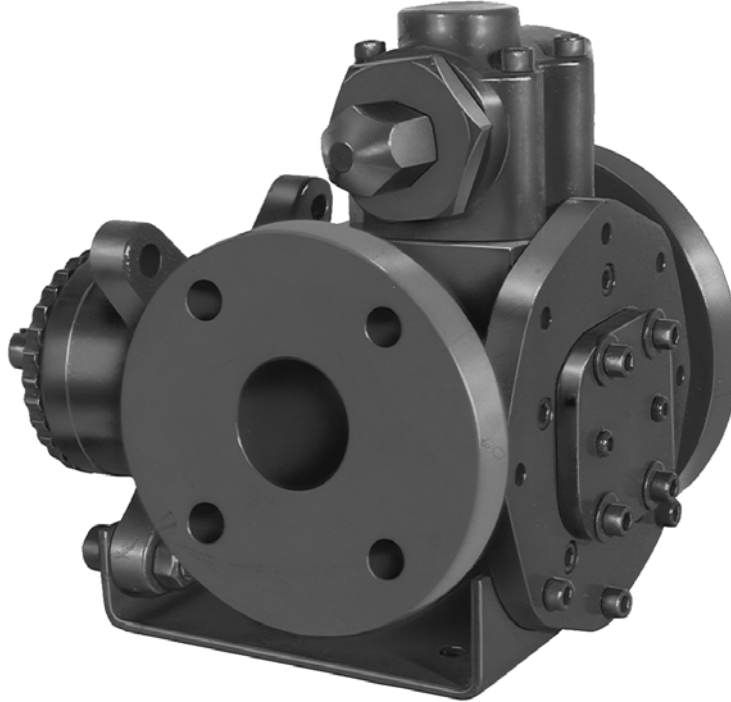


**GHC SERIES
 HEAVY DUTY COMPACT
 STEEL ROTARY GEAR PUMP**

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 GHC steel series is designed for applications in the operating ranges noted on the model pages. These units are available with head 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. These units may be foot mounted or, by using a motor adaptor, direct connected to NEMA "C" flange motors.

FEATURES

- 400 PSI CAPABILITY
- BALL BEARING THRUST CONTROL
- ROTOR END CLEARANCE EXTERNALLY ADJUSTABLE
- HIGH STRENGTH, COMPUTER PROFILED GEARING FOR QUIET OPERATION
- MULTIPLE PORT POSITIONS
- INTERNAL SEAL VENT

OPERATING RANGE

CAPACITY	(GPM) :	(3 TO 107)
	[LPM] :	[11 TO 405]
PRESSURE	(PSI) :	[0 TO 300]
	[BAR] :	[0 TO 21]
VISCOSITY	(SSU) :	(28 TO 25,000)
	[cSt] :	[1 TO 5417]
TEMPERATURE	(F) :	(-20° TO 350°)
	[C] :	[-29° TO 177°]

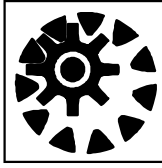
APPLICATIONS

- USE WITH ANY CLEAN LIQUID COMPATIBLE WITH IRON/STEEL
- ★ BOOSTER SERVICE
 - ★ CIRCULATING
 - ★ FILTERING
 - ★ LUBRICATING
 - ★ TRANSFERRING



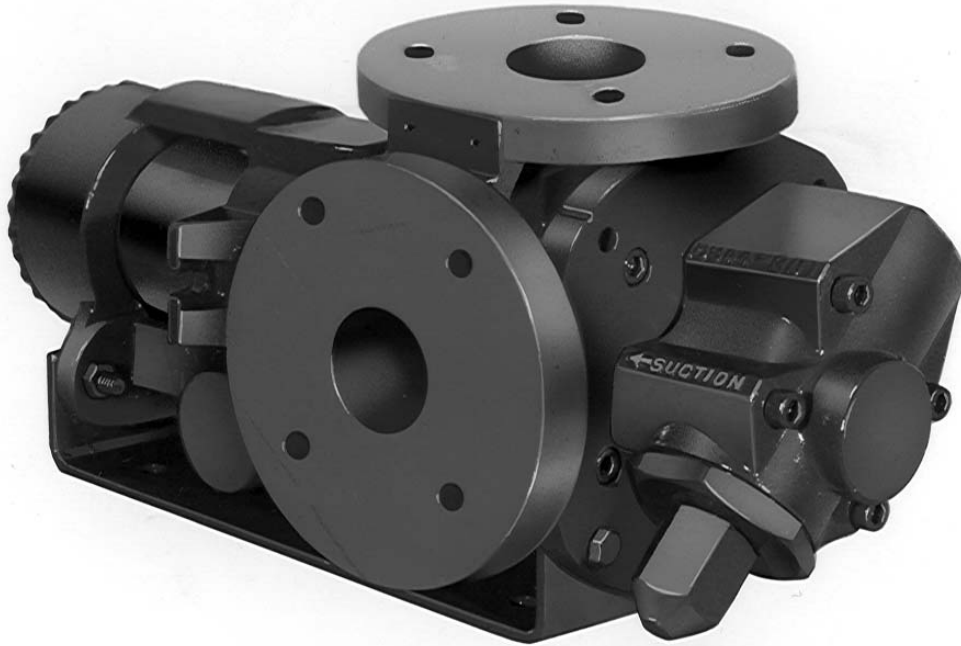
SEC. 560	PAGE 11
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GHS SERIES Flexible Seal HEAVY DUTY STANDARD STEEL ROTARY GEAR PUMP

