

## Advanced Riser Tension Protector (ARTP) Tension Lift Frame E-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 top of the line **ICON ARTP E-Series** is a completions / workover (CWO) riser tension frame with integrated passive heave compensation system incorporating ICON's unique control valve arrangement for advanced riser protection.

Advanced design features, failsafe mechanisms and inbuilt redundancy allows the **ICON ARTP E-Series** to be run as either the primary or back-up compensator for locked-to-bottom operations.

### ICON ARTP E Series Overview

Application	Best suited for well completions & interventions in harsh operating sea state. Capable of providing primary or back-up heave compensation with vessel heaves up to 16.5ft
Primary Benefits & Functions	✓ ISO 13628-7 / API 17G compliant
	✓ CWO riser tension frame
	✓ CWO riser over & under tension protection
	✓ Primary or back-up heave compensation
	✓ PCE operating window, suitable for both coiled tubing and wireline operations
	✓ Simple robust system with in-built redundancy and failsafe mechanisms to ensure no single point failure



## ICON ARTP E-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-OS-E101 ▶ API 8C ▶ DNV 2.22
Certification	▶ DNV
Load Ratings	▶ From 500 to 1500 kips to suit client specification
Stroke	▶ Up to 33ft
Operating Modes	▶ Mechanical lock mode ▶ Hydraulic lock mode with automatic safety override ▶ Compensating mode
Over / Under Tension Protection	▶ Automatic safety override from hydraulic lock mode to compensating mode. ▶ Less than 100ms activation speed
Anti-Recoil	▶ Anti-recoil valve with controlled retraction
Control Panel	▶ Drill floor control panel ▶ Direct hydraulic / pneumatic controls
Condition Monitoring & Alarms	▶ Advanced condition monitoring, data logging and alarms system ▶ Primary HMI on control panel ▶ Secondary wireless laptop for driller's cabin
Load Adjustment	▶ Air fill / vent function for load adjustment ▶ Charging APV skid for rapid load adjustment
Air Supply	▶ Standalone high pressure air compressor or connection to rig supply
Hydraulic Power Unit	▶ Standalone HPU for operating system pilot pressure and emergency fluid top up
Winches	▶ Primary PCE winch, secondary utility winch and dedicated man-rider winch ▶ Working load limit (WLL) to suit client specification ▶ Dedicate HPU or connection to rig supply
Dolly Track Guides	▶ To stabilise against lateral motions in the derrick
Working at Heights	▶ Full DROPS compliance ▶ Inertia reels and secondary tie off points for personnel
Shipping Skids	▶ Offshore rated to DNV 2.7-1 / 2.7-3



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