Your safety. Our mission.

Tanker Loading Arms  Fall Prevention Systems  Marine Equipment
Packaged Solutions  Meter Skid Systems  Storage Tank Equipment
Swivel Joints  Electrical Grounding  Servicing
Introduction to the company

Loadtec Engineered Systems Ltd is a global provider of unique solutions for bulk fluid transfer and tanker fall prevention. We believe in providing the safest solutions for your operators and have an unrivalled range of custom designed, high quality systems, manufactured in the UK, EU and USA.

We are able to design, engineer and supply bulk fluid transfer packages including; meter and pump skids; tanker loading and unloading arms; marine arms; permanent or temporary tanker access platforms; operator safety cages; earthing systems; breakaway couplings and dry-disconnect systems.

With extensive industry experience, we are able to provide comprehensive packaged solutions across a wide range of industries. We draw on the experience and portfolio of our partners globally, to engineer large scale, infrastructure projects, ranging from surveying and refurbishment of existing sites through to complete, green-field developments.

Loadtec is represented globally by a number of agents and distributors who are carefully selected to ensure they provide high levels of support for our products and our customer needs.

As a private company, our focus is on customers and their needs, not quarterly shareholder profits, this allows us to be flexible and gives the customer easy access to all levels in the organisation. From initial concept through to commissioning and beyond, the customer will only deal with a single point of contact within Loadtec.

Loadtec is an ISO 9001 registered company certified by SGS.

Stay in touch via social media
Stay connected with us through social media. Follow us on Twitter, Facebook and LinkedIn to find out what’s coming up and get the latest updates.

Loadtec
@LoadtecEng
company/loadtec-engineered-systems-ltd
About Zip-Load

This is what engineering should look like. This is what customer service should be. Zip-Load delivers both. Zip-Load is the resulting brand of a quality collaboration between Loadtec Engineered Systems Ltd and Zipfluid Srl. Loadtec has served the global oil and chemicals industries with class leading solutions for bulk fluid transfer and tanker safety for many years. Our systems for tanker filling and emptying have been adopted by virtually all of the major blue chip companies around the world and we are known for our timely delivery of quality products designed to future proof the clients operations and excellent customer service.

Zipfluid has a state of the art manufacturing facility in the heart of industrial Europe. They are focused on the development and manufacture of a wide range of fluid transfer systems to handle all liquids and have a team of engineers and production staff with long and successful histories in the loading arm business. Zip-Load was born from a desire of both companies to provide excellence in design and manufacture to a wide audience who are tired of working with suppliers constrained by corporate handcuffs. Our customers want suppliers who will give them the time to listen and understand their issues, develop schemes and proposals that meet their technical and financial constraints, and to deliver long lasting, innovative solutions.

Industries we work in

Loadtec works in a vast range of industries and below are just some that we are involved in:

- Aviation
- Bitumen
- Citrus
- Chemicals
- Fertilisers
- Food/beverage
- Marine
- Oil & Gas
- Paint
- Petrochemicals
- Whisky
- Petroleum
- Waste solvents
- Water

