

## POWER SECTION

**Model No: AT525569.9 OPTI**

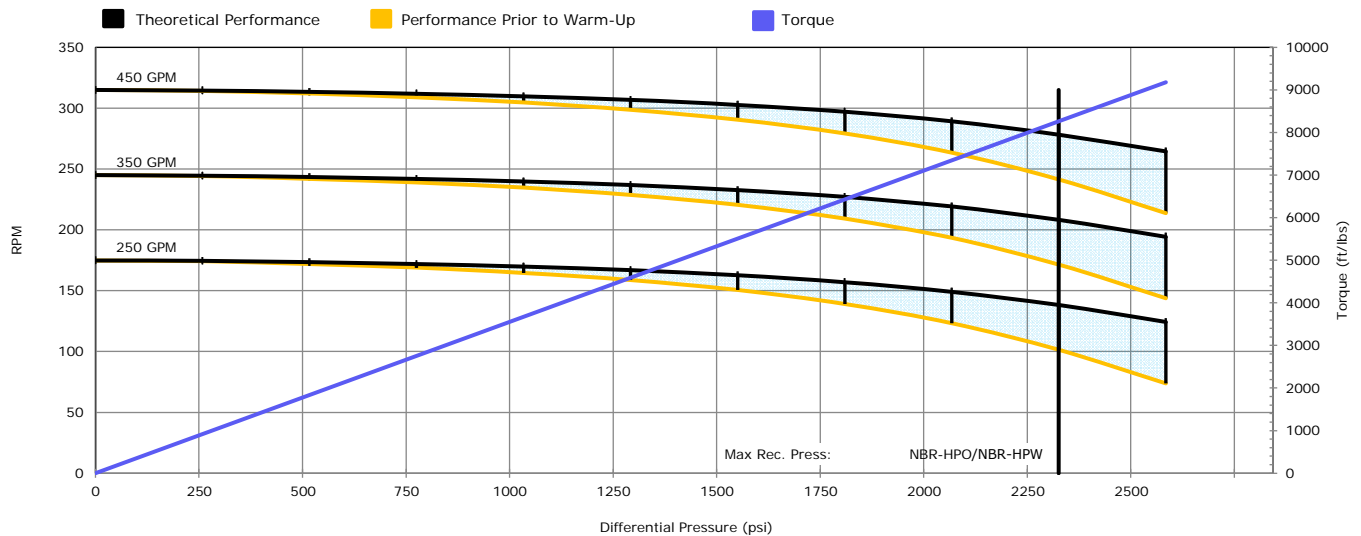
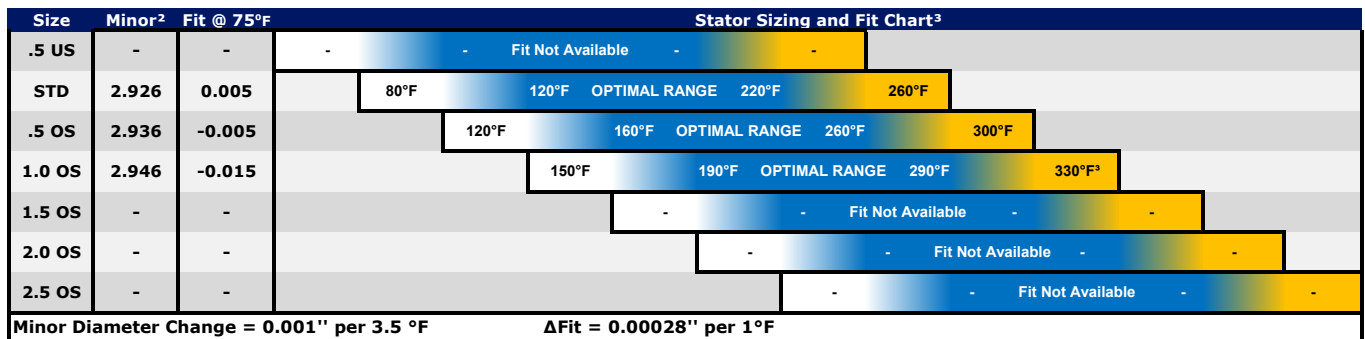
Revised: 2/17/2023

Rotor Specifications	
	inches
Overall Length	269.00
Contour Length	262.00
Major Diameter	3.441
Eccentricity	0.255
Head diameter	3.500
Thread Form	1.375-6 SA
Weight	525 lbs
Material	17-4 PH <sup>1</sup>

Performance Specifications	
Flow Range (gpm)	250 - 450
Speed Range (rpm)	180 - 320
Torque Slope (ft-lb/psi)	3.55
Rotation (rev/gal)	0.700
Off Bottom Pressure (psi)	170

Stator Specifications	
	inches
Overall Length	275.00
Tube OD	5.25
Tube ID	4.25
Rubber Cutback Top/End	13.00 / 13.00
Weight	559 lbs
Number of Stages	9.9
Tube Material	4140/4142 Alloy Steel
Rubber Options	NBR-HPO/NBR-HPW

