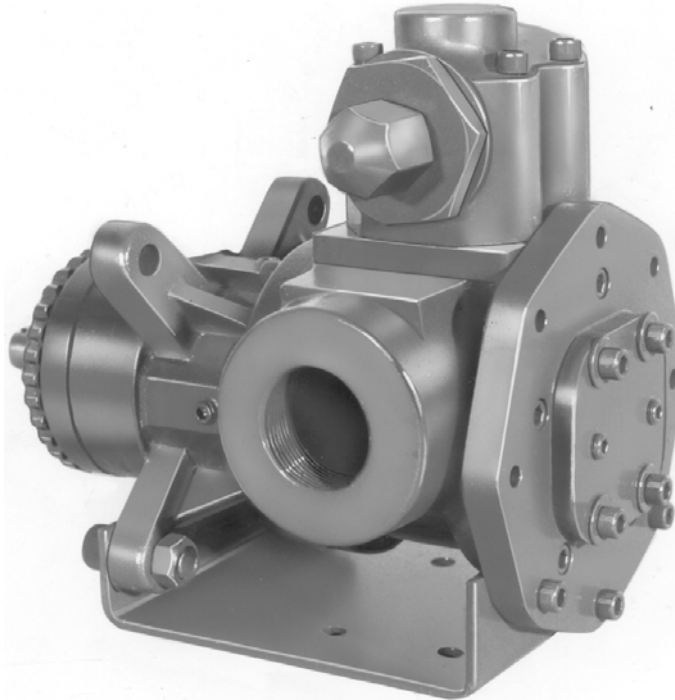


GHC SERIES HEAVY DUTY COMPACT STAINLESS STEEL ROTARY GEAR PUMP

This heavy duty series with internal “wetted” parts of 316 Stainless Steel is ideal for handling corrosive applications. Superior rotor shaft support and an integral maintenance-free radial/thrust bearing, reduce deflection and wear. Due to the “galling” nature of stainless, extra internal clearance is necessary. A capacity correction table for liquids less than 750 SSU is available in Section 500.



SHOWN ^W/OPTIONAL THREADED PORTS

The GHC stainless series is designed for applications in the operating ranges noted on the model pages. These units are available with head jackets for temperature control, silicon carbide bushings for wear resistance, and numerous shaft seal options described on the following pages. These units may be foot mounted or, by using a motor adaptor, direct connected to NEMA “C” flange motors.

FEATURES

- 200 PSI CAPABILITY
- BALL BEARING THRUST CONTROL
- ROTOR END CLEARANCE EXTERNALLY ADJUSTABLE
- EXCEPTIONAL SEAL VERSATILITY WITH INTERNAL SEAL VENT
- COMPUTER PROFILED GEARING FOR QUIET OPERATION
- MULTIPLE PORT POSITIONS

OPERATING RANGE

CAPACITY	(GPM):	(3 TO 107)
	[LPM] :	[11 TO 405]
PRESSURE	(PSI) :	[0 TO 200]
	[BAR] :	[0 TO 14]
VISCOSITY	(SSU) :	(28 TO 25,000)
	[cSt] :	[1 TO 5417]
TEMPERATURE (F) :		(-30° TO 350°)
	[C] :	[-34° TO 177°]

APPLICATIONS

USE WITH ANY CLEAN LIQUID COMPATIBLE WITH 316 STAINLESS STEEL

- ★ BOOSTER SERVICE
- ★ CIRCULATING
- ★ FILTERING
- ★ LUBRICATING
- ★ TRANSFERRING

EXTERIOR	BACKH.D	ROTOR & IDLER	HOUSING PORTS	BUSHING	IDLER PIN	SHAFT	SHAFT SEALING		ROTA-TION	INTERNAL RELIEF VALVE	
							MECH. SEAL	PACKING		MATERIAL	SETTING
316 STAIN. STEEL	CAST IRON	316 STAIN. STEEL	GHC 180° FLG. GHS 90° NPT	CARBON GRAPHITE	COATED 316 SST	STAIN. STEEL	CARBON, SIC, TEFLON ENC.	CARBON FIBER	C.W.	316 STAINLESS STEEL	75 PSI [5 BAR]

G H C 1 DC 9 - B
G H S 1 DC 9 - B
 | | | | | | | | | | | |
 GEAR DUTY DESIGN PORT SIZE HYD. SIZE SEAL STYLE

Standard Models

MODEL NUMBER		NOM. CAPACITY - SPEED				MAXIMUM				SHIPPING DATA	
		MAXIMUM		ALTERNATIVE		DIFF. PRESSURE - PSI [BAR]			TEMP.	Wt.	Vol.
		GPM [LPM]	RPM 60 Hz [50 HZ]	GPM [LPM]	RPM 60 Hz [50 HZ]	BELOW 38 SSU [4 cSt]	38 TO 100 SSU [21 cSt]	100 TO 250,000 SSU [55,000 cSt]	°F [°C]		
GHC 1 DC9-B ① ● ▸	GHS 1 DC9-B ① ● ● GHS 1 DC10-B ① ■ ■	9 [28]		6 [19]						32 [14,5]	2.9
GHC 1 DE9-B ① ● ▸	GHS 1 DE9-B ① ● ● GHS 1 DE10-B ① ■ ■	11 [35]		7 [22]						32 [14,5]	2.9
GHC 1-1/2 GC9-B ● ▸	GHS 1-1/2 GC9-B ● ● GHS 1-1/2 GC10-B ■ ■	16 [50]		10 [32]						63 [28,6]	2.9
	GHS 2 GC9-B ● ● GHS 2 GC10-B ■ ■									63 [28,6]	2.9
GHC 1-1/2 GF9-B ● ▸	GHS 1-1/2 GF9-B ● ● GHS 1-1/2 GF10-B ■ ■	23 [73]	1750 [1460]	15 [47]	1150 [960]					GHC ● 350 [177]	63 [28,6] 2.9
	GHS 2 GF9-B ● ● GHS 2 GF10-B ■ ■									GHS ● 400 [204]	63 [28,6] 2.9
GHC 1-1/2 GH9-B ● ▸	GHS 1-1/2 GH9-B ● ● GHS 1-1/2 GH10-B ■ ■	31 [98]		20 [63]		75 [5]	100 [7]	200 [14]		GHS ● 400 [204]	63 [28,6] 2.9
	GHS 2 GH9-B ● ● GHS 2 GH10-B ■ ■									GHS ■ 500 [260]	63 [28,6] 2.9
GHC 1-1/2 GJ9-B ● ▸	GHS 1-1/2 GJ9-B ● ● GHS 1-1/2 GJ10-B ■ ■	38 [120]		25 [79]						500 [260]	63 [28,6] 2.9
	GHS 2 GJ9-B ● ● GHS 2 GJ10-B ■ ■										63 [28,6] 2.9
	GHS 2 JG9-B ● ● GHS 2 JG10-B ■ ■	40 [126]	1150 [960]	30 [95]	870 [725]						161 [73,2] 5.3
GHC 3 JG9-B ● ▸	GHS 3 JG9-B ● ● GHS 3 JG10-B ■ ■										161 [73,2] 5.3
	GHS 2 JJ9-B ● ● GHS 2 JJ10-B ■ ■	56 [177]		42 [133]							161 [73,2] 5.3
GHC 3 JJ9-B ● ▸	GHS 3 JJ9-B ● ● GHS 3 JJ10-B ■ ■										161 [73,2] 5.3

