IST
Everlasting solutions

WASHING UNITS

PN S PLUS

ADAPT WASHING TO YOUR OWN NEEDS


Flammable solvents


Safety and ease of use


100% pneumatic operation


Plug & Play

With 4 models available in **different configurations**, this line is the solution for the **most demanding** clients looking for equipment able to deep clean metal parts, buckets and bins, print rolls and mechanical components. With **more than 500 units manufactured**, the PN series is one of the most appreciated among our clients, for whom this machine is the answer to the most diverse washing applications. **Safe and easy to operate**, these models combine efficient washing – both fast and high quality – with guaranteed operator safety, thanks to the fact that he never comes into contact with hazardous substances. **Pneumatic operation** guarantees complete safety, even when handling flammable products. The wash fluid is stored in the service reservoir, and thus cannot evaporate into the atmosphere.
The reservoir drain and distilled solvent rinse cycles can be actuated either manually or automatically. It is also possible to combine any washing unit with a solvent regenerator, to minimise consumption.

New functions can be added or existing functions specialised quickly and easily, as in the following examples:
- a variety of solutions for **vapour aspiration** before opening
- pneumatic logic for **automating** all cycles
- concealed rotary heads for **can washing**
- **interchangeable** part holder grilles
- **rotary system** for rotogravure rolls with a dedicated shoulder washing circuit
- label printing **Anilox** roll handling system
- independent **rinse** circuit
- **soak** function for products which require prolonged chemical action
- rotary column for washing cylindrical screen printing frames

Model	L (mm)	W (mm)	H (mm)
PN 1500 S PLUS	1400	650	500
PN 2000 SPLUS	1900	650	500
PN 2500 S PLUS	2400	650	500
PN 3000 S PLUS	2900	650	500

THE BENEFITS OF THE PN SERIES

Versatility
- thanks to IST's design and construction, a single machine can implement a variety of washing solutions

Maintenance
- in consultation with our clients, we have designed a machine for heavy duty applications with simple, limited maintenance requirements

Safety features
- fully pneumatic operation
- ATEX/EAC certification
- can be used with aggressive and flammable products

IST
Everlasting solutions

WASHING UNITS

BW
BIN WASHERS

SW
SCREEN WASHER

BW SERIES

SW SERIES

Flammable solvents

100% pneumatic operation

Safety and ease of use

Plug & Play

BW SERIES
TO TURN WASTE INTO A RESOURCE

The BW offers **exciting benefits** for a small investment: **reducing the cost** of disposing and replacing many types of containers, turning a hazardous special waste, costly and difficult to dispose of (such as contaminated cans), into a simple waste material which can also be reused.
Once the container has been loaded and the cover closed, the cycle is initiated by a timer; throughout the wash cycle, **a rotary head**, powered by a dual membrane pneumatic pump, cleans the interior of the container, and recirculates the solvent into a storage tank.

SW SERIES
UNBEATABLE VERSATILITY TO CLEAN PRINTING SCREEN FRAMES

Screen printing frames are very delicate and costly: a dirty or damaged frame leads to poor printing results.
No screen-printing shop that values the quality of its products should be without a machine from this series.
Thanks to their **vertically positioned cylindrical frames**, they can be **loaded and unloaded completely safely**, with no risk to the operator or the delicate frames themselves. This type of washing unit, made entirely in stainless steel, features **completely pneumatic operation**. The pump, which is operated from the control panel, recycles the wash solvent from the service tank to the nozzles located inside and outside the frames.
It is also possible to dedicate an area to washing small parts.

