

POWER SECTION

Model No: AT650568.2 (O)

Revised: 9/22/2020

Rotor Specifications	
	inches
Overall Length	233.00
Contour Length	226.00
Major Diameter	4.371
Eccentricity	0.335
Head diameter	4.500
Thread Form	2.875 SLIMLINE H-90
Weight	717 lbs
Material	17-4 PH ¹

Stator Specifications	
	inches
Overall Length	246.00
Tube OD	6.50
Tube ID	5.50
Rubber Cutback Top/End	11.00 / 11.00
Weight	753 lbs
Number of Stages	8.2
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	3.683	0.018	0.034	0.051	0.075	0.092
.5 OS	3.696	0.005	0.021	0.037	0.062	0.078
1.0 OS	3.708	-0.007	0.009	0.025	0.049	0.066
1.5 OS	3.721	-0.020	-0.004	0.012	0.036	0.052
2.0 OS	3.733	-0.032	-0.016	0.000	0.024	0.040
2.5 OS						

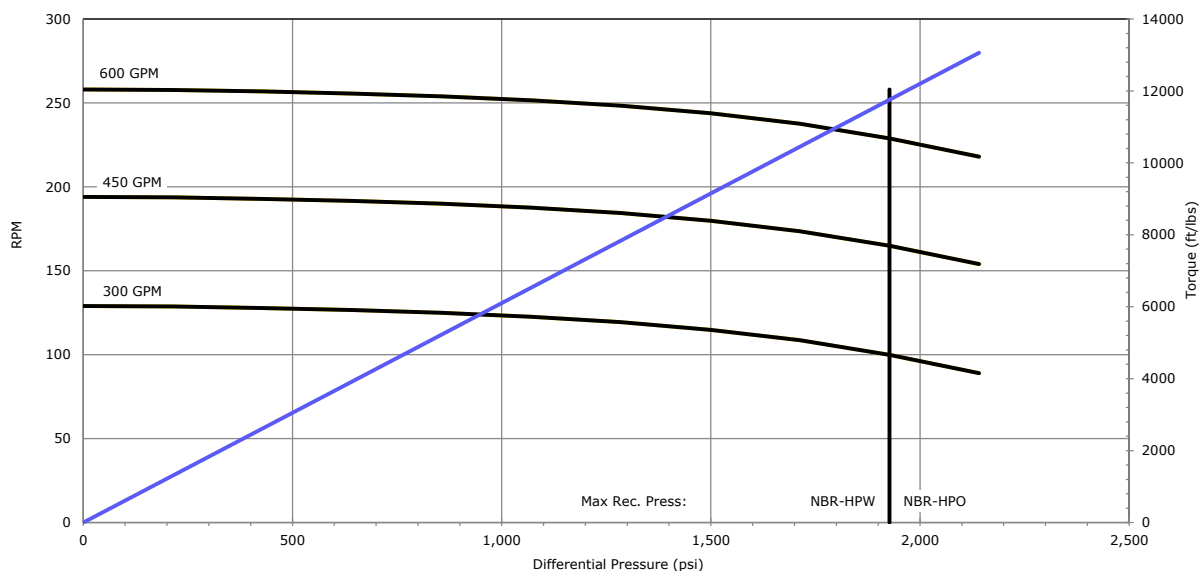
NBR-HPO (in)		Fits (+ Compression / - Loose)				
Size	Minor ²	75 °F	125 °F	175 °F	250 °F	300 °F ³
.5 US						
STD	3.683	0.018	0.034	0.051	0.075	0.092
.5 OS	3.696	0.005	0.021	0.037	0.062	0.078
1.0 OS	3.708	-0.007	0.009	0.025	0.049	0.066
1.5 OS	3.721	-0.020	-0.004	0.012	0.036	0.052
2.0 OS	3.733	-0.032	-0.016	0.000	0.024	0.040
2.5 OS						

Performance Specifications	
Flow Range (gpm)	300 - 600
Speed Range (rpm)	130 - 260
Torque Slope (ft-lb/psi)	6.10
Rotation (rev/gal)	0.430
Off Bottom Pressure (psi)	150

Performance Details		NBR-HPW	NBR-HPO
Max Diff Press (psi)		1930	1930
Stall Diff Press (psi)		3040	3040
Max Torque (ft-lb)		11760	11760
Stall Torque (ft-lb)		18520	18520

■ (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: AT650568.2 (O)

