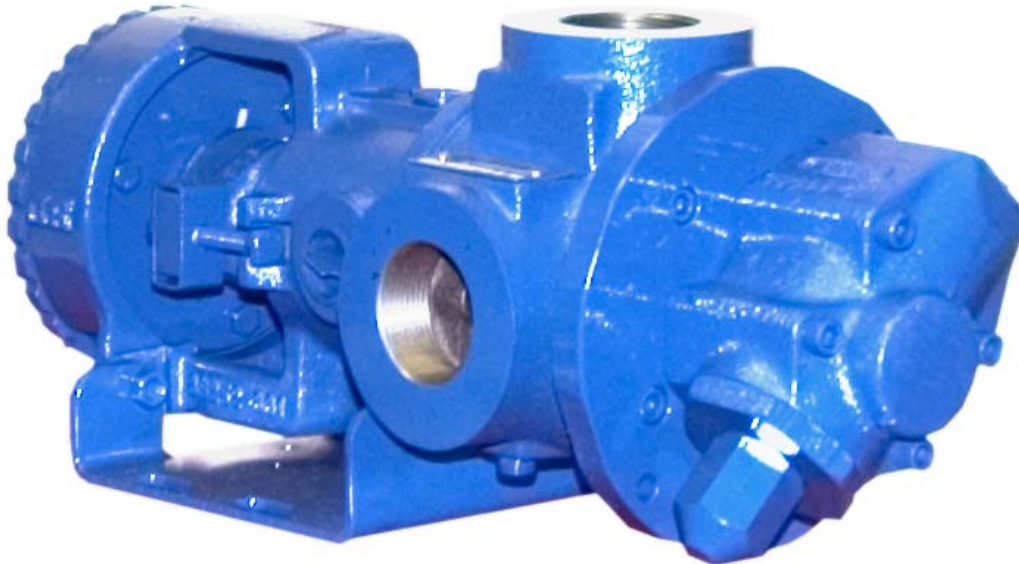


**GHS SERIES
 FLEXIBLE SEAL
 HEAVY DUTY STANDARD
 STAINLESS STEEL ROTARY
 GEAR PUMP**

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	BACKHD	ROTOR & IDLER	HOUSING PORTS	BUSHING	IDLER PIN	SHAFT	SHAFT SEALING		ROTA-TION	INTERNAL RELIEF VALVE	
							MECH. SEAL	PACKING		MATERIAL	SETTING
316 STAIN. STEEL	CAST IRON	316 STAIN. STEEL	GHC 180° FLG. GHS 90° NPT	CARBON GRAPHITE	COATED 316 SST	STAIN. STEEL	CARBON, SIC, TEFLON ENC.	CARBON FIBER	C.W.	316 STAINLESS STEEL	75 PSI [5 BAR]

G H C 1 DC 9 - B
G H S 1 DC 9 - B
 | | | | | | | | | | | |
 GEAR DUTY DESIGN PORT SIZE HYD. SIZE SEAL STYLE

Standard Models

MODEL NUMBER		NOM. CAPACITY - SPEED				MAXIMUM				SHIPPING DATA	
		MAXIMUM		ALTERNATIVE		DIFF. PRESSURE - PSI [BAR]			TEMP.	Wt.	Vol.
		GPM [LPM]	RPM 60 Hz [50 HZ]	GPM [LPM]	RPM 60 Hz [50 HZ]	BELOW 38 SSU [4 cSt]	38 TO 100 SSU [21 cSt]	100 TO 250,000 SSU [55,000 cSt]	°F [°C]		
GHC 1 DC9-B ① ● ▸	GHS 1 DC9-B ① ● ● GHS 1 DC10-B ① ■ ■	9 [28]		6 [19]						32 [14,5]	2.9
GHC 1 DE9-B ① ● ● ▸	GHS 1 DE9-B ① ● ● ● GHS 1 DE10-B ① ■ ■ ■	11 [35]		7 [22]						32 [14,5]	2.9
GHC 1-1/2 GC9-B ● ● ▸	GHS 1-1/2 GC9-B ● ● ● GHS 1-1/2 GC10-B ■ ■ ■	16 [50]		10 [32]						63 [28,6]	2.9
	GHS 2 GC9-B ● ● ● GHS 2 GC10-B ■ ■ ■									63 [28,6]	2.9
GHC 1-1/2 GF9-B ● ● ▸	GHS 1-1/2 GF9-B ● ● ● ● GHS 1-1/2 GF10-B ■ ■ ■ ■	23 [73]	1750 [1460]	15 [47]	1150 [960]					GHC ● 350 [177]	2.9
	GHS 2 GF9-B ● ● ● ● GHS 2 GF10-B ■ ■ ■ ■									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]	2.9
	GHS 2 GH9-B ● ● ● ● GHS 2 GH10-B ■ ■ ■ ■									63 [28,6]	2.9
GHC 1-1/2 GJ9-B ● ● ▸	GHS 1-1/2 GJ9-B ● ● ● ● GHS 1-1/2 GJ10-B ■ ■ ■ ■	38 [120]		25 [79]						500 [260]	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**

