

Bearing & Bushing Pumps

GETTING THE WORLD INTO GEAR





COMPANY PROFILE

Gear Pump Manufacturing, a Division of Hudaco, is located in Cape Town, South Africa, with a staff compliment of 150 employees, and has been specialising in the manufacture and assembly of hydraulic SAE mounted cast iron pumps and associated components since 1985. Approximately 70% of production is exported to countries in North and South America, Europe, Middle and Far East, South East Asia and Australia. A total of 37 countries around the world.

As a consequence of our re-investment philosophy, we have been successful in doubling our sales and production capacity. We continue to maintain substantial investments in inventory, both in Cape Town as well as at various distribution centres worldwide.

LATEST TECHNOLOGY - CNC machining centres, lathes and gear grinding machines, together with late model hobbing and shaving machinery and computerized test stands form the basis of our manufacturing facility.

IN-HOUSE FOUNDRY - Commissioned in February 2002 and currently produces grey Iron, SG iron, compacted graphite iron (CGI), as well as a vast range of components to the railways and agricultural sectors per annum. Superior metallurgical structured CGI material is used in the manufacture of the higher pressure requirements of our Bushing Pump Range. The foundries production is dedicated to the requirements of GPM and has sufficient capacity to handle the expected future growth.

PARTS, PORTING & ASSEMBLY - Our focus is purely on gear pump and motor assembly, ensuring consistently high quality products.

RIGOUROUS TESTING - All units assembled inhouse are tested on fully computerized test stand with multiple flow, pressures, temperatures and speed data. Units can also be tested according to customers specific requirements.

CUSTOMER SERVICE - Our willing and qualified staff are available to help clients with sales or technical issues.

SAFETY, HEALTH, ENVIRONMENT & QUALITY (SHEQ) - We aim to achieve zero harm to people or the environment, and undertake all reasonable and practicable steps to prevent and eliminate any risk of incidents. We pledge out committment to:

- Develop, implement and maintain a system for the effective management of Safety, Health, Environment and Quality that requires continuous improvement.
- Ensuring continual improvement in the management of Safety, Health, Environment and Quality performance by setting and reviewing accurate objectives.
- Identifying and eliminating potential hazards arising from its activities by mitigation



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PUMPS & MOTOR FEATURES

GPM hydraulic pumps and motors are particularly well suited to mobile equipment applications; they are designed for extreme duty cycles, and continuous heavy duty operation. Whilst the equipment is of a simple yet rugged design, it is manufactured to extremely precise tolerances.

Pumps are available in capacities ranging from 11 cc/rev to 200 cc/rev for each gear section. Several sections can be combined into one assembly. A wide selection of SAE and ANSI mounting flanges and drive shafts are available for all drive units. Pipe thread, O-ring seal, and split flange ports are available in both metric and SAE standards.



MAJOR FEATURES

GPM's full range of gear set products comply with the international standard, ensuring the metallurgical elements of Molybdenum and Nickel are present in the base material for premium quality requirements necessary in hydraulic gear pump applications.

Sectional Construction: Standard parts, cast from high strength grey iron, SG iron, compacted graphite iron (CGI) and bronze components can be assembled in a wide variety of configurations to suit almost any application. Superior metallurgical structured CGI material is used in the manufacture of the Higher Pressure requirements of our Bushing Pump Range.

Multiple pump units: Several pump sections can be combined in a single drive to eliminate multiple drive P.T.O units.

Precision matched gears: All gears are manufactured from high alloy forged bars, surfaces are precision finished and each gear pair is matched for maximum efficiency. The deep 10-tooth pattern gives maximum output per revolution whilst ensuring low pulsation frequency.

Bearings: Heavy duty roller bearings are utilized on all gear journals to reduce wear caused by contamination.

Motors: are available with capacities ranging from 0.75kW to 75kW. Basically similar in design to pumps, they are engineered for extreme heavy duty applications, with high efficiency characterists. Motor speed is in direct proportion to the volume of oil delivered to the inlet port and output torque is in

INTERCHANGEABILITY

GPM hydraulic equipment is directly interchangeable with the other internationally recognized SAE pumps and motors.

GPM equipment is sold in component form but units can be assembled and tested to meet your particular requirements.





PL FACTOR

Each section of a pump or motor should be regarded as a single unit with corresponding power input requirements. The entire input horsepower is fed through the drive shaft, the power delivered to or from the unit is limited by the strength of the shaft. The limit is defined as the "PL" factor. "P" being the operating pressure in PSI and the "L" the sum of the gear widths in inches.

In multiple units the "PL" must be calculated for each connecting shaft and must include the sum of the gear widths driven by it.

(Each shaft has a unique "PL" factor as can be seen in the following tables)

Pressure (PSI) x Total Gear Width (Inches) = PL Factor

PL FACTOR MUST NOT EXCEED FIGURE SHOWN IN CHART FOR SHAFT TYPE

BEARING

	SHAFT TYPE	SOLID SHAFT &GEAR	LOOSE SHAFT (CONTINENTAL SHAFT)
	SAE "A" Spline	2 600	2 600
	SAE "B" Spline	7 900	5 800
120/	SAE "B" Key	4 850	4 850
	SAE "BB" Spline	12 150	-
131	SAE "BB" Key	7 250	5 850
	SAE "C" Spline	-	5 850
	Connecting Shaft	-	5 850
	SAE "B" Spline	6 100	6 100
	SAE "B-B" Spline	9 400	-
	SAE "B-B" Key	5 600	5 600
151	SAE "C" Spline	12 900	8 500
	SAE "C" Key	10 900	8 500
	Connecting Shaft	-	8 500
	SAE "C" Spline	8 000	8 000
	SAE "C" Tandem	12 500	-
176	SAE "C" Key	7 500	7 500
	Connecting Shaft	-	10 000

BUSHING

	SHAFT TYPE	SOLID SHAFT &GEAR	LOOSE SHAFT (CONTINENTAL SHAFT)
	SAE "A" Spline	4 400	-
215	SAE "A" Key	3 600	-
215	SAE "B" Spline	13 400	-
	SAE "B" Key	9 900	-
	Connecting Shaft	-	5 550
	SAE "B" Spline	8 450	6 250
	SAE "B" Key	6 250	6 250
000	SAE "B-B" Spline	13 000	6 250
230	SAE "B-B" Key	9 300	6 250
	SAE "C" Spline	-	6 250
	SAE "C" Key	-	6 250
	Connecting Shaft	-	6 250
	CAE ((D)) C 1:	6.450	5 450
	SAE "B" Spline	6 450	6 450
	SAE "B" Key	4 750	4 750
	SAE "B-B" Spline	9 900 7 100	9 900
250	SAE "B-B" Key	7 100 19 100	7 100
	SAE "C" Spline SAE "C" Key	13 900	9 000
	,	13 900	9 000
	Connecting Shaft	-	9 000
	SAE "B" Spline	5 050	5 050
065	SAE "C" Spline	14 900	11 950
265	SAE "C" Key	10 800	10 800
	Connecting Shaft	-	11 900





GPM PARTS FOR HYDRAULIC GEAR PUMPS

THE FIRST LETTER OF EACH DESCRIPTION DENOTES WHAT TYPE OF PART IT IS. TARIFF HEADER FOR CUSTOMS / CLEARING PURPOSES - 8413.91.00.4



A = SOLID GEAR SET

Description starts with an **A** and ends with **gs**



F = BEARING CARRIER

Description starts with an **F** and ends with **bc**



B = LOOSE GEAR SET

Description starts with an **B** and ends with **gs**



G = THRUST PLATE

Description starts with an **G** and ends with **tp**



C = HOUSING

Description starts with an **C** and ends with **hsg**



= CONNECTING SHAFT

Description starts with an I and ends with **cs**



D = SHAFT END COVER

Description starts with an **D** and ends with **sec**



J = CONTINENTAL SHAFT

Description starts with an **J** and ends with **cds**



E = PORT END COVER

Description starts with an **E** and ends with **pec**



K-X
= SMALL
MISCELLANEOUS

PARTS





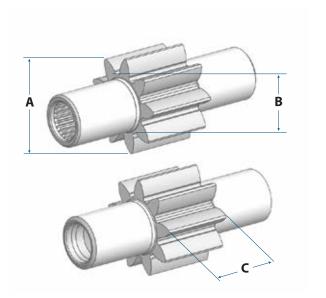
GPM PARTS FOR HYDRAULIC GEAR PUMPS

To calculate the approximate displacement of an external gear pump or motor in cubic inches per revolution, use the following formula:

Displacement = (Area 1 - Area 2) x Length (in³/rev)

- Area 1 using gear OD (A) minus
 Area 2 using gear root diameter (B) multiplied by the gear tooth length (C)
- = $(\pi (0.5 \times A)^2 \pi (0.5 \times B)^2) \times C$

 $\pi = 3.14$



EXAMPLE

Area (A) =
$$3.14 \times (1.25)^2$$
 = 4.89 in^2

Area (B) =
$$3.14 \times (0.87)^2$$
 = 2.35 in^2

Total Area = Area (A)- Area (B) =
$$4.89-2.35 = 2.54 \text{ in}^2$$

Displacement = Area x C =
$$2.54 \times 2$$
 = 5.08 in^3

5.08 in³/rev (83 cc/rev)





				PAR	TS LIST 🖊	\-D			
SERIES	120	125	131	151	176	215	230	250	265
△ SOLID SHAFT GEAR SET									
5/8" KEY SAE A						AKB-215-??			
7/8" KEY SAE B	ADD-131-??		ADD-131-??				ADC-230-??		
7/8" KEY SHORT SAE B			ADD-131-10			ADK-215-??			
7/8" KEY M8 SAE B						ADK-215-??			
1" KEY SAE BB	AED-131-??		AED-131-??	ATD-151-??			AEC-230-??	ATF-250-??	
1 1/8" KEY (JCB)							AHC-230-??		
1 1/8" KEY LONG							AHC-230-20-L		110 205 22
1 1/4" KEY SAE C				ASD-151-??	AAL-176-??			ASF-250-??	AAG-265-??
22 MM KEY METRIC 6 SPLINE					AJX-176-??	AAO-215-??			
9 SPLINE 5/8" SHORT SAE A						AZK-215-??			
9 SPLINE 5/8" SAE A			AAA-131-??						AID 265 22
10 SPLINE						100015 22			AIR-265-??
11 SPLINE	100 121 22		100 424 22	N/D 454 22		AGK-215-??	100 220 22	AV/E 250 22	ABG-265-??
13 SPLINE 7/8" SAE B	ABD-131-??		ABD-131-?? ABD-131-4-??	AVD-151-?? AVD-151-4-??		A D V 21 F 22	ABC-230-??	AVF-250-??	ADG-205-11
13 SPLINE 7/8" SHORT SAE B	ABD-131-4-??		ABD-131-4-??	AVD-151-4-??		ABK-215-??	ABC-230-4-?? AFD-230-??		
13 SPLINE 7/8" XTRA SHORT (FORD) SAE B 14 SPLINE 1 1/4" LONG SAE C							AFD-23U-FF		ANG-265-17-L
14 SPLINE 1 1/4" SAE C				APD-151-??	ANE-176-??			APF-250-??	ANG-265-??
14 SPLINE (CLARK)				711 D 131 1.	71112 170			ACL-250-25	
15 SPLINE 1" SAE BB	AAU-131-??		AAU-131-??	AAT-151-??		AAK-215-??	AAC-230-??	AAF-250-??	AJG-265-??
17 SPLINE 1 1/8" (CASE)								ACF-250-??	
TAPER DG						AMK-215-07			
TAPER (FORD)						AFR-215-??			
TAPER 15/16"with 7/8" UNF thread							ATH-230-17		
TAPER 1:8 (GROUP 2)						AHK-215-??			
TAPER 1:8 (GROUP 3)						AEK-215-??			
TAPER 1:5						ATK-215-??			
FORD							AFD-230-??		
LUBE PUMP - DOSCO SPL						ASK-215-??			
GP110 DUMP PUMP				ADE-110-??					
GP151 TWINSHAFT ****GP112 DUMP PUMP				AKE-113-?? AVD-151-1-??					
				***************************************	C WELL C.				
B LOOSE GEAR SETS				**Substitute ?? with	Gear Width Code				
STANDARD	BV-131-??	BKA-125-??	BV-131-??	BMA-151-??	BPA-176-??	BVK-215-??	BVC-230-??	BMF-250-??	BPG-265-??
SERIES 115				BBA-151-??					
SERIES 137X				BJA-151-??					
C GEAR HOUSING				**Substitute ?? with	Gear Width Code				
PUMP	CRD-120-??	CMA-151-??	CRA-131-??	CMA-151-??	CSA-176-??	CRK-215-??	CRC-230-??	CMH-250-??	CSG-265-??
MOTOR	CRD-120-??	CMA-151-??	CRA-131-??	CMA-151-??	CSA-176-??	CLK-215-??	CSC-230-??	CLF-250-??	CLG-265-??
PUMP- BI ROTATION ****GP110/GP112 DUMP PUMP				CG-151-??-BI CC-110-??					
D SHAFT END COVERS				**Substitute ?? with	Gear Width Code				
4 BOLT ROUND		DCB-125-3							
6 BOLT ROUND	DFD-120	DCB-125	DFB-131						
2 BOLT 3 1/4" SAE A	DWD-120		DWB-131			DWK-215	DWC-230		
2 BOLT 3 1/4" SAE A WITH S/RETAINER						DWK-215-SPL			
2 BOLT 3 1/4" SAE A MOTOR						DWK-215-M			
2 BOLT 4" SAE B	DGD-120	DUA-125	DGB-131	DRB-151		DGK-215	DGC-230	DRF-250	DRG-265
2 BOLT 4" SAE B MOTOR	DCD 130 CU		DCD 434 CU			DGK-215-M	DCC 220 CU		DRG-265-M
2 BOLT 4" SAE B SHORT	DGD-120-SH		DGB-131-SH				DGC-230-SH		
2 BOLT 4" XTRA SHORT (FORD) 2 BOLT 5" SAE C		DYA-125		DND 1E1	DVB-176		DFD-230	DNF-250	DVG-265
2 BOLT 5" SAE C MOTOR		D1A-123		DNB-151	DVB-170		DNC-230	DINF-230	DVG-265-M
4 BOLT 3 3/4" SAE		DTC-125		DHS-151					DVG-205-IVI
	DED-120	DTA-125	DEB-131	DHB-151	DSB-176	DEK-215	DEC-230	DHF-250	DSG-265
4 BOLT 4" SAE B									DSG-265-M
· · · · · · · · · · · · · · · · · · ·	DED 120				DTD 17C		DPC-230	DKF-250	DTG-265
4 BOLT 4" SAE B	DED 120	DXA-125	DPB-131	DKB-151	DTB-176		D1 C 230	DKI -230	
4 BOLT 4" SAE B 4 BOLT 4" SAE B MOTOR	DEB 120	DXA-125	DPB-131	DKB-151	D1B-176		D1 C 230	DKI -230	DTG-265-M
4 BOLT 4" SAE B 4 BOLT 4" SAE B MOTOR 4 BOLT 5" SAE C	<i>DEB</i> 120	DXA-125	DPB-131	DKB-151	DUB-176		B1 C 230	DK1-230	DTG-265-M
4 BOLT 4" SAE B 4 BOLT 4" SAE B MOTOR 4 BOLT 5" SAE C 4 BOLT 5" SAE C MOTOR	515 120	DXA-125	DPB-131	DKB-151			B1 C 250	DZF-250	DTG-265-M
4 BOLT 4" SAE B 4 BOLT 4" SAE B MOTOR 4 BOLT 5" SAE C 4 BOLT 5" SAE C MOTOR 4 BOLT 6" SAE D	515 120	DXA-125	DPB-131	DKB-151		DHK-215 GR2	DI C 230		DTG-265-M
4 BOLT 4" SAE B 4 BOLT 4" SAE B MOTOR 4 BOLT 5" SAE C 4 BOLT 5" SAE C MOTOR 4 BOLT 6" SAE D 4 BOLT DIN PTO 4 BOLT GROUP 2 4 BOLT GROUP 3 EURO		DXA-125	DPB-131			DHK-215 GR2 DHK-215		DZF-250	DTG-265-M
4 BOLT 4" SAE B 4 BOLT 4" SAE B MOTOR 4 BOLT 5" SAE C 4 BOLT 5" SAE C 4 BOLT 6" SAE D 4 BOLT GIN PTO 4 BOLT GROUP 2 4 BOLT GROUP 3 EURO 2/4 BOLT 4" SAE B	DDB-120-4	DXA-125	DPB-131	DDB-151-4			DDB-230-4	DZF-250 DDB-250-4	DTG-265-M
4 BOLT 4" SAE B 4 BOLT 4" SAE B MOTOR 4 BOLT 5" SAE C 4 BOLT 5" SAE C MOTOR 4 BOLT 6" SAE D 4 BOLT DIN PTO 4 BOLT GROUP 2 4 BOLT GROUP 3 EURO		DXA-125	DPB-131					DZF-250	DTG-265-M

