

Fixed-Cage Spinner Mechanical Impeller

Provides selectable fluid velocity

Applications

Production logging flow and injection profiling

Features and Benefits

- Combinable with flow and temperature electronics tool
- Centerline flow measurement at bottom of toolstring
- Variable size options for compatibility with minimum wellbore restriction

Tool Description

The Weatherford fixed-cage spinner mechanical impeller is run in combination with either the 1 11/16-in. flow and temperature electronics tool (FLTE), which combines the flowmeter sensor electronics with a fast-response temperature tool, or with the 1 11/16-in. combined capacitance, flow and temperature tool (CFT).

Selected size depends on the minimum restriction in the completion. The protected impeller assembly minimizes the possibility of damage in hole.



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Specifications

Ratings and Dimensions

	FCSM01	FCSM02	FCSM04
Maximum temperature	350°F (177°C)		
Maximum pressure	15,000 psi (103.4 MPa)		
Outside diameter	1.69 in. (43.3 mm)	2.13 in. (54 mm)	3.15 in. (80 mm)
Length	6.5 in. (0.65 m)	6.9 in. (175 m)	7.5 in. (191 m)
Weight	1.4 lb (0.65 kg)	1.6 lb (0.72 kg)	2.2 lb (1 kg)
Materials	Corrosion-resistant materials used throughout		

Measurement

Output	10 pulses per revolution
Threshold	<5 ft/min (1.5 m/min)
Range	Better than 1,500 ft/min
Maximum rps (measured by FLTE or CFT)	200 rps

Hardware Characteristics

Combinability	All high-speed digital (HD) telemetry production logging tools, including RADii [®] , iQ [™] , RAS [™] when connected to FLTE and CFT
Acquisition mode	Real time (with telemetry control unit) Memory (with memory logging tool)

