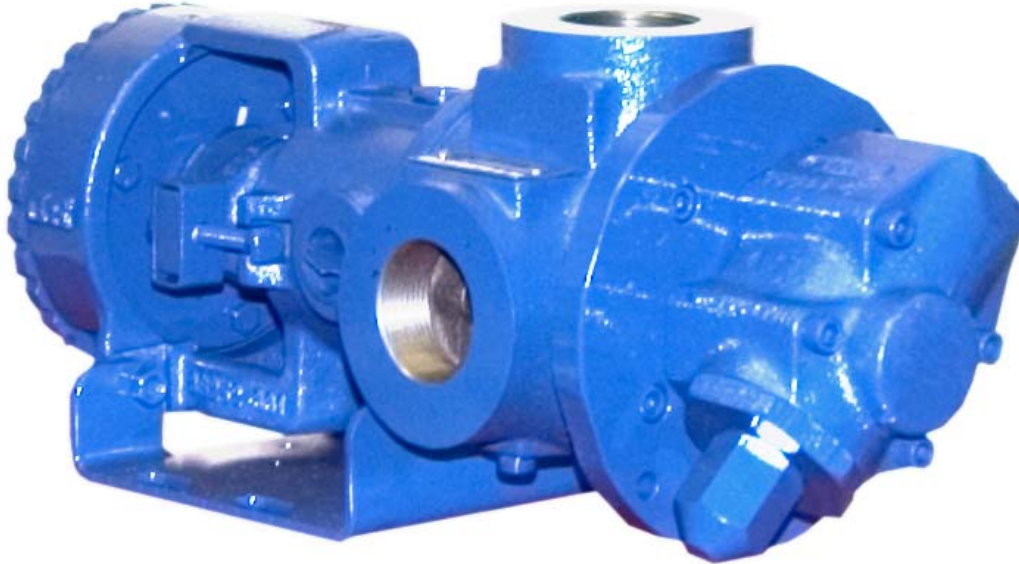




**GHS SERIES  
 FLEXIBLE SEAL  
 HEAVY DUTY STANDARD  
 STAINLESS STEEL ROTARY  
 GEAR PUMP**

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 <sup>W</sup>/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]		
<b>GHC 1 DC9-B</b> ① ● ▸	<b>GHS 1 DC9-B</b> ① ● ● <b>GHS 1 DC10-B</b> ① ■ ■	9 [28]		6 [19]						32 [14,5]	2.9
<b>GHC 1 DE9-B</b> ① ● ▸	<b>GHS 1 DE9-B</b> ① ● ● <b>GHS 1 DE10-B</b> ① ■ ■	11 [35]		7 [22]						32 [14,5]	2.9
<b>GHC 1-1/2 GC9-B</b> ● ▸	<b>GHS 1-1/2 GC9-B</b> ● ● <b>GHS 1-1/2 GC10-B</b> ■ ■	16 [50]		10 [32]						63 [28,6]	2.9
	<b>GHS 2 GC9-B</b> ● ● <b>GHS 2 GC10-B</b> ■ ■									63 [28,6]	2.9
<b>GHC 1-1/2 GF9-B</b> ● ▸	<b>GHS 1-1/2 GF9-B</b> ● ● <b>GHS 1-1/2 GF10-B</b> ■ ■	23 [73]	1750 [1460]	15 [47]	1150 [960]					GHC ● 350 [177]	63 [28,6] 2.9
	<b>GHS 2 GF9-B</b> ● ● <b>GHS 2 GF10-B</b> ■ ■									GHS ● 400 [204]	63 [28,6] 2.9
<b>GHC 1-1/2 GH9-B</b> ● ▸	<b>GHS 1-1/2 GH9-B</b> ● ● <b>GHS 1-1/2 GH10-B</b> ■ ■	31 [98]		20 [63]		75 [5]	100 [7]	200 [14]		GHS ● 400 [204]	63 [28,6] 2.9
	<b>GHS 2 GH9-B</b> ● ● <b>GHS 2 GH10-B</b> ■ ■									■ 63 [28,6]	2.9
<b>GHC 1-1/2 GJ9-B</b> ● ▸	<b>GHS 1-1/2 GJ9-B</b> ● ● <b>GHS 1-1/2 GJ10-B</b> ■ ■	38 [120]		25 [79]						500 [260]	63 [28,6] 2.9
	<b>GHS 2 GJ9-B</b> ● ● <b>GHS 2 GJ10-B</b> ■ ■										63 [28,6] 2.9
	<b>GHS 2 JG9-B</b> ● ● <b>GHS 2 JG10-B</b> ■ ■	40 [126]	1150 [960]	30 [95]	870 [725]						161 [73,2] 5.3
<b>GHC 3 JG9-B</b> ● ▸	<b>GHS 3 JG9-B</b> ● ● <b>GHS 3 JG10-B</b> ■ ■										161 [73,2] 5.3
	<b>GHS 2 JJ9-B</b> ● ● <b>GHS 2 JJ10-B</b> ■ ■	56 [177]		42 [133]							161 [73,2] 5.3
<b>GHC 3 JJ9-B</b> ● ▸	<b>GHS 3 JJ9-B</b> ● ● <b>GHS 3 JJ10-B</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 2 JL9-B ●	77 [243]	1150 [960]	58 [133]	870 [725]	75 [5]	100 [7]	200 [14]	161 [73,2]	5.3	
	GHS 2 JL10-B ■										
GHC 3 JL9-B ● †	GHS 3 JL9-B ●	107 [338]	960 [960]	81 [256]	580 [480]	75 [5]	100 [7]	200 [14]	161 [73,2]	5.3	
	GHS 3 JL10-B ■										