				PAF	RTS LIST	≣-J			
SERIES	120	125	131	151	176	215	230	250	265
■ SHAFT END COVERScont									
ADD-A-PUMP			DDC-131/131		DPB-176/131				
PAD MOUNT FAN MOTOR		DSA-125		DMB-151		DFK-215-M			
LUBE PUMP - DOSCO SPL						DSK-215			
FORD-3 BOLT 95.2 spigot						DFR-215			
CHELSEA	DCD-120								
GP151 TWINSHAFT PAD MOUNT				DHU-113					
GP110 DUMP PUMP				DC-110					
CLUTCH PUMP						DCP-215 Clutch			
E PORT END COVERS									
STANDARD	EXD-120	EZA-151	EXA-131	EZA-151	EYA-176	EUK-215	EUC-230	EWF-250	EWG-265
PORTED						EUK-215	EUC-230	EWF-250	EWG-265
PORTED 4 PORT			EXA-131-4	EZA-151-4		EUK-215-4	EUC-230-4	EWF-250-4	EWG-265-4
PORTED 4 PORT 2W	EVD 420.6		EVA 424 C				EUC-230-4		
REAR PORTED BI REAR PORTED	EXD-120-S		EXA-131-S					ERP-250	
TANDEM						EXK-215	EXC-230	EZF-250	EYG-265
MOTOR						EUK-215-M	EUC-230-M	EUF-250-M	EWG-265-M
MOTOR TANDEM						LUK-Z13-W	LUC-230-IVI	L01-230-W	EYG-265-M
FAN MOTOR						EPK-215-M			L10 203 W
RELIEF VALVE						ERK-215-RV			
FORD- WITH INLET TUBE							EFD-230		
STEP DOWN CW							EPB-230/215 CW	EPB-250/215 CW	EPB-265/230 CW
STEP DOWN CCW							EPB-230/215 CCW	EPB-250/215 CCW	EPB-265/230 CCW
BI-ROTATION				EG-151-BI				ERP-250	
ADD-A-PUMP STD			EPB-131/131	EPB-151/131	EPB-176/131				
ADD A PUMP 2 BOLT A CW								EAAP250 2bA CW	EAAP265 2bA CW
ADD A PUMP 2 BOLT A CCW								EAAP250 2bA CCW	EAAP265 2bA CCW
ADD A PUMP 2 BOLT B CW								EAAP250 2bB CW	EAAP265 2bB CW
ADD A PUMP 2 BOLT B CCW								EAAP250 2bB CCW	EAAP265 2bB CCW
GP151 TWINSHAFT 1.5NPT X 0.75ODT				EHU-151					
GP151 TWINSHAFT 1.5NPT X 1.000DT				EHV-151					
STEP DOWN STANDARD			EDC-131-24						
F BEARING CARRIERS	515.400	5110 105	514 404	57. 151	F74 476				
STANDARD	FVD-120	FKB-125	FVA-131	FTA-151	FZA-176				
STANDARD WITH DRAIN 1 OUTLET			FVA-131-11	FTA-151-11	FZA-176-11	FYK-215-1	FWC-230-1	FTF-250-1	FZG-265-1
2 OUTLET						FYK-215-1 FYK-215-2	FWC-230-1 FWC-230-2	FTF-250-2	FZG-265-1 FZG-265-2
MOTOR						FYK-215-M	FWC-230-M	FTF-250-M	FZG-265-M
3" SUCTION						TIKZISIVI	1 WC 230 W	1 11 -230-IVI	FZG-265-3
3" SUCTION 2 OUTLET									FZG-265-3W-2
WIDE SUCTION						FYK-215-3W			
G THRUST PLATES									
PUMP	GAA-131	GY-151	GAA-131	GY-151	GBA-176	GCI-215 HDTC	GCI-230 HDTC	GCI-250 HDTC	GCI-265 HDTC
MOTOR						GM-215	GM-230	GM-250	GM-265
DRY VALVE BI ROTATION					GBA-176-BI				
DRY VALVE UNI ROTATION					GBA-176-UNI				
SERIES 115				GU-115					
SERIES 137X				GX-137					
GP110 DUMP PUMP				GC-110					
LI TUDUCT DU ATE CE : :									
PUMP CHANNEL SEAL (H1)						HCI-215-CS	HCI-230-CS	HCI-250-CS	HCI-265-CS
PUMP CHANNEL SEAL (H1) PUMP CHANNEL SEAL BACKUP (H2)						HCI-215-CS	HCI-230-CS	HCI-250-CSBU	HCI-265-CSBU
MOTOR SEAL BACKUP (H3)						HM-215-MSBU	HM-230-MSBU	HM-250-MSBU	HM-265-MSBU
MOTOR END SEAL (H4)						HM-215-MES	HM-230-MES	HM-250-MES	HM-265-MES
MOTOR SIDE SEAL (H5)						HM-215-MSS	HM-230-MSS	HM-250-MSS	HM-265-MSS
2.22.2.2.00.12 (1.13)									
CONNECTING SHAFTS									
STANDARD	IZA-131	ITA-125	IZA-131	IYA-151	IAB-176	ZK-215	IZC-230	IYF-250	IAG-265
STEP DOWN							IPB-230/215	IPB-250/215	IPB-265/230
ADD-A-PUMP			IAF-131/131	IAD-151/131	IAH-176/131				
ADD-A-PUMP				IPB-151/151					
ADD A PUMP with 9 SPLINE								IAAP-250/9SPL	IAAP-265/9SPL
ADD A PUMP with 13 SPLINE								IAAP-250/13SPL	
ADD A PUMP with 15 SPLINE									IAAP-265/15SPL
DIN/SAE B COUPLING	I-DIN/SAE B		I-DIN/SAE B	I-DIN/SAE B		I-DIN/SAE B	I-DIN/SAE B	I-DIN/SAE B	

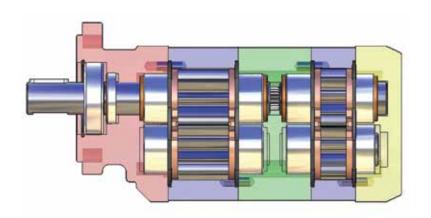
		PARTS LIST J-S												
SERIES	120	125	131	151	176	215	230	250	265					
J LOOSE SHAFTS														
3/4" KEY	JAV-131		JAV-131											
7/8" KEY	JAK-131	JWB-125	JAK-131	JAB-151			JCK-230	JUK-250						
7/8" KEY WITH EXT THREAD	JAX-131		JAX-131				JCK-230-L							
7/8" KEY LONG	JAK-131-L	WID 405	JAK-131-L	115 151		100.015	100.000							
1" KEY 1" KEY LONG	JED-131	JHB-125	JED-131 JED-131-L	JAE-151		JGD-215 JGD-215-L	JCD-230							
1 1/8" KEY	JMT-131		JMT-131	JGT-151		JGD-213-L	JHH-230	JHH-250						
1 1/4" KEY	JAW-131	JRB-125	JAW-131	JAF-151	JAL-176		JCW-230	JAC-250	JLG-265					
1 1/4" KEY LONG				JAF-151-L	JAL-176-L									
1 1/4" KEY LONG DOUBLE BRG		JDB-125												
1 1/4" KEY with 1/2" thread								JKE-250						
1 3/4" KEY UCHIDA					JUC-176									
1 3/4" KEY LONG					JKB-176									
CAT 910 TAPER W/RUFF	JCA-131		JCA-131											
6 SPLINE 1"	JAM-131	JHC-125	JAM-131	JAN-151										
6 SPLINE 1 1/4" 8 SPLINE DIN	JDI-131		JDI-131	JSX-151			JKD-230	IDL 350						
9 SPLINE 5/8"	JDI-131 JAI-131		JDI-131 JAI-131					JDI-250						
11 SPLINE 3/4"	JDV-131		JDV-131											
13 SPLINE 7/8"	JAJ-131	JVB-125	JAJ-131	JAD-151										
13 SPLINE 7/8" SHORT	JAJ-131-SH		JAJ-131-SH											
13 SPLINE 7/8" LONG	JSB-131	JCS-125	JSB-131											
13 SPLINE 1 3/4"					JAS-176-SHD									
14 SPLINE 1 1/4"	JAH-131	JPB-125	JAH-131	JAG-151	JAS-176									
14 SPLINE 1 1/4" LONG		JEC-125-L		JAG-151-L	JAS-176-L									
14 SPLINE 1 1/4" SAE C							JCH-230	JAP-250						
15 SPLINE 1" SAE BB								JFG-250						
17 SPLINE Komatsu 1 1/2"		ITC 12F			JUK-176				JKG-265					
TAPER SHAFT TAPER 1:8		JTS-125	JEK-131											
TAI LIV 1.0			3EN 232											
K BEARINGS / BUSHES														
BUSHES (K2)	10/101	110 151	101.101	110 151	110.170	KBUSH-215	KBUSH-230	KBUSH-250	KBUSH-265					
NEEDLE ROLLER SHAFT BALL BEARING	KY-131 KX-131-40	KS-151 KX-125-8	KY-131 KX-131-40	KS-151 KX-151-58	KR-176 KX-176-59		KX-131-40	KX-151-58	KX-176-59					
ADD A PUMP	KA-131-40	KX-12J-0	KA-131-40	KV-131-39	KX-170-39		KA-131-40	KAAP-250/265	KAAP-250/265					
TOD ITT OWN								KAAI 230/203	10 0 11 230/203					
L SEALS														
BODY SEALS	LUB-120-239	LUB-151-244	LUB-131-242	LUB-151-244	LUB-176-252	LUB-215-239	LUB-131-242	LUB-250-244	LUB-265-250					
MOTOR BODY SEAL						LUB-215-239M								
PUMP SEAL STANDARD	LX-131-16	LX-125-13	LX-131-16	LX-151-17	LX-176-10									
MOTOR SEAL STANDARD	LX-131-9	LX-125-3	LX-131-9	LX-151-8	LX-176-1									
PUMP SEAL TELLTALE								LPA-250-TT						
PUMP SEAL LOOSE SHAFT	LX-131-18		LX-131-18				LX-131-18							
MOTOR SEAL LOOSE SHAFT PUMP SEAL VITON	LX-131-11 LX-131V-16	LX-125V-13	LX-131-11 LX-131V-16	LX-151V-17	LX-176V-10		LX-131-11 LX-131V-16	LX-151V-17	LX-176V-10					
TOWN SEAL VITOR	EX 131V 10	LX 123V 13	LX-131V-10	LX 131V 17	LX 170V 10		LX 131V 10	DX 131V 17	EX 170V 10					
M RETAINERS	-													
SEAL RETANER MOTOR		MAV-125			MRA-176	MFR-215								
SEAL RETAINER PUMP		MGA-125			MRA-176									
RETAINER NUT PUMP		MW-125												
RETAINER NUT MOTOR		MLA-125-D												
SEAL RETAINER LUBE PUMP- DOSCO SPL						MSK-215								
SEAL RETAINER TELLTALE							MNA-230-1	MPA-250	MTT-265					
N DOWELS														
STANDARD			NDOWEL-131	NDOWEL-131	NDOWEL-176	NDOWEL-215	NDOWEL-131	NDOWEL-131	NDOWEL-265					
MOTOR									NDOWEL-265N					
BRONZE PRESSURE RING	-													
RING SEAL	OLB-131-1	OLA-125	OLB-131-1	ONB-151-1	OWB-176-1									
SHAFT BUSH	Ì	OAH-125												
CONNECTING SHAFT BUSH		OAR-125												
P O-RINGS/POCKET SEALS	_													
RETAINER O-RING	P2	PL-125-26			PL-176-164									
POCKET SEAL	PBA-131-2		PBA-131-2	PBA-131-2	PBA-176-3									
			PL-PB131/131-30		PL-PB176/131-159									