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 [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	GHS							LBS [KG]	CU. FT.				
GHC 1 DC32-B ① ● †		9 [28]		6 [19]						39 [17,7]	0.6		
GHC 1 DE32-B ① ● †		11 [35]		7 [22]						39 [17,7]	0.6		
GHC 1-1/2 GC32-B ● †	GHS 1-1/2 GC32-B ● † GHS 1-1/2 GC38-B ■ †	16 [50]	1750 [1460]	10 [32]	1150 [960]	100 [7]	150 [10]	300 [21]	GHC ●	71 [32,2]	2.9		
GHC 1-1/2 GF32-B ● †	GHS 1-1/2 GF32-B ● † GHS 1-1/2 GF38-B ■ †	23 [73]		15 [47]						71 [32,2]	2.9		
GHC 1-1/2 GH32-B ● †	GHS 1-1/2 GH32-B ● † GHS 1-1/2 GH38-B ■ †	31 [98]		20 [63]						71 [32,2]	2.9		
GHC 1-1/2 GJ32-B ② ● †	GHS 1-1/2 GJ32-B ② ● † GHS 1-1/2 GJ38-B ② ■ †	38 [120]		25 [79]						71 [32,2]	2.9		
GHC 3 JG32-B ● †	GHS 3 JG32-B ● † GHS 3 JG38-B ■ †	40 [126]	1150 [960]	30 [95]	870 [725]			100 [7]	150 [10]	300 [21]	GHS ●	154 [69,8]	5.3
GHC 3 JJ32-B ● †	GHS 3 JJ32-B ● † GHS 3 JJ38-B ■ †	56 [177]		36 [114]								154 [69,8]	5.3
GHC 3 JL32-B ● †	GHS 3 JL32-B ● † GHS 3 JL38-B ■ †	77 [243]		58 [183]								154 [69,8]	5.3
GHC 3 JP32-B ② ● †	GHS 3 JP32-B ② ● † GHS 3 JP38-B ② ■ †	107 [338]		81 [256]								154 [69,8]	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. LBS [KG]	Vol. CU. FT.	
		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	GHS											
	GHS 2 NK32-B ● † GHS 2 NK38-B ■ †	99 [375]	960 [960]	60 [189]	580 [480]			300 [21]		200 [90,7]	5.3	
	GHS 3 NK32-B ● † GHS 3 NK38-B ■ †									200 [90,7]		5.3
	GHS 2 NM32-B ● † GHS 2 NM38-B ■ †	132 [500]	960 [960]	80 [252]	580 [480]			300 [21]		200 [90,7]	5.3	
	GHS 3 NM32-B ● † GHS 3 NM38-B ■ †									200 [90,7]		5.3
	GHS 3 NP32-B ① ● † GHS 3 NP38-B ① ■ †	165 [624]	960 [960]	99 [312]	580 [480]			300 [21]		200 [14]	5.3	
	GHS 2-1/2 RM32-B ● † GHS 2-1/2 RM38-B ■ †	172 [542]		720 [600]						143 [451]	480 [400]	100 [7]
	GHS 3 RM32-B ● † GHS 3 RM38-B ■ †		302 [136,9]		10.7							
	GHS 4 RM32-B ● † GHS 4 RM38-B ■ †	215 [678]	720 [600]	143 [451]	480 [400]	100 [7]	150 [10]	300 [21]		■ 500 [260]	302 [136,9]	10.7
	GHS 3 RP32-B ● † GHS 3 RP38-B ■ †									302 [136,9]	10.7	
	GHS 4 RP32-B ● † GHS 4 RP38-B ■ †	255 [804]	720 [600]	170 [536]	480 [400]	100 [7]	150 [10]	300 [21]			302 [136,9]	10.7
	GHS 3 RR32-B ● † GHS 3 RR38-B ■ †									302 [136,9]	10.7	
	GHS 4 RR32-B ● † GHS 4 RR38-B ■ †	295 [930]	720 [600]	196 [618]	480 [400]	100 [7]	150 [10]	300 [21]			302 [136,9]	10.7
	GHS 3 RS32-B ① ● † GHS 3 RS38-B ① ■ †									302 [136,9]	10.7	
	GHS 4 RS32-B ① ● † GHS 4 RS38-B ① ■ †									302 [136,9]	10.7	

