

POWER SECTION

Model No: AT312783.0

Revised: 6/22/2021

Rotor Specifications	
	inches
Overall Length	101.00
Contour Length	97.00
Major Diameter	1.971
Eccentricity	0.109
Head diameter	2.000
Thread Form	N/A
Weight	72 lbs
Material	17-4 PH ¹

Stator Specifications	
	inches
Overall Length	106.00
Tube OD	3.13
Tube ID	2.63
Rubber Cutback Top/End	5.00 / 5.00
Weight	80 lbs
Number of Stages	3.0
Tube Material	4140/4142 Alloy Steel
Rubber Options	NBR-HPX/HPW & NBR-HPO

NBR-HPX/HPW (in)		Fits (+ Compression / - Loose)				
Size	Minor ²	75 °F	125 °F	175 °F	250 °F	300 °F ³
.5 US						
STD	1.750	0.003	0.008	0.013	0.020	0.025
.5 OS						
1.0 OS	1.759	-0.006	-0.001	0.004	0.011	0.015
1.5 OS	1.769	-0.016	-0.011	-0.007	0.000	0.005
2.0 OS	1.779	-0.026	-0.021	-0.017	-0.010	-0.005
2.5 OS						

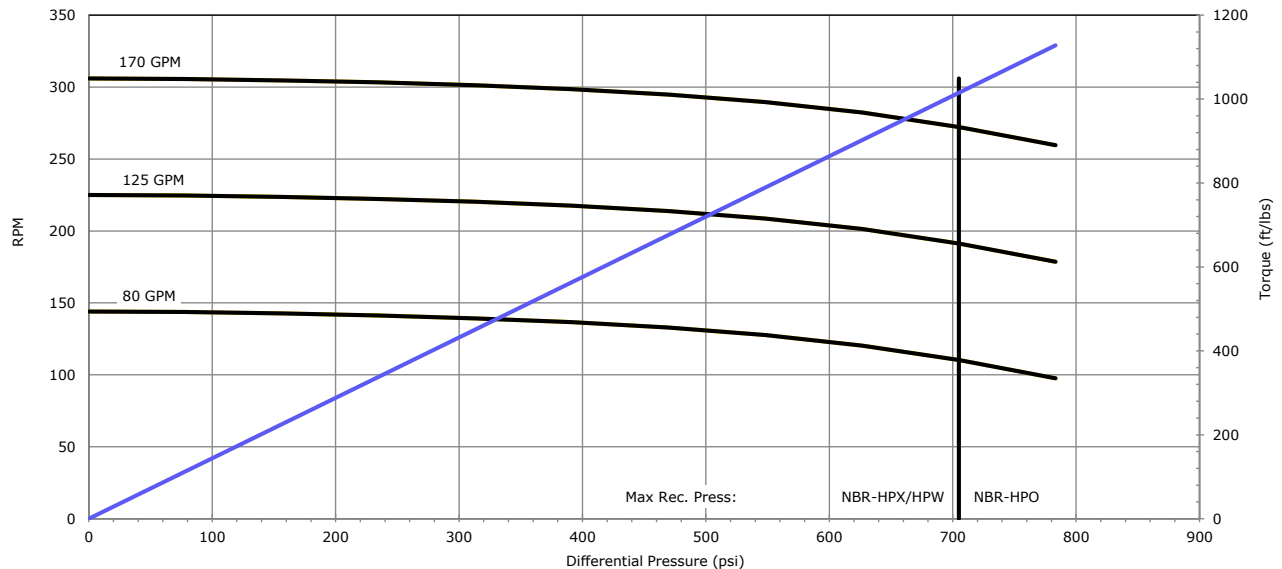
NBR-HPO (in)		Fits (+ Compression / - Loose)				
Size	Minor ²	75 °F	125 °F	175 °F	250 °F	300 °F ³
.5 US						
STD	1.750	0.003	0.008	0.013	0.020	0.025
.5 OS						
1.0 OS	1.759	-0.006	-0.001	0.004	0.011	0.015
1.5 OS	1.769	-0.016	-0.011	-0.007	0.000	0.005
2.0 OS	1.779	-0.026	-0.021	-0.017	-0.010	-0.005
2.5 OS						

Performance Specifications	
Flow Range (gpm)	80 - 170
Speed Range (rpm)	140 - 310
Torque Slope (ft-lb/psi)	1.44
Rotation (rev/gal)	1.800
Off Bottom Pressure (psi)	60

Performance Details		NBR-HPX/HPW	NBR-HPO
Max Diff Press (psi)		710	710
Stall Diff Press (psi)		1120	1120
Max Torque (ft-lb)		1020	1020
Stall Torque (ft-lb)		1600	1600

■ (NBR-HPX/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-HPX/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: AT312783.0

