

POWER SECTION

Model No: AT5254510.3 OPTI

Revised: 3/8/2023

Rotor Specifications	
	inches
Overall Length	269.00
Contour Length	262.00
Major Diameter	3.286
Eccentricity	0.232
Head diameter	3.300
Thread Form	1.375-6 SA
Weight	501 lbs
Material	17-4 PH ¹

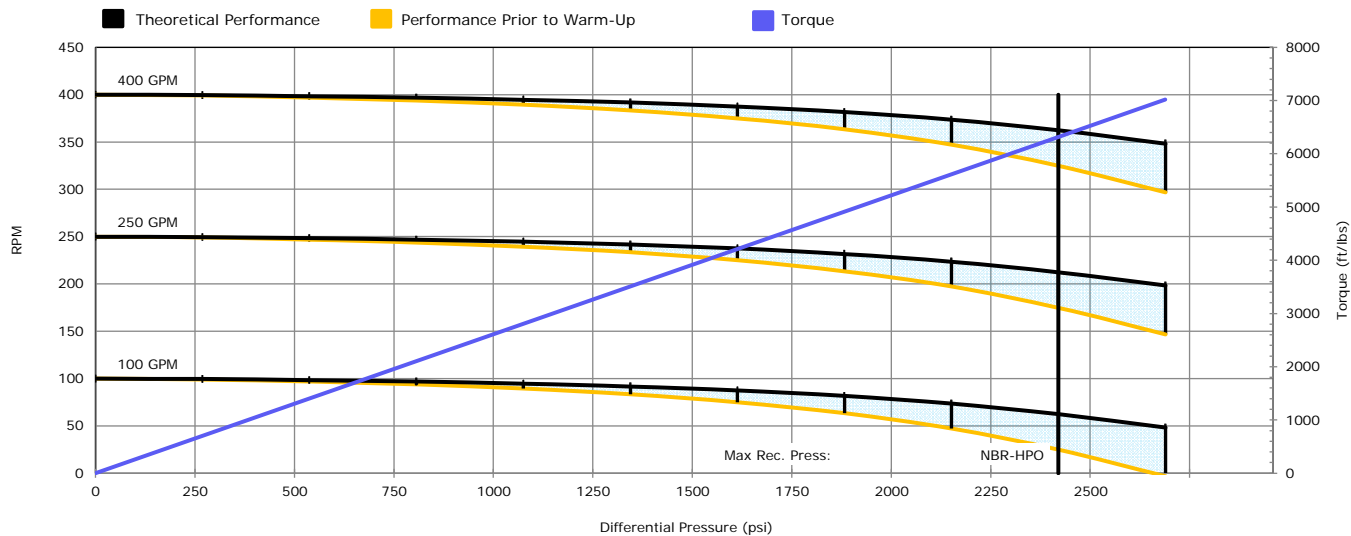
Performance Specifications	
Flow Range (gpm)	100 - 400
Speed Range (rpm)	100 - 400
Torque Slope (ft-lb/psi)	2.61
Rotation (rev/gal)	1.000
Off Bottom Pressure (psi)	140

Stator Specifications	
	inches
Overall Length	275.00
Tube OD	5.25
Tube ID	4.00
Rubber Cutback Top/End	8.00 / 8.00
Weight	610 lbs
Number of Stages	10.3
Tube Material	4140/4142 Alloy Steel
Rubber Options	NBR-HPO

Performance Details	
	NBR-HPO
Max Diff Press (psi)	2430
Stall Diff Press (psi)	3820
Max Torque (ft-lb)	6320
Stall Torque (ft-lb)	9960

Size	Minor ²	Fit @ 75°F	Stator Sizing and Fit Chart ³	
.5 US	-	-	-	Fit Not Available
STD	-	-	-	Fit Not Available
.5 OS	2.830	-0.008	130°F	170°F OPTIMAL RANGE 260°F 290°F
1.0 OS	2.840	-0.018	160°F	200°F OPTIMAL RANGE 290°F 330°F ³
1.5 OS	2.850	-0.028	200°F	240°F OPTIMAL RANGE 330°F 360°F ³
2.0 OS	-	-	-	Fit Not Available
2.5 OS	-	-	-	Fit Not Available

Minor Diameter Change = 0.001" per 3.5 °F ΔFit = 0.00029" per 1°F



¹ Coating options of chrome or tungsten carbide are available ² Vector Gauge Readings at Room Temp 75°F (measured from the top end) ³ Chart temp shows potential of the individual fit and not necessarily the elastomer. BHCT Exceeding 320°F will void warranty for NBR-HPO.

Performance curves are based on new rotor and stator dimensions and for reference only. Actual performance may vary depending on fit and drilling conditions. The stall torque may exceed that specified for the connected components. Operating over the recommended limits may result in damage to the power section and connected components. Please visit www.AbacoDrilling.com for the latest specification revisions.

