



PAIL WASHER
Model PW4



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

INSTRUCTION MANUAL



TABLE OF CONTENTS

	PAGE
ISTPURE LIMITED WARRANTY	3
SAFETY AND WARNINGS	4
SAFETY AND WARNINGS (CONT'D).....	5
SAFETY RULES.....	6
INTRODUCTION.....	7
INTALLATION	8
ADJUSTING THE SYSTEM	9
SYSTEM OPERATION.....	9
SAFETIES	10
SAFETIES (CONT'D).....	11
MAINTENANCE	12
WARRANTY & GUARANTEE.....	13
INSIDE VIEWS.....	14
INSIDE VIEWS (CONT'D).....	15
AIR INLET : BY CUSTOMER	15
INSIDE VIEWS (CONT'D).....	16
COVER VIEW AND MISCELLANEOUS	17
COVER : REAR SIDE	17
ISOMETRIC DRAWING.....	18
PIPING DIAGRAM	19
PROCESS & IDENTIFICATION DIAGRAM.....	20
PNEUMATIC DIAGRAM.....	21
ISTPURE WARRANTY REGISTRATION.....	22
INFORMATION / TECHNICAL ASSISTANCE.....	23
ABOUT THE COMPANY	24



ISTPURE LIMITED WARRANTY

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

This warranty does not cover, and **ISTpure** 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- **ISTpure** component parts. Nor shall **ISTpure** be liable for malfunction, damage or wear caused by the incompatibility with **ISTpure** equipment with structures, accessories, equipment or materials not supplied by **ISTpure** , or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by **ISTpure** .

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized **ISTpure** distributor for verification of the claimed defect. If the claimed defect is verified, **ISTpure** 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.

ISTpure '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.

ISTpure **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** **ISTpure** . These items sold, but not manufactured by **ISTpure** (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. **ISTpure** will provide the purchaser with reasonable assistance in making any claim for breach of these warranties.

LIMITATION OF LIABILITY

In no event will **ISTpure** be liable for indirect, incidental, special or consequential damages resulting from **ISTpure** 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 **ISTpure** , or otherwise.

Report all accidents or "near misses" which involve **ISTpure** **products to :**
- Technical Assistance

The following items are not covered under the **ISTpure** **warranty policy :**
- Parts or chassis replacement due to normal wears.

Report all accidents or negligence involving **ISTpure** **products to our Service Department :**

1 877 629-8202



SAFETY AND WARNINGS

GENERAL SAFETY

1. Carefully inspect the shipping crate for any signs of transport damage. The damage to the crate often indicates possibility of transport damage to the equipment inside.
2. Carefully remove your ECO Washer Cabinet from the shipping crate.
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. ISTpure Industry inc. is not responsible for damage to equipment after it leaves our warehouse.
4. Check the equipment list 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 ISTpure Washer Cabinet, read this Instruction Manual completely. All ISTpure products are engineered and manufactured to the highest performance standards and have been subjected to detail testing before shipment from the factory.

DANGER AND WARNING LABELS



1. Presence of flammable vapors and solvents
2. No smoking or metal grinding nearby
3. Keep away from open flames
4. Wear breathing mask
5. Observe warnings at all times.
6. Read the Instruction Manual carefully.
7. Wear solvent-proof rubber gloves.
8. Wear protective eyewear before use.



SAFETY AND WARNINGS (CONT'D)

WARNING

« **READ ALL INSTRUCTIONS** » Failure to follow the **SAFETY RULES** identified by a **BULLET (•)** symbol listed **BELOW** and other safety precautions may result in serious personal injury.
« **SAVE THESE INSTRUCTIONS** »

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

- **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.
- **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 or alcohols.
- **DO NOT OVERREACH.** Keep proper footing and balance at all times.

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 AIR SUPPLY VALVE AND MAIN POWER DISCONNECT 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.

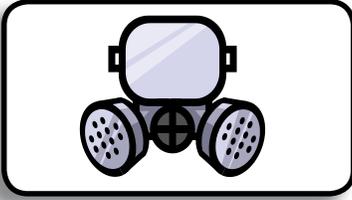
Only trained repairmen should attempt (•) **ALL REPAIRS**, electrical or mechanical. Contact the nearest ISTpure a repair service facility. Use only ISTpure replacement parts, any other parts may create a hazard.



SAFETY RULES



- **THE OPERATOR MUST WEAR** protective water-proof rubber gloves to prevent contact between his hands and the products used for washing.



- **THE OPERATOR MUST WEAR** protective eyewear to prevent spatter from coming in contact with his eyes.

- **STAY ALERT** at the start of the wash cycle. Make sure the liquid solution is not «corrosive» or flammable. Immediately stop the using and replace the solvent whenever you note signs of corrosion on the unit.
- **IF EYES COME IN CONTACT WITH SOLVENTS** rinse thoroughly with water.
- **BEFORE USING** the Washer Cabinet, make sure that all safety devices are in perfect operating condition.
- **BECOME FAMILIAR WITH THE CONTROLS** and their functions before commencing work.
- **BE CAREFUL** when you load or unload the solvent in the unit. Make sure you do not splash or spill the contents on the workshop floor.
- **THE OPERATOR MUST PERIODICALLY** check the level of the solvent contained in the equipment to be sure to not run this pump dry.
- **DO NOT ALLOW FAMILIARITY GAINED FROM FREQUENT USE OF YOUR WASHER TO BECOME COMPLACENCE.** Always remember that a careless fraction of a second is sufficient to inflict severe injury.
- **DO NOT ALTER OR MISUSE THE UNIT.** Any alteration or modifications is a misuse and may result in serious personal injuries.



- **THE INSTALLATION SITE MUST PERMIT PERSONNEL TO EASILY AND QUICKLY MOVE AWAY DANGER ZONES IN CASE OF AN EMERGENCY.**

- **COMPLY WITH LAWS IN THE COUNTRY** where the washer is installed regarding the use and disposal of the products used to wash clean objects.

THINK SAFETY! SAFETY IS A COMBINATION OF THE OPERATOR'S COMMON SENSE, KNOWLEDGE OF THE SAFETY AND OPERATING INSTRUCTIONS AND ALERTNESS AT ALL TIMES WHEN THE UNIT IS BEING USED.



INTRODUCTION

The model PW4 was designed to wash open pails ranging in size from 1 Gallon to 5 gals. Racks are used for smaller containers and are capable of washing multiple one gallon containers. The unit can wash the interior. The PW4 is fully pneumatic and can be located in Class I, Division I hazardous areas. This manual should be read in its entirety prior to installation, start-up and operation. Failure to do so may result in injury to person or the unit.

Note: Aqueous machines cannot be used for solvent applications unless the unit is pneumatic.

1.2 GENERAL

On receipt of your system it is important to inspect for physical damages that may have occurred during shipment. It is possible that due to vibration and handling for components to loosen and sometimes break. Notify "Seller" prior to correcting these problems so we may assist you and provide the necessary replacement parts.

