Advanced Riser Tension Protector (ARTP) Tension Lift Frame C Series Datasheet

Functionality & Safety for Subsea Well Completions & Interventions

The **ICON ARTP Tension Frames** are a step change beyond traditional coiled tubing lift frames (CTLFs).

The equipment range combines proven technology with advanced innovative design to provide the ultimate in functionality and safety for subsea well completions and interventions from floating rigs (i.e. "locked-to-bottom" or "pinned-to-seabed" operations).

The **ICON ARTP C Series** is a simple, practical, tension frame designed to support the completions / workover (C/WO) riser, with the addition of an advanced over tension relief function, compliant with ISO 13628-7, to protect the riser in the event of primary compensator lock up.

Like all models in the range of **ARTP Tension Frames**, the **C Series** also facilitates safe rig up of surface pressure control equipment (PCE).

ICON ARTP C Series Overview

Application	Best suited for most applications to provide advanced riser protection while utilising the rig's compensator for primary heave compensation
Primary Benefits & Functions	ISO 13628-7 / API 17G compliant
	C/WO riser tension frame with over / under tension protection
	Emergency heave compensation after activation of over / under tension relief function
	Over / under tension relief function resettable in derrick to quickly resume operations
	Available as an in line module for use with the **A Series** tension frame, or as a single integrated unit
	PCE operating window, suitable for both coiled tubing and wireline operations
	Interfaces directly with the surface flow tree for minimum stack-up height
	Lightweight and easy to install, utilising standard drilling connections for minimum rig-up time

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ICON ARTP C Series Functional Description

Note: Typical specifications are listed below. The system can be customised to suit project specific requirements. For guidance and advice on specifying the correct ICON ARTP for your project, contact an ICON Engineering specialist. We can guide you through the process and assist in developing the optimum solution for your application.

Design Codes	▸ ISO 13628-7 / API 17G ▸ DNV-0S-E101 ▸ API 8C ▸ DNV 2.22
Certification	▸ DNV
Load Ratings	▸ 500 to 1500 kips to suit client specification ▸ Full load rating available when hydraulically locked or at full extension
Stroke	▸ Typically 20ft, customisable to suit client specifications
Operation Modes	▸ Rigid mechanical link (full extension) ▸ Locked-to-bottom mode (hydraulically locked with over / under tension relief) ▸ Emergency compensating mode
C/WO Riser Over/Under Tension Protection	▸ Automatic transition from lock-to-bottom mode to emergency compensating mode ▸ Rapid transition (<100ms) ▸ Adjustable over / under tension relief load ▸ Remotely resettable
Control Unit	▸ Basic drill floor mounted control unit ▸ Pressure & load gauges ▸ Over / under tension relief reset ▸ Emergency fluid top up
Air Supply	▸ Not required (system can be pre-charged in advance and does not require adjustment during operation) ▸ Air compressor for system pre-charging or connection to rig supply
SFT Adapter	▸ Adapters to suit a variety of surface flow tree handling subs
PCE Working Window	▸ Width = 6ft ▸ Height = 48ft typ (to suit client specifications)
PCE Winches	▸ Hydraulic PCE winch with dedicated HPU (if required) or simple air chain hoist ▸ Working load limit (WLL) to suit client specification
Man-Rider Winch	▸ Dedicated man-rider winch for safe access from drill floor (optional)
Work Platform	▸ Working platform fitted to lower spreader beam to allow safe access to the surface pressure control equipment (optional)
Working at Heights	▸ Full DROPS compliance ▸ Inertia reels and secondary tie off points for personnel and tools
Shipping Skids	▸ Custom offshore rated skids to DNV 2.7-1 / 2.7-3

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