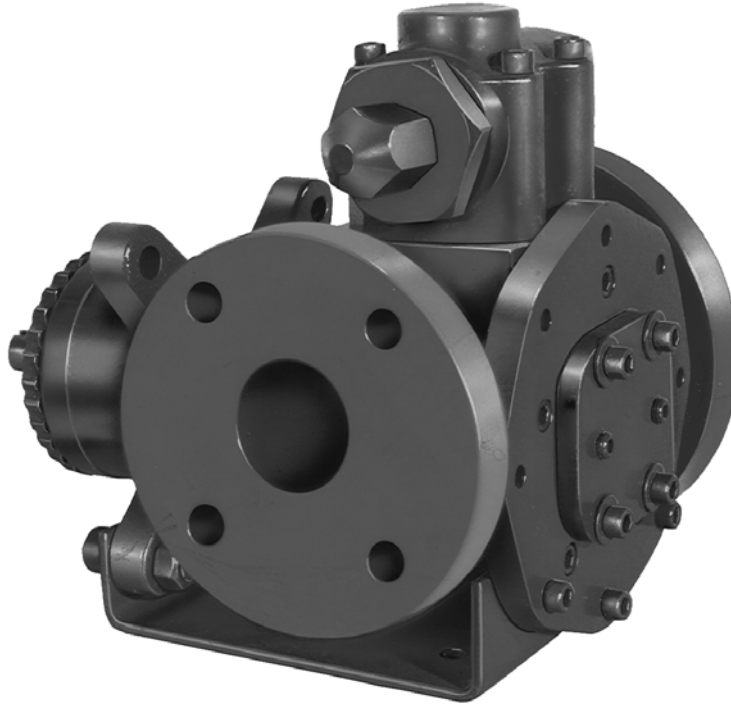


**GHC SERIES  
 HEAVY DUTY COMPACT  
 STEEL ROTARY GEAR PUMP**

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	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]			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]						350 [177]	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]						GHS ●	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]		200 [14]	400 [204]	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]				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]	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		
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]		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

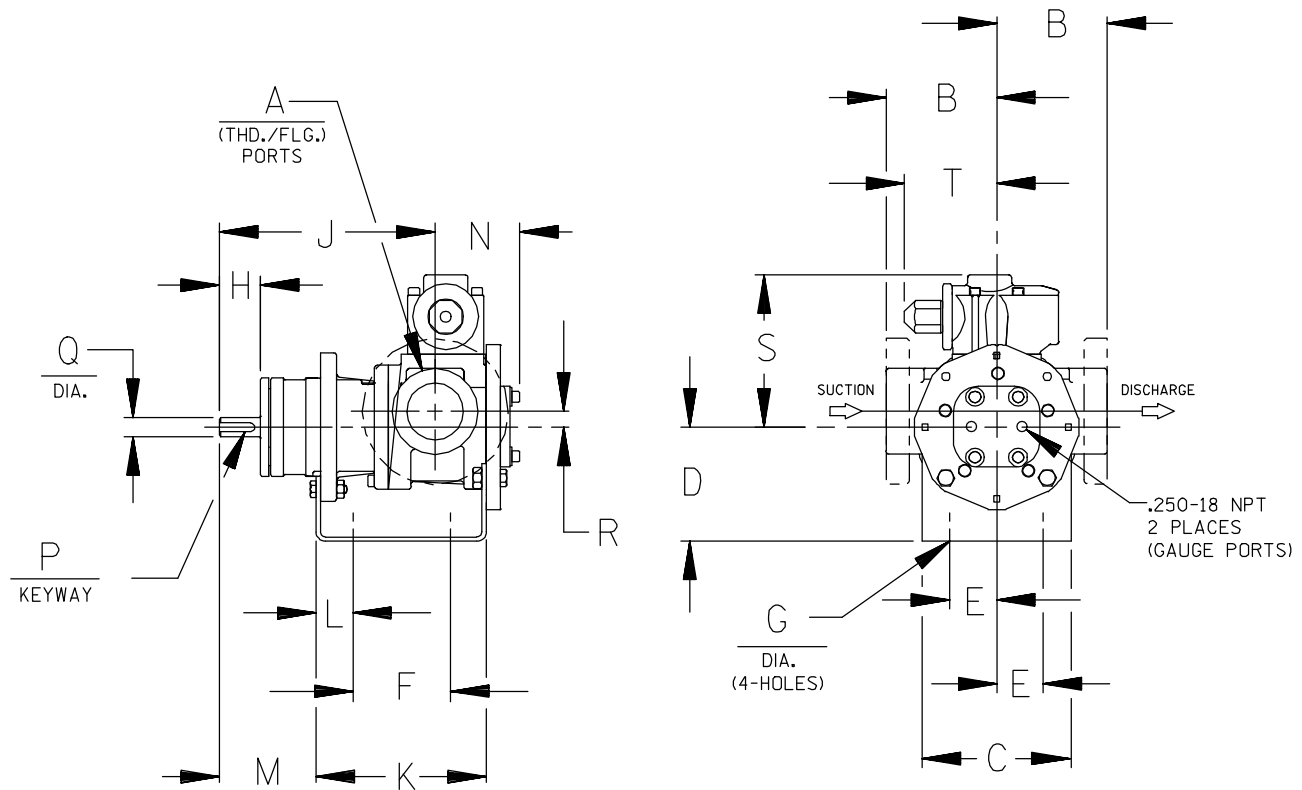
- MECHANICAL SEAL
- LIPSEAL/PACKING
- † PORTS ARE COMPATIBLE WITH 150# ANSI FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE. OPTIONAL [DIN] FLANGES OR TAPPED [BSP] PORTS AVAILABLE FOR EXPORT MARKET.