STANDARD MODELS CONTINUED

① 3450 [2875] RPM PERMISSIBLE TO 1,000 SSU [220 cSt.] AND 100 PSI [7 BAR]

● MECHANICAL SEAL
■ PACKING/LIP SEAL

▸ PORTS ARE COMPATIBLE WITH 150# ANSI FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE. OPTIONAL [DIN] FLANGES OR TAPPED [BSP] PORTS ARE AVAILABLE FOR EXPORT MARKET.

NOTE: RECOMMENDED PORT SIZES ARE SHOWN IN **BOLDFACE**. EXAMPLE: **GHC 1 DC9-B**, **GHS 1 DC9-B**

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GORMAN-RUPP OF CANADA LIMITED • ST. THOMAS, ONTARIO, CANADA

Standard Models (Continued)

MODEL NUMBER		NOM. CAPACITY - SPEED				MAXIMUM				SHIPPING DATA	
		MAXIMUM		ALTERNATIVE		DIFF. PRESSURE - PSI [BAR]			TEMP.	Wt.	Vol.
		GPM [LPM]	RPM 60 Hz [50 HZ]	GPM [LPM]	RPM 60 Hz [50 HZ]	BELOW 38 SSU [4 cSt]	38 TO 100 SSU [21 cSt]	100 TO 250,000 SSU [55,000 cSt]	°F [°C]	LBS [KG]	CU. FT.
GHC	GHS 2 JL9-B ●	77 [243]	1150 [960]	58 [133]	870 [725]	75 [5]	100 [7]	200 [14]	GHC ●	161 [73,2]	5.3
	GHS 2 JL10-B ■									161 [73,2]	
GHC 3 JL9-B ● †	GHS 3 JL9-B ●	107 [338]	960 [960]	81 [256]	580 [480]	75 [5]	100 [7]	200 [14]	GHC ●	161 [73,2]	5.3
	GHS 3 JL10-B ■									161 [73,2]	
GHC 3 JP9-B ● †	GHS 2 JP9-B ●	99 [375]	960 [960]	80 [252]	580 [480]	75 [5]	100 [7]	200 [14]	GHC ●	161 [73,2]	5.3
	GHS 2 JP10-B ■									161 [73,2]	
GHC 3 JP9-B ● †	GHS 3 JP9-B ●	132 [500]	960 [960]	80 [252]	580 [480]	75 [5]	100 [7]	200 [14]	GHC ●	161 [73,2]	5.3
	GHS 3 JP10-B ■									161 [73,2]	
GHC 3 NK9-B ● †	GHS 2 NK9-B ●	165 [624]	960 [960]	99 [312]	580 [480]	75 [5]	100 [7]	200 [14]	GHC ●	180 [81,8]	5.3
	GHS 2 NK10-B ■									180 [81,8]	
GHC 3 NK9-B ● †	GHS 2-1/2 NK9-B ●	172 [542]	960 [960]	115 [362]	580 [480]	75 [5]	100 [7]	200 [14]	GHC ●	180 [81,8]	5.3
	GHS 2-1/2 NK10-B ■									180 [81,8]	
GHC 3 NK9-B ● †	GHS 3 NK9-B ●	215 [678]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	180 [81,8]	5.3
	GHS 3 NK10-B ■									180 [81,8]	
GHC 3 NM9-B ● †	GHS 2 NM9-B ●	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	180 [81,8]	5.3
	GHS 2 NM10-B ■									180 [81,8]	
GHC 3 NM9-B ● †	GHS 2-1/2 NM9-B ●	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	180 [81,8]	5.3
	GHS 2-1/2 NM10-B ■									180 [81,8]	
GHC 3 NP9-B ● †	GHS 3 NP9-B ●	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	180 [81,8]	5.3
	GHS 3 NP10-B ■									180 [81,8]	
GHC 3 NP9-B ● †	GHS 2-1/2 NP9-B ●	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	180 [81,8]	5.3
	GHS 2-1/2 NP10-B ■									180 [81,8]	
GHC 3 NP9-B ● †	GHS 2 RM9-B ●	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	357 [162]	10.7
	GHS 2 RM10-B ■									357 [162]	
GHC 3 RM9-B ● †	GHS 2-1/2 RM9-B ● †	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	357 [162]	10.7
	GHS 2-1/2 RM10-B ■ †									357 [162]	
GHC 3 RM9-B ● †	GHS 3 RM9-B ● †	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	357 [162]	10.7
	GHS 3 RM10-B ■ †									357 [162]	
GHC 3 RM9-B ● †	GHS 4 RM9-B ● †	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	357 [162]	10.7
	GHS 4 RM10-B ■ †									357 [162]	
GHC 3 RP9-B ● †	GHS 3 RP9-B ● †	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	357 [162]	10.7
	GHS 3 RP10-B ■ †									357 [162]	
GHC 3 RP9-B ● †	GHS 4 RP9-B ● †	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	357 [162]	10.7
	GHS 4 RP10-B ■ †									357 [162]	

STANDARD MODELS CONTINUED

- MECHANICAL SEAL
- PACKING/LIP SEAL

† PORTS ARE COMPATIBLE WITH 150# ANSI FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE. OPTIONAL [DIN] FLANGES OR TAPPED [BSP] PORTS ARE AVAILABLE FOR EXPORT MARKET.

