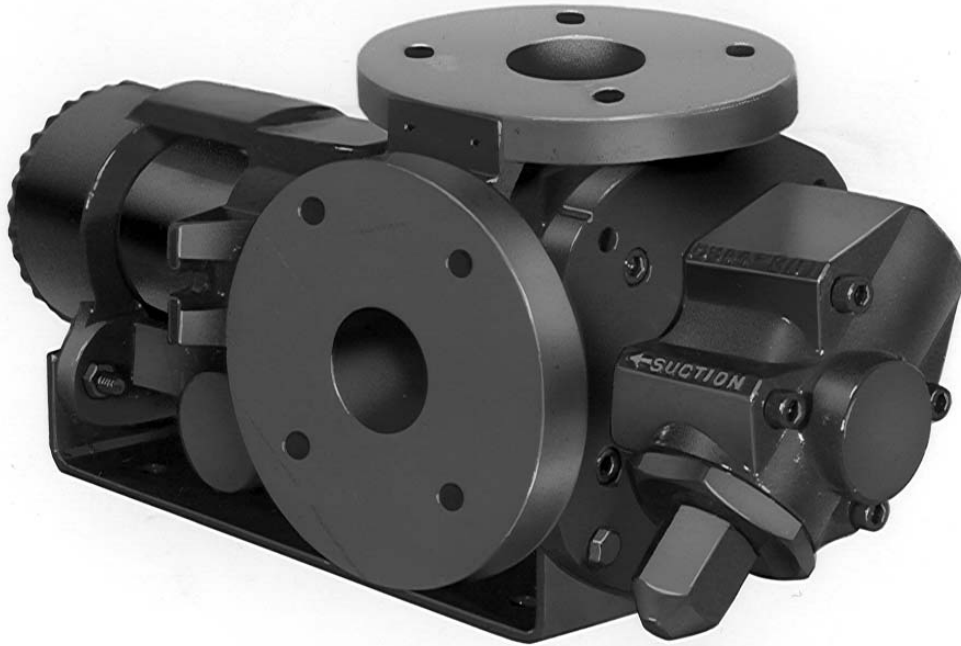


GHS SERIES Flexible Seal HEAVY DUTY STANDARD STEEL ROTARY GEAR PUMP

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	RPM	GPM	RPM	BELOW	38 TO	100 TO	°F	LBS	CU.		
GHC	GHS	[LPM]	60 Hz	[LPM]	60 Hz	38 SSU	100 SSU	250,000 SSU	[°C]	[KG]	CU. FT.		
			[50 HZ]		[50 HZ]	[4 cSt]	[21 cSt]	[55,000 cSt]					
GHC 1 DC32-B ① ● †		9		6						39	0.6		
GHC 1 DE32-B ① ● †		11		7						39	0.6		
GHC 1-1/2 GC32-B ● †	GHS 1-1/2 GC32-B ● †	16	1750 [1460]	10	1150 [960]	100 [7]	150 [10]	300 [21]	GHC ● 350 [177]	71	2.9		
GHS 1-1/2 GC38-B ■ †	GHS 1-1/2 GC38-B ■ †	23		15						71	2.9		
GHC 1-1/2 GF32-B ● †	GHS 1-1/2 GF32-B ● †	23		15						71	2.9		
GHS 1-1/2 GF38-B ■ †	GHS 1-1/2 GF38-B ■ †	23		15						71	2.9		
GHC 1-1/2 GH32-B ● †	GHS 1-1/2 GH32-B ● †	31		20						71	2.9		
GHS 1-1/2 GH38-B ■ †	GHS 1-1/2 GH38-B ■ †	31	20	71	2.9								
GHC 1-1/2 GJ32-B ② ● †	GHS 1-1/2 GJ32-B ② ● †	38	1150 [960]	25	870 [725]			100 [7]	150 [10]	200 [14]	GHC ● 400 [204]	71	2.9
GHS 1-1/2 GJ38-B ② ■ †	GHS 1-1/2 GJ38-B ② ■ †	38		25								71	2.9
GHC 3 JG32-B ● †	GHS 3 JG32-B ● †	40		30								154	5.3
GHS 3 JG38-B ■ †	GHS 3 JG38-B ■ †	40		30								154	5.3
GHC 3 JJ32-B ● †	GHS 3 JJ32-B ● †	56		36		154	5.3						
GHS 3 JJ38-B ■ †	GHS 3 JJ38-B ■ †	56		36		154	5.3						
GHC 3 JL32-B ● †	GHS 3 JL32-B ● †	77		58		154	5.3						
GHS 3 JL38-B ■ †	GHS 3 JL38-B ■ †	77		58		154	5.3						