THE GORMAN-RUPP COMPANY • MANSFIELD, OHIO

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										
	GHS 2 JL9-B ● GHS 2 JL10-B ■	77 [243]	1150 [960]	58 [133]	870 [725]	75 [5]	100 [7]	200 [14]	161 [73,2]	5.3	
GHC 3 JL9-B ● †	GHS 3 JL9-B ● GHS 3 JL10-B ■										
	GHS 2 JP9-B ● GHS 2 JP10-B ■	107 [338]	960 [960]	81 [256]	580 [480]	75 [5]	100 [7]	200 [14]	161 [73,2]	5.3	
GHC 3 JP9-B ● †	GHS 3 JP9-B ● GHS 3 JP10-B ■										
	GHS 2 NK9-B ● GHS 2 NK10-B ■	99 [375]	960 [960]	60 [189]	580 [480]	75 [5]	100 [7]	200 [14]	GHC ●	180 [81,8]	5.3
	GHS 2-1/2 NK9-B ● GHS 2-1/2 NK10-B ■								GHC 400 [204]	180 [81,8]	5.3
	GHS 3 NK9-B ● GHS 3 NK10-B ■								GHS ●	180 [81,8]	5.3
	GHS 2 NM9-B ● GHS 2 NM10-B ■	132 [500]	960 [960]	80 [252]	580 [480]	75 [5]	100 [7]	200 [14]	GHC ■	180 [81,8]	5.3
	GHS 2-1/2 NM9-B ● GHS 2-1/2 NM10-B ■								GHC 500 [260]	180 [81,8]	5.3
	GHS 3 NM9-B ● GHS 3 NM10-B ■								GHS ●	180 [81,8]	5.3
	GHS 2-1/2 NP9-B ● GHS 2-1/2 NP10-B ■	165 [624]	960 [960]	99 [312]	580 [480]	75 [5]	100 [7]	200 [14]		180 [81,8]	5.3
	GHS 3 NP9-B ● GHS 3 NP10-B ■										
	GHS 2 RM9-B ● GHS 2 RM10-B ■	172 [542]	960 [960]	115 [362]	580 [480]	75 [5]	100 [7]	200 [14]		357 [162]	10.7
	GHS 2-1/2 RM9-B ● † GHS 2-1/2 RM10-B ■ †										
	GHS 3 RM9-B ● † GHS 3 RM10-B ■ †									357 [162]	10.7
	GHS 4 RM9-B ● † GHS 4 RM10-B ■ †	215 [678]	720 [600]	143 [451]	480 [400]	75 [5]	100 [7]	200 [14]		357 [162]	10.7
	GHS 3 RP9-B ● † GHS 3 RP10-B ■ †										
	GHS 4 RP9-B ● † GHS 4 RP10-B ■ †									357 [162]	10.7

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**

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

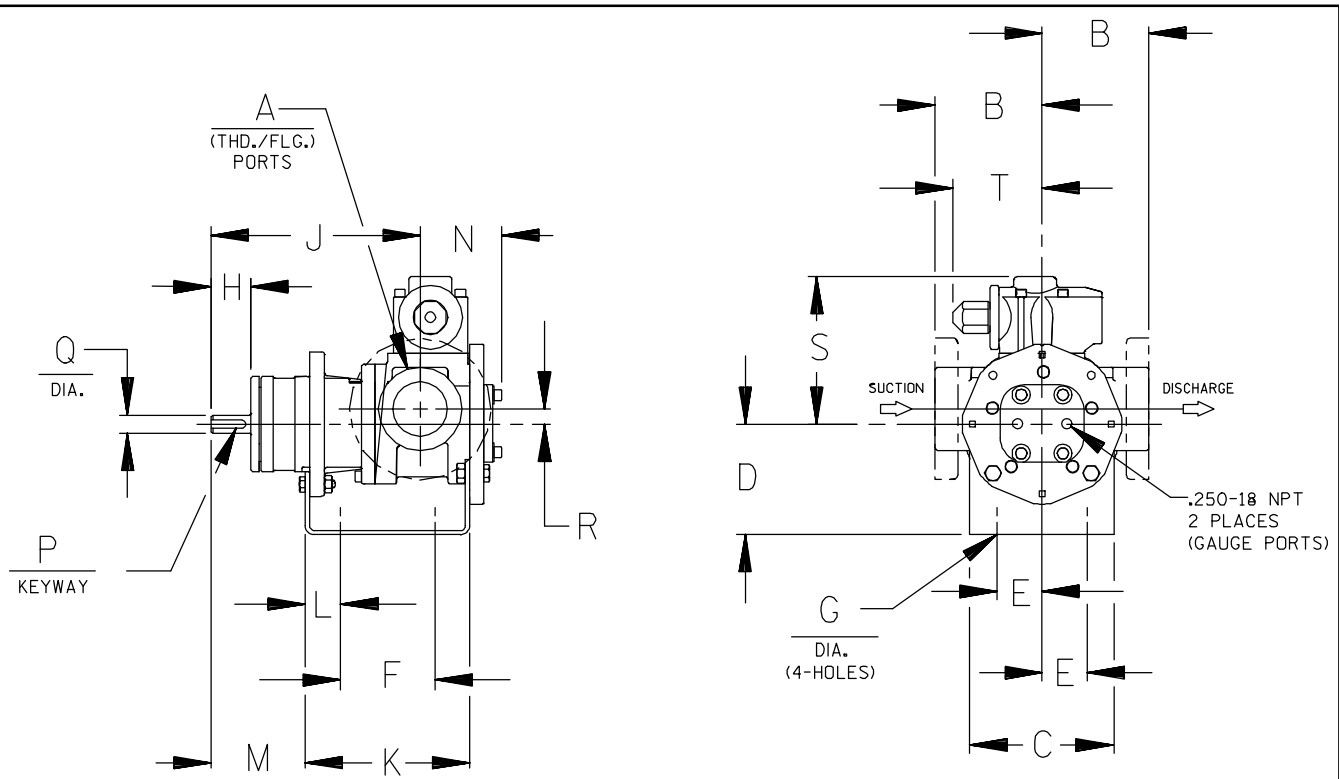
MODEL NUMBER		NOM. CAPACITY - SPEED				MAXIMUM				SHIPPING DATA	
		MAXIMUM		ALTERNATIVE		DIFF. PRESSURE - PSI [BAR]			TEMP.	Wt.	Vol.
		GPM [LPM]	RPM 60 Hz [50 HZ]	GPM [LPM]	RPM 60 Hz [50 HZ]	BELOW 38 SSU [4 cSt]	38 TO 100 SSU [21 cSt]	100 TO 250,000 SSU [55,000 cSt]	°F [°C]	LBS [KG]	CU. FT.
GHC	GHS										
	GHS 3 RR9-B ● ▸ GHS 3 RR10-B ■ ▸	255 [804]	720 [600]	170 [536]	480 [400]	75 [5]	100 [7]	200 [14]	GHS ● 400 [204] ■ 500 [260]	357 [162]	10.7
	GHS 4 RR9-B ● ▸ GHS 4 RR10-B ■ ▸			196 [618]						357 [162]	
	GHS 4 RS9-B ● ▸ GHS 4 RS10-B ■ ▸			295 [930]						357 [162]	

