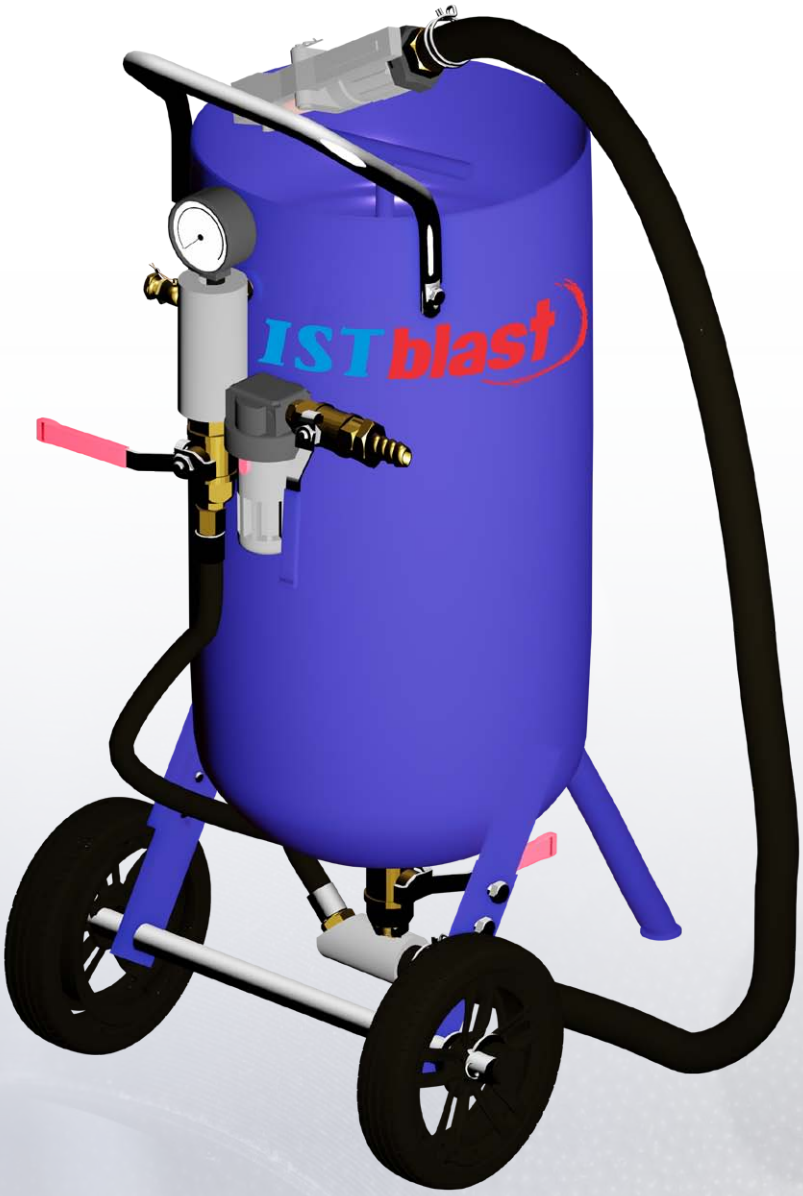
IST International Surface Technologies

ISTblast
BEYOND THE SURFACE

PORTABLE PRESSURE BLASTER
MODEL 80 PX



INSTRUCTION MANUAL

2023-10-02

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READ ALL INSTRUCTIONS BEFORE USING THIS MACHINE

1. **KEEP THE WORK AREA CLEAN.** Cluttered areas invite injuries.

2. **CONSIDER WORK AREA ENVIRONMENT.** Don't use sandblaster in damp, wet, or poorly lit locations. Keep work area well lit. Don't use compressors in the presence of flammable gases or liquids.

3. **KEEP CHILDREN AWAY.** All children should be kept away from the work area. Don't let them handle tools, hose or extensions cords, also. No one should be in the area of the sandblasting if they don't have the same protective equipment you are using.

4. **DRESS PROPERLY.** Wear protective clothing because a dust and abrasive hazard exists. As a minimum, wear a hood (included), a dust mask to prevent inhaling the material being removed, and heavy duty gloves.

