Baker Hughes

5⅛-in. Navi-Drill DuraMax D100-5130C Motor

Equipped with high performance elastomer

Tool Specifications		
Length (shoulder – shoulder)	31.2 ft	9.5 m
Weight	1,455 lb	660 kg
Bit box to bend	4.1 ft	1.2 m
Bit size range	5⅞ in. – 7 in.	
Top connection	NC38 Box	
Bit connection (optional)	3½-in. API Reg. Box (NC35 Box)	
Max. slick OD at wear ring	5.31 in.	135 mm
Deflection angle range of AKO	0° – 1.8°	
BUR and surface RPM limits	see BUR Charts	

Power Section		
Lobe configuration	5/6	
Stages	13.0	
Speed	110–370 rpm	
Flow rate	106–360 gpm	400–1,360 lpm
Speed to flow ratio	1.03 rev/gal	0.27 rev/l
Rotor nozzle	No	
No load pressure drop	350 psi	24 bar
Max. temperature	265°F	130°C

Performance Data		
Operational Limits		
Differential pressure	2,690 psi	185 bar
Torque	5,060 ft-lb	6,860 Nm
Power output	355 hp	265 kW
Maximum Operational		
Differential pressure	3,570 psi	250 bar
Torque	6,725 ft-lb	9,120 Nm
Power output	472 hp	352 kW

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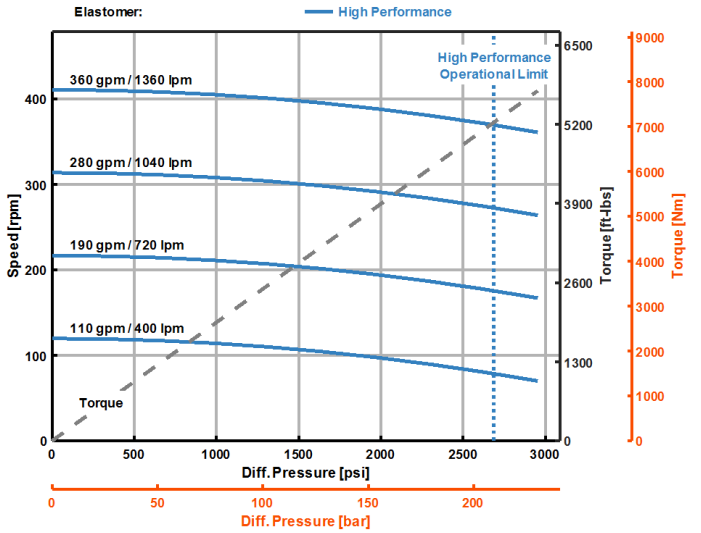
Bearing Section Operating Specifications and Limits

Diamond Bearings		
WOB and backreaming weight	40 klb	180 kN
Re-run overpull and set-down weight*	80 klb	360 kN
Ultimate overpull to failure upper bearing housing stabilizer*	674 klb	3,000 kN
Ultimate overpull to failure stuck bit*	225 klb	1,000 kN

Performance Charts



* Motor Performance specifications and related charts are derived from dynamometer testing performed with water at 68ºF (20ºC) 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		Partial (UBH Stab)			Full (UBH and CTT Stab)		
		AKO	BUR	RPM*	AKO	BUR	RPM*
5⅞ in.	A1	0.6	3	102	0.6	3	120
	A2	1.8	19	60	1.8	20	60
	A3						
	A4						
6 in.	A1	0.6	3	120	0.6	3	120
	A2	1.8	18	60	1.8	20	60
	A3						
	A4						
6¾ in.	A1	0.6	3	120	0.6	3	116
	A2	1.8	11	60	1.8	20	60
	A3						
	A4						
7 in.	A1	0.6	3	120	0.6	1	116
	A2	1.8	13	60	1.6	20	60
	A3						
	A4						

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