

**GHC SERIES
 HEAVY DUTY COMPACT
 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 GHC steel series is designed for applications in the operating ranges noted on the model pages. These units are available with head 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. These units may be foot mounted or, by using a motor adaptor, direct connected to NEMA "C" flange motors.

FEATURES

- 400 PSI CAPABILITY
- BALL BEARING THRUST CONTROL
- ROTOR END CLEARANCE EXTERNALLY ADJUSTABLE
- HIGH STRENGTH, COMPUTER PROFILED GEARING FOR QUIET OPERATION
- MULTIPLE PORT POSITIONS
- INTERNAL SEAL VENT

OPERATING RANGE

CAPACITY	(GPM) :	(3 TO 107)
	[LPM] :	[11 TO 405]
PRESSURE	(PSI) :	[0 TO 300]
	[BAR] :	[0 TO 21]
VISCOSITY	(SSU) :	(28 TO 25,000)
	[cSt] :	[1 TO 5417]
TEMPERATURE	(F) :	(-20° TO 350°)
	[C] :	[-29° TO 177°]

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]			
GHC	GHS							LBS [KG]	CU. FT.			
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 ● 350 [177]	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]							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]							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]		100 [7]	150 [10]				400 [204]	71 [32,2]
GHC 3 JG32-B ● †	GHS 3 JG32-B ● † GHS 3 JG38-B ■ †	40 [126]	1150 [960]	30 [95]	870 [725]				GHS ● 500 [260]	154 [69,8]	5.3	
GHC 3 JJ32-B ● †	GHS 3 JJ32-B ● † GHS 3 JJ38-B ■ †	56 [177]		36 [114]				300 [21]			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]

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. LBS [KG]	Vol. CU. FT.	
		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	GHS											
	GHS 2 NK32-B ● † GHS 2 NK38-B ■ †	99 [375]	960 [960]	60 [189]	580 [480]			300 [21]		200 [90,7]	5.3	
	GHS 3 NK32-B ● † GHS 3 NK38-B ■ †									200 [90,7]		5.3
	GHS 2 NM32-B ● † GHS 2 NM38-B ■ †	132 [500]	960 [960]	80 [252]	580 [480]			300 [21]		200 [90,7]	5.3	
	GHS 3 NM32-B ● † GHS 3 NM38-B ■ †									200 [90,7]		5.3
	GHS 3 NP32-B ① ● † GHS 3 NP38-B ① ■ †	165 [624]	960 [960]	99 [312]	580 [480]			300 [21]		200 [90,7]	5.3	
	GHS 2-1/2 RM32-B ● † GHS 2-1/2 RM38-B ■ †	172 [542]		720 [600]						143 [451]		480 [400]
	GHS 3 RM32-B ● † GHS 3 RM38-B ■ †		302 [136,9]		10.7							
	GHS 4 RM32-B ● † GHS 4 RM38-B ■ †	215 [678]	720 [600]	143 [451]	480 [400]	100 [7]	150 [10]	300 [21]		302 [136,9]	10.7	
	GHS 3 RP32-B ● † GHS 3 RP38-B ■ †									302 [136,9]		10.7
	GHS 4 RP32-B ● † GHS 4 RP38-B ■ †	255 [804]	720 [600]	170 [536]	480 [400]	100 [7]	150 [10]	300 [21]		302 [136,9]	10.7	
	GHS 3 RR32-B ● † GHS 3 RR38-B ■ †									302 [136,9]		10.7
	GHS 4 RR32-B ● † GHS 4 RR38-B ■ †	295 [930]	720 [600]	196 [618]	480 [400]	100 [7]	150 [10]	300 [21]		302 [136,9]	10.7	
	GHS 3 RS32-B ① ● † GHS 3 RS38-B ① ■ †									302 [136,9]		10.7
	GHS 4 RS32-B ① ● † GHS 4 RS38-B ① ■ †									302 [136,9]	10.7	

