

POWER SECTION

Model No: AT775784.0

Revised: 9/24/2020

Rotor Specifications	
	inches
Overall Length	196.25
Contour Length	188.25
Major Diameter	5.186
Eccentricity	0.293
Head diameter	4.750
Thread Form	3.50 API REG
Weight	956 lbs
Material	17-4 PH ¹

Stator Specifications	
	inches
Overall Length	203.25
Tube OD	7.75
Tube ID	6.25
Rubber Cutback Top/End	8.00 / 8.00
Weight	1062 lbs
Number of Stages	4.0
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	4.571	0.029	0.046	0.063	0.088	0.105
STD	4.587	0.013	0.030	0.046	0.071	0.088
.5 OS	4.602	-0.002	0.014	0.031	0.056	0.072
1.0 OS	4.617	-0.017	-0.001	0.016	0.040	0.056
1.5 OS	4.632	-0.032	-0.016	0.000	0.025	0.041
2.0 OS						
2.5 OS						

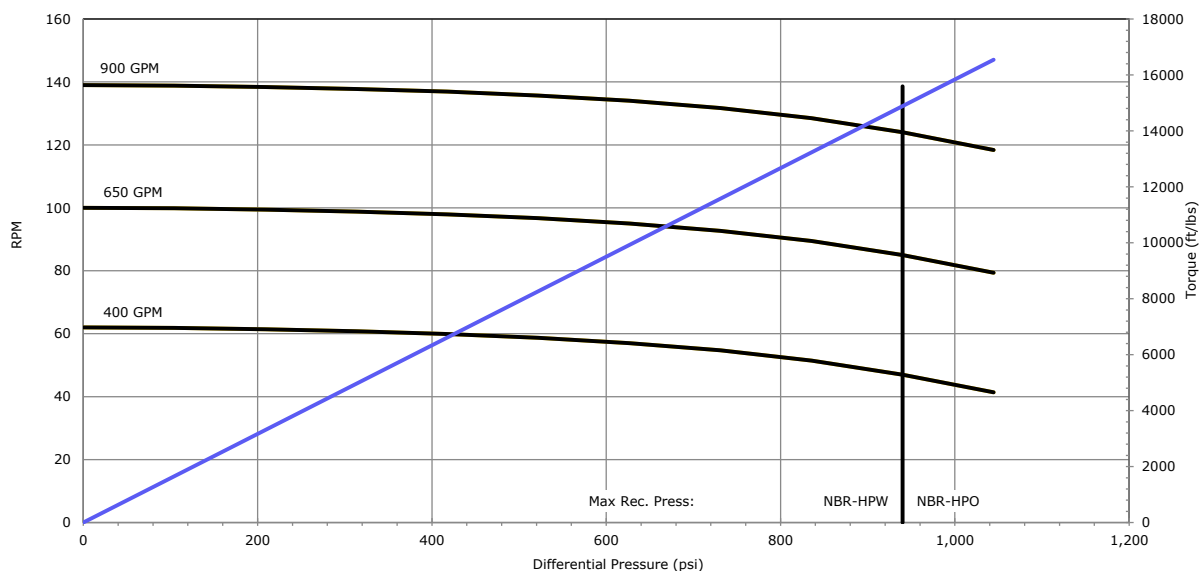
NBR-HPO (in)		Fits (+ Compression / - Loose)				
Size	Minor ²	75 °F	125 °F	175 °F	250 °F	300 °F ³
.5 US	4.571	0.029	0.046	0.063	0.088	0.105
STD	4.587	0.013	0.030	0.046	0.071	0.088
.5 OS	4.602	-0.002	0.014	0.031	0.056	0.072
1.0 OS	4.617	-0.017	-0.001	0.016	0.040	0.056
1.5 OS	4.632	-0.032	-0.016	0.000	0.025	0.041
2.0 OS						
2.5 OS						

Performance Specifications	
Flow Range (gpm)	400 - 900
Speed Range (rpm)	60 - 140
Torque Slope (ft-lb/psi)	15.84
Rotation (rev/gal)	0.154
Off Bottom Pressure (psi)	100

Performance Details		NBR-HPW	NBR-HPO
Max Diff Press (psi)		940	940
Stall Diff Press (psi)		1490	1490
Max Torque (ft-lb)		14890	14890
Stall Torque (ft-lb)		23460	23460

