



Patents

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Product	Patent Number	Pending Applications
ACE Ball Drop	8,307,892 , 8,899,317 , 9,062,522 9,163,477 , 9,441,448 , 9,534,463 9,562,415 , D657,807 , D694,280 D705,821	CA2,783,904 , CA2,791,072 CA2,856,987 , CA2,985,278
ACE Flo-Back	8,307,892 , 9,062,522 , 9,163,477 9,441,448 , 9,534,463 , 9,562,415 D657,807 , D684,612 , D694,280 D703,713 , D705,821	CA2,783,904 , CA2,791,072 CA2,856,987 , CA2,985,278
BreakThru™ Casing Flotation Device	10,934,802 , 10,787,884 , NO343,980 NO342,911 , NO342,892	CA3,010,806 , CA3,005,372
BreakThru™ Barrier Valves	10,544,653 , NO343,006 , NO342,718	
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	CA2,783,904
Bullet Flo-Back	9,359,855 , 9,534,463 , D694,281 D694,282 , D697,088 , D698,370 D703,698	CA2,783,904
CR Magnum Series Collet	CA2,603,337 , 7,762,323 , 8,783,341 9,062,522 , 9,441,448 , 9,562,415 10,385,936	CA2,783,904 , CA2,856,987
CR Magnum Series Interventionless	10,053,949	



Product	Patent Number	Pending Applications
CR Magnum Series Poppet	9,062,522 , 9,441,448 , 9,562,415 10,385,936	CA2,783,904 , CA2,856,987
Dual Magnum Disk	7,806,189 , 8,813,848 , 9,194,209 9,291,031	16/259,910
Electric Setting Tool	10,465,462	CA2,910,136 , 16/274,906
Extreme Single Magnum Disk	7,806,189 , 8,813,848 , 9,194,209 9,291,031	16/259,910
Fastballs	8,899,317 , 9,587,475	CA2,985,278
Flow Gun Completion System	10,822,931 , 9,945,214 , 9,664,013 9,441,466 , 8,950,509 , 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 CA2,985,278 15/962,607
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 , 16/040,132
Long Range Dissolvable		16/265,808
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 10,260,308 , 10,385,649	CA2,783,904 , CA2,791,072 CA2,856,987
Long Range Gen 1 Bridge Plug	8,307,892 , 9,062,522 , 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 10,260,308 , 10,385,649	CA2,783,904 , CA2,791,072 CA2,856,987
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 , 10,260,308 , 10,385,649	CA2,783,904 , CA2,791,072 CA2,856,987
Long Range Gen 2 Ball Drop	8,307,892 , 9,163,477 , 9,388,662 9,441,448 , 9,850,736 , D657,807 D673,182 , D694,280 , D705,821 9,534,463 , 10,260,308 , 10,385,649	CA2,783,904 , CA2,791,072 CA2,856,987
Long Range Gen 2 Bridge Plug	8,307,892 , 9,062,522 , 9,109,428 9,163,477 , 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 , 10,260,308 10,385,649	CA2,783,904 , CA2,791,072 CA2,856,987



Product	Patent Number	Pending Applications
Long Range Gen 2 Flo-Back	8,307,892 , 9,163,477 , 9,388,662 9,441,448 , 9,850,736 , D657,807 D684,612 , D694,280 , D703,713 D705,821 , 9,534,463 , 10,260,308 10,385,649	CA2,783,904 , CA2,791,072 CA2,856,987
Magnum Series Ball Drop	8,307,892 , 9,062,522 , 9,163,477 9,441,448 , 9,562,415 , D657,807 D694,280 , D705,821 , 9,534,463	CA2,783,904 , CA 2,791,072 CA2,856,987
Magnum Series Bridge Plug	8,307,892 , 9,062,522 , 9,109,428 9,163,477 , 9,441,448 , 9,562,415 D657,807 , D672,794 , D694,280 D705,821 , 9,534,463	CA2,783,904 , CA 2,791,072 CA2,856,987
Magnum Series Flo-Back	CA2,639,342 , 8,191,633 , 8,307,892 9,062,522 , 9,163,477 , 9,441,448 9,562,415 , D657,807 , D684,612 D694,280 , D703,713 , D705,821 9,534,463	CA2,783,904 , CA 2,791,072 CA2,856,987
Magnum Series Flow Check	8,307,892 , 9,062,522 , 9,163,477 9,441,448 , 9,562,415 , D657,807 D684,612 , D694,280 , D705,821 9,534,463	CA2,783,904 , CA 2,791,072 CA2,856,987
Mechanical Set Retainers	CA2,603,337 , 7,762,323 , 8,783,341 9,441,448 , 10,053,949	CA2,783,904 , CA2,856,987
Mill E-Z Ball Drop	9,441,448 , 9,534,463	CA2,783,904 , CA2,856,987
Mill E-Z Bridge Plug	6,796,376 , 9,441,448 , 9,534,463	CA2,783,904 , CA2,856,987
Mill E-Z Collet	CA2,603,337 , 7,762,323 , 8,783,341 9,441,448 , 10,053,949	CA2,783,904 , CA2,856,987
Mill E-Z Flo-Back	9,441,448 , 9,534,463	CA2,783,904 , CA2,856,987
Mill E-Z Flow check	9,441,448 , 9,534,463	CA2,783,904 , CA2,856,987
Mill E-Z Poppet	9,441,448 , 10,053,949	CA2,783,904 , CA2,856,987
MVP	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	CA2,985,278 , PCT/US13/76054
PerfXtender	CA2,604,996 , 7,861,785 , 8,033,333	



