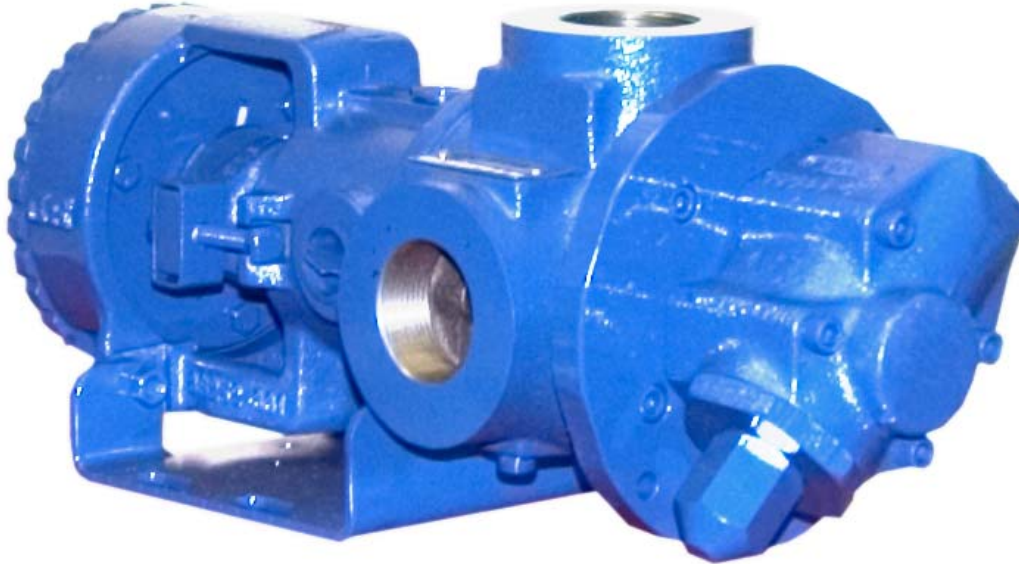


**GHS SERIES  
 FLEXIBLE SEAL  
 HEAVY DUTY STANDARD  
 STAINLESS STEEL ROTARY  
 GEAR PUMP**

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	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.		
		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.]
<b>GHC 1 DC9-B</b> ① ● ▸	<b>GHS 1 DC9-B</b> ① ●	9 [28]	1750 [1460]	6 [19]	1150 [960]	75 [5]	100 [7]	200 [14]	32 [14,5]	2.9	
	<b>GHS 1 DC10-B</b> ① ■										
<b>GHC 1 DE9-B</b> ① ● ▸	<b>GHS 1 DE9-B</b> ① ●	11 [35]	1750 [1460]	7 [22]	1150 [960]	75 [5]	100 [7]	200 [14]	32 [14,5]	2.9	
	<b>GHS 1 DE10-B</b> ① ■										
<b>GHC 1-1/2 GC9-B</b> ● ▸	<b>GHS 1-1/2 GC9-B</b> ●	16 [50]	1750 [1460]	10 [32]	1150 [960]	75 [5]	100 [7]	200 [14]	63 [28,6]	2.9	
	<b>GHS 1-1/2 GC10-B</b> ■										
<b>GHC 1-1/2 GF9-B</b> ● ▸	<b>GHS 1-1/2 GF9-B</b> ●	23 [73]	1750 [1460]	15 [47]	1150 [960]	75 [5]	100 [7]	200 [14]	63 [28,6]	2.9	
	<b>GHS 1-1/2 GF10-B</b> ■										
<b>GHC 1-1/2 GH9-B</b> ● ▸	<b>GHS 1-1/2 GH9-B</b> ●	31 [98]	1750 [1460]	20 [63]	1150 [960]	75 [5]	100 [7]	200 [14]	63 [28,6]	2.9	
	<b>GHS 1-1/2 GH10-B</b> ■										
<b>GHC 1-1/2 GJ9-B</b> ● ▸	<b>GHS 1-1/2 GJ9-B</b> ●	38 [120]	1750 [1460]	25 [79]	1150 [960]	75 [5]	100 [7]	200 [14]	63 [28,6]	2.9	
	<b>GHS 1-1/2 GJ10-B</b> ■										
<b>GHC 3 JG9-B</b> ● ▸	<b>GHS 2 JG9-B</b> ●	40 [126]	1150 [960]	30 [95]	870 [725]	75 [5]	100 [7]	200 [14]	161 [73,2]	5.3	
	<b>GHS 2 JG10-B</b> ■										
<b>GHC 3 JJ9-B</b> ● ▸	<b>GHS 3 JG9-B</b> ●	56 [177]	1150 [960]	42 [133]	870 [725]	75 [5]	100 [7]	200 [14]	161 [73,2]	5.3	
	<b>GHS 3 JJ9-B</b> ●										
<b>GHC 3 JJ9-B</b> ● ▸	<b>GHS 3 JJ10-B</b> ■	56 [177]	1150 [960]	42 [133]	870 [725]	75 [5]	100 [7]	200 [14]	161 [73,2]	5.3	
	<b>GHS 3 JJ10-B</b> ■										

