

FR120 SERIES IRON ROUGHNECKS

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FR120 SERIES IRON ROUGHNECKS

With approximately 50 percent fewer components than others in its class, FET's FR120 series of Iron Roughnecks offer a unique, simplified design that provides years of reliable service. With the lowest cost of ownership in their class, our roughnecks are known for their low maintenance and easy repairs.

All FR120 models are hydraulically powered, lightweight and use high-torque spinning motors to spin up tubulars. Their design features three clamping cylinders that torque up and break out drillpipe and collars, limiting the potential for damaged, deformed tool joints while utilizing industry-standard four-inch dies.

With a unique design that employs a simplified thread compensation system, these iron roughnecks allow for +/- five inches of spinner travel as the upper pipe section spins in and out. The compensation system ensures maximum spinner efficiency while enabling the most accurate torque application in its class.

All of FET's Iron Roughnecks are designed in accordance with American Petroleum Institute (API) 7K specifications with minimum 2.25:1 design safety factors.

Features

- Handles API and Premium XT*, TT*, VAM** and other extended length threaded tool joints
- Standard hydraulic pilot operated controls (Electrical version available)
- High torque Spinner
- 45° Torque rotation
- Three-jaw torquing system
- Spinning Wrench Thread Compensation
- Designed in accordance with API 7K











Application	Larger Land Rigs and Jackups	Smaller Land Rigs and Jackups	Land Rigs
Tool Name	FR120	FR120-C	FR120-SC
Torque: Make-up	100,000 ft-lbs.	100,000 ft-lbs.	100,000 ft-lbs.
Torque: Break-out	120,000 ft-lbs.	120,000 ft-lbs.	120,000 ft-lbs.
Connection OD	4" - 9.75"	4" - 9.75"	4" - 9.75"
Torque Rotation Angle	45°	45°	45°
Tubular Range	3.5" - 9.75"	3.5" - 9.75"	3.5" - 9.75"
Spinner Torque	3000 ft-lbs.	3000 ft-lbs.	3000 ft-lbs.
Spinner Thread Compensation	±5"	±5"	±5"
Effective Horizontal travel	96"	72"	72"
Horizontal Reach*	132"	108"	102"
Vertical Travel	36"	36"	36"
Slew Angle	±179°	±179°	±179°
Minimum Connection Height	27"	27"	35.5"
Ambient Temperature Range	-20°C to +45°C	-20°C to +45°C	-20°C to +45°C
Weight	12,000 lbs.	11,000 lbs.	11,500 lbs.
Height Stowed	96"	96"	85.5"
Depth	70"	70"	77"
Width	55"	48.75"	48.5"
Min Flow	45 gpm	45 gpm	35 gpm (45 gpm recommended)
Min Pressure	2500 psi	2500 psi	2500 psi
Meets API 7K Design Requirements	٧	٧	٧

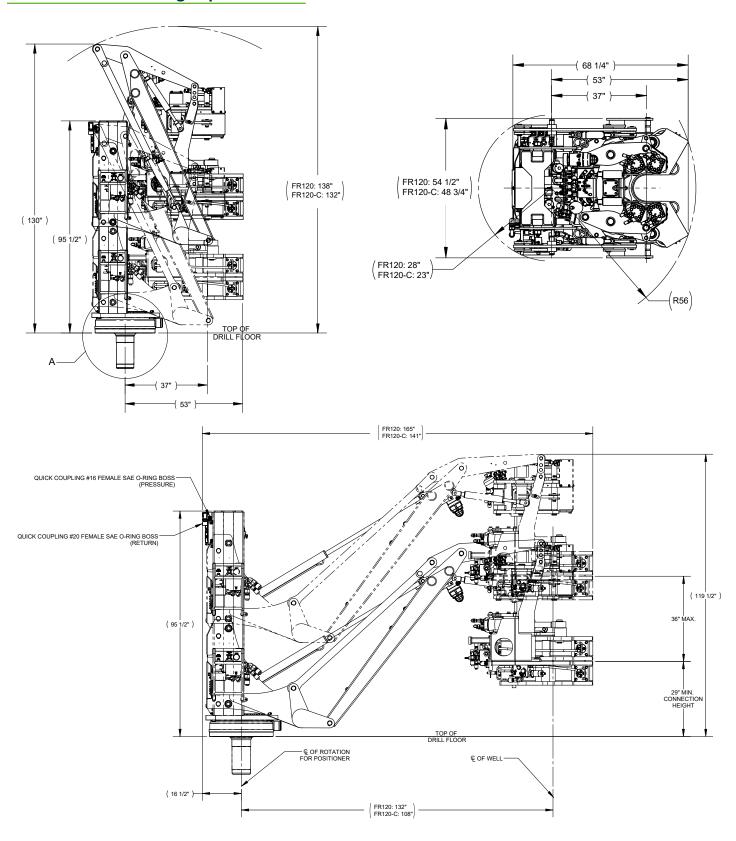
^{*}From Floor Socket location without optional Extender Plates

