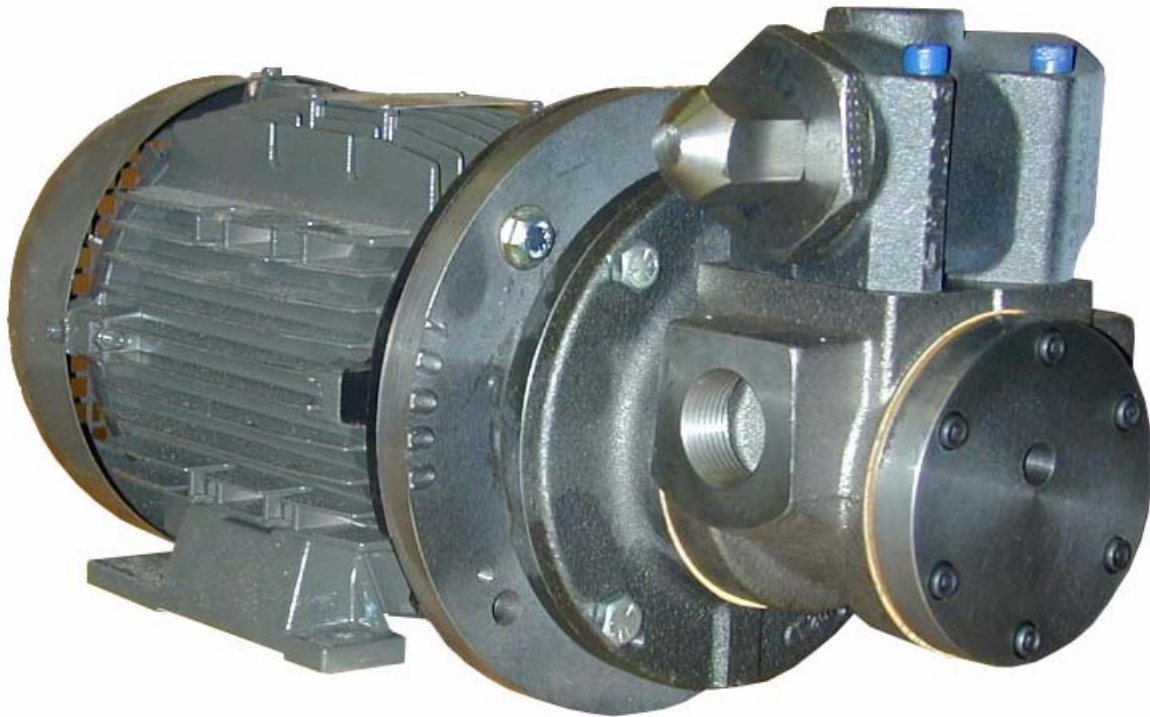


**GMC SERIES
 MEDIUM DUTY COMPACT
 ROTARY GEAR PUMP**



The GMC series is designed for applications in the operating ranges noted below. Direct connecting to other pieces of equipment provides an extremely compact system design.

The six sizes of Gorman-Rupp close coupled pumps connect to standard NEMA "C" flanges. Rotor shaft bores accept standard motor shafts; 5/8" standard, 7/8", 1-1/8" and 1-3/8" are optional. Metric coupling also available.

At synchronous speeds, extra drive equipment, including couplings or outboard bearings, is not required.

For continuous service, or for handling viscous liquids, see the heavy duty GHS section.

FEATURES

*200 PSI CAPABILITY
 COMPACT-NEMA C MOUNTING - NO
 DRIVE COUPLING OR GUARD
 ACCURATE ALIGNMENT
 INEXPENSIVE PUMP/DRIVE UNIT
 THRUST CONTROLLED PUMP
 ELEMENTS
 LONG LIFE - QUIET OPERATION
 MULTIPLE PORT POSITIONING*

OPERATING RANGE

CAPACITY (GPM): (3 TO 38)
 [LPM]: [11 TO 144]
 PRESSURE (PSI): (0 TO 200)
 [BAR]: [0 TO 14]
 VISCOSITY (SSU): (28 TO 250,000)
 [cSt]: [1 TO 55,000]
 TEMPERATURE (F): (-60° TO 300°)
 [C]: [-51° TO 149°]

APPLICATIONS

USE WITH ANY CLEAN LIQUID
 COMPATIBLE WITH CAST
 IRON

- ★ BOOSTER SERVICE
- ★ CIRCULATING
- ★ FILTERING
- ★ LUBRICATING
- ★ TRANSFERRING

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 GORMAN-RUPP OF CANADA LIMITED • ST. THOMAS, ONTARIO, CANADA

EXTERIOR	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 M 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	Volume
	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.
GMC 1DC 3-B ● GMC 1DC 4-B ■	9 [28]		6 [19]					● 300 [149] ■ 225 [107]	20 [9,0]	0.6
GMC 1DE 3-B ● GMC 1DE 4-B ■	11 [35]		7 [22]				20 [9,0]		0.6	
GMC 1-1/2GC 3-B ● GMC 1-1/2GC 4-B ■	16 [50]		10 [32]				32 [14,5]		0.6	
GMC 2GC 3-B ● GMC 2GC 4-B ■							32 [14,5]		0.6	
GMC 1-1/2GF 3-B ● GMC 1-1/2GF 4-B ■	23 [73]	1750 [1460]	15 [47]	1150 [960]	100 [7]	150 [10]	200 [14]		32 [14,5]	0.6
GMC 2GF 3-B ● GMC 2GF 4-B ■										
GMC 1-1/2GH 3-B ● GMC 1-1/2GH 4-B ■	31 [98]		20 [63]				32 [14,5]		0.6	
GMC 2GH 3-B ● GMC 2GH 4-B ■					32 [14,5]	0.6				
GMC 1-1/2GJ 3-B ● GMC 1-1/2GJ 4-B ■	38 [120]		25 [79]				32 [14,5]		0.6	
GMC 2GJ 3-B ● GMC 2GJ 4-B ■					32 [14,5]	0.6				