STANDARD MODELS CONTINUED

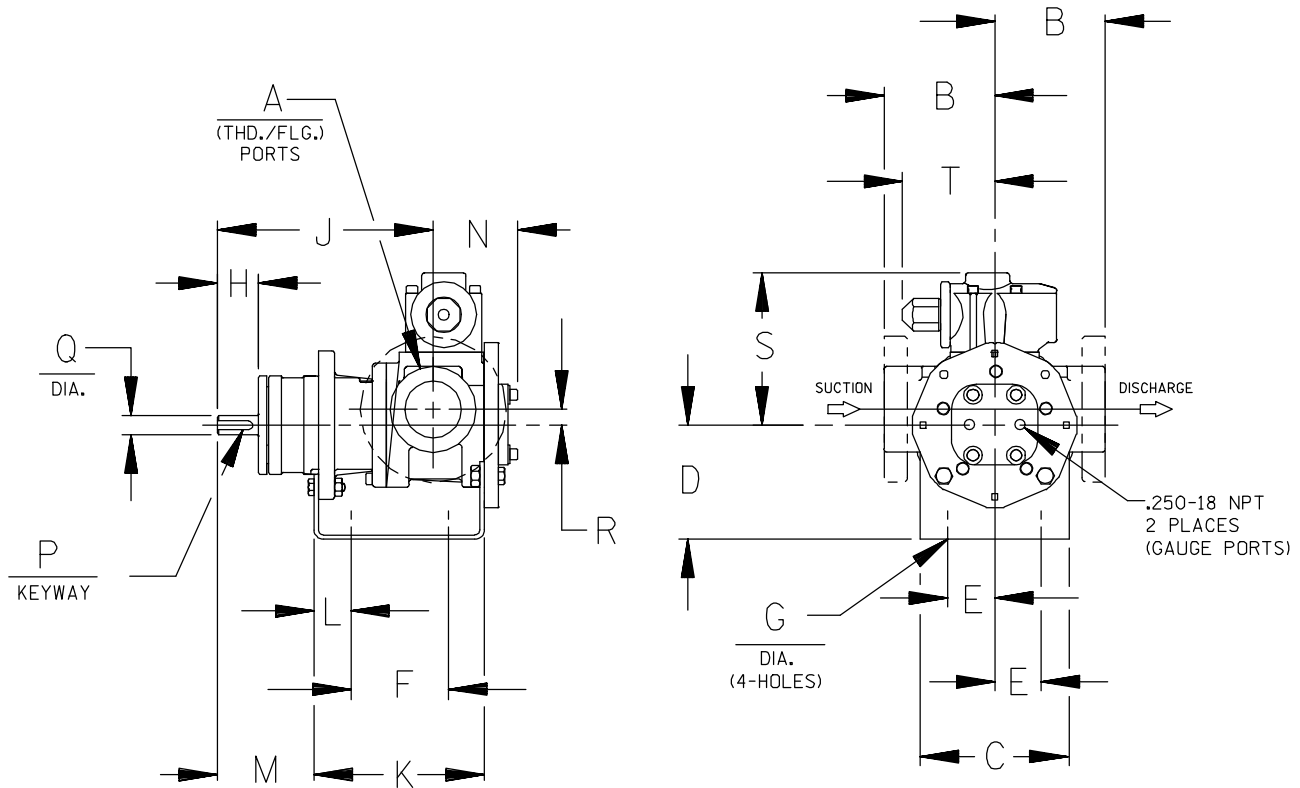
- MECHANICAL SEAL
- LIPSEAL/PACKING
- † PORTS ARE COMPATIBLE WITH 150# ANSI FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE. OPTIONAL [DIN] FLANGES OR TAPPED [BSP] PORTS AVAILABLE FOR EXPORT MARKET.

① PUMP LIMITED TO 200 PSI MAXIMUM PRESSURE.

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

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

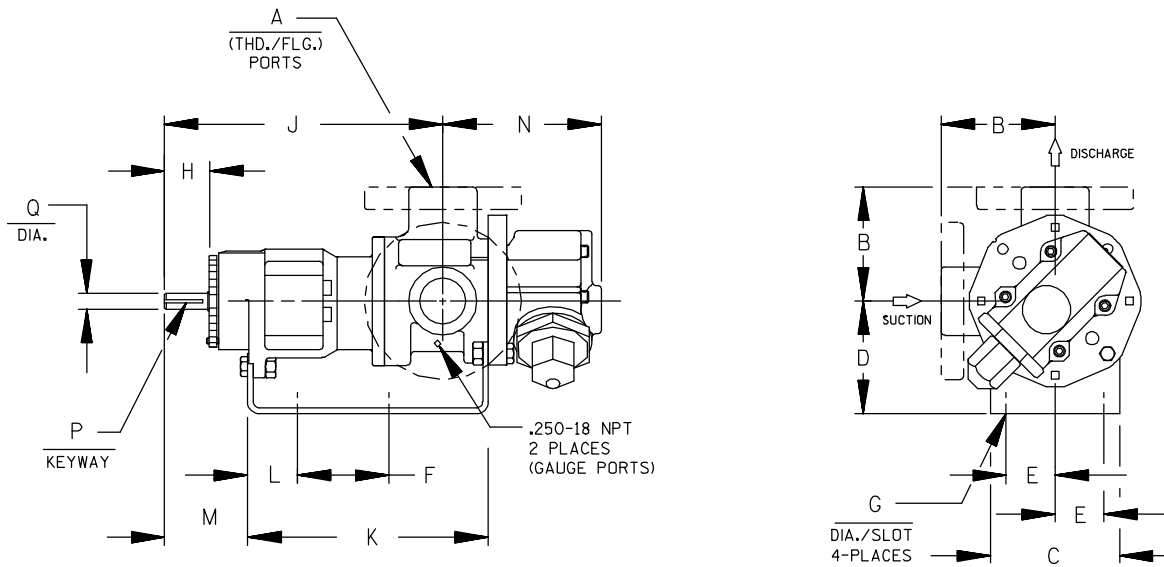
NOTE: PROPER PUMP APPLICATION REQUIRES CONSIDERATION OF ADDITIONAL FACTORS. PLEASE REVIEW APPLICATION GUIDE IN SECTION 500 OR CONSULT THE FACTORY.



