



**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 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**

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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]	GHC ●	161 [73,2]	5.3
	GHS 2 JL10-B ■									161 [73,2]	
GHC 3 JL9-B ● †	GHS 3 JL9-B ●	107 [338]	960 [960]	81 [256]	580 [480]	75 [5]	100 [7]	200 [14]	GHC ●	161 [73,2]	5.3
	GHS 3 JL10-B ■									161 [73,2]	
GHC 3 JP9-B ● †	GHS 2 JP9-B ●	99 [375]	960 [960]	80 [252]	580 [480]	75 [5]	100 [7]	200 [14]	GHC ●	161 [73,2]	5.3
	GHS 2 JP10-B ■									161 [73,2]	
GHC 3 JP9-B ● †	GHS 3 JP9-B ●	132 [500]	960 [960]	80 [252]	580 [480]	75 [5]	100 [7]	200 [14]	GHC ●	161 [73,2]	5.3
	GHS 3 JP10-B ■									161 [73,2]	
GHC 3 NK9-B ● †	GHS 2 NK9-B ●	165 [624]	960 [960]	99 [312]	580 [480]	75 [5]	100 [7]	200 [14]	GHC ●	180 [81,8]	5.3
	GHS 2 NK10-B ■									180 [81,8]	
GHC 3 NK9-B ● †	GHS 2-1/2 NK9-B ●	172 [542]	960 [960]	115 [362]	580 [480]	75 [5]	100 [7]	200 [14]	GHC ●	180 [81,8]	5.3
	GHS 2-1/2 NK10-B ■									180 [81,8]	
GHC 3 NK9-B ● †	GHS 3 NK9-B ●	215 [678]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	180 [81,8]	5.3
	GHS 3 NK10-B ■									180 [81,8]	
GHC 3 NM9-B ● †	GHS 2 NM9-B ●	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	180 [81,8]	5.3
	GHS 2 NM10-B ■									180 [81,8]	
GHC 3 NM9-B ● †	GHS 2-1/2 NM9-B ●	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	180 [81,8]	5.3
	GHS 2-1/2 NM10-B ■									180 [81,8]	
GHC 3 NP9-B ● †	GHS 3 NP9-B ●	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	180 [81,8]	5.3
	GHS 3 NP10-B ■									180 [81,8]	
GHC 3 NP9-B ● †	GHS 2-1/2 NP9-B ●	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	180 [81,8]	5.3
	GHS 2-1/2 NP10-B ■									180 [81,8]	
GHC 3 NP9-B ● †	GHS 2 RM9-B ●	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	357 [162]	10.7
	GHS 2 RM10-B ■									357 [162]	
GHC 3 RM9-B ● †	GHS 2-1/2 RM9-B ● †	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	357 [162]	10.7
	GHS 2-1/2 RM10-B ■ †									357 [162]	
GHC 3 RM9-B ● †	GHS 3 RM9-B ● †	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	357 [162]	10.7
	GHS 3 RM10-B ■ †									357 [162]	
GHC 3 RP9-B ● †	GHS 4 RM9-B ● †	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	357 [162]	10.7
	GHS 4 RM10-B ■ †									357 [162]	
GHC 3 RP9-B ● †	GHS 3 RP9-B ● †	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	357 [162]	10.7
	GHS 3 RP10-B ■ †									357 [162]	
GHC 3 RP9-B ● †	GHS 4 RP9-B ● †	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHC ●	357 [162]	10.7
	GHS 4 RP10-B ■ †									357 [162]	

