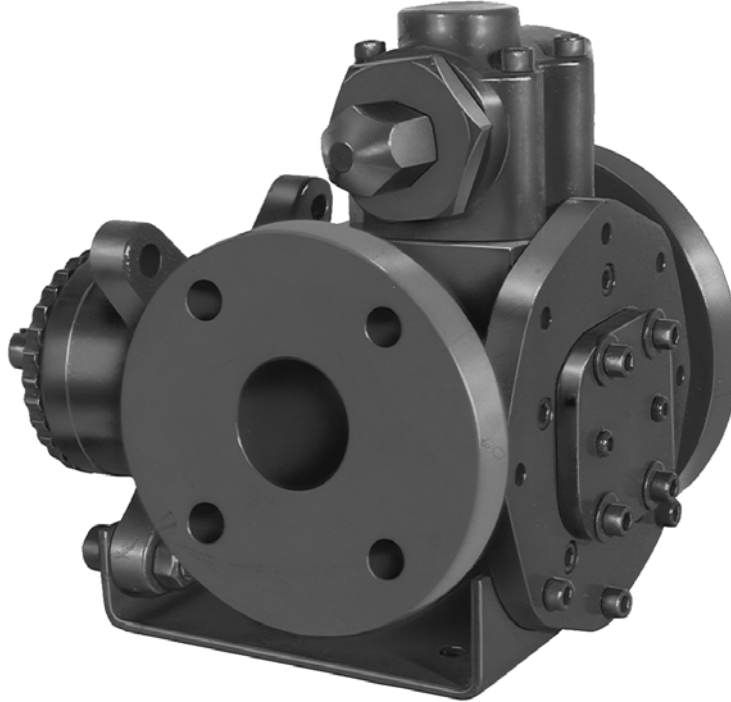


**GHC SERIES
 HEAVY DUTY COMPACT
 STEEL ROTARY GEAR PUMP**

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

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			
		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]	Wt. LBS [KG]	Vol. CU. FT.	
GHC	GHS											
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]			300 [21]	GHC ● 350 [177]	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]		100 [7]	150 [10]				400 [204]	71 [32,2]
GHC 3 JG32-B ● †	GHS 3 JG32-B ● † GHS 3 JG38-B ■ †	40 [126]	1150 [960]	30 [95]	870 [725]				GHS ● 500 [260]	154 [69,8]	5.3	
GHC 3 JJ32-B ● †	GHS 3 JJ32-B ● † GHS 3 JJ38-B ■ †	56 [177]		36 [114]				300 [21]			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]							200 [14]	154 [69,8]

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.

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	RPM	GPM	RPM	BELOW	38 TO	100 TO	° F		
GHC	GHS	[LPM]	60 Hz	[LPM]	60 Hz	38 SSU	100 SSU	250,000 SSU	[° C]	LBS	CU. FT.
			[50 HZ]		[50 HZ]	[4 cSt]	[21 cSt]	[55,000 cSt]		[KG]	
	GHS 2 NK32-B ● † GHS 2 NK38-B ■ †	99 [375]	960 [960]	60 [189]	580 [480]			300 [21]		200	5.3
										[90,7]	
	GHS 3 NK32-B ● † GHS 3 NK38-B ■ †	132 [500]	960 [960]	80 [252]	580 [480]			300 [21]		200	5.3
										[90,7]	
	GHS 2 NM32-B ● † GHS 2 NM38-B ■ †	165 [624]	720 [600]	99 [312]	480 [400]	100 [7]	150 [10]	300 [21]		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]	720 [600]	143 [451]	480 [400]	100 [7]	150 [10]	300 [21]	GHS ■ 500 [260]	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]		302	10.7
										[136,9]	
	GHS 2-1/2 RP32-B ● † GHS 2-1/2 RP38-B ■ †	295 [930]	720 [600]	196 [618]	480 [400]	100 [7]	150 [10]	300 [21]		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]	720 [600]	196 [618]	480 [400]	100 [7]	150 [10]	300 [21]		302	10.7
										[136,9]	
	GHS 3 RR32-B ● † GHS 3 RR38-B ■ †	295 [930]	720 [600]	196 [618]	480 [400]	100 [7]	150 [10]	300 [21]		302	10.7
										[136,9]	
	GHS 4 RR32-B ● † GHS 4 RR38-B ■ †	295 [930]	720 [600]	196 [618]	480 [400]	100 [7]	150 [10]	300 [21]		302	10.7
										[136,9]	
	GHS 3 RS32-B ① ● † GHS 3 RS38-B ① ■ †	295 [930]	720 [600]	196 [618]	480 [400]	100 [7]	150 [10]	300 [21]		302	10.7
										[136,9]	
	GHS 4 RS32-B ① ● † GHS 4 RS38-B ① ■ †	295 [930]	720 [600]	196 [618]	480 [400]	100 [7]	150 [10]	300 [21]		302	10.7
										[136,9]	