▸ PORTS ARE COMPATIBLE WITH 150# ANSI STAINLESS STEEL FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE. OPTIONAL [DIN] FLANGES OR TAPPED [BSP] PORTS AVAILABLE FOR EXPORT MARKET.

NOTE: RECOMMENDED PORT SIZES ARE SHOWN IN BOLDFACE. EXAMPLE: **GHC 1 DC9-B**, **GHS 1 DC9-B**

APPLICATION RECOMMENDATIONS:		
APPLICATION	OPTIONS REQUIRED (Select One From Each Row)	OPERATING LIMITATIONS
GHS ONLY HIGH TEMPERATURE	25U, 25V, OR 25W 35J – 35M (AS REQ'D) 40R, 70K 61H OR 65Q	TEMPERATURE: 675 °F MAX. PRESSURE: 200 PSI MAX.
GHS ONLY JACKETED	40K, 40W, 41U, 41W	LIMIT JACKET PRESSURE TO 150 PSI

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



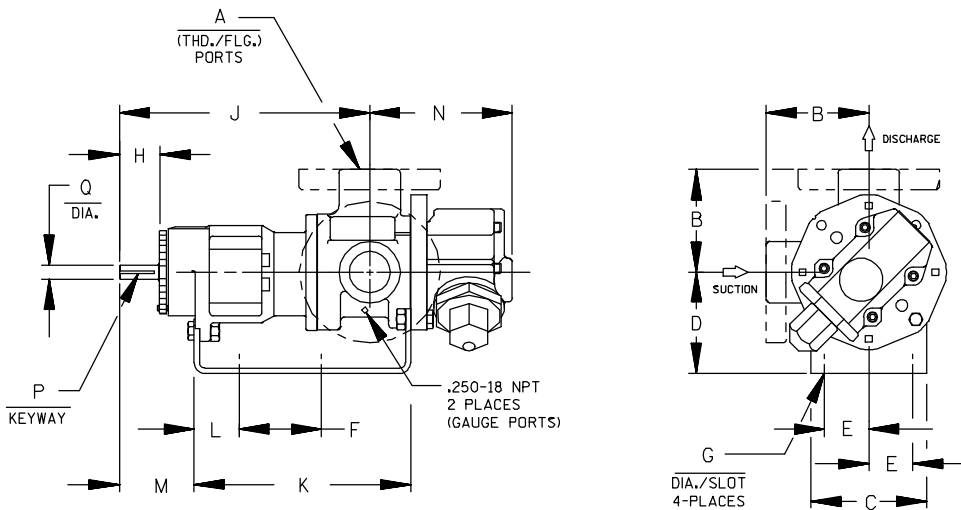
CAD FILE NO.: 16458B

MODEL NUMBERS	PUMP DIMENSIONS - INCHES [MILLIMETERS]																	
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T
GHC D	1"	2.50 [64] †	4.00 [102]	3.50* [89]	1.62 [41]	3.12 [79]	.41 [10]	1.16 [30]	6.19 [157]	5.04 [128]	.76 [19]	2.62 [66]	2.74 [70]	.12 [3]	.50 [13]	.62 [16]	5.19 [132]	3.58 [91]
		4.00* [102] †		5.25 [133]										.75 [19]				
GHC G	1-1/2"	3.50 [89] †	5.88 [149]	3.50* [89]	1.62 [41]	4.00 [102]	.41 [10]	1.62 [41]	8.50 [216]	6.71 [170]	1.06 [27]	3.82 [97]	3.35 [85]	.19 [5]	.75 [19]	.62 [16]	6.00 [152]	3.62 [92]
		4.00* [102] †		4.50 [114]										5.25 [133]				
GHC J	3"	4.50 [114] †	6.88 [175]	4.50 [114]	2.88 [73]	4.25 [108]	.44 [11]	2.50 [64]	12.12 [308]	9.75 [248]	1.75 [44]	5.50 [140]	4.66 [118]	.25 [6]	1.00 [25]	1.12 [28]	9.06 [230]	6.75 [171]
		6.00* [152] †		5.25* [133]										6.25 [159]				

* STANDARD DIMENSION

† PORTS ARE COMPATIBLE WITH 125* OR 250* ANSI CAST IRON FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE. OPTIONAL (DIN) FLANGES OR TAPPED (BSP) PORTS AVAILABLE FOR EXPORT MARKET.