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**

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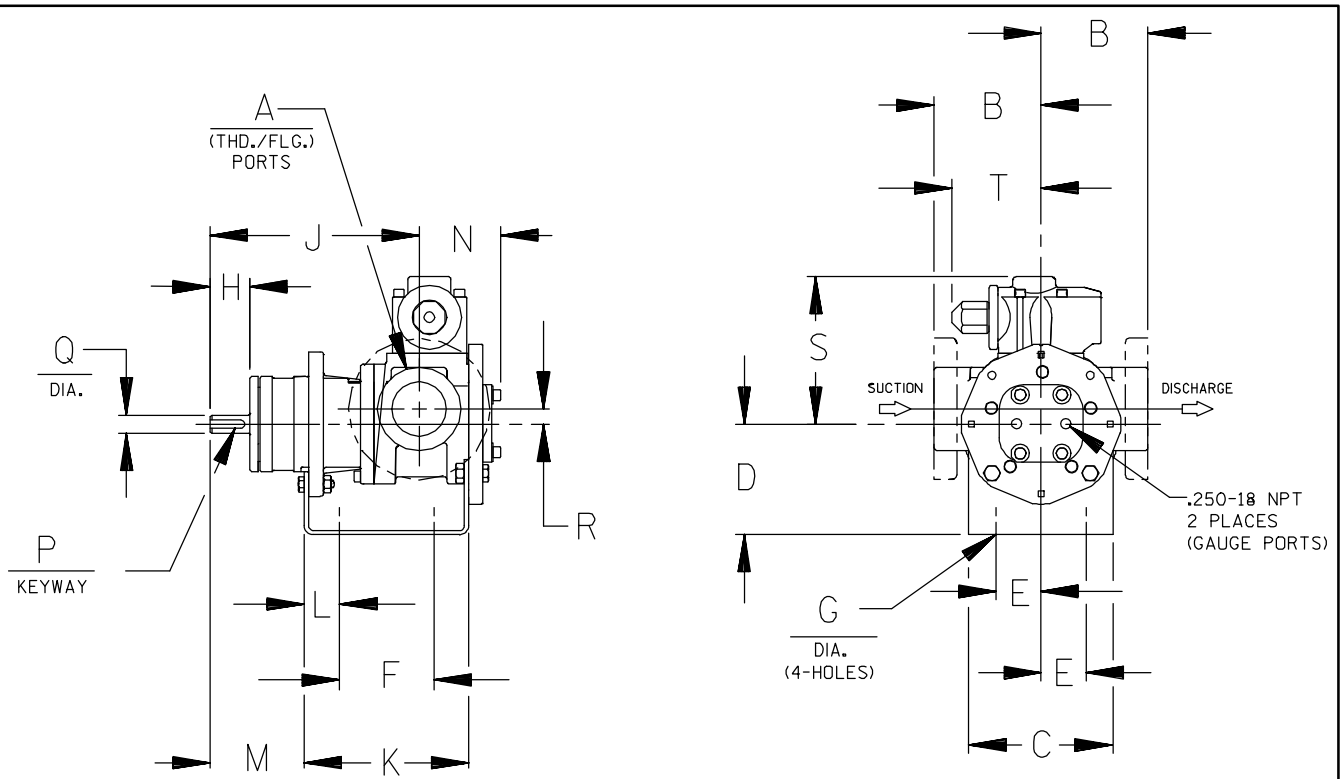
MODEL NUMBER		NOM. CAPACITY - SPEED				MAXIMUM				SHIPPING DATA	
		MAXIMUM		ALTERNATIVE		DIFF. PRESSURE - PSI [BAR]			TEMP.	Wt.	Vol.
		GPM [LPM]	RPM 60 Hz [50 HZ]	GPM [LPM]	RPM 60 Hz [50 HZ]	BELOW 38 SSU [4 cSt]	38 TO 100 SSU [21 cSt]	100 TO 250,000 SSU [55,000 cSt]	°F [°C]	LBS [KG]	CU. FT.
GHC	GHS										
	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* [641]	4.00 [102]	3.50* [891]	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" 2"	3.50* [891]	4.88 [124]	3.50* [891]	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" 3"	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" 3"	5.12 [130]	8.00 [203]	4.50 [114]	6.25 [159]	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 [32]
GHS R	2" 2-1/2" 3" 4"	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]	
																7.19 † [183]

