



**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 ^W/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	BACKH.D	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]		
GHC 1 DC9-B ① ● ▸	GHS 1 DC9-B ① ● ● GHS 1 DC10-B ① ■ ■	9 [28]		6 [19]						32 [14,5]	2.9
GHC 1 DE9-B ① ● ● ▸	GHS 1 DE9-B ① ● ● ● GHS 1 DE10-B ① ■ ■ ■	11 [35]		7 [22]						32 [14,5]	2.9
GHC 1-1/2 GC9-B ● ● ▸	GHS 1-1/2 GC9-B ● ● ● GHS 1-1/2 GC10-B ■ ■ ■	16 [50]		10 [32]						63 [28,6]	2.9
	GHS 2 GC9-B ● ● ● GHS 2 GC10-B ■ ■ ■									63 [28,6]	2.9
GHC 1-1/2 GF9-B ● ● ▸	GHS 1-1/2 GF9-B ● ● ● ● GHS 1-1/2 GF10-B ■ ■ ■ ■	23 [73]	1750 [1460]	15 [47]	1150 [960]					GHC ● 350 [177]	2.9
	GHS 2 GF9-B ● ● ● ● GHS 2 GF10-B ■ ■ ■ ■									63 [28,6]	2.9
GHC 1-1/2 GH9-B ● ● ▸	GHS 1-1/2 GH9-B ● ● ● ● GHS 1-1/2 GH10-B ■ ■ ■ ■	31 [98]		20 [63]		75 [5]	100 [7]	200 [14]		GHS ● 400 [204]	2.9
	GHS 2 GH9-B ● ● ● ● GHS 2 GH10-B ■ ■ ■ ■									63 [28,6]	2.9
GHC 1-1/2 GJ9-B ● ● ▸	GHS 1-1/2 GJ9-B ● ● ● ● GHS 1-1/2 GJ10-B ■ ■ ■ ■	38 [120]		25 [79]						500 [260]	2.9
	GHS 2 GJ9-B ● ● ● ● GHS 2 GJ10-B ■ ■ ■ ■									63 [28,6]	2.9
	GHS 2 JG9-B ● ● ● ● GHS 2 JG10-B ■ ■ ■ ■	40 [126]	1150 [960]	30 [95]	870 [725]					161 [73,2]	5.3
GHC 3 JG9-B ● ● ▸	GHS 3 JG9-B ● ● ● ● GHS 3 JG10-B ■ ■ ■ ■									161 [73,2]	5.3
	GHS 2 JJ9-B ● ● ● ● GHS 2 JJ10-B ■ ■ ■ ■	56 [177]		42 [133]						161 [73,2]	5.3
GHC 3 JJ9-B ● ● ▸	GHS 3 JJ9-B ● ● ● ● GHS 3 JJ10-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										
	GHS 2 JL9-B ● GHS 2 JL10-B ■	77 [243]	1150 [960]	58 [133]	870 [725]	75 [5]	100 [7]	200 [14]	161 [73,2]	5.3	
GHC 3 JL9-B ● †	GHS 3 JL9-B ● GHS 3 JL10-B ■										
	GHS 2 JP9-B ● GHS 2 JP10-B ■	107 [338]	960 [960]	81 [256]	580 [480]	75 [5]	100 [7]	200 [14]	161 [73,2]	5.3	
GHC 3 JP9-B ● †	GHS 3 JP9-B ● GHS 3 JP10-B ■										
	GHS 2 NK9-B ● GHS 2 NK10-B ■	99 [375]	960 [960]	60 [189]	580 [480]	75 [5]	100 [7]	200 [14]	GHC ●	180 [81,8]	5.3
	GHS 2-1/2 NK9-B ● GHS 2-1/2 NK10-B ■								GHC 400 [204]	180 [81,8]	5.3
	GHS 3 NK9-B ● GHS 3 NK10-B ■	132 [500]	960 [960]	80 [252]	580 [480]	75 [5]	100 [7]	200 [14]	GHC ●	180 [81,8]	5.3
	GHS 2 NM9-B ● GHS 2 NM10-B ■								GHC 400 [204]	180 [81,8]	5.3
	GHS 2-1/2 NM9-B ● GHS 2-1/2 NM10-B ■	165 [624]	960 [960]	99 [312]	580 [480]	75 [5]	100 [7]	200 [14]	GHC 500 [260]	180 [81,8]	5.3
	GHS 3 NM9-B ● GHS 3 NM10-B ■								GHC 500 [260]	180 [81,8]	5.3
	GHS 2-1/2 NP9-B ● GHS 2-1/2 NP10-B ■	172 [542]	960 [960]	115 [362]	580 [480]	75 [5]	100 [7]	200 [14]		180 [81,8]	5.3
	GHS 3 NP9-B ● GHS 3 NP10-B ■									180 [81,8]	5.3
	GHS 2 RM9-B ● GHS 2 RM10-B ■	215 [678]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]		357 [162]	10.7
	GHS 2-1/2 RM9-B ● † GHS 2-1/2 RM10-B ■ †									357 [162]	10.7
	GHS 3 RM9-B ● † GHS 3 RM10-B ■ †		357 [162]	10.7							
	GHS 4 RM9-B ● † GHS 4 RM10-B ■ †		357 [162]	10.7							
	GHS 3 RP9-B ● † GHS 3 RP10-B ■ †		357 [162]	10.7							
	GHS 4 RP9-B ● † GHS 4 RP10-B ■ †		357 [162]	10.7							