† 90° HOUSING



CAD FILE NO.: 16669G

MODEL NUMBERS	PUMP DIMENSIONS - INCHES [MILLIMETERS]															
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	
GHS D	1"	2.50* [64]	4.00 [102]	3.50* [89]	1.62 [41]	5.50 [140]	.41 [10]	1.16 [30]	8.43 [214]	7.54 [192]	1.09 [28]	2.29 [58]	4.98 [127]	.12 [3] x .75 [19]	.50 [13]	
		4.00 † [102]		5.25 [133]												
GHS G	1-1/2" 2"	3.50* [89]	4.88 [124]	3.50* [89]	1.62 [41]	8.00 [203]	.41 [10]	1.62 [41]	12.06 [306]	10.72 [272]	1.52 [39]	3.35 [85]	5.70 [145]	.19 [5] x 1.25 [32]	.75 [19]	
		4.00 † [102]		5.25 [133] 6.25 [159]												
GHS J	2" 3"	4.50* [114]	6.88 [175]	5.25* [133]	2.88 [73]	10.00 [254]	.44 [11]	2.50 [64]	15.68 [398]	14.31 [363]	2.77 [70]	4.48 [114]	8.50 [216]	.25 [6] x 2.00 [51]	1.00 [25]	
		6.00 † [152]		6.25 [159] 7.00 [178] 8.00 [203]												
GHS N	2" 3"	5.12 [130]	8.00 [203]	4.50 [114]	2.88 [73]	10.00 [254]	.44 [11]	2.58 [66]	16.37 [416] *	15.14 [385]	2.69 [68]	4.56 [116]	8.72 [221] *	.25 [6] x 2.00 [51]	1.12 [28]	
				5.25* [133]												6.25 [159] 7.00 [178] 8.00 [203]
GHS R	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]	1.86 [47]	4.70 [119]	11.31 [287]	.38 [10] x 1.88 [48]	1.44 [37]	
	2-1/2"															6.50 [165]
	3"															
	4"															

* 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

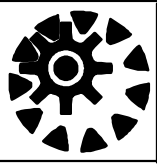
AND DIMENSIONS

SEE SECTION 540

FOR GHS DRIVE OPTIONS

AND DIMENSIONS

SEE SECTION 545

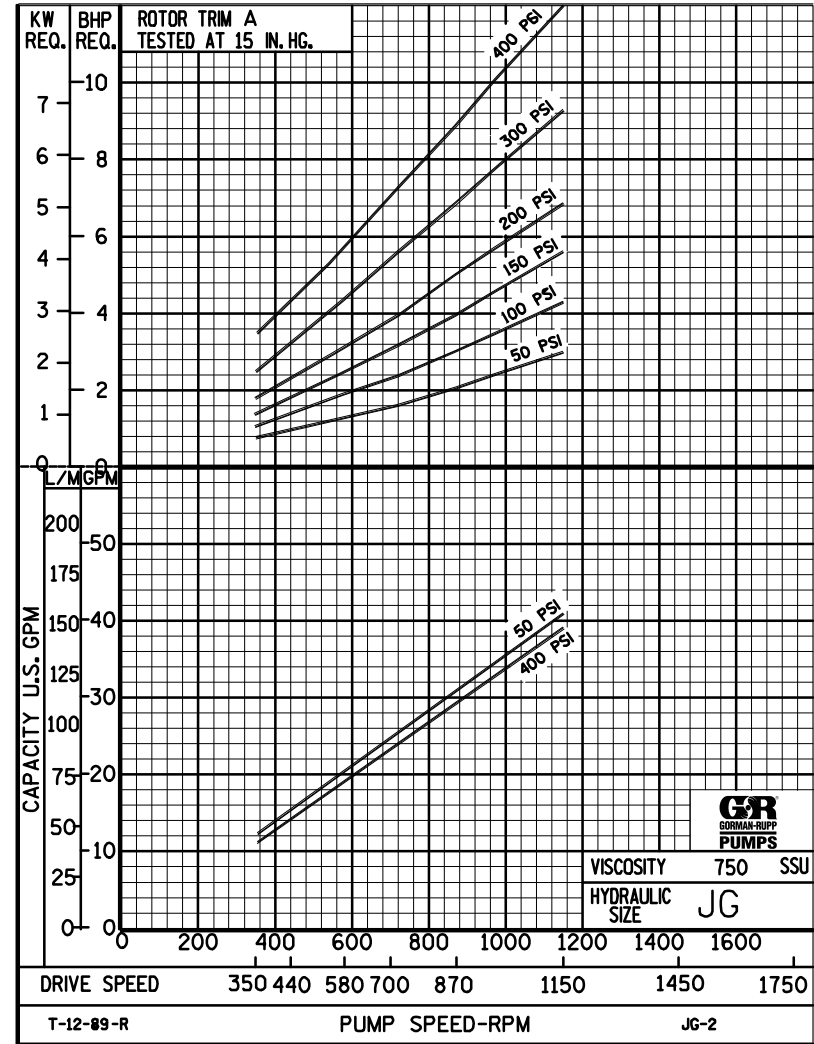
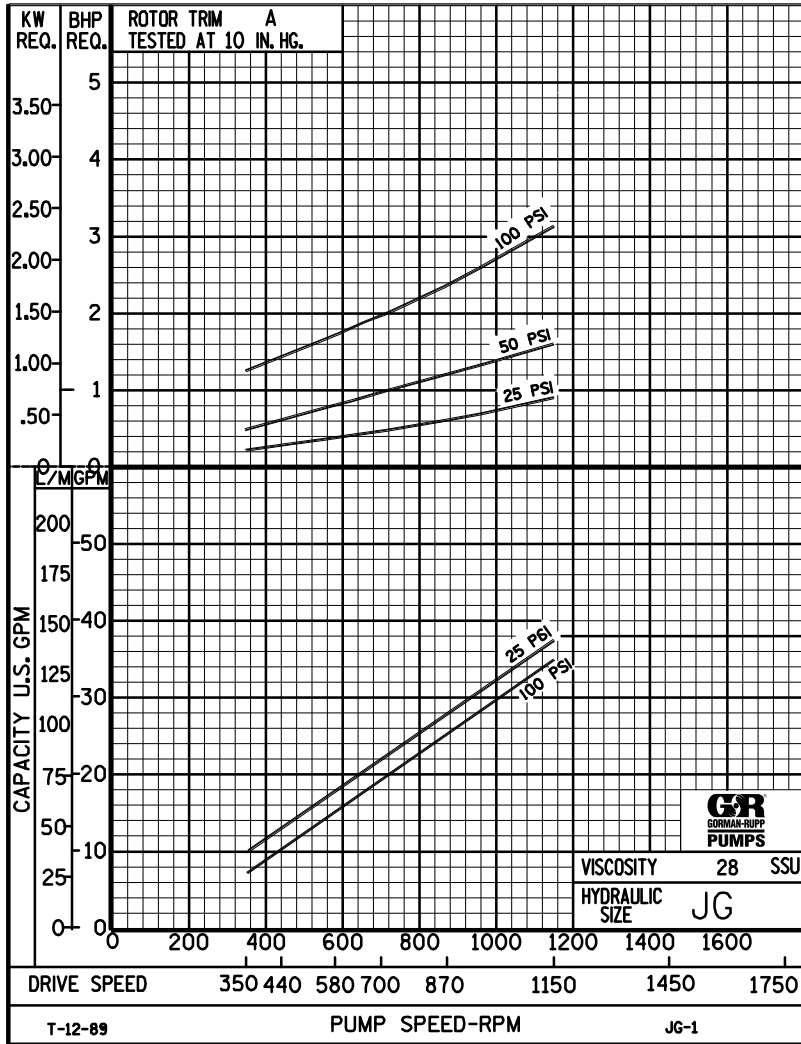


