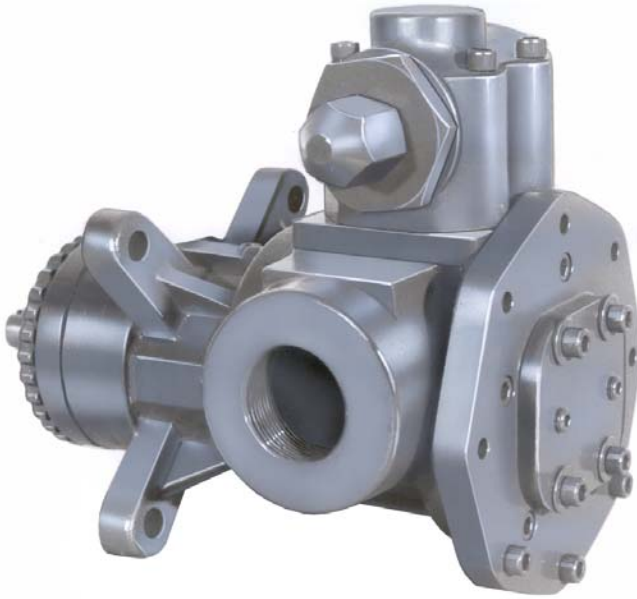


# GHC SERIES HEAVY DUTY COMPACT ROTARY GEAR PUMP



**SHOWN AS FLANGE MOUNT**



**SHOWN WITH FOOT BRACKET**

The GHC iron series is designed for applications in the operating ranges noted below. These units are available with head jackets for temperature control, carbon graphite bushings for low viscosity liquids, silicon carbide bushings for wear resistance, and numerous shaft seal options described on the following pages.

These units may be foot mounted or, by using a motor adaptor, direct connected to NEMA "C" flange motors.

This heavy duty series provides superior rotor shaft support and an integral, maintenance-free radial/ thrust bearing for reduced deflection and wear.

### FEATURES

*300 PSI CAPABILITY  
 BALL BEARING THRUST CONTROL  
 ROTOR END CLEARANCE EXTERNALLY  
 ADJUSTABLE  
 HIGH STRENGTH, COMPUTER  
 PROFILED GEARING FOR QUIET  
 OPERATION  
 C-FLANGE MOTOR ADAPTATION  
 MULTIPLE PORT POSITIONS*

### OPERATING RANGE

CAPACITY (GPM): (3 TO 107)  
 [LPM]: [11 TO 405]

PRESSURE (PSI) : [0 TO 300]  
 [BAR]: [0 TO 21]

VISCOSITY (SSU): (28 TO 250,000)  
 [cSt]: [1 TO 55,000]

TEMPERATURE (F) : (-60° TO 350°)  
 [C] : [-51° TO 177°]

### APPLICATIONS

USE WITH ANY CLEAN LIQUID  
 COMPATIBLE WITH CAST  
 IRON

- ★ BOOSTER SERVICE
- ★ CIRCULATING
- ★ FILTERING
- ★ LUBRICATING
- ★ TRANSFERRING
- ★ LOW PRESSURE  
 FLUID POWER

EXTER- IOR	ROTOR & IDLER	HOUSING PORTS	BUSHINGS	IDLER PIN	SHAFT	SHAFT SEALING		ROTATION	INTERNAL RELIEF VALVE	
						MECH. SEAL ●	LIPSEAL ■		MATERIAL	SETTING
CAST IRON	HIGH STRENGTH IRON	180° TAPPED	BRONZE	HARDENED STEEL	STEEL	VITON	BUNA-N	C.W.	DUCTILE IRON	75 PSI [5 BAR]

## Standard Models

**G H C 1 DC 3 - B**  
 | | | | | | | | | | | |  
 GEAR DUTY DESIGN PORT SIZE HYDRAULIC SEAL STYLE  
 SIZE SIZE

MODEL NUMBER	NOM. CAPACITY - SPEED				MAXIMUM				SHIPPING DATA	
	MAXIMUM		ALTERNATIVE		DIFFERENTIAL PRESSURE-PSI [BAR]			TEMP.	Weight LBS [KG]	Volume CU. FT.
	GPM [LPM]	RPM 60 Hz [50 HZ]	GPM [LPM]	RPM <sup>③</sup> 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 1DC 3-B</b> ● ① <b>GHC 1DC 4-B</b> ■ ①	9 [28]		6 [19]						29 [13,2]	0.6
<b>GHC 1DE 3-B</b> ● ① <b>GHC 1DE 4-B</b> ■ ①	11 [35]		7 [22]						30 [13,6]	0.6
<b>GHC 1-1/2 GC 3-B</b> ● <b>GHC 1-1/2 GC 4-B</b> ■	16 [50]		10 [32]						58 [26,4]	2.9
<b>GHC 2 GC 3-B</b> ● <b>GHC 2 GC 4-B</b> ■							300 [21]		58 [26,4]	2.9
<b>GHC 1-1/2 GF 3-B</b> ● <b>GHC 1-1/2 GF 4-B</b> ■	23 [73]	1750 [1460]	15 [47]	1150 [960]				● 350 [177]	58 [26,4]	2.9
<b>GHC 2 GF 3-B</b> ● <b>GHC 2 GF 4-B</b> ■					100 [7]	150 [10]			58 [26,4]	2.9
<b>GHC 1-1/2 GH 3-B</b> ● <b>GHC 1-1/2 GH 4-B</b> ■	31 [98]		20 [63]					■ 225 [107]	58 [26,4]	2.9
<b>GHC 2 GH 3-B</b> ● <b>GHC 2 GH 4-B</b> ■									58 [26,4]	2.9
<b>GHC 1-1/2 GJ 3-B</b> ● ② <b>GHC 1-1/2 GJ 4-B</b> ■ ②	38 [120]		25 [79]						58 [26,4]	2.9
<b>GHC 2 GJ 3-B</b> ● ② <b>GHC 2 GJ 4-B</b> ■ ②									58 [26,4]	2.9
<b>GHC 2 JG 3-B</b> ● <b>GHC 2 JG 4-B</b> ■									128 [58,2]	5.3
<b>GHC 2-1/2 JG 3-B</b> ● <b>GHC 2-1/2 JG 4-B</b> ■	40 [126]	1150 [960]	30 [95]	870 [725]					128 [58,2]	5.3
<b>GHC 3 JG 3-B</b> ● <b>GHC 3 JG 4-B</b> ■									128 [58,2]	5.3

STANDARD MODELS  
CONTINUED

● MECHANICAL SEAL      ■ LIPSEAL

**NOTE:** RECOMMENDED PORT SIZES ARE SHOWN IN **BOLDFACE**. EXAMPLE: **GHC 1 DC 3-B**

- ① 3450 [2875] RPM PERMISSIBLE TO 1,000 SSU [220 cSt] AND 100 PSI [7 BAR]
- ② PUMP LIMITED TO 200 PSI MAXIMUM PRESSURE.
- ③ MAXIMUM SPEED FOR AMMONIA MODELS.