\* 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**

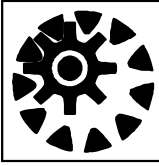
**AND DIMENSIONS**

**SEE SECTION 540**

**FOR GHS DRIVE OPTIONS**

**AND DIMENSIONS**

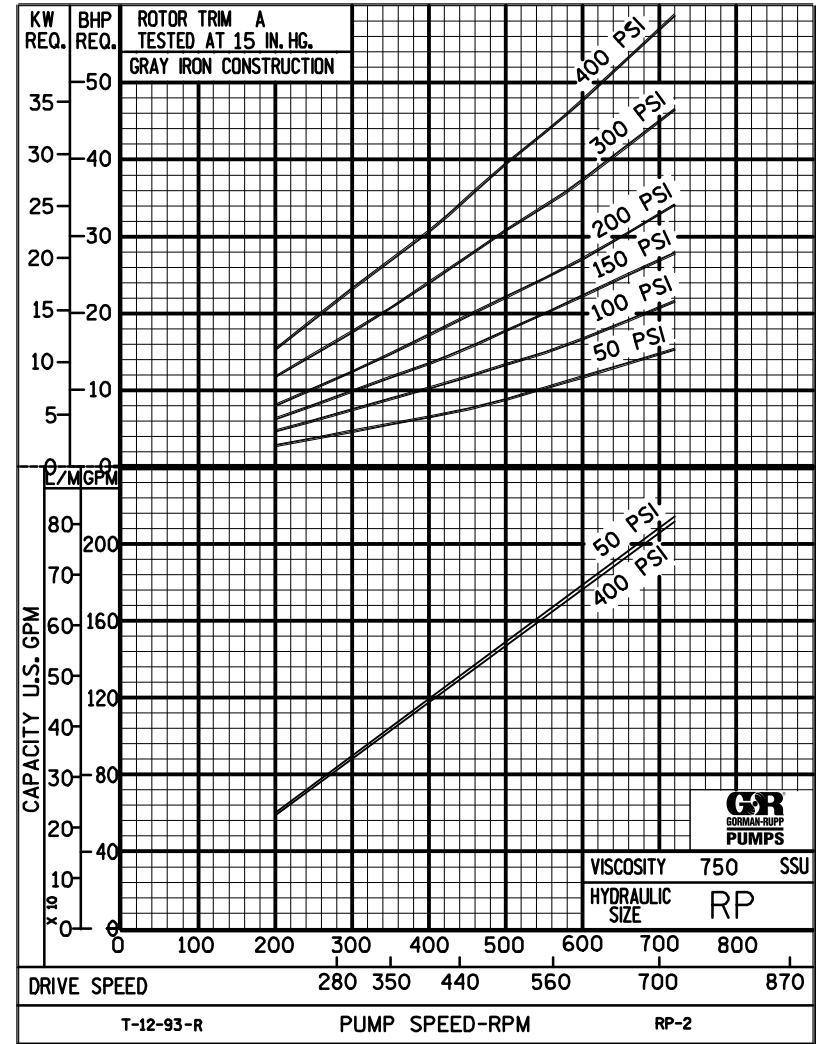
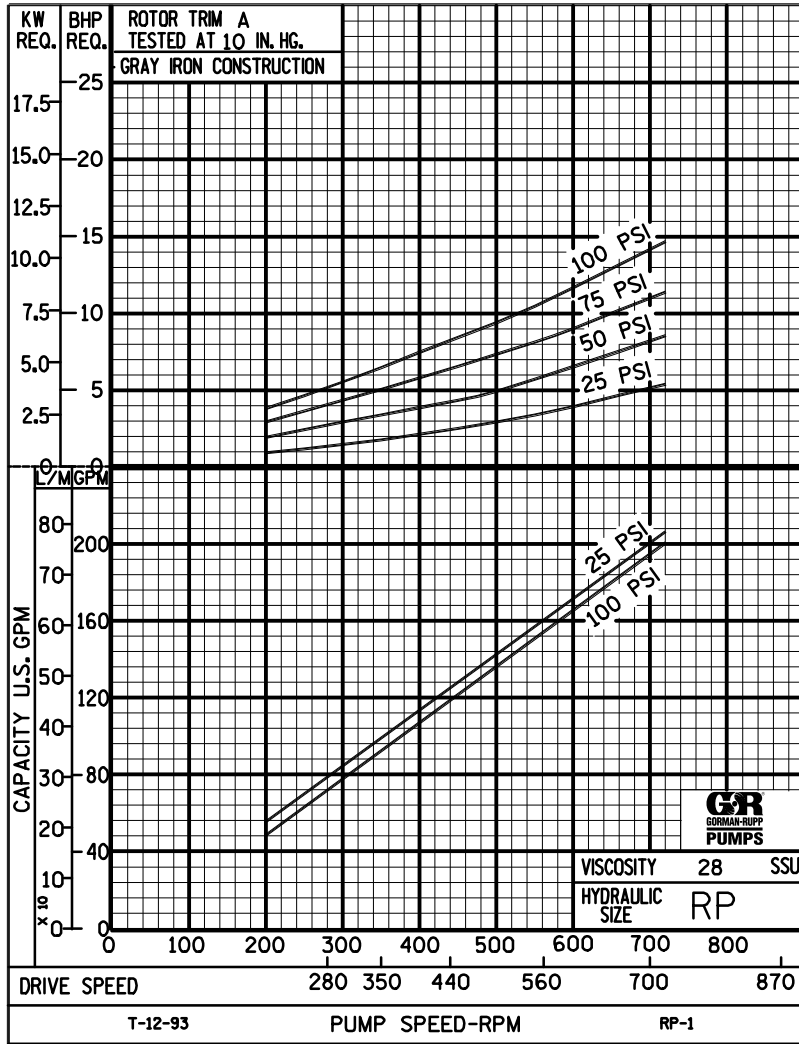
**SEE SECTION 545**