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* [641]	4.00 [102]	3.50* [891]	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]		5.25 [133]											
GHS G	1-1/2" 2"	3.50* [891]	4.88 [124]	3.50* [891]	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]		5.25 [133]											
GHS J	2" 3"	4.50* [114]	6.88 [175]	5.25* [133]	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]		6.25 [159]											
GHS N	2" 3"	5.12 [130]	8.00 [203]	4.50 [114]	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]
				5.25* [133]											
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"														
	4"	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

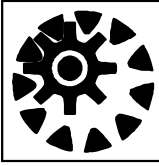
AND DIMENSIONS

SEE SECTION 540

FOR GHS DRIVE OPTIONS

AND DIMENSIONS

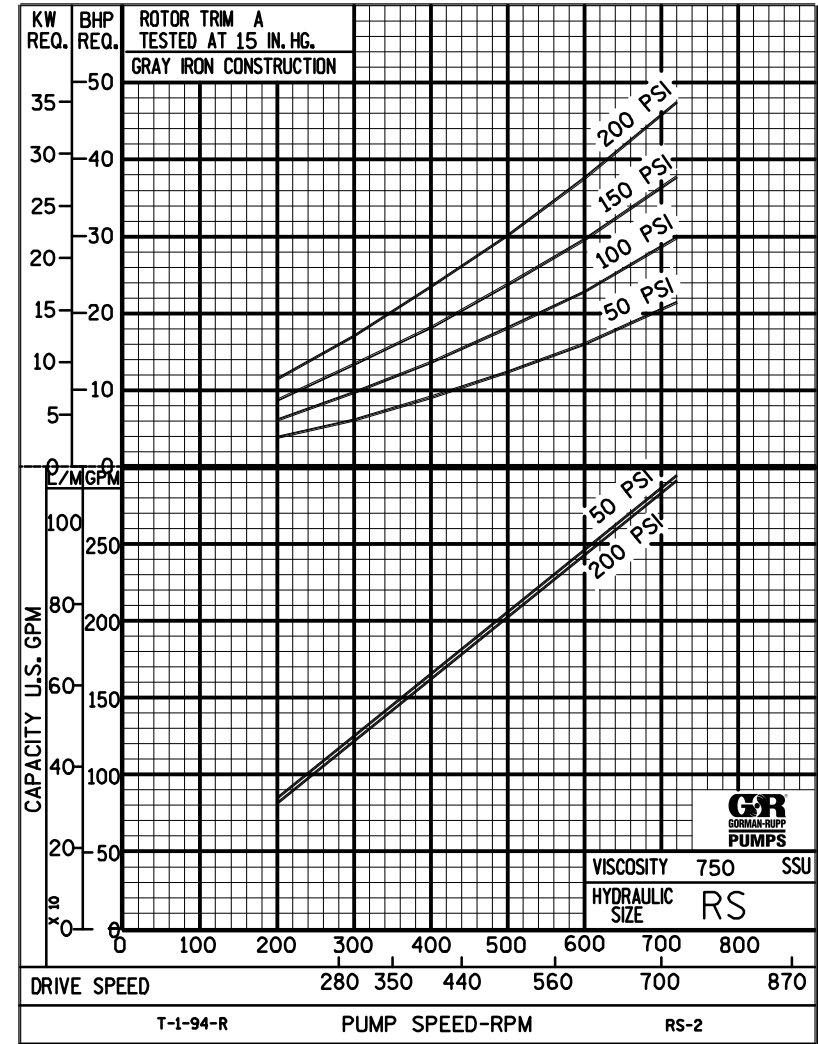
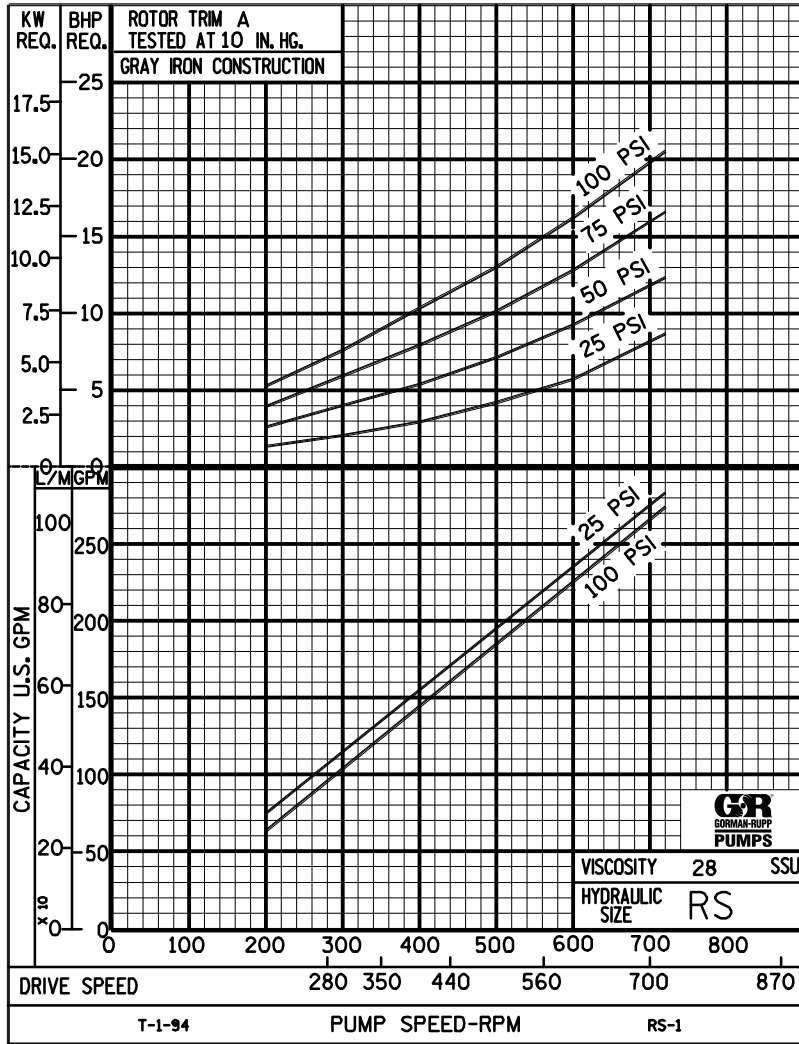
SEE SECTION 545



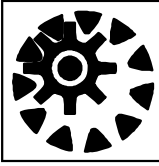
PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