**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		DIFFERENTIAL PRESSURE-PSI [BAR]			TEMP.	Weight	Volume
	GPM [LPM]	RPM 60 Hz [50 HZ]	GPM [LPM]	RPM <sup>②</sup> 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 2 JJ 3-B ● GHC 2 JJ 4-B ■	56 [177]	1150 [960]	42 [133]	870 [725]	100 [7]	150 [10]	300 [21]	350 [177]	132	5.3
GHC 2-1/2 JJ 3-B ● GHC 2-1/2 JJ 4-B ■									[60]	
GHC 3 JJ 3-B ● GHC 3 JJ 4-B ■									[60]	
GHC 2 JL 3-B ● GHC 2 JL 4-B ■	77 [243]	1150 [960]	58 [183]	870 [725]	100 [7]	150 [10]	300 [21]	350 [177]	132	5.3
GHC 2-1/2 JL 3-B ● GHC 2-1/2 JL 4-B ■									[60]	
GHC 3 JL 3-B ● GHC 3 JL 4-B ■									[60]	
GHC 2 JP 3-B ● ① GHC 2 JP 4-B ■ ①	107 [338]	1150 [960]	81 [256]	870 [725]	100 [7]	150 [10]	200 [14]	225 [107]	132	5.3
GHC 2-1/2 JP 3-B ● ① GHC 2-1/2 JP 4-B ■ ①									[60]	
GHC 3 JP 3-B ● ① GHC 3 JP 4-B ■ ①									[60]	

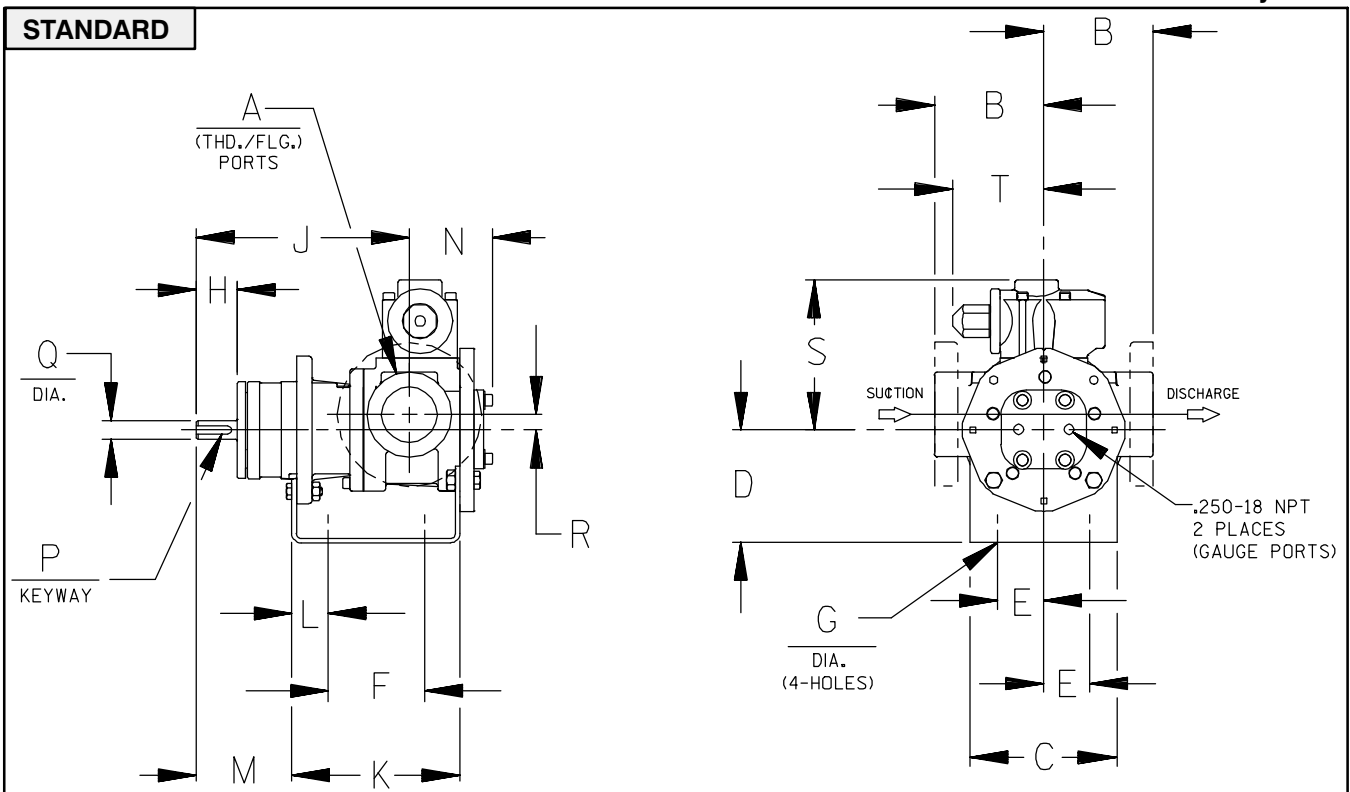
NOTE: RECOMMENDED PORT SIZES ARE SHOWN IN **BOLDFACE**. EXAMPLE: **GHC 1 DC 3-B**

- ① PUMP LIMITED TO 200 PSI MAXIMUM PRESSURE.
- ② MAXIMUM SPEED FOR AMMONIA MODELS.

<b>APPLICATION RECOMMENDATIONS:</b>		
<b>APPLICATION</b>	<b>OPTIONS REQUIRED (Select One from Each Row)</b>	<b>OPERATING LIMITATIONS</b>
AMMONIA	25G, 25H, 25R, 25S, 25T 40N 60K 70E 90A	PRESSURE: 200 PSI MAX. 2/3 RATED SPEED. 4 FEET NPSHr
LP GAS	25G OR 25H 40F OR 40N 70D OR 70E	PRESSURE: 200 PSI MAX. 3 FEET NPSHr

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

# Basic Pump Dimensions



CAD FILE NO.: 16458

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]
		2.75* [70]		4.50 [114]										5.25 [133]				
GHC G	1-1/2"	3.50 [89] †	5.88 [149]	3.50* [89]	1.62 [41]	4.00 [102]	.41 [10]	1.62	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]
		3.75* [95]		4.50 [114]										5.25 [133]				
GHC J	2-1/2"	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]
		5.00* [127]		5.25* [133]										2.00 [51]				
		6.00 [152] †		6.25 [159]										7.00 [178]				
	3"	6.31 † [160]		8.00 [203]														

\* STANDARD DIMENSION

† 90° HOUSING

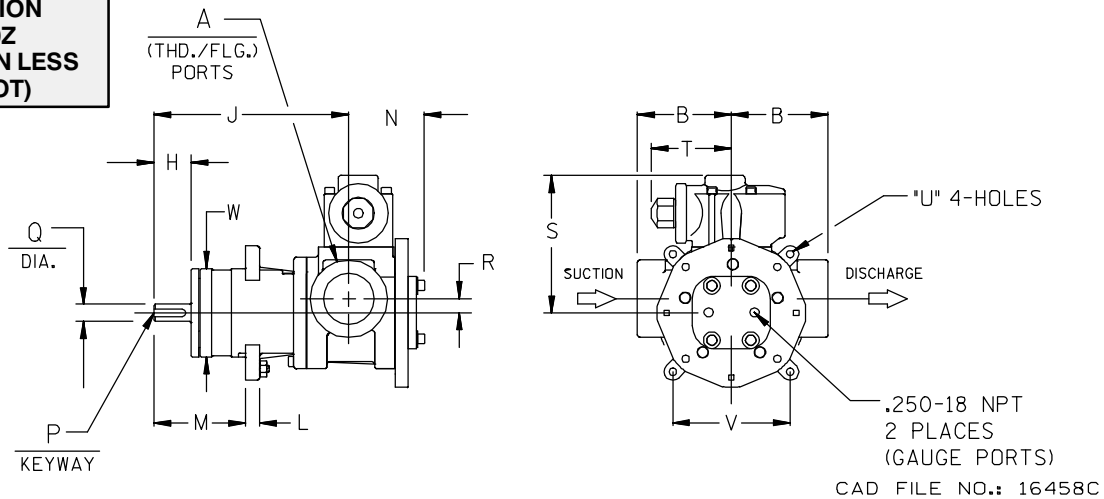
‡ PORTS ARE COMPATIBLE WITH 125\* OR 250\* ANSICAST IRON FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSIPIPE. OPTIONAL (DIN) FLANGES OR TAPPED (BSP) PORTS AVAILABLE FOR EXPORT MARKET.

