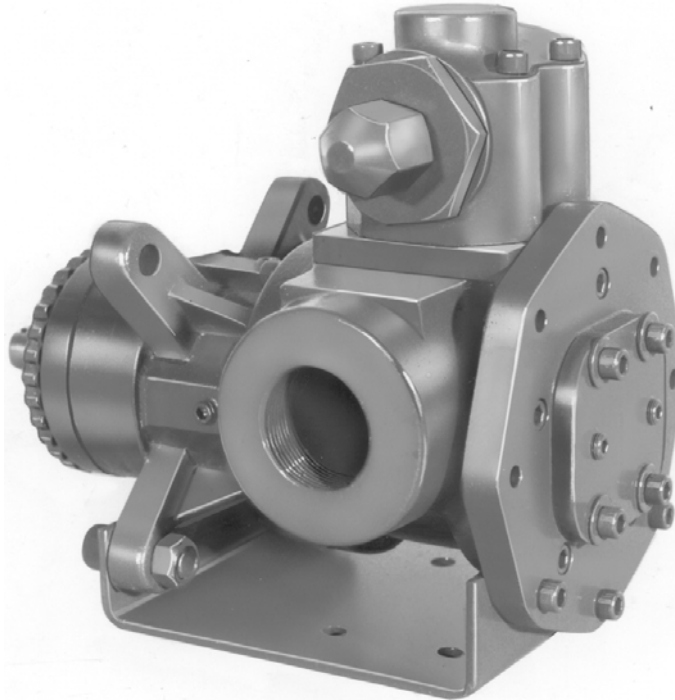


GHC SERIES HEAVY DUTY COMPACT STAINLESS STEEL ROTARY GEAR PUMP

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/OPTIONAL THREADED PORTS

The GHC stainless series is designed for applications in the operating ranges noted on the model pages. These units are available with head jackets for temperature control, silicon carbide bushings for wear resistance, and numerous shaft seal options described on the following pages. These units may be foot mounted or, by using a motor adaptor, direct connected to NEMA “C” flange motors.

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

OPERATING RANGE

CAPACITY	(GPM):	(3 TO 107)
	[LPM]:	[11 TO 405]
PRESSURE	(PSI):	[0 TO 200]
	[BAR]:	[0 TO 14]
VISCOSITY	(SSU):	(28 TO 25,000)
	[cSt]:	[1 TO 5417]
TEMPERATURE (F)	:	(-30° TO 350°)
	[C]:	[-34° TO 177°]

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]		
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]	63 [28,6] 2.9
	GHS 2 GF9-B ● ● GHS 2 GF10-B ■ ■									GHS ● 400 [204]	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]	63 [28,6] 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]	63 [28,6] 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**

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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**

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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* [64]	4.00 [102]	3.50* [89]	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* [89]	4.88 [124]	3.50* [89]	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

