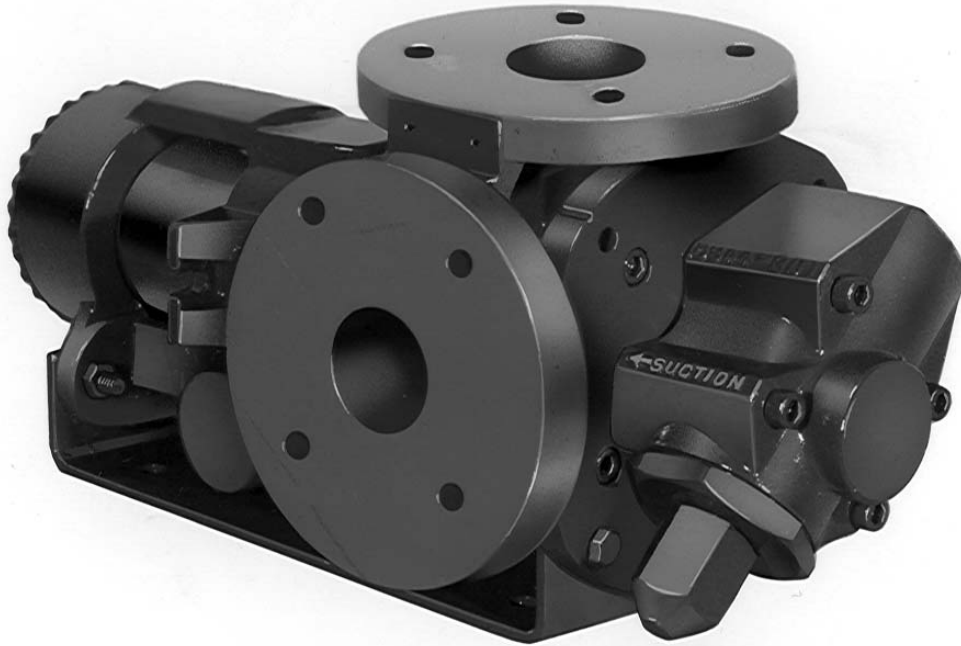


GHS SERIES Flexible Seal HEAVY DUTY STANDARD STEEL ROTARY GEAR PUMP

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]			
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]							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.	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]	GHS ■ 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]		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]		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]		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]		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]		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]		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]		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]		302	10.7
										[136,9]	

