

EVOLUTION 4000

(with Mantis)



In keeping with its mission to provide dependable, technically superior products and services, Frank's has designed and produced the Evolution internal grip tong. The Evolution connects to and is powered by the top drive. The Evolution is compact in size and has the ability to double as a fill-up tool when used in conjunction with Frank's unique mud saver valve.

Since the Evolution is capable of making-up a variety of casing sizes, separate Evolution models have been designed.

Features and Advantages:

- Use of the Evolution improves rig floor safety and efficiency by eliminating the need for a power tong and hydraulic power unit.
- When combined with Frank's unique Horseshoe Elevators and Rotary Spiders, the Evolution can run casing strings with a minimal amount of rig floor personnel.
- Fast, safe and easy rig-up and removal.
- Fill-up provisions are integral to the tool.
- Circulation module is available.



Specifications

(Released 01/09/09)

4 1/2" - 7" TAWG Tools					
Nominal OD [in]	Weight per Foot [lbf/ft]	TAWG Hoist Rating	MAX String Length	TAWG Hoist Rating @ 1000psi	Max String Length Circ. Press.
4.500	11.60	125	21,552	119	20,468
	13.50	125	18,519	125	18,499
5.500	17.00	200	23,530	141	16,470
	20.00	200	20,000	150	14,000
	23.00	200	17,390	150	12,170
7.000	23.00	250	21,739	234	20,355
	26.00	250	19,231	250	19,215
	29.00	250	17,241	250	17,223
7.625	29.70	250	16,835	231	15,585
8.625	24.00	250	20,833	224	18,688
	32.00	250	15,625	250	15,613
9.625	36.00	150	8,333	119	6,597

PIPE RANGE	Pipe Range	4 1/2"	5 1/2"	7" - 8 5/8"	9 5/8"
		Pipe Weight Max (PPF)	13.5	23	7" @ 38
RATINGS	Hoist Rating (Tons)	100	200	250	150
	Torque Rating @ 0 Hoist (ft-lbs)	12,500	15,000	27,000	
	Torque Rating @ Full Hoist (ft-lbs)	5,000	9,000	18,000	
	Continuous Operating Speed (RPM)	60			
SHIPPING DIMENSIONS	Length	18' 10"			
	Width	3' 4"			
	Height	5' 6"			
	Weight MGW (lbs)	7,300			
	Weight SWL (lbs)	6,000			
OPERATIONAL DIMENSIONS	Length Minimum	16' 3"			
	Length Maximum	20' 3"			
	Width	3' 2"			
	Depth	4'			
	Available Thread Compensation	3 1/4"			
	Side to Side Joint Manipulation	3 1/2"			
PRAYING MANTIS (LINK/TILT)	Load Rating (Tons)	5			
	Reach From Well Center Minimum	10' 6"			
	Reach From Well Center Maximum	15' 6"			
	Adjustment Increments	12"			
	Angle from Vertical Max	90°			
FAC TOOL SPECS	Circulation Rate Max (BBL/min)	4 1/2" - 5 1/2"	7" - 13 3/8"		
		5	10		
	Temperature Max (°F)	200			
	Mud Circulation Pressure Max (psi)	3,500			