

Stavanger Engineering is a leading solution provider for purpose-built mechanical equipment and steel structures for the oil and gas industry.

Mechanical engineering - Structual engineering - Advanced technical analysis - Drilling and well intervention solutions.

## **Coiled Tubing Tension Frame**

During well intervention on offshore vessels there is a need to keep the riser in tension and have a work window to rig up wireline and CT equipment.

The Stavanger Engineering Tension Frame is designed for maximum operational efficiency and safety for both wireline and coiled tubing intervention.

The Injector head [IH] table is used to skid the injector head in and out of well centre thus avoiding working under suspended loads.

Three winches at the top along with a manipulator arm at the bottom ensures superior operational flexibility.

The tension frame has been developed in close cooperation with offshore specialists with extensive hands-on experience to ensure the best and most practical solutions.

The SE tension frame can also be delivered with a weak link system to comply with ISO 13628-7 requirements to have a controlled disconnection between the compensator and the riser system, preventing catastrophic failure. This solution combines the field-proven Scan-Tech Weak Link Bail technology with conventional tension frame design. Typical free stroke of 6m after shearing.



CTTF - Coiled Tubing Tension Frame



CTTF - Coiled Tubing Tension Frame





## **Key benefits**

- Safe and efficient wireline and coiled tubing intervention.
- Eliminates work under suspended load
- Injector tilt for stabbing of coil
- Dual safety systems for IH table lifting
- Manipulator arm for handling of wireline lubriucator.
- Hydraulic gate in bottom beam for pick-up of surface flow tree.
- Detachable IH table with rig-up stand

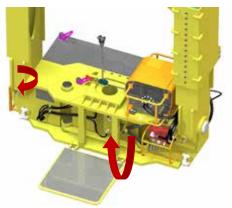
- 20 Te main winch that can move sideways for lifting of injector head.
- 5 Te utility winch for lifting BHA on rotation arm.
- 3 Te utility winch for handling of wireline equipment on ratation arm.
- 3 Te utility winch arm synchronized with manipulator arm.
- 3 Te stabbing winch to pull coil through injector head.



Special type top beam for remote pickup from vertical position by bails.



Manipulator arm for handling of wireline lubricator



Bottom beam with stab-in winch, hydraulic tilt and gate.

Technical Data, Coiled Tubing Tension Frame [CTTF]	
Tension Capacity	350 sT (Typical)
Options	<ul> <li>Offshore transport basket</li> <li>Funnel and remote locking of bails for vertical pick-up</li> <li>Hydraulic Power Unit</li> </ul>
Top interface	5-1/2" Lifting Sub or bail connection.
Bottom interface	Surface Flow Tree – BOP x-over, WL adapter or bail connection.
Dimensions -HxW(typical)	15000mm x 2500mm
ATEX classification	Zone 1
Applicable standards	<ul> <li>API 8C Specification for Drilling and Production Hoisting Equipment, or ISO 13628-7 Completion/workover riser systems</li> <li>ISO14693 Petroleum and natural gas industries - Drilling and well-servicing equipment</li> <li>DNV 2.22 Lifting Appliances</li> <li>DNV 2.7-3 Offshore Units</li> <li>NORSOK D-002 System requirements well intervention equipment</li> </ul>