



Motor Handbook

2018



4 3/4" 5/6 8.3 Stage

1.00 rev/gal

Rotor Specifications	
Overall Length	229.50"
Contour Length	223.00"
Major Diameter	2.916"
Eccentricity	0.207"
Head Diameter	3.125"
Thread Form	2.375 HEF Modified
Weight	333 lbs
Material	17-4 PH1

Stator Specifications	
Overall Length	242.50"
Tube OD	4.75"
Tube ID	3.75"
Rubber Cutback Top/End	8.00" / 8.00"
Rubber Options	NBR & NBR-HR
Number of Stages	8.3
Weight	506 lbs
Tube Material	4140 / 4142 Alloy Steel

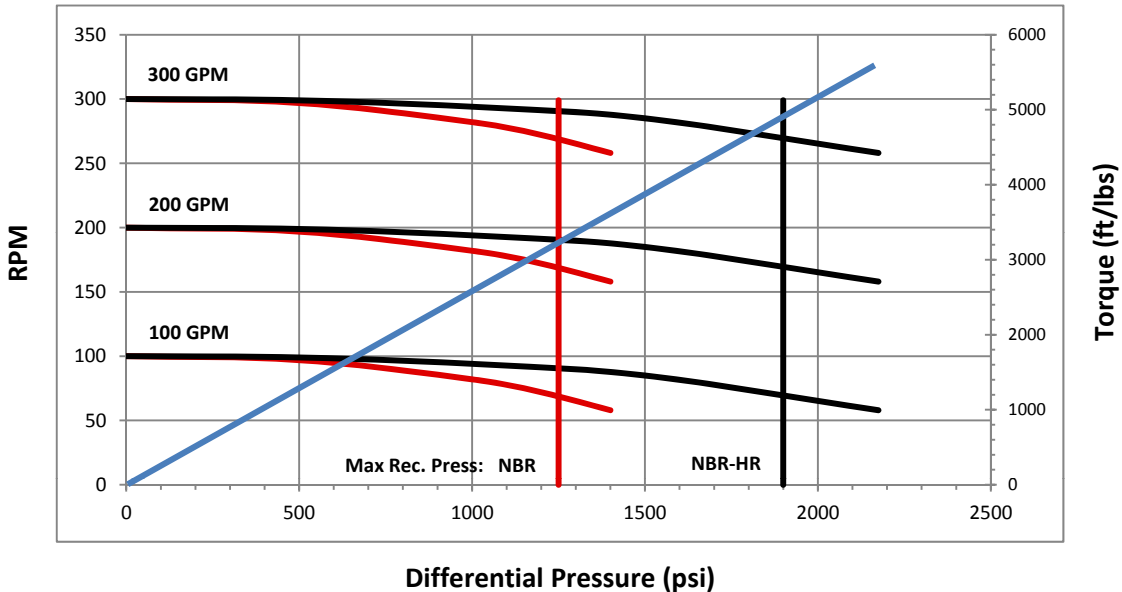
NBR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	2.487	0.015	0.030	0.046	0.069	0.085
.5 OS	2.5	0.002	0.017	0.033	0.056	0.071
1.0 OS	2.511	-0.009	0.006	0.021	0.044	0.059
1.5 OS	2.523	-0.021	-0.006	0.009	0.032	0.047
2.0 OS	2.543	-0.041	-0.026	-0.011	0.011	0.026

NBR-HR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	2.485	0.017	0.032	0.047	0.070	0.085
.5 OS	2.498	0.004	0.019	0.034	0.057	0.072
1.0 OS	2.509	-0.007	0.008	0.023	0.045	0.060
1.5 OS	2.521	-0.019	-0.004	0.010	0.033	0.047
2.0 OS	2.541	-0.039	-0.024	-0.010	0.012	0.026

Performance Specifications	
Flow Range (GPM)	100 - 300
Speed Range (RPM)	100 - 300
Torque Slope (ft-lb/psi)	2.55
Rotation (rev/gal)	1.000
Off Bottom Pressure (psi)	100

Performance Details		
	NBR	NBR-HR
Max Diff Pressure (psi)	1250	1960
Stall Diff Pressure (psi)	1870	3080
Max Torque (ft-lb)	3180	4980
Stall Torque (ft-lb)	4770	7840

■ (NBR) ■ (NBR-HR) ■ Torque





4 3/4" 7/8 2.6 Stage ESX

0.26 rev/gal

Rotor Specifications	
Overall Length	220.00"
Contour Length	214.25"
Major Diameter	3.095"
Eccentricity	0.174"
Head Diameter	2.750"
Thread Form	2.375" HEF Modified
Weight	381 lbs
Material	17-4 PH1

Stator Specifications	
Overall Length	229.25"
Tube OD	4.75"
Tube ID	3.75"
Rubber Cutback Top/End	8.00" / 8.00"
Rubber Options	NBR & NBR-HR
Number of Stages	2.6
Weight	407 lbs
Tube Material	4140 / 4142 Alloy Steel

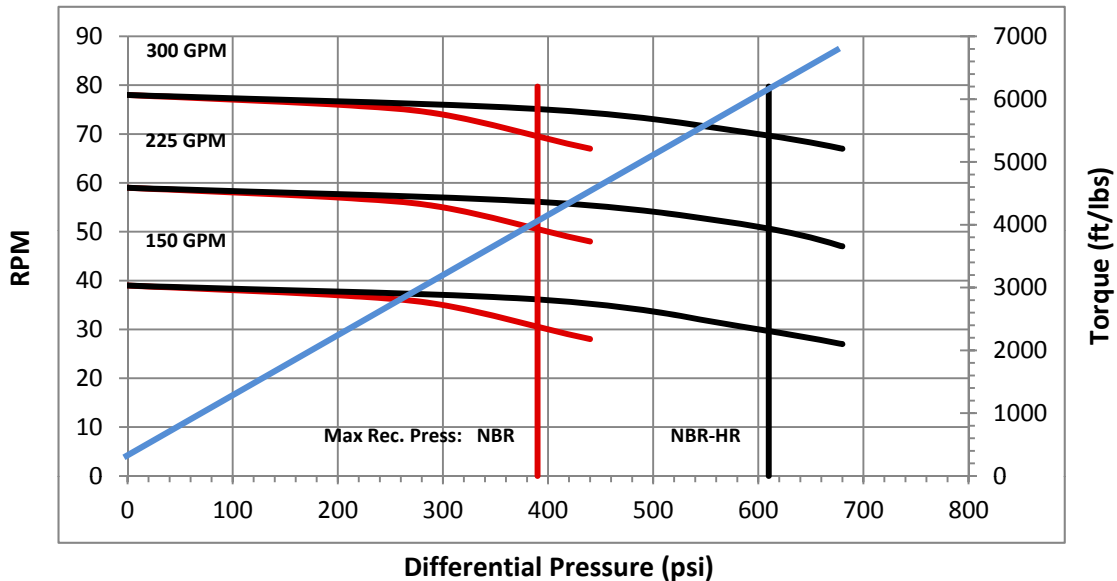
NBR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	2.753	-0.005	0.010	0.025	0.047	0.062
.5 OS	2.765	-0.017	-0.002	0.013	0.035	0.050
1.0 OS	2.775	-0.027	-0.012	0.002	0.024	0.039
1.5 OS	2.785	-0.037	-0.022	-0.008	0.014	0.029
2.0 OS						