■ (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: AT775784.0

Revised: 9/24/2020

Rotor Specifications	
	mm
Overall Length	4984.8
Contour Length	4781.6
Major Diameter	131.72
Eccentricity	7.44
Head diameter	120.65
Thread Form	3.50 API REG
Weight	434 kg
Material	17-4 PH ¹

Stator Specifications	
	mm
Overall Length	5162.6
Tube OD	196.9
Tube ID	158.8
Rubber Cutback Top/End	203.0 / 203.0
Weight	482 kg
Number of Stages	4.0
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	116.10	0.74	1.50	1.89	2.27	2.66
STD	116.51	0.33	1.09	1.47	1.85	2.23
.5 OS	116.89	-0.05	0.70	1.08	1.46	1.83
1.0 OS	117.27	-0.43	0.31	0.69	1.06	1.43
1.5 OS	117.65	-0.81	-0.07	0.30	0.67	1.04
2.0 OS						
2.5 OS						

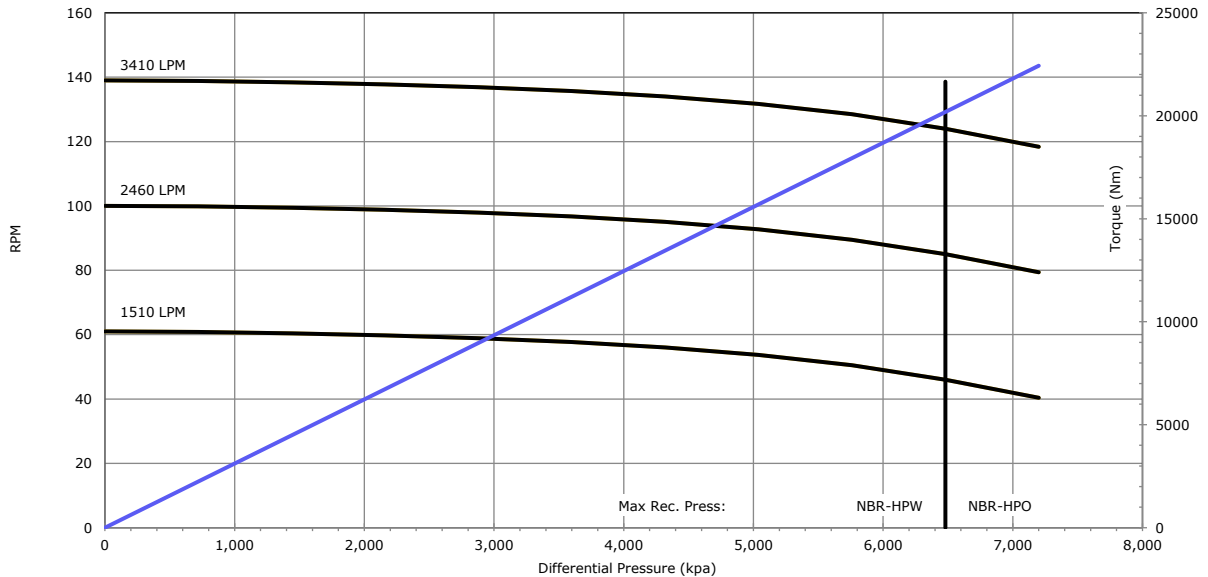
NBR-HPO (mm)		Fits (+ Compression / - Loose)				
Size	Minor ²	25 °C	75 °C	100 °C	125 °C	150 °C ³
.5 US	116.10	0.74	1.50	1.89	2.27	2.66
STD	116.51	0.33	1.09	1.47	1.85	2.23
.5 OS	116.89	-0.05	0.70	1.08	1.46	1.83
1.0 OS	117.27	-0.43	0.31	0.69	1.06	1.43
1.5 OS	117.65	-0.81	-0.07	0.30	0.67	1.04
2.0 OS						
2.5 OS						

Performance Specifications	
Flow Range (lpm)	1510 - 3410
Speed Range (rpm)	60 - 140
Torque Slope (Nm/kpa)	3.12
Rotation (rev/Liter)	0.0407
Off Bottom Pressure (kpa)	700

Performance Details		
	NBR-HPW	NBR-HPO
Max Diff Press (kpa)	6500	6500
Stall Diff Press (kpa)	10200	10300
Max Torque (Nm)	20200	20200
Stall Torque (Nm)	31800	31800

■ (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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