STANDARD MODELS CONTINUED

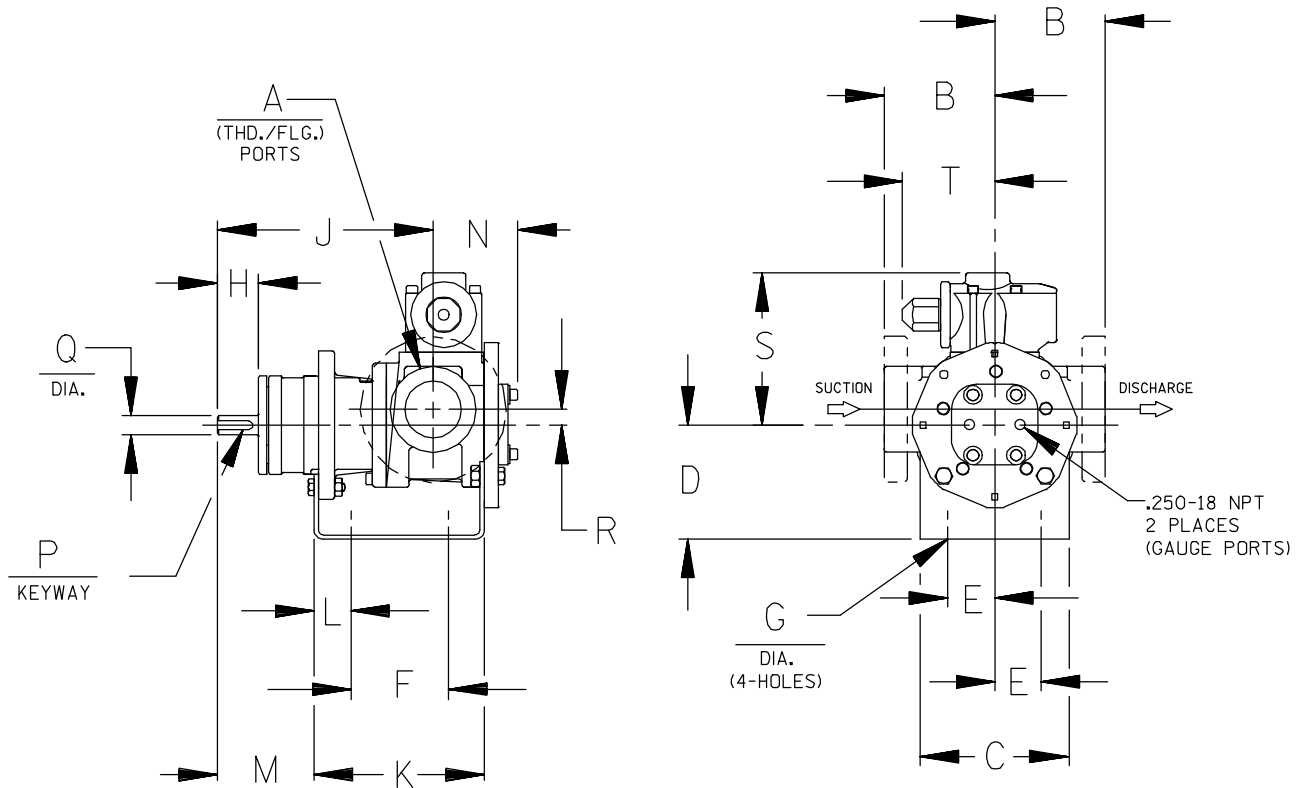
- MECHANICAL SEAL
- LIPSEAL/PACKING
- † PORTS ARE COMPATIBLE WITH 150# ANSI FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE. OPTIONAL [DIN] FLANGES OR TAPPED [BSP] PORTS AVAILABLE FOR EXPORT MARKET.

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

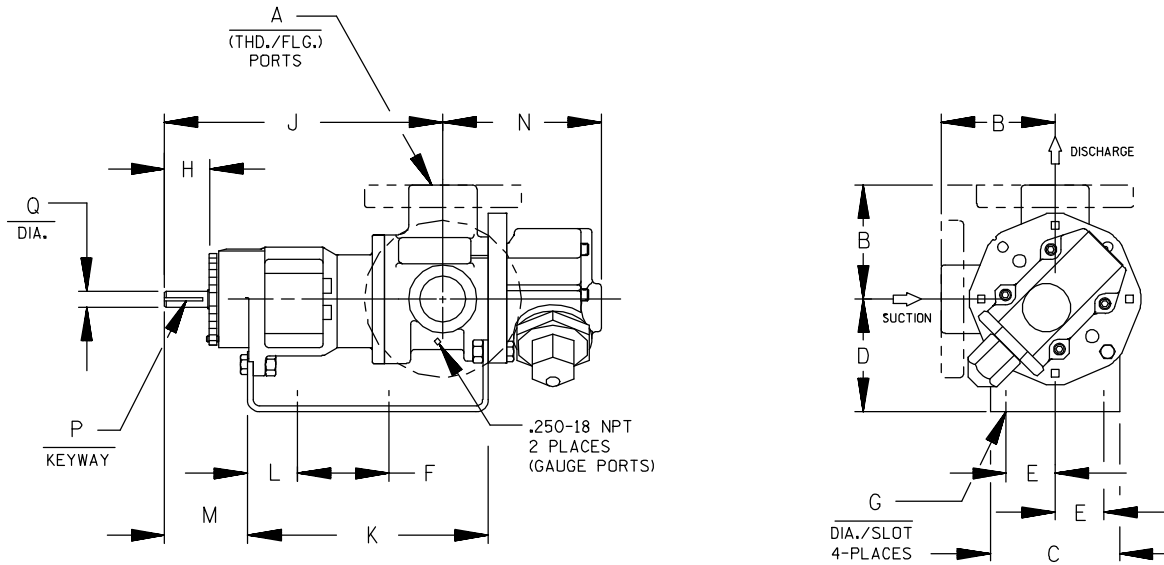
NOTE: PROPER PUMP APPLICATION REQUIRES CONSIDERATION OF ADDITIONAL FACTORS. PLEASE REVIEW APPLICATION GUIDE IN SECTION 500 OR CONSULT THE FACTORY.



