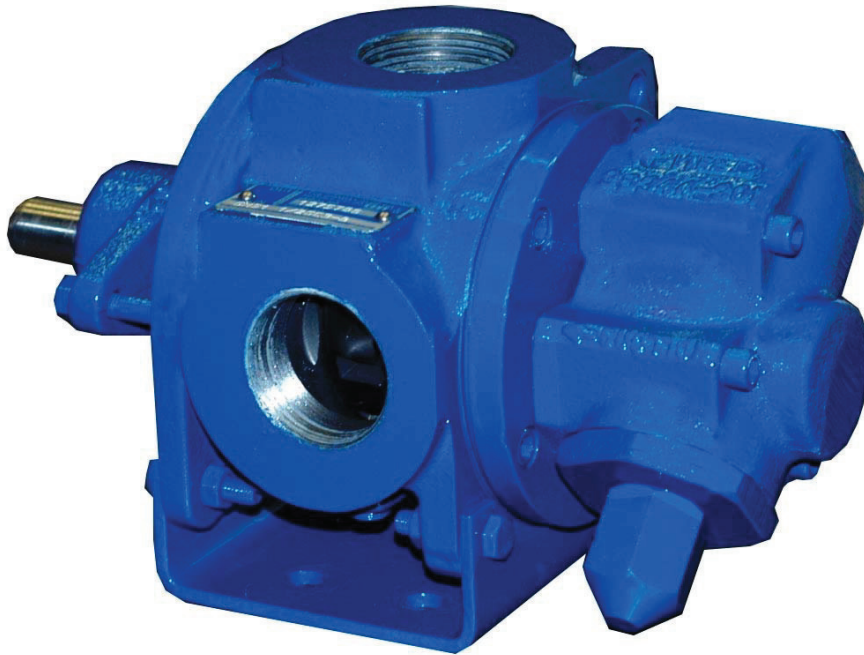




**GMS SERIES**  
**MEDIUM DUTY STANDARD;**  
**D, G, J, N & R SIZE**  
**ROTARY GEAR PUMP**



The GMS series is designed for applications in the operating ranges noted below. These units are available with head and backhead jackets (R size only) for temperature control, carbon graphite bushings for low viscosity liquids, silicon carbide bushings for wear resistance, and carbide, positive drive or packing seals for viscous sealing.

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

For belt driven applications, select an extended shaft option and consult factory for availability of drive assembly. A pedestal bearing is required for belt driven applications.

**FEATURES**

*150 PSI CAPABILITY*  
*SELF-CONTAINED, NO EXTERNAL BEARING REQUIRED (UNLESS BELT DRIVEN)*  
*HIGH STRENGTH, COMPUTER PROFILED GEARING FOR QUIET OPERATION*  
*THRUST CONTROLLED PUMP ELEMENTS*  
*EXCEPTIONAL SEAL VERSATILITY*

**OPERATING RANGE**

CAPACITY (GPM) : (3 TO 265)  
 [LPM] : [11 TO 930]  
 PRESSURE (PSI) : (0 TO 150)  
 [BAR] : [0 TO 10.3]  
 VISCOSITY (SSU) : (28 TO 250,000)  
 [cSt] : [1 TO 55,000]  
 TEMPERATURE (F) : (-60° TO 450°)  
 [C] : [-51° TO 230°]

**APPLICATIONS**

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

**THE GORMAN-RUPP COMPANY • MANSFIELD, OHIO**

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

# Standard Construction

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January 2010

EXT.	ROTOR & IDLER	HOUSING PORTS	BUSHINGS	IDLER PIN	SHAFT	SHAFT SEALING		ROTOR	INTERNAL RELIEF VALVE	
						MECH. SEAL ●	PACKING ■		MATERIAL	SETTING
CAST IRON	HIGH STRENGTH IRON	90° TAPPED	BRONZE	HARDENED STEEL		FLUORO <sup>①</sup> CARBON, NI-RESIST	PTFE <sup>②</sup> GRAPHITE	C.W.	DUCTILE IRON	75 PSI [5 BAR]

