

POWER SECTION

Model No: AT550788.3 HT OPTI

Revised: 8/17/2022

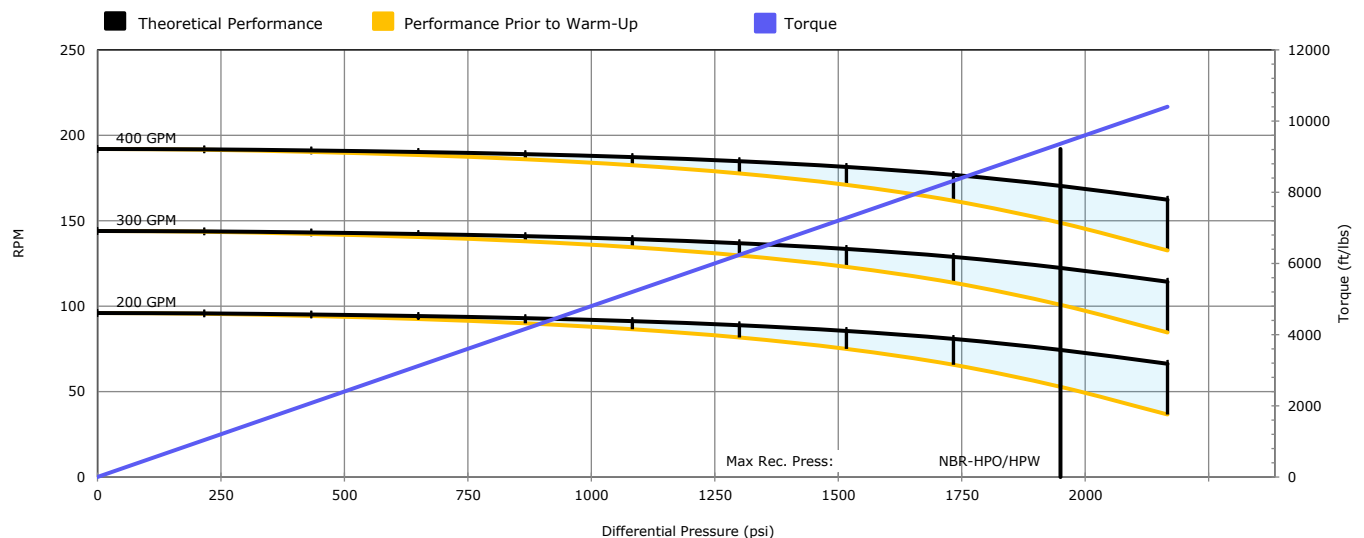
Rotor Specifications	
	inches
Overall Length	253.00
Contour Length	247.00
Major Diameter	3.422
Eccentricity	
Head diameter	3.400
Thread Form	1.375-6 SA
Weight	513 lbs
Material	17-4 PH ¹

Stator Specifications	
	inches
Overall Length	275.00
Tube OD	5.50
Tube ID	4.00
Rubber Cutback Top/End	12.00 / 18.00
Weight	540 lbs
Number of Stages	8.3
Tube Material	4140/4142 Alloy Steel
Rubber Options	NBR-HPO/NBR-HPW

Performance Specifications	
Flow Range (gpm)	200 - 400
Speed Range (rpm)	100 - 190
Torque Slope (ft-lb/psi)	4.80
Rotation (rev/gal)	0.480
Off Bottom Pressure (psi)	110

Performance Details	
	NBR-HPO/NBR-HPW
Max Diff Press (psi)	1960
Stall Diff Press (psi)	3080
Max Torque (ft-lb)	9370
Stall Torque (ft-lb)	14750

Size	Minor ²	Fit @ 75°F	Stator Sizing and Fit Chart ³			
.5 US	-	-	-	-	Fit Not Available	-
STD	2.996	-0.001	100°F	130°F	OPTIMAL RANGE	210°F 250°F
.5 OS	3.008	-0.013	140°F	180°F	OPTIMAL RANGE	260°F 290°F
1.0 OS	3.018	-0.023	180°F	210°F	OPTIMAL RANGE	290°F 330°F ³
1.5 OS	-	-	-	-	Fit Not Available	-
2.0 OS	-	-	-	-	Fit Not Available	-
2.5 OS	-	-	-	-	Fit Not Available	-
Minor Diameter Change = 0.001" per 3.5 °F ΔFit = 0.00028" per 1°F						



¹ Coating options of chrome or tungsten carbide are available ² Vector Gauge Readings at Room Temp 75°F ³ Chart temp shows potential of the individual fit and not necessarily the elastomer. BHCT Exceeding 320°F will void warranty for NBR-HPO/NBR-HPW.

