



High Pressure washers

iwt

ALL ABOUT CLEANING

30 YEARS OF EXPERTISE IN CLEANING SOLUTIONS

IWT offers a complete range of cleaning solutions for the pharmaceutical, nutraceutical, cosmetic markets and related industries.

IWT specialises in the design, development, manufacture and installation of outstanding washing solutions. Our manufacturing base in Varese, just a few kilometers away from Milan Malpensa international airport, exceeds 12,000sqm (129,000sqft) of production areas, design studios, training and showroom facilities.

Our production departments are equipped with state-of-the-art laser cutters, orbital welders and robots for processing pipes and tubular parts. The warehouse, fully automated in alignment with the most stringent cGMP traceability requirements, features full overview and management of products and materials. IWT offers in-house advanced 3D design technology and software programming capabilities to ensure complete fulfillment, in terms of quality and flexibility, of any user requirements specifications.

Our comprehensive range of cleaning solutions include FULL cGMP product contact part washers, as well as high pressure washing systems either for bulk containers in cleaning-in-place applications or cabins for bulk parts and containers cleaning-out-of-place.

Our expertise in cold decontamination methods from material transfer through physical barriers mean the decon chambers and airlock systems complement our product range by ensuring complete compliance with cleanroom standards.

You are always welcome to visit our facilities, to feel IWT passion and commitment, to learn first-hand the quality and efficiency in our daily operations.



IWT Headquarters in Casale Litta (Varese, Italy). We strive to protect our surroundings and keep our ecological footprint as small as possible.

HIGH PRESSURE WASHERS

PROVEN SOLUTIONS TO REDUCE UTILITIES AND LABOUR

IWT high pressure cleaning systems: a key asset for the cleaning of bulk containers (IBCs – preparation tank – drums) as well as processing equipment in the pharmaceutical production environment.

These systems, thanks to the extraordinary mechanical action of water pressure (up to 70 bar/1015 psi) combined with a water flow rate of 40 l/min (9 gal/min) for reduced water consumption allow efficient, reliable and fast washing procedures to fulfill the most stringent requirements.



