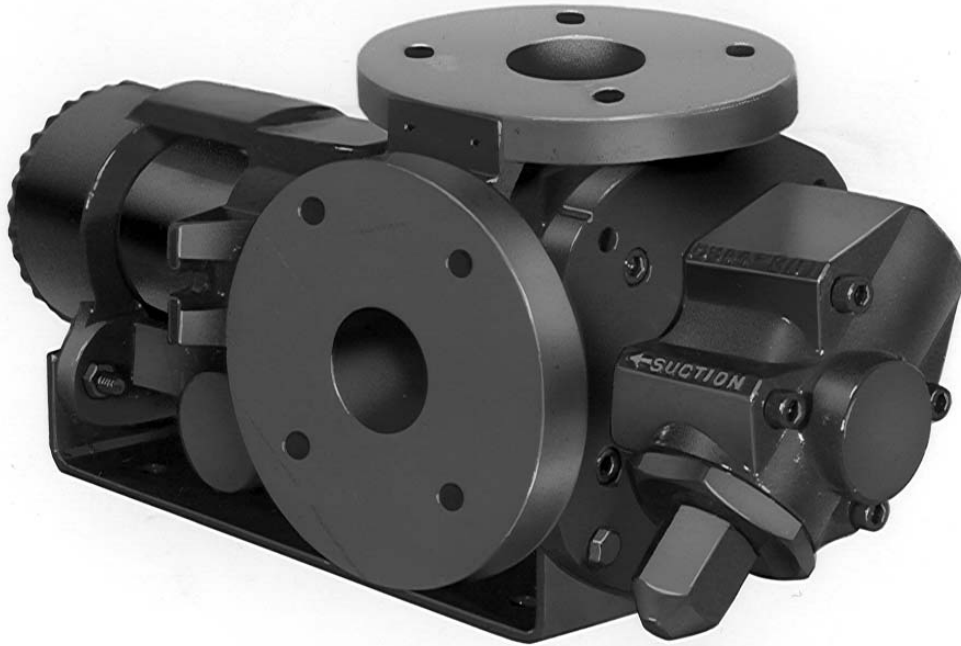


GHS SERIES Flexible Seal HEAVY DUTY STANDARD STEEL ROTARY GEAR PUMP

This heavy duty series pump is ideal for refining, petrochemical and applications requiring extra strength or shock resistance. The steel construction conforms to ASTM designation A216 Grade WCB. Superior rotor shaft support and an integral, maintenance-free radial/thrust bearing, reduce deflection and wear.



The GHS steel series is designed for applications in the operating ranges noted below. These units are available with head and backhead jackets for temperature control, carbon graphite bushings for low viscosity liquids, silicon carbide bushings for wear resistance, and numerous shaft seal options described on the following pages.

FEATURES

400 PSI CAPABILITY
BALL BEARING THRUST CONTROL
ROTOR END CLEARANCE EXTERNALLY ADJUSTABLE
HIGH STRENGTH, COMPUTER PROFILED GEARING FOR QUIET OPERATION
MULTIPLE PORT POSITIONS
FLEXIBLE SEAL DESIGN ALLOWS FOR A VARIETY OF INDUSTRIAL STANDARD SEALS OR PACKING
INTERNAL SEAL VENT

OPERATING RANGE

CAPACITY (GPM) : (3 TO 295)
 [LPM] : [11 TO 1116]

PRESSURE (PSI) : [0 TO 300]
 [BAR] : [0 TO 21]

VISCOSITY (SSU) : (28 TO 2,000,000)
 [cSt] : [1 TO 440,000]

TEMPERATURE (F) : (-20° TO 675°)
 [C] : [-29° TO 358°]

APPLICATIONS

USE WITH ANY CLEAN LIQUID COMPATIBLE WITH IRON/STEEL

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

EXTERIOR	BACKHD	ROTOR & IDLER	HOUSING PORTS	BUSHING	IDLER PIN	SHAFT	SHAFT SEALING		ROTA-TION	INTERNAL RELIEF VALVE	
							MECH. SEAL ●	PACKING ■		MATERIAL	SETTING
STEEL ③	DUCTILE IRON	HIGH STRENGTH IRON	150# FLG GHC 180° GHS 90°	BRONZE	HARD STEEL	STEEL	VITON	CARBON FIBER	C.W.	STEEL	75 PSI [5 BAR]

Standard Models

G H C 3 JG 32 - B
G H S 3 JG 32 - B
 | | | | | | | | | | | |
 GEAR DUTY DESIGN PORT SIZE HYDRAULIC SEAL STYLE

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					100 [7]	150 [10]					
GHC 1 DC32-B ① ● †		9 [28]		6 [19]						39 [17,7]	0.6	
GHC 1 DE32-B ① ● †		11 [35]		7 [22]						39 [17,7]	0.6	
GHC 1-1/2 GC32-B ● †	GHS 1-1/2 GC32-B ● † GHS 1-1/2 GC38-B ■ †	16 [50]	1750 [1460]	10 [32]	1150 [960]			300 [21]	GHC ●	71 [32,2]	2.9	
GHC 1-1/2 GF32-B ● †	GHS 1-1/2 GF32-B ● † GHS 1-1/2 GF38-B ■ †	23 [73]		15 [47]						350 [177]	71 [32,2]	2.9
GHC 1-1/2 GH32-B ● †	GHS 1-1/2 GH32-B ● † GHS 1-1/2 GH38-B ■ †	31 [98]		20 [63]						400 [204]	71 [32,2]	2.9
GHC 1-1/2 GJ32-B ② ● †	GHS 1-1/2 GJ32-B ② ● † GHS 1-1/2 GJ38-B ② ■ †	38 [120]		25 [79]						500 [260]	154 [69,8]	5.3
GHC 3 JG32-B ● †	GHS 3 JG32-B ● † GHS 3 JG38-B ■ †	40 [126]	1150 [960]	30 [95]	870 [725]			300 [21]		154 [69,8]	5.3	
GHC 3 JJ32-B ● †	GHS 3 JJ32-B ● † GHS 3 JJ38-B ■ †	56 [177]		36 [114]						154 [69,8]	5.3	
GHC 3 JL32-B ● †	GHS 3 JL32-B ● † GHS 3 JL38-B ■ †	77 [243]		58 [183]						154 [69,8]	5.3	
GHC 3 JP32-B ② ● †	GHS 3 JP32-B ② ● † GHS 3 JP38-B ② ■ †	107 [338]		81 [256]						200 [14]	154 [69,8]	5.3

