



产品输送应用  
海上环境

**Product transfer application**  
**Marine environment**

**KLAW**

安全产品输送解决方案

**Safe product transfer solutions**



# KLAW 海上安全系统的优势

## The advantages of KLAW marine transfer safety systems

### 海上介质输送全套解决方案

KLAW 公司设计并制造的一系列系统可大大提高海上介质输送的安全性和效率。

这些系统有助于用户最大程度地保护资产、人员、环境安全和商誉。

亦可使用户免受因停工、清理、法律纠纷和人员伤亡，以及更高风险所导致的保险和投资费用的增加。

### KLAW 产品系列

船用拉断阀  
工业拉断阀  
干式拉断阀  
全通径船用拉断阀  
紧急脱扣系统  
低温紧急脱离系统  
凸轮锁扣  
旋转接头

### 最大限度减少溢出风险

**KLAW** 公司在创新和提供可靠解决方案方面经验丰富、业绩辉煌。

如需有关产品海上安全输送的更多信息或建议，请拨打 **+44 1373 827 100** 或电邮至 **info@klawproducts.com**

### 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**



# 干式快速安全接头

## QS Dry Break Couplers

### 干式快速接头母头、公头及其端部连接

连接/断开输送管，无溢漏。**QS** 系列专门针对严苛的作业条件和严酷的海洋和工业环境而设计。

- 1 连接/断开时，阀芯自动开启/关闭。此举可降低输送作业过程中人为失误的可能性，并几乎完全排除溢漏可能性。
- 1 机械编号系统防止管路错误连接。
- 1 防松栓为标准配件，可进一步确保安全。
- 1 多重密封配件适合所有类型的液体和气体。
- 1 QS 采用单一简易手柄，并可旋转。这提高了安全性和时间效率。
- 1 完全可与其他制造商的产品交换使用，如 **TODO**, **Avery Hardoll**, **Mann-Tek** 和 **Roman Seliger**。

材质  
铝、不锈钢  
尺寸：  
1" 至 6"

**Materials**  
Aluminium  
Stainless Steel  
**Sizes from**  
1" to 6"



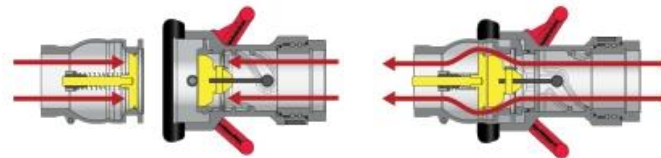
图示：典型QS干式公头  
Shown: Typical QS Tank Unit

### 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.

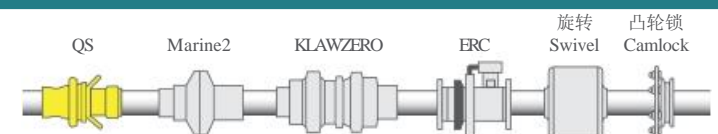
- 1 Valves open and close automatically on connection and disconnection. This reduces the possibility of human error in transfer operations and reduces spillages to virtually zero.
- 1 The selectivity system prevents cross contamination.
- 1 Locking pin as standard, providing additional safety.
- 1 Multiple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

且完全符合 NATO/STANAG 3756。  
Fully compliant to NATO/STANAG 3756.