M-LINE

High Pressure Mobile Washer



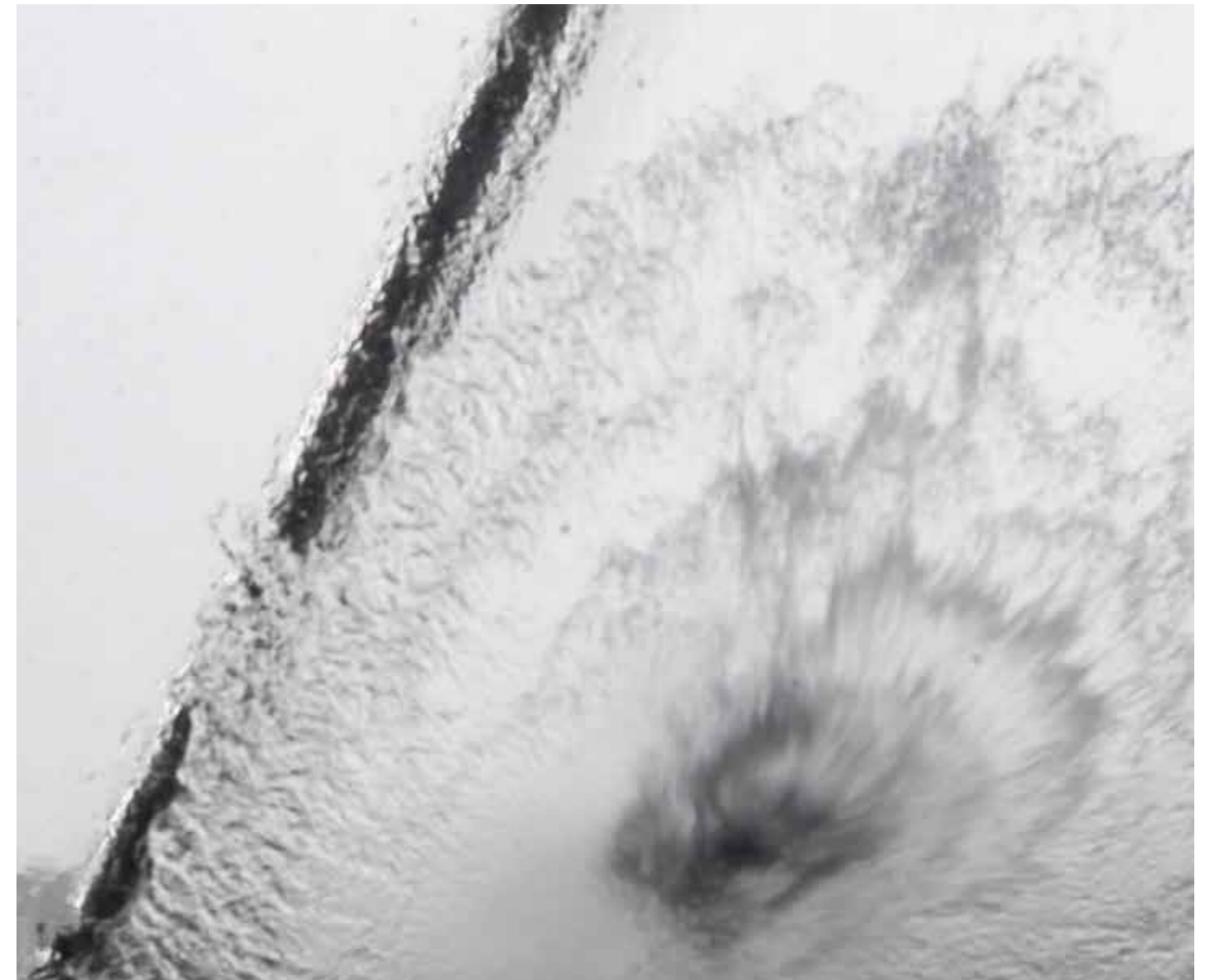
C-LINE

High Pressure BIN Washer



S-LINE

High Pressure CIP System



When an automatic High Pressure cleaning system is used, a significant reduction can be achieved in terms of water and detergent consumption, and in man power requirements.

The major time savings can be identified in the washing cycle time itself, but also in the mandatory process quality checks.

STAINLESS STEEL BIN (1500 LITERS/396 GAL) WITH RESIDUAL OF POWDER STRONGLY STUCK ON THE SURFACES*

	Manual Cleaning	Automatic M-Line Cleaning