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
US: Sales & Distribution
CANADA: Stator Manufacturing
DUBAI UAE: Stator Manufacturing

713 Northpark Central Dr., #400 Houston, TX 77073 - Tel: (281) 869-0700 - Fax: (281) 869-0701
11308 West Interstate 20 East, Odessa, TX 79765 - Tel: (432) 248-1814
6303-39th Street Leduc, Alberta T9E 0Z3 Canada - Tel: (780) 986-8947 - Fax: (780) 986-8842
Oilfields Supply Center B#57, Jebel Ali, Dubai UAE, P.O. Box 19909 - Tel: 971-4-870-8600

POWER SECTION - METRIC

Model No: AT550788.3 HT OPTI

Revised: 8/17/2022

Rotor Specifications	
	mm
Overall Length	6426.2
Contour Length	6273.8
Major Diameter	86.92
Eccentricity	
Head diameter	86.36
Thread Form	1.375-6 SA
Weight	233 kg
Material	17-4 PH ¹

Stator Specifications	
	mm
Overall Length	6985.0
Tube OD	139.7
Tube ID	101.6
Rubber Cutback Top/End	305.0 / 457.0
Weight	245 kg
Number of Stages	8.3
Tube Material	4140/4142 Seamless Alloy Steel
Rubber Options	NBR-HPO/NBR-HPW

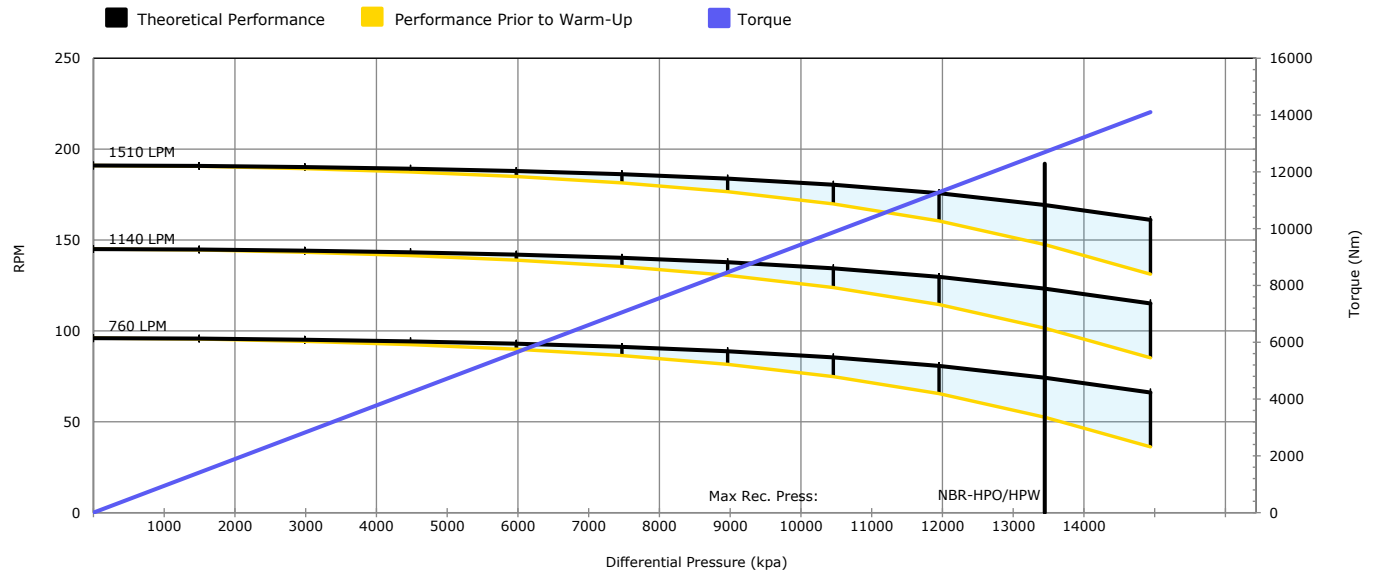
Performance Specifications	
Flow Range (lpm)	760 - 1510
Speed Range (rpm)	100 - 190
Torque Slope (Nm/kpa)	0.94
Rotation (rev/Liter)	0.1268
Off Bottom Pressure (kpa)	740

Performance Details	
	NBR-HPO/NBR-HPW
Max Diff Press (kpa)	13500
Stall Diff Press (kpa)	21200
Max Torque (Nm)	12700
Stall Torque (Nm)	20000

Size	Minor ²	Minor ²	Stator Sizing and Fit Chart ³	
.5 US	-	-	-	Fit Not Available
STD	76.098	-0.038	40°C	50°C OPTIMAL RANGE 100°C 120°C
.5 OS	76.403	-0.343	60°C	80°C OPTIMAL RANGE 130°C 140°C
1.0 OS	76.657	-0.597	80°C	100°C OPTIMAL RANGE 140°C 170°C ³
1.5 OS	-	-	-	Fit Not Available
2.0 OS	-	-	-	Fit Not Available
2.5 OS	-	-	-	Fit Not Available

Minor Diameter Change = 0.025 mm per 1.95 °C

ΔFit = 0.013 mm per 1°C



¹ Coating options of chrome or tungsten carbide are available ² Vector Gauge Readings at Room Temp 25°C ³ Chart temp shows potential of the individual fit and not necessarily the elastomer. BHCT Exceeding 160°C will void warranty for NBR-HPO/NBR-HPW.

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