

Evolution 4000

(Evolution FA-1)



Casing Running Tools

Frank's Evolution FA-1 (All in One) Tool Enhances Casing Operations by Providing Simple Means to:

- Pick Up from Vee-Door & Stab Single Joints of Casing Utilizing Automated Single-Joint Elevators.
- Make-up & Torque Casing Connections Required to Assemble the Casing String.
- Lower and Support Casing String Weight.
- Fill, Rotate, Circulate and Reciprocate the Casing String Simultaneously.

All of these capabilities are realized with the Evolution FA-1 Tool thus improving the ease with which casing strings are run to desired T.D., even with troublesome or difficult hole conditions.

The Evolution FA-1 System improves rig floor safety by removing personnel from the rig floor during casing running operations. This is accomplished by replacing several pieces of traditional manually operated equipment with this Single, Fully Mechanized, Remotely Controlled System.



Torque-Turn Monitoring

Optional Torque-Turn Monitoring is available thru an Independent Torque Monitoring System which is integrated with the FA-1 Tool or via electronic interface with the Driller's Top Drive Monitoring and Control System.

Hydraulic Power Unit Requirements

- Diesel & Electric Power Unit options available

Control Panel

- Incorporates Control of FA-1, Praying Mantis, Single Joint Elevator & Spiders (pneumatic or hydraulic)



- Panel incorporates unique "U-gate" Mechanism to control both FA-1 Slip set function and Spider set function. The U-gate and internal logic assures that either the Spider or FA-1 Slips are directed to the set position at all times.



14" FA-1 TOOL

SPECIFICATIONS	
Casing Size Range	14" - 9 7/8"
Hoisting Capacity (API BC) <i>(may be limited by Top Drive Crossover Sub)</i>	500 Ton
Torque Capacity	50,000 ft.-lb
Thread Compensation	9"
Overall Length (pick-up arm retracted)	13' - 9"
Weight	8,800 lb
Thru Bore	2"
Pressure Rating	5,000 psi
Praying Mantis Module Capacity	5 Ton
Incorporates Fill-Up and Circulation Functions	

20" FA-1 TOOL

SPECIFICATIONS	
Casing Size Range	22" - 16"
Hoisting Capacity (API BC) <i>(may be limited by Top Drive Crossover Sub)</i>	500 Ton
Torque Capacity	70,000 ft.-lb
Thread Compensation	9"
Overall Length (pick-up arm retracted)	15'
Weight	9,500 lb
Thru Bore	2"
Pressure Rating	5,000 psi
Praying Mantis Module Capacity	5 Ton
Incorporates Fill-Up and Circulation Functions	