NBR-HR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	2.750	-0.002	0.013	0.028	0.051	0.066
.5 OS	2.762	-0.014	0.001	0.016	0.038	0.053
1.0 OS	2.772	-0.024	-0.009	0.005	0.028	0.042
1.5 OS	2.782	-0.034	-0.019	-0.005	0.017	0.032
2.0 OS						

Performance Specifications	
Flow Range (GPM)	150 - 300
Speed Range (RPM)	40 - 80
Torque Slope (ft-lb/psi)	9.44
Rotation (rev/gal)	0.260
Off Bottom Pressure (psi)	40

Performance Details		
	NBR	NBR-HR
Max Diff Pressure (psi)	390	620
Stall Diff Pressure (psi)	590	970
Max Torque (ft-lb)	3690	5770
Stall Torque (ft-lb)	5530	9090

■ (NBR) ■ (NBR-HR) ■ Torque





4 3/4" 7/8 2.9 Stage

0.30 rev/gal

Rotor Specifications	
Overall Length	242.00"
Contour Length	236.00"
Major Diameter	2.798"
Eccentricity	0.163"
Head Diameter	2.850"
Thread Form	2.375 HEF
Weight	339 lbs
Material	17-4 PH1

Stator Specifications	
Overall Length	250.00"
Tube OD	4.75"
Tube ID	3.75"
Rubber Cutback Top/End	8.00" / 8.00"
Rubber Options	NBR & NBR-HR
Number of Stages	2.9
Weight	541 lbs
Tube Material	4140/4142 Alloy Steel

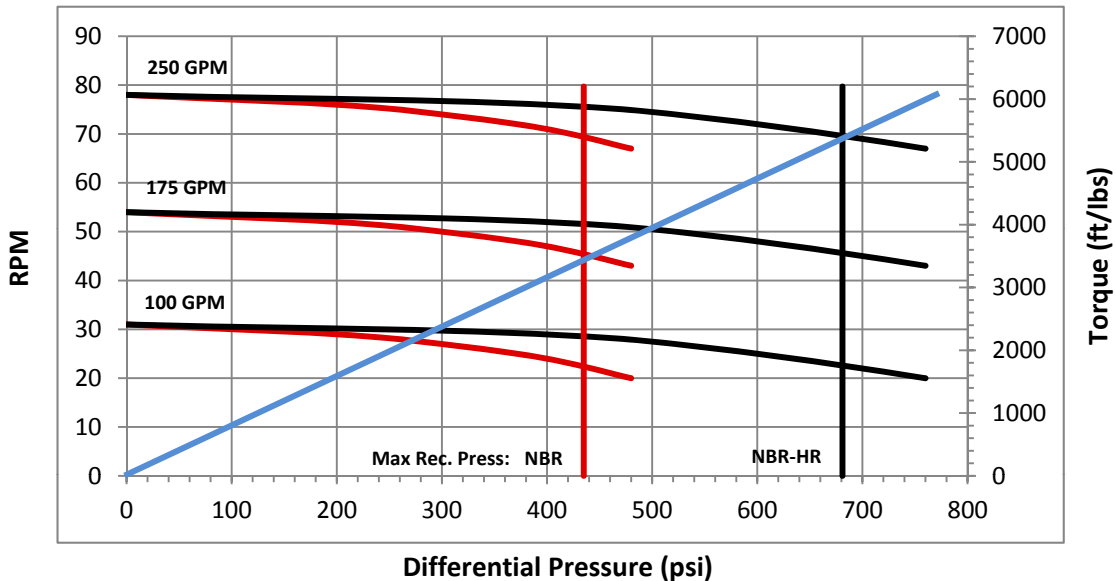
NBR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	2.477	-0.004	0.014	0.033	0.061	0.079
.5 OS	2.487	-0.014	0.004	0.023	0.050	0.068
1.0 OS	2.497	-0.024	-0.006	0.012	0.040	0.058
1.5 OS	2.507	-0.034	-0.016	0.002	0.029	0.047
2.0 OS						

NBR-HR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	2.475	-0.002	0.016	0.035	0.063	0.081
.5 OS	2.485	-0.012	0.006	0.025	0.052	0.071
1.0 OS	2.495	-0.022	-0.004	0.014	0.042	0.060
1.5 OS	2.505	-0.032	-0.014	0.004	0.031	0.049
2.0 OS						

Performance Specifications	
Flow Range (GPM)	100 - 250
Speed Range (RPM)	30 - 80
Torque Slope (ft-lb/psi)	8.03
Rotation (rev/gal)	0.306
Off Bottom Pressure (psi)	40

Performance Details		
	NBR	NBR-HR
Max Diff Pressure (psi)	440	690
Stall Diff Pressure (psi)	660	1080
Max Torque (ft-lb)	3500	5480
Stall Torque (ft-lb)	5240	8620

■ (NBR) ■ (NBR-HR) ■ Torque





4 3/4" 7/8 3.8 Stage

0.54 rev/gal

Rotor Specifications	
Overall Length	178.00"
Contour Length	172.25"
Major Diameter	2.945"
Eccentricity	0.163"
Head Diameter	2.750"
Thread Form	2.375 HEF Modified
Weight	283 lbs
Material	17-4 PH1

Stator Specifications	
Overall Length	187.00"
Tube OD	4.75"
Tube ID	3.75"
Rubber Cutback Top/End	8.00" / 8.00"
Rubber Options	NBR & NBR-HR
Number of Stages	3.8
Weight	397 lbs
Tube Material	4140 / 4142 Alloy Steel