Continued —

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

# Basic Pump Dimensions

**OPTION  
80Z  
(SHOWN LESS  
FOOT)**



MODEL NUMBERS	PUMP DIMENSIONS - INCHES [MILLIMETERS]														
	A	B	H	J	L	M	N	P	Q	R	S	T	U	V	W
GHC D	1"	2.50 [64] †	1.16 [30]	6.19 [157]	.44 [11]	2.80 [71]	2.74 [70]	.12 [3] x .75 [19]	.50 [13]	.62 [16]	5.19 [132]	3.58 [91]	.41 [10]	3.00 [76]	2.85 [72]
		2.75* [70]													
		3.19 † [81]													
		4.00 † [102]													
GHC G	1-1/2"	3.50 [89] †	1.62 [41]	8.50 [216]	.62 [16]	4.00 [102]	3.35 [85]	.19 [5] x 1.25 [32]	.75 [19]	.62 [16]	6.00 [152]	3.62 [92]	.53 [13]	4.75 [121]	3.85 [98]
		3.75* [95]													
	2"	4.00 [102] †													
GHC J	2"	4.50 [114] †	2.50 [64]	12.12 [308]	.62 [16]	5.75 [146]	4.66 [118]	.25 [6] x 2.00 [51]	1.00 [25]	1.12 [28]	9.06 [230]	6.75 [171]	.53 [13]	4.75 [121]	4.85 [123]
		5.00* [127]													
	2-1/2"	6.00 † [152]													
	3"	6.31 † [160]													

\* STANDARD DIMENSION

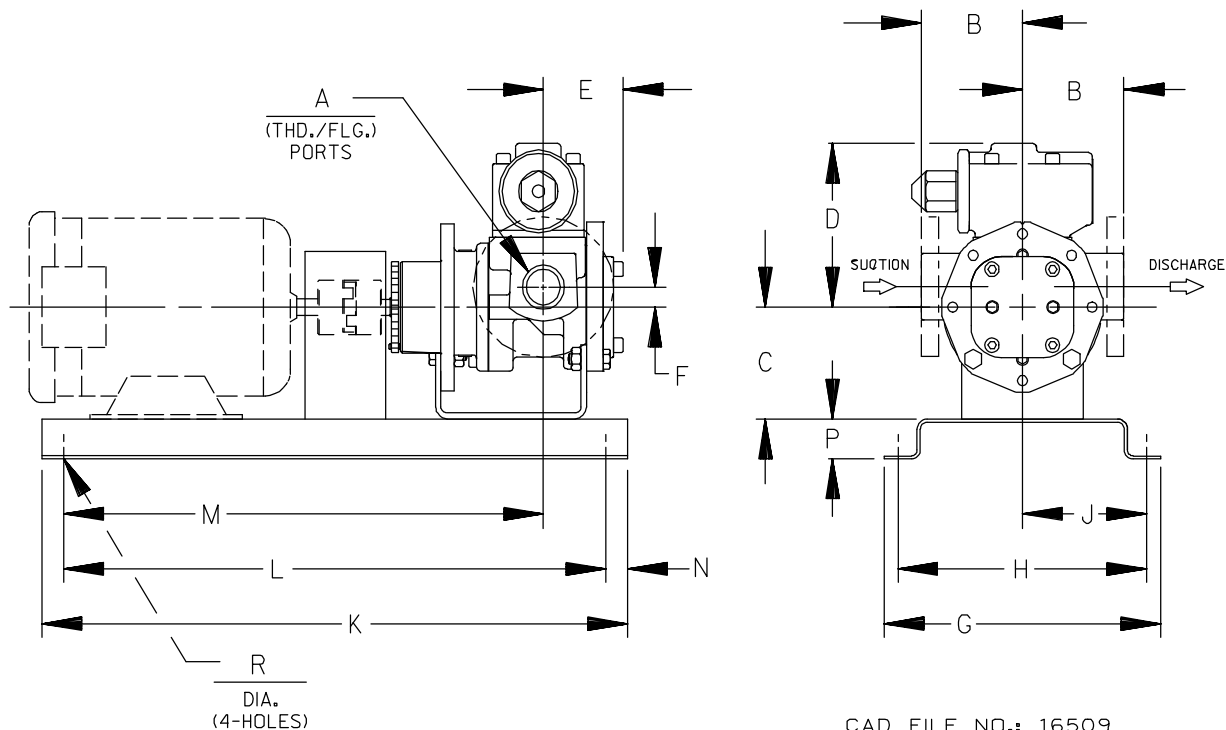
† PORTS ARE COMPATIBLE WITH 125# OR 250# ANSICAST IRON FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSIPIPE, OPTIONAL (DIN) FLANGES OR TAPPED (BSP) PORTS AVAILABLE FOR EXPORT MARKET.

† 90° HOUSING



# GHC

## DIRECT FLEX DRIVE OPTION DIMENSIONS



CAD FILE NO.: 16509

PUMP MODEL	PUMP DIMENSIONS - INCHES[MILLIMETERS]																
	A	MOTOR FRAME	B	C	D	E	F	G	H	J	K	L	M	N	P	R	
GHC D	1'	56/56 H	2.50 † [64]	3.50 * [89]				10.14 [258]	8.88 [226]	4.44 [113]	25.25 [641]	19.25 [489]	20.50 [521]	3.00 [76]	2.00 [51]		
		143T/145T	2.75 * [70]														
		182T/184T	3.19 † [81]	4.50 [114]	5.19 [132]	2.73 [68]	.62 [16]		17.50 [445]	15.50 [394]	7.75 [197]	33.50 [851]	23.50 [597]	26.87 [682]	5.00 [127]	4.00 [102]	.56 [14]
		213T/215T	4.00 † [102]	5.25 [133]													
GHC G	1- 1/2"	56/56H	3.50 † [89]	3.50 * [89]				10.14 [258]	8.88 [226]	4.44 [113]	25.25 [641]	19.25 [489]	20.38 [518]	3.00 [76]	2.00 [51]		
		182T/184T	3.75 * [95]	4.50 [114]													
	2"	213T/215T	4.00 † [102]	5.25 [133]	6.00 [152]	3.35 [85]	.62 [16]		17.50 [445]	15.50 [394]	7.75 [197]	33.50 [851]	23.50 [597]	26.75 [679]	5.00 [127]	4.00 [102]	.56 [14]
		254T/256T	6.25 [159]														
GHC J	2"	182T/184T	4.50 † [114]	4.50 [114]													
		213T/215T	5.25 * [133]														
	2- 1/2"	254T/256T	5.00 * [127]	6.25 [159]	9.06 [230]	4.66 [118]	1.12 [28]	21.00 [533]	19.00 [483]	9.50 [241]	45.50 [1156]	35.50 [902]	38.38 [975]	5.00 [127]	4.00 [102]	.69 [18]	
		284T/286T	6.00 [152]	7.00 [178]													
3"	324T/326T	6.31 † [160]	8.00 [203]														

\* STANDARD DIMENSION

† 90° HOUSING

‡ PORTS ARE COMPATIBLE WITH 125\* OR 250\* ANSICAST IRON FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSIPIPE. OPTIONAL (DIN) FLANGES OR TAPPED (BSP) PORTS AVAILABLE FOR EXPORT MARKET.

**NOTE: CONSULT FACTORY FOR;**  
1. HORSEPOWERS & FRAMES NOT SHOWN  
2. DRIP PAN BASES

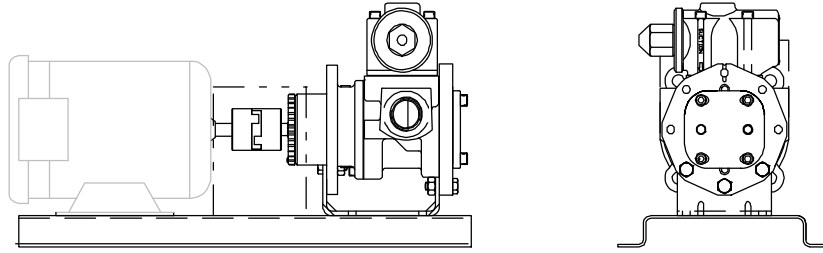
**REFERENCE: PUMP FOOT BRACKET OPTIONS**

MOTOR FRAME	CENTER HEIGHT	PUMP OPTION
56, 143T, 145T	3.50"	80C (STD. "D/G")
182, 182T, 184, 184T	4.50"	80F
213, 213T, 215, 215T	5.25"	80J (STD. "J")
254T, 254U, 256T, 256U	6.25"	80P
284T, 284U, 286T, 286U	7.00"	80S

# GHC

## DIRECT FLEX DRIVE OPTIONS

(Drive Assembly Number Includes Base, Coupling & Guard, But **NOT** the Motor)