GHC 3 JP9-B ● †	GHS 2 JP9-B ●	132 [500]	960 [960]	80 [252]	580 [480]	75 [5]	100 [7]	200 [14]	161 [73,2]	5.3	
	GHS 2 JP10-B ■										
GHC 3 JP9-B ● †	GHS 3 JP9-B ●	165 [624]	960 [960]	99 [312]	580 [480]	75 [5]	100 [7]	200 [14]	161 [73,2]	5.3	
	GHS 3 JP10-B ■										
GHC	GHS 2 NK9-B ●	99 [375]	960 [960]	60 [189]	580 [480]	75 [5]	100 [7]	200 [14]	GHC ●	180 [81,8]	5.3
	GHS 2 NK10-B ■								GHC 400 [204]	180 [81,8]	5.3
	GHS 2-1/2 NK9-B ●								GHS ●	180 [81,8]	5.3
	GHS 2-1/2 NK10-B ■								GHS 400 [204]	180 [81,8]	5.3
	GHS 3 NK9-B ●								500 [260]	180 [81,8]	5.3
	GHS 3 NK10-B ■								180 [81,8]	5.3	
	GHS 2 NM9-B ●								180 [81,8]	5.3	
	GHS 2 NM10-B ■								180 [81,8]	5.3	
	GHS 2-1/2 NM9-B ●								180 [81,8]	5.3	
	GHS 2-1/2 NM10-B ■								180 [81,8]	5.3	
	GHS 3 NM9-B ●								180 [81,8]	5.3	
	GHS 3 NM10-B ■								180 [81,8]	5.3	
GHC	GHS 2-1/2 NP9-B ●	172 [542]	960 [960]	115 [362]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 2-1/2 NP10-B ■								180 [81,8]	5.3	
	GHS 3 NP9-B ●								180 [81,8]	5.3	
	GHS 3 NP10-B ■								180 [81,8]	5.3	
	GHS 2 RM9-B ●								357 [162]	10.7	
	GHS 2 RM10-B ■								357 [162]	10.7	
	GHS 2-1/2 RM9-B ● †								357 [162]	10.7	
	GHS 2-1/2 RM10-B ■ †								357 [162]	10.7	
	GHS 3 RM9-B ● †								357 [162]	10.7	
	GHS 3 RM10-B ■ †								357 [162]	10.7	
	GHS 4 RM9-B ● †								357 [162]	10.7	
	GHS 4 RM10-B ■ †								357 [162]	10.7	
GHC 3 RP9-B ● †	215 [678]	720 [600]	143 [451]	480 [400]	580 [480]	75 [5]	100 [7]	200 [14]	357 [162]	10.7	
									GHS 3 RP10-B ■ †	357 [162]	10.7
GHC 4 RP9-B ● †	215 [678]	720 [600]	143 [451]	480 [400]	580 [480]	75 [5]	100 [7]	200 [14]	357 [162]	10.7	
									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]											
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]											
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]											
GHS R	2"	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]
	2-1/2"														
	3"														
	4"	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**

