreign material and is returned to the storage hopper for reuse. The cartridges or bags of the dust collector, filters the dust and fine particles. Larger pieces of contaminants are trapped in the hopper's screen drawer.**

TO AVOID BLOCKAGE, IT IS HIGHLY RECOMMENDED TO EMPTY AND CLEAN THE RECYCLER'S SCREEN DRAWER EVERY DAY.

Check for wear on all parts in direct contact with the blasting action :

Nozzle : Check nozzle wear on a regular basis. The orifice diameter should never be more than 1/8 " wider than the original diameter. A worn nozzle will increase air consumption and may cause premature wear of abrasive hose.

Abrasive hose : Check abrasive hose for wear. It has to be changed before it gets any perforation. A simple test to do is to bend the hose: if it is possible to bend it on itself (180°) the wall is too thin and the hose has to be changed. Give a special attention to part of the hose that are curved.

Couplings and gaskets : Check on a regular basis the hose couplings and gaskets for wear.

BLAST ROOM	DAY	WEEK	MONTH	3 MONTH	ANNUAL
Clean the drawer of the recycler					
Check the wear strips in rubber reinforced elbows					
Clean injectors pit floor					
Inspect the transport abrasive hoses					
Check the recycler body for work					

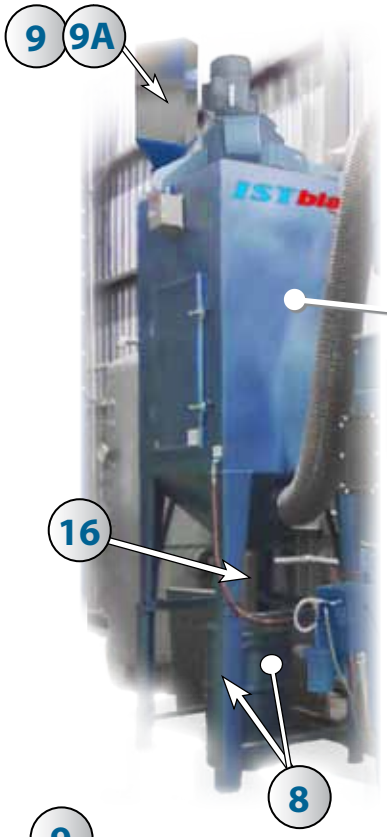
DUST COLLECTOR (DCM)	DAY	WEEK	MONTH	3 MONTH	ANNUAL
Shake dust collector bags with pneumatic shaker					
Empty dust collector or dust collector drum					
By accessing directly into the dust collector, shake vigorously bags					

TROUBLESHOOTING

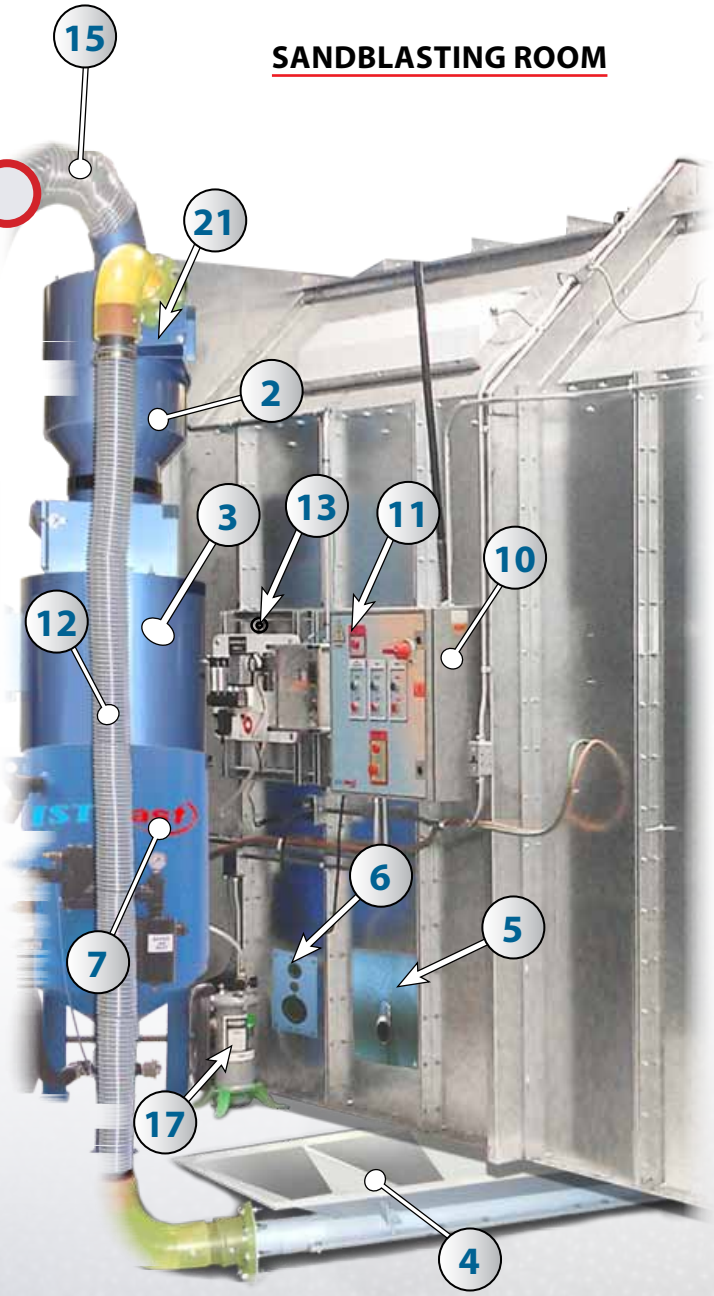
TYPE OF FAILURE	POSSIBLE CAUSE	SOLUTION
The fan does not start	• Deficient power source	• Check fuses without circuit
The abrasive is not vacuumed and returned to the storage hopper	• Bad electrical connection	• Check the the fan rotation
	• Clogging in recovery system	• Check the injectors of the recovery pit and clean any obstruction • Clean any obstruction in the bend at the outlet of the recovery pit
	• Dust collector bags clogged	• Be sure to shake the dust bags well. • Change bags as needed
	• Wrong outlet gate valve ajustment at fan outlet	• Make sure the gate controlling the flow of exhaust air leaving the fan is properly set.
	• Air leakage	• Make sure there are no leaks in pipes or hoses conveying abrasive. • Make sure check of the seal between the pressure vessel and the cyclonic system.
The ventilation system works but sandblasting does not work.	• Control of depressurization is to "OFF" position	• Reposition to "ON" position
	• The security system of the doors is open.	• Make sure the doors connected to the system are all closed
	• A problem related to control of the vessel pressure.	• Refer to the manual of the pressure vessel in the troubleshooting section
The abrasive is found in large quantities in the dust	• Too much secondary air supply.	• Look for an air leak between the pressure vessel and the storage hopper or cyclone system • Adjust the belt adjustment of the cyclonic system • Adjust the gate valve on the fan air outlet
Significant amount of dust in the clean abrasive	• Enough secondary air supply	• Adjust the belt adjustment cyclonic system

