

POWER SECTION

Model No: AT650675.0

Revised: 9/22/2020

Rotor Specifications	
	inches
Overall Length	194.00
Contour Length	188.00
Major Diameter	4.316
Eccentricity	0.288
Head diameter	4.000
Thread Form	2.875 API REG
Weight	608 lbs
Material	17-4 PH ¹

Stator Specifications	
	inches
Overall Length	200.00
Tube OD	6.50
Tube ID	5.50
Rubber Cutback Top/End	7.25 / 7.25
Weight	616 lbs
Number of Stages	5.0
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	3.734	0.006	0.024	0.041	0.068	0.085
.5 OS	3.749	-0.009	0.009	0.026	0.052	0.070
1.0 OS	3.760	-0.020	-0.003	0.015	0.041	0.058
1.5 OS	3.771	-0.031	-0.014	0.004	0.030	0.047
2.0 OS	3.781	-0.041	-0.024	-0.007	0.019	0.036
2.5 OS						

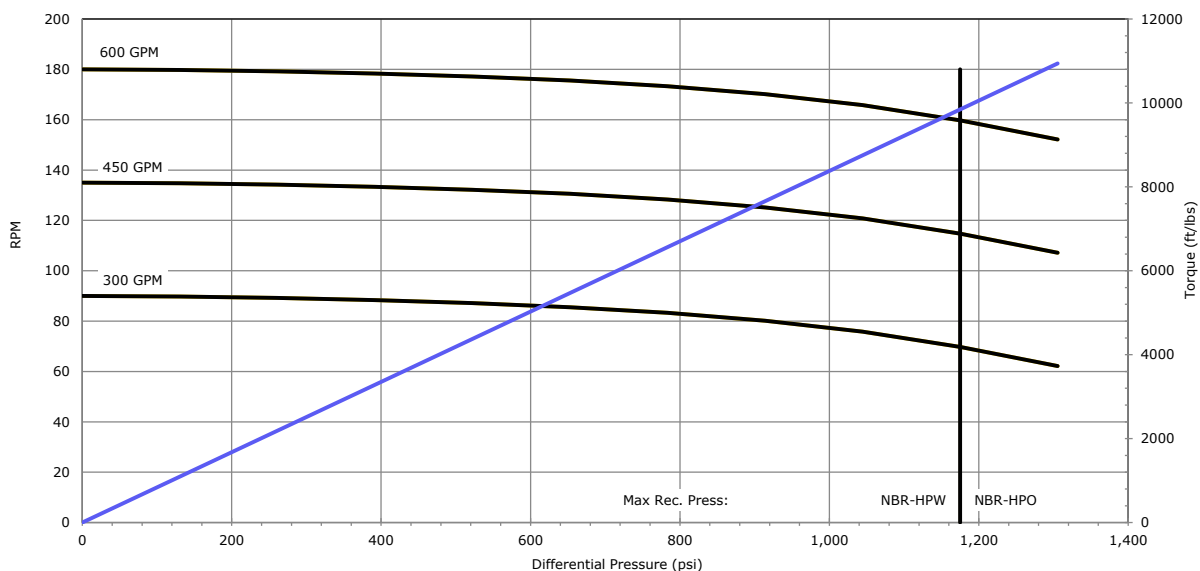
NBR-HPO (in)		Fits (+ Compression / - Loose)				
Size	Minor ²	75 °F	125 °F	175 °F	250 °F	300 °F ³
.5 US						
STD	3.734	0.006	0.024	0.041	0.068	0.085
.5 OS	3.749	-0.009	0.009	0.026	0.052	0.070
1.0 OS	3.760	-0.020	-0.003	0.015	0.041	0.058
1.5 OS	3.771	-0.031	-0.014	0.004	0.030	0.047
2.0 OS	3.781	-0.041	-0.024	-0.007	0.019	0.036
2.5 OS						

Performance Specifications	
Flow Range (gpm)	300 - 600
Speed Range (rpm)	90 - 180
Torque Slope (ft-lb/psi)	8.38
Rotation (rev/gal)	0.300
Off Bottom Pressure (psi)	110

Performance Details		NBR-HPW	NBR-HPO
Max Diff Press (psi)		1180	1180
Stall Diff Press (psi)		1860	1860
Max Torque (ft-lb)		9850	9850
Stall Torque (ft-lb)		15510	15510

