

THRU TUBING PDM MOTOR

TOOL APPLICATIONS

Power Sections

Taranaki Thru Tubing tools bring together the latest technological advances in manufacturing, quality control, and unparalleled engineering know-how to provide the finest quality power sections, rotors and stators for your application. 4TL power sections can be teamed with mud motors ranging from 1 1/2 - inch thru 3 3/8 inch diameter in any configuration.

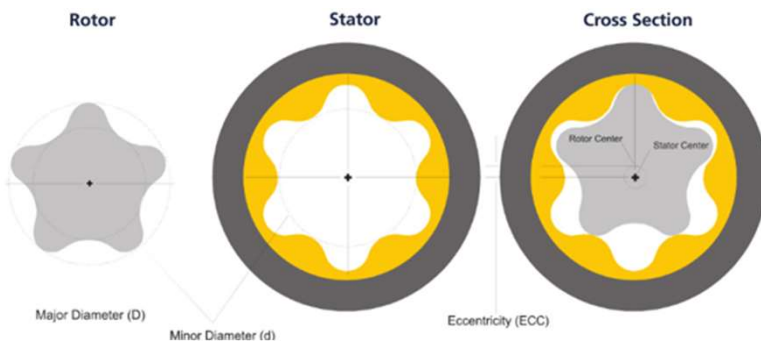
4TL power sections for thru-tubing motors help increase drilling and well intervention efficiency in technically challenging environments. Our HPX power sections have a temperature rating of 320F and our HPT 430F, making it the highest temperature rating elastomer on the market.

Transmission

Our transmissions are on the cutting edge of mud motor technology, strength and performance. All major torque carrying components including the bit mandrel and transmission couplings have been redesigned and enlarged to handle the increased torque of "Even-Walled" and "Hard Rubber" power sections.

Thrust and radial bearing capacity has been increased and a new, improved carbide coating used on radial bearings provides extended wear life. A uniquely designed mandrel catch device provides reduced stress concentration over previous designs and supports the mandrel shaft reducing bending stress. A redesigned stator connection reduces cracked threads and provides protection from corrosive drilling fluids.

POWER SECTION & ROTOR / STATOR PROFILES



Stator and Lobe Configurations



THRU TUBING PDM MOTOR



HPX ELASTOMER

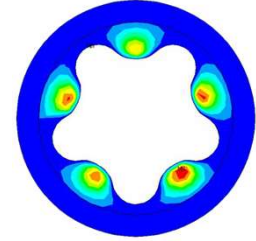
HPX Provides Increased Power Output And Reliability Of The Power Section .

Bonding strength and tear resistance at elevated temperatures were targeted for improvement. HPX yields higher reliability, even in severe environments (320°F)

ELASTOMER OPTIONS

Taranaki Thru Tubing Tools (4TL), offer various elastomer options for extending durability, providing higher reliability.

- **HPX – Extreme environment (320°F)**
- **HPT – Elevated temperatures (375°F)**
- **HPW – High Wear (320°F)**



Hysteric Heating

HPT ELASTOMER

HPT Increases Reliability In Extreme Environments And In High Temperature Situations

Extreme temperatures can affect performance of conventional elastomers in stators. HPT has proven to provide exceptional downhole performance at temperatures up to 375 F.

HPW ELASTOMER

HPW Addresses High-Wear Situations That Occur in High Friction, High Torque Use.

Hard rubber composition for high power output. HPW has 25% higher stiffness than conventional hard rubber resulting in a 5% to 10% higher horse power output potential.

SPECIFICATIONS

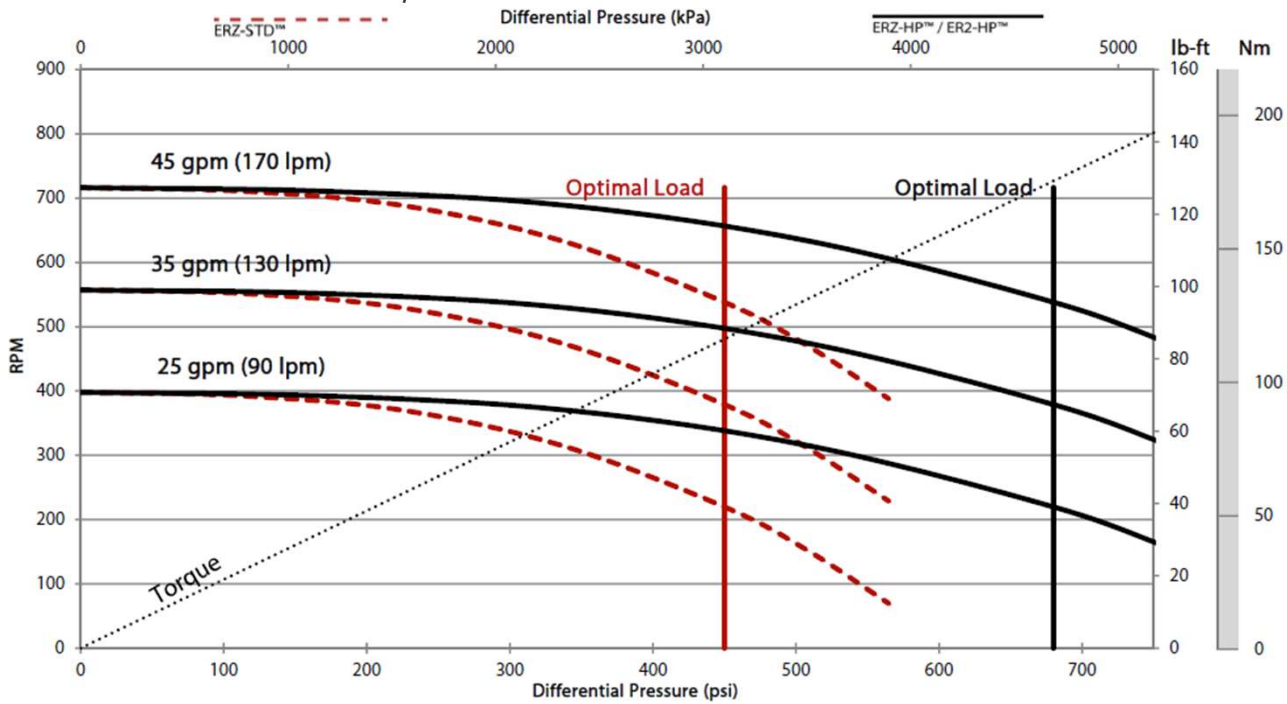
Size OD	Model	Configuration		Pump Rate (GPM)		Speed Range (RPM)		Torque (FT/LBS)		Pressure (PSI)		Connection	Max Temp F	
		Lobes	Stages	Min	Max	Min	Max	Op	Stall	Op Diff	Stall Diff		HPX HPW	HPT
1-1/2"	150124.0	1/2-	4.0	20	35	885	1,550	45	100	800	1,200	3/4" CS Hydrill	300	N/A
	150563.0	5/6-	3.0	25	45	400	720	130	190	680	1,020	3/4" CS Hydrill	375	N/A
1-11/16"	168562.3	5/6-	2.3	20	40	190	370	160	250	550	860	1" AMMT	375	430
	168565.0	5/6-	5.0	25	55	390	860	230	360	1,180	1,860	1"AMMT	375	430
2-1/8"	212566.0	5/6-	6.0	20	60	260	770	340	540	1,410	2,230	1-1/2"AMMT	375	430
2-3/8"	237784.0	7/8-	4.0	30	100	150	500	470	750	940	1,490	1-1/2"AMMT	375	430
2-7/8"	287783.5	7/8-	3.5	30	120	100	480	570	850	880	1,310	2-3/8" PAC	375	430
	287562.6	5/6-	2.6	60	120	138	280	660	990	650	980	2-3/8" PAC	375	430
	287567.0	5/6-	7.0	30	110	160	600	780	1,220	1,650	2,600	2-3/8" PAC	375	430
3-3/8"	338563.0	5/6-	3.0	50	130	120	310	760	1,190	710	1,120	2-3/8" PAC	375	430