① PUMP LIMITED TO 200 PSI MAXIMUM PRESSURE.

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<b>APPLICATION RECOMMENDATIONS:</b>		
<b>APPLICATION</b>	<b>OPTIONS REQUIRED (Select One From Each Row)</b>	<b>OPERATING LIMITATIONS</b>
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

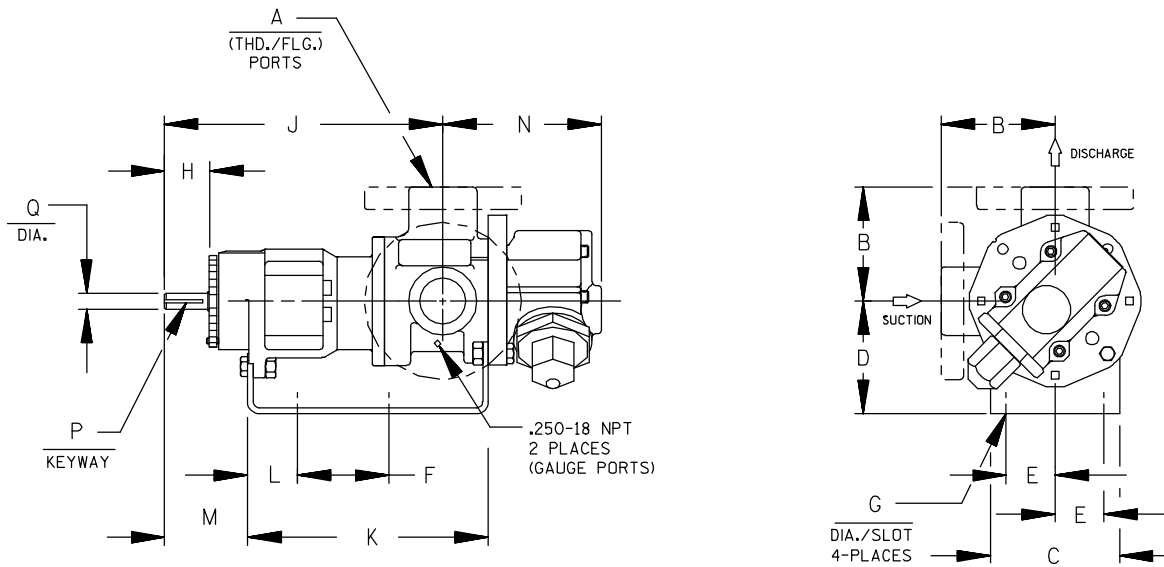
NOTE: PROPER PUMP APPLICATION REQUIRES CONSIDERATION OF ADDITIONAL FACTORS. PLEASE REVIEW APPLICATION GUIDE IN SECTION 500 OR CONSULT THE FACTORY.



