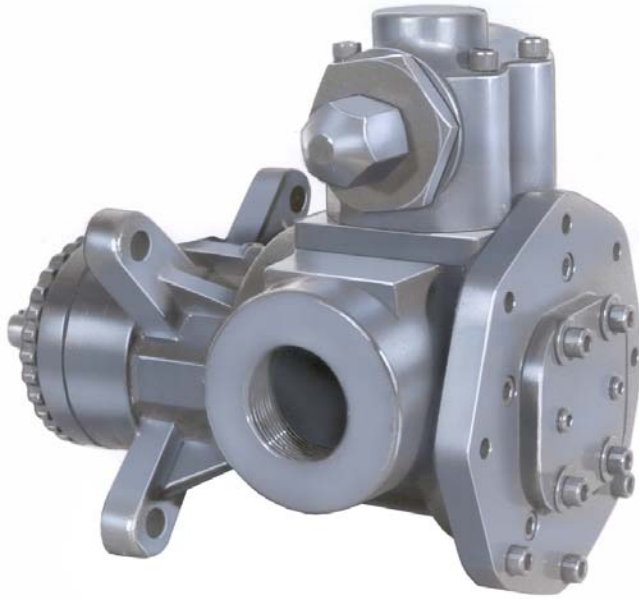
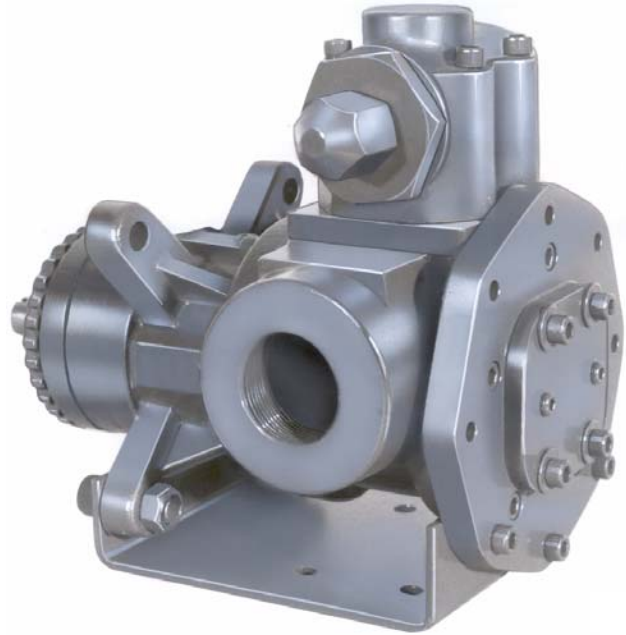


# GHC SERIES HEAVY DUTY COMPACT ROTARY GEAR PUMP



**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> ■										
<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]	100 [7]	150 [10]		350 [177]	58 [26,4]	2.9
<b>GHC 2 GF 3-B</b> ● <b>GHC 2 GF 4-B</b> ■									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> ■	40 [126]	1150 [960]	30 [95]	870 [725]					128 [58,2]	5.3
<b>GHC 2-1/2 JG 3-B</b> ● <b>GHC 2-1/2 JG 4-B</b> ■									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]	

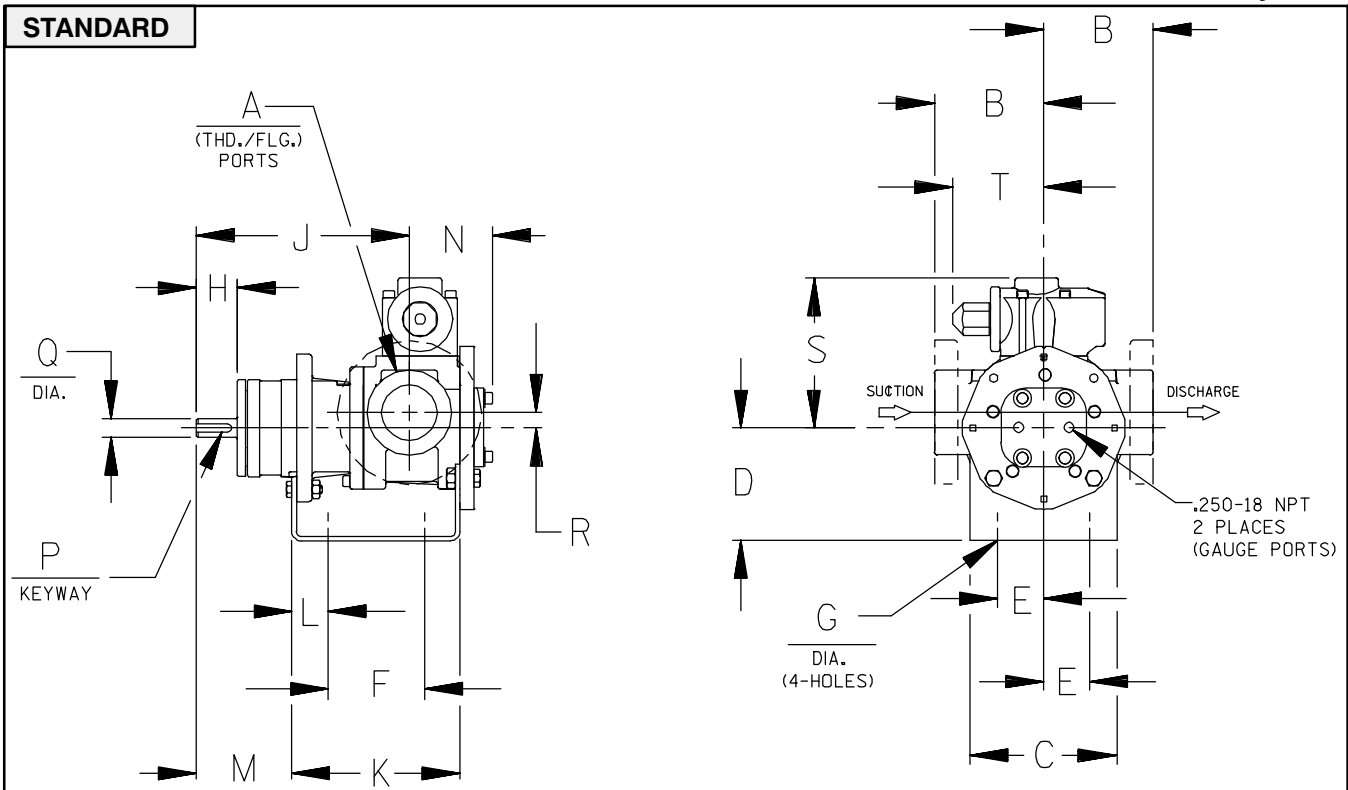
NOTE: RECOMMENDED PORT SIZES ARE SHOWN IN **BOLDFACE**. EXAMPLE: **GHC 1 DC 3-B**