RS Hydraulic Size



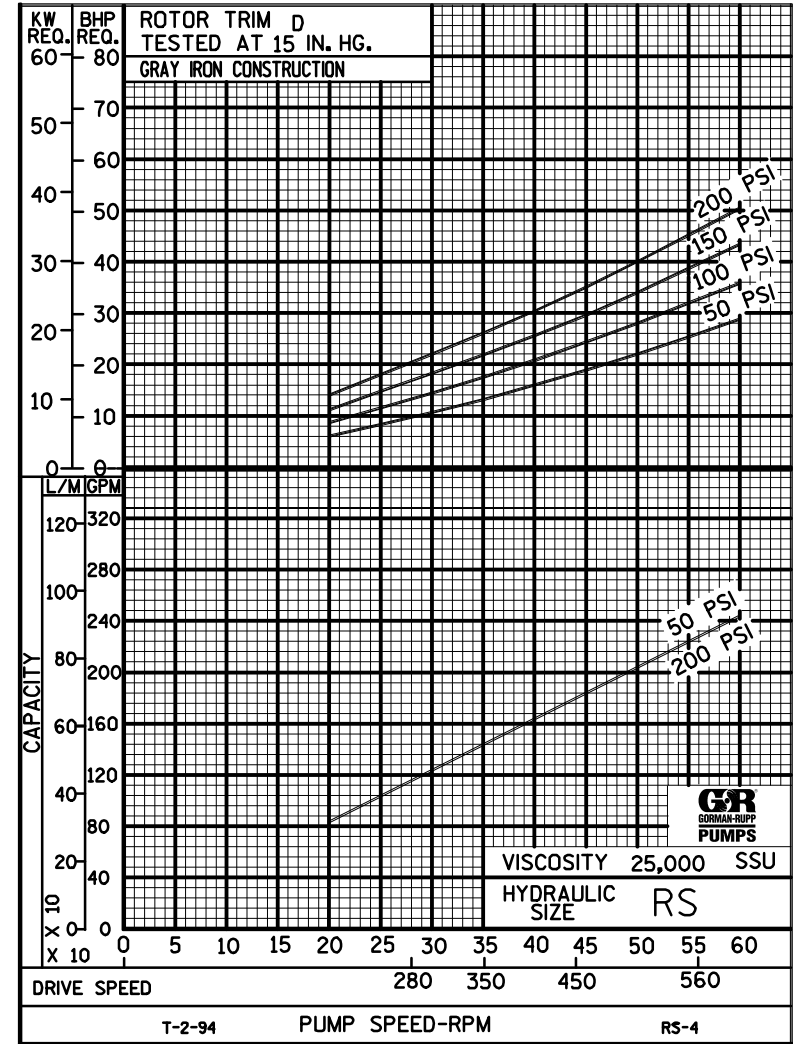
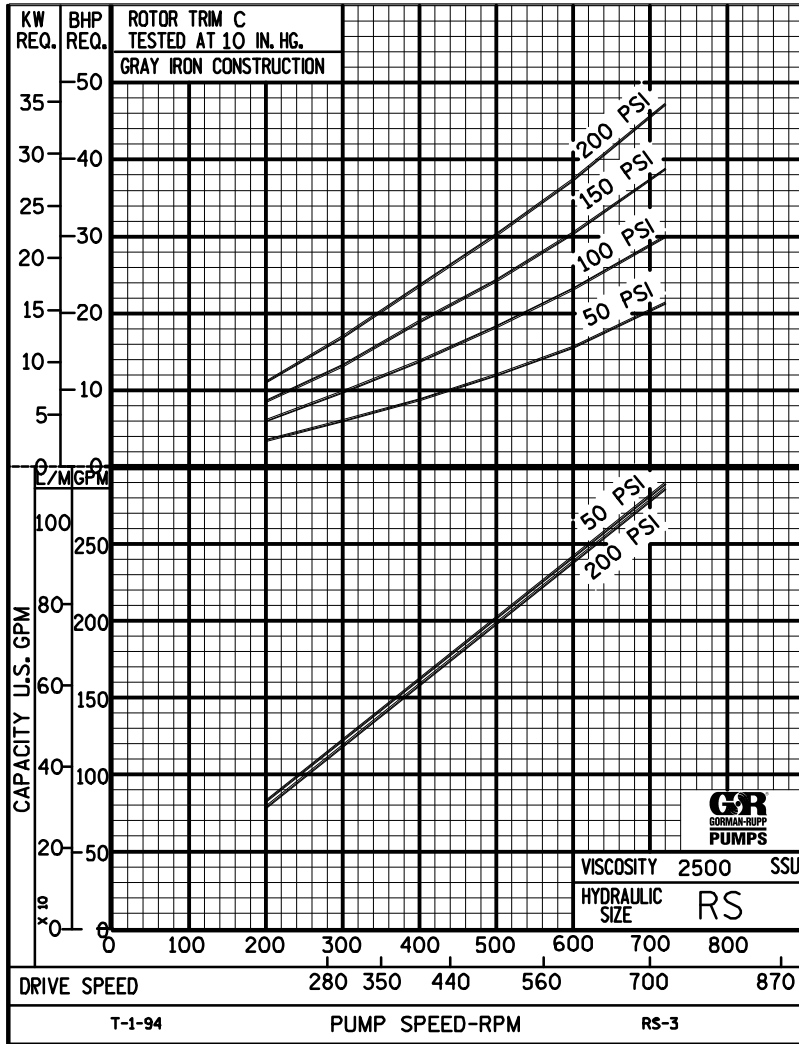
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PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