SCHEMATIC OF UNITS

DUST COLLECTORS



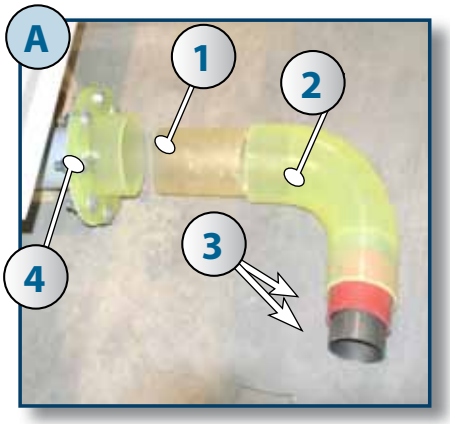
SANDBLASTING ROOM



UNITS - PARTS LIST

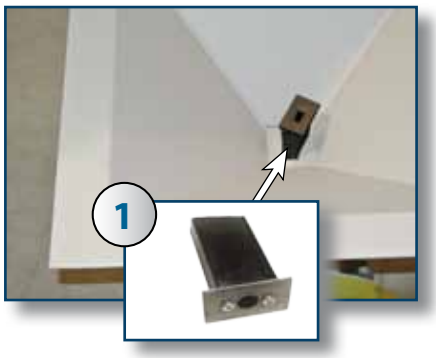
#	STOCK	DESCRIPTION
1	925029	Dust collector DCM200 (see correspondent Instruction Manual)
	625037	Dust collector DCM230 (see correspondent Instruction Manual)
2	609233	Recycler body
3	609270	Storage hopper
4	NPN	Recovery pit
5	600701	Depressurization hose plate
6	600703	Entry plate hose for model 346
	600704	Entry plate hose for model 646
7	N/A	Pressure vessel 346/646 (see correspondent Instruction Manual)
8	901448	Option : Dust collection barrel
9	916086	*Optional : muffler for DCM200*
	601425	*Optional : vertical muffler for DCM230*
9A	601436	*Optional : horizontal muffler for DCM230*
10	NPN	*Optional : Electrical control panel*
11	903104	*Optional : 4 stages filtration system and monoxide detector*
12	606118	4'' transport abrasive hose
	606120	5'' transport abrasive hose
	606123	6 1/8'' transport abrasive hose
13	908688	*Optional : level abrasive control*
	908678	*Optional : Switch for level abrasive control*
15	606173	8'' transport dust hose
16	618375	Dust discharge tube
	601500	Dust discharge tube clip
17	603600	Hood filter for sandblasting
18	910062	*Optional : doors system security (see page 11)*
19	917586	Door switch (see page 11)
20	917851	Emergency cord switch (see page 11)
21	609299	Ass'y plate with flange recycler 20''

UNITS - PARTS DETAILS



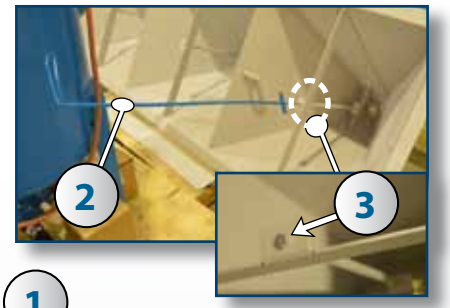
ELBOWS

#	STOCK	DESCRIPTION
A		COMPLETE ELBOW
1	940148	COUPLING SLEEVE (SOLD PER FOOT)
2	940140	4" ELBOW
3	601381	4" COUPLING SLEEVE (ASS'Y)
4	940144	CONNECTION ELBOW TO RECOVERY PIT