STANDARD MODELS CONTINUED

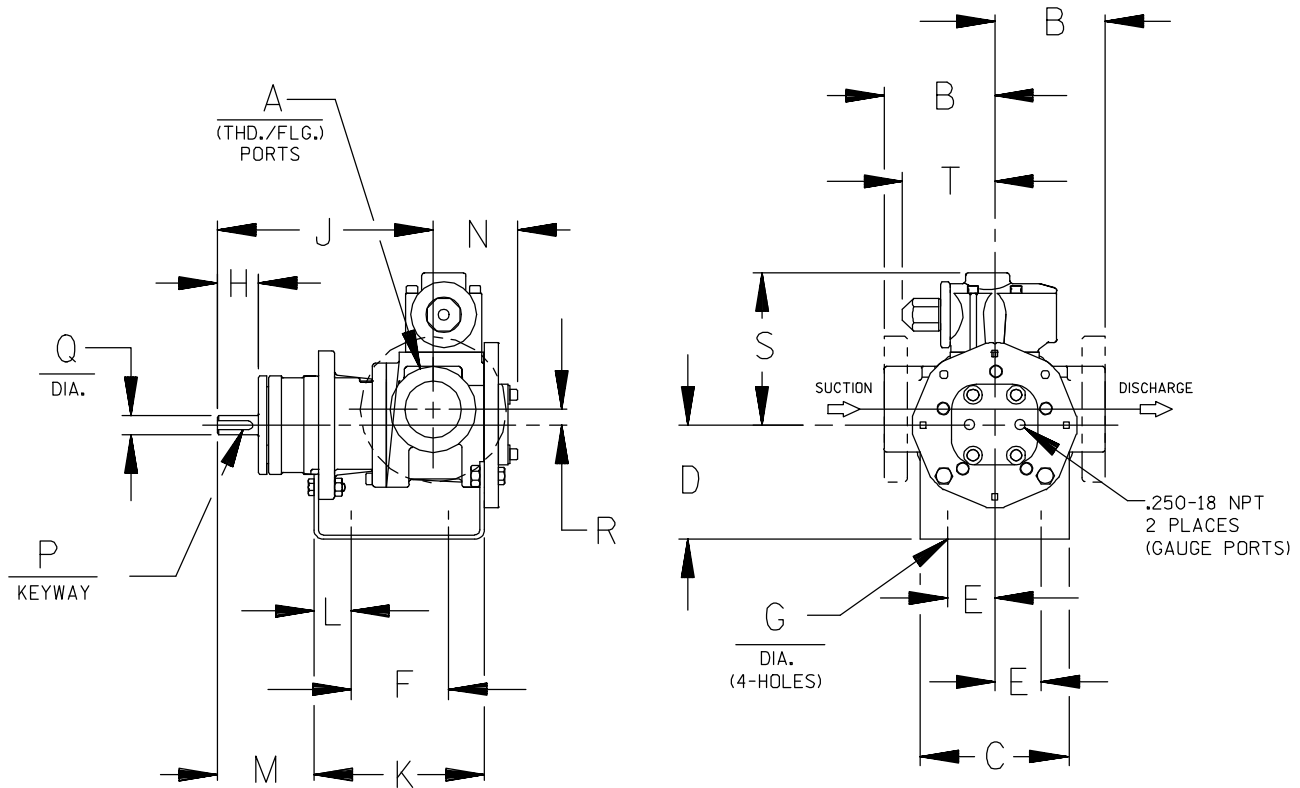
- MECHANICAL SEAL
- LIPSEAL/PACKING
- † PORTS ARE COMPATIBLE WITH 150# ANSI FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE. OPTIONAL [DIN] FLANGES OR TAPPED [BSP] PORTS AVAILABLE FOR EXPORT MARKET.

① PUMP LIMITED TO 200 PSI MAXIMUM PRESSURE.