- 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

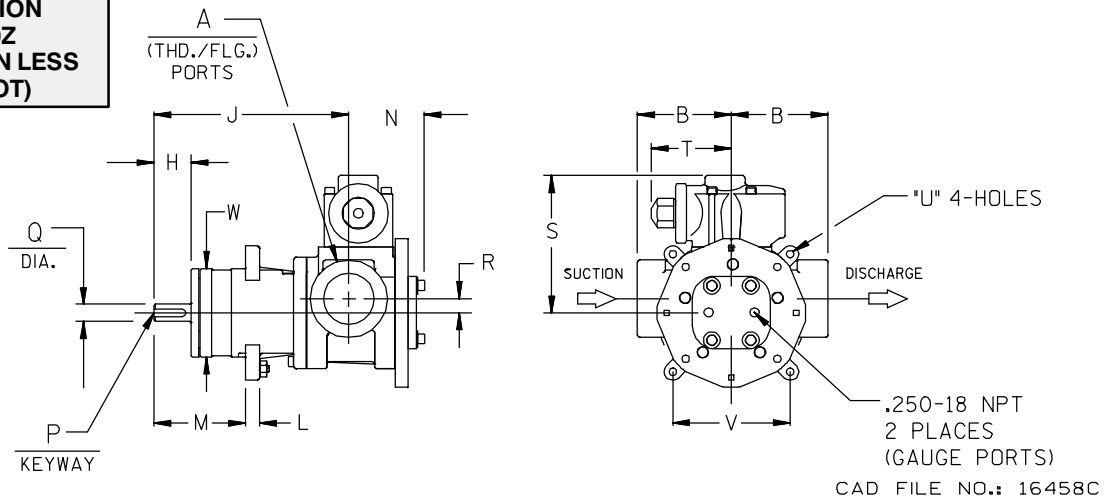
† 90° HOUSING

‡ 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 —

# 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

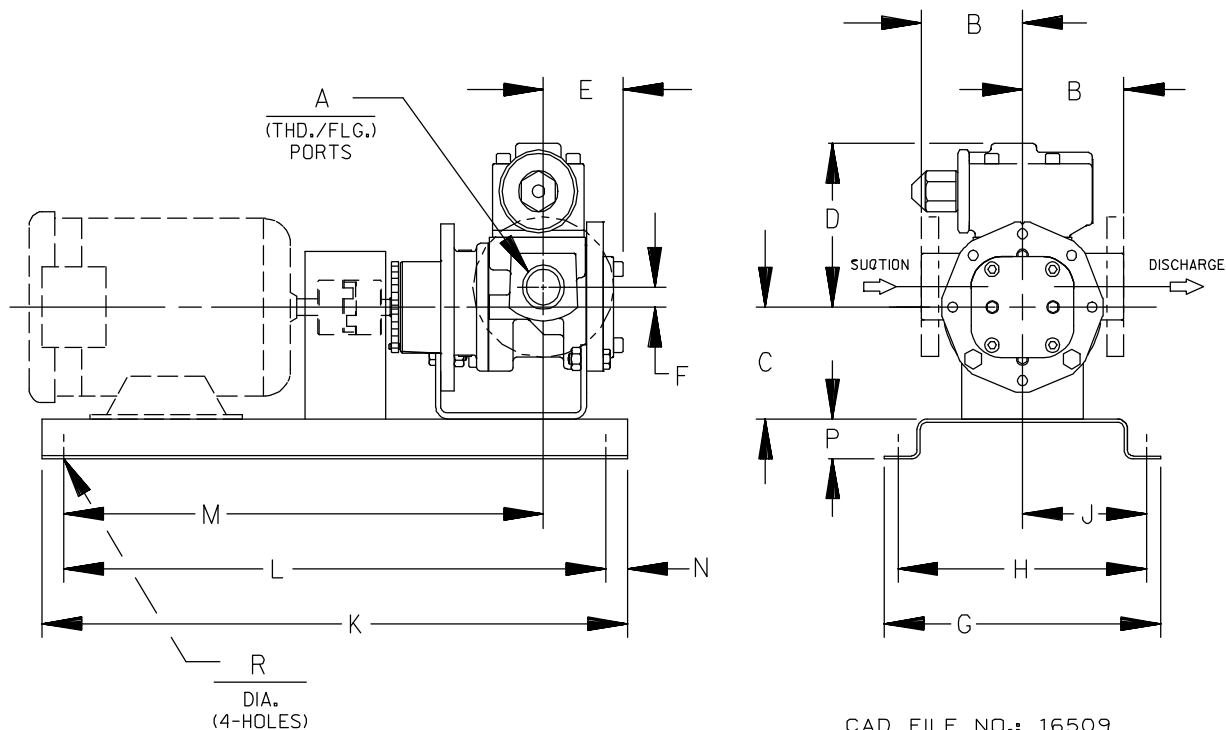
† PORTS ARE COMPATIBLE WITH 125# OR 250# ANSICAST IRON FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSIPIPE, OPTIONAL (DIN) FLANGES OR TAPPED (BSP) PORTS AVAILABLE FOR EXPORT MARKET.