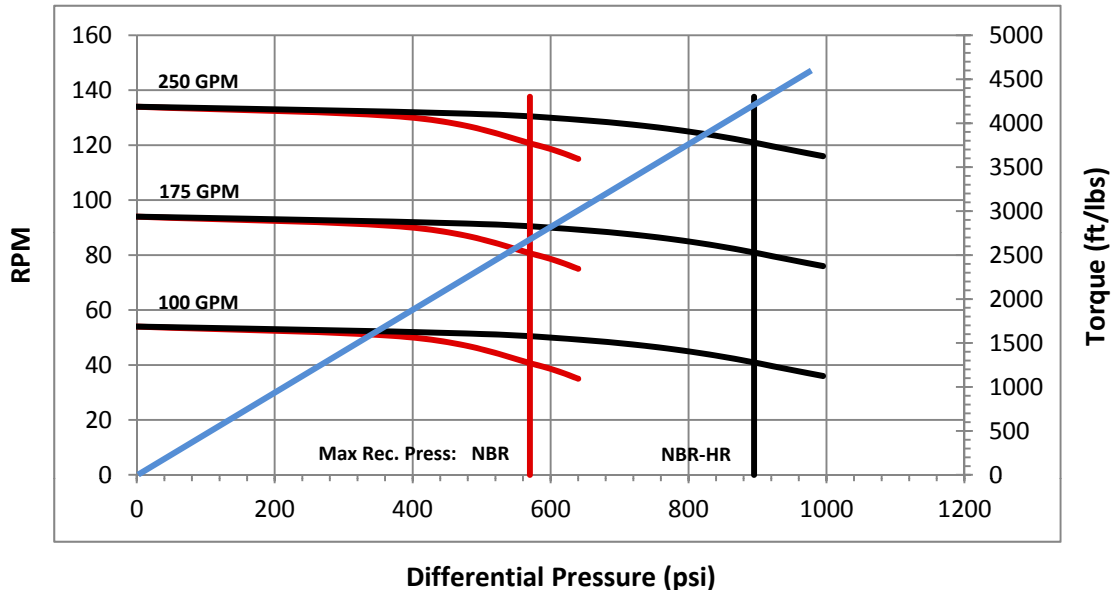
NBR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	2.603	0.016	0.033	0.049	0.074	0.091
.5 OS	2.613	0.006	0.022	0.039	0.064	0.080
1.0 OS	2.623	-0.004	0.012	0.029	0.053	0.070
1.5 OS	2.634	-0.015	0.001	0.017	0.042	0.058
2.0 OS	2.654	-0.035	-0.019	-0.003	0.021	0.037

NBR-HR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	2.600	0.019	0.036	0.052	0.077	0.094
.5 OS	2.610	0.009	0.026	0.042	0.067	0.083
1.0 OS	2.620	-0.001	0.015	0.032	0.056	0.073
1.5 OS	2.631	-0.012	0.004	0.020	0.045	0.061
2.0 OS	2.651	-0.032	-0.016	0.000	0.024	0.040

Performance Specifications	
Flow Range (GPM)	100 - 250
Speed Range (RPM)	50 - 140
Torque Slope (ft-lb/psi)	4.62
Rotation (rev/gal)	0.540
Off Bottom Pressure (psi)	50

Performance Details		
	NBR	NBR-HR
Max Diff Pressure (psi)	570	900
Stall Diff Pressure (psi)	860	1410
Max Torque (ft-lb)	2640	4130
Stall Torque (ft-lb)	3960	6500

■ (NBR) ■ (NBR-HR) ■ Torque





6 3/4" 4/5 7.0 Stage

0.49 rev/gal

Rotor Specifications	
Overall Length	202.50"
Contour Length	195.50"
Major Diameter	4.22"
Eccentricity	0.355"
Head Diameter	4.000"
Thread Form	2.875 API REG
Weight	576 lbs
Material	17-4 PH1

Stator Specifications	
Overall Length	210.00"
Tube OD	6.75"
Tube ID	5.50"
Rubber Cutback Top/End	7.50" / 7.50"
Rubber Options	NBR & NBR-HR
Number of Stages	7.0
Weight	826 lbs
Tube Material	4140 / 4142 Alloy Steel

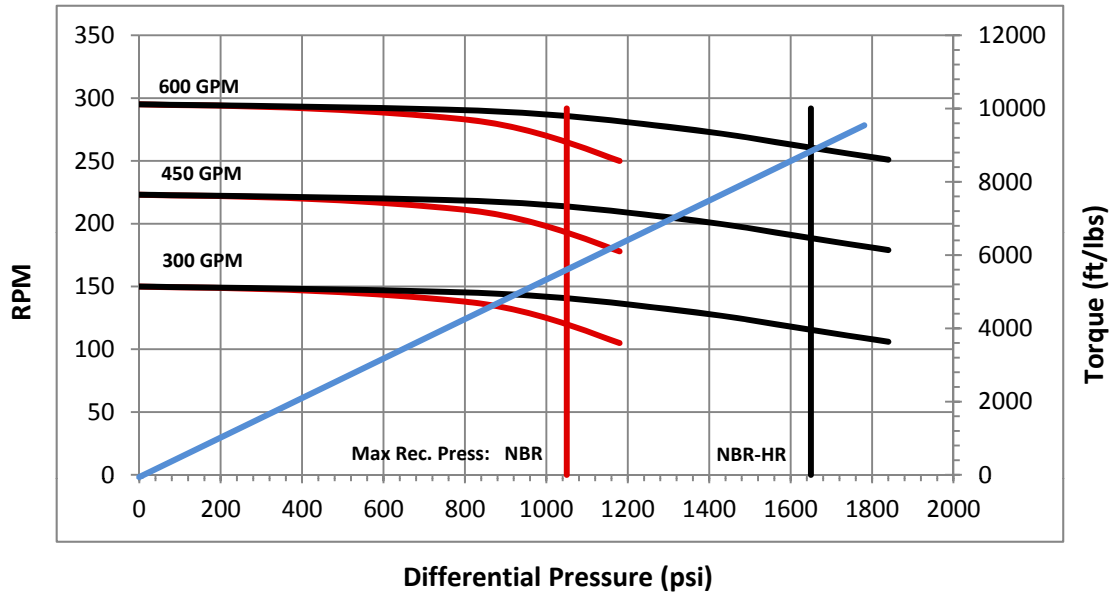
NBR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	3.499	0.011	0.035	0.058	0.093	0.117
.5 OS	3.510	0.000	0.023	0.047	0.082	0.105
1.0 OS	3.529	-0.019	0.004	0.027	0.062	0.085
1.5 OS	3.544	-0.034	-0.011	0.012	0.046	0.069
2.0 OS	3.559	-0.049	-0.026	-0.003	0.031	0.054

NBR-HR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	3.495	0.015	0.038	0.061	0.096	0.119
.5 OS	3.506	0.004	0.027	0.050	0.084	0.107
1.0 OS	3.525	-0.015	0.008	0.030	0.064	0.087
1.5 OS	3.540	-0.030	-0.007	0.015	0.049	0.071
2.0 OS	3.555	-0.045	-0.023	0.000	0.033	0.056

Performance Specifications	
Flow Range (GPM)	300 - 600
Speed Range (RPM)	150 - 300
Torque Slope (ft-lb/psi)	5.36
Rotation (rev/gal)	0.494
Off Bottom Pressure (psi)	150

Performance Details		
	NBR	NBR-HR
Max Diff Pressure (psi)	1050	1650
Stall Diff Pressure (psi)	1580	2600
Max Torque (ft-lb)	5630	8820
Stall Torque (ft-lb)	8450	13890