PUMP MODEL NUMBER	60 Hz RPM	50 Hz RPM	FRAME	MTG. FT. OPTION REQ.	DRIVE ASSY NO.
GHC D	3450 1750 1150 850	2900 1450 950 700	56/56H	STD	90351-086
			143T/145T	STD	90351-052
			184	80F	90351-089
			182T/184T	80F	90351-090
			213T/215T	80J	90351-094
GHC G	1750 1150 850	1450 950 700	56/56H	STD	90351-156
			143T/145T	STD	90351-162
			182T/184T	80F	90351-168
			213T/215T	80J	90351-206
			213T/215T	80J	90351-172
			254T	80P	90351-180
GHC J	1150 850	950 700	182T/184T	80F	90351-260
			213T/215T	STD	90351-268
			254T/256T	80P	90351-276
			284T/286T	80S	90351-280

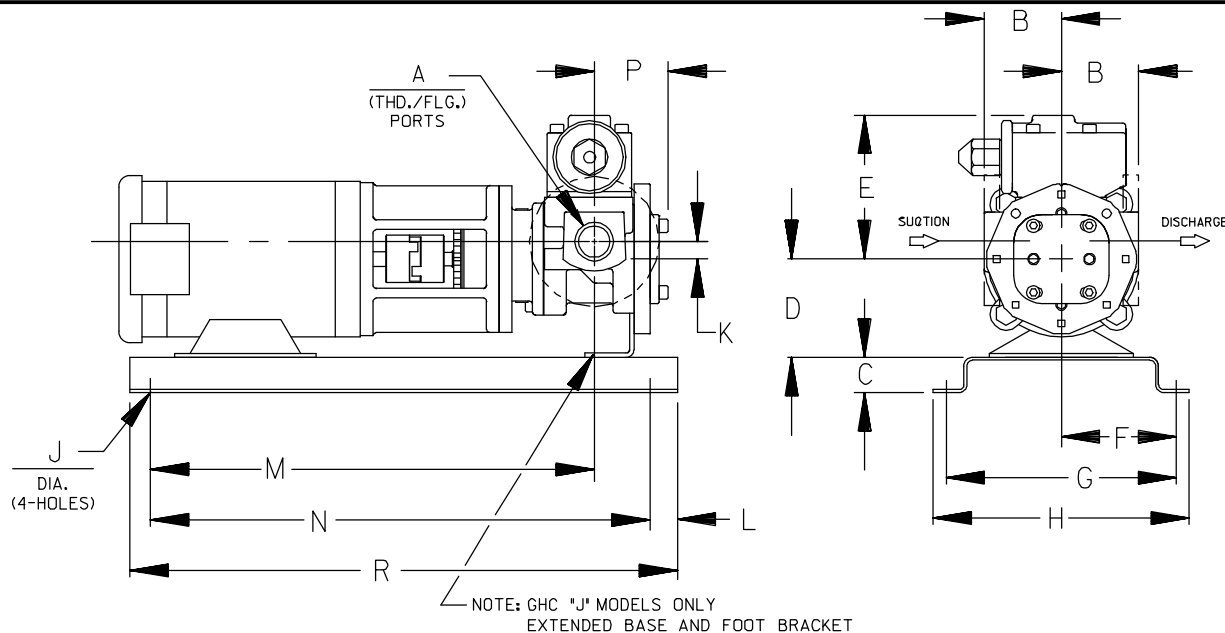
**NOTE: CONSULT FACTORY FOR;  
HORSEPOWERS & FRAMES NOT SHOWN  
DRIP PAN BASES**





# GHC

## DIRECT FLEX C-FLANGE DRIVE OPTION DIMENSIONS



CAD FILE NO.: 16652

PUMP MODEL	PUMP DIMENSIONS - INCHES[MILLIMETERS]															
	A	MOTOR FRAME	B	C	D	E	F	G	H	J	K	L	M	N	P	R
GHC D	1"	56C	2.50 † [64]	2.00 [51]	3.50 [89]	5.19 [132]	6.25 [159]	12.50 [318]	14.50 [368]	.56 [14]	.62 [16]	2.00 [51]	17.24 [438]	12.75 [324]	2.73 [69]	16.75 [425]
		143TC/145TC	2.75 * [70]										17.55 [446]			
		182C/184C	3.12 † [79]										18.80 [478]			
GHC G	1- 1/2"	56C	3.50 † [89]	2.00 [51]	4.50 [114]	6.00 [152]	6.25 [159]	12.50 [318]	14.50 [368]	.56 [14]	.62 [16]	2.00 [51]	19.42 [493]	12.75 [324]	3.35 [85]	16.75 [425]
		143TC/145TC	3.75 * [95]										19.73 [501]			
	2"	182C/184C	4.00 † [102]	5.25 [133]	21.86 [555]											
		213TC/215TC	5.00 * [127]													
GHC J	2"	182TC/184TC	4.50 † [114]	4.00 [102]	5.25 [133]	9.06 [230]	9.50 [241]	19.00 [483]	21.00 [533]	.69 [18]	1.12 [28]	5.00 [127]	26.86 [682]	35.50 [902]	4.66 [118]	45.50 [1156]
		213TC/215TC	5.00 * [127]										27.75 [705]			
	2- 1/2"	213TC/215TC	6.00 † [152]	6.25 [159]	33.74 [857]											
		254TC/256TC	6.31 † [160]													

\* STANDARD DIMENSION

† PORTS ARE COMPATIBLE WITH 125# OR 250# ANSICAST IRON FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSIPIPE. OPTIONAL (DIN) FLANGES OR TAPPED (BSP) PORTS AVAILABLE FOR EXPORT MARKET.

† 90° HOUSING

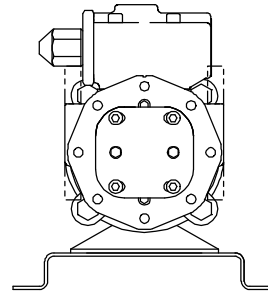
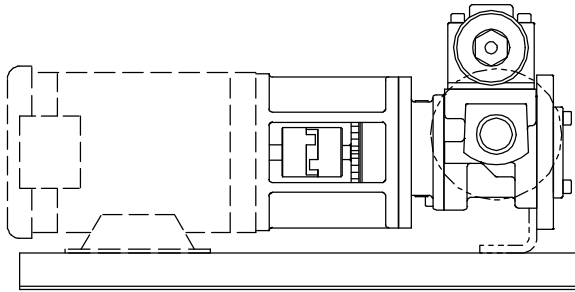
**NOTE: CONSULT FACTORY FOR;**  
1. HORSEPOWERS & FRAMES NOT SHOWN  
2. DRIP PAN BASES

**REFERENCE: PUMP FOOT BRACKET OPTIONS**

HYDRAULIC SIZE	MOTOR FRAME	PUMP OPTION
D	56C, 143TC, 145TC, 182C, 184C	80Y
G	56C, 143TC, 145TC, 182C, 184C	80Y
J	213TC, 215TC 254TC, 256TC	80X 80W

## DIRECT FLEX C-FLANGE DRIVE OPTIONS

(Drive Assembly Number Includes Base & Coupling, But **NOT** the Motor)