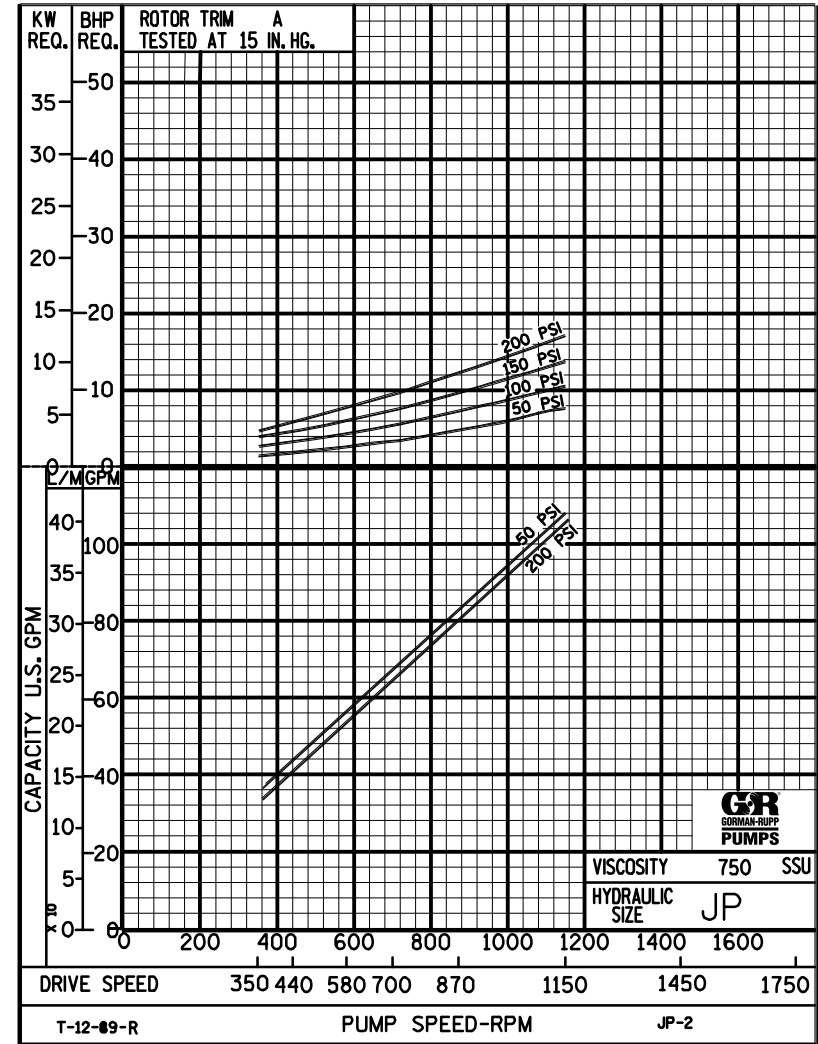
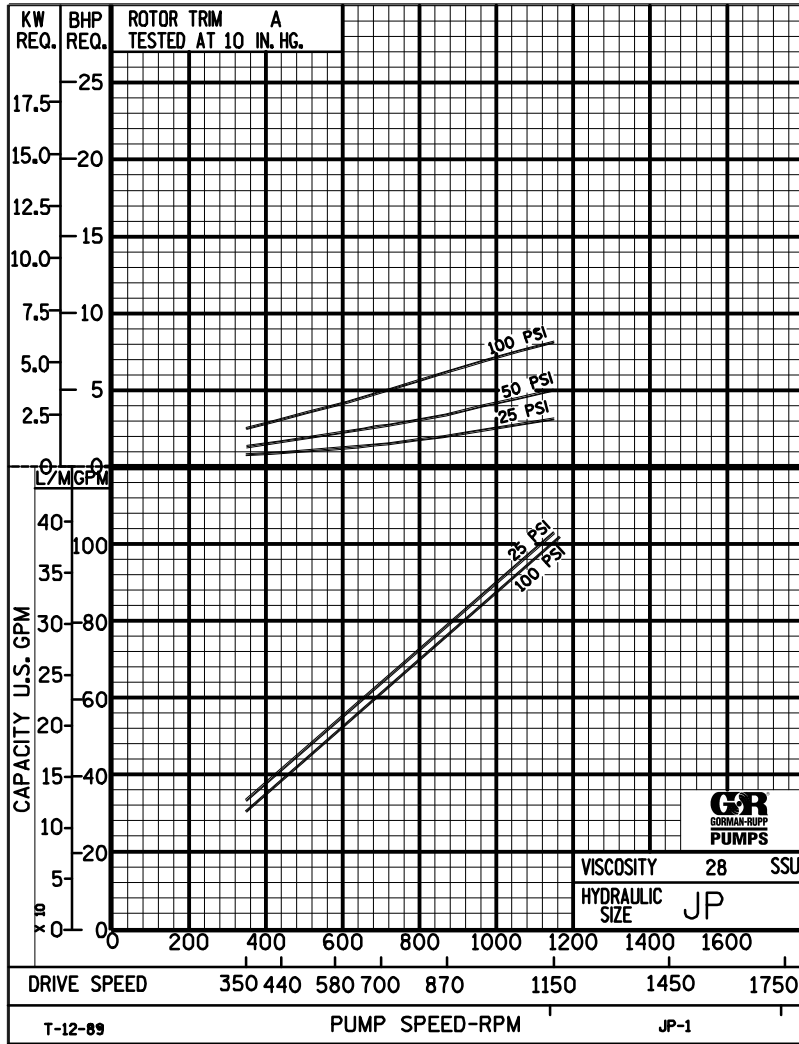
JP

