

## POWER SECTION

**Model No: AT5504510.3 OPTI**

Revised: 8/24/2022

Rotor Specifications	
	inches
Overall Length	269.00
Contour Length	262.00
Major Diameter	3.286
Eccentricity	0.232
Head diameter	3.300
Thread Form	1.375-6 SA
Weight	0 lbs
Material	17-4 PH <sup>1</sup>

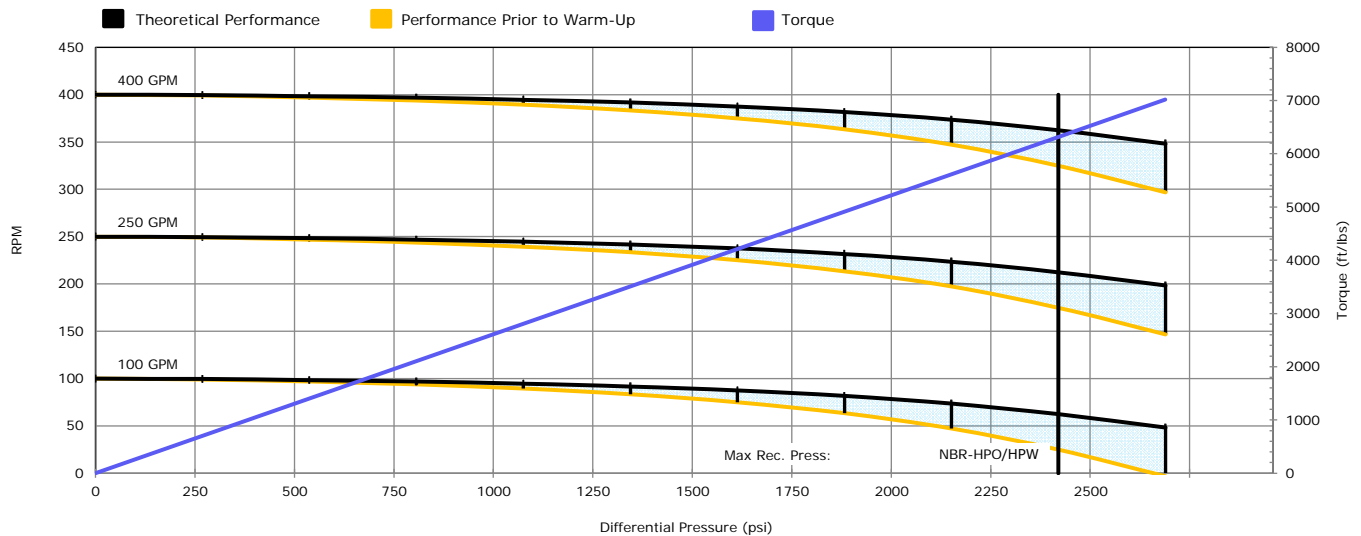
Stator Specifications	
	inches
Overall Length	275.00
Tube OD	5.50
Tube ID	4.00
Rubber Cutback Top/End	8.00 / 8.00
Weight	546 lbs
Number of Stages	10.3
Tube Material	4140/4142 Alloy Steel
Rubber Options	NBR-HPO/NBR-HPW

Performance Specifications	
Flow Range (gpm)	100 - 400
Speed Range (rpm)	100 - 400
Torque Slope (ft-lb/psi)	2.61
Rotation (rev/gal)	1.000
Off Bottom Pressure (psi)	140

Performance Details	
	NBR-HPO/NBR-HPW
Max Diff Press (psi)	2430
Stall Diff Press (psi)	3820
Max Torque (ft-lb)	6320
Stall Torque (ft-lb)	9960

Size	Minor <sup>2</sup>	Fit @ 75°F	Stator Sizing and Fit Chart <sup>3</sup>	
.5 US	-	-	-	Fit Not Available
STD	-	-	-	Fit Not Available
.5 OS	2.830	-0.008	130°F	170°F OPTIMAL RANGE 260°F 290°F
1.0 OS	2.840	-0.018	160°F	200°F OPTIMAL RANGE 290°F 330°F <sup>3</sup>
1.5 OS	2.850	-0.028	200°F	240°F OPTIMAL RANGE 330°F 360°F <sup>3</sup>
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



<sup>1</sup> Coating options of chrome or tungsten carbide are available <sup>2</sup> Vector Gauge Readings at Room Temp 75°F (measured from the top end) <sup>3</sup> 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](http://www.AbacoDrilling.com) for the latest specification revisions.

### LOCATIONS

US: Headquarters   
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