TIPA OILFIELD SERVICE SOLUTIONS

TIPA is a premier industrial services provider based in Egypt which has recently further expanded its service portfolio and equipment range. Services include:

- Tank Cleaning (FPSO, Rigs, Pits, etc.)
- High Pressure Water Jetting
- Ultra-High Pressure Water Blasting
- Retro Jetting (pipe and heat exchanger tube cleaning)
- Paint and Scale Removal
- Rescue emergency Response Teams
- Scaffolding Equipment and Personnel

WATER JETTING – HIGH PRESSURE AND ULTRA HIGH PRESSURE

High (HP) pressure and Ultra High (UHP) water jetting are the most powerful and environmentally sensitive cleaning techniques available to industry.

Wholly Owned and Operated Water Jetting Inventory

Covering a broad scope of hydro-blasting services, TIPA own and operate a fleet of Jetting Units and compatible specialist accessories capable of various flows operating to pressures up to 2500 bar to give a complete and custom service to our clients.

Powered by either a diesel engine, our units can be supplied in either HP or UHP mode. When used in conjunction with specialist tooling and accessories, water jetting can be the most effective solution when applied to a diverse range of applications including for example, surface preparation, tank and vessel cleaning.

Zone 1 and Zone 2 Certified Options

We offer both offshore containerized and onshore trailer mounted options which are designed to ATEX and NORSOK standards and certified to operate in Zone 1 and Zone 2 hazardous areas. The combination of our highly trained operatives using this specialist equipment and attachments ensures that we have the knowledge, experience and technological resources to safely and efficiently complete cleaning or descaling operations in a range of diverse industrial contexts.

High Capacity Pump Units

Recent additions to our fleet are containerized High Volume Pump Units designed to NORSOK standards. They meet the latest ATEX regulations and are certified to operate in Zone 2 hazardous areas.

- TIPA owned, managed and maintained inventory
- Environmentally sensitive
- Use in hazardous areas
- Minimal/Reduced Waste Stream
- Low volume water usage
- Cost effective and efficient
- Diversity of Applications
- Hot Water
- Efficient removal of waxes, oils and similar type residues
- Diesel Engine

PIPE, DRAIN AND TUBE CLEANING

Whatever the diameter of the pipework or the complexity of the configuration, TIPA has an extensive range of equipment to deliver a full range of pipe inspection and cleaning services.

Using techniques encompassing a diverse and extensive range of specialist tooling, centralizers, cleaning heads and automated cleaning systems powered by High Pressure and Ultra High-Pressure water jetting, our capability range extends to the following:

- 'Water Weevil System' - Particularly effective in cleaning large diameter pipework, caissons and risers.
- 'Power Lance System' - HP and UHP water jetting options available, commonly used in cleaning small to medium diameter pipework, tube bundles and heat exchangers to a standard to facilitate IRIS inspection.
- 'Rigid Pipe Cleaning Lancing System' - HP and UHP options available, commonly used for removing scale and NORM rom tubular internals.
- 'Standard Retro-jetting Applications' - Range of flexi lances coupled with specialist attachments and cleaning heads.

Maintaining the Efficiency of Tube Bundles and Heat Exchangers

Tube Bundles and Heat exchangers can, over time, become badly scaled dramatically reducing their efficiency.

On a periodic basis this necessitates inspection using the Internal Rotary Inspection System (IRIS) technique, and to allow this the internal tubes of the bundles and heat exchangers have to be cleaned to a very high standard. The IRIS ultrasonic application is used for the inspection of a wide range of materials, including ferrous, nonferrous, and nonmetallic tubing.

This technique allows detection and sizing of wall loss as the result of corrosion, erosion, wear, pitting, cracking, and baffle cuts.

In hazardous environments, de-scaling of both vertical and horizontal tube bundles and exchangers can be undertaken either withdrawn or in situ.

VACUUM TRANSFER AND PUMPING SYSTEMS FOR WASTE MATERIALS

Included in our portfolio of industrial cleaning equipment is a range of high specification Vacuum Transfer Equipment.

Specifically designed and custom-built the equipment is fully certified for use in Zone 2 (Offshore classified) hazardous areas for the uplift and transportation of waste materials from tanks and vessels.

Environmentally Sensitive and Safe

This innovative, safe and ergonomic development minimizes the need for entry into tanks or vessels to carry out cleaning. Whilst the application of this technology does not always provide the complete solution, it can significantly reduce the man-hours needed in the vessel and therefore reduces the possibility of hazard and risk exposure. Our 'brain over brawn' philosophy proves that enhanced safety and productivity can be simultaneously achieved.

The environmental benefits of the vacuum transfer system include:

- Emission-compliant engines
- Integral bunds
- Noise suppression and enhanced atmospheric protection

Vacuum Systems for Waste Transfer - Technical Specification

The design and construction of our Vacuum Transfer Equipment allows for controlled movement of a diverse range of waste liquids, sludges and solid materials in a safe and efficient manner.