		PARTS LIST V-W											
SERIES	120	125	131	151	176	215	230	250	265				
Q SPACERS													
SEAL SPACER	QAE-131	QSA-125	QAE-131	QAC-151		QAE-215	QAE-131	QAC-151					
INTERNAL SPACER		QTA-125-?		QVB-151-1									
BEARING SPACER	QVB-131-2	QGB-125	QVB-131-2	QVB/AC-151	QVB-176		QVB-131-2	QVB/AC-151	QVB-176				
SHAFT SPACER (CONTI)	QTB-131	QDB-125/QYA-125-1	QTB-131	QTG-151	QAF-176		QTB-131		QAF-176				
ADD-A-PUMP			QAK131/131		QAL176/131								
R KEYS													
3/4" SHAFT	RX-JAV		RX-JAV										
7/8" SHAFT	RX-17	RX-17	RX-17	RX-17		RX-18	RX-18	RX-18					
3/4" SHAFT	RX-JAV		RX-JAV										
7/8" SHAFT	RX-17	RX-17	RX-17	RX-17		RX-18	RX-18	RX-18					
1" SHAFT	RX-13	RX-13	RX-13	RX-13		RX-16	RX-16	RX-16					
1 1/8" SHAFT	RX-54	RX-54	RX-54	RX-54	RX-54		RX-54	RX-54					
1 1/4" SHAFT	RX-38	RX-38	RX-38	RX-38	RX-38		RX-19	RX-19	RX-19				
1 3/4" SHAFT	10.7.50	10,130	101.00	10.00	RX-45		101 23		101 23				
CAT 910 TAPER (JCA)			RX-606		101 15								
1:8 TAPER SHAFT (AEK)			101 000										
1:5 TAPER SHAFT (ATK/AFR)													
S SNAP RINGS / CIRCLIPS													
SHAFT	SX-131-100	SX-125-13	SX-131-100	SX-151-125	SX-176-137		SX-131-100	SX-151-125	SX-176-137				
SHAFT END COVER	SX-131-206		SX-131-206	SX-151-283	SX-176-315	SX-215	SX-131-206	SX-151-283	SX-176-315				
ADD A PUMP								SAAP250/265	SAAP250/26				
▼ FASTENERS													
BOLTS	VBOLT 9/16" X ?	VBOLT 5/8" X ?	VBOLT 5/8" X ?	VBOLT 5/8" X ?	VBOLT 5/8" X ?	VBOLT 1/2" X ?	VBOLT 5/8" X ?	VBOLT 5/8" X ?	VBOLT 5/8" X				
NUTS	VNUT 9/16"	VNUT 5/8"	VNUT 5/8"	VNUT 5/8"	VNUT 5/8"	VNUT 1/2"	VNUT 5/8"	VNUT 5/8"	VNUT 5/8"				
WASHERS	VWASHER 9/16"	VWASHER 5/8"	VWASHER 5/8"	VWASHER 5/8"	VWASHER 5/8"	VWASHER 1/2"	VWASHER 5/8"	VWASHER 5/8"	VWASHER 5/				
WASHERS 265 MOTOR									VWASHER 3/				
STUDS 06"-11" EXTENDED THREAD ON ONE SIDE	VSTUD 9/16" X6-11	VSTUD 5/8" X6-11	VSTUD 5/8" X6-11	VSTUD 5/8" X6-11	VSTUD 5/8" X6-11	VSTUD 1/2" X6-11	VSTUD 5/8" X6-11	VSTUD 5/8" X6-11	VSTUD 5/8 X6-11				
STUDS 11"-16" EXTENDED THREAD ON ONE SIDE	VSTUD 9/16" X11-16	VSTUD 5/8" X11-16	VSTUD 5/8" X11-16	VSTUD 5/8" X11-16	VSTUD 5/8" X11-16	VSTUD 1/2" X11-16	VSTUD 5/8" X11-16	VSTUD 5/8" X11-16	VSTUD 5/8' X11-16				
STUDS 16"-21"	VSTUD 9/16"	VSTUD 5/8"	VSTUD 5/8"	VSTUD 5/8"	VSTUD 5/8"	VSTUD 1/2"	VSTUD 5/8"	VSTUD 5/8"	VSTUD 5/8'				
EXTENDED THREAD ON ONE SIDE	X16-21	X16-21	X16-21	X16-21	X16-21	X16-21	X16-21	X16-21	X16-21				
STUDS 21"-26"	VSTUD 9/16"	VSTUD 5/8"	VSTUD 5/8"	VSTUD 5/8"	VSTUD 5/8"	VSTUD 1/2"	VSTUD 5/8"	VSTUD 5/8"	VSTUD 5/8'				
EXTENDED THREAD ON ONE SIDE	X21-26	X21-26	X21-26	X21-26	X21-26	X21-26	X21-26	X21-26	X21-26				
	**Substitute ? with Bolt Length (Imperial)												
W SMALL PARTS													
	WX-131-11	WX-131-11	WX-131-11	WX-131-11	WX-131-11	WX-131-11	WX-131-11	WX-131-11	WX-131-11				
PLUG DRAIN PLUG SHAFT END COVER	WX-131-11 WT-131-1391	WX-131-11 WT-131-1391	WX-131-11 WT-131-1391	WX-131-11 WT-131-1391	WX-131-11 WT-131-1391	WX-131-11 WT-131-1391	WX-131-11 WT-131-1391	WX-131-11 WT-131-1391	WX-131-11 WT-131-139				





BEARING RANGE



	-05	-07	-10	-12	-15	-17	-20	-22	-25	-27	-30
	0.50"(½")	0.75"(3/4")	1.00"(1")	1.25"(1¼")	1.50"(1½")	1.75"(1¾")	2.00"(2")	2.25"(21/4")	2.50"(2½")	2.75"(2¾")	3.00"(3")
Gear Housing Width cc/rev Lpm (at 1000rpm) cu in (cu in/rev) US gpm (at 1000rpm) 120 Max Pressure (bar) Max Pressure (psi) Max Speed (rpm) Pump Weight (kg) Additional sect add (kg)	1.25"(1½") 16.00 16.00 0.99 4.23 205 3000 2400 10.80 9.50	1.50"(1½") 24.10 24.10 1.48 6.37 205 3000 2400 11.30 9.90	1.75"(13/4") 32.20 32.20 1.97 8.51 205 3000 2400 11.80 10.40	2.00"(2") 40.30 40.30 2.46 10.65 205 3000 2400 12.50 10.90	2.25"(2½") 48.30 48.30 2.96 12.76 205 3000 2400 13.20 11.30	2.50"(2½") 56.40 56.40 3.45 14.90 170 2500 2400 13.80 11.80	2.75"(2 ³ / ₄ ") 64.50 64.50 3.94 17.04 170 2500 2400 14.70 12.70				
Gear Housing Width cc/rev Lpm (at 1000rpm) cu in (cu in/rev) US gpm (at 1000rpm) Max Pressure (bar) Max Pressure (psi) Max Speed (rpm) Pump Weight (kg) Additional sect add (kg)	1.25"(1¼") 20.80 20.80 1.28 5.50 170 2500 2400 17.00	1.50"(1½") 31.20 31.20 1.91 8.24 170 2500 2400 17.00	1.75"(1¾") 41.70 41.70 2.55 11.02 170 2500 2400 17.00	2.00"(2") 52.10 52.10 3.19 13.76 170 2500 2400 17.50	2.25"(2½") 62.60 62.60 3.82 16.54 170 2500 2400 18.00	2.50"(2½") 73.00 73.00 4.46 19.29 153 2250 2400 19.00	2.75"(2¾") 83.50 83.50 5.10 22.06 153 2250 2400 19.50	3.00"(3") 94.00 94.00 5.74 24.84 138 2000 2400 22.00 22.00	3.25"(3½") 104.40 104.40 6.38 27.58 138 2000 2400 22.50 22.50		
Gear Housing Width cc/rev Lpm (at 1000rpm) cu in (cu in/rev) US gpm (at 1000rpm) 130 Max Pressure (bar) Max Pressure (psi) Max Speed (rpm) Pump Weight (kg) Additional sect add (kg)	1.25"(1¼") 16.00 16.00 0.99 4.23 170/205 2500/3000 2400 15.00 12.00	1.50"(1½") 24.10 24.10 1.48 6.37 170/205 2500/3000 2400 15.00 12.00	1.75"(1¾") 32.20 32.20 1.97 8.51 170/205 2500/3000 2400 15.00 12.00	2.00"(2") 40.30 40.30 2.46 10.65 170/205 2500/3000 2400 15.50 12.50	2.25"(2½") 48.30 48.30 2.96 12.76 170/205 2500/3000 2400 16.00 13.00	2.50"(2½") 56.40 56.40 3.45 14.90 153/170 2250/2500 2400 16.50 14.00	2.75"(2¾") 64.50 64.50 3.94 17.04 153/170 2250/2500 2400 17.00 14.50	3.00"(3") 72.60 72.60 4.43 19.18 138/153 2000/2250 2400 17.50 15.00	3.25"(3¼") 80.00 80.00 4.92 21.14 138/153 2000/2250 2400 18.00 15.50		
Gear Housing Width cc/rev Lpm (at 1000rpm) cu in (cu in/rev) 150 US gpm (at 1000rpm) 151 Max Pressure (bar) Max Pressure (psi) Max Speed (rpm) Pump Weight (kg) Additional sect add (kg)	1.25"(1¼") 20.80 20.80 1.28 5.50 170/205 2500/3000 2400 17.00	1.50"(1½") 31.20 31.20 1.91 8.24 170/205 2500/3000 2400 17.00	1.75"(1¾") 41.70 41.70 2.55 11.02 170/205 2500/3000 2400 17.00 17.00	2.00"(2") 52.10 52.10 3.19 13.76 170/205 2500/3000 2400 17.50 17.50	2.25"(2½") 62.60 62.60 3.82 16.54 170/205 2500/3000 2400 18.00	2.50"(2½") 73.00 73.00 4.46 19.29 153/170 2250/2500 2400 19.00	2.75"(2¾") 83.50 83.50 5.10 22.06 153/170 2250/2500 2400 19.50 19.50	3.00"(3") 94.00 94.00 5.74 24.84 138/153 2000/2250 2400 22.00 22.00	3.25"(3¼") 104.40 104.40 6.38 27.58 138/153 2000/2250 2400 22.50 22.50		
Gear Housing Width cc/rev Lpm (at 1000rpm) cu in (cu in/rev) 175 US gpm (at 1000rpm) 176 Max Pressure (bar) Max Pressure (psi) Max Speed (rpm) Pump Weight (kg) Additional sect add (kg)		1.75"(1¾") 50.30 50.30 3.07 13.29 170/205 2500/3000 2400 33.00 33.00	2.00"(2") 67.10 67.10 4.09 17.73 170/205 2500/3000 2400 33.00 33.00	2.25"(2½") 84.00 84,00 5.13 22.19 170/205 2500/3000 2400 34.00 34.00	2.50"(2½") 100.60 100.60 6.14 26.58 170/205 2500/3000 2400 35.00 35.00	2.75"(2¾") 117.50 117.50 7.17 31.04 170/205 2500/3000 2400 36.00 36.00	3.00"(3") 134.30 134.30 8.20 35.48 170/205 2500/3000 2400 37.00 37.00	3.25"(3¼") 151.00 151.00 9.21 39.89 153/170 2250/2500 2400 38.00 38.00	3.50"(3½") 168.00 168.00 10.25 44.39 153/170 2250/2500 2400 39.00 39.00	3.75"(3¾") 184.50 184.50 11.28 48.75 138/153 2000/2250 2400 40.00	4.00"(4") 200.00 200.00 12.30 52.84 138/153 2000/2250 2400 41.00

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	To Convert	Inches	Bar	Cu in/rev	US GPM	US GPM	kg
Useful Formulae	Into	Millimeters	Psi	cc/rev	Cu In/rev	cc/rev	lbs
	Multiply by	25.4	14.5	16.39	2.31	3.785	2.205

GP = PUMP

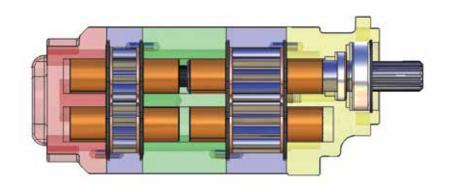
GM = MOTOR

GF = FLOW DIVIDER

GA = ADD ON

GB = STEP DOWN

GZ = PUMP / MOTOR COMBO



BUSHING RANGE

	-03	-05	-06	-07	-08	-10	-11	-12	-13	-15	-16	-17
	0.375"(3/8")	0.5"(½")	0.62 (5/8")	0.75"(3/4")	0.87 (%")	1.00"(1")	1.12 (1 1/8")	1.25"(11/4")	1.37 (1 8")	1.50"(1½")	1.62 (158")	1.75"(1¾")
Gear Housing Width cc/rev Lpm (at 1000rpm) cu in (cu in/rev) US gpm (at 1000rpm) Max Pressure (bar) Max Pressure (psi)	0.78"(49/64") 7.67 7.67 0.47 2.03 240 3500	0.88"(½") 10.00 10.00 0.61 4.23 240 3500	1"(1") 12.70 12.70 0.78 3.35 240 3500	1.13"(1½") 15.00 15.00 0.92 6.37 240 3500	1.25"(1¼") 17.80 17.80 1.09 4.70 240 3500	1.38"(13/8") 20.00 20.00 1.22 8.51 240 3500	1.5"(1½") 22.90 22.90 1.40 6.05 240 3500	1.63"(15%") 25.00 25.00 1.53 10.65 240 3500	1.88"(1¾") 27.90 27.90 1.71 7.37 220 3200	1.88"(1½") 30.00 30.00 1.84 12.76 220 3200	2"(2") 33.00 33.00 2.02 8.72 200 2900	2.13"(2½") 35.00 35.00 2.15 14.90 200 2900
Max Speed (rpm) Pump Weight (kg) Additional sect add (kg)	3000	3000 8.00 8.00	3000 8.00 8.00	3000 8.00 8.00	3000 8.00 8.00	3000 8.00 8.00	3000 8.50 8.50	3000 8.50 8.50	3000 9.00 9.00	3000 9.00 9.00	3000 9.50 9.50	3000 9.50 9.50
215	-18	-20										
	1.87 (1%")	2.00"(2")										
Gear Housing Width cc/rev	2.25"(2½") 38.10	2.38"(2 ³ / ₈ ") 40.00										
Lpm (at 1000rpm) cu in (cu in/rev)	38.10 2.33	40.00 2.44										
US gpm (at 1000rpm) Max Pressure (bar)	10.06 170	17.04 170										
Max Pressure (psi) Max Speed (rpm)	2500 3000	2500 3000										
Pump Weight (kg) Additional sect add (kg)	10.00 10.00	10.00 10.00										

	-03	-05	-07	-10	-12	-15	-17	-20	-22	-25	-27	-30
	0.375"(3/8")	0.5"(½")	0.75"(3/4")	1.00"(1")	1.25"(11/4")	1.50"(1½")	1.75"(1¾")	2.00"(2")	2.25"(21/4")	2.50"(2½")	2.75"(2¾")	3.00"(3")
Gear Housing Width cc/rev Lpm (at 1000rpm) cu in (cu in/rev) US gpm (at 1000rpm) Max Pressure (bar) Max Pressure (psi) Max Speed (rpm) Pump Weight (kg) Additional sect add (kg)		1.00"(1") 16.00 16.00 0.99 4.23 240 3500 3000 16.00	1.25"(1½") 24.10 24.10 1.48 6.37 240 3500 3000 16.00 14.40	1.50"(1½") 32.20 32.20 1.97 8.51 240 3500 3000 16.00 14.40	1.75"(1¾") 40.30 40.30 2.46 10.65 240 3500 3000 16.00 14.40	2.00"(2") 48.30 48.30 2.96 12.76 240 3500 3000 17.20 15.50	2.25"(2½") 56.40 56.40 3.45 14.90 220 3250 3000 17.80 16.00	2.50"(2½") 64.50 64.50 3.94 17.04 200 3000 3000 18.40 16.60				
Gear Housing Width cc/rev Lpm (at 1000rpm) cu in (cu in/rev) US gpm (at 1000rpm) 250 Max Pressure (bar) Max Pressure (psi) Max Speed (rpm) Pump Weight (kg) Additional sect add (kg)		1.00"(1") 20.80 20.80 1.28 5.50 240 3500 2400 22.70 22.70	1.25"(1½") 31.20 31.20 1.91 8.24 240 3500 2400 22.70 22.70	1.50"(1½") 41.70 41.70 2.55 11.02 240 3500 2400 22.70 22.70	1.75"(1¾") 52.10 52.10 3.19 13.76 240 3500 2400 23.40 23.40	2.00"(2") 62.60 62.60 3.82 16.54 240 3500 2400 24.10 24.10	2.25"(2½") 73.00 73.00 4.46 19.29 220 3250 2400 24.80 24.80	2.50"(2½") 83.50 83.50 5.10 22.06 200 3000 2400 25.50 25.50	2.75"(2¾") 94.00 94.00 5.74 24.84 190 2750 2400 26.20 26.20	3.00"(3") 104.40 104.40 6.38 27.58 170 2500 2400 26.90 26.90		
Gear Housing Width cc/rev Lpm (at 1000rpm) cu in (cu in/rev) US gpm (at 1000rpm) Max Pressure (bar) Max Pressure (psi) Max Speed (rpm) Pump Weight (kg) Additional sect add (kg)			1.25"(1¼") 44.00 44.00 2.69 11.62 240 3500 2400 29.90	1.50"(1½") 59.00 59.00 3.60 15.59 240 3500 2400 24.90	1.75"(1¾") 73.50 73.50 4.49 19.42 240 3500 2400 26.00	2.00"(2") 88.00 88.00 5.37 23.25 240 3500 2400 27.10	2.25"(2½") 102.00 102.00 6.22 26.95 240 3500 2400 28.20	2.50"(2½") 118.00 118.00 7.20 31.18 240 3500 2400 29.30	2.75"(2¾") 132.60 132.60 8.09 35.03 220 3250 2400 30.40	3.00"(3") 147.00 147.00 8.97 38.84 200 3000 2400 31.50	3.25"(3½") 163.50 163.50 9.98 43.19 200 3000 2400 32.60	3.50"(3½") 178.40 178.40 10.89 47.13 200 3000 2400 33.70