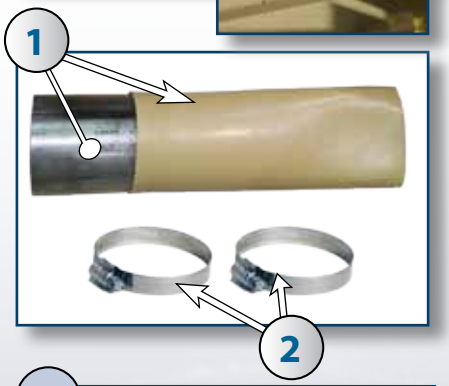


INJECTORS INTO RECOVERY PITS

#	STOCK	DESCRIPTION
1	600456	URETHANE INJECTOR 4" (**RECOVERY PIT**)
	600457	URETHANE INJECTOR 5" (**RECOVERY PIT**)
	600458	URETHANE INJECTOR 6" (**RECOVERY PIT**)
2	**600541**	INJECTOR CLEANING ROD **(PIT 36")**
	600543	INJECTOR CLEANING ROD **(STD PIT)**
3	**NPN**	**HEX. BOLT 3/8"**

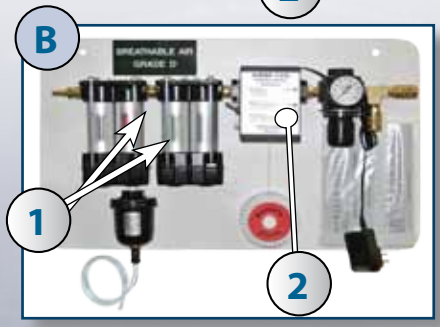


NB: The hex screws. ⅜" ③ must be placed in the holes as shown to prevent obstruction by the blast media and allow cleaning the injectors using the cleaning rod supplied ②.



HOPPERS CONNECTIONS

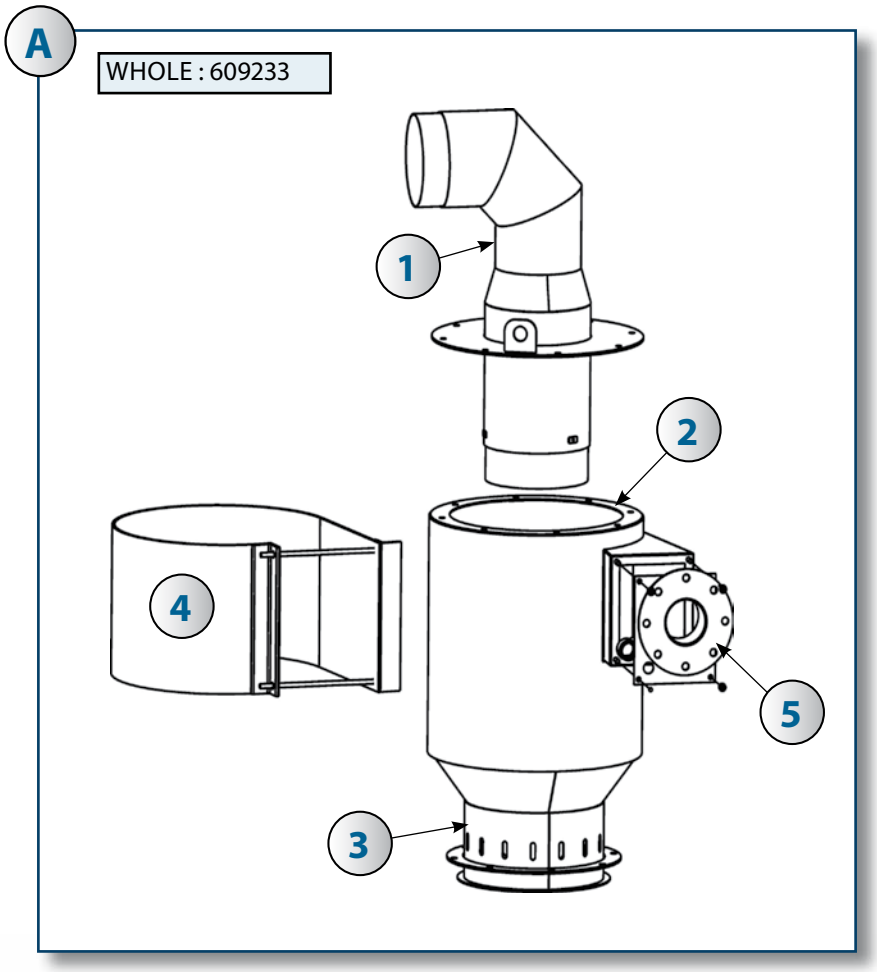
#	STOCK	DESCRIPTION
1	600465	FLOOR HOPPER GASKET
2	624117	PIPE CLAMP



OPTIONAL : 4 STEPS FILTRATION SYSTEM AND MONOXIDE DETECTOR

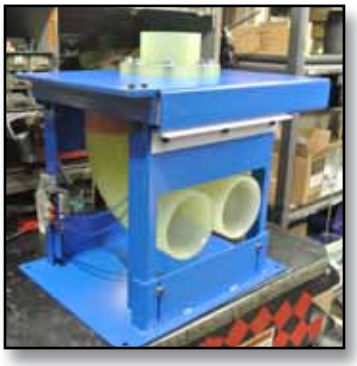
#	STOCK	DESCRIPTION
B	903104	COMPLETE SYSTEM
1	603117	CARTRIDGE FILTER REPLACEMENT SET
2	603118	CARBONE MONOXIDE MONITOR