- Accordis
- ADM
- Advanced Elastomer Systems
- Aspecsa
- Atlantic Fuel Supply
- Air BP
- Airbus
- AKEN Solutions
- Akoz Nobel
- Albermarle
- Alcan Chemicals
- AEMC
- Arabian Amines
- Arabian Chemical Tankers
- ARCO
- Babcock
- Bamburi Cement
- Blank Chemicals
- Bassell Polyolefins
- BASF
- Bayer
- BOC
- Bombay Spirit
- Botlek Tanker Terminal
- BP Oil
- British Sugar
- Brunner Mond
- Buckfast Abbey
- Black & Veatch
- Pritchard
- Cadbury
- Caroli
- Chemtura
- Chevron
- Chivas
- Cognis
- Carus
- Costain
- Coda
- Dyce
- Dantec
- Diageo
- Doyler
- Dow Chemical
- Dow Corning
- Dow Agrosciences
- Dragon Alfa Cement
- DSM
- Dunlopillo
- DuPont
- Dynex
- Elastogran
- Elementis
- Eli Lifsey
- Ensus
- Entec
- Entrepeneur Group
- ERIKS
- Esso Petroleum
- Exxonmobil
- Felixstowe Dock
- Flexsys
- Fluor
- Foster Wheeler
- PFOA Engineering
- Fuel Supplies
- Gatwick Airport
- GB Fuels
- GEA Process Technology
- Givaudan
- Glasgow Airport
- Glaswinthikline
- Glen Turner Distillery
- Galliford Try
- Gero Nickel S. A. S.
- Grace
- Grant & Livingston
- Grawhow
- Guiness
- Halliburton
- Halterman
- Henkel
- Hexon
- Highland Malt
- Highland Distillers
- Hoyer
- Humber Oils
- Huntman
- Hyundai
- Imerys
- Immingham Storage
- Indorama
- INEOS
- Interserv
- Irish Sugar
- Jacobs Engineering
- John Dewar
- Johnson Matthey
- Kanek
- Karachaganak Petroleum
- Kellogg
- Kemira
- Lafarge
- Linde
- Loch Lomond Distillery
- Lucite
- Ma’aden Phosphate
- Masterfoods
- Merck Sharp & Dohme
- Ministry of Defence
- Monsanto
- Motherwell Bridge
- Mott MacDonald
- Mowlem Engineering
- Mrurce Petroleum
- Navigator
- Neste Oil
- New Britian Oils
- NNPC
- Novartis
- Nu-Farm
- Oil Pipelines Agency
- Orica
- PDE
- Petrochem Carless
- Petrofac
- Pfizer
- PLC
- Polimeri
- Proctor & Gamble
- PTT
- Rhone Poulenc
- Rhodia
- Rino Tinto
- ROCHE
- Sabic
- Saudi Aramco
- Saudi Ethylene
- SINO
- Shell Oil
- Schwarz Pharma
- Simon Storage (now Inter Terminals)
- Soluta
- Swords Laboratories
- Syngenta
- Tate & Lyle
- Tessenderlo
- Total
- Tupras
- Unichema
- United Distillers
- Univar
- United States Air Force
- Valsir
- Vetrox
- VOPAK
- Water
- Paint
- Petrochemicals
- Waste solvents
- Petrol
- Pharmaceutical
- Whisky
- Petroleum
- Waste solvents
- Water
Top loading is still the most widely used method of filling tankers around the world. Some instances exist where liquids, mainly fuels, have been transferred to bottom loading, but this is largely through legislation and global agreements.

There remain some areas of the world where fuels are still top loaded. Generally these are small depots with low throughput, exploration facilities and countries where mass road tanker conversions have yet to take place.

Traditional top loading systems for petroleum/fuel comprise of a variable reach loading arm with a slow closure shut-off valve. These are mounted on standposts at gantry floor level and can service 2-3 manhole openings on a correctly positioned tanker.

Remaining industries are not so fortunate. The diversity, complexity and hazards encountered when transferring many liquids into general purpose tankers means that it is easier and quicker to retain top loading. Along with Loadtec fall prevention systems, we can make top loading very safe.

Top loading assumes the transport vessel is a simple barrel on wheels with a manhole in the top and a valve at the bottom. In almost all cases the tanker has no built-in high level detection or vapour return facilities. The advantage of top loading is that all the sophistication required can be fitted to the loading arm.

**This can include:**
- High (and high-high) level probe
- Vapour collection
- Vapour pressure monitoring
- Anti-drop valve
- Telescopic drop pipe (Anti-splash/static generation)
- Simple spring counterbalance through to full wireless remote control of the arm movements.
- The arm is most suited for the loading of road or rail tankers using the manhole. The loading arm has a long reach and is suitable for applications where the manhole cannot be accurately positioned.
- Because of the robust and high quality design of the swivel joints and the precise loading arm balancing, handling of the loading arm is very easy.
- The "base" style of arm used primarily in the chemical industry is generally called the boom arm. The design utilises four swivel joints for articulation and has a supported boom, which means the part of the arm that moves vertically has a fixed length. This allows the spring cylinder to counter-balance a fixed load. It also means that the arm has a wider range of articulation.

**Did you know?**

**Most used method of filling a tanker**

Top loading is still the most used method of filling a tanker due to the peripheral safety features such as high level alarm and vapour recovery that can be supplied as part of the arm.

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**Did you know?**

**Most used method of filling a tanker**

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Loadtec supplies high quality and durable systems with long warranties that will give up to six liquid arms and one vapour arm per bay. Combined with our API coupler range we provide loading arms as stand-alone products, or along with our meter skid systems we provide packaged solutions for tanker filling working to all recognised design and functional standards.

The bottom loading arms are fitted with spring cylinders which allow easy vertical position adjustment and incorporate our specially made composite hose for long life and chemical resistance.

