

THE REFERENCE IN SURFACE TREATMEN



WETBLAST SYSTEM **CABINET M3636 SW**



- Warranty
 - Safety

Operation

- **Service Parts**
- **Accessory Information**
- **Registration Form**

INSTRUCTION MANUAL

2018-04-04





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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 dributor 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 recommendations.

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 dributor 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 assance 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.

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

- Technical Assance

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





NOTICE TO PURCHASERS AND USERS OF OUR PRODUCTS AND THIS INFORMATIONAL MATERIAL

The products described in this material, 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 of 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 material.

The products described in this material 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 material 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 that the professionals in our industry will utilize their knowledge and expertise in the safe efficient use of these products.

SAFETY AND WARNING

GENERAL SAFETY

- 1. Carefully inspect the shipping carton for any signs of transport damage. The damage to the carton often indicates possibility of transport damage to the equipment inside.
- 2. Carefully remove your ISTblast SANDBLASTING CABINET from the shipping carton and skid.
- 3. Check your equipment immediately to ensure that it is free of transport damage. Report any transport damage to the carrier without delay for possible claim procedures. International Surface Technologies inc. is not responsible for damage to equipment after it leaves our warehouse.
- 4. Check the equipment I and compare it with the parts you have received. If any parts are missing, contact the supplier you purchased the equipment from.

Before operating the ISTblast SANDBLASTING CABINET, read this Instruction Manual completely. All ISTblast products are engineered and manufactured to the highest performance standards and have been subjected to detail testing before shipment from the factory.



GENERAL SAFETY RULES

• KEEP WORK AREA CLEAN.

• **KEEP CHILDREN AWAY.** Do not let visitors come in contact with the equipment. All visitors should be kept away from the work area.

PERSONAL SAFETY

- GUARD AGAINST ELECTRIC SHOCK. Non-skid footwear is recommended where damp or wet ground may be encountered. A ground fault circuit interrupter protected power line must be used for these conditions.
- DRESS PROPERLY. Do not wear loose clothing or jewelry. They can be caught in the moving parts. Wear protective hair covering to contain long hair.
- USE SAFETY EQUIPMENT. WEAR SAFETY GOGGLES or glasses with side shields.
- WEAR A DUST PROOF MASK.
- STAY ALERT. USE YOUR COMMON SENSE. Concentrate on what you are doing. Do not operate the unit when you are tired or under the influence of drugs.
- DO NOT OVERREACH. Keep proper footing and balance at all times.
- BEFORE CONNECTING THE UNIT be sure the power is the same as that specified on the nameplate of the Sand Blasting Cabinet. With power greater than that specified on the Nameplate can seriously injure the user – as well as damage the Unit.

UNIT USE AND CARE

- DO NOT FORCE THE UNIT. It will perform better and safer at the rate for which it was designed.
- THE USE OF ANY OTHER ACCESSORIES not specified in this manual may create a hazard.
- CLOSE THE MAIN BREAKER SWITCH BEFORE SERVICING or when not in use.
- DO NOT ALTER OR MISUSE THE UNIT. These units are precision built. Any alteration or modification not specified is
 misuse and may result in a dangerous situation.

Only trained repairmen should attempt (•) ALL REPAIRS, electrical or mechanical. Contact the nearest ISTblast a repair service facility. Use only ISTblast replacement parts; any other parts may create a hazard.



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.

INSTALLATION

- 1. Make sure the cabinet is leveled and well grounded. Do not place on a wooden floor or a rubber mat, unless a ground wire has been installed. Check with a qualified electrician.
- 2. Place the system to the installation location
- 3. Unwrap and remove the cabinet from the pallet
- 4. Insure there is adequate space on both sides of the cabinet for full opening of part loading/unloading and maintenance access doors.
- 5. Insure that there is adequate space at both sides of the system for easy access to components such as the reclaimer and dust collector
- 6. The dust collector should be located on a leveled area near the back of the cabinet, on the right side (while facing cabinet). Attach one end of the corrugated discharge hose to the outlet of the reclaimer and the other end to the inlet located at the bottom of the dust collector. Secure both ends with the supplied clamps. See dust collector section for more details

Connect your shop's air supply line to the air inlet. The hose should have a minimum of 1/2 inch inside diameter. Never use male-female quick couplings. **Choose couplings that offer as little restriction to the airflow as possible.** Compressed air must be clean, dry, and oil free

All ISTblast M[®] series cabinets are equipped with a dust collection model DC-50, DC or DCM 100, 160, 230 or 330 or an optional high-performance dust collector model.