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

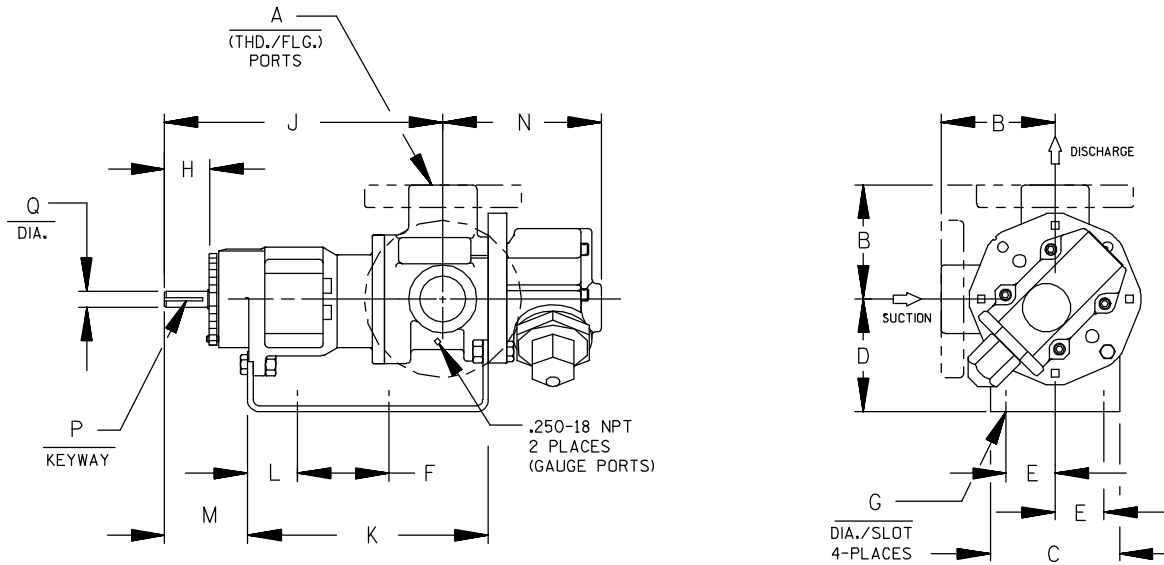
NOTE: PROPER PUMP APPLICATION REQUIRES CONSIDERATION OF ADDITIONAL FACTORS. PLEASE REVIEW APPLICATION GUIDE IN SECTION 500 OR CONSULT THE FACTORY.



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]	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"	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]
	3"														
	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