Hydraulic
Size

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PERFORMANCE CURVES

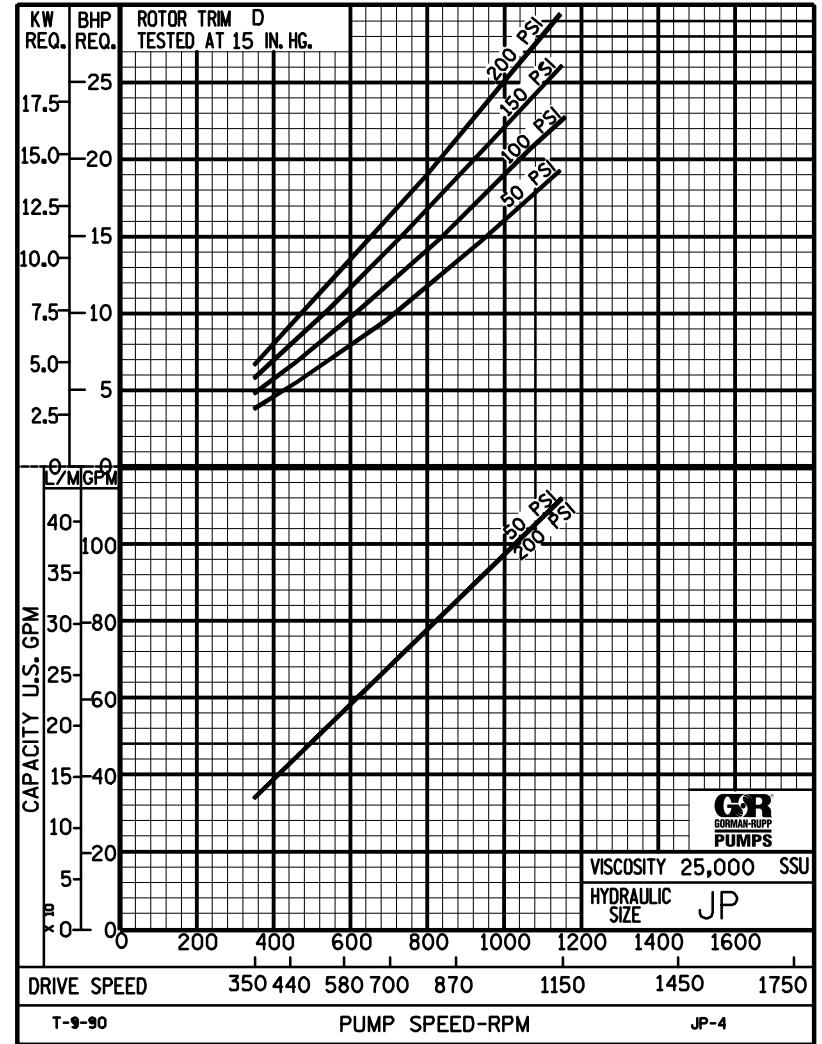
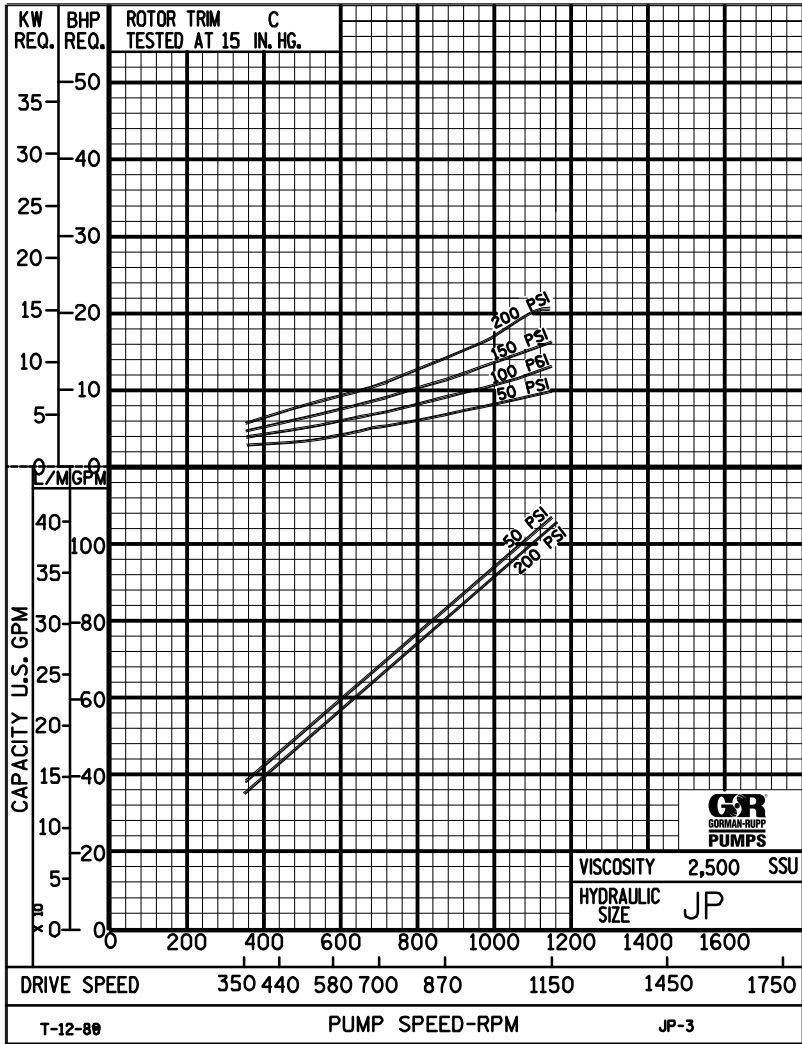
SPEED VS. CAPACITY/HORSEPOWER