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]		7.00 [178] 8.00 [203]									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

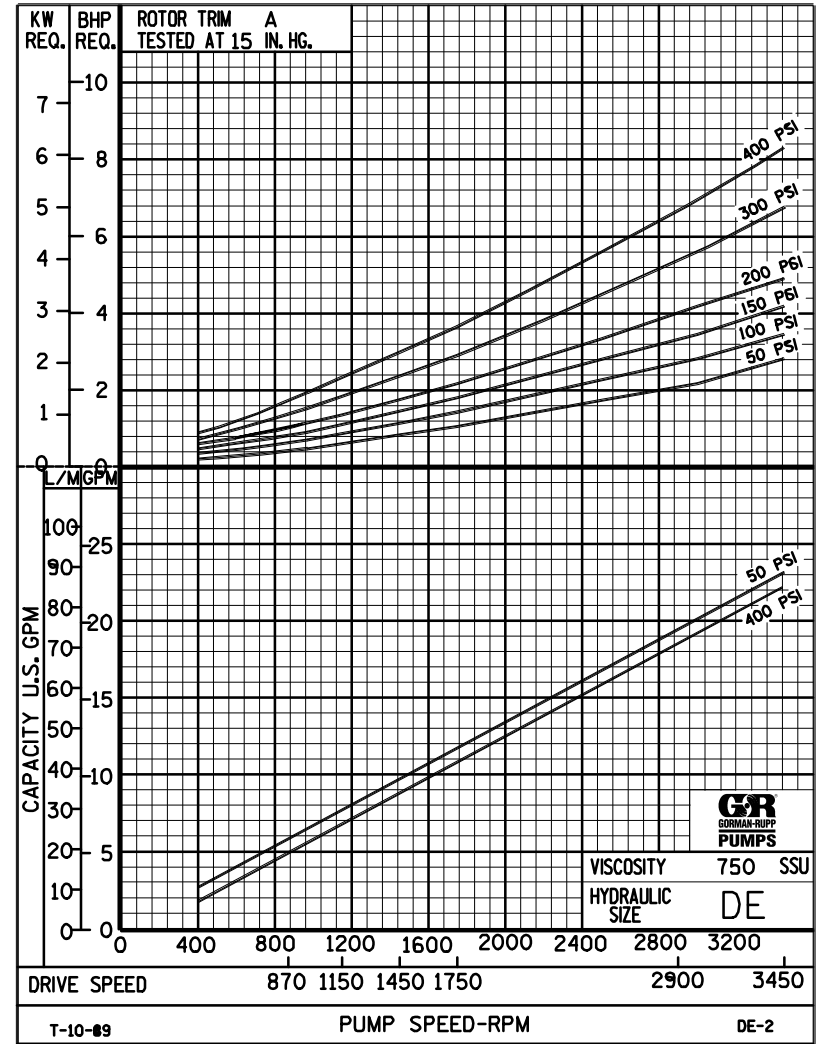
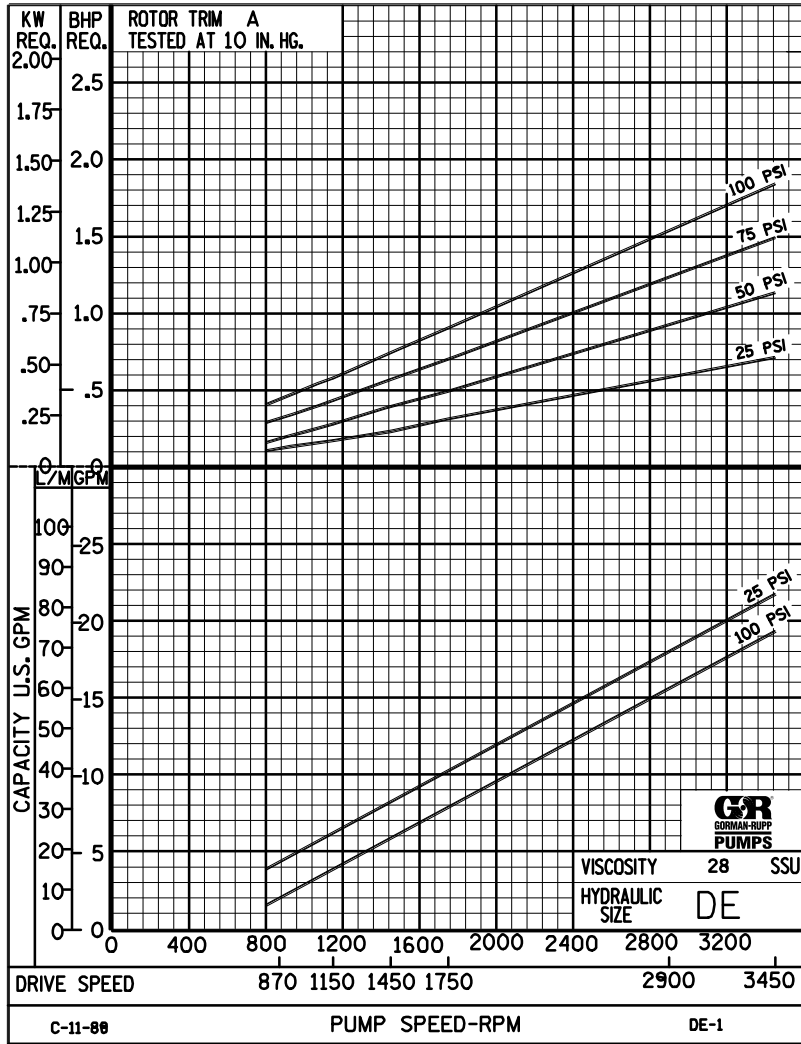
# DE