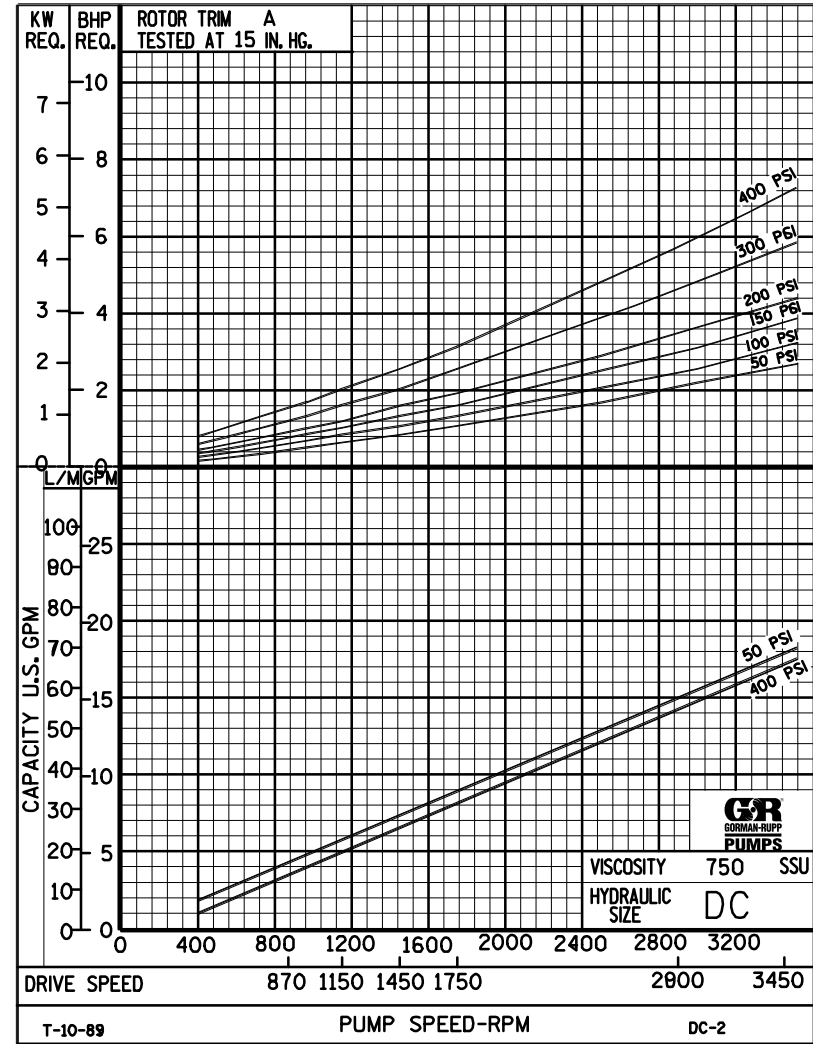
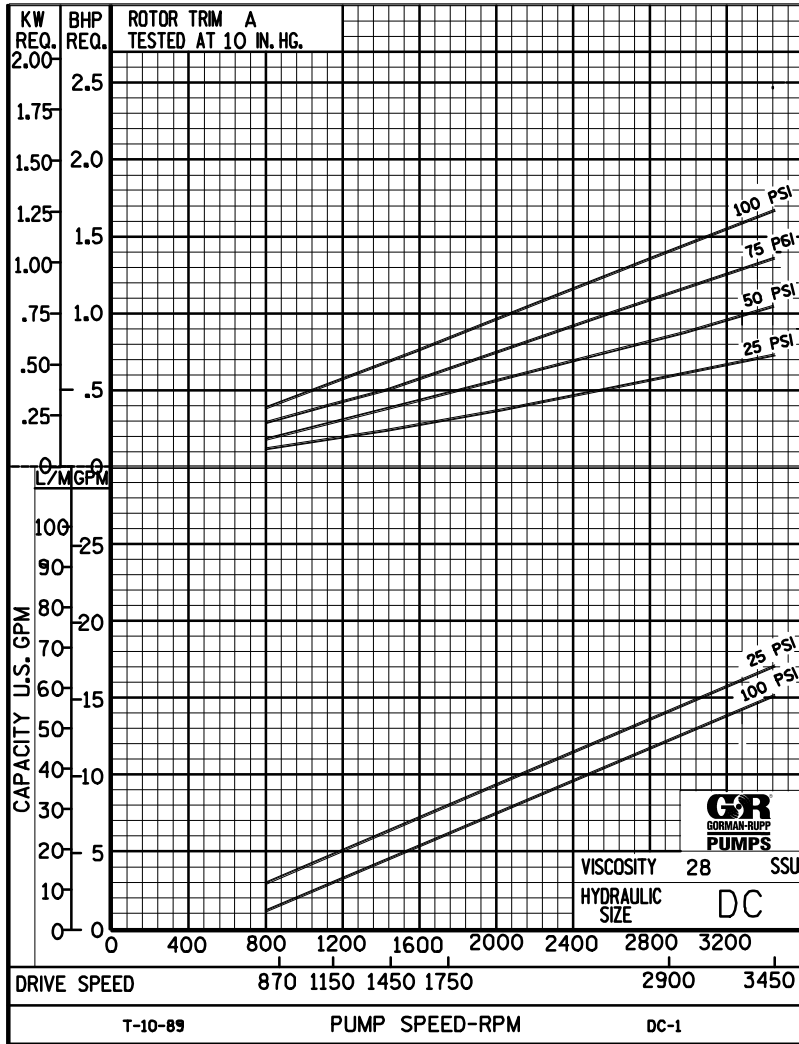
DC

