

## POWER SECTION

**Model No: AT675786.4 OPTI**

Revised: 12/10/2020

Rotor Specifications	
	inches
Overall Length	238.50
Contour Length	231.50
Major Diameter	4.52
Eccentricity	0.256
Head diameter	4.000
Thread Form	2.875 API REG
Weight	883 lbs
Material	17-4 PH <sup>1</sup>

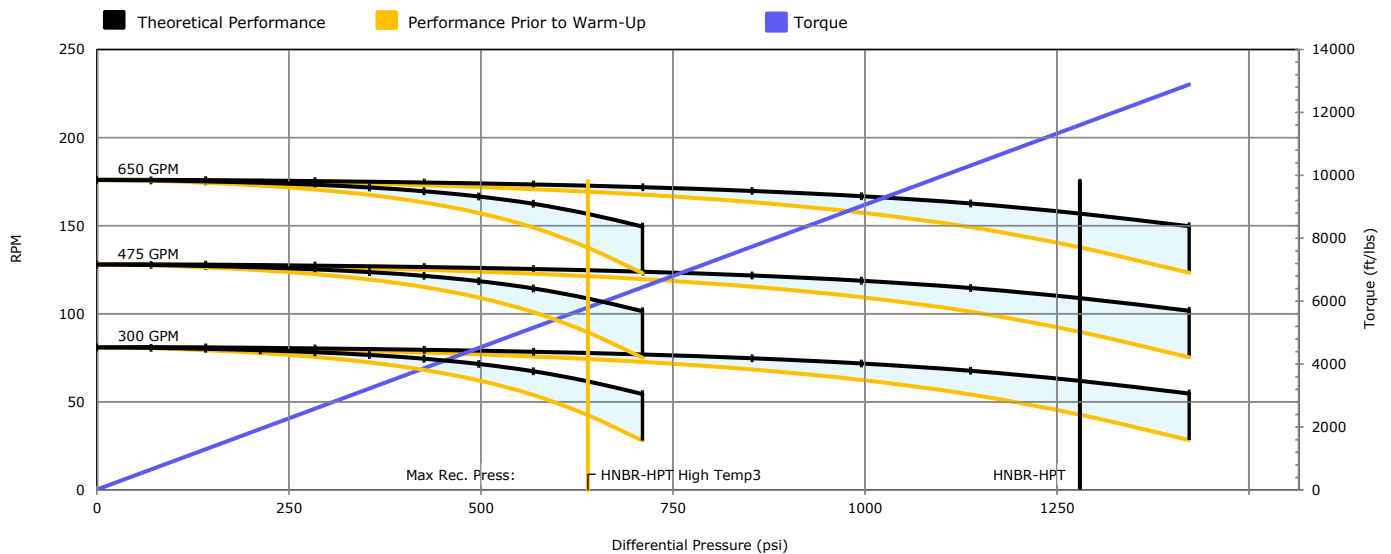
Performance Specifications	
Flow Range (gpm)	300 - 650
Speed Range (rpm)	80 - 180
Torque Slope (ft-lb/psi)	9.06
Rotation (rev/gal)	0.270
Off Bottom Pressure (psi)	120

Stator Specifications	
	inches
Overall Length	245.00
Tube OD	6.75
Tube ID	5.50
Rubber Cutback Top/End	8.00 / 8.00
Weight	917 lbs
Number of Stages	6.4
Tube Material	4140/4142 Alloy Steel
Rubber Options	HNBR-HPT

Performance Details		
	HNBR-HPT High Temp <sup>3</sup>	HNBR-HPT
Max Diff Press (psi)	640	1280
Stall Diff Press (psi)	960	2020
Max Torque (ft-lb)	5800	11600
Stall Torque (ft-lb)	8700	18270

Size	Minor <sup>2</sup>	Fit @ 75°F	Stator Sizing and Fit Chart <sup>4</sup>				
.5 US	-	-	-	-	Fit Not Available	-	-
STD	3.999	0.009	90°F	120°F	OPTIMAL RANGE	210°F	250°F
.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 = 0.001" per 3.4 °F      ΔFit = 0.0003" 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> 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. <sup>4</sup> 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](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: AT675786.4 OPTI**

