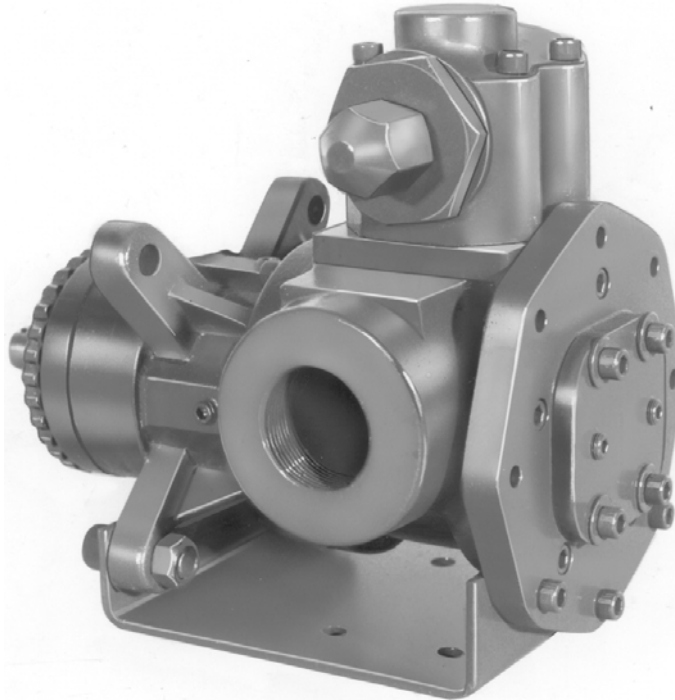


**GHC SERIES  
 HEAVY DUTY COMPACT  
 STAINLESS STEEL ROTARY  
 GEAR PUMP**

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.		
		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.
<b>GHC 1 DC9-B</b> ① ● ▸	<b>GHS 1 DC9-B</b> ① ●	9 [28]	1750 [1460]	6 [19]	1150 [960]	75 [5]	100 [7]	200 [14]	GHC ● 350 [177]	32 [14,5]	2.9
	<b>GHS 1 DC10-B</b> ① ■			7 [22]						32 [14,5]	
<b>GHC 1 DE9-B</b> ① ● ▸	<b>GHS 1 DE9-B</b> ① ●	11 [35]	1750 [1460]	7 [22]	1150 [960]	75 [5]	100 [7]	200 [14]	GHC ● 350 [177]	32 [14,5]	2.9
	<b>GHS 1 DE10-B</b> ① ■			10 [32]						63 [28,6]	
<b>GHC 1-1/2 GC9-B</b> ● ▸	<b>GHS 1-1/2 GC9-B</b> ●	16 [50]	1750 [1460]	10 [32]	1150 [960]	75 [5]	100 [7]	200 [14]	GHC ● 350 [177]	63 [28,6]	2.9
	<b>GHS 1-1/2 GC10-B</b> ■			15 [47]						63 [28,6]	
<b>GHC 1-1/2 GF9-B</b> ● ▸	<b>GHS 1-1/2 GF9-B</b> ●	23 [73]	1750 [1460]	15 [47]	1150 [960]	75 [5]	100 [7]	200 [14]	GHC ● 350 [177]	63 [28,6]	2.9
	<b>GHS 1-1/2 GF10-B</b> ■			20 [63]						63 [28,6]	
<b>GHC 1-1/2 GH9-B</b> ● ▸	<b>GHS 1-1/2 GH9-B</b> ●	31 [98]	1750 [1460]	20 [63]	1150 [960]	75 [5]	100 [7]	200 [14]	GHC ● 350 [177]	63 [28,6]	2.9
	<b>GHS 1-1/2 GH10-B</b> ■			25 [79]						63 [28,6]	
<b>GHC 1-1/2 GJ9-B</b> ● ▸	<b>GHS 1-1/2 GJ9-B</b> ●	38 [120]	1750 [1460]	25 [79]	1150 [960]	75 [5]	100 [7]	200 [14]	GHC ● 350 [177]	63 [28,6]	2.9
	<b>GHS 1-1/2 GJ10-B</b> ■			30 [95]						63 [28,6]	
<b>GHC 1-1/2 GJ9-B</b> ● ▸	<b>GHS 1-1/2 GJ9-B</b> ●	40 [126]	1150 [960]	30 [95]	870 [725]	75 [5]	100 [7]	200 [14]	GHC ● 350 [177]	161 [73,2]	5.3
	<b>GHS 1-1/2 GJ10-B</b> ■			42 [133]						161 [73,2]	
<b>GHC 3 JG9-B</b> ● ▸	<b>GHS 3 JG9-B</b> ●	56 [177]	1150 [960]	42 [133]	870 [725]	75 [5]	100 [7]	200 [14]	GHC ● 350 [177]	161 [73,2]	5.3
	<b>GHS 3 JG10-B</b> ■			56 [177]						161 [73,2]	
<b>GHC 3 JJ9-B</b> ● ▸	<b>GHS 3 JJ9-B</b> ●	56 [177]	1150 [960]	56 [177]	870 [725]	75 [5]	100 [7]	200 [14]	GHC ● 350 [177]	161 [73,2]	5.3
	<b>GHS 3 JJ10-B</b> ■			56 [177]						161 [73,2]	