Hydraulic Size

SEC. 500

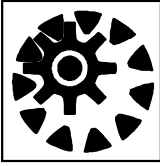
PAGE 22

January 2010



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

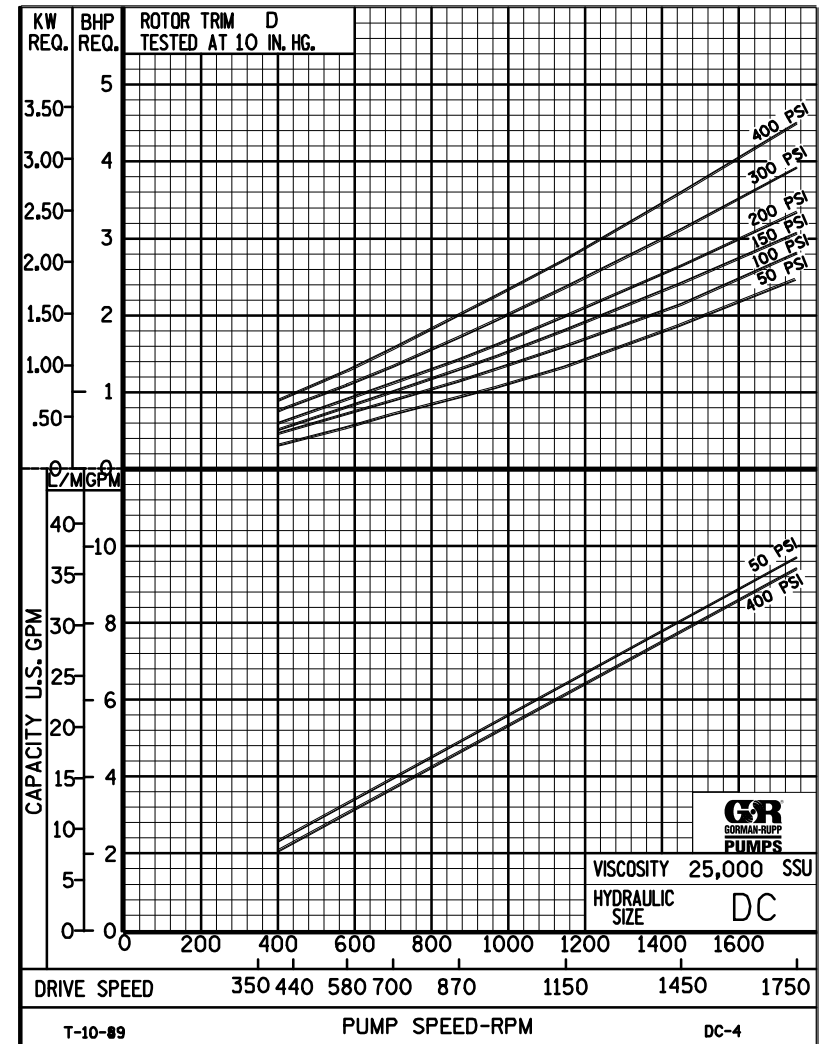
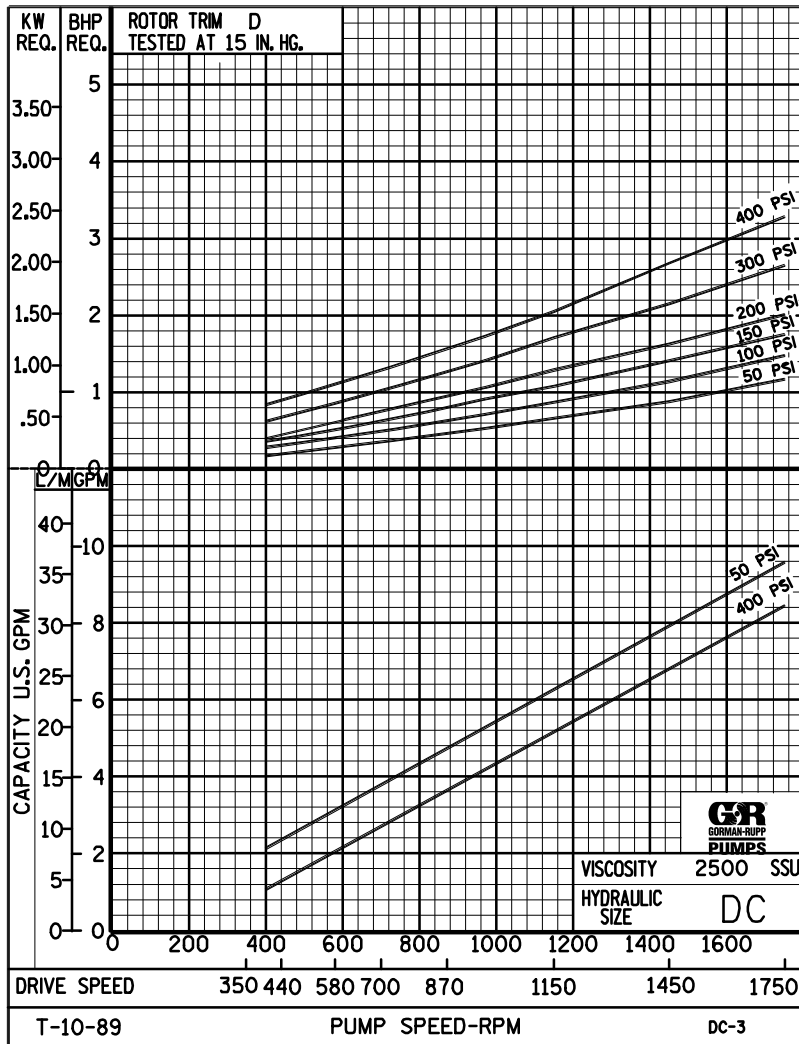
Printed in U.S.A.



PERFORMANCE CURVES

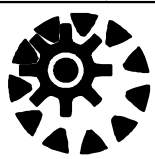
SPEED VS. CAPACITY/HORSEPOWER

DC Hydraulic Size



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

Printed in U.S.A.



