

A black and white photograph showing a high-pressure washer nozzle in the center, spraying multiple powerful jets of water onto a dark, textured surface. The water jets create bright, dynamic patterns against the dark background. A red vertical bar is visible on the far left edge of the image.

High Pressure washers

mw^t
TECNIPLAST GROUP

ALL ABOUT PHARMA

WITH OVER 30 YEARS OF EXPERTISE IN TURN-KEY SOLUTIONS

IWT offers a comprehensive range of cleaning, isolation, and decontamination solutions for the pharmaceutical, cell & gene, nutraceutical, cosmetic markets, and related industries.

IWT specializes in the design, development, manufacture, and installation of outstanding cGMP pharma solutions. Our manufacturing base in Varese, just a few kilometers away from Milan Malpensa International Airport, spans over 20,000 square meters (215,000 square feet) of production areas, R&D, design studios, training, testing, and showroom facilities.

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

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

Multipurpose modular aseptic isolation technologies are at your disposal, ranging from sterility testing to component preparation, from fill-finish to Advanced Cell & Gene Therapies.

A decennial expertise in cold decontamination methods, decon chambers and airlock systems, ensures safe and efficient material transfer through physical barriers and differently classified areas.

Both our Isolation and Decontamination product ranges ensure complete compliance with cleanroom standards according to the new EU Annex 1 requirements.

You are always welcome to visit our facilities, to experience IWT Pharma's passion and commitment firsthand, and to witness 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 represent a key asset for the cleaning (CIP or COP) 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 (10,5 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) / 16.6 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/ 528 gal	300 liters/ 79 gal
CQ samples	After each cycle	Monthly based

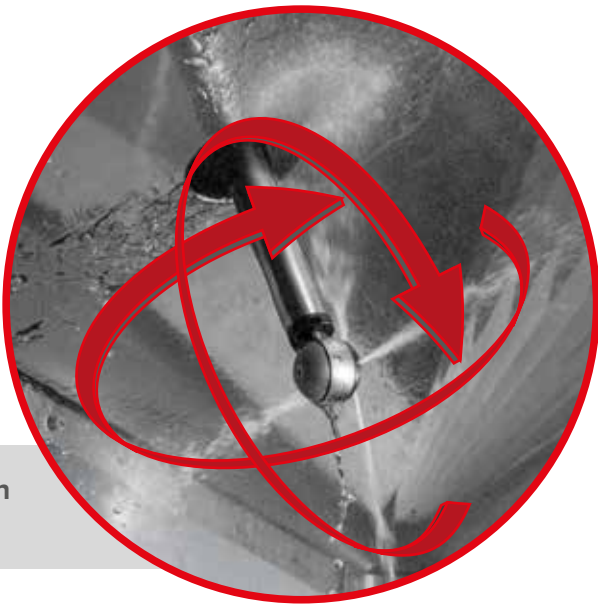
* The data in the tables must be considered as general indications.

M-LINE

High Pressure Mobile Washer



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



► The ideal washing system for IBCs, drums, BIN tanks (lavabin) and, more generally, large devices in the pharmaceutical industries.

- 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 (10,5 gal/min) water flow** for reduced water and chemical consumptions

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

- **ABS crash-proof covers**
- **Two detergent dosing systems**
- **On-board electrical cabinet**
- **Purge system for water residual removing form pipelines and pumps**

- **Two quick lock outlets** for hydrokinetic lances connection
- **Two water inlets** for hot/ cold, demi or WFI water



MODEL	M-line
Unit footprint W x D [mm - in]	755 x 1440 - 29.7 x 56.7
Unit height [mm - in]	1250 - 49.2

M-LINE

High Pressure Mobile Washer

Drying Mobile Unit

- ▶ Electrical heat exchanger to warm drying air up to 70°C – 158°F
- ▶ Pre-filter (G4) and HEPA (H14) filter equipped with ports for integrity testing and differential pressure monitoring system
- ▶ Hot air fan with a flow rate of 700 m³/h (412 cfm) equipped with anemometer for air-speed monitoring
- ▶ Siemens or Allen Bradley automation systems FDA CFR 21 part 11 compliant
- ▶ Automatic intercept electric valve for back-to-back washing and drying phases
- ▶ ASME BPE 4" clamp outlet with multiple length DN100 hoses and S/S 316L passivated lid suitable for bins with max DN400 openings



IBCs Cleaning System

- ▶ For IBCs up to 2200 mm (86,6") high and max diameter/footprint 1600 mm (63")
- ▶ Automatic cleaning head pneumatic lifting system, working range of 2000 mm (78,7")
- ▶ High pressure hydrokinetic head featuring 4 orbital nozzles
- ▶ Maximized results for every IBC size and shape, thanks to fine positioning at different heights and 360° coverage of the cleaning head
- ▶ Inclusive of AISI 316 S/S lid for bin openings up to DN400
- ▶ Support structure lower than 3000 mm (117"), footprint of 405 x 405 mm (16" x 16")