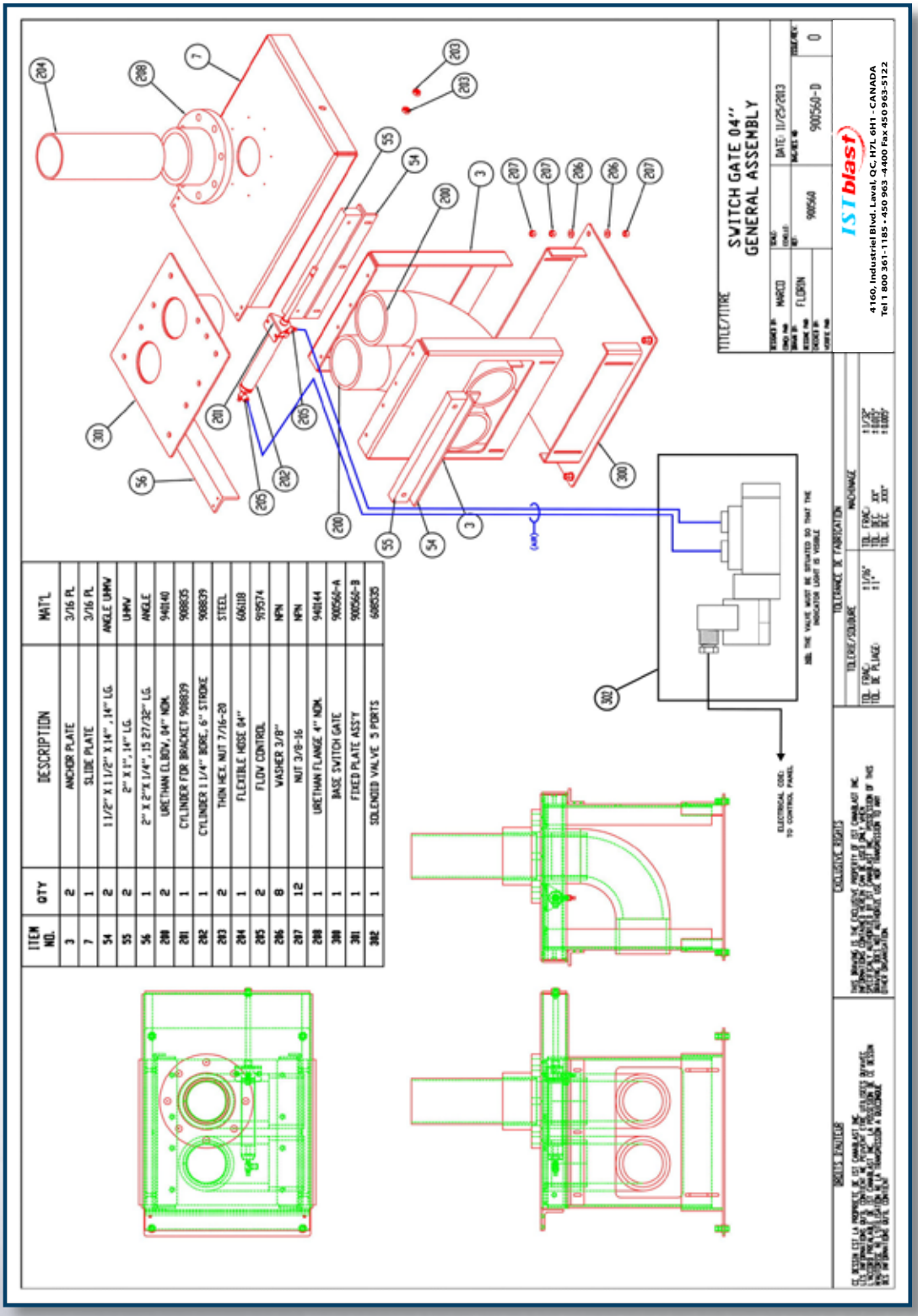
RECYCLER DETAIL



#	STOCK	DESCRIPTION
A	609233	COMPLETE RECYCLER
1	609217	20" OUTLET BOX
2	618318	SELF-ADHESIVE RUBBER (SOLD BY FOOT)
3	618334	RUBBER BAND (SOLD BY FOOT - 5.25')
4	D609233-S10	EXTERNAL REINFORCEMENT WEAR PAD
5	D609233-S09	INLET FLANGE

OPTION : SWITCH GATE FOR FLOOR HOPPER





WARNINGS FOR PRESSURE VESSELS

WARNING

- All persons who will be operating or will be in the vicinity of the Abrasive Blaster during its operation must receive proper training on how to safely operate the equipment and be informed of the potential hazards involved. In addition to proper training, all persons who will be operating or will be in the vicinity of the Abrasive Blaster during its operation must read, understand and follow all procedures described in the user's manual. For replacement manuals, please contact your distributor or visit www.ISTblast.com.

- Respiratory protection is mandatory for all persons operating or located in the vicinity of the Abrasive Blaster. Follow all OSHA and NIOSH requirements for breathing equipment and supplied air standards.

- Pressurized Vessels contain large amounts of stored energy and can cause severe injury or death if safety procedures are not followed. Never perform maintenance or attempt to opena Pressure Vessel for any reason while it is Pressurized. Always Depressurize and properly disconnect equipment from its air source before performing any maintenance. Do not modify, grind or weld on the pressure vessel for any reason. Doing so will void the ASME certification. Do not use damaged pressure vessels.

- The use of proper remote control systems (commonly referred to as Deadman controls) are required when using abrasive blasters. Never operate the Abrasive Blaster without remote controls. Never use bleeder type control handles, with RC175 or RC185 series blasters as they can cause a hazardous situation where the blaster will not shut off when the handle is released.

- All persons who will be operating or will be in the vicinity of the Abrasive Blaster during its operation must protect themselves with the proper safety equipment and use of common sense. Safety equipment including but not limited to Hearing, Eye, Body and Lung protection are required. Abrasive blasters and the objects being blasted can be heavy and can lead to severe injury or death if they fall over. Always follow all safety requirements of OSHA and NIOSH.

