

POWER SECTION

Model No: AT650565.4

Revised: 9/22/2020

Rotor Specifications	
	inches
Overall Length	203.00
Contour Length	196.00
Major Diameter	4.158
Eccentricity	0.297
Head diameter	4.000
Thread Form	2.875 API REG
Weight	601 lbs
Material	17-4 PH ¹

Stator Specifications	
	inches
Overall Length	212.00
Tube OD	6.50
Tube ID	5.31
Rubber Cutback Top/End	8.00 / 8.00
Weight	740 lbs
Number of Stages	5.4
Tube Material	4140/4142 Alloy Steel
Rubber Options	NBR-HPW & NBR-HPO

NBR-HPW (in)		Fits (+ Compression / - Loose)				
Size	Minor ²	75 °F	125 °F	175 °F	250 °F	300 °F ³
.5 US						
STD	3.560	0.004	0.022	0.041	0.068	0.087
.5 OS	3.578	-0.014	0.004	0.022	0.050	0.068
1.0 OS	3.585	-0.021	-0.003	0.015	0.042	0.061
1.5 OS						
2.0 OS						
2.5 OS						

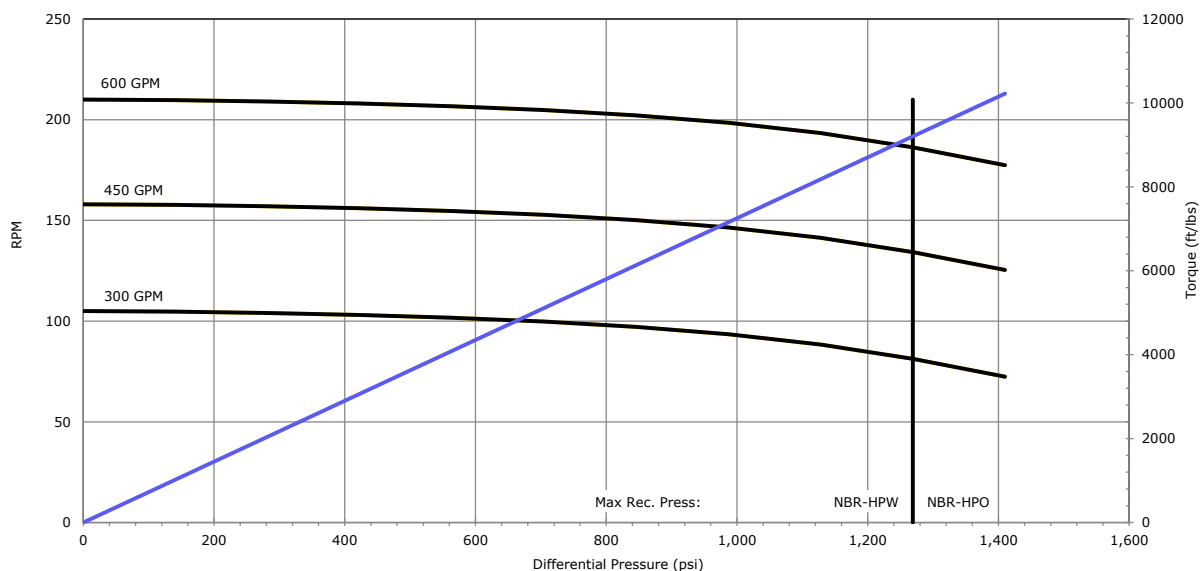
NBR-HPO (in)		Fits (+ Compression / - Loose)				
Size	Minor ²	75 °F	125 °F	175 °F	250 °F	300 °F ³
.5 US						
STD	3.560	0.004	0.022	0.041	0.068	0.087
.5 OS	3.578	-0.014	0.004	0.022	0.050	0.068
1.0 OS	3.585	-0.021	-0.003	0.015	0.042	0.061
1.5 OS						
2.0 OS						
2.5 OS						

Performance Specifications	
Flow Range (gpm)	300 - 600
Speed Range (rpm)	110 - 210
Torque Slope (ft-lb/psi)	7.25
Rotation (rev/gal)	0.350
Off Bottom Pressure (psi)	120

Performance Details		NBR-HPW	NBR-HPO
Max Diff Press (psi)		1270	1270
Stall Diff Press (psi)		2000	2000
Max Torque (ft-lb)		9210	9210
Stall Torque (ft-lb)		14500	14500

■ (NBR-HPW/HPO)

■ Torque



¹ Coating options of chrome or tungsten carbide are available ² Vector Gauge Readings at Room Temp 75°F ³ BHCT Exceeding 320°F will void warranty for NBR-HPW/HPO.