# PERFORMANCE CURVES

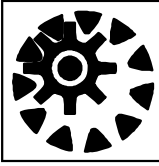
## SPEED VS. CAPACITY/HORSEPOWER

**RP** Hydraulic Size



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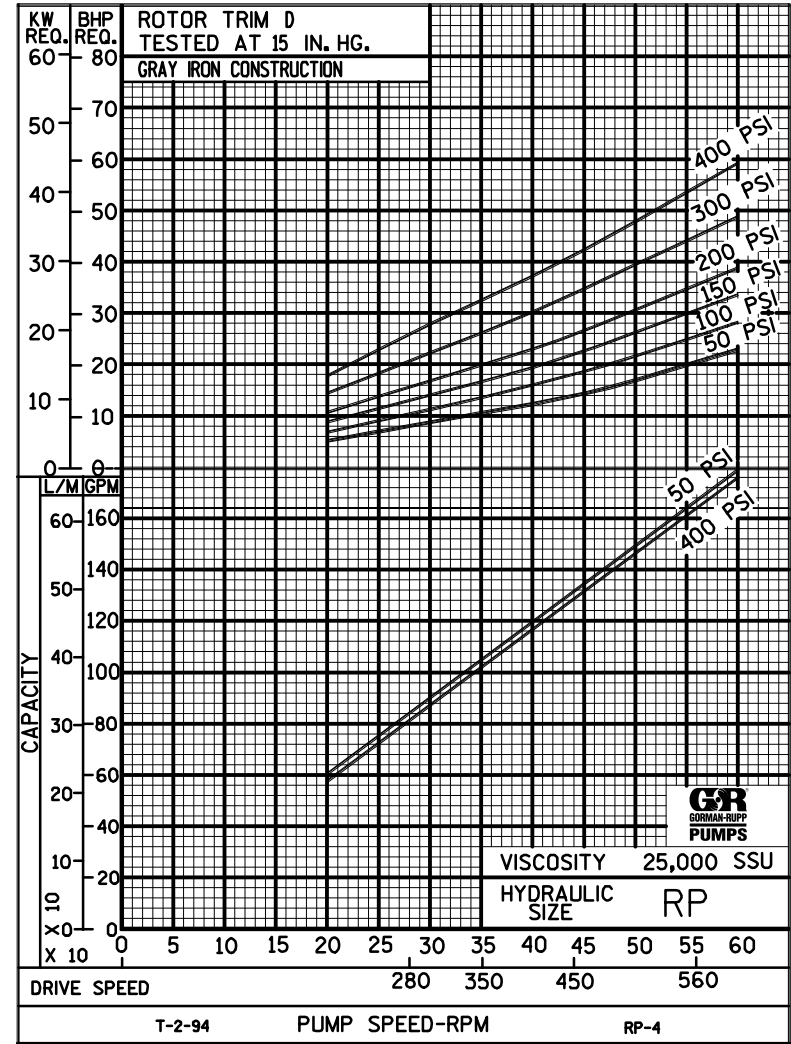
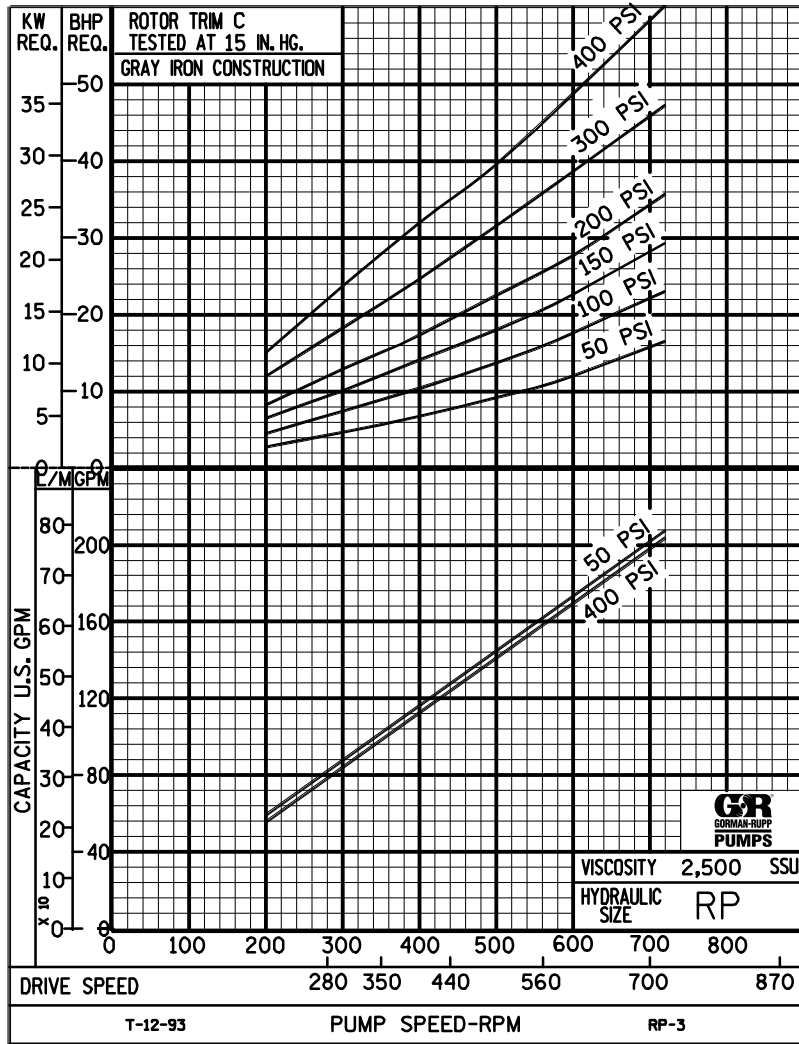