- Use only Genuine ISTblast replacement parts when performing maintenance on the Abrasive Blaster. Do not modify the equipment for any reason. Use of modified brand parts can cause an unsafe situation and will void your warranty.

- Never use malfunctioning or damaged equipment. Before each use, inspect the Abrasive Blaster for proper function.

- Supply only cool, dry, compressed air that is free of debris to the Abrasive Blaster. Moisture or debris that reaches the remote control system can cause an unsafe situation. Do not supply compressed air to the blaster that exceeds 150 psi.

- Use of an air line pressure regulator is strongly recommended.

- Do not use abrasive blasters in areas that could be considered a hazardous location as described in the Nati onal Electric Code NFPA 70, Article 500. Never use the Abrasive Blaster in wet environments. Always connect electrically controlled abrasive blasters to a Ground Fault Circuit Interrupter (GFCI).

SETTING UP THE BLASTER

WARNING

The Procedures provided in the Operating Procedures section of the manual are designed to provide basic information on how to safely operate the features of ISTblast RC-175 / RC-185 Series Abrasive Blasters. Only personnel thoroughly trained in abrasive blasting should operate the Abrasive Blaster.

INSPECT PRESSURE VESSEL

When you receive your Abrasive Blaster, remove the Handway Assembly and check for foreign items that may have fallen into the Abrasive Blaster through the Pop-up opening. Remove any foreign materials and reinstall the Handway Assembly.

DANGER : Never perform any maintenance or attempt to open the Abrasive Blaster in any way while it is pressurized. The violent release of compressed air and propelled objects will cause serious injury or death.

RE–TIGHTEN HANDWAY ASSEMBLY

After the Abrasive Blaster has been pressurized for the first time, tighten the nut on the Handway Assembly. Tightening the nut on the Handway Assembly should also be done any time after the handway has been removed for maintenance before and after the next pressurization.

DANGER : Never perform any maintenance or attempt to open the Abrasive Blaster in any way while it is pressurized. The violent release of compressed air and propelled objects will cause serious injury or death.

PURGE AIR SUPPLY HOSE

Before connecting the Air Supply Hose to the Abrasive Blaster, purge the hose of any moisture or foreign debris. Standing water or moisture in the air line will cause degraded performance of the Abrasive Blaster. Air supplied to the Abrasive Blaster must be clean, dry and cool.

ATTACH REMOTE CONTROL HANDLE

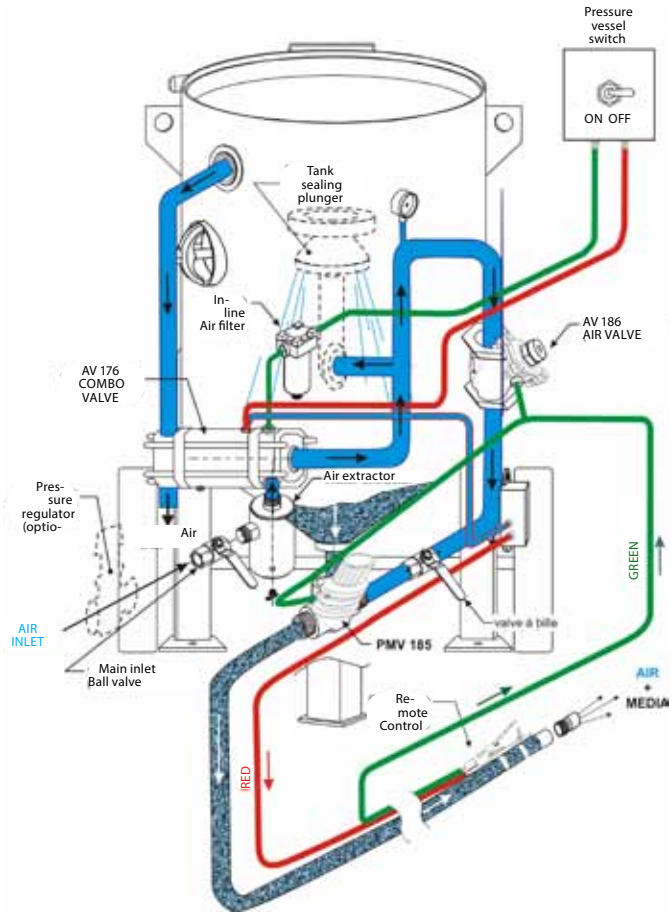
Attach the Remote Control Handle to the Blast Hose near the Nozzle with hose clamps or heavy wire ties.

Form a loop of Twinline/Control Cord that comes 6" away from the Blast Hose, runs 6" parallel to the Blast Hose, and comes 6" back to the Blast Hose. Using duct tape, attach the Twinline/ Control Cord to the Blast Hose where the loop ends by wrapping the tape around the Twinline/Control Cord twice and then around the Blast Hose.

At the point where the buckle ends, attach the Twinline / Control cord to the sandblasting hose by twice wrapping tape around the Twinline / control cord and then around the blast hose to form a decompression clip.

Do this only on the first connection near the control handle. Attach the remaining Twinline / Control cord to the blast hose by wrapping tape around the cord and hose every 3 feet, beginning at the end of the blast hose nozzle.