Drums Cleaning Kit

- ▶ Suitable for drums with diameter up to 800 mm (31,5") and height up to 1100 mm (43.3")
- ▶ Electropolished AISI 316L drum supporting frame; manual adjustable holding system to easily manage different drums sizes
- ▶ High pressure hydrokinetic cleaning head with semi-sphere spraying pattern
- ▶ Easy to open side protective panels; ergonomic tilting aid tool, allowing drums ergonomic loading and unloading
- ▶ Structure, panels and drain tanks made in AISI 304
- ▶ Overall dimensions: 1100 x 1200 x 1860h mm (43.3" x 47.2" x 73.2"h)
- ▶ Max holding system height: 2500 mm (98.8")



C-LINE

High Pressure IBC Washer

- ▶ **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 0.8 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 remoted
- ▶ **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 (10,5 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

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

- ▶ **Single or double door** for pass-through application
- ▶ **Manual sampling point and conductivity monitoring** of the final rinse water

Automation system:

- ▶ Cutting edge automation system GAMP5 compliant with ERES (21CFR Part11) and AUDIT TRAIL functions to guarantee full data traceability and storage
- ▶ Up to 30 fully customizable washing programs from pre-washing to drying and cooling
- ▶ PanelPC configuration for remote connectivity and INDUSTRY 4.0 integration for programs and batch data retrieval, audit trail and log files safe storage on the customer's network

HPAPI processing:

- ▶ The single pass washing method of the C-Line is exceptionally suited for handling **Highly Potent Active Pharmaceutical Ingredients (HPAPIs)**. Following the loading of containers into the cabin and the secure sealing of doors, the automation system initiates the process by opening the split valve automatically.
Subsequently, a mobile hydrokinetic head enters the load, ensuring comprehensive coverage of all areas in contact with the product.

During the pre-washing phase, the highlt potent solution is directed to a designated drain point for safe disposal, effectively managing waste maintaining safety standards.

S-LINE

High Pressure IBC Washer

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

- ▶ 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 (10,5 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