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]	161 [73,2]	5.3	
	GHS 2 JL10-B ■										
GHC 3 JL9-B ● †	GHS 3 JL9-B ●	107 [338]	960 [960]	81 [256]	580 [480]	75 [5]	100 [7]	200 [14]	161 [73,2]	5.3	
	GHS 3 JL10-B ■										
GHC	GHS 2 JP9-B ●	107 [338]	960 [960]	81 [256]	580 [480]	75 [5]	100 [7]	200 [14]	161 [73,2]	5.3	
	GHS 2 JP10-B ■										
GHC 3 JP9-B ● †	GHS 3 JP9-B ●	132 [500]	960 [960]	80 [252]	580 [480]	75 [5]	100 [7]	200 [14]	161 [73,2]	5.3	
	GHS 3 JP10-B ■										
GHC	GHS 2 NK9-B ●	99 [375]	960 [960]	60 [189]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 2 NK10-B ■										
GHC	GHS 2-1/2 NK9-B ●	132 [500]	960 [960]	80 [252]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 2-1/2 NK10-B ■										
GHC	GHS 3 NK9-B ●	165 [624]	960 [960]	99 [312]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 3 NK10-B ■										
GHC	GHS 2 NM9-B ●	165 [624]	960 [960]	99 [312]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 2 NM10-B ■										
GHC	GHS 2-1/2 NM9-B ●	172 [542]	960 [960]	115 [362]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 2-1/2 NM10-B ■										
GHC	GHS 3 NM9-B ●	215 [678]	960 [960]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 3 NM10-B ■										
GHC	GHS 2-1/2 NP9-B ●	215 [678]	960 [960]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 2-1/2 NP10-B ■										
GHC	GHS 3 NP9-B ●	215 [678]	960 [960]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 3 NP10-B ■										
GHC	GHS 2 RM9-B ●	172 [542]	960 [960]	115 [362]	580 [480]	75 [5]	100 [7]	200 [14]	357 [162]	10.7	
	GHS 2 RM10-B ■										
GHC	GHS 2-1/2 RM9-B ● †	215 [678]	960 [960]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	357 [162]	10.7	
	GHS 2-1/2 RM10-B ■ †										
GHC	GHS 3 RM9-B ● †	215 [678]	960 [960]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	357 [162]	10.7	
	GHS 3 RM10-B ■ †										
GHC	GHS 4 RM9-B ● †	215 [678]	960 [960]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	357 [162]	10.7	
	GHS 4 RM10-B ■ †										
GHC	GHS 3 RP9-B ● †	215 [678]	960 [960]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	357 [162]	10.7	
	GHS 3 RP10-B ■ †										
GHC	GHS 4 RP9-B ● †	215 [678]	960 [960]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	357 [162]	10.7	
	GHS 4 RP10-B ■ †										

