



Producto distribuido por

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Oil & Gas

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# MannTek

**Product Name**

CBC Breaking Bolt Type

**Part Number**

NC

**Short Description**

Industrial Version

**Description**

Used to protect hose assemblies and loading arms against excessive loads, e.g. due to drive/pull away incidents or rapid removal of the mobile tanker in emergency situations.

Typical applications include container discharge, fuel bunkering truck-to-ship, ship-to-ship, terminal-to-ship, loading/unloading of tank trucks, rail tankers and ships.

Designed with breaking bolts; activation at a defined tensile (pulling) force on the transfer line being applied, either straight or at an angle.

Installation between a hose assembly or loading arm and a fixed point, e.g. pipe system, rail tanker or road tanker connection.

Release by pull at any angle up to 90 degrees.

CBC 'Industrial Type' have three external breaking bolts. Breaking forces (release forces) are calculated based on the working pressure of the system in question.

Standard breaking forces for SBC are calculated to protect a mating hose with a burst pressure 4 times WP.

To protect hoses with other burst pressure specification or adjacent equipment which may be weaker than the hose please contact your sales representative who will provide a design guideline or can forward your special request to the MannTek technical department.

If the transfer line is subjected to inadvertent and strong tensile loads, e.g. due to a premature movement or the drifting of ships / barges, the coupling will separate and instantly seal the two open ends. It can be reassembled on site with a set of spare parts.

# MannTek

## Breaking Bolt Forces

DN	Breaking Force	
	SS	Al
1"	4,8 kN	3,2 kN
2"	13 kN	9 kN
2½"	22 kN	10 kN
3"	33 kN	15 kN
4"	52 kN	24 kN
5"	81 kN	37 kN
6"	92 kN	54 kN
8"	165 kN	96 kN
10"	151 kN	151 kN
12"	217 kN	217 kN

Example chart for possible breaking forces (release forces), for working pressure = max. admissible working pressure.

1" (DN 25) up to 8" (DN 200).

NPT thread, DIN/ANSI/TTMA flange – others on request.

Working pressure:

DN 25 - DN 100: PN 25,

DN ≥ 150: PN 16.

-196° C up to +85° C.

Body: stainless steel 1.4404 (AISI 316L),

Seals: PTFE.

CBC fulfill the requirements of European Pressure Equipment Directive category 2 (for higher demand on request).

Suitable for the use in potentially explosive atmosphere (ATEX) zone 1.

**Sizes**  
**Connections**  
**Pressure**

**Temperature**  
**Material**

**Approvals /**  
**Certificates**

# MannTek

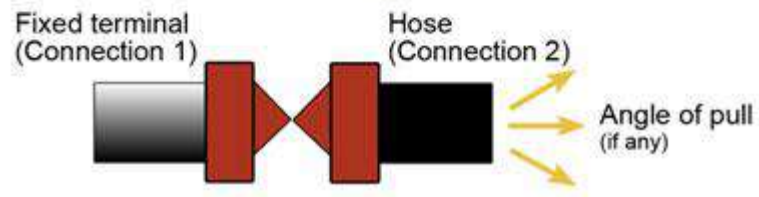
Approved for the transport of dangerous goods on road (ADR), by rail (RID) and by ship (IMDG).  
Type approval DNV GL rules for Liquefied gas carriers, type examination DNV GL for LNG transfer systems (ISO16904, EN1474-3).  
TÜV TÜ.AGG 437-11, Lloyd's Register 0038 RET0271208, TDT-UW-21/16,  
EAC TC No. RU Д-SE.MK062.B.02151, DNV GL TAP00000RW, DNV GL TAP000012V

## Product Sheet / Links

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[Brochure CBC](#)

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Animation Cryogenic Breakaway Couplings with Breaking Bolts (CBC):  
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# MannTek

<b>Product Name</b>	CBC Breaking Bolt Type
<b>Part Number</b>	NC
<b>Short Description</b>	Marine Version
<b>Description</b>	<p>Used to protect hose assemblies against excessive loads, e.g. due to pull away incidents or rapid removal of the vessel in emergency situations.</p> <p>Typical applications include container discharge, fuel bunkering and loading operations truck-to-ship, ship-to-ship, terminal-to-ship.</p> <p>Designed with breaking bolts; activation at a defined tensile (pulling) force on the transfer line being applied axially. In comparison to the 'Industrial Version' the coupling offers an increased resistance to torsion and bending loads to prevent unwanted separation.</p> <p>CBC 'Marine-Version' have three external breaking bolts. Breaking forces (release forces) are calculated based on the working pressure of the system in question.</p> <p>Standard breaking forces for SBC are calculated to protect a mating hose with a burst pressure 4 times WP.</p> <p>To protect hoses with other burst pressure specification or adjacent equipment which may be weaker than the hose please contact your sales representative who will provide a design guideline or can forward your special request to the MannTek technical department.</p> <p>If the transfer line is subjected to inadvertent and strong tensile loads, e.g. due to a premature movement or the drifting of ships / barges, the coupling will separate and instantly seal the two open ends. It can be reassembled on site with a set of spare parts.</p>

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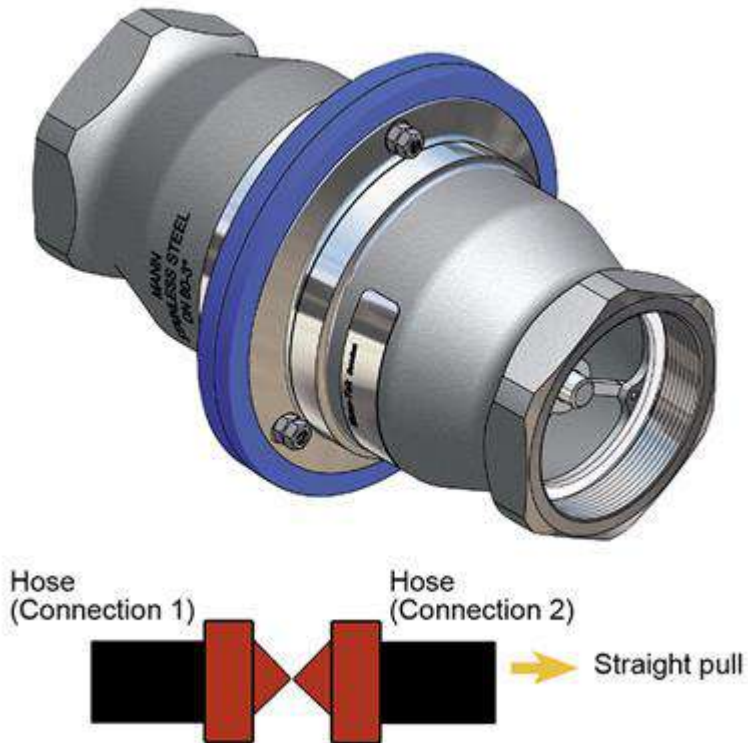
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Animation Cryogenic Breakaway Couplings with Breaking Bolts (CBC):



**MannTek**