THE BENEFITS OF THE BW - SW SERIES

Efficacy
- teste rotanti per una completa pulizia interna

Automation
- timed washing cycles

Resistance
- all parts in contact with the substances are made in stainless steel
- suitable for aggressive cleaners

Safety features
- ATEX/EAC certification
- cover safety sensor

IST
Everlasting solutions

WASHING UNITS

EASY WASH

EASE OF USE, SAFETY AND LOW RUNNING COSTS

Flammable solvents

100% pneumatic operation

Safety and ease of use

Plug & Play

Easy Wash units are part washing tanks, available in two models (EW 600 and EW 900), ideal for **manually cleaning** small parts, since they prevent operator exposure to hazardous substances.
They are made in stainless steel throughout and feature fully pneumatic operation. Washing is initiated by the operator with a **foot pedal**.
The washing fluid is delivered by a brush with synthetic bristles.
The wash chamber is closed at the top with a glass panel and the wash cycle is done with sealed gloves, in **total safety**. This means that the units can be used to wash both fragile components and complicated mechanical assemblies.
The Easy Wash 900 A (automatic) allows the wash cycle to be **automated** thanks to the tubes inside the tank body, using a pneumatic timer to control the wash pump.

Model	L (mm)	W (mm)	H (mm)
EW 600	670	530	400
EW 900	870	530	400
EW 900A	870	530	400

THE BENEFITS OF THE EW SERIES

Resistance

- suited for working even with flammable solvents, all parts in contact with the fluid in stainless steel throughout
- all parts in contact with the substances are made in stainless steel

Safety features

- pneumatic operation
- cover closed safety sensor
- ATEX/EAC certification

Ease of use

- pedal operated start/stop

IST
Everlasting solutions

WASHING UNITS

EL

BEYOND THE LIMITS OF MAXIMUM FLEXIBILITY

Resistant to aggressive detergents

Electric wash pump

Water

Touch Screen & PLC

Personalisable cycles

Thanks to the know-how gained over three decades, these **highly efficient** product series guarantee **outstanding cleaning** and an eco-friendly wash. Targeted water delivery, optimised filtration technology, faster heating of the wash fluid and a high performance pump optimised for better water circulation, combine to deliver tangible **savings** of power and water.
The EXL series also has exclusive rinse systems, like the separated circuit with chemical top-up, which **minimises the consumption** of chemical additives. The use of high quality materials means that the machines can be used with a variety of fluids, both acidic and basic, depending on the application.

These washing solutions for **non-flammable fluids** are adapted to the most diverse industrial applications. They are especially suited to print, coating and mechanical engineering applications, with ideal cleaning solutions for flexo, rotogravure and offset printing machine components: the gravure roll, doctor blade, ink recirculation reservoirs, casing panels and other equipment.
The entire cycle is controlled by a **programmable microprocessor** with touch screen display, which displays the wash cycle data and reports faults and recommended routine maintenance jobs.

Model	L (mm)	W (mm)	H (mm)
EL 1500	1400	600	350
EL 2000	1900	600	470
EL 2500	2400	600	470

THE BENEFITS OF THE EL SERIES

Resistance
- machines for working with aggressive detergents
- all parts in contact with the substances are made in stainless steel

Efficacy
- high performance electric pump
- washing liquid heating system

Automation
- timed wash cycle
- piston-actuated automatic cover

Ease of use
- touch screen control panel and dedicated PLC with operating parameter logging and data display during operation
- routine maintenance and fault reporting
- customisable wash cycles

IST
Everlasting solutions

WASHING UNITS

EXL

BEYOND THE LIMITS OF MAXIMUM FLEXIBILITY

Resistant to aggressive detergents

Electric wash pump

Water

Touch Screen & PLC

Personalisable cycles

Thanks to the know-how gained over three decades, these **highly efficient** product series guarantee **outstanding cleaning** and an eco-friendly wash. Targeted water delivery, optimised filtration technology, faster heating of the wash fluid and a high performance pump optimised for better water circulation, combine to deliver tangible **savings** of power and water.
The EXL series also has exclusive rinse systems, like the separated circuit with chemical top-up, which **minimises the consumption** of chemical additives. The use of high quality materials means that the machines can be used with a variety of fluids, both acidic and basic, depending on the application.

These washing solutions for **non-flammable fluids** are adapted to the most diverse industrial applications. They are especially suited to print, coating and mechanical engineering applications, with ideal cleaning solutions for flexo, rotogravure and offset printing machine components: the gravure roll, doctor blade, ink recirculation reservoirs, casing panels and other equipment.
The entire cycle is controlled by a **programmable microprocessor** with touch screen display, which displays the wash cycle data and reports faults and recommended routine maintenance jobs.

