

POWER SECTION

Model No: AT5506710.9 OPTI

Revised: 1/7/2021

Rotor Specifications	
	inches
Overall Length	269.00
Contour Length	258.00
Major Diameter	3.419
Eccentricity	0.215
Head diameter	3.500
Thread Form	1.375-6 SA
Weight	553 lbs
Material	17-4 PH ¹

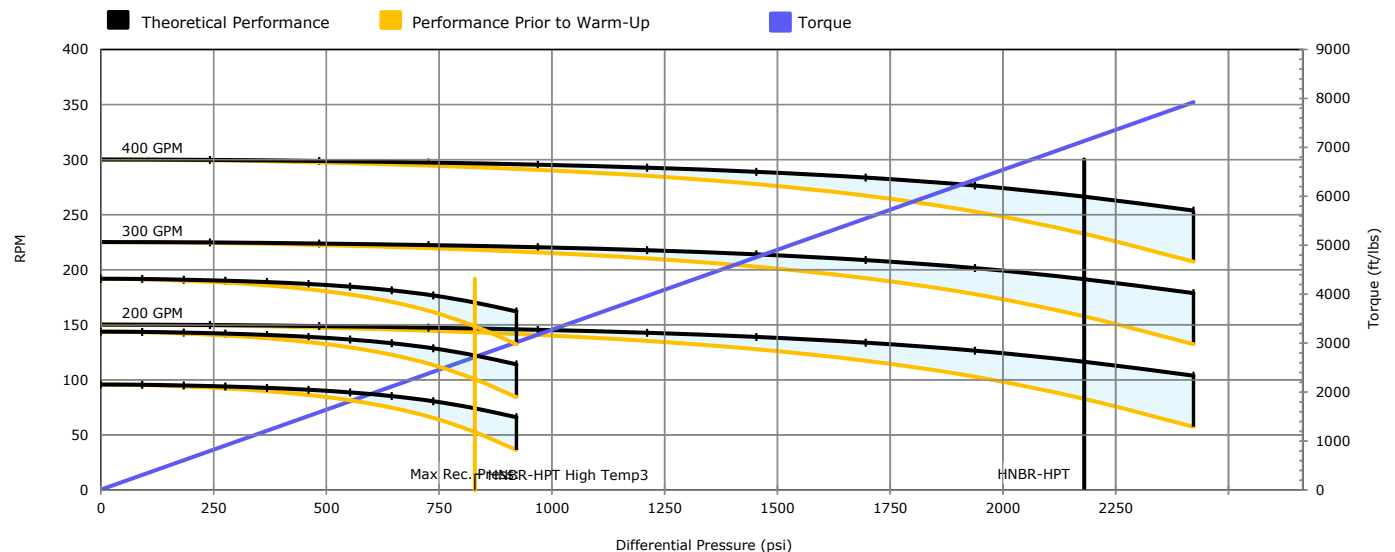
Stator Specifications	
	inches
Overall Length	275.00
Tube OD	5.50
Tube ID	4.00
Rubber Cutback Top/End	12.00 / 12.00
Weight	544 lbs
Number of Stages	10.9
Tube Material	4140/4142 Alloy Steel
Rubber Options	HNBR-HPT

Performance Specifications	
Flow Range (gpm)	200 - 400
Speed Range (rpm)	150 - 300
Torque Slope (ft-lb/psi)	3.27
Rotation (rev/gal)	0.750
Off Bottom Pressure (psi)	150

	HNBR-HPT High Temp ³	HNBR-HPT
Max Diff Press (psi)	1090	2180
Stall Diff Press (psi)	1640	3440
Max Torque (ft-lb)	3570	7130
Stall Torque (ft-lb)	5350	11230

Size	Minor ²	Fit @ 75°F	Stator Sizing and Fit Chart ⁴			
.5 US	-	-	-	-	Fit Not Available	-
STD	-	-	-	-	Fit Not Available	-
.5 OS	-	-	-	-	Fit Not Available	-
1.0 OS	-	-	-	-	Fit Not Available	-
1.5 OS	3.028	-0.039	240°F	270°F	OPTIMAL RANGE	350°F 380°F ⁴
2.0 OS	-	-	-	-	Fit Not Available	-
2.5 OS	-	-	-	-	Fit Not Available	-

Minor Diameter Change = 0.001" per 3.6 °F ΔFit = 0.00028" per 1°F



¹ Coating options of chrome or tungsten carbide are available ² Vector Gauge Readings at Room Temp 75°F ³ HPT High Temp parameters are recommended when BHCT exceeds 300°F. It is recommended to run stator for no more than 15 hours at BHCT above 375°F. ⁴ Chart temp shows potential of the individual fit and not necessarily the elastomer. BHCT exceeding 430°F will void warranty. 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 713 Northpark Central Dr., #400 Houston, TX 77073 - Tel: (281) 869-0700 - Fax: (281) 869-0701
 US: Sales & Distribution 11308 West Interstate 20 East, Odessa, TX 79765 - Tel: (432) 248-1814
 CANADA: Stator Manufacturing 6303-39th Street Leduc, Alberta T9E 0Z3 Canada - Tel: (780) 986-8947 - Fax: (780) 986-8842
 DUBAI UAE: Stator Manufacturing Oilfields Supply Center B#57, Jebel Ali, Dubai UAE, P.O. Box 19909 - Tel: 971-4-870-8600