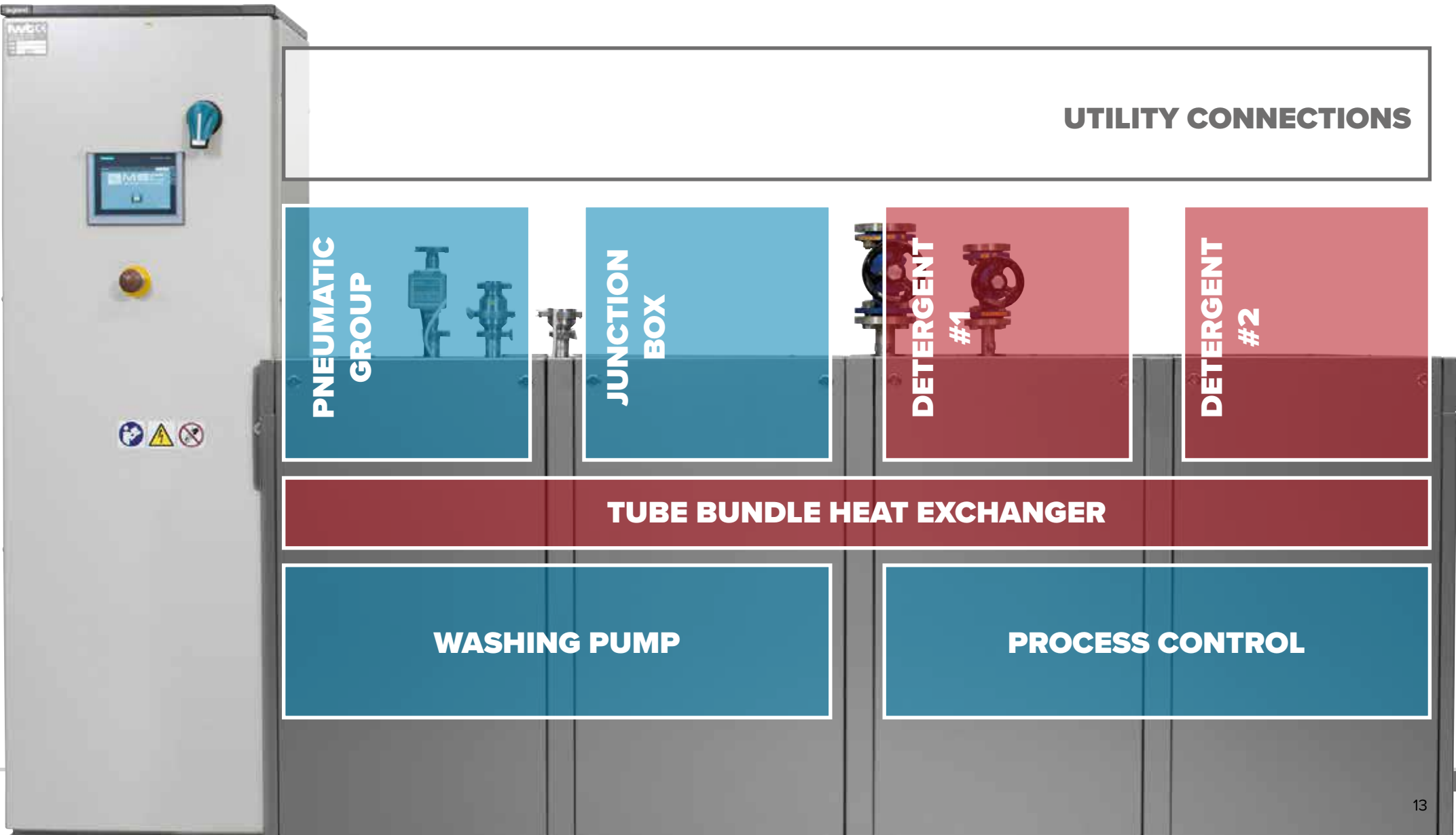
▶ Bin Washing Station



▶ Pressure Meters

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).

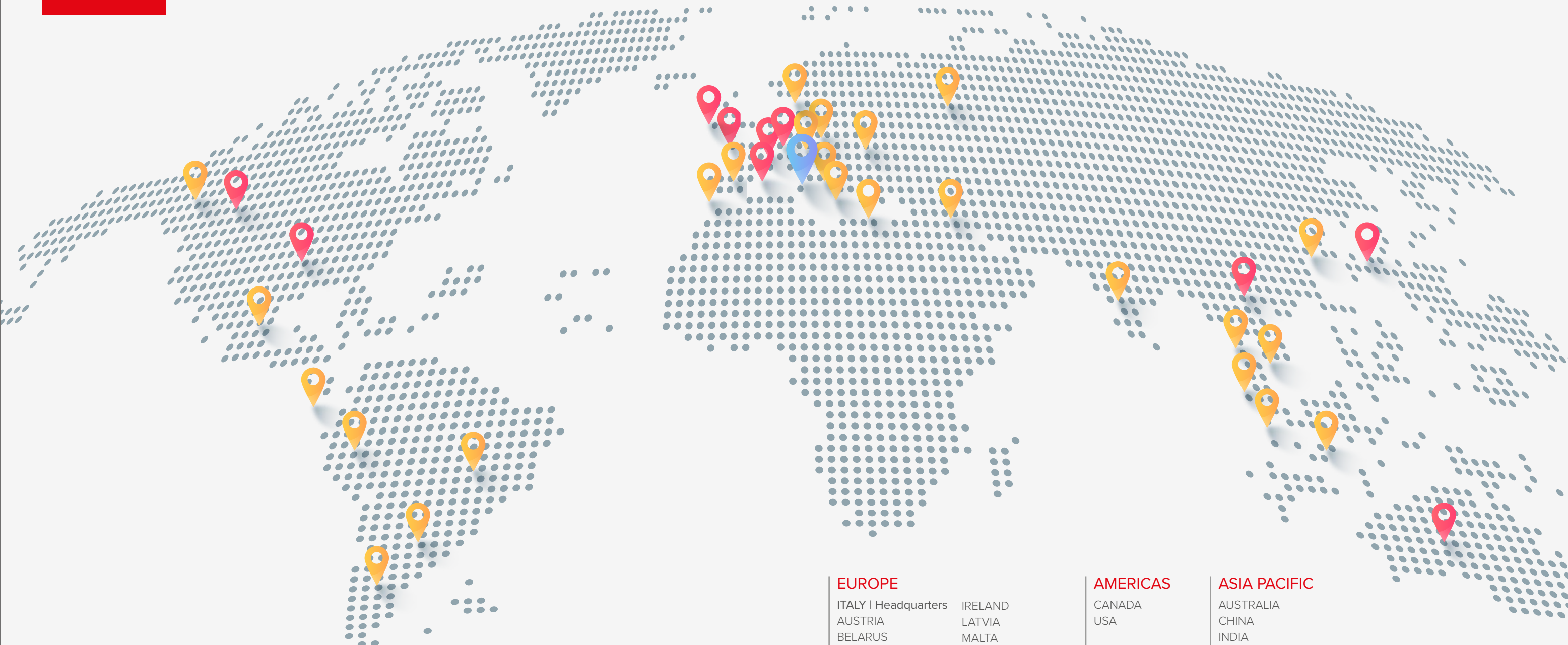
S-Line provides the core hardware for the cleaning process while the end effector is then tailored around the specific application. Consult our experts to evaluate capabilities and flexibilities of this advanced cleaning solution.





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	IRELAND	CANADA	AUSTRALIA
AUSTRIA	LATVIA	USA	CHINA
BELARUS	MALTA		INDIA
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CROATIA	PORTUGAL	BRAZIL	JAPAN
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FRANCE	SWITZERLAND	URUGUAY	THAILANDIA
GERMANY	THE NETHERLANDS		VIETNAM
GREECE	UKRAINE		
HUNGARY	UK		

50+

Countries

325M

annual Group turnover

400+

installations

1,500+

employees worldwide



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Cleaning | Isolation | Decontamination

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