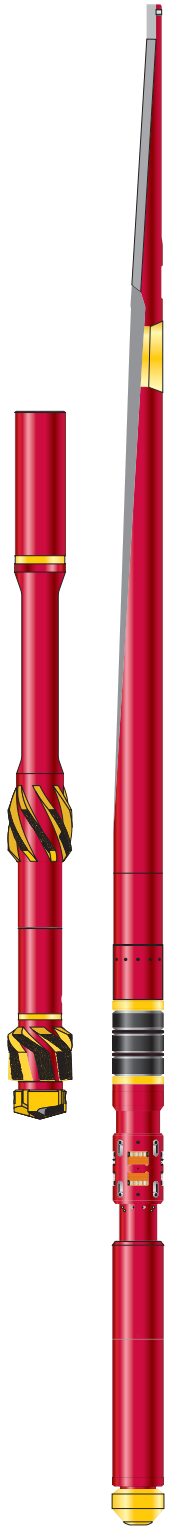
QuickCut™ Casing Exit System

*RHS-Type Anchor**



Weatherford's *QuickCut* casing exit system with RHS-type anchor is a single-trip, retrievable whipstock system with a hydraulically actuated, sealing packer anchor. The premium anchor is used for the temporary zonal isolation of a parent wellbore or for a required second abandonment barrier. The anchor's *QuickCut* milling system provides improved milling, gauge retention, and single-trip formation drilling. The innovative anchor design is field-proven to ensure retrieval.

Applications

- Wells requiring a full bore after the lateral is drilled
- Severely inclined or deep wells in which a bridge plug can be costly and difficult to position
- Exits through multiple strings of casing

Features, Advantages and Benefits

- Weatherford's patented AccuSet™ hydraulic actuation device inside the lead mill provides a reliable packer actuation, ensuring consistent functioning in the field regardless of depth, inclination, wellbore-fluid loss, or solids contamination.
- The system uses a minimal rathole for tough-to-drill formations, reducing the overall installed costs.
- The milling bottomhole assembly (BHA) and whipstock are designed for safe, quick rig-floor makeup, improving rig-floor efficiency and reducing installation costs.
- The BHA is open-ended, enabling continuous flow for well control and for logging and measurement while drilling before activating the packer.

*Anchor Type		
Retrievable or Permanent	**Hydraulic or Mechanical**	**Sealing or Nonsealing**
Retrievable	Hydraulic	Sealing

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Features, Advantages and Benefits (continued)

- The aggressive lead-mill geometry improves the penetration rates and gauge retention, minimizing additional trips related to mill-gauge loss.
- The mill-attachment-bolt shear value can be adjusted for varying well profiles, enabling greater operational flexibility in the field.
- The unique lug technology protects the whipstock during cut-out, enabling accurate mill direction into the casing wall.
- The window can be oriented, anchored, and milled in one efficient trip, reducing overall rig costs.
- The system can pass through a 15°, 100-ft (30-m) dogleg severity, providing increased maneuverability to meet any wellbore-design challenge.
- The single-angle 3° concave creates a smooth transition from the parent bore into the lateral section, preventing interference from other BHAs run into the lateral.
- The system includes a QuickChange™ shear disconnection, providing debris management as well as the capability to change from one anchor type to another.
- The 5 1/2-in. and 7-in. retrievable packers have been rigorously tested to meet American Petroleum Institute (API) 11D1 and International Organization for Standardization (ISO) 14310 V3 requirements, ensuring that validation testing and quality assurance standards are maintained.
- The system can be retrieved in multiple ways, providing flexibility in the field.
- Simple design with off-the-shelf-components ensures maximum tool reliability, delivering high-quality retrieval results.

Options

- The *QuickCut* system can be run in a permanent application.
- Standard hook-and-die collar-retrieval methods are available.

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QuickCut™ Casing Exit System