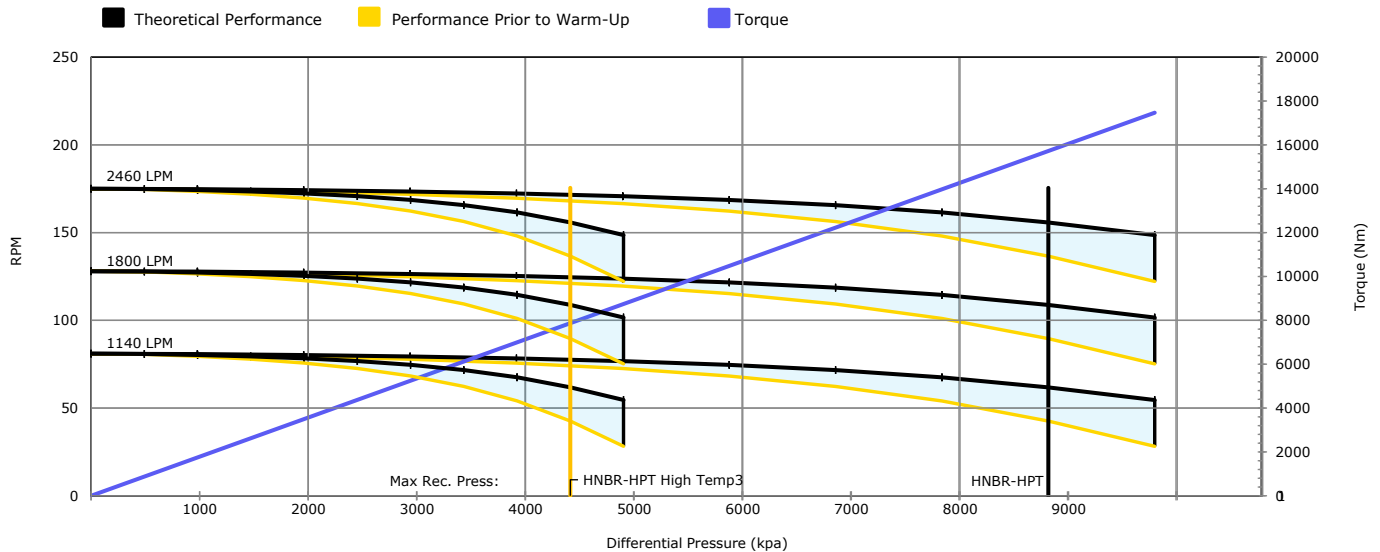
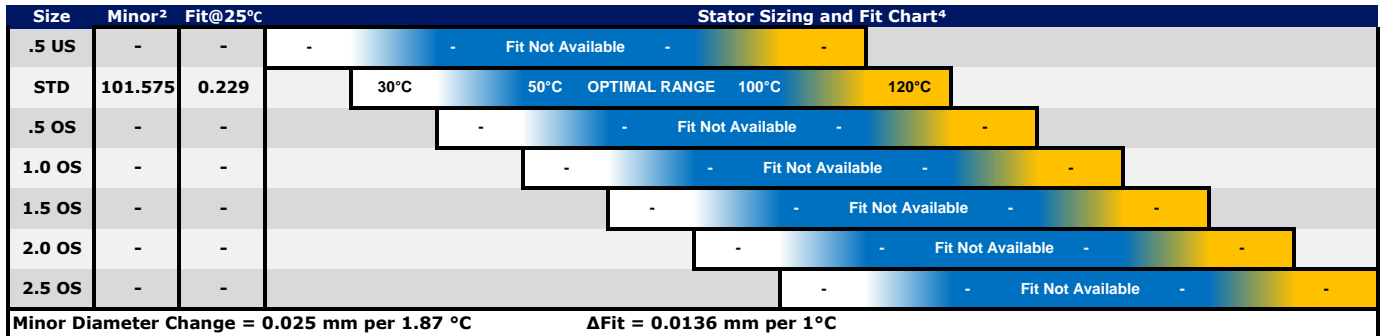
Revised: 12/10/2020

Rotor Specifications	
	mm
Overall Length	6057.9
Contour Length	5880.1
Major Diameter	114.81
Eccentricity	6.50
Head diameter	101.60
Thread Form	2.875 API REG
Weight	400 kg
Material	17-4 PH <sup>1</sup>

Stator Specifications	
	mm
Overall Length	6223.0
Tube OD	171.5
Tube ID	139.7
Rubber Cutback Top/End	203.0 / 203.0
Weight	416 kg
Number of Stages	6.4
Tube Material	4140/4142 Seamless Alloy Steel
Rubber Options	HNBR-HPT

Performance Specifications	
Flow Range (lpm)	1140 - 2460
Speed Range (rpm)	80 - 180
Torque Slope (Nm/kpa)	1.78
Rotation (rev/Liter)	0.0713
Off Bottom Pressure (kpa)	790

Performance Details		
	HNBR-HPT High Temp <sup>3</sup>	HNBR-HPT
Max Diff Press (kpa)	4500	8900
Stall Diff Press (kpa)	6700	13900
Max Torque (Nm)	7900	15800
Stall Torque (Nm)	11800	24800



<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> 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.    <sup>4</sup> 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](http://www.AbacoDrilling.com) for the latest specification revisions.

### LOCATIONS

US: Headquarters 713 Northpark Central Dr., #400 Houston, TX 77073 - Tel: (281) 869-0700 - Fax: (281) 869-0701  
 US: Sales & Distribution 11308 West Interstate 20 East, Odessa, TX 79765 - Tel: (432) 248-1814  
 CANADA: Stator Manufacturing 6303-39th Street Leduc, Alberta T9E 0Z3 Canada - Tel: (780) 986-8947 - Fax: (780) 986-8842  
 DUBAI UAE: Stator Manufacturing Oilfields Supply Center B#57, Jebel Ali, Dubai UAE, P.O. Box 19909 - Tel: 971-4-870-8600