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	To Convert	Inches	Bar	Cu in/rev	US GPM	US GPM	kg
Useful Formulae	Into	Millimeters	Psi	cc/rev	Cu In/rev	cc/rev	lbs
	Multiply by	25.4	14.5	16.39	2.31	3.785	2.205

GP = PUMP

GM = MOTOR

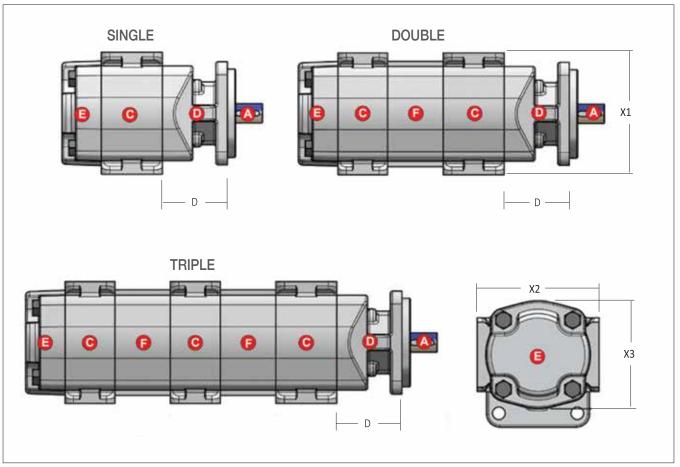
GF = FLOW DIVIDER

GA = ADD ON

GB = STEP DOWN

GZ = PUMP / MOTOR COMBO

BEARING RANGE



DIMENSIONS ARE FOR REFERENCE PURPOSE ONLY

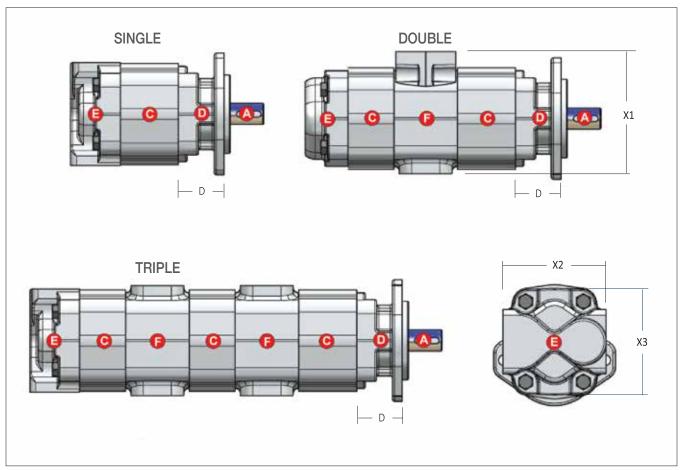
	120	SERIES /131/	SE	RIES 1	76	
		O			•	
		inches	mm		inches	mm
3LE	- 05	1 1/4"	31.75	- 05		
ΙAΕ	- 07	1 ½"	38.10	- 07	1 3/4"	44.45
<u>0</u>	- 10	1 3/4"	44.45	- 10	2"	50.80
SIN	- 12	2"	50.80	- 12	2 1/4"	57.15
HOUSING TABLE	- 15	2 1/4"	57.15	- 15	2 ½"	63.50
Ĭ	- 17	2 ½"	63.50	- 17	2 3/4"	69.85
	- 20	2 3/4"	69.85	- 20	3"	76.20
		1 1		- 22	3 1/4"	82.55
				- 25	3 ½"	88.90
				- 27	3 3/4"	95.25
				- 30	4"	101.60

SERIES	D	(3	(3)	X1	X2	Х3
120	75mm	45mm	140mm	140mm	140mm	124mm
	2.94"	1.79"	2.51"	5.51"	5.51"	4.89"
131	76mm	47mm	64mm	146mm	135mm	140mm
	2.98"	1.85"	2.51"	5.75"	5.33"	5.51"
151	86mm	46mm	73mm	145mm	145mm	156mm
	3.38"	1.80"	2.87"	5.73"	5.73"	6.13"
176	96mm	59mm	76mm	189mm	189mm	201mm
	3.76"	1.97"	3.00"	7.44"	7.44"	7.92"





BUSHING RANGE



DIMENSIONS ARE FOR REFERENCE PURPOSE ONLY

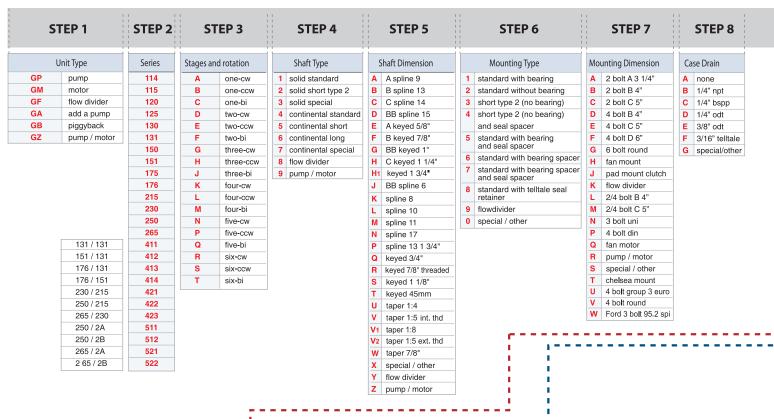
	SI	ERIES 2		SERIES / 250 /		
		((
		inches	mm		inches	mm
	- 03	3/4"	19.05	- 05	1"	25.40
	- 05	7/8"	22.22	- 07	1 1/4"	31.75
	- 06	1"	25.40	- 10	1 ½"	38.10
Ä	- 07	1 1/8"	28.57	- 12	1 3/4"	44.45
AB	- 08	1 1/4"	31.75	- 15	2 "	50.80
פ	- 10	1 3/8"	34.92	- 17	2 1/4"	57.15
HOUSING TABLE	- 11	1 ½"	38.10	- 20	2 ½"	63.50
Ö	- 12	1 1/8"	41.27			
Ĭ	- 13	1 3/8"	44.45	SERI	ES 250	/ 265
	- 15	1 1/8"	47.62			
	- 16	2"	50.80	- 22	2¾"	69.85
	- 17	2 1/8"	53.97	- 25	3"	76.20
	- 18	2 1/4"	57.15			
	- 20	2 3/8"	60.32			

SERIES	D	(3 1	3 2	(3	X1	X2	хз
215	48mm	45mm	52mm	67mm	128mm	108mm	112mm
	1.88"	1.75"	2.05"	2.62"	5.03"	4.25"	4.39"
230	80mm	56mm	66.5mm	89mm	173mm	179mm	149mm
	3.15"	2.20"	2.62"	3.50"	6.82"	7.06"	5.87"
250	89mm	56mm	79mm	89mm	195mm	184mm	157mm
	3.52"	2.22"	3.11"	3.50"	7.68"	7.25"	6.18"
265	96mm	76mm	78mm	102mm	96mm	188mm	189mm
	3.76"	2.97"	3.07"	4.01"	8.33"	7.42"	7.44"





PUMP BUILDER



To build a part number for a single pump complete Steps 1-14 and add Steps 15, 16, 11, 12 for each additional section.

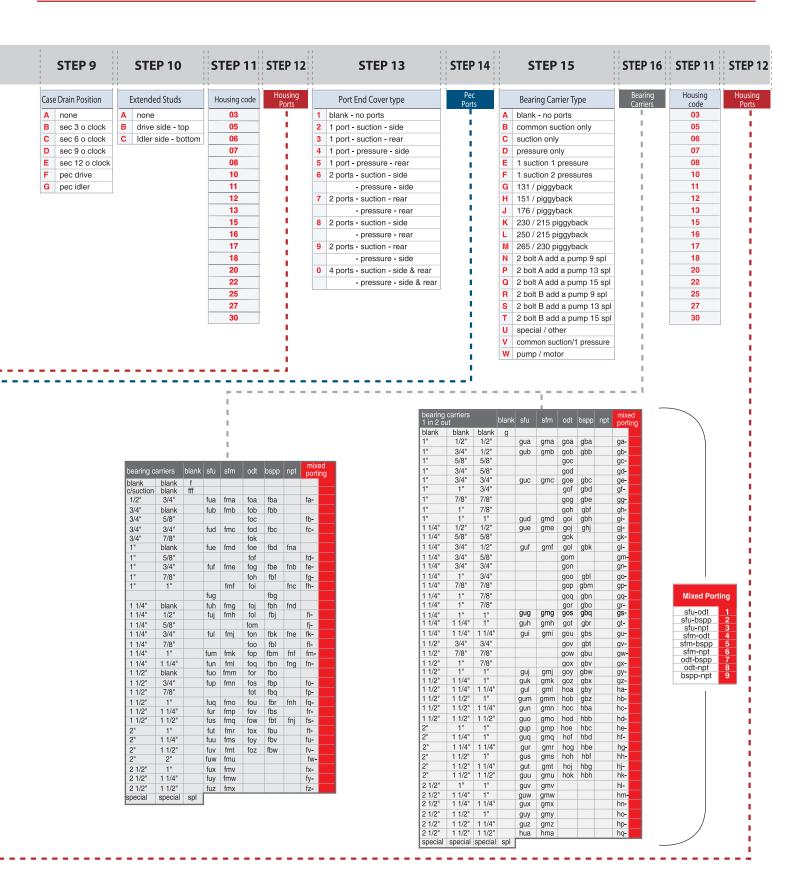
housings		blank	sfu	sfm	odt	bspp	npt	mixe porti	
blank	blank	С							
1/2"	blank								
1/2"	1/2"						cnb	ca-	
3/4"	blank		cua	cma	coa	cba	cnc		
3/4"	3/4"		cub	cmb	cob	cbb	cnd	cb-	
7/8"	blank				coc	cbc			
1"	blank		cuc	cmc	cod	cbd	cne		
1"	3/4"		cud	cmd	coe	cbe	cnf	CC-	
1"	7/8"				cof			cd-	
1"	1"		cuf	cme	cog	cbf	cng	ce-	
1 1/4"	blank		cue	cmf	coh	cbg	cnh		
1 1/4"	3/4"		cuf	cmg	coj	cbh	cnj	cf-	
1 1/4"	1"		cug	cmh	cok	cbj	cnk	cg-	
1 1/4"	1 1/4"		cuh	cmj	col	cbk	cnl	ch-	
1 1/2"	blank		cuj	cmk	com		cnm		
1 1/2"	3/4"				con		cnn	ci-	
1 1/2"	1"		cuk	cml	COO	cbl	cno	cj-	
1 1/2"	1 1/4"		cul	cmm	cop	cbm	cnp	ck-	
1 1/2"	1 1/2"		cum	cmn	coq	cbn	cnr	cl-	
2"	blank		cun			cbo			
2"	1"		cup			cbp		cm-	
2"	1 1/4"		cuq	cmp		cbq		cn-	
2"	1 1/2"		cur	cmq		cbr		co-	
2"	2"		cus	cmr		cbs		ср-	
2 1/2"	1 1/4"		cut			cbt		cq-	
2 1/2"	1 1/2"		cuw	cms		cbu		cr-	
2 1/2"	2"		cux			cbv		cs-	
special	special	spl		$\overline{}$					

port end	covers	blank	sfu	sfm	odt	bspp	npt	mix	
blank	blank	е						por	iriy
1/2"	blank	е	eua	ema	eoa	eba			
1/2"	1/2"		eua	ema	eob	ebb	ena	ea-	
5/8"	blank				eoc	CDD	cna	ca-	
3/4"	blank		euw	emu	eod	ebc	enb		
3/4"	1/2"		eub	emb	eoe	ebd	OIID	eb-	
3/4"	5/8"		eub	CITID	eof	ebu		ec-	
3/4"	3/4"		euc	emc	eog	ebe	enc	ed-	
7/8"	blank		ouo	CITIO	eoh	ebf	CITO	-	
7/8"	1/2"		eud	emd	eoi	ebg		ee-	
7/8"	5/8"		ouu	Cilia	eok	CDG		ef-	
7/8"	3/4"				eol	ebh		eg-	
7/8"	7/8"				eom	ebi		eh-	
1"	blank		euf	eme	eon	ebk		en-	
1"	1/2"				eon			-1	
1"	5/8"		eug	emf		ebw		ej-	
1"	3/4"		euh	oma	e00	ebl	end	ek- el-	
1"	7/8"		eun	emg	eop	_	enu		
1"	1"		ai	emh	eoq	ebm ebn	000	em-	
			euj		eor		ene	en-	
1 1/4"	blank 5/8"		euk	emj	eos	ebo			
1 1/4"					eot	.		eo-	
1 1/4"	3/4"				eou	ebp	enf	ep-	
1 1/4"	7/8"				eov	ebq		eq-	
1 1/4"			eul	emk	eow	ebr	eng	er-	
1 1/4"	1 1/4"		eum	eml	eox	ebs		es-	
1 1/2"	blank 1"		eun	emm emn	eoy	ebt ebu		et-	
1 1/2"	1 1/4"		eup	emo	eoz	ebv		eu-	
1 1/2"	1 1/2"		eug	emp	552	-		ev-	
2"	blank		eur	emq				ew-	
2"	1"		eus	emr				ex-	
2"	1 1/4"								
2"	1 1/4"		eut	ems				ey-	
special	special	spl	euv	emt				ez-	
special	special	Shi							





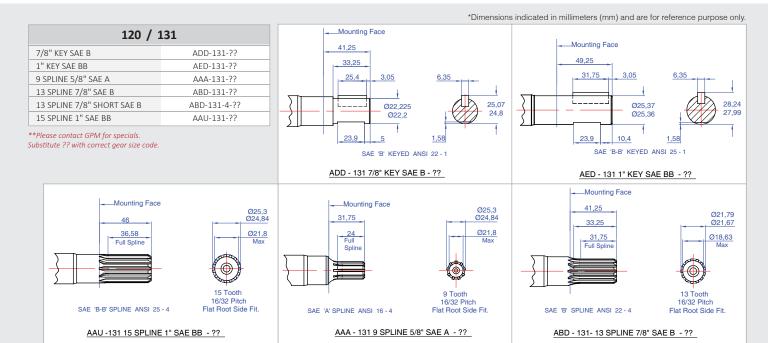
PUMP BUILDER



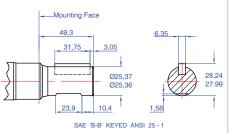


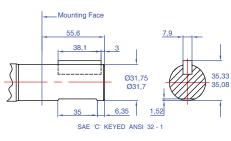


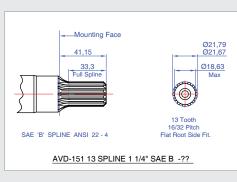
SOLID SHAFT GEAR SET.

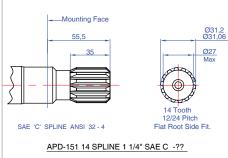


151					
1" KEY SAE BB	ATD-151-??				
1 1/4" KEY SAE C	ASD-151-??				
13 SPLINE 7/8" SAE B	AVD-151-??				
13 SPLINE 7/8" SHORT SAE B	AVD-151-4-??				
14 SPLINE 1 1/4" SAE C	APD-151-??				
14 SPLINE 1 1/4" SHORT SAE C	APD-151-4-??				
15 SPLINE 1" SAE BB	AAT-151-??				
15 SPLINE 1" SAE BB	AAT-151-??				