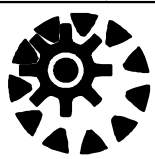
# PERFORMANCE CURVES

## SPEED VS. CAPACITY/HORSEPOWER

**RP** Hydraulic Size



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# RP

## PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 112

January 2010

**215 GPM  
720 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)										
					2"	2 1/2"	3"	4"	6"	LOW PRES R/V		HI PRES R/V			HEAVY DUTY										
						50	75	100	150	200	25	50	75	100	150	200	300	400							
215	720	STD	28	4.0	.31	.13	.04	.01	-	62	87	123	185		206	204	202	200							
			32		.33	.13	.04	.01	-						5.9	8.1	12	15							
			38	4.0	.35	.14	.05	.01	-	64	90	126	187		208	206	204	202	196						
			50		.38	.16	.05	.01	-						7.3	9.3	13	16	23						
			70	4.0	.42	.18	.06	.02	-	69	95	130	192	251		210	208	208	206	202	198				
			100		.46	.20	.07	.02	-							9.3	12	15	18	25	30				
			150	4.0	.51	.22	.08	.02	-	74	99	134	196	258		212	212	210	210	208	204	202	200		
			200		.55	.24	.08	.02	-							11	13	17	20	26	32	45	58		
			300	4.0	.61	.27	.10	.03	-	80	105	140	202	267		214	212	212	212	210	208	206	206		
			500		.72	.31	.11	.02	-							12	15	18	21	28	34	46	59		
		750	4.0	.51	.25	.10	.04	.01	84	110	144	206	274		214	214	214	214	214	212	212	212			
		1,000		.68	.33	.14	.05	.01							13	16	19	22	29	35	47	60			
		2,000	4.3	1.35	.66	.28	.09	.02	92	118	151	213	287		208	208	208	206	206	206	206	204			
		3,500		2.37	1.16	.49	.16	.03							15	17	20	24	30	36	48	61			
		5,000	4.7	3.38	1.66	.70	.24	.05	97	123	156	218	294		208	208	208	208	206	206	206	204			
		7,500		5.08	2.49	1.05	.35	.07							16	19	22	25	32	39	50	63			
		10,000	5.2	6.77	3.32	1.39	.47	.09	102	127	160	222	301		210	208	208	208	208	208	206	206			
		15,000		10.2	4.99	2.09	.71	.14							18	20	24	28	34	41	53	66			
		20,000																							
		25,000																							
50,000																									
75,000																									
100,000																									
150,000																									
200,000																									
250,000																									

