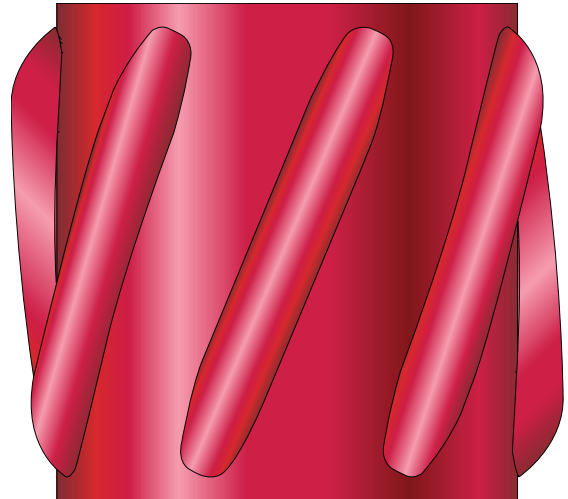




SpiraGlider™ Centralizer System

Weatherford's SpiraGlider centralizer allows for optimal mud displacement for vertical, inclined, and horizontal wells. The system consists of a steel centralizer and two asymmetrically beveled stop collars shaped to minimize running resistance. Special rounded blades reduce casing sliding friction while the stop collar performs as a positioning device. The stop collar also serves as a protection tool, producing a ramp (rather than a square shoulder) so that the centralizer can climb over restrictions in the wellbore.

The SpiraGlider centralizer is available in heavy-duty (HD) or single-collar (SC) configurations with straight or spiral blades, and can be used along with standard centralizers or centralizer subs. The SpiraGlider HD system is recommended when extremely high axial loads are anticipated. The SpiraGlider SC for horizontal wells uses a single collar.



Applications

- Vertical, inclined, and horizontal wells
- Extended-reach wells and wells with high dogleg severity

Features, Advantages and Benefits

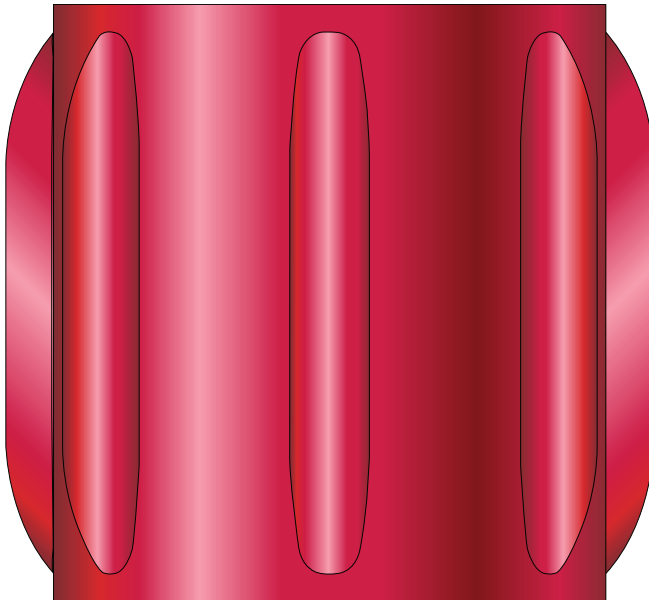
- The steel centralizer's design provides a bearing surface for lower drag forces, which requires less rotational torque than conventional centralizers, enhancing rotation and running efficiency.
- Both spiral- and straight-blade configurations capitalize on the "sled effect" to minimize drag forces while running pipe. The blades glide smoothly on the low side of the borehole wall. Wide symmetrical fins, beveled smooth at both ends, glide easily over restrictions.
- The robust steel design—combined with modern manufacturing methods, including mechanical forming and robotic welding—makes this centralizer suitable for the most demanding well conditions, enabling its use in any well.
- The hydrodynamic shape of the system's spiral blades allows optimal mud displacement during the cementing process, minimizing pressure drop and local turbulences across the centralizer.



SpiraGlider™ Centralizer System

Features, Advantages and Benefits (continued)

- When stuck-pipe conditions are encountered, the SpiraGlider blades are designed to collapse with a predetermined side force to bypass the restriction. This feature allows the liner or casing to be safely run or pulled without the danger of losing the hole because of permanently stuck pipe, preserving the mechanical integrity of the centralizer.
- The centralizer body is manufactured from a single collar rather than two, and the blades are mechanically extruded and directly fixed using controlled welding processes, providing additional strength without compromising the yield capability of the blades.
- Vortex motion of fluids pumped past the SpiraGlider system is proportional to the blade angle and flow area around the centralizer body, enhancing displacement efficiency and operational outcome results.
- The large flow-by area of the system minimizes equivalent circulating density concerns, enhancing operational efficiency.