† 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]	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]
	2"	213T/215T	4.00 † [102]	5.25 [133]													
		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.

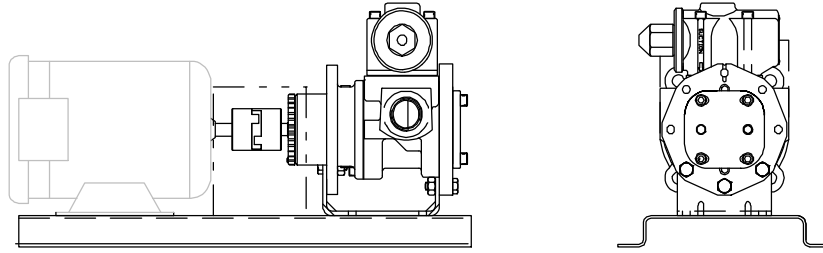
**NOTE: CONSULT FACTORY FOR;**  
 1. HORSEPOWERS & FRAMES NOT SHOWN  
 2. DRIP PAN BASES

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

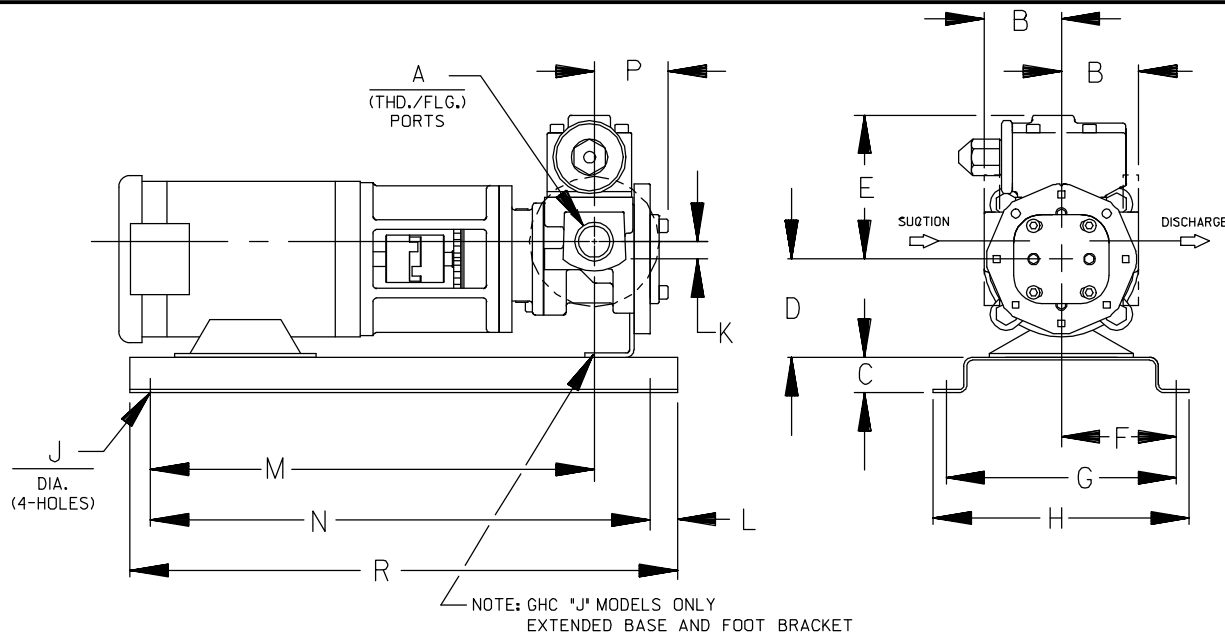
**NOTE: CONSULT FACTORY FOR;  
HORSEPOWERS & FRAMES NOT SHOWN  
DRIP PAN BASES**





# 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]	6.00 [152]	6.31 [160]											
GHC J	2- 1/2"	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]			
		254TC/256TC	6.00 [152]										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

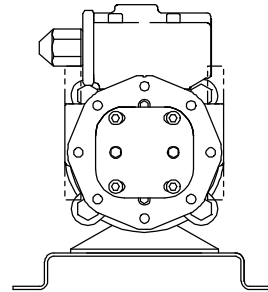
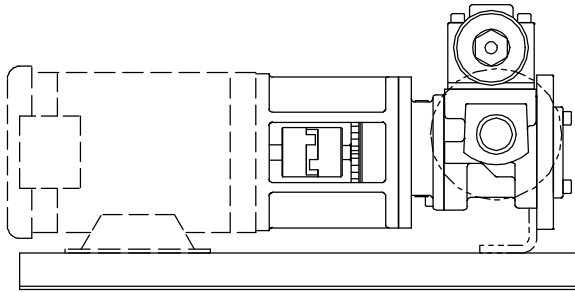
**NOTE: CONSULT FACTORY FOR;**  
 1. HORSEPOWERS & FRAMES NOT SHOWN  
 2. DRIP PAN BASES