NOTE: RECOMMENDED PORT SIZES ARE SHOWN IN **BOLDFACE**. EXAMPLE: **GHC 1 DC9-B, GHS 1 DC9-B**

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MODEL NUMBER		NOM. CAPACITY - SPEED				MAXIMUM				SHIPPING DATA	
		MAXIMUM		ALTERNATIVE		DIFF. PRESSURE - PSI [BAR]			TEMP.	Wt.	Vol.
		GPM [LPM]	RPM 60 Hz [50 HZ]	GPM [LPM]	RPM 60 Hz [50 HZ]	BELOW 38 SSU [4 cSt]	38 TO 100 SSU [21 cSt]	100 TO 250,000 SSU [55,000 cSt]	°F [°C]	LBS [KG]	CU. FT.
GHC	GHS										
	GHS 3 RR9-B ● ▸ GHS 3 RR10-B ■ ▸	255 [804]	720 [600]	170 [536]	480 [400]	75 [5]	100 [7]	200 [14]	GHS ● 400 [204] ■ 500 [260]	357 [162]	10.7
	GHS 4 RR9-B ● ▸ GHS 4 RR10-B ■ ▸			196 [618]						357 [162]	
	GHS 4 RS9-B ● ▸ GHS 4 RS10-B ■ ▸			295 [930]						357 [162]	

▸ PORTS ARE COMPATIBLE WITH 150# ANSI STAINLESS STEEL FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE. OPTIONAL [DIN] FLANGES OR TAPPED [BSP] PORTS AVAILABLE FOR EXPORT MARKET.

NOTE: RECOMMENDED PORT SIZES ARE SHOWN IN BOLDFACE. EXAMPLE: **GHC 1 DC9-B**, **GHS 1 DC9-B**

APPLICATION RECOMMENDATIONS:		
APPLICATION	OPTIONS REQUIRED (Select One From Each Row)	OPERATING LIMITATIONS
GHS ONLY HIGH TEMPERATURE	25U, 25V, OR 25W 35J – 35M (AS REQ'D) 40R, 70K 61H OR 65Q	TEMPERATURE: 675 °F MAX. PRESSURE: 200 PSI MAX.
GHS ONLY JACKETED	40K, 40W, 41U, 41W	LIMIT JACKET PRESSURE TO 150 PSI

NOTE: PROPER PUMP APPLICATION REQUIRES CONSIDERATION OF ADDITIONAL FACTORS. PLEASE REVIEW APPLICATION GUIDE IN SECTION 500 OR CONSULT THE FACTORY.



CAD FILE NO.: 16458B

MODEL NUMBERS	PUMP DIMENSIONS - INCHES [MILLIMETERS]																	
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T
GHC D	1"	2.50 [64] †	4.00 [102]	3.50* [89]	1.62 [41]	3.12 [79]	.41 [10]	1.16 [30]	6.19 [157]	5.04 [128]	.76 [19]	2.62 [66]	2.74 [70]	.12 [3]	.50 [13]	.62 [16]	5.19 [132]	3.58 [91]
		4.00* [102] †		5.25 [133]										.75 [19]				
GHC G	1-1/2"	3.50 [89] †	5.88 [149]	3.50* [89]	1.62 [41]	4.00 [102]	.41 [10]	1.62 [41]	8.50 [216]	6.71 [170]	1.06 [27]	3.82 [97]	3.35 [85]	.19 [5]	.75 [19]	.62 [16]	6.00 [152]	3.62 [92]
		4.00* [102] †		4.50 [114]										5.25 [133]				
GHC J	3"	4.50 [114] †	6.88 [175]	4.50 [114]	2.88 [73]	4.25 [108]	.44 [11]	2.50 [64]	12.12 [308]	9.75 [248]	1.75 [44]	5.50 [140]	4.66 [118]	.25 [6]	1.00 [25]	1.12 [28]	9.06 [230]	6.75 [171]
		6.00* [152] †		5.25* [133]										6.25 [159]				

* STANDARD DIMENSION

† PORTS ARE COMPATIBLE WITH 125* OR 250* ANSI CAST IRON FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE. OPTIONAL (DIN) FLANGES OR TAPPED (BSP) PORTS AVAILABLE FOR EXPORT MARKET.