RSC76 / RC186 PRESSURE VESSEL WITH DUAL CONTROL SYSTEM - HOW IT WORKS



RFC176/186

- The customer supplies the air supply to a normally closed AV-176 valve.
- When the PRESSURIZATION SWITCH is activated, the AV-176 combined air valve opens to allow air to enter and pressurize the tank. The pressure tank is now ready for the sand blasting operation
- In order to start the sandblasting operation, all the doors of the sandblasting room, equipped with a safety switch, must be closed.
- It is only when all the doors are closed that the operator will be able to start the blasting operation.
- The operator will start the operation by pressing the control handle located on the sanding hose near the nozzle.
- The AV-186 air valve and PMV 186 abrasive metering valve then open to begin the sanding operation.
- When the operator releases the control handle, the sanding operation stops. The pressure vessel remains under pressure, ready to repeat the sanding operation when the operator presses the control handle again.
- When the blasting operation is complete or when the pressure vessel is to be filled with the abrasive, the operator releases the control handle. In order to depressurise the tank, the operator must turn the depressurization switch to the OFF position.

WARNING

CAUTION: NEVER LEAVE THE PRESSURE VESSEL UNDER PRESSURE WHEN NOT USED.

The pressure vessel must be depressurized and the air supply deactivated.

RSC76 / RC186 PRESSURE VESSEL WITH DUAL CONTROL SYSTEM (CONT'D)

PRE–BLAST CHECKING

Before each use of the Abrasive Blaster, it must be checked to ensure it is in a safe condition to be used. Closely examine all components of the Abrasive Blaster for signs of excessive wear, worn out seals and hoses, or damaged components. If any component of the Abrasive Blaster is found to be damaged or worn, it must be replaced before blasting.

WARNING : Never use an Abrasive Blaster if any components are damaged or worn. Damaged or worn parts must be replaced before use.

ADDING ABRASIVE

When you are preparing to use your machine for the first time, we suggest that you thoroughly close the abrasive dosing valve located under the tank before refilling. Please refer to the section on adjusting the metering valve later in this manual. Before filling the sandblaster, make sure that the air inlet valve is closed and the pressure vessel is depressurized. The abrasive is added by pouring it into the top of the sandblaster where it can flow through the filling hole. Do not overload the blaster. Do not allow foreign material to enter the sandblaster. It is recommended that a sieve be used to prevent foreign matter from entering the sandblaster.

DANGER : Never reach into the Pop-up opening while filling the Abrasive Blaster. It can close without warning causing severe injury or death.

WARNING : ISTblast Abrasive Blasters may not be used with abrasives containing silica. Never use abrasives containing silica.

WARNING : Never fill the abrasive blaster with the inlet valve in the open position. Always close the inlet valve before filling.

WARNING : Electrically conductive abrasives may not be used with the abrasive blasters using Electric Remote Control Systems without changing to sealed strain relief connectors.

WARNING : Never attempt to move or transport the Abrasive Blaster when it contains Abrasive

REMOTE CONTROL SYSTEM

Abrasive Blasters must use a Remote Control System (commonly known as deadman) to start and stop abrasive blasting. Remote Control Systems can be electric or pneumatic.

Electric : Connect the Remote Control Handle to the Abrasive Blaster's female twist-lock connector. Connect a 12 VDC power source (12V Battery or Optional 120 VAC to 12 VDC converter) to the Abrasive Blaster's male twist-lock connector.

Pneumatic : Connect the Remote Control twin line hose to the Abrasive Blaster using the supplied threaded or quick disconnect fittings. It is not recommended that Pneumatic Remote Control Systems are used when the Blast Hose length will be longer than 100 feet.

WARNING : Never operate the Abrasive Blaster without a Remote Control System.

DANGER : Always use caution around electric sources to avoid electric shock. Do not operate electrical remote controlled Abrasive Blasters in wet or other hazardous environments.

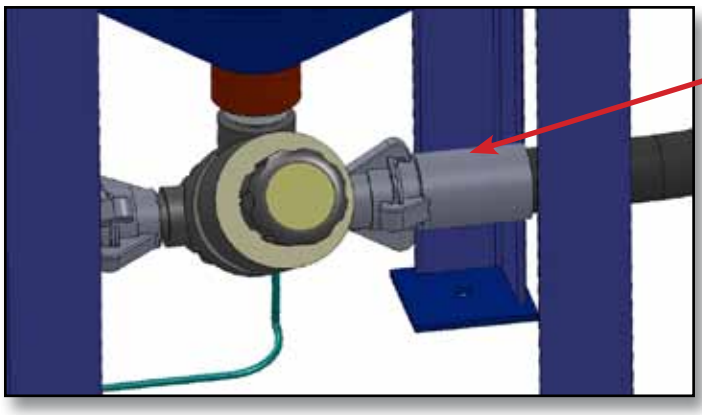
CONNECTING HOSES

Before connecting hoses to the Abrasive Blaster, make sure the Inlet Valve is closed and the compressed air supply is shut off. Connect the hose coming from the compressed air supply to the inlet on the Abrasive Blaster and secure with safety clips. **Use of an air line pressure regulator is strongly recommended.** Connect the blast hose to the coupling on the Metering Valve at the base of the Abrasive Blaster and secure with safety clips.

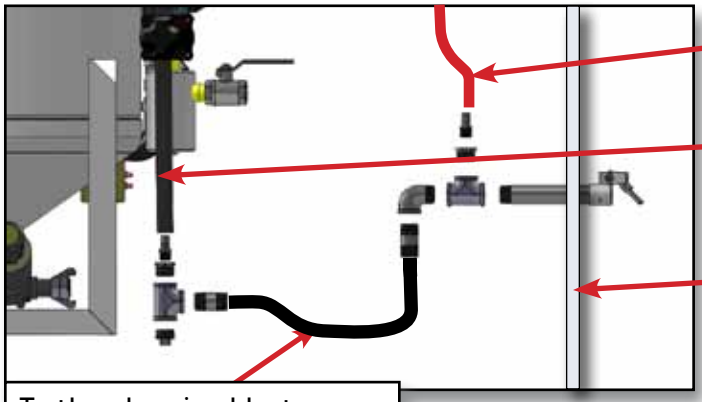
WARNING: Always use safety devices like clips and whip-checks (safety cables) at hose.