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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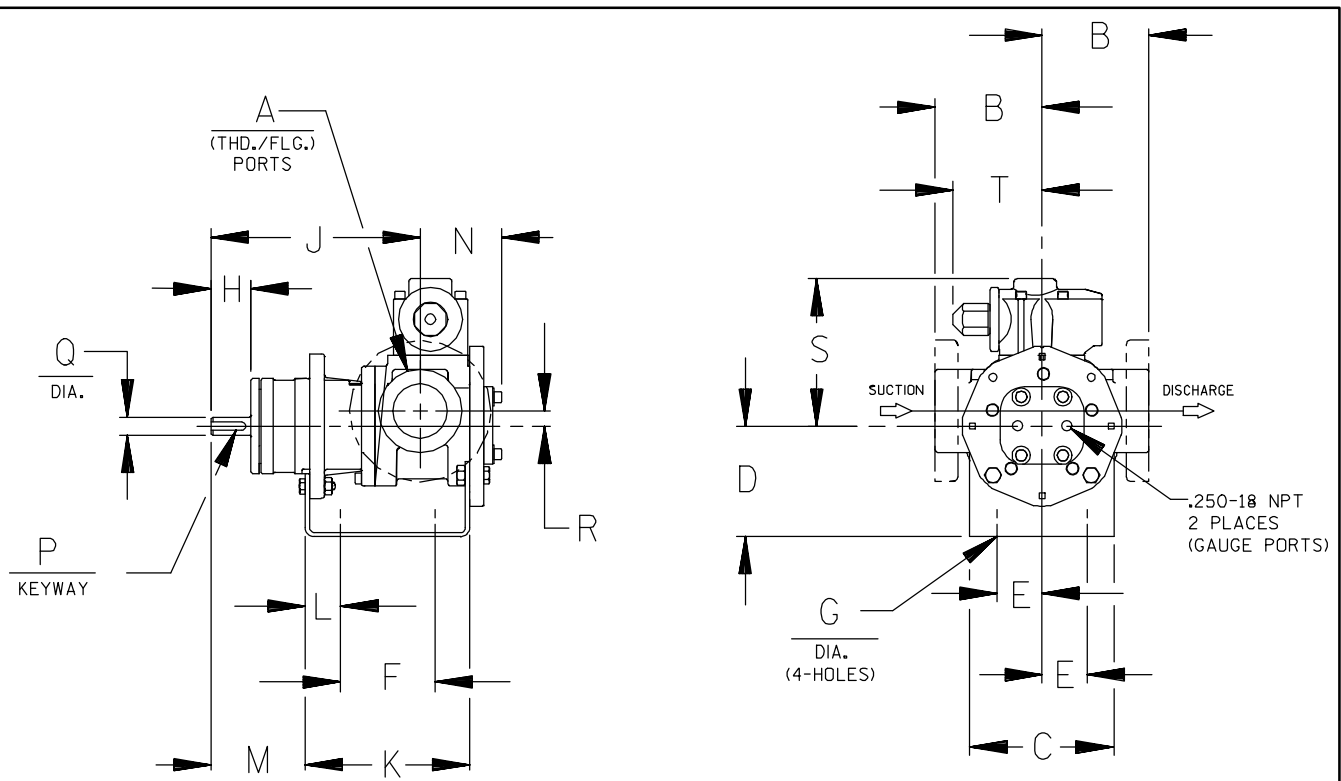
MODEL NUMBER		NOM. CAPACITY - SPEED				MAXIMUM				SHIPPING DATA	
		MAXIMUM		ALTERNATIVE		DIFF. PRESSURE - PSI [BAR]			TEMP.	Wt.	Vol.
		GPM [LPM]	RPM 60 Hz [50 HZ]	GPM [LPM]	RPM 60 Hz [50 HZ]	BELOW 38 SSU [4 cSt]	38 TO 100 SSU [21 cSt]	100 TO 250,000 SSU [55,000 cSt]	°F [°C]	LBS [KG]	CU. FT.
GHC	GHS										
	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] 6.25 [159]											
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] 7.00 [178] 8.00 [203]											
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 [32]
				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"														