† 90° HOUSING



CAD FILE NO.: 16669G

MODEL NUMBERS	PUMP DIMENSIONS - INCHES [MILLIMETERS]														
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
GHS D	1"	2.50* [641]	4.00 [102]	3.50* [891]	1.62 [41]	5.50 [140]	.41 [10]	1.16 [30]	8.43 [214]	7.54 [192]	1.09 [28]	2.29 [58]	4.98 [127]	.12 [3] x .75 [19]	.50 [13]
		4.00 † [102]		5.25 [133]											
GHS G	1-1/2" 2"	3.50* [891]	4.88 [124]	3.50* [891]	1.62 [41]	8.00 [203]	.41 [10]	1.62 [41]	12.06 [306]	10.72 [272]	1.52 [39]	3.35 [85]	5.70 [145]	.19 [5] x 1.25 [32]	.75 [19]
		4.00 † [102]		5.25 [133]											
GHS J	2" 3"	4.50* [114]	6.88 [175]	5.25* [133]	2.88 [73]	10.00 [254]	.44 [11]	2.50 [64]	15.68 [398]	14.31 [363]	2.77 [70]	4.48 [114]	8.50 [216]	.25 [6] x 2.00 [51]	1.00 [25]
		6.00 † [152]		6.25 [159]											
GHS N	2" 3"	5.12 [130]	8.00 [203]	4.50 [114]	2.88 [73]	10.00 [254]	.44 [11]	2.58 [66]	16.37 [416]	15.14 [385]	2.69 [68]	4.56 [116]	8.72 [221]	.25 [6] x 2.00 [51]	1.12 [28]
				5.25* [133]											
GHS R	2"	6.50 [165]	10.50 [267]	7.00 [178]	3.75 [95]	13.75 [349]	.52 [13]	2.25 [57]	17.87 [454]	17.36 [441]	1.86 [47]	4.70 [119]	11.31 [287]	.38 [10] x 1.88 [48]	1.44 [37]
	2-1/2"														
	3"														
	4"	7.19 † [183]													

* STANDARD DIMENSION

† PORTS ARE COMPATIBLE WITH 150# OR 300# ANSISTAINLESS STEEL FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE. OPTIONAL (DIN) FLANGES OR TAPPED (BSP) PORTS AVAILABLE FOR EXPORT MARKET.

‡ 180° HOUSING

GHC/GHS

FOR GHC DRIVE OPTIONS

AND DIMENSIONS

SEE SECTION 540

FOR GHS DRIVE OPTIONS

AND DIMENSIONS

SEE SECTION 545

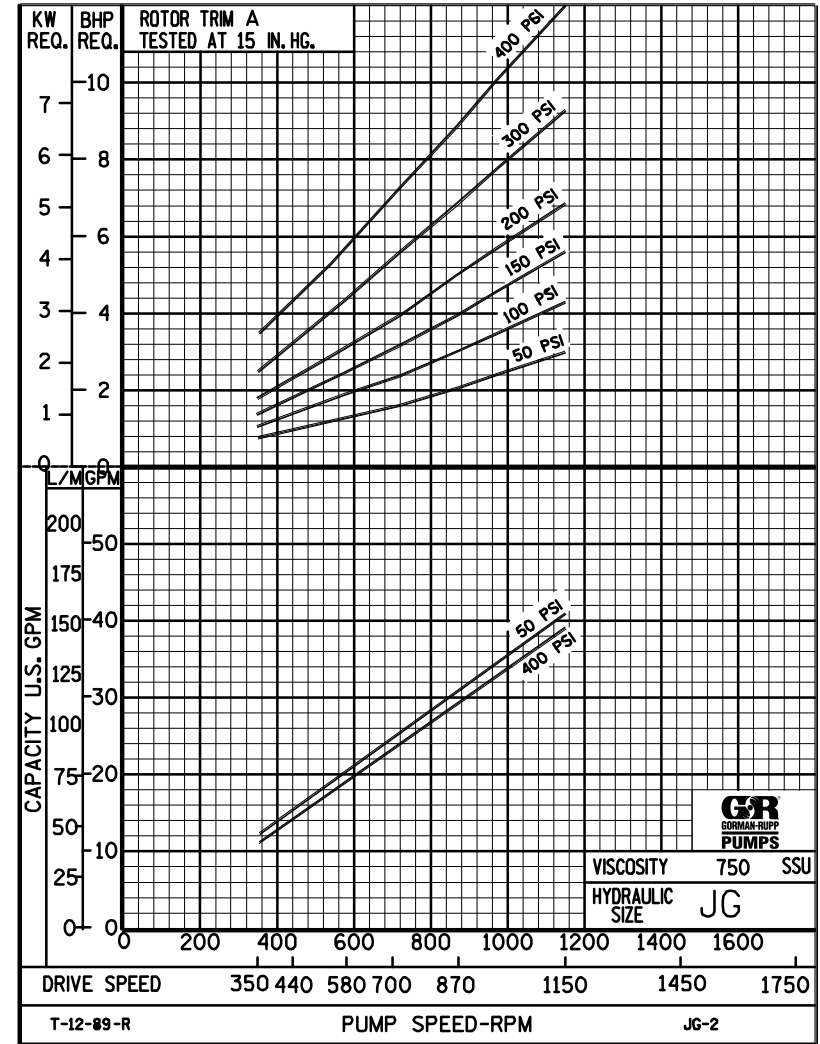
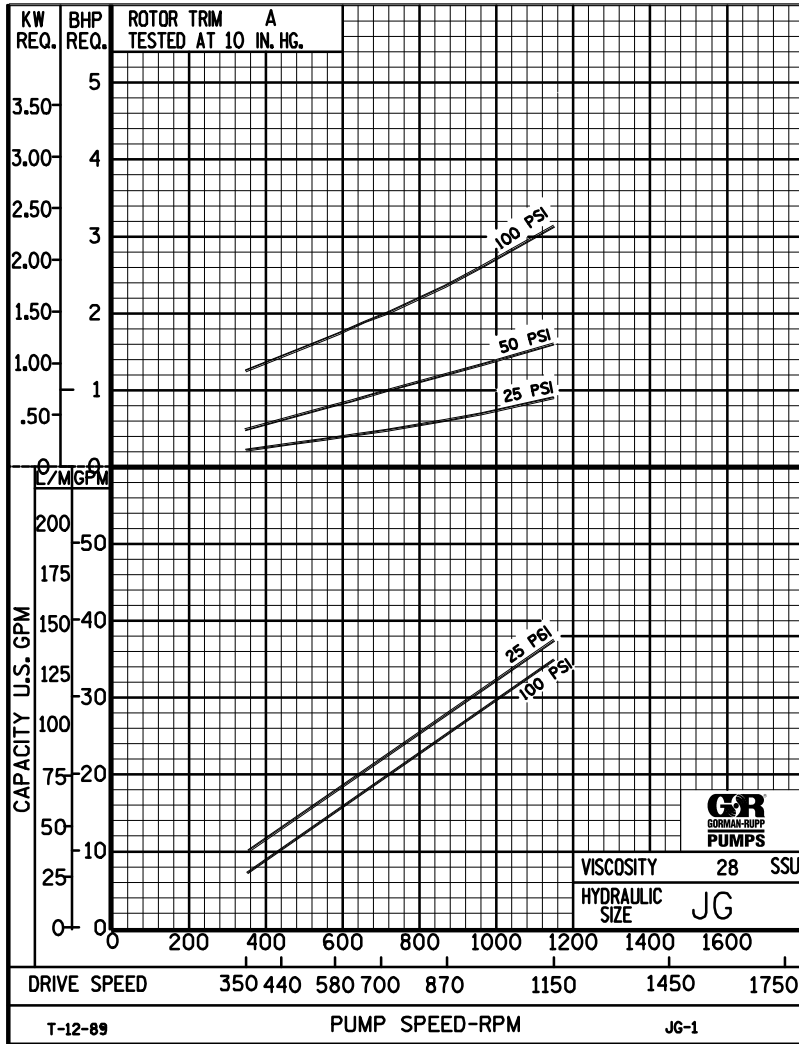


PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

JG

Hydraulic Size



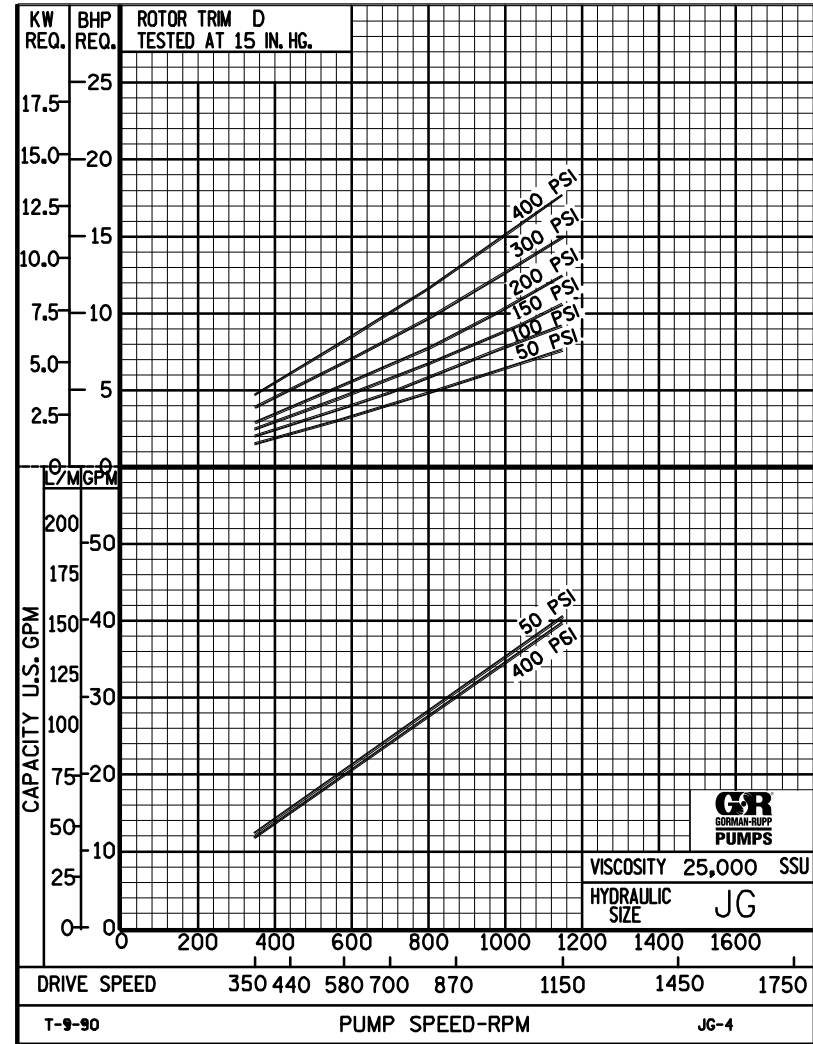
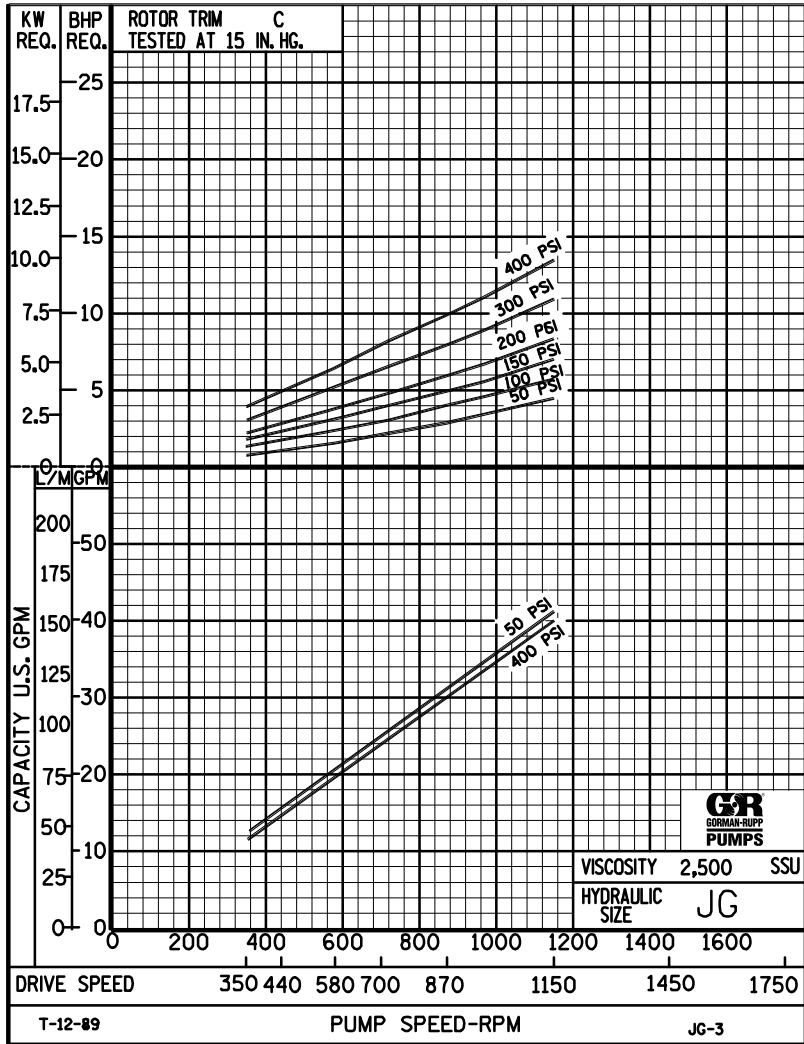
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PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