STANDARD MODELS CONTINUED

NOTE: RECOMMENDED PORT SIZES ARE SHOWN IN **BOLDFACE**. EXAMPLE: **GHC 3 JG32-B, GHS 3 JG32-B**

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

- ① 3450 [2875] RPM PERMISSIBLE TO 1,000 SSU [220 cSt] AND 100 PSI [7 BAR]
- ② PUMP LIMITED TO 200 PSI MAXIMUM PRESSURE.
- ③ REFER TO REFERENCE SECTION FOR SPECIFIC CONSTRUCTION DETAILS.

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MODEL NUMBER		NOM. CAPACITY - SPEED				MAXIMUM				SHIPPING DATA	
		MAXIMUM		ALTERNATIVE		DIFF. PRESSURE - PSI [BAR]			TEMP.	Wt.	Vol.
		GPM	RPM	GPM	RPM	BELOW	38 TO	100 TO	° F		
GHC	GHS	[LPM]	60 Hz	[LPM]	60 Hz	38 SSU	100 SSU	250,000 SSU	[° C]	LBS	CU. FT.
			[50 HZ]		[50 HZ]	[4 cSt]	[21 cSt]	[55,000 cSt]		[KG]	
	GHS 2 NK32-B ● † GHS 2 NK38-B ■ †	99 [375]	960 [960]	60 [189]	580 [480]			300 [21]		200	5.3
										[90,7]	
	GHS 3 NK32-B ● † GHS 3 NK38-B ■ †	132 [500]	960 [960]	80 [252]	580 [480]			300 [21]		200	5.3
										[90,7]	
	GHS 2 NM32-B ● † GHS 2 NM38-B ■ †	165 [624]	720 [600]	99 [312]	480 [400]	100 [7]	150 [10]	300 [21]		200	5.3
										[90,7]	
	GHS 3 NP32-B ① ● † GHS 3 NP38-B ① ■ †	172 [542]	720 [600]	115 [362]	480 [400]	100 [7]	150 [10]	300 [21]	GHS ● 400 [204]	302	10.7
										[136,9]	
	GHS 3 RM32-B ● † GHS 3 RM38-B ■ †	215 [678]	720 [600]	143 [451]	480 [400]	100 [7]	150 [10]	300 [21]	500 [260]	302	10.7
										[136,9]	
	GHS 4 RM32-B ● † GHS 4 RM38-B ■ †	255 [804]	720 [600]	170 [536]	480 [400]	100 [7]	150 [10]	300 [21]	500 [260]	302	10.7
										[136,9]	
	GHS 2-1/2 RP32-B ● † GHS 2-1/2 RP38-B ■ †	295 [930]	720 [600]	196 [618]	480 [400]	100 [7]	150 [10]	300 [21]	500 [260]	302	10.7
										[136,9]	
	GHS 3 RP32-B ● † GHS 3 RP38-B ■ †	255 [804]	720 [600]	170 [536]	480 [400]	100 [7]	150 [10]	300 [21]	500 [260]	302	10.7
										[136,9]	
	GHS 4 RP32-B ● † GHS 4 RP38-B ■ †	295 [930]	720 [600]	196 [618]	480 [400]	100 [7]	150 [10]	300 [21]	500 [260]	302	10.7
										[136,9]	
	GHS 3 RR32-B ● † GHS 3 RR38-B ■ †	295 [930]	720 [600]	196 [618]	480 [400]	100 [7]	150 [10]	300 [21]	500 [260]	302	10.7
										[136,9]	
	GHS 4 RR32-B ● † GHS 4 RR38-B ■ †	295 [930]	720 [600]	196 [618]	480 [400]	100 [7]	150 [10]	300 [21]	500 [260]	302	10.7
										[136,9]	
	GHS 3 RS32-B ① ● † GHS 3 RS38-B ① ■ †	295 [930]	720 [600]	196 [618]	480 [400]	100 [7]	150 [10]	300 [21]	500 [260]	302	10.7
										[136,9]	
	GHS 4 RS32-B ① ● † GHS 4 RS38-B ① ■ †	295 [930]	720 [600]	196 [618]	480 [400]	100 [7]	150 [10]	300 [21]	500 [260]	302	10.7
										[136,9]	

