



## Patents

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Product	Patent Number	Pending Applications
ACE Ball Drop	8,307,892 , 8,899,317 , 9,441,448 9,534,463 , 9,562,415 , D657,807 D694,280 , D705,821	
ACE Flo-Back	8,307,892 , 8,899,317 , 9,441,448 9,534,463 , 9,562,415 , D657,807 D694,280 , D705,821	
BreakThru™ Casing Flotation Device	10,934,802 , 10,787,884 , NO343,980 NO342,911 , NO342,892	17/648,912
BreakThru™ Barrier Valves	10,544,653 , NO343,006 , NO342,718	17/648,912
Bullet Ball Drop	CA2,663,423 , 8,079,413 , 8,459,346 8,496,052 , 9,309,744 , 9,359,855 9,534,463 , 9,850,738 , D694,282 D697,088	
Bullet Flo-Back	9,359,855 , 9,534,463 , D694,281 D694,282 , D697,088 , D698,370 D703,698	
CR Magnum Series Collet	CA2,603,337 , 7,762,323 , 8,783,341 9,441,448 , 9,562,415 , 10,385,936	
CR Magnum Series Interventionless	10,053,949	
CR Magnum Series Poppet	9,441,448 , 9,562,415 , 10,385,936	
Dual Magnum Disk	7,806,189 , 8,813,848 , 9,194,209 9,291,031 , 11,578,559	18/109,723



Product	Patent Number	Pending Applications
Electric Setting Tool	10,465,462	
Extreme Single Magnum Disk	7,806,189 , 8,813,848 , 9,194,209 9,291,031 , 11,578,559	18/109,723
Fastballs	8,899,317 , 9,587,475	
Flow Gun Completion System	10,822,931 , 9,945,214 , 9,664,013 9,441,466 , 8,622,132 , 8,393,392 CA2,871,622	
Hollow Point	9,534,463 , 10,119,359 , 2,886,988 CA2,895,507 , 10,337,739 , 10,352,125 10,465,468 , CA2,935,508	PCT/US13/76054
Interventionless	CA2,856,927 , 7,806,189 , 8,813,848 9,291,031 , 9,382,778 , 11,098,556	
Interventionless (Finger Style)	7,806,189 , 8,813,848 , 9,291,031 10,107,070, CA2,937,076 , 10,887,153	
Long Range Gen 1 Ball Drop	8,307,892 , 9,388,662 , 9,441,448 9,850,736 , D657,807 , D673,182 D694,280 , D705,821 , 9,534,463 10,385,649	
Long Range Gen 1 Bridge Plug	8,307,892 , 9,388,662 , 9,441,448 9,562,415 , 9,850,736 , D657,807 D672,794 , D673,182 , D694,280 D705,821 , 9,534,463 , 10,385,649	
Long Range Gen 1 Flo-Back	8,307,892 , 9,388,662 , 9,441,448 9,850,736 , D657,807 , D684,612 D694,280 , D703,713 , D705,821 9,534,463 , 10,385,649	
Long Range Gen 2 Ball Drop	8,307,892 , 9,388,662 , 9,441,448 9,850,736 , D657,807 , D673,182 D694,280 , D705,821 , 9,534,463 10,385,649	
Long Range Gen 2 Bridge Plug	8,307,892 , 9,388,662 , 9,441,448 9,850,736 , D657,807 , D673,182 D694,280 , D705,821 , 9,534,463 10,385,649	
Long Range Gen 2 Flo-Back	8,307,892 , 9,388,662 , 9,441,448 9,850,736 , D657,807 , D684,612 D694,280 , D703,713 , D705,821 9,534,463 , 10,385,649	
Magnum Series Ball Drop	8,307,892 , 9,441,448 , 9,562,415 D657,807 , D694,280 , D705,821 9,534,463	
Magnum Series Bridge Plug	8,307,892 , 9,109,428 , 9,441,448 9,562,415 , D657,807 , D672,794 D694,280 , D705,821 , 9,534,463	