STANDARD MODELS CONTINUED

① 3450 [2875] RPM PERMISSIBLE TO 1,000 SSU [220 cSt.] AND 100 PSI [7 BAR]

● MECHANICAL 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.

■ PACKING/LIP SEAL

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

# 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]	180 [81,8]	5.3	
	GHS 2 NK10-B ■										
GHC 3 NK9-B ●	GHS 2-1/2 NK9-B ●	132 [500]	960 [960]	80 [252]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 2-1/2 NK10-B ■										
GHC 3 NK9-B ●	GHS 3 NK9-B ●	165 [624]	960 [960]	99 [312]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 3 NK10-B ■										
GHC 3 NM9-B ●	GHS 2 NM9-B ●	172 [542]	960 [960]	80 [252]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 2 NM10-B ■										
GHC 3 NM9-B ●	GHS 2-1/2 NM9-B ●	215 [678]	960 [960]	80 [252]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 2-1/2 NM10-B ■										
GHC 3 NP9-B ●	GHS 3 NP9-B ●	172 [542]	960 [960]	99 [312]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 3 NP10-B ■										
GHC 3 NP9-B ●	GHS 2 RM9-B ●	172 [542]	960 [960]	115 [362]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 2 RM10-B ■										
GHC 3 RM9-B ● †	GHS 2-1/2 RM9-B ● †	215 [678]	960 [960]	115 [362]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 2-1/2 RM10-B ■ †										
GHC 3 RM9-B ● †	GHS 3 RM9-B ● †	215 [678]	960 [960]	115 [362]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 3 RM10-B ■ †										
GHC 3 RP9-B ● †	GHS 4 RM9-B ● †	215 [678]	960 [960]	115 [362]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 4 RM10-B ■ †										
GHC 3 RP9-B ● †	GHS 3 RP9-B ● †	215 [678]	960 [960]	115 [362]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 3 RP10-B ■ †										
GHC 3 RP9-B ● †	GHS 4 RP9-B ● †	215 [678]	960 [960]	115 [362]	580 [480]	75 [5]	100 [7]	200 [14]	180 [81,8]	5.3	
	GHS 4 RP10-B ■ †										

