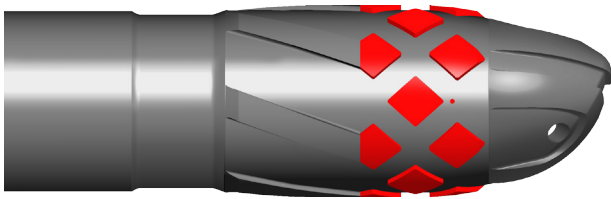


Comparison Guide: Weatherford Reamer Shoes

DiamondBack Reamer Shoe



Field-proven, premium reamer technology

- Withstands extreme and challenging environments, including abrasive formations and high-angle wellbores
- Endures high-impact loading and high set-down weight

DiamondBack FR Reamer Shoe



Premium reamer shoe plus a self-orienting nose

- Eliminates the need to rotate casing
- Directs casing strings to the path of least resistance through use of a unique free-rotating eccentric guide (FREG) nose

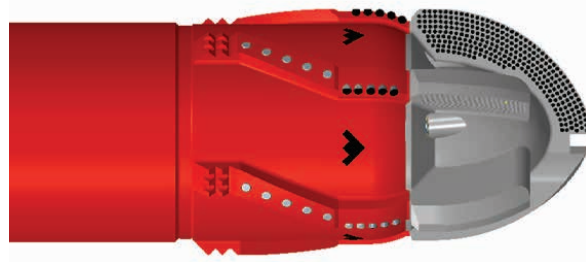
DiamondBack CC Reamer Shoe



An economic and compact reamer shoe

- Withstands unstable formations
- Features an integral cutting structure

CleanReam Reamer Shoe



Premium reamer shoe plus a casing bit

- Features interchangeable ceramic or copper nozzles
- Avoids sidetracking potential

Features and benefits shared by all Weatherford reamer shoes

- Places casing- and liner-reaming operations at TD when conventional guide or float shoes are likely to fail
- Provides 360-degree coverage in both rotating and reciprocating applications
- Overcomes wellbore obstructions, including openhole bridges, sloughing, ledges, and ridges
- Prevents channeling during cement pumping through use of large, flow-directed ports that provide fullbore coverage

Comparison Guide: Weatherford Reamer Shoes

Application Guide

	DiamondBack	DiamondBack FR	Diamondback CC	CleanReam
Formation Type	Hard and abrasive formations	Hard and abrasive formations	Soft-medium and unstable formations	Hard, abrasive, and aggressive formations
Wellbore Geometry	Vertical, horizontal, sidetrack, re-entry wells	Vertical, horizontal, sidetrack and re-entry wells	Highly deviated, inclined, dogleg, vertical, and horizontal wells	Vertical, horizontal, and high-angle
Cutter Type	Chunky tungsten carbide	Chunky tungsten carbide	Tungsten carbide	Thermally stable polycrystalline diamond (TSP) on nose, polycrystalline diamond (PDC) cutter
Cutting Structure Hardness Rating	~89 HRc	~89 HRc	~64 HRc	~115 HRc
Standard Casing Size Availability	3.5 to 20 in.	4.5 to 13 5/8 in.	3.5 to 20 in.	4.5 to 20 in.
Number of Cutting Pads	6 to 18	6 to 18	6 to 10	3 to 6
Number of Stabilizer Blades	3 to 6	3 to 6	3 to 5	5 to 6
Average Stabilizer Blade Length	7 in. (177.8 mm)	7 in. (177.8 mm)	3.5 in. (88.9 mm)	7 in. (177.8 mm)
Rotation and Reciprocation	•	•	•	Rotation only
Backreaming	•	•		•
Nose Type	Eccentric composite, aluminum	FREG composite	Eccentric composite, aluminum	Aluminum with TSP cutters
Nose Port Flow Area	3.29 to 13.15 in. ² (2,123 to 8,484 mm ²)	3.14 to 4.92 in. ² (2,026 to 3,174 mm ²)	3.29 to 13.15 in. ² (2,123 to 8,484 mm ²)	2.07 to 9.02 in. ² (1,335 to 5,819 mm ²)
Max Set Down Weight	75,000 to 400,000 lb (34,019 to 181,437 kg)	220,500 to 660,500 lb (100,017 to 299,598 kg)	75,000 to 400,000 lb (43,359 to 68,039 kg)	75,000 to 400,000 lb (34,019 to 181,437 kg)
Temperature Rating	400°F (204°C)	Composite nose: 257°F (125°C) Aluminum nose: 400°F (204°C)	Composite nose: 257°F (125°C) Aluminum nose: 400°F (204°C)	250°F (121°C)
Back Pressure Rating	1,800 to 10,000 psi (12.41 to 68.95 mPa)	5,000 psi (34.47 mPa)	1,800 to 10,000 psi (12.41 to 68.95 mPa)	3,600 to 5,000 psi (34.82 to 34.47 mPa)
PDC Drillable	•	•	•	•

Custom engineered options for noses, valves, sizes, and threads available upon request

For more information about how our reamer shoes can get you out of a tight spot, contact your Weatherford representative.