The components of the system are:

- Vacuum Transfer Unit
- Vacuum Skip(s)

Vacuum Transfer Unit

Typically a self-bundled, acoustically lined, containerized, diesel driven vacuum pump with a water separator and a sludge filter.

Clearly labelled external connection requirements are mounted on manifolds with the option of either crowsfoot or MacDonald air connections available to accept the supplementary air needed during operation. The vacuum pump and power unit assemblies are fully protected by a range of automatic shutdown devices.

Vacuum Skips

Designed to be stackable to optimize space, the skips have an inlet and outlet port with camlock connectors and a hinged, sealed lid.

Waste Material Transfer Solutions – Hydraulic Pumping

To complement our extensive range of Vacuum Transfer Systems and traditional pneumatic pumping solutions, we also operate a range of Hydraulic and Pneumatic Pumping Solutions from our equipment inventory.

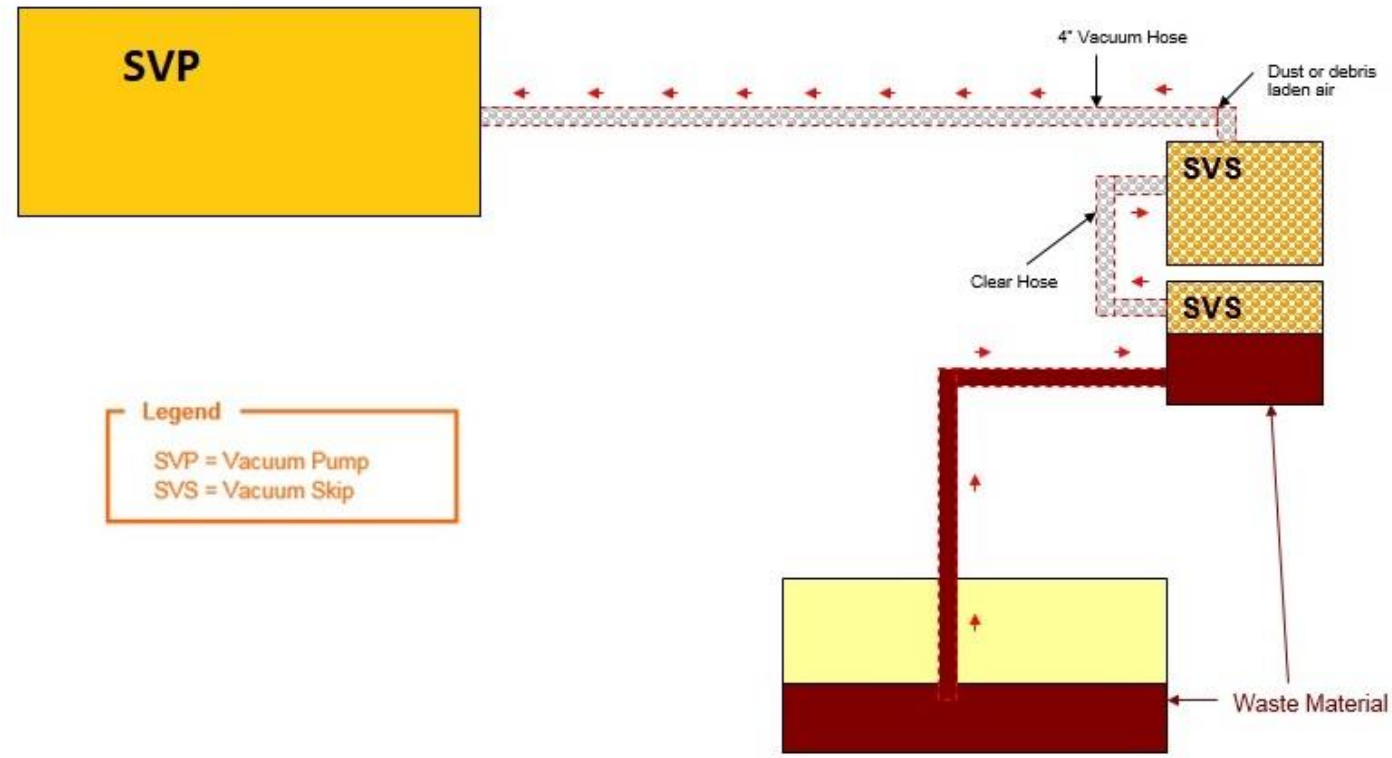
Jet Pumps

Our jet pumps rely on a Venturi effect to create a secondary flow, have no moving parts but achieves its purpose by employing specially designed venturi nozzles to convert high pressure water energy to velocity and back again. We have a number of pumps available to suit a range of different applications.

Diaphragm Pumps (Pneumatic)

We have a range of air operated diaphragm pumps ranging in sizes to optimize and provide variable flow rates. Amongst our fleet we have aluminum, stainless steel, cast and polypropylene options which allow us to pump a diverse range of chemicals and materials.