JG Hydraulic Size



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JG

PUMP HYDRAULIC SIZE CHART

SEC. 500

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**40 GPM
1150 RPM**

NOMINAL		ROTOR TRIM	VISCOSITY (SSU)	N.I.P.R. (PSIA)	FRICTION PIPE LOSS (PSI/FT) (Based on Sch 40 Steel Pipe)					FULL BYPASS RELIEF VALVE PRESSURE (PSI)					CAPACITY (GPM) / H.P. REQUIRED																																								
CAP. GPM	SPEED RPM				PIPE DIAMETER					CRACKING PRESS. (PSI)					DIFFERENTIAL PRESSURE (PSI)																																								
		1½"	2"	2½"	3"	4"	LOW PRES R/V			HI PRES R/V		25	50	75	100	150	200	300	400																																				
												50	75	100	150	200	HEAVY DUTY																																						
40	1150	STD	28	3.9	.01	.01	.01	.01	.01	59	84	116											37	36	35	35																													
			32		.04	.01	.01	.01	.01														.91	1.6	2.4	3.1																													
			38	3.9	.05	.02	.01	.01	.01	59	84	116	160																																										
			50		.06	.02	.01	.01	.01																																			1.1	1.8	2.4	3.2	4.8							
			70	3.9	.07	.02	.01	.01	.01	59	84	116	160	212																																									
			100		.08	.03	.01	.01	.01																																					1.4	2.0	2.6	3.3	4.8	6.2				
			150	3.9	.09	.03	.01	.01	.01	60	85	118	160	212																																									
			200		.10	.03	.01	.01	.01																																							1.8	2.3	2.8	3.5	5.4	6.7	8.7	12
			300	3.9	.10	.04	.02	.01	.01	60	87	118	160	212																																									
			500		.18	.06	.03	.01	.01																																									2.3	2.8	3.4	3.9	5.5	6.7
		750	3.9	.26	.10	.05	.02	.01	60	87	118	160	212																																										
		1,000		.35	.13	.06	.03	.01																																										2.6	3.0	3.6	4.3	5.6	6.9
		2,000	3.9	.70	.26	.13	.05	.02	62	89	120	162	214																																										
		3,500		1.23	.45	.22	.09	.03																																										3.9	4.5	5.1	5.7	7.0	8.4
		5,000	3.9	1.75	.65	.32	.13	.05	64	91	122	162	214																																										
		7,500		2.63	.97	.48	.20	.07																																												4.4	5.7	6.2	7.0
		10,000	3.9	3.50	1.29	.63	.27	.09	66	93	125	162	216																																										
		15,000		5.25	1.93	.95	.40	.14																																												5.8	7.0	7.4	8.3
		20,000	4.0	7.00	2.58	1.27	.53	.18	68	95	128	162	216																																										
		25,000		8.75	3.22	1.58	.67	.23																																														7.2	7.8
		50,000	5.3	17.5	6.44	3.17	1.33	.45	72	99	132	166	220																																										
		75,000		-	-	-	-	-																																															11
100,000																																																							
150,000																																																							
200,000																																																							
250,000																																																							

(NOTE) For speeds not shown on the pump hydraulic charts, consult factory.



JG

PUMP HYDRAULIC SIZE CHART

SEC. 500

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**30 GPM
870 RPM**

NOMINAL		ROTOR TRIM	VISCOSITY (SSU)	N.I.P.R. (PSIA)	FRICTION PIPE LOSS (PSI/FT) <small>(Based on Sch 40 Steel Pipe)</small>					FULL BYPASS RELIEF VALVE PRESSURE (PSI)					CAPACITY (GPM) / H.P. REQUIRED													
CAP. GPM	SPEED RPM				PIPE DIAMETER					CRACKING PRESS. (PSI)					DIFFERENTIAL PRESSURE (PSI)													
					1½"	2"	2½"	3"	4"	LOW PRES R/V			HI PRES R/V		MEDIUM DUTY AND HEAVY DUTY				HEAVY DUTY ONLY									
							50	75	100	150	200	25	50	75	100	150	200	300	400									
30	870	STD	28	2.5	.01	.01	.01	.01	.01	55	81	112			27	27	26	25										
			32		.02	.01	.01	.01	.01						.63	1.2	1.7	2.4										
			38	2.5	.03	.01	.01	.01	.01	55	81	112	158			28	28	27	27	26								
			50		.04	.01	.01	.01	.01							.69	1.3	2.0	2.6	3.6								
			70	2.5	.04	.01	.01	.01	.01	55	82	112	158	210			29	29	28	28	27	27						
			100		.05	.02	.01	.01	.01								.75	1.4	2.2	2.7	3.7	4.8						
			150	2.5	.05	.02	.01	.01	.01	55	82	112	158	210			30	30	29	29	28	28	28	26				
			200		.05	.02	.01	.01	.01								.84	1.5	2.4	2.8	3.8	4.9	6.8	8.8				
			300	2.5	.08	.03	.02	.01	.01	56	83	112	158	210			30	30	30	30	29	29	29	28				
			500		.13	.05	.03	.01	.01								1.2	1.8	2.5	3.0	3.9	5.0	6.9	8.8				
		750	2.5	.20	.07	.04	.02	.01	56	83	112	158	210			31	30	30	30	30	30	30	29					
		1,000		.26	.10	.05	.02	.01								1.7	2.1	2.5	3.0	4.0	5.0	6.9	8.9					
		2,000	2.6	.53	.19	.10	.04	.01	58	85	114	158	210			31	31	31	30	30	30	30	30					
		3,500		.92	.34	.17	.07	.02								2.5	2.9	3.4	4.0	4.9	6.0	8.0	9.8					
		5,000	2.7	1.31	.48	.24	.10	.04	60	87	116	159	211			31	31	30	30	30	30	30	30					
		7,500		1.97	.73	.36	.15	.05								3.2	4.0	4.7	5.1	6.0	7.0	9.1	11					
		10,000	2.8	2.63	.97	.48	.20	.07	62	89	119	160	212			31	31	30	30	30	30	30	30					
		15,000		3.93	1.45	.71	.30	.10								4.0	4.8	5.6	6.0	6.8	7.9	10	12					
		20,000	2.9	5.25	1.93	.95	.40	.14	65	92	122	160	212			31	30	30	30	30	30	30	29					
		25,000		6.56	2.42	1.19	.50	.17								5.0	5.4	5.9	6.3	7.4	8.5	11	13					
50,000	4.1	13.1	4.83	2.37	1.00	.34	68	95	125	163	215			31	30	30	30	30	30	30	29							
75,000		19.7	7.25	3.56	1.49	.50								7.6	8.2	8.5	9.2	11	11	13	16							
100,000	5.6	26.3	9.66	4.75	1.99	.67	72	99	129	167	219			31	30	30.5	30	30	30	30	29							
150,000		-	-	-	-	-								9.4	10	11	12	14	14	15	18							
200,000																												
250,000																												