GHC 3 JP32-B ② ● †	GHS 3 JP32-B ② ● †	107	1150 [960]	81	870 [725]	100 [7]	150 [10]	200 [14]	GHS ■ 500 [260]	154	5.3		
GHS 3 JP38-B ② ■ †	GHS 3 JP38-B ② ■ †	107		81						154	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.	Vol.
		GPM	RPM	GPM	RPM	BELOW	38 TO	100 TO	° F	LBS	CU.
GHC	GHS	[LPM]	60 Hz	[LPM]	60 Hz	38 SSU	100 SSU	250,000 SSU	[° C]	[KG]	FT.
			[50 HZ]		[50 HZ]	[4 cSt]	[21 cSt]	[55,000 cSt]			
	GHS 2 NK32-B ● † GHS 2 NK38-B ■ †	99 [375]		60 [189]				300 [21]		200	5.3
										[90,7]	
	GHS 3 NK32-B ● † GHS 3 NK38-B ■ †	132 [500]	960 [960]	80 [252]	580 [480]					200	5.3
										[90,7]	
	GHS 2 NM32-B ● † GHS 2 NM38-B ■ †	165 [624]		99 [312]						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]		143 [451]						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]	500 [260]	302	10.7
										[136,9]	
	GHS 2-1/2 RP32-B ● † GHS 2-1/2 RP38-B ■ †	295 [930]		196 [618]						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]		196 [618]						302	10.7
										[136,9]	
	GHS 3 RR32-B ● † GHS 3 RR38-B ■ †	295 [930]		196 [618]						302	10.7
										[136,9]	
	GHS 4 RR32-B ● † GHS 4 RR38-B ■ †	295 [930]		196 [618]						302	10.7
										[136,9]	
	GHS 3 RS32-B ① ● † GHS 3 RS38-B ① ■ †	295 [930]		196 [618]						302	10.7
										[136,9]	
	GHS 4 RS32-B ① ● † GHS 4 RS38-B ① ■ †	295 [930]		196 [618]						302	10.7
										[136,9]	