\* 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**

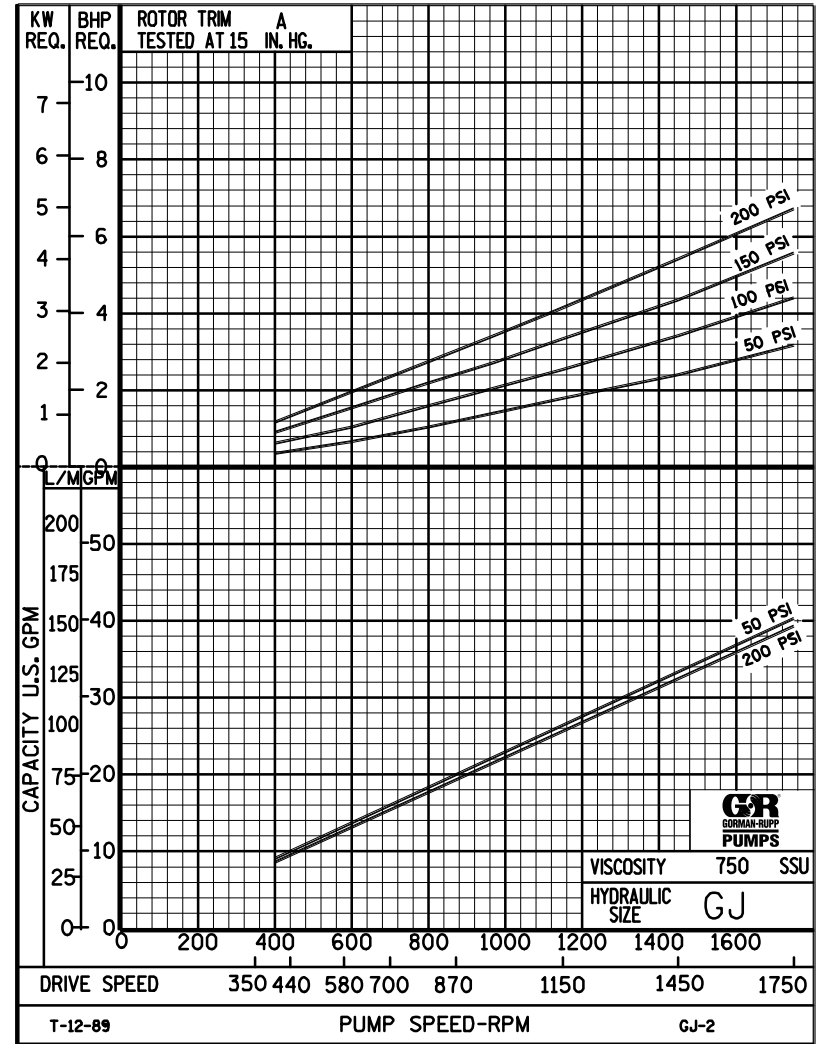
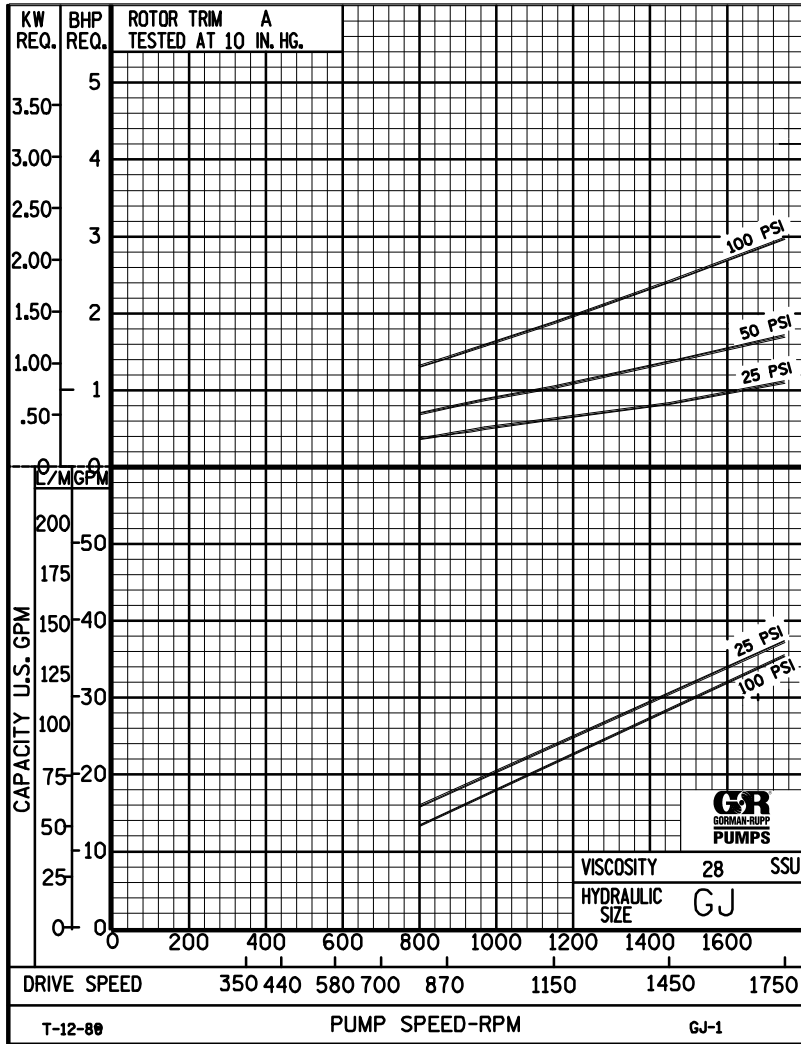