1.3 SECURING

The unit can have 4 pre-drilled bolt holes in the base for anchoring the unit to the floor. Use 3/8" shields for anchoring to concrete. Position the unit as desired and mark the holes. Remove the unit and set the anchors. Replace unit and secure.

Note: Equipment must be level to ensure drainage to the discharge sump. Allow sufficient room around the unit for access to all removable panels for servicing.

1.4 PROCESS PIPING

Fittings are provided on the equipment for attachment of piping. Maintain sizes of piping provided per the fitting. Always install a union for connection and disconnection purposes. Shut off valves are also recommended and tagged to indicate their normal operating position. Piping must be schedule 40 stainless steel or compatible piping. All fittings must be rated at a minimum of 150 lb., Use Teflon tape and Teflon paste to ensure proper sealing and resistance to chemicals - if flexible connections are desired use metal hoses or metal with Teflon lining to ensure compatibility to chemicals.



INSTALLATION

The locations for point connections are shown on the actual unit as well as in the introduction section of this manual under systems layout sketches.

Do not size any of the piping smaller than indicated on the unit.

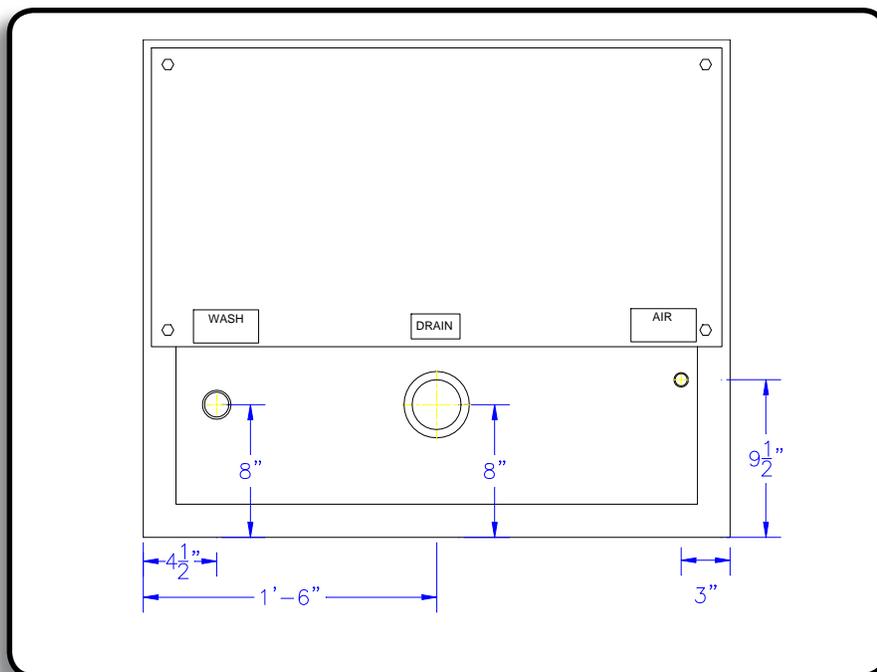
Air supply: $\frac{3}{4}$ " to 1 inch schedule 40 galvanized piping for 100 P.S.I. @ 40 C.F.M. Install a shut off valve prior to the unit, easily accessible for quick disconnection of the air source if required. A flexible drop hose can be used if approved for pneumatic pressure as specified. Keep flexible hoses to shortest length possible. Do not exceed 5'.

IMPORTANT: Clean air free of moisture, dirt, scale etc. must be provided to prevent malfunction of pneumatic controls. We recommend an in-line filter be installed.

Wash Supply: The PW4 has a 1" inlet for supply liquid. The customer must supply a pressurized feed into the wash supply or flooded tank.

Drain Outlet: The PW4 has 1" drain output, in which the customer can pipe to a desired location. Please note: There is no pump on this drain; it is strictly a gravity drain.

Example only:





ADJUSTING THE SYSTEM

Once the unit is installed some adjustment will be required to ensure reliable and repeatable operation.

REGULATORS

1. 90 PSI- Required for operation of the Pail Washer. Anything less than 80 PSI will not allow operator to initiate wash cycle Actuator.

SYSTEM OPERATION

STEP 1

Place container (inverted) over the spray nozzle. (QTY4) 5 gallon Pail is being used.

STEP 2

Push **“START”** button located on the front or side of the machine. Operator must hold the “START” button for 2 seconds before wash cycle will initiate. This will open the wash supply valve and allow the pressurized liquid to flow through and commence the washing. The drain pump will start at same time. Make sure air supply is regulated the same for the wash as it is for the drain. This will ensure that the liquid going in is be removed just as fast.

Note : *Push stop at anytime if a problem occurs (bottom button).*

STEP 3

On completion of wash the system will stop. Remove container and repeat steps 1 through 2..



SAFETIES

- Always :** Check with in-house or factory personnel when using flammable liquids to ensure compatibility and safety during operation.
- Always :** Secure an adequate ground cable before washing any container.(solvent applications.
- Always :** Be certain supply and return hose are properly and securely fixed prior to operation.
- Always :** Be certain the valve to the spray nozzle is open and the other nozzle location (valve) is closed. Dangers of over-spray.
- Always :** Be certain the container is properly placed and secure prior to “start” to prevent over spray for personnel protection.
- Always :** Close the main inlet valve to prevent siphoning of fluids when not in operation.
- Always :** Have service performed by qualified personnel.
- Always :** Be sure defective parts are replaced by originals
- Always :** Ensure flammable liquids are kept out of and away from the unit.
- Always :** Wear protective gloves, glasses and clothing when loading and unloading the unit.
- Always :** Do a visual inspection for leaks upon start-up.



SAFETIES (CONT'D)

- Never :** Attempt or remove a container during a wash cycle. This will result in serious over spray and possible injury to personnel or property.
- Never :** Operate equipment beyond the design pressure as noted in the manual (90 P.S.I.).
- Never :** Service this equipment with fluid supply connected or with fluid in the systems reservoir.
- Never :** By-pass any safeties to operate the system.
- Never :** Use excessive force when positioning or installing a container to be washed. Sparking could result in a fire when using flammable liquids resulting in personal injury and property damage.
- Never :** Operate the unit if ground cables are not installed or have been removed. Static electricity could cause a fire resulting in injury to person or property, if using or around flammable liquids.
- Never :** By-pass a safety for testing or operating.
- Never :** Attempt to operate a unit with safeties bypassed.
- Never :** Operate or test a unit when connections piping or assemblies are leaking.
- Never :** Replace any item with a temporary component without consulting a factory representative.
- Never :** Allow anyone other than qualified personnel to service the unit.
- Never :** Use any tool inside the reservoir or wash chamber that will cause **heat, sparks or flames**, only I around flammable liquids.
- Never :** Service the unit when wash fluid is present in the reservoir.