PROPER JET/NOZZLE COMBINATIONS				
JET	NOZZLE	AIR CONSUMPTION		
1/8″	1/4″	21 CFM * @ 80 PSI *		
5/32″	5/16" standard	34 CFM * @ 80 PSI *		
3/16″	3/8″	48 CFM * @ 80 PSI *		

Air consumption - Suction System

• CFM: Cubic Feet / Minute * PSI : Pounds / Square Inch

ELECTRICAL CONNECTIONS



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Connect cabinet power supply cord to standard 120 Volts, 20 amps outlet.

All electrical connections to the ISTblast cabinet should be made by a qualified electrician and must complied 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.

VERIFY INSTALLATION

- 1. Check that all pipe and hose connections are tightly fastened and air tight.
- 2. Check that all electrical box covers are securely installed.



Disable and lock out power sources before performing service or maintenance work. Do not look into the fan outlet to determine the correct motor rotation. Check that the fan exhaust is clear of tools and free of debris before checking fan rotation. To avoid personal injury, stay clear of the fan exhaust.





ABRASIVE MEDIA LOADING

Start the electric motor. Open the cabinet door and slowly pour about 25 pounds of abrasive inside the cabinet. Abrasive will be transferred automatically to the reclaimer.

Important note : Your suction cabinet is designed to operate efficiently with most **recyclable abrasive media** on the market. However, certain types such as sand, recycled glass or silica are not recommended and should not be used in our blast cabinet. These abrasives generate very fine dust that may block the bag's pores, obstruct the ventilation system and cause dust accumulation inside the cabinet while in use. Instead, use reclaimable abrasives such as glass beads, aluminum oxide steel grit or plastic media. For better results for the reclaiming process, please call one of your technical representatives if you have to use a different type of abrasive from the one your equipment has been set for at the factory.

Warning : Sudden dumping of media into the cabinet will clog the return hose and stop the reclaiming system.

To properly operate, your ISTblast system use clean, dry air. Moisture or oil from the compressed air supply can contaminate the abrasive, and prevent it from flowing freely and cause inefficient blasting.

ABRASIVES

NAME	ТҮРЕ	SHAPE	HARDNESS SCALE	DENSITY PDS/CUFT	CONTENT SILICA	DUST FACTOR	MESH SIZE	REUSE FACTOR	AVAILABILITY
Silica Sands	Silica	Rounded Irregular	5-6 Mohs	100	+90%	High	6-270	Poor	Good
Minerai Sands	Oxide	Irregular	7 Mohs	128	-5%	Moderate	55-90	Fair	Limited
Industrial Garnet	Oxide	Sub-Angular	7-8 Mohs	130-147	-1%	Moderate	8-300	Fair	Limited
Flint	Silica	Angular	6.5-7 Mohs	74-90	+90%	Moderate	6-300	Fair	Limited

Natural abrasives



OPERATION

The dimensions of the chamber are approximately 36 x 36 x 38". The cabinet is entirely built out of stainless steel and has a loading door on the right.

During the blasting of the surface by suction in a liquid environment, the compressed air propels a mixture at high velocity directly onto the part being stripped. In this case the mixture in a combination of aluminum oxide 220 (635241) and water. It is continuously agitated to prevent the seperation of the abrasive and the water.

- 1. Turn the cabinet snap switch to the "START ON" position. The cabinet lights will power on. (Fig. 1)
- 2. Turn the cabinet snap switch to the "HEATHER ON" position. The heather will power on. (Fig. 1)
- 3. Set the blast air pressure regulator to the desired pressure. (Fig. 2)
- 4. Insert both hands into the cabinet gloves, take the gun and press the foot pedal : blasting will start, wait a few second and the blast flow will stabilize, and you can place your part under the blast nozzle and water jets.





¹/₂" press. regulator (**324562**)



A G5-BN2-5 suction gun (see parts ass'y p. 15) with a wetblast type head equipped with a boron carbide nozzle is mounted on an adjustable arm.

The blow-off gun (see parts ass'y p. 16) allows the part being blasted to be cleaned and free of the mixture of abrasive/water.

