

## POWER SECTION

**Model No: AT700568.3 OPTI**

Revised: 8/17/2022

Rotor Specifications	
	inches
Overall Length	252.00
Contour Length	244.00
Major Diameter	4.663
Eccentricity	0.294
Head diameter	4.700
Thread Form	1.375-6 SA
Weight	833 lbs
Material	17-4 PH <sup>1</sup>

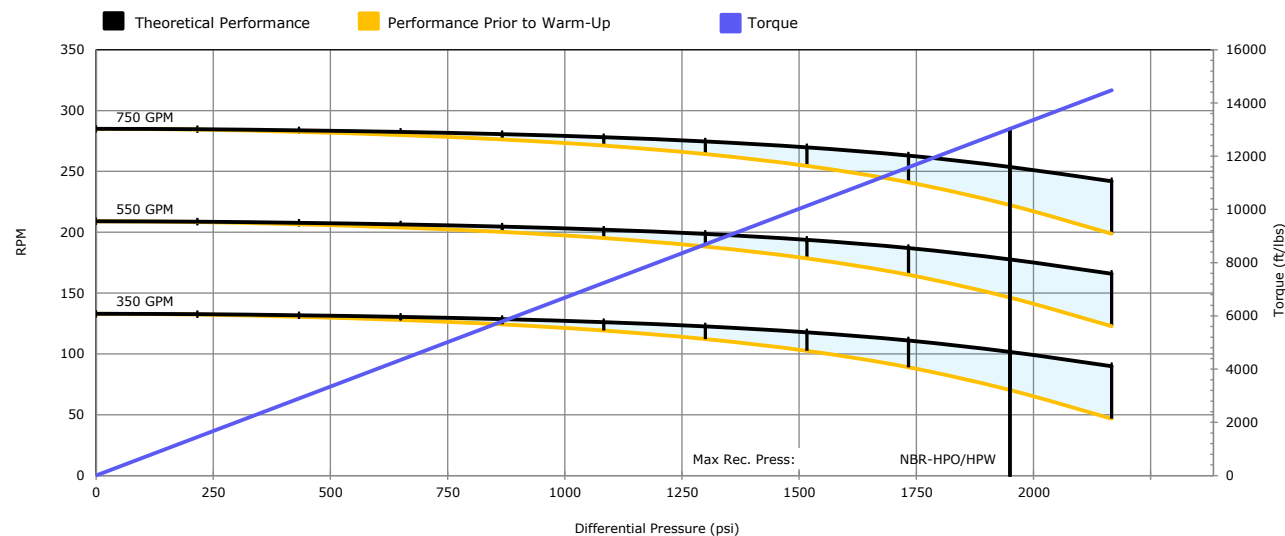
Stator Specifications	
	inches
Overall Length	260.00
Tube OD	7.00
Tube ID	5.75
Rubber Cutback Top/End	10.00 / 10.00
Weight	885 lbs
Number of Stages	8.3
Tube Material	4140/4142 Alloy Steel
Rubber Options	NBR-HPO/NBR-HPW

Performance Specifications	
Flow Range (gpm)	350 - 750
Speed Range (rpm)	130 - 290
Torque Slope (ft-lb/psi)	6.68
Rotation (rev/gal)	0.380
Off Bottom Pressure (psi)	180

Performance Details	
	NBR-HPO/NBR-HPW
Max Diff Press (psi)	1960
Stall Diff Press (psi)	3080
Max Torque (ft-lb)	13030
Stall Torque (ft-lb)	20530

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	4.078	-0.002	110°F	150°F OPTIMAL RANGE 240°F 280°F
1.0 OS	4.098	-0.022	170°F	210°F OPTIMAL RANGE 300°F 340°F
1.5 OS	4.110	-0.034	210°F	250°F OPTIMAL RANGE 340°F 370°F
2.0 OS	-	-	-	Fit Not Available
2.5 OS	-	-	-	Fit Not Available

Minor Diameter Change = 0.001" per 3 °F      ΔFit = 0.00034" 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    <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  
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: AT700568.3 OPTI**