The arms can optionally be fitted with breakaway couplings when required.

The standard configuration bottom un/loading arm with five swivels has been a dependable, safe and clean method for tanker fill/discharge for many years. Experience has shown that if the tanker connection arm is fitted with high weight components such as a ball valve or breakaway coupling, the arm can be difficult to manoeuvre and handle.

To prevent this and ensure that tanker loading is a one-man operation, Loadtec provides a six swivel arm design. The arm is fitted with six swivels for complete three axis movement of the tanker connection allowing for tanker height changes during fill/discharge, while keeping the loading arm connection to the tanker parallel to avoid stressing the tanker connections.

**Did you know?**

**The lighter, the better**

The combined weight of a 4-metre DN80 chemical hose, dry break coupler and full load of liquid is approximately 50kg. The weight of a fully laden bottom loading arm is 0kg. Which would you prefer to handle?
Tanker Loading Arms Bottom Loading Station

Telephone: +44 (0) 1303 81 3030 / Email: info@loadtec.co.uk / For technical data, please visit www.loadtec.co.uk

This type of loading arm is especially designed to transfer liquids and gases where vapour return is necessary. It is suitable for the bottom loading/unloading of road or rail tankers with flange connections or via a coupling. The loading arm has a long reach and is suitable for applications where the tanker connection flange cannot be accurately positioned.

Because of the robust and high quality design of the swivel joints and the precise loading arm balancing, handling of the loading arm is very easy. Recent developments have allowed for six swivels to be used in each arm. This gives true three axis movement at the tanker connection and makes handling the arm with valves or accessories effortless. The arms can be designed to connect to side and/ or rear of the tanker and also cross over to suit the configuration of the tanker connections.

Did you know?
Avoid catastrophic losses
The effect of an unplanned tanker departure while connected to the loading lines can be catastrophic, both in terms of human and production loss. It is far safer to fit emergency release couplings into the loading and vapour arms than to take a cumulative daily risk.

Tanker Loading Arms Swivel Joints

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The Loadtec SJ400 swivel joint is the key element of any Zip-Load loading arm. Its design provides very high integrity and moment load because the ball race diameter is significantly larger than the bore size of the pipe. Loadtec use a single ball race where most other manufacturers need two ball races to provide the same level of strength. Added to this, the single ball race gives the swivel a very low profile and means that the arm is designed to be compact which is especially important when emptying tankers and constant drainage is required.

The design of the swivel joint means that the only parts in contact with the fluid path are two flanges and the seal. The flanges are matched to the pipeline material, allowing us to manufacture the loading arms to suit any liquid application. Swivels are available from 2" (DN50) to 6" (DN150).

Did you know?
Tried and tested
Loadtec sandwich style swivel joints come with a five-year warranty. The durability and flow characteristics of the Loadtec SJ410 swivel are best in class.

For pipe articulation while coping with expansion, vibration or just the simple need to move out of the way. Swivel joints provide an increasingly popular solution as companies move away from hose lines and require the integrity of a pipe with the flexibility of a hose.
Fall Prevention Systems Multi-Modal

Safe and reliable access onto tanker tops is a subject of increasing concern to all engineers and safety managers involved in the area of bulk liquid transfer. Unacceptable levels of injury and fatalities in recent years have made this one of the leading issues within the bulk fluid transfer industries.

In many cases, switching to bottom loading is not feasible. There exists a clear and present need to make access on tanker tops fool proof and as safe as possible. Loadtec offers a wide range of systems to suit every budget and tanker/plant configuration and these are designed to suit each particular site needs.

It cannot be said that a problem is unique, as there are an infinite number of tanker sizes and access choices possible; Loadtec has the solution for all of them.

The Multi-Modal Access System is designed to provide drivers and operators with flexible and safe access on to tankers of varying heights and lengths, whether to load or sample liquids or to open vents for bottom loading. The unique feature of the multi-modal is that each end of the cage can be tilted to match the slope of a tanker top. The multi-modal is made in galvanised steel and has aluminium flip-up floor panels. Galvanised or GRP floor panels can be specified if necessary. Used in conjunction with the Loadtec range of loading platforms and Zip-Load loading arms, the system can be designed to meet almost any customer requirement.

The multi-modal concept is well proven and has been sold around the world for over 20 years with great success. The continuous floor level removes any concerns about tanker walkways and falling off the end of the tanker. The tilting system ensures that the gap between the cage and the tanker is minimised and limit switches stop movement before the tanker is contacted. The range of travel is 1.5m from 3.2m to 4.7m, which gives a safe margin for passing traffic and ensures every form of tanker transport can be safely accessed.