Hydraulic Size

SEC. 500

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January 2010



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# PERFORMANCE CURVES

## SPEED VS. CAPACITY/HORSEPOWER

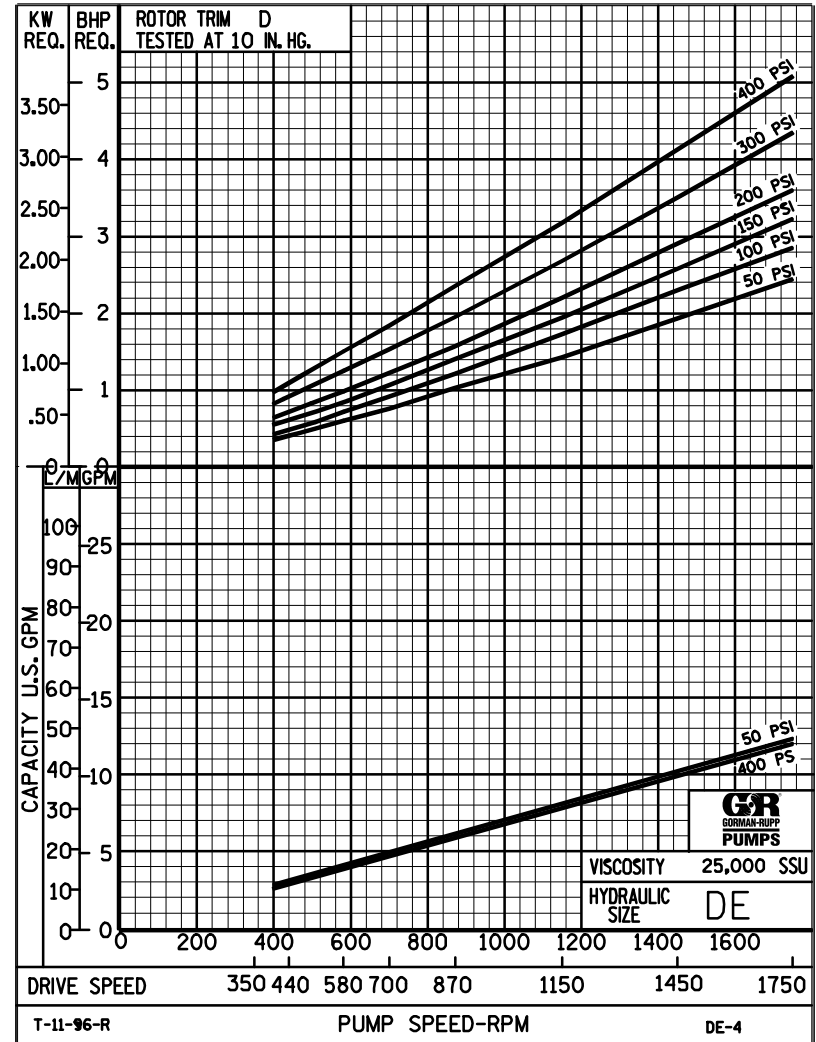
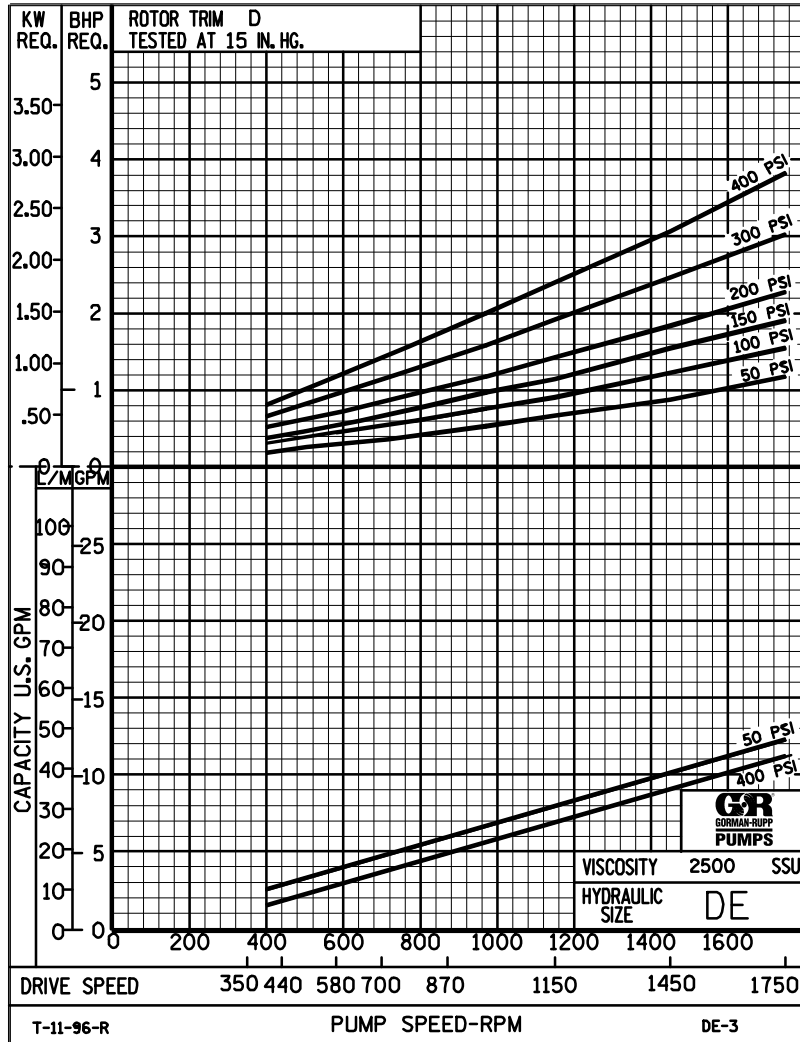
# DE