POWER SECTION - METRIC

Model No: AT5506710.9 OPTI

Revised: 1/7/2021

Rotor Specifications	
	mm
Overall Length	6832.6
Contour Length	6553.2
Major Diameter	86.84
Eccentricity	5.47
Head diameter	88.90
Thread Form	1.375-6 SA
Weight	251 kg
Material	17-4 PH ¹

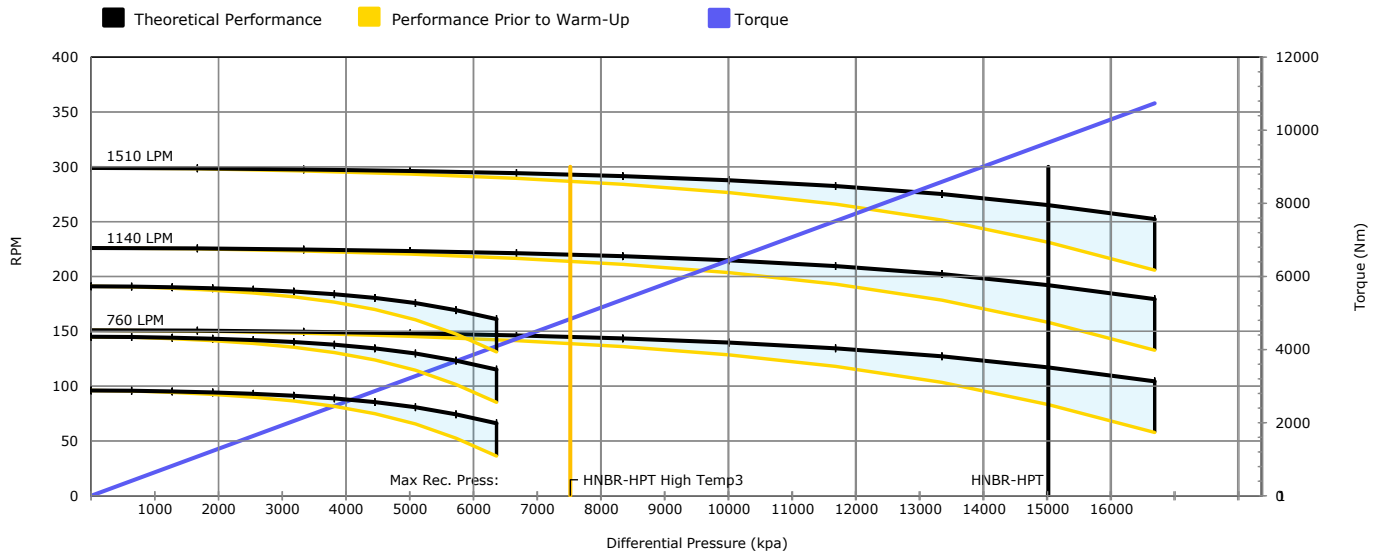
Stator Specifications	
	mm
Overall Length	6985.0
Tube OD	139.7
Tube ID	101.6
Rubber Cutback Top/End	305.0 / 305.0
Weight	247 kg
Number of Stages	10.9
Tube Material	4140/4142 Seamless Alloy Steel
Rubber Options	HNBR-HPT

Performance Specifications	
Flow Range (lpm)	760 - 1510
Speed Range (rpm)	150 - 300
Torque Slope (Nm/kpa)	0.64
Rotation (rev/Liter)	0.1981
Off Bottom Pressure (kpa)	1060

Performance Details		
	HNBR-HPT High Temp ³	HNBR-HPT
Max Diff Press (kpa)	7600	15100
Stall Diff Press (kpa)	11300	23700
Max Torque (Nm)	4900	9700
Stall Torque (Nm)	7300	15300

Size	Minor ²	Fit@25°C	Stator Sizing and Fit Chart ⁴	
.5 US	-	-	-	Fit Not Available
STD	-	-	-	Fit Not Available
.5 OS	-	-	-	Fit Not Available
1.0 OS	-	-	-	Fit Not Available
1.5 OS	76.911	-1.003	120°C	130°C OPTIMAL RANGE 180°C 190°C ⁴
2.0 OS	-	-	-	Fit Not Available
2.5 OS	-	-	-	Fit Not Available

Minor Diameter Change = 0.025 mm per 2 °C ΔFit = 0.0127 mm per 1°C



¹ Coating options of chrome or tungsten carbide are available. ² Vector Gauge Readings at Room Temp 25°C. ³ HPT High Temp parameters are recommended when BHCT exceeds 150°C. It is recommended to run stator for no more than 15 hours at BHCT above 190°C. ⁴ Chart temp shows potential of the individual fit and not necessarily the elastomer. BHCT exceeding 220°C will void warranty. 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.

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