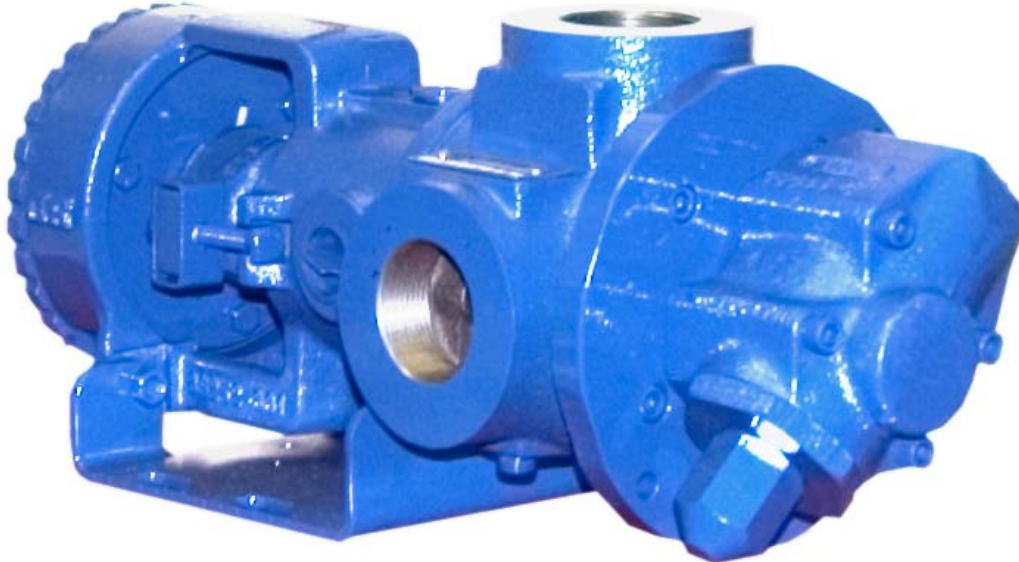




**GHS SERIES  
 FLEXIBLE SEAL  
 HEAVY DUTY STANDARD  
 STAINLESS STEEL ROTARY  
 GEAR PUMP**

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 <sup>W</sup>/INTERCHANGE FOOT BRACKET

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

**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
- FLEXIBLE SEAL DESIGN ALLOWS FOR A VARIETY OF INDUSTRY STANDARD SEALS OR PACKING

**OPERATING RANGE**

- CAPACITY (GPM): (3 TO 295)  
 [LPM] : [11 TO 1116]
- PRESSURE (PSI) : [0 TO 200]  
 [BAR] : [0 TO 14]
- VISCOSITY (SSU) : (28 TO 2,000,000)  
 [cSt] : [1 TO 440,000]
- TEMPERATURE (F) : (-30° TO 675°)  
 [C] : [-34° TO 358°]