MOTOR POWER SECTIONS

Stator Options

MODEL 150563.0 PERFORMANCE CHART

(HPT Elastomers)



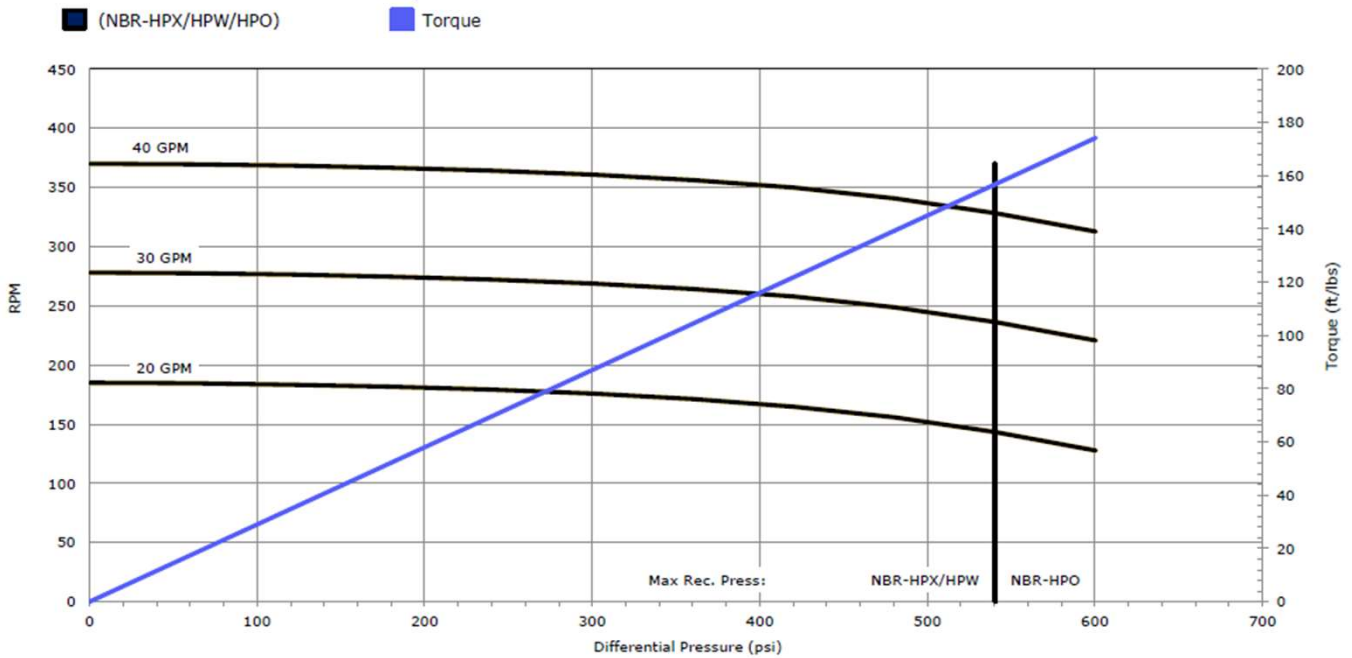
¹ Vector Gauge Readings at Room Temp 75°F. ² BHCT Exceeding 320°F will void warranty for HPW/HPX. ³ HPT High Temp parameters are recommended when BHCT exceeds 300°F. BHCT exceeding 430°F will void warranty. It is recommended to run stator for no more than 15 hours at BHCT above 375°F. Performance curves 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. It is recommended to test the power section on a Dyno tester to have accurate performance outputs.