Cycle Time (drying excluded)	15 minutes	90 seconds
PW consumption	140 liters/37 gal	63 liters (no detergents) / 16.5 gal
CQ samples	After each cycle	Monthly based

STAINLESS STEEL BLENDER (6000 LITERS/1585 GAL) WITH RESIDUAL OF POWDER STRONGLY STUCK ON THE SURFACES*

	Manual Cleaning	Automatic M-Line Cleaning
Cycle Time (drying excluded)	4 hours	7 minutes
PW consumption	2000 liters/525 gal	300 liters / 79 gal
CQ samples	After each cycle	Monthly based

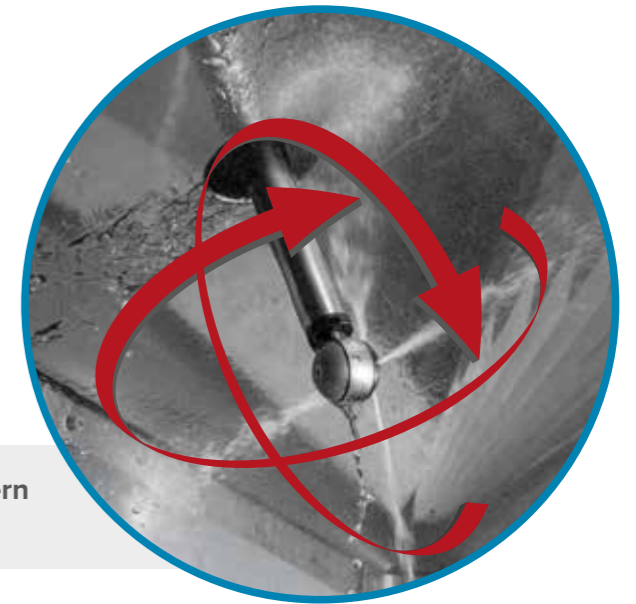
* The data in the tables must be considered as general indications.

