



**GHS SERIES
 FLEXIBLE SEAL
 HEAVY DUTY STANDARD
 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/INTERCHANGE FOOT BRACKET

The GHS stainless series is designed for applications in the operating ranges noted below. These units are available with head and backhead jackets for temperature control, silicon carbide bushings for wear resistance, and numerous shaft seal options described on the following pages.

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
- FLEXIBLE SEAL DESIGN ALLOWS FOR A VARIETY OF INDUSTRY STANDARD SEALS OR PACKING

OPERATING RANGE

- CAPACITY (GPM): (3 TO 295)
 [LPM] : [11 TO 1116]
- PRESSURE (PSI) : [0 TO 200]
 [BAR] : [0 TO 14]
- VISCOSITY (SSU) : (28 TO 2,000,000)
 [cSt] : [1 TO 440,000]
- TEMPERATURE (F) : (-30° TO 675°)
 [C] : [-34° TO 358°]

APPLICATIONS

- USE WITH ANY CLEAN LIQUID COMPATIBLE WITH 316 STAINLESS STEEL
- ★ BOOSTER SERVICE
- ★ CIRCULATING
- ★ FILTERING
- ★ LUBRICATING
- ★ TRANSFERRING

EXTERIOR	BACKH.D.	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 ■ ■									GHS ■ 500 [260]	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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GORMAN-RUPP OF CANADA LIMITED • ST. THOMAS, ONTARIO, CANADA

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]	GHC ●	161 [73,2]	5.3
	GHS 2 JL10-B ■									161 [73,2]	
GHC 3 JL9-B ● †	GHS 3 JL9-B ●	107 [338]	960 [960]	81 [256]	580 [480]	75 [5]	100 [7]	200 [14]	GHC ●	161 [73,2]	5.3
	GHS 3 JL10-B ■									161 [73,2]	
GHC 3 JP9-B ● †	GHS 2 JP9-B ●	99 [375]	960 [960]	80 [252]	580 [480]	75 [5]	100 [7]	200 [14]	GHS ●	161 [73,2]	5.3
	GHS 2 JP10-B ■									161 [73,2]	
GHC 3 JP9-B ● †	GHS 3 JP9-B ●	132 [500]	960 [960]	80 [252]	580 [480]	75 [5]	100 [7]	200 [14]	GHS ●	161 [73,2]	5.3
	GHS 3 JP10-B ■									161 [73,2]	
GHC 3 NK9-B ● †	GHS 2 NK9-B ●	165 [624]	960 [960]	99 [312]	580 [480]	75 [5]	100 [7]	200 [14]	GHS ●	180 [81,8]	5.3
	GHS 2 NK10-B ■									180 [81,8]	
GHC 3 NK9-B ● †	GHS 2-1/2 NK9-B ●	172 [542]	960 [960]	115 [362]	580 [480]	75 [5]	100 [7]	200 [14]	GHS ●	180 [81,8]	5.3
	GHS 2-1/2 NK10-B ■									180 [81,8]	
GHC 3 NK9-B ● †	GHS 3 NK9-B ●	215 [678]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHS ●	180 [81,8]	5.3
	GHS 3 NK10-B ■									180 [81,8]	
GHC 3 NM9-B ● †	GHS 2 NM9-B ●	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHS ●	180 [81,8]	5.3
	GHS 2 NM10-B ■									180 [81,8]	
GHC 3 NM9-B ● †	GHS 2-1/2 NM9-B ●	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHS ●	180 [81,8]	5.3
	GHS 2-1/2 NM10-B ■									180 [81,8]	
GHC 3 NP9-B ● †	GHS 3 NP9-B ●	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHS ●	180 [81,8]	5.3
	GHS 3 NP10-B ■									180 [81,8]	
GHC 3 NP9-B ● †	GHS 2-1/2 NP9-B ●	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHS ●	180 [81,8]	5.3
	GHS 2-1/2 NP10-B ■									180 [81,8]	
GHC 3 NP9-B ● †	GHS 2 RM9-B ●	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHS ●	357 [162]	10.7
	GHS 2 RM10-B ■									357 [162]	
GHC 3 RM9-B ● †	GHS 2-1/2 RM9-B ● †	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHS ● †	357 [162]	10.7
	GHS 2-1/2 RM10-B ■ †									357 [162]	
GHC 3 RM9-B ● †	GHS 3 RM9-B ● †	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHS ● †	357 [162]	10.7
	GHS 3 RM10-B ■ †									357 [162]	
GHC 3 RM9-B ● †	GHS 4 RM9-B ● †	172 [542]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHS ● †	357 [162]	10.7
	GHS 4 RM10-B ■ †									357 [162]	
GHC 3 RP9-B ● †	GHS 3 RP9-B ● †	215 [678]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHS ● †	357 [162]	10.7
	GHS 3 RP10-B ■ †									357 [162]	
GHC 3 RP9-B ● †	GHS 4 RP9-B ● †	215 [678]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]	GHS ● †	357 [162]	10.7
	GHS 4 RP10-B ■ †									357 [162]	