Benefits

- Single-stroke makeup and breakout improves rig efficiency
- Accurate torque application reduces potential for downhole makeup
- Fewer components aid in troubleshooting and repair
- Three-jaw gripping drastically improves die life
- API 7K-compliant design ensures reduced total cost of ownership

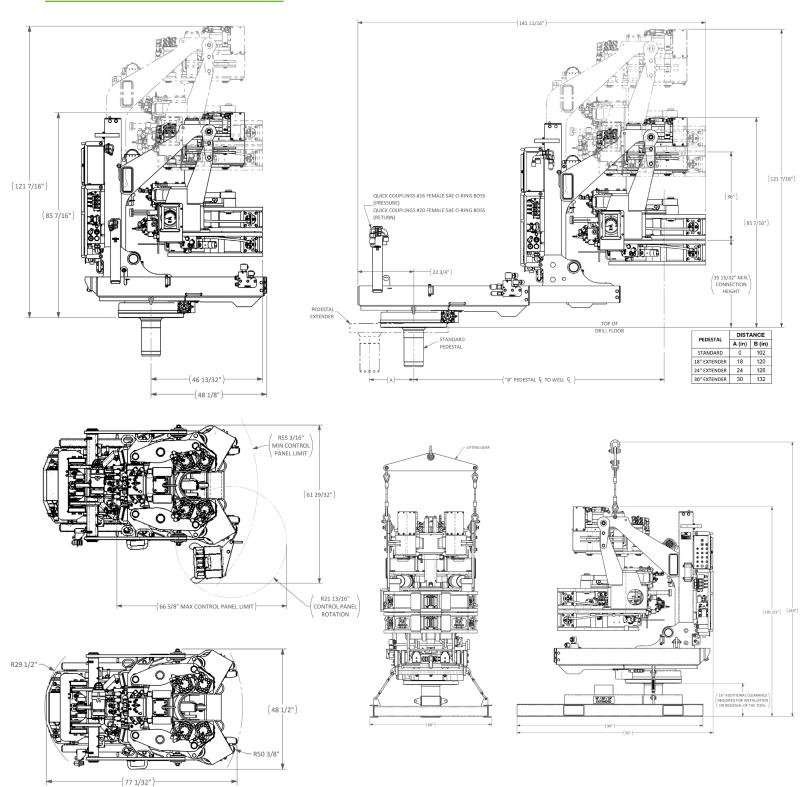


FR120 & FR120-C Design Specifications





FR120-SC Design Specifications





ABOUT US

From tubular handling equipment to manifolds and pipes, FET is your direct source for oilfield equipment. We design our equipment to be reliable, easy to use and easy to service – to fulfill all your drilling needs.

Handling Tools

- Elevators and Links
- Drill Pipe Tongs
- Rotary and Drill Collar Slips
- Safety Clamps
- Power Slips
- Bowls and Bushings
- Dies and Inserts

Pumps & Valves

- Drill Pipe Float Valves
- Lube/Thread Compounds
- Mud Hog Centrifugal Pumps
- Mud Line Gate Valves
- Standpipe Manifold Fittings
- Low Torque Plug Valves

Bearings & Power Transmission

- Bearings and Seals
- Belts
- Sheaves
- Chains and Sprockets

Mud Pumps

- Fluid End Expendables
- Pquip High Performance Systems
- Fluid End Modules
- Discharge and Suction Manifolds
- Discharge Blocks
- Pulsation Dampeners
- Relief Valves
- Washpipe and Packing

Instrumentation

- Deadline Anchors
- Mud Pump Pressure Gauges
- Weight Indicators
- Monitoring Systems
- Tong Gauges and Load Cells

Pipe Delivery System

- Catwalks/Pipe Wranglers
- Cranes
- Iron Roughnecks
- Mud Buckets



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OUR CORE VALUES

No One Gets Hurt

The safety of our employees and customers is our first priority coupled with a healthy respect for the environment.

Integrity

In everything we do, in every interaction, both internally and externally, we strive to operate with the utmost integrity and mutual respect.

Customer Focused

Our products enhance our customer's performance and we listen to their needs and work with them to solve their challenges.

Good Place To Work

We are committed to creating a workplace that fosters innovation, teamwork and pride. Every team member is integral to our success and is treated equally and fairly.

Forum Energy Technologies

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