## Standard Models

**G M S 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.
<b>GMS 1DC 3-B</b> ● <b>GMS 1DC 4-B</b> ■	9 [28]		6 [19]						19 [8,6]	0.6
<b>GMS 1DE 3-B</b> ● <b>GMS 1DE 4-B</b> ■	11 [35]		7 [22]						19 [8,6]	0.6
<b>GMS 1-1/2 GC 3-B</b> ● <b>GMS 1-1/2 GC 4-B</b> ■	16 [50]		10 [32]						32 [14,5]	2.9
<b>GMS 2 GC 3-B</b> ● <b>GMS 2 GC 4-B</b> ■									32 [14,5]	2.9
<b>GMS 1-1/2 GF 3-B</b> ● <b>GMS 1-1/2 GF 4-B</b> ■	23 [73]	1750 [1460]	15 [47]	1150 [960]				400 [205]	32 [14,5]	2.9
<b>GMS 2 GF 3-B</b> ● <b>GMS 2 GF 4-B</b> ■									32 [14,5]	2.9
<b>GMS 1-1/2 GH 3-B</b> ● <b>GMS 1-1/2 GH 4-B</b> ■	31 [98]		20 [63]		50 [3]	75 [5]	150 [10.3]		32 [14,5]	2.9
<b>GMS 2 GH 3-B</b> ● <b>GMS 2 GH 4-B</b> ■								450 [230]	32 [14,5]	2.9
<b>GMS 1-1/2 GJ 3-B</b> ● <b>GMS 1-1/2 GJ 4-B</b> ■	38 [120]		25 [79]						32 [14,5]	2.9
<b>GMS 2 GJ 3-B</b> ● <b>GMS 2 GJ 4-B</b> ■									32 [14,5]	2.9
<b>GMS 2 JG 3-B</b> ● <b>GMS 2 JG 4-B</b> ■									83 [37,6]	2.9
<b>GMS 2-1/2 JG 3-B</b> ● <b>GMS 2-1/2 JG 4-B</b> ■	33 [126]	960 [960]	30 [95]	870 [725]					83 [37,6]	2.9
<b>GMS 3 JG 3-B</b> ● <b>GMS 3 JG 4-B</b> ■									83 [37,6]	2.9

STANDARD MODELS CONT.

**NOTE:** RECOMMENDED PORT SIZES ARE SHOWN IN **BOLDFACE**. EXAMPLE: **GMS 2GJ3-B**

- MECHANICAL SEAL
- PACKING/LIPSEAL
- ① DUPONT VITON® OR EQUIVALENT
- ② DUPONT TEFLON® OR EQUIVALENT

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SUPERSEDES ALL PREVIOUS ISSUES