M-LINE

High Pressure Mobile Washer



GAMP5	✓
cGMP	✓
ASME-BPE	✓
ISPE baseline	✓
FDA (including 21CFR part11)	✓
CE Marking	✓
UL Listing	✓



▶ The ideal washing system for the product contact parts of any pharmaceutical IBC, drum, preparation tank and bulk container in general

- ▶ Suitable for a wide range of applications (CIP and COP)
- ▶ On wheels, with reduced weight and innovative design to improve ergonomics
- ▶ Easy to move and connect to various washing stations
- ▶ The M-LINE can be coupled to a wide range of cleaning heads and to hydrokinetic lances to obtain a 360° coverage of all the surfaces in a 1.5 m (60 in) radius.
- ▶ Containers can be installed with the washing heads through dedicated/custom fittings.
- ▶ Made of AISI 316L (1.4404)
- ▶ **Up to 70 Bar (1015 PSI)** for outstanding water action and quick cycles
- ▶ **Only 40 l/min (9 gal/min) water flow** for reduced water and chemical consumptions

▶ **360° orbital spray pattern** for complete coverage

- ▶ **ABS crash-proof covers**
- ▶ **Detergent dosing stations** available
- ▶ **On-board electrical cabinet**
- ▶ **Final rinse water conductivity control**

Set of options available to complete the solution:

- ▶ Automatic lifting device for bin cover and hydrokinetic head for IBCs processing
- ▶ Drums washing station
- ▶ Mobile drying unit to complete the cleaning process with a final drying phase



- ▶ **Quick lock connections** for hydrokinetic lances
- ▶ **Multiple water inlets**

M-LINE	
Footprint [mm - inch]	755 x 1440 - 29.7 x 56.7
Height [mm - ft]	1250 - 49.2
Weight [kg - lbs]	300 - 660
Pressure [bar - PSI]	70 - 1015
Waterflow [l/min - gal/min]	40 - 9

C-LINE

High Pressure IBC Washer

GAMP5	✓
cGMP	✓
ASME-BPE	✓
ISPE baseline	✓
FDA (including 21CFR part11)	✓
CE marking	✓

C-LINE MODEL	STANDARD HEIGHT	EXTRA HEIGHT
Chamber Footprint [mm - inch]	1400 x 1300 - 55.1 x 51.2	
Chamber Height [mm - inch]	1900 - 74.8	2350 - 92.5
Unit Footprint [mm - inch]	2025 x 1866 - 79.7 x 73.5	
Unit Height [mm - inch]	3025 - 119.1	3790 - 149.2
Sump Requirements [mm - inch]	300 - 12	

▶ **The complete cleaning and drying solution for pharmaceutical IBC, drum, pallet and bulk containers**

▶ **Washing chamber entirely made of AISI 316L (1.4404), roughness lower than 0.5 µm** with full thermal and acoustic insulation

▶ **Modular design:** chamber, water and drying handling units. The chamber can be installed in classified areas, while the technical components can be removed

▶ **Single pass washing principle**, no water recirculation to avoid any cross-contamination

▶ **Up to 70 Bar (1015 PSI)** for outstanding water action and quick cycles

▶ **Only 40 l/min (9 gal/min) water flow** for reduced water and chemical consumptions

▶ **High efficiency air handling unit with HEPA filter** for effective drying of the load.

