



Industrial
Trading
Solutions

SUSTAINABILITY



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OUR MISSION ON SUSTAINABILITY

Climate change and sustainable development are vital and urgent global issues facing us today - as an industry leading Hygienic Flow Equipment Specialist, ITS has a key responsibility to adhere to frameworks, legal requirements and enforcement mechanisms to respond to these and other global challenges and help create a more sustainable society.

ITS applies sustainable practices not only on a day to day basis, but embeds them within the underlying company infrastructure and ethos.

**“Sustainable development
meets the needs of the present
without compromising the
ability of future generations
to meet their own needs”**

— Brundtland Commission 1987



ITS SUSTAINABILITY ACTIVITIES

We have already taken some big steps towards making our working environment more sustainable and have delivered initiatives to reduce the negative impact our day to day activities have on the world around us. As an ISO 14001 Environmental Management Certified business this includes:

- Insulating all of the walls in our offices and warehouse.
- Replacing old inefficient windows with new triple glazed versions.
- Installed Low Energy LED sensor lighting around our buildings.
- Making the switch to 100% Recycled Packaging.
- Implemented a recycling policy for waste throughout the business.
- Every shipment we send is now part of the UPS Carbon Neutral shipment scheme.
- Is supplied each year with 19207 kWh certified renewable energy based on 2021 usage.
- Signing up with an IT and Services provider that are consciously reducing their carbon footprint and actively measuring and communicating their progress.
- Committing to becoming a zero emission business by 2040 through the SME Climate Hub.



OUR SUSTAINABILITY GOALS



Our sustainability goals continually drive us to improve on all aspects of our sustainable development. While ITS is a Small to Medium Enterprise and can't approach the Sustainable Development Goals (SDG's) in the same manner as large corporations or governments, we understand that SMEs account for the vast majority of private sector businesses and economic activity, so by participating and putting sustainability at the forefront we can all help to make a difference.

+ Collaborate with our supplier's Sustainability aims

Our goals stand by the fundamental values of our suppliers, with the core principle of Social, Business Integrity, Environment and Transparency being of utmost importance.



COLLABORATION



HAPPINESS



INTEGRITY



RELIABILITY



RESPECT

+ Work alongside the 6 R's

Reduce, recycle, reuse, refuse, repair, rethink – a simple but effective procedure to follow in the workplace, using the 6 R's to reprocess materials on day-to-day tasks makes sure we all support our wider sustainability goals.

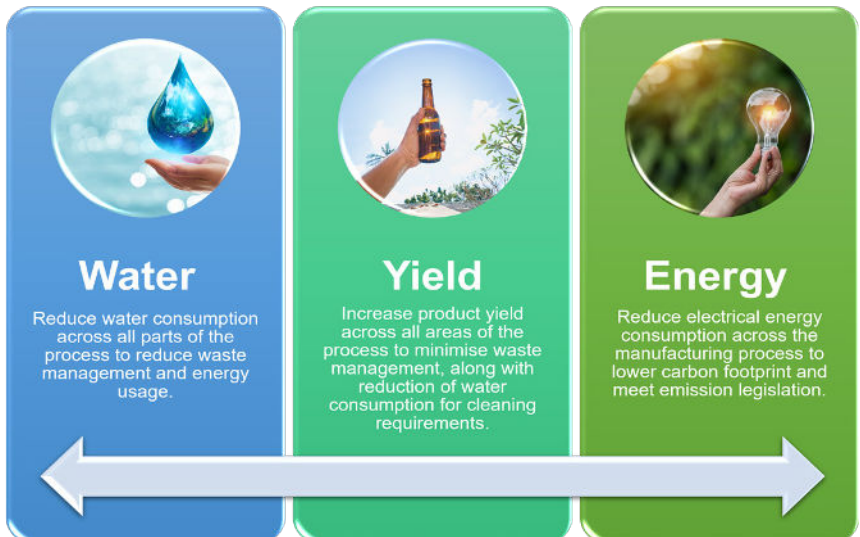
+ No work-related accidents in our Business

We believe any risk is too much risk. We strive to exceed Health and Safety standards at work because fundamentally we want everyone to go home safe, every day – whether they are employees, customers or visitors.



International standards for sustainable growth tackle a host of global issues with solutions for industries, businesses and communities. They also help to keep communities safe from unsafe and harmful products. As such international standards are key to supporting the implementation of the SDGs. At ITS we strive to maintain international sustainability standards with the underlying aim to enhance peace and prosperity, eradicate poverty and protect the planet.

