

POWER SECTION

Model No: AT775455.3

Revised: 9/24/2020

Rotor Specifications	
	inches
Overall Length	221.00
Contour Length	213.00
Major Diameter	4.94
Eccentricity	0.415
Head diameter	4.750
Thread Form	3.50 API IF
Weight	856 lbs
Material	17-4 PH ¹

Stator Specifications	
	inches
Overall Length	228.00
Tube OD	7.75
Tube ID	6.25
Rubber Cutback Top/End	8.00 / 8.00
Weight	1379 lbs
Number of Stages	5.3
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	4.107	0.003	0.023	0.044	0.074	0.095
.5 OS	4.120	-0.010	0.010	0.030	0.061	0.081
1.0 OS	4.132	-0.022	-0.002	0.018	0.048	0.069
1.5 OS	4.145	-0.035	-0.015	0.005	0.035	0.055
2.0 OS						
2.5 OS						

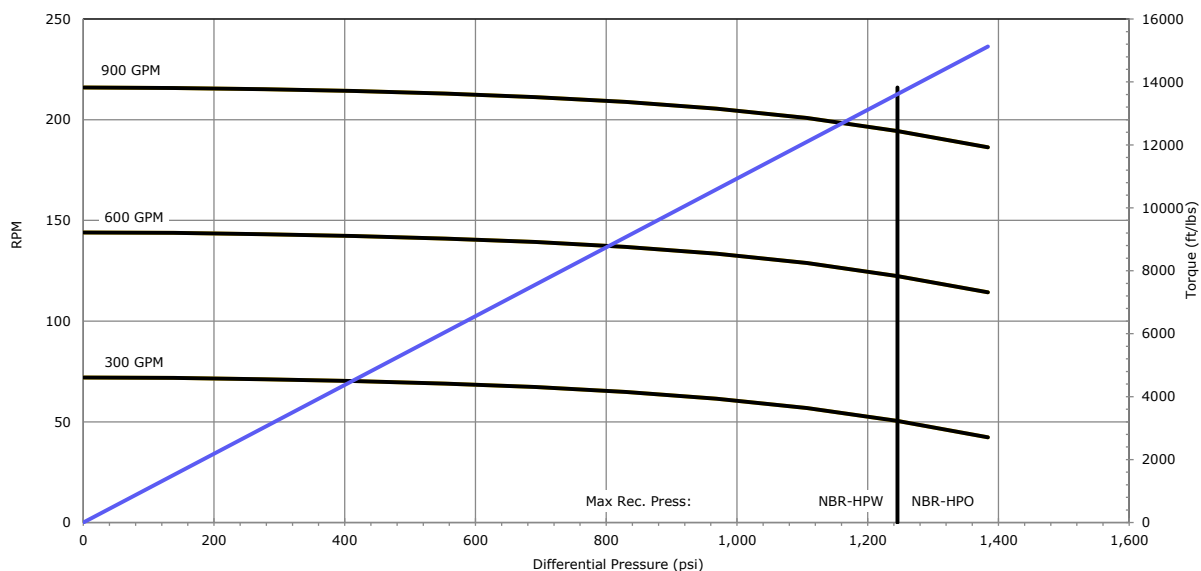
NBR-HPO (in)		Fits (+ Compression / - Loose)				
Size	Minor ²	75 °F	125 °F	175 °F	250 °F	300 °F ³
.5 US						
STD	4.107	0.003	0.023	0.044	0.074	0.095
.5 OS	4.120	-0.010	0.010	0.030	0.061	0.081
1.0 OS	4.132	-0.022	-0.002	0.018	0.048	0.069
1.5 OS	4.145	-0.035	-0.015	0.005	0.035	0.055
2.0 OS						
2.5 OS						

Performance Specifications	
Flow Range (gpm)	300 - 900
Speed Range (rpm)	70 - 220
Torque Slope (ft-lb/psi)	10.93
Rotation (rev/gal)	0.240
Off Bottom Pressure (psi)	130

Performance Details		NBR-HPW	NBR-HPO
Max Diff Press (psi)		1250	1250
Stall Diff Press (psi)		1970	1970
Max Torque (ft-lb)		13620	13620
Stall Torque (ft-lb)		21450	21450

