

POWER SECTION

Model No: AT500678.0 OPTI

Revised: 12/10/2020

Rotor Specifications	
	inches
Overall Length	241.00
Contour Length	235.00
Major Diameter	3.018
Eccentricity	0.192
Head diameter	2.900
Thread Form	2.375 HEF Modified
Weight	383 lbs
Material	17-4 PH ¹

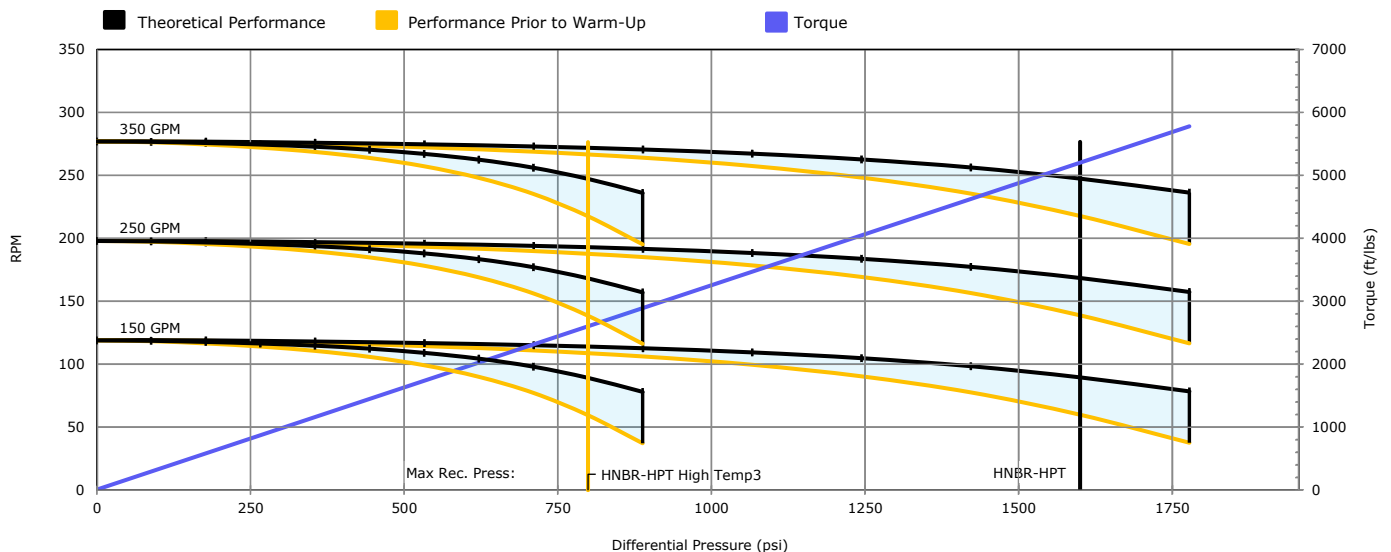
Stator Specifications	
	inches
Overall Length	250.00
Tube OD	5.00
Tube ID	4.00
Rubber Cutback Top/End	8.00 / 8.00
Weight	575 lbs
Number of Stages	8.0
Tube Material	4140/4142 Alloy Steel
Rubber Options	HNBR-HPT

Performance Specifications	
Flow Range (gpm)	150 - 350
Speed Range (rpm)	120 - 280
Torque Slope (ft-lb/psi)	3.25
Rotation (rev/gal)	0.790
Off Bottom Pressure (psi)	110

Performance Details		
	HNBR-HPT High Temp ³	HNBR-HPT
Max Diff Press (psi)	800	1600
Stall Diff Press (psi)	1200	2520
Max Torque (ft-lb)	2600	5200
Stall Torque (ft-lb)	3900	8190

Size	Minor ²	Fit @ 75°F	Stator Sizing and Fit Chart ⁴			
.5 US	-	-	-	-	Fit Not Available	-
STD	2.648	-0.014	140°F	170°F	OPTIMAL RANGE	240°F 280°F
.5 OS	2.663	-0.029	190°F	220°F	OPTIMAL RANGE	290°F 330°F
1.0 OS	2.673	-0.039	220°F	250°F	OPTIMAL RANGE	330°F 360°F
1.5 OS	2.683	-0.049	250°F	290°F	OPTIMAL RANGE	360°F 380°F ⁴
2.0 OS	-	-	-	-	Fit Not Available	-
2.5 OS	-	-	-	-	Fit Not Available	-

