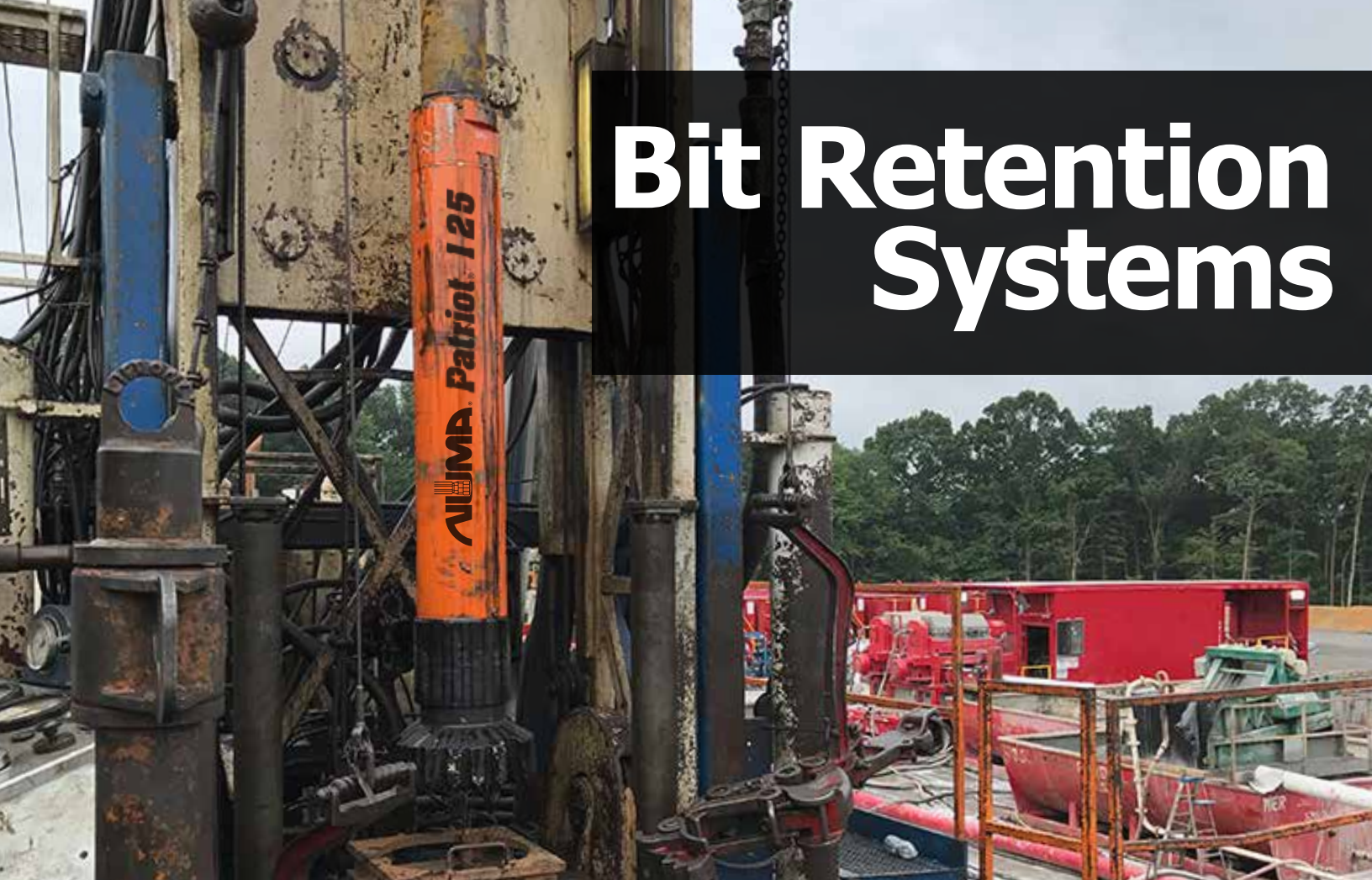


# Bit Retention Systems



## Retain and Retrieve Bit Head While Down the Hole

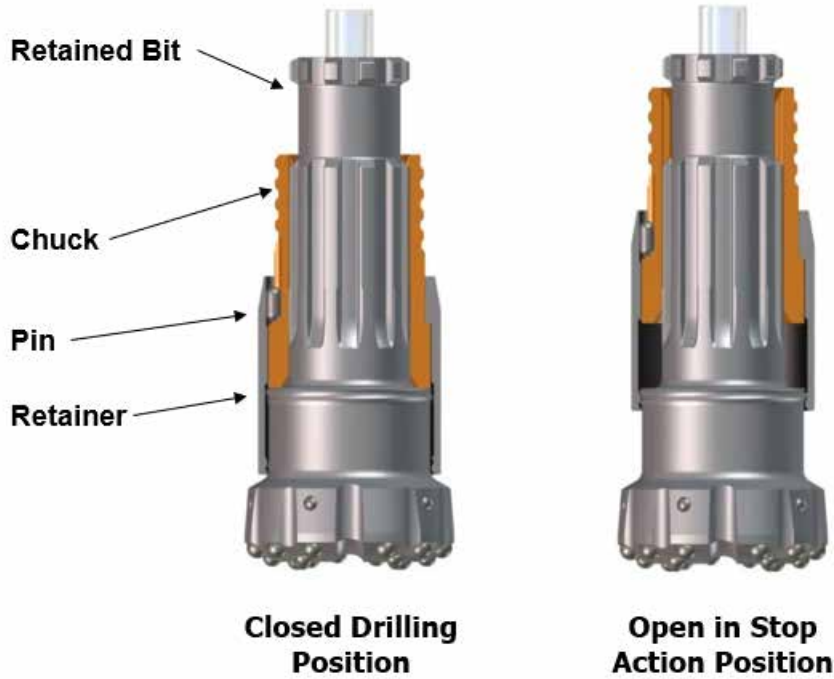
- **NTR (Numa Threaded Retainer):** A single internally threaded retainer sleeve threaded on a specially designed shoulder on the bit head
- Entire unit (Bit, Retainer, and Chuck) is affixed to hammer
- Minimizes risk of shanks and losses down hole
- Simple, easy assembled design
- Robust and durable construction
- Full contact around the entire circumference of the Retainer / Bit interface
- Range of sizes for various applications

**NUMA**<sup>®</sup>  
HAMMERS AND BITS

The World's **Leading**  
Drilling Technology



# Bit Retention Systems



Specifications		
Hammer	Shank	Hole Size
Patriot 50	QL50	5 1/2" to 6 1/8" 140 to 156 mm
Patriot 60	QL60	6 1/8" to 7" 156 to 178 mm
Patriot 60W	360	6 1/8" to 7" 156 to 178 mm
Patriot 85	380	7 7/8" to 9" 200 to 229 mm
Patriot 85Q	QL80	7 7/8" to 9" 200 to 229 mm
Challenger 100	N100	9 7/8" to 15" 251 to 381 mm
Patriot 125	P125	12 1/4" to 20" 311 to 508 mm
Patriot 180	P180	18" to 30" 457 to 762 mm
Patriot 185	P180	18" to 30" 457 to 762 mm
Patriot 240	P240	24" to 36" 610 to 914 mm

Other sizes may be available upon request.