(NOTE) For speeds not shown on the pump hydraulic charts, consult factory.



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PUMP HYDRAULIC SIZE CHART

SEC. 500

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**20 GPM
580 RPM**

NOMINAL		ROTOR TRIM	VISCOSITY (SSU)	N.I.P.R. (PSIA)	FRICTION PIPE LOSS (PSI/FT) <small>(Based on Sch 40 Steel Pipe)</small>					FULL BYPASS RELIEF VALVE PRESSURE (PSI)					CAPACITY (GPM) / H.P. REQUIRED											
CAP. GPM	SPEED RPM				PIPE DIAMETER					CRACKING PRESS. (PSI)					DIFFERENTIAL PRESSURE (PSI)											
					1½"	2"	2½"	3"	4"	LOW PRES R/V			HI PRES R/V		MEDIUM DUTY AND HEAVY DUTY				HEAVY DUTY ONLY							
20	580	STD	28	1.5	.01	.01	.01	.01	.01	54	80	110				18	17	16	16							
			32		.01	.01	.01	.01	.01							.41	.82	1.2	1.6							
			38	1.5	.02	.01	.01	.01	.01	54	80	110	157			18	18	17	17	16						
			50		.02	.01	.01	.01	.01							.44	.89	1.2	1.7	2.4						
			70	1.5	.02	.01	.01	.01	.01	54	80	110	157	208			19	18	18	18	17	17				
			100		.02	.01	.01	.01	.01								.50	.98	1.3	1.7	2.5	3.1				
			150	1.5	.03	.01	.01	.01	.01	55	81	110	157	208			19	19	19	19	18	18	18	17		
			200		.04	.01	.01	.01	.01								.58	1.1	1.4	1.8	2.5	3.2	4.4	5.9		
			300	1.5	.05	.02	.01	.01	.01	55	81	110	157	208			20	20	19	19	19	19	18	18		
			500		.09	.03	.02	.01	.01								.65	1.2	1.6	1.9	2.5	3.2	4.5	5.9		
		750	1.5	.13	.05	.03	.01	.01	55	81	110	157	208			20	20	20	20	20	20	19	19			
		1,000		.18	.07	.03	.01	.01								.83	1.4	1.7	2.1	2.7	3.3	4.6	6.0			
		2,000	1.7	.35	.13	.06	.02	.01	56	82	111	158	209			20	20	20	20	20	20	19	19			
		3,500		.61	.23	.11	.05	.02								1.5	1.9	2.3	2.7	3.4	4.1	5.4	6.8			
		5,000	1.8	.88	.32	.16	.07	.02	57	83	112	159	210			20	20	20	20	20	20	20	19			
		7,500		1.31	.48	.24	.10	.04								1.9	2.3	2.7	3.1	3.8	4.5	5.9	7.2			
		10,000	2.0	1.75	.65	.32	.13	.05	58	85	113	160	211			20	20	20	20	20	20	20	20			
		15,000		2.63	.97	.48	.20	.07								2.4	2.8	3.2	3.6	4.3	5.0	6.4	6.7			
		20,000	2.1	3.50	1.29	.63	.27	.09	60	87	114	160	211			20	20	20	20	20	20	20	20			
		25,000		4.38	1.61	.79	.33	.11								2.8	3.1	3.5	3.9	4.6	5.3	6.8	8.2			
50,000	3.3	8.75	3.22	1.58	.67	.23	62	89	116	162	213			20	20	20	20	20	20	20	20					
75,000		13.1	4.83	2.37	1.00	.34								4.2	4.7	5.1	5.6	6.7	7.2	8.5	10					
100,000	4.7	17.5	6.44	3.17	1.33	.45	65	92	119	165	216			20	20	20	20	20	20	20	20					
150,000		26.3	9.66	4.75	1.99	.67								5.3	5.9	6.4	7.0	8.3	8.6	9.9	12					
200,000	8.6	35.0	12.9	6.33	2.65	.90	68	95	122	168	219			20	20	20	20	20	20	20	20					
250,000		-	-	-	-	-								6.3	7.0	7.4	8.2	9.8	9.9	11	13					

(NOTE) For speeds not shown on the pump hydraulic charts, consult factory.