5. **PERIODICALLY INSPECT THE SAND CARRYING COMPONENTS.** These are being sand blasted on the inside whenever you use the sandblaster, and will wear mush more rapidly than components.

6. **SECURE THE WORK.** Use clamps or a vise to hold the work if it is small or light weight. It's safer than using your hands and it frees both hands to operate the nozzle.

7. **DON'T OVERREACH.** Keep proper footing and balance at all times.

8. **MAINTAIN TOOLS WITH CARE**. Follow instructions for lubricating and changing components and accessories.

9. **DISCONNECT AIR COMPRESSOR POWER** when not in use, before servicing and when changing components.

10. **AVOID UNINTENTIONAL STARTING.** Be sure the nozzle valve is in the off position when not in use.

11. **STAY ALERT.** Watch what you are doing, use common sense. Don't operate any machine or tool when you are tired.

12. **REPLACEMENT PARTS.** When servicing, use only identical replacement parts.

SAFETY INSTRUCTIONS FOR SANDBLASTER

1. **BEFORE OPENING THE TANK,** release the air pressure on the sand tank. To do this, turn off the air supply valve (14), to release pressure in the line. Ensure that the tank pressure gauge (05) reads zero, then open the tank.

2. **MAINTAIN CORRECT AIR PRESSURE.** Pressure should not exceed 125 PSI. If it does, the safety valve (06), is supposed to release the excess pressure. If this doesn't happen, stop all work immediately, and use the air compressor to reduce the excess pressure. Do not investigate the sandblaster's pressure problem until the pressure gauge (05) reads zero.

ASSEMBLING THE SANDBLASTER

1. Refer to the drawing for step 1, to assemble the intake manifold (08). First, attach the pressure gauge (05) to the top intake manifold, turning the gauge so that is can be seen across the top of the tank. Next, attach the throttling valve (18) to the bottom of the manifold. Attach the nipple connector (7A), to the throttling valve. Attach the joint pipe (07), to the manifold.

2. Refer to the drawing for step 2, to assemble the water trap filter (12). Two nipple connectors (07) are screwed into each side of the filter. On one side, attach the air supply valve (14), to the nipple connector (7), and then attach the male/female connector (15), to the other side of the air supply valve. When you're ready to operate the sandblaster, the air hose from the compressor will fasten to the male/female connector (15).

3. Place the tank (03) on a table with the four clips up. Refer to the drawing for step 3. Screw the water trap filter (12) and its parts into the hole at the side of the intake manifold. Then screw the open end of the joint pipe (07) with intake manifold (08) and pressure gauge (05) attached into the threaded hole on the side of the filler pipe on top of the tank. Again, be sure that the manifold and gauge are vertical.

4. Refer to the drawing for step 4, assembly of the sand outlet valve into the hole at the bottom of the tank. Attach four parts, in order: Nipple connector (07), sand metering valve (18), nipple connector (07) and the sand outlet pipe (19).

5. Refer to the drawing for step 5, for connecting the sand metering valve assembly (step 4). Slide the two hose clamps (26), over each end of the sand hose (25). Press one end of the hose over the nipple on the sand outlet pipe (19), and the other end over the nozzle coupling (27). Both hose ends should be firmly seated on the nipples. Slide the hose clamps along the hose to each nipple and tighten the clamps very firmly. They have to resist the force of 65 to 125 PSI.

6. Fasten the handlebars (02) to the tank using pan screws (11) and washers (10) and hex nuts (09). Note: keep the handle curve ends upward.

7. Install the axle foots (20) on the tank using the screws (16). Locate the axle (23) and slide it through the holes in the slides of the axle foots (20). Place one wheel (22) at each end of the axle and fasten them into place with cotter pins (24) and washer (21).

8. 8.Insert the fixed foot (17) onto fitting on bottom of the tank near the edge. Use your last cotter pin (24) to hold the foot to the tank.

9. 9.Before beginning operations, go back over each connection, double checking to ensure that all tight and properly sealed.