Consumer Aims



WATER STEWARDSHIP

The worldwide recognition of rising water consumption and its long-term costs has been rapidly increasing in recent times. Due to the rising concerns of the risks associated with insufficient water quantities and quality in our communities, Water Stewardship is an easily approachable solution for businesses in the process flow sector to manage their water usage with the needs of communities and the environment.

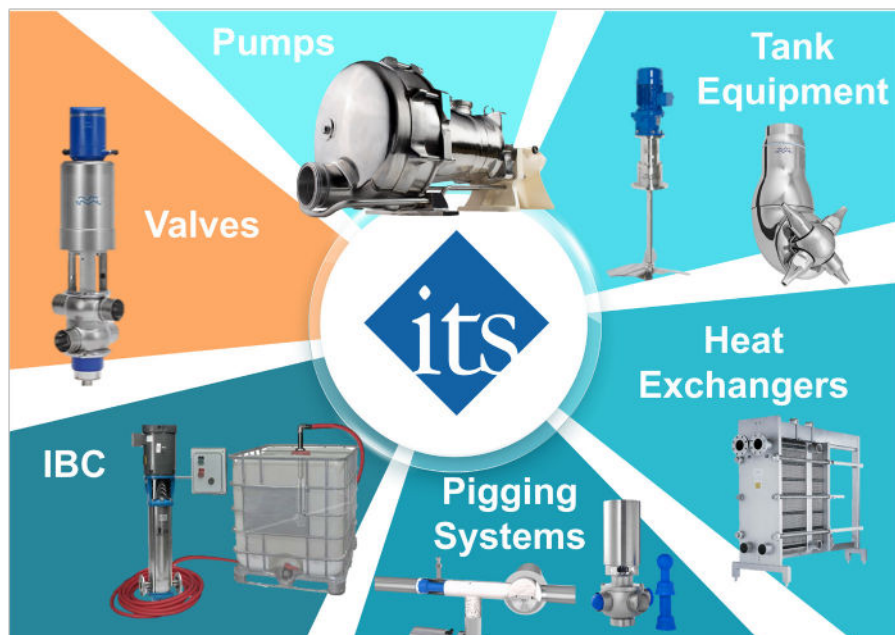
ITS Provide a wide range of water-saving technologies and make a conscious effort in-house to preserve water usage in our daily operations. Sustainability standards are being embedded strongly within SMEs nationwide, with growing levels of water disclosure and collaboration with larger businesses. We need your help to pursue the path of resilience and opportunity to drive the Water Stewardship values and ensure they are upheld in your company ethos.

Efficient water saving equipment is an essential part of changing water consumption toward a more sustainable future.

Key Aim For Consumers - Reduce Water consumption which in turn will reduce waste water management and energy usage.



OUR SOLUTIONS





OUR SOLUTIONS

VALVES

When used with the new Alfa Laval ThinkTop V50 & V70 Automation Range with the Burst Clean and Pulse Clean technologies, trials have revealed that up to 95% of the CIP sent to drain during cleaning can be saved with our valves- significantly lowering operating and waste management costs compared to using traditional (PLC) timer-controlled valve actuations.

Pulse Clean

Typically drain valves will comprise up to 20% of all valves within a processing plant. Cleaning them is costly, difficult and time consuming due to the long cleaning cycles needed to remove product or debris and due to risk of pressure shocks. With our "Pulse Clean" technology we can address these issues quickly and effectively by providing a spotless clean to the equipment while delivering savings of up to 95% of the Cleaning-in-place (CIP) liquid that would traditionally be used. Instead of the drain valves opening on a PLC timer, technology within the ThinkTop Control head pulses the valve open and closed multiple times to generate turbulent flow for cleaning whilst minimising fluids sent to drain without compromise to cleanability.





OUR SOLUTIONS

VALVES

Burst Clean

With Double seat mixproof valves the typical cleaning regime requires the seats to be independently lifted for 5 or more seconds at multiple times for each part of the cleaning process cycle. The PLC timer typically cannot be shortened below 5 seconds as it needs to be open for long enough that the PLC catches the signal feedback from the control head. With the "Burst Clean" feature of the ThinkTop V70 Control head the programming is already set within the unit so that it opens in small 1 second bursts maintaining turbulent jetting to provide full cleanability whilst minimising CIP fluids sent to drain. When mounted on our Alfa Laval Mixproof valves trials have shown that up to 90% of CIP liquids can be saved when the "Burst Clean" feature is used.