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# Standard Models Cont'd

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.
GMS 2 JJ 3-B ● GMS 2 JJ 4-B ■	47 [177]	960 [960]	42 [133]	870 [725]	50 [3]	75 [5]	150 [10.3]	● 400 [205]	83 [37,6]	2.9
<b>GMS 2-1/2 JJ 3-B</b> ● <b>GMS 2-1/2 JJ 4-B</b> ■									83 [37,6]	2.9
GMS 3 JJ 3-B ● GMS 3 JJ 4-B ■									83 [37,6]	2.9
GMS 2 JL 3-B ● GMS 2 JL 4-B ■	64 [243]	960 [960]	58 [183]	870 [725]	50 [3]	75 [5]	150 [10.3]	● 400 [205]	83 [37,6]	2.9
<b>GMS 2-1/2 JL 3-B</b> ● <b>GMS 2-1/2 JL 4-B</b> ■									83 [37,6]	2.9
<b>GMS 3 JL 3-B</b> ● <b>GMS 3 JL 4-B</b> ■									83 [37,6]	2.9
GMS 2 JP 3-B ● GMS 2 JP 4-B ■	89 [338]	960 [960]	81 [256]	870 [725]	50 [3]	75 [5]	150 [10.3]	● 400 [205]	83 [37,6]	2.9
<b>GMS 2-1/2 JP 3-B</b> ● <b>GMS 2-1/2 JP 4-B</b> ■									83 [37,6]	2.9
<b>GMS 3 JP 3-B</b> ● <b>GMS 3 JP 4-B</b> ■									83 [37,6]	2.9
GMS 1-1/2 NK 3-B ● GMS 1-1/2 NK 4-B ■	90 [283]	960 [960]	60 [189]	870 [725]	50 [3]	75 [5]	150 [10.3]	■ 450 [230]	109 [49]	2.9
GMS 2 NK 3-B ● GMS 2 NK 4-B ■									109 [49]	2.9
<b>GMS 2-1/2 NK 3-B</b> ● <b>GMS 2-1/2 NK 4-B</b> ■									109 [49]	2.9
<b>GMS 3 NK 3-B</b> ● <b>GMS 3 NK 4-B</b> ■	109 [49]	2.9								
GMS 2 NM 3-B ● GMS 2 NM 4-B ■	120 [378]	960 [960]	80 [252]	870 [725]	50 [3]	75 [5]	150 [10.3]	■ 450 [230]	109 [49]	2.9
<b>GMS 2-1/2 NM 3-B</b> ● <b>GMS 2-1/2 NM 4-B</b> ■									109 [49]	2.9
<b>GMS 3 NM 3-B</b> ● <b>GMS 3 NM 4-B</b> ■									109 [49]	2.9
GMS 2 NP 3-B ● GMS 2 NP 4-B ■	150 [473]	960 [960]	99 [312]	870 [725]	50 [3]	75 [5]	150 [10.3]	■ 450 [230]	109 [49]	2.9
<b>GMS 2-1/2 NP 3-B</b> ● <b>GMS 2-1/2 NP 4-B</b> ■									109 [49]	2.9
<b>GMS 3 NP 3-B</b> ● <b>GMS 3 NP 4-B</b> ■									109 [49]	2.9

STANDARD MODELS CONT.

