

POWER SECTION

Model No: AT500566.7 OPTI

Revised: 2/10/2023

Rotor Specifications	
	inches
Overall Length	241.00
Contour Length	235.00
Major Diameter	3.12
Eccentricity	0.235
Head diameter	2.900
Thread Form	2.375 HEF Modified
Weight	383 lbs
Material	17-4 PH ¹

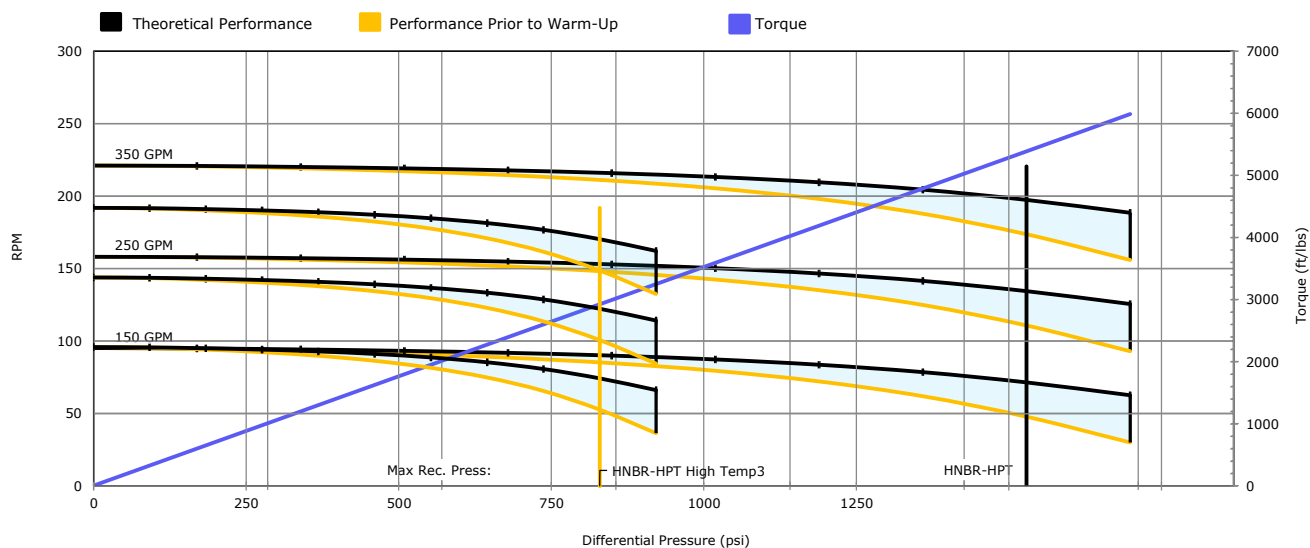
Performance Specifications	
Flow Range (gpm)	150 - 350
Speed Range (rpm)	90 - 220
Torque Slope (ft-lb/psi)	4.02
Rotation (rev/gal)	0.630
Off Bottom Pressure (psi)	90

Stator Specifications	
	inches
Overall Length	250.00
Tube OD	5.00
Tube ID	4.00
Rubber Cutback Top/End	8.00 / 8.00
Weight	496 lbs
Number of Stages	6.7
Tube Material	4140/4142 Alloy Steel
Rubber Options	HNBR-HPT

Performance Details		
	HNBR-HPT High Temp ³	HNBR-HPT
Max Diff Press (psi)	670	1340
Stall Diff Press (psi)	1010	2120
Max Torque (ft-lb)	2700	5390
Stall Torque (ft-lb)	4050	8490

Size	Minor ²	Fit @ 75°F	Stator Sizing and Fit Chart ⁴			
.5 US	-	-	-	-	-	-
STD	2.650	0.000	100°F	130°F	OPTIMAL RANGE	180°F
.5 OS	-	-	-	-	-	-
1.0 OS	-	-	-	-	-	-
1.5 OS	-	-	-	-	-	-
2.0 OS	-	-	-	-	-	-
2.5 OS	-	-	-	-	-	-

Minor Diameter Change = 0.001" per 3.1 °F ΔFit = 0.00033" 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
 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

