

Motor Technologies



NOV Motor Technologies

With one of the most comprehensive offerings of leading motor technology on the market, we deliver the highest quality products and support to meet the needs of your operation.

We're all after the same thing: the most efficient, productive operation possible. Having the right drilling motor in your bottomhole assembly (BHA) makes all the difference. With the widest offering of drilling motors on the market and more than 400 million feet drilled (that's 3 times the circumference of the Earth!), we're there to help, no matter the challenges your operations may present.

We are continuously advancing the technologies of our drilling motors to provide our customers with enhanced motor performance, increased reliability, and improved drilling efficiencies. Working with you to configure a drilling motor that fits your application, we'll increase your rate of penetration (ROP) and enable you to drill farther.



As a leading provider of drilling power sections, we have the most diverse portfolio of power section products in the industry.

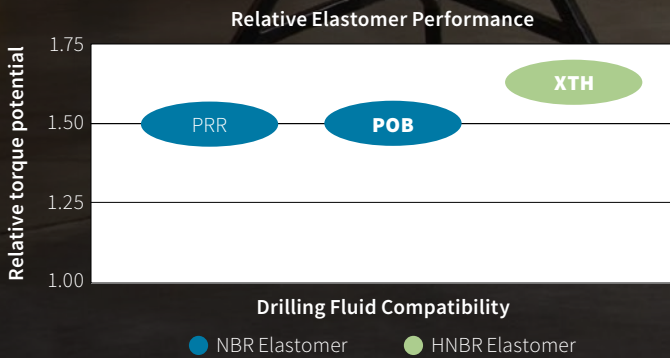
We offer multiple speed ranges for 3¾- to 11¼ in.-diameter drilling motor powers sections. Our global manufacturing and reline facilities can quickly provide the ERT™ & conventional stator, and rotor support you need, when and where you need it.

ERT Power Sections

Our ERT power sections provide more power versus conventional power sections. ERTs are designed to serve the high-flow, high-torque requirements of challenging drilling applications, delivering robust performance and higher rate of penetration (ROP) than conventional power sections of the same length and configuration.

Conventional Power Sections

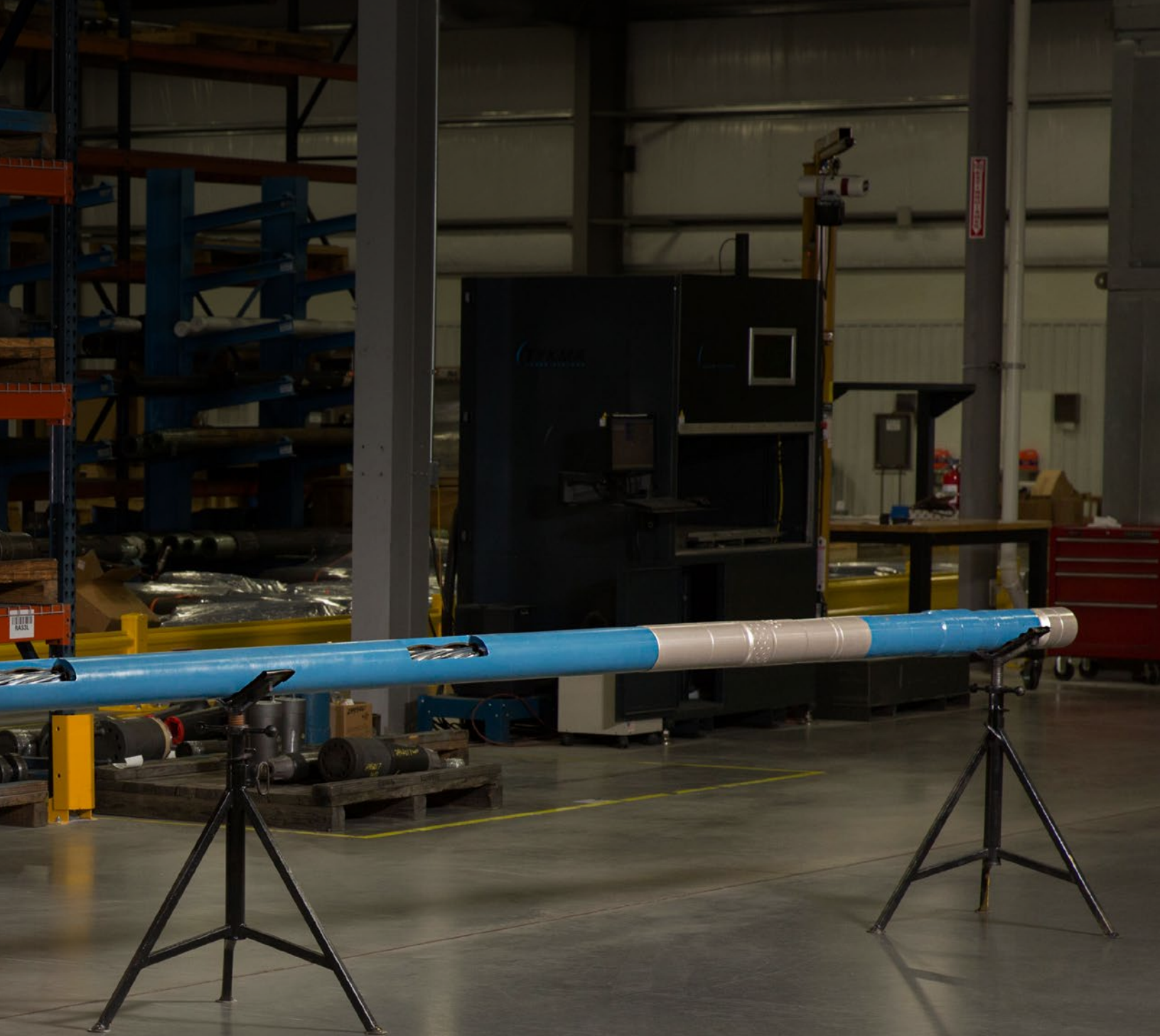
We provide an industry-leading selection of conventional power section configurations. Our power sections are available in a wide range of speed and torque options to meet the needs of your operation, and our proprietary elastomers give you the reliability you need to keep drilling.