MOTOR POWER SECTIONS

Stator Options

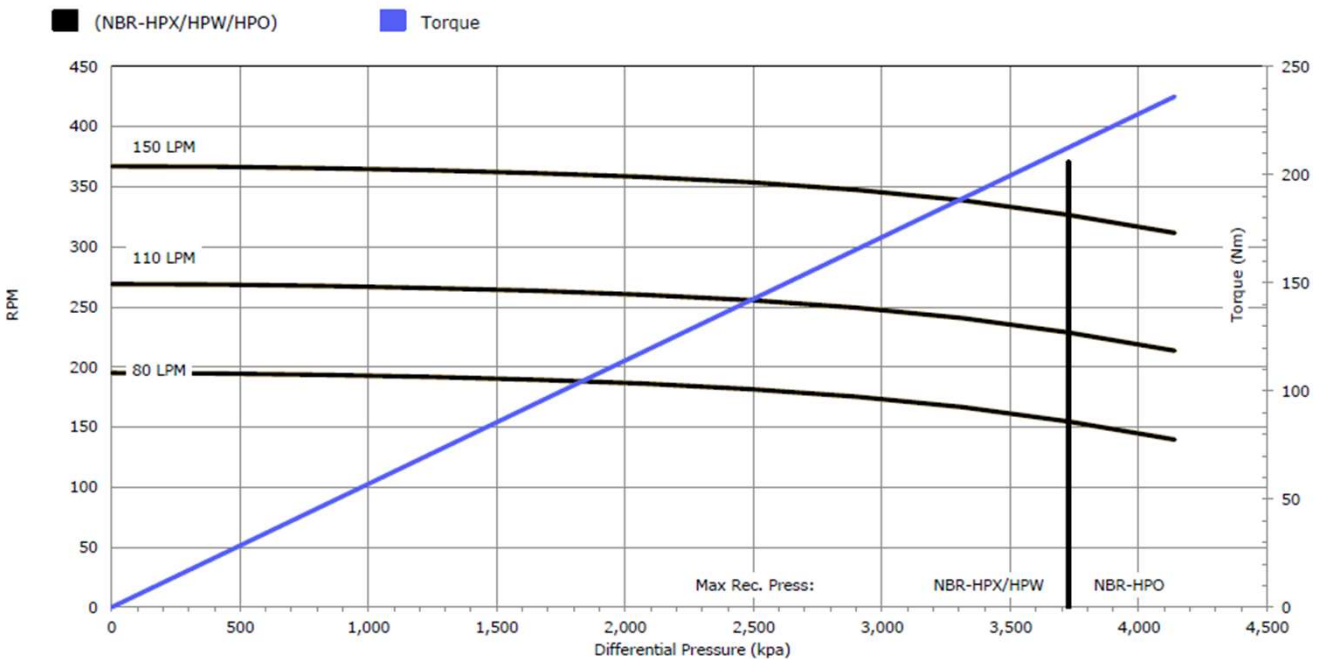
MODEL 168562.3 PERFORMANCE CHART

(HPX / HPW / HPT Elastomers)



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METRIC



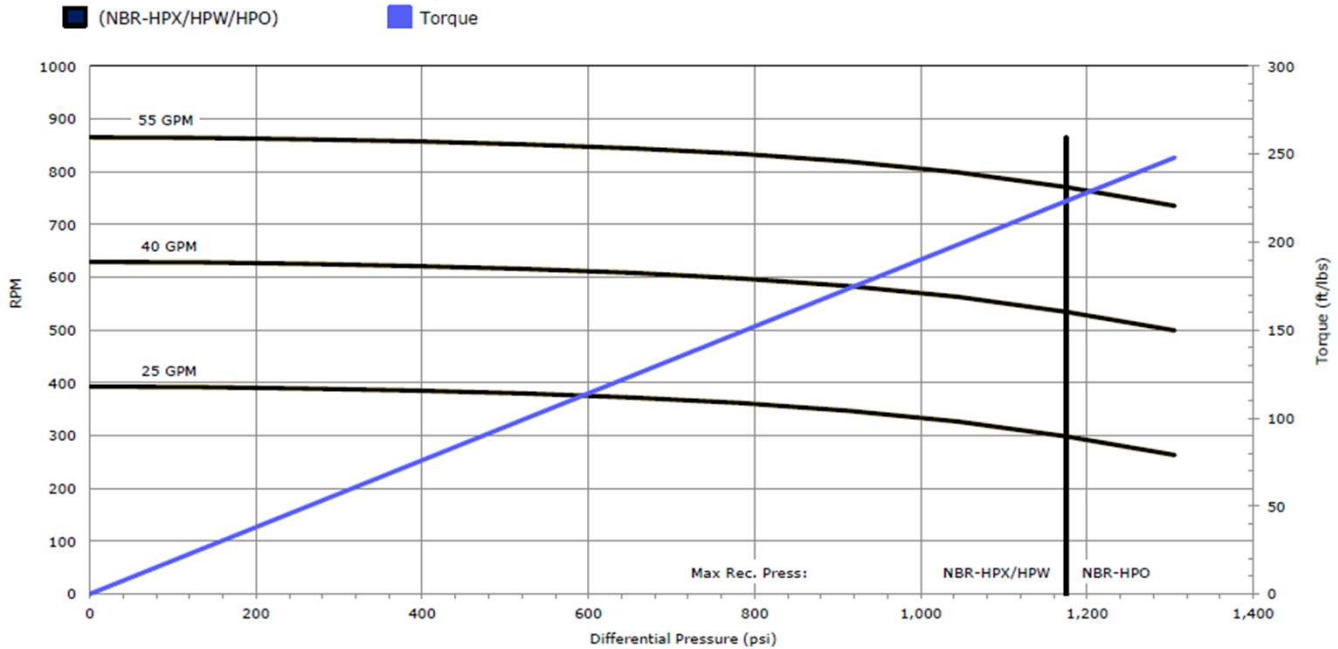
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MOTOR POWER SECTIONS

Stator Options

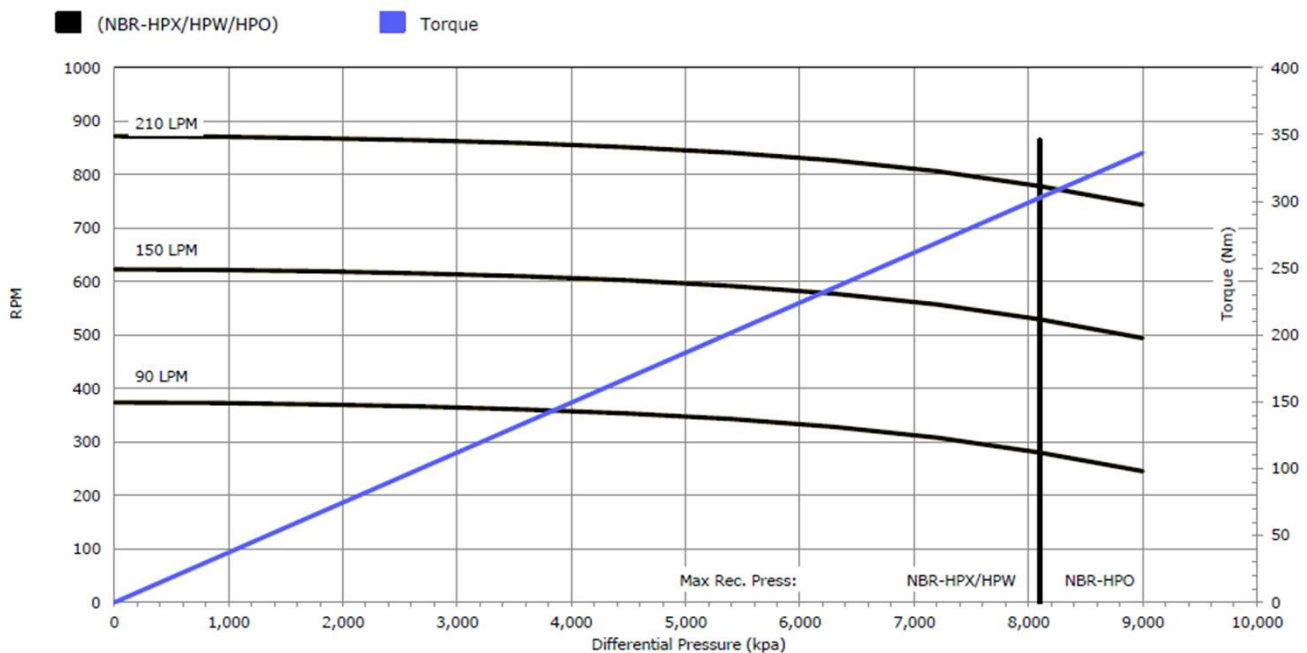
MODEL 168565.0 PERFORMANCE CHART

(HPX / HPW / HPT Elastomers)