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PUMP HYDRAULIC SIZE CHART

SEC. 500

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**12 GPM
350 RPM**

NOMINAL		ROTOR TRIM	VISCOSITY (SSU)	N.I.P.R. (PSIA)	FRICTION PIPE LOSS (PSI/FT) <small>(Based on Sch 40 Steel Pipe)</small>					FULL BYPASS RELIEF VALVE PRESSURE (PSI)					CAPACITY (GPM) / H.P. REQUIRED														
CAP. GPM	SPEED RPM				PIPE DIAMETER					CRACKING PRESS. (PSI)					DIFFERENTIAL PRESSURE (PSI)														
					1½"	2"	2½"	3"	4"	LOW PRES R/V			HI PRES R/V		MEDIUM DUTY AND HEAVY DUTY				HEAVY DUTY ONLY										
12	350	STD	28	1.1	.01	.01	.01	.01	.01	53	79	105			11	10	10	9.5											
			32		.01	.01	.01	.01	.01						.26	.52	.73	.98											
			38	1.1	.01	.01	.01	.01	.01	53	79	105	154			11	10	10	10	9.5									
			50		.01	.01	.01	.01	.01							.29	.55	.78	.99	1.5									
			70	1.1	.01	.01	.01	.01	.01	53	79	105	154	204			11	11	11	11	10	10							
			100		.01	.01	.01	.01	.01								.32	.58	.80	1.0	1.5	1.9							
			150	1.1	.02	.01	.01	.01	.01	54	80	106	155	205			12	11	11	11	11	11	10	10					
			200		.02	.01	.01	.01	.01								.37	.62	.84	1.1	1.6	1.9	2.7	3.5					
			300	1.1	.03	.01	.01	.01	.01	54	80	106	155	205			12	12	12	11	11	11	11	11	11				
			500		.05	.02	.01	.01	.01								.43	.69	.93	1.1	1.6	2.0	2.8	3.6					
		750	1.1	.08	.03	.02	.01	.01	54	80	106	155	205			12	12	12	12	12	12	11	11						
		1,000		.11	.04	.02	.01	.01								.59	.80	1.0	1.2	1.7	2.1	2.9	3.7						
		2,000	1.3	.21	.08	.04	.02	.01	54	80	106	155	205			12.	12	12	12	12	12	12	12	11					
		3,500		.37	.14	.07	.03	.01								.82	1.1	1.3	1.6	2.0	2.4	3.2	4.0						
		5,000	1.5	.53	.19	.10	.04	.01	55	80	106	155	205			12	12	12	12	12	12	12	12	11					
		7,500		.79	.29	.14	.06	.02								.96	1.2	1.4	1.7	2.2	2.6	3.4	4.3						
		10,000	1.7	1.05	.39	.19	.08	.03	56	81	107	156	206			12	12	12	12	12	12	12	12	12					
		15,000		1.58	.58	.29	.12	.04								1.1	1.4	1.6	1.9	2.4	2.8	3.7	4.6						
		20,000	1.8	2.10	.77	.38	.16	.06	56	82	108	156	206			12	12	12	12	12	12	12	12	12					
		25,000		2.63	.97	.48	.20	.08								1.3	1.5	1.8	2.5	2.9	3.0	3.9	4.7						
50,000	3.0	5.25	1.93	.95	.40	.14	58	84	110	158	208			12	12	12	12	12	12	12	12	11							
75,000		7.88	2.90	1.43	.60	.20								2.0	2.3	2.6	2.9	3.4	4.0	4.8	5.9								
100,000	4.5	10.5	3.87	1.90	.80	.27	60	86	112	160	210			12	12	12	12	12	12	12	12	11							
150,000		15.8	5.80	2.85	1.20	.40								2.5	2.9	3.2	3.7	4.0	4.8	5.6	6.7								
200,000	7.0	21.0	7.73	3.80	1.59	.54	62	88	114	162	212			12	12	12	12	12	12	12	12	11							
250,000		26.3	9.66	4.75	1.99	.67								3.0	3.5	3.8	4.3	4.6	5.5	6.3	7.4								

(NOTE) For speeds not shown on the pump hydraulic charts, consult factory.



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SEC. 500

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February 2025

5 GPM
150 RPM

NOMINAL		VISCOSITY		N.I.P.R.	FRICTION PIPE LOSS (PSI/FT) <small>(Schedule 40 Steel Pipe)</small>					CAPACITY (GPM)				H.P. REQUIRED							
GPM	RPM	ROTOR TRIM	(SSU)	(PSIa)	PIPE DIAMETER					MEDIUM-DUTY & HEAVY-DUTY				HEAVY-DUTY ONLY							
					2"	2½"	3"	4"	5"	DIFFERENTIAL PRESSURE (PSI)											
					25	50	75	100	150	200	300	400									
5	150	STD																			
				"D"																	
					200,000	2.9	3.2	1.6	0.66	0.2	0.1	5.4	5.4	5.3	5.3	5.3	5.3	5.2	5.2		
					399,999		6.45	3.2	1.3	0.45	0.2	1.4	1.5	1.6	1.7	2.0	2.2	2.4	2.7		
					400,000	3.3	5.4	5.4	5.3	5.3		5.4	5.4	5.3	5.3	5.3	5.3	5.2	5.2		
					599,999		9.7	4.8	2	0.7	0.3	1.5	1.6	1.7	1.8	2.1	2.3	2.6	2.9		
			600,000	4	5.4	5.4	5.3	5.3		5.4	5.4	5.3	5.3	5.3	5.3	5.2	5.2				
			799,999		12.9	6.3	2.7	0.9	0.36	1.7	1.8	1.9	2.0	2.3	2.5	2.8	3.1				
			800,000	4.4	5.4	5.4	5.3	5.3		5.4	5.4	5.3	5.3	5.3	5.3	5.2	5.2				
			1M		16.1	7.9	3.3	1.1	0.45	1.9	2.0	2.1	2.2	2.5	2.7	3.0	3.3				

(NOTE) For speeds not shown on the pump hydraulic charts, consult factory.