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

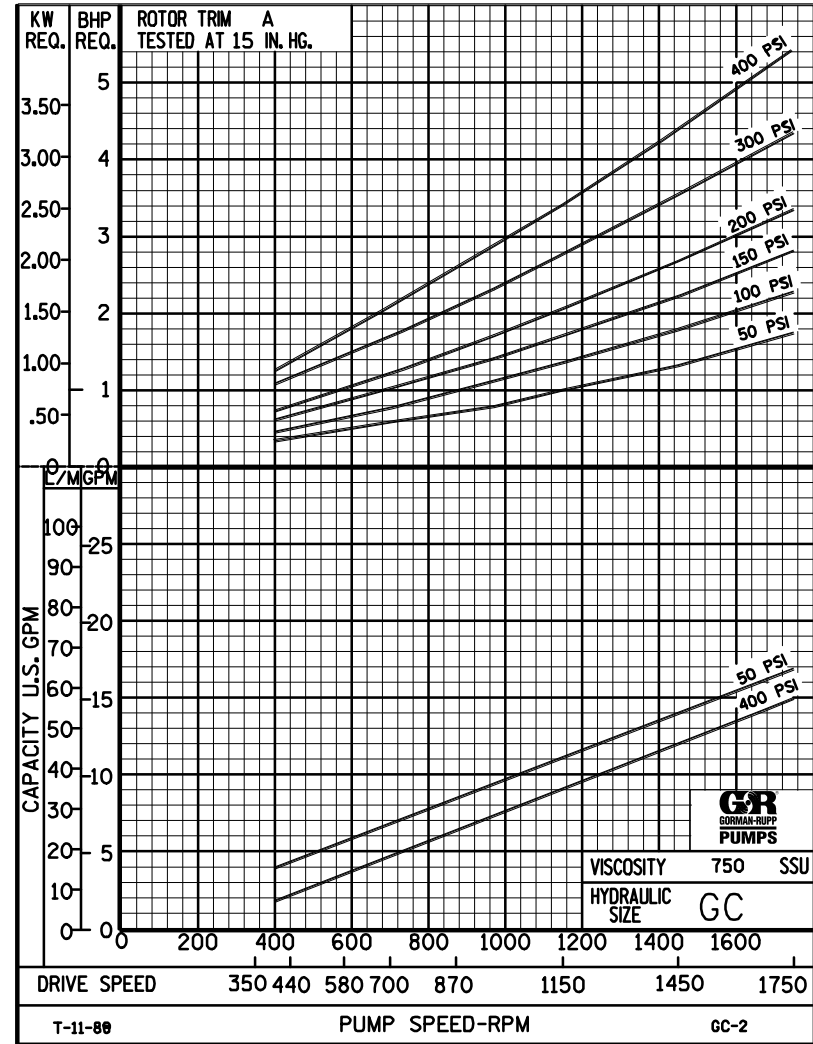
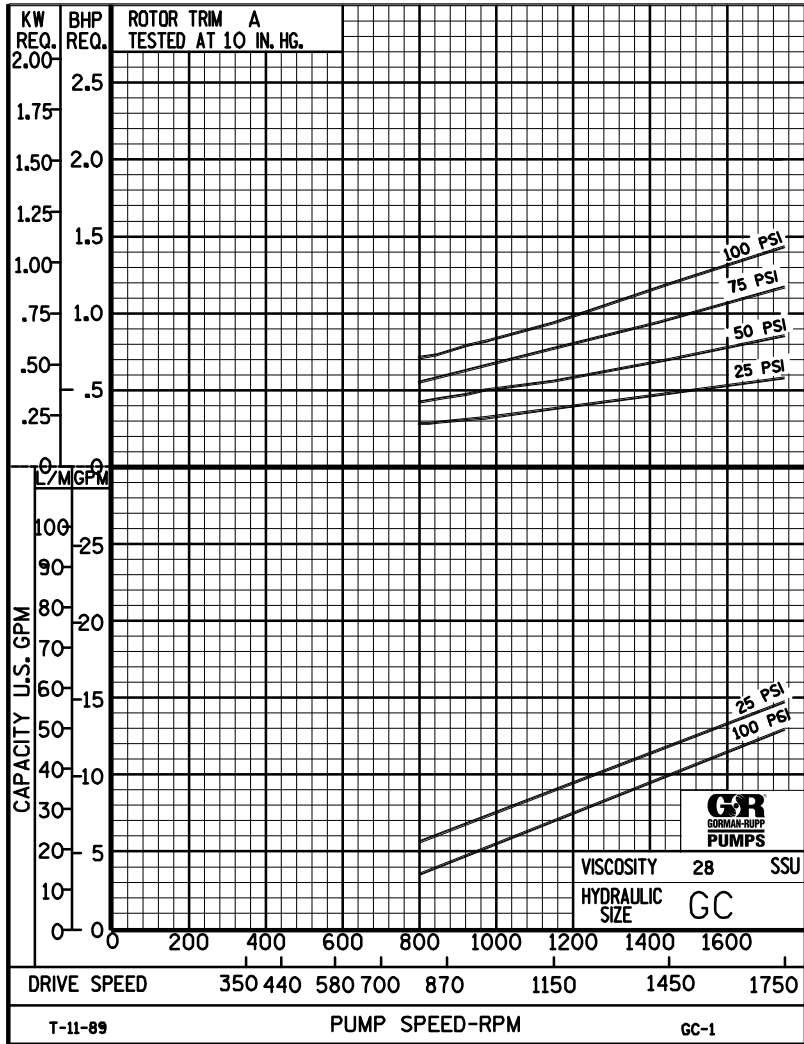
SECTION 545