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 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

POWER SECTION - METRIC

Model No: AT650565.4

Revised: 9/22/2020

Rotor Specifications	
	mm
Overall Length	5156.2
Contour Length	4978.4
Major Diameter	105.61
Eccentricity	7.54
Head diameter	101.60
Thread Form	2.875 API REG
Weight	273 kg
Material	17-4 PH ¹

Stator Specifications	
	mm
Overall Length	5384.8
Tube OD	165.1
Tube ID	134.9
Rubber Cutback Top/End	203.0 / 203.0
Weight	336 kg
Number of Stages	5.4
Tube Material	4140/4142 Seamless Alloy Steel
Rubber Options	NBR-HPW & NBR-HPO

NBR-HPW (mm)		Fits (+ Compression / - Loose)				
Size	Minor ²	25 °C	75 °C	100 °C	125 °C	150 °C ³
.5 US						
STD	90.42	0.10	0.94	1.36	1.78	2.20
.5 OS	90.88	-0.36	0.48	0.89	1.31	1.73
1.0 OS	91.06	-0.53	0.30	0.71	1.13	1.54
1.5 OS						
2.0 OS						
2.5 OS						

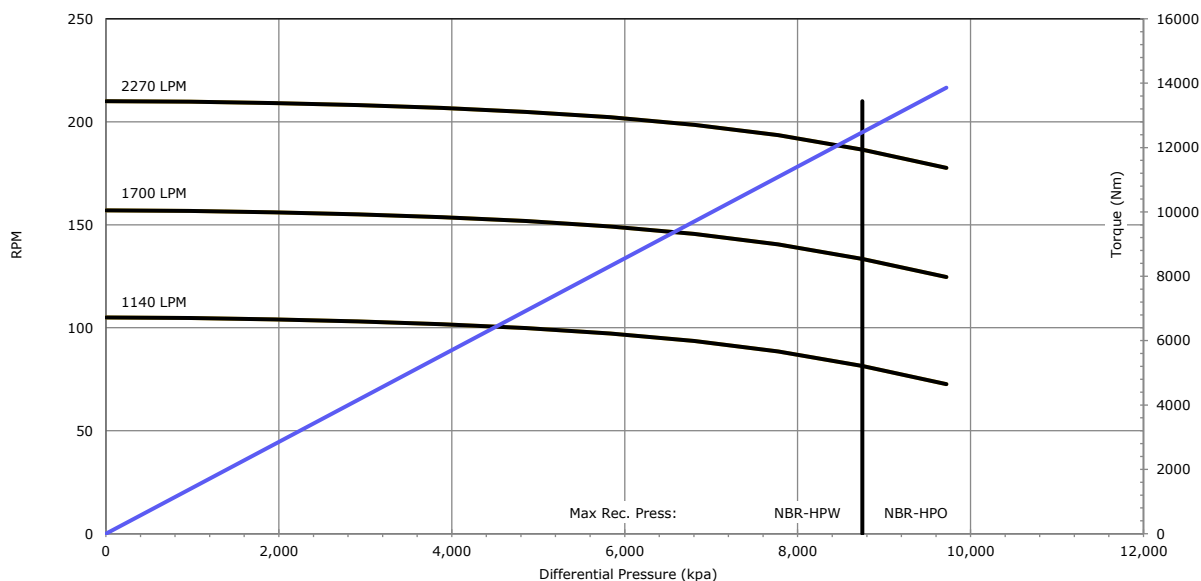
NBR-HPO (mm)		Fits (+ Compression / - Loose)				
Size	Minor ²	25 °C	75 °C	100 °C	125 °C	150 °C ³
.5 US						
STD	90.42	0.10	0.94	1.36	1.78	2.20
.5 OS	90.88	-0.36	0.48	0.89	1.31	1.73
1.0 OS	91.06	-0.53	0.30	0.71	1.13	1.54
1.5 OS						
2.0 OS						
2.5 OS						

Performance Specifications	
Flow Range (lpm)	1140 - 2270
Speed Range (rpm)	110 - 210
Torque Slope (Nm/kpa)	1.43
Rotation (rev/Liter)	0.0925
Off Bottom Pressure (kpa)	800

Performance Details		
	NBR-HPW	NBR-HPO
Max Diff Press (kpa)	8800	8800
Stall Diff Press (kpa)	13800	13800
Max Torque (Nm)	12500	12500
Stall Torque (Nm)	19700	19700

■ (NBR-HPW/HPO)

■ Torque



¹ Coating options of chrome or tungsten carbide are available ² Vector Gauge Readings at Room Temp 25°C ³ BHCT Exceeding 160°C will void warranty for NBR-HPW/HPO.

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