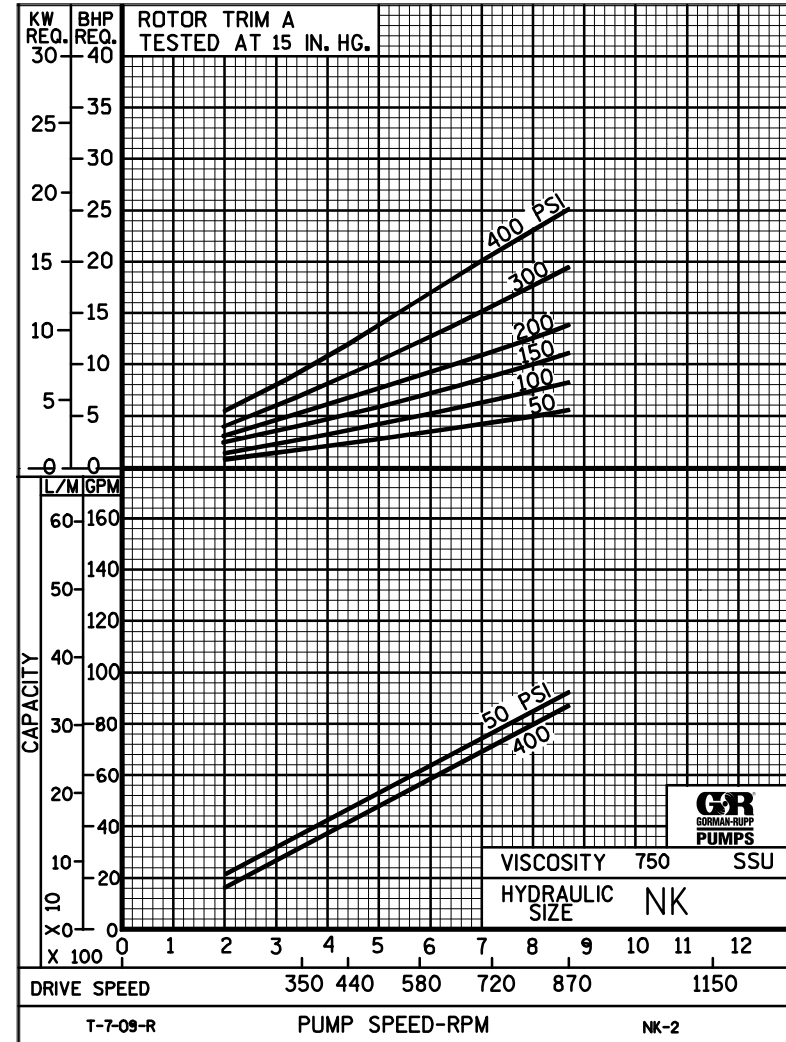
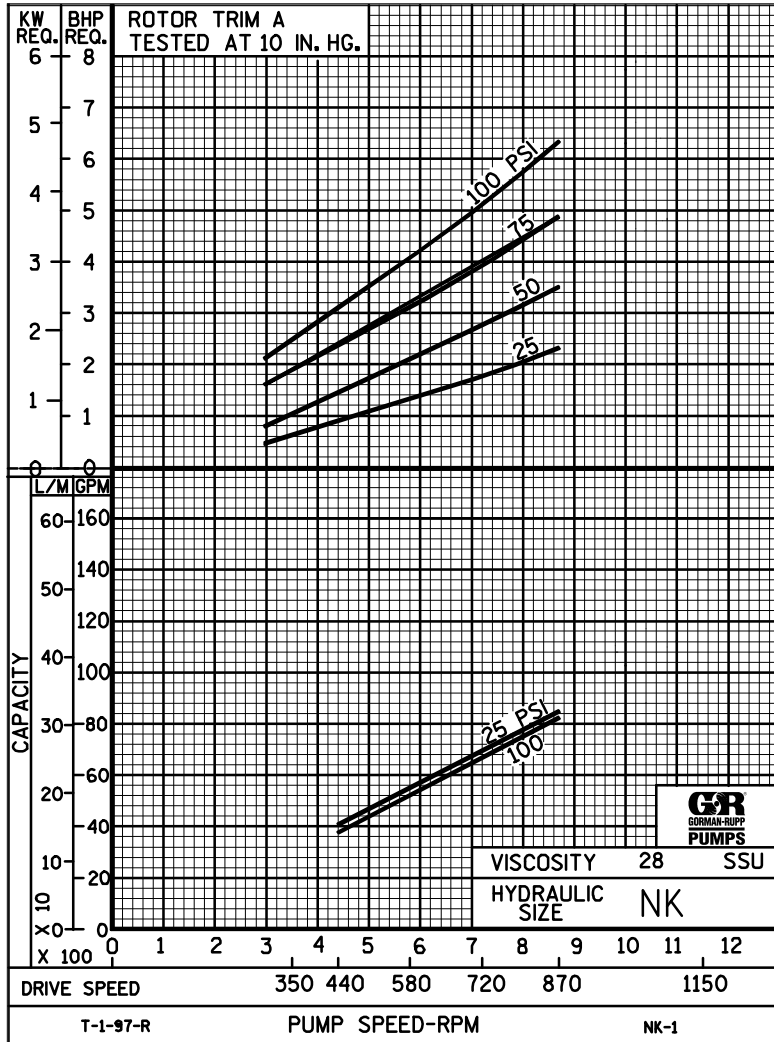