- MECHANICAL SEAL
- PACKING/LIPSEAL

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

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# Standard Models Cont'd

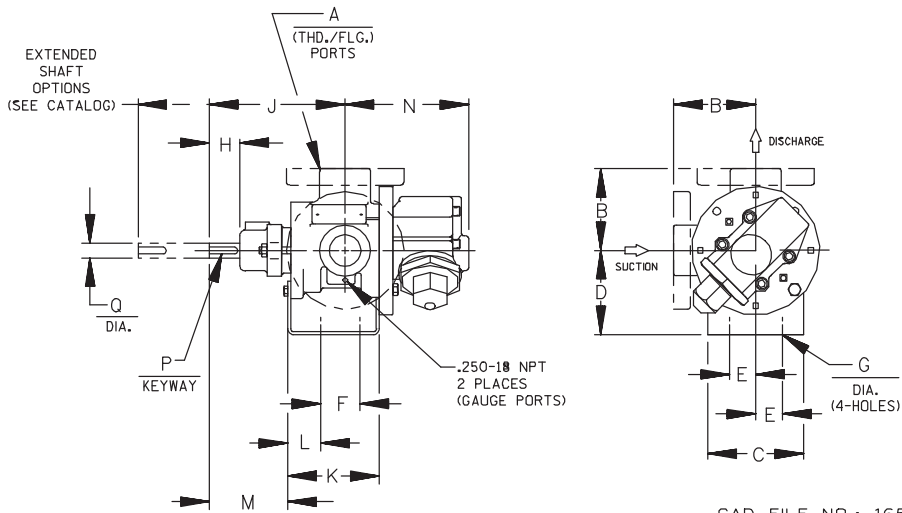
MODEL NUMBER	NOM. CAPACITY - SPEED				MAXIMUM			SHIPPING DATA		
	MAXIMUM		ALTERNATIVE		DIFFERENTIAL PRESSURE - PSI [BAR]			TEMP.	Weight	Volume
	GPM [LPM]	RPM 60 Hz [50 Hz]	GPM [LPM]	RPM 60 Hz [50 Hz]	BELOW 38 SSU [4 cSt]	38 TO 100 SSU [21 cSt]	100 TO 250,000 SSU [55,000 cSt]	° F [° C]		
GMS 2 RM 3-B ● GMS 2 RM 4-B ■	153 [542]		115 [362]	480 [400]				● 400 [205]	233 [106]	10.7
GMS 2-1/2 RM 3-B ● † GMS 2-1/2 RM 4-B ■ †									233 [106]	10.7
<b>GMS 3 RM 3-B</b> ● † <b>GMS 3 RM 4-B</b> ■ †									233 [106]	10.7
GMS 4 RM 3-B ● † GMS 4 RM 4-B ■ †									233 [106]	10.7
GMS 2-1/2 RP 3-B ● † GMS 2-1/2 RP 4-B ■ †	190 [678]	640 [600]	143 [451]		50 [3]	75 [5]	150 [10.3]	■ 450 [230]	233 [106]	10.7
<b>GMS 3 RP 3-B</b> ● † <b>GMS 3 RP 4-B</b> ■ †									233 [106]	10.7
GMS 4 RP 3-B ● † GMS 4 RP 4-B ■ †									233 [106]	10.7
GMS 2-1/2 RR 3-B ● † GMS 2-1/2 RR 4-B ■ †									233 [106]	10.7
GMS 3 RR 3-B ● † GMS 3 RR 4-B ■ †	228 [804]		170 [536]						233 [106]	10.7
<b>GMS 4 RR 3-B</b> ● † <b>GMS 4 RR 4-B</b> ■ †									233 [106]	10.7
GMS 3 RS 3-B ● † GMS 3 RS 4-B ■ †	265 [930]		196 [618]						233 [106]	10.7
<b>GMS 4 RS 3-B</b> ● † <b>GMS 4 RS 4-B</b> ■ †									233 [106]	10.7

NOTE: RECOMMENDED SIZES ARE SHOWN IN **BOLDFACE**. EXAMPLE: **GMS 2GJ 3-B**

† PORTS ARE COMPATIBLE WITH 125# ANSI CAST IRON FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSI PIPE. OPTIONAL [DIN] FLANGES OR TAPPED [BSP] PORTS AVAILABLE FOR EXPORT MARKET.

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# Basic Pump Dimensions



MODEL NUMBERS	PUMP DIMENSIONS - INCHES [MILLIMETERS]															
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	
GMS D	1"	2.50* [64]	4.00 [102]	3.50* [89]	1.62 [41]	1.62 [41]	.41 [10]	1.44 [36]	5.81 [148]	3.24 [82]	.89 [23]	3.99 [101]	4.97 [126]	.19 [5] x 1.00 [25]	.62 [16]	
		2.75† [70]		4.50 [114]												5.25 [133]
		3.19‡ [81]		5.25 [133]												
		4.00‡ [102]														
GMS G	1-1/2"	3.50* [89]	4.88 [124]	3.50* [89]	1.62 [41]	1.62 [41]	.41 [10]	1.64 [42]	5.96 [151]	3.85 [98]	.76 [19]	4.14 [105]	5.70 [145]	.19 [5] x 1.25 [32]	.75 [19]	
		3.75† [95]		4.50 [114]												5.25 [133]
	4.00‡ [102]	5.25 [133]		6.25 [159]												
	4.00‡ [102]															
GMS J	2"	4.50* [114]	6.88 [175]	5.25* [133]	2.88 [73]	3.00 [76]	.44 [11]	2.50 [64]	9.91 [252]	5.71 [145]	1.18 [30]	7.31 [186]	8.50 [216]	.25 [6] x 2.00 [51]	1.00 [25]	
		5.00† [127]		6.25 [159]												7.00 [178]
	6.00‡ [152]	7.00 [178]		8.00 [203]												
3"	6.31‡ [160]	8.00 [203]														
GMS N	1-1/2"	5.12* [130]	8.00 [203]	4.50 [114]	2.88 [73]	4.25 [108]	.44 [11]	2.50 [64]	9.20 [234]	6.42 [163]	1.12 [28]	6.12 [155]	7.59 [193]	.25 [6] x 2.00 [51]	1.25 [32]	
				5.25* [133]												6.25 [159]
	7.19‡ [183]	7.00 [178]		8.00 [203]												
	8.70 [221]															
GMS R	2"	8.50* [165]	10.25 [260]	7.00* [178]	3.75 [95]	5.75 [146]	.53 [13]	3.03 [77]	12.50 [318]	8.43 [214]	1.38 [35]	8.35 [212]	11.31 [287]	.38 [10] x 2.25 [57]	1.50 [38]	
				7.19‡ [183]												

