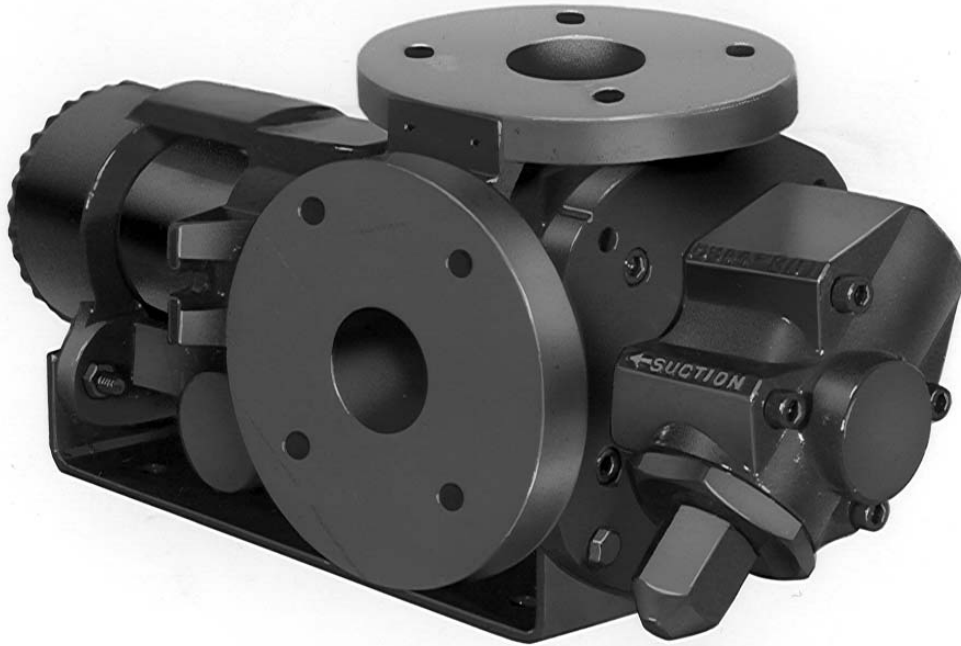


GHS SERIES Flexible Seal HEAVY DUTY STANDARD STEEL ROTARY GEAR PUMP

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				
		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]	Wt. LBS [KG]	Vol. CU. FT.		
GHC	GHS												
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]	100 [7]	150 [10]	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]						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]				71 [32,2]	2.9				
GHC 3 JG32-B ● †	GHS 3 JG32-B ● † GHS 3 JG38-B ■ †	40 [126]	1150 [960]	30 [95]	870 [725]			100 [7]	150 [10]	300 [21]	GHS ●	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]						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. 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]	
	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]	
	GHS 3 NP32-B ① ● † GHS 3 NP38-B ① ■ †	165 [624]	960 [960]	99 [312]	580 [480]			200 [14]		200 [90,7]	5.3
	GHS 2-1/2 RM32-B ● † GHS 2-1/2 RM38-B ■ †	172 [542]								720 [600]	
	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]	
	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]	
	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]	
	GHS 4 RS32-B ① ● † GHS 4 RS38-B ① ■ †							200 [14]		302 [136,9]	10.7