▶ **Hydrokinetic head** for the cleaning of bin internal surfaces

▶ **Floor-mounted hydrokinetic head** for bottom valve cleaning

▶ **Siemens PLC controller** and multicolor HMI touch screen

▶ **Data transfer of batch report** in electronic format via USB port and/or integrated printer



▶ **Single or double door** for pass-through application

▶ **Quick lock connections** for supplementary washing devices (e.g. loading trolley for drums)

▶ **Air cooling system** for fast unloading, reducing cycle time

▶ **TOC and conductivity monitoring** of the final rinse water

WORKING PRINCIPLE

The operator positions the load in the cabin. Once the cycle starts, a movable head enters the loaded application from the top. This assures a direct and perfect coverage of areas in contact with the product.

The hydrokinetic head on chamber floor, together with four oscillating arms, completes the cleaning of external surfaces and bottom valve. If needed, a drying unit concludes the cycle exposing the load to hot HEPA filtered air.

S-LINE

High Pressure IBC Washer

► The perfect CIP system for cleaning pharmaceutical production bulk preparation tanks, blenders, mixers and bulk processing equipment

- Modular technical compartment, remotely connected to multiple stationary loads
- Cleaning heads tailored around specific applications
- Made of AISI 316L (1.4404)
- Single pass washing principle, no water recirculation to avoid any cross-contamination
- Up to 70 Bar (1015 PSI) for outstanding water action and quick cycles
- Only 40 l/min (9 gal/min) water flow for reduced water and chemical consumptions

Additional modules:

- Air handling unit with HEPA filter for effective drying of the load
- Tube bundle heat exchanger for water heating
- Chemical dosing system



► Bin Washing Station



► Pressure Meters

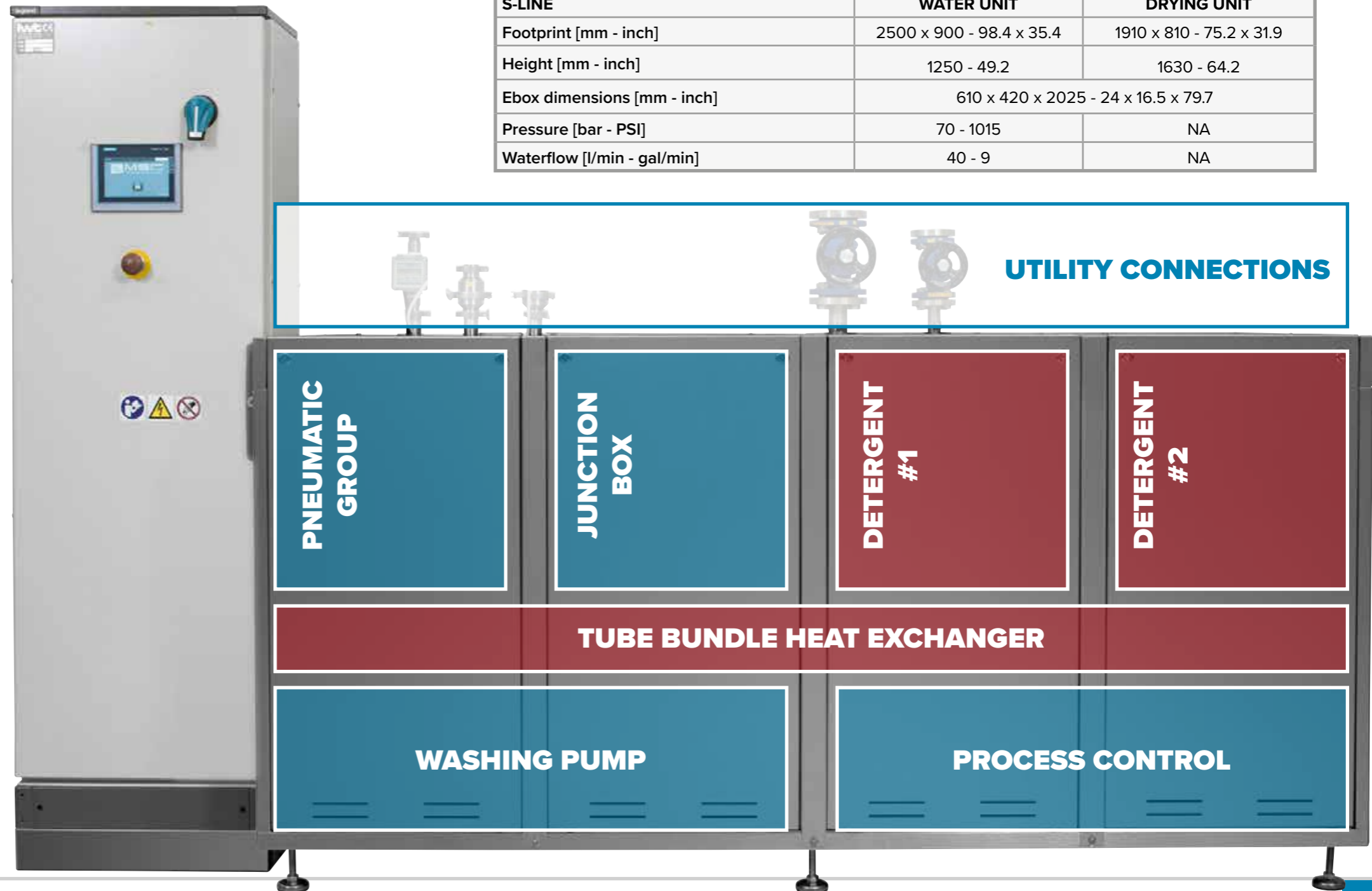
GAMP5	✓
cGMP	✓
ASME-BPE	✓
ISPE baseline	✓
FDA (including 21CFR part11)	✓
CE marking	✓