# PERFORMANCE CURVES

## SPEED VS. CAPACITY/HORSEPOWER

# NK

Hydraulic Size



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

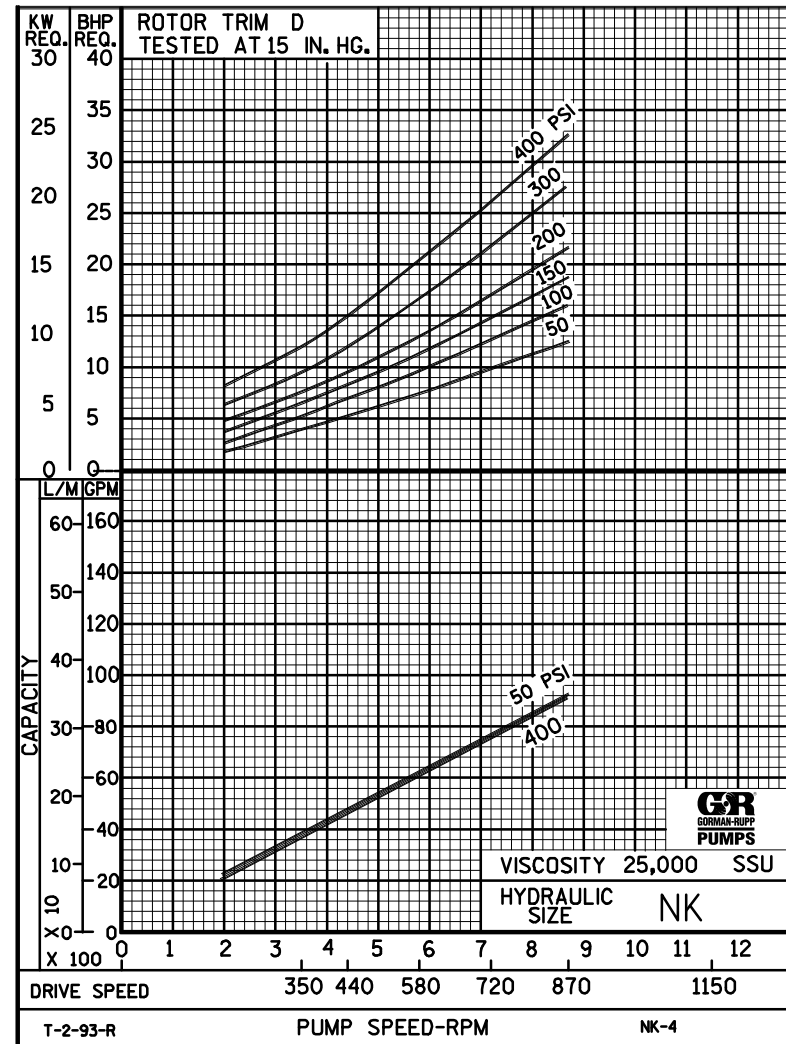
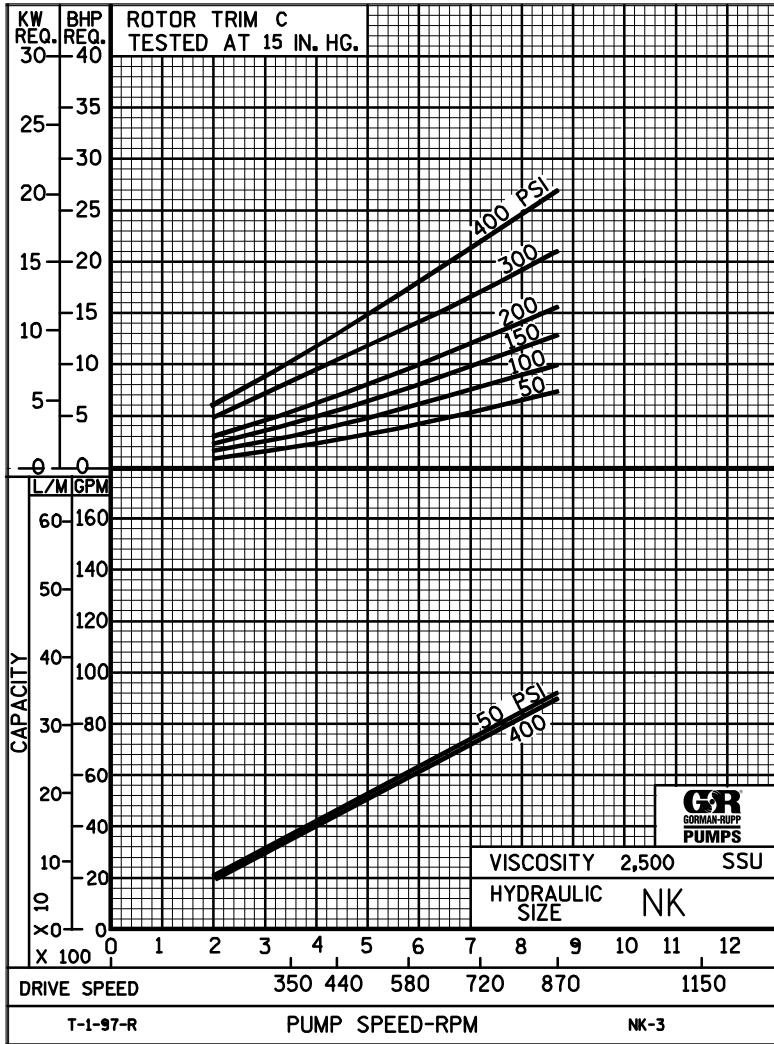




