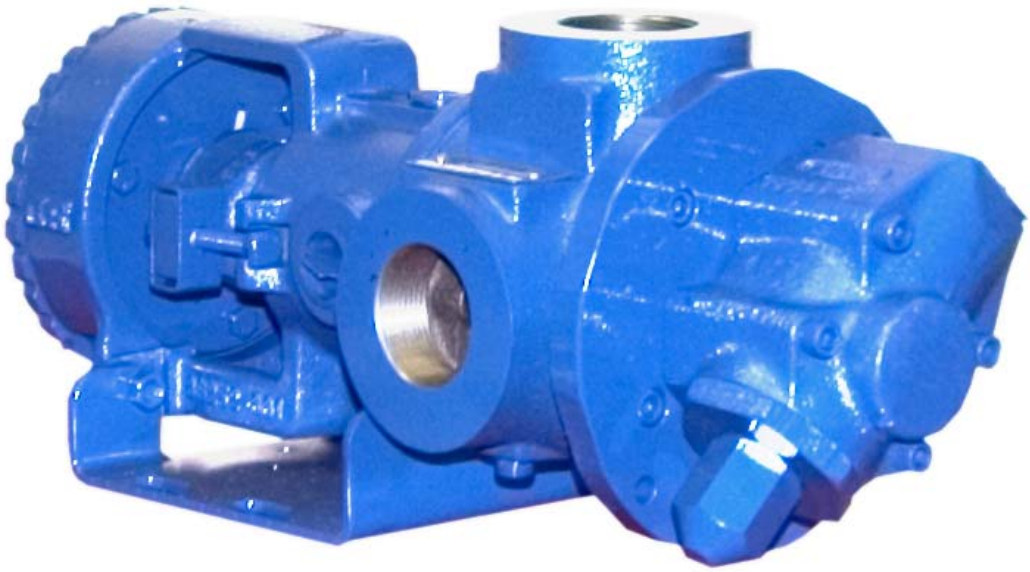
GORMAN-RUPP
ROTARY GEAR PUMPS

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

SUPERSEDES ALL PREVIOUS ISSUES
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Standard Construction

EXTERIOR	BACKHD	ROTOR & IDLER	HOUSING PORTS	BUSHING	IDLER PIN	SHAFT	SHAFT SEALING		ROTATION	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]

Standard Models

G	H	C		1	DC	9	–	B
G	H	S		1	DC	9	–	B
GEAR	DUTY	DESIGN		PORT SIZE	HYD. SIZE	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 DC9-B ① ● ⊦	**GHS 1 DC9-B** ① ● **GHS 1 DC10-B** ① ■	9 [28]	1750 [1460]	6 [19]	1150 [960]	75 [5]	100 [7]	200 [14]	GHC ● 350 [177] GHS ● 400 [204] ■ 500 [260]	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]		15 [47]						63 [28,6]	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]						63 [28,6]	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]						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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Standard Models (Continued)

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

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Standard Models (Continued)

MODEL NUMBER		NOM. CAPACITY - SPEED				MAXIMUM				SHIPPING DATA	
		MAXIMUM		ALTERNATIVE		DIFF. PRESSURE - PSI [BAR]			TEMP.	Wt.	Vol.
GHC	GHS	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.
	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 ■ ⊩									357 [162]	10.7
	GHS 4 RS9-B ● ⊩ GHS 4 RS10-B ■ ⊩	295 [930]		196 [618]						357 [162]	10.7

⊩ 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.