STANDARD MODELS CONTINUED

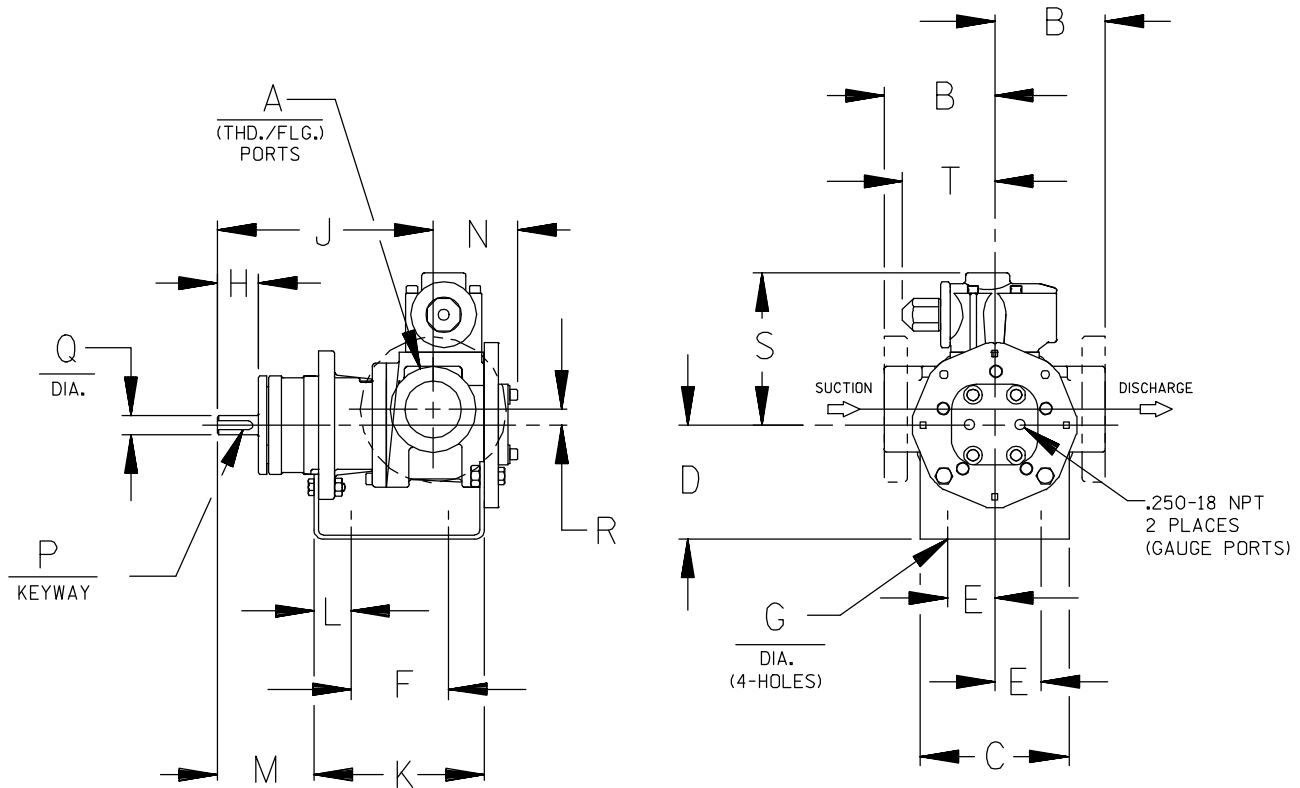
- MECHANICAL SEAL
- LIPSEAL/PACKING
- † PORTS ARE COMPATIBLE WITH 150# ANSI FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE. OPTIONAL [DIN] FLANGES OR TAPPED [BSP] PORTS AVAILABLE FOR EXPORT MARKET.