STANDARD MODELS CONTINUED

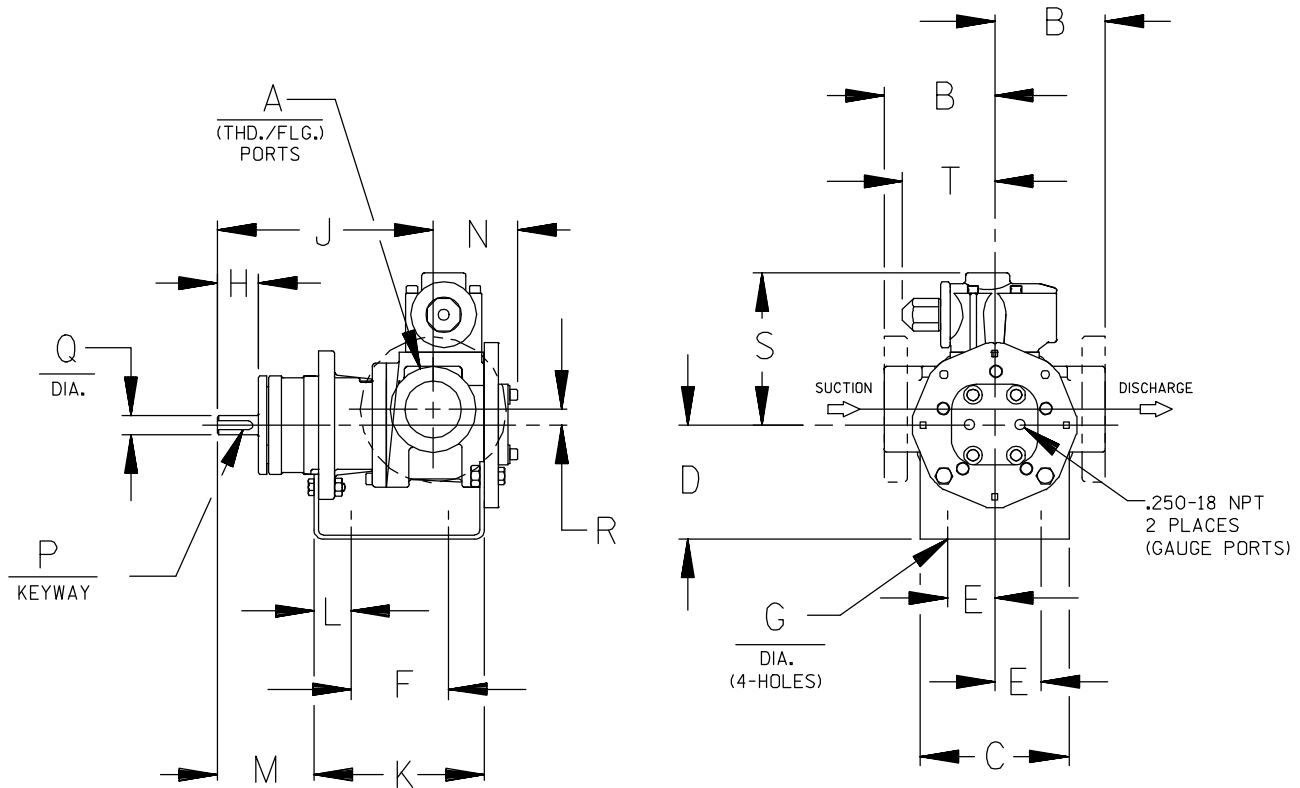
- MECHANICAL SEAL
- LIPSEAL/PACKING
- † PORTS ARE COMPATIBLE WITH 150# ANSI FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE. OPTIONAL [DIN] FLANGES OR TAPPED [BSP] PORTS AVAILABLE FOR EXPORT MARKET.

① PUMP LIMITED TO 200 PSI MAXIMUM PRESSURE.

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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) 40M, 40W 61H, OR 65Q 70K	TEMPERATURE: 675° F MAX. PRESSURE: 200 PSI MAX.
ASPHALT	35J–35M (AS REQ'D) 40M, 40W, 40G 41R, 41W 65S 70, 70K, 71K	TEMPERATURE: 500° MAX.
JACKETED	40G, 40J, 40K, 40W, 41U, 41W	LIMIT JACKET PRESSURE TO 150 PSIG

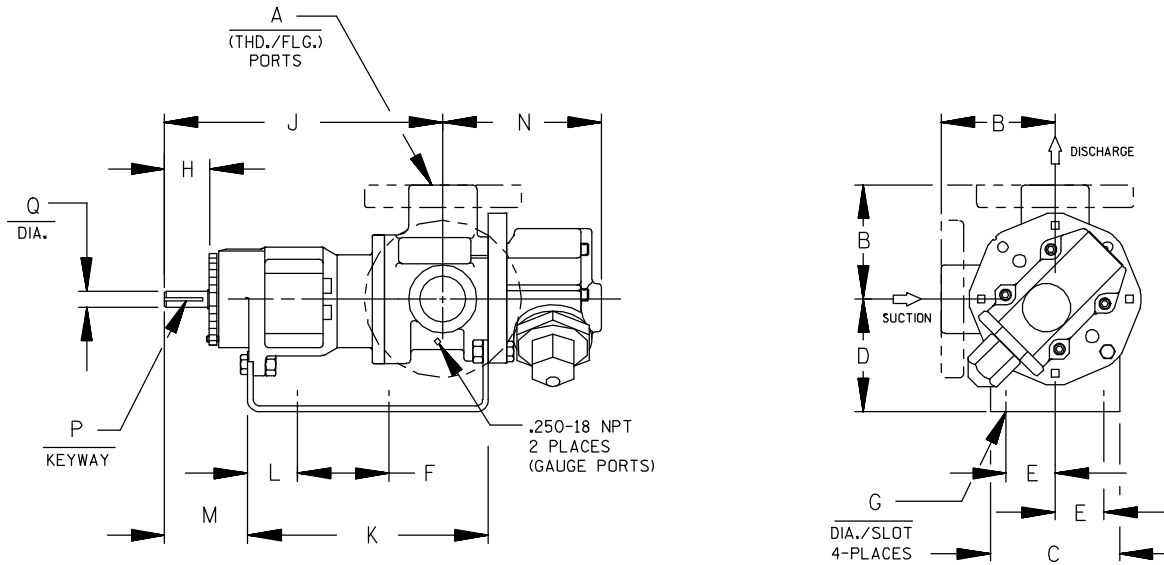
NOTE: PROPER PUMP APPLICATION REQUIRES CONSIDERATION OF ADDITIONAL FACTORS. PLEASE REVIEW APPLICATION GUIDE IN SECTION 500 OR CONSULT THE FACTORY.