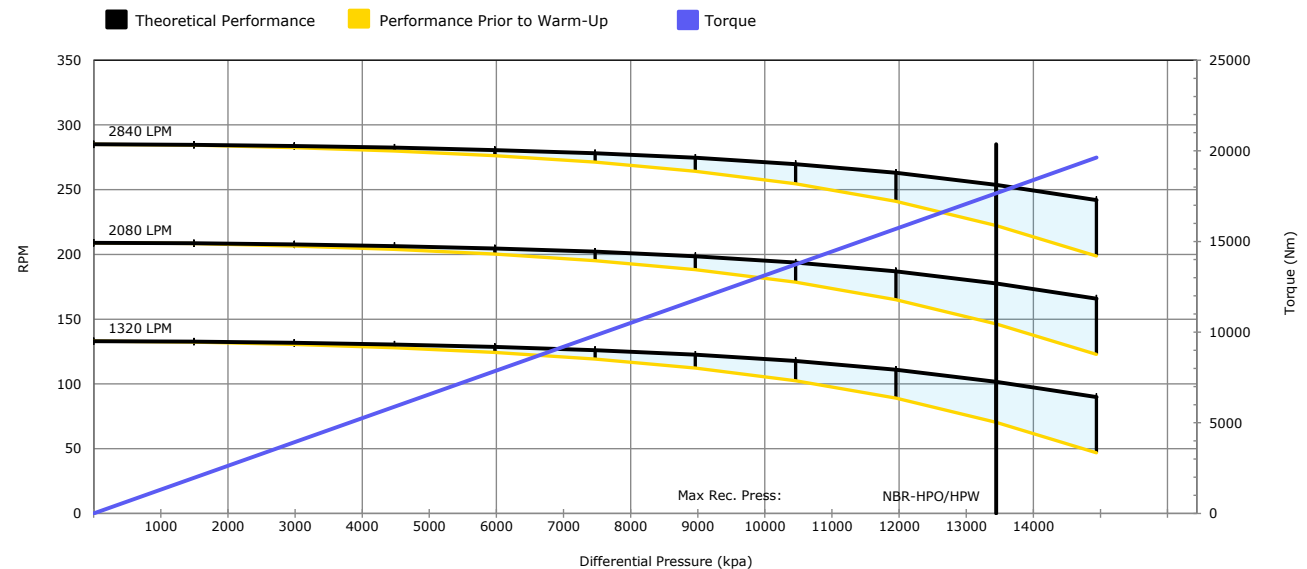
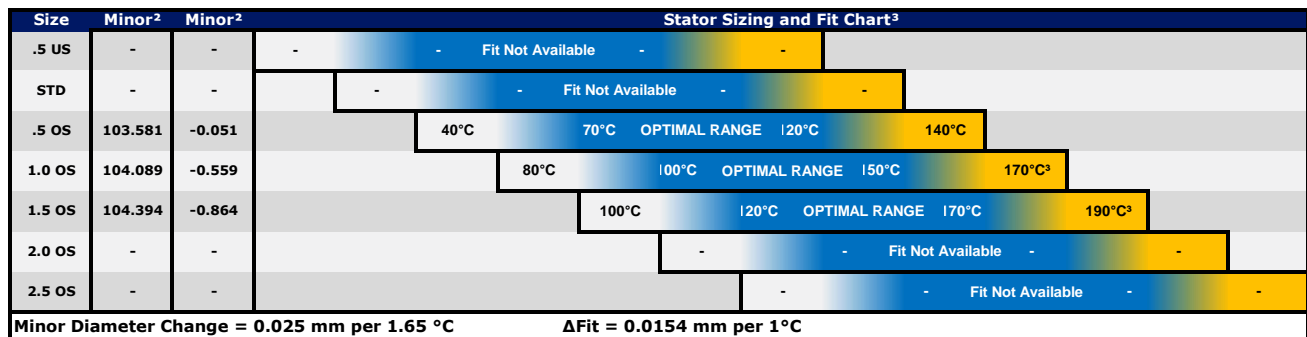
Revised: 8/17/2022

Rotor Specifications	
	mm
Overall Length	6400.8
Contour Length	6197.6
Major Diameter	118.44
Eccentricity	7.45
Head diameter	119.38
Thread Form	1.375-6 SA
Weight	378 kg
Material	17-4 PH <sup>1</sup>

Stator Specifications	
	mm
Overall Length	6604.0
Tube OD	177.8
Tube ID	146.1
Rubber Cutback Top/End	254.0 / 254.0
Weight	401 kg
Number of Stages	8.3
Tube Material	4140/4142 Seamless Alloy Steel
Rubber Options	NBR-HPO/NBR-HPW

Performance Specifications	
Flow Range (lpm)	1320 - 2840
Speed Range (rpm)	130 - 290
Torque Slope (Nm/kpa)	1.31
Rotation (rev/Liter)	0.1004
Off Bottom Pressure (kpa)	1210

Performance Details	
	NBR-HPO/NBR-HPW
Max Diff Press (kpa)	13500
Stall Diff Press (kpa)	21200
Max Torque (Nm)	17700
Stall Torque (Nm)	27900



<sup>1</sup> Coating options of chrome or tungsten carbide are available <sup>2</sup> Vector Gauge Readings at Room Temp 25°C <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/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

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