

**Mann**  
Tek

**CBCouplings**  
*Cryogenic breakaway couplings*



**PERC**  
Cryogenic PERC - High pressure nitrogen activated

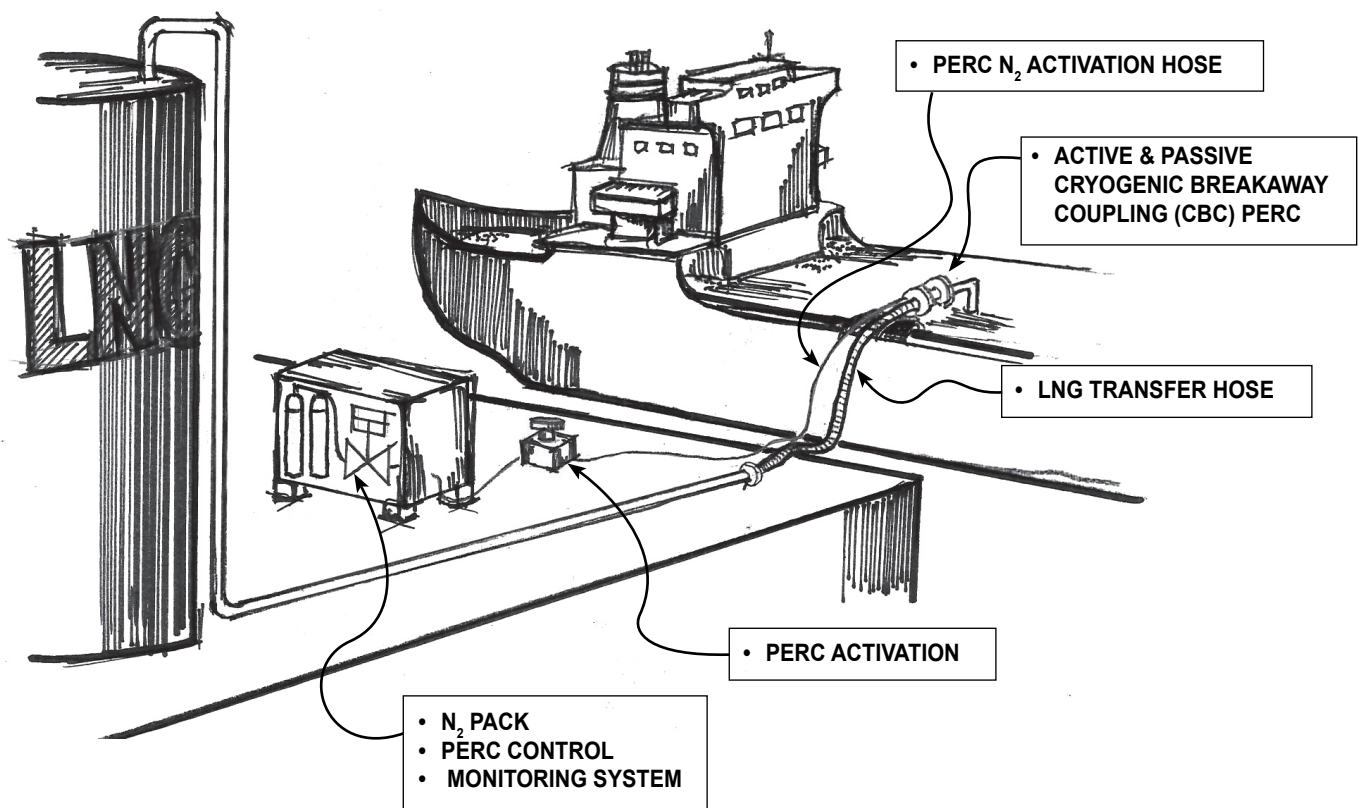
**The revolutionary Mann Tek Cryogenic PERC- Powered emergency release coupling, offers active safety as other PERC solutions on the market but also combine the passive safety feature known from our breaking pin type breakaways, which are successfully used world wide.**

The widest range of breakaway couplings gives full flexibility of the cryogenic product range and offers a safe reliable solution for any applications of LNG transfer.

With the use of Mann Tek's breakaway systems in combination with our reliable and well proven dry cryogenic couplings we offer the market an unbeatable, safe and "easy to use" combinations for any LNG transfer application.



Our PERC is a powered version of the CBC with the advantage that it can be released by external overload or manually operated. When using Mann Tek's PERC, in case of a remote controlled release, a pressurised gas cylinder will open and gas pressure will release the breaking bolts. Mann Tek's PERC systems corresponds to standard EN1474-1:2008.



## TECHNICAL INFORMATION

### Sizes:

4" (DN100) to 8" (DN200)  
Other on request.

### Materials:

Stainless steel

### Seals:

PTFE

### Maximum working pressure:

MWP PN 16 / 25.  
MAWP 150 / 300 psi

### Connections:

NPT-Thread, EN1092 (DIN) - or ANSI B16.5 - Flanges.  
Other on request.

