

CT SEAS

Automated offshore CT unit

APPLICATIONS

- Offshore coiled tubing (CT) operations in demanding environments on fixed and floating facilities

ADVANTAGES

- Increases safety and efficiency
- Lowers operating costs
- Reduces the number of lifts required (typically from 53 to 36)
- Reduces personnel by up to 30%
- Reduces rig-up time
- Reduces operating time

FEATURES

- Usability in all CT operations
- Ten primary skids
- Reduced mechanical and hydraulic coupling on location
- Preassembled and tested equipment modules and manifolds
- Soundproofed, zoned, ATtmospheric EXplosives (ATEX) compliant hydraulic power unit
- Modularized hydraulic connections
- Automatic stabbing of tubing into injector head
- Reduction in high elevation work
- Improved pressure testing

Increased safety and efficiency

With components modularized into 10 primary skids, CT SEAS* automated offshore CT unit reduces time for offshore CT operations.

Modular assembly

An ergonomically designed cabin enhances operator control while reducing personnel requirements, rig-up time, and costs. Pretested, preassembled modules make field assembly efficient and minimize the chances for human error during rig up. A reduction in the number of hydraulic connections saves time and reduces the risk of contamination. Single-bolt locking unions and other time saving devices enhance efficiency.

Safer, more efficient CT system

The CT SEAS unit is flexible, fit-for-purpose, and readily adaptable for many offshore structures, including platforms, floaters, and tension-leg platforms. The system has all the capabilities of a conventional CT unit.

The unit is beneficial in all operations in which many runs are conducted in the same well. Typically, these operations include long postfracturing cleanouts. System design elements and improved ergonomics enhance safety and save time.

- The process control architecture allows faster, safer operations.
- Single-point control of CT, choke manifold, and pump improves safety and helps the engineer focus on the task at hand.
- Modules allow efficient transition between wells on sequential multiwell operations.
- Personnel reduction improves operational efficiency and safety.
- More efficient use of space through a modular design benefits platform operations, limits boat space requirements, and reduces the number of crane lifts.



The CT SEAS unit only has 10 primary skids, which cuts crane lifts off the boat to 36 from 53 in typical operations.



General Specifications

Operating temperatures -4 degF [-20 degC] to 108 degF [42 degC]

Hydraulic Power Pack

Engine 500-hp Detroit Diesel Series 60®

Engine emergency shutdown system Emergency air intake shutdown, automatic engine overspeed shutdown, gas detector sensors

Hydraulic pumps P16 / P14

Hydraulic circuits Closed loop, 3,000 psi [20.68 MPa], and 5,000 psi [34.48 MPa]

Length × width × height 21.3 ft × 11.5 ft × 8.2 ft [6.5 m × 3.5 m × 2.5 m]

Weight 19 metric tons

Lifting certification DNV† 2.7.1

Certification ATEX, Zone II compliant

Control Cabin

Cabin Pressure-purged A60

Controls Process-controlled system

Data acquisition CoilCAT* coiled tubing computer-aided treatment

External monitoring (video camera system) Remote spooling, stripper, two others as required

External view 270° view

Length × width × height 14.8 ft × 8.2 ft × 9.8 ft [4.5 m × 2.5 m × 3 m]

Weight 7.5 metric tons

Lifting certification DNV 2.7.1

Certification ATEX, Zone II compliant

† Det Norske Veritas

CT SEAS

Drop-In Drum Reel System

Loading	From top and front of power stand
Reel swivel	15,000-psi [103.42-MPa] rated
Safety equipment	Fall arrester, work platforms as required for levelwind access

Tubing Spool Specifications

2 ⁷ / ₈ -in tubing capacity	19,685 ft [6,000 m]
Length × width × height	17.2 ft × 10.9 ft × 17.1 ft [5.3 m × 3.3 m × 5.2 m]
Weight with empty spool	14 metric tons
Lifting certification	DNV 2.7.1
Certification	ATEX, Zone II compliant

Injector Specifications

HR 5100 configuration	100,000 lbf pull, 50,000 lbf snub [444,822 N pull, 222,411 N snub]
Injector connector	5.125-in [13.02-cm] mechanical connector
Hydraulics	5,000-psi [34.37-MPa] circuit with condition monitoring systems
Depth system	Universal tubing length monitor mounted below the injector chains
Gooseneck	Trifold 120-in [3.05-m] gooseneck with overload protection system, set up for 2 ⁷ / ₈ -in [7.303-cm] CT
Condition monitoring	Metallic chip detection and temperature sensors
Safety system	Fall arrester system
Lifting certification	DNV 2.7.1
Certification	ATEX, Zone I compliant

Well Control Equipment

BOP	5.125-in [13.02-cm], 10,000-psi [68.95-MPa] triple
Safety head	5.125-in [13.02-cm], 15,000-psi [103.42-MPa] single shear
Stripper	4.06-in [10.31-cm], 10,000-psi [68.95-MPa] dual stripper
Risers	5.125 in [13.02 cm], 15,000 psi [103.42 MPa]



The CT SEAS unit offers an ergonomically designed cabin which enhances operator control while reducing personnel requirements, rig-up time, and costs.

slb.com/CoiledTubing

Schlumberger