\* STANDARD DIMENSION

† 180° HOUSING

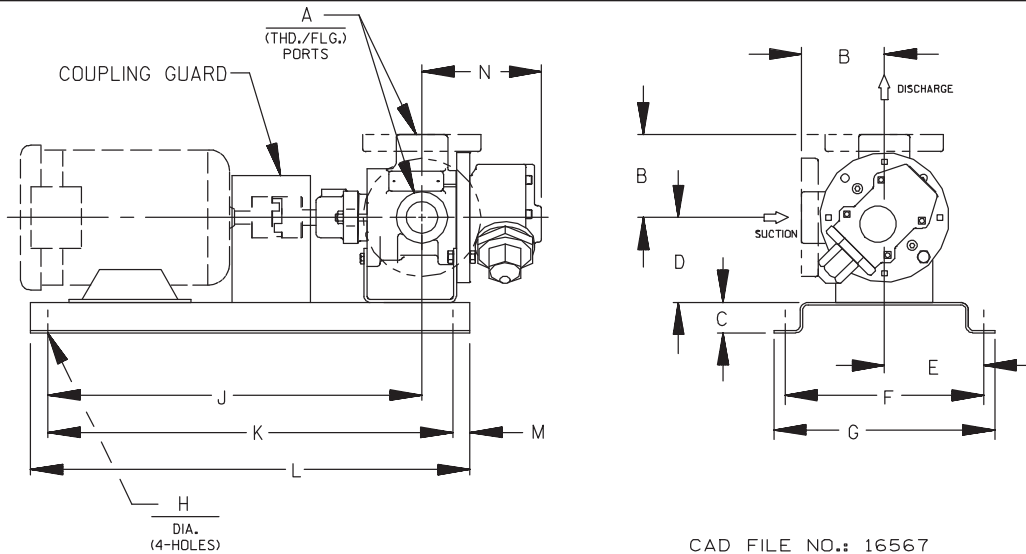
‡ PORTS ARE COMPATIBLE WITH 125\* OR 250\* ANSICAST IRON FLANGES. ALL OTHER PORTS ARE TAPPED NPT FOR ANSIPIPE. OPTIONAL (DIN) FLANGES OR TAPPED (BSP) PORTS AVAILABLE FOR EXPORT MARKET.

