

DFF

Digital fullbore flowmeter

APPLICATIONS

- Fluid velocity and direction measurement in casing

ADVANTAGES

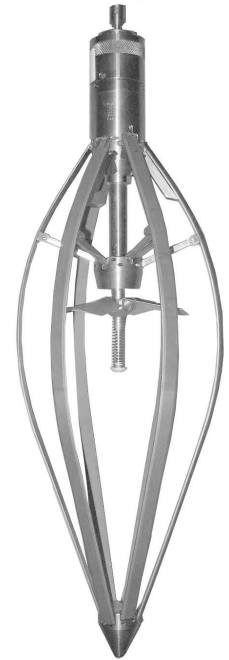
- Folding spinner and cage assembly allows passage through tubing restrictions, opening to the maximum size in casing for improved low-flow rate performance
- Multiarm cage provides protection of large spinner
- Direct measurement of spinner rotational sense, for fluid direction
- Optional spinner assembly for high-rate injection wells
- Low-friction bearings minimize threshold velocity

The digital fullbore flowmeter (DFF) is a mechanical spinner section that can be combined with the digital flowmeter cartridge to provide a flow measurement in the casing. The spinner blades can fold down, but special nonfolding blades can be fitted for high flow rate water injection wells.

Technical Specification

Temperature rating, degF [degC]	350 [177]
Pressure rating kpsi [MPa]	15 [103.4]
Outside diameter, in [mm]	1 ¹¹ / ₁₆ [43]
Weight, lb [kg]	10 approximately [4.5]
Length, in [mm]	35 approximately [349]
Service	H ₂ S service
Spinner pitch, in/rev [rps/fpm]	4 [0.05]

Description	Spinner Diameter	Minimum Working ID	Nominal Working ID
3 arm 4½-in casing, in [mm]	2.60 [66.0]	3.80 [96.5]	4.10 [104.1]
3 arm 5-in casing, in [mm]	3.15 [80.0]	4.20 [106.7]	4.50 [114.3]
3 arm 5½-in casing, in [mm]	3.30 [83.8]	4.60 [116.8]	4.90 [124.5]
3 arm 7-in casing, in [mm]	4.24 [107.7]	5.90 [149.9]	6.20 [157.5]
6 arm 4½-in casing, in [mm]	2.60 [66.0]	3.80 [96.5]	4.10 [104.1]
6 arm 5-in casing, in [mm]	3.15 [80.0]	4.20 [106.7]	4.50 [114.3]
6 arm 5½-in casing, in [mm]	3.30 [83.8]	4.60 [116.8]	4.90 [124.5]
6 arm 7-in casing, in [mm]	4.24 [107.7]	5.90 [149.9]	6.20 [157.5]
6 arm 9¾-in casing, in [mm]	6.08 [154.4]	8.50 [215.9]	9.00 [228.6]



DFF section.