DC

PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 24

January 2010

**18 GPM
3450 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						
18	3450	STD	28	9.8	.01	.01	.01	.01	.01	70	95	123				17.0	16.0	15.0	15.0						
			32		.23	.08	.02	.01	.01							.73	1.1	1.4	1.7						
			38	9.8	.30	.10	.03	.01	.01	70	95	125	174			17.0	16.0	16.0	15.0	15.0					
			50		.36	.12	.03	.02	.01							.93	1.2	1.6	1.8	2.5					
			70	9.8	.40	.13	.04	.02	.01	70	96	127	175	229		17.0	17.0	17.0	16.0	16.0	16.0				
			100		.49	.16	.04	.02	.01							1.2	1.5	1.8	2.1	2.7	3.3				
			150	9.8	.52	.17	.04	.02	.01	70	97	130	176	230		18.0	17.0	17.0	17.0	17.0	16.0	16.0	15.0		
			200		.58	.22	.08	.04	.02							1.5	1.8	2.1	2.3	3.0	3.5	4.7	5.8		
			300	9.8	.70	.27	.09	.05	.02	71	99	133	177	232		18.0	18.0	17.0	17.0	17.0	17.0	17.0	16.0		
			500		1.15	.44	.15	.08	.03							2.1	2.3	2.6	2.8	3.5	4.0	5.3	6.5		
		750	9.8	1.72	.66	.22	.12	.05	72	101	136	179	234		18.0	18.0	18.0	18.0	17.0	17.0	17.0	17.0			
		1,000		2.30	.88	.29	.16	.06							2.5	2.6	2.9	3.1	3.8	4.3	5.5	6.8			
		2,000																							
		3,500																							
		5,000																							
		7,500																							
		10,000																							
		15,000																							
		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.



DC

PUMP HYDRAULIC SIZE CHART

SEC. 500

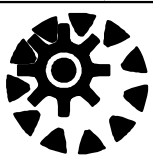
Page 25

January 2010

**9 GPM
1750 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)										
					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						
9	1750	STD	28	2.8	.01	.01	.01	.01	.01	58	84	112			8.0	7.5	7.0	6.5							
			32		.07	.02	.01	.01	.01						.41	.57	.70	.85							
			38	2.8	.09	.03	.01	.01	.01	58	85	112	163			8.0	7.5	7.0	7.0	6.0					
			50		.11	.04	.01	.01	.01							.57	.64	.82	.94	1.4					
			70	2.8	.12	.04	.01	.01	.01	58	85	112	163	214			8.5	8.0	7.5	7.5	.7.0	6.0			
			100		.13	.05	.02	.01	.01								.74	.83	.93	1.0	1.4	1.8			
			150	2.8	.14	.06	.02	.01	.01	59	86	113	164	215			9.0	8.5	8.5	8.0	8.0	7.5	7.0	6.5	
			200		.29	.11	.04	.02	.01								.87	.96	1.1	1.2	1.5	1.8	2.5	3.1	
			300	2.8	.35	.13	.05	.03	.01	59	86	113	164	215			9.0	9.0	9.0	8.5	8.5	8.5	8.0	7.5	
			500		.58	.22	.07	.04	.02								.92	1.0	1.2	1.3	1.6	1.9	2.5	3.2	
		750	2.8	.86	.33	.11	.06	.02	59	87	113	164	215			9.0	9.0	9.0	9.0	9.0	8.5	8.5	8.0		
		1,000		1.15	.44	.15	.08	.03								.97	1.1	1.2	1.4	1.7	1.9	2.6	3.2		
		2,000	4.2	2.30	.88	.29	.16	.06	61	87	113	164	215			9.5	9.5	9.5	9.5	9.0	9.0	9.0	8.5		
		3,500		4.02	1.53	.51	.28	.10								1.1	1.2	1.4	1.5	1.8	2.1	2.7	3.3		
		5,000	5.1	5.74	2.19	.73	.40	.15	63	88	114	165	216			9.5	9.5	9.5	9.5	9.5	9.0	9.0	9.0		
		7,500		8.61	3.28	1.09	.59	.22								1.5	1.7	1.8	2.0	2.2	2.5	3.1	3.7		
		10,000	6.0	11.5	4.37	1.46	.79	.29	65	90	116	167	217			9.5	9.5	9.5	9.5	9.5	9.5	9.0	9.0		
		15,000		17.2	6.56	2.19	1.18	.44								2.0	2.1	2.3	2.4	2.7	2.9	3.6	4.2		
		20,000	6.9	23.0	8.74	2.92	1.58	.58	67	92	118	168	218			9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5		
		25,000		28.7	10.9	3.65	1.97	.73								2.4	2.5	2.7	2.8	3.1	3.3	3.9	4.5		
50,000																									
75,000																									
100,000																									
150,000																									
200,000																									
250,000																									