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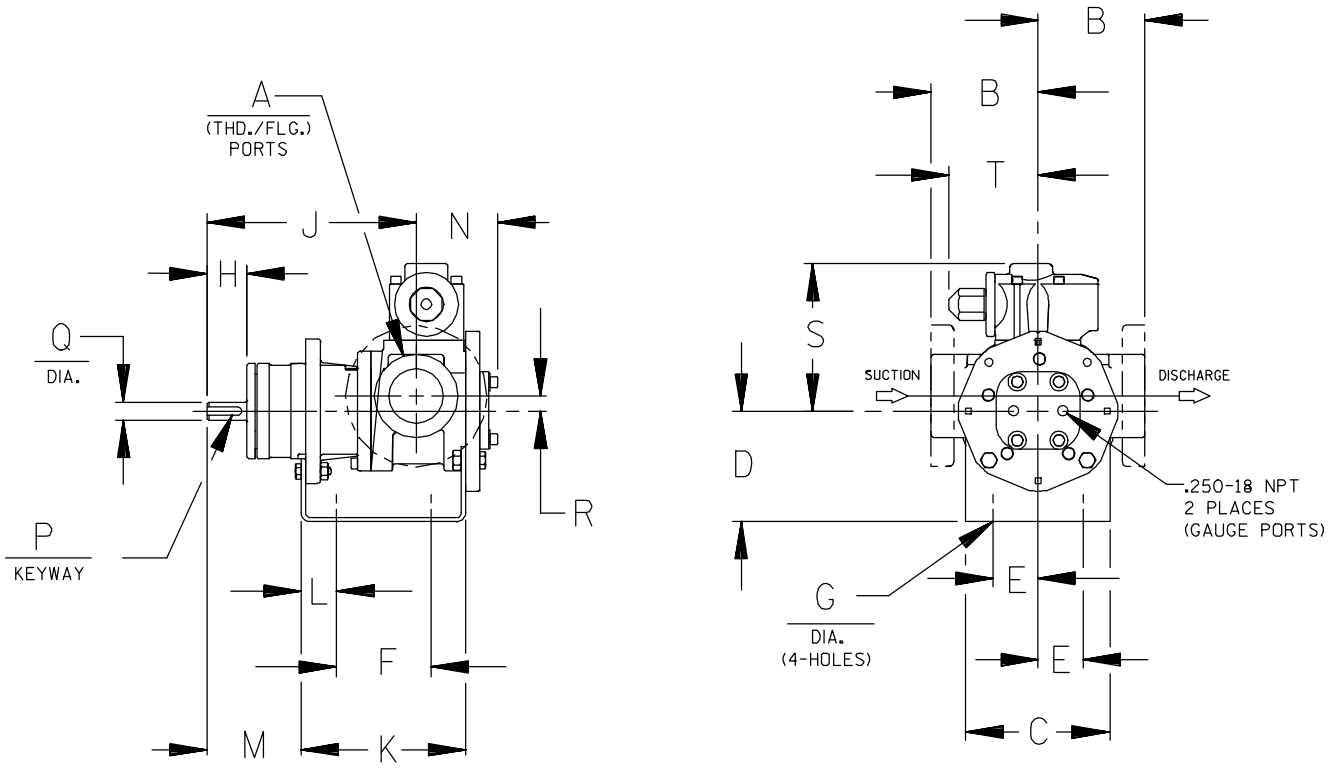
Dimensions – GHC



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] ⊢	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] × .75 [19]	.50 [13]	.62 [16]	5.19 [132]	3.58 [91]
GHC G	1-1/2"	3.50 [89] † 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] × 1.25 [32]	.75 [19]	.62 [16]	6.00 [152]	3.62 [92]
GHC J	3"	4.50 [114] † ✳ 6.00 [152] ⊢	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] × 2.00 [51]	1.00 [25]	1.12 [28]	9.06 [230]	6.75 [171]

✳ 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

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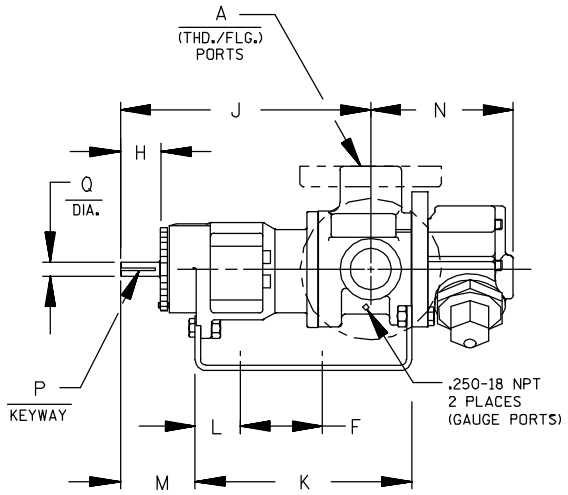
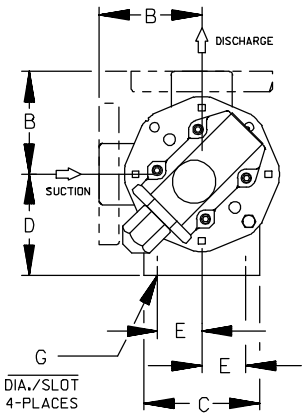
Dimensions – GHS