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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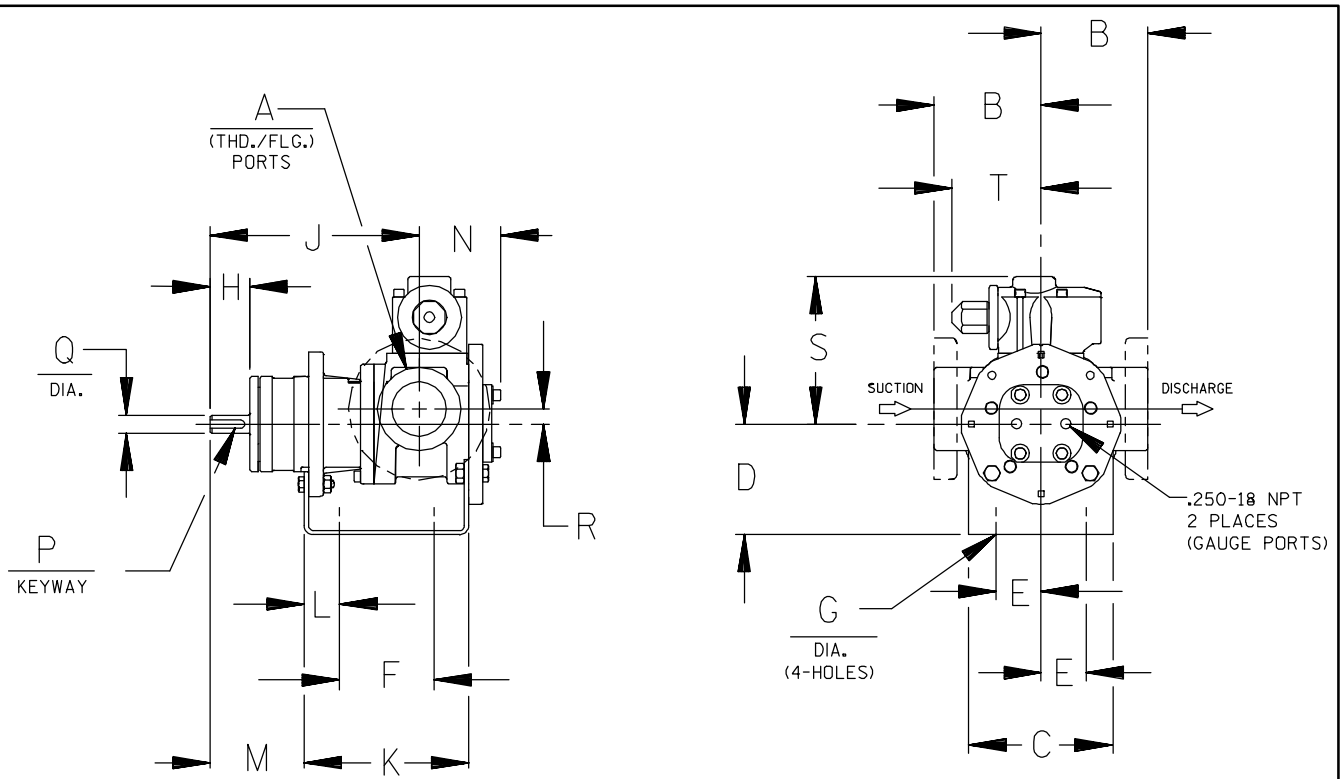
MODEL NUMBER		NOM. CAPACITY - SPEED				MAXIMUM				SHIPPING DATA	
		MAXIMUM		ALTERNATIVE		DIFF. PRESSURE - PSI [BAR]			TEMP.	Wt.	Vol.
		GPM [LPM]	RPM 60 Hz [50 HZ]	GPM [LPM]	RPM 60 Hz [50 HZ]	BELOW 38 SSU [4 cSt]	38 TO 100 SSU [21 cSt]	100 TO 250,000 SSU [55,000 cSt]	°F [°C]	LBS [KG]	CU. FT.
GHC	GHS										
	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.