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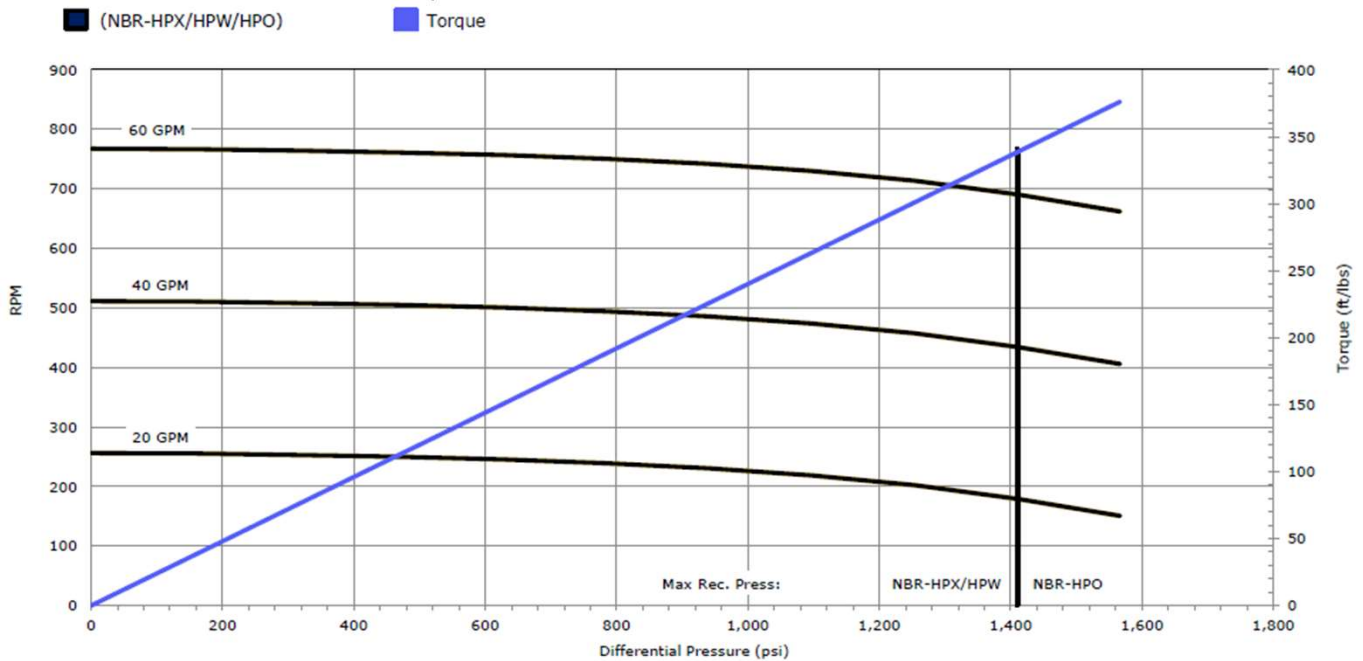
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MOTOR POWER SECTIONS

Stator Options

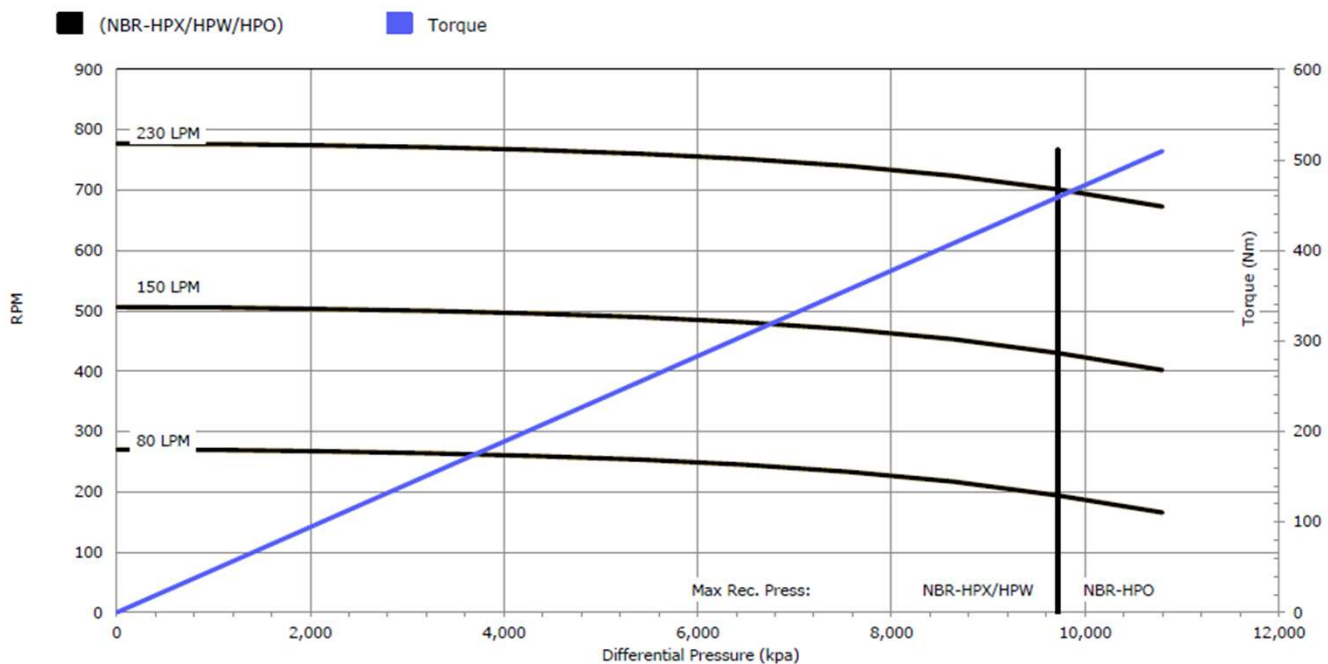
MODEL 212566.0 PERFORMANCE CHART

(HPX / HPW / HPT Elastomers)



