

QuickCut™ Casing-Exit System

RMN- and RHN-Type Anchors

Enhances radial anchoring capabilities and improves milling performance in highly compressive formations

Applications

- Sidetracking
- Exiting through multiple casing strings, wellbore restrictions, and wells with high- and low-side exits
- Extended-reach-drilling wells with high casing-wall loss
- Accessing bypassed or behind-pipe reserves in Brownfield wells
- Horizontal and multilateral installations or wells with high-dogleg severity

Features and Benefits

- Mechanical or hydraulic actuation options enable complete well control while circulating, logging, or drilling. Hydraulic actuation removes the need for a false bottom to prevent costly bridge plug installations.
- The system features multiple retrieval methods.
- One size anchor catches multiple sizes and facilitates passage through restrictions.
- Lead-mill technology provides full-gauge windows and ratholes with single-trip efficiency to reduce rig time and costs.
- Lug technology protects the whipstock during cutout and accurately directs the lead mill into the casing wall.
- The 3° single-angle concave generates a smooth transition from the original wellbore.
- Casing exits can be created independently of the hole inclination, which makes high- and low-side exits possible up to 9 5/8-in. casing.
- Optional QuickChange™ shear disconnection provides debris management and the ability to change from one anchor type to another.

Tool Description

The Weatherford QuickCut casing-exit system with RMN- and RHN-type anchors uses MultiCatch™ anchor technology to provide high-performance, single-trip re-entry capabilities that save time, reduce installation costs, and minimize risk. The anchor increases standard catch ranges by two to three casing sizes. The robust design enables the enhanced radial anchoring capabilities required in highly compressive formations. The tool anchors and interchanges with all Weatherford concave assemblies, with or without a shear-release option.



Weatherford RMN and RHN anchors set in vertical and horizontal wellbores and can be oriented for high-side and low-side casing-exit installations.



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Specifications

Milling Assemblies

Casing OD	Casing Weight	Concave OD	Lead Mill OD	Lead Mill Pilot OD	Flex Mill OD	Lead Mill Connection Type	Flex Mill Connection Box × Pin	MultiCatch™ Anchor OD
4-1/2 in. (114.3 mm)	9.5 to 11.6 lb/ft (14.2 to 17.3 kg/m)	3-1/2 in. (88.9 mm)	3-7/8 in. (98.4 mm)	3 in. (76.2 mm)	3-7/8 in. (98.4 mm)	2 3/8-in. Reg box	2 3/8-in. Reg box × 2 3/8-in. Reg pin	3-1/2 in. (88.9 mm)
	13.5 lb/ft (20.1 kg/m)		3-3/4 in. (95.3 mm)		3-3/4 in. (95.3 mm)			
	15.1 lb/ft (22.5 kg/m)		3.7 in. (94 mm)		3.7 in. (94 mm)			
5 in. (127 mm)	18 lb/ft (26.8 kg/m)	3-1/2 in. (88.9 mm)	4-1/8 in. (104.8 mm)	3 in. (76.2 mm)	4-1/8 in. (104.8 mm)	2 3/8-in. Reg box	2 3/8-in. Reg box × 2 3/8-in. Reg pin	3-1/2 in. (88.9 mm)
	23.2 lb/ft (34.6 kg/m)		3-7/8 in. (98.4 mm)		3-7/8 in. (98.4 mm)			
5-1/2 in. (139.7 mm)	14 lb/ft (20.9 kg/m)	4-1/2 in. (114.3 mm)	4-7/8 in. (123.8 mm)	3-3/4 in. (95.3 mm)	4-7/8 in. (123.8 mm)	2 7/8-in. Reg box	2-7/8 AOH box × 2-7/8 Reg pin	3-1/2 in. (88.9 mm)
	15.5 to 17 lb/ft (23.1 to 25.3 kg/m)		4-3/4 in. (120.7 mm)		4-3/4 in. (120.7 mm)			
	20 lb/ft (29.8 kg/m)	4-1/4 in. (108 mm)	4-5/8 in. (117.5 mm)	3-3/8 in. (58.7 mm)	4-5/8 in. (117.5 mm)	2 7/8-in. Pac box	2-7/8 AOH box × 2-7/8 Pac pin	
	23 lb/ft (34.3 kg/m)		4-1/2 in. (114.3 mm)		4-1/2 in. (114.3 mm)			
5-3/4 in. (146.1 mm)	17.6 to 21.5 lb/ft (26.2 to 32 kg/m)	4-1/2 in. (114.3 mm)	4-7/8 in. (123.8 mm)	3-3/4 in. (95.3 mm)	4-7/8 in. (123.8 mm)	2 7/8-in. Reg box	2-7/8 AOH box × 2-7/8 reg pin	3-1/2 in. (88.9 mm)
6-5/8 in. (168.2 mm)	17 lb/ft (25.3 kg/m)	5-1/2 in. (139.7 mm)	6 in. (152.4 mm)	4-5/8 in. (117.5 mm)	6 in. (152.4 mm)	3 1/2-in. Reg box	3 1/2-in. IF box × 3 1/2-in. Reg pin	5-1/4 in. (133.4 mm)
	20 lb/ft (29.8 kg/m)		5-7/8 in. (149.2 mm)		5-7/8 in. (149.2 mm)			
	28 lb/ft (41.7 kg/m)	5-1/4 in. (133.4 mm)	5-5/8 in. (142.9 mm)	3-7/8 in. (98.4 mm)	5-5/8 in. (142.9 mm)			
	32 lb/ft (47.7 kg/m)		5-1/2 in. (139.7 mm)		5-1/2 in. (139.7 mm)			



