



# IMPROVED

## RELIABILITY THROUGH SIMPLIFICATION

Eliminate the need for tubing to accomplish remedial cement squeeze operations.

**SIGNIFICANTLY SIMPLIFY THE  
PROCESS AND IMPROVE RELIABILITY**

## INTERVENTIONLESS CCR™

### INNOVATION REVEALED

The Interventionless Cement Retainer is designed to eliminate the need for tubing to accomplish remedial cement squeeze operations, while significantly simplifying the process and improving reliability. By adapting existing technologies such as float valves and wiper plug systems, Nine Energy Service has tailored a new way of improving efficiency using techniques that have already stood the test of time in our industry.

This tool may be run via wireline, coil tubing or rig conveyance. Once the Interventionless Cement Retainer has been set, and the setting assembly has been retrieved to surface, the full required amount of cement may be “bullheaded” directly into the casing. A wiper dart system is then deployed to displace the cement through the retainer and squeezed into location. Once the wiper plug has reached the tool, it will create a seal, and a ratcheting mechanism will lock it in place. This will effectively stop communication between the casing below the retainer and casing above it.

As a failsafe, the Interventionless Cement Retainer is equipped with a float valve that prevents communication up through the retainer in the absence of the wiper plug. If cement volume is over calculated, communication is screened off, or the annulus otherwise stops taking cement, this float valve will prevent what has been pumped in so far from flowing back through the tool without the need for the wiper plug to be landed on the retainer.

### Features

- Low temp and high temp materials conducive to a wide range of environments
- Improved reliability through simplification
- Millable cast iron slips
- High differential pressure rating
- Significant cost savings by eliminating the need for tubing
- Patent pending technology

CASING SPECS		RETAINER SPECS					OPERATING RANGES			
Casing O.D. inch (mm)	Weight Range lb/ft (kg/m)	O.D. inch (mm)	Min I.D. inch (mm)	Flow Area inch <sup>2</sup> (mm <sup>2</sup> )	Length inch (mm)	Setting Tool inch (mm)	Low Temp/ Low PSI	Low Temp/ High PSI	Mid Temp/ High PSI	High Temp/ High PSI
4.00 (101.6)	9.5-11.0 (14.1-16.4)	3.19 (81.0)	0.88 (22.2)	0.60 (387.1)	24.45 (621.0)	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)								
5.00 (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)								
5-1/2 (139.7)	14.0 (20.8)	4.60 (116.8)	1.25 (31.8)	1.23 (791.7)	24.20 (614.7)	Magnum "A-1", Baker #20 or Owen				
	15.5-23.0 (23.1-34.2)	4.30 (109.2)								
	23.0-28.4 (34.2-42.3)	4.13 (104.8)								
7.00 (177.8)	17.0-23.0 (25.3-29.8)	5.95 (151.1)	2.50 (63.5)	4.91 (3166.9)	27.50 (698.5)					
	23.0-35.0 (34.2-52.1)	5.75 (146.1)								

Casing Specs are according to API Tubing/Casing Dimension Chart Information.

For more information, and to find a representative near you, visit [nineenergyservice.com](http://nineenergyservice.com)