



Patents

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Product	Patent Number	Pending Patent
ACE Ball Drop	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	2,783,904 , 2,791,072 , 2,856,987
ACE Flo-Back	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	2,783,904 , 2,791,072 , 2,856,987
Bullet Ball Drop	2,663,423 , 8,079,413 , 8,459,346 8,496,052 , 9,309,744 , 9,359,855 9,850,738 , D694,282 , D697,088	2,783,904
Bullet Flo-Back	9,359,855 , D694,281 , D694,282 D697,088 , D698,370 , D703,698 D703,713	2,783,904
CR Magnum Series Collet	2,603,337 , 7,762,323 , 8,783,341 9,062,522 , 9,441,448 , 9,562,415	2,783,903 , 2,783,904 , 2,856,987 13/385,936
CR Magnum Series Poppet	9,062,522 , 9,441,448 , 9,562,415	2,783,903 , 2,783,904 , 2,856,987 13/385,936
Dual Magnum Disk	7,806,189 , 8,813,848 , 9,194,209 9,291,031	
Extreme Single Magnum Disk	7,806,189 , 8,813,848 , 9,194,209 9,291,031	
Fastballs	8,899,317 , 9,587,475	
Flapper Stimulation Valve	2,528,130 , 7,287,596 , 7,624,809 7,708,066 , 8,157,012 , 8,739,881	
Hollow Point		2,895,507 , 2,935,508 , 14/677,242 15/189,090 , 15/355,346 , 15/403,739 , PCT/US13/76054 PCT/US15/37636



Product	Patent Number	Pending Patent
Interventionless	2,856,927 , 7,806,189 , 8,813,848 9,291,031	15/654,156
Interventionless (Finger Style)	7,806,189 , 8,813,848 , 9,291,031	2,937,076 , 15/218,457
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	2,783,904 , 2,791,072 , 2,856,987 14/999,637,15/697,572
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	2,783,904 , 2,791,072 , 2,856,987 14/999,637,15/697,572
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	2,783,904 , 2,791,072 , 2,856,987 14/999,637,15/697,572
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	2,783,904 , 2,791,072 , 2,856,987 14/999,637,15/697,572
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	2,783,904 , 2,791,072 , 2,856,987 14/999,637,15/697,572
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	2,783,904 , 2,791,072 , 2,856,987 14/999,637,15/697,572
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	2,783,904 , 2,791,072 , 2,856,987
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	2,783,904 , 2,791,072 , 2,856,987
Magnum Series Flo-Back	2,639,342 , 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	2,783,904 , 2,791,072 , 2,856,987
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	2,783,904 , 2,791,072 , 2,856,987
Mechanical Set Retainers	2,603,337 , 7,762,323 , 8,783,341 9,441,448	2,783,903 , 2,783,904 , 2,856,987 13/385,936
Mill E-Z Ball Drop	9,441,448	2,783,904 , 2,856,987
Mill E-Z Bridge Plug	6,796,376 , 9,441,448	2,783,904 , 2,856,987



Product	Patent Number	Pending Patent
Mill E-Z Collet	2,603,337 , 7,762,323 , 8,783,341 9,441,448	2,783,903 , 2,783,904 , 2,856,987 13/385,936
Mill E-Z Flo-Back	9,441,448	2,783,904 , 2,856,987
Mill E-Z Flow check	9,441,448	2,783,904 , 2,856,987
Mill E-Z Poppet	9,441,448	2,783,903 , 2,783,904 , 2,856,987 13/385,936
MVP	2,663,423 , 8,079,413 , 8,459,346 8,496,052 , 8,899,317 , 9,127,527 9,181,772 , 9,217,319 , 9,309,744 9,500,061 , 9,506,309 , 9,587,475 D694,282 , D697,088	2,895,507 , 2,935,508 15/189,090,15/355,346,15/403,739 PCT/US13/76054 , 15/672,790
PerfXtender	2,604,996 , 7,861,785 , 8,033,333	
Rapid Mill Ball Drop	2,663,423 , 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	2,783,904 , 2,791,072 , 2,856,987
Rapid Mill Ball Drop- Bottom Set	2,663,423 , 8,079,413 , 8,307,892 8,459,346 , 8,496,052 , 8,899,317 9,163,477 , 9,309,744 , 9,359,855 9,441,448 , 9,850,738 , D694,283 D697,089	2,783,904 , 2,856,987
Rapid Mill Bridge Plug	2,663,423 , 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	2,783,904 , 2,791,072 , 2,856,987
Rapid Mill Flo-Back	2,663,423 , 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	2,783,904 , 2,791,072 , 2,856,987
Rapid Mill Flow check	2,663,423 , 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 D703,713 , D705,821	2,783,904 , 2,856,987
Redress Kits	9,194,209	2,910,136 , 14/922,969
Safety arm select firing subs	6,412,388	



Product	Patent Number	Pending Patent
Single Magnum Disk	7,806,189 , 8,813,848 , 9,194,209 9,291,031	
Smart Sleeve	2,639,341	
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	2,783,904 , 2,791,072 , 2,856,987
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	2,783,904 , 2,791,072 , 2,856,987
Snub Nose Flo-Back	2,639,342 , 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	2,783,904 , 2,791,072 , 2,856,987
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	2,783,904 , 2,791,072 , 2,856,987