The multi-modal can be designed for any application, ranging in length from 4m to 15m. The platform consists of two sections: Inboard, closest to the folding stair, is the walkway; a 0.6m wide grated plank surface that allows the operator to walk easily along the full length of the tanker top. The second section consists of the flip-up panels; these measure 1.4m long x 0.3m wide with a serrated, non-slip surface. They are easily lifted and parked against the far handrail then secured using the supplied carabiner clips.

Each multi-modal is controlled by a stand-alone power pack and customers can select between, electrically or pneumatic powered hydraulics as well as ATEX, NEMA 7 or NEMA 4 electrical standards. At platform level there is a panel to provide the operator with simple, push-button control of the up, down and tilt movements. Limit switches on the underside of the cage prevent the unit resting on the tanker, making it ideal for weighbridge activities and further limit switches on the end frame ensure the cage is tilted only within its safe design range.

Did you know?

Liability notice
When a vehicle drives into your business premises, you are held accountable for the safety of the individuals who load your product into that tanker.
Fall Prevention Systems Tanker Enclosure TCEN4

There are many tanker access situations that require the operator to have free access to the entire tanker top. This can mean walking along the top of a round barrel or ISO container with varying designs of walkway and manhole positions and associated trip and fall hazards.

The Tanker Enclosure TCEN4 has its own integral walkway built into the structure, giving it greater rigidity and enhanced safety. It is integrated with a folding stair unit which is manually operated.

The enclosure is available up to 12 metres long with aluminium construction. The system can be designed to be used for inspection purposes or with a number of loading arms. The TCEN4 is supplied with flip up floor panels so that access to all areas of the tanker is independent of tanker walkways.

Loadtec has supplied these as single or double sided units, in tight constraints or as stand-alone structures.

The TCEN4 is powered by twin pneumatic cylinders to give a smooth and simple up/down movement over 1.5m. Essentially, it offers the same levels of security and assurance as the Multi-Modal, but without the ability to tilt at each end.

The system is automatically supplied in accordance with ATEX and is operated by a single, simple deadman switch from the platform level. Like the Multi-Modal it can be fitted with switches to detect the tanker and stop the downward movement.

Similarly it can be supplied with a parking switch that the client can use to connect to a traffic management system.

Did you know?

A deadly combination – fall arrest and flammable liquids

Fall arrest systems and flammable liquids don’t mix. If a conflagration occurs while an operator is on the tanker, the fall arrest wire will slow down his escape and survival chances. Fear and flight instincts kick in. Unhooking carabiners doesn’t.

Fall Prevention Systems Tanker Enclosure TCEN4

Telephone: +44 (0) 1303 81 3030 / Email: info@loadtec.co.uk / For technical data, please visit www.loadtec.co.uk
Fall Prevention Systems Large Cage

In areas where access to tanker tops is infrequent, we provide a solution that meets both your financial and space limitations.

The Large Cage Tanker Solution can be supplied from four to twelve metres long and can fix to a single pedestal standpost platform. Generally these are supplied with aluminium frames; however the cage can also be specified with galvanised rails. The system requires five bar air to power the cylinders on the folding stairs and these are operated by a single simple lever at platform level.

The working height range for the tankers should be between 3.4 and 4 metres for the cage to work most effectively. The cage has strengthening bars which provide rigidity. Optional gates can be moved along the cage by the operator standing on the fixed platform. These will close off the areas of the cage that are not needed, decreasing the risk of falling off the end of the tanker.

Did you know?

- Do you need to access the top of trucks?
- How do you prevent potentially fatal falls?
- Wide safety cages provide complete fall prevention on top of trucks where multiple hatches need to be accessed for loading, unloading, venting, inspecting, or sampling.

The simple design can be easily configured to fit onto your existing structures or supplied with any platform and stair configuration.

Loadtec also supplies a custom fabricated platforms to suit this access system and ship the package anywhere in the world.

Fall Prevention Systems Track Mounted Folding Stairs

In situations where access for a tanker, or multiple tankers, is required along a road way, the Track Mounted Folding Stairs gives total operational flexibility and safe access by having folding stairs mounted to a unique track.

The track system also carries the safety barriers and swing shut gates that give the walkway its integrity.