Scan the QR
Codes to visit our
website page:



Water savings can be quantified using the Joules sustainability tool
(See page 20 for more information).



OUR SOLUTIONS

TANK CLEANING

TJ20G & TJ40G Rotary Jet Heads

These tank-cleaning devices provide exceptional cleanability, better end-product quality, greater overall output and up to 70% reduction in operating costs compared to Static sprayball technology. The strong targeted jets provide greater cleaning force and reduce cleaning cycle times and therefore reduces water and chemical consumptions

They are designed for hygienic applications, such as food, dairy, personal care and beverages. High impact quality assured cleaning in smaller tanks.



Orbitor Eco

This Rotary Jet Head is a new breed of impingement tank cleaners designed to vastly improve water usage and time efficiency. Unlike conventional impingement cleaners that have been geared for power, this tank cleaning head has been geared to produce a very fast cleaning cycle that uses very little water. Up to 95% water saving when compared to static spray balls & up to 75% water saving when compared to rotary spray balls.



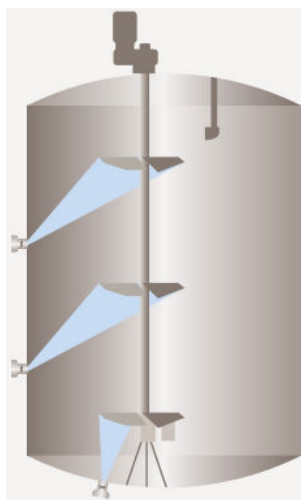


OUR SOLUTIONS

TANK CLEANING

PlusClean

This Cleaning nozzle revolutionises tank cleaning in your hygienic processes. Paired with your top-mounted tank cleaning device, the PlusClean smoothly integrates into the tank wall or bottom. When activated during Cleaning-in-Place (CIP), it hits shadow areas with a fan of pressurised cleaning media, guaranteeing 100% impact cleaning coverage, up to 80% savings in water and cleaning agent costs, and 0% contaminants.



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OUR SOLUTIONS

TANK CLEANING

With certain tank cleaning selections, Industrial Trading Solutions Ltd are able to provide you with a working simulation of the cleaning pattern within your specified tank.

The simulation gives information on wetting intensity, pattern mesh width and cleaning jet velocity. This information is used to determine the best location of the tank cleaning machine and the correct combination of flow, time and pressure to implement.

A demo containing different cleaning simulations covering a variety of applications can be used as reference and documentation for tank cleaning applications - it is also free and available upon request.

Wetting Intensity



D4.6m H5.5m, Toftejorg TJ 20G, 4 x ø5.5 mm, Time = 2.08 min., Water consumption = 403 l



D4.6m H5.5m, Toftejorg TJ 20G, 4 x ø5.5 mm, Time = 8.3 min., Water consumption = 1612 l

Water savings can be quantified using the Joules sustainability tool (See page 20 for more information).



OUR SOLUTIONS

PUMPS

Energy Efficient LKH Centrifugal Pumps

Designed for energy efficiency the LKH Centrifugal pump range has been optimised to maximise the energy you input into pumping fluids. This premium energy efficient pump can provide up to 50% greater energy efficiencies compared to similar sized mid-range pumps. With a greater efficiency pump the running costs are reduced from lower energy consumption and less energy is wasted to vibrations, noise and heat leading to less impact on the product quality and less frequent breakdowns.

Product Recovery with H-Flo Eccentric Disc Pump

These pumps have been designed to provide premium performance. They feature a unique seal-less design with a double stainless-steel bellows that ensures durability, safety and product containment. The H-FLO pump delivers high suction vacuum and high discharge pressure that allow it to self-prime and fully strip lines, a critical consideration when maximising product recovery. With increased product recovery you will increase product yields and profits but also reduce waste sent to drain and reduce the amount of CIP needed to clean saving on energy and water costs.

Our Hygienic Pump product range provide other benefits including less vibration, noise, and heat generation which all aid to increase the mean-time between failure of the equipment and Total Cost of Ownership.

We also have lobe pumps available where duty requirements dictate that they may be more suitable.



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OUR SOLUTIONS

PUMPS (PRODUCT RECOVERY).