STANDARD MODELS CONTINUED

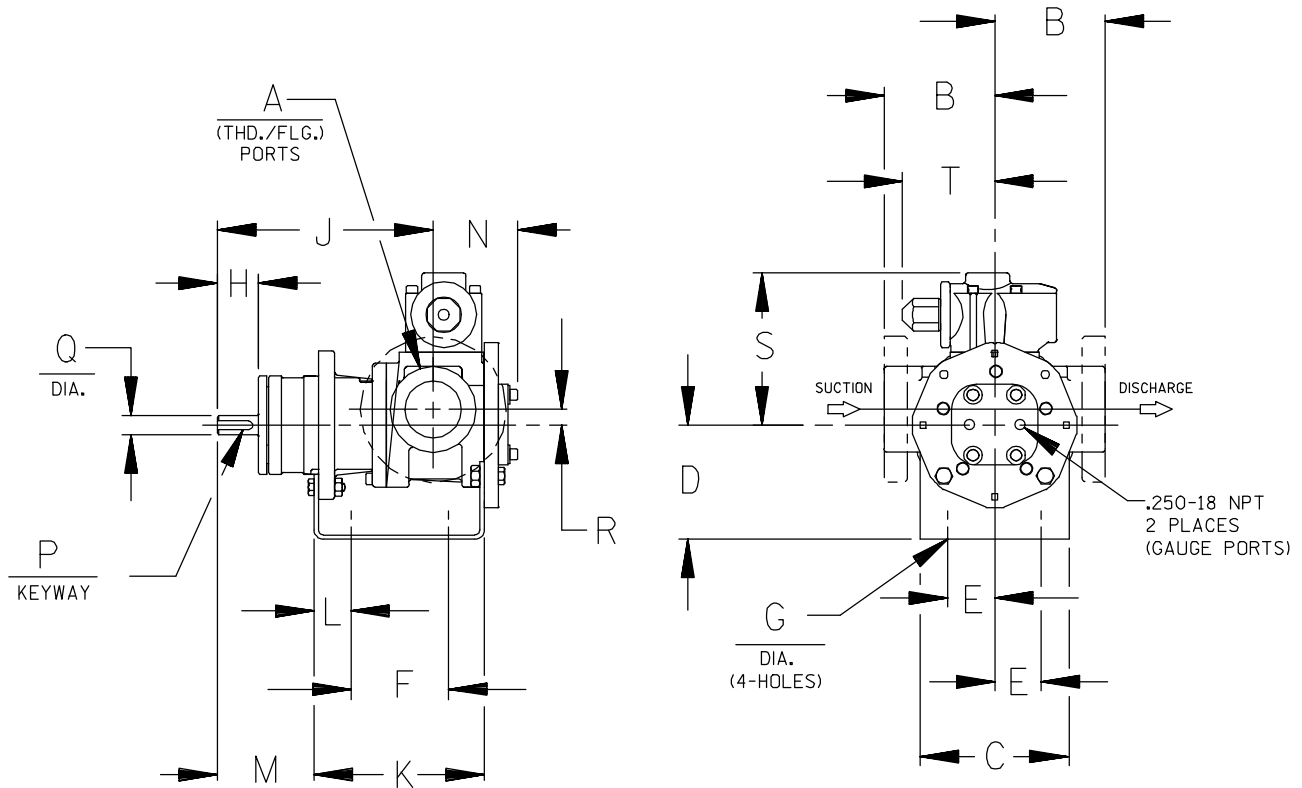
- MECHANICAL SEAL
- LIPSEAL/PACKING
- † PORTS ARE COMPATIBLE WITH 150# ANSI FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE. OPTIONAL [DIN] FLANGES OR TAPPED [BSP] PORTS AVAILABLE FOR EXPORT MARKET.