**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)



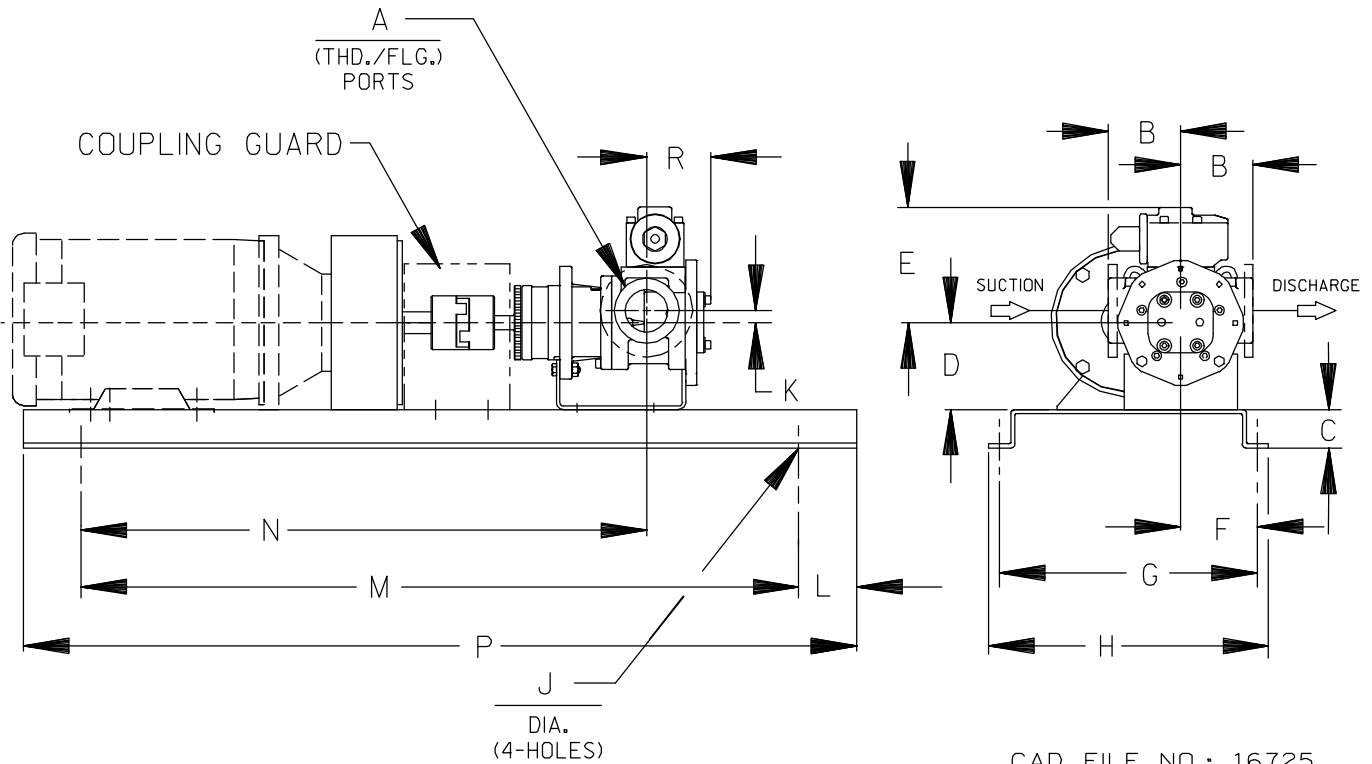
PUMP MODEL NUMBER	60Hz RPM	FRAME	MTG. FT. OPTION REQ.	DRIVE ASSY NO.
<b>GHC D</b>	3450	56C	80Y	90351-540
	1750	143TC	80Y	90351-541
	1150	145TC	80Y	90351-544
	850	184C	80Y	90351-590
<b>GHC G</b>	1750 1150 850	56C	80Y	90351-656
		143TC	80Y	90351-659
		145TC	80Y	90351-660
		184C	80Y	90351-668
		182TC	80X	90351-672
		184TC	80X	90351-674
<b>GHC J</b>	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"		5.00 * [127]													
		3"	213TC/215TC													

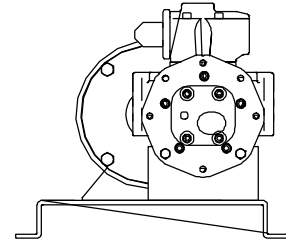
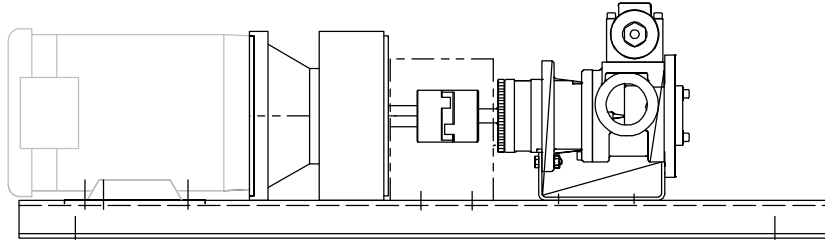
\* STANDARD DIMENSION

† 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
GHC G	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
GHC J	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