Vacuum Transfer System Layout



INDUSTRIAL PAINTING, COATING, PROTECTION & PRESERVATION SERVICES


TIPA have developed extensive knowledge and practical experience on the various techniques available for surface preparation and associated coating application methods to meet the required industry quality standards.

Highly Trained Workforce

At TIPA, we have set out to develop a highly trained workforce with the capabilities to meet all our client's surface preparation requirements from mechanical preparation through to UHP water jetting.

Cost Effective and Appropriate Solutions

We have a range of preparation techniques, equipment and facilities to handle any industrial painting, protection and removal or preservation project including amongst others, preparation by means of UHP water jetting (hydro-blasting), abrasive (wet and dry) blasting and mechanical methods including dust-free and recyclable options. Once prepared, we can apply a range of coatings and composites by means of conventional, airless or manual brush roller application as appropriate.


Industrial Coating Applications, Corrosion Protection and Preservation

TIPA has the equipment, the experienced operatives and the techniques to apply conventional or specialist coatings in accordance with manufacturers and client specifications.

Having prepared the surface using one of our applications, TIPA can apply the required coating to provide an effective barrier to combat corrosion, significantly increasing the life of the asset and reducing the required time on planned maintenance projects.

TANK AND VESSEL CLEANING SERVICES

In today's safety conscious work place, the preferred option is of no-man entry into a confined space; accordingly, TIPA has developed a range of methods using tank cleaning heads, vacuum transfer systems and other pumping solutions to clean tanks and vessels either remotely or with minimum man entry.

Fully Trained, Skilled Workforce

At TIPA our depth of knowledge in confined space and tank and vessel cleaning remains unsurpassed. We have a permanent workforce, fully trained and skilled in the safe working practices associated with confined space and tank and vessel cleaning. Technical support is provided by our experienced management team.

Tank Cleaning Heads

The use of specialist tank cleaning heads provide a remote cleaning solution allow for tanks and vessels to be cleaned with minimal requirement for man entry. We have a range of specialist cleaning heads which can be configured to meet the entry points of the tank / vessel.

Vacuum Transfer Systems and Pumping Solutions

For all confined space and tank and vessel cleaning the preferred solution would of course be one of no-man entry. For this purpose, our range of vacuum transfer systems and pumping solutions can be engineered / configured to meet the specific scope of work and specific gravity of material requiring removal thus ensuring optimum performance is achieved.

In the event of a man-entry requirement, our highly trained workforce specializes in all aspects of confined space entry and rescue. Equipped with an extensive range of breathing apparatus and gas monitoring equipment along with water-tight procedures and safe systems of work, ensure that our clients' confined space working requirements are safely and efficiently carried out.

All Industries and Applications Covered

TIPA's tank and vessel experience covers a broad spectrum of industries, onshore and offshore Oil & Gas, Petrochemical, Power, Utilities, Distilleries, Civils and applications including Cargo Tanks, Mud Tanks, Ballast Tanks, Production Separators, Silos, Fuel Tanks, Ducts and Boilers.

CONFINED SPACE ENTRY

Technology leads the way when it comes to solving the problem of safely and efficiently carrying out the cleaning of vessels and confined space entry.

Many industries, including the oil and gas sector, have an ongoing need for safe cleaning of tanks and vessels. When muds, brines, sludges, sand, scale, waxes, sediment and other such deposits need removal, it's often the case that human intervention is still necessary; our trained operatives have access to the most technologically advanced equipment available to do the job.

Highly Trained Operatives and Proven Safety Procedures

TIPA's specially trained teams utilize proven procedures to manage the risks associated with tank cleaning and confined space entry for industries both onshore and offshore. Combined with TIPA's Safe System of Work, this ensures all projects are safely and successfully completed.

Personnel Certificates

- First Aid.
- BOSEIT.
- Confined Space Entry.
- COSHH.
- Manual Handling.
- Medical Checkup.
- OGUK.
- Risk Assessment.
- Safe Working at Height.
- Scaffolding.
- Water-Jetting.

Investing in Safety

TIPA has invested heavily in breathing apparatus and equipment to ensure an absolute 'fail safe' operational methodology. The integrity of the primary continuous air supply is constantly monitored by the standby man via the purification unit and/or breathing apparatus trolley. In the unlikely event that both of these systems failed the entrant is also equipped with an Escape set to ensure safe exit from the situation. Safety and quality have top priority in everything we do.

Specialist Confined Space Entry Equipment

An integrated range of specialist equipment has been assembled to maximize efficiency and minimize risk. TIPA uses the latest technology in gas monitors, including portable multi-gas meters to monitor and display up to four gases simultaneously. Typically the carbon dioxide (CO_2) and hydrogen sulphide (H_2S) toxic sensors are used, but these can be changed in the event that a specific risk assessment identifies the potential of an alternative toxic hazard. Added safety features in this system include ultra-bright alarm lights and a powerful audible alarm, which coupled with a periodic green flash and bleep provide users with the confidence that monitoring is always in operation and alarms are never missed. In the case of noisy environments vibrating alarms are used.