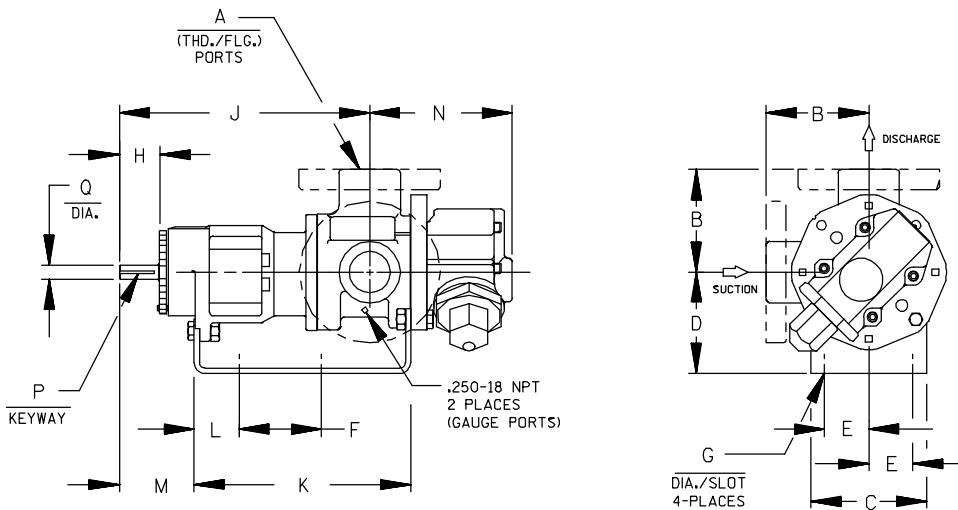
CAD FILE NO.: 16458B

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]	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]	8.72 [221]	.25 [6] x 2.00 [51]	1.12 [32]
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**