The Folding stairs are mounted on a carriage which rolls, using high quality bearings, along a special track system. The track is available in two, three and four metre long sections and can be retrofitted to most platforms. This system is used extensively where tankers are pulling alongside multiple storage tanks to discharge.

Did you know?

- Do you need to access the top of trucks?
- How do you prevent potentially fatal falls?

Wide safety cages provide complete fall prevention on top of trucks where multiple hatches need to be accessed for loading, unloading, venting, inspecting, or sampling.

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Need Advice?

We are here to help!
Call us on +44 (0) 1303 81 3030
Fall Prevention Systems Rail Tank Car Access

The pictures above show two systems installed in the Middle East. One shows loading stations used by both road tankers and rail cars, resulting in a hybrid system designed to allow easy and simple conversion from a large cage to a multi-modal. The main image and bottom right show other stations that require simpler folding stairs that can track because of RTC mis-spotting. In countries where the RTC design is US-influenced, the safety cage most often is a “halo” type to supplement the crash box fitted to RTCs. However, we are also able to provide three-way adjustable cages that fit over the crash box.

Did you know?

Rail Tank Car (RTC) access systems will vary widely depending on the region of the world, type of RTC being used and actions being taken on the top of the vessel.

Fall Prevention Systems Standard Folding Stairs

Simple access onto a tanker is provided by the folding stair unit. Available with a range of optional safety cages, this simple retractable stair is the primary method of tanker top access all over the world.

The proven design with parking lock gives an effective method of bridging a variable gap between platform and tanker. Generally available as three, four or five step systems, they are spring counterbalanced and have features such as a parking lock and split second step to avoid toe traps when lowering. Safety cages are available at 1.5m or 3m wide. Optional extras such as pneumatic balance and parking sensors can be fitted.

Loadtec provide a combination of aluminium, painted, galvanised and stainless steel systems to suit your application.

Did you know?

Fatal injuries involving falls from height in UK

There were 39 fatal injuries to workers involved falls from height during 2013/14 in the UK. Loadtec have systems readily available that can remove the risk of working at height on tanker tops.

Rail car clearance envelopes will vary widely, depending on the plate designation of the RTC or tank wagon. All equipment must be able to park clear of this envelope.
Fall Prevention Systems Fixed Access Platform

The Loadtec Fixed Access Platform is designed to provide drivers and operators with secure and safe access on to tankers of varying heights, either to sample or load product. Used in conjunction with the Loadtec range of fall prevention systems, the system can be designed to meet any customer requirement. The method of access to the elevated level is by staircase which can be configured to suit site constraints and designed with escape and safety in mind. Loadtec can install these stations very quickly on foundations prepared by others to minimise site disruption.

Did you know?

Don’t get sued
Prosecutions under the UK working at height regulations in 2013/14 numbered 88. Let Loadtec help you to stay legal and safe.

Fall Prevention Systems Mobile Access Cart TC-10

The TC-10 mobile access cart is designed to provide drivers and operators with a flexible and safe access on to tankers of varying heights, either to sample or load product.

Constructed in either aluminium, these mobile platforms can be moved around a loading bay easily by one person or longer distances with a tractor. Wheels then run parallel to tanker for areas where space is limited. It consists of an aluminium flat-step extension ladder with open serrated metal plank steps giving an un-extended height 3m under platform up to an extended height of 5m under platform. The large (1.6m wide X 2.14m long X 1m deep) cage is attached to a 0.46m wide X 0.725m long platform at the top of the ladder. The cage has a 0.4m walk surface on the inboard side.

To provide easy mobility the access cart is fitted with 0.4m foam-filled wheels.

Levelling jacks at each corner provide a stable and firm base for safe ladder extension. The ladder is extended and retracted using a simple hand winch operation and the cart is easily moved around site using a steering handle with tow bar.

The access cart is supplied with CE certification and ATEX compliance.

Did you know?

Fall risk in the industry
913 non-fatal employee accidental falls happen in the transport and storage industry during 2013/14 in the UK. Loadtec’s mobile access cart can take away the risk associated with occasional tanker access.
Safe and efficient access onto marine vessels can be an exacting and difficult task. High seas, tidal variations and strong current can all conspire to make bridging of the gap between ship and dock both variable and hazardous.

Loadtec has a range of products aimed at making operator progress safe and reliable. Whether it is for barge or super-tanker, we can meet and exceed your expectations in this critical area.

Fully hydraulic, telescoping and swivelling gangways in aluminium or galvanised steel can be designed to meet any known criteria around the world.