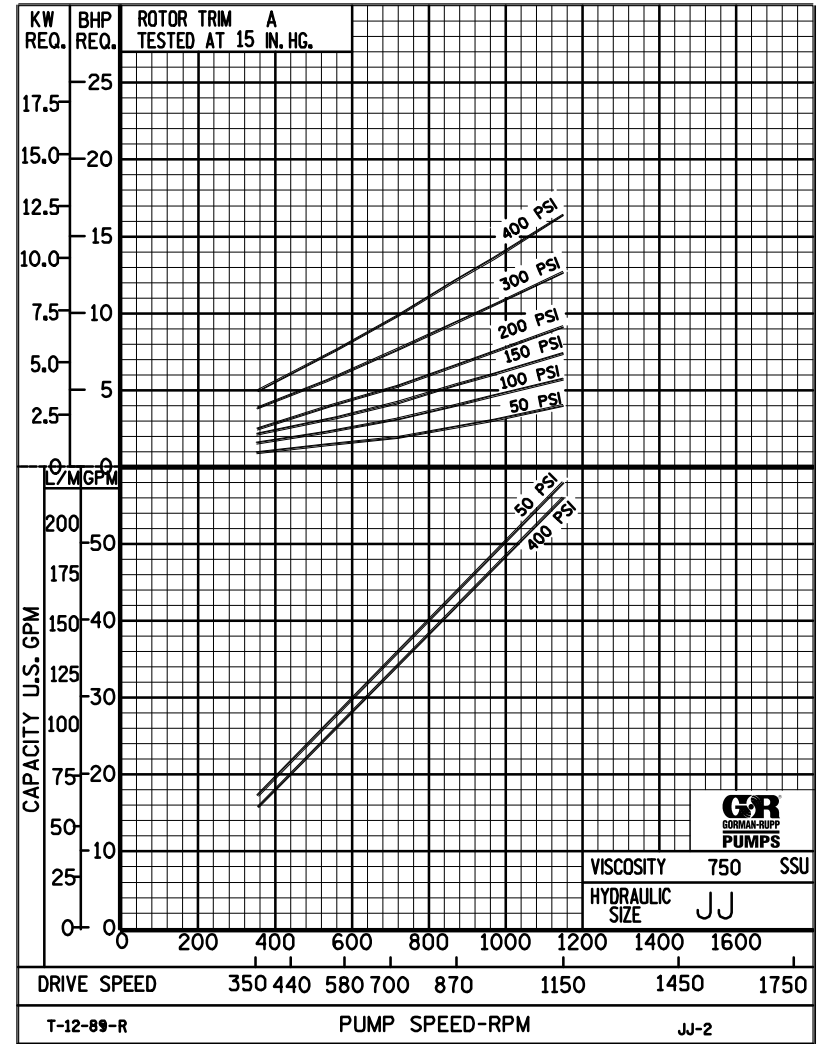
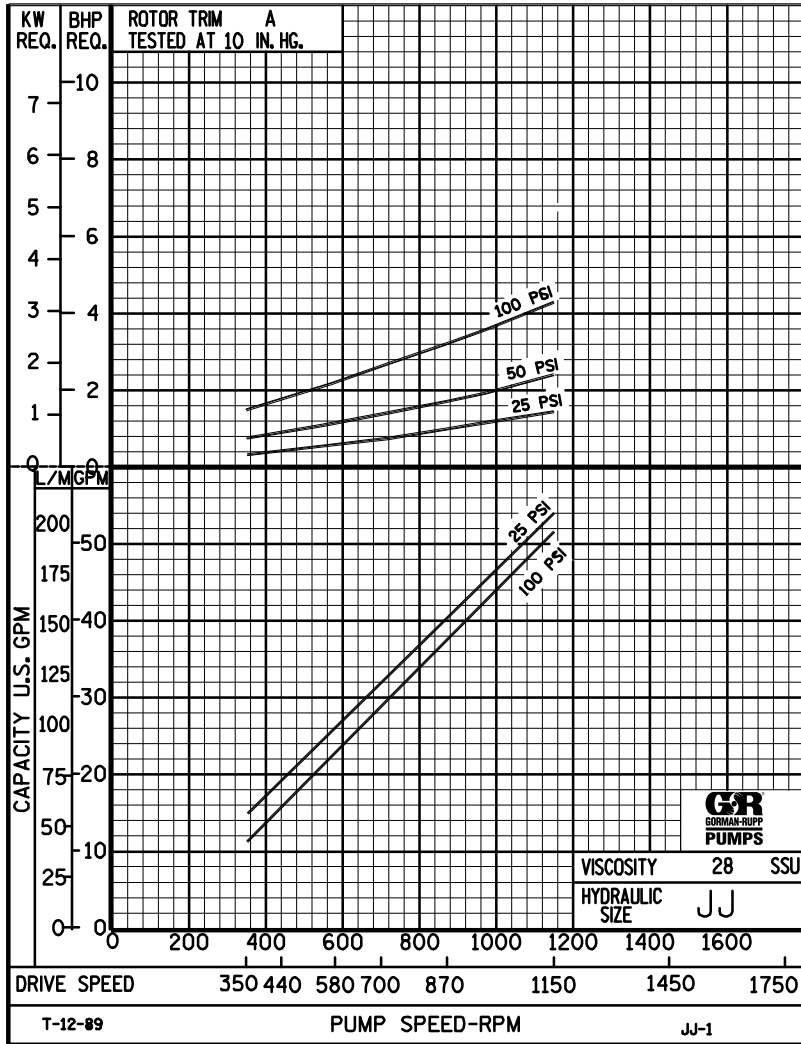