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* [641]	4.00 [102]	3.50* [891]	4.50 [114]	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]														
GHS G	1-1/2" 2"	3.50* [891]	4.88 [124]	3.50* [891]	4.50 [114]	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]														
GHS J	2" 3"	4.50* [114]	6.88 [175]	5.25* [133]	6.25 [159]	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]														
GHS N	2" 3"	5.12 [130]	8.00 [203]	4.50 [114]	6.25 [159]	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]
GHS R	2" 2-1/2" 3" 4"	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]	
																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

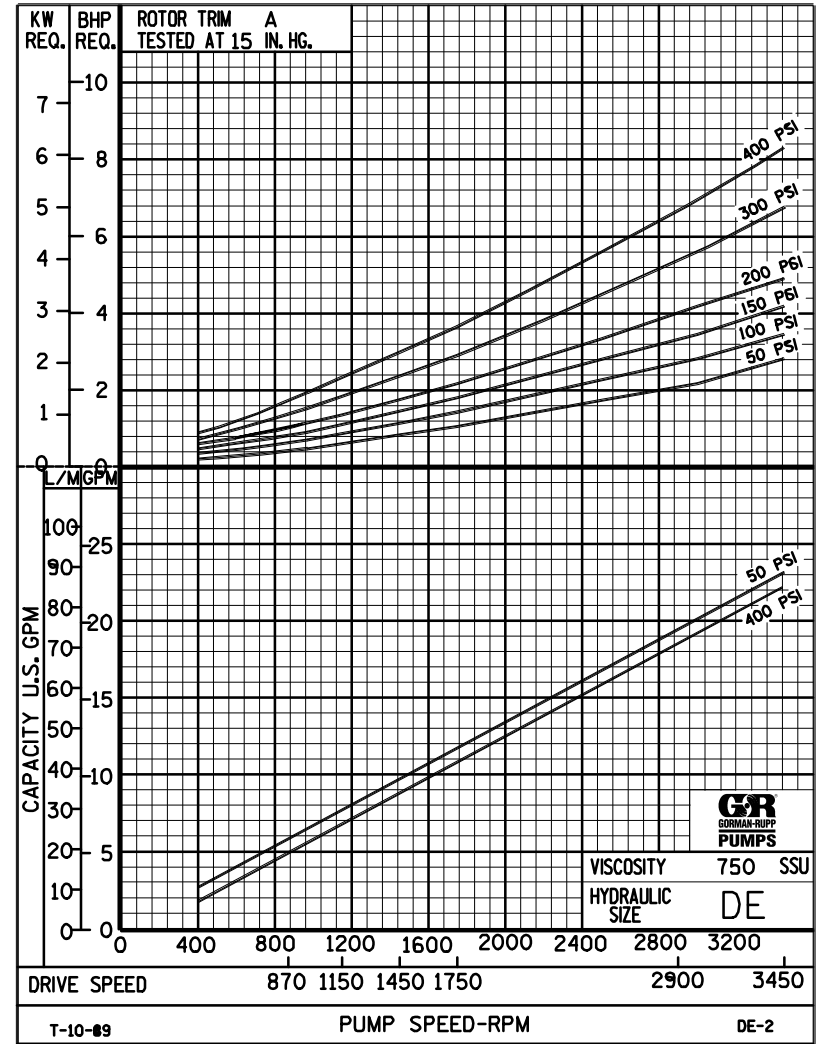
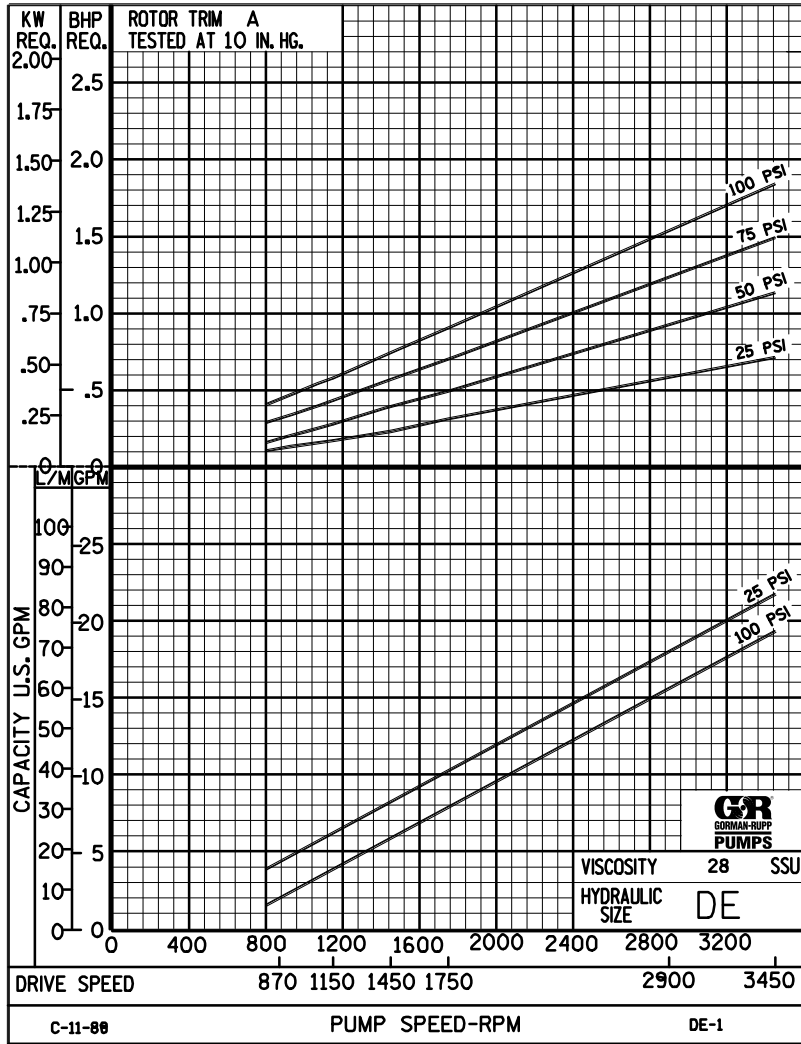
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Hydraulic Size

SEC. 500

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PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