RS Hydraulic Size



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RS

PUMP HYDRAULIC SIZE CHART

SEC. 500

295 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	PIPE DIAMETER					CRACKING PRESS. (PSI)					DIFFERENTIAL PRESSURE (PSI)							
		2"	2 1/2"	3"		4"	6"	LOW PRES R/V			HI PRES R/V		25	50	75	100	150	200	300	400			
		50	75	100		150	200	HEAVY DUTY															
295	720	STD	28	6.3	.61	.24	.08	.02	-	70	90	129	199	284	280	276	274						
			32		.64	.26	.09	.02	-					9.5	13	17	22						
			38	6.3	.67	.27	.09	.02	-	73	95	132	202	286	284	280	276	272					
			50		.71	.30	.10	.03	-					12	16	20	24	31					
			70	6.3	.78	.33	.11	.03	-	79	101	138	207	264	288	286	284	282	278	274			
			100		.85	.36	.13	.03	-						14	18	22	27	33	44			
			150	6.3	.93	.39	.14	.04	.01						292	290	288	286	284	282			
			200		1.00	.42	.15	.04	.01	85	107	144	211	276	16	20	24	28	35	45			
			300	6.3	1.10	.47	.17	.05	.01	92	116	152	218	292	294	292	292	290	290	286			
			500		1.27	.55	.20	.06	.01						17	21	25	30	37	47			
		750	6.3	1.44	.63	.15	.05	.01	98	122	158	222	304	296	294	294	294	294	292				
		1,000		1.59	.47	.20	.07	.01						17	22	26	30	38	47				
		2,000	6.7	1.90	.93	.39	.13	.03	108	134	169	230	326	290	290	288	288	288	286				
		3,500		3.33	1.63	.69	.23	.04						18	22	26	31	40	48				
		5,000	7.1	4.75	2.34	.98	.33	.06	114	140	176	235	339	290	290	290	288	288	286				
		7,500		7.13	3.50	1.47	.50	.10						20	23	28	32	41	49				
		10,000	7.6	9.51	4.67	1.96	.66	.13	120	147	182	240	352	290	290	290	290	288	288				
		15,000		14.3	7.01	2.94	.99	.19						24	27	30	34	43	52				
		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.



