



RISER & DRILLING SYSTEMS

Barracuda BSC

Barracuda Bend Stiffener Connector

Oil States Industries is a world leader in the design and manufacture of advanced connection systems for offshore use.

Oil States' Barracuda Bend Stiffener Connector (BSC) is part of our new generation of connections specifically designed for deep water floating production, storage and off-loading systems (FPSOs); tension leg platforms (TLPs); and pipelines.

Extensively tested for durability and effectiveness, the Barracuda BSC offers a cost-effective, streamlined way to join the Bend Stiffener to the turret sections of an FPSO, FPS, TLP or Spar. At the heart of the system is the Barracuda connector, which has been specifically designed and field-proven for this application.

Barracuda BSC Advantages

- Diverless operation
- Prevents costly damage to flexible riser during pull-in
- No special tooling or personnel required
- Single-wire pull-in minimises rigging and vessel requirements
- High-fatigue pre-loaded design
- Automatic make-up during pull-in speeds riser installation
- Visual confirmation of make-up
- Suitable for a large range of riser and I-tube configurations

System components

Vessel-Mounted Receptacle

- Flanged or welded connection to existing I-tube
- Female Barracuda connector



Barracuda BSC | Risers range from 4" - 12" and I-Tube sizes from 16" - 34"

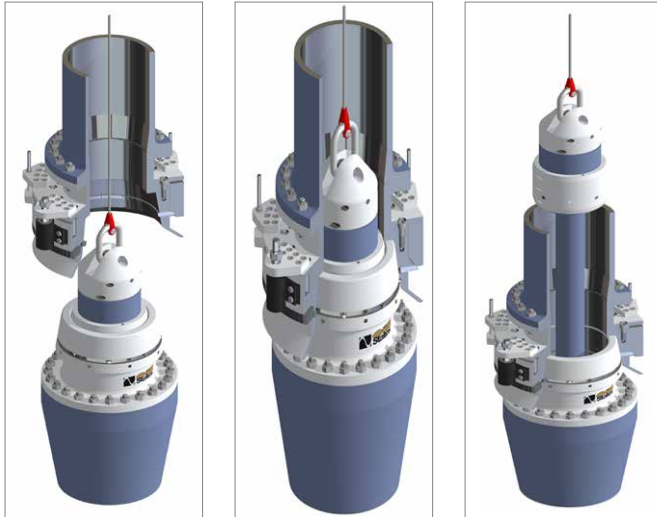
Pull-In Assembly

- Pull-in head and master link pin mounted on riser
- Barracuda male pin
- Optional riser end termination sealing plug
- Bend stiffener connector collar sleeve
- Riser release functionality
- Bend stiffener mounting flange
- The riser is pulled up from the seabed or DSV and is poised for alignment with the Barracuda receptacle. The pull-in head, followed by the Barracuda self-aligning male pin, then enters the female receptacle.
- The riser is then fully centralised, and the Barracuda connector is triggered automatically once the male pin is fully mated into the receptacle using winch over-pull.

The riser pull-in head and riser assembly is released automatically as the Barracuda is locked in position.

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Extensive testing programmes, including assembly and pull-in trials to simulate the pull-in of the riser onto the hull of the FPSO have been undertaken by Oil States.



Stage 1

Male Barracuda BSC assembly pulled into Female Barracuda BSC. Assembly attached to vessel.

Stage 2

Male Barracuda BSC assembly latched into Female Barracuda BSC assembly.

Stage 3

End Termination and Flexible Riser released and pulled through to topside for vessel integration.

Track Record		
Riser Size	No. of	I-Tube Size (m)
2020 - 2017 , Lancaster, Hurricane Energy (West of Shetland)		
6" Production	4	26"
6" Gas Export	2	24"
Umbilical	2	24"
6" Production (Phase I 2017)	2	26"
Umbilical (Phase I 2017)	1	24"
2019, Karish Field Dev, Technip (Israel)		
Umbilical	2	32"
2011, EON Ruhrgas (Central North Sea)		
8" Production, Water Inj & Gas Export	3	0.610/24"
4" Gas Lift	1	0.610/24"
Umbilical	1	0.711/28"

Riser Size (continued)	No. of	I-Tube Size (m)
2008, Shelly Oilexco (North Sea)		
8" Production/Water Injection	3	0.610/24"
Umbilical	1	0.711/28"
2008, TUI, NZOP (New Zealand Overseas Petroleum Ltd)		
9.5" Production	4	30"
3" Gas Lift	4	16"
Umbilical	4	16"
2005, Enfield, TSEJV (Western Australia)		
10" Water Injection	1	0.762/30"
9" Production	4	0.762/30"
8" Production / Test	1	0.762/30"
6" Gas Lift & Gas Export	3	0.599/22"
Umbilical	2	0.508/20"
2004, Kizomba B FPSO, Duco (Angola)		
4" Umbilical	1	0.762/30"
2003, Ringhorne, Jurassic, Technip (Norway)		
10" Production	1	0.762/30"
8" Production	1	0.762/30"
6" Disposition	1	0.762/30"
2001, Typhoon, Rockwater (Gulf of Mexico)		
5.3" Oil Production	1	0.558/22"
5" Umbilical	4	0.406/16"
4.5" Oil Production	2	0.406/16"
4.5" Oil Production	1	0.864/34"
1999, Jotun, FPSO, Rockwater (Norway)		
12"	3	0.864/34"
10" Test Line, Water Uptake, Water Injection & SSIV Umbilical	4	0.762/30"
6" Gas Lift & Gas Export	3	0.610/24"

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