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] ⊢ †	4.00 [102]	3.50 [89] ✳ 4.50 [114] 5.25 [133]	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] × .75 [19]	.50 [13]
GHS G	1-1/2" 2"	3.50 [89] ✳ 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] × 1.25 [32]	.75 [19]
GHS J	2" 3"	4.50 [114] ✳ 6.00 [152] ⊢ †	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] × 2.00 [51]	1.00 [25]
GHS N	2" 3"	5.12 [130]	8.00 [203]	4.50 [114] 5.25 [133] ✳ 6.25 [159] 7.00 [178] 8.00 [203]	2.88 [73]	10.00 [254]	.44 [11]	2.58 [66]	16.37 [416] ✳	15.14 [385]	2.69 [68]	4.56 [116]	8.72 [221] ✳	.25 [6] × 2.00 [51]	1.12 [32]
GHS R	2" 2-1/2" 3" 4"	6.50 [165] 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] × 1.88 [48]	1.44 [37]

✳ STANDARD DIMENSION

⊢ PORTS ARE COMPATIBLE WITH 150# OR 300# ANSI STAINLESS STEEL FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE. OPTIONAL (DIN) FLANGES OR TAPPED (BSP) PORTS AVAILABLE FOR EXPORT MARKET.

† 180° HOUSING

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GHC/GHS

FOR GHC DRIVE OPTIONS

AND DIMENSIONS

SEE SECTION 540