高效的流量设计，实现最大的运行性能  
Efficient flow design for maximum operational performance

**QS**  
— SQUARE GRIP —  
DRY DISCONNECT  
方形双手柄  
Square handle twin grip





## 船用拉断阀

# Marine Breakaway Couplings

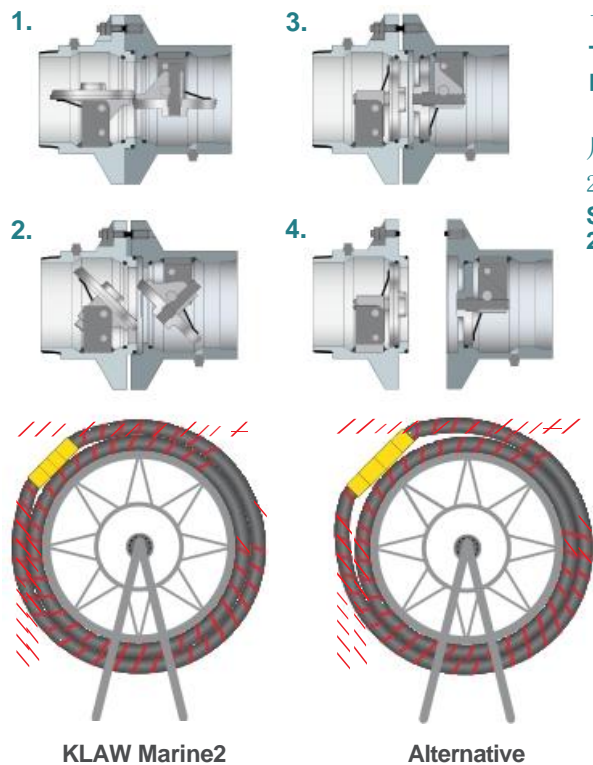
KLAW 船用拉断阀能为软管输送系统提供既便于识别又安全可靠的分离点。拉力超过预设允差时，船用拉断阀自动激活。

KLAW 船用拉断阀专用于安装在软管串内，能承受一定的弯矩和扭转力，可防止装置过早激活。

上述特性专用于防止拉断螺栓过劳，为严酷的海洋环境提供可靠产品。

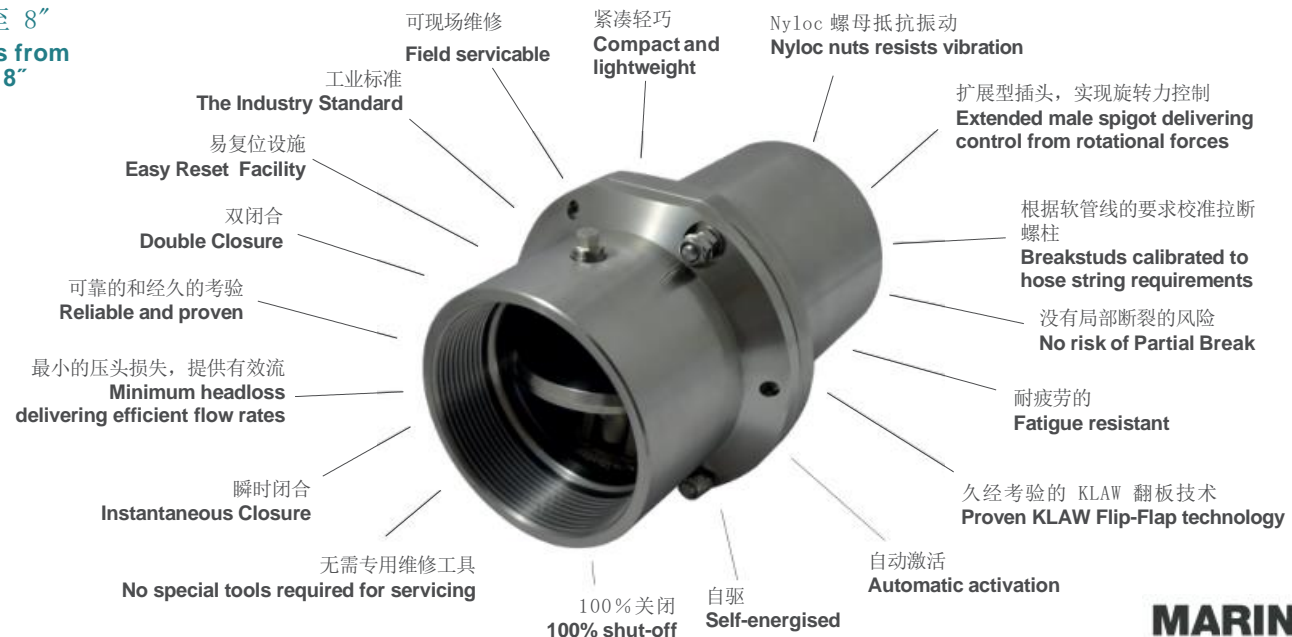
1 适合于软管输送系统

1 瞬时双闭合，实现 100% 关闭



市场上最短和最轻的船用拉断阀  
**The shortest and lightest Marine Breakaway Coupling on the market**