■

 (NBR) ■ (NBR-HR) ■ Torque




6 3/4" 7/8 2.9 Stage HTS

0.16 rev/gal

Rotor Specifications	
Overall Length	213.50"
Contour Length	206.50"
Major Diameter	4.296"
Eccentricity	0.244"
Head Diameter	4.000"
Thread Form	2.875 API REG
Weight	700 lbs
Material	17-4 PH1

Stator Specifications	
Overall Length	220.00"
Tube OD	6.75"
Tube ID	5.50"
Rubber Cutback Top/End	8.00" / 8.00"
Rubber Options	NBR & NBR-HR
Number of Stages	2.9
Weight	841 lbs
Tube Material	4140 / 4142 Alloy Steel

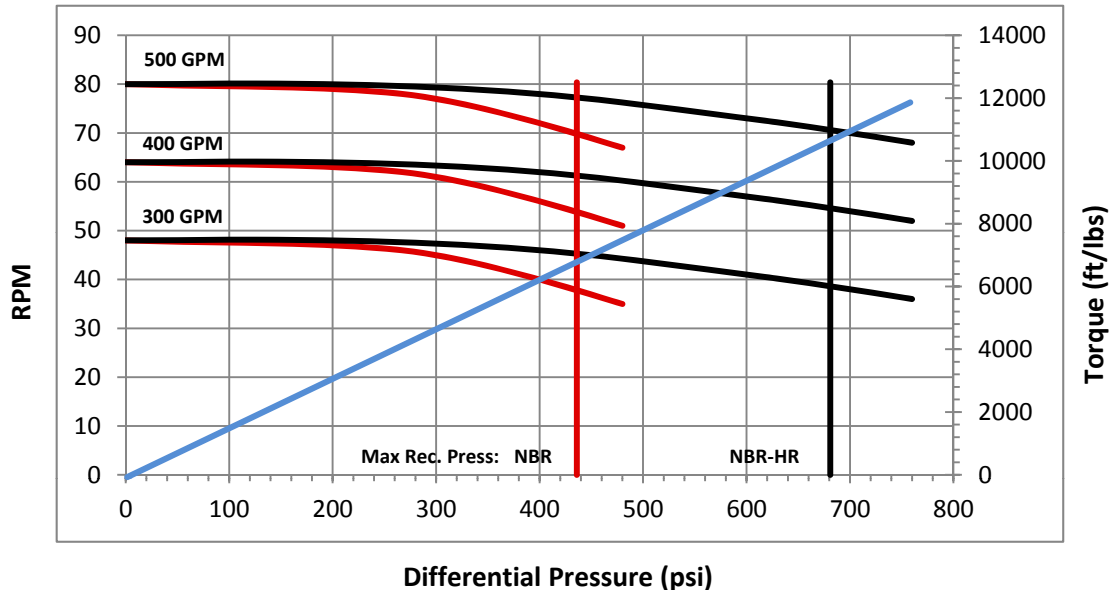
NBR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	3.805	0.003	0.025	0.046	0.079	0.100
.5 OS	3.817	-0.009	0.012	0.034	0.066	0.088
1.0 OS	3.830	-0.022	-0.001	0.021	0.053	0.074
1.5 OS	3.840	-0.032	-0.011	0.010	0.042	0.063
2.0 OS						

NBR-HR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	3.803	0.005	0.026	0.047	0.079	0.100
.5 OS	3.815	-0.007	0.014	0.035	0.067	0.088
1.0 OS	3.828	-0.020	0.001	0.022	0.053	0.074
1.5 OS	3.838	-0.030	-0.009	0.012	0.043	0.063
2.0 OS						

Performance Specifications	
Flow Range (GPM)	300 - 500
Speed Range (RPM)	50 - 80
Torque Slope (ft-lb/psi)	15.55
Rotation (rev/gal)	0.160
Off Bottom Pressure (psi)	60

Performance Details		
	NBR	NBR-HR
Max Diff Pressure (psi)	440	690
Stall Diff Pressure (psi)	660	1080
Max Torque (ft-lb)	6770	10600
Stall Torque (ft-lb)	10150	16700

■ (NBR) ■ (NBR-HR) ■ Torque





6 3/4" 7/8 3.0 Stage

0.16 rev/gal

Rotor Specifications	
Overall Length	197.50"
Contour Length	191.00"
Major Diameter	4.57"
Eccentricity	0.255"
Head Diameter	4.000"
Thread Form	2.875 API REG
Weight	685 lbs
Material	17-4 PH1

Stator Specifications	
Overall Length	204.00"
Tube OD	6.75"
Tube ID	5.50"
Rubber Cutback Top/End	7.50" / 7.50"
Rubber Options	NBR & NBR-HR
Number of Stages	3.0
Weight	759 lbs
Tube Material	4140 / 4142 Alloy Steel

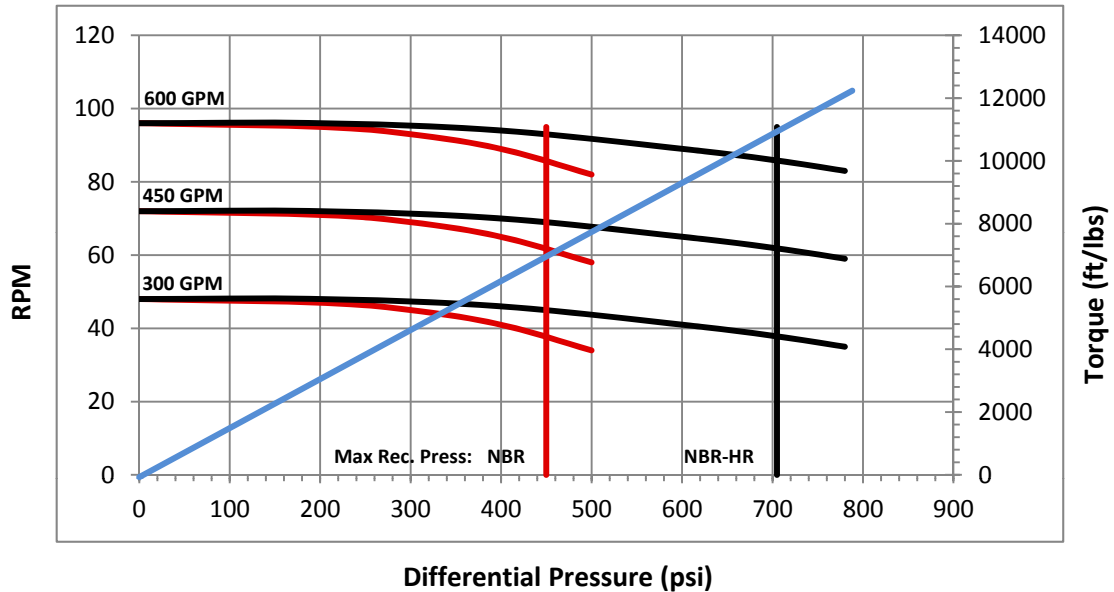
NBR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	4.058	0.002	0.023	0.043	0.074	0.094
.5 OS	4.070	-0.010	0.010	0.031	0.061	0.082
1.0 OS	4.078	-0.018	0.002	0.023	0.053	0.073
1.5 OS	4.09	-0.030	-0.010	0.010	0.040	0.060
2.0 OS						

