

# PRODUCT BROCHURE

## TANK EQUIPMENT RANGE



# About ITS



Industrial Trading Solutions Ltd are hygienic equipment specialists with over 100 years of combined technical knowledge and applied skills in the food & beverage, brewery, distillery, dairy, pharmaceutical and personal care industries.

Formed in 2002 and based in the Midlands UK, ITS now distribute a multitude of top industry brands with a fast service, at competitive prices and all with an unmatched customer ethos.

Our technical team can support you with large system projects, one-off product purchases and maintenance & repair services.

As an ISO9001, ISO14001 & ISO45001 accredited business, you can expect the very best service and the highest standards from Industrial Trading Solutions Ltd.

"Operating within a safe and transparent culture of respect and innovation, we are dedicated to positively conduct ourselves with high ethical standards and integrity. We will continue to invest in and develop our staff, reliable product ranges and services provided, to ensure the high standards expected with the market we operate are upheld or exceeded. As the complete solutions supplier of choice, we value all stakeholders of the business and build strong relationships to reinforce our unrivalled reputation and future growth."

***Peter Jeans, Company Founder and Chairman***



DISTRIBUTING SOLUTIONS ◆ PROCESSING EXCELLENCE



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## Our Approach to 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.

Ask us about Sustainability Audits and let ITS support your sustainability activities.

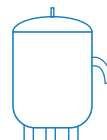


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## Our Sustainability Goals

Our sustainability goals continually drive us to improve on all aspects of our sustainable development.





# Static and Rotary Cleaning Heads

Our range is divided into four main classes of cleaning devices plus additional technology.

1. Static - These are fixed spray pattern devices delivering cleaning fluids either through 1 head/nozzle or a manifold of multiple heads/nozzles. Used mostly for easily cleanable products/surfaces which can be cleaned with cascading flow rather than impact/jetting. The most common type of static device used is a static spray ball.

2. Rotary Spray. These cleaning heads spin under the fluid pressure and this rotation allows for a more directed spray to be distributed omni-directionality. The motion, combined with the more directed spray gives these heads a far greater scrubbing action than static nozzles.

3. Rotary Jet Cleaners. These cleaning heads have 2 or more nozzles that produce powerful straight jets of fluid. These

impact on the surface of the tank blasting away tough residues. The nozzles will rotate in two dimensions over a set cleaning cycle so that the cleaning jets are brought to bear on each part of the tank.

4. Shadow Cleaning Technology - The adjustable nozzles of the PlusClean thoroughly clean shadow areas, including underneath agitator blades, coils and connections. Changeovers, whether batch or continuous processing, are safer, faster and contamination free due to an even more efficient cleaning cycle. This translates into higher productivity while using far less resources. Pairing the PlusClean with any top-mounted tank cleaning device saves money and resources.

Both the Rotary Spray Head and Jet Head tank cleaning devices provide exceptional cleanability, better end product quality, greater overall output and reduced operating costs.

## Features & Benefits

- They are all designed for hygienic applications
- Available in various sizes
- Available in different configurations covering any tank size



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## Video:



GamaJet



LKRK Static Ball



TJ40G



PlusClean



Orbitor 4 front



TJ20G



Orbitor 100 front



SaniMicro  
Rotary Spray Head

# Tank Cleaning Simulator

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, so that you can be absolutely sure you have made the right choice.

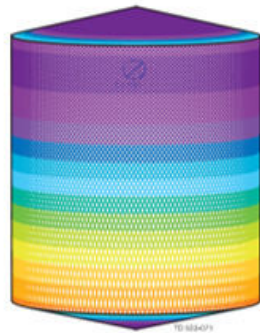
The simulation gives information on wetting intensity, pattern mesh width and cleaning jet velocity. This information is used to determine the best location of the tank cleaning machine and the correct combination of flow, time and pressure to implement.

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

Tank Washing Nozzle	Up To	Coverage Distance In Metres (Diameter)											
		2	3	4	5	7	9	12	16	18	20	30	40+
TW 12-20	1.8m												
TW 1	3.6m					Static							
CLUMP	4.9m												
LEM	6.0m												
SVSTW	6.0m												
LKRK	6.0m												
SaniMicro / RSB25	5.0m												
HydroWhirl S	6.0m							Rotary Spray					
SaniMidget / RSB45	6.0m												
SaniMagnum / RSB65	6.0m												
HydroWhirl Poseidon	7.6m												
Orbitor Compact	17m										Rotary Jet		
Orbitor 4	26m												
TJ20G	28m												
Orbitor 2	40m												
TJ40G	43m												
Storm Blaster	50m												
TJ TZ-66	58m												



Scan the QR Code to read more about Tank Cleaning Solutions



# Manways & Tank Covers

We have over 50 different types of tank covers, with a range of shapes and sizes to meet every need. Tank covers are available for both standard and pressure rated vessels.

## How it works

Manways and tank covers are used in a wide variety of applications. Side mounted manways allow for easy internal access to larger tanks when empty whilst still maintaining a secure seal during process operation when full. Top mounted manways allow for visual inspections of tanks, whether full or empty, and provide an easy access point for further products to be added to various production processes e.g. powders, flavorings, colorings.

The range varies from single hinged versions, non-pressure rated units, to multiple swing bolt versions suitable for high pressure applications. Options for alternative seal materials and surface finishes are available to meet any hygienic requirements in the dairy process.