Refer to the gun parts ass'y page 14

Figure 2



OPERATION (CONT'D)



Semi-elliptic Head

The semi-elliptic head is entirely designed and manufactured in our plant. Thehead is made of stainless steel, is directly connected to the cabinet's recovery pit and surrounded by a 500 watt heating band(901442) connected to an 120 volt electrical source.

The semi-elliptic head provides a homogenous mixture of the abrasive and the hot water due to an **agitator** being located inside it, which maximizes the blasting performance.



The adjustment of the temperature with theheating band and knob is only needed for the comfort of the operator.

IMPORTANT NOTICE



If the machine is stopped for more them 2 days and to prevent the formation of a plug between the reservoir base (1) and the superior part of the valve drain (3), 2 solutions are proposed :

- 1. Keep the air injectors (2) at a constant pressure of 5 to 10 PSI, OR
- 2. Completely empty and rinse the machine of the abrasive/water mixture.

The $\frac{1}{2}$ " ball value (4) allows the cleaning of the drain with air impulses.



INSIDE VIEW - PARTS



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A G5-BN2-5 suction gun (1) with a wet-blast type head equipped with a boron carbide nozzle is mounted on an adjustable arm. The blow-off gun (6) allows the part being blasted to be cleaned and free of the mixture of abrasive/water.



The interior of the window is equipped with a window washer system activated by a pedal. The pneumatic diagram of this system is shown page 17.

BLOW-OFF GUN (SEE DETAILS P. 16)



LIGHTINGS









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INSIDE VIEW - PARTS (CONT'D)

PARTS UNDER THE FLOOR GRID







#	STOCK	DESCRIPTION	#	STOCK	DESCRIPTION
1	-/-	SEE DETAILS P. 15	9	910226	LAMINATED WINDOW
2	603222	WETBLAST GLOVES	10	911114	FILTER
3	910471	FLOOR GRID	11	606104	¹ / ₂ " CLEAR PVC HOSE
4	618321	TYPE "D" RUBBER DOOR	12	632730	1⁄2″@ 90° STREET ELBOW
5	910102	WATER JET (4)	13	632760	¹ ∕₂″ CONNECTOR
6	-/-	SEE DETAILS P. 16	14	911027	FILTER
7	618300	WINDOW RUBBER LINING	15	608011	FLOW ADJUSTEMENT RING
8	617135	FLOOD LIGHT	16	908112	WATER AGITATOR





FRONT VIEW - PARTS









With a suction system such as this one, for the highest blasting performance **it is recommended not to exceed a pressure of 80 psi.**

#	STOCK	DESCRIPTION	#	STOCK	DESCRIPTION
1	617014	SWITCH	6	610207	RUBBER WINDOW FRAME
2	617019	SWITCH PROTECTOR	7	624137	"T" ATTACHMENT #188 (11 ¼")
3	617326	PVC JUNCT. BOX 5 x 5 x 2	8	610270	SUCTION PEDAL S/S
4	616535	LIQUID TIGHT CABLE	9	611022	1/4" PRESSURE GAUGE
5	610205	LAMINATED GLASS 22" X 14"	10	608022	¹ / ₂ " PRESSURE REGULATOR

During the blasting of the surface by suction in a liquid environment, the compressed air propels a mixture at high velocity directly onto the part being stripped. In this case the mixture in a combination of aluminum oxide 220 (635241) and water. It is continuously agitated to prevent the separation of the abrasive and the water.



The reference in surface treatment

REAR VIEW - PARTS



#	STOCK	DESCRIPTION	#	STOCK	DESCRIPTION
1	616311	1/2 HP MOTOR 120V -8 A	9	608102	¹ ⁄ ₂ " BALL VALVE
2	617305	¹ / ₂ " - 90°JUNCTION BOX	10	608154	GATE VALVE
2A	617304	"T" ½"	11	608102	¹ ⁄ ₂ " BALL VALVE
3	-/-	FUSES ELECTRICAL BOX	12	930070	"T" 2"
4	908525	3/8" FLOW CONTROL	13	608107	2" BALL-VALVE DRAIN
5	311002	¹ ⁄ ₄ " PRESSURE GAUGE	14	901442	500W HEATING BAND
6	324562	PRESSURE REGULATOR	15	-/-	HEATING BAND KNOB
7	908576	SOLENOID VALVE	16	-/-	HEATING BAND SENSOR
8	608102	¹ ⁄ ₂ " BALL VALVE			