Alongside our marine arm range, we are confident that we can meet any jetty requirement for safe access and bulk fluid transfer.

Full design and/or manufacturing service available.
- Designs tailored to fit clients access parameters.
- Solutions to fit all budgets.
- Full compliance with statutory requirements guaranteed.

Whilst all systems produced are designed around the site parameters and specific needs of the client, the more sophisticated systems can incorporate such an extensive range of features that it would be impossible to cover all the possibilities in such a brief description. Some of the features which can be incorporated are listed overleaf.

**Did you know?**

Do you have inadequate or outdated marine access at your facility? At Loadtec, our engineers know the ins and outs of safe access and egress, and they can design a custom gangway for your workers.
Marine Equipment Marine Access Gangway

• Automatic lift off under emergency conditions (including audible warnings where appropriate)
• Provision of a link gangway and any appropriate shear pins to increase safety and reduce damage to the main structure in the event of an emergency
• Multiple entrances to suit a multi-access situation and multiple ship use
• Telescopic gangway operation
• Traversing / slewing of the gangway to aid ship connection
• Powered movement of the system along the quayside
• Operation by means of hydraulic and or winch wire rope systems
• One man operation from the gangway deck level and / or ground level.

Access gangways are manufactured from aluminium, whilst support structures are manufactured in mild steel. Mid range systems generally comprise single length walkways inside a support frame. Operation is by the following method. The walkway is raised to the required operating height by means of a lifting beam. The frame is then moved to such a position that the walkway can be connected to the ship. Once the walkway is connected, the lifting beam is withdrawn to allow the gangway to follow the movement of the ship. Walkways are manufactured in aluminium whilst support frames can be manufactured in either aluminium or steel. Structures of this nature can be manufactured to cater for angles of inclination of up to 55 degrees.

The standard surface finish for walking areas on this type of structure is of anti-slip 5-bar patterned aluminium although grating or bituminous finishes can also be provided. Raising and lowering of the walkway can be achieved by one or a combination of the following, hand or powered winches & wire rope, hydraulics or the use of ancillary lifting equipment such as a portal crane. Movement of the system along the quay can be achieved by a variety of methods, which can include the use of integral or external power sources.

Simple systems can range from an access gangway fitted with lifting lugs, castors / wheels and a bottom trolley to aid mobility, to the type of equipment described above for the mid range system. In the case of the simpler systems movement and / or the raising and lowering of the gangway onto the ship is achieved by the use of external equipment such as craneage, fork lift truck etc.

Marine Equipment Marine Loading Arms

Loadtec marine loading arm brings together the latest thinking in design with efficient and cost effective European production. This allows Loadtec to compete with low costs that can be realised as massive savings to the customer.

Loadtec utilises the pantograph link design to provide high quality and robust arms ranging from 4” to 20”. Apart from the standard temperature range, Loadtec can supply arms that operate between -196°C and +200°C.

A unique feature to the Loadtec marine loading arm is the ability to change the 1st and 2nd swivels in-situ without dismantling the arm. This is an important feature which offers huge cost savings over the lifetime of the arm. Loadtec also has its own double ball valve and emergency release system which is installed in the vertical leg.

Loadtec hydraulic control systems are manufactured in Western Europe under our control and incorporate mainstream and recognised components.

The design of any loading arm, must reflect the challenges of daily use and safe maintenance. Thoughtful design with an eye for the detail is essential to assure clients that their OPEX is being considered.

At Loadtec we use the very latest techniques in design software to ensure clients have products that they can rely on now and in the future.

Did you know?

Variations in vessels, tides, currents, etc can make accessing ships challenging. Loadtec’s ship to shore access equipment is designed and manufactured to meet your terminal’s specific needs and provide safe access to all types of vessels.
Packaged Solutions

By working with world class product manufacturers we have developed modular skid systems to provide repeatable and expandable packages. These incorporate all necessary metering, loading, access and piping systems. The systems are designed to be brought to site as skids or loose items and erected on a prepared base. Simple piping connections and junction boxes allow the systems to be powered up quickly and easily, especially useful in remote areas or where large scale development is required quickly to all accepted European standards of manufacture and certification.

Huge cost savings are possible when compared to traditional “stick built” methods. Systems can be designed to cater for single point loading stations through to large multiple station terminals. These can incorporate the terminal control systems, stock control and client billing at point of sale. Weighbridges can also be added as a check weight facility.

Loadtec has developed its portfolio and experience to provide fully integrated solutions to customer problems.