POWER SECTION - METRIC

Model No: AT500566.7 OPTI

Revised: 2/10/2023

Rotor Specifications	
	mm
Overall Length	6121.4
Contour Length	5969.0
Major Diameter	79.25
Eccentricity	5.97
Head diameter	73.66
Thread Form	2.375 HEF Modified
Weight	174 kg
Material	17-4 PH ¹

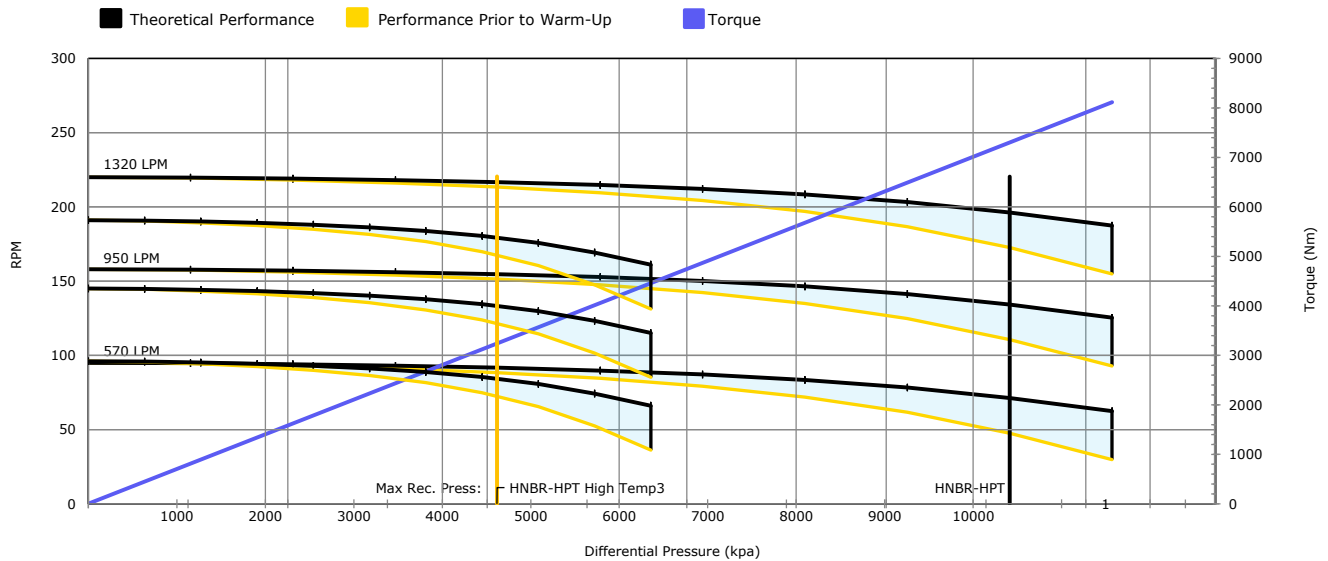
Stator Specifications	
	mm
Overall Length	6350.0
Tube OD	127.0
Tube ID	101.6
Rubber Cutback Top/End	203.0 / 203.0
Weight	225 kg
Number of Stages	6.7
Tube Material	4140/4142 Seamless Alloy Steel
Rubber Options	HNBR-HPT

Performance Specifications	
Flow Range (lpm)	570 - 1320
Speed Range (rpm)	90 - 220
Torque Slope (Nm/kpa)	0.79
Rotation (rev/Liter)	0.1664
Off Bottom Pressure (kpa)	640

Performance Details		
	HNBR-HPT High Temp ³	HNBR-HPT
Max Diff Press (kpa)	4700	9300
Stall Diff Press (kpa)	7000	14600
Max Torque (Nm)	3700	7400
Stall Torque (Nm)	5500	11600

Size	Minor ²	Fit@25°C	Stator Sizing and Fit Chart ⁴				
.5 US	-	-	-	-	Fit Not Available	-	-
STD	67.310	0.000	40°C	50°C	OPTIMAL RANGE	80°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 1.71 °C ΔFit = 0.0149 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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