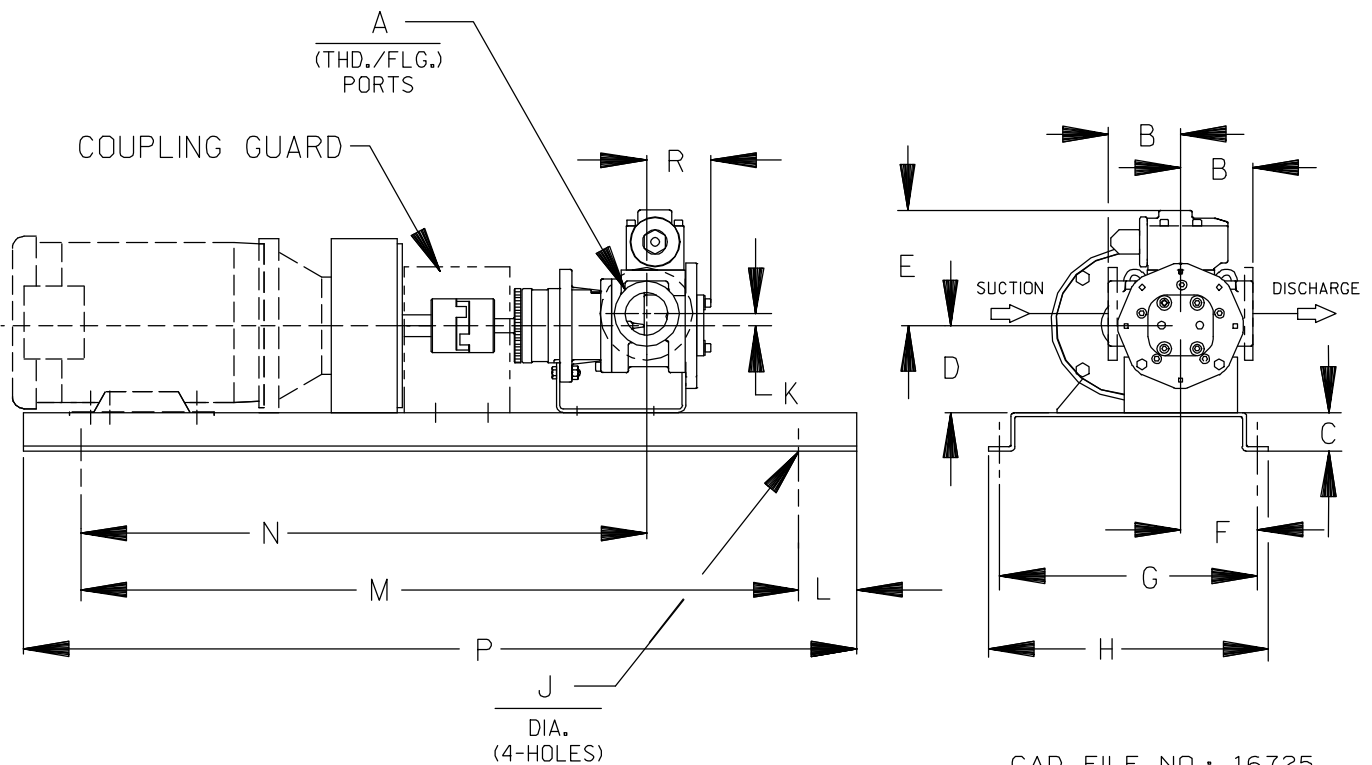
PUMP MODEL NUMBER	60Hz RPM	FRAME	MTG. FT. OPTION REQ.	DRIVE ASSY NO.
GHC D	3450	56C	80Y	90351-540
	1750	143TC	80Y	90351-541
	1150	145TC	80Y	90351-544
	850	184C	80Y	90351-590
GHC G	1750 1150 850	56C	80Y	90351-656
		143TC	80Y	90351-659
		145TC	80Y	90351-660
		184C	80Y	90351-668
		182TC	80X	90351-672
		184TC	80X	90351-674
GHC J	1150 850	213TC	80X	90351-764
		215TC	80X	90351-768
		254TC	80W	90351-772
		256TC	80W	90351-776
		184TC	80X	90351-814

**NOTE: CONSULT FACTORY FOR;  
HORSEPOWERS & FRAMES NOT SHOWN  
DRIP PAN BASES**



# GHC

## GRR REDUCER C-FLANGE FLEX DRIVE OPTION DIMENSIONS



CAD FILE NO.: 16725

PUMP MODEL	PUMP DIMENSIONS - INCHES[MILLIMETERS]															
	A	MOTOR FRAME	B	C	D	E	F	G	H	J	K	L	M	N	P	R
GHC D	1"	56C	2.50 † [64]	2.00 [51]	3.50 [89] *	5.19 [132]	4.41 [112]	13.00 [330]	15.00 [381]	.56 [14]	.62 [16]	3.00 [76]	25.50 [648]	20.35 [517]	31.50 [800]	2.66 [68]
		143TC/145TC	2.75 * [70]													
		182TC/184TC	3.19 † [81]													
		213TC/215TC	4.00 † [102]													
GHC G	1- 1/2"	56C	3.50 † [89]	2.00 [51]	3.50 [89] *	6.00 [152]	4.41 [112]	13.00 [330]	15.00 [381]	.56 [14]	.62 [16]	3.00 [76]	25.50 [648]	22.66 [576]	31.50 [800]	3.27 [83]
		143TC/145TC	3.75 * [95]													
	2"	182TC/184TC	4.00 † [102]													
		213TC/215TC	4.00 † [102]													
GHC J	2"	182TC/184TC	4.50 † [114]	2.00 [51]	4.50 [114]	9.06 [230]	5.50 [140]	14.63 [372]	16.63 [422]	.69 [18]	1.12 [28]	3.00 [76]	37.25 [946]	32.42 [823]	43.25 [1099]	4.56 [116]
	2- 1/2"	213TC/215TC	5.00 * [127]													
		213TC/215TC	6.00 † [152]													
	3"	213TC/215TC	6.31 † [160]													

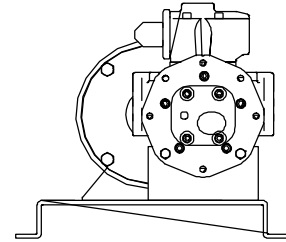
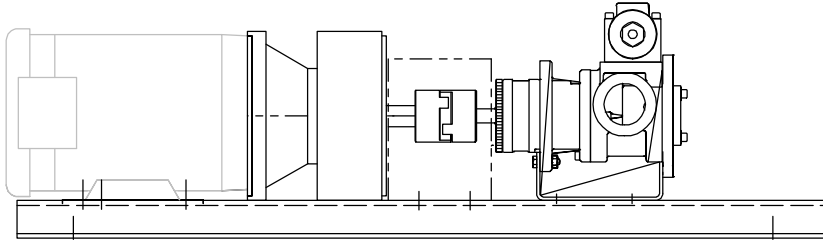
\* STANDARD DIMENSION

† PORTS ARE COMPATIBLE WITH 125# OR 250# ANSICAST IRON FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSIPIPE. OPTIONAL (DIN) FLANGES OR TAPPED (BSP) PORTS AVAILABLE FOR EXPORT MARKET.

† 90° HOUSING

## GRR REDUCER C-FLANGE FLEX DRIVE OPTIONS

(Drive Assy Number Includes Base, Coupling, Guard & Gear Reducer, But **NOT** the Motor)



PUMP MODEL	RPM @ 1750	RPM @ 1150	REDUCER ①		FRAME	MTG.FT. OPTION REQ.	DRIVE ASSY NO.										
			RATIO	MAX HP @ 1750				MAX HP @ 1150									
<b>GHC D</b>	875	575	2.00:1	6.00	3.96	56C	STD	90353-510									
				6.00	3.96	143TC/145TC	STD	90353-516									
				6.00	3.96	182C/184C	80F	90353-519									
				20.00	13.2	182TC/184TC	80F	90353-526									
	580	383	3.00:1	4.21	2.78	56C	STD	90353-530									
				8.10	5.35	143TC/145TC	STD	90353-536									
				8.10	5.35	182C/184C	80F	90353-539									
	440	288	4.00:1	12.98	8.57	182TC/184TC	80F	90353-546									
				3.63	2.39	56C	STD	90353-550									
				5.90	3.89	143TC/145TC	STD	90353-556									
	350	230	5.00:1	5.90	3.89	182C/184C	80F	90353-564									
				11.35	7.49	56C	STD	90353-568									
				3.00	1.98	143TC/145TC	STD	90353-570									
				3.00	1.98	182C/182C	80F	90353-573									
									10.07	6.65	182TC/184TC	80F	90353-579				
														10.07	6.65	182TC/184TC	80F

(CONT'D)

① Listed reducer horsepower rated for Standard Service (8-10 hrs/day). For Light Service (3-5 hrs/day) multiply maximum rated horsepower by 1.1. For Heavy Service (16-24 hrs/day) multiply maximum rated horsepower by 0.9.