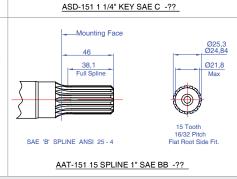




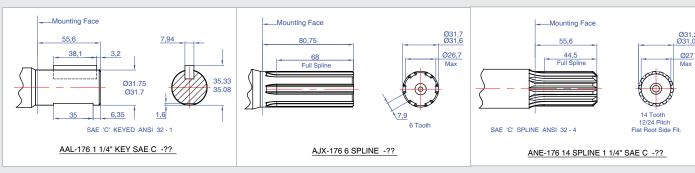




ATD-1511" KEY SAE BB -??



176	
1 1/4" KEY SAE C	AAL-176-??
6 SPLINE	AJX-176-??
14 SPLINE 1 1/4" SAE C	ANE-176-??

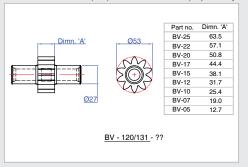


B LOOSE GEAR SETS

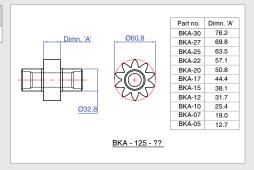
*Dimensions indicated in millimeters (mm) and are for reference purpose only.

120 / 1	31
STANDARD	BV-131-??

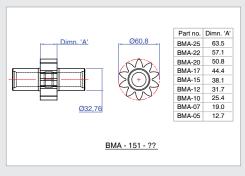
** Also makes Series 115 = BBA-115-?? ** Also makes Series 137 = BJA-137-?? Substitute ?? with correct gear size code.



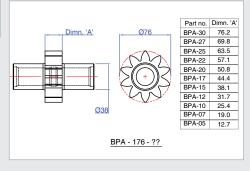
125	
STANDARD	BKA-125-??



151	
STANDARD	BMA-151-??



176	
STANDARD	BMA-176-??

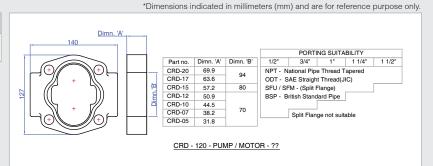




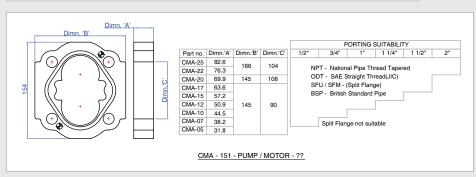
GEAR HOUSINGS

120 PUMP CRD-120-?? MOTOR CRD-120-??

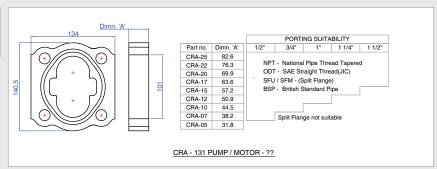
Substitute ?? with correct gear size code.



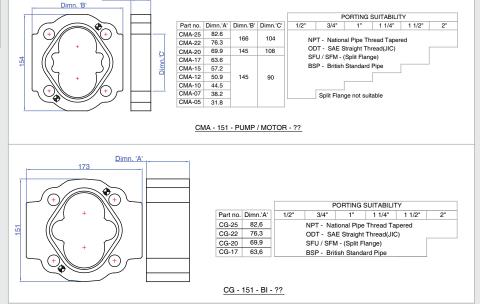
125	
PUMP	CMA-151-??
MOTOR	CMA-151-??



131	
PUMP	CRA-131-??
MOTOR	CRA-131-??



151	
PUMP	CMA-151-??
MOTOR	CMA-151-??
BI-ROTATION	CG-151-BI-??





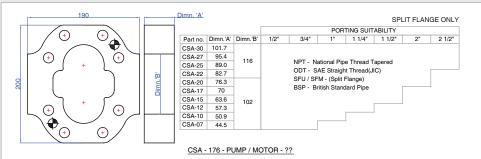


Dimn, 'A'

C GEAR HOUSINGS

*Dimensions indicated in millimeters (mm) and are for reference purpose only.

176	
PUMP	CSA-176-??
MOTOR	CSA-176-??









SHAFT END COVERS

*Dimensions indicated in millimeters (mm) and are for reference purpose only. 120 74.6 6 BOLT ROUND DFD-120 Ø82,55 12,7 106,4 12,7 2 BOLT 3.25" SAE A DWD-120 2 BOLT 4" SAE B DGD-120 2 BOLT 4" SAE B SHORT DGD-120-SH • 4 BOLT 4" SAE B DED-120 138 133 2/4 BOLT 4" SAE B DDB-120 Ø11.2 4 BOLT 2.75" DCD-120 0 **(+)** Mounting Face DFD - 120 6 BOLT ROUND DWD - 120 2 BOLT 3.25" SAE A 146 11 89,8 12,7 11 \bigoplus (4) **(** ф Ф 119 89,8 **(** Θ \oplus \oplus Ø14.5 **(+)** Mounting Face Mounting Face DED - 120 4 BOLT 4" SAE B DGD - 120 2 BOLT 4" SAE B Face DGD - 120 - 2 BOLT 4" SAE B SHORT 175 146 9,5 4,8 119 Ø8,33 11,2 \oplus Ø69,85 Ø69,8 • • 95,3 34,5 (+) Mounting Mounting 89,8 Face Face DDB - 120 2/4 BOLT 4" SAE B DCD - 120 4 BOLT 2.75"

125	Ø108 105 3,2	Ø108 105 4,7
4 BOLT ROUND DCB-125-3	Ø88.9 16	Ø82.55 16
6 BOLT ROUND DCB-125		9-9
2 BOLT 4" SAE B DUA-125		
2 BOLT 5" SAE C DYA-125		008.675
4 BOLT 3 3/4" SAE DTC-125		
	(+) Ø11.2	
	Mounting	Mounting
	Face	Ø11.2 Face
	<u>DCB - 125 - 3 4 BOLT ROUND</u>	DCB - 125 6 BOLT ROUND
175 85,8 6,35	213 85,8 6,35	120,5 SQ 85,8 6,2
146	181 19	89.8
		()
(+) + + + + + + + + +	(+)) (+	88.8 (++++++++++++++++++++++++++++++++++
Ø14.5		
(+) J L /+) —	(+) (<u>0</u> 17,5	Ø14.5
Mounting	Mounting	Mounting Face
Face	DYA - 125 2 BOLT 5" SAE C Face	DTC - 125 4 BOLT 3 3/4" SAE





SHAFT END COVERS

*Unmensions indicated in millimeters (mm) and are for reference purpose or			nly.
4 BOLT 4" SAE B 4 BOLT 5" SAE C PAD MOUNT PUMP	DTA-125 DXA-125 DSA-125	**Dimensions indicated in millimeters (mm) and are for reference purpose of the first of the fir	55
		DTA - 125 4 BOLT 4" SAE B DXA - 125 4 BOLT 5" SAE C Face	
		4 Holes 96 92 50.8 19 50.8 38.1 12.7	

DSA - 125 PAD MOUNT

131 6 BOLT ROUND DFB-131 2 BOLT 3.25" SAE A DWB-131 2 BOLT 4" SAE B DGB-131 2 BOLT 4" SAE B SHORT DGB-131 SH 4 BOLT 4" SAE B DEB-131 4 BOLT 5" SAE C DPB-131 STEP DOWN DDC-131/131	082.55 74.6 4.66 13 13 15 15 15 15 15 15 15 15 15 15 15 15 15	130 106,4 16 16 16 16 16 16 16 16 16 16
175 74,6 9,5 146 19 014.5 DGB - 131 2 BOLT 4" SAE B Face	173 146 146 9.5 100 00 14.5 Mounting Face	120 SQ 74,6 9,5 89,8 SQ 13 13 13 14 BOLT 4" SAE B Face
	146 SQ 114,5 13 13 13 13 13 13 13 13 13 13 13 13 13	175 146 19 19 19 19 19 19 19 19 19 19 19 19 19





SHAFT END COVERS

*Dimensions indicated in millimeters (mm) and are for reference purpose only. 6,35 151 213 175 181 2 BOLT 4" SAE B DRB-151 146,05 19 2 BOLT 5" SAE C DNB-151 4 BOLT 4" SAE B DHB-151 4 BOLT 5" SAE C DKB-151 Ø101,6 Ø101,55 **(** (†) \oplus ²∕₄ BOLT 4" SAE B DDB-151 177 ²/₄ BOLT 4" SAE B SHORT DDB-151-SH 4 BOLT 3 3/4" SAE DHS-151 Ø17,5 **⊕** PAD MOUNT PUMP DMB-151 Mounting Face DRB - 151 2 BOLT 4" SAE B DNB - 151 2 BOLT 5" SAE C 146 SQ 6,35 175 85,8 6,35 120 114,5 146,05 SQ 16 85,8 6,35 89,8 119,5 SQ 13 • \oplus \bigoplus 86,8 • 144,5 **(** 62,5 176,5 162,5 **(1)** Œ Ф (+) <u>Ø14.5</u> Mounting Ø14.5 Face DDB - 151 2/4 BOLT 4" SAE B DHB - 151 4 BOLT 4" SAE B DKB - 151 4 BOLT 5" SAE C 175 120,5 SQ 85.7 6,2 146 60,5 6,35 4 Holes 89.8 16 ½"-13UNC 119 SQ 13 12,7 50,8 38,1 \oplus **(** \bigoplus 89.8 **((** 89,8 SQ 162.8 Ð **((+)** 0 **(+)** Ø14.5 Mounting Face Face DDB - 151 - 2/4 BOLT 4" SAE B SHORT DHS - 151 4 BOLT 3 3/4" SAE DMB - 151 PAD MOUNT

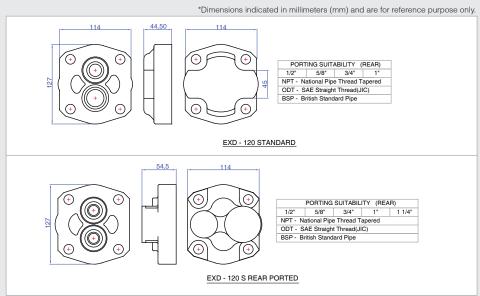
176		213 95,25 12,7 181 19 19	120 95,25 9,5 89,8 19
2 BOLT 5" SAE C	DVB-176		
4 BOLT 4" SAE B	DSB-176		
4 BOLT 5" SAE C	DTB-176		
4 BOLT 6" SAE D	DUB-176		8
STEP DOWN	DPM-176 / 131		
		(1) (1) (2)	
			Mounting Face
		⊕ ⊕ Mounting Face	⊕ ⊕ Face
		DVB - 176 2 BOLT 5" SAE C	DSB - 176 4 BOLT 4" SAE B
146	95,25 12,7	200 SQ 95,25 12,7 161,65 SQ 25 25	. 216
114,5	19	161,65 SQ 25	181 20
94 (+	01257		
	0012	288 (() () () () () () () () ()	166.5 Teles.5
	/		(1) (2)
\bullet	Ø14.5 Mounting	1 020.5	Mounting
	Face	Mounting Face	Face



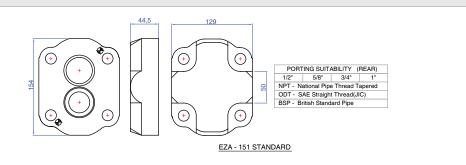


PORT END COVERS

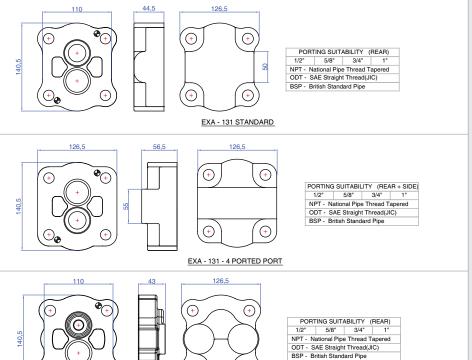
120	
STANDARD	EXD-120
REAR PORTED	EXD-120 S

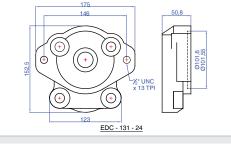


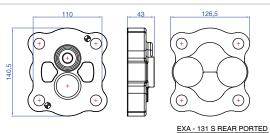
125	
STANDARD	EZA-151



131		
EXA-131		
EXA-131-4		
EDC-131-24		
EXA-131 S		







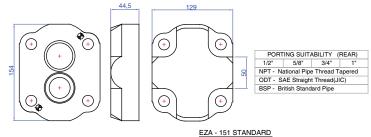


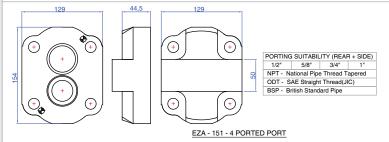


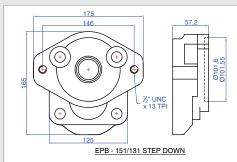
E PORT END COVERS

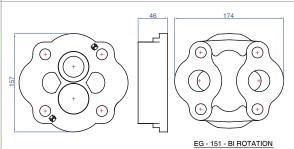
151		
STANDARD	EZA-151	
PORTED 4 PORT	EZA-151-4	
STEP DOWN STD	EPB-151 / 131	
BI-ROTATION	EG-151-BI	

*Dimensions indicated in millimeters (mm) and are for reference purpose only.



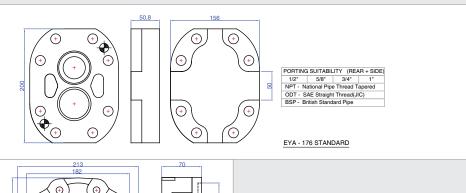


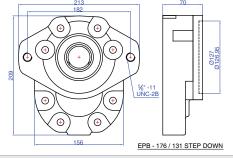




PORTING SUITABILITY (REAR)			
1 1/4" 1 1/2"			
NPT - National Pipe Thread Tapered			
ODT - SAE Straight Thread(JIC)			
BSP - British Standard Pipe			

176	
STANDARD	EYA-176
STEP DOWM STD	EPB-176 / 131



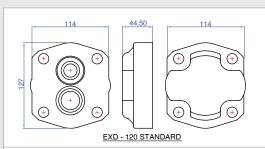




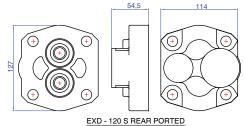
E PORT END COVERS

*Dimensions indicated in millimeters (mm) and are for reference purpose only.