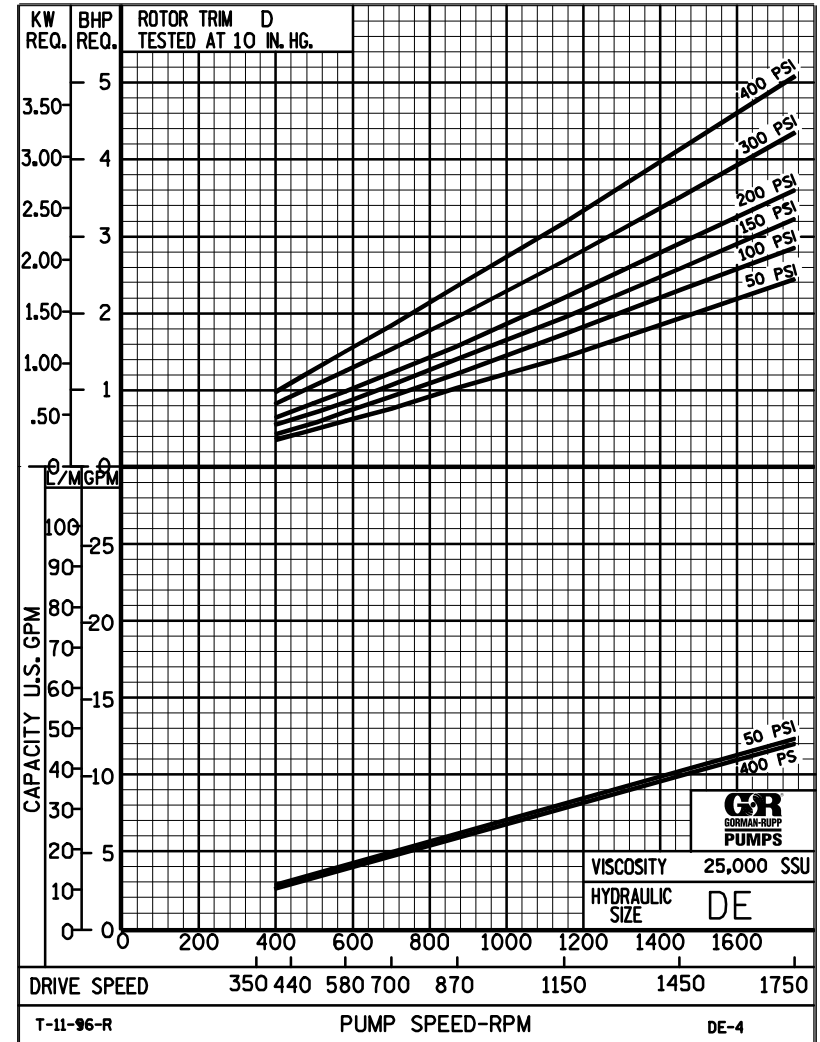
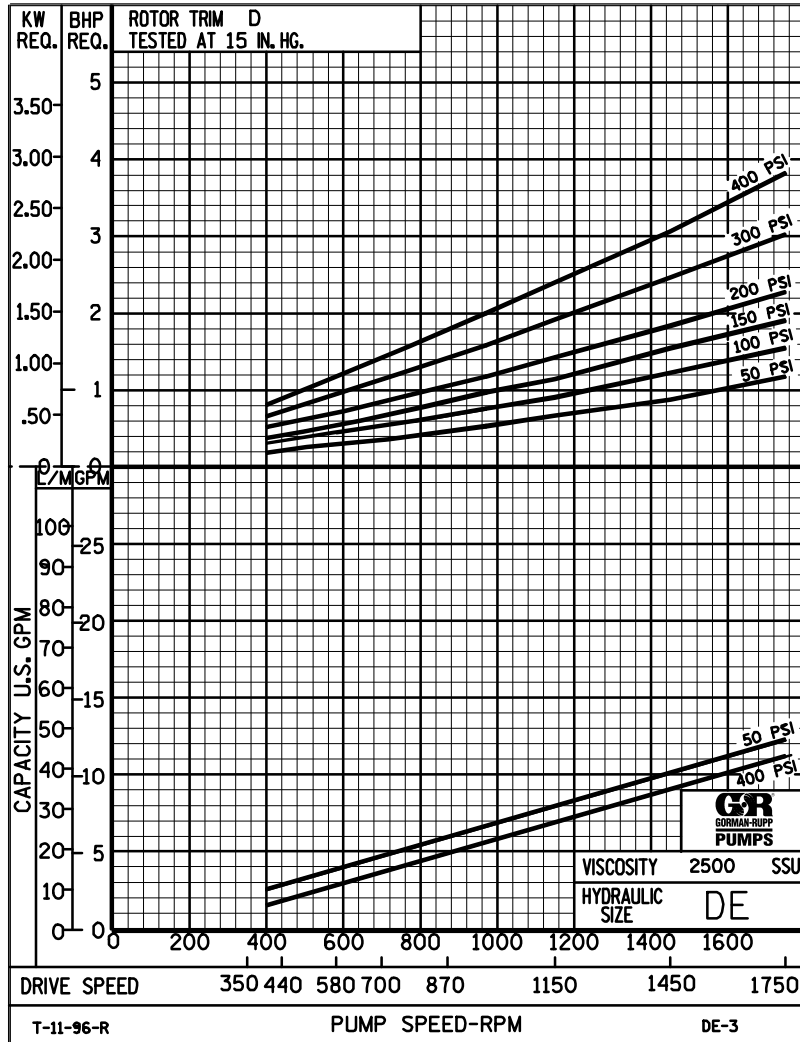
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Hydraulic Size