# PERFORMANCE CURVES

## SPEED VS. CAPACITY/HORSEPOWER

**NK** Hydraulic Size



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



# NK

## PUMP HYDRAULIC SIZE CHART

SEC. 500

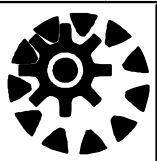
Page 88

January 2010

**90 GPM  
870 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)													
					2"	2 1/2"	3"	4"	5"	LOW PRES R/V			HI PRES R/V		MEDIUM DUTY AND HEAVY DUTY				HEAVY DUTY ONLY									
90	870	STD	28	3.1	.01	.01	.01	.01	.01	60	86	116			85	84	83	82										
			32		.05	.02	.01	.01	.01							2.2	3.5	4.9	6.4									
			38	3.1	.07	.03	.01	.01	.01	60	86	116		162		87	86	85	84	82								
			50		.08	.04	.01	.01	.01							2.4	3.6	5.0	6.6	9.5								
			70	3.1	.09	.04	.02	.01	.01	62	88	118		162	208	89	88	87	86	85	82							
			100		.10	.05	.02	.01	.01							3.0	4.1	5.5	7.0	9.9	13							
			150	3.1	.11	.05	.02	.01	.01	62	90	118		166	212	90	89	89	88	87	86	82	80					
			200		.13	.06	.02	.01	.01							3.5	4.6	6.0	7.5	10	13	19	24					
			300	3.1	.14	.06	.02	.01	.01	64	92	120		166	216	91	90	90	90	89	88	85	82					
			500		.15	.07	.03	.01	.01							4.3	5.4	6.8	8.1	11	13	19	25					
		750	3.1	.22	.11	.05	.02	.01	66	94	120		170	220	92	92	92	91	91	90	87	85						
		1,000		.29	.14	.06	.02	.01							4.7	5.6	7.1	8.5	11	14	20	25						
		2,000	3.6	.58	.29	.12	.04	.02	72	100	126		178	228	92	92	92	91	91	91	90	89						
		3,500		1.02	.50	.21	.07	.03							6.9	8.0	9.1	11	13	16	22	27						
		5,000	4.0	1.45	.71	.30	.10	.04	74	102	128		182	232	92	92	92	91	91	91	91	90.1						
		7,500		2.18	1.07	.45	.15	.06							8.2	9.4	11	12	15	18	23	29						
		10,000	4.5	2.90	1.43	.60	.20	.08	76	104	130		186	234	92	92	92	91	91	91	91	90.1						
		15,000		4.35	2.14	.90	.30	.12							9.8	11	13	14	17	20	25	31						
		20,000	4.9	5.80	2.85	1.20	.41	.17	78	106	132		190	238	92	92	92	92	92	91	91	91						
		25,000		7.25	3.56	1.50	.51	.21							12	13	15	16	19	22	27	33						
50,000																												
75,000																												
100,000																												
150,000																												
200,000																												
250,000																												