PERFORMANCE CURVES

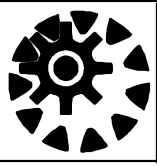
SPEED VS. CAPACITY/HORSEPOWER

JG

Hydraulic Size



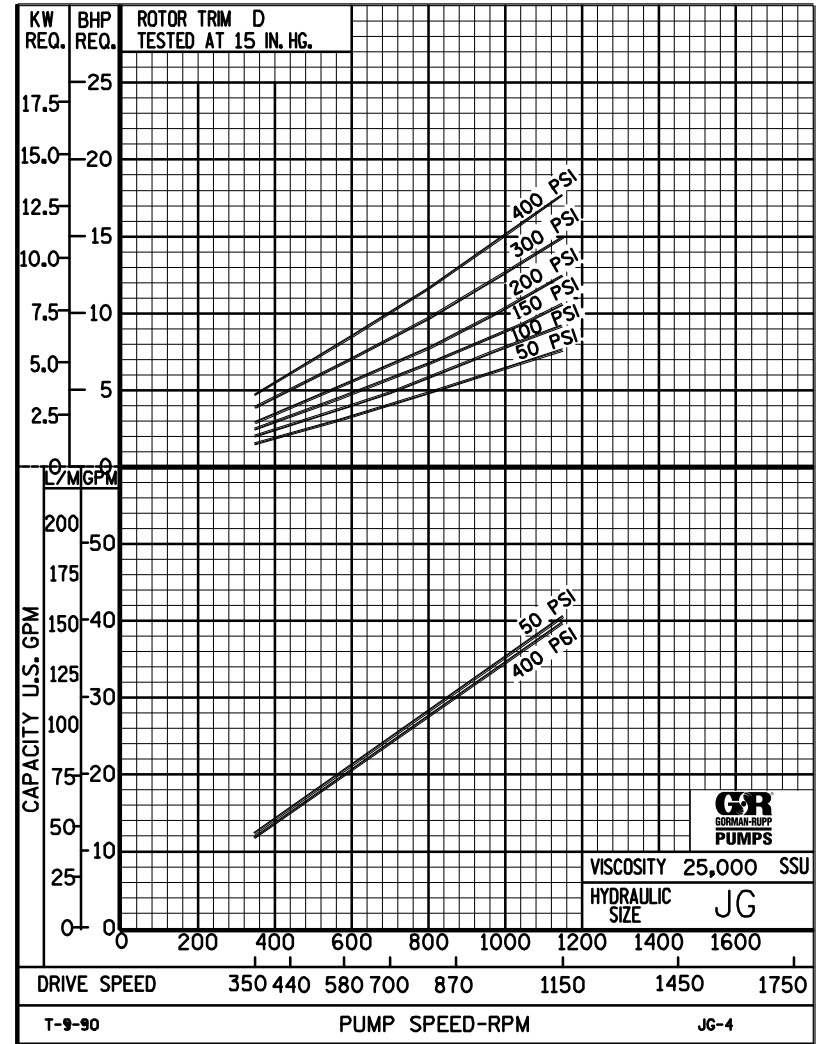
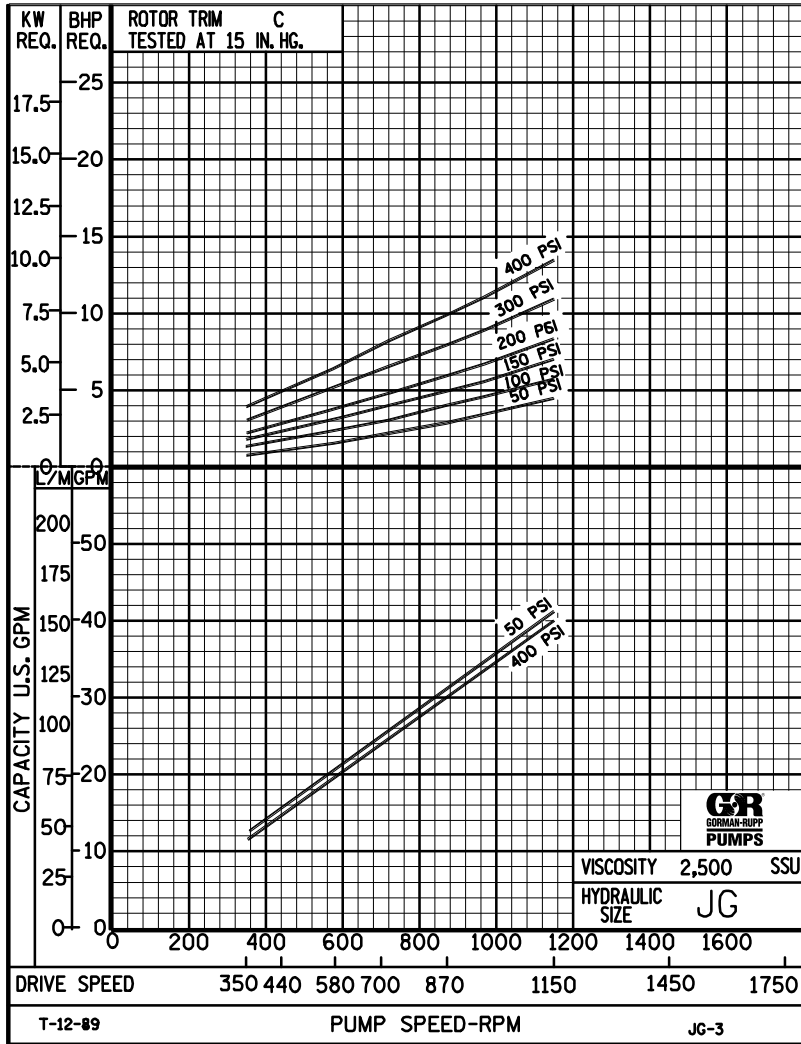
THE GORMAN-RUPP COMPANY • MANSFIELD, OHIO
 GORMAN-RUPP OF CANADA LIMITED • ST. THOMAS, ONTARIO, CANADA



