

Product transfer application marine environment





The advantages of KLAW marine transfer safety systems

The complete solution to media transfer in the marine environment

KLAW designs and manufactures a range of systems designed to improve safety and efficiency during the transfer of media in the marine environment.

These systems enable you to minimise risk to assets, personnel, the environment and reputation.

They also protect against downtime and clean-up costs, litigation, injury, increased insurance and investment costs caused by higher risk.

The KLAW range

Marine Breakaway Couplings Industrial Breakaway Couplings Dry Break Couplers Full Bore Marine Breakaway Couplings Emergency Release Systems Cryogenic Emergency Release Systems Camlocks Swivel Joints



Minimising risk of spills

KLAW offers experience and a track-record for innovation and reliable solutions.

If you require information or advice about safe offshore product transfer then contact us on +44 1373 827 100 or email info@klawproducts.com







Dry Break Hose Couplings, Tank Adaptors and End Connections

The QS connects and disconnects transfer lines with no spillage and is designed for demanding operating conditions and the rigours of marine and industrial environments.

- Valves open and close automatically on connection and disconnection. This reduces the possibility of human error in transfer operations and reduces spillages to virtually zero.
- The selectivity system prevents cross contamination.
- Locking pin as standard, providing additional safety.
- Multiple seal options to suit all types of liquids and gases.
- The QS features a single easy grip and turn action. This improves safety and time efficiency.
- Completely interchangeable with other manufacturers such as TODO, Avery Hardoll, Mann-Tek and Roman Seliger.

Fully compliant to NATO/STANAG 3756.

Materials Stainless Steel

Sizes from 1" to 6"



Shown: Typical QS Tank Unit

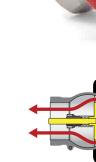


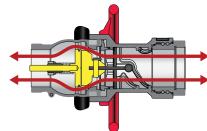












Efficient flow design for maximum operational performance





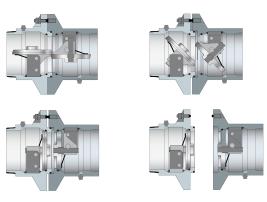
The shortest and lightest Marine Breakaway Coupling on the market

The KLAW Marine BAC provides an identified and safe parting point within the hose transfer system. When tensile forces exceed pre-determined tolerances, the Marine BAC activates.

The KLAW Marine BAC is designed specifically to be installed within a hose string and resists both bending moments and torsional forces in order to prevent premature activation of the unit.

These features specifically protect the breakstuds from fatigue and provide for a reliable solution in the tough marine environment.

- Designed to fit into Hose Transfer Systems
- Instantaneous Double Closure provides 100% shut-off



Conceptual illustrations only. Contact KLAW for technical representations.

Delivers less stress on your hoses







Sizes from 2" to 8"









Full Bore Marine Breakaway Couplings

No line restriction means faster flow and reduced transfer time

The KLAW Full Bore provides an identified and safe parting point within the transfer system and is specially designed for the demands of the marine environment.

- The most efficient breakaway coupling of its type in the industry.
- Full unrestricted bore with all working mechanisms completely isolated and protected from media until activation.
- Activation is not affected by clogging or abrasion from media.
- Instantaneous 100% double shut-off when a predetermined tensile load is applied.
- Excellent for handling abrasive or viscous media such as waste products.

Sizes from 2" to 8" Other sizes are available on request. Patented.

Typical applications

- Extended Well Testing
- Flowback operations
- Drilling Waste Management **Operations**
- Cutting fluid operations
- Containment operations
- Shuttle tankers for Crude Oil

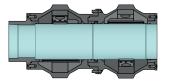
The only coupling of its kind with Full Bore and 100% shut-off.

KLAW ZERO

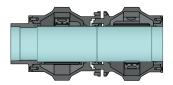


Sequential closure of KLAW Full Bore

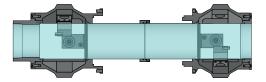
1. The Full Bore Coupling is in line-operation state.



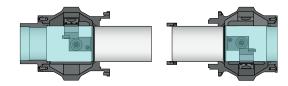
2. The unit is activated and the valve closing sequence begins.



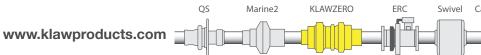
3 The internal sleeve extends and allows the valves to close.



4. The sleeve separates and the activation is complete.



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Emergency Release Couplings

The KLAW Emergency Release Coupling (ERC) allows activation before stress is applied to the transfer system.

This is achieved using either a Cable Release, Hydraulic Release, Manual Override or a mix of all these systems.

Typical applications

Loading Arms, Hose Assemblies, Ship-to-Ship transfer, Ship-to-Shore transfer.

Typical media

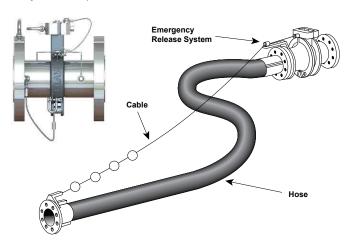
Hydrocarbons, Crude Oil, Fuels, LPG, Chemicals, Industrial Gases.



Sizes from 2" to 12"

Cable Release System

The high tensile cable is shorter than the hose system and is set to activate the ERC when stretched beyond the pre-determined tolerance.

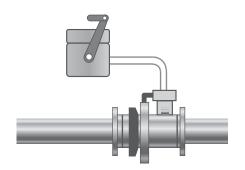


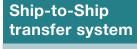
Duel Release System

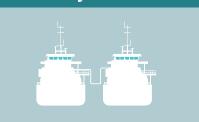
The Dual Release delivers the advantages of both Cable and Hydraulic Systems. The Hydraulic System provides an independent manual override option. Electronic and Hydraulic Control units are also available.



Hand Pump Override system







Marine2

Example transfer applications

Ship-to-Shore transfer system



ERC

Swivel





Swivel Joints

The KLAW range of Swivel Joints is designed to reduce wear and tear on hoses and equipment.

- Extends the life of the hose
- Aids hose handling
- Reduces maintenance costs and downtime
- Available sizes 1" to 24"



Hose system with Stainless Steel Swivel Joint



A range of options to suit your specific application.

- Pressure
- Materials
- Temperatures
- End connections
- Top side or subsea



Shown: 20" Carbon Steel Swivel Joint.

Flange Camlocks

The fast, reliable and safe way of making and breaking hose connections.

The flanges are automatically positioned within the cam blocks and locked together. The cam is then turned by hand using a locking bar.

- Permanently positioned seal increases efficiency and safety.
- Cams cannot be loosened when line is pressurised.
- Extensive range of options and finishes.



Short Spool Piece



Slip-on



Special paint finishes

Weld Neck



Takes approximately 5 seconds to fit each cam.





Other variants









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IMPORTANT:

Specification: KLAW recommends that all information and data are confirmed with the KLAW Technical Department before specifying, ordering or commissioning.

Usage: Please refer to the correct Installation and Maintenance Manual for information or instruction regarding the installation, handling, operation, maintenance and servicing of any product mentioned in this literature. Further advice is available from the KLAW Technical Department.



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