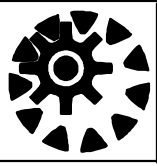
PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

GC Hydraulic Size



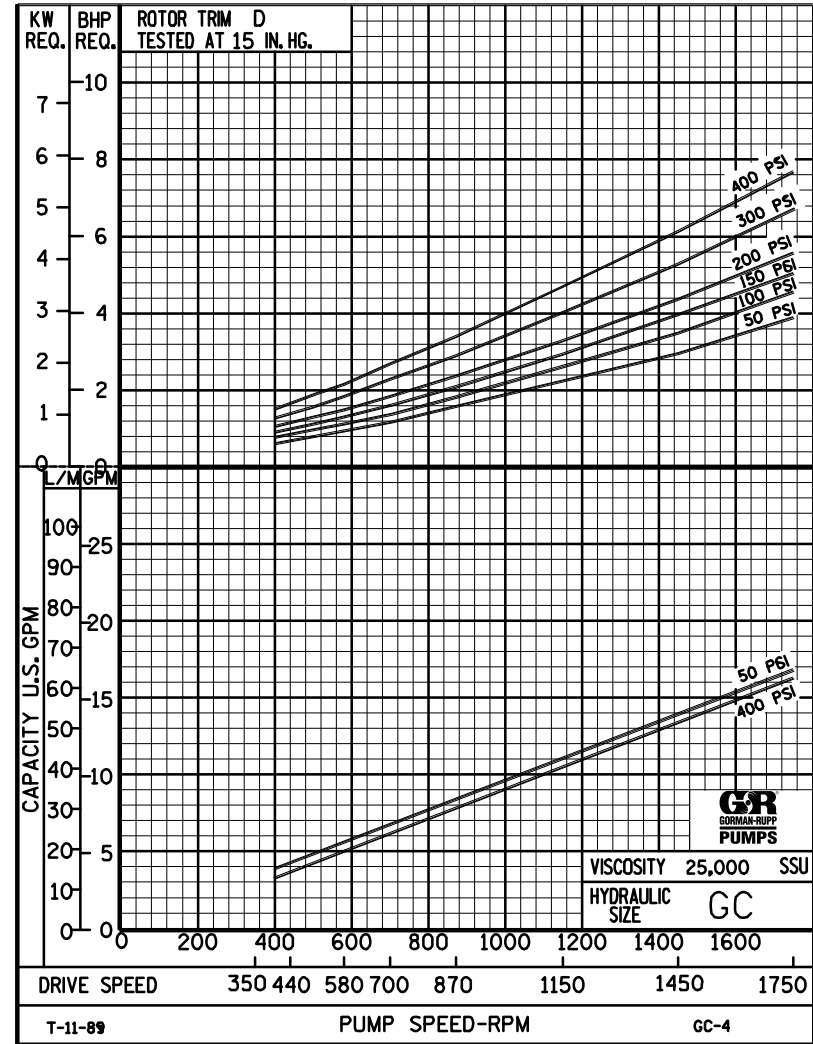
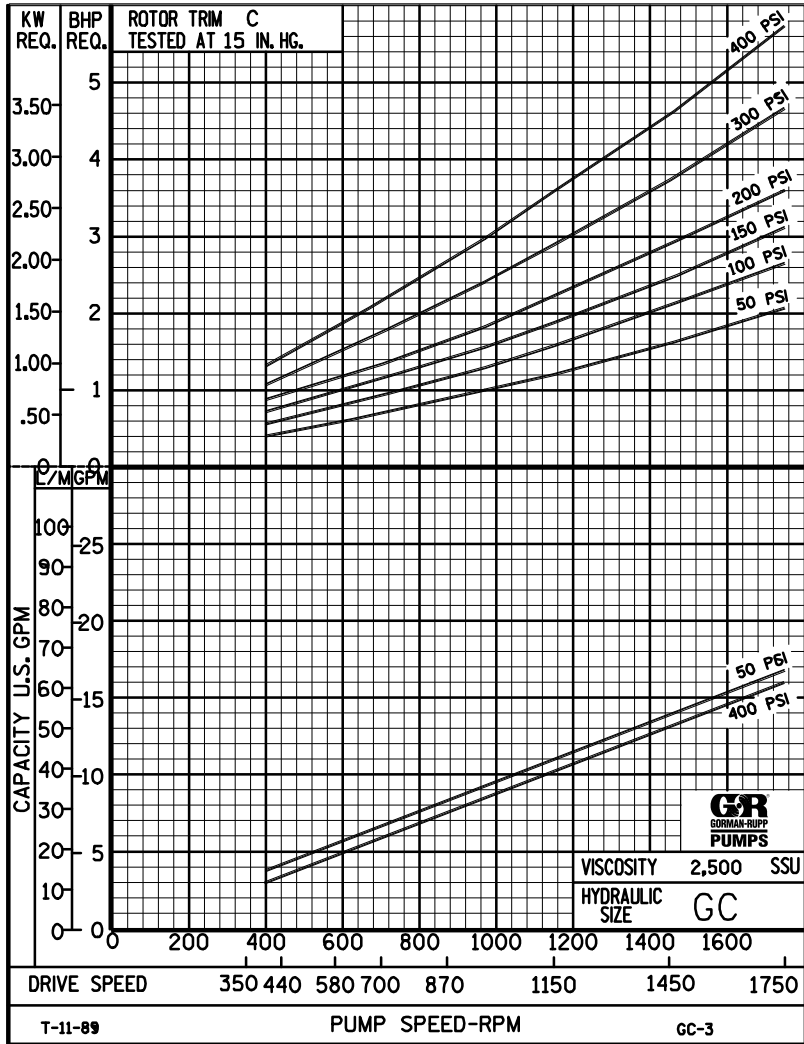
THE GORMAN-RUPP COMPANY • MANSFIELD, OHIO
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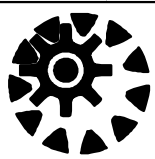
PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