S-Line consists of a modular technical compartment installed in an appointed plant area from which, via distribution manifolds, multiple stationary loads can be connected (e.g. bulk preparation tanks).

S-Line provides the core hardware for the cleaning process while the end effector is then tailored around the specific application. Consult our experts to evaluate capabilities and flexibilities of this advanced cleaning solution.



S-LINE	WATER UNIT	DRYING UNIT
Footprint [mm - inch]	2500 x 900 - 98.4 x 35.4	1910 x 810 - 75.2 x 31.9
Height [mm - inch]	1250 - 49.2	1630 - 64.2
Ebox dimensions [mm - inch]	610 x 420 x 2025 - 24 x 16.5 x 79.7	
Pressure [bar - PSI]	70 - 1015	NA
Waterflow [l/min - gal/min]	40 - 9	NA



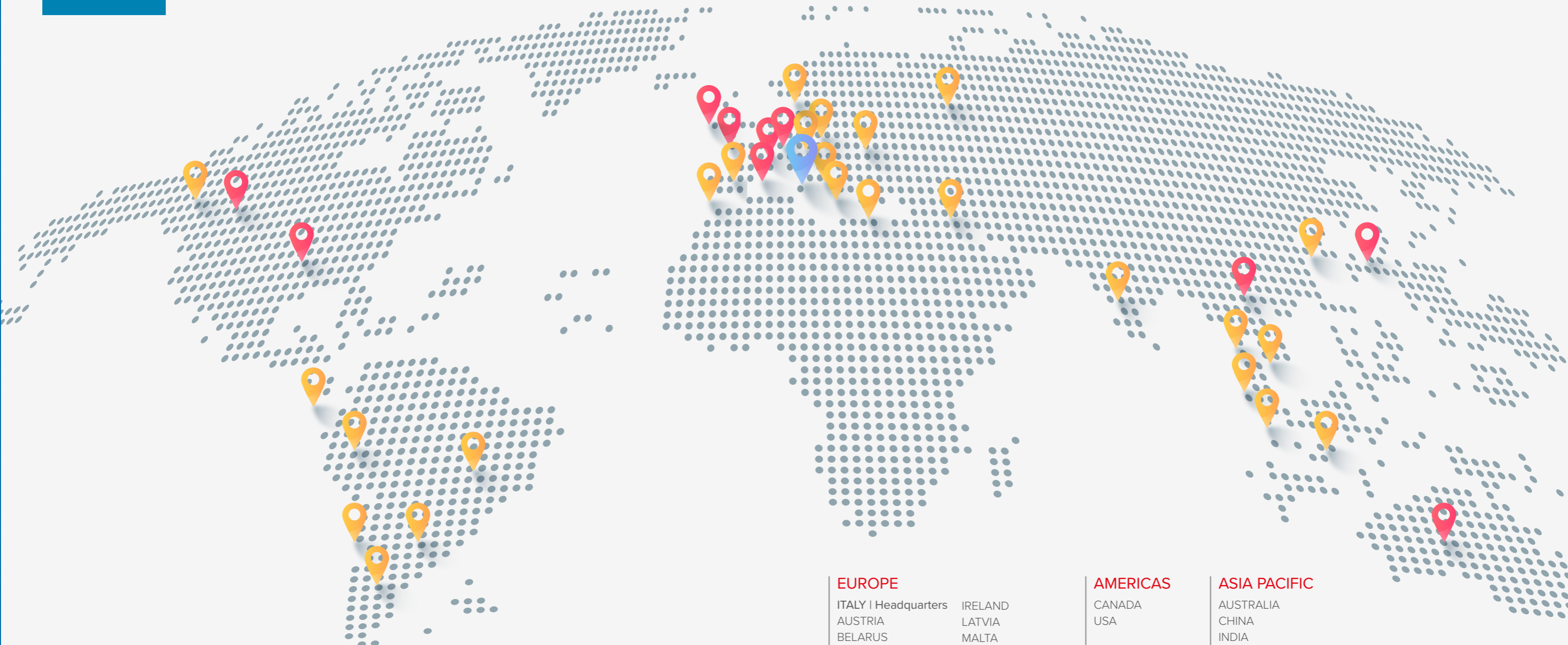





High pressure water (up to 70bar/1015PSI), empowered by temperature and detergents, grants optimal mechanical action to effectively remove the most challenging residues preserving the superficial integrity of objects as a further benefit of the automatic cleaning processes.

WE OPERATE LOCALLY. WORLDWIDE.

Being a global company, as part of the Tecniplast Group, means we are well aware of the challenges the world is facing.

Our worldwide network of Subsidiaries, Dealers and Agents allows us to understand different cultures, languages and needs, thus perfectly responding to regional expectations.



-  IWT Headquarters and production site
-  Group Subsidiaries and commercial offices
-  Dealers/Agents

EUROPE	AMERICAS	ASIA PACIFIC
ITALY Headquarters	CANADA	AUSTRALIA
AUSTRIA	USA	CHINA
BELARUS		INDIA
BELGIUM	ARGENTINE	INDONESIA
CROATIA	BRAZIL	JAPAN
CZECH REPUBLIC	CHILE	MALAYSIA
DENMARK	COLUMBIA	SINGAPORE
ESTONIA	MEXICO	SOUTH KOREA
FRANCE	URUGUAY	THAILANDIA
GERMANY		VIETNAM
GREECE		
HUNGARY		
IRELAND		
LATVIA		
MALTA		
POLAND		
PORTUGAL		
RUSSIA		
SLOVAKIA		
SPAIN		
SWITZERLAND		
THE NETHERLANDS		
UKRAINE		
UK		

- 50+**
Countries
- 250M**
annual Group turnover
- 300+**
installations
- 1,000+**
employees worldwide

DESIGNING RESULTS



COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =

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