RS

PUMP HYDRAULIC SIZE CHART

SEC. 500

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January 2010

**265 GPM
640 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				
265	640	STD	28	4.8	.48	.19	.06	.02	-	67	89	127	193		252	248	244	240					
			32		.50	.20	.07	.02	-						7.5	11	15	18					
			38	4.8	.52	.21	.07	.02	-	71	93	130	196		254	250	246	244	238				
			50		.56	.23	.08	.02	-						9.4	13	17	20	28				
			70	4.8	.62	.26	.09	.02	-	76	98	135	201	259		256	254	252	250	246	240		
			100		.68	.29	.10	.03	-							11	15	19	22	29	38		
			150	4.8	.74	.32	.11	.03	-	81	104	141	205	269		260	258	256	254	252	248		
			200		.80	.34	.12	.03	-							12	16	20	23	31	39		
			300	4.8	.89	.38	.14	.04	.01	88	112	148	211	282		262	260	258	258	256	254		
			500		1.03	.44	.16	.03	.01							13	17	21	25	32	41		
		750	5.0	1.17	.51	.13	.04	.01	92	118	153	216	292		264	262	262	260	260	258			
		1,000		.84	.41	.17	.06	.01							14	18	22	25	32	41			
		2,000	5.5	1.68	.82	.35	.12	.02	102	128	162	224	310		258	258	258	256	256	254			
		3,500		2.93	1.44	.60	.20	.04							15	18	22	26	34	41			
		5,000	6.0	4.19	2.06	.86	.29	.06	107	134	168	229	321		258	258	258	256	256	256			
		7,500		6.29	3.09	1.29	.44	.08							18	20	24	28	36	43			
		10,000	6.7	8.38	4.12	1.73	.58	.11	112	140	173	234	331		258	258	258	258	256	256			
		15,000		12.6	6.17	2.59	.87	.17							20	23	27	30	38	45			
		20,000	7.8	16.8	8.23	3.45	1.16	.23	116	144	181	237	339		260	260	260	258	258	256			
		25,000		21.0	10.3	4.32	1.46	.28							23	26	29	32	40	48			
50,000																							
75,000																							
100,000																							
150,000																							
200,000																							
250,000																							

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



RS

PUMP HYDRAULIC SIZE CHART

SEC. 500

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212 GPM
520 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					
212	520	STD	28	3.2	.31	.13	.04	.01	-	62	87	123	185		204	200	196	192						
			32		.33	.13	.04	.01	-						4.9	7.9	11	14						
			38	3.2	.35	.14	.05	.01	-	64	90	126	187		206	202	198	196	190					
			50		.38	.16	.05	.01	-						6.3	9.1	12	16	21					
			70	3.2	.42	.18	.06	.02	-	69	95	130	192	251	208	206	202	200	196	192				
			100		.46	.20	.07	.02	-						7.9	10	14	17	23	30				
			150	3.2	.51	.22	.08	.02	-	74	99	134	196	258	212	208	206	206	204	200				
			200		.55	.24	.08	.02	-						8.9	12	15	18	24	31				
			300	3.2	.61	.27	.10	.03	-	80	105	140	202	267	212	212	210	208	208	206				
			500		.72	.31	.11	.02	-						9.6	13	16	19	25	32				
		750	3.3	.51	.25	.10	.04	.01	84	110	144	206	274	214	214	212	212	210	210					
		1,000		.68	.33	.14	.05	.01						10	13	16	19	25	32					
		2,000	4.1	1.35	.66	.28	.09	.02	92	118	151	213	287	212	212	210	210	208	206					
		3,500		2.37	1.16	.49	.16	.03						11	14	17	19	26	33					
		5,000	4.6	3.38	1.66	.70	.24	.05	97	123	156	218	294	212	212	210	210	210	208					
		7,500		5.08	2.49	1.05	.35	.07						14	16	20	23	29	36					
		10,000	5.3	6.77	3.32	1.39	.47	.09	102	127	160	222	301	212	212	212	212	210	210					
		15,000		10.2	4.99	2.09	.71	.14						18	20	24	27	33	39					
		20,000	5.8	13.5	6.65	2.79	.94	.18	104	131	164	224	305	212	212	212	212	210	210					
		25,000		16.9	8.31	3.49	1.18	.23						20	23	27	30	36	43					
50,000	8.2	33.8	16.6	6.97	2.35	.46	113	138	170	232	317	212	212	212	212	210	210							
75,000		50.8	24.9	10.5	3.53	.68						28	31	34	38	45	51							
100,000																								
150,000																								
200,000																								
250,000																								