NOTE: RECOMMENDED PORT SIZES ARE SHOWN IN **BOLDFACE**. Example: **GMC 2GJ 3-B**

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

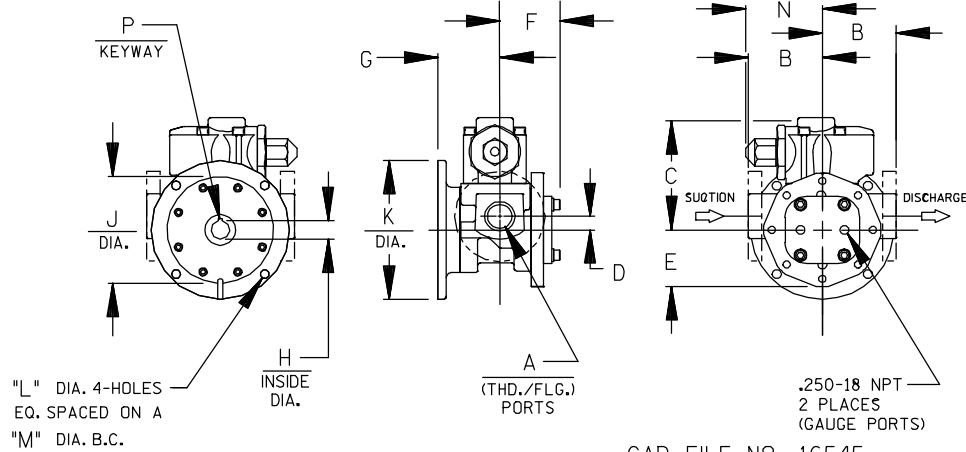
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 GORMAN-RUPP OF CANADA LIMITED • ST. THOMAS, ONTARIO, CANADA

Basic Pump Dimensions

* STANDARD DIMENSION

† 90° HOUSING

MOTOR FRAMES 56C, 143TC, 145TC, 182C, 184C



CAD FILE NO.: 16545

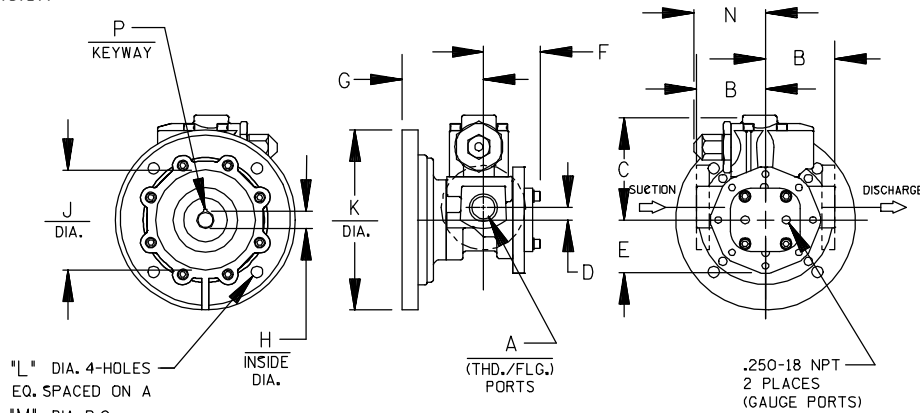
PUMP MODEL	PUMP DIMENSIONS - INCHES [MM]							PUMP MOUNTING DIMENSIONS							
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	
GMC D	1"	2.50 † [64]	5.19 [132]	.62 [16]	2.67 [68]	2.73 [69]	2.79 [71]	.62 † [16]	4.50 [114]	6.50 [165]	.41 [10]	5.88 [149]	3.58 [91]	.19 [5]	1.66 [42]
		2.75 * [70]													
GMC G	1-1/2"	3.50 † [89]	6.00 [152]	.62 [16]	3.25 [82]	3.34 [85]	2.86 [73]	.62 † [16]	4.50 [114]	6.50 [165]	.41 [10]	5.88 [149]	3.62 [92]	.19 [5]	1.69 [43]
		3.75 * [95]													

OPTIONAL (WITH ADAPTOR PLATE)

MOTOR FRAMES 182TC, 184TC, 213C, 213TC, 215C, 215TC, 254C, AE90, AE100, AE112

* STANDARD DIMENSION

† 90° HOUSING



CAD FILE NO.: 16579

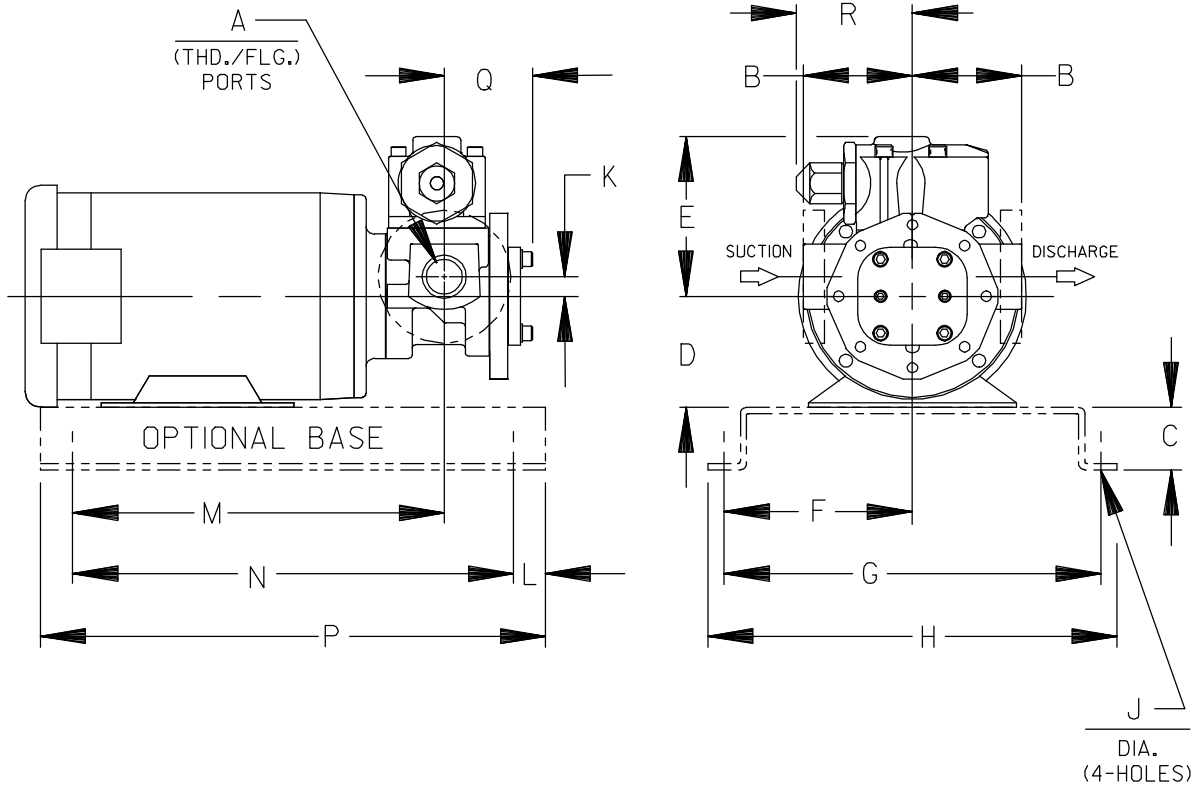
PUMP MODEL	PUMP DIMENSIONS - INCHES [MM]							PUMP MOUNTING DIMENSIONS							
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	
GMC D [METRIC]	AE90 AE110/112	1"	† [64]	[132]	[16]	[68]	[69]	[117]	† [24]	† [130]	† [200]	† [12]	† [165]	† [91]	† [8] X [46]
			* [70]						[28]	[180]	[250]	[15]	[215]	[8] X [56]	
GMC G	1-1/2"	3.50 † [89]	6.00 [152]	.62 [16]	3.25 [82]	3.34 [85]	4.62 [117]	1.12 * [28]	8.50 [216]	9.00 [229]	.53 [14]	7.25 [184]	3.62 [92]	.25 [6] X 2.12 [54]	
															3.75 * [95]
GMC G [METRIC]	AE90 AE110/112	2"						[24]	[130]	[200]	[12]	[165]		[8] X [46]	
								[28]	[180]	[250]	[15]	[215]		[8] X [56]	

