

POWER SECTION

Model No: AT5506710.0 OPTI

Revised: 8/15/2022

Rotor Specifications	
	inches
Overall Length	266.00
Contour Length	260.00
Major Diameter	3.256
Eccentricity	0.192
Head diameter	3.400
Thread Form	2.875 HEF Modified
Weight	496 lbs
Material	17-4 PH ¹

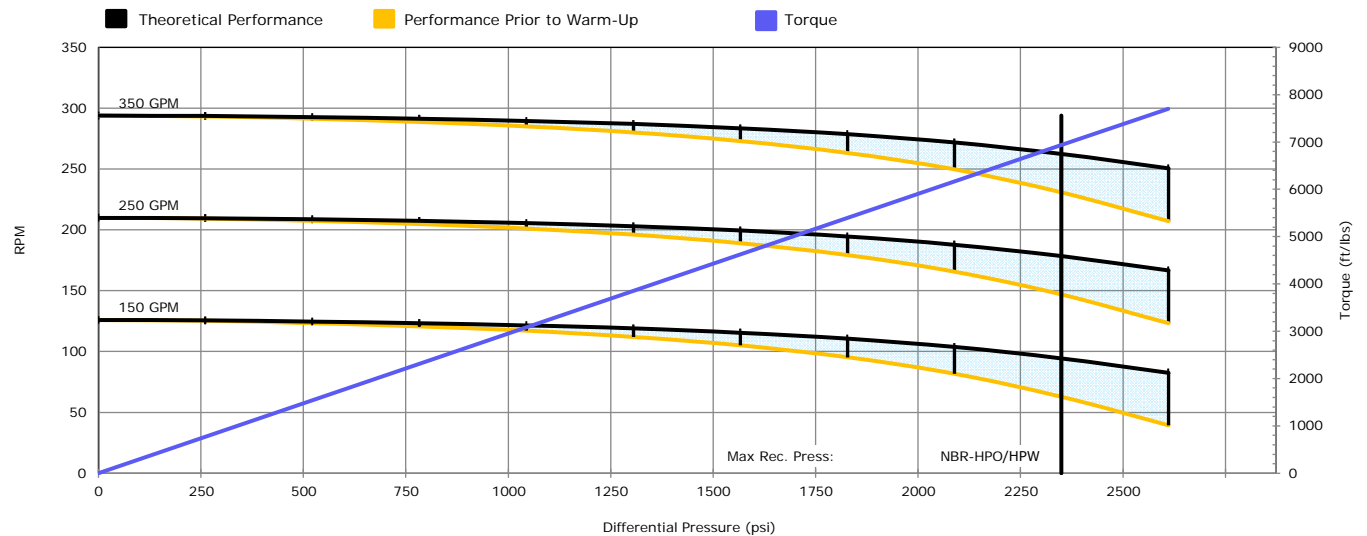
Stator Specifications	
	inches
Overall Length	275.00
Tube OD	5.50
Tube ID	4.00
Rubber Cutback Top/End	8.00 / 16.00
Weight	520 lbs
Number of Stages	10.0
Tube Material	4140/4142 Alloy Steel
Rubber Options	NBR-HPO/NBR-HPW

Performance Specifications	
Flow Range (gpm)	150 - 350
Speed Range (rpm)	130 - 290
Torque Slope (ft-lb/psi)	2.95
Rotation (rev/gal)	0.840
Off Bottom Pressure (psi)	130

Performance Details	
	NBR-HPO/NBR-HPW
Max Diff Press (psi)	2350
Stall Diff Press (psi)	3710
Max Torque (ft-lb)	6940
Stall Torque (ft-lb)	10920

Size	Minor ²	Fit @ 75°F	Stator Sizing and Fit Chart ³				
.5 US	2.864	0.008	60°F	90°F	OPTIMAL RANGE	170°F	200°F
STD	-	-	-	-	Fit Not Available	-	-
.5 OS	2.886	-0.014	130°F	170°F	OPTIMAL RANGE	240°F	280°F
1.0 OS	2.897	-0.025	170°F	200°F	OPTIMAL RANGE	280°F	320°F
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 = 0.00029" per 1°F