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"													.38 [10] x 1.88 [48]	1.44 [37]
	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]		
	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**

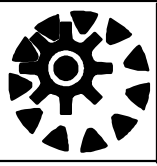
SEE

SECTION 540

**FOR GHS DRIVE OPTIONS
AND DIMENSIONS**

SEE

SECTION 545

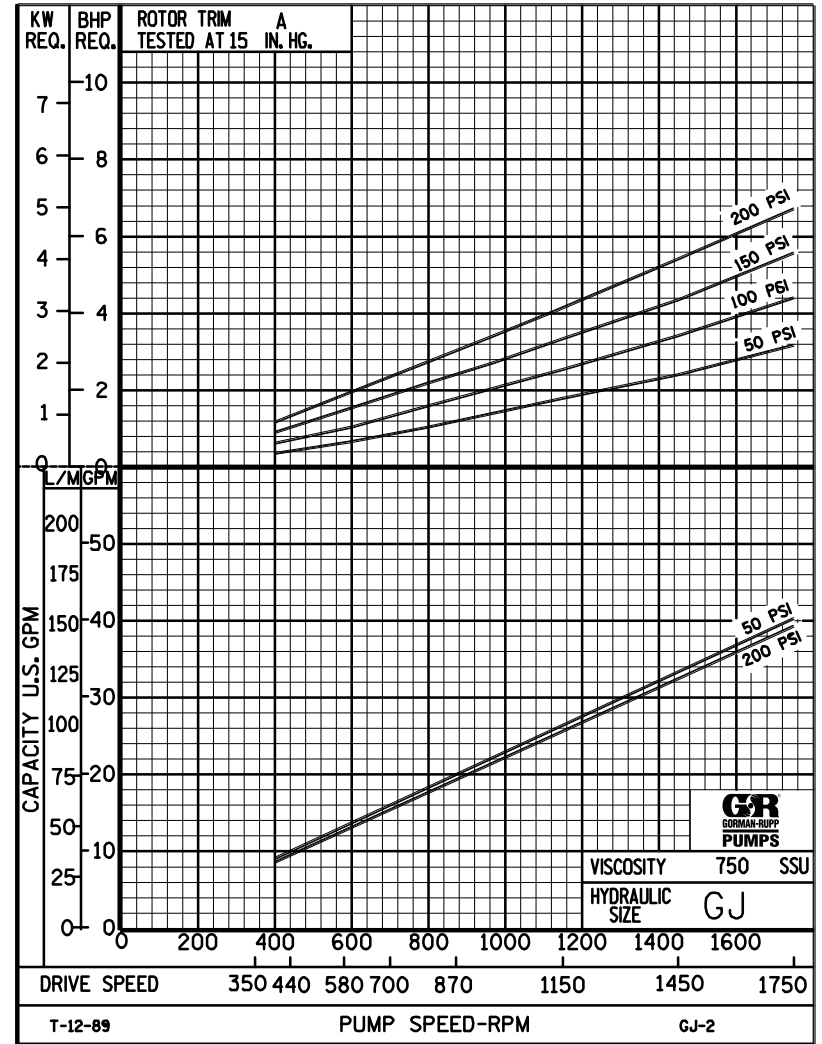
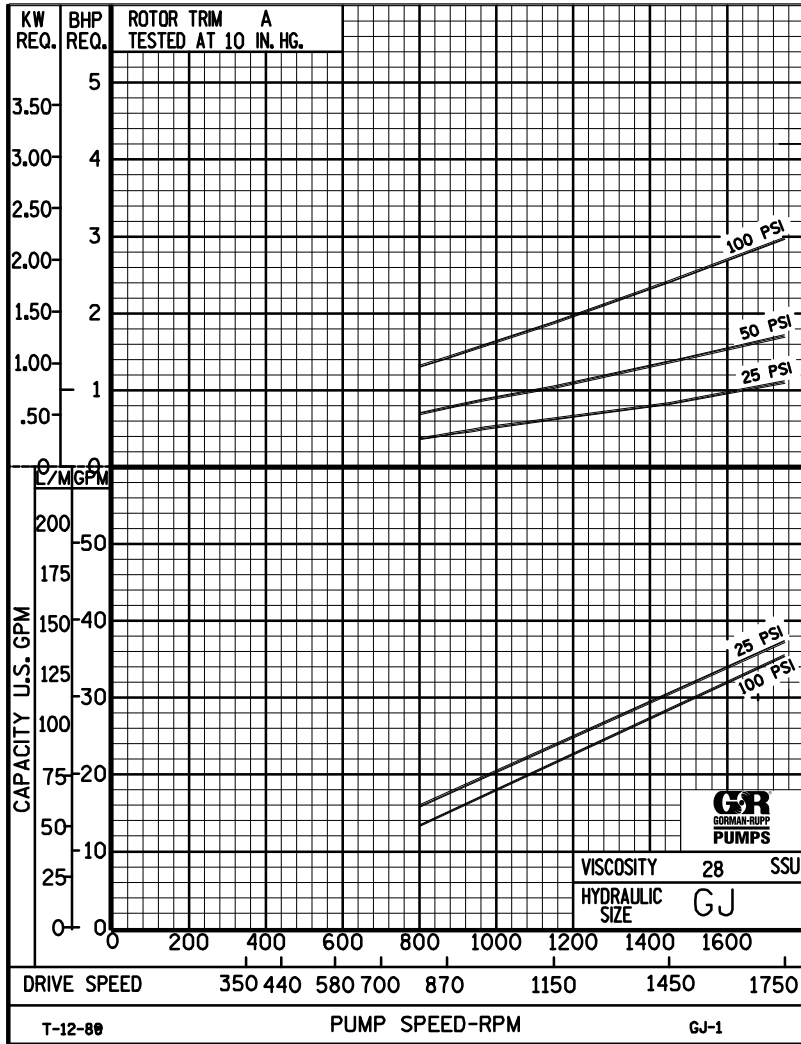