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



# RP

## PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 113

January 2010

**190 GPM  
640 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)								
					2"	2 1/2"	3"	4"	6"	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				
190	640	STD	28	3.2	.24	.10	.03	.01	-	60	85	122	180		184	181	179	177					
			32		.26	.10	.04	.01	-						4.9	7.3	10	13					
			38	3.2	.27	.11	.04	.01	-	63	88	124	183		185	182	180	179	174				
			50		.30	.13	.04	.01	-						6.2	8.9	12	15	19				
			70	3.2	.33	.14	.05	.01	-	67	92	128	187	248	187	185	183	178	176				
			100		.37	.16	.06	.02	-						7.9	10	13	16	21	28			
			150	3.2	.41	.17	.06	.02	-	71	97	132	191	253	189	187	186	185	183	181	179	176	
			200		.44	.19	.07	.02	-						8.9	12	15	18	22	29	39	50	
			300	3.2	.49	.21	.08	.02	-	77	102	136	196	260	190	189	188	188	187	185	184	183	
			500		.58	.25	.06	.02	-						10	13	16	19	24	30	40	50	
		750	3.2	.45	.22	.09	.03	.01	81	107	140	200	266	191	191	190	190	189	188	188	187		
		1,000		.60	.29	.12	.04	.01						11	13	16	19	24	30	41	51		
		2,000	3.5	1.19	.59	.25	.08	.02	88	114	146	207	276	186	185	185	184	183	183	182	180		
		3,500		2.09	1.03	.43	.15	.03						12	14	18	20	26	31	42	54		
		5,000	3.9	2.98	1.46	.61	.21	.04	93	119	150	211	281	187	186	185	185	184	184	184	181		
		7,500		4.47	2.20	.92	.31	.06						13	16	19	22	28	33	43	57		
		10,000	4.4	5.96	2.93	1.23	.41	.08	97	123	154	215	287	187	186	186	185	185	185	185	182		
		15,000		8.94	4.39	1.84	.62	.12						15	18	21	24	30	35	46	60		
		20,000	5.1	11.9	5.86	2.46	.83	.16	100	126	158	218	292	187	187	186	186	186	186	186	183		
		25,000		14.9	7.32	3.07	1.04	.20						17	20	23	27	32	37	48	63		
50,000																							
75,000																							
100,000																							
150,000																							
200,000																							
250,000																							

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



# RP

## PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 114

January 2010

**155 GPM  
520 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)							
					2"	2 1/2"	3"	4"	6"	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			
155	520	STD	28	2.3	.16	.07	.02	.01	-	57	84	120	178	148	145	143	141					
			32		.17	.07	.02	.01	-					3.3	5.3	7.9	10					
			38	2.3	.19	.08	.03	.01	-	60	86	122	180	149	147	145	143	138				
			50		.20	.09	.03	.01	-					4.6	6.7	9.1	11	16				
			70	2.3	.23	.10	.03	.01	-	63	89	124	183	242	151	149	147	146	143	140		
			100		.25	.11	.04	.01	-					5.9	7.9	10	12	17	22			
			150	2.3	.28	.12	.04	.01	-	66	93	127	186	246	153	152	150	150	148	146	144	141
			200		.31	.13	.05	.01	-					6.7	8.8	11	13	18	22	31	40	
			300	2.3	.35	.15	.05	.01	-	72	98	131	190	251	154	153	153	152	151	150	149	148
			500		.41	.12	.05	.02	-					7.6	9.8	12	14	18	23	32	41	
		750	2.3	.36	.18	.07	.03	-	75	101	134	193	254	155	155	154	154	153	153	152	152	
		1,000		.48	.24	.10	.03	.01					7.8	10	12	14	19	23	33	41		
		2,000	2.9	.97	.47	.20	.07	.01	82	110	139	199	260	152	151	151	150	149	149	148	146	
		3,500		1.69	.83	.35	.12	.02					8.6	11	13	16	20	24	34	42		
		5,000	3.3	2.42	1.19	.50	.17	.03	86	112	142	202	264	153	152	152	151	151	150	149	148	
		7,500		3.63	1.78	.75	.25	.05					11	13	14	18	23	27	36	44		
		10,000	3.8	4.83	2.37	1.00	.34	.07	89	115	145	205	268	154	153	153	152	152	151	151	149	
		15,000		7.25	3.56	1.49	.50	.10					14	16	19	20	25	29	38	47		
		20,000	4.3	9.67	4.75	1.99	.67	.13	93	118	148	207	272	155	154	154	153	153	152	152	151	
		25,000		12.1	5.94	2.49	.84	.16					16	18	21	23	28	32	41	49		
50,000	6.1	24.2	11.9	4.98	1.68	.33	98	124	151	212	276	155	154	154	153	153	152	152	151			
75,000		36.3	17.8	7.47	2.52	.49					22	24	27	30	34	39	48	57				
100,000																						
150,000																						
200,000																						
250,000																						