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PUMP HYDRAULIC SIZE CHART

SEC. 500

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**107 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)									
					1½"	2"	2½"	3"	4"	LOW PRES R/V			HI PRES R/V		HEAVY DUTY									
							50	75	100	150	200	25	50	75	100	150	200	300	400					
107	1150	STD	28	4.8	.01	.01	.01	.01	.01	77	104	143												
			32		.23	.07	.03	.01	.01												103	100	100	99
			38	4.8	.29	.09	.04	.02	.01	78	105	144	188											
			50		.34	.11	.05	.02	.01														105	103
			70	4.8	.39	.12	.05	.02	.01	79	107	144	189	240										
			100		.44	.14	.06	.02	.01															106
			150	4.8	.50	.15	.07	.03	.01	80	107	145	189	241										
			200		.54	.17	.07	.03	.01															
			300	4.8	.61	.19	.08	.03	.01	81	109	145	190	242										
			500		.64	.22	.09	.04	.01															
		750	4.8	.70	.26	.13	.06	.02	82	111	146	190	243											
		1,000		.94	.35	.17	.07	.03																109
		2,000	5.7	1.87	.69	.34	.14	.05	86	118	153	196	252											
		3,500		3.28	1.21	.59	.25	.09																109
		5,000	6.2	4.68	1.73	.85	.36	.12	90	123	156	200	256											
		7,500		7.02	2.59	1.27	.54	.18																110
		10,000	6.8	9.36	3.45	1.70	.71	.24	96	129	160	204	260											
		15,000		14.1	5.17	2.54	1.07	.36																110
		20,000	7.3	18.7	6.89	3.39	1.42	.48	102	135	164	208	264											
		25,000		23.4	8.62	4.23	1.78	.60																111
50,000																								
75,000																								
100,000																								
150,000																								
200,000																								
250,000																								