尺寸：  
2" 至 8"  
**Sizes from 2" to 8"**



软管压力较小 **Delivers less stress on your hoses**

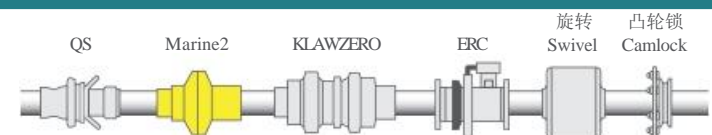
**The Klaw Marine BAC provides an identified and safe parting point within the hose transfer system. When tensile forces exceed pre-determined tolerances, the Marine BAC activates.**

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.

1 **Designed to fit into Hose Transfer Systems**

1 **Instantaneous Double Closure provides 100% shut-off**



# 全口径船用拉断阀

## Full Bore Marine Breakaway Couplings

无管线限制，加快流速，缩短输送时间

KLAW全口径拉断阀专门针对严酷的海洋环境而设计，能为输送系统提供既便于识别又安全可靠的分离点。在本行业同类型产品中效率最高。

- 1 不受限全通过式；且激活前所有作业装置完全隔离，不会接触介质。
- 1 被介质堵塞或磨损时，不会影响激活性能。
- 1 施加预定拉伸载荷时，装置可瞬间实现100%双关闭。
- 1 对磨料或粘性介质（如废品）的处理能力极佳。

### 典型应用

- 1 扩展井测试
- 1 回流作业
- 1 钻井废物管理作业
- 1 切削液作业
- 1 隔离作业
- 1 原油油轮

## KLAWZERO



同类型拉断阀中，唯一的一款全口径产品，且能实现100%关闭

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

连续关闭 KLAW 全口径

**Sequential closure of KLAW Full Bore**

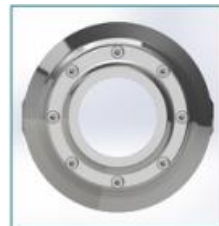
**No line restriction means faster flow and reduced transfer time**

**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.**

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

### Typical applications

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



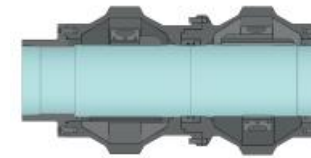
尺寸：2" 至 8"  
其他尺寸可根据要求提供。  
专利。  
Sizes from 2" to 8"  
**Other sizes are available on request. Patented.**

连续关闭 KLAW 全口径

**Sequential closure of KLAW Full Bore**

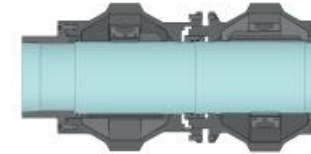
1.全口径处于线路作业状态。

The Full Bore Coupling is in operational state.



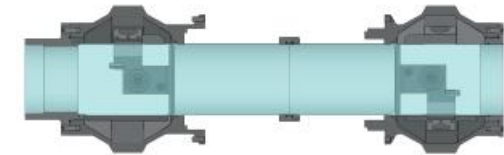
2.该装置激活并且阀门关闭序列开始。

The unit is activated and the valve closing sequence begins.



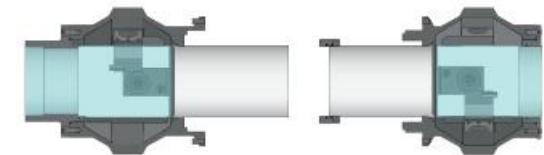
3.内部延伸套筒并允许阀门关闭。

The internal sleeve extends and allows the valves to close.



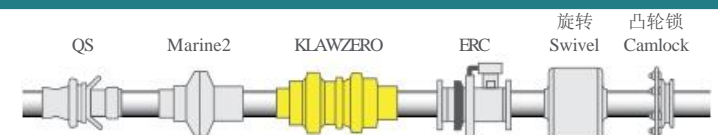
4.套筒分离，激活完成。

The sleeve separates and the activation is complete.