**APPLICATIONS**

- USE WITH ANY CLEAN LIQUID COMPATIBLE WITH 316 STAINLESS 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
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.	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]			
<b>GHC</b>	<b>GHS</b>											
<b>GHC 1 DC9-B</b> ① ● ▸	<b>GHS 1 DC9-B</b> ① ● ● <b>GHS 1 DC10-B</b> ① ● ■	9 [28]		6 [19]							32 [14,5]	2.9
<b>GHC 1 DE9-B</b> ① ● ● ▸	<b>GHS 1 DE9-B</b> ① ● ● ● <b>GHS 1 DE10-B</b> ① ● ● ■	11 [35]		7 [22]							32 [14,5]	2.9
<b>GHC 1-1/2 GC9-B</b> ● ● ▸	<b>GHS 1-1/2 GC9-B</b> ● ● ● <b>GHS 1-1/2 GC10-B</b> ● ● ■	16 [50]		10 [32]							63 [28,6]	2.9
	<b>GHS 2 GC9-B</b> ● ● ● <b>GHS 2 GC10-B</b> ● ● ■										63 [28,6]	2.9
<b>GHC 1-1/2 GF9-B</b> ● ● ▸	<b>GHS 1-1/2 GF9-B</b> ● ● ● ● <b>GHS 1-1/2 GF10-B</b> ● ● ● ■	23 [73]	1750 [1460]	15 [47]	1150 [960]						<b>GHC</b> ● 63 [28,6] 2.9 350 [177] 63 [28,6] 2.9	
	<b>GHS 2 GF9-B</b> ● ● ● ● <b>GHS 2 GF10-B</b> ● ● ● ■										<b>GHS</b> ● 63 [28,6] 2.9 400 [204] 63 [28,6] 2.9	
<b>GHC 1-1/2 GH9-B</b> ● ● ▸	<b>GHS 1-1/2 GH9-B</b> ● ● ● ● <b>GHS 1-1/2 GH10-B</b> ● ● ● ■	31 [98]		20 [63]		75 [5]	100 [7]	200 [14]			63 [28,6] 2.9 63 [28,6] 2.9	
	<b>GHS 2 GH9-B</b> ● ● ● ● <b>GHS 2 GH10-B</b> ● ● ● ■										63 [28,6] 2.9	
<b>GHC 1-1/2 GJ9-B</b> ● ● ▸	<b>GHS 1-1/2 GJ9-B</b> ● ● ● ● <b>GHS 1-1/2 GJ10-B</b> ● ● ● ■	38 [120]		25 [79]							63 [28,6] 2.9	
	<b>GHS 2 GJ9-B</b> ● ● ● ● <b>GHS 2 GJ10-B</b> ● ● ● ■										63 [28,6] 2.9	
	<b>GHS 2 JG9-B</b> ● ● ● ● <b>GHS 2 JG10-B</b> ● ● ● ■	40 [126]	1150 [960]	30 [95]	870 [725]						161 [73,2] 5.3	
<b>GHC 3 JG9-B</b> ● ● ▸	<b>GHS 3 JG9-B</b> ● ● ● ● <b>GHS 3 JG10-B</b> ● ● ● ■										161 [73,2] 5.3	
	<b>GHS 2 JJ9-B</b> ● ● ● ● <b>GHS 2 JJ10-B</b> ● ● ● ■	56 [177]		42 [133]							161 [73,2] 5.3	
<b>GHC 3 JJ9-B</b> ● ● ▸	<b>GHS 3 JJ9-B</b> ● ● ● ● <b>GHS 3 JJ10-B</b> ● ● ● ■										161 [73,2] 5.3	

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**

**THE GORMAN-RUPP COMPANY • MANSFIELD, OHIO**

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 3 JP9-B ● †	GHS 2 JP9-B ●	132 [500]	960 [960]	80 [252]	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 ●	165 [624]	960 [960]	99 [312]	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 3 NK9-B ●	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 3 NK9-B ●	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 3 NM9-B ●	GHS 2 NM9-B ●	172 [542]	960 [960]	115 [362]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 2 NM10-B ■										
GHC 3 NM9-B ●	GHS 2-1/2 NM9-B ●	215 [678]	960 [960]	115 [362]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 2-1/2 NM10-B ■										
GHC 3 NP9-B ●	GHS 3 NP9-B ●	172 [542]	960 [960]	115 [362]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 3 NP10-B ■										
GHC 3 NP9-B ●	GHS 2 RM9-B ●	172 [542]	960 [960]	115 [362]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 2 RM10-B ■										
GHC 3 RM9-B ● †	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 3 RM9-B ● †	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 3 RP9-B ● †	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 3 RP9-B ● †	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 3 RP9-B ● †	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**