ABRASIVE SELECTION

The kind of sand you choose will greatly influence the amount of time needed to clean a given surface area. Sandblasting materials include silicon carbide, alumina, silica sand, bank sand and beach sand. However, bank sand and beach sand, even if washed, will still contain shell, coral and organic materials. These absorb moisture mush more readily than the other materials. As a result, the moisture in bank and beach sands frequently causes plugging of the sand metering valve. If you elect to reuse sand, remember it does wear out. The sharp edges become rounder, and are less effective. It's at that point you should replace the batch of sand you're using.

LOADING ABRASIVES INTO TANK

1. Check your abrasive to be sure it's dry, and won't clog the meter valve (18), sand outlet pipe (19), hose (25), or other components.
2. Put on the protective clothing.
3. Turn the air supply valve (14) to the off (horizontal) position.
4. Watch the pressure gauge (05) and make sure it reads zero pressure.
5. Be sure to get enough into the tank to do the job at hand. But if this is a big job, fill the tank only ¾ full, and reload as needed to finish the work.

   TIP: if the humidity is 90-100%, at the water trap (12) won't be able to trap all of the moisture in a ¾ full tank. Better to reduce the amount of abrasive, load more frequently, and empty the water trap more often. This will reduce the possibility of clogging the bottom of the tank or the line.
6. With the correct amount of abrasive in the tank, and close the gasket (01) than open the air supply valve (14)
7. Check for air leaks at the filler cap as you begin to pressurize the tank from the compressor.

MAINTENANCE

1. You should make every effort to protect your air compressor from any damage it may receive from your sandblasting work. Your best option is to keep the compressor in a room separate from the sandblaster, using a long hose to provide the PSI needed to do your work. A second choice is to keep the compressor up wind from the sandblasting and the greater the distance between them, the better. Other than that, you should continue standard maintenance procedures for the compressor.
2. Some parts of the sandblaster will wear mush rapidly than others. The parts needing close attention carry the air/abrasive mixture, starting with the sand hose (25), and going through the metal fittings, the shut off gun.
3. If air leaks develop in any of these parts, you should stop all work, and find what needs to be repaired or replaced. When it's new, the sand hose (25) has 2 cord piles and the walls are ¼" think. As the interior diameter is sandblasted, this wall becomes thinner and thinner. One way to inspect the hose and other parts affected by blasting is to put on your protective clothing. Then pressurize the system and close the nozzle shut off gun. Close your hand loosely around the hose and run it up and down the hose across the fittings and nozzles. You'll be able to feel any leaks. You can also spot places in the hose where the wall is getting very thin. These show up as blisters in the hose. If you find such a blister, get a new hose immediately. If that blister breaks, the abrasive will come out of the side of the hose at 65 or more PSI.

IMPORTANT SAFETY INSTRUCTION

WARNING : When using tools such as your air compressor, whether powered by electric motor or gasoline engine, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury.

You should review the safety instructions for your air compressor before beginning sandblasting with this machine.

SPECIFICATIONS

DESCRIPTION	VALUE
Tank dimensions	10" DIA.; 24 ½" LENGTH
Overall dimensions	17 3/4"L X 13 3/4"W X 33"H.
Weight	50 LBS
Hose length	8 FEET

AIR SUPPLY REQUIREMENTS

HOSE INTERIOR DIAMETER	HOSE LENGTH	NOZZLE INTERIOR DIAMETER	COMPRESSOR HORSEPOWER	CFM 100PSI
3/8"	8 feet	1/8"	5	20
1/2"	10 feet	3/16"	10	45
1/2"	25 feet	1/4"	25	85

We recommend that air pressure in the range of 65-125 PSI will provide the best results.

SAVE THESE INSTRUCTIONS

You will need these instructions for the safety instructions, the operating procedures, the parts list and the warranty. Put them in a safe and dry place for future reference.

TROUBLESHOOTING TIPS



PROBLEM !?



POSSIBLE SOLUTION :

Surging of blast flow !?

Air pressure too low..... See "Lack of air"
Too much media..... Adjust media valve

Excessive media consumption !?

Media valve open too far..... Close slightly
Air pressure too low..... Check pressure gauge

Clogging and plugging of blast flow !?