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METRIC



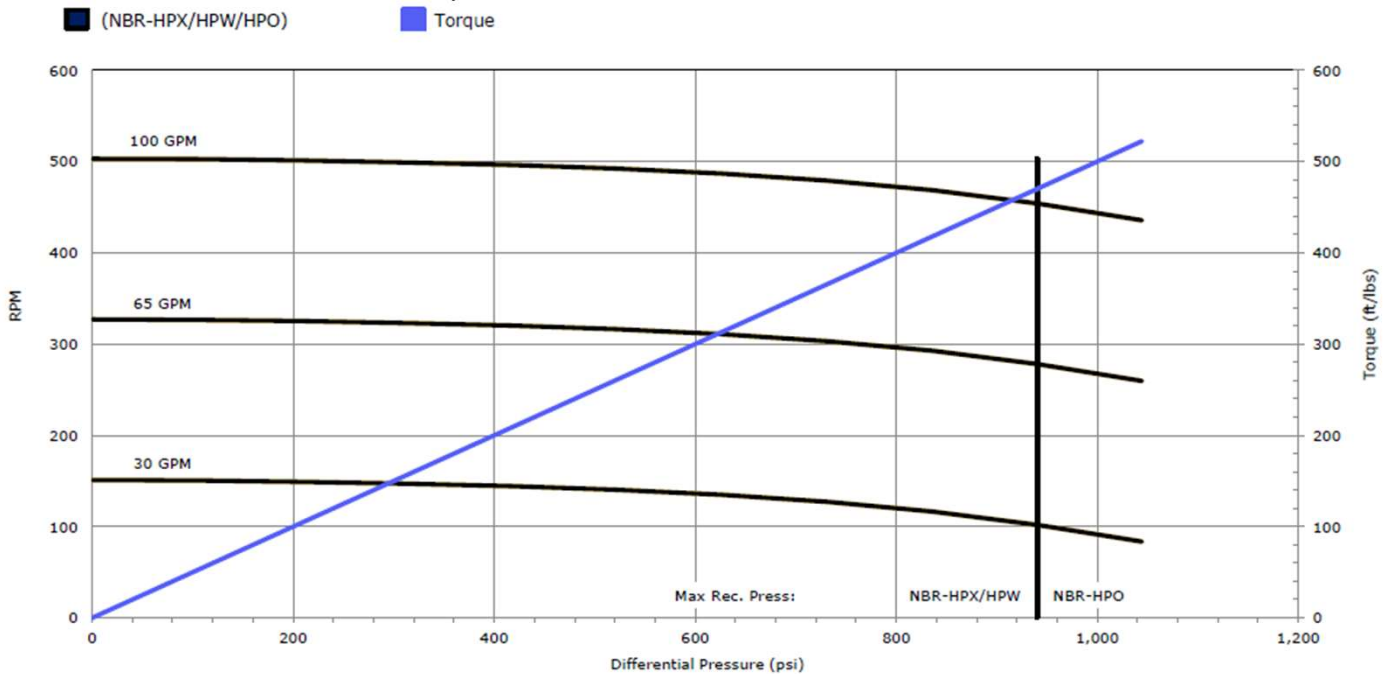
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MOTOR POWER SECTIONS

Stator Options

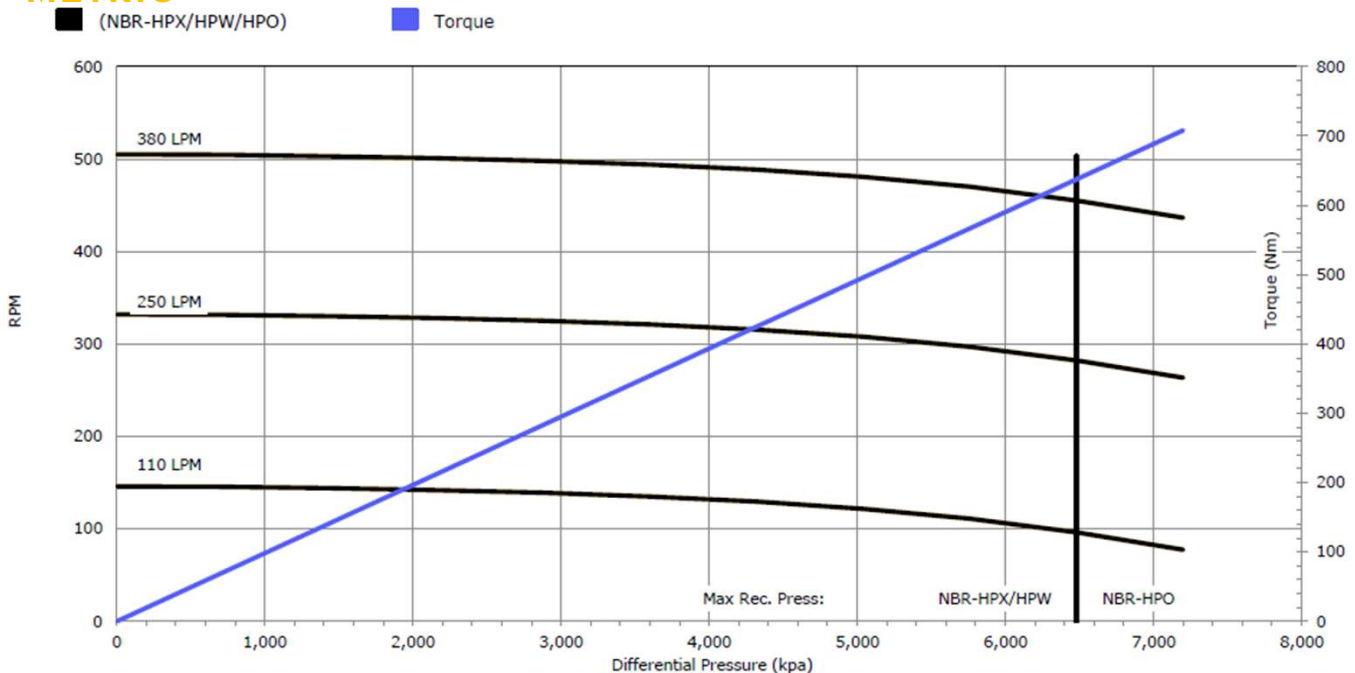
MODEL 237784.0 PERFORMANCE CHART

(HPX / HPW / HPT Elastomers)