**NOTE: CONSULT FACTORY FOR;  
HORSEPOWERS & FRAMES NOT SHOWN  
DRIP PAN BASES**



# GHC

**SEC. 540**

**PAGE 22**

**January 2010**

## GRR REDUCER C-FLANGE FLEX DRIVE OPTIONS

(Drive Assy Number Includes Base, Coupling, Guard & Gear Reducer, But **NOT** the Motor)

PUMP MODEL	RPM @ 1750	RPM @ 1150	REDUCER <sup>①</sup>		FRAME	MTG.FT. OPTION REQ.	DRIVE ASSY NO.	
			RATIO	MAX HP @ 1750				MAX HP @ 1150
<b>GHC G</b>	875	575	2.00:1	5.65	3.73	56C	STD	90353-610
				11.70	7.72	143TC/145TC	STD	90353-619
				11.70	7.72	182C/184C	80F	90353-622
				13.01	8.59	182TC/184TC	80F	90353-625
				13.01	8.59	213TC/215TC	80J	90353-627
	580	383	3.00:1	3.76	2.48	56C	STD	90353-630
				8.10	5.35	143TC/145TC	STD	90353-633
				8.10	5.35	182C/184C	80F	90353-642
				10.62	7.01	182TC/184TC	80F	90353-646
				10.62	7.01	213TC/215TC	80J	90353-648
	440	288	4.00:1	2.82	1.86	56C	STD	90353-660
				5.90	3.89	143TC/145TC	STD	90353-663
				5.90	3.89	182C/184C	80F	90353-672
				7.24	4.78	182TC/184TC	80F	90353-675
				7.24	4.78	213TC	80J	90353-677
	350	230	5.00:1	2.26	1.49	56C	STD	90353-690
				5.20	3.43	143TC/145TC	STD	90353-699
				5.20	3.43	182C/184C	80F	90353-702
				5.98	3.95	182TC/184TC	80F	90353-706
				5.98	3.95	213TC	80J	90353-708
<b>GHC J</b>	875	575	2.00:1	13.01	8.59	182TC/184TC	80F	90353-720
				13.01	8.59	213TC/215TC	80J	90353-724
				36.29	23.95	254TC/256TC	80P	90353-728
				36.29	23.95	284TC/286TC	80P	90353-732
	580	383	3.00:1	10.62	7.01	182TC/184TC	80F	90353-735
				10.62	7.01	213TC/215TC	80J	90353-739
	555	365	3.15:1	25.76	17.00	254TC/256TC	80P	90353-743
				25.76	17.00	284TC	80P	90353-746
				42.96	28.35	286TC	80P	90353-747
	440	288	4.00:1	7.24	4.78	182TC/184TC	80F	90353-750
				7.24	4.78	213TC	80J	90353-754
	350	230	5.00:1	5.98	3.95	182TC/184TC	80F	90353-765
				5.98	3.95	213TC	80J	90353-769
				16.01	10.57	215TC	80P	90353-774
				16.01	10.57	254TC	80P	90353-778
30.49				20.12	356TC	80P	90353-780	

① Listed reducer horsepower rated for Standard Service (8-10 hrs/day). For Light Service (3-5 hrs/day) multiply maximum rated horsepower by 1.1. For Heavy Service (16-24 hrs/day) multiply maximum rated horsepower by 0.9.

**NOTE: CONSULT FACTORY FOR;  
HORSEPOWERS & FRAMES NOT SHOWN  
DRIP PAN BASES**

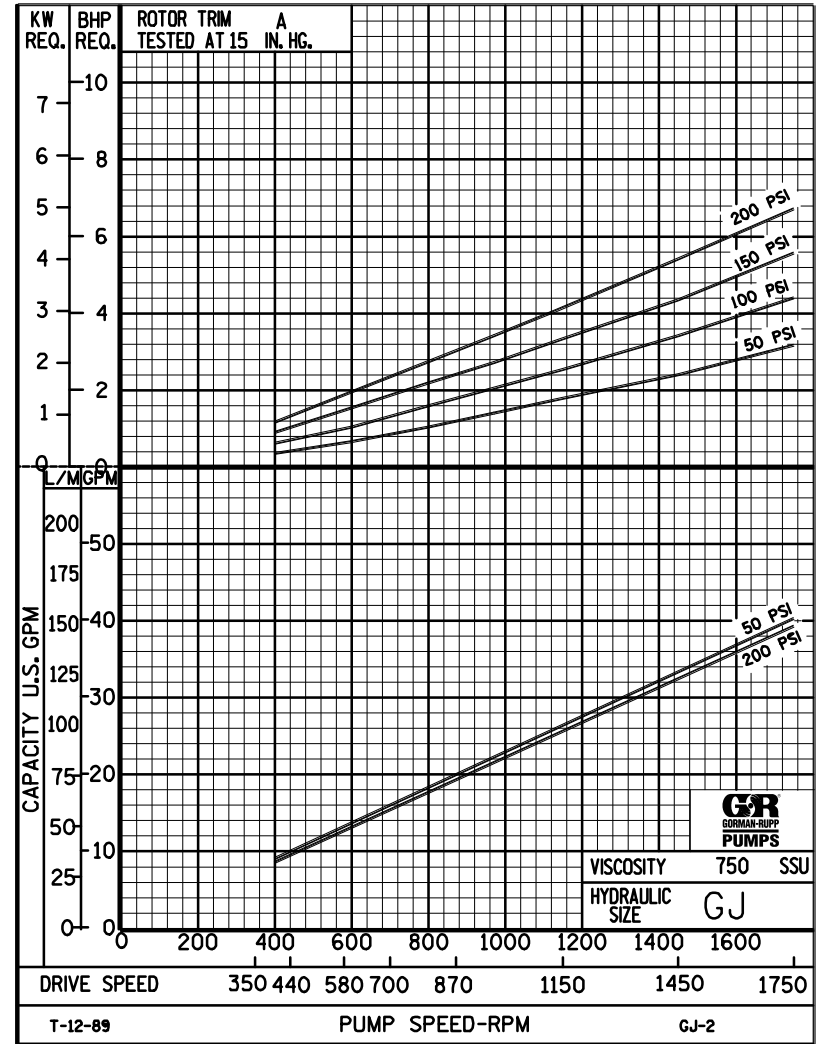
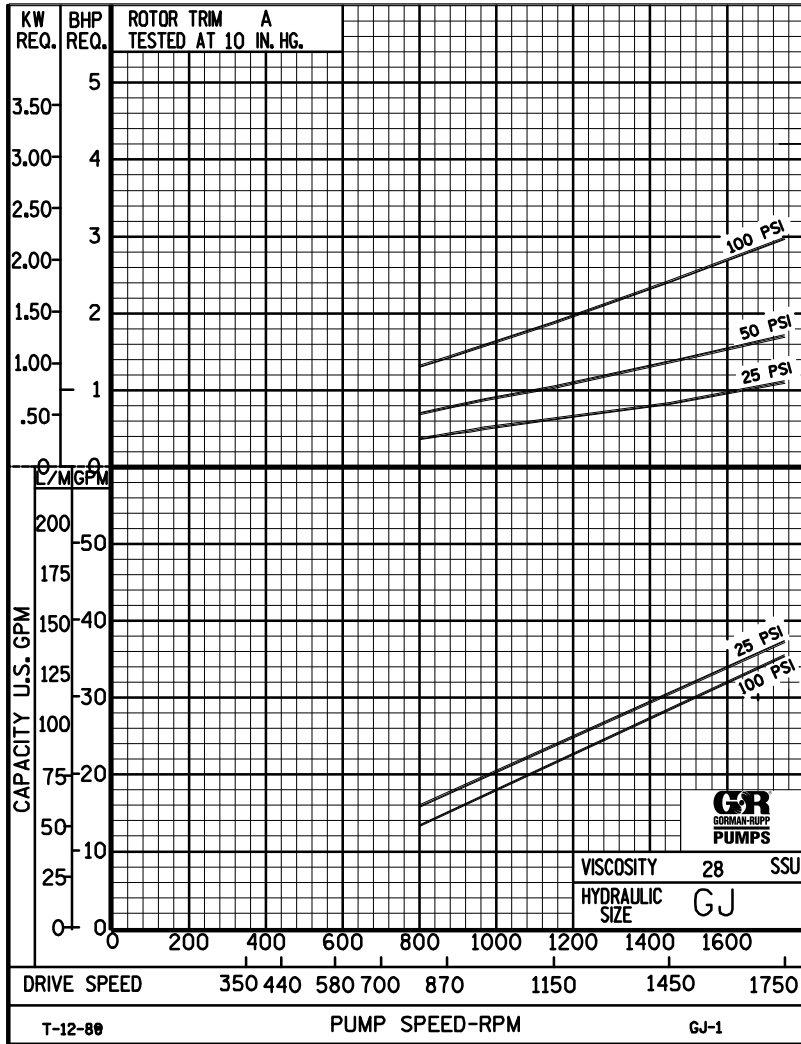


