

POWER SECTION

Model No: AT800784.0 OPTI

Revised: 11/4/2021

Rotor Specifications	
	inches
Overall Length	196.25
Contour Length	188.25
Major Diameter	5.186
Eccentricity	0.293
Head diameter	4.750
Thread Form	3.50 API REG
Weight	956 lbs
Material	17-4 PH ¹

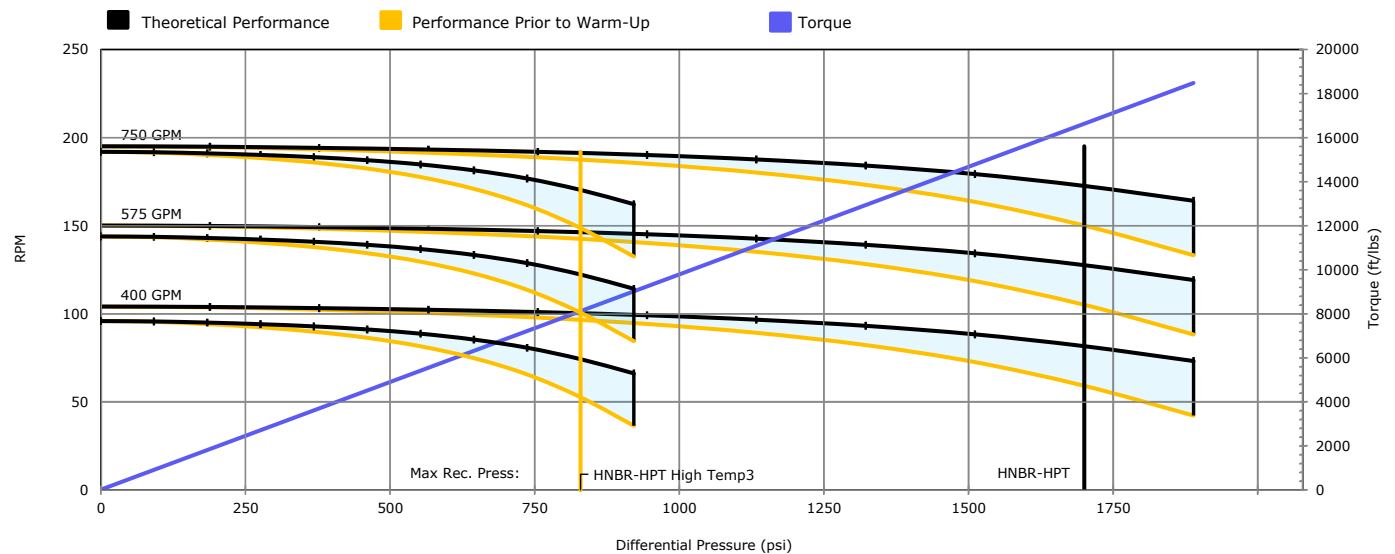
Stator Specifications	
	inches
Overall Length	300.00
Tube OD	7.00
Tube ID	5.75
Rubber Cutback Top/End	7.00 / 7.00
Weight	989 lbs
Number of Stages	8.5
Tube Material	4140/4142 Alloy Steel
Rubber Options	HNBR-HPT

Performance Specifications	
Flow Range (gpm)	400 - 750
Speed Range (rpm)	100 - 200
Torque Slope (ft-lb/psi)	9.78
Rotation (rev/gal)	0.260
Off Bottom Pressure (psi)	150

Performance Details		
	HNBR-HPT High Temp ³	HNBR-HPT
Max Diff Press (psi)	850	1700
Stall Diff Press (psi)	1280	2680
Max Torque (ft-lb)	8320	16630
Stall Torque (ft-lb)	12470	26190

Size	Minor ²	Fit @ 75°F	Stator Sizing and Fit Chart ⁴				
.5 US	-	-	-	-	Fit Not Available	-	-
STD	4.492	0.108	110°F	150°F	OPTIMAL RANGE	240°F	270°F
.5 OS	-	-	-	-	Fit Not Available	-	-
1.0 OS	-	-	-	-	Fit Not Available	-	-
1.5 OS	-	-	-	-	Fit Not Available	-	-
2.0 OS	-	-	-	-	Fit Not Available	-	-
2.5 OS	-	-	-	-	Fit Not Available	-	-