GC Hydraulic Size



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GC

PUMP HYDRAULIC SIZE CHART

SEC. 500

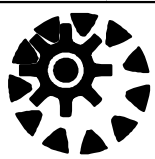
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**16 GPM
1750 RPM**

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						
16	1750	STD	28	3.6	.01	.01	.01	.01	.01	60	87	112				14.0	13.0	13.0	12.0						
			32		.19	.06	.02	.01	.01							.58	.85	1.2	1.4						
			38	3.6	.24	.08	.02	.01	.01	60	87	112	162			15.0	14.0	14.0	13.0	12.0					
			50		.30	.10	.03	.01	.01							.88	1.0	1.3	1.6	2.2					
			70	3.6	.35	.11	.03	.02	.01	61	88	114	164	216		16.0	15.0	15.0	14.0	14.0	13.0				
			100		.40	.13	.03	.02	.01							1.1	1.2	1.5	1.8	2.3	2.8				
			150	3.6	.45	.16	.04	.02	.01	61	88	114	164	218											
			200		.50	.19	.06	.04	.01						1.2	1.4	1.7	2.0	2.5	3.1	4.1	5.2			
			300	3.6	.62	.24	.08	.04	.02	61	88	116	166	220											
			500		1.02	.39	.13	.07	.03						1.4	1.6	2.0	2.2	2.8	3.3	4.2	5.4			
		750	3.6	1.53	.59	.20	.11	.04	61	88	116	166	223												
		1,000		2.04	.78	.26	.14	.05						1.5	1.8	2.0	2.3	2.8	3.3	4.3	5.5				
				"C"	2,000	4.5	4.08	1.56	.52	.28	.11	63	91	116	166	223									
					3,500		7.14	2.72	.91	.49	.18						1.8	2.1	2.4	2.7	3.1	3.6	4.7	5.7	
					5,000	5.0	10.2	3.89	1.30	.70	.26	66	93	118	168	225									
					7,500		15.3	5.83	1.95	1.05	.39						2.2	2.6	3.0	3.2	3.7	4.1	5.2	6.2	
					10,000	5.7	20.4	7.77	2.60	1.40	.52	69	95	120	170	225									
					15,000		30.6	11.7	3.89	2.10	.78						2.8	3.2	3.5	3.8	4.3	4.8	5.9	6.9	
				20,000	6.1	40.8	15.6	5.19	2.80	1.03	73	98	123	173	225										
				25,000		51.0	19.4	6.49	3.50	1.29						3.4	3.9	4.2	4.6	5.0	5.6	6.6	7.7		
		50,000																							
		75,000																							
		100,000																							
		150,000																							
		200,000																							
		250,000																							

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



GC

PUMP HYDRAULIC SIZE CHART

SEC. 500

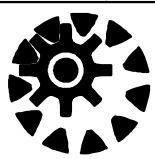
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**10 GPM
1150 RPM**

