

POWER SECTION

Model No: AT350453.2

Revised: 2/4/2021

Rotor Specifications	
	inches
Overall Length	97.00
Contour Length	91.00
Major Diameter	2.245
Eccentricity	0.185
Head diameter	2.250
Thread Form	N/A
Weight	78 lbs
Material	17-4 PH ¹

Stator Specifications	
	inches
Overall Length	100.00
Tube OD	3.50
Tube ID	2.88
Rubber Cutback Top/End	6.00 / 6.00
Weight	101 lbs
Number of Stages	3.2
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	1.872	0.004	0.013	0.023	0.037	0.046
.5 OS						
1.0 OS	1.882	-0.006	0.003	0.012	0.027	0.036
1.5 OS						
2.0 OS						
2.5 OS						

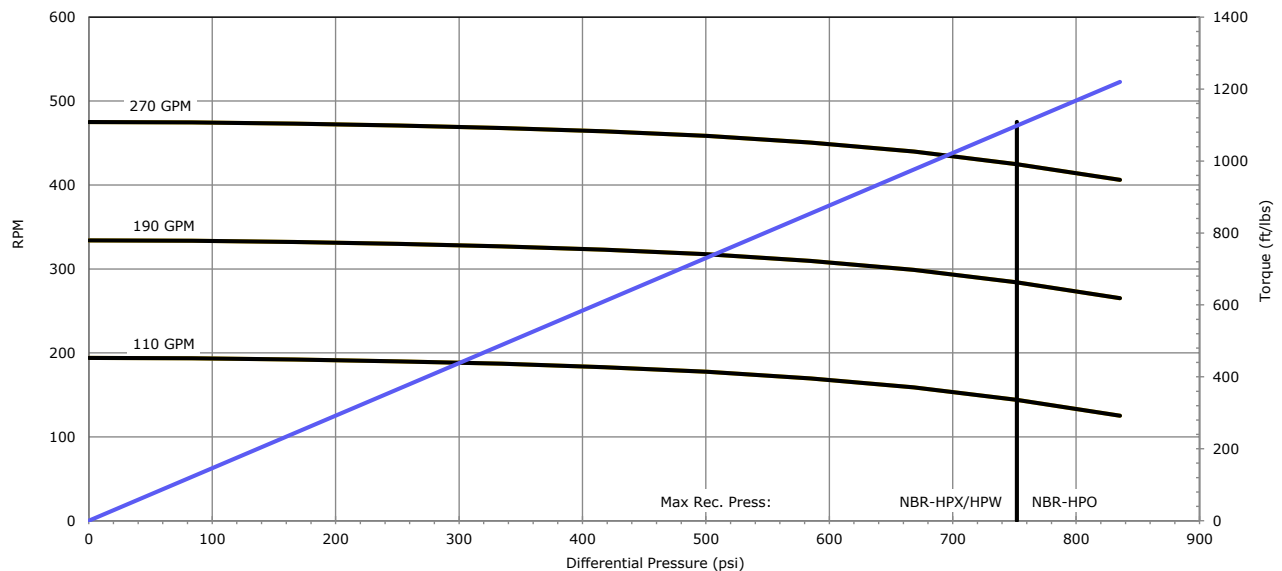
NBR-HPO (in)		Fits (+ Compression / - Loose)				
Size	Minor ²	75 °F	125 °F	175 °F	250 °F	300 °F ³
.5 US						
STD	1.872	0.004	0.013	0.023	0.037	0.046
.5 OS						
1.0 OS	1.882	-0.006	0.003	0.012	0.027	0.036
1.5 OS						
2.0 OS						
2.5 OS						

Performance Specifications	
Flow Range (gpm)	110 - 270
Speed Range (rpm)	190 - 480
Torque Slope (ft-lb/psi)	1.46
Rotation (rev/gal)	1.760
Off Bottom Pressure (psi)	90

Performance Details		
	NBR-HPX/HPW	NBR-HPO
Max Diff Press (psi)	760	760
Stall Diff Press (psi)	1190	1190
Max Torque (ft-lb)	1100	1100
Stall Torque (ft-lb)	1730	1730