CAD FILE NO.: 16458D

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"	4.00 † [102]	4.00 [102]	3.50* [89] 4.50 [114] 5.25 [133]	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] x .75 [19]	.50 [13]	.62 [16]	5.19 [132]	3.58 [91]
GHC G	1-1/2"	4.00 † [102]	5.88 [149]	3.50* [89] 4.50 [114] 5.25 [133] 6.25 [159]	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] x 1.25 [32]	.75 [19]	.62 [16]	6.00 [152]	3.62 [92]
GHC J	3"	6.00* [152] † 6.31 † [160]	6.88 [175]	4.50 [114] 5.25* [133] 6.25 [159] 7.00 [178] 8.00 [203]	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] x 2.00 [51]	1.00 [25]	1.12 [28]	9.06 [230]	6.75 [171]

* STANDARD DIMENSION
 PORTS ARE COMPATIBLE WITH 150# OR 300# ANSISTEEL FLANGES. ALL OTHER PORTS ARE TAPPED NPT
 † FOR ANSIPIPE. OPTIONAL [DIN FLANGES OR TAPPED [BSP] PORTS AVAILABLE FOR EXPORT MARKET.
 NPT FOR ANSIPIPE. OPTIONAL (DIN) FLANGES OR TAPPED (BSP) PORTS AVAILABLE FOR EXPORT MARKET.
 ‡ 90° HOUSING



CAD FILE NO.: 16669F

MODEL NUMBERS	PUMP DIMENSIONS - INCHES [MILLIMETERS]														
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
GHS G	1-1/2"	4.00 [102]	4.88 [124]	3.50 [89] * 4.50 [114] 5.25 [133] 6.25 [159]	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]
GHS J	3"	6.00 † [152] 6.31 [160]	6.88 [175]	5.25 [133] * 6.25 [159] 7.00 [178] 8.00 [203]	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]
GHS N	2"	5.25 * [133] 5.38 [137]	8.00 [203]	4.50 [114] 5.25 [133] * 6.25 [159] 7.00 [178] 8.00 [203]	2.88 [73]	10.00 [254]	.44 [11]	2.58 [66]	16.37 [416]	15.14 [385]	2.69 [68]	4.56 [116]	7.59 [193]	.25 [6] x 2.00 [51]	1.12 [32]
	3"	7.19 [183]											8.72 [221] *		
GHS R	2-1/2"														
	3"	7.19 [183]	10.50 [267]	7.00 [178]	3.75 [95]	13.75 [349]	.52 [13]	2.25 [57]	17.87 [454]	17.36 [441]	1.80 [46]	4.70 [119]	11.31 [287]	.38 [10] x 1.88 [48]	1.44 [37]
	4"														

* STANDARD DIMENSION

† PORTS ARE COMPATIBLE WITH 150* OR 300* ANSISTEEL FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSIPIPE. 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