MAINTENANCE

Daily cleaning and inspection is required to optimize the safety and performance of this unit.

- 1. Check spray nozzles to see if blocked.**
- 2. Check sump area of washer and remove sludge buildup to prevent nozzle blockage.**
- 3. Check at the back of unit for leaks around the utility connections or under the washer reservoir.**
- 4. Clean immediately any spills from the removal of parts from the rack.**

During the testing or trouble shooting of the washer it is recommended that you review the manual for operating procedures, safeties and warnings listed in various sections.

Only qualified personnel should conduct a test or repair of this system. Replace part with originals that were designed to work with the unit.

MONTHLY INSPECTIONS INCLUDE :

- Pail Washer door safety switch should be checked for alignment and for normal movement during operation.
- Ensure connection to ground. Check equipment ground and bonding to building ground system.
- Inspection of piping and components within the system for leaks. Tighten unions, flanges to reduce the possibility of leaking caused by normal vibration of the washer.
- On completion restore all utilities required to operate the system and observe at least one operation with a qualified operator to ensure the system is functioning properly.



WARRANTY & GUARANTEE

Warranty period extends for 12 months from the shipping date. All systems are tested at the factory prior to shipment. The manufacturer is not responsible for defects or damages resulting from the shipping or from the usage of our equipment. This includes corrosion or misuse of the system or components that results in damages or excessive wear. Supplier is not responsible with solvents that are not compatible with elastomers in pump seals for metals. Please consult chemical compatibility with factory first.

In no event shall supplier be liable for any direct, incidental or consequential damages from the sale or use of our product. This disclaimer applies both during and after the term of this warranty.

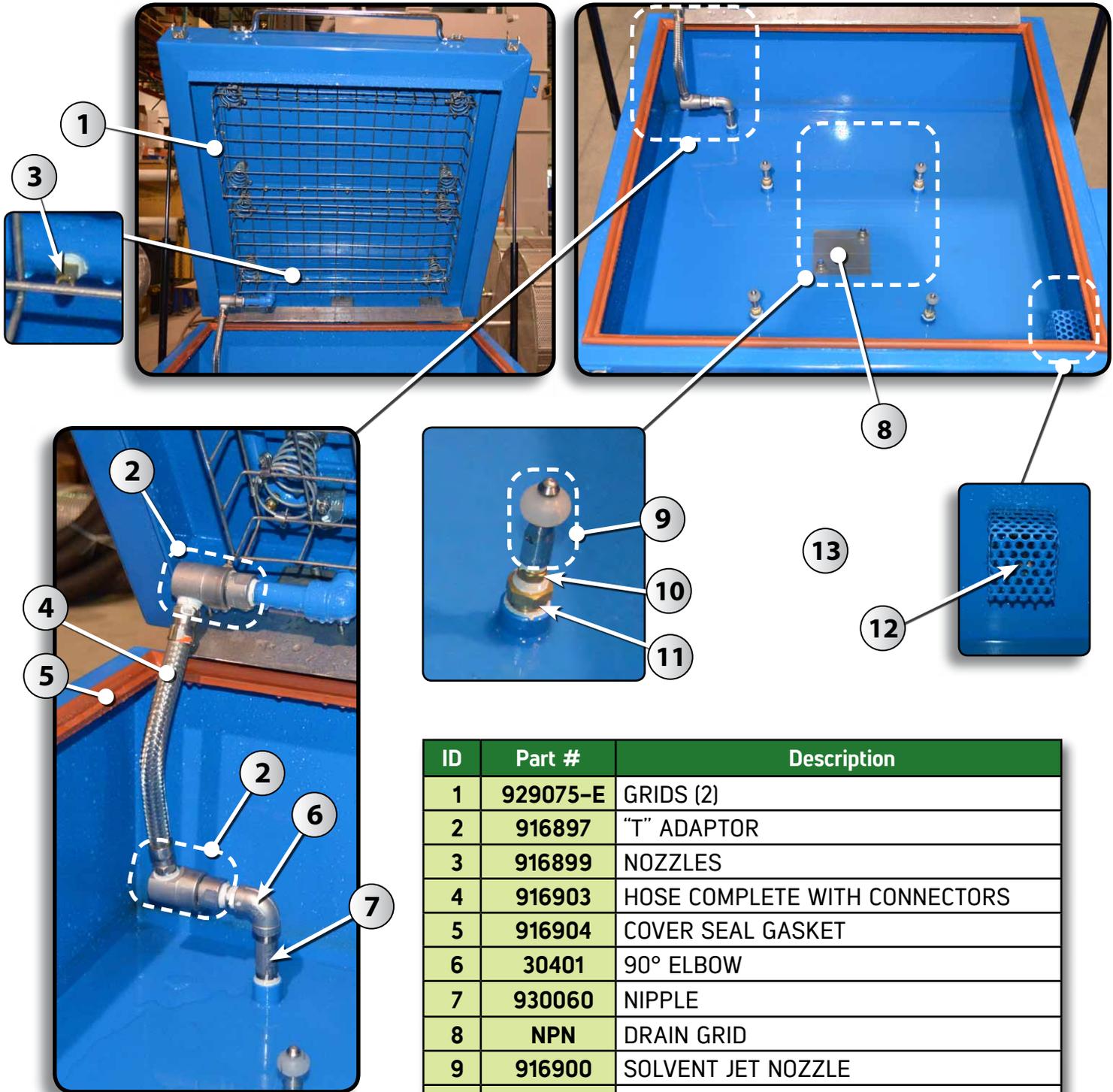
Customer failure to provide information or adequate analysis of the chemicals being processed could result in excessive wear or damages to the system and will result in loss of warranty.

Component replacement which become defective during the conditions set forth by the manufacturer will be replaceable free of charge provided they were not subjected to corrosion and comply with the conditions and warranty offered by the supplier or manufacturer. Exclusions include gaskets, pump packing, mechanical seals and pumps subjected to normal use. We will repair or replace components deemed defective during the commissioning of the system without cost. Services of a field engineer will be provided at current rates if specialized knowledge, beyond the scope of normal and routine servicing is required. The customer at no charge will provide normal and routine servicing and component replacement to supplier unit. No claims for loss, damage or labor will be allowed.

No guarantees are implied or intended regarding performance of the system. The system is designed to be compatible with the chemicals being processed based on information provided by the customer. The system is designed to wash parts covered with materials that have not hardened or cured. The unit should not be unnecessarily loaded with containers that are partially or full of product to prevent blockage of nozzles and prohibit cleaning. Performance assessments are directly related to thesis conditions and due to production inconsistencies are impossible to guarantee.