■ (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: AT350453.2

Revised: 2/4/2021

Rotor Specifications	
	mm
Overall Length	2463.8
Contour Length	2311.4
Major Diameter	57.02
Eccentricity	4.69
Head diameter	57.15
Thread Form	N/A
Weight	35 kg
Material	17-4 PH ¹

Stator Specifications	
	mm
Overall Length	2540.0
Tube OD	88.9
Tube ID	73.0
Rubber Cutback Top/End	152.0 / 152.0
Weight	46 kg
Number of Stages	3.2
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	47.55	0.09	0.52	0.74	0.96	1.18
.5 OS						
1.0 OS	47.80	-0.17	0.27	0.48	0.70	0.91
1.5 OS						
2.0 OS						
2.5 OS						

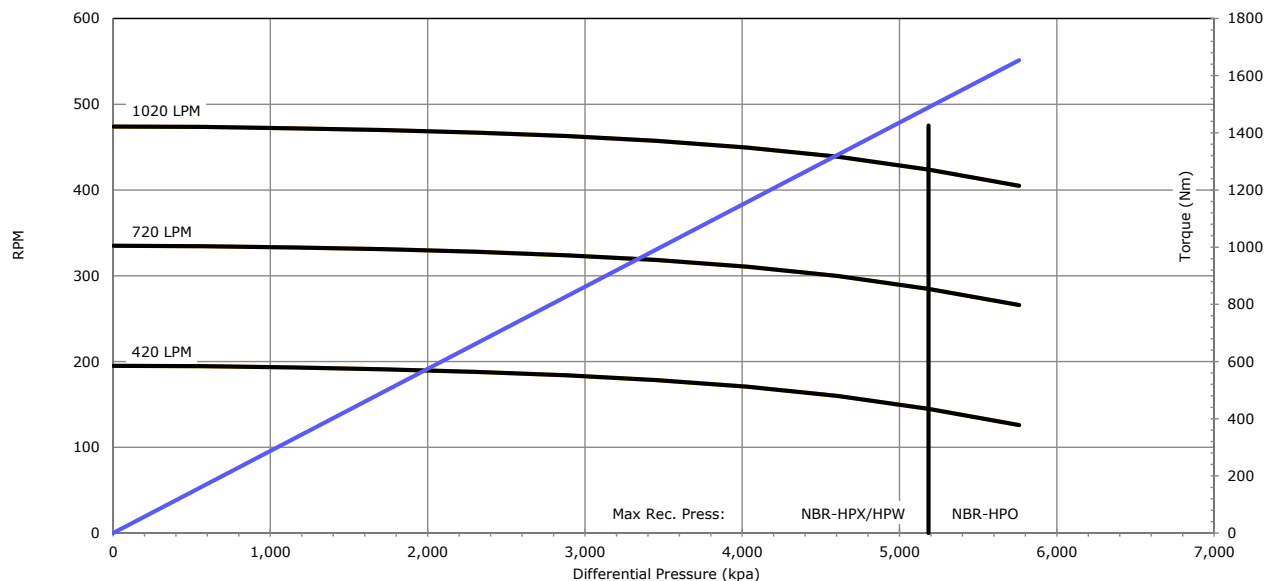
NBR-HPO (mm)		Fits (+ Compression / - Loose)				
Size	Minor ²	25 °C	75 °C	100 °C	125 °C	150 °C ³
.5 US						
STD	47.55	0.09	0.52	0.74	0.96	1.18
.5 OS						
1.0 OS	47.80	-0.17	0.27	0.48	0.70	0.91
1.5 OS						
2.0 OS						
2.5 OS						

Performance Specifications	
Flow Range (lpm)	420 - 1020
Speed Range (rpm)	190 - 480
Torque Slope (Nm/kpa)	0.29
Rotation (rev/Liter)	0.4649
Off Bottom Pressure (kpa)	640

Performance Details		
	NBR-HPX/HPW	NBR-HPO
Max Diff Press (kpa)	5200	5200
Stall Diff Press (kpa)	8200	8200
Max Torque (Nm)	1500	1500
Stall Torque (Nm)	2400	2400

■ (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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