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



JP

PUMP HYDRAULIC SIZE CHART

SEC. 500

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**81 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											
CAP. GPM	SPEED RPM				PIPE DIAMETER					CRACKING PRESS. (PSI)					DIFFERENTIAL PRESSURE (PSI)											
					1½"	2"	2½"	3"	4"	LOW PRES R/V			HI PRES R/V		MEDIUM DUTY AND HEAVY DUTY				HEAVY DUTY ONLY							
81	870	STD	28	3.0	.01	.01	.01	.01	.01	74	100	133			77	75	75	74								
			32		.14	.04	.02	.01	.01						2.2	3.4	4.7	6.0								
			38	3.0	.18	.06	.03	.01	.01	74	100	133	174			78	77	76	75	75						
			50		.21	.07	.03	.01	.01							2.3	3.7	5.0	6.2	7.5						
			70	3.0	.24	.08	.03	.01	.01	74	101	134	174	226			79	78	78	77	76	75				
			100		.27	.09	.04	.02	.01								2.5	4.0	5.2	6.5	8.0	10				
			150	3.0	.31	.10	.04	.02	.01	75	101	134	175	226			81	79	79	78	78	77				
			200		.34	.11	.05	.02	.01								2.6	4.3	5.5	6.8	8.6	11				
			300	3.0	.38	.12	.05	.02	.01	75	102	135	175	227			81	81	80	79	79	78				
			500		.44	.13	.07	.03	.01								2.8	4.5	5.8	7.0	9.2	12				
		750	3.0	.53	.20	.10	.04	.02	75	102	135	175	227			82	81	81	80	80.5	80					
		1,000		.71	.26	.13	.06	.02								3.0	4.8	6.0	7.3	9.7	12					
		2,000	3.7	1.42	.52	.26	.11	.04	76	104	137	177	229			82	82	81	81	81	81					
		3,500		2.48	.92	.45	.19	.07								4.2	6.8	7.9	9.0	12	14					
		5,000	4.2	3.55	1.31	.64	.27	.09	80	109	139	179	231			83	83	82	82	82	82					
		7,500		5.32	1.96	.96	.41	.14								6.8	9.0	10	11	14	16					
		10,000	4.6	7.09	2.61	1.28	.54	.18	84	114	143	183	235			84	84	83	83	83	82					
		15,000		10.7	3.92	1.92	.81	.27								9.3	11	12	14	16	19					
		20,000	5.0	14.2	5.22	2.57	1.08	.37	89	120	149	187	241			85	84	84	84	84	83					
		25,000		17.7	6.52	3.21	1.35	.46								12	13	14	16	18	21					
50,000	7.6	35.5	13.1	6.41	2.69	.91	95	126	155	193	247			85	84	84	84	84	83							
75,000		-	-	-	-	-								17	18	21	23	24	27							
100,000																										
150,000																										
200,000																										
250,000																										

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



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PUMP HYDRAULIC SIZE CHART

SEC. 500

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January 2010

**54 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)								
					1½"	2"	2½"	3"	4"	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				
54	580	STD	28	1.9	.01	.01	.01	.01	.01	62	87	114			51	50	50	49					
			32		.07	.02	.01	.01	.01							1.5	2.3	3.1	4.0				
			38	1.9	.09	.03	.01	.01	.01	62	89	116	166			52	51	51	50	50			
			50		.10	.03	.02	.01	.01							1.6	2.5	3.3	4.2	5.0			
			70	1.9	.12	.04	.02	.01	.01	63	90	118	167	219			53	52	52	51	51	50	
			100		.14	.04	.02	.01	.01								1.7	2.7	3.5	4.4	5.4	6.9	
			150	1.9	.16	.05	.02	.01	.01	64	91	120	167	219			54	53	53	52	52	51	
			200		.17	.05	.02	.01	.01								1.8	2.9	3.7	4.5	5.8	7.3	
			300	1.9	.19	.06	.03	.01	.01	65	92	122	168	220			54	54	53	53	53	52	
			500		.24	.09	.05	.02	.01								1.9	3.0	3.9	4.7	6.2	7.8	
		750	1.9	.36	.13	.07	.03	.01	66	93	124	168	220			54	54	54	54	54	53		
		1,000		.47	.18	.09	.04	.01								2.0	3.2	4.0	4.9	6.5	8.2		
		2,000	2.6	.95	.35	.17	.07	.03	70	95	124	168	222			55	55	54	54	54	54		
		3,500		1.66	.61	.30	.13	.04								2.8	4.6	5.3	6.1	7.8	9.5		
		5,000	3.0	2.36	.87	.43	.18	.06	72	97	126	170	224			55	55	55	55	55	54		
		7,500		3.55	1.31	.64	.27	.09								4.6	6.0	6.8	7.6	9.3	11		
		10,000	3.5	4.73	1.74	.86	.36	.12	74	99	128	172	226			56	56	56	55	55	55		
		15,000		7.09	2.61	1.28	.54	.18								6.3	7.4	8.2	9.1	11	13		
		20,000	3.9	9.45	3.48	1.71	.72	.24	78	103	128	174	226			57	56	56	56	56	56		
		25,000		11.8	4.35	2.14	.90	.30								8.0	8.9	9.6	11	12	14		
50,000	6.1	23.6	8.70	4.27	1.79	.61	82	107	132	178	230			57	56	56	56	56	56				
75,000		35.5	13.1	6.41	2.69	.91								11	12	14	16	16	18				
100,000																							
150,000																							
200,000																							
250,000																							