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DIRECT CLOSE COUPLED C-FLANGE DRIVE OPTION DIMENSIONS



CAD FILE NO: 16503

PUMP MODEL	PUMP DIMENSIONS																		
	A	MOTOR FRAME	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R		
GMC 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]	.63 [16]	2.00 [51]	11.11 [282]	12.75 [324]	16.75 [425]	2.74 [70]	3.58 [91]		
		143TC/145TC	4.50 [114]		11.42 [290]														
		1820/184C	2.75* [70]		11.92 [303]														
GMC G	1-1/2"	56C	3.50 † [89]	2.00 [51]	3.50 [89]	6.00 [152]	6.25 [159]	12.50 [318]	14.50 [368]	.56 [14]	.63 [16]	2.00 [51]	11.18 [284]	12.75 [324]	16.75 [425]	3.34 [85]	3.62 [92]		
		143TC/145TC			4.50 [114]								11.49 [292]						
	2"	182C/184C	3.75* [95]	4.50 [114]	5.25 [133]	12.00 [305]	12.49 [317]	12.86 [327]	.56 [14]	.63 [16]	2.00 [51]	2.00 [51]	12.00 [305]	12.75 [324]	16.75 [425]	3.34 [85]	3.62 [92]		
		182TC/184TC																4.50 [114]	12.49 [317]
		213TC/215TC																5.25 [133]	12.86 [327]

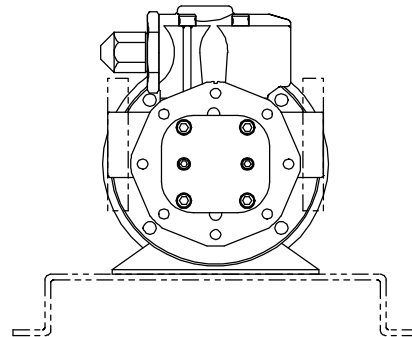
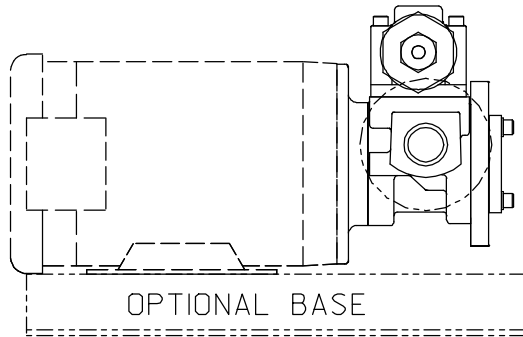
* STANDARD DIMENSION

† 90° HOUSING



1 PHASE DIRECT CLOSE COUPLED C-FLANGE DRIVE OPTIONS

(Drive Assembly Number Is For Motor Only)



16503.S01

PUMP MODEL NUMBER	1 PHASE		FRAME	115/230 VOLTS DRIVE ASSY NO.		
	RPM	HP		OPEN	TEFC	EXPLOSION PROOF
GMC D/G	1750	.75	56C	91111-540	91121-540	91131-540
		1.00	56C	91111-542	91121-542	91131-542
		1.50	56C	91111-546	91121-546	91131-546
		1.50	184C (a)			91131-547
		2.00	145TC (a)	91111-550		91131-550
		2.00	184C (a)		91121-550	
	1140	.75	56C	91111-580	91121-580	91131-580

(a) REQUIRES OPTION 50A OR 50J

NOTE: CONSULT FACTORY FOR:

- | | |
|-----------------------------------|---|
| 1. HORSEPOWERS & FRAMES NOT SHOWN | 5. 50 HERTZ 380 VOLT MOTORS |
| 2. DRIP PAN BASES | 6. FOR OPTIONAL BASE SEE PRICE PAGES |
| 3. 115-208/230 VOLT MOTORS | 7. COUNTER-CLOCKWISE ROTATION FOR SINGLE PHASE MOTORS |
| 4. 208-230/460 VOLT MOTORS | |



3 PHASE DIRECT CLOSE COUPLED C-FLANGE DRIVE OPTIONS

(Drive Assembly Number Is For Motor Only)

PUMP MODEL NUMBER	3 PHASE		FRAME	230/460 VOLTS DRIVE ASSY NO.		
	RPM	HP		OPEN	TEFC	EXPLOSION PROOF
GMC D/G	1750	.75	56C	91141-540	91151-540	91161-540
		1.00	143TC (a)	91141-542		
		1.00	56C		91151-542	91161-542
		1.50	145TC (a)	91141-546		
		1.50	56C		91151-546	91161-546
		2.00	145TC (a)	91141-550	91151-550	
		2.00	56C			91161-550
		3.00	145TC (a)	91141-554		
		3.00	56C		91151-554	
GMC G	1750	5.00	184C (a)	91141-558	91151-558	
		3.00	182TC (b)			91161-554
		5.00	184TC (b)			91161-558
		7.50	213TC (c)	91141-572	91151-572	91161-572
GMC D/G	1150	10.00	215TC (c)	91141-576	91151-576	91161-576
		.75	56C	91141-580	91151-580	91161-580
		1.00	56C	91141-582	91151-582	91161-582
		1.00	56C	91141-586		
		1.50	145TC (a)		91151-586	91161-586
		1.50	182C (a)			91161-588
GMC G	1150	2.00	184C (a)		91151-590	91161-590
		2.00	184TC (b)	91141-700	91141-700	
		3.00	213TC (c)	91141-704	91151-704	91161-704
GMC D	850	5.00	215TC (c)	91141-708	91151-708	91161-708
		.75	184C (a)		91151-720	
GMC G	850	1.00	182TC (b)	91141-730	91151-730	
		1.50	184TC (b)	91141-734	91151-734	
		2.00	213TC (c)	91141-738	91151-738	
		3.00	215TC (c)	91141-742	91151-742	

