

HEMIDRIL® Mud Motors

Technical Summary

REDEFINING PERFORMANCE

NOV Downhole's high performance HEMIDRIL Mud Motors are ideal for straight hole and directional drilling. Thin wall design, flexible multibody construction, and power rib technology combine to deliver increased torque, horsepower, and efficiency in hot hole and oil-based mud applications.

Available in size configurations from 2 7/8" to 11 1/4" and lengths up to 250".

FEATURES AND BENEFITS

Features:

- Thin Wall Design
- Flexible Multi-body Construction
- Power Rib Technology
- Large Diameter One Piece Output Shaft
- No Flow Restrictor

Benefits:

- Increased ROP
- Constant RPM
- More Horsepower
- Increased Torque
- Improved Control
- Longer Lasting Elastomer
- All Drilling Fluid Passes Through to the Bit



Technical Specifications

| Size | Configuration | (rev/gal / rev/l) | Min Flow (gpm / lpm) | Max Flow (gpm / lpm) | Full Load Torque (lb-ft / Nm) | Full Load Pressure (psi / kPa) |
|---------|----------------|----------------------------|----------------------|----------------------|-------------------------------|--------------------------------|
| 2 7/8" | 5/6, 4.4 Stage | 5.58 rev/gal / 1.473 rev/l | 20 gpm / 80 lpm | 80 gpm / 300 lpm | 440 lb-ft / 596 Nm | 1,000 psi / 6890 kPa |
| 5" | 7/8, 3.8 Stage | 0.52 rev/gal / 0.137 rev/l | 160 gpm / 610 lpm | 250 gpm / 950 lpm | 4,480 lb-ft / 6070 Nm | 865 psi / 5960 kPa |
| 5" | 4/5, 6.3 Stage | 0.97 rev/gal / 0.256 rev/l | 100 gpm / 380 lpm | 250 gpm / 950 lpm | 3,830 lb-ft / 5190 Nm | 1,435 psi / 9890 kPa |
| 5" | 7/8, 3.8 Stage | 0.52 rev/gal / 0.137 rev/l | 160 gpm / 610 lpm | 250 gpm / 950 lpm | 4,480 lb-ft / 6070 Nm | 865 psi / 5960 kPa |
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| 6 1/2" | 7/8, 2.9 Stage | 0.17 rev/gal / 0.045 rev/l | 200 gpm / 760 lpm | 500 gpm / 1890 lpm | 9,750 lb-ft / 13211 Nm | 660 psi / 4550 kPa |
| 6 1/2" | 7/8, 2.9 Stage | 0.17 rev/gal / 0.045 rev/l | 200 gpm / 760 lpm | 500 gpm / 1890 lpm | 9,750 lb-ft / 13211 Nm | 660 psi / 4550 kPa |
| 6 1/2" | 7/8, 4.8 Stage | 0.34 rev/gal / 0.090 rev/l | 160 gpm / 610 lpm | 400 gpm / 1510 lpm | 8,450 lb-ft / 11450 Nm | 1,090 psi / 7510 kPa |
| 7" | 7/8, 3.0 Stage | 0.30 rev/gal / 0.079 rev/l | 300 gpm / 1140 lpm | 600 gpm / 2270 lpm | 6,510 lb-ft / 8821 Nm | 685 psi / 4720 kPa |
| 7" | 7/8, 5.0 Stage | 0.30 rev/gal / 0.079 rev/l | 300 gpm / 1140 lpm | 600 gpm / 2270 lpm | 10,830 lb-ft / 14675 Nm | 1,140 psi / 7850 kPa |
| 7" | 7/8, 2.9 Stage | 0.17 rev/gal / 0.045 rev/l | 300 gpm / 1140 lpm | 600 gpm / 2270 lpm | 12,955 lb-ft / 17554 Nm | 900 psi / 6200 kPa |
| 7" | 7/8, 3.0 Stage | 0.30 rev/gal / 0.079 rev/l | 300 gpm / 1140 lpm | 600 gpm / 2270 lpm | 6,510 lb-ft / 8821 Nm | 685 psi / 4720 kPa |
| 7" | 7/8, 5.0 Stage | 0.30 rev/gal / 0.079 rev/l | 300 gpm / 1140 lpm | 600 gpm / 2270 lpm | 10,830 lb-ft / 14675 Nm | 1,140 psi / 7850 kPa |
| 7" | 7/8, 2.9 Stage | 0.17 rev/gal / 0.045 rev/l | 200 gpm / 760 lpm | 500 gpm / 1890 lpm | 12,955 lb-ft / 17554 Nm | 900 psi / 6200 kPa |
| 7" | 7/8, 2.9 Stage | 0.17 rev/gal / 0.045 rev/l | 200 gpm / 760 lpm | 500 gpm / 1890 lpm | 12,955 lb-ft / 17554 Nm | 900 psi / 6200 kPa |
| 7" | 7/8, 3.0 Stage | 0.30 rev/gal / 0.079 rev/l | 300 gpm / 1140 lpm | 600 gpm / 2270 lpm | 6,510 lb-ft / 8821 Nm | 685 psi / 4720 kPa |
| 8" | 7/8, 4.0 Stage | 0.16 rev/gal / 0.042 rev/l | 300 gpm / 1140 lpm | 900 gpm / 3410 lpm | 15,155 lb-ft / 20535 Nm | 910 psi / 6270 kPa |
| 9 5/8" | 7/8, 4.8 Stage | 0.11 rev/gal / 0.029 rev/l | 600 gpm / 2270 lpm | 1200 gpm / 4540 lpm | 26,160 lb-ft / 35447 Nm | 1,090 psi / 7510 kPa |
| 9 5/8" | 7/8, 4.8 Stage | 0.11 rev/gal / 0.029 rev/l | 600 gpm / 2270 lpm | 1200 gpm / 4540 lpm | 26,160 lb-ft / 35447 Nm | 1,090 psi / 7510 kPa |
| 11 1/4" | 7/8, 4.8 Stage | 0.11 rev/gal / 0.029 rev/l | 600 gpm / 2270 lpm | 1200 gpm / 4540 lpm | 26,160 lb-ft / 35447 Nm | 1,090 psi / 7510 kPa |

DOWNHOLE

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