RC76 /186 PRESSURE VESSEL WITH DUAL CONTROL SYSTEM (CONT'D)

PRE-BLAST CHECKING (CONT'D)



Connect the blasting hose to the abrasive valve.

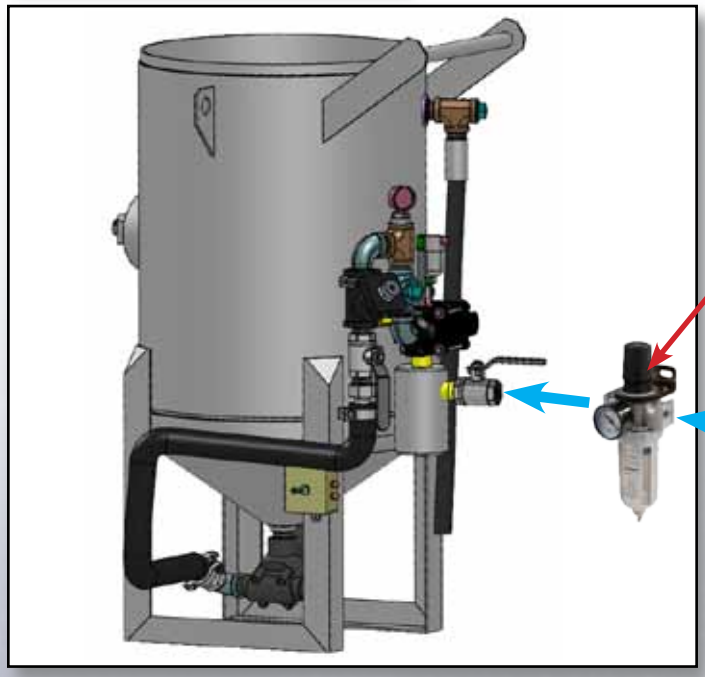


From the storage hopper

Pressure Vessel Depressurization Hose

Abrasive blast room wall

To the abrasive blast room

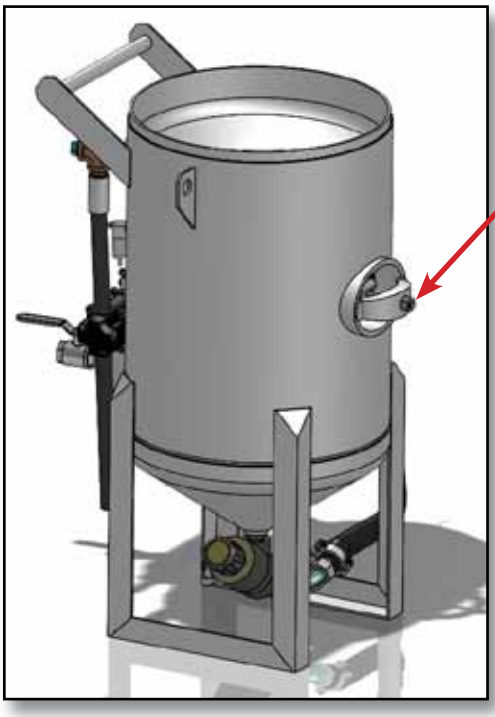


Install a 1¼ "air regulator (not included) to stabilize the internal pressure in the pressure vessel and in the sandblasting hose.

Main compressed air supply. The inside diam. of the hoses must be 1¼ "or more in order to leave enough air in the sandblasting hose.

RSC76 / RC186 PRESSURE VESSEL WITH DUAL CONTROL SYSTEM (CONT'D)

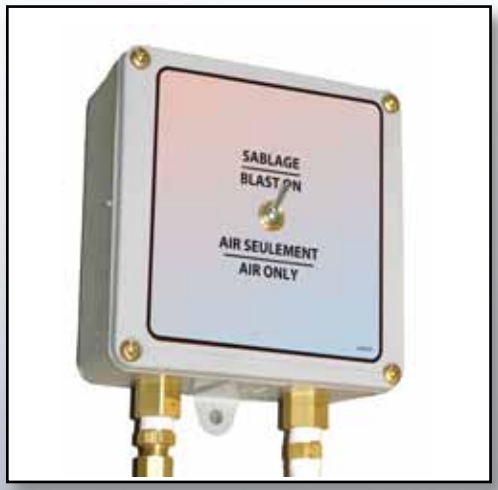
PRE-BLAST CHECKING (CONT'D)



Check that the maintenance access door nut is tight during operation. The seal must be properly positioned to prevent air and abrasive leaks.

Media Flow Valve

This valve is designed in such a way that the manually adjustable measuring function and the pneumatic actuating function of the valve are carried out separately, enabling rapid and inexpensive replacement of the worn parts.



Abrasive Cut-Off Switch

A pneumatic cut-off switch is provided to permit the use of compressed air at the blast nozzle for blowing dust on sanded surfaces. This switch controls the opening and closing of the sanding valve on the remote control handle. When sandblasting is completed, the operator simply places the switch in the off position, stopping the flow of abrasive. The air valve remains open so that only high-speed compressed air flows from the nozzle. The release of the handle stops the whole unit.