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									
10	1150	STD	28	2.0	.01	.01	.01	.01	.01	56	81	106			9.0	8.0	7.0	6.0										
			32		.08	.03	.01	.01	.01						.38	.56	.77	.94										
			38	2.0	.11	.04	.01	.01	.01	56	81	106	157			9.5	8.5	8.5	7.5	6.0								
			50		.13	.04	.01	.01	.01							.43	.62	.82	.99	1.6								
			70	2.0	.14	.05	.02	.01	.01	56	81	107	158	209			10.0	9.5	9.5	9.0	8.0	7.5						
			100		.14	.05	.02	.01	.01								.54	.78	1.0	1.2	1.7	1.9						
			150	2.0	.17	.07	.03	.02	.01	57	82	108	158	211			10.0	10.0	10.0	10.0	9.5	8.5	7.5	6.0				
			200		.30	.12	.04	.02	.01								.58	.82	1.0	1.2	1.7	2.0	2.7	3.4				
			300	2.0	.39	.15	.05	.02	.01	57	82	109	159	212			11.0	10.0	10.0	10.0	10.0	10.0	9.0	7.5				
			500		.64	.24	.08	.05	.02								.66	.95	1.2	1.4	1.8	2.0	2.8	3.5				
		750	2.0	.96	.36	.12	.07	.03	57	82	111	161	214			11.0	11.0	11.0	11.0	10.0	10.0	9.5	9.0					
		1,000		1.28	.49	.16	.09	.03								.73	1.0	1.2	1.4	1.8	2.1	2.9	3.5					
		2,000	2.5	2.55	.97	.33	.18	.07	58	85	112	162	214			11.0	11.0	11.0	11.0	10.0	10.0	10.0	10.0					
		3,500		4.46	1.70	.57	.31	.12								.91	1.3	1.5	1.7	2.0	2.3	3.0	3.7					
		5,000	2.9	6.38	2.43	.81	.44	.16	60	85	112	162	214			11.0	11.0	11.0	11.0	11.0	10.0	10.0	10.0					
		7,500		9.57	3.64	1.22	.66	.24								1.1	1.5	1.8	1.9	2.4	2.6	3.3	3.9					
		10,000	3.2	12.8	4.86	1.62	.88	.32	63	88	114	166	216			11.0	11.0	11.0	11.0	11.0	11.0	10.0	10.0					
		15,000		19.2	7.29	2.43	1.31	.49								1.3	1.9	2.1	2.2	2.7	2.9	3.6	4.3					
		20,000	3.5	25.5	9.71	3.24	1.75	.65	66	91	116	168	218			11.0	11.0	11.0	11.0	11.0	11.0	10.0	10.0					
		25,000		31.9	12.2	4.05	2.19	.81								1.7	2.3	2.4	2.6	2.9	3.3	4.0	4.7					
50,000	5.4	63.8	24.3	8.11	4.38	1.61	69	94	122	172	224			11.0	11.0	11.0	11.0	11.0	11.0	10.0	10.0							
75,000		95.7	36.4	12.2	6.56	2.42								2.6	3.6	3.8	4.0	4.5	5.2	6.0	6.8							
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

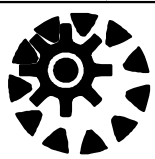
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**8 GPM
870 RPM**

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)															
					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											
8	870	STD	28	1.4	.01	.01	.01	.01	.01	56	81	106					6.5	5.5	4.5	4.0										
			32		.06	.02	.01	.01	.01								.28	.45	.61	.77										
			38	1.4	.07	.03	.01	.01	.01	56	81	106	157						7.0	6.5	6.0	5.5	4.5							
			50		.09	.03	.01	.01	.01										.39	.49	.65	.79	1.2							
			70	1.4	.10	.04	.01	.01	.01	56	81	107	158	209					7.5	7.5	7.0	6.5	6.0	5.5						
			100		.10	.04	.01	.01	.01										.42	.53	.71	.83	1.2	1.4						
			150	1.4	.15	.05	.02	.01	.01	57	82	108	158	211					8.0	8.0	7.5	7.5	7.5	7.0	6.0	4.5				
			200		.24	.08	.03	.02	.01										.44	.55	.74	.90	1.2	1.5	2.0	2.6				
			300	1.4	.31	.12	.04	.02	.01	57	82	109	159	212					8.5	8.0	8.0	8.0	7.5	7.0	6.5	5.5				
			500		.51	.19	.07	.04	.01										.52	.64	.80	.97	1.3	1.5	2.1	2.6				
			750	1.4	.77	.29	.10	.05	.02	57	82	111	161	214					8.5	8.5	8.0	8.0	8.0	8.0	7.0	6.5				
			1,000		1.02	.39	.14	.07	.03										.62	.71	.86	1.0	1.3	1.5	2.1	2.6				
		2,000	1.8	2.04	.78	.26	.14	.05	58	85	112	162	214					8.5	8.0	8.0	8.0	8.0	8.0	7.5	7.5					
		3,500		3.57	1.36	.46	.25	.09										.76	.90	1.0	1.4	1.5	1.6	2.2	2.7					
		5,000	2.1	5.01	1.94	.65	.35	.13	60	85	112	162	214					8.5	8.0	8.0	8.0	8.0	8.0	8.0	7.5					
		7,500		7.65	2.91	.97	.53	.19										.92	1.2	1.3	1.4	1.6	1.9	2.3	2.9					
		10,000	2.4	10.2	3.88	1.30	.70	.26	63	88	114	166	216					8.5	8.0	8.0	8.0	8.0	8.0	8.0	7.5					
		15,000		15.3	5.83	1.95	1.05	.39										1.1	1.4	1.5	1.6	1.8	2.1	2.6	3.2					
		20,000	2.7	20.4	7.77	2.59	1.40	.52	66	91	116	168	218					8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0					
		25,000		25.5	9.71	3.24	1.75	.65										1.2	1.6	1.7	1.8	2.1	2.3	2.9	3.4					
		50,000	4.3	51.1	19.4	6.50	3.50	1.29	68	93	120	170	222					8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0					
		75,000		76.5	29.1	9.73	5.25	1.93										1.8	2.5	2.6	2.7	3.0	3.3	3.8	4.3					
		100,000	6.2	102	38.9	13.0	7.00	2.58	70	95	122	172	224					8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0					
		150,000		153	58.0	19.5	10.5	3.87										2.3	3.1	3.3	3.4	3.6	3.9	4.4	5.0					
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