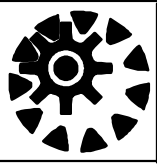
**AND DIMENSIONS**

**SEE SECTION 540**

**FOR GHS DRIVE OPTIONS**

**AND DIMENSIONS**

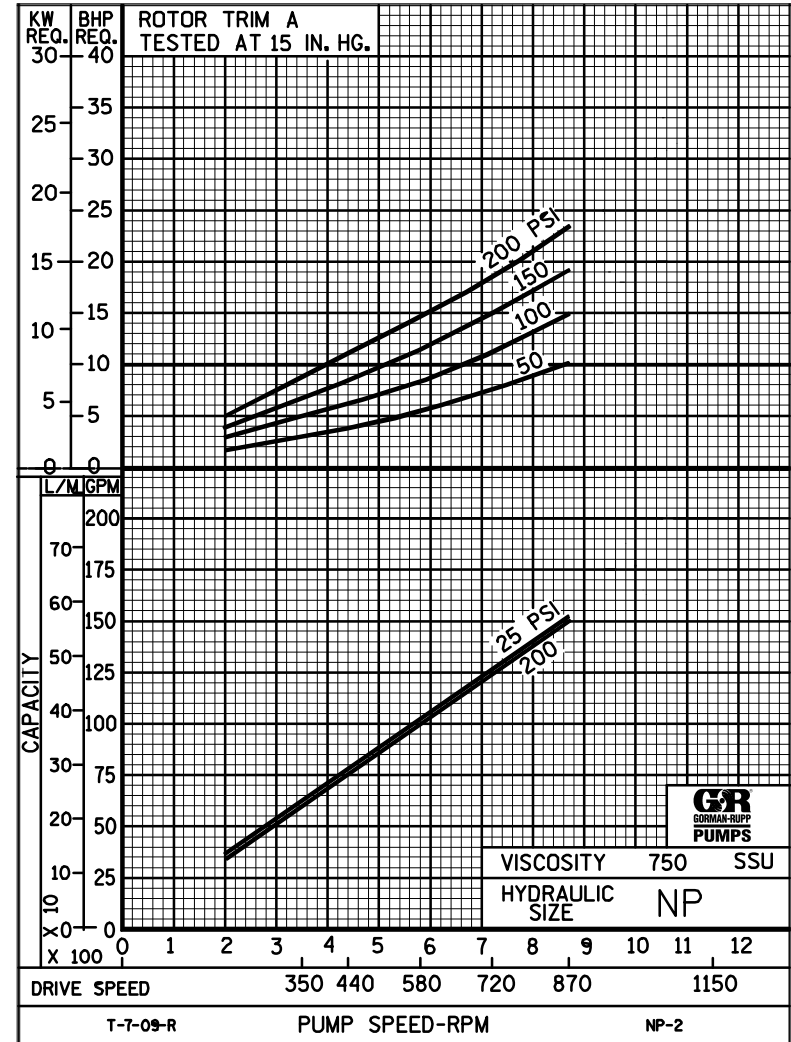
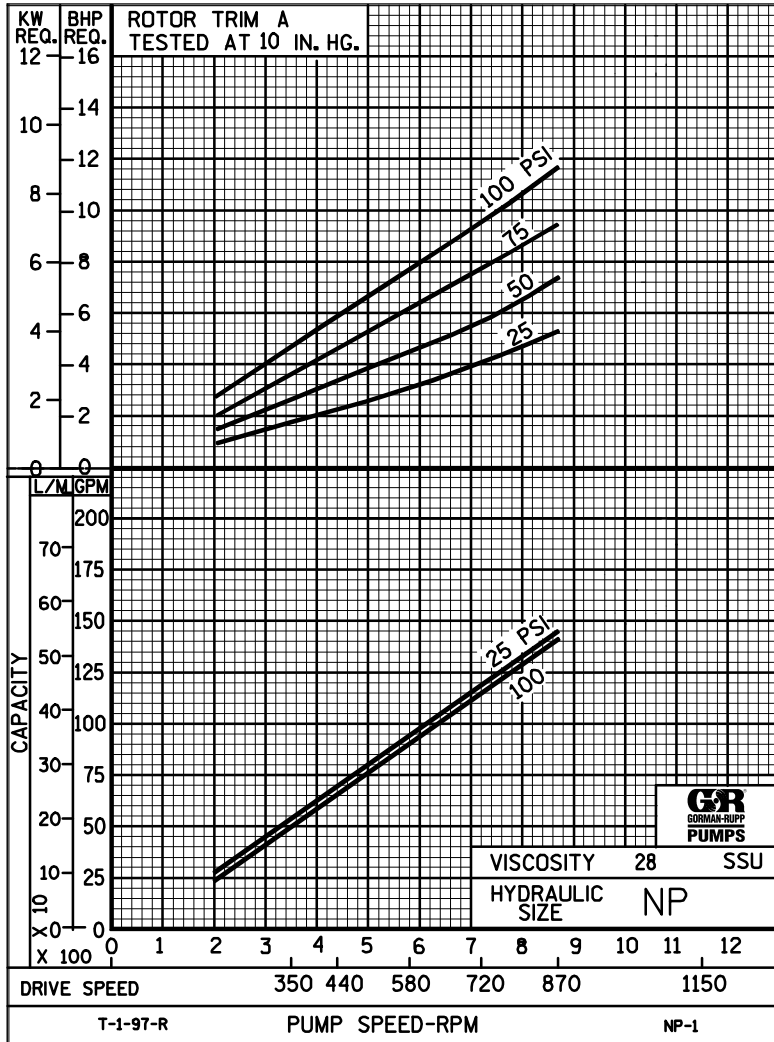
**SEE SECTION 545**



