

9½-in. Ultra XL and XL-HP

Equipped with high performance elastomer

Tool Specifications

Length	36.1 ft	11.0 m
Weight range	5,950–7,300 lb	2,700–3,315 kg
Bit size range	12¼-in. – 28 in.	
Top connection (optional)	6⅝-in. API Reg. box (6⅝-in. H90, 7⅝-in. API Reg.)	
Bit connection (optional)	6⅝-in. API Reg. box (7⅝-in. API Reg.)	
Max. slick OD at wear pad	10.41 in.	264.50 mm
Max. slick OD at wear ring	10.65 in.	270.50 mm
Deflection angle range of AKO	0° – 2.0°	

Power Section

Lobe configuration	5/6	
Flow rate	530–1,200 gpm	2,000–4,550 lpm
Speed	85–185 rpm	
Speed to flow ratio	0.15 rev/gal	0.04 rev/l
Rotor nozzle	Yes	
Max. flow with nozzle	1,200 gpm	4,550 lpm
No load pressure drop	260 psi	18 bar

Temperature

with standard or high performance elastomer	265°F	130°C
with high temperature elastomer	320°F	160°C

Performance Data

Standard or high temperature elastomer

Operational limits		
Differential pressure	870 psi	60 bar
Torque	11,000 ft-lb	14,500 Nm
Power output	385 hp	285 kW

Maximum operational

Differential pressure	1,400 psi	96 bar
Torque	17,500 ft-lb	23,500 Nm

High performance elastomer

Operational limits

Differential pressure	1,300 psi	90 bar
Torque	16,000 ft-lb	22,000 Nm
Power output	575 hp	430 kW

Maximum operational

Differential pressure	1,750 psi	120 bar
Torque	21,500 ft-lb	29,500 Nm



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Bearing Section Operating Specifications and Limits

Ball Bearings

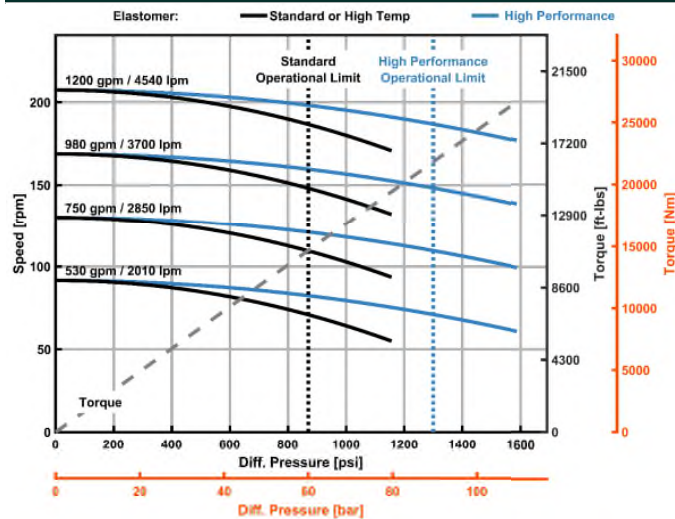
WOB and backreaming weight*	92 klb	410 kN
Re-run overpull and set-down weight*	184 klb	820 kN
Ultimate overpull to failure*	1,650 klb	7,300 kN

Diamond Bearings

WOB and backreaming weight*	105 klb	475 kN
Re-run overpull and set-down weight*	210 klb	950 kN
Ultimate overpull to failure*	1,650 klb	7,300 kN

* While motor is not operating

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			Full		
		AKO	BUR	RPM	AKO	BUR	RPM	AKO	BUR	RPM
12¼ in.	A1	0.6	1.4	116	0.25	1.8	134	0.25	0.7	135
	A2	1.6	6.8	60	1.4	6.9	60	1.5	6.0	60
	A3	1.8	7.9	30	1.5	7.3	30	1.6	6.4	30
	A4	2.0	8.9	0	2.0	9.5	0	2.0	8.1	0
16 in.*	A1	N/A			N/A			0.25	0.4	136
	A2	N/A			N/A			1.6	6.1	60
	A3	N/A			N/A					
	A4	N/A			N/A			2.0	7.7	0
17½ in.*	A1	N/A			N/A			0.25	0.4	135
	A2	N/A			N/A			1.5	5.6	60
	A3	N/A			N/A					
	A4	N/A			N/A			2.0	7.7	0

* The blade OD of Stabilizers is ¼-in. undergauge

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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