Product Recovery Systems

Manufacturers in the food and beverage, pharmaceutical and cosmetic/personal-care industries, while taking measures to make their operations leaner, have inadvertently chosen to accept one such “cost of doing business” within their operations: the disposal of raw materials or finished product as waste contained in tubing at the end of production runs or product change overs.

They key to the high product recovery capabilities of the Mouvex Eccentric Disc pumps is their ability to provide high suction and discharge compression rates, allowing for your product to be stripped from the process pipework, minimising waste water usage when cleaning.

Features & Benefits:

- + Less water usage to clean the lines
- + Less sanitising chemicals to sanitise the lines
- + Less energy required to facilitate the cleaning process
- + Lower disposal costs of disposal of product, waste water and chemicals
- + Less time required for cleaning, meaning reduction in energy usage



To read The Bottom Line Benefits Of Product Recovery scan the QR code:



OUR SOLUTIONS

PIGGING SYSTEMS



The purpose of pigging is to remove or recover residual liquid that remains in a pipe after transfer from one location to another.

A pigging system consists of a flexible projectile with a diameter marginally larger than the pipeline that needs pigging. Water, other liquid, compressed air or gas, or even the product being processed is then used to propel the pig through the pipe and remove or recover the remaining product, and increase yield of product per operating cycle!

Features & Benefits:

- + High Return on Investment
- + Reduced waste and less production downtime
- + Increased yields leading to better margins
- + Lower water consumptions and more sustainable
- + Reduce Cleaning times as they don't need to run as long
- + Reduce chemical usage

This doesn't even include the additional savings from waste handling/disposal costs, changeover time labour costs, cleaning fluid, energy and water costs!



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OUR SOLUTIONS

HEAT EXCHANGERS

Plate heat exchangers are designed to optimise heat transfer because the corrugated plates provide by far the greatest surface area through which the heat can be drawn from one gas or liquid to the other. Despite this substantial area for heat transfer, plate heat exchangers are usually relatively compact. The design of the plate channels also ensures maximum turbulence as each fluid passes through. This results in maximum efficiency in transferring heat from one medium to the other.

Our Heat Exchangers includes a range with a new design - namely CurveFlow. The distribution area on these plates means superior flow distribution and more of the available pressure drop over the main heat transfer area. This results in a number of benefits:

- Increased energy efficiency - Up to 15% higher efficiency
- Higher flow capacity
- Up to 40% improvement in self-cleaning capability
- A more compact heat exchanger – less plates needed
- Reduced maintenance costs.

The high efficiency and outstanding reliability in a compact design, offers an investment with the most attractive TCO over the product life time. Not to forget the energy saving capabilities and low environmental footprint.

Our completely redeveloped heat exchangers, setting new standards in energy efficiencies, reliability and serviceability, with unique innovations to maximise productivity and lower life cycle costs.



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OUR SOLUTIONS

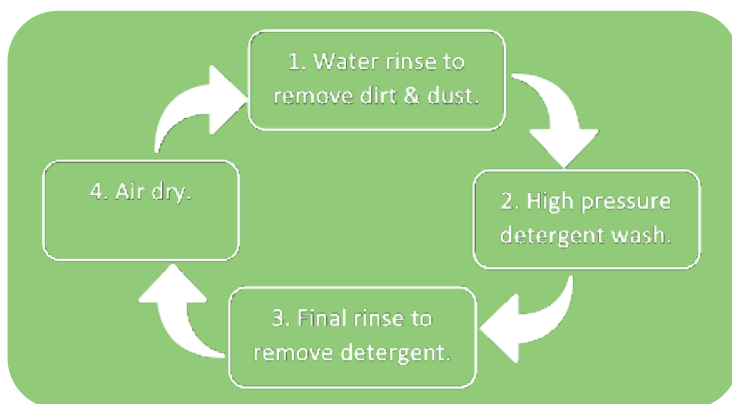
IBC (INTERMEDIATE BULK CONTAINER)

IBC Cleaning

IBCs account for around 15% of the global packaging market and due to their high operational performance and cost efficiency for both transport and storage of oil, chemical, food/beverages & pharmaceuticals have an annual growth rate of around 9.5% (Cat Pumps) n.d. . IBC totes are typically **818-2500 litre capacity**.