仅概念图示。联系 KLAW 技术代表。

Conceptual illustrations only. Contact KLAW for technical representations.



# 紧急脱离阀 Emergency Release Couplings

KLAW 紧急脱离阀（ERC）允许在将压力施加到输送系统之前激活。

这可以使用缆索脱扣、液压脱扣、手动覆盖或所有这些系统的混合形式来实现。

## 典型应用

装载臂、软管组件，船船输送，船岸输送。

## 典型介质

碳氢化合物、原油、燃料、液化石油气、化学品、工业气体。

**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.

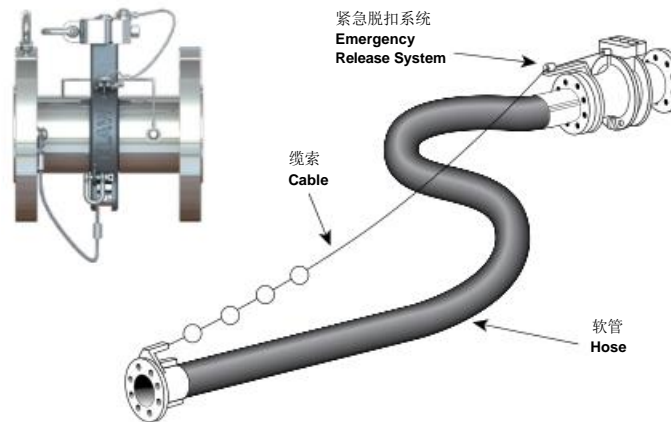


尺寸：2" 至 12" Sizes from 2" to 12"

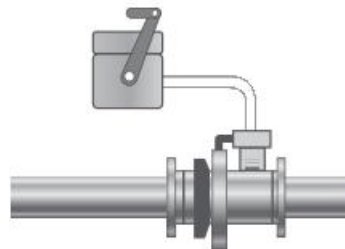
## 缆索脱离系统 Cable Release System

高拉力缆绳比软管系统短，旨在拉伸超过预定允差时激活 ERC。

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



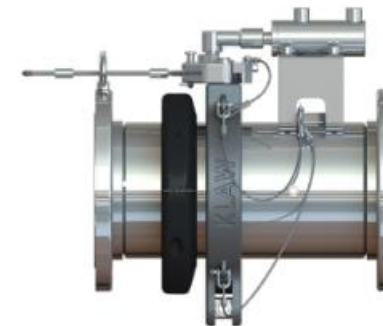
## 手动泵覆盖系统 Hand Pump Override system



## 双脱离系统 Duel Release System

双脱扣提供缆索和液压系统的双重优势。液压系统提供独立的手动控制。还提供电子和液压控制单元。

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.



## “船-船”输送系统 Ship-to-Ship transfer system



## “船-岸”输送系统 Ship-to-Shore transfer system



输送应用示例 Example transfer applications



# 高效连接 Efficient connections

## 旋转接头 Swivel Joints

KLAW 的旋转接头系列可降低软管和设备磨损。

- 1 延长软管使用寿命。
- 1 有助于软管操作。
- 1 降低维护成本，缩短停机时间。
- 1 可供货尺寸范围：1/4" 至 40" 。

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

- 1 Extends the life of the hose.
- 1 Aids hose handling.
- 1 Reduces maintenance costs and downtime.
- 1 Available sizes 1/4" to 40".



图示：配备不锈钢旋转接头的软管系统

**Hose system with Stainless Steel Swivel Joint**



图示：旋转软管卷应用  
Shown: Swivel in Hose Reel application



图示：20" 碳钢旋转接头。  
Shown: 20" Carbon Steel Swivel Joint.