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# GMS

## DIRECT FLEX DRIVE OPTION DIMENSIONS



CAD FILE NO.: 16567

PUMP MODEL	PUMP DIMENSIONS - INCHES[MILLIMETERS]														
	A	B	MOTOR FRAME	C	D	E	F	G	H	J	K	L	M	N	
GMS D	1"	2.50* [64]	56 (H)	2.00 [51]	3.50 [89]*	4.44 [113]	8.88 [228]	10.14 [258]		20.04 [509]	19.25 [489]	25.25 [641]	3.00 [76]		
		2.75 † [70]	143T/145T												
		3.19 † [81]	182T/184T	4.00 [102]	4.50 [114]	7.75 [197]	15.50 [394]	17.50 [445]		.56 [14]	26.41 [671]	23.50 [597]	33.50 [851]	5.00 [127]	4.97 [126]
		4.00 † [82]	213T/215T		5.25 [133]										
GMS G	1- 1/2"	3.50* [89]	56 (H)	2.00 [51]	3.50 [89]*	4.44 [113]	8.88 [228]	10.14 [258]		20.04 [509]	19.25 [489]	25.25 [641]	3.00 [76]		
		3.75 † [95]	143T/145T												
	2"	4.00 † [102]	182T/184T	4.00 [102]	4.50 [114]	7.75 [197]	15.50 [394]	17.50 [445]		.56 [14]	26.57 [675]	23.50 [597]	33.50 [851]	5.00 [127]	5.71 [145]
		4.00 † [102]	213T/215T		5.25 [133]										
GMS J	2- 1/2"	4.50* [114]	182T/184T		4.50 [114]										
		5.00 † [127]	213T/215T		5.25 [133]*										
	3"	6.00 † [152]	254T/256T	4.00 [102]	6.25 [159]	9.50 [241]	19.00 [483]	21.00 [533]	.69 [18]	36.16 [918]	35.50 [902]	45.50 [1156]	5.00 [127]	8.49 [216]	
		6.31 † [160]	284T/286T		7.00 [178]										
GMS N	1- 1/2"		182T/184T		4.50 [114]										
	2"	5.12* [130]	213T/215T		5.25 [133]*									7.59 [193]	
			254T/256T	4.00 [102]	6.25 [159]	9.50 [241]	19.00 [483]	21.00 [533]	.69 [18]	35.44 [900]	35.50 [902]	45.50 [1156]	5.00 [127]		
	2- 1/2"		284T/286T		7.00 [178]									8.70 [221]*	
	3"	7.19 † [183]	324T/326T		8.00 [203]										

\* STANDARD DIMENSION

† 180° 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.



# GMS

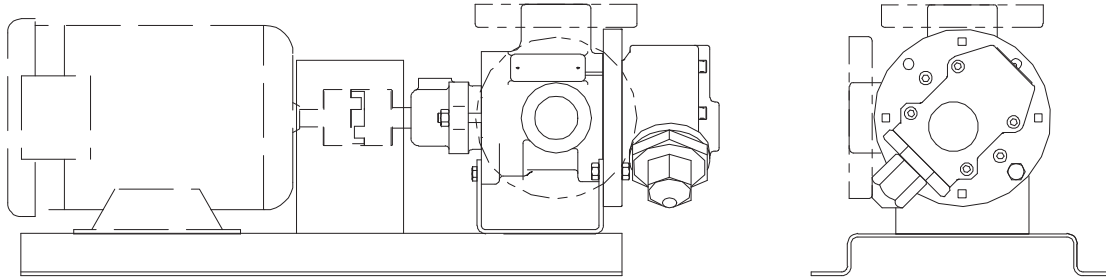
SEC. 525

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January 2010

## DIRECT FLEX DRIVE OPTIONS

Drive Assembly Number Includes Base, Coupling & Guard, But **Not** the Motor



CAD FILE NO.: 16567

PUMP MODEL NUMBER	60 HZ. RPM	FRAME	MTG. FT. OPTION REQ.	DRIVE ASSY NO.
GMS D	1750 1150 850	56/56H	STD	90251-082
		143T/145T	STD	90251-084
		182T/184T	80F	90251-090
		213T/215T	80J	90251-094
GMS G	1750 1150 850	56/56H	STD	90251-160
		143T/145T	STD	90251-162
		184	80F	90221-156
		182T/184T	80F	90251-168
		213T/215T	80J	90251-176
		254T	80P	90251-180
GMS J	850	182T/184T	80F	90251-310
		213T/215T	STD	90251-318
		254T/256T	80P	90251-330
		284T/286T	80S	90251-338
GMS N	850	254T/256T	80P	90251-394
		284T/286T	80S	90251-402
		324T/326T	80V	90251-410

NOTE: CONSULT FACTORY FOR OPTIONS NOT SHOWN.