Debris in media.....Purge & screen
Media size too large.....Use small grit size
Nozzle plugs.....Use larger nozzle
Nozzle plugs again .....Adjust media valve
Wet media.....Dry media, drain water from air

Moisture in abrasive media !?

Wet media.....Change or use dry media
Water in air .....Drain water from air lines
Water in tank.....Empty, dry out and refill

Humid weather !?

Moderate humidity.....Keep media dry as possible
Moderate humidity again.....Use drier or moisture separator
High humidity.....Avoid that period of use if possible

Overtaxed compressor !?

Compressor too small.....Restrict time used
Nozzle size too large.....Use smaller size
Too many leaks in plumbing.....Seal & tighten plumbing
Holes in abrasive hose.....Replace
Air filter on compressor plugged.....Clean

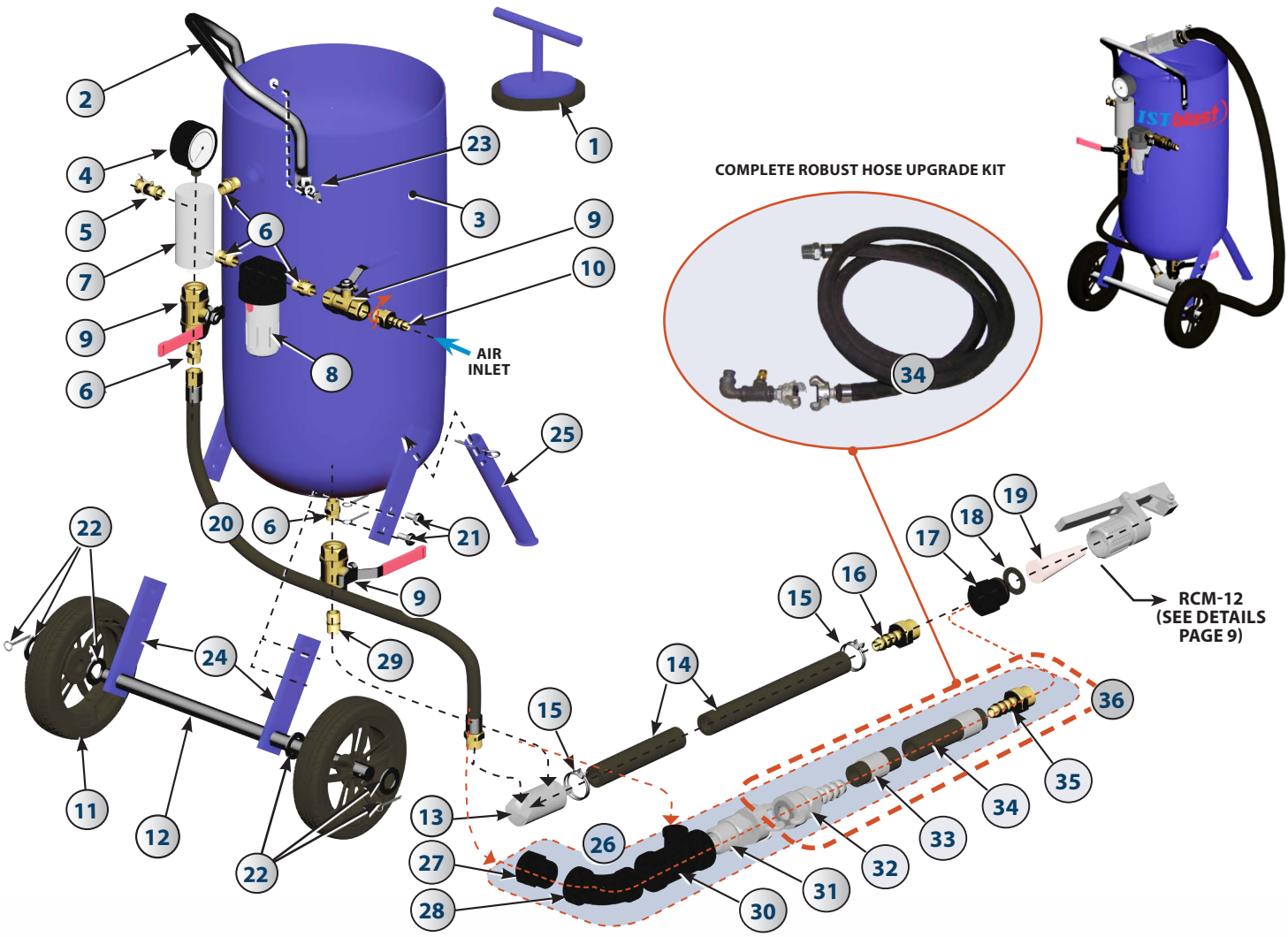
Lack of air pressure !?