- (a) REQUIRES OPTION 50A OR 50J
- (b) REQUIRES OPTION 70A AND 50B OR 50K
- (c) REQUIRES OPTION 70A AND 50C OR 50L

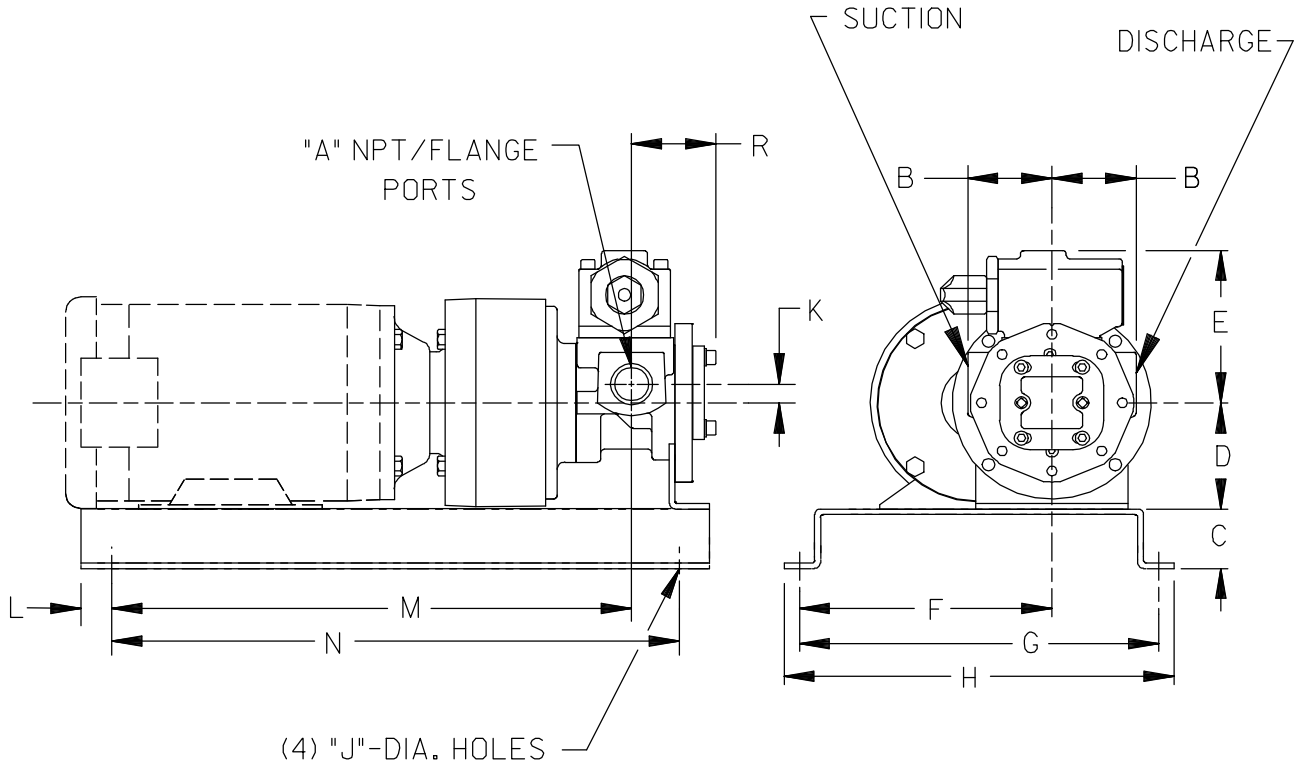
NOTE: CONSULT FACTORY FOR:

- | | |
|-----------------------------------|---|
| 1. HORSEPOWERS & FRAMES NOT SHOWN | 5. 50 HERTZ 380 VOLT MOTORS |
| 2. DRIP PAN BASES | 6. FOR OPTIONAL BASE SEE PRICE PAGES |
| 3. 115-208/230 VOLT MOTORS | 7. COUNTER-CLOCKWISE ROTATION FOR SINGLE PHASE MOTORS |
| 4. 208-230/460 VOLT MOTORS | |



GRR REDUCER CLOSE COUPLED C-FLANGE DRIVE OPTION DIMENSIONS

(Drive Assembly Number Includes Gear Reducer and Base, But **NOT** the Motor)



CAD FILE NO.: 16390B

PUMP MODEL	UNIT DIMENSIONS														
	"A"	MOTOR FRAME	B	C	D	E	F	G	H	J	K	L	M	N	R
GMC D	1"	56C	2.50 † [70]	2.00 [51]	3.50 [89]	5.19 [132]	6.50 [165]	13.00 [330]	15.00 [381]	.56 [14]	.63 [16]	3.00 [76]	14.22 [361]	25.50 [648]	2.66 [68]
		143TC/145TC	2.75* [70]		4.50 [114]										
GMC G	1 1/2"	56C	3.50 † [89]	2.00 [51]	3.50 [89]	6.00 [152]	6.50 [165]	13.00 [330]	15.00 [381]	.56 [14]	.63 [16]	3.00 [76]	14.16 [360]	25.50 [648]	3.27 [83]
		143TC/145TC	3.75* [95]		4.50 [114]										
		184C													

* STANDARD DIMENSION

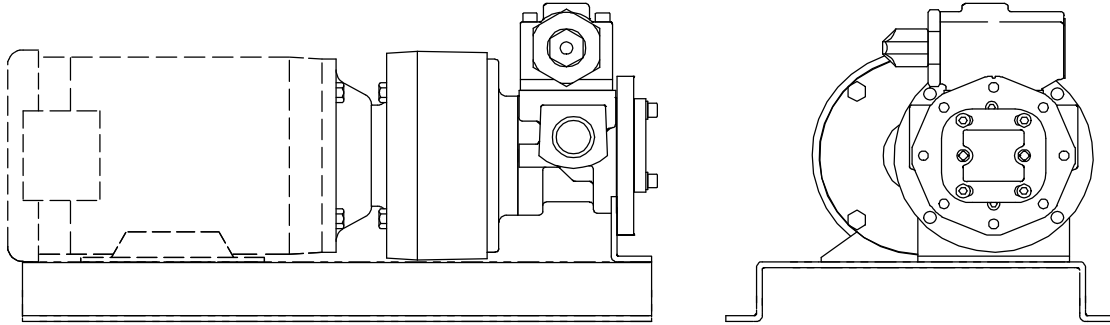
† 90° HOUSING



GMC

GRR REDUCER CLOSE COUPLED C-FLANGE DRIVE OPTIONS

(Drive Assembly Number Includes Gear Reducer and Base, But **NOT** the Motor)