STANDARD MODELS CONTINUED

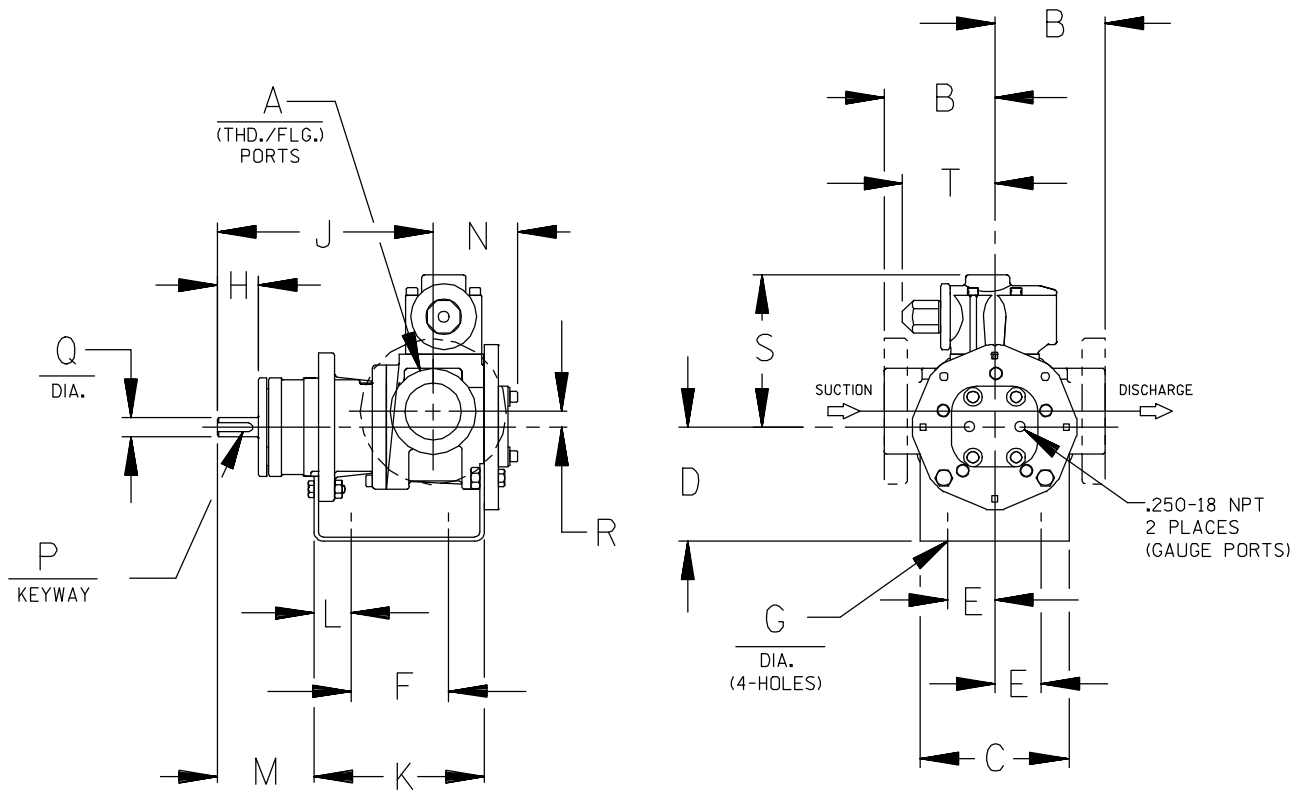
- MECHANICAL SEAL
- LIPSEAL/PACKING
- † PORTS ARE COMPATIBLE WITH 150# ANSI FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE. OPTIONAL [DIN] FLANGES OR TAPPED [BSP] PORTS AVAILABLE FOR EXPORT MARKET.