**THE GORMAN-RUPP COMPANY • MANSFIELD, OHIO**  
GORMAN-RUPP OF CANADA LIMITED • ST. THOMAS, ONTARIO, CANADA

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* [64]	4.00 [102]	3.50* [89]	4.50 [114]	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]														
GHS G	1-1/2"	3.50* [89]	4.88 [124]	3.50* [89]	4.50 [114]	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]														
GHS J	2"	4.50* [114]	6.88 [175]	5.25* [133]	6.25 [159]	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]														
GHS N	2"	5.12 [130]	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]	8.72 [221]	.25 [6] x 2.00 [51]	1.12 [28]
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"	7.19 † [183]														
			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

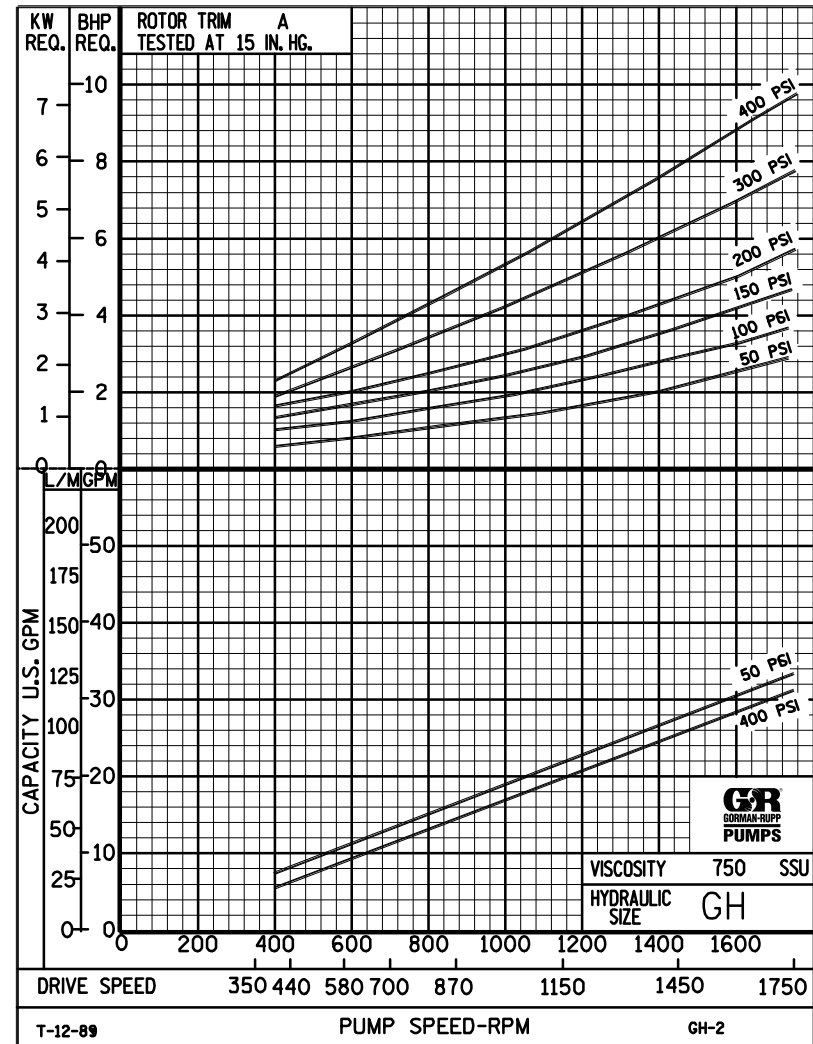
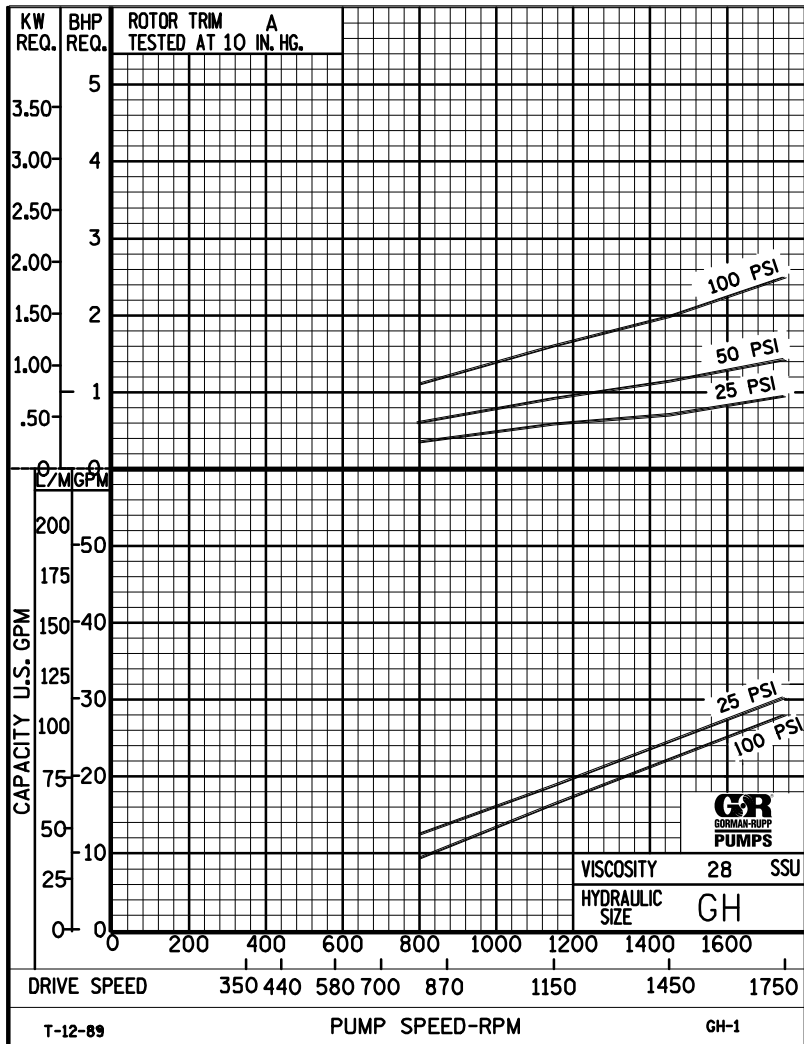
# GH

