Configurator MannTek Products

Part Number: N103M1101

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https://configurator.manntek.se/SBC/MARINE/1/AL/THREAD/F_1_BSP_A/THREAD/F_1_BSP_A/VITON/NONE/Product11.html

Product Group

Safety Breakaway Couplings
The couplings are designed to be the weakest link of the hose line or loading arm. Suitable for a wide range of products including petroleum based products, chemicals and foodstuffs.

Three types can be distinguished:
- SBC Breaking Bolt Type 'Industrial Version'
- SBC Breaking Bolt Type 'Marine Version'
- SBC-C Cable Release Type
1) SBC Breaking Bolt Type 'Industrial Version'

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.

SBC 'Industrial Type' have thre external breaking bolts. Breaking forces (release forces) are calculated on the basis of 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.
2) SBC Breaking Bolt Type 'Marine Version'

Used to protect hose assemblies against excessive loads, e.g. due to pull away incidents or rapid removal of the vessel in emergency situations.
Typical applications are ship to rig and ship to ship media transfers. Typical applications include container discharge, fuel bunkering truck-to-ship, ship-to-ship, terminal-to-ship.

Designed with breaking bolts; activation at a defined tensile (pulling) force on the transfer line being applied applied axially. In comparison to the 'Industrial Version' the coupling offers an increased resistance to torsion and bending loads to prevent unwanted separation.

SBC 'Marine-Version' have thre external breaking bolts. Breaking forces (release forces) are calculated on the basis of 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.
3) SBC-C Cable Release Type

Used to protect hose assemblies against excessive loads. Special type, recommended in transfer systems with the combination of high operating pressure and weak piping structure.

Compared with standard Safety Break Couplings with breaking bolts SBC-C are designed with a clamp system and an external collar with an attached cable.
The tensile force (pulling force) is not transmitted via the hose or loading arm, but by an integrated cable which is attached to a fixed point (pipework, rail tanker or road tanker).
The length of the cable is adjusted slightly shorter than the maximum length of the loading line.

Release forces are almost independent from the internal pressure (working pressure).
After the admitted travel limit of the cable is reached (angle up to 90 degrees), only a small pull is sufficient to actuate the separation.

If the cable reaches the admitted travel limit and a defined pulling force, the external colllar is pulled off and clamps are actuated; the coupling will separate and instantly seal the two open ends. There are no loose components which can

get lost. After separation the coupling is checked and can be reconnected without spare parts or special tools.

Type of Coupling

SBC Breaking Bolt Type - Marine Version
Used to protect hose assemblies against excessive loads, e.g. due to pull away incidents or rapid removal of the vessel in emergency situations.
Typical applications are ship to rig and ship to ship media transfers. Typical applications include container discharge, fuel bunkering truck-to-ship, ship-to-ship, terminal-to-ship.

Designed with breaking bolts; activation at a defined tensile (pulling) force on the transfer line being applied applied axially. In comparison to the 'Industrial Version' the coupling offers an increased resistance to torsion and bending loads to prevent unwanted separation.

SBC 'Marine-Version' have thre external breaking bolts. Breaking forces (release forces) are calculated on the basis of 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.
Certificates: SBC 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.
Approved for the transport of dangerous goods on road (ADR), by rail (RID) and by ship (IMDG).

Lloyd’s Register 0038 RET0271208, TDT-UW-21/16, EAC TC No. RU Д-SE.МЮ62.B.02151

Nominal Diameter

DN 25 (1")
For industrial process plant, road and rail tankers, IBC containers, Pharmaceutical and Petrochemical industries etc.
Connections: ¾", 1" and 1¼" in BSP, NPT and Flanged inlet.

Body Material

Aluminium

Maximum Working Pressure	16 bar
Test Pressure	24 bar
Minimum Burst Pressure	80 bar

Connection 1

Threaded Connection

Connection 1 - Detail	**F 1" BSP** 1" BSP female to EN ISO 228

Connection Detail	**Technical Drawing**
Connection 2	**Other Threaded Connection**
Connection 2 - Detail	**F 1" BSP**
Connection Detail	**Technical Drawing**
O-Rings	**Viton® (or equivalent FPM/FKM) Standard** FKM/FPM (Fluorocarbon Rubber): FKM is known especially for its non-flammability, low gas permeability and excellent resistance to ozone, weathering and aging. The operating temperatures of the Fluorocarbon Rubber range between -20° C and +200° C). FKM is often used with mineral based oils and greases at high temperatures, aliphatic, aromatic and chlorinated hydrocarbons and oxidizing acids.
Options: Special Types	**No Special Types required**

