

Medusa®

Multi String Section Mill

The Medusa® multistring section milling technology delivers downhole windows through multiple casing strings for the installation of permanent well barriers. Medusa® is a hydraulically expandable section milling tool with the highest expansion ratio in class providing suitable windows for a permanent rock to rock or encapsulated well barriers. The patented design dynamically stabilizes within the casing ID, leading to a precise cutout and improved milling performance.

Archer has developed an upwards milling 4 3/8" section mill for thru-tubing activations to enable remediation of 5.5" cemented casing. Designed with a balanced centre of gravity at the cutting structure and optimised for coiled tubing applications in the bottom hole assembly design, including hydraulic stabilisation.

Benefits

- Dynamic / adaptive stabilization
- Bi-directional milling capability
- Short BHA length
- Casing ID scrubbing
- Highest expansion range
- Quick change blades
- Re-entry guides
- Downhole data recording
- Dual fluid jetting at cutting structure

Applications

- P&A operations
- Workover operations

Specifications

| Tool series | 4375 | 5500 | 8000 | 11500 |
|-----------------|-----------|--------------|--------------|------------|
| Casing range | 5.5" | 7" - 13.375" | 9.625" - 20" | 16" - 30" |
| Body OD, in | 4.375 | 5.50 | 8.25 | 11.75 |
| Neck OD, in | 3.375 | 4.75 | 6.50 | 8.00 |
| Neck length, in | 90 | 18.0 | 22.0 | 26.0 |
| Connections | 2-3/8 PAC | NC38 | NC50 | 6.625" Reg |
| Weight, lbs | 140 | 336 | 840 | 1475 |
| OAL, in | 57 | 85 | 102 | 110 |

| Optimal Parameter range | 4.375" | 5.50" | 8.00" | 11.50" |
|-------------------------|------------|-------------|-------------|-------------|
| RPM | 60 - 200 | 80 - 150 | 80 - 130 | 50 - 100 |
| Torque ft lbs. | 50 - 2,600 | 500 - 3,000 | 500 - 4,000 | 500 - 8,000 |
| WOM klbs. | 1 - 2 | 1 - 3 | 1 - 4 | 1 - 8 |