## DESIGN CALCULATION

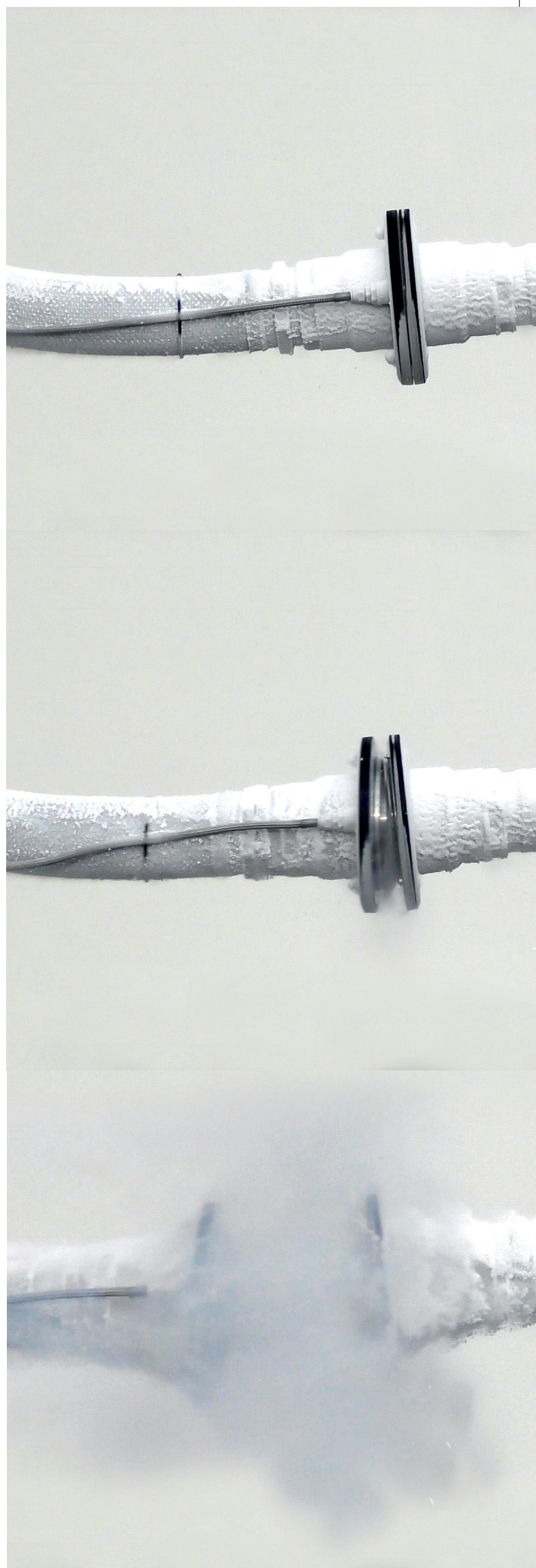
The calculation of the required wall thickness is made according to EN 12516-2. Design temperature range: -200°C to +65°C  
Design pressure: PS25 bar

## MATERIAL REQUIREMENTS

The material we specified is suitable for the use with LNG and nitrogen down to -200°C.  
The specification is according to the recommendations in EN1160.

Size	Nominal size	WP	Temperature range
4"	DN100	PN25	Minimum -200°C
6"	DN150	PN16	Minimum -200°C
8"	DN200	PN16	Minimum -200°C

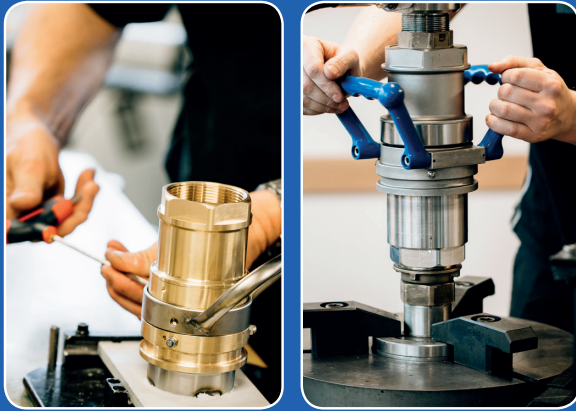
Material	Specification
1.4404 316L	EN10272 ANSI A479



## About

Mann Tek is a Swedish manufacturer and supplier of Dry Cryogenic Couplings and has during the past years made a significant market leading breakthrough in LNG. We offer a dry cryogenic coupling which operates by our system “push and turn- free ow” and “turn and pull- closed”.

We have supplied couplings for several passenger ferries and OSV's, which runs on LNG, and the worlds first LNG-bunker ship. In 2015 a new ISO-standard, in regards to LNG as fuel to ship was published. Mann Tek Dry Cryogenic Coupling is the first manufacturer world wide, to offer a fully compatible series of products in this new standard, ISO/ TS 18683:2015



With more than twenty years of knowledge and experience in the industry it has accumulated extensive expertise about applications in many types of variations in which our couplings have been, and can be used, with excellent results.

We constantly strive to develop and improve the performance and design of our products, to meet changes, new market demands and standards. Which, today, is what made us market leading. Our couplings are the obvious choice when certifications and product approvals are required, anywhere in the world.

Mann Tek® is certified to ISO9001:2008

## Company Approvals



Mann-Tek is a certified ISO9001-company.

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