Conventional Power Section
Non-uniform elastomer thickness



ERT Power Section
Uniform elastomer thickness



Power sections at your fingertips

The industry's first customizable spec generator app

The NOV Power Sections app creates a standard spec sheet for your selected size/model or creates a custom spec sheet for a specified flow rate and elastomer. You can save your most commonly used spec sheets as favorites for easy access in the future. You can also share spec sheets via email.





We continue to push the technology envelope in drilling motors with enhanced product offerings and drilling solutions. Building on the legacy of our bearing pack platforms, we have become a leading global provider of drilling motor technologies.

The Vector™ Series 55, 55RS, 50, 40H, 36H and Impulse technology deliver even more innovation, performance, and reliability, taking these product platforms even further in terms of drilling efficiencies.

NOV Oil Sealed Bearing Pack Technology

Series 50

Size	5¼ in.	7½ in.
Bit to Center of Stabilizer	18 in.	24 in.
Bit to Bend (ADJ)	49.8 in.	60.1 in.
Bit to Bend (Fixed)	46.4 in.	52.1 in.
Bit to Stator	69 in. (109.7)	82 in. (117.5)
Max WOB @ 100 RPM	56,000 lbf	119,000 lbf
Pull to Re-run	161,000 lbf	339,000 lbf
Pull to Yield	356,000 lbf	948,200 lbf

*For Series 50X (with Hybrid Flexshaft) the Bit to Stator length shown above in ().

Series 36H

Size	5½ in.	6½ in.	6¾ in.
Bit to Center of Stabilizer	20 in.	28 in.	24 in.
Bit to Bend (ADJ)	62.8 in.	N/A	72.2 in.
Bit to Bend (Fixed)	59.1 in.	66.4 in.	64.2 in.
Bit to Stator	82 in.	95 in.	94 in.
Max WOB @ 100 RPM	53,000 lbf	90,000 lbf	98,000 lbf
Pull to Re-run	144,000 lbf	263,000 lbf	277,000 lbf
Pull to Yield	325,000 lbf	593,000 lbf	549,000 lbf