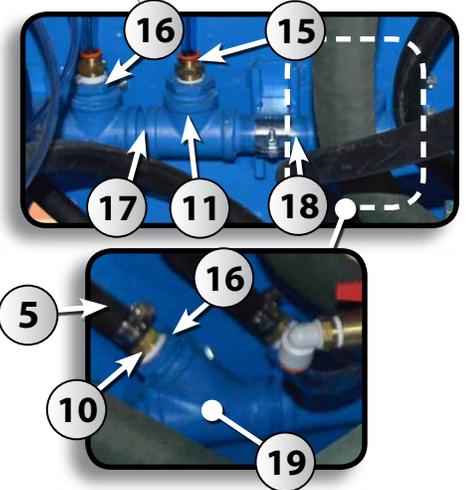
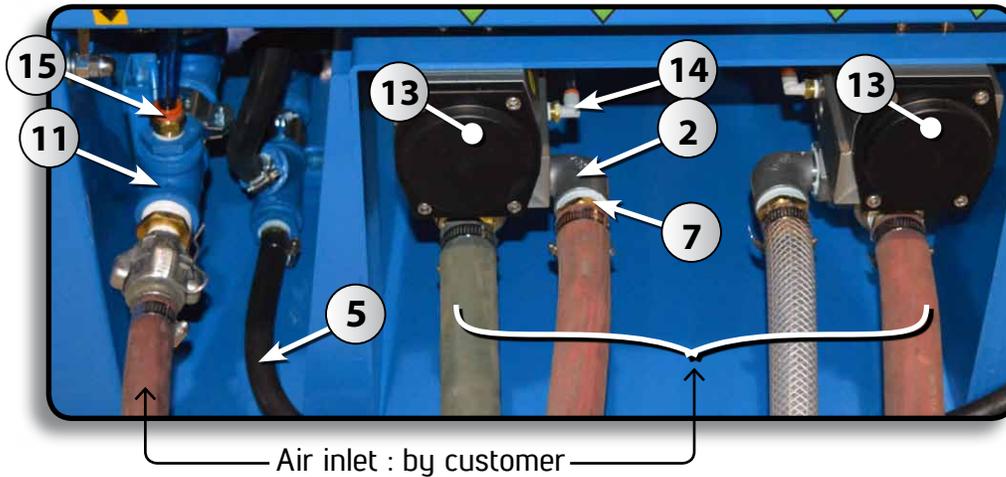
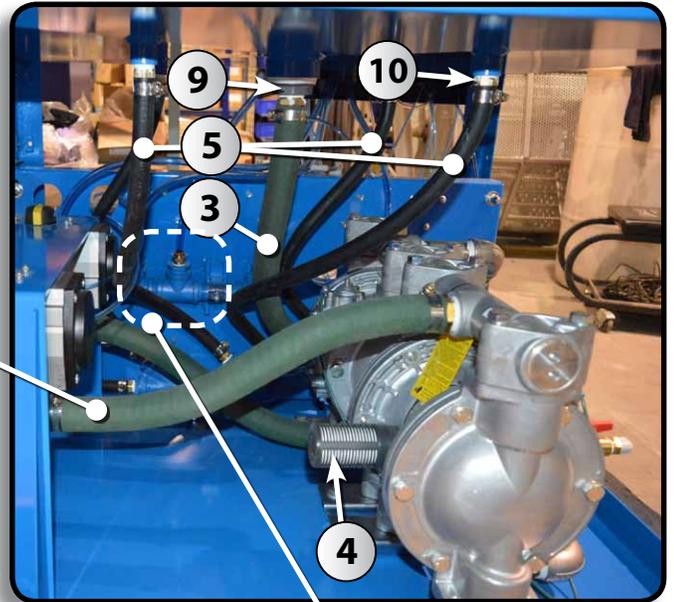
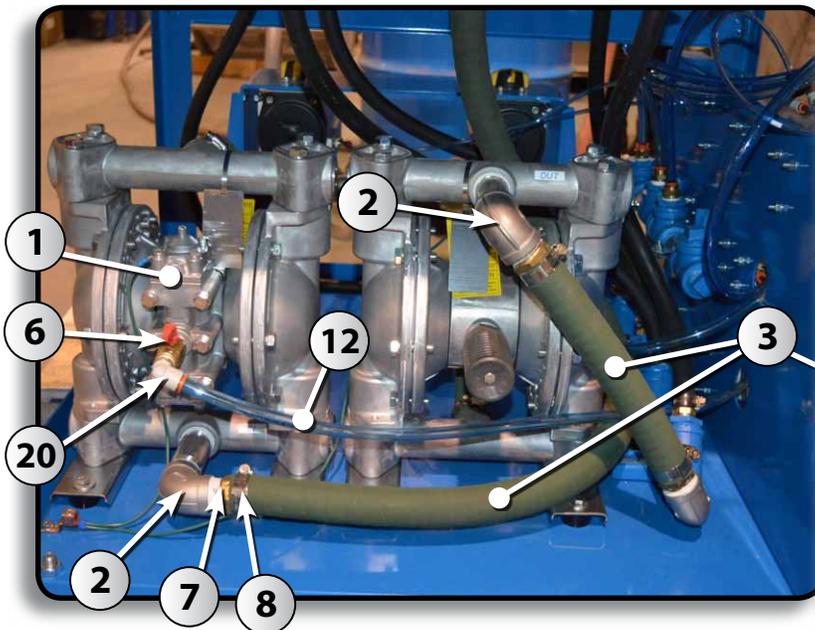
INSIDE VIEWS



ID	Part #	Description
1	929075-E	GRIDS (2)
2	916897	"T" ADAPTOR
3	916899	NOZZLES
4	916903	HOSE COMPLETE WITH CONNECTORS
5	916904	COVER SEAL GASKET
6	30401	90° ELBOW
7	930060	NIPPLE
8	NPN	DRAIN GRID
9	916900	SOLVENT JET NOZZLE
10	632202	ADAPTOR
11	632745	ADAPTOR
12	961892	HIGH LEVEL FLOAT VALVE



INSIDE VIEWS (CONT'D)