有多种产品可供选择，充分满足您的具体应用。

- 1 压力
- 1 材质
- 1 温度
- 1 端接
- 1 甲板上或水下

**A range of options to suit your specific application.**

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

## 法兰凸轮锁扣 – 比传统法兰连接快 50 倍 Flange Camlocks - up to 50 times quicker than traditional flange connections

快速、可靠、安全的软管连接/断开方式。

法兰自动定位于凸轮区，咬合。然后采用锁条手动旋转凸轮。

- 1 永久定位密封件可提高效率和安全性。
- 1 管线加压过程中，凸轮不会松动。
- 1 可选项和表面涂层种类丰富。

**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.

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



每个凸轮最多需要 5 秒的安装时间。

**Takes approximately 5 seconds to fit each cam.**

短管件  
Short Spool Piece



对焊法兰  
Weld Neck



螺栓式  
Studded



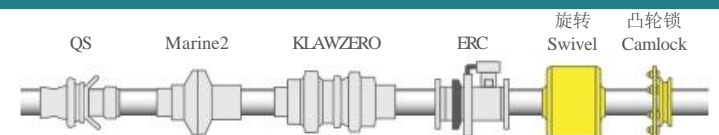
滑动式  
Slip-on



特种表面涂层  
Special paint finishes



其他变体  
Other variants



## KLAW 产品系列

船用拉断阀  
工业拉断阀  
全口径船用拉断阀  
紧急释放拉断阀  
紧急脱扣系统  
低温紧急脱扣系统  
干式断开阀  
凸轮锁扣  
旋转接头

## KLAW 船运安全系统的优势

KLAW 公司设计并提供的一系列系统可大大提高介质输送的安全性和效率。

这有助于用户最大程度地保护资产、人员、环境安全和商誉，并帮助用户避免因停工、清理成本、法律纠纷和人员伤亡以及更高风险所导致的保险和投资费用的增加。

KLAW 公司在创新和提供可靠解决方案方面经验丰富、业绩辉煌。

# KLAW

KLAW Products Ltd  
Commerce Business Centre  
West Wilts Trading Estate  
Westbury, Wiltshire  
BA13 4LS, United Kingdom

## The KLAW range

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

## The advantages of KLAW transfer safety systems

KLAW designs and supplies a range of systems designed to improve safety and efficiency during the transfer of media. This enables you to minimise risk to assets, personnel, the environment and reputation and protect against downtime and clean-up costs, litigation, injury, increased insurance and investment costs caused by higher risk.

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

### 重要事项:

规范: KLAW 建议您在指定、订购或调试前先与 KLAW 技术部就全部信息和数据进行确认。

使用: 有关本文件中提到的任何产品的安装、处理、操作、维护和维修信息或说明, 请参阅正确的安装和维护手册。

KLAW 技术部门可提供更多建议。

### 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.



电话: +44 1373 827 100



[www.klawproducts.com](http://www.klawproducts.com)

传真: +44 1373 858 877



[info@klawproducts.com](mailto:info@klawproducts.com)

Tel: +44 1373 827 100



[www.klawproducts.com](http://www.klawproducts.com)

Fax: +44 1373 858 877



[info@klawproducts.com](mailto:info@klawproducts.com)

产品说明和规格如有变更, 恕不另行通知。KLAW 建议您在指定、订购或调试前先与 KLAW 技术部就全部信息和数据进行确认。版权所有 © 该手册所含全部内容均受国际版权法、商标法和专利法的保护, 在未获得 KLAW Products Ltd 出具的明确书面批准前不得复制。受保护的商标包括: KLAW™ Flowbreak™ QS Square Grip™。受全球专利保护。

Product descriptions and specifications are subject to change without prior notice. KLAW recommends that all information and data are confirmed with our technical department before specifying, ordering or commissioning. Copyright © All information provided is subject to international copyright, trademark and patent laws and cannot be reproduced without the expressed and written permission of KLAW Products Ltd. Trademarks protected: KLAW™ Flowbreak™ QS Square Grip™. Protected by Worldwide Patents.



KMAEM1712D

新格浪 (Signum) 技术公司

A Signum Technology company

英国电话 Tel: +44 1373 827 100



[info@klawproducts.com](mailto:info@klawproducts.com)



[www.klawproducts.com](http://www.klawproducts.com)