NBR-HR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	4.054	0.006	0.026	0.046	0.077	0.097
.5 OS	4.066	-0.006	0.014	0.034	0.064	0.084
1.0 OS	4.074	-0.014	0.006	0.026	0.056	0.076
1.5 OS	4.086	-0.026	-0.006	0.014	0.043	0.063
2.0 OS						

Performance Specifications	
Flow Range (GPM)	300 - 600
Speed Range (RPM)	50 - 100
Torque Slope (ft-lb/psi)	15.75
Rotation (rev/gal)	0.160
Off Bottom Pressure (psi)	70

Performance Details		
	NBR	NBR-HR
Max Diff Pressure (psi)	450	710
Stall Diff Pressure (psi)	680	1120
Max Torque (ft-lb)	7090	11110
Stall Torque (ft-lb)	10640	17490

■ (NBR) ■ (NBR-HR) ■ Torque





6 3/4" 7/8 3.5 Stage

0.15 rev/gal

Rotor Specifications	
Overall Length	252.00"
Contour Length	245.00"
Major Diameter	4.644"
Eccentricity	0.246"
Head Diameter	4.500"
Thread Form	2.875 API REG
Weight	1002 lbs
Material	17-4 PH1

Stator Specifications	
Overall Length	260.00"
Tube OD	6.75"
Tube ID	5.50"
Rubber Cutback Top/End	8.00" / 8.00"
Rubber Options	NBR & NBR-HR
Number of Stages	5.7
Weight	856 lbs
Tube Material	4140 / 4142 Alloy Steel

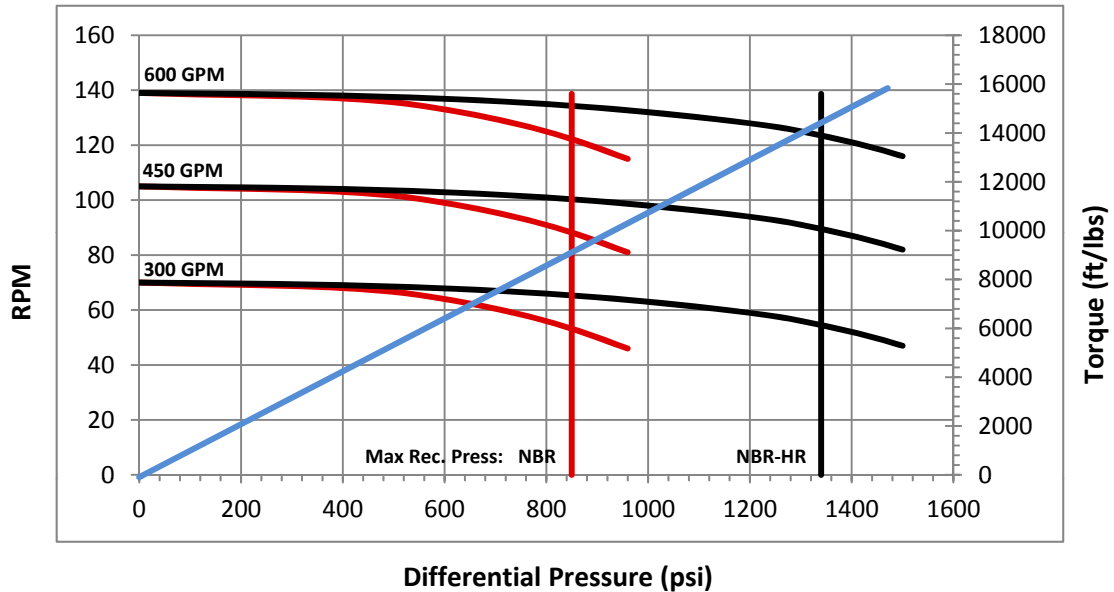
NBR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	4.419	0.003	0.020	0.038	0.064	0.082
.5 OS	4.159	-0.007	0.010	0.028	0.054	0.071
1.0 OS	4.176	-0.024	-0.007	0.010	0.036	0.053
1.5 OS	4.189	-0.037	-0.020	-0.003	0.023	0.040
2.0 OS						

NBR-HR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	4.147	0.005	0.022	0.040	0.066	0.084
.5 OS	4.157	-0.005	0.012	0.030	0.056	0.073
1.0 OS	4.174	-0.023	-0.005	0.012	0.038	0.056
1.5 OS	4.187	-0.035	-0.018	-0.001	0.025	0.042
2.0 OS						

Performance Specifications	
Flow Range (GPM)	300 - 600
Speed Range (RPM)	45 - 90
Torque Slope (ft-lb/psi)	17.14
Rotation (rev/gal)	0.150
Off Bottom Pressure (psi)	100

Performance Details		
	NBR	NBR-HR
Max Diff Pressure (psi)	860	830
Stall Diff Pressure (psi)	1290	1250
Max Torque (ft-lb)	9070	15000
Stall Torque (ft-lb)	13600	22610

■ (NBR) ■ (NBR-HR) ■ Torque





6 3/4" 7/8 5.0 Stage

0.27 rev/gal

Rotor Specifications	
Overall Length	188.00"
Contour Length	181.00"
Major Diameter	4.52"
Eccentricity	0.256"
Head Diameter	4.000"
Thread Form	2.875 API REG
Weight	694 lbs
Material	17-4 PH1

Stator Specifications	
Overall Length	194.50"
Tube OD	6.75"
Tube ID	5.50"
Rubber Cutback Top/End	8.00" / 8.00"
Rubber Options	NBR & NBR-HR
Number of Stages	5.0
Weight	746 lbs
Tube Material	4140 / 4142 Alloy Steel