Revised: 6/22/2021

Rotor Specifications	
	mm
Overall Length	2565.4
Contour Length	2463.8
Major Diameter	50.06
Eccentricity	2.77
Head diameter	50.80
Thread Form	N/A
Weight	33 kg
Material	17-4 PH ¹

Stator Specifications	
	mm
Overall Length	2692.4
Tube OD	79.4
Tube ID	66.7
Rubber Cutback Top/End	127.0 / 127.0
Weight	36 kg
Number of Stages	3.0
Tube Material	4140/4142 Seamless Alloy Steel
Rubber Options	NBR-HPX/HPW & NBR-HPO

BR-HPX/HPW (mm)		Fits (+ Compression / - Loose)				
Size	Minor ²	25 °C	75 °C	100 °C	125 °C	150 °C ³
.5 US						
STD	44.45	0.08	0.30	0.41	0.52	0.63
.5 OS						
1.0 OS	44.68	-0.15	0.07	0.17	0.28	0.39
1.5 OS	44.93	-0.41	-0.19	-0.08	0.02	0.13
2.0 OS	45.19	-0.66	-0.45	-0.34	-0.23	-0.13
2.5 OS						

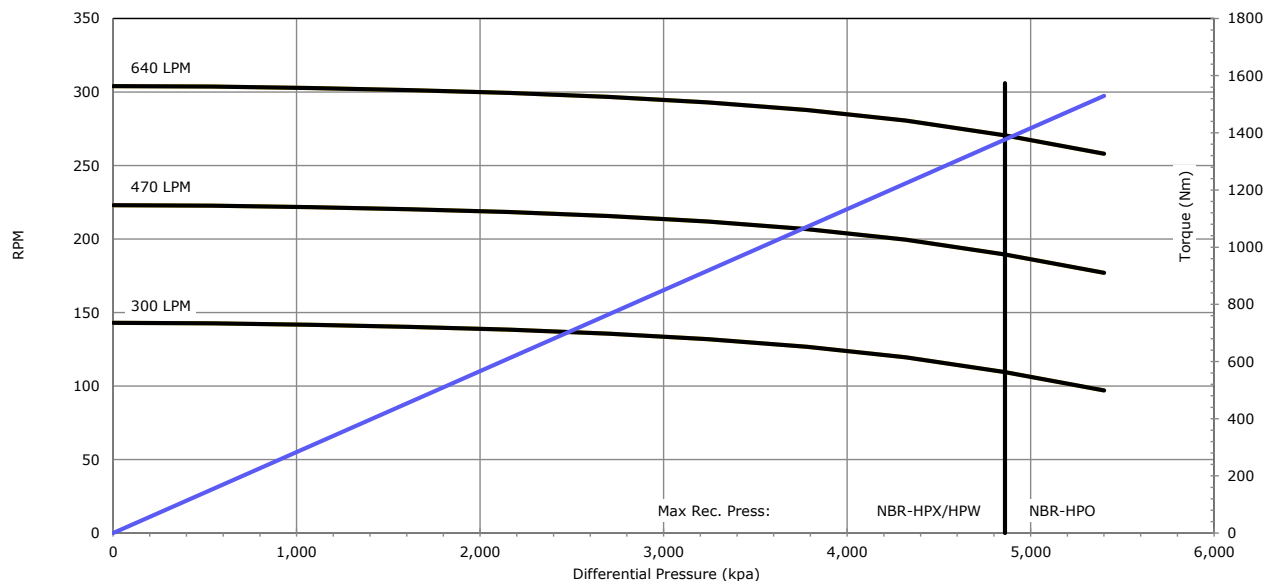
NBR-HPO (mm)		Fits (+ Compression / - Loose)				
Size	Minor ²	25 °C	75 °C	100 °C	125 °C	150 °C ³
.5 US						
STD	44.45	0.08	0.30	0.41	0.52	0.63
.5 OS						
1.0 OS	44.68	-0.15	0.07	0.17	0.28	0.39
1.5 OS	44.93	-0.41	-0.19	-0.08	0.02	0.13
2.0 OS	45.19	-0.66	-0.45	-0.34	-0.23	-0.13
2.5 OS						

Performance Specifications	
Flow Range (lpm)	300 - 640
Speed Range (rpm)	140 - 310
Torque Slope (Nm/kpa)	0.28
Rotation (rev/Liter)	0.4755
Off Bottom Pressure (kpa)	430

Performance Details		
	NBR-HPX/HPW	NBR-HPO
Max Diff Press (kpa)	4900	4900
Stall Diff Press (kpa)	7700	7700
Max Torque (Nm)	1400	1400
Stall Torque (Nm)	2200	2200

■ (NBR-HPX/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-HPX/HPW/HPO

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