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

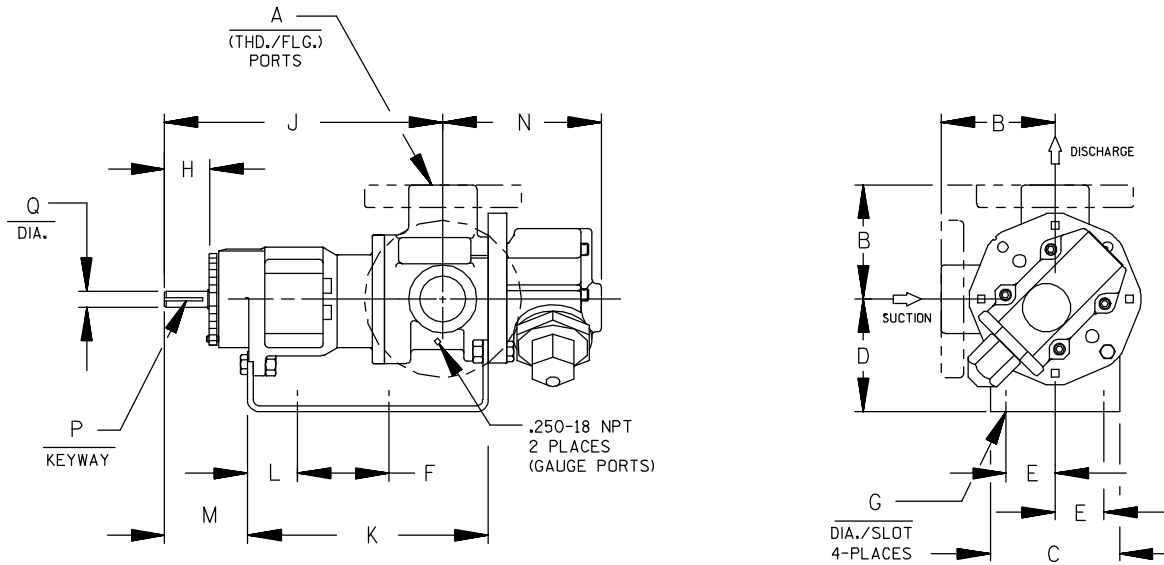
NOTE: PROPER PUMP APPLICATION REQUIRES CONSIDERATION OF ADDITIONAL FACTORS. PLEASE REVIEW APPLICATION GUIDE IN SECTION 500 OR CONSULT THE FACTORY.