■ (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: AT775455.3

Revised: 9/24/2020

Rotor Specifications	
	mm
Overall Length	5613.4
Contour Length	5410.2
Major Diameter	125.48
Eccentricity	10.54
Head diameter	120.65
Thread Form	3.50 API IF
Weight	388 kg
Material	17-4 PH ¹

Stator Specifications	
	mm
Overall Length	5791.2
Tube OD	196.9
Tube ID	158.8
Rubber Cutback Top/End	203.0 / 203.0
Weight	625 kg
Number of Stages	5.3
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	104.32	0.08	1.01	1.47	1.94	2.40
.5 OS	104.65	-0.25	0.67	1.13	1.60	2.06
1.0 OS	104.95	-0.56	0.36	0.82	1.28	1.74
1.5 OS	105.28	-0.89	0.03	0.48	0.94	1.40
2.0 OS						
2.5 OS						

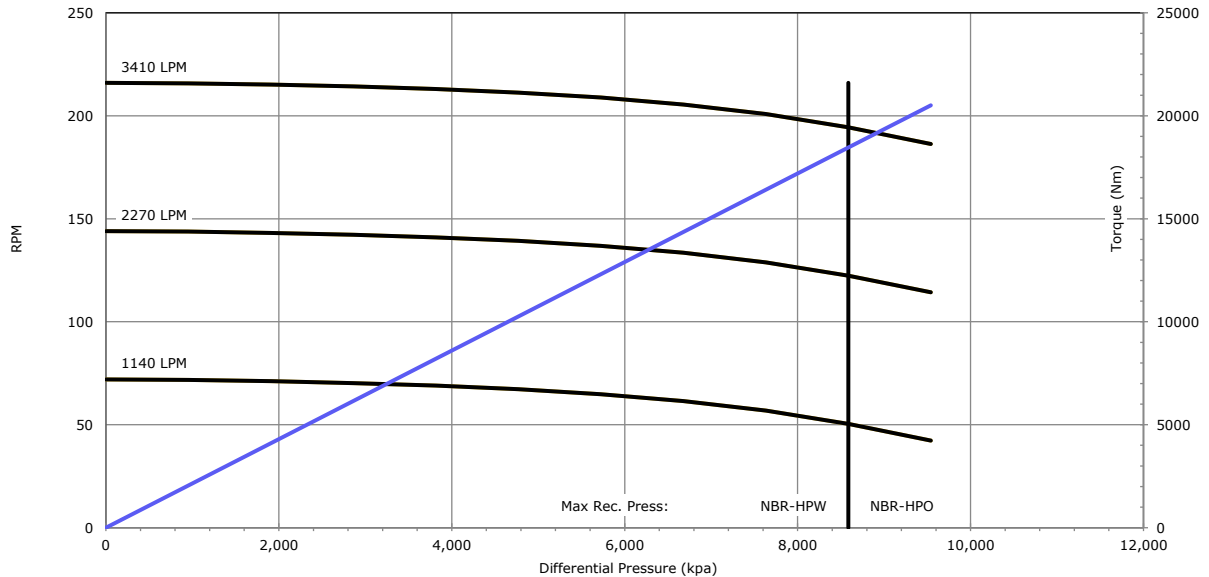
NBR-HPO (mm)		Fits (+ Compression / - Loose)				
Size	Minor ²	25 °C	75 °C	100 °C	125 °C	150 °C ³
.5 US						
STD	104.32	0.08	1.01	1.47	1.94	2.40
.5 OS	104.65	-0.25	0.67	1.13	1.60	2.06
1.0 OS	104.95	-0.56	0.36	0.82	1.28	1.74
1.5 OS	105.28	-0.89	0.03	0.48	0.94	1.40
2.0 OS						
2.5 OS						

Performance Specifications	
Flow Range (lpm)	1140 - 3410
Speed Range (rpm)	70 - 220
Torque Slope (Nm/kpa)	2.15
Rotation (rev/Liter)	0.0634
Off Bottom Pressure (kpa)	870

Performance Details		
	NBR-HPW	NBR-HPO
Max Diff Press (kpa)	8600	8600
Stall Diff Press (kpa)	13500	13600
Max Torque (Nm)	18500	18500
Stall Torque (Nm)	29100	29100

■ (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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