PUMP MODEL NUMBER	RPM @ 1750	RPM @ 1150	REDUCER ①		FRAME	DRIVE ASSY NO.	
			MAX HP @ 1750	MAX HP @ 1150			
GMC D ②	875	575	2.00:1	5.65	3.73	56C	90153-510
				11.70	7.72	143TC/145TC	90153-519
				11.70	7.72	182C/184C	90153-522
	580	383	3.00:1	3.76	2.48	56C	90123-533
				8.10	5.35	143TC/145TC	90153-536
				8.10	5.35	182C/184C	90153-542
	440	288	4.00:1	2.82	1.86	56C	90153-550
				5.90	3.89	143TC/145TC	90153-553
				5.90	3.89	182C/184C	90153-559
	350	238	5.00:1	2.26	1.49	56C	90153-570
				5.20	3.43	143TC/145TC	90153-573
				5.20	3.43	182C/184C	90153-579
GMC G ②	875	575	2.00:1	5.65	3.73	56C	90153-610
				11.70	7.72	143TC/145TC	90153-613
				11.70	7.72	182C/184C	90153-629
	580	383	3.00:1	3.76	2.48	56C	90153-630
				8.10	5.35	143TC/145TC	90153-633
				8.10	5.35	182C/184C	90123-642
	440	288	4.00:1	2.82	1.86	56C	90153-660
				5.90	3.89	143TC/145TC	90153-663
				5.90	3.89	182C/184C	90153-672
	350	238	5.00:1	2.26	1.49	56C	90153-690
				5.20	3.43	143TC/145TC	90153-693
				5.20	3.43	182C/184C	90153-702

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.

② Use adds/deletes for large diameter head and coverplate kit if required.

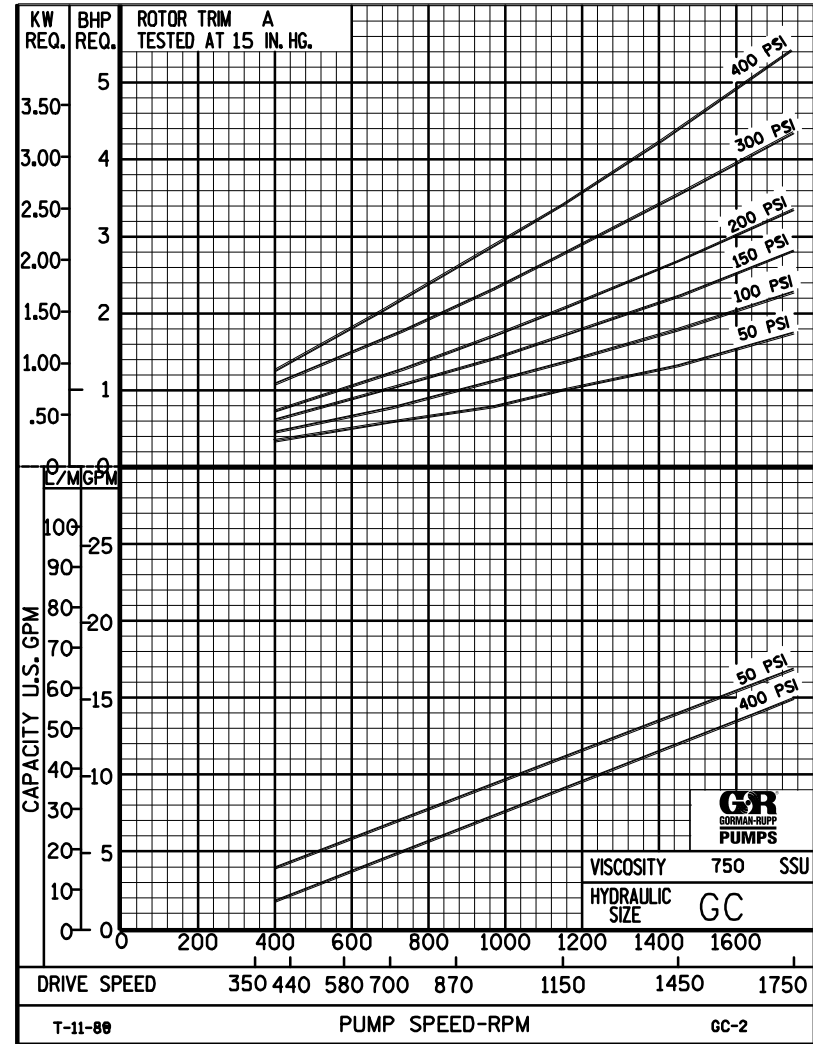
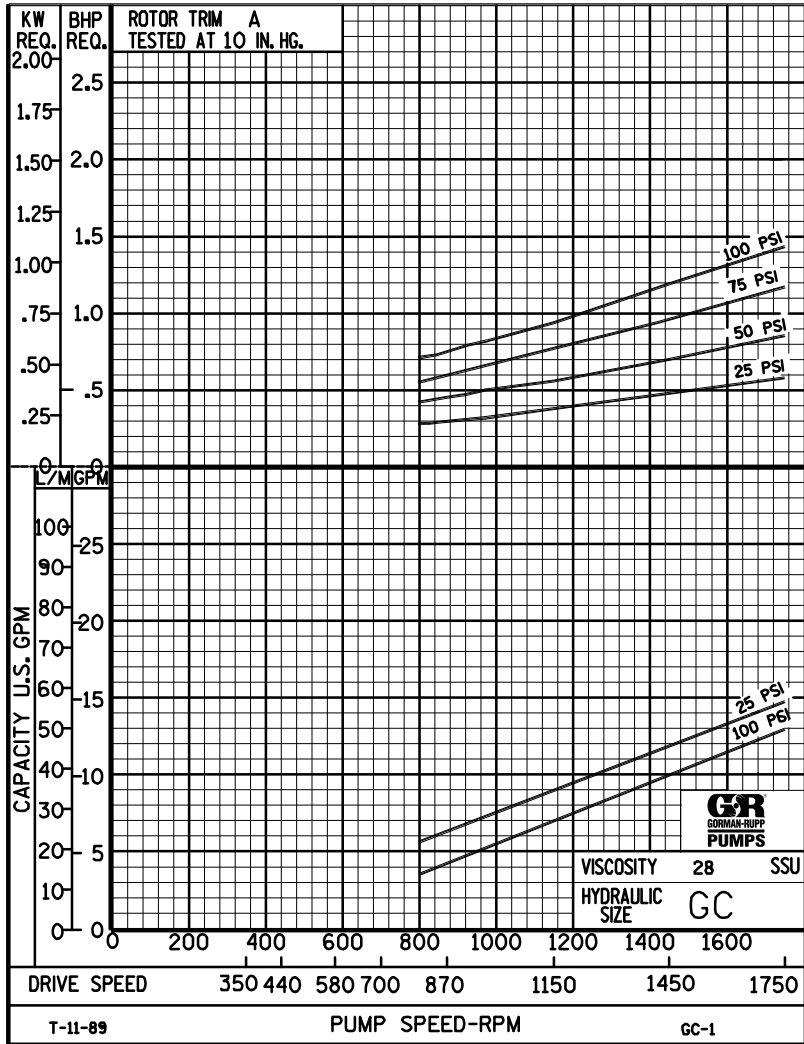
NOTES:
CONSULT FACTORY FOR:
HORSEPOWERS AND FRAMES NOT SHOWN.
DRIP PAN BASES.



