

# Type Approval Certificate



[ Emergency Release Coupling for Cryogenic (ERC) ]

**Initial Approval** 28 April 2022  
**Manufacturer** Mann Teknik AB  
Strandvagen 16, SE-542 31, Mariestad, Sweden  
**Product Description** Type: Powered Emergency Release Couplings (PERC)

“ See Appendix 1 ”



**Approval Condition** “ See Appendix 1 ”

**THIS IS TO CERTIFY** that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows.

Pt 7, Annex 7A-3, Art. 202 of the Rules for the Classification of Steel Ships and ISO 16904:2016.

This Certificate is valid until 27 April 2027

Issued at Busan, Korea on 28 April 2022



This certificate is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication of the certificate can be confirmed from "<http://e-cert.krs.co.kr>" by using the tracking No(ME22011869533) and certificate No.(CPH45584-PE002).



KOREAN REGISTER

*General Manager of  
Marine & Ocean Equipment Team*

- Note :**
1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.
  2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.
  3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.
  4. Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.

## Product Description and/or Approval Condition

Date of Issue : 28 April 2022

### A. Product Description

#### 1. Product Specification

- 1) Nominal Bore : 2½", 3", 4", 6", 8", 10"
- 2) Design Temperature : -196 °C to 85°C
- 3) Design Pressure : 25 bar
- 4) Material : EN 10272 1.4404+AT (Seal: PTFE)
- 5) Flange type : ANSI B16.5 Class 150, Raised

#### 2. Approved Drawings and Documents

- 1) 2½" Cryogenic Breakaway Couplings (CBCouplings)  
7261 Rev.A, 7262 Rev.A, 7263 Rev.A, NCP359E44, NCP359E44-1
- 2) 3" Cryogenic Breakaway Couplings (CBCouplings)  
NCP4xxD44, NCP461D44-1, 3734 Rev.1, 3978 Rev.1, 3979 Rev.1, 4984 Rev.1, 4985 Rev.1
- 3) 4" Cryogenic Breakaway Couplings (CBCouplings)  
NCP563E44, NCP563E44-1, 7215 Rev.1, 7216, 7217
- 4) 6" Cryogenic Breakaway Couplings (CBCouplings)  
NCP6100E44, NCP6100E44-1, 7193 Rev.1, 7194 Rev.1, 7195 Rev.1
- 5) 8" Cryogenic Breakaway Couplings (CBCouplings)  
NCP8105E44, NCP8105E44-1, 7133 Rev.1, 7134, 7135 Rev.1
- 6) 10" Cryogenic Breakaway Couplings (CBCouplings)  
NCP10162D44, NCP10162D44-1, 6293 Rev.2, 6294 Rev.1, 6295

#### 3. Test Reports, etc.

- 1) Report No.1 Rev.0: Flow test carried out at Mannteknik AB, Sweden dated 20 June 2016
- 2) Report No.11BOZMWB-2 Rev.1: Fire test carried out at Mannteknik AB, Sweden dated 25 Jan. 2019
- 3) Type tests were performed on 1 & 2 Nov. 2012 at Mannteknik AB, Sweden
- 4) Type tests were performed on 20 June 2016 at Mannteknik AB, Sweden
- 5) Type tests were performed on 30 March 2022 at Mannteknik AB, Sweden

### B. Approval Condition

#### 1. Application & Limitation

- 1) Materials for the main components are to be supplied by the approved manufacturers and to be certified by the Society or to be satisfactory to the Surveyor.
- 2) The couplings shall be installed according to the manufacturer's instructions.
- 3) Verification or replacement of the seals must be carried out according to the manufacturer's instructions.
- 4) The coupling release forces are to be designed according to the application criteria.
- 5) Hydraulic power, electrical/instrumentation, control & safety interlock systems, handling & installation devices are not covered by the present certificate and should be addressed by the manufacturer.

#### 2. Individual Product Cert. and Drawing Approval Requirement

- 1) Individual Product Certification is required.

#### 3. Marking

- 1) Manufacturer's name or trade mark
- 2) Type designation

#### 4. Others

- N/A

[ End of Certificate ]