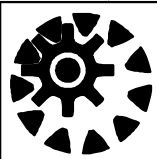
PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

JG Hydraulic Size



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



JG

PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 64

January 2010

**40 GPM
1150 RPM**

NOMINAL		ROTOR TRIM	VISCOSITY (SSU)	N.I.P.R. (PSIA)	FRICTION PIPE LOSS (PSI/FT) <small>(Based on Sch 40 Steel Pipe)</small>					FULL BYPASS RELIEF VALVE PRESSURE (PSI)					CAPACITY (GPM) / H.P. REQUIRED													
CAP. GPM	SPEED RPM				PIPE DIAMETER					CRACKING PRESS. (PSI)					DIFFERENTIAL PRESSURE (PSI)													
					1½"	2"	2½"	3"	4"	LOW PRES R/V			HI PRES R/V		25	50	75	100	150	200	300	400						
40	1150	STD	28	3.9	.01	.01	.01	.01	.01	59	84	116					37	36	35	35								
			32		.04	.01	.01	.01	.01								.91	1.6	2.4	3.1								
			38	3.9	.05	.02	.01	.01	.01	59	84	116	160						38	37	37	36	35					
			50		.06	.02	.01	.01	.01										1.1	1.8	2.4	3.2	4.8					
			70	3.9	.07	.02	.01	.01	.01	59	84	116	160	212					39	38	38	37	37	36				
			100		.08	.03	.01	.01	.01										1.4	2.0	2.6	3.3	4.8	6.2				
			150	3.9	.09	.03	.01	.01	.01	60	85	118	160	212					40	39	39	39	38	38	37	36		
			200		.10	.03	.01	.01	.01										1.8	2.3	2.8	3.5	5.4	6.7	8.7	12		
			300	3.9	.10	.04	.02	.01	.01	60	87	118	160	212					40	40	40	39	39	39	38	37		
			500		.18	.06	.03	.01	.01										2.3	2.8	3.4	3.9	5.5	6.7	9.1	12		
			750	3.9	.26	.10	.05	.02	.01	60	87	118	160	212					41	41	40	40	40	40	39	39		
			1,000		.35	.13	.06	.03	.01										2.6	3.0	3.6	4.3	5.6	6.9	9.3	12		
		2,000	3.9	.70	.26	.13	.05	.02	62	89	120	162	214					41	41.1	41	41	40	40	40	40			
		3,500		1.23	.45	.22	.09	.03										3.9	4.5	5.1	5.7	7.0	8.4	11	14			
		5,000	3.9	1.75	.65	.32	.13	.05	64	91	122	162	214					41	41	41	41	40	40	40	40			
		7,500		2.63	.97	.48	.20	.07										4.4	5.7	6.2	7.0	8.3	9.6	12	15			
		10,000	3.9	3.50	1.29	.63	.27	.09	66	93	125	162	216					41	41	41	40	40	40	40	40			
		15,000		5.25	1.93	.95	.40	.14										5.8	7.0	7.4	8.3	9.6	11	14	14			
		20,000	4.0	7.00	2.58	1.27	.53	.18	68	95	128	162	216					40	40	40	40	40	40	40	39			
		25,000		8.75	3.22	1.58	.67	.23										7.2	7.8	8.5	9.2	11	12	15	18			
		50,000	5.3	17.5	6.44	3.17	1.33	.45	72	99	132	166	220					40	40	40	40	40	40	40	39			
		75,000		-	-	-	-	-										11	12	12	13	15	17	20	24			
		100,000																										
		150,000																										
200,000																												
250,000																												