Product	Patent Number	Pending Applications
Rapid Mill Ball Drop	CA2,663,423 , 8,079,413 , 8,307,892 8,459,346 , 8,496,052 , 8,899,317 9,062,522 , 9,163,477 , 9,309,744 9,359,855 , 9,441,448 , 9,562,415 D657,807 , D694,280 , D694,282 D697,088 , D705,821 , 9,534,463	CA2,783,904 , CA 2,791,072 CA2,856,987
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 , 9,163,477 9,309,744 , 9,359,855 , 9,441,448 9,850,738 , 9,534,463	CA2,783,904 , CA2,856,987
Rapid Mill Bridge Plug	CA2,663,423 , 8,079,413 , 8,307,892 8,459,346 , 8,496,052 , 9,062,522 9,109,428 , 9,163,477 , 9,441,448 9,562,415 , D657,807 , D672,794 D694,280 , D694,282 , D697,088 D705,821 , 9,534,463	CA2,783,904 , CA2,791,072 CA2,856,987
Rapid Mill Flo-Back	CA2,663,423 , 8,079,413 , 8,307,892 8,459,346 , 8,496,052 , 9,062,522 9,163,477 , 9,441,448 , 9,562,415 D657,807 , D684,612 , D694,280 D698,370 , D703,698 , D703,713 D705,821 , 9,534,463	CA2,783,904 , CA2,791,072 CA2,856,987
Rapid Mill Flow check	CA2,663,423 , 8,079,413 , 8,307,892 8,459,346 , 8,496,052 , 9,062,522 9,163,477 , 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 , 9,534,463	CA2,783,904 , CA2,856,987
Scorpion™ & Stinger™ Composite Plugs	10,487,615 , 10,400,535 , 9,915,114 9,551,197 , 9,121,240 , 8,893,780 8,336,635 , 8,113,276 , CA 2,678,819 CA 2,787,542	16/660,604 , 16/591,499 16/442,311 , 15/981,592 CA2,924,287 , CA3,039,385 CA3,083,608 , CA3,095,016
Scorpion™ & Stinger™ 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	16/660,604 , 16/591,499 16/442,311 , 15/981,592 CA2,924,287 , CA3,039,385 CA3,083,608 , CA3,095,016
Single Magnum Disk	7,806,189 , 8,813,848 , 9,194,209 9,291,031	16/259,910



Product	Patent Number	Pending Applications
Sliding Sleeve	CA2,639,341 , 11,149,522	
Snub Nose Ball Drop	8,307,892 , 8,899,317 , 9,062,522 9,163,477 , 9,441,448 , 9,562,415 D657,807 , D673,183 , D694,280 D705,821 , 9,534,463	CA2,783,904 , CA2,791,072 CA2,856,987
Snub Nose Bridge Plug	8,307,892 , 9,062,522 , 9,109,428 9,163,477 , 9,441,448 , 9,562,415 D657,807 , D672,794 , D673,183 D694,280 , D705,821 , 9,534,463	CA2,783,904 , CA2,791,072 CA2,856,987
Snub Nose CTS		CA2,985,278
Snub Nose Flo-Back	CA2,639,342 , 8,191,633 , 8,307,892 9,062,522 , 9,163,477 , 9,441,448 9,562,415 , D657,807 , D673,183 D684,612 , D694,280 , D703,713 D705,821 , 9,534,463	CA2,783,904 , CA2,791,072 CA2,856,987
Snub Nose Flow check	8,307,892 , 9,062,522 , 9,163,477 9,441,448 , 9,562,415 , D657,807 D673,183 , D684,612 , D694,280 D705,821 , 9,534,463	CA2,783,904 , CA2,791,072 CA2,856,987