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



DC

PUMP HYDRAULIC SIZE CHART

SEC. 500

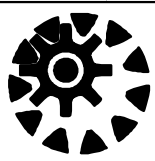
Page 26

January 2010

**6 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											
50	75						100	150	200	25	50	75	100	150	200	300	400										
6	1150	STD	28	1.7	.02	.01	.01	.01	.01	54	79	105			4.5	4.0	3.5	3.0									
			32		.03	.01	.01	.01	.01						.18	.30	.43	.57									
			38	1.7	.04	.01	.01	.01	.01	54	79	106	157			5.0	4.5	4.0	3.5	3.0							
			50		.05	.02	.01	.01	.01							.27	.39	.52	.65	.92							
			70	1.7	.06	.02	.01	.01	.01	54	79	106	157	208			5.5	5.0	4.5	4.0	4.0	3.5					
			100		.07	.03	.01	.01	.01								.37	.48	.60	.72	.94	1.1					
			150	1.7	.09	.04	.01	.01	.01	55	80	107	158	208			5.5	5.5	5.0	5.0	4.5	4.5	4.0	3.5			
			200		.19	.07	.02	.01	.01								.46	.56	.67	.79	.96	1.1	1.6	2.0			
			300	1.7	.23	.09	.03	.02	.01	55	81	108	159	209			6.0	6.0	5.5	5.5	5.5	5.5	5.0	4.5			
			500		.38	.15	.05	.03	.01								.50	.60	.71	.83	.99	1.2	1.6	2.0			
		750	1.7	.57	.22	.07	.04	.01	55	81	108	159	209			6.0	6.0	6.0	6.0	5.5	5.5	5.5	5.0				
		1,000		.77	.29	.10	.05	.02								.53	.63	.74	.85	1.0	1.2	1.6	2.0				
		2,000	2.7	1.53	.58	.19	.11	.04	57	82	108	159	209			6.0	6.0	6.0	6.0	6.0	6.0	5.5	5.5				
		3,500		2.68	1.02	.34	.18	.07								.58	.68	.79	.90	1.1	1.3	1.7	2.1				
		5,000	3.4	3.83	1.46	.49	.26	.10	58	83	109	160	210			6.5	6.0	6.0	6.0	6.0	6.0	5.5	5.5				
		7,500		5.74	2.19	.73	.39	.15								.81	.92	1.0	1.1	1.4	1.6	1.9	2.3				
		10,000	4.1	7.65	2.91	.97	.53	.19	60	85	111	161	211			6.5	6.5	6.5	6.0	6.0	6.0	6.0	5.5				
		15,000		11.5	4.37	1.46	.79	.29								1.1	1.2	1.3	1.4	1.6	1.8	2.2	2.5				
20,000	4.7	15.3	5.83	1.95	1.05	.39	61	86	112	162	212			6.5	6.5	6.5	6.0	6.0	6.0	6.0	6.0						
25,000		19.1	7.28	2.43	1.31	.48								1.3	1.4	1.5	1.6	1.8	2.0	2.4	2.7						
50,000	7.0	38.3	14.6	4.86	2.63	.97	64	89	115	165	215			6.5	6.5	6.5	6.5	6.0	6.0	6.0	6.0						
75,000		-	-	-	-	-								1.9	2.0	2.0	2.1	2.3	2.5	2.9	3.2						
100,000																											
150,000																											
200,000																											
250,000																											