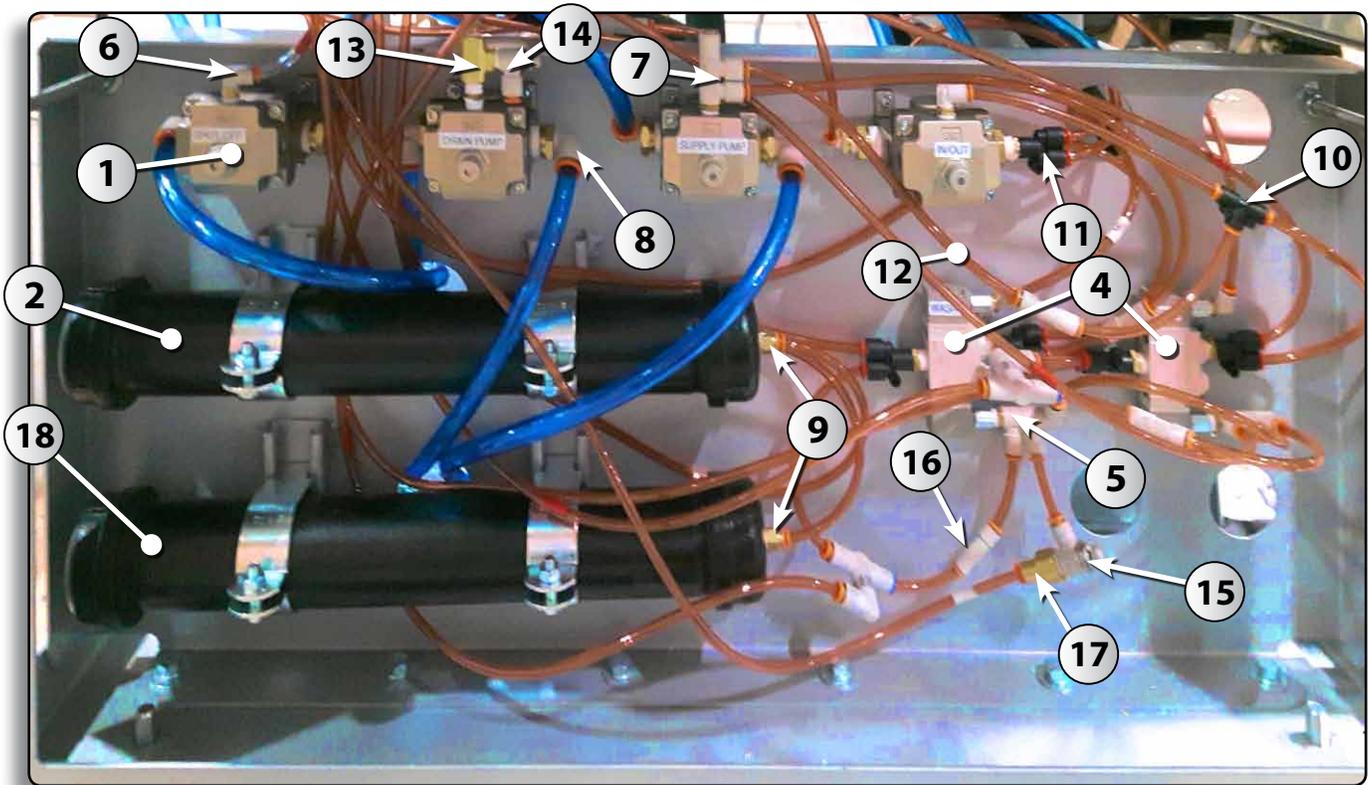


ID	Part #	Description
1	916894	PUMP
2	30401	1" @ 90° ELBOW
3	906018	1" CHEMICAL HOSE
4	NPN	SILENCER
5	323160	1/2" HOSE PAINT
6	NPN	BALL VALVE
7	932123	1" CONNECTOR
8	624108	HOSE CLIP
9	632151	ADAPTOR 2" TO 1"
10	632760	CONNECTOR

ID	Part #	Description
11	632630	"T" 1"
12	314025	1/2" TUBE
13	916895	ACTUATORS
14	324560	PUSH-IN 1/4" @ 90°
15	314022	1/2" PUSH-IN
16	630651	ADAPTOR 1" TO 1/2"
17	630601	1" NIPPLE
18	630603	1" X 2" NIPPLE
19	930224	"Y" 1"
20	314028	1/2" @ 90° PUSH-IN CONNECTOR



INSIDE VIEWS (CONT'D)

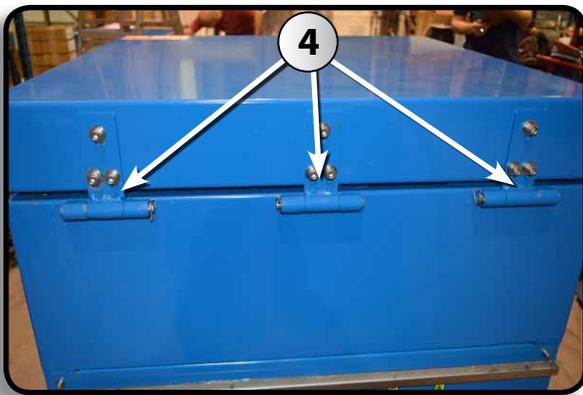
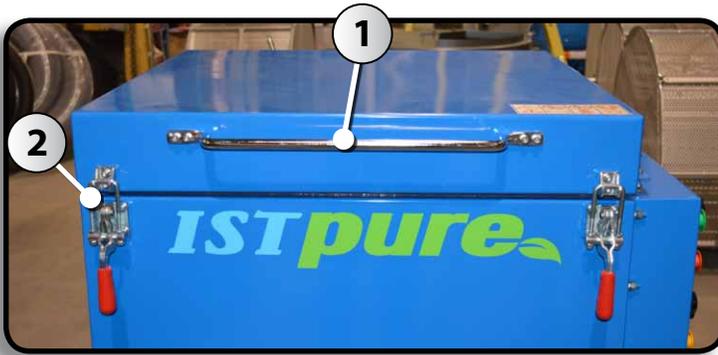


ID	Part #	Description
1	608519	PILOT VALVE
2	929075-J	AIR TANK RINSE
3	917563	TIMER
4	916890	SOLENOID VALVES
5	916891	CHECK VALVE 1/4" TUBE
6	324561	1/8" @ 90° PUSH-IN
7	324506	1/8" TRIPLE PUSH-IN
8	314023	1/2" @ 90° PUSH-IN
9	324558	1/4" PUSH-IN