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



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PUMP HYDRAULIC SIZE CHART

SEC. 500

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January 2010

**32 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)											
					1½"	2"	2½"	3"	4"	LOW PRES R/V			HI PRES R/V		MEDIUM DUTY AND HEAVY DUTY				HEAVY DUTY ONLY							
32	350	STD	28	1.3	.01	.01	.01	.01	.01	56	82	113			31	30	30	29								
			32		.03	.01	.01	.01	.01						.89	1.4	1.9	2.4								
			38	1.3	.04	.01	.01	.01	.01	56	82	113	159			31	31	30	30	30						
			50		.04	.02	.01	.01	.01							.94	1.5	2.0	2.5	3.0						
			70	1.3	.05	.02	.01	.01	.01	56	83	113	159	211			32	31	31	31	30.7	30.4				
			100		.06	.02	.01	.01	.01								1.0	1.6	2.1	2.6	3.2	4.1				
			150	1.3	.06	.02	.01	.01	.01	56	83	113	159	211			32	32	31	31	31	31				
			200		.06	.02	.01	.01	.01								1.1	1.7	2.2	2.7	3.5	4.4				
			300	1.3	.09	.03	.02	.01	.01	57	84	113	159	211			32	32	32	32	32	31				
			500		.14	.05	.03	.01	.01								1.1	1.8	2.3	2.8	3.7	4.7				
		750	1.3	.21	.08	.04	.02	.01	57	84	113	159	211			32	32	32	32	32	32					
		1,000		.28	.11	.05	.02	.01								1.2	1.9	2.4	2.9	3.9	5.0					
		2,000	2.0	.56	.21	.10	.04	.02	59	86	115	159	211			33	33	32	32	32	32					
		3,500		.98	.36	.18	.08	.03								1.7	2.7	3.2	3.6	4.7	5.7					
		5,000	2.4	1.40	.52	.26	.11	.04	61	88	117	160	212			33	33	33	33	33	32					
		7,500		2.10	.78	.38	.16	.06								2.7	3.6	4.1	4.5	5.6	6.6					
		10,000	2.9	2.80	1.03	.51	.21	.07	63	90	120	161	213			33	33	33	33	33	33					
		15,000		4.20	1.55	.76	.32	.11								3.8	4.5	4.9	5.4	6.5	7.5					
		20,000	3.2	5.60	2.06	1.02	.43	.15	66	93	123	161	213			34	34	34	33	33	33					
		25,000		7.00	2.58	1.27	.53	.18								4.8	5.3	5.8	6.3	7.4	8.4					
50,000	5.4	14.0	5.16	2.53	1.06	.36	69	96	126	164	216			34	34	34	33	33	33							
75,000		21.0	7.73	3.80	1.60	.54								6.7	7.3	8.2	9.4	9.8	11							
100,000	8.0	28.0	10.3	5.07	2.13	.72	73	100	130	168	220			34	34	34	33	33	33							
150,000		42.0	15.5	7.60	3.19	1.08								8.1	8.8	10	11	12	13							
200,000																										
250,000																										

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