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]	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"	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]
	3"														
	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

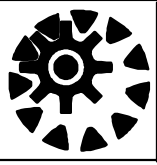
SECTION 540

FOR GHS DRIVE OPTIONS

AND DIMENSIONS

SEE

SECTION 545



PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

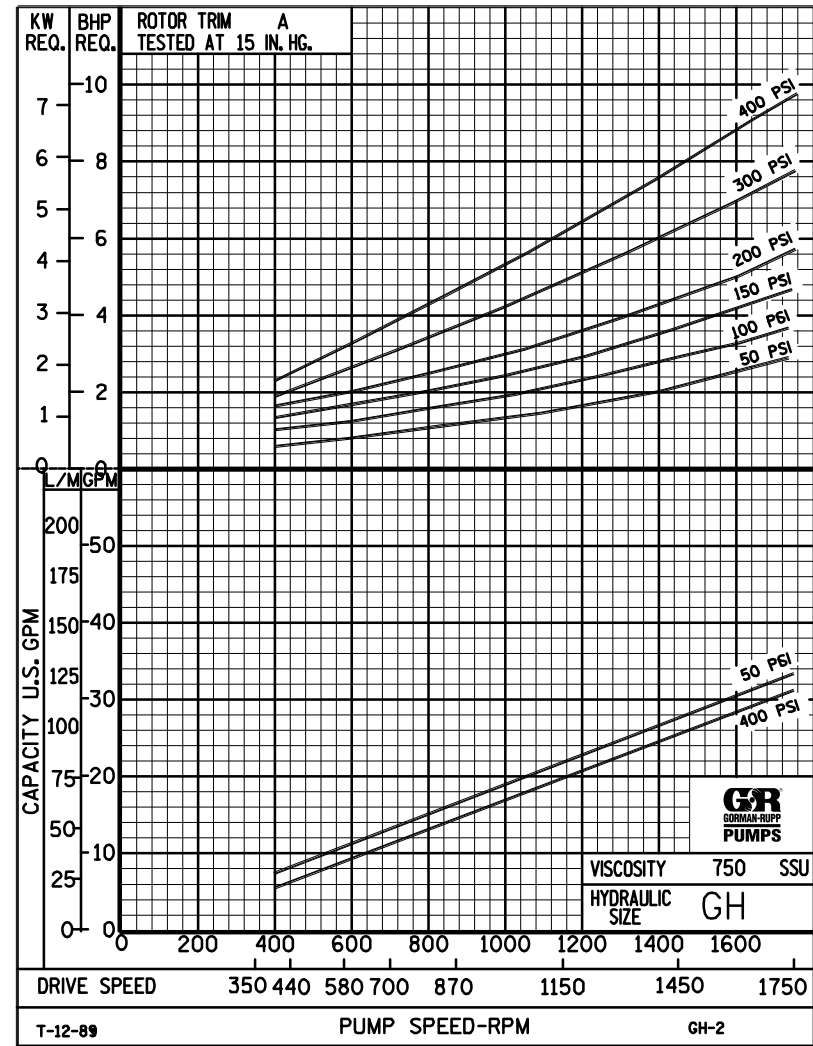
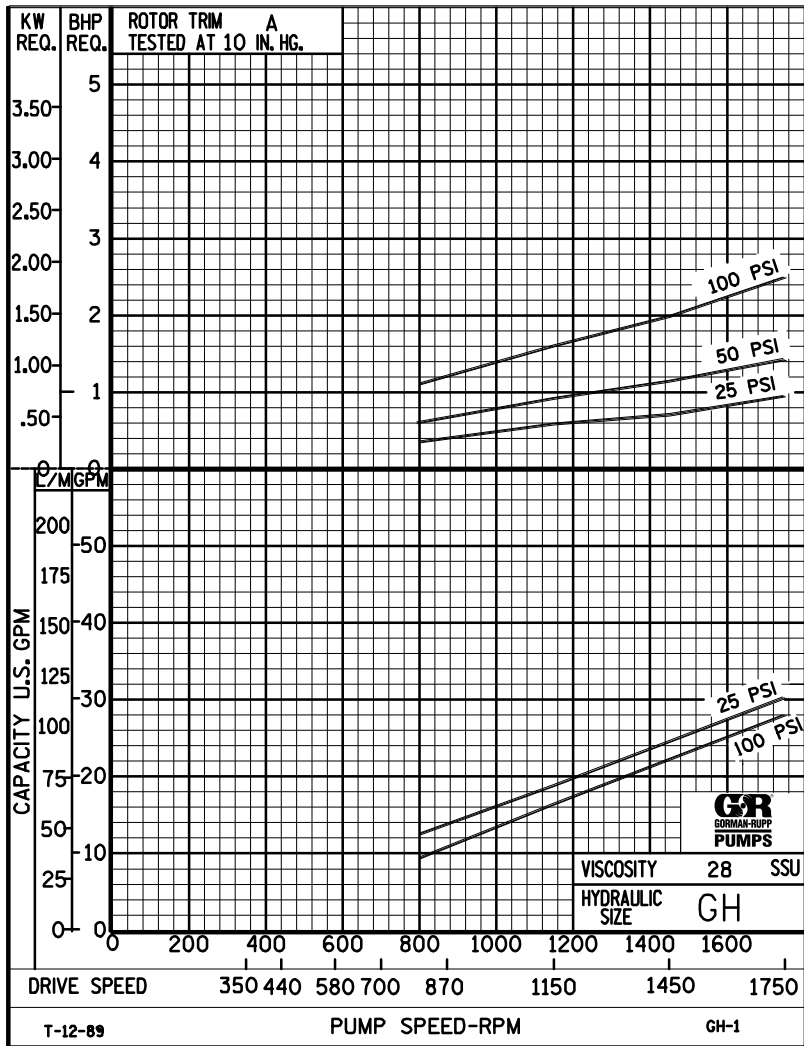
GH