Telephone: +44 (0) 1303 81 3030 / Email: info@loadtec.co.uk / For technical data, please visit www.loadtec.co.uk

Meter Skid Solutions

The growth in turnkey system solutions for tanker loading has increased over the last few years. The expansion of oil exploration and distribution in remote parts of the world means that customers need to buy a system that is reliable. Reducing site time and eliminating the variable quality of locally fabricated goods means that operators can buy skid systems to meet their exact and future needs.

Our skids are built from high quality fluid transfer products and their outstanding quality and robust reputation is proven around the world. Loadtec is pleased to be able to offer these systems as part of their portfolio and would welcome the opportunity to discuss your metering needs.

In combination with Zip-Load loading arms and fall prevention, Loadtec can meet the needs of any bulk plant or major terminal seeking safe, clean and cost effective tanker charging and discharging facilities.

Loadtec also undertakes a number of FEED Contracts for some significant and prominent major engineering houses. This allows the client to concentrate on other issues while Loadtec takes care of the complete terminal loading systems.

Did you know?

Hot or cold?

Loadtec have supplied meter skids to work in the frozen north of Russia to the steamy heat of equatorial Africa. Our packages are custom designed to suit our client’s criteria and climate conditions.

Did you know?

Zip-Load

In combination with Zip-Load loading arms and fall prevention, Loadtec can meet the needs of any bulk plant or major terminal seeking safe, clean and cost effective tanker charging and discharging facilities.
Floating suctions are used for safe and clean liquid draw off from storage tanks where liquids need to be uncontaminated by water or solids. Suspended by the surface of the liquid, the inlet to the pump is held in the clean dense product regardless of the constantly changing liquid level. For tanks with floating roofs, large bore roof skimmers move with the roof to drain away unwanted liquid. Floating suctions come in a range of designs to suit buried, above ground, semi-buried and vertical tanks as well as for use with articulated drainage units with a floating ceiling/roof. Loadtec floating suctions range in size from 2” to 36” and can also be ganged together to form a dual suction facility equivalent to 48” inlet. Materials are generally stainless steel, aluminium and carbon steel.

Electrical Grounding and Earthing Monitoring

Static generated by fast flowing liquids in pipes can be very dangerous. The need to eliminate static build up is proven, and in many cases, mandatory. These systems can give a simple, yet effective, earth continuity for drums and road tankers. The road tanker version monitors the condition of the earth signal and provides a permissive signal for the process operation. Deprivation of the earth continuity or attempts to avoid use of the earthing system will eliminate the permissive signal, stopping the process.

Did you know?

Static electricity as a hazard

Although static electricity is generally regarded as a nuisance, in the hazardous process industries, its effects can be devastating. Discharges of static electricity have been identified as the ignition source for a broad range of processes that cut right across a wide selection of industry groups.
The VA 400 emergency release coupling is usually installed on fixed pipe bottom loading/unloading systems LA300 and LA400 series. It is designed to prevent spillage in the event of unplanned tanker movement during loading or unloading.

The movement of the road or rail tanker during loading/unloading causes a pull force on the cable which removes the shear bolt from the retaining block; the collar opens and the valve separates by the combined action of the springs and the movement of the truck. The coupling will part before damage occurs to the loading arm and will close off at each end to secure the liquid in the line.

This system provides a robust and dependable safety backup with premium quality components and design.

**Technical specifications:**
- Design pressure: 40 bar
- Test pressure: 60 bar
- Working pressure: 18 bar
- Valve body: Stainless steel
- Poppets: Stainless steel
- Collars and retaining block: Stainless steel
- Gaskets: NBR (EPDM on request)
- Opening force setting: 200-400 Kg for shear bolt breakage
- Maximum load: 150 Kg
- Fluid compatibility: LPG, chemicals, hydrocarbons.

Loadtec distributes and holds stock of OPW couplings and spares.

OPW Engineered Systems offers a comprehensive line of quick disconnect products in a wide variety of sizes and configurations. Kamlok® is the world’s most popular cam and groove. The name is synonymous with quick disconnects and has set the industry standard for safety and ease of use. Autolok® quick disconnects utilize a self-locking system to provide an added level of safety.

Both Kamlok® and Autolok® offer the exclusive Twin-Kam™ feature, a patented system that holds the adaptor more securely for increased protection against accidental release. These popular couplers and adapters are the industry’s safest, sturdiest and quickest coupler systems on the market.