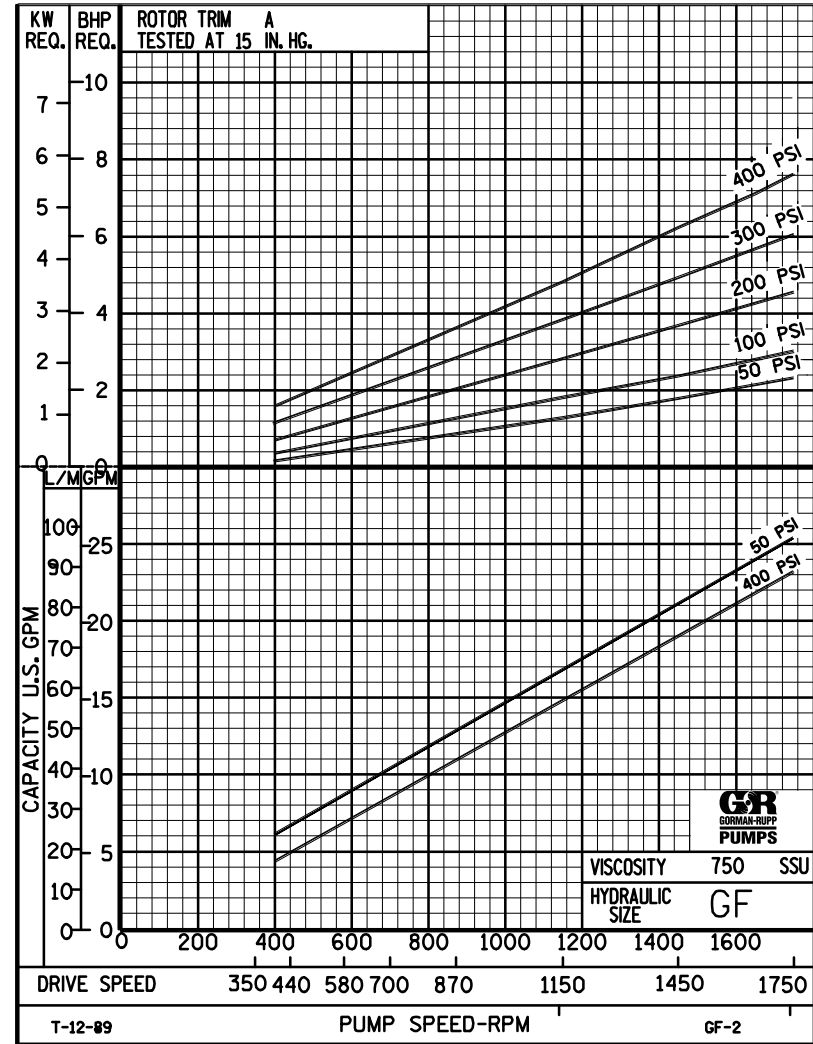
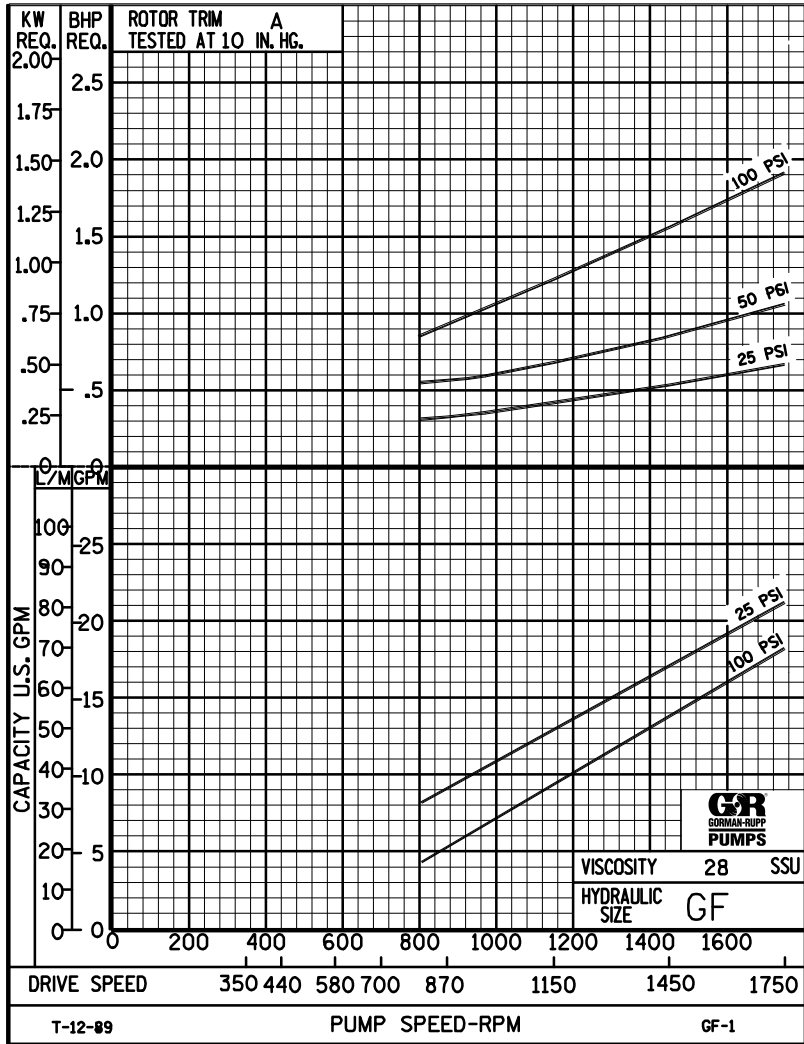
SECTION 545



PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

GF Hydraulic Size



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PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