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



# NK

## PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 89

January 2010

**60 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)											
							LOW PRES R/V		HI PRES R/V			MEDIUM DUTY AND HEAVY DUTY				HEAVY DUTY ONLY										
		2"	2 1/2"	3"	4"	5"	50	75	100	150	200	25	50	75	100	150	200	300	400							
60	580	STD	28	1.8	.01	.01	.01	.01	.01	57	83	107			55	53	53	52								
			32		.03	.01	.01	.01	.01							1.3	2.2	3.2	4.1							
			38	1.8	.03	.02	.01	.01	.01	57	83	107	157			56	55	54	54	52						
			50		.04	.02	.01	.01	.01							1.5	2.3	3.3	4.2	6.1						
			70	1.8	.05	.02	.01	.01	.01	58	85	109	157	210		58	57	57	56	55	54					
			100		.05	.02	.01	.01	.01							1.7	2.5	3.5	4.4	6.3	8.3					
			150	1.8	.06	.03	.01	.01	.01	58	85	109	157	210		60	59	58	58	57	56	53	48			
			200		.06	.03	.01	.01	.01							2.0	2.8	3.7	4.7	6.5	8.5	12	15			
			300	1.8	.06	.03	.01	.01	.01	59	87	112	159	212		61	60	59	59	58	58	55	52			
			500		.10	.05	.02	.01	.01							2.5	3.2	4.0	5.0	6.8	8.8	12	16			
		750	1.8	.15	.07	.03	.01	.01	59	87	112	159	212		61	61	60	60	60	59	57	55				
		1,000		.20	.10	.04	.02	.01							2.8	3.6	4.5	5.4	7.1	9.2	13	16				
		2,000	2.3	.39	.19	.08	.03	.01	63	90	117	170	219		61	61	61	60	60	60	59	59				
		3,500		.68	.33	.14	.05	.02							3.8	4.5	5.4	6.2	8.0	10	14	18				
		5,000	2.6	.97	.48	.20	.07	.03	64	90	117	170	219		62	61	61	61	60	60	60	59				
		7,500		1.45	.71	.30	.10	.04							4.6	5.4	6.2	7.0	8.8	11	14	19				
		10,000	2.9	1.93	.95	.40	.14	.06	65	92	120	174	225		62	61	61	61	61	60	60	59				
		15,000		2.90	1.43	.60	.20	.08							5.7	6.5	7.3	8.2	10	12	16	20				
		20,000	3.2	3.87	1.90	.80	.27	.11	65	92	120	174	225		62	62	61	61	61	61	60	60				
		25,000		4.83	2.38	1.00	.34	.14							6.9	7.6	8.5	9.5	11	13	17	21				
50,000	4.8	9.66	4.75	2.00	.67	.27	70	98	126	179	232		62	62	61	61	61	61	60	60						
75,000		14.5	7.12	2.99	1.01	.41							9.6	11	12	13	15	17	21	25						
100,000	6.5	19.3	9.49	3.98	1.35	.55	75	104	132	185	238		62	62	61	61	61	61	60	60						
150,000		-	-	-	-	-							12	13	14	15	18	21	26	32						
200,000																										
250,000																										