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



# RP

## PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 115  
January 2010

105 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)								
					2"	2 1/2"	3"	4"	6"	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				
105	350	STD	28	1.5	.07	.03	.01	-	-	55	82	118	175		98	95	93	92					
			32		.08	.03	.01	-	-							1.5	4.1	4.9	6.9				
			38	1.5	.09	.04	.01	-	-	57	83	119	176		99	97	95	94	90				
			50		.10	.04	.01	-	-							2.2	4.3	5.9	7.4	11			
			70	1.5	.11	.05	.02	-	-	59	86	121	177	230		101	99	98	97	95	94		
			100		.13	.05	.02	.01	-							2.9	4.9	6.8	8.3	11	15		
			150	1.5	.14	.06	.02	.01	-	63	89	123	179	233		103	102	101	100	99	98	97	95
			200		.15	.07	.02	-	-							3.5	5.3	7.2	8.8	12	15	20	27
			300	1.5	.18	.05	.02	.01	-	67	93	125	181	235		104	103	103	102	102	100	100	99
			500		.16	.08	.03	.01	-							3.8	5.6	7.4	8.9	12	15	21	27
		750	1.6	.24	.12	.05	.02	-	70	95	127	183	237		105	105	104	104	103	102	102	101	
		1,000		.32	.16	.07	.02	-							3.9	5.7	7.5	9.1	12	15	21	28	
		2,000	2.0	.64	.32	.13	.04	.01	75	100	130	185	241		103	103	102	102	101	100	99	98	
		3,500		1.13	.55	.23	.08	.02							4.1	6.2	7.9	9.8	13	16	22	29	
		5,000	2.4	1.61	.79	.33	.11	.02	78	104	132	187	243		104	103	103	103	102	101	100	100	
		7,500		2.42	1.19	.50	.17	.03							5.2	7.9	8.9	11	14	17	24	30	
		10,000	2.8	3.22	1.58	.66	.22	.04	81	106	134	189	245		104	104	104	103	103	102	101	100	
		15,000		4.83	2.37	1.00	.34	.07							6.4	9.2	10	12	15	19	25	31	
		20,000	3.3	6.45	3.17	1.33	.45	.09	83	108	136	190	247		105	105	104	104	104	103	103	102	
		25,000		8.06	3.96	1.66	.56	.11							7.5	10	11	13	16	20	26	32	
50,000	5.0	16.1	7.92	3.32	1.12	.22	89	113	137	192	250		105	105	104	104	104	103	103	102			
75,000		24.2	11.9	4.98	1.68	.33							11	13	14	16	20	23	29	35			
100,000	6.9	32.2	15.8	6.64	2.24	.43	92	115	140	194	252		105	105	104	104	104	103	103	102			
150,000		48.4	23.8	9.96	3.36	.65							15	16	18	19	22	26	32	37			
200,000	8.7	64.5	31.7	13.3	4.48	.87	94	117	142	195	253		105	105	104	104	104	103	103	102			
250,000		80.6	39.6	16.6	5.60	1.09							19	21	22	24	24	28	34	40			

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