SpiraGlider™ Centralizer System

Specifications

Tubular Size (in./mm)	Hole Size (in./mm)	Blade O.D. (in./mm)	SpiraGlider Type*	Tubular Size (in./mm)	Hole Size (in./mm)	Blade O.D. (in./mm)	SpiraGlider Type*	
2-3/8 60.3	3-3/4 95.3	3-1/2 89.0	SC	4 101.6	6-1/2 165.1	6-1/4 158.8	SC/HD straight	
	4-3/4 120.7	4-1/2 114.4			8-1/4 209.6	8 203.3	SC straight/ HD straight	
2-7/8 73.0	3-3/4 95.3	3-1/2 89.0	SC	4-1/2 114.3	5-1/2 139.7	5-1/4 133.4	SC straight	
	4-3/4 120.7	4-1/2 114.4	SC/HD		5-5/8 142.9	5-3/8 136.6		
	4-7/8 123.8	4-5/8 117.5			5-3/4 146.1	5-1/2 139.8	SC/HD straight	
	6 152.4	5-3/4 146.1			5-7/8 149.2	5-5/8 142.9	SC/HD	
	6-1/4 158.8	6 152.5			6 152.4	5-3/4 146.1		
3-1/2 88.9	4-3/8 111.1	4-1/8 104.8	SC		6-1/8 155.6	5-7/8 149.3		
	4-3/4 120.7	4-1/2 114.4			6-1/4 158.8	6 152.5		
	4-7/8 123.8	4-5/8 117.5			6-1/2 165.1	6-1/4 158.8		
	6 152.4	5-3/4 146.1	SC/HD		6-3/4 171.5	6-1/2 165.2		
	6-1/8 155.6	5-7/8 149.3			7 177.8	6-3/4 171.5		
	6-3/4 171.5	6-1/2 165.2	SC/HD straight		7-5/8 193.7	7-3/8 187.4		
	7-1/8 181.0	6-7/8 174.7			7-3/4 196.9	7-1/2 190.6		
	7-1/4 184.1	7 177.8			7-7/8 200	7-5/8 193.7		
	8-3/8 212.7	8-1/8 206.4	SC straight/ HD straight		8 203.2	7-3/4 196.9		
	8-1/2 215.9	8-1/4 209.6	SC straight		8-1/4 209.6	8 203.3		
4 101.6	5-3/4 146.1	5-1/2 139.8	SC/HD		8-3/8 212.7	8-1/8 206.4		
	5-7/8 149.2	5-5/8 142.9			8-1/2 215.9	8-1/4 209.6		
	6 152.4	5-3/4 146.1			8-3/4 222.3	8-1/2 216.0	SC straight/ HD straight	

*All SpiraGlider models listed are available in both straight-blade and spiral-blade configurations.



SpiraGlider™ Centralizer System

Specifications (continued)

Tubular Size (in./mm)	Hole Size (in./mm)	Blade O.D. (in./mm)	SpiraGlider Type*	Tubular Size (in./mm)	Hole Size (in./mm)	Blade O.D. (in./mm)	SpiraGlider Type*
5 127.0	5-7/8 149.2	5-5/8 142.9	SC	5-1/2 139.7	8-1/8 206.4	7-7/8 200.1	SC/HD
	6 152.4	5-3/4 146.1			8-1/4 209.6	8 203.3	
	6-1/8 155.6	5-7/8 149.3			8-3/8 212.7	8-1/8 206.4	
	6-1/4 158.8	6 152.5	8-1/2 215.9		8-1/4 209.6		
	6-1/2 165.1	6-1/4 158.8	8-5/8 219.1		8-3/8 212.8		
	6-3/4 171.5	6-1/2 165.2	9-1/4 235		9 228.7		
	7-1/2 190.5	7-1/4 184.2	9-3/8 238.1		9-1/8 231.8		
	8 203.2	7-3/4 196.9	9-1/2 241.3		9-1/4 235.0		
	8-1/4 209.6	8 203.3	9-7/8 250.8		9-5/8 244.5	HD straight	
	8-1/2 215.9	8-1/4 209.6	10-7/8 276.2		10-5/8 269.9		
5-1/2 139.7	6-1/2 165.1	6-1/4 158.8	SC	5-3/4 146.1	8-1/2 215.9	8-1/4 209.6	SC/HD
	6-3/4 171.5	6-1/2 165.2		6-5/8 168.3	7-5/8 193.7	7-3/8 187.4	SC/HD
	7 177.8	6-3/4 171.5	8-1/4 209.6		8 203.3		
	7-1/8 181	6-7/8 174.7	8-3/8 212.7		8-1/8 206.4		
	7-5/8 193.7	7-3/8 187.4	8-1/2 215.9		8-1/4 209.6		
	7-3/4 196.9	7-1/2 190.6	8-5/8 219.1		8-3/8 212.8		
	7-7/8 200	7-5/8 193.7	8-3/4 222.3		8-1/2 216.0		
	8 203.2	7-3/4 196.9	9-1/4 235	9 228.7			