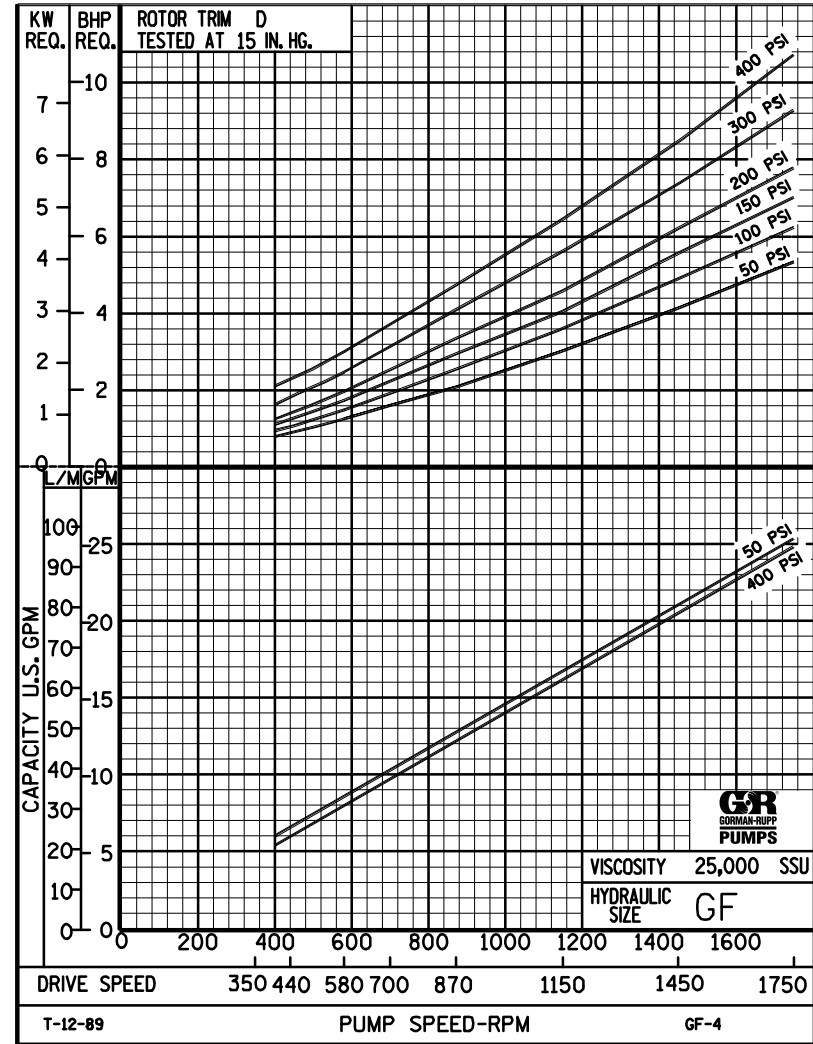
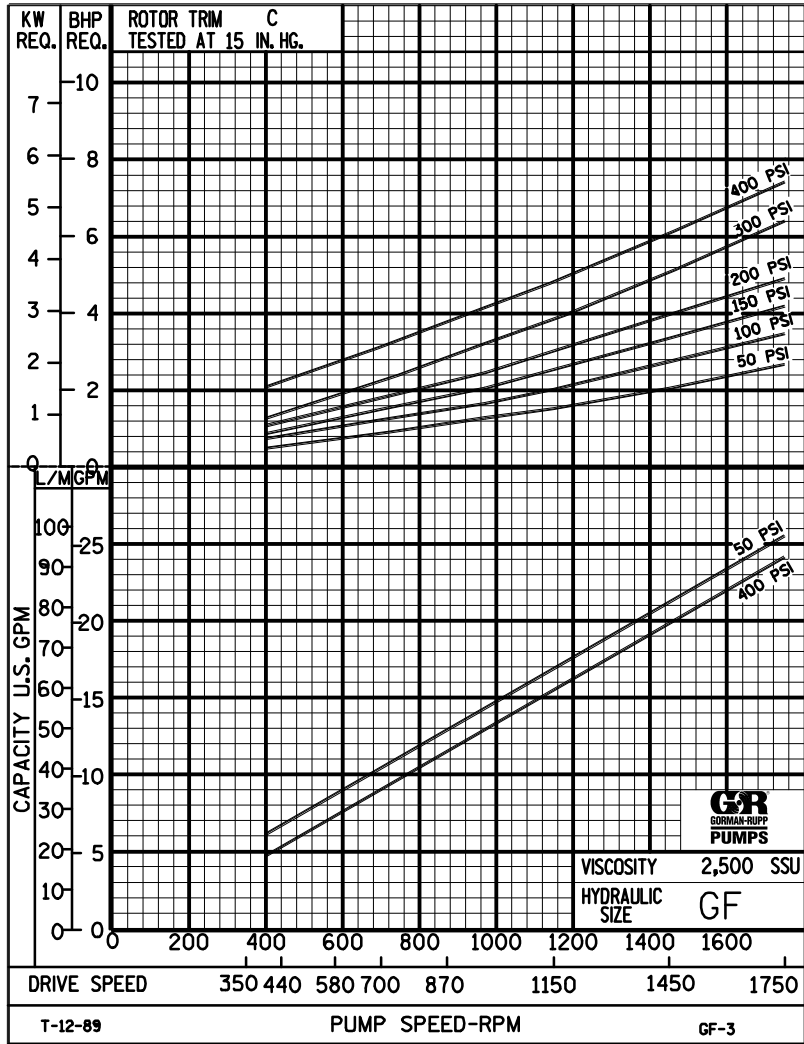
GF

Hydraulic Size

SEC. 500

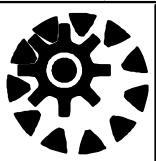
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January 2010



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GF

PUMP HYDRAULIC SIZE CHART

SEC. 500

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January 2010

**23 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									
						50	75	100	150	200	25	50	75	100	150	200	300	400							
23	1750	STD	28	3.9	.01	.01	.01	.01	.01	63	89	117				21	20	19	18						
			32		.36	.12	.03	.02	.01							.69	1.1	1.5	1.9						
			38	3.9	.46	.15	.04	.02	.01	63	89	117	167				22	21	21	19	18				
			50		.56	.18	.05	.03	.01							.92	1.1	1.7	2.1	2.9					
			70	3.9	.63	.20	.06	.03	.01	64	90	119	167	230			23	23	22	21	20	20			
			100		.74	.24	.07	.03	.01							1.1	1.4	1.8	2.2	3.1	3.8				
			150	3.9	.83	.27	.08	.04	.01	64	90	119	167	230			24	24	23	22	22	22	21	19	
			200		.87	.31	.10	.05	.02							1.4	1.6	2.1	2.4	3.2	3.9	5.3	6.6		
			300	3.9	.90	.34	.12	.06	.03	65	91	123	167	230			25	24	24	23	23	23	22	21	
			500		1.47	.56	.19	.10	.04							1.6	1.9	2.4	2.7	3.4	4.2	5.6	6.9		
		750	3.9	2.20	.84	.28	.15	.06	65	91	123	167	230			25	25	25	24	24	24	24	23		
		1,000		2.94	1.12	.38	.20	.08							1.8	2.2	2.7	3.0	3.7	4.4	5.8	7.1			
				"C"	2,000	5.0	5.87	2.24	.75	.40	.15	69	97	124	168	232		25	25	25	25	25	24	24	24
					3,500		10.3	3.91	1.31	.71	.26							2.4	2.9	3.6	3.7	4.4	4.9	6.4	7.6
				"C"	5,000	5.8	14.7	5.59	1.87	1.01	.37	74	100	127	170	233		25	25	25	25	25	25	24	24
					7,500		22.0	8.40	2.80	1.51	.56							3.1	3.4	4.1	4.4	5.1	5.8	7.3	8.3
				"C"	10,000	6.5	29.4	11.2	3.73	2.01	.74	79	104	130	172	233		25	25	25	25	25	25	25	24
					15,000		44.0	16.8	5.60	3.02	1.11							3.7	4.1	4.6	5.2	5.9	6.6	8.2	9.3
				"D"	20,000	7.1	58.7	22.4	7.46	4.03	1.48	84	109	134	175	234		25	25	25	25	25	25	25	24
					25,000		73.4	28.0	9.32	5.03	1.85							4.2	4.6	5.5	6.2	7.0	7.8	9.3	11
				"D"	50,000																				
					75,000																				
		100,000																							
		150,000																							
		200,000																							
			250,000																						