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

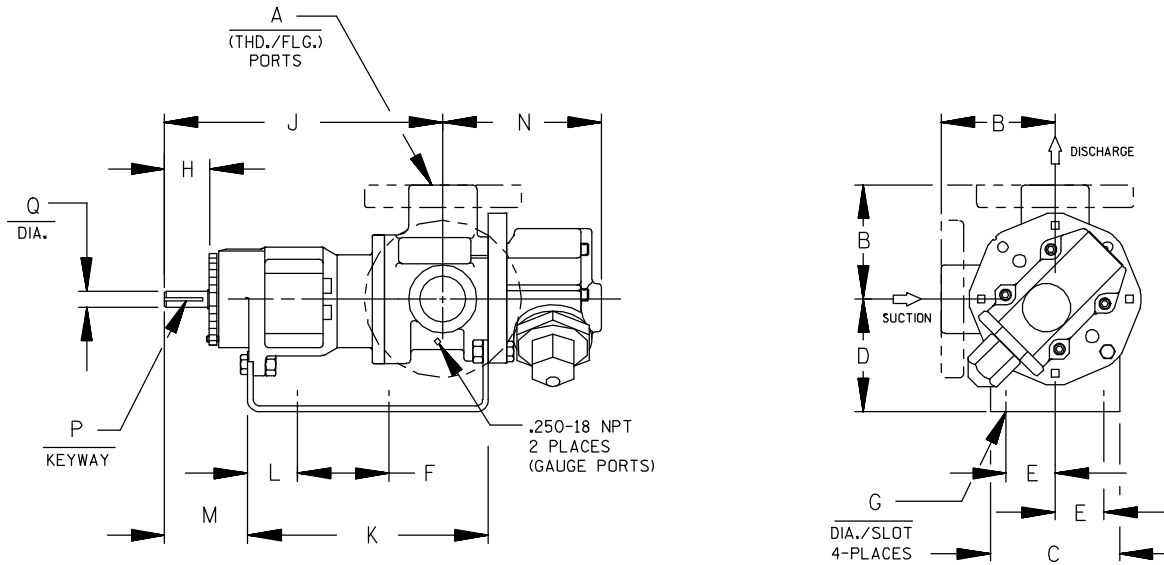
NOTE: PROPER PUMP APPLICATION REQUIRES CONSIDERATION OF ADDITIONAL FACTORS. PLEASE REVIEW APPLICATION GUIDE IN SECTION 500 OR CONSULT THE FACTORY.