Hydraulic Size

SEC. 500

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# DE

## PUMP HYDRAULIC SIZE CHART

SEC. 500

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**11 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						
11	1750	STD	28	3.2	.01	.01	.01	.01	.01	60	86	114				10.0	9.5	8.5	8.0						
			32		.10	.03	.01	.01	.01							.39	.57	.76	.95						
			38	3.2	.13	.04	.01	.01	.01	60	86	115	163			10.0	9.5	8.5	8.5	7.5					
			50		.05	.02	.01	.01	.52							.52	.70	.89	1.1	1.5					
			70	3.2	.17	.06	.02	.01	.01	60	87	116	163	215		10.0	10.0	9.5	9.0	8.5	7.5				
			100		.21	.06	.02	.01	.01							.65	.84	1.0	1.2	1.6	2.1				
			150	3.2	.28	.09	.03	.01	.01	60	87	117	164	216		11.0	10.0	10.0	10.0	9.5	9.5	9.0	8.5		
			200		.36	.14	.05	.03	.01							.79	.97	1.2	1.4	1.7	2.1	2.9	3.6		
			300	3.2	.43	.16	.06	.03	.01	61	88	118	164	216		11.0	11.0	11.0	10.0	10.0	10.0	10.0	9.5		
			500		.70	.27	.09	.05	.02							.84	1.0	1.2	1.4	1.8	2.1	2.9	3.7		
		750	3.2	1.05	.40	.14	.07	.03	61	89	120	165	217		11.0	11.0	11.0	11.0	11.0	11.0	11.0	10.0			
		1,000		1.41	.54	.18	.10	.04							.88	1.1	1.3	1.5	1.8	2.2	2.9	3.7			
		2,000	5.0	2.81	1.07	.36	.19	.07	62	90	121	166	218		12.0	12.0	12.0	12.0	12.0	12.0	11.0	11.0			
		3,500		4.91	1.87	.63	.34	.13							1.1	1.3	1.5	1.6	2.0	2.4	3.1	3.9			
		5,000	6.3	7.02	2.67	.89	.48	.18	65	92	121	167	219		12.0	12.0	12.0	12.0	12.0	12.0	11.0	11.0			
		7,500		10.5	4.01	1.34	.72	.27							1.3	1.5	1.7	1.9	2.2	2.6	3.4	4.2			
		10,000	7.7	14.0	5.34	1.79	.96	.36	68	94	122	168	220		12.0	12.0	12.0	12.0	12.0	12.0	12.0	11.0			
		15,000		21.0	8.01	2.68	1.45	.53							1.7	1.9	2.1	2.3	2.6	3.0	3.8	4.6			
		20,000	9.0	28.0	10.7	3.57	1.93	.71	71	96	122	169	221		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0			
		25,000		35.0	13.4	4.46	2.41	.89							2.2	2.4	2.6	2.9	3.2	3.6	4.2	5.1			
50,000																									
75,000																									
100,000																									
150,000																									
200,000																									
250,000																									

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



# DE

## PUMP HYDRAULIC SIZE CHART

SEC. 500

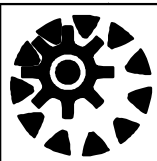
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**7 GPM  
1150 RPM**