Hydraulic Size

SEC. 500

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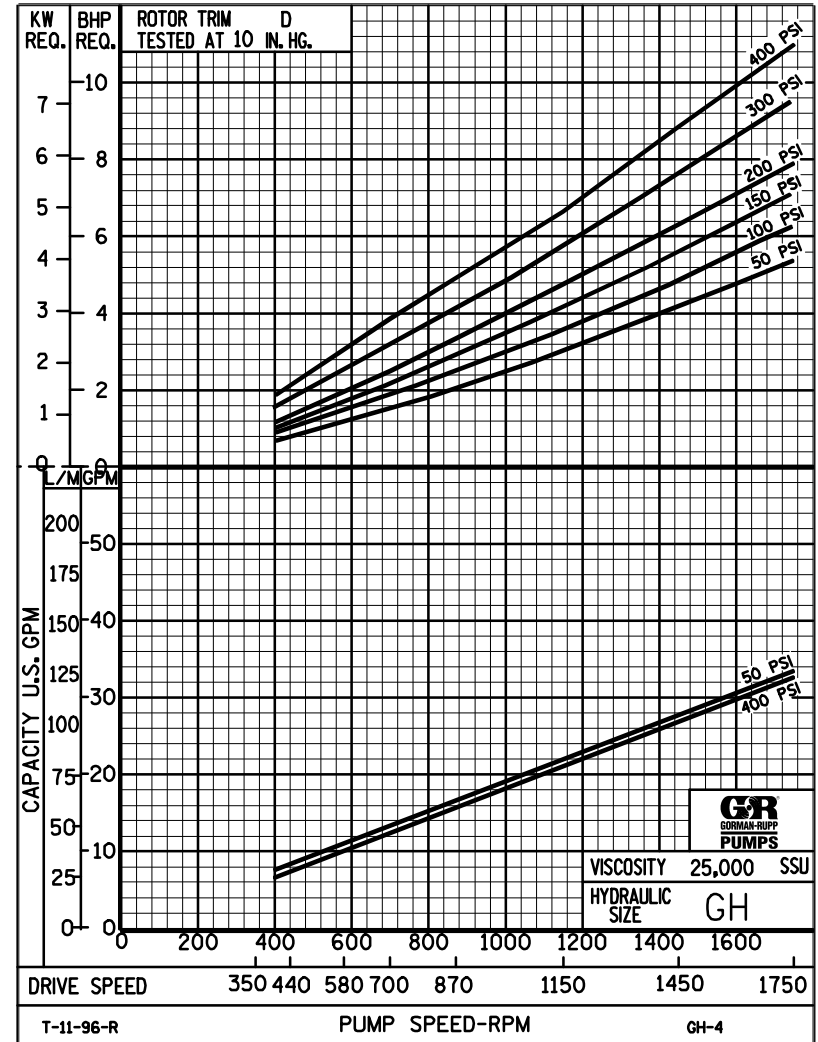
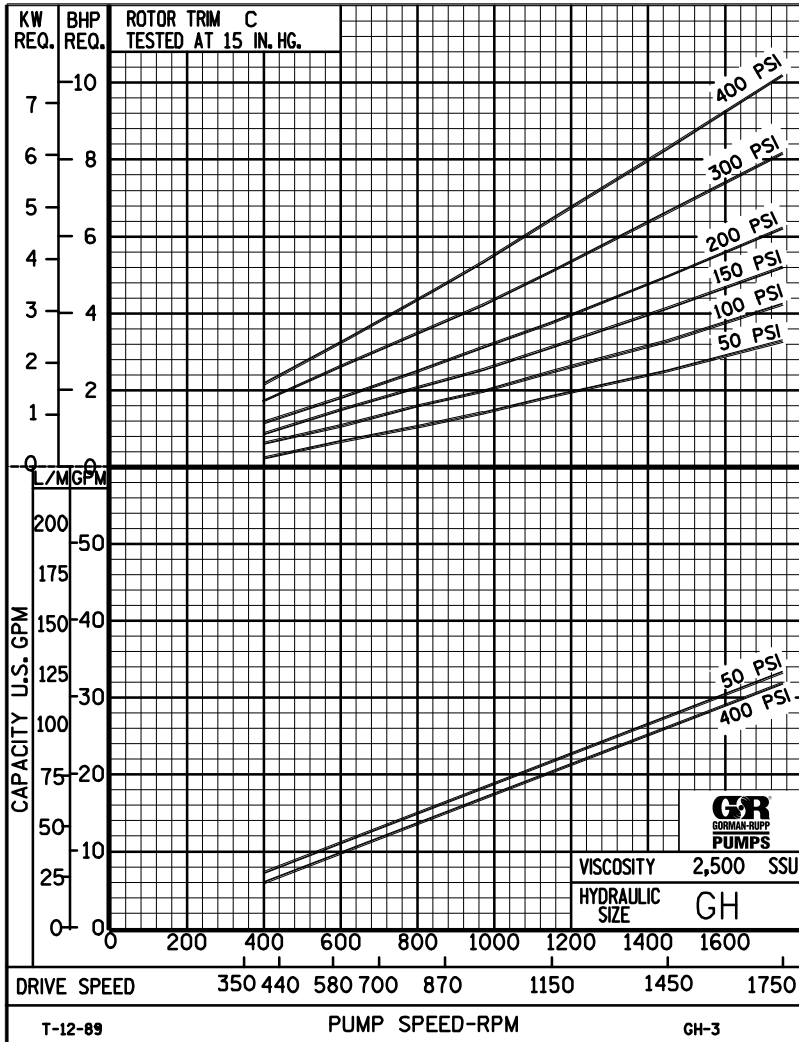