Dry disconnect couplings have been proven as a successful technology to help protect workers and the environment in the transfer of hazardous materials. Our dry disconnect couplers ensure against accidental spillage of liquids. If your product is corrosive, toxic, caustic or otherwise harmful, OPW’s family of high-performance dry disconnect couplings help reduce the hazards associated with the transfer of these products.

**Technical specifications:**
- Design pressure: 10 bar
- Testing pressure: 15 bar
- Design Temperature: -15°C / +65°C
- Valve Flanges: 4" TTMA (other on request)
- Valve body and Poppets: Aluminum Alloy
- Shear Pins: Stainless steel
- Seals: Viton (Other on request)
- Opening vertical force setting: 2500 kg
- Max bending moment: 200kg
- Max vertical weight setting: 1250 kg
- Max flow rate: 2500LPM
- Head loss: 0.17 Bar @ 2500LPM
- Shear Pins tightening torque: 12Nm (Dry)
- Fluid compatibility: Chemicals, hydrocarbons.
Servicing

Installation
Loadtec is able to offer an installation service; we will send out qualified engineers to enable your new equipment is installed correctly.

Maintenance
Loadtec is able to provide service engineers to carry out maintenance as required or on a contract basis.

Spares
Although all Loadtec products come with long warranties and unrivalled performance, sometimes accidents happen and repairs are needed. Loadtec offer a comprehensive collection of spare parts for all supplied products, both old and new.

Customer’s testimonial
“I was happy with Loadtec as they delivered a complete solution which met all of our needs. The project went smoothly; it was all on time. When we started looking at the options, the range of solutions went from one extreme to the other. Having a hybrid solution met all our needs without breaking the bank.”

Jim Park, New Britain Oils

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Need Advice?
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The Tanker Enclosure System (TCEN4) provides absolute safety for operators working on tanker tops by providing a walk surface over the entire tanker top that can be simply lifted up where necessary to provide access to the tanker connections. Handling Loading Arms and Hoses just became a lot easier.

Multi-Modal
The Multi-Modal system is the pinnacle of tanker top safe operations. The Multi-Modal raises and lowers vertically through a 1.5m range and can tilt each end to correct for sloping tanker tops. It can be custom designed to suit a range of lengths and widths. Supplied fully galvanised as standard however it is also available in Stainless Steel or painted to customer specifications.

Custom meter skid systems
Loadtec supply packaged metering systems to provide the customer with point of transfer volumetric or mass metering of liquids. The skids can also have pumps included and be provided as mobile units if required. The range of materials and methods of metering are configured to suit customer requirements.

Mobile access carts
In cases where infrequent access is required or tanker positions are not fixed, the Mobile Access Cart will provide safe access to tanker tops of varying height. Ideally used for sample taking and inspection of bond seals, the MCA has foam filled 16” wheels and galvanised steel chassis with numerous optional configurations.

Zip-Load loading arms
Loadtec have an extensive range of road and rail tanker loading and unloading arms. These range from standard API configuration bottom loaders to PTFE lined, heated and insulated arms with vapour recovery. We can provide arms for almost every liquid, ensuring safe and clean bulk transfer operations.

Marine arms
Safe and clean transfer of marine liquid cargo is essential. The Loadtec marine arm is available in 6” to 20” size and capable of transferring oil, chemical and LNG liquid. We have our own ERS and QCDC systems and can provide fast and efficient support for our products. If you want great service, then give us a try.

Fixed Access Platforms and Stairs
Safe and robust access to tanker tops for operator convenience. A customer driven specification based on our unique design, provides an inexpensive and safe system for inspection or loading operations.

Track mounted stairs
This system utilises a unique track and barrier system to allow a folding stair to traverse over any distance, providing flexible access onto tanker tops where long loading racks are used.

Marine Gangways
Bridging the variable gap between the jetty and ship, ship to ship or platform to ship. Our Marine gangways are custom designed for each application.

Electronic grounding
The RTR Electronic Earthing Monitor is probably the biggest selling intelligent earthing system in Europe. The system provides a permissive signal when the tanker is recognised and correctly earthed.

Breakaway couplings
An unplanned drive-away by a road tanker during liquid transfer operations could be disastrous. The breakaway coupling will part before damage occurs to the hose or loading arm and will close off at each end to secure the liquid in the line.

Zip-Load floating suction units
Simple and complex floating suction arm units are used in storage tanks to allow suction of the product near to the liquid surface level, avoiding intake of water or sediments that accumulate at the bottom of a tank.

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