# PERFORMANCE CURVES

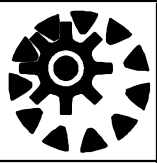
## SPEED VS. CAPACITY/HORSEPOWER

# GJ

Hydraulic Size



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



# PERFORMANCE CURVES

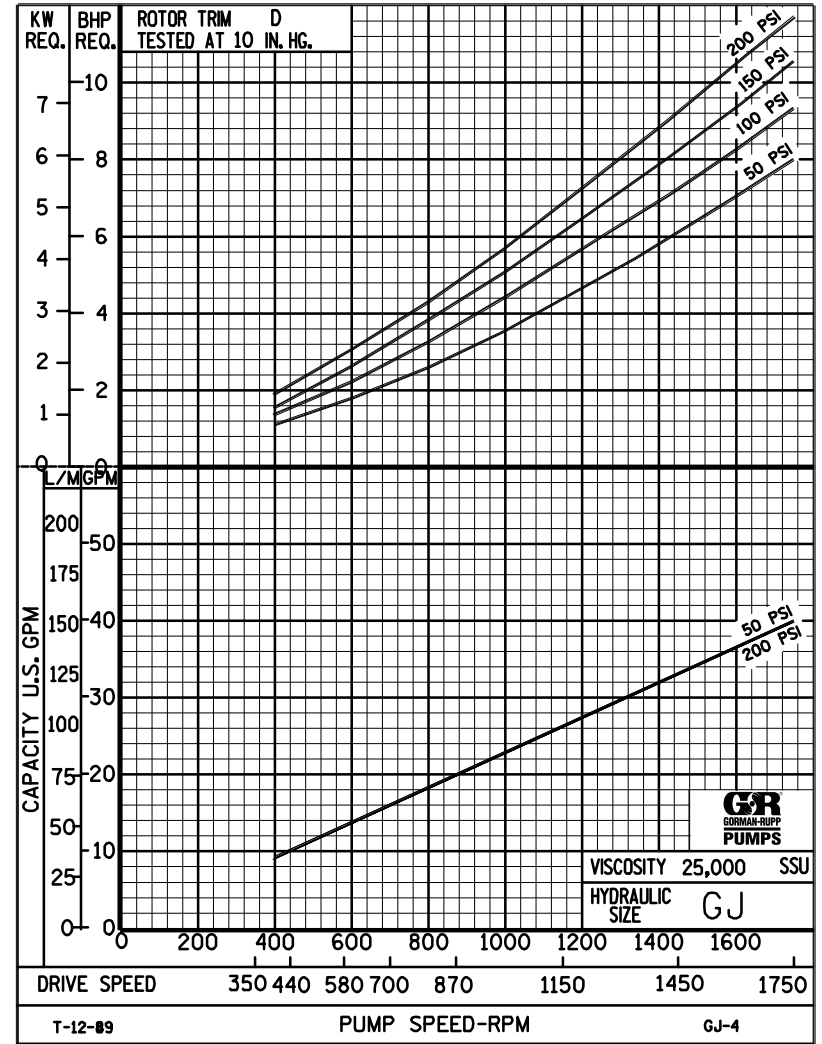
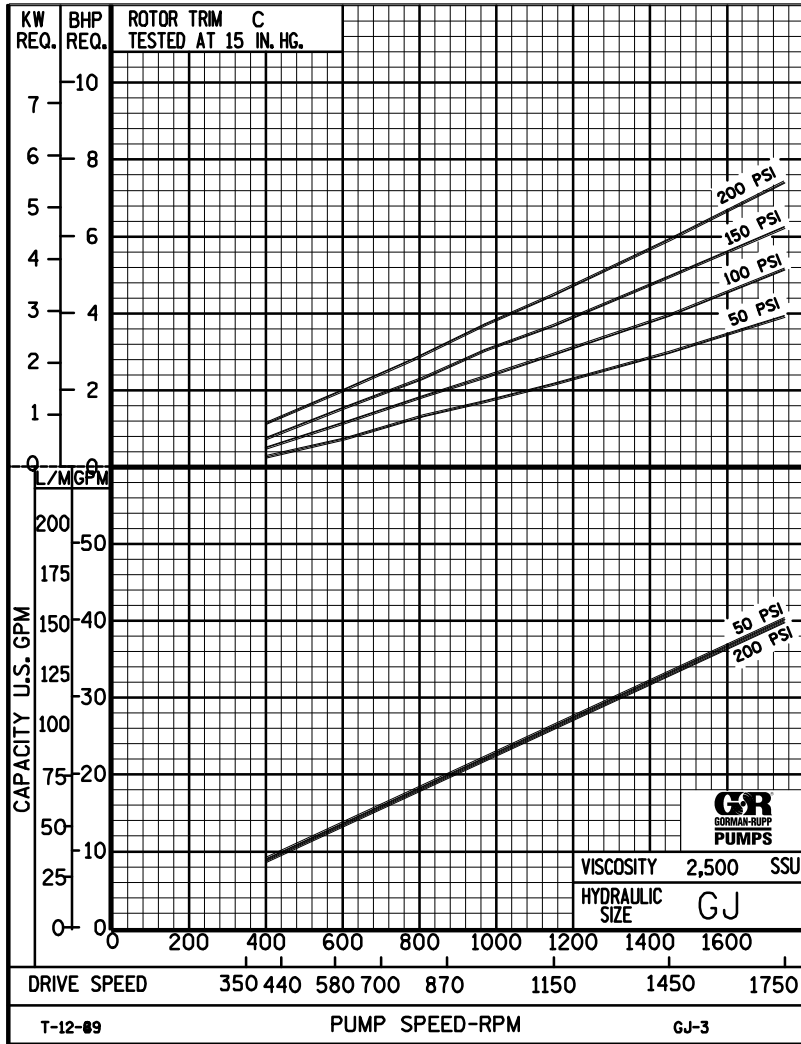
## SPEED VS. CAPACITY/HORSEPOWER

**GJ** Hydraulic Size

SEC. 500

Page 57

January 2010



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

Printed in U.S.A.



# GJ

## PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 58

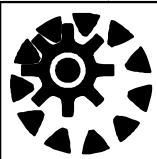
January 2010

**38 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							
38	1750	STD	28	4.5	.02	.01	.01	.01	.01	74	100	127				37	36	36	35							
			32		.88	.28	.08	.04	.01							1.1	1.7	2.4	3.0							
			38	4.5	1.12	.35	.10	.05	.02	74	100	128	180				38	37	37	37	36					
			50		1.33	.44	.12	.06	.02								1.5	2.0	2.6	3.2	4.5					
			70	4.5	1.45	.46	.13	.06	.02	76	101	128	182	240			39	38	38	38	37	36				
			100		1.74	.56	.16	.08	.03								1.5	2.1	2.8	3.4	4.7	6.0				
			150	4.5	1.91	.63	.17	.08	.03	78	103	130	184	242			39	39	39	38	38	38				
			200		2.26	.72	.18	.09	.03								1.9	2.5	3.1	3.7	4.9	6.1				
			300	4.5	2.45	.81	.19	.10	.04	78	103	132	184	244			40	40	39	39	39	38				
			500		2.82	.92	.31	.17	.06								2.1	2.8	3.6	4.3	5.4	6.5				
		750	4.5	3.64	1.39	.46	.25	.09	80	105	134	186	246			40	40	40	40	39	39					
		1,000		4.85	1.85	.62	.33	.12								2.3	3.2	3.8	4.4	5.6	6.7					
		2,000	5.9	9.69	3.69	1.23	.67	.25	80	105	136	186	247			40	40	40	40	39	39					
		3,500		17.0	6.46	2.16	1.17	.43								3.3	3.9	4.6	5.1	6.3	7.4					
		5,000	6.8	24.3	9.23	3.08	1.66	.61	86	106	136	186	247			40	40	40	40	40	40					
		7,500		36.4	13.9	4.62	2.50	.92								4.8	5.3	5.9	6.5	7.6	8.8					
		10,000	7.7	48.5	18.5	6.16	3.33	1.23	92	117	142	192	247			40	40	40	40	40	40					
		15,000		72.7	27.7	9.24	4.99	1.84								6.0	6.7	7.2	7.8	9.0	10					
		20,000	8.5	97.0	36.9	12.3	6.65	2.45	98	123	148	198	248			40	40	40	40	40	40					
		25,000		121	46.1	15.4	8.31	3.06								7.4	8.0	8.7	9.4	11	12					
50,000																										
75,000																										
100,000																										
150,000																										
200,000																										
250,000																										