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

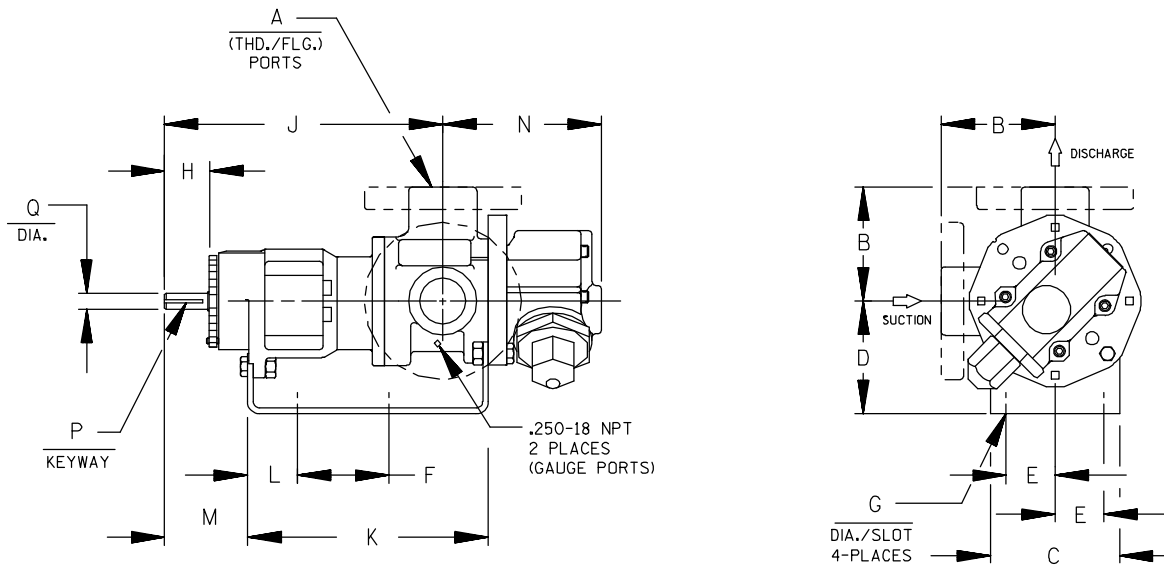
NOTE: PROPER PUMP APPLICATION REQUIRES CONSIDERATION OF ADDITIONAL FACTORS. PLEASE REVIEW APPLICATION GUIDE IN SECTION 500 OR CONSULT THE FACTORY.



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 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