# PERFORMANCE CURVES

## SPEED VS. CAPACITY/HORSEPOWER

# JJ

Hydraulic  
Size



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



# PERFORMANCE CURVES

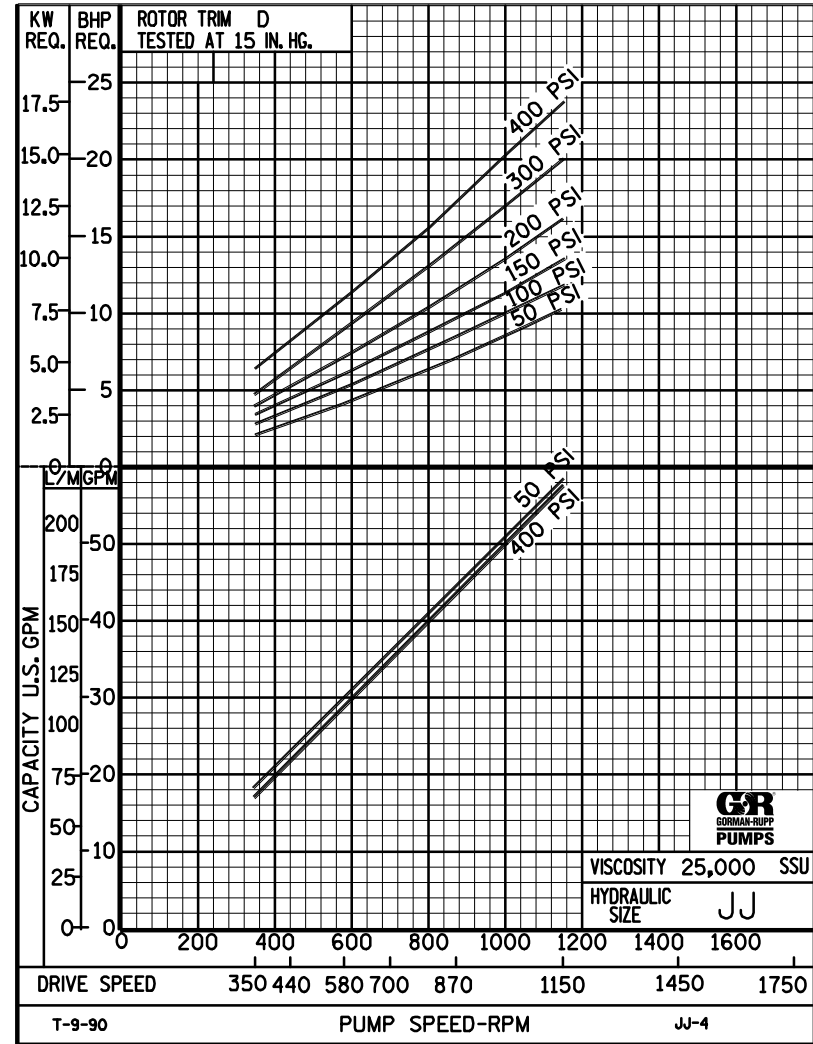
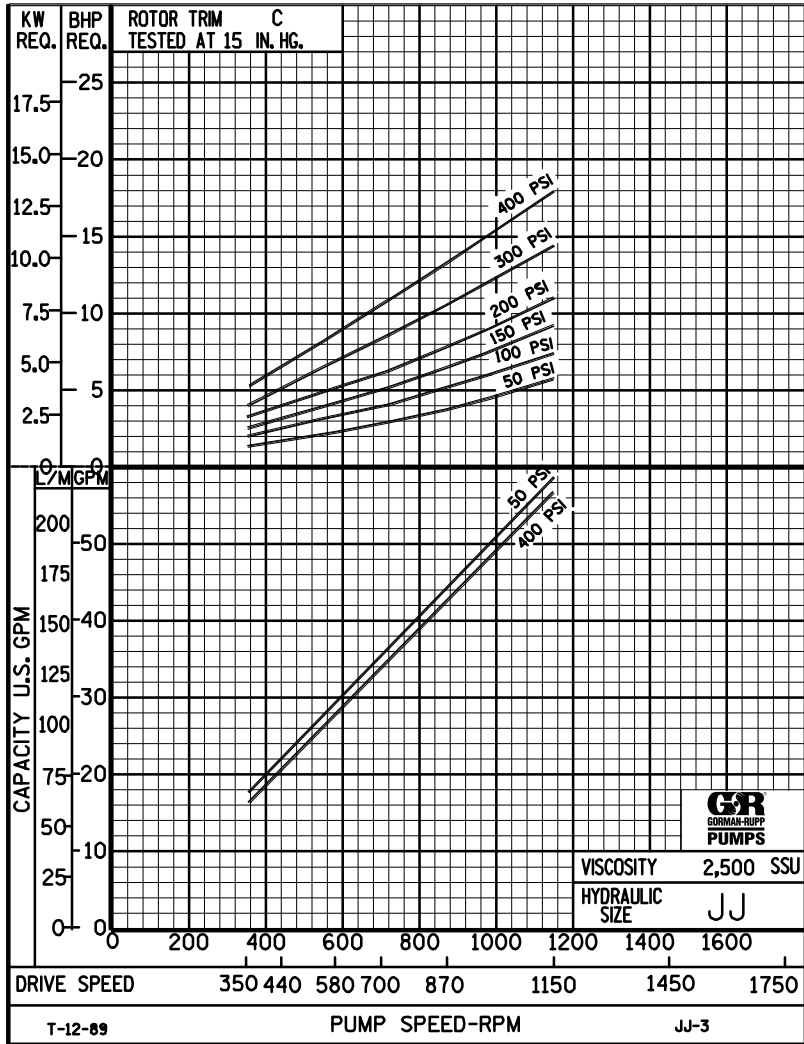
## SPEED VS. CAPACITY/HORSEPOWER

JJ Hydraulic Size

SEC. 500

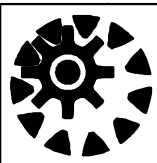
Page 69

January 2010



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

Printed in U.S.A.



# JJ

## PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 70  
January 2010

56 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					
56	1150	STD	28	4.0	.01	.01	.01	.01	.01	62	87	114				54	52	52	51								
			32		.07	.02	.01	.01	.01							1.0	2.4	3.3	4.3								
			38	4.0	.09	.03	.01	.01	.01	62	89	116	166			55	54	53	53	51							
			50		.11	.03	.02	.01	.01							1.6	2.5	3.5	4.4	6.4							
			70	4.0	.13	.04	.02	.01	.01	63	90	118	167	219		56	55	55	54	53	52						
			100		.15	.05	.02	.01	.01							1.8	2.7	3.6	4.6	6.5	8.7						
			150	4.0	.16	.05	.02	.01	.01	64	91	120	167	219		57	56	56	55	54	54	53	52				
			200		.18	.05	.02	.01	.01							2.1	3.0	3.9	4.8	6.6	8.7	12	16				
			300	4.0	.20	.06	.03	.01	.01	65	92	122	168	220		57	57	57	56	56	55	55	54				
			500		.25	.09	.05	.02	.01							2.8	3.6	4.6	5.4	7.1	9.0	13	16				
			750	4.0	.37	.14	.07	.03	.01	66	93	124	168	220		58	58	57	57	57	57	56	56				
			1,000		.49	.18	.09	.04	.02							3.2	4.0	4.9	5.7	7.4	9.2	13	16				
		2,000	4.3	.98	.36	.18	.08	.03	70	95	124	168	222		58	58	58	58	58	57	57	56					
		3,500		1.72	.63	.31	.13	.05							4.6	5.7	6.6	7.4	9.2	11	14	18					
		5,000	4.5	2.45	.90	.44	.19	.06	72	97	126	170	224		59	58	58	58	58	58	57	57					
		7,500		3.68	1.35	.67	.28	.10							6.6	7.3	8.0	8.8	11	13	16	20					
		10,000	4.7	4.90	1.81	.89	.37	.13	74	99	128	172	226		59	58	58	58	58	58	57	57					
		15,000		7.35	2.71	1.33	.56	.19							8.8	9.0	10	11	13	15	18	2.0					
		20,000	4.9	9.80	3.61	1.77	.74	.25	78	103	128	174	226		58	58	58	58	58	58	57	57					
		25,000		12.3	4.51	2.22	.93	.31							9.7	10	11	12	14	16	20	24					
		50,000	6.9	24.5	9.02	4.43	1.86	.63	82	107	132	178	230		58	58	58	58	58	58	57	57					
		75,000		-	-	-	-	-							15	16	16	18	19	22	25	30					
100,000																											
150,000																											
200,000																											
250,000																											

