Cryogenic Break-away Couplings

Features

- Primarily designed for the safe transfer of cryogenic media such as LNG (-163℃) and Nitrogen (-196℃), where safety and reliability are of utmost concerns.
- Shuts down fluid flow in an emergency caused by excessive system stress and then separate, which minimizes spillage or loss of fluid media, protecting personnel, critical assets, and the environment from uncontrolled leakage.
- Lightweight, simple, and robust design
- High flow rates and low pressure losses
- Easy on-site reassembly after separation

Specifications

- **Size** : 1"(DN25) to 8" (DN200)
- **Working pressure** :
  MWP 25 Bar - 1" (DN25) to 4" (DN100)
  MWP 16 Bar - 6" (DN150) to 8" (DN200)
- **Working temperature** :
  Lowest working temperature is -196°C

Applications

- Container discharge
- Fuel bunkering
- Loading/unloading of tank trucks, rail tankers, bunkering and tank vessels
- Vapor recovery lines

Technical Data

Size	Connection	Breaking Force (kN)	Weight (kg)
1 in.	1 in. Thread	4.8 kN	1.8
	1 in. Flange		2.9
2 in.	2 in. Thread	13 kN	2.9
	2 in. Flange		7.4
2-1/2 in.	2-1/2 in. Thread	22 kN	7.7
	2-1/2 in. Flange		13.8
3 in.	3 in. Thread	33 kN	9.0
	3 in. Flange		15.9
4 in.	4 in. Thread	52 kN	16.2
	4 in. Flange		21.7
6 in.	6 in. Thread	92 kN	48.9
	6 in. Flange		60.2
8 in.	8 in. Thread	165 kN	-
	8 in. Flange		74.0

BMT TEL: +82 51 780 5000 E-mail: superlok@superlok.com WEB: www.superlok.com

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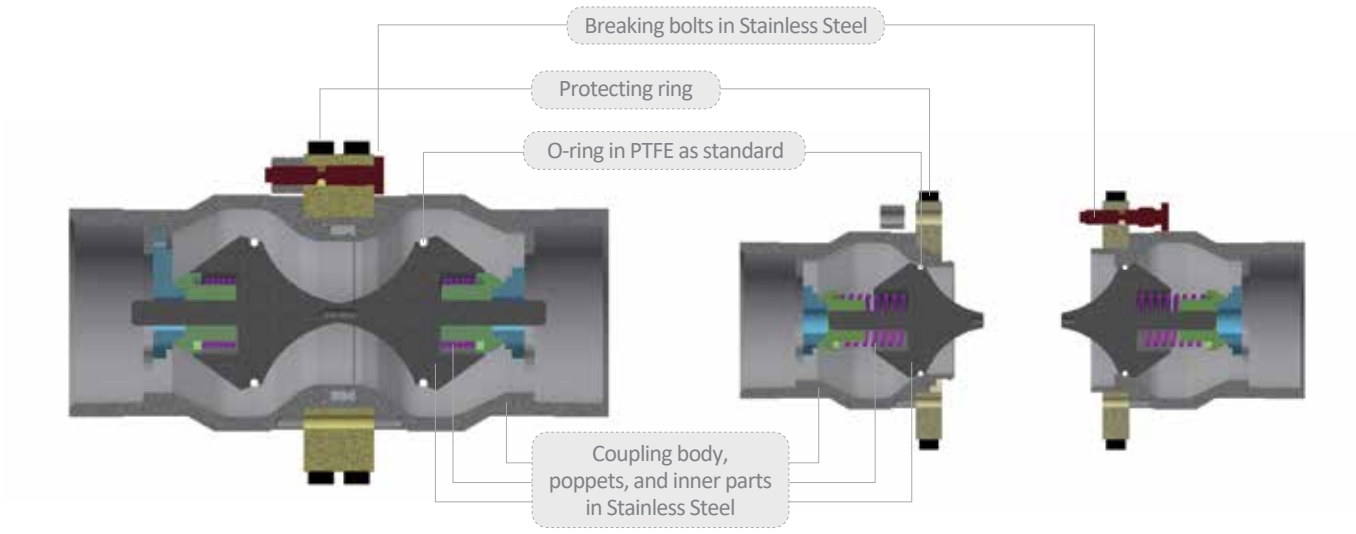
Construction & Functions



Before Emergency Disconnect

A Cryogenic Break-away Coupling consists of two halves, each with a poppet.

After Emergency Disconnect

When the coupling separates, the two poppets close rapidly, minimizing spills and damage due to pull-away incidents.

Ordering Information

Example 1 : SCBAC - FL32 - 13K

(1) (2) (3)

Example 2 : SCBAC - F32N - M32N - 13K

(1) (2) (1) (2) (3)

*Stainless Steel is standard body material.

1. End Connection

- □ F = Female Thread
- □ M = Male Thread
- □ FL = Flange

2. End Connection Size

Size (inch)	1	2	2-1/2	3	4	6	8
NPT	16 N	32 N	40 N	48 N	64 N	96 N	128 N
PT	16 R	32 R	40 R	64 R	64 R	96 R	128 R
Flange	16	32	40	48	64	96	128

3. Breaking Force

- □ 4.8K = 4.8kN
- □ 13K = 13kN
- □ 22K = 22kN
- □ 33K = 33kN
- □ 52K = 52kN
- □ 92K = 92kN
- □ 165K = 165kN

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