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



RS

PUMP HYDRAULIC SIZE CHART

SEC. 500

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January 2010

**146 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						
146	350	STD	28	1.8	.16	.07	.02	.01	-	56	84	120	177		135	131	128	124							
			32		.17	.07	.02	.01	-						2.6	4.9	6.9	9.1							
			38	1.8	.19	.08	.03	.01	-	59	86	122	179		136	133	130	127	121						
			50		.20	.09	.03	.01	-						3.2	5.6	7.8	9.4	15						
			70	1.8	.23	.10	.03	.01	-	62	89	124	182	241		139	136	134	131	127	125				
			100		.25	.11	.04	.01	-							3.9	6.1	8.7	10	15	19				
			150	1.8	.28	.12	.04	.01	-	65	92	126	185	244		142	139	138	136	133	132				
			200		.31	.13	.05	.01	-							4.8	6.7	9.1	11	15	20				
			300	1.8	.35	.15	.05	.01	-	71	97	130	189	249		143	142	141	140	138	137				
			500		.41	.12	.05	.02	-							4.9	7.3	9.2	11	16	20				
		750	1.9	.36	.18	.07	.03	-	74	100	133	192	252		145	144	144	143	142	141					
		1,000		.48	.24	.10	.03	.01							5	7.6	9.4	12	16	20					
		2,000	2.5	.97	.47	.20	.07	.01	81	109	138	197	257		143	142	142	141	140	139					
		3,500		1.69	.83	.35	.12	.02							5.2	9.5	10	12	17	21					
		5,000	3.0	2.42	1.19	.50	.17	.03	85	111	141	200	261		143	143	142	142	141	140					
		7,500		3.63	1.78	.75	.25	.05							6.9	9.3	12	13	19	22					
		10,000	3.7	4.83	2.37	1.00	.34	.07	88	114	144	203	265		144	143	142	142	142	141					
		15,000		7.25	3.56	1.49	.50	.10							8.8	11	14	15	20	24					
		20,000	4.4	9.67	4.75	1.99	.67	.13	91	116	145	204	267		144	143	143	143	142	142					
		25,000		12.1	5.94	2.49	.84	.16							11	13	15	17	22	26					
50,000	6.8	24.2	11.9	4.98	1.68	.33	97	122	149	210	272		144	143	143	143	142	142							
75,000		36.3	17.8	7.47	2.52	.49							15	18	20	23	27	32							
100,000	9.0	48.4	23.8	9.96	3.36	.65	101	125	152	212	275		144	143	143	143	142	142							
150,000		72.5	35.6	14.9	5.04	.98							20	23	25	28	33	37							
200,000																									
250,000																									

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



RS

SEC. 500

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February 2025

42 GPM
100 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						
					2½"	3"	4"	5"	6"	DIFFERENTIAL PRESSURE (PSI)				150	200	300	400			
						25	50	75	100	150	200	300	400							
42	100	STD																		
				"D"																
			200,000	3.2	13.3	5.6	1.9	0.8	0.4	42	42	41	41	41	41	41	40			
			399,999		NR	11.2	3.8	1.5	0.7	4.4	4.9	5.4	5.9	7.0	7.9	9.0	11			
			400,000	3.6						42	42	41	41	41	41	41	40			
			599,999		NR	16.7	5.6	2.3	1.1	4.7	5.2	5.8	6.3	7.3	8.3	9.4	11			
			600,000	4.4						42	42	41	41	41	41	41	40			
			799,999		NR	22.3	7.5	3.1	1.5	5.0	5.5	6.1	6.6	7.6	8.7	9.8	12			
			800,000	4.9						42	42	41	41	41	41	41	40			
			1M		NR	NR	9.4	3.8	1.8	5.2	5.8	6.4	6.9	7.9	9.0	10	12			

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