

POWER SECTION

Model No: AT312454.0

Revised: 2/4/2021

Rotor Specifications	
	inches
Overall Length	103.63
Contour Length	99.63
Major Diameter	1.843
Eccentricity	0.156
Head diameter	1.800
Thread Form	N/A
Weight	56 lbs
Material	17-4 PH ¹

Stator Specifications	
	inches
Overall Length	105.63
Tube OD	3.13
Tube ID	2.38
Rubber Cutback Top/End	4.00 / 4.00
Weight	106 lbs
Number of Stages	4.0
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	1.517	0.014	0.019	0.024	0.032	0.037
.5 OS	1.525	0.006	0.011	0.016	0.023	0.028
1.0 OS	1.538	-0.008	-0.002	0.003	0.010	0.015
1.5 OS						
2.0 OS						
2.5 OS						

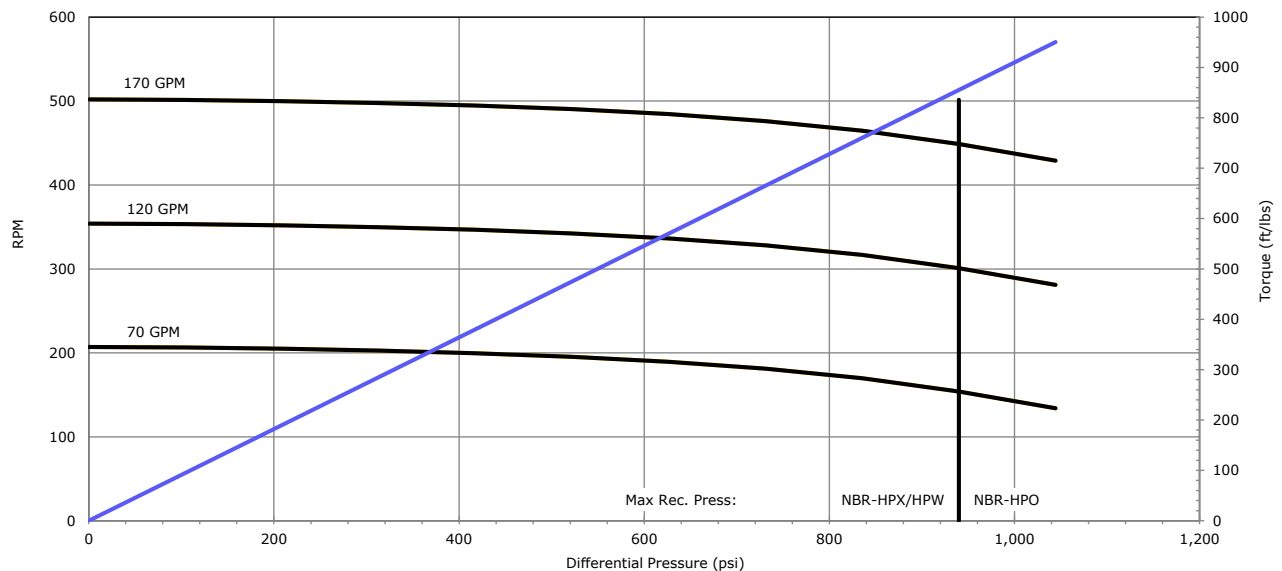
NBR-HPO (in)		Fits (+ Compression / - Loose)				
Size	Minor ²	75 °F	125 °F	175 °F	250 °F	300 °F ³
.5 US						
STD	1.517	0.014	0.019	0.024	0.032	0.037
.5 OS	1.525	0.006	0.011	0.016	0.023	0.028
1.0 OS	1.538	-0.008	-0.002	0.003	0.010	0.015
1.5 OS						
2.0 OS						
2.5 OS						

Performance Specifications	
Flow Range (gpm)	70 - 170
Speed Range (rpm)	210 - 500
Torque Slope (ft-lb/psi)	0.91
Rotation (rev/gal)	2.950
Off Bottom Pressure (psi)	80

Performance Details		
	NBR-HPX/HPW	NBR-HPO
Max Diff Press (psi)	940	940
Stall Diff Press (psi)	1490	1490
Max Torque (ft-lb)	860	860
Stall Torque (ft-lb)	1350	1350