# PERFORMANCE CURVES

## SPEED VS. CAPACITY/HORSEPOWER

# GJ

Hydraulic  
Size



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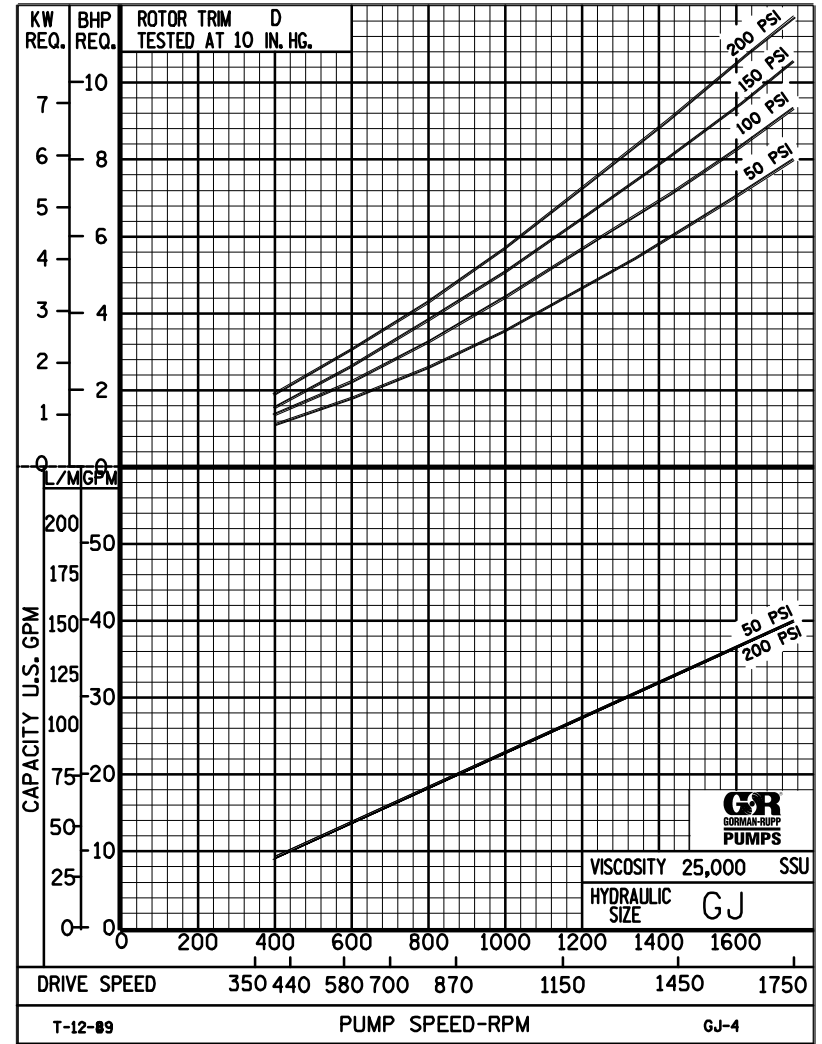
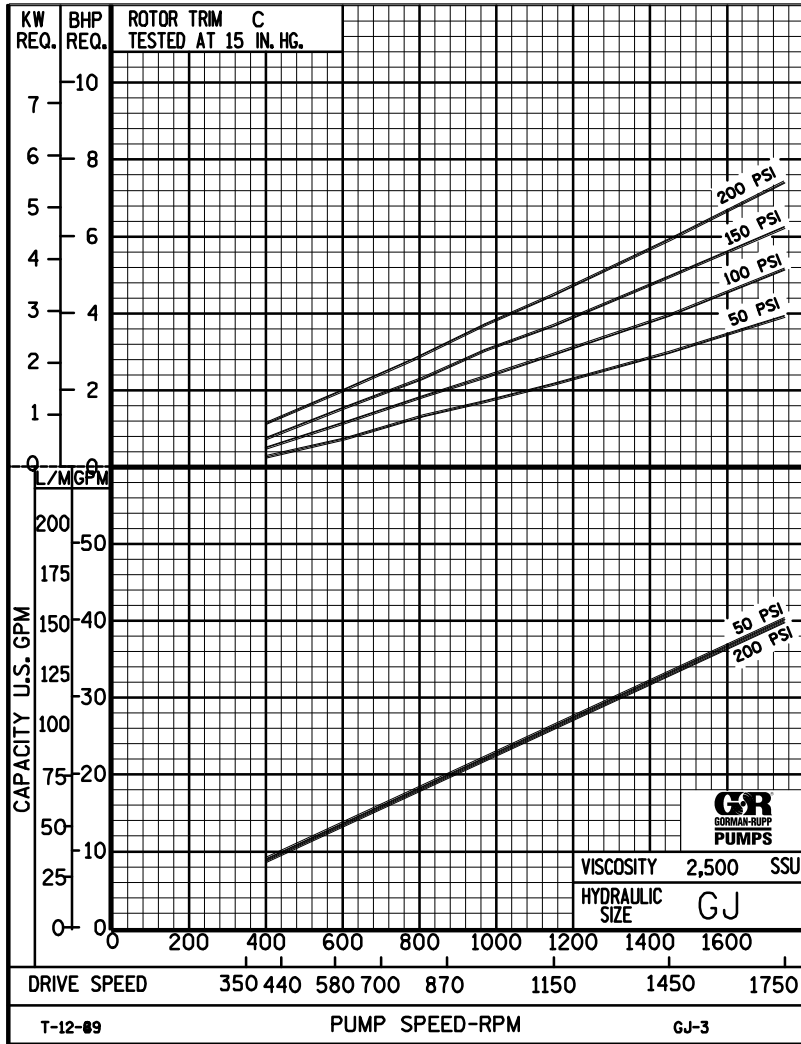