Hydraulic Size

SEC. 500

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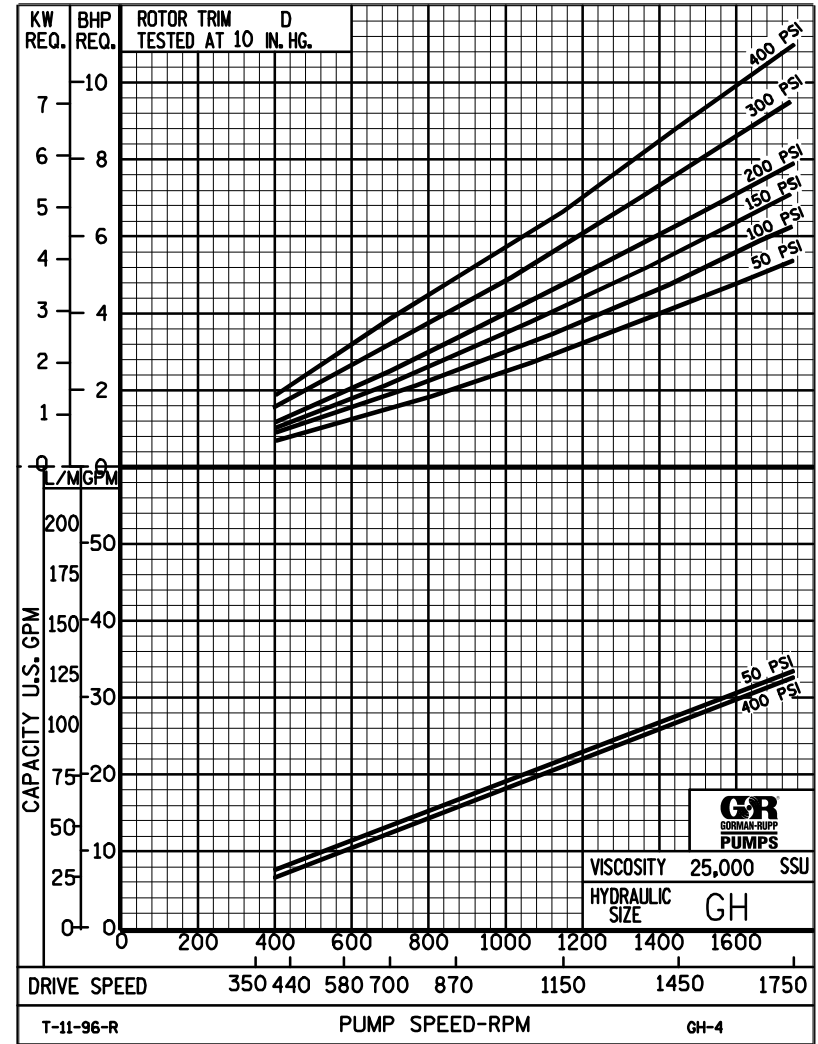
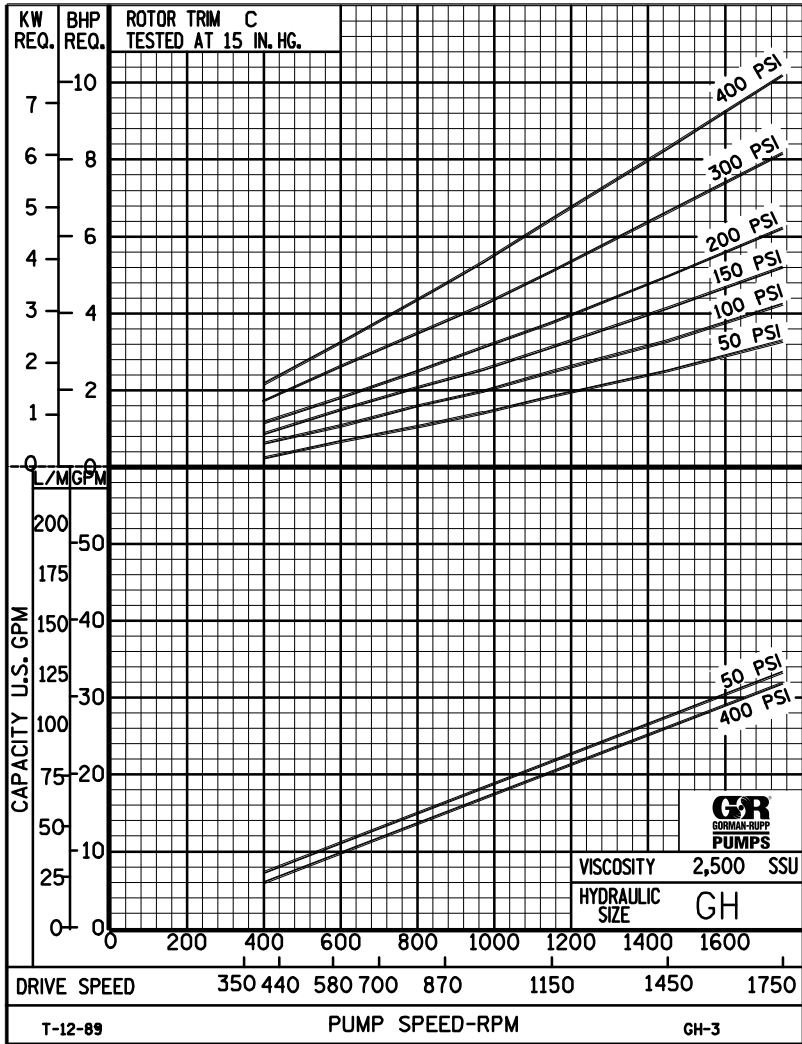


PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

GH

Hydraulic Size



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GH

PUMP HYDRAULIC SIZE CHART

SEC. 500

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31 GPM
1750 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									
31	1750	STD	28	4.2	.01	.01	.01	.01	.01	68	97	126				30	29	28	28									
			32		.61	.19	.05	.03	.01							.95	1.4	2.0	2.5									
			38	4.2	.78	.25	.07	.03	.01	68	97	126	176				31	30	29	29	28							
			50		.93	.30	.08	.04	.01								1.2	1.8	2.5	2.7	3.9							
			70	4.2	1.02	.35	.09	.05	.02	70	99	128	176	230			32	31	31	30	29	29						
			100		1.22	.39	.11	.05	.02								1.4	2.0	2.6	3.0	4.2	5.0						
			150	4.2	1.35	.44	.12	.06	.02	72	101	130	176	232			32	32	32	31	31	30	29	28				
			200		1.58	.52	.13	.07	.03								1.6	2.3	2.8	3.3	4.4	5.2	7.3	9.3				
			300	4.2	1.80	.61	.16	.08	.03	72	101	130	177	234			33	32	32	32	31	31	30	30				
			500		1.98	.75	.25	.14	.05								1.9	2.8	3.1	3.7	4.8	5.6	7.5	9.6				
		750	4.2	2.97	1.13	.38	.21	.08	74	102	132	177	235			33	33	33	33	32	32	31	30					
		1,000		3.96	1.51	.51	.27	.10								2.0	3.0	3.5	3.8	5.0	5.8	7.7	9.8					
		2,000	5.5	7.91	3.01	1.00	.54	.20	76	103	133	178	238			33	33	33	33	33	32	32	31					
		3,500		13.9	5.27	1.76	.95	.35								2.2	3.3	4.0	4.5	5.5	6.5	8.4	11					
		5,000	6.3	20.0	7.53	2.52	1.36	.50	80	105	137	180	240			33	33	33	33	33	32	32	31					
		7,500		29.7	11.3	3.77	2.04	.75								2.9	4.4	5.0	5.4	6.4	7.3	9.2	11.0					
		10,000	7.1	39.6	15.1	5.03	2.71	1.00	84	109	140	182	242			33	33	33	33	33	32	32	32					
		15,000		59.3	22.6	7.54	4.07	1.50								3.7	5.5	6.0	6.6	7.6	8.5	10	12					
		20,000	7.8	79.1	30.1	10.1	5.43	2.00	88	113	144	184	244			33	33	33	33	33	32	32	32					
		25,000		98.9	37.6	12.6	6.78	2.50								4.7	6.8	7.4	7.9	8.9	9.9	12	14					
50,000																												
75,000																												
100,000																												
150,000																												
200,000																												
250,000																												

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



GH

PUMP HYDRAULIC SIZE CHART

SEC. 500

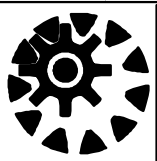
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**20 GPM
1150 RPM**

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												
20	1150	STD	28	2.3	.01	.01	.01	.01	.01	63	89	114				18	18	17	16												
			32		.28	.09	.03	.01	.01							.58	.91	1.3	1.6												
			38	2.3	.36	.12	.03	.02	.01	63	89	114	164				19	19	18	17	17										
			50		.44	.14	.04	.02	.01								.66	1.1	1.4	1.7	2.3										
			70	2.3	.49	.15	.04	.02	.01	64	90	116	166	228			20	20	19	18	18	17									
			100		.58	.19	.05	.02	.01								.83	1.2	1.6	1.9	2.6	2.9									
			150	2.3	.64	.21	.06	.03	.01	64	90	116	166	228			21	20	20	19	18	18	17	16							
			200		.68	.25	.08	.04	.02								.91	1.3	1.7	2.0	2.8	3.3	4.5	5.9							
			300	2.3	.78	.30	.10	.06	.02	65	91	120	167	230			21	21	21	20	20	19	19	18							
			500		1.28	.49	.16	.09	.03								1.0	1.5	1.8	2.1	2.9	3.5	4.9	6.0							
		750	2.3	1.92	.73	.24	.13	.05	65	91	120	167	230			22	21	21	21	21	21	20	20								
		1,000		2.55	.97	.33	.18	.07								1.2	1.7	2.2	2.4	3.0	3.6	4.9	6.2								
		2,000	3.1	5.10	1.94	.65	.35	.13	66	92	121	168	230			22	21	21	21	21	21	21	20								
		3,500		8.93	3.40	1.14	.61	.23								1.3	1.9	2.2	2.5	3.1	3.8	5.1	6.4								
		5,000	3.6	12.8	4.86	1.62	.88	.32	73	95	123	170	230			22	22	21	21	21	21	21	21								
		7,500		19.1	7.29	2.43	1.31	.49								1.7	2.5	2.7	3.0	3.7	4.4	5.6	6.9								
		10,000	4.1	25.5	9.71	3.24	1.75	.65	76	97	126	170	230			22	22	22	21	21	21	21	21								
		15,000		38.3	14.6	4.86	2.63	.97								2.6	3.0	3.4	3.7	4.4	5.1	6.3	7.6								
		20,000	4.6	51.0	19.4	6.49	3.50	1.29	79	101	128	172	230			22	22	22	21	21	21	21	21								
		25,000		63.8	24.3	8.11	4.38	1.61								3.5	3.7	4.1	4.4	5.1	5.7	7.0	8.3								
50,000	7.3	128	48.6	16.2	8.75	3.22	84	107	132	178	235			22	22	22	21	21	21	21	21										
75,000		191	72.8	24.3	13.1	4.83								5.4	5.7	6.3	6.8	7.4	8.2	9.6	11										
100,000																															
150,000																															
200,000																															
250,000																															