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



JG

PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 65

January 2010

**30 GPM
870 RPM**

NOMINAL		ROTOR TRIM	VISCOSITY (SSU)	N.I.P.R. (PSIA)	FRICTION PIPE LOSS (PSI/FT) <small>(Based on Sch 40 Steel Pipe)</small>					FULL BYPASS RELIEF VALVE PRESSURE (PSI)					CAPACITY (GPM) / H.P. REQUIRED										
CAP. GPM	SPEED RPM				PIPE DIAMETER					CRACKING PRESS. (PSI)					DIFFERENTIAL PRESSURE (PSI)										
					1½"	2"	2½"	3"	4"	LOW PRES R/V		HI PRES R/V			MEDIUM DUTY AND HEAVY DUTY				HEAVY DUTY ONLY						
							50	75	100	150	200	25	50	75	100	150	200	300	400						
30	870	STD	28	2.5	.01	.01	.01	.01	.01	55	81	112			27	27	26	25							
			32		.02	.01	.01	.01	.01						.63	1.2	1.7	2.4							
			38	2.5	.03	.01	.01	.01	.01	55	81	112	158			28	28	27	27	26					
			50		.04	.01	.01	.01	.01							.69	1.3	2.0	2.6	3.6					
			70	2.5	.04	.01	.01	.01	.01	55	82	112	158	210			29	29	28	28	27	27			
			100		.05	.02	.01	.01	.01								.75	1.4	2.2	2.7	3.7	4.8			
			150	2.5	.05	.02	.01	.01	.01	55	82	112	158	210			30	30	29	29	28	28	28	26	
			200		.05	.02	.01	.01	.01								.84	1.5	2.4	2.8	3.8	4.9	6.8	8.8	
			300	2.5	.08	.03	.02	.01	.01	56	83	112	158	210			30	30	30	30	29	29	29	28	
			500		.13	.05	.03	.01	.01								1.2	1.8	2.5	3.0	3.9	5.0	6.9	8.8	
		750	2.5	.20	.07	.04	.02	.01	56	83	112	158	210			31	30	30	30	30	30	30	29		
		1,000		.26	.10	.05	.02	.01								1.7	2.1	2.5	3.0	4.0	5.0	6.9	8.9		
		2,000	2.6	.53	.19	.10	.04	.01	58	85	114	158	210			31	31	31	30	30	30	30	30		
		3,500		.92	.34	.17	.07	.02								2.5	2.9	3.4	4.0	4.9	6.0	8.0	9.8		
		5,000	2.7	1.31	.48	.24	.10	.04	60	87	116	159	211			31	31	30	30	30	30	30	30		
		7,500		1.97	.73	.36	.15	.05								3.2	4.0	4.7	5.1	6.0	7.0	9.1	11		
		10,000	2.8	2.63	.97	.48	.20	.07	62	89	119	160	212			31	31	30	30	30	30	30	30		
		15,000		3.93	1.45	.71	.30	.10								4.0	4.8	5.6	6.0	6.8	7.9	10	12		
		20,000	2.9	5.25	1.93	.95	.40	.14	65	92	122	160	212			31	30	30	30	30	30	30	29		
		25,000		6.56	2.42	1.19	.50	.17								5.0	5.4	5.9	6.3	7.4	8.5	11	13		
50,000	4.1	13.1	4.83	2.37	1.00	.34	68	95	125	163	215			31	30	30	30	30	30	30	29				
75,000		19.7	7.25	3.56	1.49	.50								7.6	8.2	8.5	9.2	11	11	13	16				
100,000	5.6	26.3	9.66	4.75	1.99	.67	72	99	129	167	219			31	30	30.5	30	30	30	30	29				
150,000		-	-	-	-	-								9.4	10	11	12	14	14	15	18				
200,000																									
250,000																									

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



JG

PUMP HYDRAULIC SIZE CHART

SEC. 500

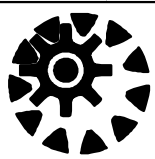
Page 66

January 2010

**20 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)													
					1½"	2"	2½"	3"	4"	LOW PRES R/V			HI PRES R/V		MEDIUM DUTY AND HEAVY DUTY				HEAVY DUTY ONLY									
							50	75	100	150	200	25	50	75	100	150	200	300	400									
20	580	STD	28	1.5	.01	.01	.01	.01	.01	54	80	110			18	17	16	16										
			32		.01	.01	.01	.01	.01						.41	.82	1.2	1.6										
			38	1.5	.02	.01	.01	.01	.01	54	80	110	157			18	18	17	17	16								
			50		.02	.01	.01	.01	.01							.44	.89	1.2	1.7	2.4								
			70	1.5	.02	.01	.01	.01	.01	54	80	110	157	208			19	18	18	18	17	17						
			100		.02	.01	.01	.01	.01								.50	.98	1.3	1.7	2.5	3.1						
			150	1.5	.03	.01	.01	.01	.01	55	81	110	157	208			19	19	19	19	18	18	18	17				
			200		.04	.01	.01	.01	.01								.58	1.1	1.4	1.8	2.5	3.2	4.4	5.9				
			300	1.5	.05	.02	.01	.01	.01	55	81	110	157	208			20	20	19	19	19	19	18	18				
			500		.09	.03	.02	.01	.01								.65	1.2	1.6	1.9	2.5	3.2	4.5	5.9				
		750	1.5	.13	.05	.03	.01	.01	55	81	110	157	208			20	20	20	20	20	20	19	19					
		1,000		.18	.07	.03	.01	.01								.83	1.4	1.7	2.1	2.7	3.3	4.6	6.0					
		2,000	1.7	.35	.13	.06	.02	.01	56	82	111	158	209			20	20	20	20	20	20	19	19					
		3,500		.61	.23	.11	.05	.02								1.5	1.9	2.3	2.7	3.4	4.1	5.4	6.8					
		5,000	1.8	.88	.32	.16	.07	.02	57	83	112	159	210			20	20	20	20	20	20	20	19					
		7,500		1.31	.48	.24	.10	.04								1.9	2.3	2.7	3.1	3.8	4.5	5.9	7.2					
		10,000	2.0	1.75	.65	.32	.13	.05	58	85	113	160	211			20	20	20	20	20	20	20	20					
		15,000		2.63	.97	.48	.20	.07								2.4	2.8	3.2	3.6	4.3	5.0	6.4	6.7					
		20,000	2.1	3.50	1.29	.63	.27	.09	60	87	114	160	211			20	20	20	20	20	20	20	20					
		25,000		4.38	1.61	.79	.33	.11								2.8	3.1	3.5	3.9	4.6	5.3	6.8	8.2					
50,000	3.3	8.75	3.22	1.58	.67	.23	62	89	116	162	213			20	20	20	20	20	20	20	20							
75,000		13.1	4.83	2.37	1.00	.34								4.2	4.7	5.1	5.6	6.7	7.2	8.5	10							
100,000	4.7	17.5	6.44	3.17	1.33	.45	65	92	119	165	216			20	20	20	20	20	20	20	20							
150,000		26.3	9.66	4.75	1.99	.67								5.3	5.9	6.4	7.0	8.3	8.6	9.9	12							
200,000	8.6	35.0	12.9	6.33	2.65	.90	68	95	122	168	219			20	20	20	20	20	20	20	20							
250,000		-	-	-	-	-								6.3	7.0	7.4	8.2	9.8	9.9	11	13							