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





# GJ

## PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 59  
January 2010

25 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)											
					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							
25	1150	STD	28	2.5	.01	.01	.01	.01	.01	66	92	118			23	23	22	21								
			32		.42	.13	.04	.02	.01						.63	1.0	1.5	1.9								
			38	2.5	.53	.17	.05	.02	.01	66	92	118	170			24	24	23	22	21						
			50		.64	.21	.06	.03	.01							.95	1.2	1.6	2.0	2.6						
			70	2.5	.70	.23	.06	.03	.01	67	93	120	170	230			25	25	24	23	23	22				
			100		.85	.27	.08	.04	.01								1.2	1.4	1.7	2.1	3.0	3.7				
			150	2.5	.94	.32	.08	.04	.01	67	93	122	172	232			26	26	25	24	24	22				
			200		.97	.35	.10	.06	.02								1.3	1.5	1.9	2.3	3.1	3.8				
			300	2.5	.99	.37	.13	.07	.03	68	95	122	174	234			26	26	25	25	25	24				
			500		1.60	.61	.21	.11	.04								1.3	1.7	2.3	2.5	3.5	4.0				
		750	2.5	2.39	.91	.31	.17	.06	68	95	124	174	235			26	26	26	26	25	25					
		1,000		3.19	1.22	.41	.22	.08								1.3	1.8	2.2	2.5	3.3	4.2					
		2,000	3.4	6.38	2.43	.81	.44	.16	69	98	125	175	235			26	26	26	26	26	26					
		3,500		11.2	4.25	1.42	.77	.28								1.8	2.3	2.8	3.2	3.9	4.7					
		5,000	4.0	16.0	6.07	2.03	1.09	.41	78	105	130	180	237			26	26	26	26	26	26					
		7,500		23.9	9.10	3.04	1.64	.61								2.4	2.9	3.4	3.7	4.7	5.2					
		10,000	4.7	31.9	12.2	4.06	2.19	.81	87	112	137	187	237			26	26	26	26	26	26					
		15,000		47.8	18.2	6.08	3.28	1.21								2.9	3.7	4.2	4.5	5.4	6.0					
		20,000	5.2	63.8	24.3	8.11	4.38	1.61	87	112	137	187	237			26	26	26	26	26	26					
		25,000		79.7	30.4	10.2	5.47	2.02								4.0	4.5	4.9	5.3	6.1	6.8					
50,000																										
75,000																										
100,000																										
150,000																										
200,000																										
250,000																										

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



# GJ

## PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 60

January 2010

**19 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							
19	870	STD	28	1.7	.01	.01	.01	.01	.01	64	90	116			17	16	16	15								
			32		.26	.08	.02	.01	.01						.45	.79	1.1	1.4								
			38	1.7	.33	.11	.03	.02	.01	64	90	116	168			18	17	17	16	15						
			50		.40	.13	.04	.02	.01							.58	.81	1.1	1.5	2.2						
			70	1.7	.44	.14	.04	.02	.01	65	91	118	168	228			19	18	18	17	17	16				
			100		.53	.17	.05	.02	.01								.61	.85	1.3	1.6	2.4	2.7				
			150	1.7	.58	.19	.06	.03	.01	65	91	120	170	230			19	19	18	18	18	17				
			200		.62	.23	.08	.04	.01								.65	.90	1.4	1.6	2.6	3.0				
			300	1.7	.74	.28	.10	.05	.02	66	93	120	172	232			19	19	19	19	18	18				
			500		1.21	.46	.16	.09	.03								.77	1.1	1.4	1.7	2.7	3.1				
		750	1.7	1.82	.69	.23	.13	.05	66	93	122	172	233			20	20	19	19	19	19					
		1,000		2.43	.92	.31	.17	.06								.81	1.3	1.6	1.9	2.9	3.3					
		2,000	2.5	4.85	1.85	.62	.33	.12	67	96	123	173	233			20	20	20	19	19	19					
		3,500		8.48	3.23	1.08	.58	.22								1.2	1.5	1.9	2.1	3.1	3.4					
		5,000	3.1	12.1	4.61	1.54	.83	.31	76	103	128	178	235			20	20	20	20	19	19					
		7,500		18.2	6.92	2.31	1.25	.46								1.6	2.0	2.3	2.6	3.5	3.8					
		10,000	3.7	24.3	9.23	3.08	1.66	.61	85	110	135	185	235			20	20	20	20	19	19					
		15,000		36.4	13.9	4.62	2.50	.92								2.1	2.5	2.9	3.3	3.9	4.4					
		20,000	4.1	48.5	18.5	6.16	3.33	1.23	85	110	135	185	235			19	19	19	19	19	19					
		25,000		60.6	23.1	7.70	4.16	1.53								2.8	2.9	3.2	3.6	4.1	5.0					
50,000	4.5	121	46.2	15.4	8.32	3.06	85	114	141	193	246			19	19	19	19	19	19							
75,000		-	-	-	-	-								3.7	4.1	4.5	4.9	5.2	5.6							
100,000																										
150,000																										
200,000																										
250,000																										

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



# GJ

## PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 61  
January 2010

**13 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				
13	580	STD	28	1.2	.01	.01	.01	.01	.01	58	84	109			11	11	10	10					
			32		.13	.04	.01	.01	.01						.36	.60	.81	1.0					
			38	1.2	.17	.06	.02	.01	.01	58	84	109	159		12	11	11	11	10				
			50		.21	.07	.02	.01	.01						.47	.63	.93	1.2	1.7				
			70	1.2	.23	.08	.03	.01	.01	60	86	111	161	219	12	12	12	11	11	10			
			100		.28	.09	.03	.01	.01						.50	.69	.99	1.3	1.8	2.0			
			150	1.2	.34	.11	.04	.02	.01	60	86	111	162	220	13	12	12	12	12	11			
			200		.43	.15	.06	.03	.01						.57	.80	1.1	1.3	1.8	2.1			
			300	1.2	.52	.20	.07	.04	.01	62	88	113	164	222	13	13	13	12	12	12			
			500		.83	.34	.11	.06	.02						.66	.92	1.2	1.4	1.8	2.2			
		750	1.2	1.26	.49	.16	.09	.03	62	88	113	164	222	13	13	13	13	12.9	12				
		1,000		1.68	.65	.21	.12	.05						.74	1.1	1.3	1.5	1.9	2.2				
				2,000	1.9	3.23	1.32	.44	.24	.09	63	90	115	165	223	13	13	13	13	12	12		
						6.10	2.31	.77	.42	.16						.92	1.3	1.5	1.7	2.1	2.2		
				5,000	2.4	8.25	3.28	1.11	.58	.23	67	92	117	165	223	13	13	13	13	13	13		
						13.1	5.01	1.61	.89	.33						1.2	1.7	1.9	2.1	2.5	2.9		
				10,000	2.9	17.8	6.85	2.22	1.21	.45	70	96	120	166	224	13	13	13	13	13	13		
						25.2	9.90	3.41	1.83	.68						1.4	1.7	2.0	2.2	2.6	3.0		
				20,000	3.3	34.4	13.0	4.33	2.28	.91	74	99	122	166	224	13	13	13	13	13	13		
				25,000		45.3	16.8	5.54	3.01	1.11						1.6	1.8	2.1	2.3	2.7	3.1		
		50,000	5.5	85.2	32.6	11.2	6.22	2.21	84	109	132	176	234	13	13	13	13	13	13				
		75,000		132	48.8	16.9	9.31	3.28						2.4	2.6	2.9	3.1	3.6	3.9				
		100,000																					
		150,000																					
		200,000																					
		250,000																					

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