Revised: 9/22/2020

Rotor Specifications	
	mm
Overall Length	5918.2
Contour Length	5740.4
Major Diameter	111.02
Eccentricity	8.51
Head diameter	114.30
Thread Form	2.875 SLIMLINE H-90
Weight	325 kg
Material	17-4 PH ¹

Stator Specifications	
	mm
Overall Length	6248.4
Tube OD	165.1
Tube ID	139.7
Rubber Cutback Top/End	279.0 / 279.0
Weight	342 kg
Number of Stages	8.2
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	93.55	0.46	1.20	1.58	1.95	2.33
.5 OS	93.88	0.13	0.87	1.24	1.61	1.98
1.0 OS	94.18	-0.18	0.56	0.93	1.30	1.67
1.5 OS	94.51	-0.51	0.22	0.59	0.96	1.32
2.0 OS	94.82	-0.81	-0.09	0.28	0.64	1.00
2.5 OS						

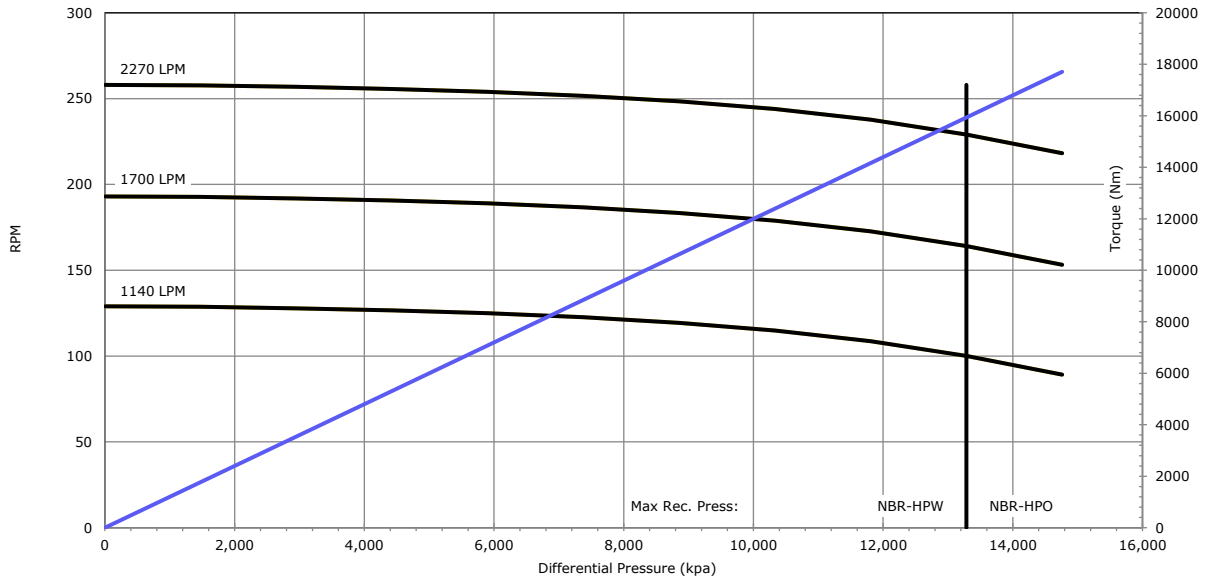
NBR-HPO (mm)		Fits (+ Compression / - Loose)				
Size	Minor ²	25 °C	75 °C	100 °C	125 °C	150 °C ³
.5 US						
STD	93.55	0.46	1.20	1.58	1.95	2.33
.5 OS	93.88	0.13	0.87	1.24	1.61	1.98
1.0 OS	94.18	-0.18	0.56	0.93	1.30	1.67
1.5 OS	94.51	-0.51	0.22	0.59	0.96	1.32
2.0 OS	94.82	-0.81	-0.09	0.28	0.64	1.00
2.5 OS						

Performance Specifications	
Flow Range (lpm)	1140 - 2270
Speed Range (rpm)	130 - 260
Torque Slope (Nm/kpa)	1.20
Rotation (rev/Liter)	0.1136
Off Bottom Pressure (kpa)	1050

Performance Details		
	NBR-HPW	NBR-HPO
Max Diff Press (kpa)	13300	13300
Stall Diff Press (kpa)	20900	21000
Max Torque (Nm)	16000	16000
Stall Torque (Nm)	25200	25200

■ (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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