## Features & Benefits

- Our tank covers are high quality openings that provide quick and easy entry and access to tank interiors in the dairy food and beverage and biopharm industries
- We offer more than 50 different types of oval, circular and rectangular covers that provide a quick, easy and convenient entry and access to tank interiors
- They are available in a variety of surface finishes and seal materials, these securely fit the openings of high, low or non pressure tanks



**Circular Manways  
Type LKDS**



**Access Tank  
Cover Type C**



**Oval Manways  
Type LKD**



**Pressured Manway  
type HLSD-2**



**Access Tank  
Cover Type O**



**Circular manways  
Type LKDC**



**Type CG Glass  
Lid Manway**

**Access Tank  
Cover Type R**



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# Tank Top Plate Systems

A top plate assembly is a machined solid-stainless-steel plate outfitted with practically all the necessary tank safety equipment for mounting on the top of a pressurised beer tank.

The equipment on the top plate assembly provides the following functions:

- Compensation with gas for the change in liquid volume during filling and emptying (allowing the change in liquid volume by gas filling or escape)
- Control of the tank top pressure
- Protection against uncontrolled overpressure or vacuum
- Cleaning of the tank and associated equipment

## Features & Benefits

Centralised placing of the tank top plate assembly secures:

- Easy installation at low costs
- Easy access and low maintenance cost
- All parts are cleaned during CIP

The compact top plate design and the use of dead weight valves secure operational reliability at a competitive price.



Top-Plate fitted with a TJ40g



Top-Plate Tank top plate systems



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# Agitators

Our agitators have a flexible, modular design and enable you to tailor a mixing solution to your exact requirements. The agitator range includes top-mounted units, with or without bottom support, as well as bottom or side-mounted units. Modularity lends itself to ease of installation and maintenance, and superior design ensures quality, performance and economy. The purpose-built agitators have smooth surfaces that promote optimal flow and can be used to prevent sedimentation and keeping particles in suspension.

## How it works

An electric motor transmits, either directly or via a gearbox, the energy required for mixing and blending to the agitator shaft. The shaft rotates, turning the agitator's unique energy-saving impellers. The impeller movement creates a high flow rate with low shear due to the highly effective axial pumping effect on the fluid in the tank. This results in effective mixing and blending of the entire contents of the tank.

## Video:



MULFLO-LK



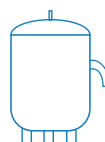
LK Side Entry Agitators



ALT-canva



ALB-canva



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## Features & Benefits

- Higher mixing efficiency than comparable agitators
- Greater energy savings and smaller carbon footprint due to a unique impeller design
- Easy to install, operate and maintain
- Safeguard product integrity with superior cleaning efficiency backed by thorough documentation

# Mixing

When it comes to powder mixing solutions for the dairy industry we recommend and supply only the very best equipment to meet your process requirements. Our range represents the next generation of hygienic mixing solutions- not only are our mixers more compact and perfectly optimised for energy efficient high shear mixing, they are also virtually maintenance free.

## Test before you invest

We have a test facilities available that provide highly advanced and adaptable test mixers for customers to rent and test processing setup or new recipes.

### Features & Benefits

- Energy Efficient solutions
- Test before you invest
- Virtually maintenance free
- Compact Designs
- A wide range of solutions are available for varying mixing requirements.



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LiquidMaster



LabMaster



MixMaster & Ultra MixMaster'



InjectMaster



InlineMaster



BasicMaster

Video:



# Instrumentation

ITS offer a range of Instrumentation for your process requirements, both in-line and in-tank.

We focus only on Hygienic Sensors that conform to all International standards like EHEDG, FDA, 3A etc. Whatever be the industry - Food, Dairy, Brewery, Pharma or Life Sciences and whatever be the measurement your process demands including:

- Weighing Solutions
- Temperature Sensors
- Level Sensors
- Point Level Sensors
- Pressure Sensors
- Flow Sensors
- Conductivity Sensors
- Turbidity Sensors
- Adapters & Fittings
- Instrumentation & Controls
- Modular Platform with IO-Link



Turbidity sensor



Flow Sensor



Level Sensor



Pressure Sensor



Point Level Sensor



Digital load cell



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Video:



# Sight Glasses

Our sight glasses are accurate gauge glasses that permit direct distortion-free visual inspection of process conditions, products, liquid levels and cleaning inside vessels used in the dairy, food and beverage, personal care and biopharm industries. They provide clear, continuous and unobstructed visibility of processes or products in tanks or vessels. Quick and easy to install, our sight glasses give reliable operation, low maintenance requirements and the means for early detection and response that can help prevent costly downtime.

The sight glass range from ITS consists of several different models that are mounted or welded onto or into pressurised, non-pressurised and high-temperature tanks or vessels, or pipe systems.

Made with borosilicate glass according to DIN 7080 and long-lasting, specially formulated gaskets, these sight glasses are resistant to different pressures, temperatures and can be used in various applications.



Sight Glass 1



Sight Glass 2



Sight Glass 3

## Features & Benefits

- Reliably clear viewing quality
- Provide clear, continuous and unobstructed visibility of processes
- Sight glass construction and range



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# Servicing and Maintenance

We aim to be the technical service provider of choice to our customers. By maintaining their process equipment, saving on costly breakdowns, and further supporting customers with their processes, we will bring a wealth of technical knowledge coupled with a data driven approach, allowing them to make informed decisions.

Services we can offer include:

- Maintenance / Repair Works
- Breakdown Support
- Servicing / Maintenance Packages (With Monthly Pay Options)
- Plant Audits / Site Surveys
- Inventory Recommendations
- Equipment Health Checks
- Onsite / Remote Troubleshooting
- Face to Face / Online Training



# Packages

Our packages are provided to give customers peace of mind that somebody is always at hand to help. ITS can be called out for planned maintenance needs along with any emergency requirements that may arise. 24/7 365 days a year.

With options to suit all budgets, not only do our packages offer technical support, we also include training, equipment health checks, inventory logs and discounts on any spares purchased through ITS for your equipment. You can also choose to pay for your package on an annual or monthly basis, making it easy to plan costs and section budgets.



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