RSC76 / RC186 PRESSURE VESSEL WITH DUAL CONTROL SYSTEM (CONT'D)

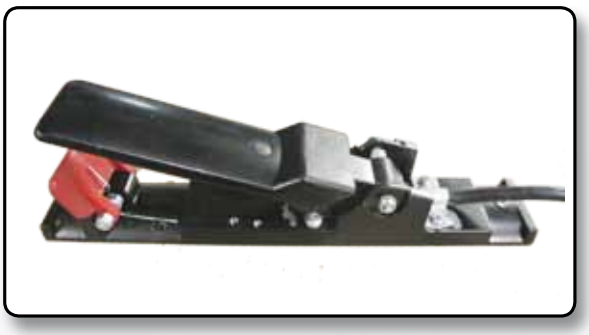
PRE-BLAST CHECKING (CONT'D)

Sandblast hose

The sandblast hose, which transmits compressed air and media to the blast nozzle, has an internal diameter of 1¼ "and an outside diameter of 2 5/32". It weighs 60 pounds for each 50 'length. The hose is rated for a working pressure of 175 psig. The hose fitting is ¼ "thick, rubber impregnated with carbon black for static dissipation. It is equipped with quick and light aluminum couplings that mount outside and incorporate self-locking safety wires. Fifty (50) feet of sandblast hose and control lines are supplied with each blasting machine.

Sandblast nozzle

A 3/8" I.D. double venturi nozzle will be supplied with the sandblasting machine. The nozzles are made of the highest quality materials and designed for a long service life. The nozzle is connected to the sandblast hose with an externally mounted nylon nozzle holder.



Operator Remote Controls

The remote controls are pneumatic type, and include a normally closed inlet valve and a normally open outlet valve. The air pressure opens the inlet valve and closes the outlet valve to begin the sanding process. In the event of loss of air pressure on the valves, the springs return the valves to their normal position.

If your sandblast hose is 75 feet or more the remote control may be electric.

ABOUT THE REMOTE CONTROL SYSTEM

An electric or pneumatic remote control system (also called "Deadman") must always be used with a sandblasting pot to start and stop blasting.

Electrical: On the sandblasting pot, the remote control handle must be connected to the female socket with rotating latch of the blasting pot. A 12 V DC power source (12 V battery or optional 120 V AC to 12 V DC converter) must be connected to the male latch connector.

Pneumatic: The dual remote control hose must be connected to the blasting pot using supplied threaded or quick disconnect couplings. The use of pneumatic remote control systems is not recommended with sandblast hoses over 100 feet.

ISTBLAST LIMITED WARRANTY

ISTblast warrants all equipment led in this manual which is manufactured by ISTblast and bearing its name, to be free from defects in material and workmanship on the date of sale by an authorized ISTblast dristibutor to the original purchaser for use. Notwithstanding any special, extended or limited warranty published by ISTblast will, for a period of TWELVE (12) months from the date of sale, repair or replace any part of the equipment determined by ISTblast to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with ISTblast 's written rISTblastmmendations.

This warranty does not cover, and ISTblast shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non- ISTblast component parts. Nor shall ISTblast be liable for malfunction, damage or wear caused by the incompatibility with ISTblast equipment with structures, accessories, equipment or materials not supplied by ISTblast , or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by ISTblast .

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized ISTblast dristibutor for verification of the claimed defect. If the claimed defect is verified, ISTblast will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser, transportation prepaid. If the inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

ISTblast 's sole obligation and the buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought forward within one (1) year of the date of sale.

ISTblast MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY ISTblast . These items sold, but not manufactured by ISTblast (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. ISTblast will provide the purchaser with reasonable assistance in making any claim for breach of these warranties.

LIMITATION OF LIABILITY

In no event will ISTblast be liable for indirect, incidental, special or consequential damages resulting from ISTblast supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of ISTblast , or otherwise.

The following items are not covered under the ISTblast warranty policy:

- Parts or chassis replacement due to normal wears.
- Defective material or workmanship is not considered normal wear.

Report all accidents or "near misses" which involve ISTblast products to our service department :

1 877 629-8202

ISTBLAST WARRANTY REGISTRATION

ISTblast would like to thank you for your recent purchase of our product line. Please complete the card below and either mail or fax it to our office so that we may start the warranty of your product and keep you up to date on the EPA regulations by fax. Again, thank you for your purchase and if you have any suggestions or comments, please feel free to contact our office.

COMPANY NAME : |__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|

ADDRESS : |__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|

CITY : |__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__| **STATE/PROV. :** |__|__|__|__|__|__|__|__|__|

COUNTRY : |__|__|__|__|__|__|__|__|__|__|__|__|__|__| **ZIP CODE :** |__|__|__|__|__|__|__|__|__|__|__|__|

CONTACT : |__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|

TEL. NUMBER: |__|__|__| |__|__|__| - |__|__|__|__|

FAX NUMBER: |__|__|__| |__|__|__| - |__|__|__|__|

PURCHASE FROM: |__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|

DATE OF PURCHASE: |__|__| |__|__| |__|__|__|__|
Month Day Year

SERIAL NUMBER: |__|__| - |__|__|__| - |__|__|__|__| **MODEL NUMBER:** |__|__|__|__|__|__|

TYPE OF MEDIA USED: |__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__

Which factors most influenced your decision to purchase this ISTblast unit?

|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|

SUGGESTIONS ABOUT THE EQUIPMENT: ____

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IMPORTANT! Please complete and return within 30 days after purchase to activate the warranty.

PLEASE SEND THE COMPLETED FORM TO :

IST
4160 Industriel Blvd.
Laval, QC, H7L 6H1 CANADA