*All SpiraGlider models listed are available in both straight-blade and spiral-blade configurations.



SpiraGlider™ Centralizer System

Specifications (continued)

Tubular Size (in./mm)	Hole Size (in./mm)	Blade O.D. (in./mm)	SpiraGlider Type*	Tubular Size (in./mm)	Hole Size (in./mm)	Blade O.D. (in./mm)	SpiraGlider Type*
6-5/8 168.3	9-3/8 238.1	9 1/8 231.8	SC/HD	7-5/8 193.7	8-1/2 215.9	8-1/4 209.6	SC
	9-1/2 241.3	9 1/4 235.0			8-5/8 219.1	8-3/8 212.8	
	10-5/8 269.9	10 3/8 263.6	SC straight/ HD straight		9-1/4 235	9 228.7	SC/HD
	10-7/8 276.2	10 5/8 269.9			9-3/8 238.2	9-1/8 231.9	
	11-3/4 298.5	11 1/2 292.2			9-1/2 241.3	9-1/4 235.0	
7 177.8	8-1/4 209.6	8 203.3	SC		9-7/8 250.8	9-5/8 244.5	SC straight/ HD straight
	8-3/8 212.7	8-1/8 206.4		10-5/8 269.9	10-3/8 263.6		
	8-1/2 215.9	8-1/4 209.6	SC/HD	10-7/8 276.2	10-5/8 269.9	SC straight	
	8-5/8 219.1	8-3/8 212.8		11-1/2 292.1	11-1/4 285.8		
	8-3/4 222.3	8-1/2 216.0		7-3/4 196.9	8-5/8 219.1	8-3/8 212.8	SC straight
	9-1/4 235	9 228.7			9-1/4 235	9 228.7	SC/HD
	9-3/8 238.1	9-1/8 231.8			9-1/2 241.3	9-1/4 235.0	
	9-1/2 241.3	9-1/4 235.0			10-5/8 269.9	10-3/8 263.6	
	9-7/8 250.8	9-5/8 244.5		8-5/8 219.1	9-15/16 252.7	9-2/3 246.4	
	10-7/8 276.2	10-5/8 269.9	10-5/8 269.9		10-3/8 263.6		
	10-3/4 273.1	10-1/2 266.8	HD straight	9-3/8 238.1	12-1/4 311.2	12 304.9	
	12 304.8	11-3/4 298.5					

*All SpiraGlider models listed are available in both straight-blade and spiral-blade configurations.



SpiraGlider™ Centralizer System

Specifications (continued)