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



GH

PUMP HYDRAULIC SIZE CHART

SEC. 500

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**15 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										
					PIPE DIAMETER					CRACKING PRESS. (PSI)					DIFFERENTIAL PRESSURE (PSI)										
CAP. GPM	SPEED RPM				3/4"	1"	1 1/4"	1 1/2"	2"	LOW PRES R/V					MEDIUM DUTY AND HEAVY DUTY				HEAVY DUTY ONLY						
										50	75	100	150	200	25	50	75	100	150	200	300	400			
15	870	STD	28	1.6	.01	.01	.01	.01	.01	59	86	111			14	13	12	11							
			32		.17	.06	.02	.01	.01							.42	.68	.98	1.2						
			38	1.6	.22	.07	.02	.01	.01	59	86	111	161			14	14	13	12	12					
			50		.27	.09	.03	.01	.01							.48	.74	1.0	1.3	1.8					
			70	1.6	.30	.10	.03	.01	.01	60	87	113	163	215		15	14	14	13	13	13				
			100		.36	.12	.03	.02	.01							.67	.89	1.1	1.4	1.8	2.3				
			150	1.6	.41	.14	.05	.02	.01	60	87	113	163	217		16	15	15	14	14	14	13	12		
			200		.46	.18	.06	.03	.01							.74	.96	1.2	1.5	1.9	2.4	3.4	4.3		
			300	1.6	.58	.22	.08	.04	.02	60	87	115	165	219		16	16	15	15	15	15	14	13		
			500		.96	.37	.12	.07	.03							.82	1.0	1.3	1.5	2.0	2.5	3.5	4.5		
		750	1.6	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							.89	1.1	1.4	1.6	2.1	2.6	3.6	4.6			
		"C"	2,000	2.2	3.83	1.46	.49	.26	.10	62	90	115	165	222		16	16	16	16	16	16	15	15		
			3,500		6.70	2.55	.85	.46	.17							1.1	1.3	1.5	1.8	2.3	2.8	3.8	4.8		
			5,000	2.7	9.57	3.64	1.22	.66	.24	65	92	117	167	224		16	16	16	16	16	16	16	15		
			7,500		14.4	5.46	1.83	.99	.36							1.4	1.6	1.9	2.2	2.7	3.2	4.0	5.1		
			10,000	3.1	19.1	7.29	2.43	1.31	.49	68	94	119	169	224		16	16	16	16	16	16	16	16		
			15,000		28.7	10.9	3.65	1.97	.73							1.9	2.1	2.4	2.7	3.2	3.7	4.6	5.6		
			20,000	3.5	38.3	14.6	4.87	2.63	.97	72	97	122	172	224		16	16	16	16	16	16	16	16		
			25,000		47.8	18.2	6.08	3.28	1.21							2.4	2.6	2.9	3.1	3.7	4.2	5.1	6.1		
50,000	5.8		95.7	36.4	12.2	6.56	2.42	77	102	127	177	229		16	16	16	16	16	16	16	16				
75,000			144	54.6	18.3	9.85	3.63							3.8	4.0	4.3	4.5	5.0	5.5	6.5	7.5				
"D"	100,000	8.4	191	72.8	24.3	13.1	4.83	85	110	135	185	239		16	16	16	16	16	16	16					
	150,000		-	-	-	-								4.6	4.8	5.1	5.4	5.8	6.4	7.3	8.3				
	200,000																								
	250,000																								

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