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] 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] 8.72* [221]	.25 [6] x 2.00 [51]	1.12 [32]
	3"	7.19 [183]													
GHS R	2-1/2"														
	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]	.38 [10] x 1.88 [48]	1.44 [37]
	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

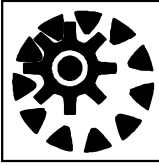
SECTION 540

FOR GHS DRIVE OPTIONS

AND DIMENSIONS

SEE

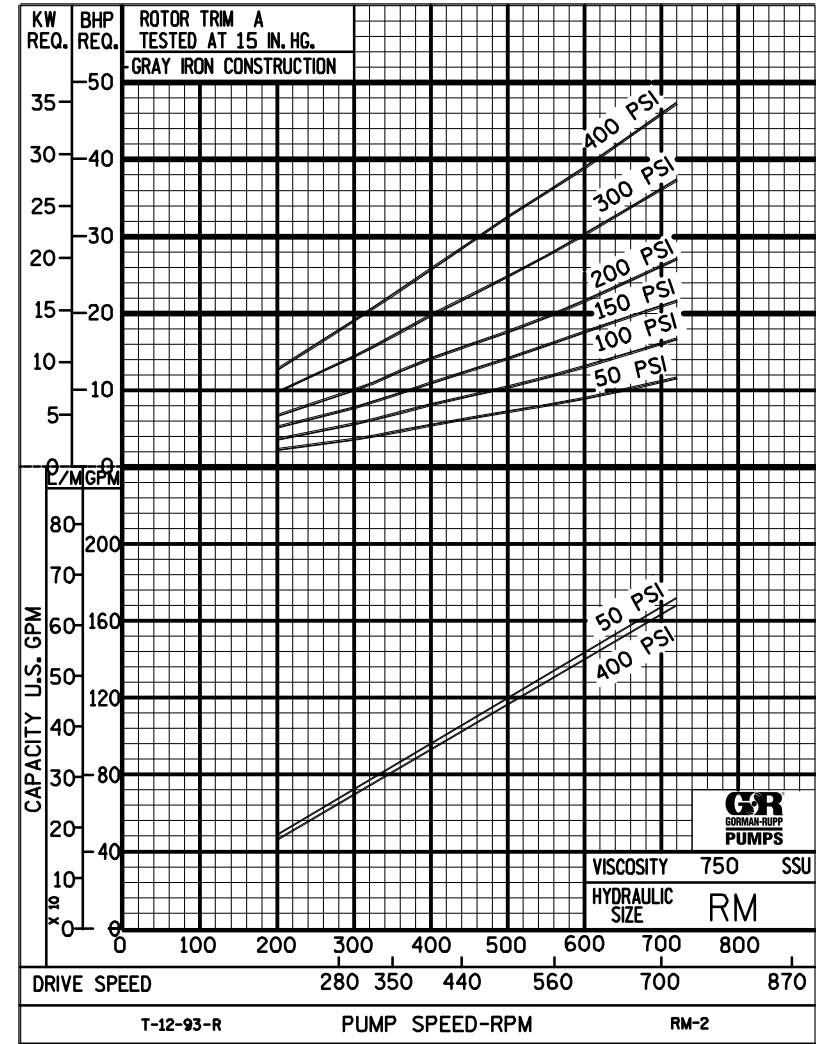
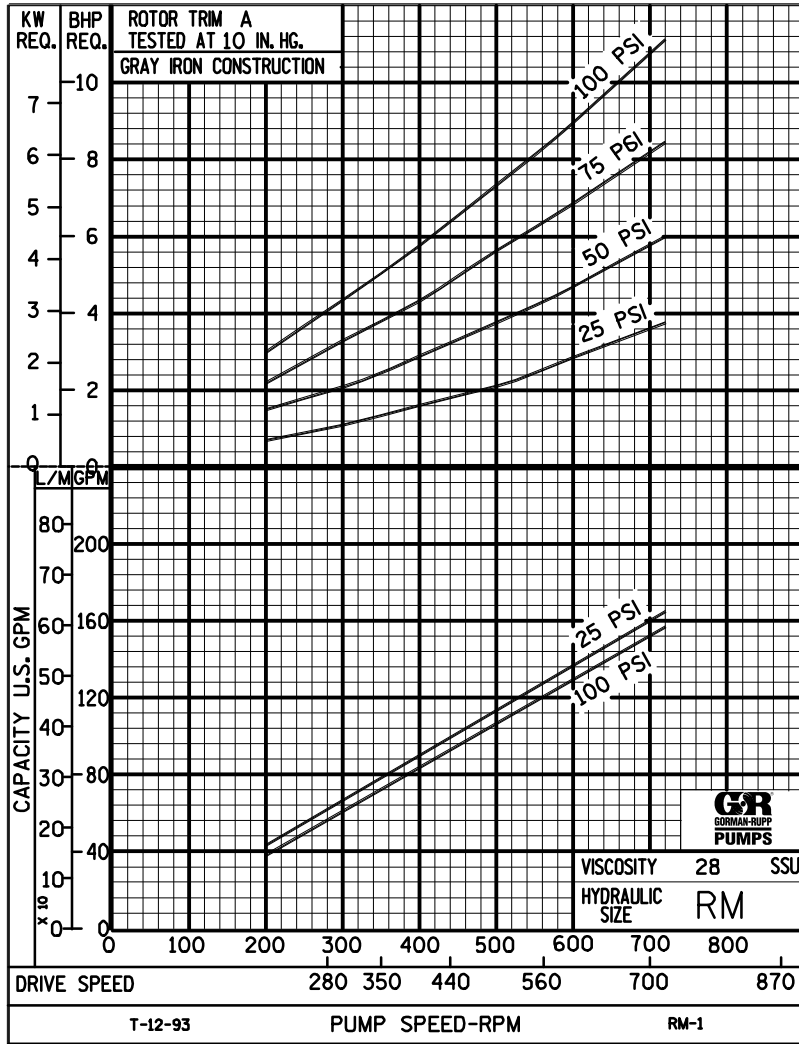
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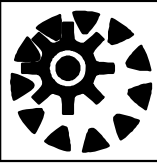
PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