Product	Patent Number	Pending Applications
Magnum Series Flo-Back	CA2,639,342 , 8,191,633 , 8,307,892 9,441,448 , 9,562,415 , D657,807 D684,612 , D694,280 , D703,713 D705,821 , 9,534,463	
Magnum Series Flow Check	8,307,892 , 9,441,448 , 9,562,415 D657,807 , D684,612 , D694,280 D705,821 , 9,534,463	
Mechanical Set Retainers	CA2,603,337 , 7,762,323 , 8,783,341 9,441,448 , 10,053,949	
Mill E-Z Ball Drop	9,441,448 , 9,534,463	
Mill E-Z Bridge Plug	9,441,448 , 9,534,463	
Mill E-Z Collet	CA2,603,337 , 7,762,323 , 8,783,341 9,441,448 , 10,053,949	
Mill E-Z Flo-Back	9,441,448 , 9,534,463	
Mill E-Z Flow check	9,441,448 , 9,534,463	
Mill E-Z Poppet	9,441,448 , 10,053,949	
MVP Dissolvable Plugs, Stinger™ Dissolvable Plugs, and Stinger™ Extended Range Dissolvable Plugs	CA2,663,423 , 8,079,413 , 8,459,346 8,496,052 , 8,899,317 , 9,127,527 9,181,772 , 9,217,319 , 9,309,744 9,359,855 , 9,500,061 , 9,506,309 9,534,463 , 9,587,475 , D694,282 D697,088 , CA2,895,507 , 10,337,279 10,352,125 , 10,465,468 , 10,662,732 CA2,935,508 , 11,697,975	PCT/US13/76054 , 17/809,252
PerfXtender	CA2,604,996 , 7,861,785	
Rapid Mill Ball Drop	CA2,663,423 , 8,079,413 , 8,307,892 8,459,346 , 8,496,052 , 8,899,317 9,534,463 , 9,309,744 , 9,359,855 9,441,448 , 9,562,415 , D657,807 D694,280 , D694,282 , D697,088 D705,821	
Rapid Mill Ball Drop-Bottom Set	CA2,663,423 , 8,079,413 , 8,307,892 8,459,346 , 8,496,052 , 8,899,317 D694,282 , D697,088 , 9,534,463 9,309,744 , 9,359,855 , 9,441,448 9,850,738	
Rapid Mill Bridge Plug	CA2,663,423 , 8,079,413 , 8,307,892 8,459,346 , 8,496,052 , 9,109,428 9,534,463 , 9,441,448 , 9,562,415 D657,807 , D672,794 , D694,280 D694,282 , D697,088 , D705,821	



Product	Patent Number	Pending Applications
Rapid Mill Flo-Back	CA2,663,423 , 8,079,413 , 8,307,892 8,459,346 , 8,496,052 , 9,534,463 9,441,448 , 9,562,415 , D657,807 D684,612 , D694,280 , D698,370 D703,698 , D703,713 , D705,821	
Rapid Mill Flow check	CA2,663,423 , 8,079,413 , 8,307,892 8,459,346 , 8,496,052 , 9,534,463 9,359,855 , 9,441,448 , 9,562,415 D657,807 , D684,612, D694,280 D694,281 , D694,282 , D697,088 D698,370 , D703,698 , D705,821	
Scorpion™ Composite Plugs	10,487,615 , 10,400,535 , 9,915,114 9,551,197 , 9,121,240 , 8,336,635 8,113,276 , 11,371,312 , 11,365,600 11,015,415 , CA3,039,385	CA3,083,608 , CA3,095,016
Scorpion™ Extended-Range Plugs	10,487,615 , 10,400,535 , 9,915,114 9,551,197 , 9,121,240 , 9,004,160 CA 2,836,295, CA3,039,385 11,371,312 , 11,365,600 , 11,015,415	CA3,083,608 , CA3,095,016
Single Magnum Disk	7,806,189 , 8,813,848 , 9,194,209 9,291,031 , 11,578,559	18/109,723
Sliding Sleeve	CA2,639,341 , 11,149,522	
Snub Nose Ball Drop	8,307,892 , 8,899,317 , 9,534,463 9,441,448 , 9,562,415 , D657,807 D673,183 , D694,280 , D705,821	
Snub Nose Bridge Plug	8,307,892 , 9,109,428 , 9,534,463 9,441,448 , 9,562,415 , D657,807 D672,794 , D673,183 , D694,280 D705,821	
Snub Nose Flo-Back	CA2,639,342 , 8,191,633 , 8,307,892 9,534,463 , 9,441,448 , 9,562,415 D657,807 , D673,183 , D684,612 D694,280 , D703,713 , D705,821	
Snub Nose Flow check	8,307,892 , 9,534,463 , 9,441,448 9,562,415 , D657,807 , D673,183 D684,612 , D694,280 , D705,821	
Toe Valve	CA3,005,372 , 10,787,884	