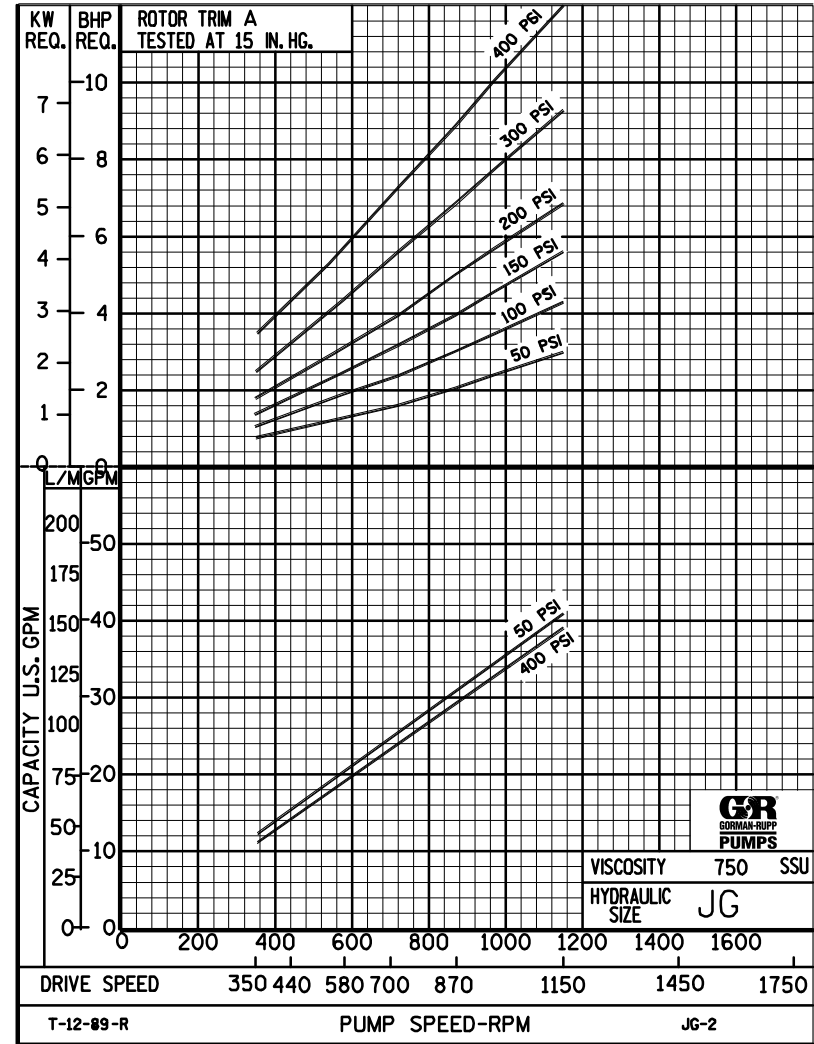
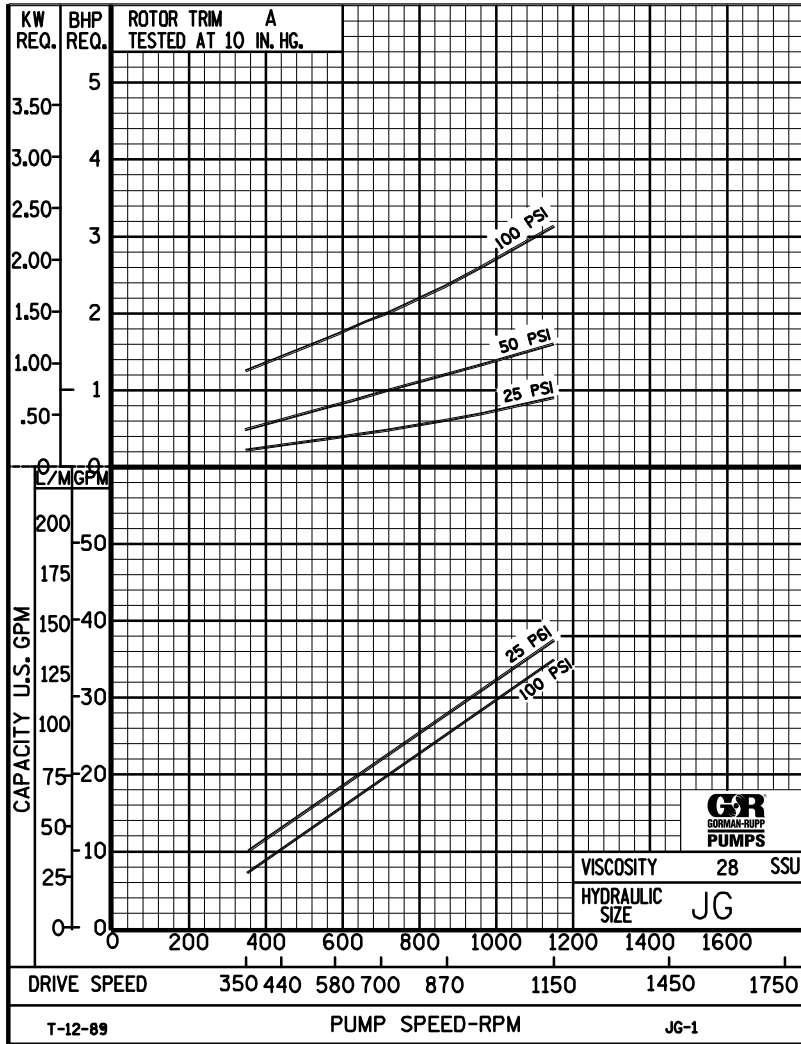


PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

JG

Hydraulic Size



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PERFORMANCE CURVES

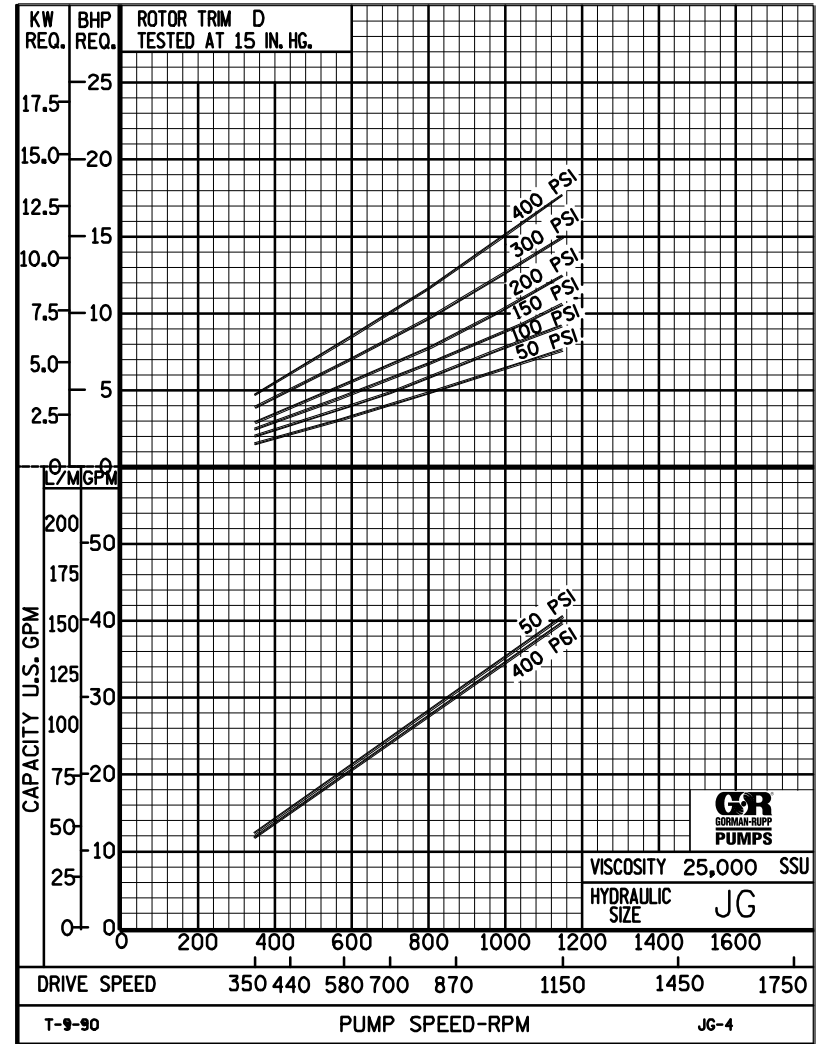
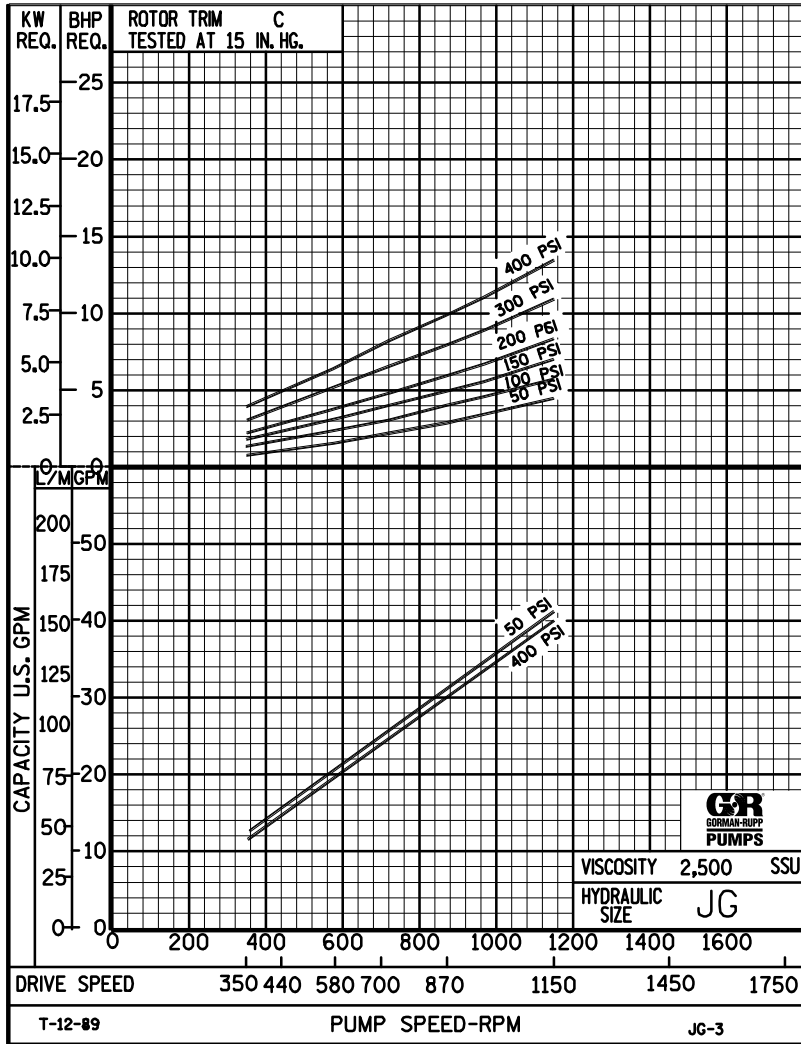
SPEED VS. CAPACITY/HORSEPOWER