Model	L (mm)	W (mm)	H (mm)
EXL 2000	1900	1000	550
EXL 2500	2400	1000	550

THE BENEFITS OF THE EXL SERIES

Resistance
- machines for working with aggressive detergents
- all parts in contact with the substances are made in stainless steel

Efficacy
- high performance electric pump
- washing liquid heating system

Automation
- timed wash cycle
- piston-actuated automatic cover

Ease of use
- touch screen control panel and dedicated PLC with operating parameter logging and data display during operation
- routine maintenance and fault reporting
- customisable wash cycles

IST
Everlasting solutions

WASHING UNITS

XTR-M
XTR-M PLUS

THE STRENGTH OF RELIABILITY

Flammable solvents

Automatic operation: wash/rinse/suction

Touch Screen & PLC

Personalisable cycles

Wash with ATEX rated electric pump

XTR machines are the best choice for completing your cleaning department. Not only are they silent running, with low emissions and detailed design, they are also fully **plug&play**.
They stand out from the competition for type of installation, **ergonomics and loading capacity**.
All models have a PLC control panel mounted on board the machine itself in an ATEX enclosure.
The customisable part trolleys enable the operator to collect the material requiring washing in around the plant and effortlessly move it to the machine itself. 3D simulation makes it possible to optimise part loading, so that the **oscillating movement** of the dispensers sprays them evenly
with high washing power jets, leaving no part unwashed.
The cycle is divided into three steps: **wash, rinse and suction**.

Model	L (mm)	W (mm)	H (mm)
XTR-M 1000	1000	1900	650
XTR-M 2000	1000	1900	650
XTR-M 3000	1500	1900	650
XTR-M 1000 PLUS	1000	2400	650
XTR-M 2000 PLUS	1000	2400	650
XTR-M 3000 PLUS	2400	1930	650

THE BENEFITS OF THE XTR-M / XTR-M PLUS SERIES

Reliability
- hose movement system located outside the wash area
- all parts in contact with the wash fluid are made in stainless steel

Safety features
- conforming with the highest standards, with materials treated for resistance to any mixture
- ATEX//EAC certification for unbeatable safety

Efficacy
- the oscillating hose system enables the jets to impact the surfaces at a variety of angles and penetrate even where other machines fail to do so, so that even the most critical points are cleaned more thoroughly
- blade nozzles optimise the force of the washing fluid

Design
- its evolved design and innovative oscillating hoses make the XTR series stand out from the competition and enable it to satisfy the requirements of the most demanding applications

Automation
- preset programs automatically guarantee effective washing

Convenience
- the partial loading option assures greater flexibility and allows a single zone to be loaded without the need for the machine to be full before it is used, thus saving time and money

IST
Everlasting solutions

WASHING UNITS

www.ist.it

IST
Everlasting solutions

WASHING UNITS

TW

CLEANING PROCESS CONTROL

Solvent

Modular

Compact

High-pressure pump

Sustainable

Efficient

Safety and ease of use

With this new series of universal washing machines, IST has decided to contribute to an existing market that, until now, has offered solutions that are not engineered and not designed according to modern standards.
Application: IBC containers, tanks, process tanks, storage and transport tanks.

Model	L (mm)	W (mm)	H (mm)
TW	2500	3740	3040 (1830)
TW-D	2500	5230	3040 (1830)

THE BENEFITS OF THE TW SERIES

Innovative design

- IST concept of modular design allows to configure the machine according to specific needs. TW series have been designed to put in order and enhance tidiness in the washing area of your factory. The compact and modular design make it possible to install the unit everywhere and even with a double washing bay (optional) the footprint is small

Ecological

- IST places a strong emphasis on environmental sustainability, and was founded with the specific purpose of assisting companies in minimizing their usage of water and harmful chemicals, such as solvents, while maintaining high cleaning standards. Our systems are designed with modularity in mind, making it easy to modify the machines to accommodate changing cleaning needs, rather than having to purchase new equipment and dispose of the old. This approach not only provides cost savings, but also reduces environmental impact