RM Hydraulic Size



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PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

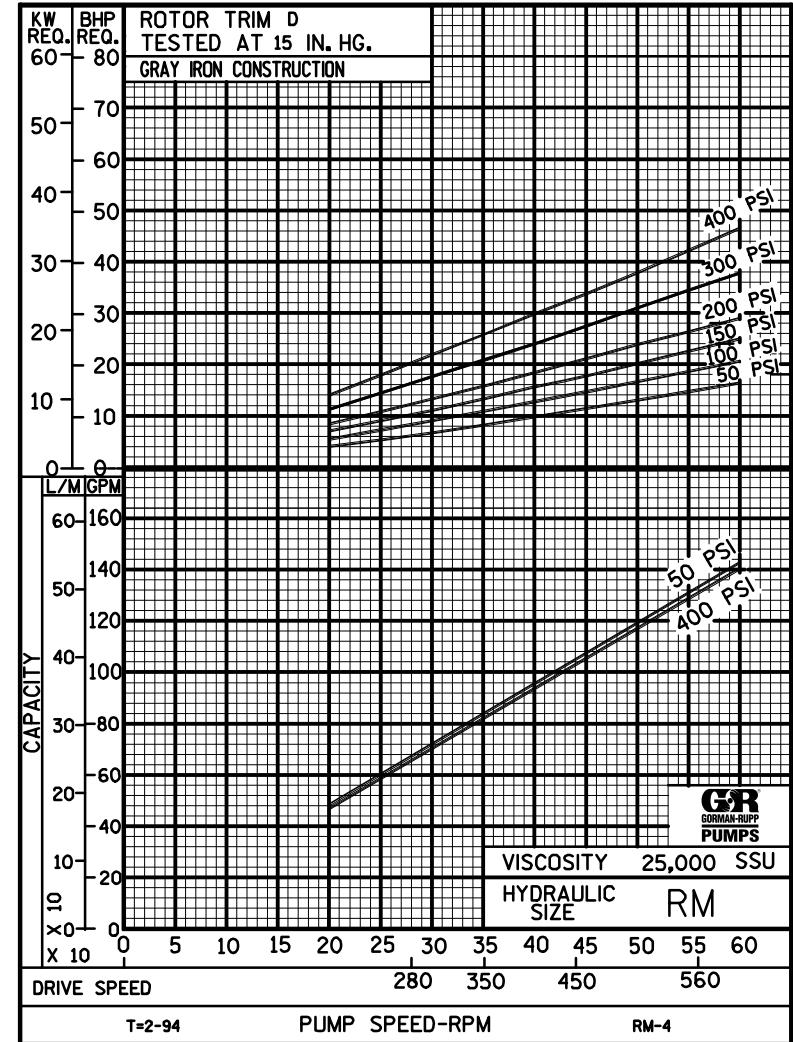
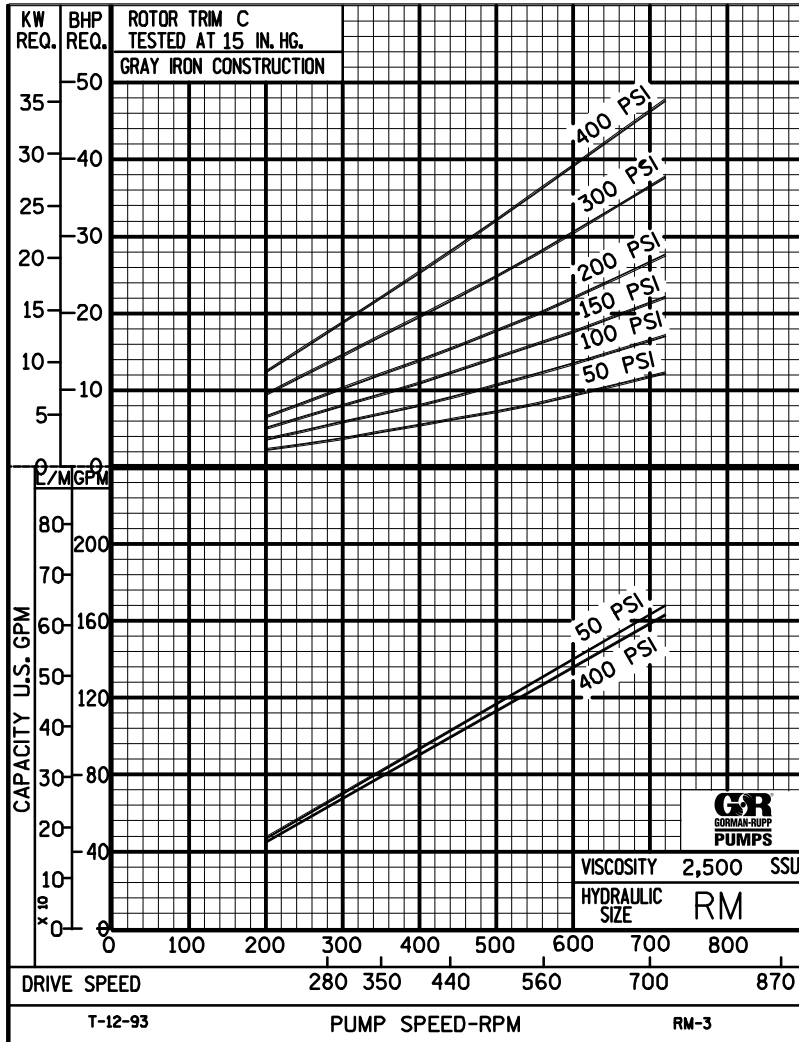
RM

Hydraulic Size

SEC. 500

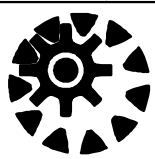
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RM