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METRIC



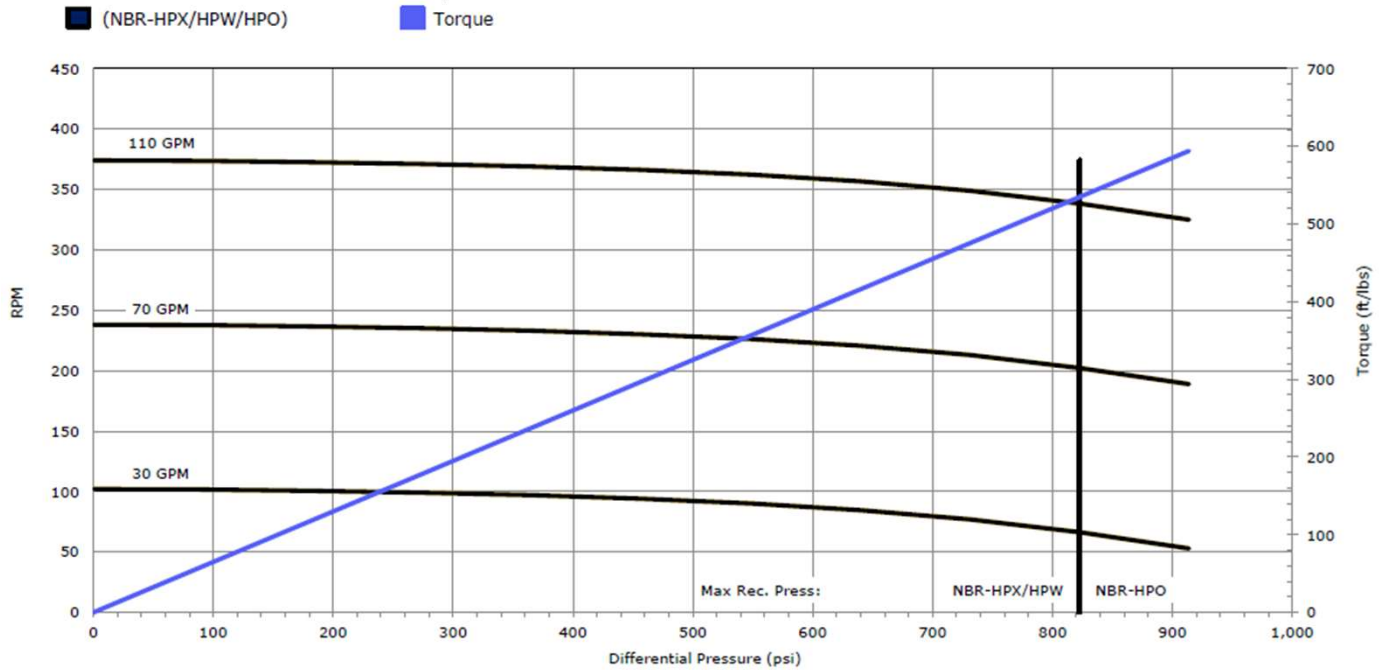
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MOTOR POWER SECTIONS

Stator Options

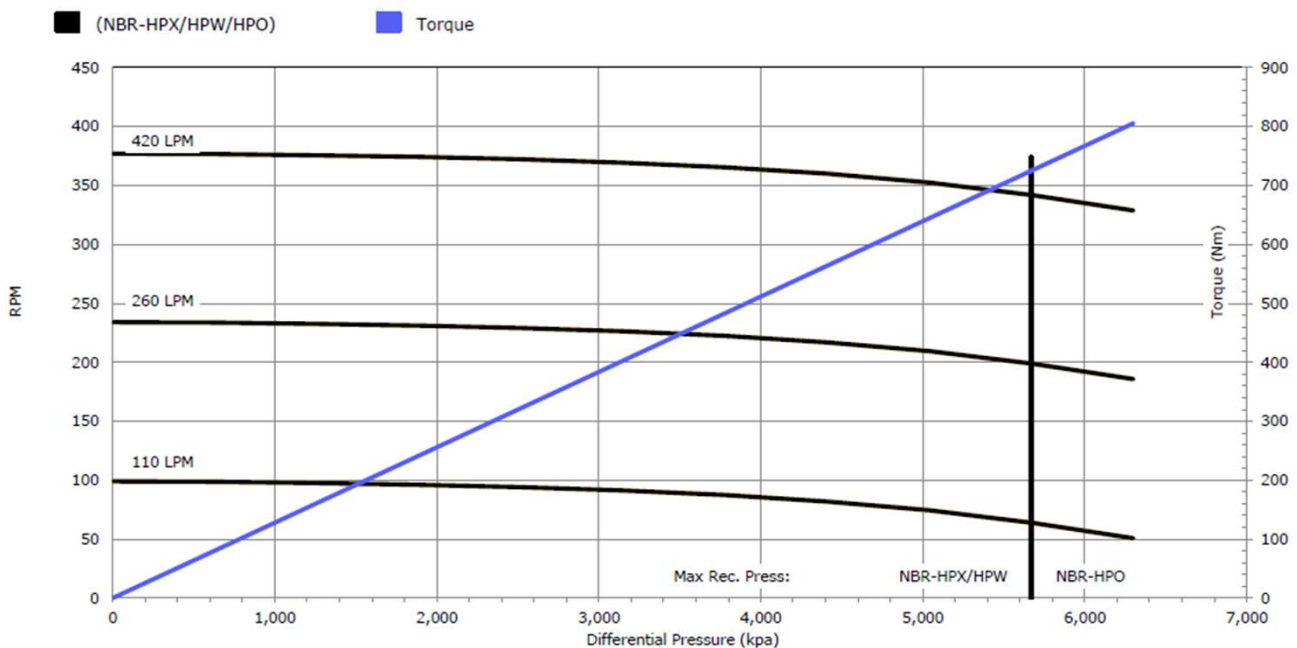
MODEL 287783.5 PERFORMANCE CHART

(HPX / HPW / HPT Elastomers)



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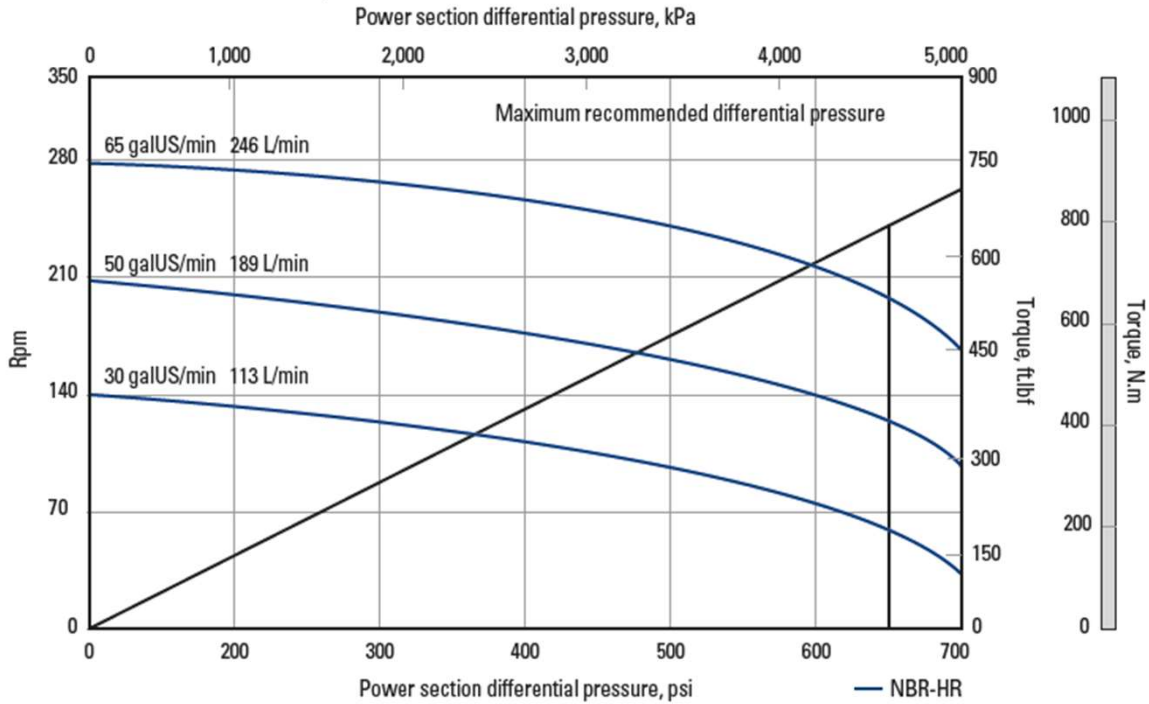
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MOTOR POWER SECTIONS