Process automation

- Manually washing a container employs an operator for a period of 10 to 60 minutes. This is the time spent in taking the container to the washing area, washing it, replacing the container in the delivery area and all other operations involved in handling and maintaining fluids and washing tools. A worker's daily 8 hour shift corresponds to around 12-15 containers; TW, by contrast, takes around 2 minutes of the operator's time in loading the container, starting the machine, unloading the container and other auxiliary activities;for a cycle that lasts 4-5 minutes, the operator doesn't need to supervise the machine and meanwhile can prepare the next container being able to handle over 50 washing cycles per shift

Reducing the cost of disposing of washing waste fluids

- The cleaning liquid wasted by manual cleaninig of a single container is around 50-75 litres of water and 5-10 litres of solvents/chemicals. Using an IST machine with water or solvent recirculation reduces this consumption to 15-20 litres of water and 1-3 litres of solvent. The amount of waste produced is thus reduced by 70-90%, with an equally significant reduction of the disposal costs and considerable ecological and economical benefits

Modularity

- Thanks to the **high engineering** level there are several configuration possibilities: the washing bay can be oriented with the entrance where is **more convenient for the operators** depending on the layout of the washing area. Based on the item to be cleaned the washing bay can be **completely customized and adapted to specific need.**

IST
Everlasting solutions

WASHING UNITS

TW

CLEANING PROCESS CONTROL

Water

Modular

Compact

High-pressure pump

Sustainable

Efficient

Safety and ease of use

Setup

- The operator places the container to be washed on the loading bay, connects the earthing clamp and the return hose to the drain valve. Pressing the drop button the cover is automatically operated by the vertical axis of the TW on the right position to perfectly close and seal the vessel from the top and the washing cycle can be activated. The vessel support simultaneously leans to ensure total emptying at the end of the cycle

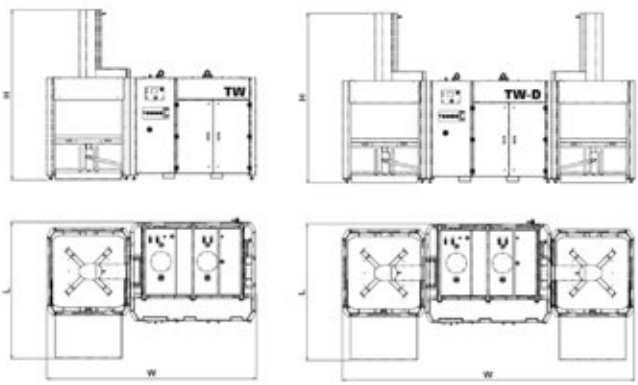
Washing

- The washing head is installed on a moving support that slides up and down to allow the easy positioning of the vessel to be clean. For specific application a rotating cleaning head with brushes can be added to ensure perfect cleaning even with the most diBcult contaminants. The main washing pump grants constant **high-pressure flow rate**. The washing circuit is engineered and manufactured to **resist the aggressive liquids and pressure** and the machine is equipped with filters to retain main particles of contaminants, to protect the pumps and the washing nozzle. One tank, separate in two sector for **washing and rinsing**, is housed in the frame of the TW which also hosts **pumps, filters and control panel**. The capacity of the storage is defined to **guarantee 50 washing cycles** in complete autonomy. To increase the washing output and reduce the downtime it's possible to have a **second washing bay**, to wash diAerent vessel/tank/IBC.

Safeties

- When flammable products are being handled and processed in hazardous areas it is **essential to adopt certified equipment** that will protect personnel from sources of electrostatic ignition. We supply **grounding systems of diAerent kind** depending on the requirements that are penetrating any connection inhibitors like coatings, product deposits and rust and grant **maximum safety**. In some application, inerting the container during the washing phase is mandatory: our software already includes **diAerent cycle option** to comply even the most strict **safety regulation**. The system is equipped with pressure sensors to **avoid any malfunction** of the washing elements and clocking of the filters

Model	L (mm)	W (mm)	H (mm)
TW	2500	3740	3040 (1830)
TW-D	2500	5230	3040 (1830)