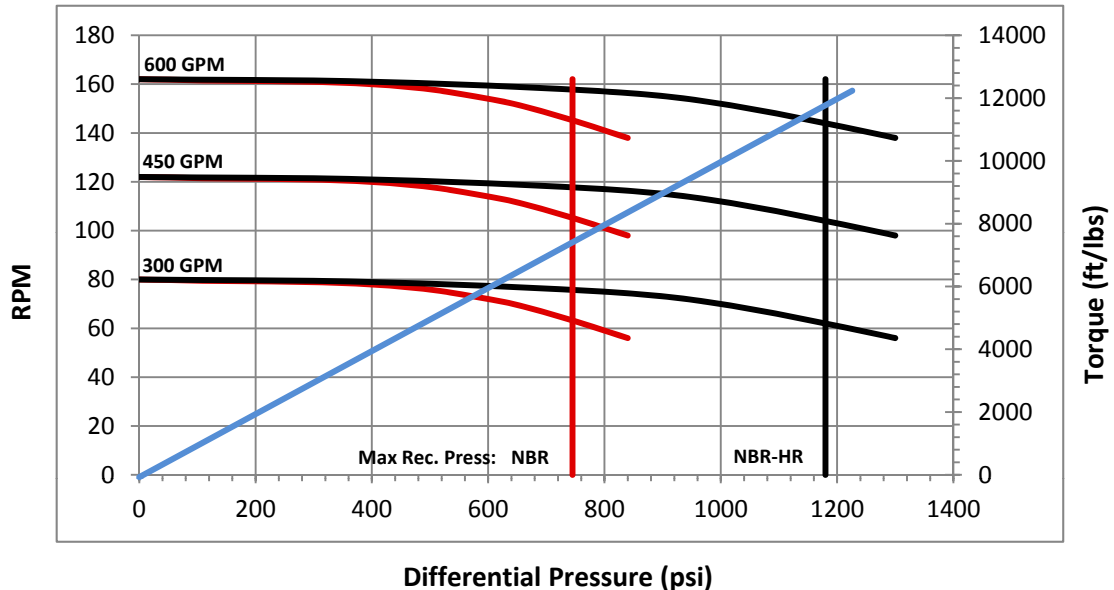
NBR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	3.991	0.017	0.033	0.049	0.074	0.090
.5 OS	4.003	0.005	0.021	0.037	0.061	0.077
1.0 OS	4.014	-0.006	0.010	0.026	0.050	0.066
1.5 OS	4.026	-0.018	-0.002	0.014	0.037	0.053
2.0 OS	4.039	-0.031	-0.015	0.000	0.024	0.040

NBR-HR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	3.986	0.022	0.038	0.054	0.078	0.094
.5 OS	3.998	0.010	0.026	0.042	0.065	0.081
1.0 OS	4.010	-0.002	0.014	0.029	0.053	0.068
1.5 OS	4.023	-0.015	0.001	0.016	0.039	0.055
2.0 OS	4.036	-0.028	-0.013	0.003	0.026	0.041

Performance Specifications	
Flow Range (GPM)	300 - 600
Speed Range (RPM)	80 - 160
Torque Slope (ft-lb/psi)	9.06
Rotation (rev/gal)	0.270
Off Bottom Pressure (psi)	100

Performance Details		
	NBR	NBR-HR
Max Diff Pressure (psi)	750	1180
Stall Diff Pressure (psi)	1130	1860
Max Torque (ft-lb)	6800	10650
Stall Torque (ft-lb)	10200	16770

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 (NBR) ■ (NBR-HR) ■ Torque




6 3/4" 7/8 5.7 Stage SX

0.23 rev/gal

Rotor Specifications	
Overall Length	252.00"
Contour Length	245.00"
Major Diameter	4.644"
Eccentricity	0.246"
Head Diameter	4.500"
Thread Form	2.875 API REG
Weight	1002 lbs
Material	17-4 PH1

Stator Specifications	
Overall Length	260.00"
Tube OD	6.75"
Tube ID	5.50"
Rubber Cutback Top/End	8.00" / 8.00"
Rubber Options	NBR & NBR-HR
Number of Stages	5.7
Weight	856 lbs
Tube Material	4140 / 4142 Alloy Steel

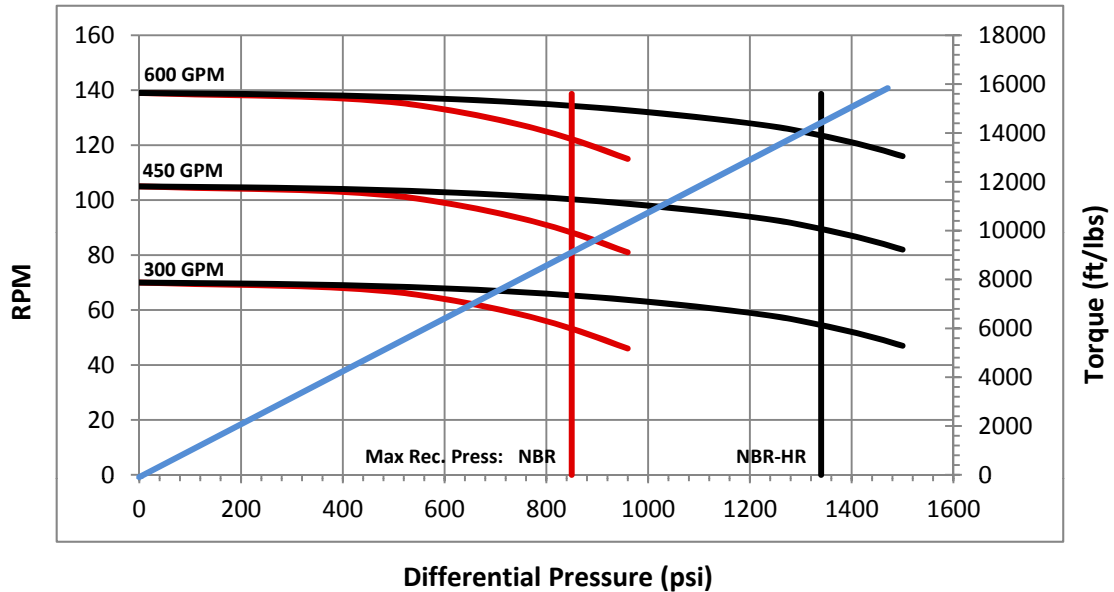
NBR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	4.419	0.003	0.020	0.038	0.064	0.082
.5 OS	4.159	-0.007	0.010	0.028	0.054	0.071
1.0 OS	4.176	-0.024	-0.007	0.010	0.036	0.053
1.5 OS	4.189	-0.037	-0.020	-0.003	0.023	0.040
2.0 OS						

NBR-HR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	4.147	0.005	0.022	0.040	0.066	0.084
.5 OS	4.157	-0.005	0.012	0.030	0.056	0.073
1.0 OS	4.174	-0.023	-0.005	0.012	0.038	0.056
1.5 OS	4.187	-0.035	-0.018	-0.001	0.025	0.042
2.0 OS						

Performance Specifications	
Flow Range (GPM)	300 - 600
Speed Range (RPM)	70 - 140
Torque Slope (ft-lb/psi)	10.60
Rotation (rev/gal)	0.230
Off Bottom Pressure (psi)	100

Performance Details		
	NBR	NBR-HR
Max Diff Pressure (psi)	860	1340
Stall Diff Pressure (psi)	1290	2110
Max Torque (ft-lb)	9070	14200
Stall Torque (ft-lb)	13600	22370

