



## *TorkWizard™ 15-150 TL* *Horizontal Makeup/Breakout Unit*



The patented Weatherford TorkWizard 15-150 TL is a horizontal wrenching unit that achieves high and accurate torque in nonrotational applications. The design of the TorkWizard unit enables top-loading of drillstring components for offline makeup and breakout operations. The unit can be used for virtually all oilfield connections, including drillstring components, bottomhole assemblies, tools, packers, couplings, and valves. Fast and easy to rig up, the mobile unit is operable in workshops, alongside land rigs, or on the pipe deck of offshore platforms.

The unit is installed on a robust machine frame that includes a passive, stationary backup device (tailstock) and an active, moveable wrenching tong device (headstock). Three hydraulically driven clamping cylinders on the headstock and tailstock devices drive the jaws in and out with an integrated pressure accumulator to provide constant gripping force. The headstock is also equipped with two powerful hydraulic wrenching cylinders to turn the swivel head in 30° intervals.

### *Applications*

- Making up or breaking out most oilfield connections in workshop or rig environments
- Transmitting torque and accurate measurements on drillstring connections
- Making up or breaking out connections in ATEX Zone 2 atmospheres, which are potentially explosive



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## *TorkWizard™ 15-150 TL Horizontal Makeup/Breakout Unit*

### *Features, Advantages, and Benefits*

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- The unit improves performance and requires less maintenance during the makeup and breakout process, which saves rig time.
- The top-loading capability simplifies the handling of technical equipment for safer, faster, more controlled, and more reliable operations. An additional pipe feeding transport is not required.
- The high-torque spinner provides faster makeup and breakout operations.
- The electronic load cell and torque gauge provide accurate measurements at all torque levels. When reaching the optimum torque, the unit interrupts the makeup process automatically.
- One set of jaws covers an ultrawide clamping range between 3-1/2 and 15 in. without changing jaws or dies, which increases operational efficiency.
- Pressure accumulators inside the clamping cylinder ensure a constant gripping force and stability during the entire clamping process.
- The gripping system is designed with upside-down clamping cylinders to enable higher makeup and breakout torques without the risk of bending the piston rods.
- The clamping cylinder is mounted with just two nuts, which facilitates quick and easy removal for maintenance and repair.



## ***TorkWizard™ 15-150 TL***

### ***Horizontal Makeup/Breakout Unit***

#### ***Specifications***

Gripping range (in., mm)	3-1/2 to 15 89 to 381
Maximum passing OD (in., mm)	15-1/8 384
Maximum makeup/breakout torque at 15 in. (381 mm) (ft-lb, N•m)	150,000 203,373
Torque application angle	30°
Maximum spinner speed (rpm)	50
Approximate weight without accessories (lb, kg)	24,251 11,000
Length (in., mm)	269 6,840
Width (in., mm)	74 1,868
Height (in., mm)	92 2,327
Pipe center height (in., mm)	67 1,695
Maximum distance between headstock and tailstock (ft, mm)	15.4 4,698
Maximum headstock/tailstock clamping pressure (psi, bar)	8,702 600
Maximum headstock wrenching pressure (psi, bar)	3,626 250
Hydraulic pressure (psi, bar)	4,061 280
Hydraulic flow (gal/min, L/min)	24 at 50 Hz 90 at 50 Hz
	29 at 60 Hz 110 at 60 Hz

#### ***Options***

- Centering devices for headstock and tailstock
- Automatic/semiautomatic remote control system
- Hydraulic lifting jacks and external-extension rails
- Spinning device for pretightening
- Nonferrous/softouch dies for corrosion-resistant alloy application in clamping devices
- Electronic torque gauge
- Modules to tailor the unit for various applications
- Control/operator cabin with air conditioner

#### ***Additional Information***

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#### **Patents**

US	6745646
EP	1559865
CA	2494598