Stator Options

MODEL 287562.6 PERFORMANCE CHART

(HPT Elastomers)



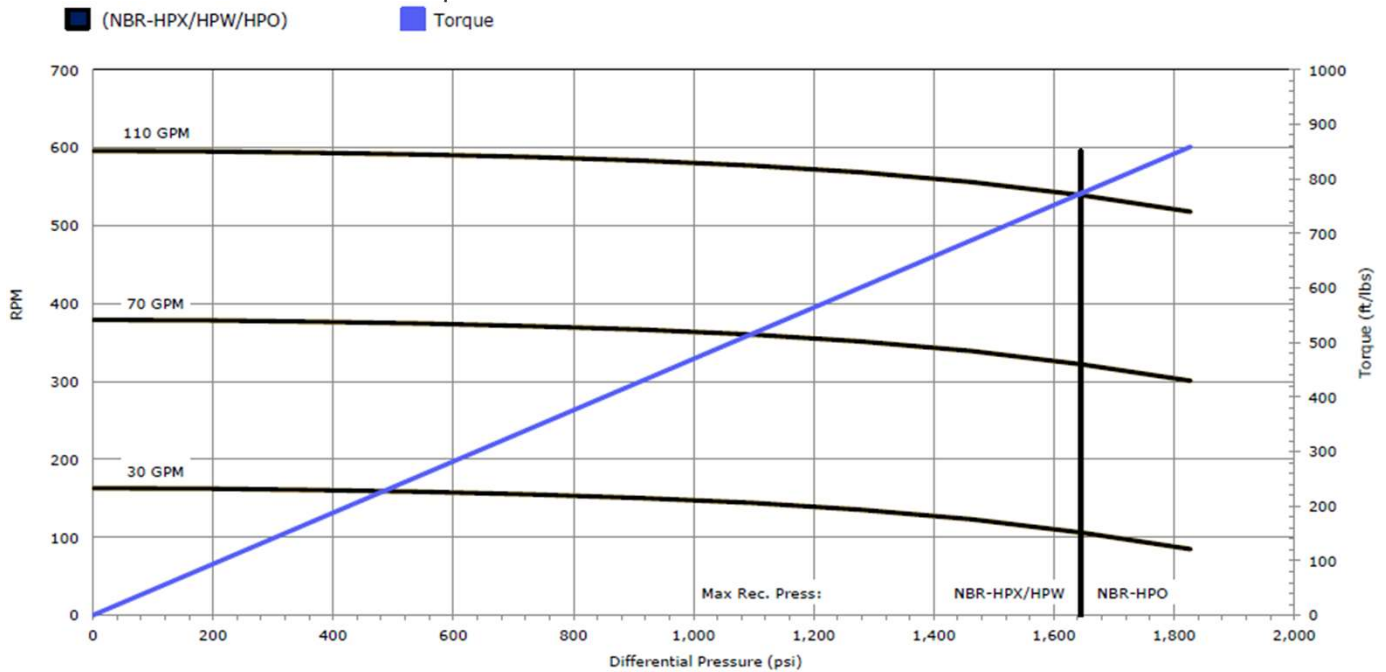
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MOTOR POWER SECTIONS

Stator Options

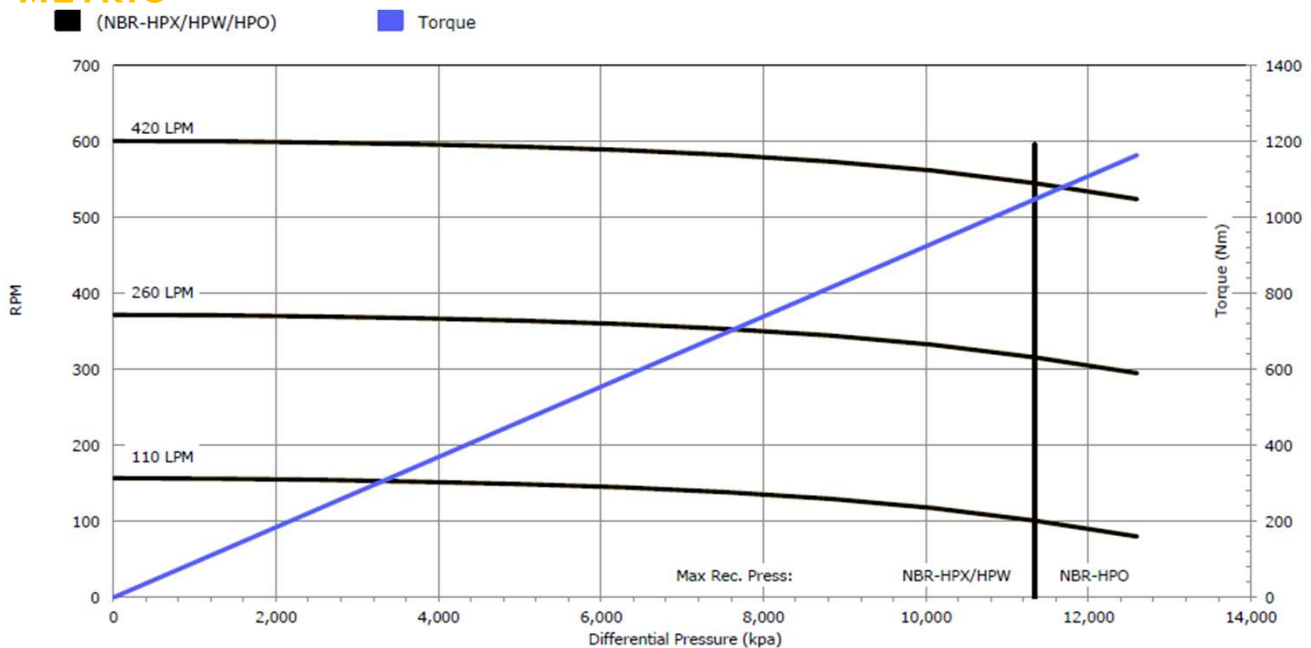
MODEL 287567.0 PERFORMANCE CHART

(HPX / HPW / HPT Elastomers)