PERFORMANCE CURVES

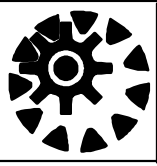
SPEED VS. CAPACITY/HORSEPOWER

GJ

Hydraulic Size



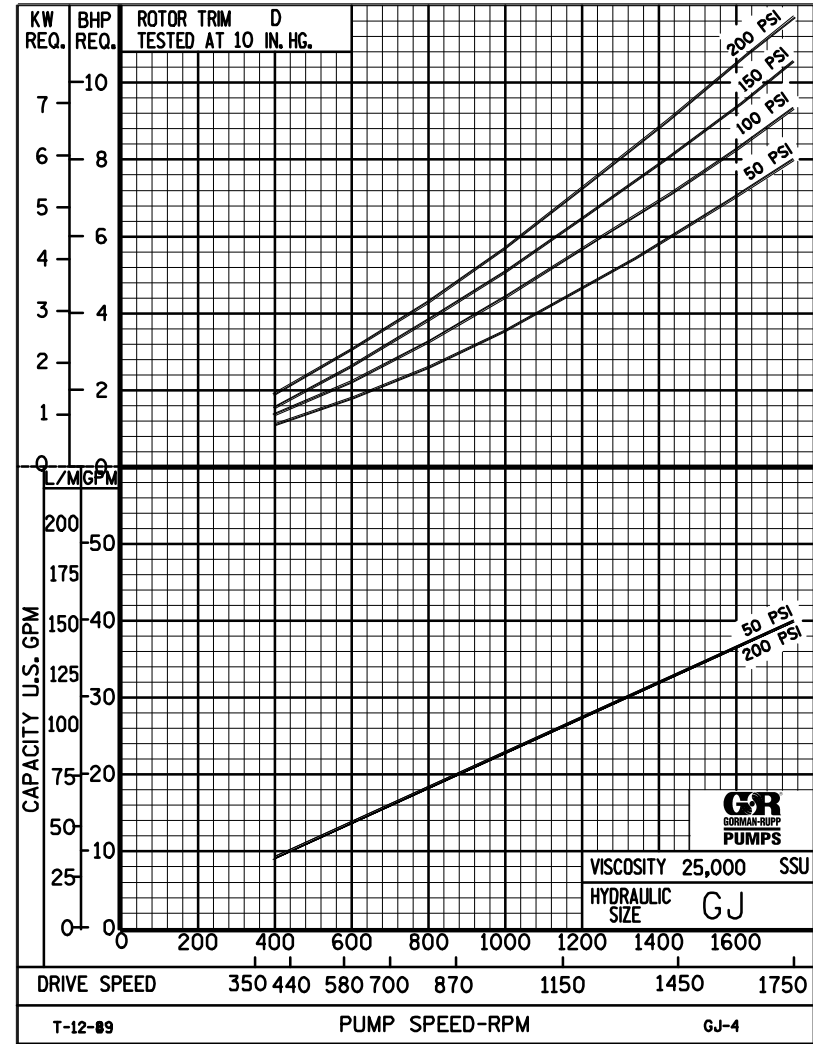
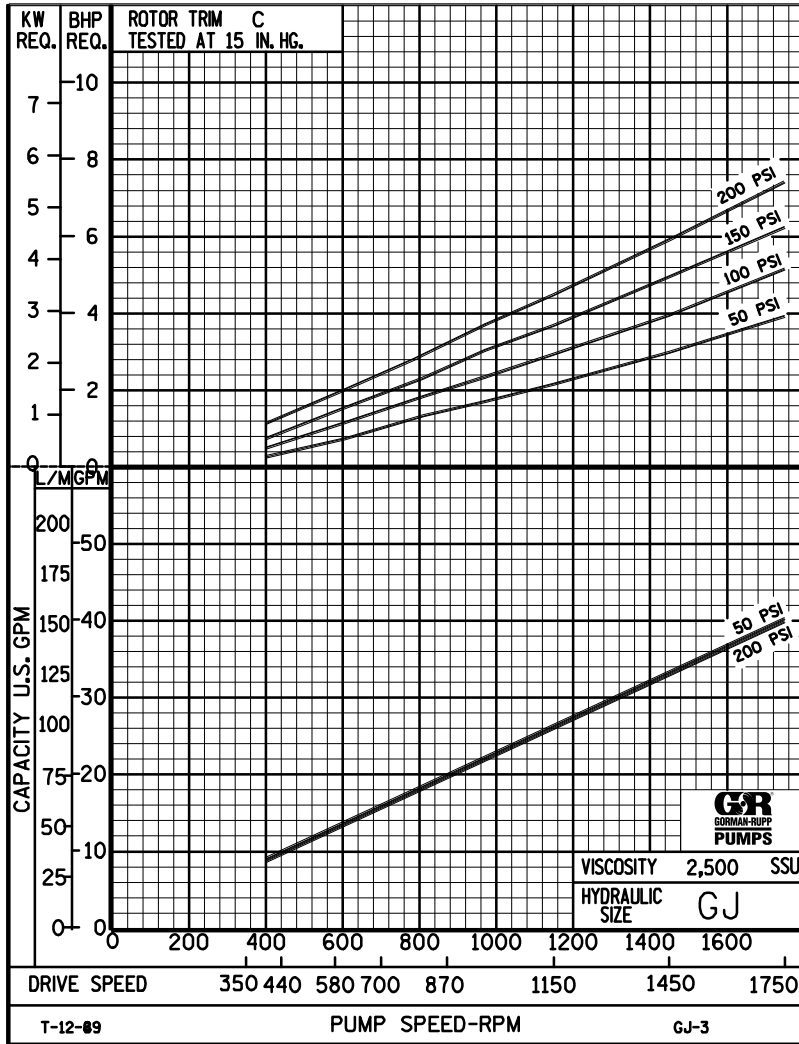
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PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

GJ Hydraulic Size



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GJ

PUMP HYDRAULIC SIZE CHART

SEC. 500

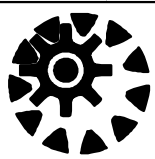
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**38 GPM
1750 RPM**

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

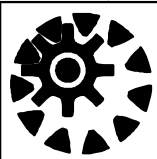
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January 2010

**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

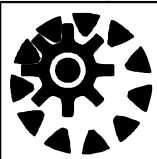
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**19 GPM
870 RPM**

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		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.



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PUMP HYDRAULIC SIZE CHART

SEC. 500

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**13 GPM
580 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								
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					
		3,500		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					
		7,500		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					
		15,000		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.



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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	4.6	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	4.6	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	4.6	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.