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



DC

PUMP HYDRAULIC SIZE CHART

SEC. 500

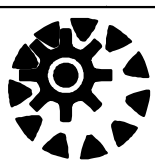
Page 27

January 2010

4.5 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						
4.5	870	STD	28	1.3	.01	.01	.01	.01	.01	53	78	104				3.5	2.5	2.0	1.5						
			32		.03	.01	.01	.01	.01							.15	.22	.31	.42						
			38	1.3	.04	.01	.01	.01	.01	53	78	104	155			3.5	3.0	3.0	2.5	2.0					
			50		.05	.02	.01	.01	.01							.20	.28	.37	.48	.69					
			70	1.3	.05	.02	.01	.01	.01	54	79	105	156	206		4.0	3.5	3.5	3.0	3.0	2.5				
			100		.07	.03	.01	.01	.01							.24	.32	.41	.52	.71	.91				
			150	1.3	.09	.03	.01	.01	.01	54	79	106	157	207		4.0	4.0	4.0	3.5	3.5	3.0	2.5	2.0		
			200		.18	.07	.02	.01	.01							.30	.38	.46	.56	.73	.91	1.1	1.5		
			300	1.3	.21	.08	.03	.01	.01	54	80	107	157	207		4.5	4.0	4.0	4.0	3.5	3.5	3.0	3.0		
			500		.35	.14	.05	.02	.01							.32	.41	.50	.60	.75	.92	1.2	1.5		
		750	1.3	.53	.20	.07	.04	.01	54	81	108	158	208		4.5	4.5	4.5	4.0	4.0	4.0	3.5	3.5			
		1,000		.70	.27	.09	.05	.02							.38	.45	.53	.61	.77	.93	1.2	1.5			
		2,000	2.1	1.41	.54	.18	.10	.04	55	81	108	158	208		4.5	4.5	4.5	4.5	4.5	4.5	4.0	3.5			
		3,500		2.46	.94	.31	.17	.06							.46	.53	.58	.65	.80	.96	1.3	1.6			
		5,000	2.7	3.51	1.34	.45	.24	.09	56	82	108	158	208		4.5	4.5	4.5	4.5	4.5	4.5	4.0	4.0			
		7,500		5.26	2.00	.67	.36	.13							.56	.63	.68	.75	.88	1.1	1.4	1.7			
		10,000	3.3	7.02	2.67	.89	.48	.18	57	83	109	159	209		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.0			
		15,000		10.5	4.01	1.34	.72	.27							.76	.82	.88	.95	1.1	1.3	1.6	1.8			
		20,000	3.8	14.0	5.34	1.78	.96	.36	58	83	109	159	209		5.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
		25,000		17.5	6.68	2.23	1.20	.44							.90	1.0	1.1	1.2	1.3	1.4	1.8	2.0			
50,000	5.8	35.0	13.4	4.46	2.41	.89	61	86	112	162	212		5.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5					
75,000		-	-	-	-	-							1.4	1.4	1.5	1.6	1.8	2.0	2.2	2.5					
100,000																									
150,000																									
200,000																									
250,000																									

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



DC

PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 28

January 2010

**3 GPM
580 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)															
					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											
3	580	STD	28	1.0	.01	.01	.01	.01	.01	53	78	104				2.0	1.5	1.5	1.0											
			32		.01	.01	.01	.01	.01							.05	.10	.19	.27											
			38	1.0	.01	.01	.01	.01	.01	53	78	104	154			2.5	2.0	1.5	1.5	1.0										
			50		.02	.01	.01	.01	.01							.06	.11	.20	.29	.43										
			70	1.0	.02	.01	.01	.01	.01	53	78	104	154	204		2.5	2.0	2.0	1.5	1.5	1.5									
			100		.04	.02	.01	.01	.01							.06	.12	.22	.32	.45	.53									
			150	1.0	.05	.02	.01	.01	.01	53	78	104	155	205		2.5	2.5	2.0	2.0	2.0	2.0	2.0	1.5	1.5						
			200		.09	.04	.01	.01	.01							.07	.14	.25	.35	.47	.57	.85	1.1							
			300	1.0	.12	.05	.02	.01	.01	53	79	104	155	205		3.0	2.5	2.5	2.5	2.5	2.0	2.0	2.0							
			500		.19	.07	.03	.01	.01							.09	.18	.28	.38	.49	.59	.87	1.1							
		750	1.0	.29	.11	.04	.02	.01	53	79	104	155	205		3.0	3.0	3.0	3.0	2.5	2.5	2.5	2.0								
		1,000		.38	.15	.05	.03	.01							.12	.21	.30	.39	.51	.61	.89	1.1								
		2,000	1.8	.77	.29	.10	.05	.02	54	79	105	155	205		3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.5	2.5							
		3,500		1.34	.51	.17	.09	.04							.19	.30	.37	.43	.53	.64	.91	1.2								
		5,000	2.3	1.91	.73	.24	.13	.05	54	80	105	156	206		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.5							
		7,500		2.87	1.09	.37	.20	.07							.29	.39	.45	.52	.62	.73	.93	1.2								
		10,000	2.8	3.83	1.46	.49	.26	.10	55	80	106	156	206		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0								
		15,000		5.74	2.19	.73	.40	.15							.41	.50	.56	.62	.72	.82	.99	1.2								
		20,000	3.3	7.65	2.91	.97	.53	.19	56	81	106	156	206		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0								
		25,000		9.57	3.64	1.22	.66	.24							.51	.59	.65	.71	.82	.93	1.1	1.3								
50,000	5.6	19.1	7.28	2.43	1.31	.48	56	81	106	156	206		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0										
75,000		28.7	10.9	3.65	1.97	.73							.79	.87	.92	.97	1.1	1.2	1.4	1.7										
100,000																														
150,000																														
200,000																														
250,000																														

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