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



GF

PUMP HYDRAULIC SIZE CHART

SEC. 500

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January 2010

**15 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		25	50	75	100	150	200	300	400									
15	1150	STD	28	2.2	.01	.01	.01	.01	.01	59	86	111				13	11	10	9.5												
			32		.17	.06	.02	.01	.01							.56	.72	.96	1.2												
			38	2.2	.22	.07	.02	.01	.01	59	86	111	161				13	13	11	11	9.5										
			50		.27	.09	.03	.01	.01								.62	.78	1.0	1.3	1.8										
			70	2.2	.30	.10	.03	.01	.01	60	87	113	163	215			14	14	13	12	12	11									
			100		.36	.12	.03	.02	.01								.66	.83	1.1	1.4	1.9	2.4									
			150	2.2	.41	.14	.05	.02	.01	60	87	113	163	217			15	15	14	14	13	13	13	13	12						
			200		.46	.18	.06	.03	.01								.78	.98	1.2	1.5	1.9	2.4	3.5	4.6							
			300	2.2	.58	.22	.08	.04	.02	60	87	115	165	219			16	15	15	15	15	14	14	13							
			500		.96	.37	.12	.07	.03								.94	1.2	1.4	1.6	2.1	2.6	3.6	4.7							
			750	2.2	1.44	.55	.18	.10	.04	60	87	115	165	222			16	16	16	16	16	15	15	14							
			1,000		1.92	.73	.25	.13	.05								1.1	1.3	1.5	1.7	2.2	2.7	3.7	4.8							
		2,000	2.8	3.83	1.46	.49	.26	.10	62	90	115	165	222			17	17	16	16	16	16	15	15								
		3,500		6.70	2.55	.85	.46	.17								1.4	1.8	2.0	2.1	2.6	3.1	4.1	5.1								
		5,000	3.2	9.57	3.64	1.22	.66	.24	65	92	117	167	224			17	17	16	16	16	16	16	16								
		7,500		14.4	5.46	1.83	.99	.36								1.6	2.0	2.2	2.4	2.9	3.5	4.4	5.4								
		10,000	3.6	19.1	7.29	2.43	1.31	.49	68	94	119	169	224			17	17	16	16	16	16	16	16								
		15,000		28.7	10.9	3.65	1.97	.73								1.9	2.4	2.7	3.0	3.5	4.0	4.8	5.9								
		20,000	3.9	38.3	14.6	4.87	2.63	.97	72	97	122	172	224			17	17	16	16	16	16	16	16								
		25,000		47.8	18.2	6.08	3.28	1.21								2.2	2.8	3.2	3.5	4.0	4.5	5.3	6.5								
		50,000	6.1	95.7	36.4	12.2	6.56	2.42	77	102	127	177	229			17	16	16	16	16	16	16	16								
		75,000		144	54.6	18.3	9.85	3.63								3.6	4.5	5.1	5.7	6.3	6.8	7.7	8.8								
		100,000																													
		150,000																													
200,000																															
250,000																															