RHS-Type Anchor

Specifications

QuickCut Milling System1

Casing			Lead Mill			Connection	
OD (in./*mm*)	Weight (lb/ft, *kg/m*)	Concave OD (in./*mm*)	OD (in./*mm*)	Pilot OD (in./*mm*)	Flex Mill OD (in./*mm*)	Lead Mill Box (in.)	Flex Mill Box × Pin (in.)
5-1/2 *139.7*	14.0 *20.9*	4-1/2 *114.3*	4-7/8 *123.8*	3-3/4 *95.3*	4-7/8 *123.8*	2-7/8 Reg	2-7/8 AOH × 2-7/8 Reg pin
	15.5 *23.1*		4-3/4 *120.7*		4-3/4 *120.7*		
	17.0 *25.3*						
	20.0 *29.8*	4-1/4 *108.0*	4-5/8 *117.5*	3-3/8 *85.7*	4-5/8 *117.5*	2-7/8 PAC	2-7/8 AOH × 2-7/8 PAC pin
	23.0 *34.3*		4-1/2 *114.3*		4-1/2 *114.3*		
5-1/2 × 7 *139.7 × 177.8* Expandable pipe	17.0 *25.3*	5-1/4 *133.4*	5-1/2 *139.7*	3-7/8 *98.4*	5-1/2 *139.7*	3-1/2 Reg	3-1/2 IF × 3-1/2 Reg pin
5-3/4 *146.1*	17.6 to 21.5 *26.2 to 32.0*	4-1/2 *114.3*	4-7/8 *123.8*	3-3/4 *95.3*	4-7/8 *123.8*	2-7/8 *73.0* Reg	2-7/8 AOH × 2-7/8 Reg pin
7 *177.8*	20.0 *29.8*	5-1/2 *39.7*	6-1/4 *58.7*	5 *127.0*	6-1/4 *58.7*	3-1/2 Reg	3-1/2 IF × 3-1/2 Reg pin
	23.0 *34.3*		6-1/8 *55.5*		6-1/8 *55.5*		
	26.0 *38.8*						
	29.0* *43.2**		6* *52.4**	4-5/8* *117.5**	6 *52.4*		
	32.0* *47.7**		5-7/8* *149.2**		5-7/8 *149.2*		
	35.0* *52.1**						
9-5/8 *244.5*	43.5* *64.8**	8 *203.2*	8-1/2 *215.9*	6-3/8* *161.9**	8-1/2 *215.9*	4-1/2 Reg	4-1/2 IF × 4-1/2 Reg pin
	47.0* *70.0**						
	53.5* SD *79.7* SD*						
	53.5* *79.7**		8-3/8 *212.7*		8-3/8 *212.7*		
	58.4* *87.0**		8-1/4 *209.5*		8-1/4 *209.5*		

*Heavyweight concave. The pilot OD determines the concave size. Lightweight and heavyweight lead mills and concaves are not interchangeable.

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QuickCut™ Casing Exit System

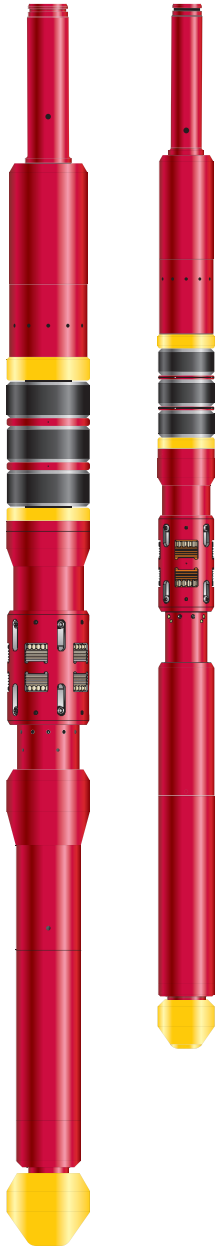
RHS-Type Anchor

Specifications (continued)

Packers

Casing				RHS-Type Packer Anchor			
OD (in./*mm*)	Weight (lb/ft, *kg/m*)	ID (in./*mm*) Minimum	ID (in./*mm*) Maximum	Maximum OD (in./*mm*)	Temp (°F/°C)	Torque (lb/ft, *N•m*)	Differential Pressure Rating (psi/*kPa*)
5-1/2 *139.70*	14.0 to 15.5 *20.9 to 23.1*	4.811 *122.20*	5.261 *133.63*	4.78 *121.40*	275 *135*	6,000 *8,135*	3,500 *24,129*
	17.0 to 23.0 *25.3 to 34.3*	4.578 *116.30*	4.967 *126.40*	4.54 *115.30*			
5-1/2 × 7 Expandable Pipe	17.0 to 23.0 *25.3 to 34.3*	5.128 *130.30*	5.603 *142.30*	5.07 *128.80*			
5-3/4 *146.00*	15.0 to 16.1 *22.4 to 24.0*	5.128 *130.30*					
	17.6 to 24.0 *26.2 to 35.8*	4.812 *122.20*	5.261 *133.60*	4.78 *121.40*			
7 *177.80*	20.0 *29.8*	6.276 *159.40*	6.456 *163.90*	6.000 *152.40*		8,800 *11,931*	5,000 *34,474*
	23.0 *34.3*						
	26.0 *38.8*	6.004 *152.50*	6.184 *157.00*	5.750 *146.05*			
	29.0[a] *43.2[a]*						
	32.0[a] *47.7[a]*						
	35.0[a] *52.1[a]*						
9-5/8 *244.48*	43.5[a] *64.8[a]*	8.435 *214.25*	8.835 *224.40*	8.000 *203.20*		20,000 *27,116*	*3,500* *24,132*
	47.0[a] *70.0[a]*						
	53.5[a] SD *79.7[a] SD*						
	58.4[a] *87.0[a]*						

[a] Heavyweight concave.



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