

7 $\frac{1}{8}$ -in. DuraMax D040-5093C Motor

Equipped with high performance elastomer

Tool Specifications

Length (shoulder – shoulder)	33.07 ft	10.08 m
Weight	2,892 lb	1,312 kg
Bit box to bend	4.839 ft	1,475 m
Bit size range	8 $\frac{5}{8}$ in. – 10 $\frac{5}{8}$ in.	
Top connection	NC50 Box	
Bit connection	4 $\frac{1}{2}$ -in. Reg. Bit Box	
Max. slick OD at wear ring	7.32 in.	185.9 mm
Deflection angle range of AKO	0° - 2.4°	
BUR and surface RPM limits	see BUR Charts	

Operating Specifications and Limits

Lobe configuration	5/6	
Stages	9.3	
Speed	305 rpm	
Flow rate	760 gpm	2,875 lpm
Speed to flow ratio	0.4 rev/gal	0.106 rev/l
Rotor nozzle	No	
No load pressure drop	350 psi	24 bar
Max. temperature	302°F	150°F

Performance Data

Differential pressure	2,600 psi*	175 bar*
Torque	12,400 ft-lb*	16,800 Nm*
Power output	710 hp*	530 kW*

*operational limit - restriction may apply with lower parameters



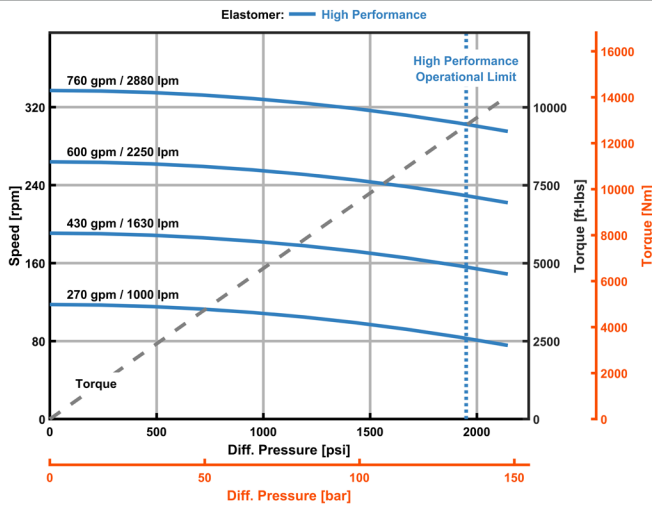
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Sensor Specifications

Diamond Bearings

WOB and backreaming weight	75 klb	333 kN
	45 klb	200 kN
Re-run overpull and set-down weight*	90 klb	400 kN
	150 klb	666 kN
Ultimate overpull to failure upper bearing housing stabilizer*	1,398 klb	6,216 kN
Ultimate overpull to failure stuck bit*	806 klb	3,589 kN

Performance Charts



* Motor Performance specifications and related charts are derived from dynamometer testing performed with water at 68°F (20°C) as the working fluid. Motor power sections were assembled for maximum performance and longevity in the testing environment on surface and are presented for comparative analysis and operational calculations. Motor performance specifications subject to change without notice. Actual downhole operational performance may vary due to temperature, fluid type and rotor/stator fit adjustments. If the motors, that have been assembled to compensate for downhole temperature effects, are surface tested, they may show reduced performance on surface and at low temperatures.

Build Up Rate Chart

Hole Size	Slick				Partial (14-in. undergauge UBHS)				Full (18-in. undergauge UBHS) (18-in. undergauge CIS)			
	AKO	BUR	RPM	Min. Pass Thru (in)	AKO	BUR	RPM	Min. Pass Thru (in)	AKO	BUR	RPM	Min. Pass Thru (in)
8-1/2 in.	0.5	0.2	180	8.525	0.5	3.2	180	8.525	0.5	4.1	180	8.525
	1.0	4.5	180		1.0	8.7	180		1.0	12.1	180	8.679
	1.2	6.2	180		1.2	10.9	180		1.2	15.3	180	8.760
	1.4	8.0	180		1.4	13.1	180		1.4	18.5	30	8.765
	1.6	9.7	180		1.6	15.3	180		1.6	21.7		8.845
	1.8	11.4	180		1.8	17.5	180		1.8	25.0		8.907
	2.0	13.1	180		2.0	19.8	30		2.0	28.2	N/A	
	2.2	14.9	180		2.2	22.0			2.2	31.4		N/A
	2.4	16.6	180		2.4	24.2	N/A		2.4	34.6		
8-3/4 in.	0.5	N/A	180	8.760	0.5	2.9	180	8.760	0.5	2.4	180	
	1.0	3.0	180		1.0	7.8	180		1.0	8.8	180	8.760
	1.2	4.5	180		1.2	9.8	180		1.2	11.3	180	8.765
	1.4	6.0	180		1.4	11.8	180		1.4	13.9	180	8.845
	1.6	7.5	180		1.6	13.8	180		1.6	16.4	180	8.907
	1.8	9.0	180		1.8	15.8	180		1.8	19.0	30	
	2.0	10.6	180		2.0	17.7	180		2.0	21.5		9.094
	2.2	12.1	180		2.2	19.7	30		2.2	24.0	N/A	
	2.4	13.6	180		2.4	21.7	N/A		2.4	26.6		9.126

***Build rates provide by modeling requires field proven capability

- A1: Minimum building AKO setting
- A2: Recommended maximum rotatable AKO setting
- A3: Absolute maximum rotatable AKO setting
- A4: Absolute maximum oriented setting

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