JG Hydraulic Size

SEC. 500

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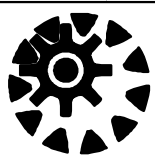
January 2010



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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) <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		25	50	75	100	150	200	300	400									
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				38	37	37	36	35										
			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			39	38	38	37	37	36									
			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			40	39	39	39	38	38	37	36							
			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			40	40	40	39	39	39	38	37							
			500		.18	.06	.03	.01	.01								2.3	2.8	3.4	3.9	5.5	6.7	9.1	12							
			750	3.9	.26	.10	.05	.02	.01	60	87	118	160	212			41	41	40	40	40	40	39	39							
			1,000		.35	.13	.06	.03	.01								2.6	3.0	3.6	4.3	5.6	6.9	9.3	12							
		2,000	3.9	.70	.26	.13	.05	.02	62	89	120	162	214			41	41.1	41	41	40	40	40	40								
		3,500		1.23	.45	.22	.09	.03								3.9	4.5	5.1	5.7	7.0	8.4	11	14								
		5,000	3.9	1.75	.65	.32	.13	.05	64	91	122	162	214			41	41	41	41	40	40	40	40								
		7,500		2.63	.97	.48	.20	.07								4.4	5.7	6.2	7.0	8.3	9.6	12	15								
		10,000	3.9	3.50	1.29	.63	.27	.09	66	93	125	162	216			41	41	41	40	40	40	40	40								
		15,000		5.25	1.93	.95	.40	.14								5.8	7.0	7.4	8.3	9.6	11	14	14								
		20,000	4.0	7.00	2.58	1.27	.53	.18	68	95	128	162	216			40	40	40	40	40	40	40	39								
		25,000		8.75	3.22	1.58	.67	.23								7.2	7.8	8.5	9.2	11	12	15	18								
		50,000	5.3	17.5	6.44	3.17	1.33	.45	72	99	132	166	220			40	40	40	40	40	40	40	39								
		75,000		-	-	-	-	-								11	12	12	13	15	17	20	24								
		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

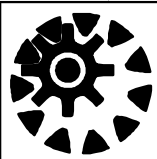
SEC. 500

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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

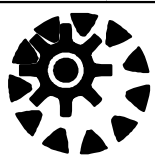
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**20 GPM
580 RPM**

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									
							50	75	100	150	200	25	50	75	100	150	200	300	400									
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.