120		
STANDARD	EXD-120	
REAR PORTED	EXD-120 S	

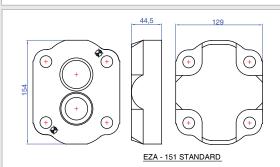






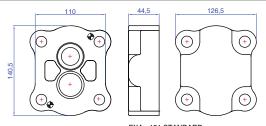
PORTING SUITABILITY (REAR)				
1/2"	5/8"	3/4"	1"	1 1/4"
NPT - National Pipe Thread Tapered				
ODT - SAE Straight Thread(JIC)				
BSP - British Standard Pipe				

125		
STANDARD	EZA-151	



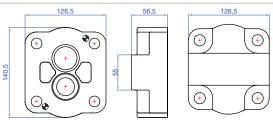
PORTING SUITABILITY (REAR)			
1/2"	5/8"	3/4"	1"
NPT - National Pipe Thread Tapered			apered
ODT - SAE Straight Thread(JIC)			
BSP - British Standard Pipe			

131		
EXA-131		
EXA-131-4		
EDC-131-24		
EXA-131 S		



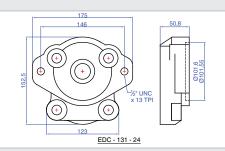
| PORTING SUITABILITY (REAR) | 1/2" | 5/8" | 3/4" | 1" | NPT - National Pipe Thread Tapered | ODT - SAE Straight Thread(JIC) | BSP - British Standard Pipe

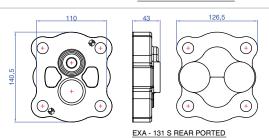
EXA - 131 STANDARD



PORTING SUITABILITY (REAR + SIDE)				
1/2"	5/8"	3/4"	1"	
NPT - National Pipe Thread Tapered				
ODT - SAE Straight Thread(JIC)				
BSP - British Standard Pipe				

EXA - 131 - 4 PORTED PORT



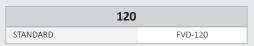


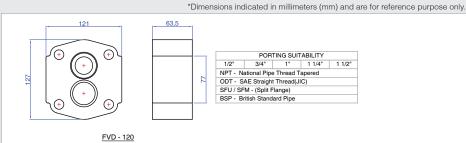
PORTING SUITABILITY (REAR)				
1/2"	5/8"	3/4"	1"	1 1/4'
NPT - National Pipe Thread Tapered				
ODT - SAE Straight Thread(JIC)				
BSP - British Standard Pipe				



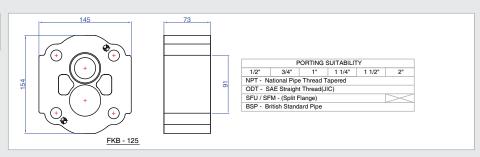


F BEARING CARRIERS

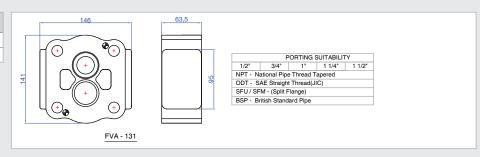




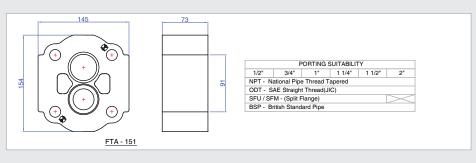
125	
STANDARD	FKB-125



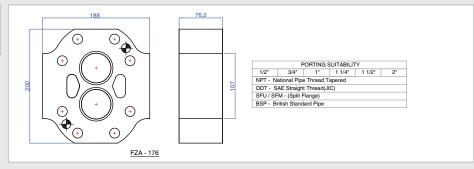
131	
STANDARD	FKB-125
STANDARD WITH NPT DRAIN	FVA-131-11



	151		
ſ	STANDARD	FTA-151	
Ī	STANDARD WITH NPT DRAIN	FTA-151-11	



176	
STANDARD	FZA-176
STANDARD WITH NPT DRAIN	FZA-176-11







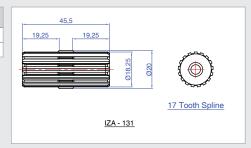
G O BRONZE PRESSURE RING

*Dimensions indicated in millimeters (mm) and are for reference purpose only.

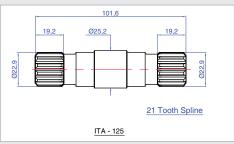
	120	125	131	151	176
RING SEAL	OLB-131-1		OLB-131-1	ONB-151-1	OWB-176-1
SHAFT BUSH		OAH-125			
CONNECTING SHAFT BUSH		OAR-125			

CONNECTING SHAFTS

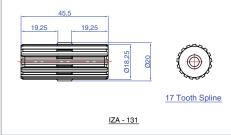
120	
STANDARD	FKB-125
STANDARD WITH NPT DRAIN	FVA-131-11

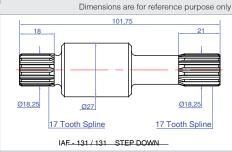


125	
STANDARD	ITA-125

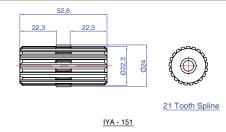


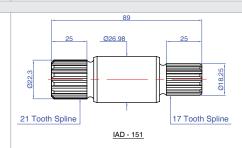
131	
STANDARD	IZA-131
STEP DOWN	IZA-131 / 131



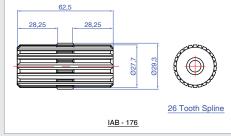


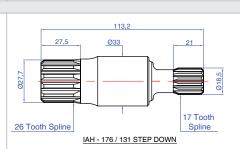
151	
STANDARD	IYA-151
STEP DOWN	IAD-151 / 131





176	
STANDARD	IAB-176
STEP DOWN	IAH-176 / 131

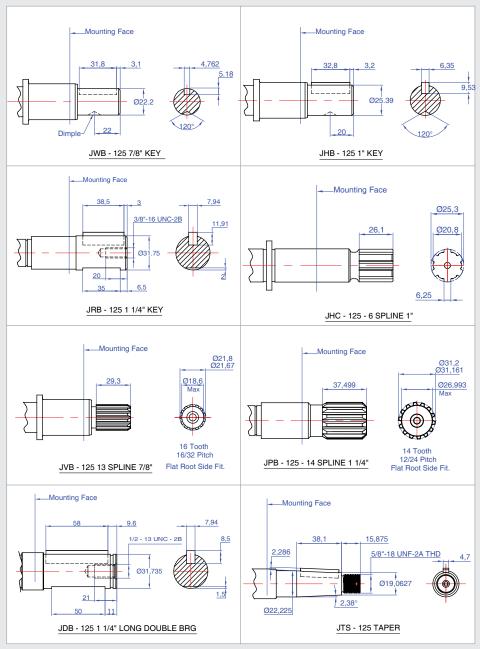




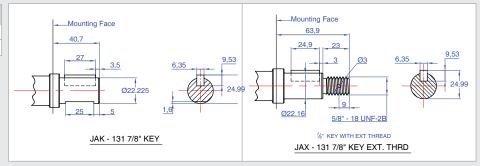




125	
7/8" KEY	JWB - 125
1" KEY	JHB - 125
1 1/4" KEY	JRB - 125
6 SPLINE 1"	JHC - 125
13 SPLINE 7/8"	JVB - 125
14 SPLINE 1 1/4"	JPB - 125
1 1/4" LONG DOUBLE BRG	JDB - 125
TAPER	JTS - 125



131	
7/8" KEY	JAK - 131
7/8" KEY EXT. THRD	JAX - 131







131		→ Mounting Face	Mounting Face
3/4" KEY	JAV - 131	58,05	49
1" KEY	JED - 131	36,03	6,35
1 1/8" KEY	JMT - 131	46 3,1 4.76 4,76	9,53
1 1/4" KEY	JAW - 131		
6 SPLINE 1"	JAM - 131	Ø19.05	25.4
8 SPLINE DIN	JDI - 131		23,4
9 SPLINE 5/8"	JAI - 131	35 8,5	10,3
13 SPLINE 7/8"	JAJ - 131	1,1	_ 25 _
13 SPLINE 7/8" LONG	JSB - 131	%* KEY	
13 SPLINE 7/8" SHORT	JAJ - 131	JAV - 131 3/4" KEY	JED - 131 1" KEY
14 SPLINE 1 1/4"	JAH - 131	<u> </u>	<u> </u>
15 SPLINE 1"	JAU - 131	Mounting Face	
		52,2 38,5 38,5 38,5 38,5 38,5 35 6 1 ½* KEY JMT - 131 1 1/8* KEY Mounting Face 47,775 36,118 Full Spline	Mounting Face 54,4 38,5 38,5 37,94 11,91 35,294 JAW - 131 1 1/4" KEY Mounting Face 54,64 34,84 Full Spline 031,954 031,954
		JAM - 131 - 6 SPLINE 1"	JDI - 131 - 8 SPLINE DIN
JAI - 131 - 9 SPLINE	9 Tooth 16/32 Pitch Flat Root Side Fit.	Mounting Face 40,5 Full Spline 13 Tooth 16/32 Pitch Flat Root Side Fit. JAJ - 131 - 13 SPLINE 7/8*	Mounting Face 54,9 Olabert Spline 13 Tooth 16/32 Pitch Flat Root Side Fit.
Mounting Face	<u>Ø21.7</u> Ø18.6		Mounting Face 45.4 33 024.9



JAJ - 131 - 13 SPLINE 7/8" SHORT

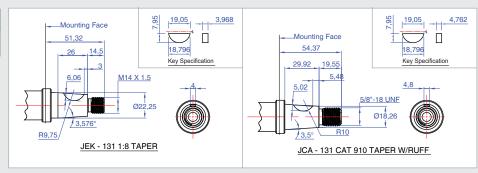


15 Tooth 16/32 Pitch Flat Root Side Fit.

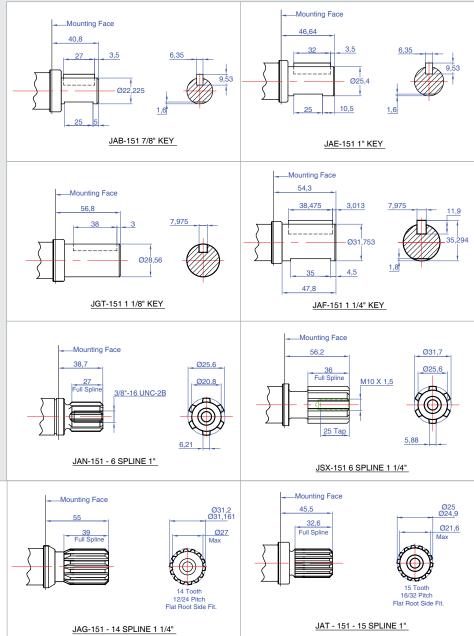
JAU - 131 - 15 SPLINE 1"

JAH - 131 - 14 SPLINE 1 1/4"

131	
1:8 TAPER	JEK - 131
CAT 910 TAPER W/RUFF	JCA - 131



151		
7/8" KEY	JAB-151	
1" KEY	JAE-151	
1 1/8" KEY	JGT-151	
1 1/4" KEY	JAF-151	
6 SPLINE 1"	JAN-151	
6 SPLINE 1 1/4"	JSX-151	
13 SPLINE 7/8"	JAD-151	
14 SPLINE 1 1/4"	JAG-151	
15 SPLINE 1"	JAT - 151	





_Mounting Face

JAD-151 - 13 SPLINE 7/8"

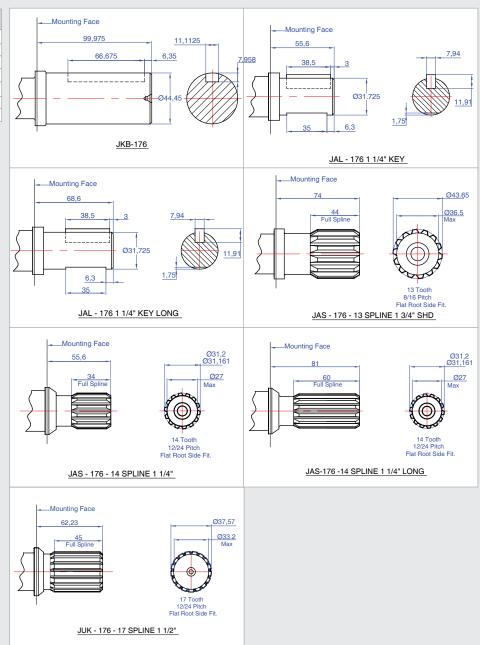
Ø21,7

Ø18,6

13 Tooth 16/32 Pitch Flat Root Side Fit.



176		
1 3/4" KEY LONG	JKB-176	
1 1/4" KEY	JAL - 176	
1 1/4" KEY LONG	JAL - 176	
13 SPLINE 1 3/4" SHD	JAS - 176	
14 SPLINE 1 1/4"	JAS - 176	
14 SPLINE 1 1/4" LONG	JAS-176	
17 SPLINE 1 1/2"	JUK - 176	







A SOLID SHAFT GEAR SET

215		
5/8" KEY SAE A	AKB-215-??	
7/8" SHORT SAE B	ADK-215-??	
9 SPLINE 5/8" SHORT SAE A	AZK-215-??	
11 SPLINE 3/4"	AGK215-??	
13 SPLINE 7/8" SHORT SAE B	ABK-215-??	
15 SPLINE 1" SAE BB	AAK-215-??	
TAPER	AFR-215-??	
TAPER 1:5	ATK-215-??	
TAPER 1:8 (GROUP 2)	AHK-215-??	
TAPER 1:8 (GROUP 3)	AEK-215-??	
SPECIAL	AMK-215-??	
SPECIAL	AAO-215-??	

**Please contact GPM for specials. Substitute ?? with correct gear size code.

_Mounting Face

1/2"-20 UNF Ø17,8

Ø3.5 Thru 13,25

TAPER (FORD)

Mounting Face

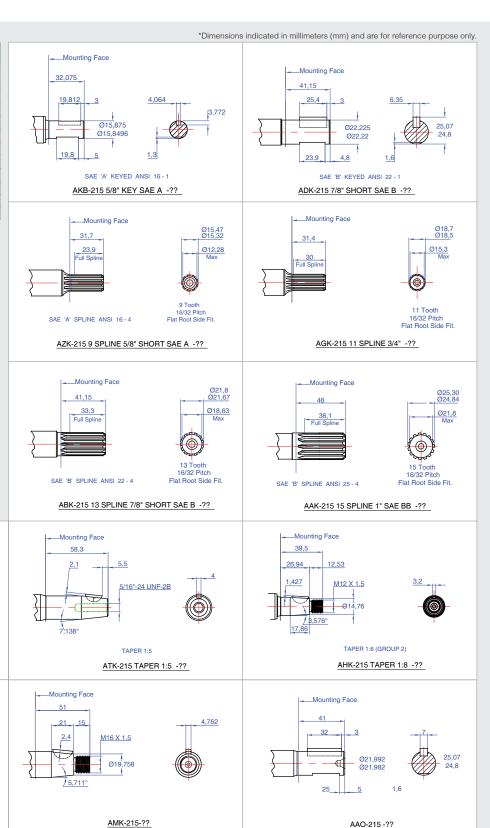
46,5

2,046 14,5

2,7

AFR-215 TAPER -??

TAPER 1:8 (GROUP 3) AEK-215 TAPER 1:8 -??





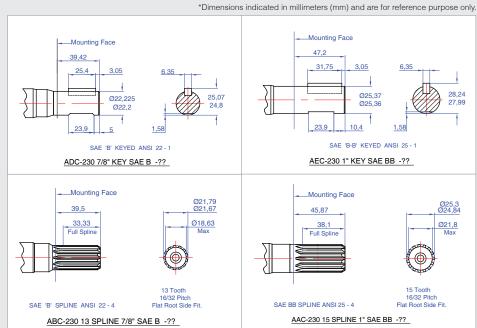


AAO-215 -??

A SOLID SHAFT GEAR SET

230		
7/8" KEY SAE B	ADC-230-??	
1" KEY SAE BB	AEC-230-??	
13 SPLINE 7/8" SAE B	ABC-230-??	
13 SPLINE 7/8" SHORT SAE B	ABC-230-4-??	
15 SPLINE 1" SAE BB	AAC-230-??	