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						
7	1150	STD	28	2.0	.01	.01	.01	.01	.01	56	81	108				6.0	5.0	4.5	3.5						
			32		.04	.02	.01	.01	.01							.17	.30	.44	.59						
			38	2.0	.06	.02	.01	.01	.01	56	81	109	161			6.5	6.0	5.0	4.5	3.5					
			50		.07	.02	.01	.01	.01							.30	.42	.54	.67	.93					
			70	2.0	.08	.03	.01	.01	.01	56	82	110	161	212		7.0	6.5	6.0	5.5	5.0	4.0				
			100		.09	.03	.01	.01	.01							.41	.52	.64	.76	1.0	1.3				
			150	2.0	.11	.04	.02	.01	.01	57	83	111	161	213		7.0	7.0	6.5	6.5	6.0	5.5	5.0	4.5		
			200		.23	.09	.03	.02	.01							.50	.60	.71	.82	1.1	1.4	1.9	2.3		
			300	2.0	.27	.11	.04	.02	.01	57	84	112	162	213		7.5	7.0	7.0	7.0	6.5	6.5	6.0	5.5		
			500		.45	.17	.06	.03	.01							.52	.63	.74	.86	1.1	1.4	1.9	2.4		
		750	2.0	.67	.26	.09	.05	.02	57	85	113	162	213		7.5	7.5	7.5	7.5	7.5	7.0	7.0	7.0			
		1,000		.89	.34	.11	.06	.02							.54	.64	.75	.87	1.1	1.4	1.9	2.4			
		"D"	2,000	3.5	1.79	.68	.23	.12	.05	58	86	113	163	213		8.0	8.0	7.5	7.5	7.5	7.5	7.0	7.0		
			3,500		3.13	1.19	.40	.22	.08							.56	.72	.88	1.1	1.3	1.5	2.0	2.5		
			5,000	4.5	4.46	1.70	.57	.31	.11	60	87	113	163	213		8.0	8.0	8.0	7.5	7.5	7.5	7.5	7.0		
			7,500		6.70	2.55	.85	.46	.17							.77	.92	1.1	1.2	1.5	1.7	2.2	2.7		
			10,000	5.5	8.93	3.40	1.14	.61	.23	62	88	114	164	214		8.0	8.0	8.0	8.0	7.5	7.5	7.5	7.5		
			15,000		13.4	5.10	1.70	.92	.34							1.1	1.2	1.3	1.5	1.7	2.0	2.4	2.9		
			20,000	6.4	17.9	6.80	2.27	1.23	.45	63	88	114	164	214		8.0	8.0	8.0	8.0	8.0	8.0	8.0	7.5		
			25,000		22.3	8.50	2.84	1.53	.57							1.3	1.4	1.6	1.7	2.0	2.2	2.7	3.2		
50,000	9.9		44.6	17.0	5.68	3.06	1.13	65	91	117	167	218		8.0	8.0	8.0	8.0	8.0	8.0	8.0	7.5				
75,000			-	-	-	-	-							1.7	1.8	1.9	2.0	2.3	2.5	3.1	3.5				
100,000																									
150,000																									
200,000																									
250,000																									

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



# DE

## PUMP HYDRAULIC SIZE CHART

SEC. 500