# PERFORMANCE CURVES

## SPEED VS. CAPACITY/HORSEPOWER

**GJ** Hydraulic Size



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# GJ

## PUMP HYDRAULIC SIZE CHART

SEC. 500

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January 2010

**38 GPM  
1750 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)											
					3/4"	1"	1 1/4"	1 1/2"	2"	LOW PRES R/V			HI PRES R/V		MEDIUM DUTY AND HEAVY DUTY				HEAVY DUTY ONLY							
38	1750	STD	28	4.5	.02	.01	.01	.01	.01	74	100	127				37	36	36	35							
			32		.88	.28	.08	.04	.01							1.1	1.7	2.4	3.0							
			38	4.5	1.12	.35	.10	.05	.02	74	100	128	180				38	37	37	37	36					
			50		1.33	.44	.12	.06	.02								1.5	2.0	2.6	3.2	4.5					
			70	4.5	1.45	.46	.13	.06	.02	76	101	128	182	240			39	38	38	38	37	36				
			100		1.74	.56	.16	.08	.03								1.5	2.1	2.8	3.4	4.7	6.0				
			150	4.5	1.91	.63	.17	.08	.03	78	103	130	184	242			39	39	39	38	38	38				
			200		2.26	.72	.18	.09	.03								1.9	2.5	3.1	3.7	4.9	6.1				
			300	4.5	2.45	.81	.19	.10	.04	78	103	132	184	244			40	40	39	39	39	38				
			500		2.82	.92	.31	.17	.06								2.1	2.8	3.6	4.3	5.4	6.5				
		750	4.5	3.64	1.39	.46	.25	.09	80	105	134	186	246			40	40	40	40	39	39					
		1,000		4.85	1.85	.62	.33	.12								2.3	3.2	3.8	4.4	5.6	6.7					
		2,000	5.9	9.69	3.69	1.23	.67	.25	80	105	136	186	247			40	40	40	40	39	39					
		3,500		17.0	6.46	2.16	1.17	.43								3.3	3.9	4.6	5.1	6.3	7.4					
		5,000	6.8	24.3	9.23	3.08	1.66	.61	86	106	136	186	247			40	40	40	40	40	40					
		7,500		36.4	13.9	4.62	2.50	.92								4.8	5.3	5.9	6.5	7.6	8.8					
		10,000	7.7	48.5	18.5	6.16	3.33	1.23	92	117	142	192	247			40	40	40	40	40	40					
		15,000		72.7	27.7	9.24	4.99	1.84								6.0	6.7	7.2	7.8	9.0	10					
		20,000	8.5	97.0	36.9	12.3	6.65	2.45	98	123	148	198	248			40	40	40	40	40	40					
		25,000		121	46.1	15.4	8.31	3.06								7.4	8.0	8.7	9.4	11	12					
50,000																										
75,000																										
100,000																										
150,000																										
200,000																										
250,000																										