Series 36 & 36E

Size	5 in.	5½ in.	6½ in.	6¾ in.	8 in.	9 in.	11¼ in. (36 only)
Bit to Center of Stabilizer	20 in.	20 in.	28 in.	24 in.	36 in.	43 in.	37 in.
Bit to Bend (ADJ)	61.3 in.	64.0 in.	77.1 in.	76.2 in.	87.1 in.	97.2 in.	104.8 in.
Bit to Bend (Fixed)	52.5 in.	55.2 in.	65.2 in.	63.9 in.	73.7 in.	80.5 in.	91.8 in.
Bit to Stator	79 in.	82 in.	97 in.	96 in.	108 in.	120 in.	134 in.
Max WOB @ 100 RPM	53,000 lbf	53,000 lbf	90,000 lbf	98,000 lbf	128,000 lbf	213,000 lbf	216,000 lbf
Pull to Re-run	144,000 lbf	144,000 lbf	263,000 lbf	277,000 lbf	367,000 lbf	581,000 lbf	905,000 lbf
Pull to Yield	325,000 lbf	325,000 lbf	593,000 lbf	549,000 lbf	792,000 lbf	1,186,000 lbf	2,072,000 lbf

Impulse Technology: 36Ei available in the 5 in. to 9 in. sizes, 36i available in the 6¾ in. to 9 in. sizes.





NOV Mud Lube Bearing Pack Technology

Series 55

Size	5¼ in.	5½ in.	6½ in.	7¼ in.
Bit to Center of Stabilizer	20 in.	19.8 in.	24 in.	26.6 in.
Bit to Bend (ADJ)	54 in.	n/a	n/a	n/a
Bit to Bend (Fixed)	50.6 in.	51.2 in.	53 in.	56.9 in.
Bit to Stator	72.7 in. (113.5)	73.3 in. (114.1)	81 in. (117)	85.9 in. (139.5)
Max WOB @ 100 RPM	87,000 lbf	89,000 lbf	93,000 lbf	116,700 lbf
Pull to Re-run	167,000 lbf	176,000 lbf	199,000 lbf	241,500 lbf
Pull to Yield	431,000 lbf	447,000 lbf	537,000 lbf	697,100 lbf

*For Series 55X (with Hybrid Flexshaft) the Bit to Stator length shown above in ().

Series 55RS

Size	5¼ in.	5½ in.	7¼ in.
Bit to Center of Stabilizer	25.8 in.	26.5 in.	32.2 in.
Bit to Bend (ADJ)	n/a	n/a	n/a
Bit to Bend (Fixed)	n/a	n/a	n/a
Bit to Stator	129 in.	130 in.	158 in.
Max WOB @ 100 RPM	115,000 lbf	118,000 lbf	165,000 lbf
Pull to Re-run	251,000 lbf	264,000 lbf	395,200 lbf
Pull to Yield	431,000 lbf	447,000 lbf	748,300 lbf

Series 40H

Size	5 in.	7 in.
Bit to Center of Stabilizer	24 in.	24 in.
Bit to Bend (ADJ)	63.2 in.	75.7 in.
Bit to Bend (Fixed)	59.5 in.	67.7 in.
Bit to Stator	82 in.	97 in.
Max WOB @ 100 RPM	87,000 lbf	144,000 lbf
Pull to Re-run	159,000 lbf	305,000 lbf
Pull to Yield	432,000 lbf	599,000 lbf

Series 40

Size	3¾ in.	5 in.	6½ in.	7 in.	8 in.	9 in.	11¼ in.
Bit to Center of Stabilizer	21 in.	24 in.	24 in.	24 in.	31 in.	38 in.	35 in.
Bit to Bend (ADJ)	46 in.	65.9 in.	78.0 in.	79.9 in.	90.7 in.	106.9 in.	118.0 in.
Bit to Bend (Fixed)	45.6 in. (to pad center)	57.1 in.	65.1 in.	67.6 in.	77.3 in.	90.1 in.	105.0 in.
Bit to Stator	59.3 in.	84 in.	98 in.	100 in.	112 in.	134 in.	147 in.
Max WOB @ 100 RPM	19,000 lbf	87,000 lbf	115,000 lbf	144,000 lbf	187,000 lbf	325,000 lbf	333,000 lbf
Pull to Re-run	52,000 lbf	159,000 lbf	254,000 lbf	305,000 lbf	434,000 lbf	692,000 lbf	870,000 lbf
Pull to Yield	250,000 lbf	432,000 lbf	644,000 lbf	599,000 lbf	792,000 lbf	1,873,000 lbf	2,143,000 lbf