FOR GHS DRIVE OPTIONS

AND DIMENSIONS

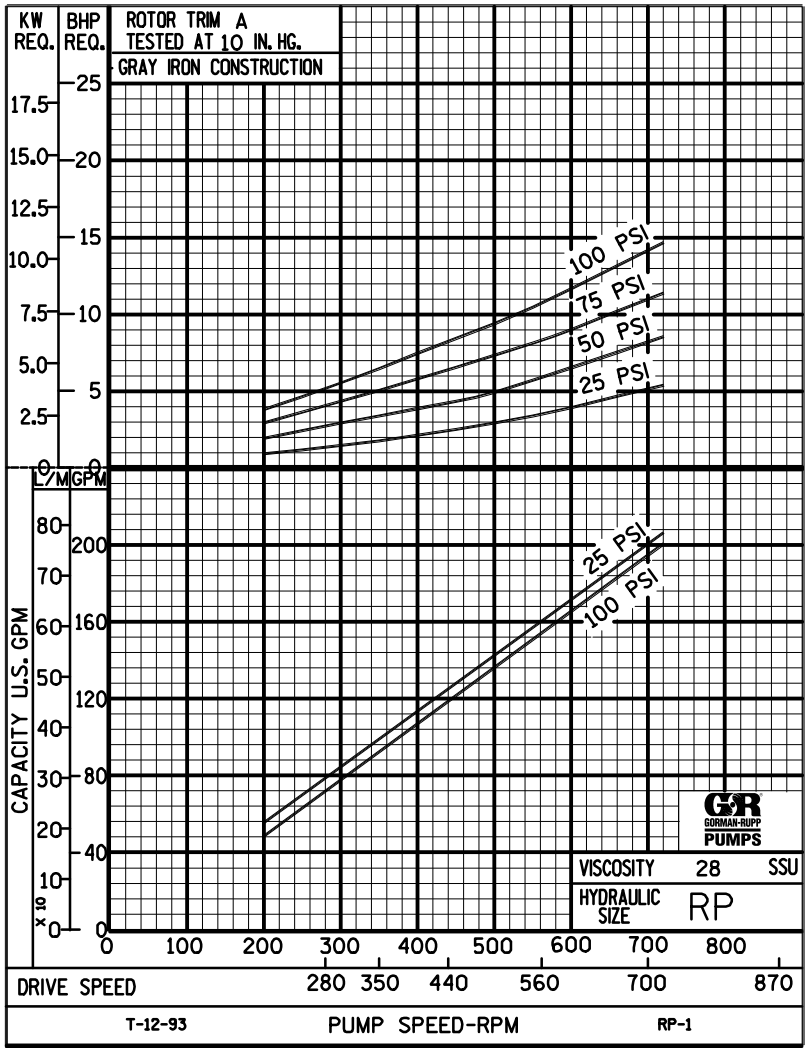
SEE SECTION 545

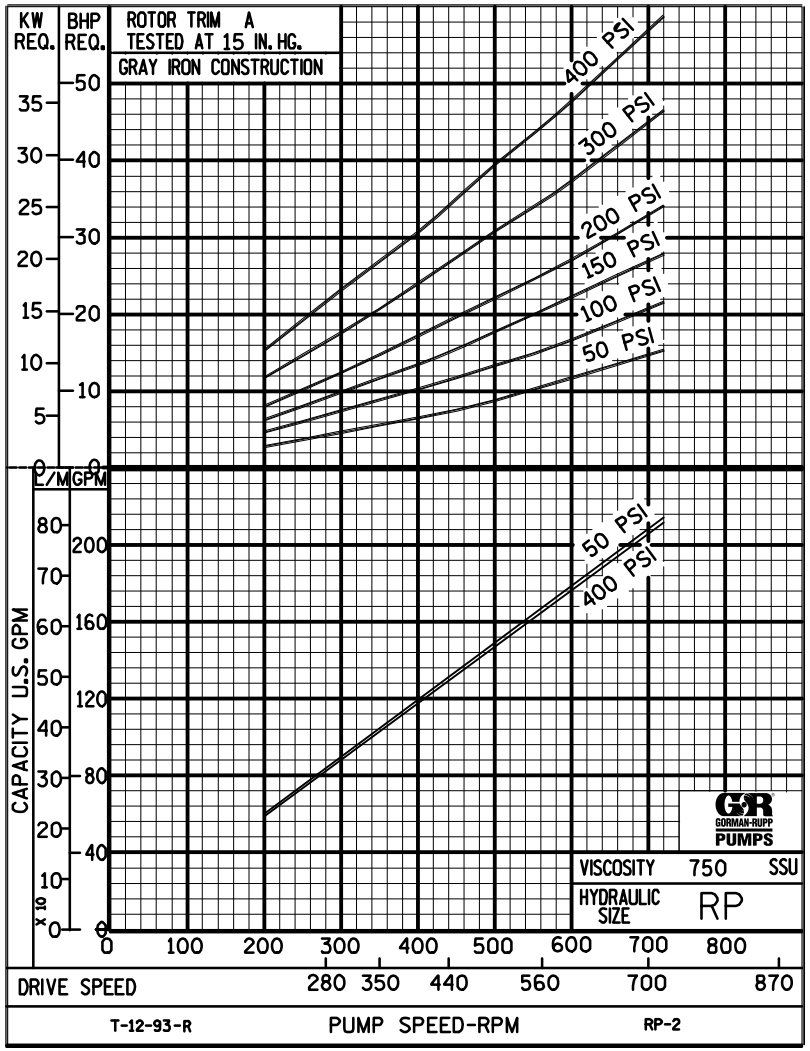
GORMAN-RUPP
ROTARY GEAR PUMPS

PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

RP Hydraulic Size





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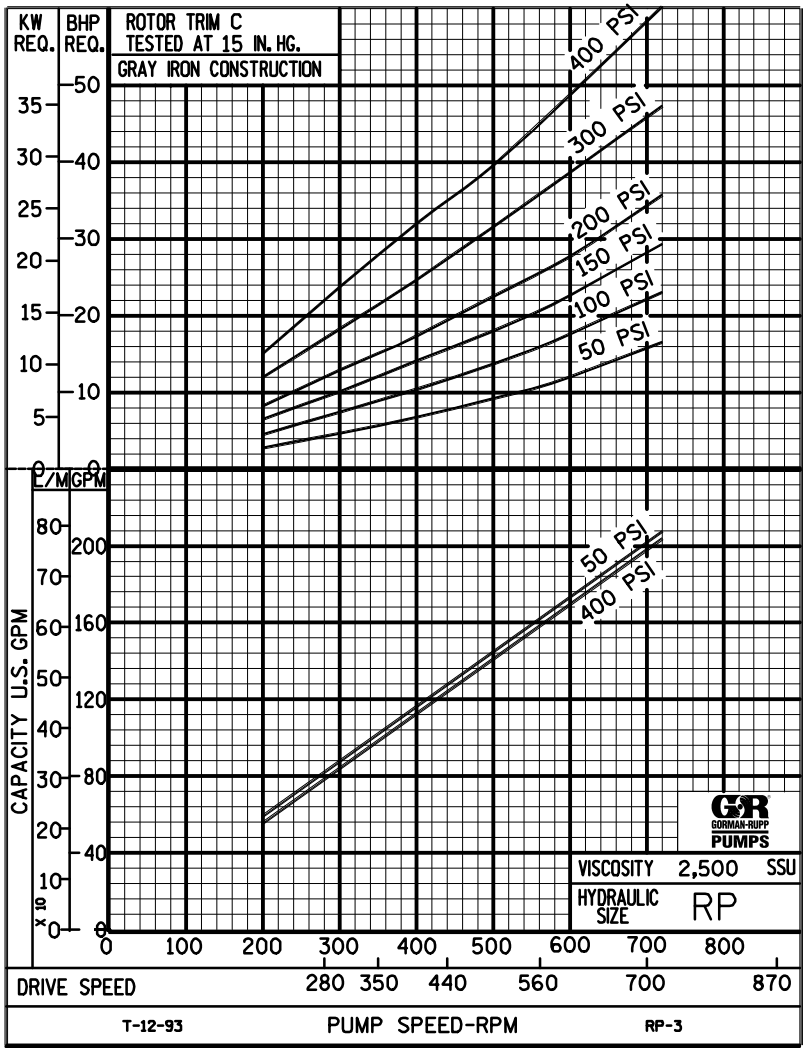
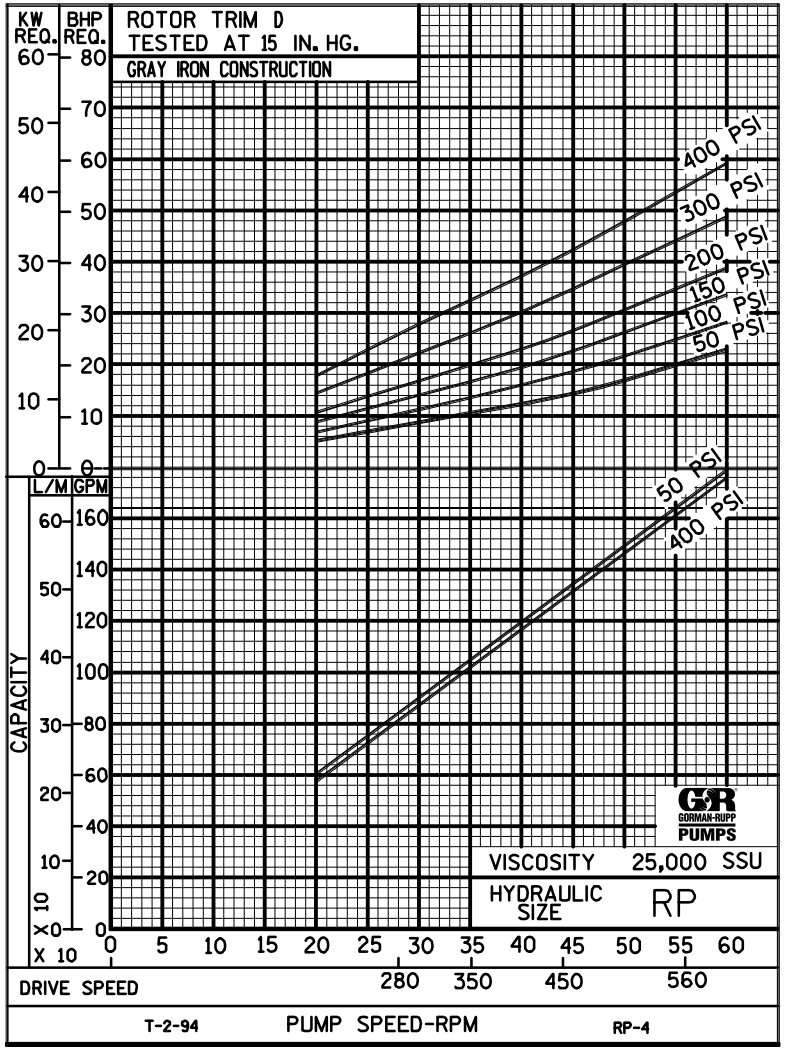
PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

RP Hydraulic Size





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GORMAN-RUPP
ROTARY GEAR PUMPS