Minor Diameter Change = 0.001" per 3.5 °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 (measured from the top end) 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: AT800784.0 OPTI

Revised: 11/4/2021

Rotor Specifications	
	mm
Overall Length	4984.8
Contour Length	4781.6
Major Diameter	131.72
Eccentricity	7.44
Head diameter	120.65
Thread Form	3.50 API REG
Weight	434 kg
Material	17-4 PH ¹

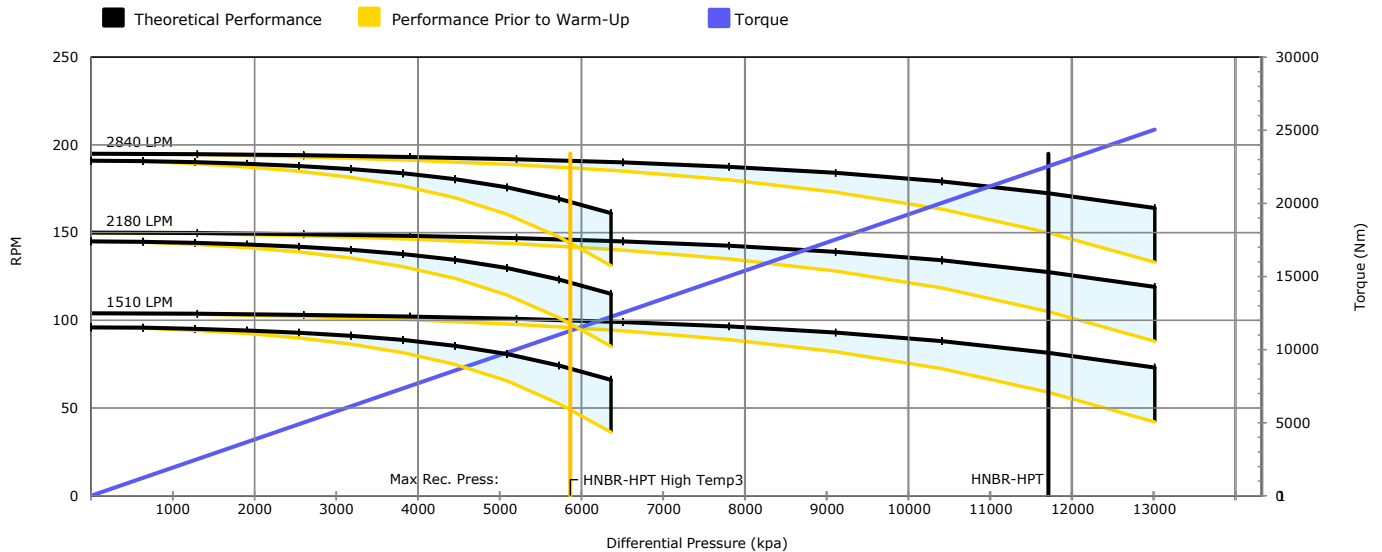
Stator Specifications	
	mm
Overall Length	7620.0
Tube OD	177.8
Tube ID	146.1
Rubber Cutback Top/End	178.0 / 178.0
Weight	449 kg
Number of Stages	8.5
Tube Material	4140/4142 Seamless Alloy Steel
Rubber Options	HNBR-HPT

Performance Specifications	
Flow Range (lpm)	1510 - 2840
Speed Range (rpm)	100 - 200
Torque Slope (Nm/kpa)	1.92
Rotation (rev/Liter)	0.0687
Off Bottom Pressure (kpa)	1060

Performance Details		
	HNBR-HPT High Temp ³	HNBR-HPT
Max Diff Press (kpa)	5900	11800
Stall Diff Press (kpa)	8800	18500
Max Torque (Nm)	11300	22600
Stall Torque (Nm)	17000	35600

Size	Minor ²	Fit@25°C	Stator Sizing and Fit Chart ⁴	
.5 US	-	-	-	Fit Not Available
STD	114.097	2.743	40°C	70°C OPTIMAL RANGE 120°C 130°C
.5 OS	-	-	-	Fit Not Available
1.0 OS	-	-	-	Fit Not Available
1.5 OS	-	-	-	Fit Not Available
2.0 OS	-	-	-	Fit Not Available
2.5 OS	-	-	-	Fit Not Available

Minor Diameter Change = 0.025 mm per 1.97 °C ΔFit = 0.0129 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 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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