PUMP HYDRAULIC SIZE CHART

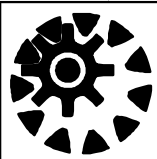
SEC. 500

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153 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					
153	640	STD	28	2.5	.16	.07	.02	.01	-	57	84	120	178		145	142	139	137						
			32		.17	.07	.02	.01	-						3.3	6.1	7.9	10						
			38	2.5	.19	.08	.03	.01	-	60	86	122	180		146	144	141	140	137					
			50		.20	.09	.03	.01	-						4.5	6.8	9.1	11	16					
			70	2.5	.23	.10	.03	.01	-	63	89	124	183	242	148	146	144	143	141	139				
			100		.25	.11	.04	.01	-						5.9	8.1	10	12	17	23				
			150	2.5	.28	.12	.04	.01	-	66	93	127	186	246	150	149	148	147	145	144	142	139		
			200		.31	.13	.05	.01	-						6.7	9.2	11	13	18	23	32	41		
			300	2.5	.35	.15	.05	.01	-	72	98	131	190	251	152	151	150	150	149	148	146	145		
			500		.41	.12	.05	.02	-						7.8	10	12	14	19	24	33	42		
		750	2.6	.36	.18	.07	.03	-	75	101	134	193	254	153	152	152	152	151	150	150	149			
		1,000		.48	.24	.10	.03	.01						7.9	10	12	14	19	24	33	42			
		2,000	2.7	.97	.47	.20	.07	.01	82	110	139	199	260	151	150	150	149	149	148	147	146			
		3,500		1.69	.83	.35	.12	.02						8.8	11	13	15	20	24	33	43			
		5,000	2.9	2.42	1.19	.50	.17	.03	86	112	142	202	264	151	150	150	150	149	148	147	146			
		7,500		3.63	1.78	.75	.25	.05						10	13	15	16	21	26	35	45			
		10,000	3.2	4.83	2.37	1.00	.34	.07	89	115	145	205	268	151	151	150	150	150	149	148	147			
		15,000		7.25	3.56	1.49	.50	.10						12	14	16	18	23	28	36	47			
		20,000	3.5	9.67	4.75	1.99	.67	.13	92	118	147	207	270	152	151	151	150	150	150	149	148			
		25,000		12.1	5.94	2.49	.84	.16						14	16	18	20	25	30	39	50			
50,000	"D"																							
75,000																								
100,000																								
150,000																								
200,000																								
250,000																								

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



RM

PUMP HYDRAULIC SIZE CHART

SEC. 500

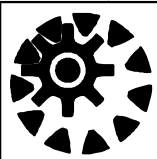
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January 2010

125 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					
							50	75	100	150	200	25	50	75	100	150	200	300	400					
125	520	STD	28	1.9	.11	.05	.02	-	-	55	83	119	176		116	113	112	109						
			32		.12	.05	.02	-	-						2.3	4.1	7.1	9.8						
			38	1.9	.13	.05	.02	.01	-	57	85	121	177		118	115	113	111	108					
			50		.15	.06	.02	.01	-						3.5	5.1	7.9	10	14					
			70	1.9	.16	.07	.02	.01	-	60	88	123	180	236	120	118	117	115	113	110				
			100		.18	.08	.03	.01	-						4.5	6.1	8.9	11	15	18				
			150	1.9	.21	.09	.03	.01	-	64	91	125	182	239	122	121	120	119	117	115	113	111		
			200		.22	.10	.03	.01	-						5.2	6.8	9.3	11	15	18	26	34		
			300	1.9	.25	.11	.02	.01	-	68	95	128	185	242	124	123	122	121	120	119	118	117		
			500		.20	.10	.04	.01	-						5.6	7.4	9.4	11	15	18	26	34		
		750	2.0	.30	.15	.06	.02	-	72	98	130	187	244	125	124	124	123	123	122	122	121			
		1,000		.40	.20	.08	.03	.01						5.9	7.6	9.6	11	15	18	26	34			
		2,000	2.3	.81	.40	.17	.06	.01	78	104	134	191	249	123	122	122	121	120	120	118	118			
		3,500		1.41	.69	.29	.10	.02						6.7	8.4	11	12	16	19	26	34			
		5,000	2.6	2.01	.99	.42	.14	.03	81	107	136	194	252	123	123	122	122	121	121	119	119			
		7,500		3.02	1.48	.62	.21	.04						8.4	10	12	14	17	21	28	35			
		10,000	2.9	4.03	1.98	.83	.28	.05	85	110	139	196	254	124	123	123	122	122	122	120	120			
		15,000		6.04	2.97	1.25	.42	.08						10	12	14	16	19	23	30	37			
		20,000	3.2	8.06	3.96	1.66	.56	.11	87	112	140	197	256	124	124	123	123	123	123	122	121			
		25,000		10.1	4.95	2.08	.70	.14						12	13	16	17	21	25	32	39			
50,000	4.6	20.1	9.90	4.15	1.40	.27	93	117	143	202	260	124	124	123	123	123	123	122	121					
75,000		30.2	14.8	6.23	2.10	.41						16	18	20	22	26	30	38	45					
100,000																								
150,000																								
200,000																								
250,000																								