RP

PUMP HYDRAULIC SIZE CHART

215 GPM
720 RPM

NOMINAL		ROTOR TRIM	VISCOSITY	N.I.P.R.	FRICTION PIPE LOSS (PSI/FT) (Based on Sch 40 Steel Pipe)					FULL BYPASS RELIEF VALVE PRESSURE (PSI)					CAPACITY (GPM) / H.P. REQUIRED							
															DIFFERENTIAL PRESSURE (PSI)							
CAP. GPM	SPEED RPM		(SSU)	(PSIA)	PIPE DIAMETER					CRACKING PRESS. (PSI)					25	50	75	100	150	200	300	400
										LOW PRES R/V			HI PRES R/V									
					2"	$2\frac{1}{2}$"	3"	4"	6"	50	75	100	150	200	HEAVY DUTY							
215	720	STD	28	4.0	.31	.13	.04	.01	–	62	87	123	185		206	204	202	200				
			32		.33	.13	.04	.01	–						5.9	8.1	12	15				
			38	4.0	.35	.14	.05	.01	–	64	90	126	187		208	206	204	202	196			
			50		.38	.16	.05	.01	–						7.3	9.3	13	16	23			
			70	4.0	.42	.18	.06	.02	–	69	95	130	192	251	210	208	208	206	202	198		
			100		.46	.20	.07	.02	–						9.3	12	15	18	25	30		
			150	4.0	51	.22	.08	.02	–	74	99	134	196	258	212	212	210	210	208	204	202	200
			200		.55	.24	.08	.02	–						11	13	17	20	26	32	45	58
			300	4.0	.61	.27	.10	.03	–	80	105	140	202	267	214	212	212	212	210	208	206	206
			500		.72	.31	.11	.02	–						12	15	18	21	28	34	46	59
			750	4.0	.51	.25	.10	.04	.01	84	110	144	206	274	214	214	214	214	214	212	212	212
			1,000		.68	.33	.14	.05	.01						13	16	19	22	29	35	47	60
			2,000	4.3	1.35	.66	.28	.09	.02	92	118	151	213	287	208	208	208	206	206	206	206	204
		"C"	3,500		2.37	1.16	.49	.16	.03						15	17	20	24	30	36	48	61
			5,000	4.7	3.38	1.66	.70	.24	.05	97	123	156	218	294	208	208	208	208	206	206	206	204
			7,500		5.08	2.49	1.05	.35	.07						16	19	22	25	32	39	50	63
			10,000	5.2	6.77	3.32	1.39	.47	.09	102	127	160	222	301	210	208	208	208	208	208	206	206
			15,000		10.2	4.99	2.09	.71	.14						18	20	24	28	34	41	53	66
			20,000																			
		"D"	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.

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GORMAN-RUPP
ROTARY GEAR PUMPS

RP

PUMP HYDRAULIC SIZE CHART

190 GPM
640 RPM

NOMINAL CAP. GPM	NOMINAL SPEED RPM	ROTOR TRIM	VISCOSITY (SSU)	N.I.P.R. (PSIA)	FRICTION PIPE LOSS (PSI/FT) (Based on Sch 40 Steel Pipe) PIPE DIAMETER 2"	2 1/2"	3"	4"	6"	FULL BYPASS RELIEF VALVE PRESSURE (PSI) CRACKING PRESS. (PSI) LOW PRES R/V 50	75	100	HI PRES R/V 150	200	CAPACITY (GPM) / H.P. REQUIRED DIFFERENTIAL PRESSURE (PSI) 25	50	75	100	150	200	300	400
															MEDIUM DUTY AND HEAVY DUTY					HEAVY DUTY ONLY		
190	640	STD	28	3.2	.24	.10	.03	.01	–	60	85	122	180		184	181	179	177				
			32		.26	.10	.04	.01	–						4.9	7.3	10	13				
			38	3.2	.27	.11	.04	.01	–	63	88	124	183		185	182	180	179	174			
			50		.30	.13	.04	.01	–						6.2	8.9	12	15	19			
			70	3.2	.33	.14	.05	.01	–	67	92	128	187	248	187	185	183	178	176			
			100		.37	.16	.06	.02	–						7.9	10	13	16	21	28		
			150	3.2	41	.17	.06	.02	–	71	97	132	191	253	189	187	186	185	183	181	179	176
			200		.44	.19	.07	.02	–						8.9	12	15	18	22	29	39	50
			300	3.2	.49	.21	.08	.02	–	77	102	136	196	260	190	189	188	188	187	185	184	183
			500		.58	.25	.06	.02	–						10	13	16	19	24	30	40	50
			750	3.2	45	.22	.09	.03	.01	81	107	140	200	266	191	191	190	190	189	188	188	187
			1,000		.60	.29	.12	.04	.01						11	13	16	19	24	30	41	51
			2,000	3.5	1.19	.59	.25	.08	.02	88	114	146	207	276	186	185	185	184	183	183	182	180
		“C”	3,500		2.09	1.03	.43	.15	.03						12	14	18	20	26	31	42	54
			5,000	3.9	2.98	1.46	.61	.21	.04	93	119	150	211	281	187	186	185	185	184	184	184	181
			7,500		4.47	2.20	.92	.31	.06						13	16	19	22	28	33	43	57
			10,000	4.4	5.96	2.93	1.23	.41	.08	97	123	154	215	287	187	186	186	185	185	185	185	182
			15,000		8.94	4.39	1.84	.62	.12						15	18	21	24	30	35	46	60
			20,000	5.1	11.9	5.86	2.46	.83	.16	100	126	158	218	292	187	187	186	186	186	186	186	183
		“D”	25,000		14.9	7.32	3.07	1.04	.20						17	20	23	27	32	37	48	63
			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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ROTARY GEAR PUMPS