COMPLETE G5 WITH BN2-5 NOZZLE ASS'Y - PARTS

1 610119 G-5 blast gun body only	
2 607037 NA-G5 / SH5 adaptor	
3 605011 BN2-5, standard ⁵ / ₁₆ " ± ceramic n	ozzle for G5-SH5
4 618017 NW-2 rubber washer	
5 610117 Complete G5 / SH5 standard 5/32	"±air jet
6 618110 G5 "O" ring	
7 607038 G5 / SH5 hose adaptor	
8 618219 Rubber protector	
9 632771 ¹ / ₂ " brass female swivel hose barb	
10 624015 ³ / ₄ " "O" clamp	
11 606104 ¹ / ₂ " PCV compressed air hose (sol	ld per foot)
12 606148 ¹ / ₂ " multi purpose abrasive conve	ying hose (sold per foot)

		PROPER AIR JET	/NOZZLE (COMBINAT	IONS		
Comp	lete blast guns (pre-assembled*) NOZZLES			NOZZLES Air jet			Orifices
G5	SH-5	Nozzles	Type Orifice Code ⁽		(Complete)	±	
610121	610135	Ceramic	CN2-4	1/4″	605004	610116	1/8″
610120	610136	Ceramic (Standard)	CN2-5	5/16″	605005	610117	5/32″
610166	610144	Ceramic	CN2-6	3/8″	605015	610109	3/16″
610122	610137	Ceramic	CN2-7	7/16″	605006	610118	7/32″
610123	610138	Tungsten	TN2-4	1/4″	605007	610116	1/8″
610124	610139	Tungsten	TN2-5	5/16″	605008	610117	5/32″
610167	610145	Tungsten	TN2-6	3/8″	605018	610109	3/16″
610125	610140	Tungsten	TN2-7	7/16″	605009	610118	7/32″
610126	610141	Boron carbide	BN2-4	1/4″	605010	610116	1/8″
610127	610142	Boron carbide	BN2-5	5/16″	605011	610117	5/32″
610168	610146	Boron carbide	BN2-6	3/8″	605021	610109	3/16″
610128	610143	Boron carbide	BN2-7	7/16″	605012	610118	7/32″

THE REFERENCE IN SURFACE TREATMENT

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COMPLETE FOOT PEDAL ASS'Y - PARTS



#	STOCK	DESCRIPTION	QTY
\nearrow	610270	COMPLETE FOOT PEDAL	1
1	610268	PEDAL BODY	1
2	608604	TWO (2) WAYS VALVE	1
3	632551	3/8" @ 90° STREET ELBOW	2
4	632761	3/8" MTP X 1⁄2" HOSE MENDER	2
5	610274	FLAT WASHER	2

COMPLETE BLOW-OFF GUN ASS'Y - PARTS



#	STOCK	DESCRIPTION	QTY
\nearrow	610275	COMPLETE AIR GUN	1
1	610277	AIR GUN	1
2	632270	¼″ PL ADAPTOR	1





JET DIAGRAM





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ELECTRICAL DIAGRAM







RESERVOIR LIQUID

PNEUMATIC DIAGRAM







SEMI ELLIPTIC HEAD





SEMI ELLIPTIC HEAD PNEUMATIC DIAGRAM



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?
which factors most influenced your decision to purchase this is rolast unit:
SUGGESTIONS ABOUT THE EQUIPMENT:

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

Tel.: 450 963-4400 or 1 877 629-8202 • Fax: 450 963-5122 info@istsurface.com • www.istsurface.com

M3636 SW - Instruction Manual & Parts

ABOUT THE COMPANY

WHO WE ARE

IST is a leading industrial manufacturer of standard and custom engineered equipment for the surface treatment industry and the solvent recycling industry.

MISSION

IST is dedicated to being an innovative and trusted supplier in the conception, fabrication and distribution of surface treatment equipment and recycling equipment.

The products, technologies and industry expertise of IST are used in a wide range of manufacturing and industrial applications, including but not limited to :

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- General Manufacturing
- o Industrial Equipment
- o Metal forming
- o Aerospace and Aviation

- Petroleum
 Flexography (Labeling) & Lithography
- Wood finishing

Power & Energy

Pharmaceutical

- Dail and Transit
- o Rail and Transit
- o Marine
- o Automotive





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