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



GF

PUMP HYDRAULIC SIZE CHART

SEC. 500

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**11 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)												
					3/4"	1"	1 1/4"	1 1/2"	2"	LOW PRES R/V			HI PRES R/V		25	50	75	100	150	200	300	400					
11	870	STD	28	1.5	.01	.01	.01	.01	.01	57	82	107			9	8	7	6									
			32		.10	.03	.01	.01	.01							.32	.53	.71	.91								
			38	1.5	.13	.04	.01	.01	.01	57	82	107	158			10	9	8	7.5	6.5							
			50		.16	.05	.02	.01	.01							.50	.59	.85	1.1	1.4							
			70	1.5	.18	.06	.02	.01	.01	57	82	108	159	210			10	10	9.5	9	8	7					
			100		.21	.06	.02	.01	.01							.54	.63	.88	1.1	1.5	1.8						
			150	1.5	.26	.09	.03	.01	.01	58	83	109	159	212			11	11	10	10	10	9.5	9.5	8			
			200		.33	.12	.05	.02	.01							.61	.71	.94	1.2	1.5	1.8	2.5	3.3				
			300	1.5	.43	.16	.06	.03	.01	58	83	110	160	213			12	12	11	11	11	10	10	9.5			
			500		.70	.27	.09	.05	.02							.69	.81	1.0	1.3	1.6	1.9	2.5	3.5				
			750	1.5	1.05	.40	.14	.07	.03	58	83	112	162	215			12	12	12	12	12	11	11	11			
			1,000		1.41	.54	.18	.10	.04							.79	.93	1.1	1.3	1.7	2.0	2.6	3.6				
		2,000	2.0	2.81	1.07	.36	.19	.07	59	86	113	163	215			13	12	12	12	12	12	11	11				
		3,500		4.91	1.87	.63	.34	.13							.98	1.2	1.3	1.5	1.8	2.2	2.8	3.7					
		5,000	2.4	7.02	2.67	.89	.48	.18	61	86	113	163	215			13	12	12	12	12	12	12	11				
		7,500		10.5	4.00	1.34	.72	.27							1.3	1.5	1.7	1.9	2.2	2.6	3.2	4.1					
		10,000	2.7	14.0	5.34	1.78	.96	.36	64	89	115	167	217			13	12	12	12	12	12	12	12				
		15,000		21.1	8.01	2.68	1.45	.53							1.5	1.8	2.1	2.3	2.6	2.9	3.6	4.4					
		20,000	3.0	28.1	10.7	3.57	1.93	.71	67	92	117	169	219			13	12	12	12	12	12	12	12				
		25,000		35.1	13.4	4.46	2.41	.89							1.9	2.2	2.4	2.5	2.9	3.3	4.1	4.8					
		50,000	4.9	70.2	26.7	8.92	4.81	1.77	70	95	123	173	225			13	12	12	12	12	12	12	12				
		75,000		105	40.1	13.4	7.22	2.66							2.9	3.4	3.6	3.8	4.2	4.6	5.4	6.1					
		100,000	7.1	140	53.4	17.9	9.63	3.55	74	99	127	177	231			12	12	12	12	12	12	12	12				
		150,000		211	80.1	26.8	14.5	5.32							3.6	4.3	4.5	4.7	5.1	5.4	6.2	6.9					
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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8 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										
8	580	STD	28	1.1	.01	.01	.01	.01	.01	56	81	106			6	5	4.5	4										
			32	1.1	.06	.02	.01	.01	.01							.21	.35	.47	.61									
			38	1.1	.07	.03	.01	.01	.01	56	81	106	157			6.5	6	5.5	4.5	4								
			50	1.1	.09	.03	.01	.01	.01							.34	.40	.57	.74	.92								
			70	1.1	.10	.04	.01	.01	.01	56	81	107	158	209		7	6.5	6	6	5.5	4.5							
			100	1.1	.10	.04	.01	.01	.01							.36	.42	.59	.76	.98	1.2							
			150	1.1	.15	.05	.02	.01	.01	57	82	108	158	211		7.5	7.5	7	6.5	6.5	6	6	6	5				
			200	1.1	.24	.08	.03	.02	.01							.41	.48	.63	.78	1.0	1.2	1.7	2.2					
			300	1.1	.31	.12	.04	.02	.01	57	82	109	159	212		8	8	7.5	7	7	7	6.5	6					
			500	1.1	.51	.19	.07	.04	.01							.46	.54	.69	.84	1.1	1.3	1.7	2.3					
		750	1.1	.77	.29	.10	.05	.02	57	82	111	161	214		8.5	8	8	8	8	7	7.5	7						
		1,000	1.1	1.02	.39	.14	.07	.03							.53	.62	.76	.89	1.1	1.4	1.7	2.4						
		"C"	2,000	1.5	2.04	.78	.26	.14	.05	58	85	112	162	214		8.5	8.5	8	8	8	8	7.5	7.5					
			3,500	1.5	3.57	1.36	.46	.25	.09						.66	.77	.88	.99	1.2	1.5	1.9	2.5						
			5,000	1.9	5.01	1.94	.65	.35	.13	60	85	112	162	214		8.5	8.5	8	8	8	8	8	7.5	7.5				
			7,500	1.9	7.65	2.91	.97	.53	.19						.84	.99	1.1	1.3	1.5	1.7	2.1	2.7						
			10,000	2.2	10.2	3.88	1.30	.70	.26	63	88	114	166	216		8.5	8.5	8	8	8	8	8	7.5	7.5				
			15,000	2.2	15.3	5.83	1.95	1.05	.39							1.0	1.2	1.3	1.4	1.6	1.9	2.4	2.9					
			20,000	2.5	20.4	7.77	2.59	1.40	.52	66	91	116	168	218		8.5	8.5	8	8	8	8	8	8	8				
			25,000	2.5	25.5	9.71	3.24	1.75	.65							1.0	1.2	1.4	1.5	1.7	2.0	2.5	3.0					
			50,000	4.0	51.1	19.4	6.50	3.50	1.29	68	93	120	170	222		8.5	8.5	8	8	8	8	8	8	8				
			75,000	4.0	76.5	29.1	9.73	5.25	1.93							1.6	1.9	2.1	2.2	2.4	2.7	3.2	3.7					
		"D"	100,000	6.0	102	38.9	13.0	7.00	2.58	70	95	122	172	224		8.5	8	8	8	8	8	8	8					
			150,000	6.0	153	58.3	19.5	10.5	3.87							2.1	2.5	2.6	2.7	3.0	3.2	3.7	4.2					
			200,000	9.4	204	77.7	26.0	14.0	5.15	76	101	130	180	236		8.5	8.5	8.5	8.5	8	8	8	8					
250,000	9.4		-	-	-	-	-							2.5	3.0	3.1	3.2	3.4	3.7	4.2	4.7							

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



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3 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"	DIFFERENTIAL PRESSURE (PSI)											
										25	50	75	100	150	200	300	400				
3	200	STD																			
				"D"																	
			200,000	2.3	5.3	1.9	0.95	0.4	0.1	2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.7				
			399,999		10.5	3.9	1.9	0.8	0.3	0.8	0.9	0.9	1.0	1.1	1.2	1.3	1.4				
			400,000	2.6						2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.7				
			599,999		15.8	5.8	2.9	1.2	0.4	1.0	1.0	1.0	1.1	1.2	1.3	1.4	1.5				
			600,000	3.2						2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.7				
			799,999		21	7.7	3.8	1.6	0.5	1.1	1.1	1.1	1.2	1.3	1.4	1.5	1.6				
			800,000	3.5						2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.7				
			1M		NR	9.7	4.75	2	0.7	1.2	1.2	1.2	1.3	1.4	1.5	1.6	1.7				

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