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5.5 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								
5.5	870	STD	28	1.5	.01	.01	.01	.01	.01	54	80	106				4.5	4.0	3.5	3.0								
			32		.03	.01	.01	.01	.01							.11	.20	.32	.45								
			38	1.5	.04	.01	.01	.01	.01	54	80	106	158			4.5	4.5	3.5	3.5	3.0							
			50		.05	.02	.01	.01	.01							.15	.26	.38	.50	.75							
			70	1.5	.06	.02	.01	.01	.01	54	80	107	158	208		5.0	4.5	4.5	4.0	3.5	3.0						
			100		.07	.03	.01	.01	.01							.21	.32	.43	.55	.78	1.0						
			150	1.5	.09	.04	.01	.01	.01	55	81	107	158	209		5.5	5.0	5.0	4.5	4.5	4.0	3.5	3.0				
			200		.19	.07	.02	.01	.01							.27	.38	.49	.60	.80	1.0	1.4	1.7				
			300	1.5	.23	.09	.03	.02	.01	55	81	108	159	209		5.5	5.5	5.0	5.0	5.0	4.5	4.5	4.0				
			500		.38	.15	.05	.03	.01							.32	.42	.52	.62	.81	1.0	1.4	1.7				
		750	1.5	.57	.22	.07	.03	.01	55	81	108	159	209		5.5	5.5	5.5	5.5	5.5	5.5	5.0	5.0					
		1,000		.76	.29	.10	.05	.02							.35	.44	.54	.64	.83	1.0	1.4	1.7					
		2,000	2.8	1.53	.58	.19	.10	.04	56	82	108	159	209		6.0	6.0	6.0	5.5	5.5	5.5	5.5	5.0					
		3,500		2.67	1.02	.34	.18	.07							.39	.50	.61	.72	.91	1.1	1.5	1.8					
		5,000	3.6	3.82	1.46	.49	.26	.10	57	83	109	160	210		6.0	6.0	6.0	6.0	5.5	5.5	5.5	5.5					
		7,500		5.74	2.19	.73	.39	.15							.53	.64	.75	.86	1.1	1.3	1.6	2.0					
		10,000	4.5	7.65	2.91	.97	.53	.19	59	85	110	160	210		6.0	6.0	6.0	6.0	6.0	5.5	5.5	5.5					
		15,000		11.5	4.37	1.46	.79	.29							.72	.85	.94	1.0	1.2	1.4	1.8	2.1					
		20,000	5.2	15.3	5.83	1.95	1.05	.39	61	86	111	161	211		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0					
		25,000		19.1	7.28	2.43	1.31	.48							.93	1.0	1.1	1.2	1.4	1.6	2.0	2.4					
50,000	9.3	38.3	14.6	4.86	2.63	.97	62	87	112	162	212		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0							
75,000		-	-	-	-	-							1.2	1.3	1.4	1.5	1.7	1.8	2.2	2.6							
100,000																											
150,000																											
200,000																											
250,000																											