■ (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: AT312454.0

Revised: 2/4/2021

Rotor Specifications	
	mm
Overall Length	2632.2
Contour Length	2530.5
Major Diameter	46.81
Eccentricity	3.97
Head diameter	45.72
Thread Form	N/A
Weight	25 kg
Material	17-4 PH ¹

Stator Specifications	
	mm
Overall Length	2682.9
Tube OD	79.4
Tube ID	60.3
Rubber Cutback Top/End	102.0 / 102.0
Weight	48 kg
Number of Stages	4.0
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	38.53	0.34	0.58	0.70	0.81	0.93
.5 OS	38.74	0.14	0.37	0.49	0.61	0.72
1.0 OS	39.07	-0.19	0.04	0.15	0.27	0.38
1.5 OS						
2.0 OS						
2.5 OS						

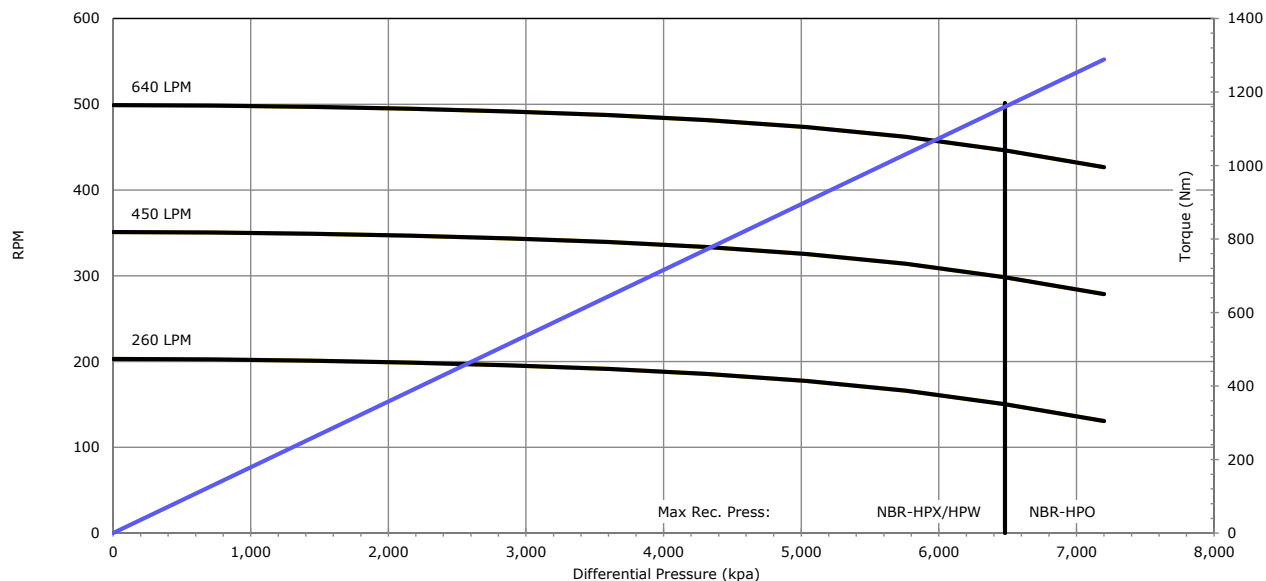
NBR-HPO (mm)		Fits (+ Compression / - Loose)				
Size	Minor ²	25 °C	75 °C	100 °C	125 °C	150 °C ³
.5 US						
STD	38.53	0.34	0.58	0.70	0.81	0.93
.5 OS	38.74	0.14	0.37	0.49	0.61	0.72
1.0 OS	39.07	-0.19	0.04	0.15	0.27	0.38
1.5 OS						
2.0 OS						
2.5 OS						

Performance Specifications	
Flow Range (lpm)	260 - 640
Speed Range (rpm)	210 - 500
Torque Slope (Nm/kpa)	0.18
Rotation (rev/Liter)	0.7793
Off Bottom Pressure (kpa)	560

Performance Details		NBR-HPX/HPW	NBR-HPO
Max Diff Press (kpa)		6500	6500
Stall Diff Press (kpa)		10200	10300
Max Torque (Nm)		1200	1200
Stall Torque (Nm)		1900	1900

■ (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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