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





# JJ

## PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 71

January 2010

**42 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						
42	870	STD	28	2.7	.01	.01	.01	.01	.01	60	85	117			40	39	39	38							
			32		.04	.01	.01	.01	.01						.98	1.7	2.5	3.2							
			38	2.7	.06	.02	.01	.01	.01	60	85	117	161			41	40	40	39	38					
			50		.07	.02	.01	.01	.01							1.1	1.8	2.5	3.3	4.8					
			70	2.7	.08	.03	.01	.01	.01	60	85	117	161	213			42	42	41	40.8	40	39			
			100		.09	.03	.01	.01	.01								1.1	1.9	2.6	3.3	4.9	6.4			
			150	2.7	.10	.03	.01	.01	.01	61	86	119	161	213			43	42	42	42	41	41	40	39	
			200		.10	.03	.01	.01	.01								1.3	2.0	2.7	3.4	4.9	6.5	9.1	12	
			300	2.7	.11	.04	.02	.01	.01	61	88	119	161	213			43	43	43	42	42	42	41	41	
			500		.19	.07	.03	.02	.01								1.8	2.4	3.0	3.7	5.0	6.6	9.2	12	
		750	2.7	.28	.10	.05	.02	.01	61	88	119	161	213			43	43	43	43	43	42	42	42		
		1,000		.37	.14	.07	.03	.01								2.4	2.6	3.3	4.0	5.4	6.7	9.4	13		
		2,000	3.1	.74	.27	.13	.06	.02	63	90	121	163	215			44	44	43	43	43	43	42	42		
		3,500		1.29	.47	.23	.10	.03								3.0	3.7	4.5	5.2	6.5	7.8	11	13		
		5,000	3.4	1.84	.68	.33	.14	.05	65	92	123	163	215			44	44	44	43	43	43	43	42		
		7,500		2.76	1.02	.50	.21	.07								4.6	5.3	6.0	6.6	7.8	9.1	12	15		
		10,000	3.7	3.68	1.35	.67	.28	.10	67	94	126	163	217			44	44	44	44	43	43	43	42		
		15,000		5.51	2.03	1.00	.42	.14								5.5	6.3	7.0	7.7	9.0	10	13	16		
		20,000	3.9	7.35	2.71	1.33	.56	.19	69	96	129	163	217			44	44	44	44	43	43	43	42		
		25,000		9.19	3.38	1.66	.70	.24								6.4	7.0	7.7	8.5	10	11	14	17		
50,000	5.8	18.4	6.76	3.32	1.40	.47	73	100	133	167	221			44	44	44	44	43	43	43	42				
75,000		27.6	10.2	4.99	2.09	.71								9.6	10	11	12	13	15	18	21				
100,000	7.8	36.8	13.5	6.65	2.79	.94	77	104	137	171	225			44	44	44	44	43	43	43	42				
150,000		-	-	-	-	-								12	13	14	15	16	19	21	24				
200,000																									
250,000																									

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



# JJ

## PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 72  
January 2010

28 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)													
					1½"	2"	2½"	3"	4"	LOW PRES R/V			HI PRES R/V		MEDIUM DUTY AND HEAVY DUTY				HEAVY DUTY ONLY									
28	580	STD	28	1.7	.01	.01	.01	.01	.01	54	80	111			26	25	25	24										
			32		.02	.01	.01	.01	.01						.61	1.2	1.7	2.2										
			38	1.7	.03	.01	.01	.01	.01	54	80	111	157			26	26	26	25	24								
			50		.03	.01	.01	.01	.01							.64	1.2	1.7	2.2	3.4								
			70	1.7	.04	.01	.01	.01	.01	54	81	111	157	209			27	27	26	26	25	24						
			100		.05	.02	.01	.01	.01								.69	1.2	1.8	2.2	3.4	4.2						
			150	1.7	.05	.02	.01	.01	.01	54	81	111	157	209			28	28	27	27	26	26	25	25				
			200		.05	.02	.01	.01	.01								.77	1.3	1.8	2.3	3.4	4.2	6.0	7.9				
			300	1.7	.08	.03	.01	.01	.01	55	82	111	157	209			28	28	28	27	27	27	26	26				
			500		.12	.05	.02	.01	.01								.90	1.5	1.9	2.4	3.4	4.2	6.0	7.9				
		750	1.7	19	.07	.03	.02	.01	55	82	111	157	209			29	28	28	28	28	28	27	27					
		1,000		.25	.09	.05	.02	.01								1.3	1.8	2.2	2.7	3.5	4.3	6.3	8.1					
		2,000	2.1	.49	.18	.09	.04	.01	57	84	113	157	209			29	29	29	28	28	28	28	27					
		3,500		.86	.32	.16	.07	.02								2.2	2.6	3.1	3.5	4.4	5.3	7.2	9.0					
		5,000	2.4	1.23	.45	.22	.09	.03	59	86	115	158	210			29	29	29	29	28	28	28	28					
		7,500		1.84	.68	.33	.14	.05								2.8	3.2	3.6	4.1	5.0	5.9	7.8	9.6					
		10,000	2.7	2.45	.90	.44	.19	.06	61	88	118	159	211			29	29	29	29	29	29	28	28					
		15,000		3.68	1.35	.67	.28	.10								3.3	3.7	4.2	4.7	5.6	6.6	8.5	10					
		20,000	3.0	4.90	1.81	.89	.37	.13	64	91	121	159	211			30	29	29	29	29	29	29	28					
		25,000		6.13	2.26	1.11	.47	.16								3.7	4.2	4.7	5.1	6.2	7.1	9.0	11					
50,000	4.6	12.3	4.51	2.22	.93	.31	67	94	124	162	214			30	29	29	29	29	29	29	28							
75,000		18.4	6.76	3.32	1.40	.47								5.6	6.2	6.7	7.4	8.0	9.6	11	14							
100,000	6.6	24.5	9.02	4.43	1.86	.63	71	98	128	166	218			30	29	29	29	29	29	29	28							
150,000		36.8	13.5	6.65	2.79	.94								7.0	7.8	8.4	9.3	9.6	12	13	16							
200,000	10.0	49.0	18.0	8.86	3.72	1.25	74	101	131	169	221			30	29	29	29	29	29	29	28							
250,000		-	-	-	-	-								8.4	9.4	9.9	11	11	13	15	17							