# PERFORMANCE CURVES

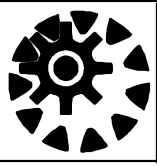
## SPEED VS. CAPACITY/HORSEPOWER

**NP** Hydraulic Size



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# PERFORMANCE CURVES

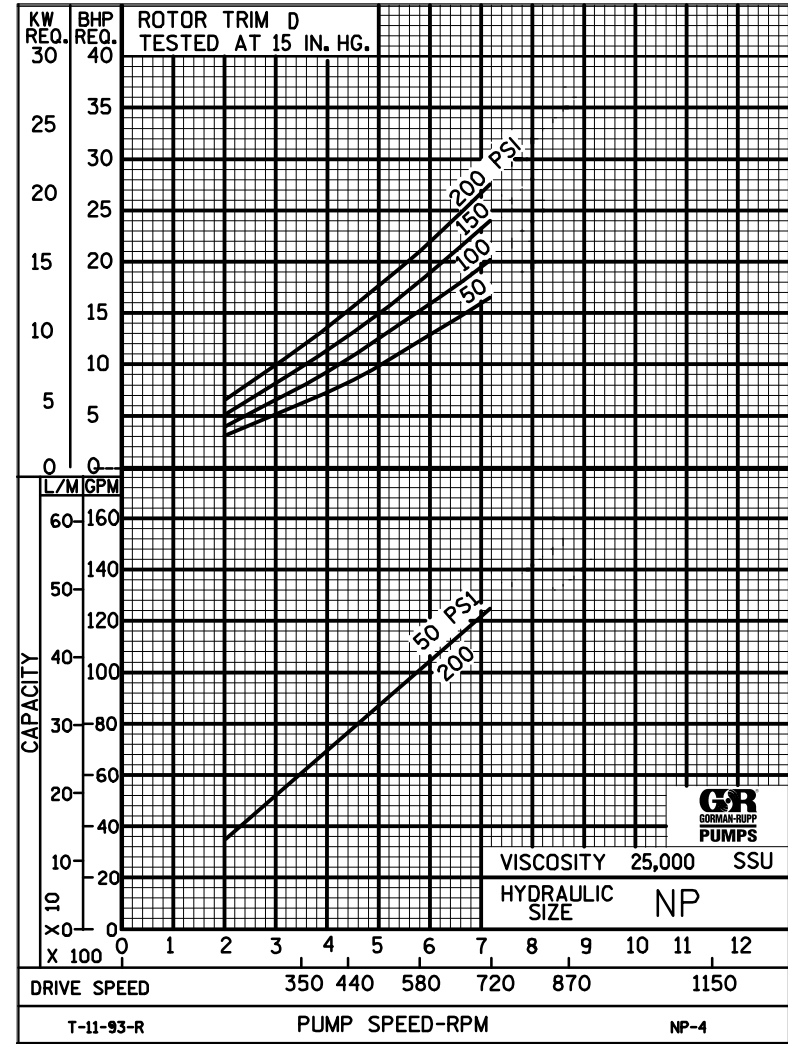
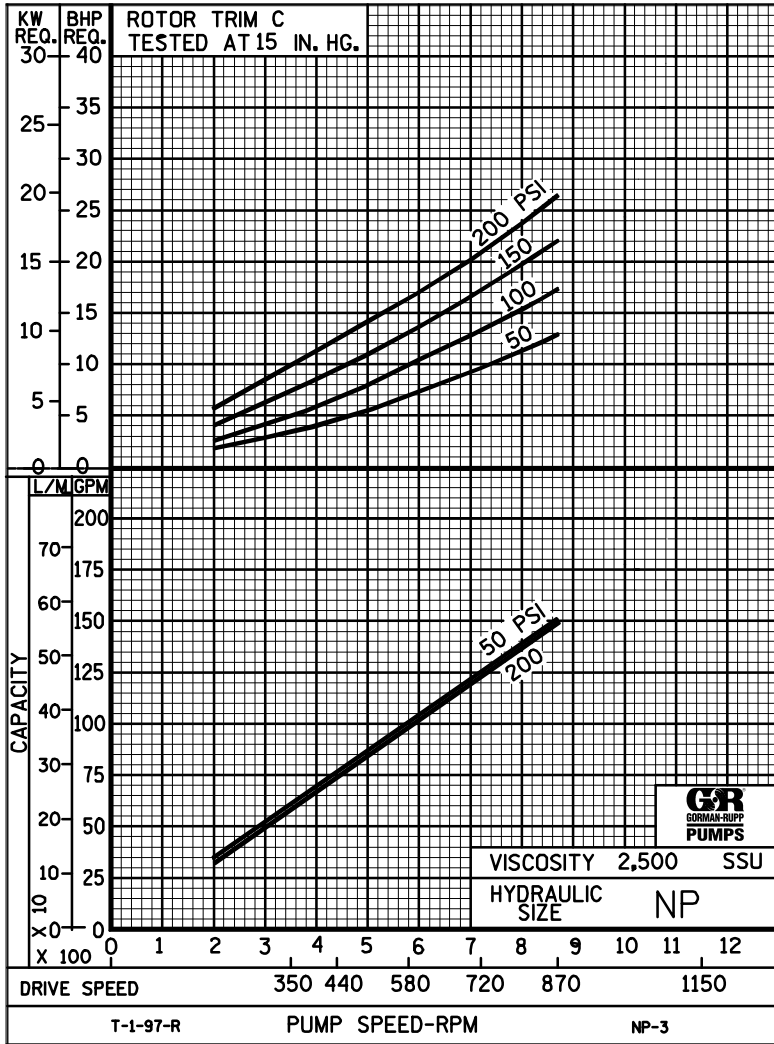
## SPEED VS. CAPACITY/HORSEPOWER

**NP** Hydraulic Size

SEC. 500

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