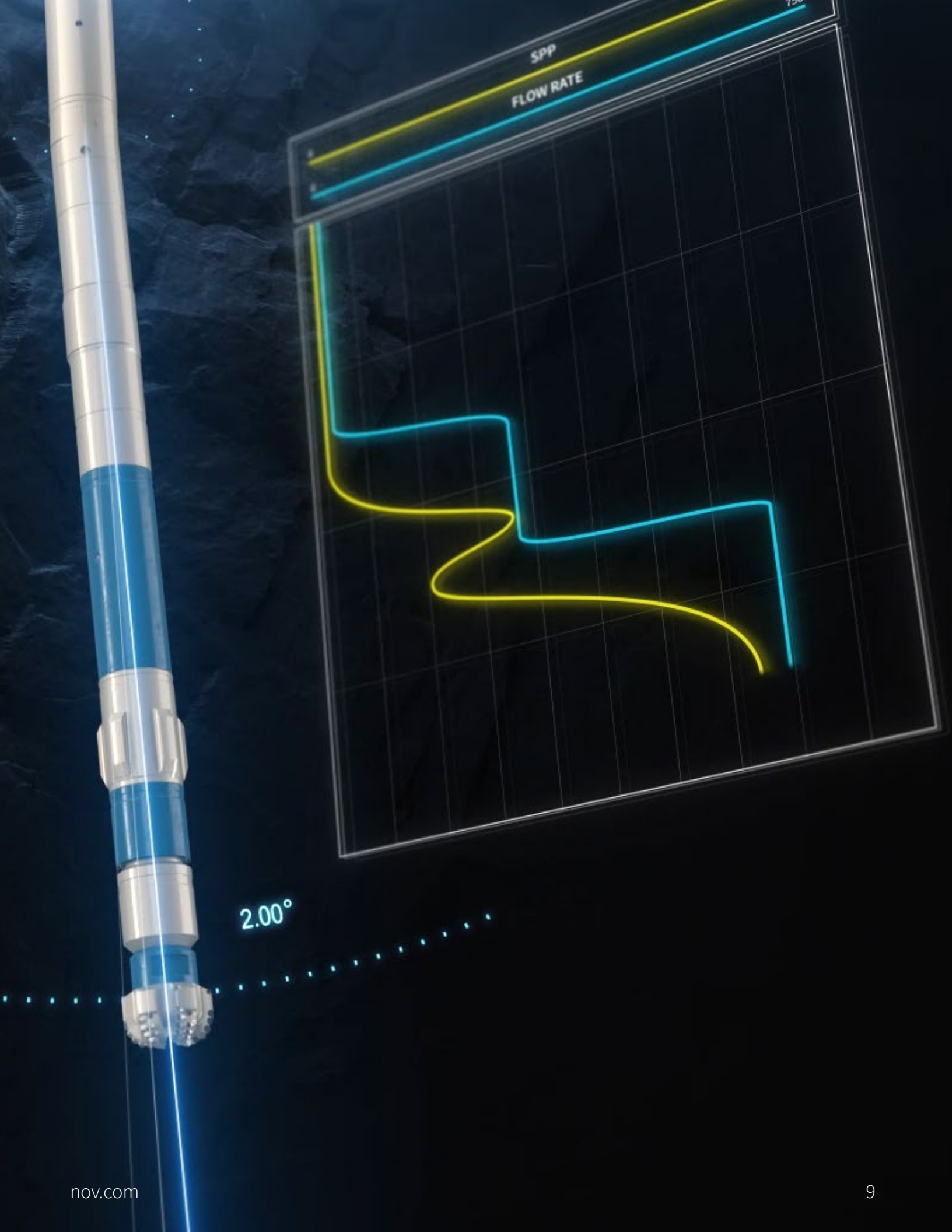


SelectShift Downhole Adjustable Motor

Developed specifically for our Vector drilling motors, the SelectShift™ downhole adjustable motor saves time and money by reducing the number of trips, increasing operational flexibility and optimizing critical drilling parameters. This revolutionary, NOV patented technology allows rapid adjustment of the motor bend setting downhole. The ability to shift to straight or a low bend setting downhole allows for broader and improved operating parameters such as higher drill string rotation, thereby improving bit life, hole quality, and ROP.