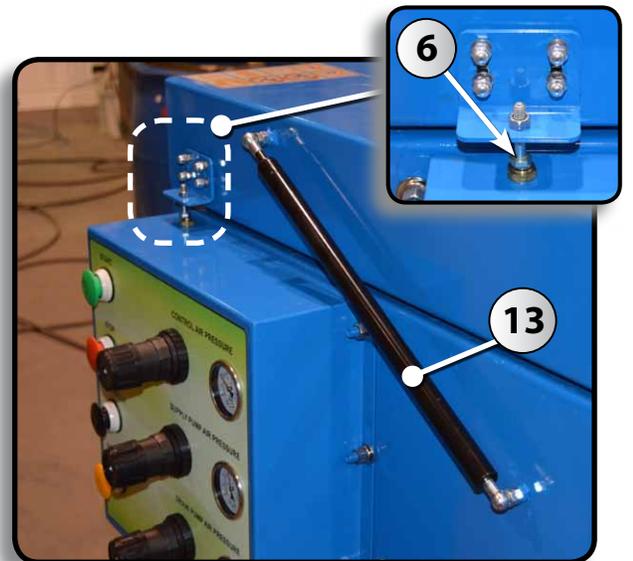
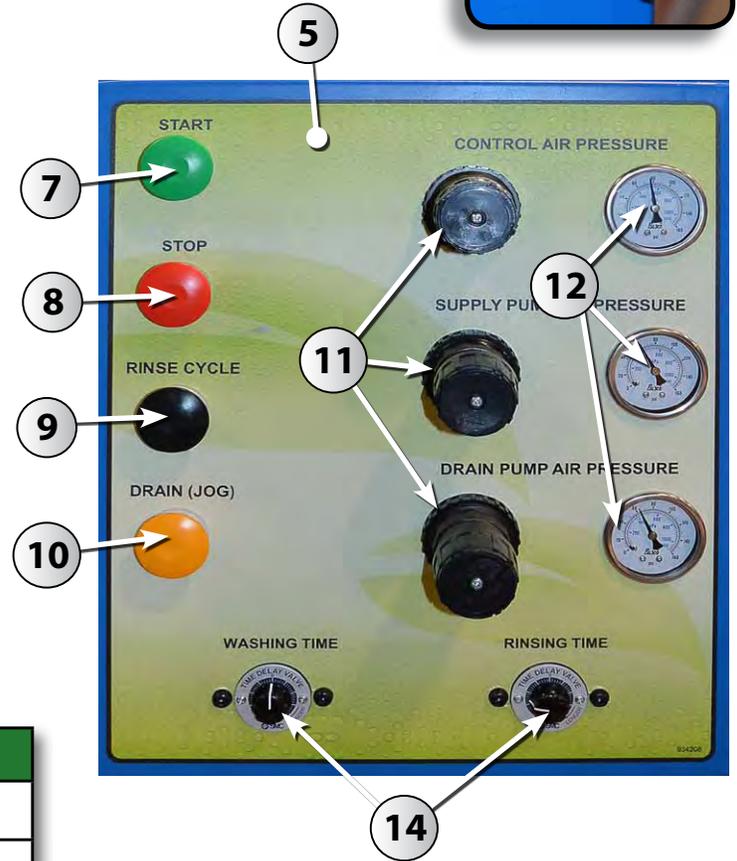
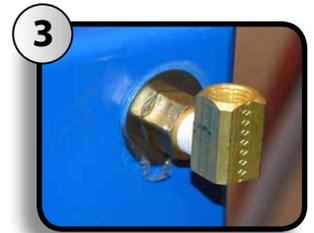
ID	Part #	Description
10	324584	1/4" "T" PUSH-IN
11	324557	1/4" "Y" PUSH-IN
12	324571	1/4" POLY. BLUE TUBING
13	632018	1/8" BP TEE
14	916891	CHECK VALVE 1/4" TUBE
15	961889	VALVE ONE TOUCH FITTING 1/4"
16	908936	1/4" CONNECTOR PUSH-IN
17	324572	1/4" FEM. PUSH-IN
18	929075-H	AIR TANK WASH



COVER VIEW AND MISCELLANEOUS



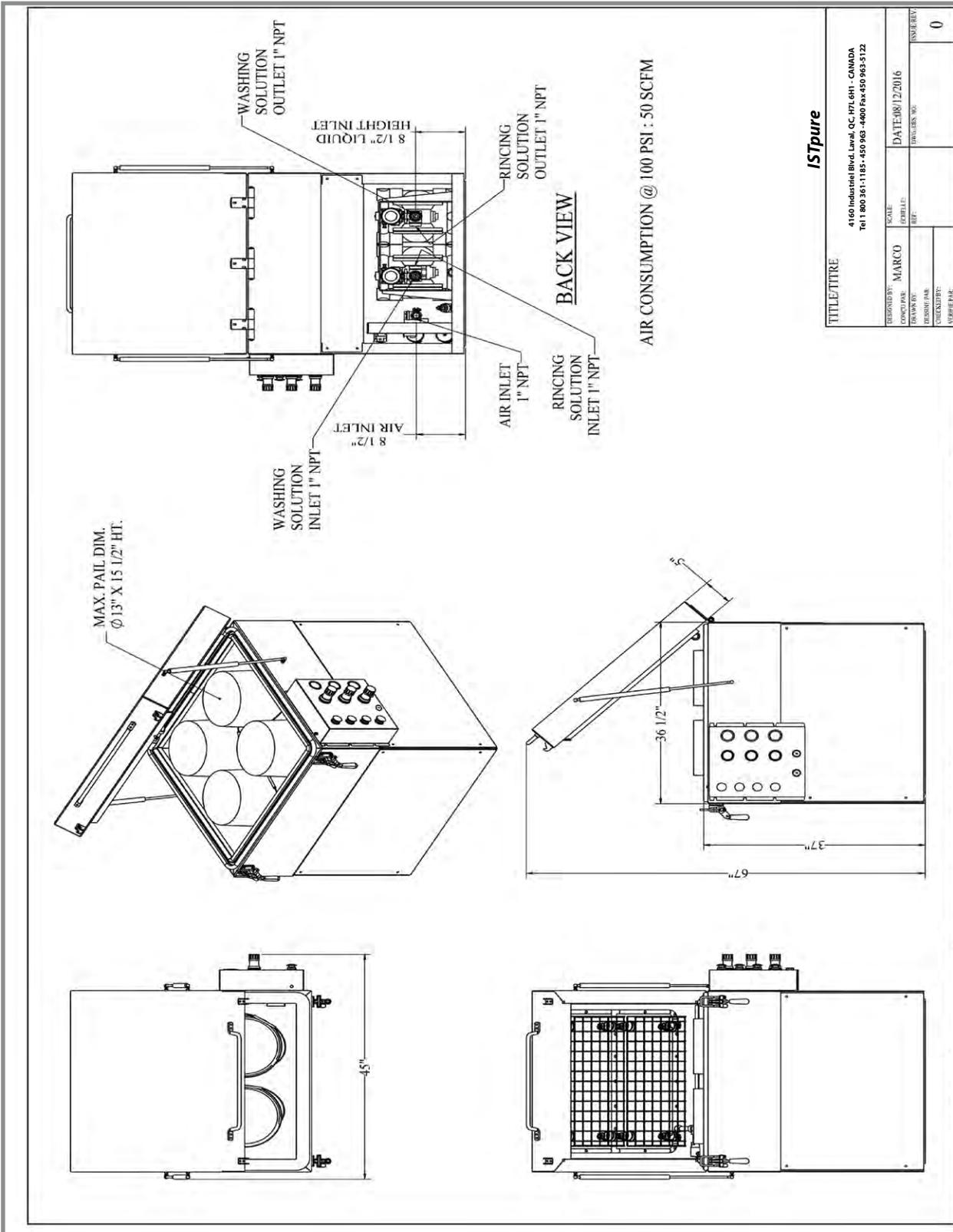
Cover : rear side



ID	Part #	Description
1	916906	LID HANDLE
2	916901	LID LOCKER
3	NPN	AIR VENT
4	NPN	DOOR HINGE
5	331160	STICKER
6	916898	SECURITY SWITCH
7	916893	START BUTTON
8	916886	STOP BUTTON
9	916887	RINSE CYCLE
10	916888	DRAIN JOG BUTTON
11	608022	1/2" PRESSURE REGULATORS
12	311022	1/8" PRESSURE GAUGES
13	916905	LID GAS SPRING
14	917563	TIMER