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



# JJ

## PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 73  
January 2010

17 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									
17	350	STD	28	1.2	.01	.01	.01	.01	.01	53	79	109			15	15	15	14										
			32		.01	.01	.01	.01	.01						.33	.61	1.0	1.3										
			38	1.2	.01	.01	.01	.01	.01	53	79	109	156			16	15	15	15	14								
			50		.02	.01	.01	.01	.01							.37	.64	1.0	1.4	2.1								
			70	1.2	.02	.01	.01	.01	.01	53	79	109	156	207			16	16	16	15	15	15						
			100		.02	.01	.01	.01	.01								3.9	.69	1.1	1.4	2.1	2.8						
			150	1.2	.02	.01	.01	.01	.01	54	80	109	156	207			17	16	16	16	16	15	15	14				
			200		.03	.01	.01	.01	.01								.48	.74	1.1	1.4	2.1	2.8	3.7	4.8				
			300	1.2	.05	.02	.01	.01	.01	54	80	109	156	207			17	17	17	16	16	16	16	15				
			500		.08	.03	.02	.01	.01								.63	.82	1.1	1.5	2.1	2.8	3.7	4.8				
		750	1.2	.11	.04	.02	.01	.01	54	80	109	156	207			17	17	17	17	17	16	16	16					
		1,000		.15	.06	.03	.01	.01								.76	1.0	1.3	1.6	2.2	2.8	3.8	4.9					
		2,000	1.7	.30	.11	.06	.02	.01	55	81	110	157	208			17	17	17	17	17	17	16	16					
		3,500		.52	.19	.10	.04	.01								1.3	1.6	1.8	2.1	2.7	3.1	4.3	5.4					
		5,000	2.0	.75	.28	.14	.06	.02	56	82	111	158	209			17	17	17	17	17	17	17	17					
		7,500		1.12	.41	.20	.09	.03								1.6	1.9	2.2	2.4	3.0	3.5	4.6	5.7					
		10,000	2.3	1.49	.55	.27	.11	.04	57	84	112	159	210			17	17	17	17	17	17	17	17					
		15,000		2.23	.82	.40	.17	.06								1.8	2.2	2.5	2.8	3.4	3.9	5.0	6.2					
		20,000	2.5	2.98	1.10	.54	.23	.08	59	86	113	159	210			18	17	17	17	17	17	17	17					
		25,000		3.72	1.37	.67	.28	.10								2.0	2.5	2.8	3.0	3.7	4.3	5.4	6.5					
50,000	3.9	7.44	2.74	1.35	.57	.19	61	88	115	161	212			18	17	17	17	17	17	17	17							
75,000		11.2	4.11	2.02	.85	.29								3.0	3.7	4.0	4.4	4.6	5.9	6.7	8.1							
100,000	5.6	14.9	5.48	2.69	1.13	.38	64	91	118	164	215			18	17	17	17	17	17	17	17							
150,000		22.3	8.21	4.04	1.69	.57								3.7	4.7	5.0	5.4	5.7	7.0	7.8	9.3							
200,000	8.4	29.8	11.0	5.38	2.26	.76	67	94	121	167	218			18	17	17	17	17	17	17	17							
250,000		37.2	13.7	6.73	2.82	.95								4.5	5.6	5.9	6.4	6.5	8.1	8.7	10							

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



# JJ

SEC. 500

PAGE 73.1

February 2025

**8 GPM**  
**150 RPM**

NOMINAL		VISCOSITY		N.I.P.R.	FRICTION PIPE LOSS (PSI/FT) <small>(Schedule 40 Steel Pipe)</small>					CAPACITY (GPM)				H.P. REQUIRED							
GPM	RPM	ROTOR TRIM	(SSU)	(PSIa)	PIPE DIAMETER					MEDIUM-DUTY & HEAVY-DUTY				HEAVY-DUTY ONLY							
					2"	2½"	3"	4"	5"	DIFFERENTIAL PRESSURE (PSI)											
										25	50	75	100	150	200	300	400				
8	150	STD																			
				"D"																	
			200,000	3.2	5.2	2.5	1.1	0.4	0.2	7.7	7.7	7.7	7.7	7.6	7.6	7.5	7.4				
			399,999		10.3	5.1	2.1	0.7	0.3	1.9	2.1	2.3	2.5	2.8	3.1	3.4	3.8				
			400,000	3.6						7.7	7.7	7.7	7.7	7.6	7.6	7.5	7.4				
			599,999		15.5	7.6	3.2	1.1	0.4	2.1	2.3	2.5	2.7	3.0	3.3	3.6	4.0				
			600,000	4.4						7.7	7.7	7.7	7.7	7.6	7.6	7.5	7.4				
			799,999		20.6	10.1	4.3	1.4	0.6	2.3	2.5	2.7	2.9	3.2	3.5	3.8	4.2				
			800,000	4.8						7.7	7.7	7.7	7.7	7.6	7.6	7.5	7.4				
			1M		NR	12.7	5.3	1.8	0.7	2.6	2.8	3.0	3.2	3.5	3.8	4.1	4.5				

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