

## MAGNUM SERIES CCR™

### Innovation revealed

The Magnum Series™ Composite Cement Retainer utilizes a built-in sliding sleeve assembly for remedial cementing or zone abandonment. The sliding sleeve is operated by a stinger assembly from the surface. Because of its low metallic content, the Magnum Series™ Composite Cement Retainer is quickly milled and circulated back to surface using conventional milling, drilling with a rig and tubing or with coiled tubing.

### Features

- Consistent drill times of 30 minutes or less
- Can be set on wireline or coiled tubing using conventional setting tools
- Can be milled or drilled with coiled tubing or a rig
- Positive seal after setting
- Millable cast iron slips
- High differential pressure rating
- Low temp and high temp materials conducive to a wide range of environments
- Patented precision shearing device
- Magnum Series™ is set via a universal setting sleeve and adapter
- Simple valve control by surface pressure manipulation
- Can be converted to a Magnum Series™ Ball Drop, Bridge, Flo-Back, Flo-Back with Bio-Ball Plug
- Patent Pending

### Operations

Once the Magnum Series™ Composite Cement Retainer is set, a stinger assembly is attached to the workstring and run to retainer depth. The stinger is then inserted into the retainer bore, sealing against the mandrel I.D. and isolating the workstring from the upper annulus. Once sufficient set down weight has been applied, the stinger assembly will open the lower sliding sleeve, allowing the squeeze operation to be performed.



Quickly milled and circulated back to surface using conventional milling, drilling with a rig and tubing or with coiled tubing.

CASING SPECS			RETAINER SPECS			OPERATING RANGES					
Casing O.D. inch (mm)	Weight Range lb/ft (kg/m)	O.D. inch (mm)	Stinger		Sliding Sleeve	Length inch (mm)	Setting Tool	Low Temp/ Low PSI	Low Temp/ High PSI	Mid Temp/ High PSI	High Temp/ High PSI
			Min I.D. inch (mm)	Flow Area inch <sup>2</sup> (mm <sup>2</sup> )	Flow Area inch <sup>2</sup> (mm <sup>2</sup> )						
4.0 (101.6)	9.5-11.0 (14.1-16.4)	3.19 (81.0)	0.75 (19.1)	0.44 (11.2)	1.23 (31.2)	28.6 (726.4)	Magnum "A-1", Baker #10 or Owen	250°F 8KSI (121°C) (55.2MPa) Composite/ NBR Elastomer	250°F 10KSI (121°C) (68.9MPa) Composite/ NBR Elastomer	300°F 10KSI (149°C) (68.9MPa) Composite/ NBR Elastomer	375°F 10KSI (191°C) (68.9MPa) Composite/ FKM Elastomer
4-1/2 (114.3)	9.5-13.5 (14.1-20.1)	3.57 (90.7)									
	15.1-17.1 (22.5-25.4)	3.44 (87.4)									
5.0 (127.0)	23.2 (34.5)	3.57 (90.7)									
	20.3-21.4 (30.2-31.8)	3.75 (95.3)									
	11.5-18.0 (17.1-26.8)	3.92 (99.6)	1.00 (25.4)	0.79 (20.1)							
5-1/2 (139.7)	14.0 (20.8)	4.60 (116.8)									
	15.5-23.0 (23.1-34.2)	4.30 (109.2)									
	23.0-28.4 (34.2-42.3)	4.13 (104.8)	1.25 (31.8)	1.23 (31.2)	3.14 (79.8)	33.7 (856.0)	Magnum "A-1", Baker #20 or Owen				
6-5/8 (168.3)	24.0-32.0 (35.7-47.6)	5.38 (136.5)									
7.0 (177.8)	17.0-23.0 (25.3-29.8)	5.95 (151.1)									
	23.0-35.0 (34.2-52.1)	5.75 (146.1)									
7-5/8 (193.7)	24.0-33.7 (35.7-50.2)	6.25 (158.8)	2.13 (54.0)	3.55 (90.2)	4.71 (119.6)						
8-5/8 (219.1)	28.0-40.0 (41.7-59.5)	7.38 (187.3)									
	32.3-40.0 (48.1-59.5)	8.38 (212.7)	2.75 (69.9)	5.94 (150.9)	6.28 (159.5)						
9-5/8 (244.5)	43.5-53.5 (64.7-79.6)	8.13 (206.4)									
								250°F 5K PSI (121°C) (34.5MPa) Composite/ NBR Elastomer		300°F 5K PSI (149°C) (34.5MPa) Composite/ NBR Elastomer	350°F 5K PSI (177°C) (34.5MPa) Composite/ HNBR Elastomer

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