Minor Diameter Change = 0.001" per 3.2 °F ΔFit = 0.00031" 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: **AT500678.0 OPTI**

Revised: 12/10/2020

Rotor Specifications	
	mm
Overall Length	6121.4
Contour Length	5969.0
Major Diameter	76.66
Eccentricity	4.88
Head diameter	73.66
Thread Form	2.375 HEF Modified
Weight	174 kg
Material	17-4 PH ¹

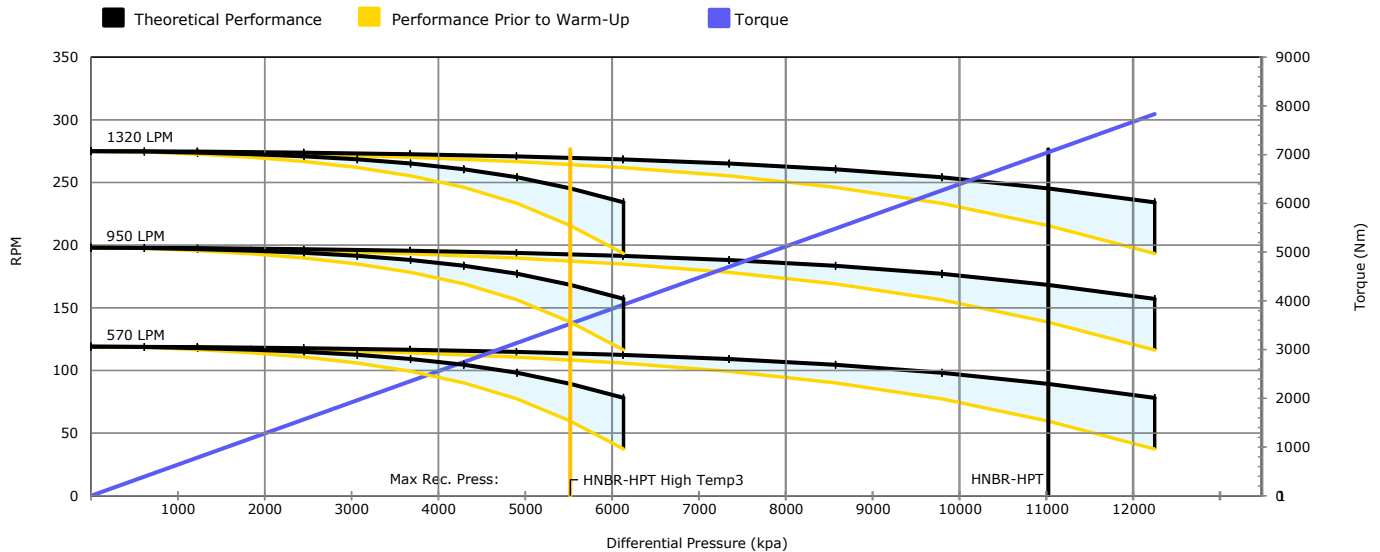
Stator Specifications	
	mm
Overall Length	6350.0
Tube OD	127.0
Tube ID	101.6
Rubber Cutback Top/End	203.0 / 203.0
Weight	261 kg
Number of Stages	8.0
Tube Material	4140/4142 Seamless Alloy Steel
Rubber Options	HNBR-HPT

Performance Specifications	
Flow Range (lpm)	570 - 1320
Speed Range (rpm)	120 - 280
Torque Slope (Nm/kpa)	0.64
Rotation (rev/Liter)	0.2087
Off Bottom Pressure (kpa)	780

Performance Details		
	HNBR-HPT High Temp ³	HNBR-HPT
Max Diff Press (kpa)	5600	11100
Stall Diff Press (kpa)	8300	17400
Max Torque (Nm)	3600	7100
Stall Torque (Nm)	5300	11200

Size	Minor ²	Fit@25°C	Stator Sizing and Fit Chart ⁴	
.5 US	-	-	-	Fit Not Available
STD	67.259	-0.356	60°C	80°C OPTIMAL RANGE 120°C 140°C
.5 OS	67.640	-0.737	90°C	100°C OPTIMAL RANGE 140°C 170°C
1.0 OS	67.894	-0.991	100°C	120°C OPTIMAL RANGE 170°C 180°C
1.5 OS	68.148	-1.245	120°C	140°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 1.79 °C ΔFit = 0.0142 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.

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