■ (NBR) ■ (NBR-HR) ■ Torque





6 3/4" 7/8 6.0 Stage

0.27 rev/gal

Rotor Specifications	
Overall Length	223.00"
Contour Length	216.00"
Major Diameter	4.52"
Eccentricity	0.256"
Head Diameter	4.500"
Thread Form	2.875 API REG
Weight	831 lbs
Material	17-4 PH1

Stator Specifications	
Overall Length	235.00"
Tube OD	6.75"
Tube ID	5.50"
Rubber Cutback Top/End	8.00" / 8.00"
Rubber Options	NBR & NBR-HR
Number of Stages	6.0
Weight	903 lbs
Tube Material	4140 / 4142 Alloy Steel

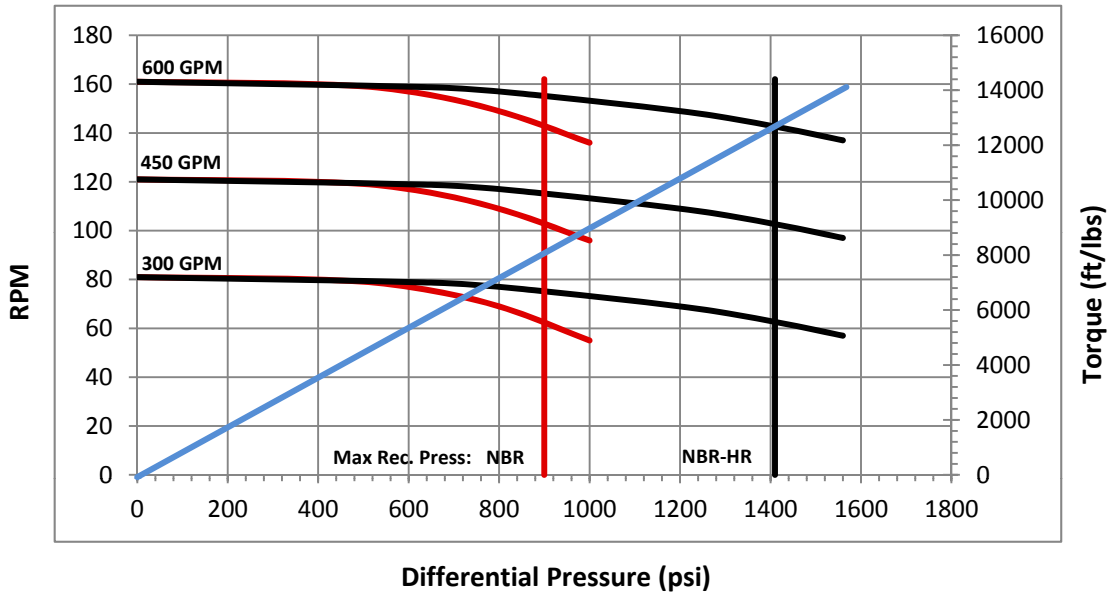
NBR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	3.990	0.018	0.034	0.050	0.075	0.091
.5 OS	4.003	0.005	0.021	0.037	0.061	0.077
1.0 OS	4.014	-0.006	0.010	0.026	0.050	0.066
1.5 OS	4.026	-0.018	-0.002	0.014	0.037	0.053
2.0 OS	4.039	-0.031	-0.015	0.000	0.024	0.040

NBR-HR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	3.986	0.022	0.038	0.054	0.078	0.094
.5 OS	3.998	0.010	0.026	0.042	0.065	0.081
1.0 OS	4.010	-0.002	0.014	0.029	0.053	0.068
1.5 OS	4.023	-0.015	0.001	0.016	0.039	0.055
2.0 OS	4.036	-0.028	-0.013	0.003	0.026	0.041

Performance Specifications	
Flow Range (GPM)	300 - 600
Speed Range (RPM)	80 - 160
Torque Slope (ft-lb/psi)	9.06
Rotation (rev/gal)	0.270
Off Bottom Pressure (psi)	110

Performance Details		
	NBR	NBR-HR
Max Diff Pressure (psi)	900	1410
Stall Diff Pressure (psi)	1350	2230
Max Torque (ft-lb)	8160	12780
Stall Torque (ft-lb)	12240	20120

■

 (NBR) ■ (NBR-HR) ■ Torque




7" 7/8 3.5 Stage

0.15 rev/gal

Rotor Specifications	
Overall Length	252.00"
Contour Length	245.00"
Major Diameter	4.644"
Eccentricity	0.246"
Head Diameter	4.500"
Thread Form	2.875 API REG
Weight	1002 lbs
Material	17-4 PH1

Stator Specifications	
Overall Length	260.00"
Tube OD	6.75"
Tube ID	5.50"
Rubber Cutback Top/End	8.00" / 8.00"
Rubber Options	NBR & NBR-HR
Number of Stages	5.7
Weight	856 lbs
Tube Material	4140 / 4142 Alloy Steel

NBR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	4.419	0.003	0.020	0.038	0.064	0.082
.5 OS	4.159	-0.007	0.010	0.028	0.054	0.071
1.0 OS	4.176	-0.024	-0.007	0.010	0.036	0.053
1.5 OS	4.189	-0.037	-0.020	-0.003	0.023	0.040
2.0 OS						

NBR-HR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	4.147	0.005	0.022	0.040	0.066	0.084
.5 OS	4.157	-0.005	0.012	0.030	0.056	0.073
1.0 OS	4.174	-0.023	-0.005	0.012	0.038	0.056
1.5 OS	4.187	-0.035	-0.018	-0.001	0.025	0.042
2.0 OS						

Performance Specifications	
Flow Range (GPM)	300 - 700
Speed Range (RPM)	45 - 105
Torque Slope (ft-lb/psi)	10.60
Rotation (rev/gal)	0.150
Off Bottom Pressure (psi)	100

Performance Details		
	NBR	NBR-HR
Max Diff Pressure (psi)	860	1070
Stall Diff Pressure (psi)	1290	2020
Max Torque (ft-lb)	9070	18610
Stall Torque (ft-lb)	13600	35150



7" 7/8 5.7 Stage SX

0.23 rev/gal

Rotor Specifications	
Overall Length	252.00"
Contour Length	245.00"
Major Diameter	4.644"
Eccentricity	0.246"
Head Diameter	4.500"
Thread Form	2.875 API REG
Weight	1002 lbs
Material	17-4 PH1

Stator Specifications	
Overall Length	260.00"
Tube OD	6.75"
Tube ID	5.50"
Rubber Cutback Top/End	8.00" / 8.00"
Rubber Options	NBR & NBR-HR
Number of Stages	5.7
Weight	856 lbs
Tube Material	4140 / 4142 Alloy Steel