**5 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			HI PRES R/V		MEDIUM DUTY AND HEAVY DUTY				HEAVY DUTY ONLY										
5	580	STD	28	1.0	.01	.01	.01	.01	.01	55	80	105				4.0	3.5	3.0	2.5										
			32		.03	.01	.01	.01	.01							.19	.29	.40	.50										
			38	1.0	.04	.01	.01	.01	.01	55	80	105	156				4.5	4.0	3.5	3.0	2.5								
			50		.05	.02	.01	.01	.01								.21	.32	.45	.52	.76								
			70	1.0	.06	.02	.01	.01	.01	55	80	106	157	208				5.0	4.5	4.0	4.0	3.5	3.5						
			100		.07	.03	.01	.01	.01									.25	.34	.46	.54	.78	.93						
			150	1.0	.09	.04	.01	.01	.01	56	81	107	157	210				5.0	5.0	4.5	4.5	4.5	4.0	3.5	3.0				
			200		.17	.06	.02	.01	.01									.28	.36	.48	.59	.78	.95	1.3	1.3				
			300	1.0	.22	.08	.03	.02	.01	56	81	108	158	211				5.5	5.0	5.0	5.0	4.5	4.5	4.0	3.5				
			500		.35	.14	.05	.03	.01									.34	.42	.52	.63	.80	.97	1.3	1.6				
			750	1.0	.53	.20	.07	.04	.02	56	81	110	160	213				5.5	5.5	5.5	5.5	5.0	5.0	4.5	4.0				
			1,000		.70	.27	.09	.05	.02									.41	.46	.56	.65	.82	.99	1.4	1.7				
		2,000	1.3	1.40	.54	.18	.10	.04	57	84	111	161	213				5.5	5.5	5.5	5.5	5.0	5.0	5.0	4.5					
		3,500		2.46	.94	.31	.17	.06									.49	.59	.67	.77	.92	1.1	1.4	1.7					
		5,000	1.6	3.51	1.34	.45	.24	.09	59	84	111	161	213				5.5	5.5	5.5	5.5	5.5	5.5	5.0	5.0					
		7,500		5.26	2.00	.67	.36	.13									.61	.75	.84	.93	1.1	1.2	1.5	1.9					
		10,000	1.9	7.01	2.67	.89	.48	.18	62	87	113	165	215				5.5	5.5	5.5	5.5	5.5	5.5	5.0	5.0					
		15,000		10.5	4.00	1.34	.72	.27									.70	.89	.96	1.1	1.2	1.4	1.7	2.1					
		20,000	2.1	14.1	5.34	1.78	.96	.36	65	90	115	167	217				5.5	5.5	5.5	5.5	5.5	5.5	5.0	5.0					
		25,000		17.6	6.68	2.23	1.20	.44									.75	.94	1.0	1.1	1.3	1.5	1.9	2.2					
		50,000	3.6	35.0	13.4	4.46	2.41	.89	67	92	119	169	221				5.5	5.5	5.5	5.5	5.5	5.5	5.0	5.0					
		75,000		52.6	20.0	6.69	3.61	1.33									1.3	1.6	1.7	1.7	1.9	2.1	2.4	2.8					
		100,000	5.4	70.2	26.7	8.92	4.81	1.77	69	94	121	171	223				5.5	5.5	5.5	5.5	5.5	5.5	5.0	5.0					
		150,000		105	40.1	13.4	7.22	2.66									1.6	2.1	2.1	2.2	2.4	2.5	2.8	3.2					
200,000	8.6	140	53.4	17.8	9.63	3.54	75	100	129	179	235				5.5	5.5	5.5	5.5	5.5	5.5	5.0	5.0							
250,000		175	66.8	22.3	12.1	4.43									1.9	2.5	2.5	2.6	2.8	2.9	3.2	3.6							

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