LOCATIONS

US: Headquarters
 US: Sales & Distribution
 CANADA: Stator Manufacturing
 DUBAI UAE: Stator Manufacturing

713 Northpark Central Dr., #400 Houston, TX 77073 - Tel: (281) 869-0700 - Fax: (281) 869-0701
 11308 West Interstate 20 East, Odessa, TX 79765 - Tel: (432) 248-1814
 6303-39th Street Leduc, Alberta T9E 0Z3 Canada - Tel: (780) 986-8947 - Fax: (780) 986-8842
 Oilfields Supply Center B#57, Jebel Ali, Dubai UAE, P.O. Box 19909 - Tel: 971-4-870-8600

Rotor Specifications	
	mm
Overall Length	6832.6
Contour Length	6654.8
Major Diameter	83.46
Eccentricity	5.90
Head diameter	83.82
Thread Form	1.375-6 SA
Weight	227 kg
Material	17-4 PH ¹

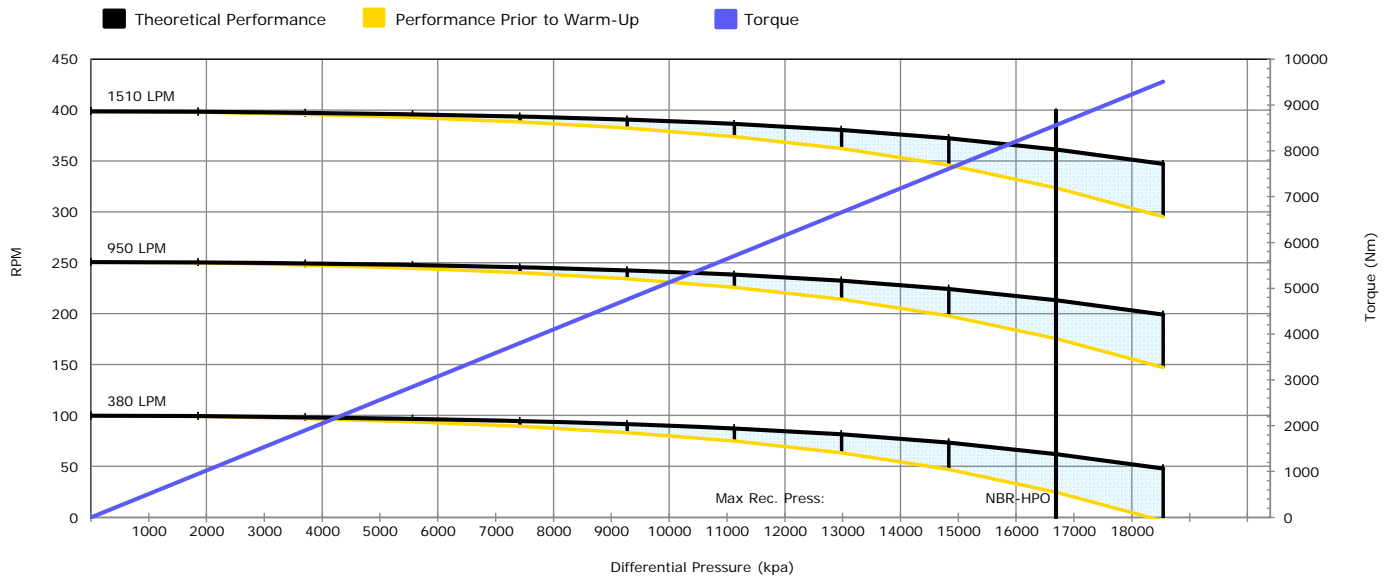
Stator Specifications	
	mm
Overall Length	6985.0
Tube OD	133.4
Tube ID	101.6
Rubber Cutback Top/End	203.0 / 203.0
Weight	277 kg
Number of Stages	10.3
Tube Material	4140/4142 Seamless Alloy Steel
Rubber Options	NBR-HPO

Performance Specifications	
Flow Range (lpm)	380 - 1510
Speed Range (rpm)	100 - 400
Torque Slope (Nm/kpa)	0.51
Rotation (rev/Liter)	0.2642
Off Bottom Pressure (kpa)	990

Performance Details	
	NBR-HPO
Max Diff Press (kpa)	16700
Stall Diff Press (kpa)	26300
Max Torque (Nm)	8600
Stall Torque (Nm)	13500

Size	Minor ²	Minor ²	Stator Sizing and Fit Chart ³	
.5 US	-	-	-	Fit Not Available
STD	-	-	-	Fit Not Available
.5 OS	71.882	-0.216	50°C	80°C OPTIMAL RANGE 130°C 140°C
1.0 OS	72.136	-0.470	70°C	90°C OPTIMAL RANGE 140°C 170°C ³
1.5 OS	72.390	-0.724	90°C	120°C OPTIMAL RANGE 170°C 180°C ³
2.0 OS	-	-	-	Fit Not Available
2.5 OS	-	-	-	Fit Not Available

Minor Diameter Change = 0.025 mm per 1.92 °C ΔFit = 0.0132 mm per 1°C



¹ Coating options of chrome or tungsten carbide are available ² Vector Gauge Readings at Room Temp 25°C (measured from the top end) ³ Chart temp shows potential of the individual fit and not necessarily the elastomer. BHCT Exceeding 160°C will void warranty for NBR-HPO
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