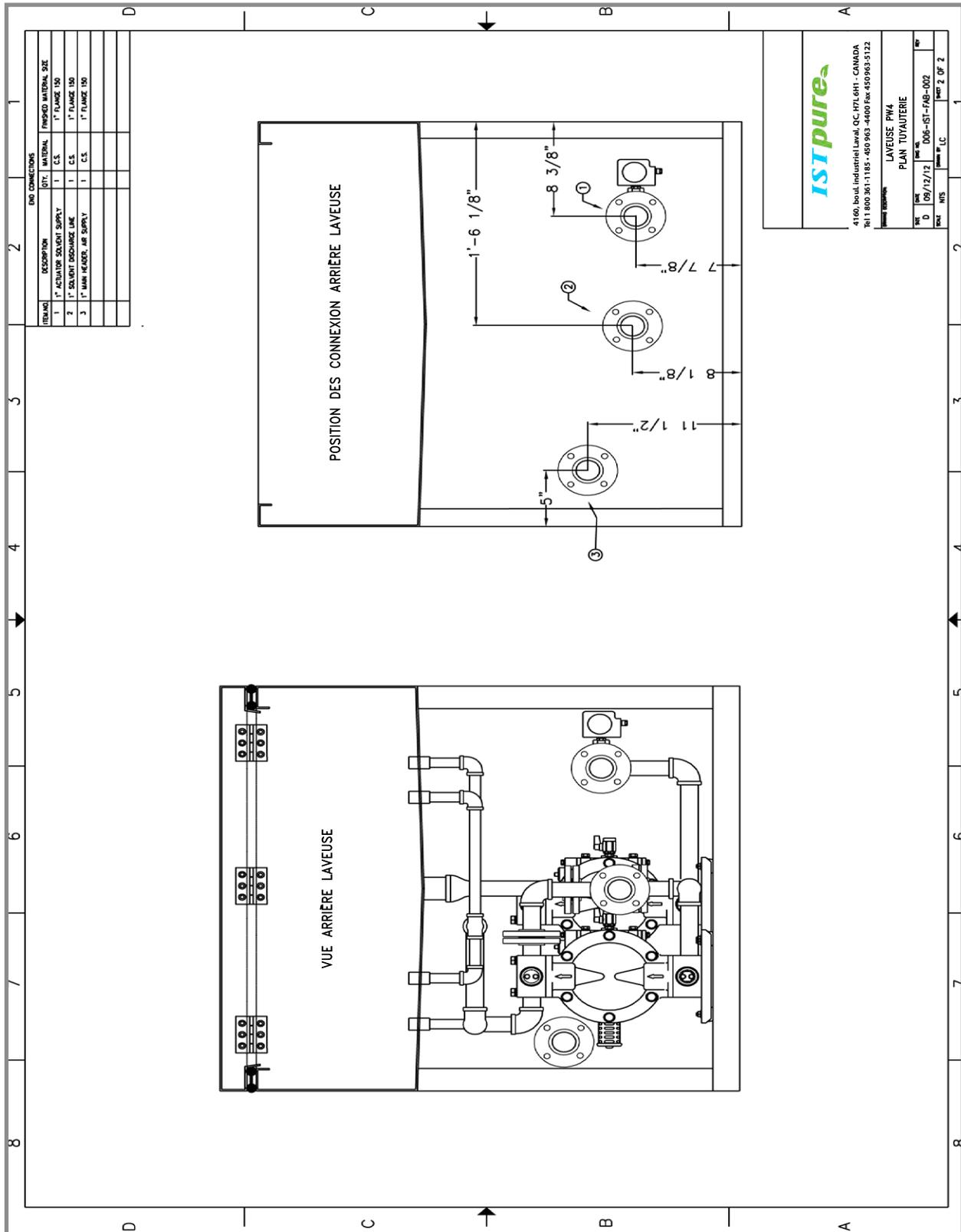


ISOMETRIC DRAWING



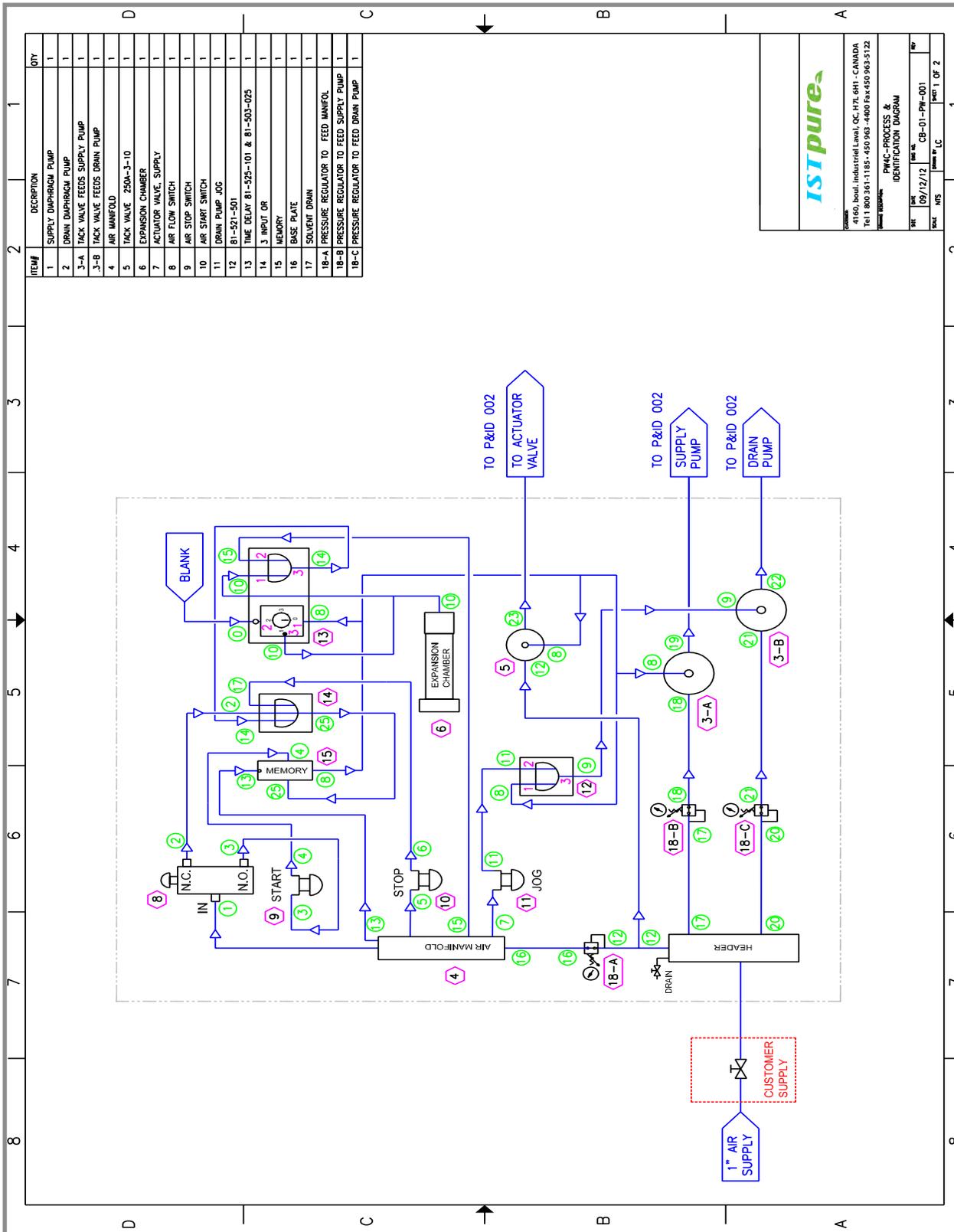


PIPING DIAGRAM



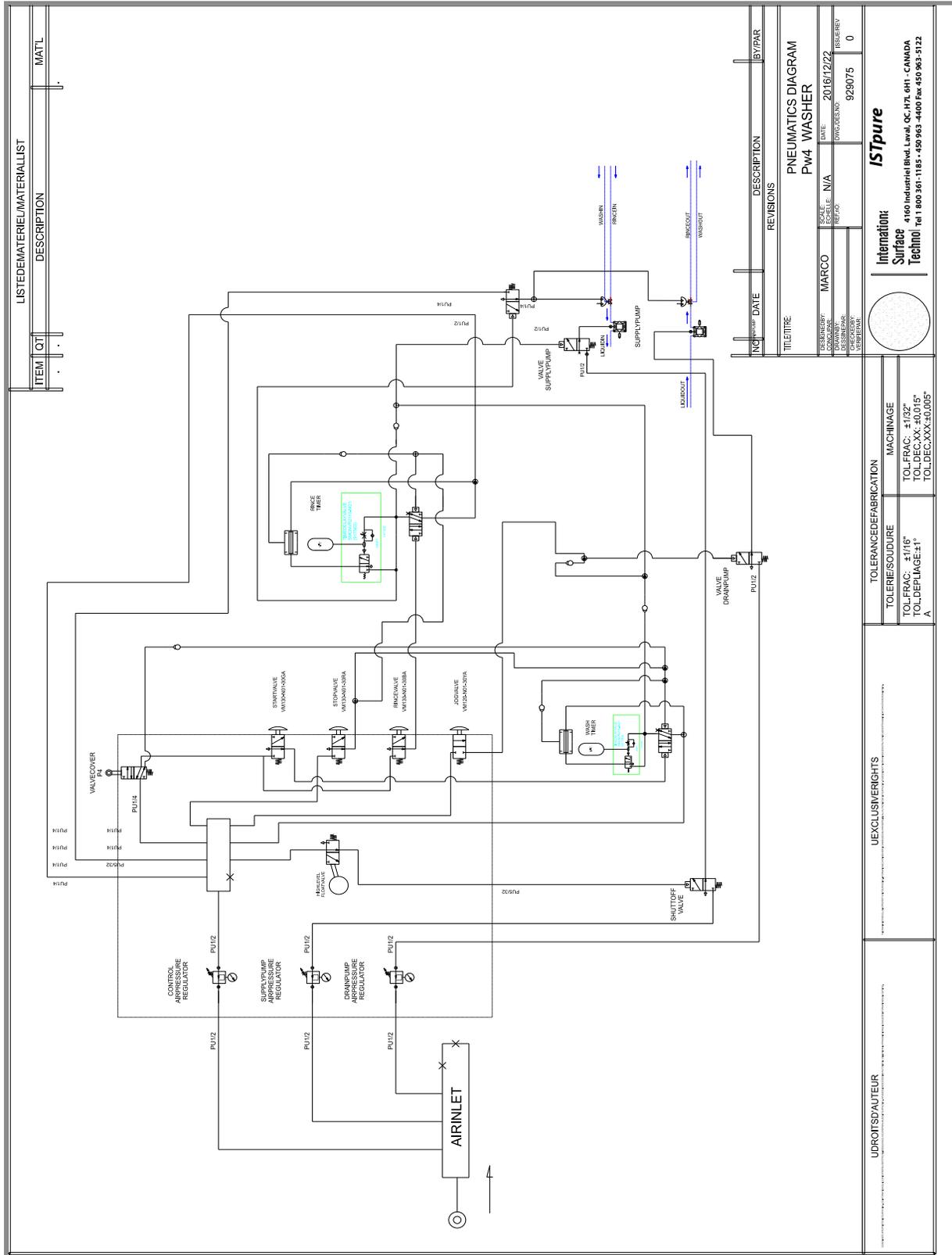


PROCESS & IDENTIFICATION DIAGRAM





PNEUMATIC DIAGRAM



ITEM	QTY	DESCRIPTION	MATL

NO	DATE	DESCRIPTION	BY/PAR

TITLE/TYPE: PNEUMATICS DIAGRAM
PW4 WASHER

DESIGNER: MARCO	SCALE: N/A	DATE: 2016/12/22	ISSUE/REV: 0
CHECKED: N/A	REVISED: N/A	APPROVED: 923075	



Information:
Surface
Technol
4160 Industriel Blvd. Laval, QC, H7L 6H1 - CANADA
Tel 1 800 361-1185 • 450 963-4400 Fax 450 963-5122

TOLERANCE/FABRICATION	MACHINAGE
TOLERIE/SOUDURE	TOL.FRAC: ±1/32"
	TOL.FRAC: ±1/16"
	TOL.DEPLIAGE: ±1°
	TOL.DEC:XXX:±0.005"

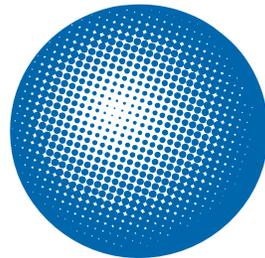
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INFORMATION / TECHNICAL ASSISTANCE

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Surface
Technologies
istsurface.com

For more information, pricing or technical support, contact your local IST distributor or call / fax to our Consumer Information numbers:

TEL.: 1 877 629-8202 & 450 963-4400 FAX : 450 963-5122

Or visit us at:
istsurface.com



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 :

- General Manufacturing
- Industrial Equipment
- Metal forming
- Aerospace and Aviation
- Rail and Transit
- Marine
- Automotive
- Petroleum
- Flexography (Labeling) & Lithography
- Wood finishing
- Power & Energy
- Pharmaceutical