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Casing OD	Casing Weight	Concave OD	Lead Mill OD	Lead Mill Pilot OD	Flex Mill OD	Lead Mill Connection Type	Flex Mill Connection Box × Pin	MultiCatch™ Anchor OD
7 in. (177.8 mm)	20 lb/ft (29.8 kg/m)	5-1/2 in. (139.7 mm)	6-1/4 in. (158.8 mm)	5 in. (127 mm)	6-1/4 in. (158.8 mm)	3 1/2-in. Reg box	3 1/2-in. IF box × 3 1/2-in. reg pin	5-1/4 in. (133.4 mm)
	23 to 26 lb/ft (34.3 to 38.8 kg/m)		6-1/8 in. (155.6 mm)		6-1/8 in. (155.6 mm)			
	29 lb/ft (43.2 kg/m)		6 in. (152.4 mm)	4-5/8 in. (117.5 mm)	6 in. (152.4 mm)			
	32 to 35 lb/ft (47.7 to 52.1 kg/m)		5-7/8 in. (149.2 mm)		5-7/8 in. (149.2 mm)			
	38 lb/ft (56.6 kg/m)		5-3/4 in. (146.1 mm)		5-3/4 in. (146.1 mm)			
7-5/8 in. (193.7 mm)	24 lb/ft (35.8 kg/m)	6-1/4 in. (158.8 mm)	6-7/8 in. (174.6 mm)	5-3/8 in. (136.5 mm)	6-7/8 in. (174.6 mm)	3 1/2-in. Reg box	3 1/2-in. IF box × 3 1/2-in. reg pin	5-1/4 in. (133.4 mm)
	26.4 to 29.7 lb/ft (39.3 to 44.3 kg/m)		6-3/4 171.5		6-3/4 in. (171.5 mm)			
	33.7 lb/ft (50.2 kg/m)	6 in. (152.4 mm)	6-5/8 in. (168.3 mm)	5-1/8 in. (130.2 mm)	6-5/8 in. (168.3 mm)			
	39 lb/ft (58.1 kg/m)		6-1/2 in. (165.1 mm)		6-1/2 in. (165.1 mm)			
8-5/8 in. (219.1 mm)	24 lb/ft (35.8 kg/m)	7 in. (177.8 mm)	7.875 in. (200 mm)	6.125 in. (155.5 mm)	7.875 in. (200 mm)	4-in. FH	4 1/2-in. XH box × 4-in. FH pin	7 in. (177.8 mm)
	28 lb/ft (41.8 kg/m)		7.750 in. (196.8 mm)		7.750 in. (196.8 mm)			
	29.35 lb/ft (43.7 kg/m)							
	32.4 lb/ft (48.3 kg/m)		7.625 in. (193.6 mm)	7.625 in. (193.6 mm)				
	36 lb/ft (53.6 kg/m)							
	38 lb/ft (56.6 kg/m)							



