

Agitator™ Fishing System

Technical
Summary

Simply efficient fishing.

The *Agitator*™ fishing system greatly increases the likelihood of retrieving stuck objects where overpull and jarring alone have not been successful.

The *Agitator* fishing system reduces friction downhole by creating gentle axial oscillating motion, disengaging with the formation. When added to your fishing BHA, this functionality is complementary to the fishing jar, and the *Agitator* fishing system can be used either with or without jarring. Whereas jarring generates a large single impact force, the *Agitator* fishing system generates a lower tensile force at a much higher frequency with a net increase in total energy applied to the fish. Agitation frequencies typically vary from 13 to 19 cycles per second (Hertz) depending on the tool size and flow rate.

Applications and Challenges

- Stuck BHAs (differential/mechanical) • Casing retrieval • ESP retrieval
- Pulling sand screens • Pulling packers

Benefits

- Achieves results in previously failed fishing attempts
- Significantly increases rate of success for retrieval of stuck BHAs and pipe
- Eliminates expensive cementing and sidetracking operations
- Strength and frequency of the oscillations is customizable to your operation
- Reduces non-productive rig time and time spent fishing
- Reduces lost-in-hole costs
- Compatible with standard fishing tools



Technical Specifications

Tool size (OD)	4 ¾ in 4 ¾ in. high flow	5 in 5 in. high flow	6 ½ in 6 ½ in. high flow	6 ¾ in 6 ¾ in. high flow	8 in	9 ½ in
Overall length	20 ft 20.5 ft	20 ft 20.5 ft	24.9 ft 22.9 ft	22.9 ft 22.1 ft	Series 148 - 24.7 ft Series 160 - 25.5 ft	22.8 ft
Weight	825 lbs	920 lbs	1,700 lbs	1,850 lbs	2,500 lbs	4,200 lbs
Recommended flow range	150-270 gpm 250-330 gpm*	150-270 gpm 250-330 gpm*	375-475 gpm 400-600 gpm*	400-600 gpm 600-900 gpm*	500-1,000 gpm	600-1,100 gpm
Temperature range	320°F (160°C)	320°F (160°C)	320°F (160°C)	320°F (160°C)	320°F (160°C)	320°F (160°C)
Operating frequency	18-19 Hz @ 250 gpm 16-17 Hz @ 250 gpm	18-19 Hz @ 250 gpm 16-17 Hz @ 250 gpm	15 Hz @ 400 gpm 16-17 Hz @ 500 gpm	16-17 Hz @ 500 gpm 13-19 Hz @ 600-900 gpm	16 Hz @ 900 gpm	12-13 Hz @ 900 gpm
Operational pressure drop generated	500-600 psi*	500-600 psi*	500-600 psi*	500-600 psi*	500-600 psi*	500-600 psi*
Max pull to yield	260,000 lbs	380,000 lbs	555,000 lbs	566,000 lbs	Series 148 - 770,000 lbs Series 160 - 872,000 lbs	1,145,000 lbs
Max pull for agitation	29,000 lbs	29,000 lbs	61,250 lbs	61,250 lbs	Series 148 - 61,250 lbs Series 160 - 54,250 lbs	82,500 lbs
Max weight for agitation	74,000 lbs	74,000 lbs	100,000 lbs	100,000 lbs	Series 148 - 125,000 lbs Series 160 - 125,000 lbs	100,000 lbs
Connections**	3 ½ in. IF pin/box	4 in. Grant Prideco™ XT39 pin/box	4 ½ in. XH 4 in. IF pin/box NC46 pin/box	4-½ in. IF pin/box	6 ¾ in. REG pin/box NC-56 pin/box	7 ¾ in. REG box up 7 ¾ in. REG pin down 6 ¾ in. REG pin down

*Optimal flow rate and pressure drop may depend on characteristics of the fish being retrieved; higher pressure drops can be used in a fishing application

** Additional connections available upon request