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



# GJ

## PUMP HYDRAULIC SIZE CHART

SEC. 500

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January 2010

**25 GPM  
1150 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)											
					3/4"	1"	1 1/4"	1 1/2"	2"	LOW PRES R/V			HI PRES R/V		MEDIUM DUTY AND HEAVY DUTY				HEAVY DUTY ONLY							
25	1150	STD	28	2.5	.01	.01	.01	.01	.01	66	92	118			23	23	22	21								
			32		.42	.13	.04	.02	.01						.63	1.0	1.5	1.9								
			38	2.5	.53	.17	.05	.02	.01	66	92	118	170			24	24	23	22	21						
			50		.64	.21	.06	.03	.01							.95	1.2	1.6	2.0	2.6						
			70	2.5	.70	.23	.06	.03	.01	67	93	120	170	230			25	25	24	23	23	22				
			100		.85	.27	.08	.04	.01								1.2	1.4	1.7	2.1	3.0	3.7				
			150	2.5	.94	.32	.08	.04	.01	67	93	122	172	232			26	26	25	24	24	22				
			200		.97	.35	.10	.06	.02								1.3	1.5	1.9	2.3	3.1	3.8				
			300	2.5	.99	.37	.13	.07	.03	68	95	122	174	234			26	26	25	25	25	24				
			500		1.60	.61	.21	.11	.04								1.3	1.7	2.3	2.5	3.5	4.0				
		750	2.5	2.39	.91	.31	.17	.06	68	95	124	174	235			26	26	26	26	25	25					
		1,000		3.19	1.22	.41	.22	.08								1.3	1.8	2.2	2.5	3.3	4.2					
		2,000	3.4	6.38	2.43	.81	.44	.16	69	98	125	175	235			26	26	26	26	26	26					
		3,500		11.2	4.25	1.42	.77	.28								1.8	2.3	2.8	3.2	3.9	4.7					
		5,000	4.0	16.0	6.07	2.03	1.09	.41	78	105	130	180	237			26	26	26	26	26	26					
		7,500		23.9	9.10	3.04	1.64	.61								2.4	2.9	3.4	3.7	4.7	5.2					
		10,000	4.7	31.9	12.2	4.06	2.19	.81	87	112	137	187	237			26	26	26	26	26	26					
		15,000		47.8	18.2	6.08	3.28	1.21								2.9	3.7	4.2	4.5	5.4	6.0					
		20,000	5.2	63.8	24.3	8.11	4.38	1.61	87	112	137	187	237			26	26	26	26	26	26					
		25,000		79.7	30.4	10.2	5.47	2.02								4.0	4.5	4.9	5.3	6.1	6.8					
50,000																										
75,000																										
100,000																										
150,000																										
200,000																										
250,000																										

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



# GJ

## PUMP HYDRAULIC SIZE CHART

SEC. 500

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January 2010

19 GPM  
870 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)											
					3/4"	1"	1 1/4"	1 1/2"	2"	LOW PRES R/V			HI PRES R/V		MEDIUM DUTY AND HEAVY DUTY				HEAVY DUTY ONLY							
19	870	STD	28	1.7	.01	.01	.01	.01	.01	64	90	116			17	16	16	15								
			32		.26	.08	.02	.01	.01						.45	.79	1.1	1.4								
			38	1.7	.33	.11	.03	.02	.01	64	90	116	168			18	17	17	16	15						
			50		.40	.13	.04	.02	.01							.58	.81	1.1	1.5	2.2						
			70	1.7	.44	.14	.04	.02	.01	65	91	118	168	228			19	18	18	17	17	16				
			100		.53	.17	.05	.02	.01								.61	.85	1.3	1.6	2.4	2.7				
			150	1.7	.58	.19	.06	.03	.01	65	91	120	170	230			19	19	18	18	18	17				
			200		.62	.23	.08	.04	.01								.65	.90	1.4	1.6	2.6	3.0				
			300	1.7	.74	.28	.10	.05	.02	66	93	120	172	232			19	19	19	19	18	18				
			500		1.21	.46	.16	.09	.03								.77	1.1	1.4	1.7	2.7	3.1				
		750	1.7	1.82	.69	.23	.13	.05	66	93	122	172	233			20	20	19	19	19	19					
		1,000		2.43	.92	.31	.17	.06								.81	1.3	1.6	1.9	2.9	3.3					
		2,000	2.5	4.85	1.85	.62	.33	.12	67	96	123	173	233			20	20	20	19	19	19					
		3,500		8.48	3.23	1.08	.58	.22								1.2	1.5	1.9	2.1	3.1	3.4					
		5,000	3.1	12.1	4.61	1.54	.83	.31	76	103	128	178	235			20	20	20	20	19	19					
		7,500		18.2	6.92	2.31	1.25	.46								1.6	2.0	2.3	2.6	3.5	3.8					
		10,000	3.7	24.3	9.23	3.08	1.66	.61	85	110	135	185	235			20	20	20	20	19	19					
		15,000		36.4	13.9	4.62	2.50	.92								2.1	2.5	2.9	3.3	3.9	4.4					
		20,000	4.1	48.5	18.5	6.16	3.33	1.23	85	110	135	185	235			19	19	19	19	19	19					
		25,000		60.6	23.1	7.70	4.16	1.53								2.8	2.9	3.2	3.6	4.1	5.0					
50,000	4.5	121	46.2	15.4	8.32	3.06	85	114	141	193	246			19	19	19	19	19	19							
75,000		-	-	-	-	-								3.7	4.1	4.5	4.9	5.2	5.6							
100,000																										
150,000																										
200,000																										
250,000																										