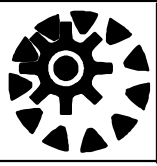
PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

GC Hydraulic Size



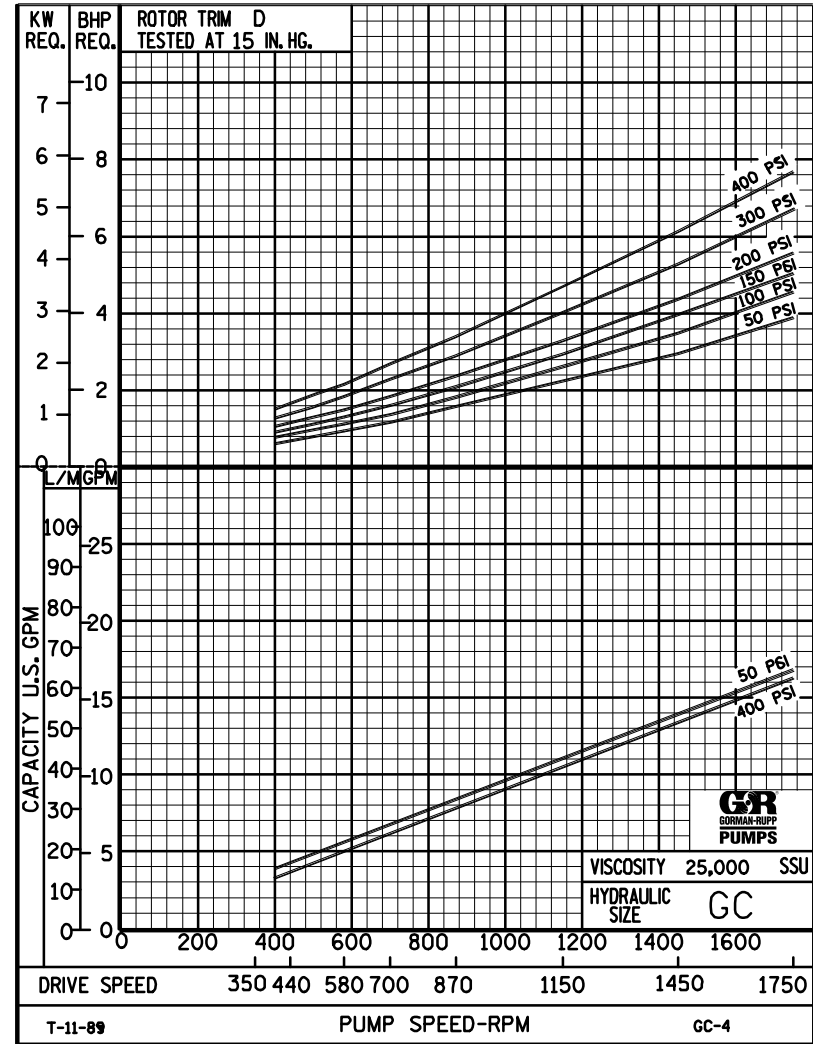
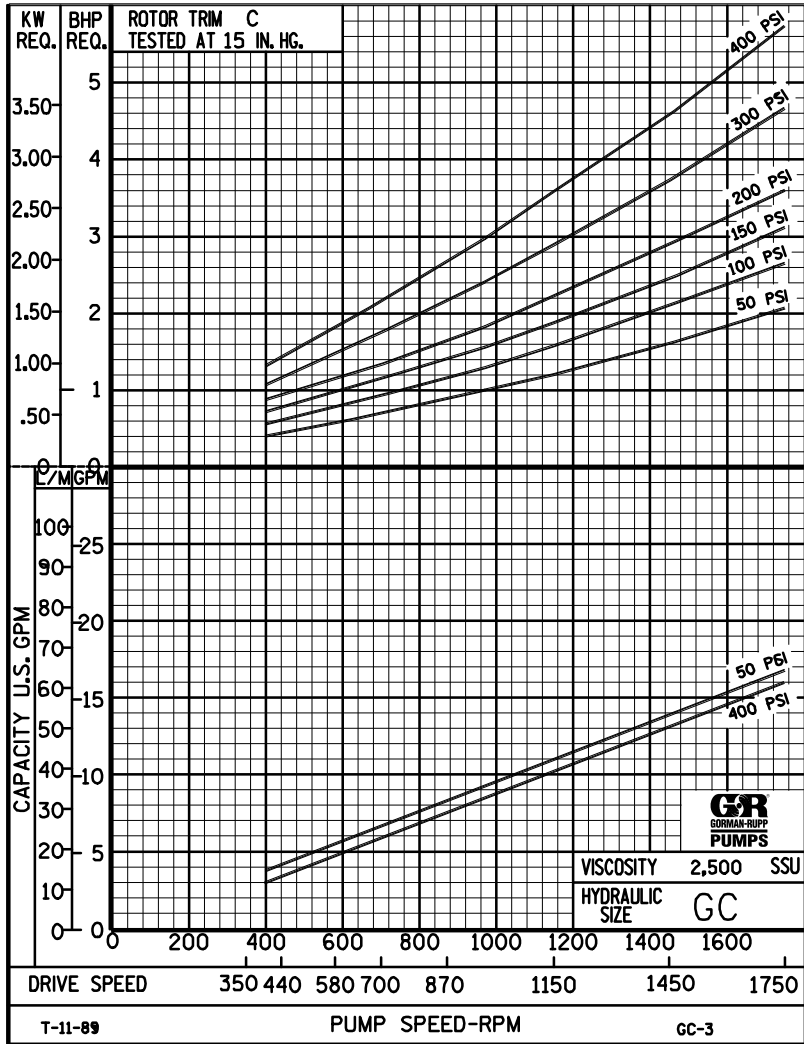
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PERFORMANCE CURVES