IST
Everlasting solutions

WASHING UNITS

LCA

STURDY INDUSTRIAL MACHINES FOR PRINTING PLATE WASHING

Water

Resistant to aggressive detergents

Safety and ease of use

Plug & Play

The LCA series washing units have been designed for cleaning flexo printing plates. This operation is often performed manually, using harsh solvents that dissolve ink but, over time, deteriorate the elastomer from which the precious plates are made. The LCA series is an effective, low-cost solution that is much faster compared to other washing systems used in flexo printing. These machines, built according to the highest quality standards, use non-aggressive liquids and a combination of brushes that swing alternately, thus assuring gentle and at the same time effective cleaning. With a width from 450 mm to 1.800 mm, they are capable of washing printing plates in all formats currently used. Washing operations are managed by a PLC equipped with digital display, for full parameter control. In addition, the brushes and filters are easy to remove, so as to help scheduled maintenance. Finally, the casing panels can be opened to provide easy access from the inside of the machine.

Model	W (mm)
LCA 45	450
LCA 66	650
LCA 86	850
LCA 96	950
LCA 120	1.200
LCA 140	1.400
LCA 180	1.800

THE BENEFITS OF THE LCA SERIES

Resistance
- sturdy and robust structure
- stainless steel cover

Efficacy
- depending on the models, 2 or 3 fine brushes with independently adjustable speed
- rinsing with recirculation water and dedicated pump
- washing fluid and rinsing water filtered using a dedicated tank

Safety
- cover closing by means of a safety sensor
- management of the chemical product minimum level in the tank

Automation
- automatic operation: START with optical sensor and STOP with encoder

Ease of use
- Dedicated PLC with display for cycle parameter monitoring
- fully removable service tank
- inlet conveyor and outlet panel

IST
Everlasting solutions

WASHING UNITS

LVA

HIGH-PRESSURE CLEANING FOR ANILOX AND SLEEVES

Detergent and water

Touch Screen & PLC

Deep cleaning

Designed to guarantee **excellent results without compromise**, the LVA series machines are fully automatic systems for deep cleaning of anilox rolls and sleeves from **water-based, solvent-based, UV and EB inks**.
They use a PLC-controlled process with touch screen and customizable recipes for **effective, gentle and repeatable** washing, even on **high linearity** aniloxes.

Model	Maximum usable size (mm)	Ø (mm)	Maximum weight (kg)
LVA 1000	950	75 - 230	170
LVA 1800	1.650	75 - 230	250
LVA 1800 - 2	2 x 1.650	75 - 230	500
LVA 2500	2.500	75 - 230	250
LVA 3000	3.000	75 - 230	300

Stainless steel construction, easy to disinfect

All parts in contact with liquids are made of stainless steel or materials compatible with the most common industrial detergents. This choice guarantees **high chemical resistance** and easy disinfection, **which is essential in production environments that require cleanliness and hygiene.**

Low operating and maintenance costs

Thanks to the **detergent recovery system** and the option of adding a rinse water recirculation system, the machine offers considerable operational savings. Routine maintenance is quick and easy: the filters are easily accessible and replaceable, and the entire structure is designed to withstand intensive use over time.

Fully automatic cycle

The washing process is divided into four **fully automated** phases, managed by a PLC with an intuitive touchscreen interface. The machine is ready to use simply insert the anilox into the washing area, select a recipe and start the cycle. This approach **simplifies operations** and **minimizes the margin for human error**, while ensuring consistent quality results.

Thorough and delicate cleaning of cells

The LVA system is designed to ensure complete ink removal, even in the finest cells, without affecting their geometry or causing wear. The combined action of the **chemical detergent** and **high-pressure rinsing** provides thorough, non-aggressive cleaning, maintaining the printing performance of the anilox rolls over time.

PROCESS PHASES

- **Application of detergent:** specific liquid, possibly heated to 65°C, distributed evenly and with continuous filtration.
- **Detergent action time:** the product acts in depth while the anilox rotates, optimizing the **dissolution of inks**. The detergent is collected and recovered for reuse.
- **High-pressure rinsing:** water at **80-110 bar** thoroughly removes dissolved residues, even from very fine cells. Adjustable service life and possibility of recirculation and filtration (optional).
- **Automatic drying:** compressed air nozzles **quickly dry** the anilox and the inside of the machine, preventing dripping.