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



# GJ

## PUMP HYDRAULIC SIZE CHART

SEC. 500

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January 2010

**13 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)									
					3/4"	1"	1 1/4"	1 1/2"	2"	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					
13	580	STD	28	1.2	.01	.01	.01	.01	.01	58	84	109				11	11	10	10					
			32		.13	.04	.01	.01	.01							.36	.60	.81	1.0					
			38	1.2	.17	.06	.02	.01	.01	58	84	109	159			12	11	11	11	10				
			50		.21	.07	.02	.01	.01							.47	.63	.93	1.2	1.7				
			70	1.2	.23	.08	.03	.01	.01	60	86	111	161	219		12	12	12	11	11	10			
			100		.28	.09	.03	.01	.01							.50	.69	.99	1.3	1.8	2.0			
			150	1.2	.34	.11	.04	.02	.01	60	86	111	162	220		13	12	12	12	12	11			
			200		.43	.15	.06	.03	.01							.57	.80	1.1	1.3	1.8	2.1			
			300	1.2	.52	.20	.07	.04	.01	62	88	113	164	222		13	13	13	12	12	12			
			500		.83	.34	.11	.06	.02							.66	.92	1.2	1.4	1.8	2.2			
		750	1.2	1.26	.49	.16	.09	.03	62	88	113	164	222		13	13	13	13	12.9	12				
		1,000		1.68	.65	.21	.12	.05							.74	1.1	1.3	1.5	1.9	2.2				
				2,000	1.9	3.23	1.32	.44	.24	.09	63	90	115	165	223		13	13	13	13	12	12		
						6.10	2.31	.77	.42	.16							.92	1.3	1.5	1.7	2.1	2.2		
				5,000	2.4	8.25	3.28	1.11	.58	.23	67	92	117	165	223		13	13	13	13	13	13		
						13.1	5.01	1.61	.89	.33							1.2	1.7	1.9	2.1	2.5	2.9		
				10,000	2.9	17.8	6.85	2.22	1.21	.45	70	96	120	166	224		13	13	13	13	13	13		
						25.2	9.90	3.41	1.83	.68							1.4	1.7	2.0	2.2	2.6	3.0		
				20,000	3.3	34.4	13.0	4.33	2.28	.91	74	99	122	166	224		13	13	13	13	13	13		
				25,000		45.3	16.8	5.54	3.01	1.11							1.6	1.8	2.1	2.3	2.7	3.1		
		50,000	5.5	85.2	32.6	11.2	6.22	2.21	84	109	132	176	234		13	13	13	13	13	13				
		75,000		132	48.8	16.9	9.31	3.28							2.4	2.6	2.9	3.1	3.6	3.9				
		100,000																						
		150,000																						
		200,000																						
		250,000																						

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



GJ

SEC. 500

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February 2025

5 GPM  
200 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						
					1½"	2"	2½"	3"	4"	25	50	75	100	150	200	300	400			
5	200	STD																		
				"D"																
			200,000	2.6	8.8	3.2	1.6	0.7	0.2	4.6	4.6	4.6	4.6	4.5	4.5	4.5	4.5			
			399,999		17.5	6.5	3.2	1.3	0.5	1.2	1.2	1.2	1.3	1.5	1.6	1.9	2.2			
			400,000	2.9						4.6	4.6	4.6	4.6	4.5	4.5	4.5	4.5			
			599,999		NR	9.7	4.8	2	0.7	1.4	1.4	1.4	1.5	1.7	1.8	2.0	2.3			
			600,000	3.6						4.6	4.6	4.6	4.6	4.5	4.5	4.5	4.5			
			799,999		NR	12.9	6.3	2.7	0.9	1.6	1.6	1.6	1.7	1.9	2.0	2.2	2.5			
			800,000	4						4.6	4.6	4.6	4.6	4.5	4.5	4.5	4.5			
			1M		NR	16.1	7.9	3.3	1.1	1.9	1.9	1.9	2.0	2.2	2.3	2.5	2.7			

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