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



JG

PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 67

January 2010

**12 GPM
350 RPM**

NOMINAL		ROTOR TRIM	VISCOSITY (SSU)	N.I.P.R. (PSIA)	FRICTION PIPE LOSS (PSI/FT) <small>(Based on Sch 40 Steel Pipe)</small>					FULL BYPASS RELIEF VALVE PRESSURE (PSI)					CAPACITY (GPM) / H.P. REQUIRED											
CAP. GPM	SPEED RPM				PIPE DIAMETER					CRACKING PRESS. (PSI)					DIFFERENTIAL PRESSURE (PSI)											
					1½"	2"	2½"	3"	4"	LOW PRES R/V			HI PRES R/V		MEDIUM DUTY AND HEAVY DUTY				HEAVY DUTY ONLY							
12	350	STD	28	1.1	.01	.01	.01	.01	.01	53	79	105				11	10	10	9.5							
			32		.01	.01	.01	.01	.01							.26	.52	.73	.98							
			38	1.1	.01	.01	.01	.01	.01	53	79	105	154			11	10	10	10	9.5						
			50		.01	.01	.01	.01	.01							.29	.55	.78	.99	1.5						
			70	1.1	.01	.01	.01	.01	.01	53	79	105	154	204			11	11	11	11	10	10				
			100		.01	.01	.01	.01	.01								.32	.58	.80	1.0	1.5	1.9				
			150	1.1	.02	.01	.01	.01	.01	54	80	106	155	205			12	11	11	11	11	11	10	10		
			200		.02	.01	.01	.01	.01								.37	.62	.84	1.1	1.6	1.9	2.7	3.5		
			300	1.1	.03	.01	.01	.01	.01	54	80	106	155	205			12	12	12	11	11	11	11	11		
			500		.05	.02	.01	.01	.01								.43	.69	.93	1.1	1.6	2.0	2.8	3.6		
		750	1.1	.08	.03	.02	.01	.01	54	80	106	155	205			12	12	12	12	12	12	11	11			
		1,000		.11	.04	.02	.01	.01								.59	.80	1.0	1.2	1.7	2.1	2.9	3.7			
		2,000	1.3	.21	.08	.04	.02	.01	54	80	106	155	205			12.	12	12	12	12	12	12	11			
		3,500		.37	.14	.07	.03	.01								.82	1.1	1.3	1.6	2.0	2.4	3.2	4.0			
		5,000	1.5	.53	.19	.10	.04	.01	55	80	106	155	205			12	12	12	12	12	12	12	11			
		7,500		.79	.29	.14	.06	.02								.96	1.2	1.4	1.7	2.2	2.6	3.4	4.3			
		10,000	1.7	1.05	.39	.19	.08	.03	56	81	107	156	206			12	12	12	12	12	12	12	12			
		15,000		1.58	.58	.29	.12	.04								1.1	1.4	1.6	1.9	2.4	2.8	3.7	4.6			
		20,000	1.8	2.10	.77	.38	.16	.06	56	82	108	156	206			12	12	12	12	12	12	12	12			
		25,000		2.63	.97	.48	.20	.08								1.3	1.5	1.8	2.5	2.9	3.0	3.9	4.7			
50,000	3.0	5.25	1.93	.95	.40	.14	58	84	110	158	208			12	12	12	12	12	12	12	11					
75,000		7.88	2.90	1.43	.60	.20								2.0	2.3	2.6	2.9	3.4	4.0	4.8	5.9					
100,000	4.5	10.5	3.87	1.90	.80	.27	60	86	112	160	210			12	12	12	12	12	12	12	11					
150,000		15.8	5.80	2.85	1.20	.40								2.5	2.9	3.2	3.7	4.0	4.8	5.6	6.7					
200,000	7.0	21.0	7.73	3.80	1.59	.54	62	88	114	162	212			12	12	12	12	12	12	12	11					
250,000		26.3	9.66	4.75	1.99	.67								3.0	3.5	3.8	4.3	4.6	5.5	6.3	7.4					

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