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

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	6756.4
Contour Length	6604.0
Major Diameter	82.70
Eccentricity	4.87
Head diameter	86.36
Thread Form	2.875 HEF Modified
Weight	225 kg
Material	17-4 PH ¹

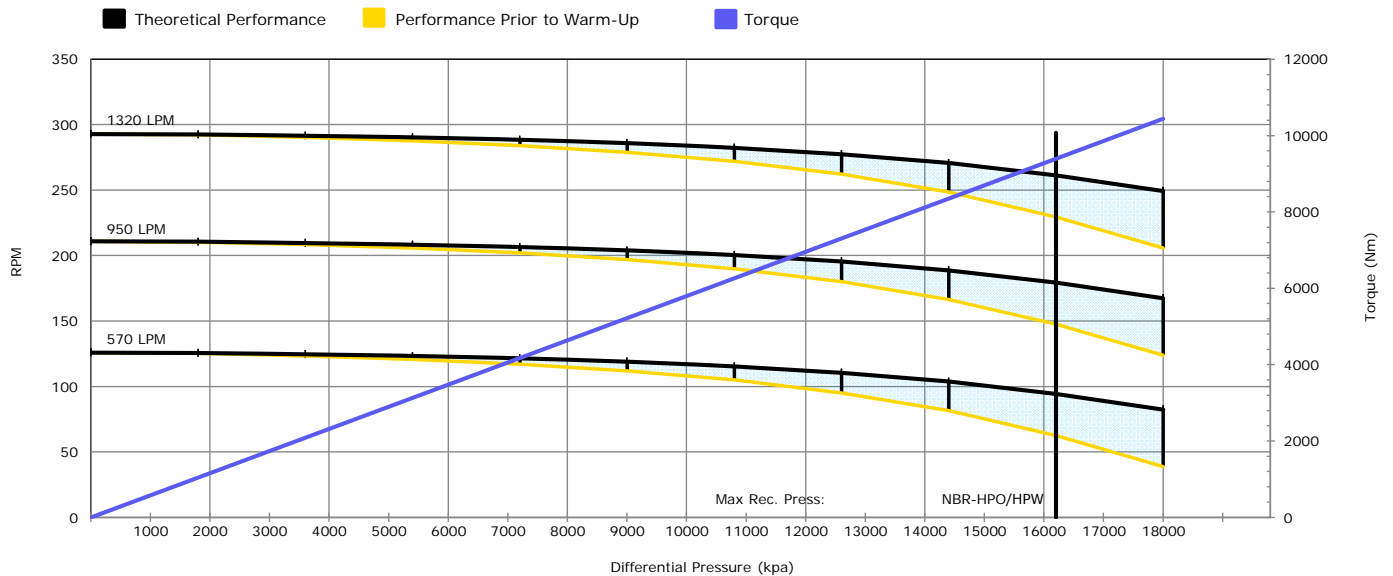
Stator Specifications	
	mm
Overall Length	6985.0
Tube OD	139.7
Tube ID	101.6
Rubber Cutback Top/End	203.0 / 406.0
Weight	236 kg
Number of Stages	10.0
Tube Material	4140/4142 Seamless Alloy Steel
Rubber Options	NBR-HPO/NBR-HPW

Performance Specifications	
Flow Range (lpm)	570 - 1320
Speed Range (rpm)	130 - 290
Torque Slope (Nm/kpa)	0.58
Rotation (rev/Liter)	0.2219
Off Bottom Pressure (kpa)	900

Performance Details	
	NBR-HPO/NBR-HPW
Max Diff Press (kpa)	16300
Stall Diff Press (kpa)	25600
Max Torque (Nm)	9400
Stall Torque (Nm)	14900

Size	Minor ²	Minor ²	Stator Sizing and Fit Chart ³				
.5 US	72.746	0.216	20°C	30°C	OPTIMAL RANGE	80°C	90°C
STD	-	-	-	-	Fit Not Available	-	-
.5 OS	73.304	-0.343	50°C	80°C	OPTIMAL RANGE	120°C	140°C
1.0 OS	73.584	-0.622	80°C	90°C	OPTIMAL RANGE	140°C	160°C
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 1.92 °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 ³ Chart temp shows potential of the individual fit and not necessarily the elastomer. BHCT Exceeding 160°C will void warranty for NBR-HPO/NBR-HPW.
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