SelectShift Downhole Adjustable Motor

Size	5¼ in.	7½ in.
Bit to center of stabilizer	17 in.	18.5 in
Motor stabilizer size	Max ¼ in. UG	Max ¼ in. UG
Bit to bend	53 in.	64½ in.
Bit to stator	110 in.	122 in.
WOB@ 100 RPM	56,000 lbs	115,000 lbs

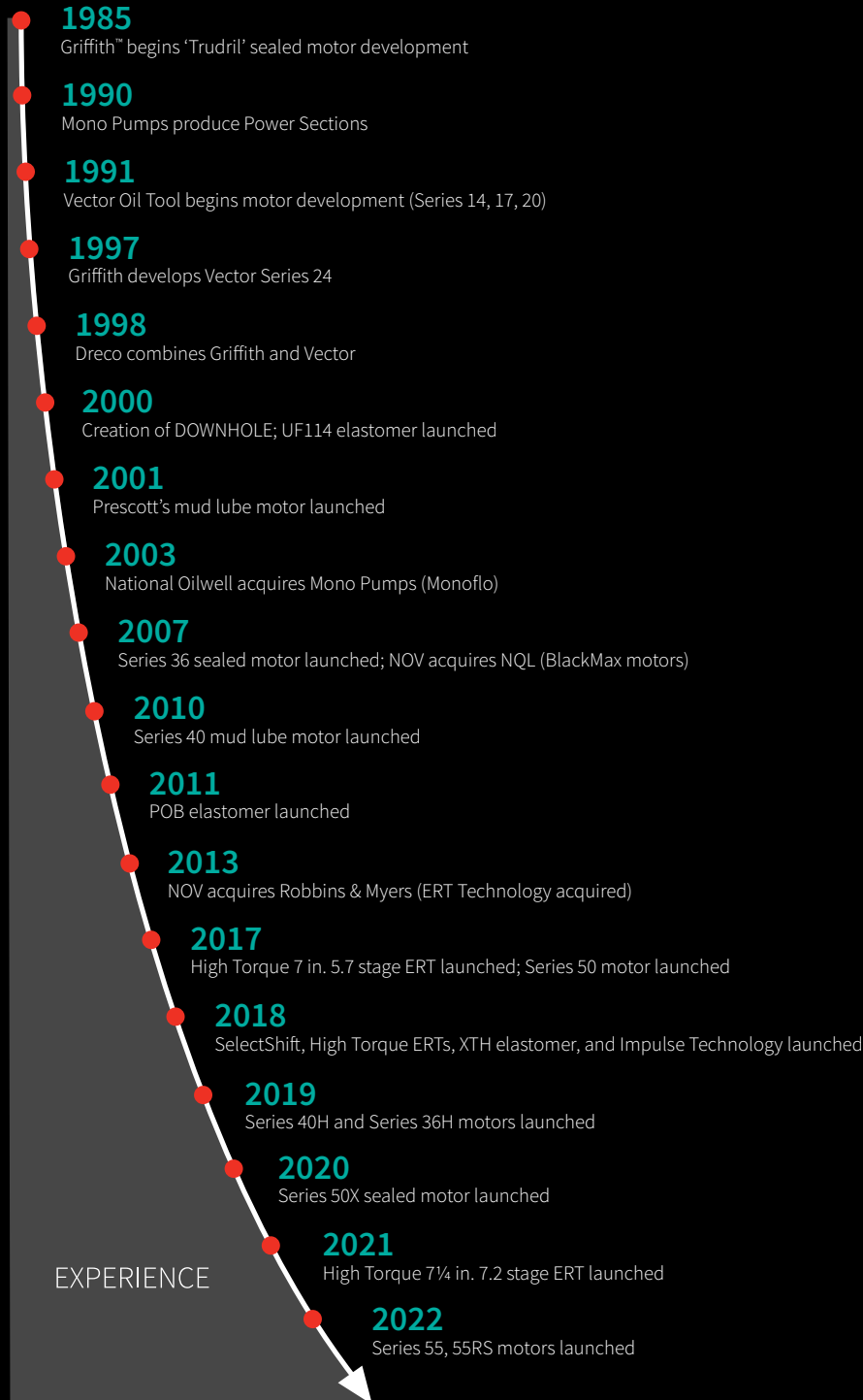


SPP
FLOW RATE

2.00°

With one of the widest offerings of leading motor technologies on the market, we deliver the highest quality products, services and support to meet the needs of your operation.

Everything we do is geared toward providing reliability and improving the efficiency of your drilling program. When our solutions arrive at your drill site, we want to deliver performance—**so you can.**



Total footage drilled:
Over 400 million ft.

● Motor service facilities per continent



Variety of applications



Vertical Drilling



Lateral Drilling



RSS



Curve Drilling



Air Drilling



Geothermal, Utility (HDD)



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