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



# NK

## PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 90

January 2010

**36 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)															
					2"	2 1/2"	3"	4"	5"	LOW PRES R/V		HI PRES R/V			25	50	75	100	150	200	300	400								
36	350	STD	28	1.1	.01	.01	.01	.01	.01	54	80	106			32	31	31	30												
			32		.01	.01	.01	.01	.01							.73	1.3	1.9	2.5											
			38	1.1	.02	.01	.01	.01	.01	54	80	106	156			34	33	32	31	29										
			50		.02	.01	.01	.01	.01							.74	1.4	2.0	2.5	3.8										
			70	1.1	.02	.01	.01	.01	.01	55	81	108	157	208		35	34	33	32	31	28									
			100		.02	.01	.01	.01	.01							.77	1.5	2.1	2.6	3.8	4.8									
			150	1.1	.02	.01	.01	.01	.01	55	81	108	157	208		36	36	35	34	33	32	30	27							
			200		.03	.01	.01	.01	.01							.80	1.6	2.2	2.7	3.9	4.9	7.2	10							
			300	1.1	.04	.02	.01	.01	.01	56	82	110	159	210		37	36	36	35	34	33	32	31							
			500		.06	.03	.01	.01	.01							.87	1.8	2.3	2.9	4.0	5.1	7.3	9.6							
		750	1.1	.09	.05	.02	.01	.01	56	82	110	159	210		37	37	36	36	35	35	34	33								
		1,000		.12	.06	.03	.01	.01							1.1	2.0	2.6	3.2	4.5	5.7	8.1	10								
		2,000	1.4	.23	.12	.05	.02	.01	58	84	112	162	212		37	37	37	37	36	36	35	35								
		3,500		.41	.20	.09	.03	.01							1.5	2.3	2.9	3.5	4.6	5.8	8.2	11								
		5,000	1.6	.58	.29	.12	.04	.02	58	84	112	164	214		37	37	37	37	36	36	36	35								
		7,500		.87	.43	.18	.06	.03							1.9	2.8	3.3	3.9	5.1	6.2	8.7	11								
		10,000	1.9	1.16	.57	.24	.08	.04	60	86	114	166	216		37	37	37	37	36	36	36	36								
		15,000		1.74	.86	.36	.12	.05							2.6	3.3	3.9	4.5	5.7	6.8	9.3	11								
		20,000	2.2	2.32	1.14	.49	.16	.07	60	86	114	168	216		37	37	37	37	36	36	36	36								
		25,000		2.90	1.43	.60	.20	.08							3.5	4.0	4.6	5.1	6.4	7.5	9.8	12								
50,000	3.4	5.80	2.85	1.20	.41	.17	62	88	116	170	218		37	37	37	37	36	36	36	36										
75,000		8.70	4.27	1.79	.61	.25							4.9	5.6	6.4	7.1	8.3	9.7	12	14										
100,000	5.6	11.6	5.70	2.39	.81	.33	66	92	120	174	222		37	37	37	37	36	36	36	36										
150,000		17.4	8.55	3.59	1.21	.49							6.1	7.0	7.9	8.8	10	12	15	16										
200,000	8.8	23.2	11.4	4.78	1.61	.65	70	96	125	179	228		37	37	37	37	36	36	36	36										
250,000		29.0	14.3	5.97	2.02	.82							7.3	8.3	9.5	11	12	14	16	18										

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