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



RM

PUMP HYDRAULIC SIZE CHART

SEC. 500

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85 GPM
350 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					
85	350	STD	28	1.3	.05	.02	.01	-	-	54	81	117	171		78	74	72	70						
			32		.06	.02	.01	-	-							1.3	3.1	4.1	5.2					
			38	1.3	.06	.03	.01	-	-	55	82	118	172		79	75	74	72	70					
			50		.07	.03	.01	-	-							2.1	3.1	4.8	6.1	7.9				
			70	1.3	.08	.04	.01	-	-	58	85	119	173	227		80	78	77	76	74	73			
			100		.09	.04	.01	-	-							2.8	3.8	5.3	6.6	8.6	11			
			150	1.3	.11	.05	.02	-	-							82	80	79	79	78	78	77	76	
			200		.12	.05	.02	-	-	61	87	121	174	228		3.3	4.1	5.8	6.9	9.1	12	17	22	
			300	1.3	.13	.04	.02	.01	-							83	82	81	81	80	80	80	79	
			500		.14	.07	.03	.01	-	65	90	123	176	230		3.4	4.2	5.9	7.1	9.3	12	17	22	
		750	1.4	.21	.10	.04	.01	-							84	83	83	82	82	82	82	81		
		1,000		.27	.13	.06	.02	-	67	93	124	177	231		3.4	4.3	6.0	7.2	9.4	12	17	22		
		2,000	1.6	.55	.27	.11	.04	.01							83	82	82	81	81	80	80	79		
		3,500		.96	.47	.20	.07	.01	73	97	127	179	233		3.6	5.1	6.2	7.9	9.8	12	17	22		
		5,000	1.8	1.37	.67	.28	.10	.02							83	83	83	82	82	81	80	80		
		7,500		2.05	1.01	.42	.14	.03	75	100	128	181	235		4.6	5.8	7.1	9.1	11	13	19	23		
		10,000	2.2	2.74	1.35	.56	.19	.04							83	83	82	82	82	82	81	81		
		15,000		4.11	2.02	.85	.29	.06	78	102	130	182	236		5.6	7.1	8.2	10	12	14	20	25		
		20,000	2.6	5.48	2.69	1.13	.38	.07							84	83	83	83	83	82	82	82		
		25,000		6.85	3.36	1.41	.48	.09	80	104	131	183	237		6.8	8.1	9.5	11	13	16	21	26		
50,000	4.1	13.7	6.73	2.82	.95	.18							84	83	83	83	83	82	82	82				
75,000		20.6	10.0	4.23	1.43	.28	85	108	133	185	239		10	12	14	15	17	19	25	30				
100,000	5.6	27.4	13.5	5.64	1.90	.37							84	83	83	83	83	82	82	82				
150,000		41.0	20.2	8.47	2.86	.55	87	110	134	186	240		13	15	17	18	22	24	30	35				
200,000	7.5	54.8	27.0	11.3	3.81	.74							84	83	83	83	83	82	82	82				
250,000		68.5	33.7	14.1	4.76	.92	89	112	135	187	241		15	17	19	20	26	27	33	39				

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