SPEED VS. CAPACITY/HORSEPOWER

GC Hydraulic Size



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GC

PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 40
January 2010

**16 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										
16	1750	STD	28	3.6	.01	.01	.01	.01	.01	60	87	112			14.0	13.0	13.0	12.0											
			32		.19	.06	.02	.01	.01						.58	.85	1.2	1.4											
			38	3.6	.24	.08	.02	.01	.01	60	87	112	162			15.0	14.0	14.0	13.0	12.0									
			50		.30	.10	.03	.01	.01							.88	1.0	1.3	1.6	2.2									
			70	3.6	.35	.11	.03	.02	.01	61	88	114	164	216			16.0	15.0	15.0	14.0	14.0	13.0							
			100		.40	.13	.03	.02	.01								1.1	1.2	1.5	1.8	2.3	2.8							
			150	3.6	.45	.16	.04	.02	.01	61	88	114	164	218			16.0	16.0	16.0	15.0	15.0	14.0	14.0	12.0					
			200		.50	.19	.06	.04	.01								1.2	1.4	1.7	2.0	2.5	3.1	4.1	5.2					
			300	3.6	.62	.24	.08	.04	.02	61	88	116	166	220			16.0	16.0	16.0	16.0	15.0	15.0	15.0	13.0					
			500		1.02	.39	.13	.07	.03								1.4	1.6	2.0	2.2	2.8	3.3	4.2	5.4					
			750	3.6	1.53	.59	.20	.11	.04	61	88	116	166	223			17.0	17.0	16.0	16.0	16.0	16.0	15.0	15.0					
			1,000		2.04	.78	.26	.14	.05								1.5	1.8	2.0	2.3	2.8	3.3	4.3	5.5					
		2,000	4.5	4.08	1.56	.52	.28	.11	63	91	116	166	223			17.0	16.0	16.0	16.0	16.0	16.0	16.0	15.0						
		3,500		7.14	2.72	.91	.49	.18								1.8	2.1	2.4	2.7	3.1	3.6	4.7	5.7						
		5,000	5.0	10.2	3.89	1.30	.70	.26	66	93	118	168	225			17.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0						
		7,500		15.3	5.83	1.95	1.05	.39								2.2	2.6	3.0	3.2	3.7	4.1	5.2	6.2						
		10,000	5.7	20.4	7.77	2.60	1.40	.52	69	95	120	170	225			17.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0						
		15,000		30.6	11.7	3.89	2.10	.78								2.8	3.2	3.5	3.8	4.3	4.8	5.9	6.9						
		20,000	6.1	40.8	15.6	5.19	2.80	1.03	73	98	123	173	225			16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0						
		25,000		51.0	19.4	6.49	3.50	1.29								3.4	3.9	4.2	4.6	5.0	5.6	6.6	7.7						
		50,000																											
		75,000																											
		100,000																											
		150,000																											
200,000																													
250,000																													

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



GC

PUMP HYDRAULIC SIZE CHART

SEC. 500

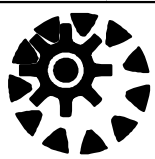
Page 41

January 2010

**10 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								
10	1150	STD	28	2.0	.01	.01	.01	.01	.01	56	81	106				9.0	8.0	7.0	6.0								
			32		.08	.03	.01	.01	.01							.38	.56	.77	.94								
			38	2.0	.11	.04	.01	.01	.01	56	81	106	157				9.5	8.5	8.5	7.5	6.0						
			50		.13	.04	.01	.01	.01								.43	.62	.82	.99	1.6						
			70	2.0	.14	.05	.02	.01	.01	56	81	107	158	209				10.0	9.5	9.5	9.0	8.0	7.5				
			100		.14	.05	.02	.01	.01									.54	.78	1.0	1.2	1.7	1.9				
			150	2.0	.17	.07	.03	.02	.01	57	82	108	158	211				10.0	10.0	10.0	10.0	9.5	8.5	7.5	6.0		
			200		.30	.12	.04	.02	.01									.58	.82	1.0	1.2	1.7	2.0	2.7	3.4		
			300	2.0	.39	.15	.05	.02	.01	57	82	109	159	212				11.0	10.0	10.0	10.0	10.0	10.0	9.0	7.5		
			500		.64	.24	.08	.05	.02									.66	.95	1.2	1.4	1.8	2.0	2.8	3.5		
		750	2.0	.96	.36	.12	.07	.03	57	82	111	161	214				11.0	11.0	11.0	11.0	10.0	10.0	9.5	9.0			
		1,000		1.28	.49	.16	.09	.03									.73	1.0	1.2	1.4	1.8	2.1	2.9	3.5			
		2,000	2.5	2.55	.97	.33	.18	.07	58	85	112	162	214				11.0	11.0	11.0	11.0	10.0	10.0	10.0	10.0			
		3,500		4.46	1.70	.57	.31	.12									.91	1.3	1.5	1.7	2.0	2.3	3.0	3.7			
		5,000	2.9	6.38	2.43	.81	.44	.16	60	85	112	162	214				11.0	11.0	11.0	11.0	11.0	10.0	10.0	10.0			
		7,500		9.57	3.64	1.22	.66	.24									1.1	1.5	1.8	1.9	2.4	2.6	3.3	3.9			
		10,000	3.2	12.8	4.86	1.62	.88	.32	63	88	114	166	216				11.0	11.0	11.0	11.0	11.0	11.0	10.0	10.0			
		15,000		19.2	7.29	2.43	1.31	.49									1.3	1.9	2.1	2.2	2.7	2.9	3.6	4.3			
		20,000	3.5	25.5	9.71	3.24	1.75	.65	66	91	116	168	218				11.0	11.0	11.0	11.0	11.0	11.0	10.0	10.0			
		25,000		31.9	12.2	4.05	2.19	.81									1.7	2.3	2.4	2.6	2.9	3.3	4.0	4.7			
50,000	5.4	63.8	24.3	8.11	4.38	1.61	69	94	122	172	224				11.0	11.0	11.0	11.0	11.0	11.0	10.0	10.0					
75,000		95.7	36.4	12.2	6.56	2.42									2.6	3.6	3.8	4.0	4.5	5.2	6.0	6.8					
100,000																											
150,000																											
200,000																											
250,000																											

