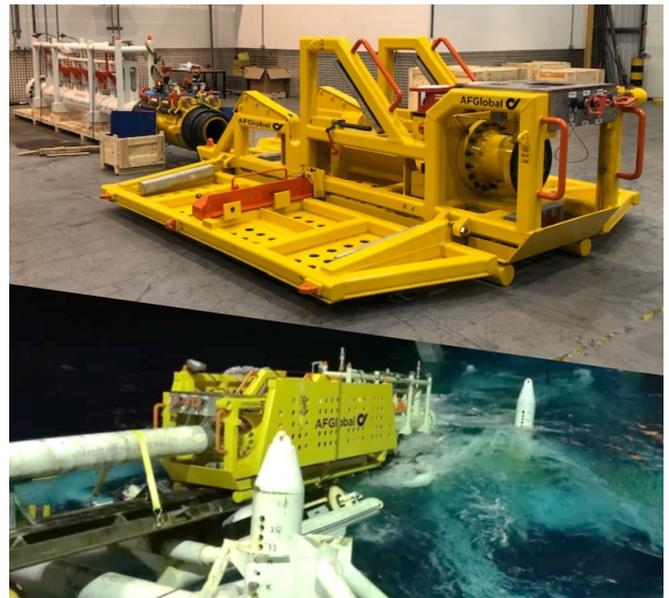
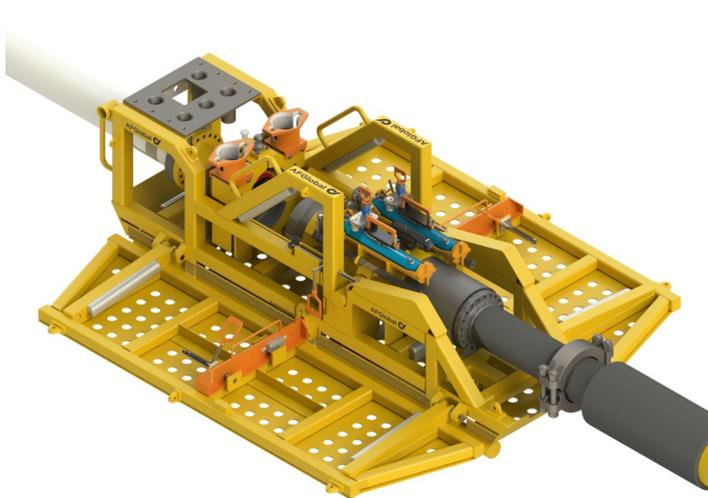


STINGER DEPLOYED DIVERLESS CONNECTOR - SDDC

Safer and Cost Efficient Alternative to Diver Made Connections

AFGlobal's Stinger Deployed Diverless Connector provides a cost effective solution to deploy diverless connections through a pipelay stinger. The SDDC is a diverless technology designed to improve safety with smaller installation vessels and no divers. Based on AFGlobal's proven Retlock® clamp technology, this compact system helps operators achieve a 20% cost reduction compared to conventional diver installations. It is installable with a PLR for commissioning directly after installation. AFGlobal successfully completed the first pair of SDDC connections in early 2020, proving the system to be an enabling technology for fast-track, low CAPEX tie-back projects.

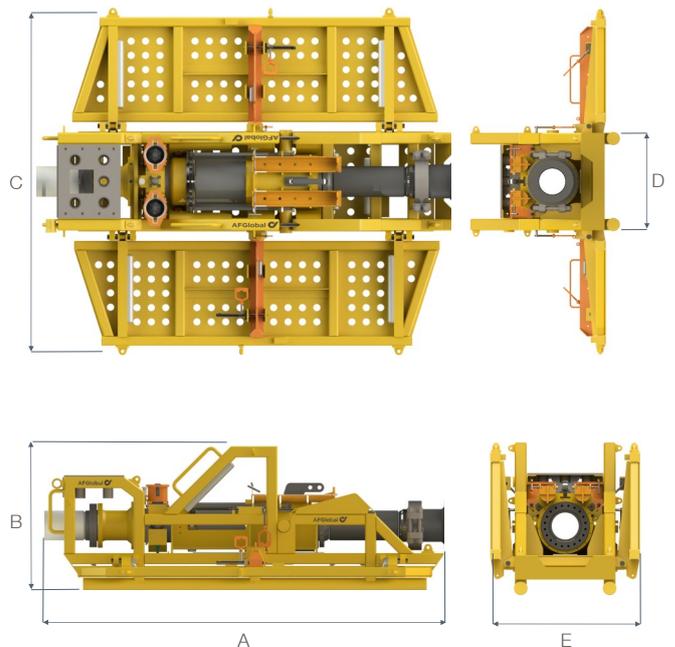


TECHNICAL OVERVIEW:

- Designed to Industry Standards, such as API 17D, API 6A, ASME VIII-2, DNV-RP-B401, etc...
- Size range from 4" to 16"
- Depth rating up to 3000 m
- Total weight of < 4 tonnes once installed
- Large misalignment capability
- Padeye capacity on Pullhead of up to 20 tonne
- Installed within 6 hrs from deck to seabed
- Subsea connection time < 30 mins
- Pull-in capacity of up to 30 tonne
- Full suite of simple ROV manipulator deployed Tooling available for rental or purchase

APPLICATIONS:

- Ideal for shallow water tie-back developments
- Cost effective alternative to conventional PLETs / RETs / FTAs
- Standard & be-spoke design options available

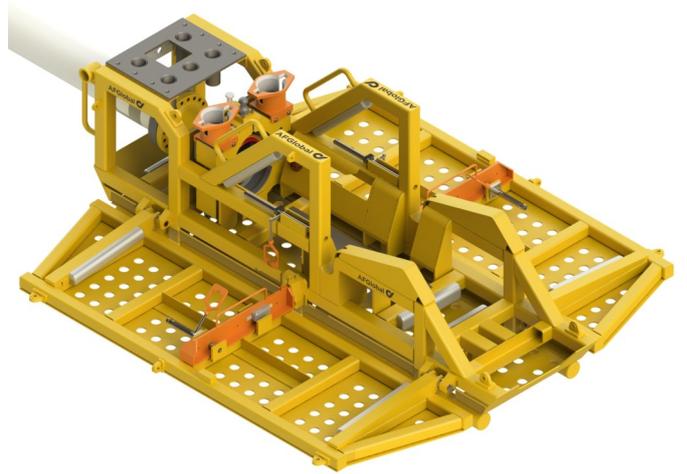


NPS	DIMS				
	A	B	C	D	E
4" - 12"	4280	1570	3650	1050	1530
14" - 16"	4280	1700	4000	1400	1880

INSTALLATION SEQUENCE:



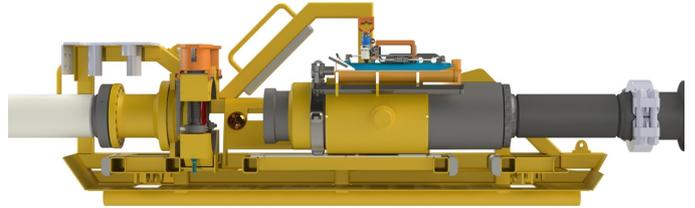
1. SDDC is deployed through the pipelay vessel stinger with PLR and Pullhead pre-installed.



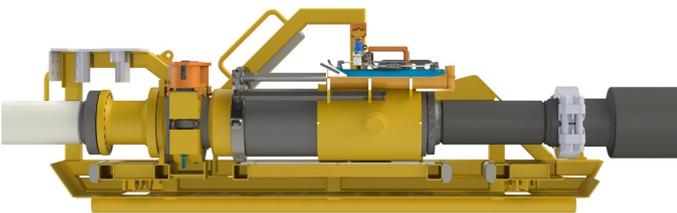
2. Mudmats are lowered, pigging operations completed, PLR and Pullhead recovered to surface.



3. Flexible Riser and Pullhead assembly is lowered into place on to the porch structure.



4. Once the Pullhead has landed and is locked into the structure, the hub protective covers are removed.



5. Cylinders are hydraulically activated to stroke hubs together, and ROV torque tools close the Retlock® clamp.



6. Annulus back seal pressure test performed, ROV tooling recovered, and the pipeline connection is complete.