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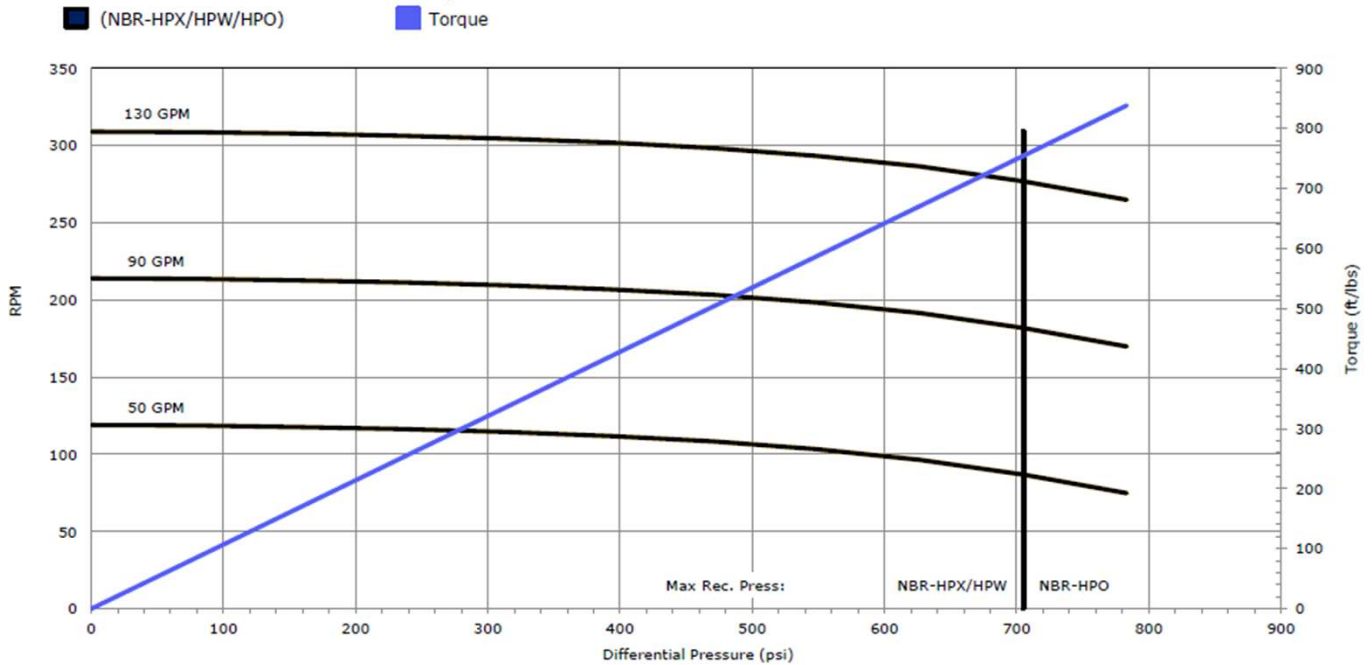
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MOTOR POWER SECTIONS

Stator Options

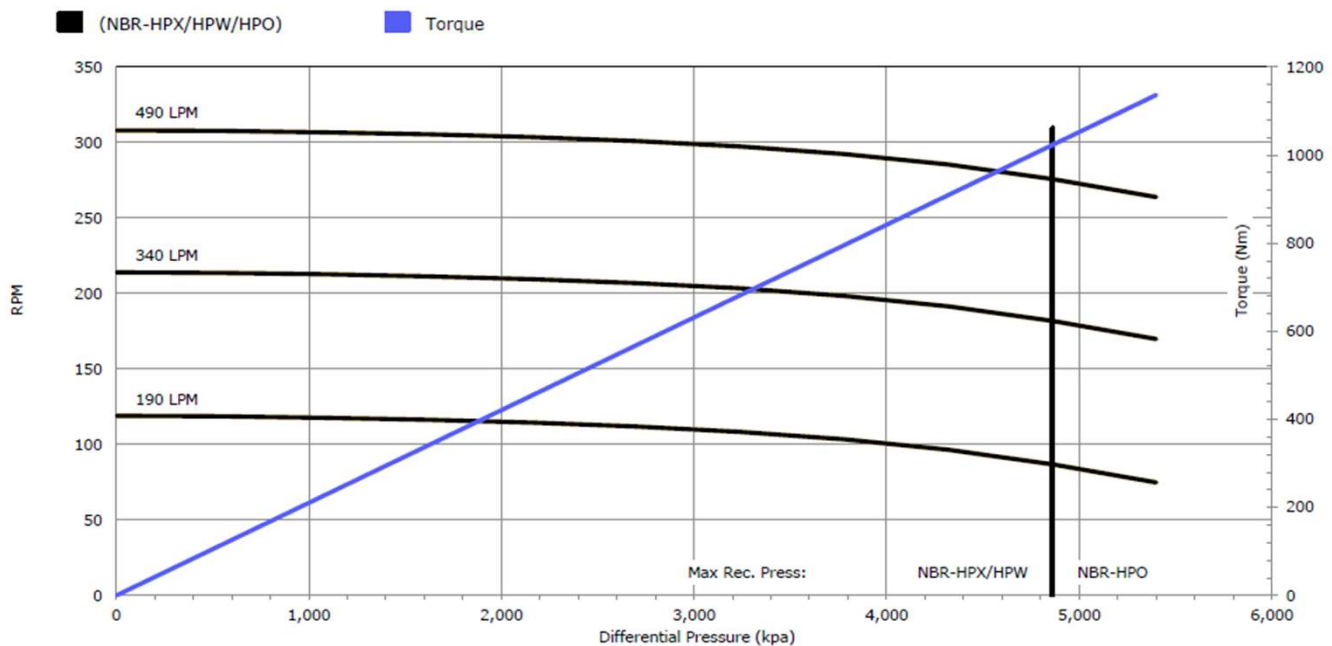
MODEL 338563.0 PERFORMANCE CHART

(HPX / HPW / HPT Elastomers)



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