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Casing OD	Casing Weight	Concave OD	Lead Mill OD	Lead Mill Pilot OD	Flex Mill OD	Lead Mill Connection Type	Flex Mill Connection Box × Pin	MultiCatch™ Anchor OD
9-5/8 in. (244.5 mm)	32.3 lb/ft (48.1 kg/m)	8 in. (203.2 mm)	8-7/8 in. (225.4 mm)	7 in. (177.8 mm)	8-7/8 in. (225.4 mm)	4 1/2-in. reg box	4 1/2-in. IF box × 4 1/2-in. reg pin	7 in. (177.8 mm)
	36 lb/ft (53.6 kg/m)		8-3/4 in. (222.3 mm)		8-3/4 in. (222.3 mm)			
	40 lb/ft (59.6 kg/m)		8-5/8 in. (219.1 mm)		8-5/8 in. (219.1 mm)			
	43.5 to 53.5 lb/ft (64.8 to 79.7 kg/m)		8-1/2 in. (215.9 mm)	8-1/2 in. (215.9 mm)				
	58.4 lb/ft (87 kg/m)		8-1/4 in. (209.6 mm)	8-1/4 in. (209.6 mm)				
13-3/8 in. (339.7 mm)	48 to 72 lb/ft (71.5 to 107.3 kg/m)	11-1/2 in. (292.1 mm)	12-1/4 in. (311.2 mm)	10 in. (254 mm)	12-1/4 in. (311.2 mm)	6 5/8-in. reg box	6 5/8-in. reg box × 6 5/8-in. reg pin	10 in. (254 mm)
16 in. (406.4 mm)	55 to 84 lb/ft (82 to 125.2 kg/m)	14 in. (355.6 mm)	14-3/4 in. (374.7 mm)	12-1/4 in. (311.2 mm)	14-3/4 in. (374.7 mm)			
18-5/8 in. (473.1 mm)	78 to 94.5 lb/ft (116.2 to 140.8 kg/m)	17 in. (431.8 mm)	17-1/2 in. (444.5 mm)	14-1/4 in. (361.95 mm)	17-1/2 in. (444.5 mm)	7 5/8-in. reg box	7 5/8-in. reg box × 7 5/8-in. reg pin	14 in. (355.6 mm)
	96.5 to 138 lb/ft (143.8 to 205.6 kg/m)		17 in. (431.8 mm)		17 in. (431.8 mm)			
20 in. (508 mm)	90 to 187 lb/ft (134.1 to 278.6 kg/m)		17-1/2 in. (444.5 mm)		17-1/2 in. (444.5 mm)			