4 Step Process

There are several types of IBC washing machines that range from simple drop-in equipment to stationary machines. In this case, the IBC is placed into the machine which inserts a spray device into the IBC and continues to wash, drain & dry the unit.





How it works

We use rotary impingement technology to create a full coverage repeatable clean with high impact cleaning. Due to the high level of impact the Gamajet uses less water and takes much less time to clean than other methods, such as manual scrubbing. Gamajet cleaning heads scour tanks and IBC interiors in a repeatable and reliable 360° pattern ensuring the tank or IBC interior is impeccably cleaned every time.

Potential Results:

- + Make it possible to bring the entire cleaning process in-house, completely eliminating third-party costs.
- + Cleaning of IBC's between 25-50 faster than doing it manually.
- + Cleaning time pre-set which allows labour to concentrate on other tasks.
- + Cleaning time reduced to **4 – 8 minutes** depending on amount & type of residue.
- + Our IBC wash-station is proven to save time money.
- + The Gamajet IBC Wash Station proved to save time and money, the **Gamajet Rotary Jet Head** had paid for itself in one week.



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HOW ITS CAN HELP

Sustainability Audits

What?

An analysis of components in an existing process to identify potential water and energy savings, by either installing more suited components or finding a better process solution.

Why?

Analysing the various operational processes of your business allows you to more accurately assess them against sustainable best practice and identify what opportunities are available and what changes you would like to make, whether big or small.

Who?

Sustainability Audits are about understanding where you are now so that you can plan for a more sustainable future and therefore they are suitable for all business that have processes that can be improved upon.

Processing Plants can use ITS expertise in this field determine where improvements can be made.

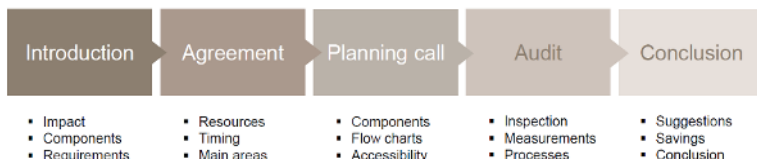


Our Commitment

To provide our industry leading sustainability audit, full involvement from our end and the end user operator is required. We'll liaise with a process responsible end user representative to make sure the suggested changes are feasible.

Our Service:

- + Flow charts, product data and scheduled operation times provided at planning call
- + Audit estimated at one full working week for the involved persons
- + Calculations and report generation
- + Presentation and conclusion



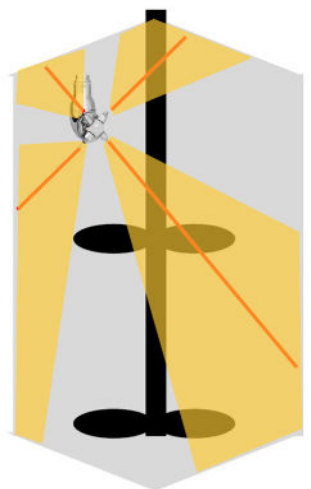
HOW ITS CAN HELP

Sustainability Audits

Joules - Sustainability Optimisation

Using Joules Sustainability Optimisation software we can calculate energy & CO2 emission savings by optimising your Pumps and Agitators, and CIP media and water savings for Mixproof valves and Tank cleaning Equipment.

With the given duty specification, we can provide the best energy & water solutions for inefficient sanitary flow processes!



Joules Case Study

Sustainable Optimisation Pump Report



RETURN ON INVESTMENT	ENERGY SAVINGS PER YEAR	PAYBACK TIME
25.78 %	-€166,52	3.88 years

OPERATION PARAMETERS

The calculations are based on these settings

PROJECT NAME	Joules Example
ITEM NAME	Water Pump
TAG REFERENCE	
FLOW RATE	20
HEAD	25
OPERATING HOURS PER DAY	5.0000
OPERATING DAYS PER YEAR	240
OPERATING HOURS PER YEAR	1200
LIFETIME IN YEARS	8
COUNTRY	United Kingdom
ELECTRICITY COST	0.1289
CO2 EMISSION PER KWH	0.5452



**Industrial
Trading
Solutions**

6 Station Road, Coleshill, Birmingham, B46 1HT

Tel: 01645 465 191 **Fax:** 01645 464429

www.industrialtradingsolutions.com

sales@industrialtradingsolutions.com



UK Government

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COMMITTED TO REACHING NET ZERO EMISSIONS

**TOGETHER
FOR OUR
PLANET**