■ (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: AT650675.0

Revised: 9/22/2020

Rotor Specifications	
	mm
Overall Length	4927.6
Contour Length	4775.2
Major Diameter	109.63
Eccentricity	7.32
Head diameter	101.60
Thread Form	2.875 API REG
Weight	276 kg
Material	17-4 PH ¹

Stator Specifications	
	mm
Overall Length	5080.0
Tube OD	165.1
Tube ID	139.7
Rubber Cutback Top/End	184.0 / 184.0
Weight	279 kg
Number of Stages	5.0
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	94.84	0.15	0.96	1.36	1.77	2.17
.5 OS	95.22	-0.23	0.57	0.97	1.37	1.77
1.0 OS	95.50	-0.51	0.29	0.69	1.08	1.48
1.5 OS	95.78	-0.79	0.00	0.40	0.79	1.19
2.0 OS	96.04	-1.04	-0.26	0.14	0.53	0.92
2.5 OS						

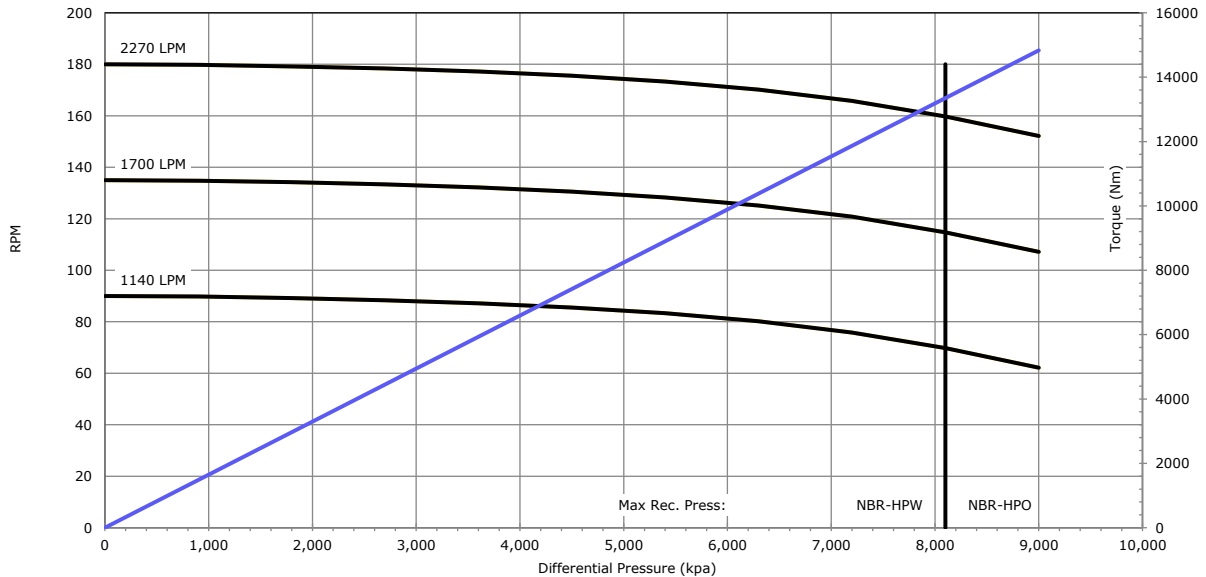
NBR-HPO (mm)		Fits (+ Compression / - Loose)				
Size	Minor ²	25 °C	75 °C	100 °C	125 °C	150 °C ³
.5 US						
STD	94.84	0.15	0.96	1.36	1.77	2.17
.5 OS	95.22	-0.23	0.57	0.97	1.37	1.77
1.0 OS	95.50	-0.51	0.29	0.69	1.08	1.48
1.5 OS	95.78	-0.79	0.00	0.40	0.79	1.19
2.0 OS	96.04	-1.04	-0.26	0.14	0.53	0.92
2.5 OS						

Performance Specifications	
Flow Range (lpm)	1140 - 2270
Speed Range (rpm)	90 - 180
Torque Slope (Nm/kpa)	1.65
Rotation (rev/Liter)	0.0793
Off Bottom Pressure (kpa)	720

Performance Details		
	NBR-HPW	NBR-HPO
Max Diff Press (kpa)	8200	8200
Stall Diff Press (kpa)	12800	12800
Max Torque (Nm)	13400	13400
Stall Torque (Nm)	21100	21100

■ (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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