NBR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	4.419	0.003	0.020	0.038	0.064	0.082
.5 OS	4.159	-0.007	0.010	0.028	0.054	0.071
1.0 OS	4.176	-0.024	-0.007	0.010	0.036	0.053
1.5 OS	4.189	-0.037	-0.020	-0.003	0.023	0.040
2.0 OS						

NBR-HR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	4.147	0.005	0.022	0.040	0.066	0.084
.5 OS	4.157	-0.005	0.012	0.030	0.056	0.073
1.0 OS	4.174	-0.023	-0.005	0.012	0.038	0.056
1.5 OS	4.187	-0.035	-0.018	-0.001	0.025	0.042
2.0 OS						

Performance Specifications	
Flow Range (GPM)	300 - 700
Speed Range (RPM)	70 - 160
Torque Slope (ft-lb/psi)	10.60
Rotation (rev/gal)	0.230
Off Bottom Pressure (psi)	100

Performance Details		
	NBR	NBR-HR
Max Diff Pressure (psi)	860	1580
Stall Diff Pressure (psi)	1290	2880
Max Torque (ft-lb)	9070	17810
Stall Torque (ft-lb)	13600	32590



8" 6/7 4.0 Stage

0.17 rev/gal

Rotor Specifications	
Overall Length	199.00"
Contour Length	192.00"
Major Diameter	4.958"
Eccentricity	0.336"
Head Diameter	4.750"
Thread Form	3.50 API IF
Weight	809 lbs
Material	17-4 PH1

Stator Specifications	
Overall Length	206.00"
Tube OD	8.00"
Tube ID	6.25"
Rubber Cutback Top/End	8.00" / 8.00"
Rubber Options	NBR & NBR-HR
Number of Stages	4.0
Weight	1247 lbs
Tube Material	4140 / 4142 Alloy Steel

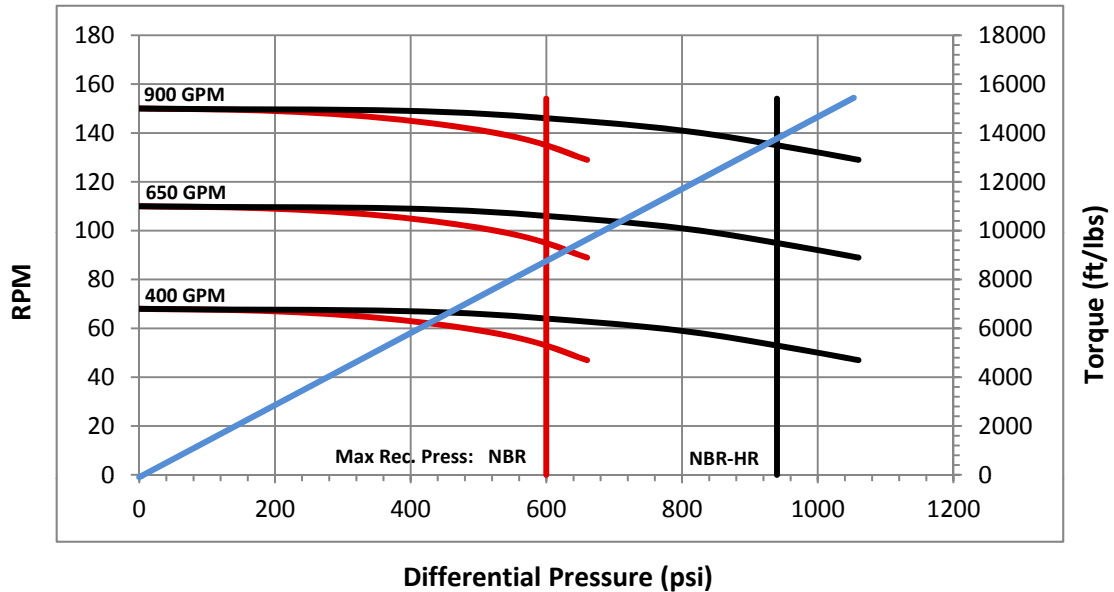
NBR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	4.275	0.010	0.028	0.045	0.071	0.088
.5 OS						
1.0 OS						
1.5 OS						
2.0 OS						

NBR-HR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	4.279	0.006	0.024	0.041	0.067	0.084
.5 OS						
1.0 OS						
1.5 OS						
2.0 OS						

Performance Specifications	
Flow Range (GPM)	400 - 900
Speed Range (RPM)	70 - 150
Torque Slope (ft-lb/psi)	14.7
Rotation (rev/gal)	0.170
Off Bottom Pressure (psi)	110

Performance Details		
	NBR	NBR-HR
Max Diff Pressure (psi)	600	940
Stall Diff Pressure (psi)	900	1490
Max Torque (ft-lb)	8820	13820
Stall Torque (ft-lb)	13230	21770

■ (NBR) ■ (NBR-HR) ■ Torque





8" 7/8 4.0 Stage

0.15 rev/gal

Rotor Specifications	
Overall Length	196.25"
Contour Length	188.25"
Major Diameter	5.186"
Eccentricity	0.293"
Head Diameter	4.750"
Thread Form	3.50 API REG
Weight	956 lbs
Material	17-4 PH1

Stator Specifications	
Overall Length	203.25"
Tube OD	8.00"
Tube ID	6.25"
Rubber Cutback Top/End	8.00" / 8.00"
Rubber Options	NBR & NBR-HR
Number of Stages	4.0
Weight	1212 lbs
Tube Material	4140 / 4142 Alloy Steel

NBR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	4.586	0.014	0.037	0.060	0.094	0.117
.5 OS	4.604	-0.004	0.019	0.041	0.075	0.098
1.0 OS	4.615	-0.015	0.007	0.030	0.064	0.086
1.5 OS	4.632	-0.032	-0.010	0.012	0.046	0.068
2.0 OS						

NBR-HR (in) Fits (+ Compression / - Loose)						
Size	Minor	75 °F	125 °F	175 °F	250 °F	300 °F
STD	4.581	0.019	0.042	0.064	0.098	0.120
.5 OS	4.599	0.001	0.023	0.046	0.079	0.101
1.0 OS	4.610	-0.010	0.012	0.034	0.067	0.090
1.5 OS	4.627	-0.027	-0.005	0.017	0.050	0.072
2.0 OS						

Performance Specifications	
Flow Range (GPM)	400 - 900
Speed Range (RPM)	60 - 140
Torque Slope (ft-lb/psi)	15.77
Rotation (rev/gal)	0.155
Off Bottom Pressure (psi)	100

Performance Details		
	NBR	NBR-HR
Max Diff Pressure (psi)	600	940
Stall Diff Pressure (psi)	900	1490
Max Torque (ft-lb)	9470	14830
Stall Torque (ft-lb)	14200	23350

■ (NBR) ■ (NBR-HR) ■ Torque