**Please contact GPM for specials. Substitute ?? with correct gear size code.



250				1	
1" KEY SAE BB	ATF-250-??	→ Mounting Face		Mounting Face	
1 1/4" KEY SAE C	ASF-250-??	49,25		55,6	
13 SPLINE 7/8" SAE B	AVF-250-??	31,2 3,2	6,375	38,1 6,3	7,94
14 SPLINE	ACL-250-??		<u></u>	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
14 SPLINE 1 1/4" SAE C	APF-250-??	Ø25,4	28,21	Ø31,75 Ø31,7	Ø35,33 Ø35,08
15 SPLINE 1" SAE BB	AAF-250-??	Ø25,35	27,99	201,7	
17 SPLINE 1 1/8"	ACF-250-??	31,8 3,2	1,6	34,9 3,2	1,6
		SAE 'B-B' KEYED	ANSI 25 - 1	SAE 'C' KEYED AN	ISI 32 - 1
		ATF-250 1" KEY SA	E BB -??_	ASF-250 1 1/4" KEY	SAE C -??
		Mounting Face 41 33,3 Full Spline SAE 'B' SPLINE ANSI 22 - 4 AVF-250 13 SPLINE 7/8" S	021,79 021,67 018,63 Max 13 Tooth 16/32 Pitch Flat Root Side Fit.	Mounting Face 55,1 56 Full Spline ACL-250 14 SPLINE -??	031,2 031,161 026,993 Max 14 Tooth 12/24 Pitch Flat Root Side Fit.
Mounting Face 55,5 47.6 Full Spline SAE 'C' SPLINE ANSI 32 - 4 APF-250 14 SPLINE 1	031,26 031,06 026,99 Max 14 Tooth 12/24 Pitch Flat Root Side Fit. 1/4" SAE C -??	SAE 'B' SPLINE ANSI 25 - 4 AAF-250 15 SPLINE 1" SA	025.3 024.84 021.8 Max 15 Tooth 16/32 Pitch Flat Root Side Fit.	Mounting Face 52,198 42 Full Spline ACF-250 17 SPLINE 1	028,15 028,10 024,98 Max 17 Tooth 16/32 Pitch Flat Root Side Fit. 1/8" -??

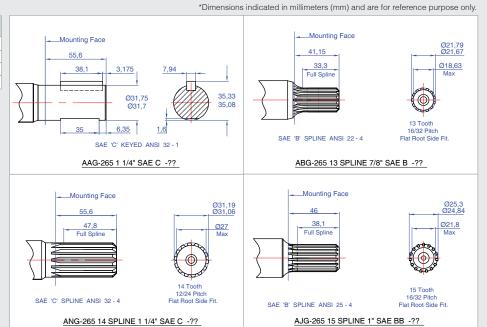




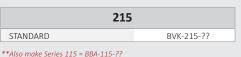
SOLID SHAFT GEAR SET.

265		
1 1/4" KEY SAE C	AAG-265-??	
13 SPLINE 7/8" SAE B	ABG-265-??	
14 SPLINE 1 1/4" SAE C	ANG-265-??	
15 SPLINE 1" SAE BB	AJG-265-??	

**Please contact GPM for specials. Substitute ?? with correct gear size code.



B LOOSE GEAR SETS

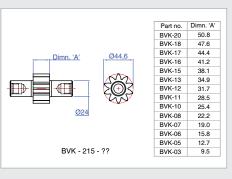


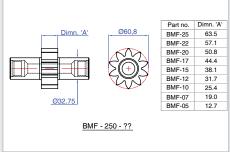
Also make Series 137 = BJA-137-?? Substitute ?? with correct gear size code.

230	
STANDARD	BVC-230-??

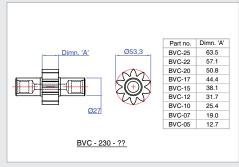


265	
STANDARD	BPG-265-??





Dimensions are for reference purpose only



		Part no.	Dimn. 'A'
		BPG-30	76.2
, Dimn. 'A'	Ø69,7	BPG-27	69.8
	-	BPG-25	63.4
	\sim	BPG-22	57.1
(r		BPG-20	50.7
		BPG-17	44.4
		BPG-15	39.0
	W	BPG-12	31.7
		BPG-10	25.3
Ø38,1		BPG-07	19.0
BF	PG - 265 - ??		



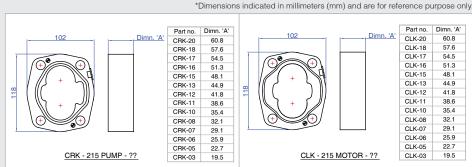


C GEAR HOUSING

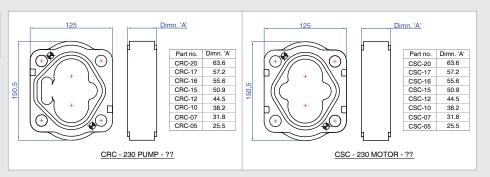
 PUMP
 CRK-215-??

 MOTOR
 CLK-215-??

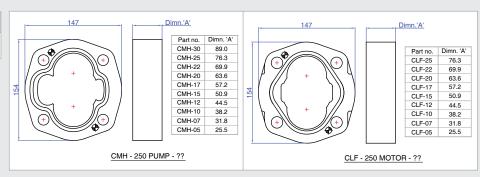
Substitute ?? with correct gear size code.



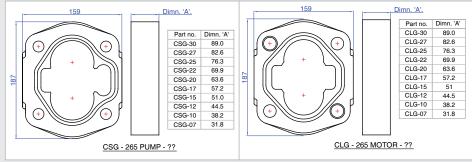
230	
CRC-230-??	
CSC-230-??	



250	
PUMP	CMH-250-??
MOTOR	CLF-250-??



265	
PUMP	CSG-265-??
MOTOR	CLG-265-??

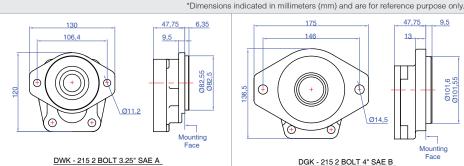


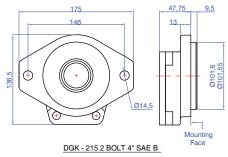




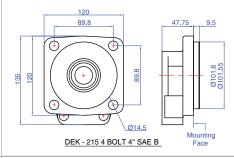
SHAFT END COVERS



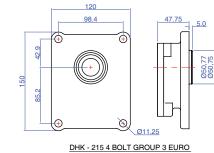


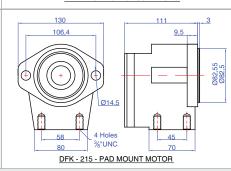


58.5 17.2 Ø11 DFR - 215 FORD 3 BOLT 95.2 spigot

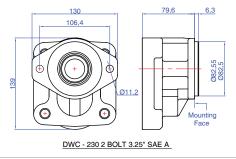


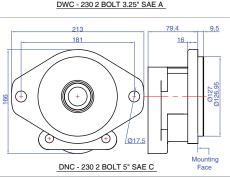


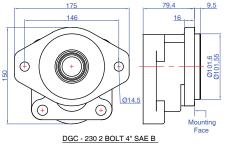


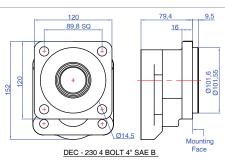


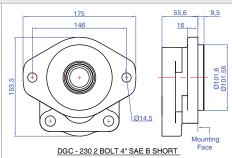


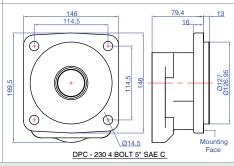










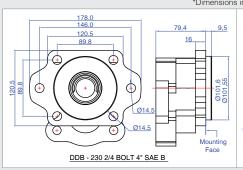


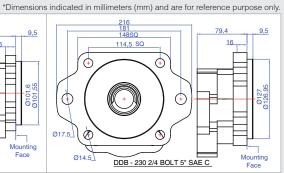




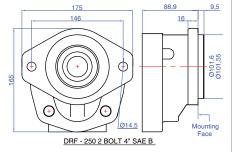
SHAFT END COVERS

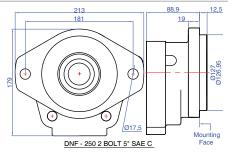
230	
2/4 BOLT 4" SAE B	DDB-230
2/4 BOLT 5" SAE C	DDB-230

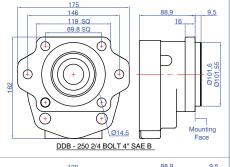


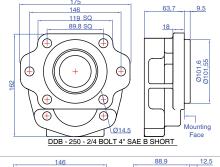


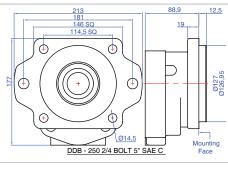
250	
2 BOLT 4" SAE B	DRF-250
2 BOLT 5" SAE C	DNF-250
2/4 BOLT 4" SAE B	DDB-250-4
2/4 BOLT 4" SAE B SHORT	DDB-250
2/4 BOLT 5" SAE C	DDB-250-5
4 BOLT 4" SAE B	DHF-250
4 BOLT 5" SAE C	DKF-250
4 BOLT DIN PTO	DZF-250

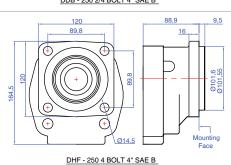


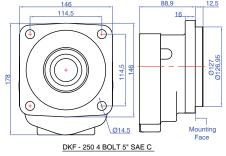


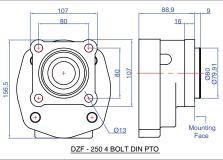




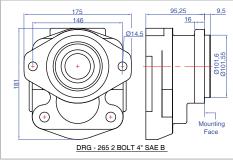


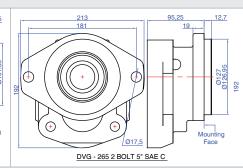






265	
2 BOLT 4" SAE B	DRG-265
2 BOLT 4" SAE B MOTOR	DRG-26-M
2 BOLT 5" SAE C	DVG-265
2 BOLT 5" SAE C MOTOR	DVG-265-M

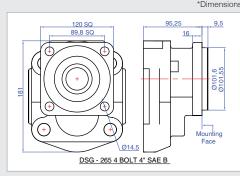


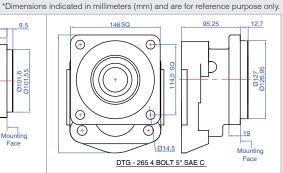






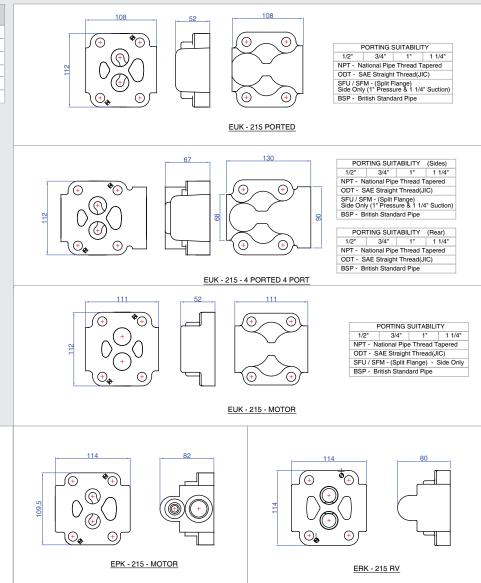
265	
4 BOLT 4" SAE B	DSG-265
4 BOLT 4" SAE B MOTOR	DSG-265-M
4 BOLT 5" SAE C	DTG-265
4 BOLT 5" SAE C MOTOR	DTG-265-M





E PORT END COVERS

215	
PORTED	EUK-215
PORTED 4 PORT	EUK-215-4
MOTOR	EUK-215-M
TANDEM	EXK-215
FAN MOTOR	EPK-215-M
RELIEF VALVE	ERK-215-RV





104

EXK - 215 TANDEM

104



	*Dimensions indicated in millimeters (mm) and are for reference purpose only.
230	66,5
PORTED EUC-230 PORTED 4 PORT EUC-230-4 TANDEM EXC-230 MOTOR EUC-230-M STEP DOWN CW EPB-230/215 CW STEP DOWN CCW EPB-23/215 CCW	PORTING SUITABILITY 1/2* 3/4* 1* 11/4* 11/2* NPT - National Pipe Thread Tapered ODT - SAE Straight Thread(JIC) SFU / SFM - (Split Flange) Side Only (1* Pressure & 11/2* Suction) BSP - British Standard Pipe
	EUC - 230 PORTED
65 14 (+) (+) (+) (+) (-)	PORTING SUITABILITY 1/2" 3/4" 1" 11/4" NPT - National Pipe Thread Tapered ODT - SAE Straight Thread(JIC) BSP - British Standard Pipe
EUC - 230 - 4 I	PORT EXC - 230 TANDEM
	66,5 176 PORTING SUITABILITY 1/2" 3/4" 1" 11/4" 11/2" NPT - National Pipe Thread Tapered ODT - SAE Straight Thread(JIC) SFU / SFM / (Split Flange) Side Only (1" Pressure & 1 1/2" Suction) BSP - British Standard Pipe
	93,65 174 93,65 174 93,65 174
	PORTING SUITABILITY (Suction)





*Dimensions indicated in millimeters (mm) and are for reference purpose only. 250 79 PORTING SUITABILITY (Sides)

1/2" 3/4" 1" 11/4" 11/2"

NPT - National Pipe Thread Tapered

ODT - SAE Straight Thread(JIC)

SFU / SPM - (Split Flange)

BSP - British Standard Pipe PORTED FWF-250 PORTED 4 PORT EWF-250-4 **(+) TANDEM** EZF-250 ĸ | PORTING SUITABILITY | (Rear) | 1/2" | 3/4" | 1" | 1 1/4" | NPT - National Pipe Thread Tapered | ODT - SAE Straight Thread(JIC) | BSP - British Standard Pipe | MOTOR EUF-250-M BI-ROTATION FRP-250-BI (+) STEP DOWN CW EPB-250/215 CW STEP DOWN CCW EPB-250/215 CCW ADD ON 2 BOLT A CW EAAP250 2bA CW EWF - 250 PORTED ADD ON 2 BOLT A CCW EAA250 2bA CCW 184 ADD ON 2 BOLT B CW EAAP250 2bB CW | PORTING SUITABILITY | (Sides) | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | NPT - National Pipe Thread Tapered | ODT - SAE Straight Thread(JIC) | SFU / SFM - (Split Flange) | ADD ON 2 BOLT B CCW EAAP250 2bB CCW • • BSP - British Standard Pipe 110 PORTING SUITABILITY (Rear) 1/2" 3/4" 1"

NPT - National Pipe Thread Tapered

ODT - SAE Straight Thread(JIC)

BSP - British Standard Pipe **(+)** EWF - 250 - 4 PORT 55,5 150 | PORTING SUITABILITY | (Sides) | 1/2* | 3/4* | 1* | 1/4* | 11/2* | NPT - National Pipe Thread Tapered | ODT - SAE Straight Thread(JIC) | SFU / SFM - (Spill Flange) | BSP - British Standard Pipe | **P**(+) **(+) (+)** (• **(+)** | PORTING SUITABILITY | (Rear) | 1/2" | 3/4" | 1" | 1 1/4" | NPT - National Pipe Thread Tapered | ODT - SAE Straight Thread(JIC) | BSP - British Standard Pipe • EUF - 250 - MOTOR EZF - 250 TANDEM 62.5 • (•) (•) | PORTING SUITABILITY | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | NPT - National Pipe Thread Tapered | ODT - SAE Straight Thread(JIC) | BSP - British Standard Pipe | ()• ERP - 250 - BI REAR 93,65 106,37 **₫ ⊕** • $\langle \mathcal{O} \rangle$ 082,63 52 102 width: 79 0 • | PORTING SUITABILITY (Suction) | 1/2" | 3/4" | 1" | 11/4" | 11/2" | 2" | NPT - National Pipe Thread Tapered | ODT - SAE Straight Thread(JIC) | SFU / SFM - (Split Flange) | BSP - British Standard Pipe | PORTING SUITABILITY | (Pressure) | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | NPT - National Pipe Thread Tapered | ODT - SAE Straight Thread(JIC) | SFU / SFM - (Split Flange) | SSP - British Strandard Pine PORTING SUITABILITY (Suction)

12" 34" 1" 11/4" 11/2" 2"

