

Iron Roughneck

IR-120 & IR-120-Remote

Specifications

Torque make-up	100,000 ft-lbs	135,600 Nm
Torque break-out	120,000 ft-lbs	162,700 Nm
Tool joint connection OD range	3-1/8 in – 9-3/4 in	
Spinner speed (nominal)	80 rpm @ 5" DP, 46 gpm / 176 ℓ/min. / 170 bar	
Spin torque	3,000 ft-lbs 4,000 Nm @ 5" DP, 46 gpm / 176ℓ/min.	
Max. connection height	69.2 in	1,759 mm
Min. connection height	30 in	759 mm
Max. horizontal travel*	12 ft	3,657mm
Max. hydraulic requirements	58 gpm @ 3,046 psi. / 220 ℓ/min. @ 210 bar	
Min. hydraulic requirements	35.3 gpm @ 2,466 psi. / 130 ℓ/min. @ 210 bar	
Torque wrench working angle	40°	
Controls	Local control panel or remote controls via zone rated HMI or zone rated wireless controls	
Remote capabilities	Sequence assisted automation	
Mount	Pedestal / floor mount socket	
Pedestal rotation	300°	
Casing ready	No	
Width	55.5 in	1,410 mm
Height (from drill floor level)	97.4 in	2,474 mm
Height (transport)**	86.6 in	2,200 mm
Depth (retracted)	89.4 in	2,271 mm
Weight	19,800 lbs	8.9 t
Max. temperature	131 °F	+55 °C
Min. temperature	-40 °F	-40 °C

* Horizontal travel is the defined distance between center of wrench when retracted and center of wrench when extended

** Socket pin removed from the unit for transport

Key features

High Performance. Heavy Duty.

The IR-120 is engineered for demanding drilling applications, delivering high performance in the most challenging operating environments. Its robust design supports both portable onshore use and permanent offshore installation, providing flexibility across rig configurations.

The IR-120 is hydraulically operated, ensuring powerful and reliable performance.

The IR-120 Remote is electro-hydraulically operated, offering advanced automation and remote capability — reducing manual intervention while enhancing safety, consistency, and operational efficiency.

Benefits

- Up to 50% reduction in flat time during make & break operations
- Fastest cycle times down to 37 seconds per connection
- Simplified electro-hydraulic system with reduced hydraulic requirements
- High-accuracy torque measurement with dynamic clamping system
- Automatic positioning via Tool Joint Pointer
- Integrated torque readout system for consistent connection quality
- E-Torque List for digital recording and performance tracking
- Central lubrication lowering grease ports
- Spin-out sensor for enhanced control and safety
- Improved HSE through automation and remote operation
- Interchangeable with common third-party market models
- Fully compliant with CE, ATEX