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Specifications

Milling Assemblies

Casing		Whipstock OD	MultiCatch™ Anchor							
OD	Weight		Running OD	Maximum Torque	Mechanical Shear	Running Length		Overpull		
						With QuickChange Sub	Without QuickChange Sub	To Release Anchor	To Shear Concave (lbf/daN)	
4-1/2 in. (114.3 mm)	9.5 to 15.1 lb/ft (14.2 to 22.5 kg/m)	3-1/2 in. (88.9 mm)	3-1/2 in. (88.9 mm)	5,000 ft-lb (6,779 N•m)	3,900 lbf (1,735 daN)	4.9 ft (1.5 m)	3.2 ft (1 m)	10,000 lbf (4,448 daN)	60,000 lbf (26,688 daN)	
5 in. (127 mm)	18 to 23.2 lb/ft (26.8 to 34.6 kg/m)									
5-1/2 in. (139.7 mm)	14 to 17 lb/ft (20.9 to 25.3 kg/m)									4-1/2 in. (114.3 mm)
	20 to 23 lb/ft (29.8 to 34.3 kg/m)									4-1/4 in. (108 mm)
5-3/4 in. (146.1 mm)	17.6 to 21.5 lb/ft (26.2 to 32 kg/m)	4-1/2 in. (114.3 mm)								
6-5/8 in. (168.3 mm)	17 to 20 lb/ft (25.3 to 29.8 kg/m)	5-1/2 in. (139.7 mm)	5-1/4 in. (133.3 mm)	10,000 ft-lb (13,558 N•m)	13,500 lbf (6,005 daN)	6.5 ft (2 m)	4.4 ft (1.3 m)	14,000 lbf (6,227 daN)	100,000 lbf (44,480 daN)	
	24 to 32 lb/ft (35.8 to 47.7 kg/m)	5-1/4 in. (133.3 mm)								
7 in. (177.8 mm)	17 to 35 lb/ft (25.3 to 52.2 kg/m)	5-1/2 in. (139.7 mm)								
	38 lb/ft (56.6 kg/m)									
7-5/8 in. (193.7 mm)	20 to 29.7 lb/ft (29.8 to 44.3 kg/m)	6-1/4 in. (158.7 mm)								
	33.7 to 39 lb/ft (50.2 to 58.1 kg/m)	6 in. (152.4 mm)								



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Specifications

Anchor Assemblies

Casing		Whipstock OD	MultiCatch™ Anchor						
OD	Weight		Running OD	Maximum Torque	Mechanical Shear	Running Length		Overpull	
						With QuickChange™ Sub	Without QuickChange Sub	To Release Anchor	To Shear Concave (lbf/daN)
8-5/8 in. (219.1 mm)	24 to 38 lb/ft (35.8 to 56.6 kg/m)	7 in. (177.8 mm)	7 in. (177.8 mm)	20,000 ft-lb (27,116 N•m)	13,500 lbf (6,005 daN)	7.7 ft (2.3 m)	6.1 ft (1.9 m)	18,000 lbf (8,006 daN)	125,000 lbf (55,600 daN)
9-5/8 in. (244.5 mm)	32.3 to 58.4 lb/ft (48.1 to 87 kg/m)	8 in. (203.2 mm)							
10-3/4 in. (273.1 mm)	32.8 to 65.7 lb/ft (48.9 to 97.9 kg/m)	9 in. (228.6 mm)							
11-3/4 in. (298.5 mm)	38 to 60 lb/ft (56.6 to 89.4 kg/m)	10 in. (254 mm)	10 in. (254 mm)	20,000 ft-lb (27,116 N•m)	13,500 lbf (6,005 daN)	11.9 ft (3.6 m)	9.1 ft (2.8 m)	20,000 lbf (8,896 daN)	150,000 lbf (66,720 daN)
13-3/8 in. (339.7 mm)	48 to 72 lb/ft (71.5 to 107.3 kg/m)	11-1/2 in. (292.1 mm)							
16 in. (406.4 mm)	55 to 84 lb/ft (82 to 125.2 kg/m)	14 in. (355.6 mm)	14 in. (355.6 mm)	85,000 ft-lb (115,245 N•m)	25,000 lbf (11,120 daN)	14.6 ft (4.5 m)	N/A*	30,000 lbf (13,344 daN)	150,000 lbf (66,720 daN)
18-5/8 in. (473.1 mm)	78 to 94.5 lb/ft (116.2 to 140.8 kg/m)	17 in. (431.8 mm)							
20 in. (508 mm)	90 to 187 lb/ft (134.1 to 278.6 kg/m)								

*No QuickChange feature. Shear-out is integral to the anchor body.