Compressor too small.....Use smaller nozzle
Supply valves not on full position.....Open valves
Nozzle size too large.....Use smaller size
Leaks in plumbing.....Seal & tighten plumbing
Holes in abrasive hose.....Replace hose
Air filter on compressor plugged.....Clean filter
Urethane gasket worn or dirty.....Clean or replace gasket

Lack of abrasive flow !?

Blaster tank empty.....Fill tank
Moisture in media.....Dry media
Not enough air pressure.....Check system
Abrasive hose kinked.....Straighten
Debris in media.....Clean or screen media

80 PX SANDBLASTER - EXPLODED VIEW



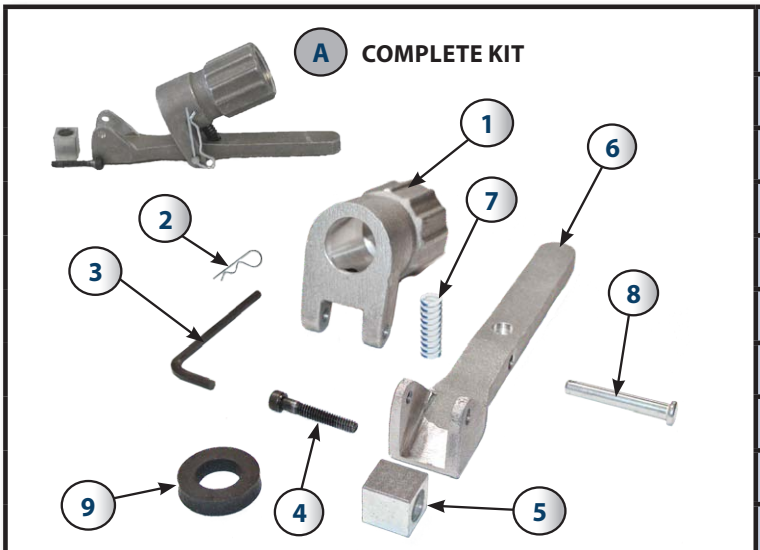
1	601110	Lift Plug
2	601118	Handlebar
3	601101	Tank
4	611022	Pressure Gauge
5	601124	Safety valve
6	632504	BP Hex. Nipple ⅜"
7	601120	Intake Manifold
8	601119	Water Trap Filter
9	608005	⅜" Ball Valve
10	607222	Male Quick Connect ¼" (Optional)
11	601121	Wheel
12	601117	Wheel Axle
13	601111	Standard Sand Outlet Pipe
14	601112	⅜" Standard Sandblast Hose
15	601113	Clamp
16	601114	Intake Connector $^{3}/_{8}$"
17	630401	Galvanized Bushing 1 $^{3}/_{8}$"
18	618015	Washer NW-0

19	605031	Standard Ceramic Nozzle ⅛" (included)
20	601102	Air Hose 80PX (c/w Clamps & Fittings)
21	NPN	M8X10 Screw (x2) & Cotter Pin (1x) for Threaded Axle Foot
22	NPN	Flat Washer ¼" (x2) & Cotter Pin (1x) for Each Wheel
23	NPN	M6 Bolt & Nut (1x) & Washer for Each Handle Side
24	601122	Front leg support 80PX
25	601123	Axle support 80PX

