

Wedgetail® Roller Reamer

The Wedgetail® Roller Reamer is designed and engineered to provide enhanced run life with a unique and robust retention mechanism, allowing dependable reliability. An innovative stationary pressure equalization system ensures that the seals within each roller cartridge, and the sealed journal bearing they protect, enjoy a greatly extended life, complimenting the premium grade carbide that retains full gauge.

The patented ‘Taloc®’ locking mechanism utilizes two opposing tapered conical wedges, which focus the locking forces along the body of the tool. This allows a narrower pocket, for increased Flow-By area, and creates much higher locking forces that ensure full roller retention; yet the simple design facilitates safe cartridge replacement in a matter of minutes. The longitudinal locking mechanism also places less stress on the radial pocket design, mitigating and removing any potential for cracks in the pockets.

Applications & Benefits

- One piece Roller Cartridge for ease of maintenance, safety and security
- Self-Locating, Self-Orientating to a truly neutral alignment
- Extremely easy to maintain, No residual stresses prior, during or after dressing
- Unique Longitudinal Locking Mechanism: stronger retention, narrower pockets
- Greater Flow-By Area
- Shorter Upset length
- Reduced hole choking
- Greater carbide efficiency – Carbide Positioned in helical pattern around rollers
- Constant 3 point wall contact, for better surface finish on hole
- Allow constant back reaming with Bi-Directional Rollers as Standard
- Allow 90% of premium carbide to be placed on gauge diameter
- Ensure forces are transmitted equally over the centre of bearing shaft
- Advanced Stationary Pressure Equalization
- No moving parts ensure 100% reliability
- Stress relieved body profile to enhance flushing and cooling of rollers
- Allows body flex, for reduced fatigue
- Allows communication of Flow-By areas
- High Temperature rating of seals and grease to 220°C

Key Features

- Reduced Torque, Stick Slip and Vibration
- Improved Bit Performance and Extended BHA Component Life
- Assured full Gauge hole, with Better Log Quality and Easier Casing Running
- Reduced Need for Time Consuming Back Reaming
- Increased ROP



Wedgetail® Roller Reamer Specifications

Technical Specifications

| Hole Size | Body Number | Roller Cartridge Number | ID | Fishing Neck Diameter | Max Body Diameter | Flow-By Area Sq inch | Gauge Length | Total Length 3 Point |
|-----------|-------------|-------------------------|---------|-----------------------|-------------------|----------------------|--------------|----------------------|
| 5-7/8" | XMA 1001 | XMA 1040 | 1.5" | 4.75" | 5.3" | 5.1 | 2.44" | 67" |
| 6" | | XMA 1050 | | | | 5.9 | | |
| 6-1/8" | | XMA 1060 | | | | 6.8 | | |
| 6-1/2" | XMA 1151 | XMA 1040 | 1.75" | 4.75" | 5.9" | 6.9 | 2.44" | 67" |
| 6-5/8" | XMA 1201 | XMA 1040 | 2" | 4.75" | 6" | 7.5 | 2.44" | 67" |
| 6-3/4" | | XMA 1050 | | | | 8.5 | | |
| 6-7/8" | | XMA 1060 | | | | 9.5 | | |
| 8-3/8" | XMA 1501 | XMA 1540 | 2.25" | 6.75" | 7.75" | 9.7 | 2.75" | 75" |
| 8-1/2" | | XMA 1550 | | | | 10.9 | | |
| 8-3/4" | | XMA1560 | | | | 13.4 | | |
| 8-7/8" | XMA 1566 | XMA 1540 | 2.25" | 6.75" | 8.25" | 10.2 | 2.75" | 75" |
| 9" | | XMA 1550 | | | | 11.6 | | |
| 9-1/2" | | XMA 1590 | | | | 16.5 | | |
| 9-1/4" | XMA 1576 | XMA 1540 | 2.25" | 8" | 8.625" | 9.2 | 2.75" | 75" |
| 9-3/8" | | XMA 1550 | | | | 10.6 | | |
| 9-7/8" | | XMA 1590 | | | | 15.9 | | |
| 10" | XMA 1651 | XMA 1540 | 2.8125" | 8" | 9.375" | 13.4 | 2.75" | 75" |
| 10-1/8" | | XMA 1550 | | | | 15.0 | | |
| 10-5/8" | | XMA 1590 | | | | 20.9 | | |
| 11-3/8" | XMA 1801 | XMA 2030 | 2.8125" | 8" | 10.2" | 19.8 | 3.84" | 83" |
| 11-1/2" | | XMA 2040 | | | | 21.4 | | |
| 11-5/8" | | XMA 2050 | | | | 22.9 | | |
| 12" | XMA 2001 | XMA 2030 | 2.8125" | 8" | 10.83" | 26 | 3.84" | 88" |
| 12-1/8" | | XMA 2040 | | | | 27.7 | | |
| 12-1/4" | | XMA 2050 | | | | 29.4 | | |
| 14-1/2" | XMA 2201 | XMA 2030 | 3.150" | 9.75" | 13.33" | 44.6 | 3.84" | 92" |
| 14-5/8" | | XMA 2040 | | | | 46.8 | | |
| 14-3/4" | | XMA 2050 | | | | 49.0 | | |
| 16" | XMA 2601 | XMA 3050 | 3.150" | 9.75" | 13.4" | 59.9 | 3.84" | 92" |
| 17" | | XMA 4050 | | | | 72.5 | | |
| 17-1/2" | XMA 3001 | XMA 3050 | 3.150" | 9.75" | 14.9" | 81.8 | 3.84" | 96" |
| 22" | XMA 5001 | XMA 3050 | 3.150" | 9.75" | 19.4" | 137.6 | 3.84" | 96" |
| 23" | | XMA 4050 | | | | 165.7 | | |
| 24" | XMA 6001 | XMA 3050 | 3.150" | 9.75" | 21.4" | 158.3 | 3.84" | 96" |
| 25" | | XMA 4050 | | | | 189.6 | | |
| 26" | XMA 7001 | XMA 3050 | 3.150" | 9.75" | 23.4" | 208.8 | 3.84" | 96" |
| 27" | | XMA 4050 | | | | 243.2 | | |
| 28" | | XMA 9050 | | | | 253.9 | | |

Other sizes can be provided with custom rollers built to request.
 Values contained above are nominal values.

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