# PERFORMANCE CURVES

## SPEED VS. CAPACITY/HORSEPOWER

# GH

Hydraulic Size



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# GH

## PUMP HYDRAULIC SIZE CHART

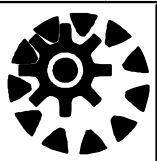
SEC. 500

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January 2010

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							
						50	75	100	150	200	25	50	75	100	150	200	300	400					
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	
		"C"	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		
"D"	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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January 2010

**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	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.



# GH

## PUMP HYDRAULIC SIZE CHART

SEC. 500

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**10 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					MEDIUM DUTY AND HEAVY DUTY				HEAVY DUTY ONLY										
							50	75	100	150	200	25	50	75	100	150	200	300	400							
10	580	STD	28	1.2	.01	.01	.01	.01	.01	56	81	106			9	8.5	8	7.5								
			32		.08	.03	.01	.01	.01							.25	.41	.59	.73							
			38	1.2	.11	.04	.01	.01	.01	56	81	106	157			9.5	9	8.5	8	7.5						
			50		.13	.04	.01	.01	.01							.29	.45	.63	.80	1.1						
			70	1.2	.14	.05	.02	.01	.01	56	81	107	158	209		10	9.5	9.5	9	8.5	8.5					
			100		.14	.05	.02	.01	.01							.40	.54	.69	.84	1.1	1.4					
			150	1.2	.17	.07	.03	.02	.01	57	82	108	158	211		10	10	10	9.5	9.5	9	9	9	8		
			200		.30	.12	.04	.02	.01							.45	.58	.73	.88	1.2	1.4	2.0	2.6			
			300	1.2	.39	.15	.05	.02	.01	57	82	109	159	212		11	10	10	10	10	9.5	9.5	9			
			500		.64	.24	.08	.05	.02							.49	.62	.77	.92	1.2	1.5	2.1	2.7			
		750	1.2	.96	.36	.12	.07	.03	57	82	111	161	214		11	11	10	10	10	10	10	9.5				
		1,000		1.28	.49	.16	.09	.03							.54	.66	.82	.97	1.3	1.6	2.2	2.8				
				"C"	2,000	1.7	2.55	.97	.33	.18	.07	58	85	112	162	214	11	11	11	10	10	10	10	10		
					3,500		4.46	1.70	.57	.31	.12							.64	.76	.91	1.1	1.4	1.7	2.3	2.9	
					5,000	2.1	6.38	2.43	.81	.44	.16	60	85	112	162	214	11	11	11	11	10	10	10	10	10	
					7,500		9.57	3.64	1.22	.66	.24							.82	.97	1.1	1.3	1.6	1.9	2.4	3.0	
					10,000	2.5	12.8	4.86	1.62	.88	.32	63	88	114	166	216	11	11	11	11	10	10	10	10	10	
					15,000		19.2	7.29	2.43	1.31	.49							1.1	1.3	1.4	1.6	1.9	2.2	2.8	3.4	
				20,000	2.9	25.5	9.71	3.24	1.75	.65	66	91	116	168	218	11	11	11	11	10	10	10	10	10		
				25,000		31.9	12.2	4.05	2.19	.81							1.4	1.5	1.7	1.9	2.2	2.5	3.2	3.9		
		50,000	4.8	63.8	24.3	8.11	4.38	1.61	69	94	122	172	224	11	11	11	11	10	10	10	10	10				
		75,000		95.7	36.4	12.2	6.56	2.42							2.0	2.2	2.4	2.5	2.9	3.2	3.9	4.6				
		100,000	7.1	128	48.6	16.2	8.75	3.22	73	98	126	176	230	11	11	11	11	10	10	10	10	10				
		150,000		191	72.9	24.3	13.1	4.83							2.5	2.8	3.0	3.2	3.5	3.9	4.5	5.2				
		200,000																								
		250,000																								

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