26	**601116**	**Option: Complete Robust Hose Upgrade Kit (27 to 35)**
27	630350	Fitting ½" x ⅜"
28	630341	½" Elbow Fitting
29	632504	BP Hex. Nipple ⅜"
30	630329	"T" Fitting ½" x ½" x ⅜"
31	607070	TC ½" Tank Coupling
32	607002	QC ½" Coupling
33	624205	Clamp
34	606001	SBH ½" Sandblast Hose (sold by foot)
35	607050	NC ½" Coupling
36	**606011**	**Complete Sandblast Hose Assembly (32 to 35)**

RCM-12 SANDBLAST GUN

EXPLODED VIEW AND PARTS



A	602007	Complete RCM-12 Gun
1	602121	Body
2	602125	Pin RCM-12
3	602132	Allen Key
4	602127	Allen Screw
5	602126	Block
6	602123	Handle
7	602122	Spring
8	602124	Axle
9	618015	NW-0 Washer

NOZZLES

CERAMIC



Part Nb	Model	Orifice	Length
605031	CN3-2	1/8" Ø	3 ¾"
605033	CN3-3	3/16" Ø	3 ¾"
605034	CN3-4	¼" Ø	3 ¾"
605036	CN3-6	3/8" Ø	3 ¾"

Conical type nozzle, straight orifice. Use with fittings NC- ½", NA-1, NA-3 and RCM-12

ITEMS NON-INCLUDED WITH RCM-12

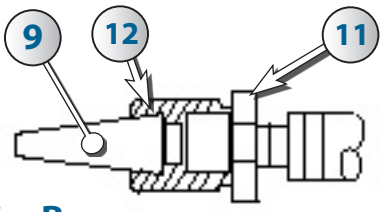


Fig. B

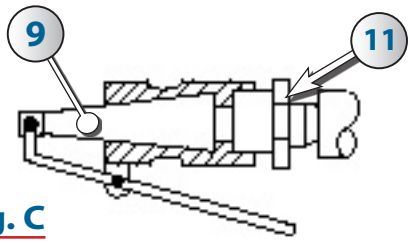


Fig. C

#	STOCK	DESCRIPTION
9	605031	Ceramic Nozzle CN3-2
10	618015	Washer NW-0

#	STOCK	DESCRIPTION
11	607050	Nozzle coupling NC-1/2
12	607040	Nozzle adaptor NA-1

RCM-12 SANDBLAST GUN (CONT'D)

INSTALLATION

1. Remove nozzle adaptator (12) from nozzle (9). See figure B.

2. Insert nozzle (9) and protective washer (10) inside the remote control body (1). SZee figure C.

3. Screw control body (1) to nozzle coupling NC 1/2" (11) situated on blast hose. Nozzle coupling (10) must be tightly secured on to control body (1) in order to insure air-tightness.

4. Press firmly the block (3) against the end of nozzle (9). When block (3) is well centered on nozzle (9), use Allen key (8) to tighten screw (7). Since the lenght of each nozzle (9) may vary, block (3) must be adjusted each time nozzle (9) is changed.

SET UP

1. Place remote control handle in working position and press down rapidly the control handle (2). When control handle (2) is completely pressed, the block (3) will remove itself from nozzle (9) and allow blasting action to begin.

IMPORTANT: RCM-12 remote control handle must be operated rapidly, i.e. the operator must start or stop blasting action rapidly. Any slow movement of remote control will prematurely wear-out block.

MAINTENANCE

1. When the side of block (3) is worn-out by blasting action, loosen screw (7) and rotate block (3) to new position. Press firmly against nozzle (9) and reset screw (7). Always keep in stock at least one spare block (3)

2. Check frequently for worn parts and replace at once if needed. Special attention must be given to nozzle washer (10). A worn out washer will deteriorate handle body (1) and require costly repairs.

3. Always use ISTblast nozzle (9) model CN3-2 with inside maximum orifice of 1/8"

IST WARRANTY REGISTRATION

IST 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 : |__|__|__|

ABOUT THE COMPANY

WHO WE ARE

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

MISSION

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

OUR SERVICES

- Custom Design & Fabrication
- Installation & Startup
- Preventative Maintenance Program
- Private Labels
- Testing Lab
- 24/7 Technical Support5656

INDUSTRIES WE SERVE

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