PDF Documents

Homepage SBC (Safety Breakaway Couplings)

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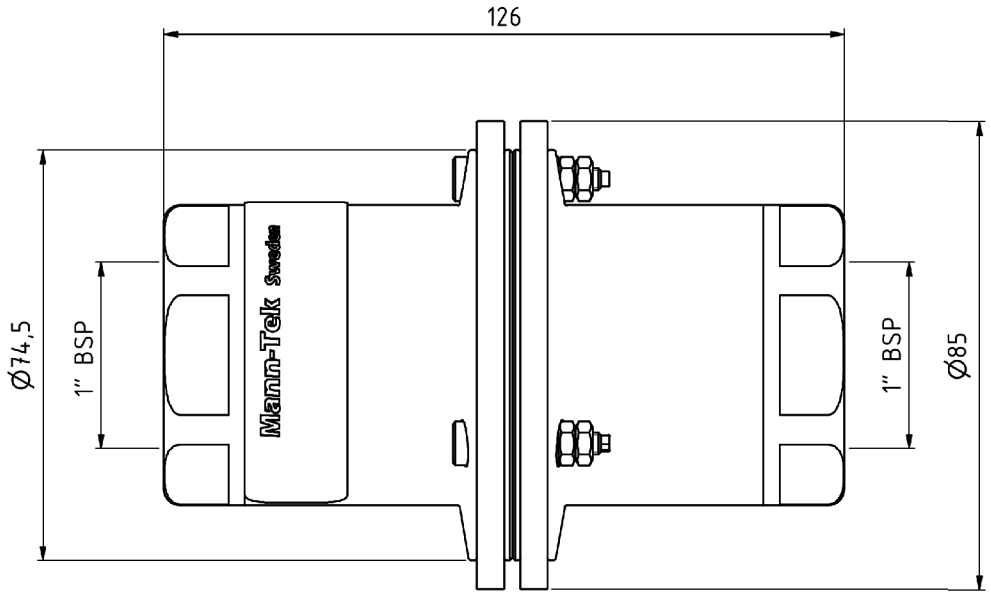