Performance Details	
	NBR-HPO/NBR-HPW
Max Diff Press (psi)	2330
Stall Diff Press (psi)	3670
Max Torque (ft-lb)	8260
Stall Torque (ft-lb)	13010



<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/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  
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	6832.6
Contour Length	6654.8
Major Diameter	87.40
Eccentricity	6.47
Head diameter	88.90
Thread Form	1.375-6 SA
Weight	238 kg
Material	17-4 PH <sup>1</sup>

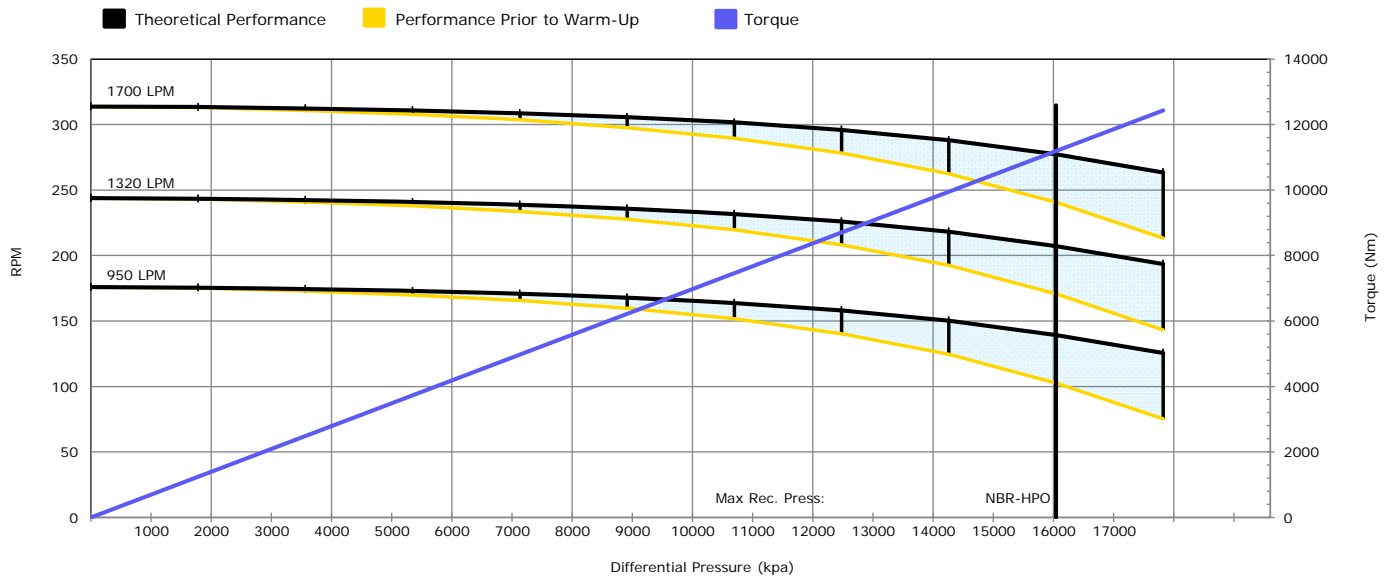
Stator Specifications	
	mm
Overall Length	6985.0
Tube OD	133.4
Tube ID	108.0
Rubber Cutback Top/End	330.0 / 330.0
Weight	254 kg
Number of Stages	9.9
Tube Material	4140/4142 Seamless Alloy Steel
Rubber Options	NBR-HPO

Performance Specifications	
Flow Range (lpm)	950 - 1700
Speed Range (rpm)	180 - 320
Torque Slope (Nm/kpa)	0.70
Rotation (rev/Liter)	0.1849
Off Bottom Pressure (kpa)	1140

Performance Details	
	NBR-HPO
Max Diff Press (kpa)	16100
Stall Diff Press (kpa)	25300
Max Torque (Nm)	11200
Stall Torque (Nm)	17700

Size	Minor <sup>2</sup>	Minor <sup>2</sup>	Stator Sizing and Fit Chart <sup>3</sup>	
.5 US	-	-	-	Fit Not Available
STD	74.320	0.140	30°C	50°C OPTIMAL RANGE 100°C 130°C
.5 OS	74.574	-0.114	50°C	70°C OPTIMAL RANGE 130°C 150°C
1.0 OS	74.828	-0.368	70°C	90°C OPTIMAL RANGE 140°C 170°C <sup>3</sup>
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 1.96 °C      ΔFit = 0.013 mm per 1°C



<sup>1</sup> Coating options of chrome or tungsten carbide are available    <sup>2</sup> Vector Gauge Readings at Room Temp 25°C (measured from the top end)    <sup>3</sup> Chart temp shows potential of the individual fit and not necessarily the elastomer. BHCT Exceeding 160°C will void warranty for NBR-HPO  
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