RP

PUMP HYDRAULIC SIZE CHART

155 GPM
520 RPM

NOMINAL CAP. GPM	NOMINAL SPEED RPM	ROTOR TRIM	VISCOSITY (SSU)	N.I.P.R. (PSIA)	FRICTION PIPE LOSS (PSI/FT) (Based on Sch 40 Steel Pipe) PIPE DIAMETER 2"	2 1/2"	3"	4"	6"	FULL BYPASS RELIEF VALVE PRESSURE (PSI) CRACKING PRESS. (PSI) LOW PRES R/V 50	75	100	HI PRES R/V 150	200	CAPACITY (GPM) / H.P. REQUIRED DIFFERENTIAL PRESSURE (PSI) 25	50	75	100	150	200	300	400
															MEDIUM DUTY AND HEAVY DUTY					HEAVY DUTY ONLY		
155	520	STD	28	2.3	16	.07	.02	.01	–	57	84	120	178		148	145	143	141				
			32		.17	.07	.02	.01	–						3.3	5.3	7.9	10				
			38	2.3	.19	.08	.03	.01	–	60	86	122	180		149	147	145	143	138			
			50		.20	.09	.03	.01	–						4.6	6.7	9.1	11	16			
			70	2.3	.23	.10	.03	.01	–	63	89	124	183	242	151	149	147	146	143	140		
			100		.25	.11	.04	.01	–						5.9	7.9	10	12	17	22		
			150	2.3	.28	.12	.04	.01	–	66	93	127	186	246	153	152	150	150	148	146	144	141
			200		.31	.13	.05	.01	–						6.7	8.8	11	13	18	22	31	40
			300	2.3	.35	.15	.05	.01	–	72	98	131	190	251	154	153	153	152	151	150	149	148
			500		.41	.12	.05	.02	–						7.6	9.8	12	14	18	23	32	41
			750	2.3	36	.18	.07	.03	–	75	101	134	193	254	155	155	154	154	153	153	152	152
			1,000		.48	.24	.10	.03	.01						7.8	10	12	14	19	23	33	41
			2,000	2.9	.97	.47	.20	.07	.01	82	110	139	199	260	152	151	151	150	149	149	148	146
		“C”	3,500		1.69	.83	.35	.12	.02						8.6	11	13	16	20	24	34	42
			5,000	3.3	2.42	1.19	.50	.17	.03	86	112	142	202	264	153	152	152	151	151	150	149	148
			7,500		3.63	1.78	.75	.25	.05						11	13	14	18	23	27	36	44
			10,000	3.8	4.83	2.37	1.00	.34	.07	89	115	145	205	268	154	153	153	152	152	151	151	149
			15,000		7.25	3.56	1.49	.50	.10						14	16	19	20	25	29	38	47
			20,000	4.3	9.67	4.75	1.99	.67	.13	93	118	148	207	272	155	154	154	153	153	152	152	151
		“D”	25,000		12.1	5.94	2.49	.84	.16						16	18	21	23	28	32	41	49
			50,000	6.1	24.2	11.9	4.98	1.68	.33	98	124	151	212	276	155	154	154	153	153	152	152	151
			75,000		36.3	17.8	7.47	2.52	.49						22	24	27	30	34	39	48	57
			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