Tubular Size (in./mm)	Hole Size (in./mm)	Blade O.D. (in./mm)	SpiraGlider Type*	Tubular Size (in./mm)	Hole Size (in./mm)	Blade O.D. (in./mm)	SpiraGlider Type*	
9-5/8 244.5	10-5/8 269.9	10-3/8 263.6	SC straight	10 254	12 304.8	11-3/4 298.5	SC/HD	
	10-7/8 276.2	10-5/8 269.9	SC		12-1/4 311.2	12 304.9		
	11-1/4 285.8	11 279.5	SC/HD		12-1/2 317.5	12-1/4 311.2	HD straight	
	11-1/2 292.1	11-1/4 285.8			14-1/2 368.3	14-1/4 362.0		
	11-3/4 298.5	11-1/2 292.2		12 304.8	11-3/4 298.5	SC		
	12 304.8	11-3/4 298.5		12-1/4 311.2	12 304.9	SC/HD		
	12-1/4 311.2	12 304.9		12-1/2 317.5	12-1/4 311.2			
	12-1/2 317.5	12-1/4 311.2		13-1/2 342.9	13-1/4 336.6			
	13-3/8 339.7	13-1/8 333.4		14 355.6	13-3/4 349.3			
	13-1/2 342.9	13-1/4 336.6		14-3/4 374.7	14-1/2 368.4	SC straight		
13-5/8 346.1	13-3/8 339.8	12-1/2 317.5	12-1/4 311.2					
9-7/8 250.8	12 304.8	11-3/4 298.5	SC/HD	11-3/4 298.5	13 330.2		12-3/4 323.9	SC/HD
	12-1/4 311.2	12 304.9			13-1/2 342.9		13-1/4 336.6	
	12-1/2 317.5	12-1/4 311.2	HD straight		14-1/2 368.3	14-1/4 362.0		
	14-3/4 374.7	14-1/2 368.4			14-3/4 374.7	14-1/2 368.4		
				12-3/4 323.9	15-1/2 393.7	15-1/4 387.4	SC/HD	

*All SpiraGlider models listed are available in both straight-blade and spiral-blade configurations.



SpiraGlider™ Centralizer System

Specifications (continued)

Tubular Size (in./mm)	Hole Size (in./mm)	Blade O.D. (in./mm)	SpiraGlider Type*	Tubular Size (in./mm)	Hole Size (in./mm)	Blade O.D. (in./mm)	SpiraGlider Type*
13-3/8 339.7	14-3/8 365.2	14-1/8 358.9	SC straight	13-5/8 346.1	15-3/4 400.1	15-1/2 393.8	SC/HD
	14-3/4 374.7	14-1/2 368.4	SC		16-1/4 412.8	16 406.5	
	15 381	14-3/4 374.7	SC/HD		16-3/4 425.5	16-1/2 419.2	
	15-1/4 387.4	15 381.1			17 431.8	16-3/4 425.5	
	15-1/2 393.7	15-1/4 387.4			17-1/2 444.5	17-1/4 438.2	
	15-3/4 400.1	15-1/2 393.8			18-1/2 469.9	18-1/4 463.6	HD straight
	16 406.4	15-3/4 400.1	14 355.6	15-3/4 400.1	15-1/2 393.8	SC/HD	
	16-1/4 412.8	16 406.5		16-3/8 415.9	16-1/8 409.6		
	16-3/8 415.9	16-1/8 409.6		16-1/2 419.1	16-1/4 412.8		
	16-3/4 425.5	16-1/2 419.2		17-1/4 438.2	17 431.9		
	17-1/8 435	16-7/8 428.7		17-1/2 444.5	17-1/4 438.2		
	17-1/4 438.2	17 431.9	16 406.4	17-1/2 444.5	17-1/4 438.2	SC/HD	
	17-1/2 444.5	17-1/4 438.2		18-1/4 463.6	18 457.3		
	17-3/4 450.9	17-1/2 444.6		18-5/7 475	18-1/2 468.7		
	18-3/4 476.3	18-1/2 470.0	SC straight/ HD straight				
13-1/2 342.9	15-3/4 400.1	15-1/2 393.8	SC/HD				
	16 406.4	15-3/4 400.1					

*All SpiraGlider models listed are available in both straight-blade and spiral-blade configurations.



SpiraGlider™ Centralizer System

Specifications (continued)

Tubular Size (in./mm)	Hole Size (in./mm)	Blade O.D. (in./mm)	SpiraGlider Type*
18-5/8 473.1	22 558.8	21-3/4 552.5	HD
	22-3/4 577.9	22-1/2 571.6	
	22-7/8 581	22-5/8 574.7	
	25 635	24-3/4 628.7	
	25-1/4 641.4	25 635.1	HD straight
20 508.0	22-1/4 565.2	22 558.9	HD
	24 609.6	23-3/4 603.3	
	24-1/4 616	24 609.7	
	25-3/4 654.1	25-1/2 647.8	
	25-1/4 641.4	25 635.1	HD straight
	26 660.4	25-3/4 654.1	
	26-1/4 666.8	26 660.5	

Further sizes/dimensions/centralizers are available on request at :
sales-germany@eu.weatherford.com

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