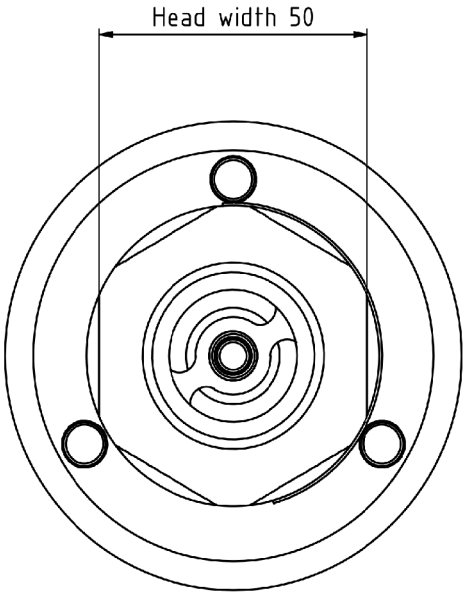

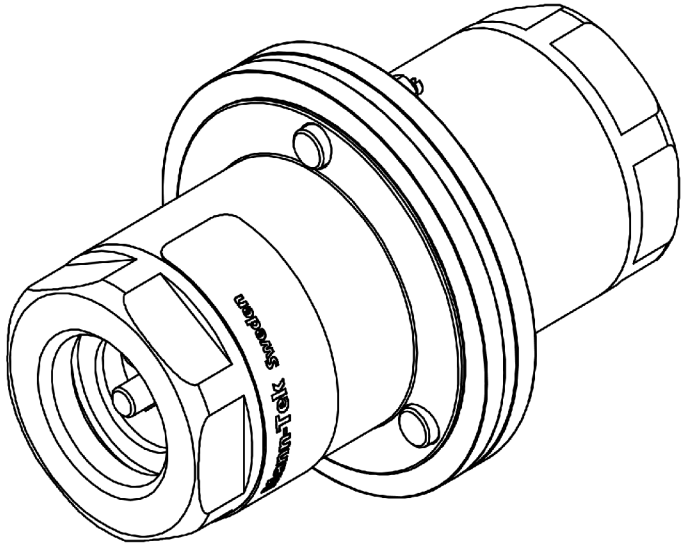

MannTek

N103D4401A-1
Safety Breakaway Couplings
DN 25 (1")
F 1" BSP

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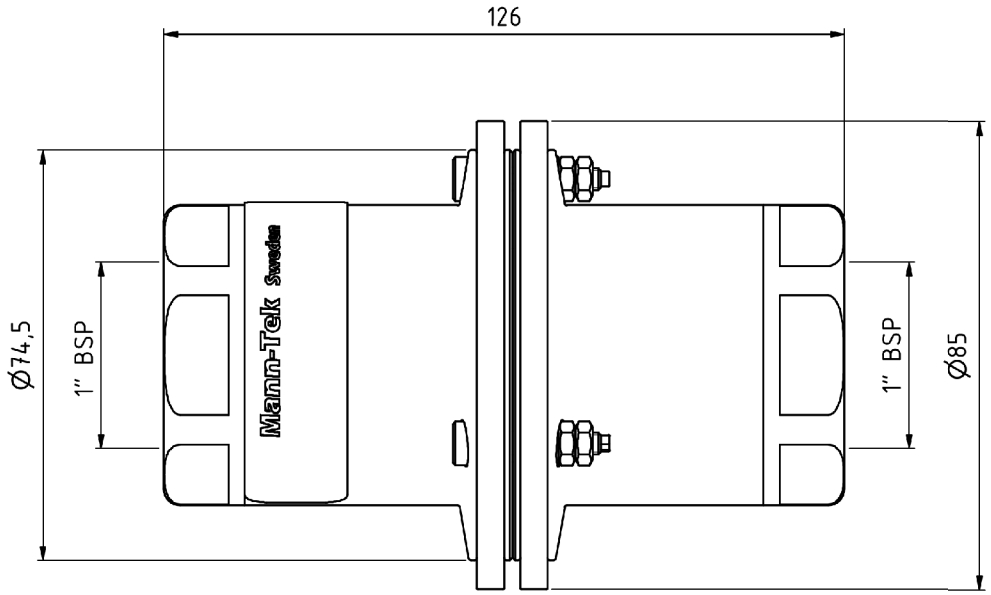

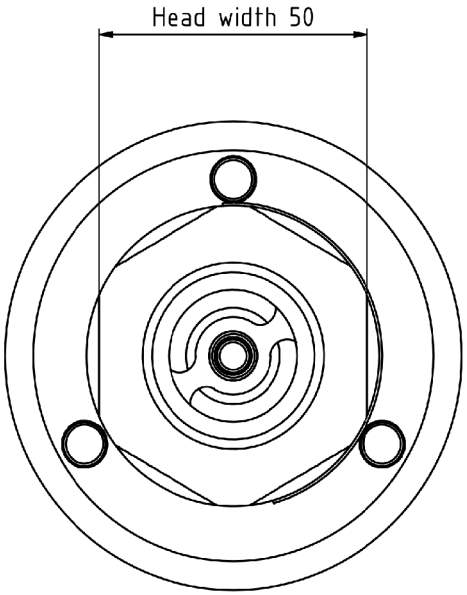

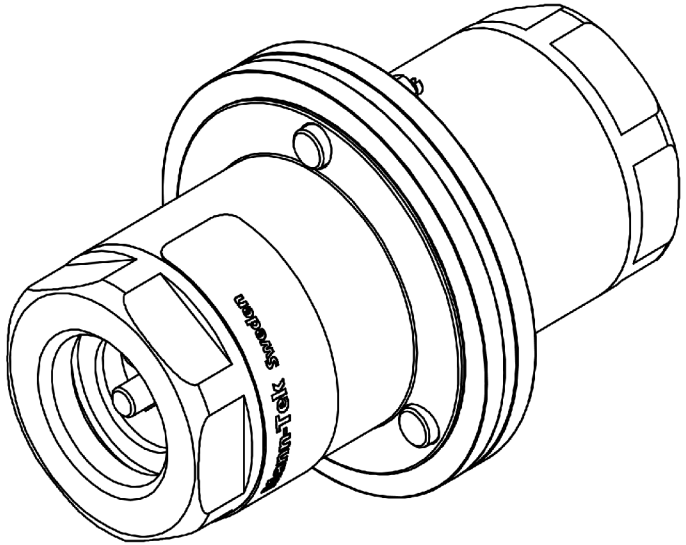

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Safety Breakaway Couplings
DN 25 (1")
F 1" BSP