105 GPM
350 RPM

NOMINAL		ROTOR TRIM	VISCOSITY	N.I.P.R.	FRICTION PIPE LOSS (PSI/FT) (Based on Sch 40 Steel Pipe)					FULL BYPASS RELIEF VALVE PRESSURE (PSI)					CAPACITY (GPM) / H.P. REQUIRED							
															DIFFERENTIAL PRESSURE (PSI)							
CAP. GPM	SPEED RPM		(SSU)	(PSIA)	PIPE DIAMETER					CRACKING PRESS. (PSI)					25	50	75	100	150	200	300	400
										LOW PRES R/V			HI PRES R/V		MEDIUM DUTY AND HEAVY DUTY					HEAVY DUTY ONLY		
					2"	$2^1/_2$"	3"	4"	6"	50	75	100	150	200								
105	350	STD	28	1.5	.07	.03	.01	–	–	55	82	118	175		98	95	93	92				
			32		.08	.03	.01	–	–						1.5	4.1	4.9	6.9				
			38	1.5	.09	.04	.01	–	–	57	83	119	176		99	97	95	94	90			
			50		.10	.04	.01	–	–						2.2	4.3	5.9	7.4	11			
			70	1.5	.11	.05	.02	–	–	59	86	121	177	230	101	99	98	97	95	94		
			100		.13	.05	.02	.01	–						2.9	4.9	6.8	8.3	11	15		
			150	1.5	14	.06	.02	.01	–	63	89	123	179	233	103	102	101	100	99	98	97	95
			200		.15	.07	.02	–	–						3.5	5.3	7.2	8.8	12	15	20	27
			300	1.5	.18	.05	.02	.01	–	67	93	125	181	235	104	103	103	102	102	100	100	99
			500		.16	.08	.03	.01	–						3.8	5.6	7.4	8.9	12	15	21	27
			750	1.6	.24	.12	.05	.02	–	70	95	127	183	237	105	105	104	104	103	102	102	101
			1,000		.32	.16	.07	.02	–						3.9	5.7	7.5	9.1	12	15	21	28
			2,000	2.0	.64	.32	.13	.04	.01	75	100	130	185	241	103	103	102	102	101	100	99	98
		"C"	3,500		1.13	.55	.23	.08	.02						4.1	6.2	7.9	9.8	13	16	22	29
			5,000	2.4	1.61	.79	.33	.11	.02	78	104	132	187	243	104	103	103	103	102	101	100	100
			7,500		2.42	1.19	.50	.17	.03						5.2	7.9	8.9	11	14	17	24	30
			10,000	2.8	3.22	1.58	.66	.22	.04	81	106	134	189	245	104	104	104	103	103	102	101	100
			15,000		4.83	2.37	1.00	.34	.07						6.4	9.2	10	12	15	19	25	31
			20,000	3.3	6.45	3.17	1.33	.45	.09	83	108	136	190	247	105	105	104	104	104	103	103	102
		"D"	25,000		8.06	3.96	1.66	.56	.11						7.5	10	11	13	16	20	26	32
			50,000	5.0	16.1	7.92	3.32	1.12	.22	89	113	137	192	250	105	105	104	104	104	103	103	102
			75,000		24.2	11.9	4.98	1.68	.33						11	13	14	16	20	23	29	35
			100,000	6.9	32.2	15.8	6.64	2.24	.43	92	115	140	194	252	105	105	104	104	104	103	103	102
			150,000		48.4	23.8	9.96	3.36	.65						15	16	18	19	22	26	32	37
			200,000	8.7	64.5	31.7	13.3	4.48	.87	94	117	142	195	253	105	105	104	104	104	103	103	102
			250,000		80.6	39.6	16.6	5.60	1.09						19	21	22	24	24	28	34	40

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

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RP

30 GPM
100 RPM

NOMINAL		VISCOSITY		N.I.P.R	FRICTION PIPE LOSS (PSI/FT) (Schedule 40 Steel Pipe)					CAPACITY (GPM)				H.P. REQUIRED			
					PIPE DIAMETER					MEDIUM-DUTY & HEAVY-DUTY				HEAVY-DUTY ONLY			
										DIFFERENTIAL PRESSURE (PSI)							
GPM	RPM	ROTOR TRIM	(SSU)	(PSIa)	2½"	3"	4"	5"	6"	25	50	75	100	150	200	300	400
30	100	STD															
		"D"	200,000	2.7	9.5	4	1.3	0.55	0.3	30	30	30	30	29	29	29	29
			399,999		19	8	2.7	1.1	0.5	3.9	4.5	5.0	5.6	6.6	7.6	8.6	9.6
			400,000	3						30	30	30	30	29	29	29	29
			599,999		NR	12	4	1.6	0.8	4.2	4.8	5.3	5.9	6.8	7.8	8.8	9.8
			600,000	3.7						30	30	30	30	29	29	29	29
			799,999		NR	16	5.4	2.2	1	4.4	5.1	5.6	6.2	7.2	8.1	9.1	10
			800,000	4						30	30	30	30	29	29	29	29
			1M		NR	20	6.7	2.7	1.3	4.6	5.4	5.9	6.5	7.6	8.4	9.4	11

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

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