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



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PUMP HYDRAULIC SIZE CHART

SEC. 500

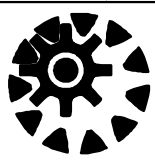
Page 42

January 2010

**8 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										
8	870	STD	28	1.4	.01	.01	.01	.01	.01	56	81	106				6.5	5.5	4.5	4.0										
			32		.06	.02	.01	.01	.01							.28	.45	.61	.77										
			38	1.4	.07	.03	.01	.01	.01	56	81	106	157				7.0	6.5	6.0	5.5	4.5								
			50		.09	.03	.01	.01	.01								.39	.49	.65	.79	1.2								
			70	1.4	.10	.04	.01	.01	.01	56	81	107	158	209				7.5	7.5	7.0	6.5	6.0	5.5						
			100		.10	.04	.01	.01	.01									.42	.53	.71	.83	1.2	1.4						
			150	1.4	.15	.05	.02	.01	.01	57	82	108	158	211				8.0	8.0	7.5	7.5	7.5	7.0	6.0	4.5				
			200		.24	.08	.03	.02	.01									.44	.55	.74	.90	1.2	1.5	2.0	2.6				
			300	1.4	.31	.12	.04	.02	.01	57	82	109	159	212				8.5	8.0	8.0	8.0	7.5	7.0	6.5	5.5				
			500		.51	.19	.07	.04	.01									.52	.64	.80	.97	1.3	1.5	2.1	2.6				
		750	1.4	.77	.29	.10	.05	.02	57	82	111	161	214				8.5	8.5	8.0	8.0	8.0	8.0	7.0	6.5					
		1,000		1.02	.39	.14	.07	.03									.62	.71	.86	1.0	1.3	1.5	2.1	2.6					
		2,000	1.8	2.04	.78	.26	.14	.05	58	85	112	162	214				8.5	8.0	8.0	8.0	8.0	8.0	7.5	7.5					
		3,500		3.57	1.36	.46	.25	.09									.76	.90	1.0	1.4	1.5	1.6	2.2	2.7					
		5,000	2.1	5.01	1.94	.65	.35	.13	60	85	112	162	214				8.5	8.0	8.0	8.0	8.0	8.0	8.0	7.5					
		7,500		7.65	2.91	.97	.53	.19									.92	1.2	1.3	1.4	1.6	1.9	2.3	2.9					
		10,000	2.4	10.2	3.88	1.30	.70	.26	63	88	114	166	216				8.5	8.0	8.0	8.0	8.0	8.0	8.0	7.5					
		15,000		15.3	5.83	1.95	1.05	.39									1.1	1.4	1.5	1.6	1.8	2.1	2.6	3.2					
		20,000	2.7	20.4	7.77	2.59	1.40	.52	66	91	116	168	218				8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0					
		25,000		25.5	9.71	3.24	1.75	.65									1.2	1.6	1.7	1.8	2.1	2.3	2.9	3.4					
50,000	4.3	51.1	19.4	6.50	3.50	1.29	68	93	120	170	222				8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0							
75,000		76.5	29.1	9.73	5.25	1.93									1.8	2.5	2.6	2.7	3.0	3.3	3.8	4.3							
100,000	6.2	102	38.9	13.0	7.00	2.58	70	95	122	172	224				8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0							
150,000		153	58.0	19.5	10.5	3.87									2.3	3.1	3.3	3.4	3.6	3.9	4.4	5.0							
200,000																													
250,000																													

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



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PUMP HYDRAULIC SIZE CHART

SEC. 500

Page 43

January 2010

**5 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										
5	580	STD	28	1.0	.01	.01	.01	.01	.01	55	80	105			4.0	3.5	3.0	2.5											
			32		.03	.01	.01	.01	.01							.19	.29	.40	.50										
			38	1.0	.04	.01	.01	.01	.01	55	80	105	156			4.5	4.0	3.5	3.0	2.5									
			50		.05	.02	.01	.01	.01							.21	.32	.45	.52	.76									
			70	1.0	.06	.02	.01	.01	.01	55	80	106	157	208		5.0	4.5	4.0	4.0	3.5	3.5								
			100		.07	.03	.01	.01	.01							.25	.34	.46	.54	.78	.93								
			150	1.0	.09	.04	.01	.01	.01	56	81	107	157	210		5.0	5.0	4.5	4.5	4.5	4.0	3.5	3.0						
			200		.17	.06	.02	.01	.01							.28	.36	.48	.59	.78	.95	1.3	1.3						
			300	1.0	.22	.08	.03	.02	.01	56	81	108	158	211		5.5	5.0	5.0	5.0	4.5	4.5	4.0	3.5						
			500		.35	.14	.05	.03	.01							.34	.42	.52	.63	.80	.97	1.3	1.6						
		750	1.0	.53	.20	.07	.04	.02	56	81	110	160	213		5.5	5.5	5.5	5.5	5.0	5.0	4.5	4.0							
		1,000		.70	.27	.09	.05	.02							.41	.46	.56	.65	.82	.99	1.4	1.7							
		2,000	1.3	1.40	.54	.18	.10	.04	57	84	111	161	213		5.5	5.5	5.5	5.5	5.0	5.0	5.0	4.5							
		3,500		2.46	.94	.31	.17	.06							.49	.59	.67	.77	.92	1.1	1.4	1.7							
		5,000	1.6	3.51	1.34	.45	.24	.09	59	84	111	161	213		5.5	5.5	5.5	5.5	5.5	5.5	5.0	5.0							
		7,500		5.26	2.00	.67	.36	.13							.61	.75	.84	.93	1.1	1.2	1.5	1.9							
		10,000	1.9	7.01	2.67	.89	.48	.18	62	87	113	165	215		5.5	5.5	5.5	5.5	5.5	5.5	5.0	5.0							
		15,000		10.5	4.00	1.34	.72	.27							.70	.89	.96	1.1	1.2	1.4	1.7	2.1							
		20,000	2.1	14.1	5.34	1.78	.96	.36	65	90	115	167	217		5.5	5.5	5.5	5.5	5.5	5.5	5.0	5.0							
		25,000		17.6	6.68	2.23	1.20	.44							.75	.94	1.0	1.1	1.3	1.5	1.9	2.2							
50,000	3.6	35.0	13.4	4.46	2.41	.89	67	92	119	169	221		5.5	5.5	5.5	5.5	5.5	5.5	5.0	5.0									
75,000		52.6	20.0	6.69	3.61	1.33							1.3	1.6	1.7	1.7	1.9	2.1	2.4	2.8									
100,000	5.4	70.2	26.7	8.92	4.81	1.77	69	94	121	171	223		5.5	5.5	5.5	5.5	5.5	5.5	5.0	5.0									
150,000		105	40.1	13.4	7.22	2.66							1.6	2.1	2.1	2.2	2.4	2.5	2.8	3.2									
200,000	8.6	140	53.4	17.8	9.63	3.54	75	100	129	179	235		5.5	5.5	5.5	5.5	5.5	5.5	5.0	5.0									
250,000		175	66.8	22.3	12.1	4.43							1.9	2.5	2.5	2.6	2.8	2.9	3.2	3.6									

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



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SEC. 500

PAGE 43.1

February 2025

2 GPM
200 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						
					1½"	2"	2½"	3"	4"	DIFFERENTIAL PRESSURE (PSI)				25	50	75	100	150	200	300
2	200	STD																		
				"D"	200,000	2.1	3.5	1.3	0.6	0.3	0.09	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
		399,999	7		2.6		1.3	0.5	0.2	0.6	0.7	0.7	0.7	0.8	0.9	0.9	1.0			
		400,000	2.3		1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9				
		599,999			10.5	3.9	1.9	0.8	0.3	0.8	0.8	0.8	0.9	0.9	1.0	1.1	1.1			
		600,000	2.9		1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9				
		799,999			14	5.1	2.5	1.1	0.36	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.2			
		800,000	3.2		1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9				
		1M			17.5	6.5	3.1	1.3	0.45	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.3			

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