SEC. 500

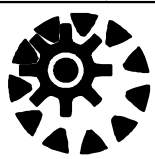
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DE

PUMP HYDRAULIC SIZE CHART

SEC. 500

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**22 GPM
3450 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								
22	3450	STD	28	12.3	.01	.01	.01	.01	.01	74	99	127			21.0	21.0	20.0	19.0								
			32		.33	.11	.03	.02	.01							.85	1.2	1.6	1.9							
			38	12.3	.43	.14	.04	.02	.01	74	99	129	178			22.0	21.0	21.0	20.0	20.0						
			50		.51	.16	.05	.02	.01							1.2	1.5	1.9	2.2	3.0						
			70	12.3	.59	.18	.05	.03	.01	74	100	131	179	232			22.0	22.0	22.0	21.0	21.0	20.0				
			100		.68	.22	.06	.03	.01							1.6	1.9	2.3	2.7	3.4	4.2					
			150	12.3	.75	.24	.07	.04	.01	74	101	134	180	234			23.0	22.0	22.0	22.0	21.0	21.0	20.0	20.0		
			200		.80	.27	.09	.05	.02							2.1	2.4	2.7	3.0	3.8	4.6	6.1	7.6			
			300	12.3	.85	.33	.11	.06	.02	75	103	137	181	236			23.0	23.0	22.0	22.0	22.0	21.0	21.0	20.0		
			500		1.41	.54	.18	.10	.04							2.4	2.7	3.0	3.3	4.0	4.8	6.3	7.8			
			750	12.3	2.11	.80	.27	.15	.06	76	105	140	183	238			23.0	23.0	23.0	23.0	23.0	22.0	22.0	22.0		
			1,000		2.81	1.07	.36	.19	.07							2.6	2.9	3.2	3.6	4.3	5.0	6.5	7.9			
					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.



DE

PUMP HYDRAULIC SIZE CHART

SEC. 500

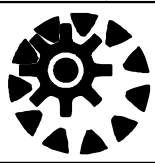
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**11 GPM
1750 RPM**

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.



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PUMP HYDRAULIC SIZE CHART

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**7 GPM
1150 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										
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						
		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.



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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						
							50	75	100	150	200	25	50	75	100	150	200	300	400								
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					
		"D"	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.



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PUMP HYDRAULIC SIZE CHART

SEC. 500

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**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			
							50	75	100	150	200	25	50	75	100	150	200	300	400					
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	3.0	
		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	
		3,500		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	
		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	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	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	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.