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



# DE

## PUMP HYDRAULIC SIZE CHART

SEC. 500

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January 2010

**3.5 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								
3.5	580	STD	28	1.1	.01	.01	.01	.01	.01	53	78	104				3.0	2.5	2.0	2.0										
			32		.02	.01	.01	.01	.01							.06	.11	.21	.31										
			38	1.1	.03	.01	.01	.01	.01	53	78	104	154			3.0	3.0	2.5	2.0	2.0									
			50		.04	.01	.01	.01	.01							.07	.13	.23	.32	.50									
			70	1.1	.04	.01	.01	.01	.01	53	78	104	154	204			3.5	3.0	3.0	2.5	2.5	2.0							
			100		.06	.02	.01	.01	.01								.09	.16	.26	.37	.59	.75							
			150	1.1	.07	.03	.01	.01	.01	53	78	104	155	205			3.5	3.5	3.0	3.0	3.0	2.5	2.5	2.0					
			200		.15	.06	.01	.01	.01								.12	.20	.30	.41	.59	.75	1.0	1.2					
			300	1.1	.17	.07	.02	.01	.01	53	79	104	155	205			3.5	3.5	3.5	3.5	3.0	3.0	3.0	2.5					
			500		.29	.11	.04	.02	.01								.15	.23	.33	.44	.59	.75	1.1	1.3					
		750	1.1	.43	.17	.06	.03	.01	53	79	104	155	205			3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.0					
		1,000		.58	.22	.07	.04	.02								.17	.26	.36	.46	.60	.75	1.1	1.4						
		2,000	2.3	1.15	.44	.15	.08	.03	54	79	105	155	205			4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		
		3,500		2.00	.77	.26	.14	.05								.20	.28	.37	.49	.64	.77	1.1	1.4						
		5,000	3.0	2.87	1.09	.37	.20	.07	54	80	105	156	206			4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		
		7,500		4.31	1.64	.55	.30	.11								.31	.39	.46	.54	.67	.81	1.1	1.4						
		10,000	3.8	5.74	2.19	.73	.40	.15	55	80	106	156	206			4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5			
		15,000		8.61	3.28	1.09	.59	.22								.42	.49	.56	.63	.76	.89	1.2	1.5						
		20,000	4.5	11.5	4.37	1.46	.79	.29	56	81	106	156	206			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.5		
		25,000		14.4	5.46	1.83	.99	.36								.52	.59	.66	.73	.85	.97	1.3	1.6						
50,000	7.9	28.7	10.9	3.65	1.97	.73	56	81	106	156	206			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.5				
75,000		43.0	16.4	5.47	2.95	1.09								.85	.90	.96	1.0	1.1	1.3	1.5	1.8								
100,000																													
150,000																													
200,000																													
250,000																													

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