18P" - National per timest Tapper 0

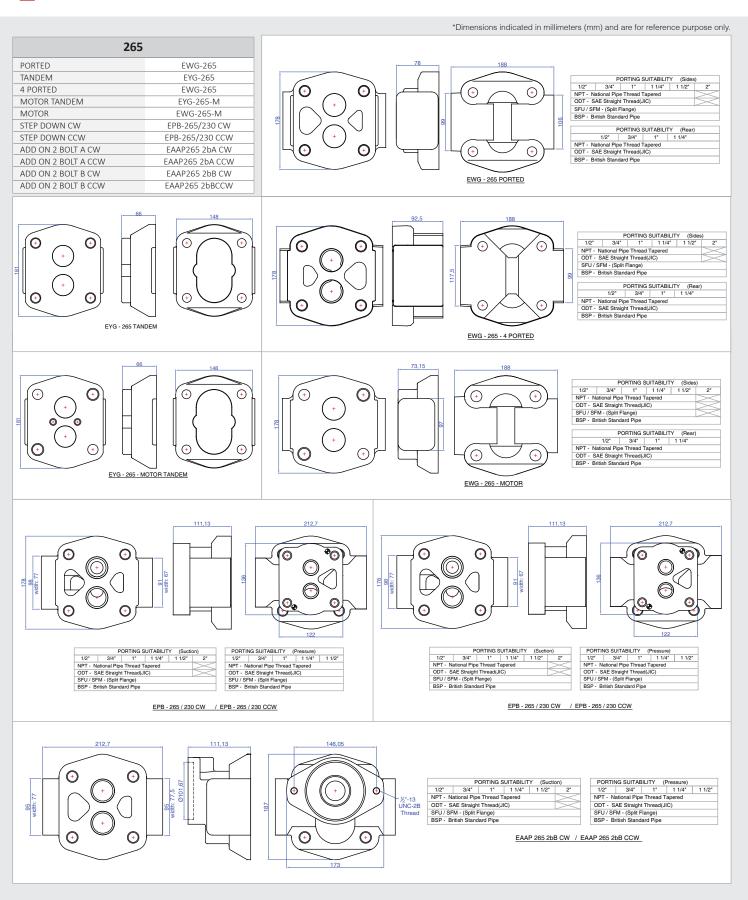
OOT - 34E Straight Thread(JIC)

SPL / SPM - (Splin Flange)

BSP - British Standard Pipe | PORTING SUITABILITY (Pressure) | 1/2' | 3/4' | 1' | 1.1/4' | 1.1/2' | NPT - National Pipe Thread Tapered | ODT - SAE Straight Thread/IIC) | SFU / SPM - (Split Flange) | BSP - British Standard Pipe | EPB - 250 / 215 CW / EPB - 250 / 215 CCW EAAP 250 2bA CW / EAAP 250 2bA CCW 142,87 175 146,05 • **(+)** | PORTING SUITABILITY (Suction) | 1/2* | 3/4* | 1* | 11/4* | 11/2* | 2* | NPT - National Pipe Thread Tapered | ODT - SAE Straight Thread(JIC) | SFU / SFM - (Split Flange) | BSP - British Standard Pipe | PORTING SUITABILITY | (Pressure) | 1/2" | 34" | 1" | 11/4" | 11/2" | NPT - National Pipe Thread Tapered | ODT - SAE Straight Thread(JIC) | SFU / SFM - (Split Flange) | BSP - British Standard Pipe 0101,67 (+) • ф ½"-13 UNC-2B 99 • (+) EAAP 250 2bB CW / EAAP 250 2bB CCW











F BEARING CARRIERS

215	
1 OUTLET	FYK-215-1
2 OUTLET	FYK-215-2
MOTOR	FYK-215-M
WIDE SUCTION	FYK-215 3W

114 66,55

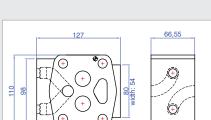
PORTING SUITABILITY

1/2* 3/4* 1* 1 1/4*

NPT - National Pipe Thread Tapered

*Dimensions indicated in millimeters (mm) and are for reference purpose only.

FYK - 215 - 1



FYK - 215 - 2

BSP - British Standard Pipe

PORTING SUITABILITY

1/2" 3/4" 1" 11/4"

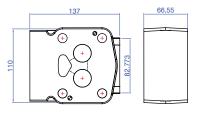
NPT - National Pipe Thread Tapered

ODT - SAE Straight Thread(JIC)

SFU / SFM (Split Flange)

BSP - British Standard Pipe

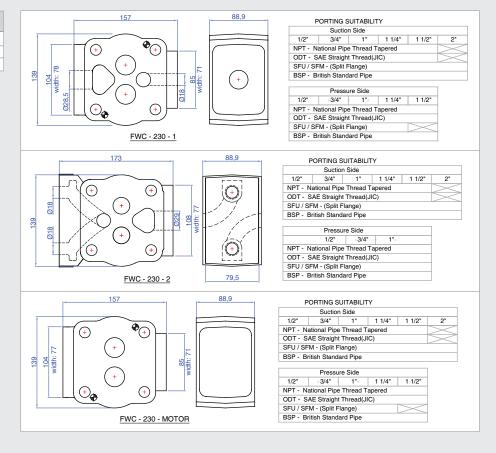
FYK - 215 - MOTOR



ODT - SAE Straight Thread(JIC)
SFU / SFM - (Split Flange)
BSP - British Standard Pipe

FYK - 215 3W

230	
1 OUTLET	FWC-230-1
2 OUTLET	FWC-230-2
MOTOR	FWC-230-M

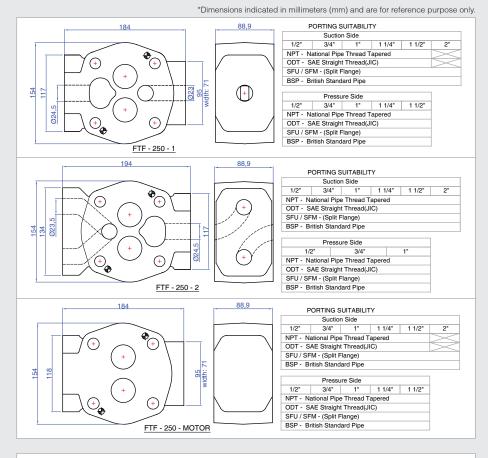




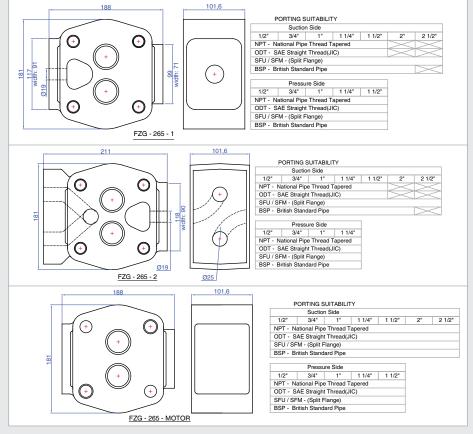


F BEARING CARRIERS

250	
1 OUTLET	FTF-250-1
2 OUTLET	FTF-250-2
MOTOR	FTF-250-M



265	
1 OUTLET	FZG-265-1
2 OUTLET	FZG-265-2
MOTOR	FZG-265-M

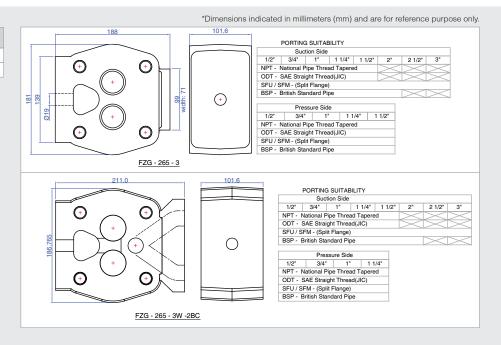




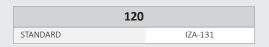


F BEARING CARRIERS

	265	
3" SL	ICTION	FZG-265-3
WIDE	SUCTION	FZG-265-3W-2BC



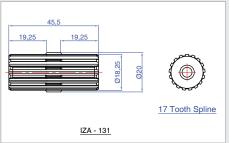
CONNECTING SHAFTS

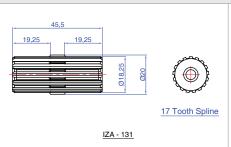


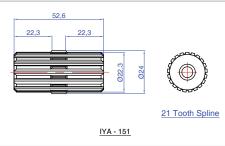
125	
STANDARD	ITA-125

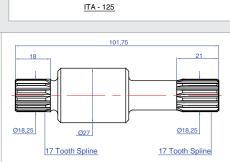
131	
STANDARD	IZA-131
STEP DOWN	IAF-131/131

151	
STANDARD	IYA-151
STEP DOWN	IAD-151









IAF - 131 / 131 STEP DOWN

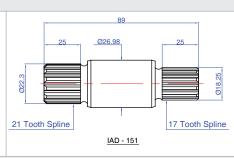
101,6

19,2

21 Tooth Spline

Ø25,2

19,2

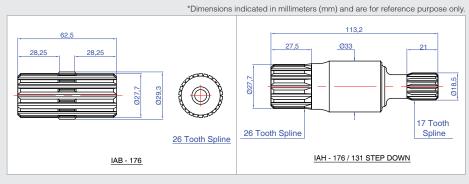




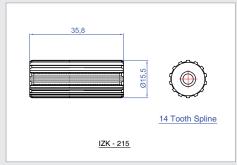


CONNECTING SHAFTS

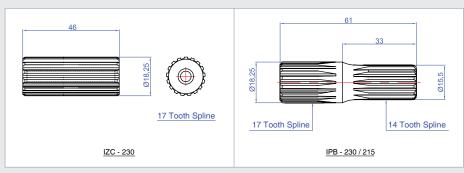
176	
STANDARD	IAB-176
STEP DOWN	IAH-176/131



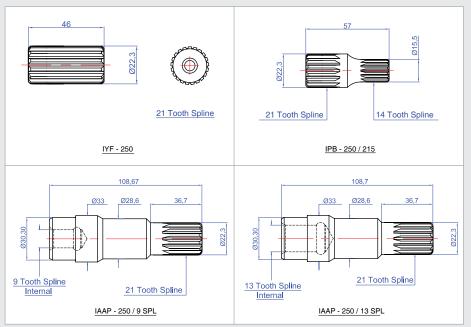
215	
STANDARD	IZK-215



230	
STANDARD	IZC-230
STEP DOWN	IPB-230/215



250	
STANDARD	IYF-250
STEP DOWN	IPB-250/215
ADD ON TO 9 SPLINE	IAAP-250/9SPL
ADD ON TO 13 SPLINE	IAAP-250/13SPL

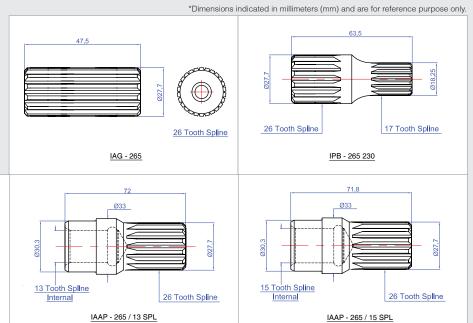


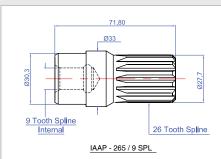




CONNECTING SHAFTS

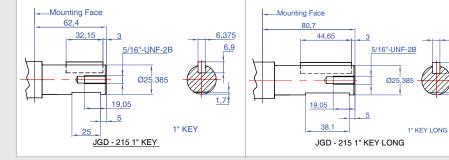
265	
IAG-265	
IPB-265/230	
IAAP-265/9SPL	
IAAP-265/13SPL	
IAAP-265/15SPL	



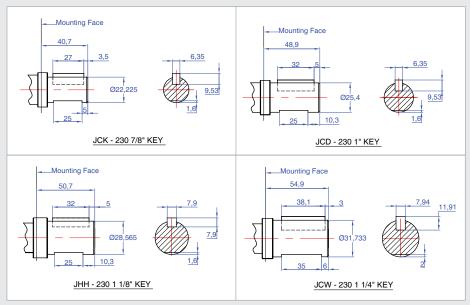


J LOOSE SHAFTS

215	
1" KEY	JGD-215
1" KEY LONG	JGD-215



230	
7/8" KEY	JCK-230
1" KEY	JCD-230
1 1/8" KEY	JHH-230
1 1/4" KEY	JCW-230







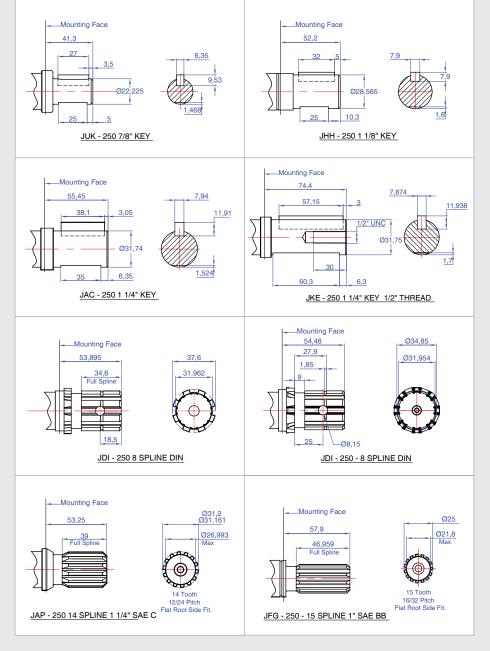
6,375

J LOOSE SHAFTS

230	
6 SPLINE 1 1/4"	JKD-230
14 SPLINE 1 1/4" SAE C	JCH-230

*Dimensions	indicated in millimeters (mm) and are for reference purpose only.
Mounting Face 71,9 57,15 Full Spline JKD - 230 - 6 SPLINE 1 1/4" 6,85	Mounting Face 54,9 34 Full Spline 14 Tooth 12/24 Pitch Flat Root Side Fit.

250						
7/8" KEY	JUK-250					
1 1/8" KEY	JHH-250					
1 1/4" KEY	JAC-250					
1 1/4" KEY 1/2" THREAD	JKE-250					
8 SPLINE DIN	JDI-250					
8 SPLINE DIN	JDI-250					
14 SPLINE 1 1/4" SAE C	JAP-250					
15 SPLINE 1" SAE BB	JFG-250					







TECHNICAL INFORMATION - BUSHING RANGE

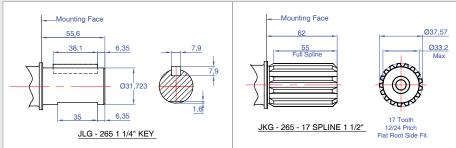
J LOOSE SHAFTS

265

1 1/4" KEY JLG-265

17 SPLINE 1 1/2" JKG-265

*Dimensions indicated in millimeters (mm) and are for reference purpose only.





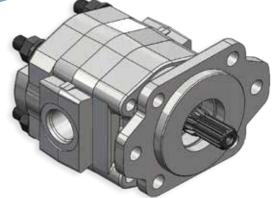
GP 120 SERIES GEAR PUMP



The GP 120 is a low to medium pressure pump designed for the truck industry.

Constructed from heavy duty cast iron, its small size is suitable for most chassis arrangements.

Various size displacements are available from 16cc to 64cc. Mounts include cloverleaf, 2 Bolt A and 2 Bolt B, to suit a variety of Power Take Off (PTO) units.



OPTIONS

- Flanged Ports (Code 61)
- Viton Seals
- Multiple Assembly
- Continental Shaft
- Cloverleaf PTO Mount
- Shorten/Drill and Tap Shafts
- Also available in 2 Bolt 'A' and 2 Bolt 'B' mounts

CODE	05	07	10	12	15	17	20
Gear Size (inches)	1/2	3/4	1	1 1/4	1 1/2	1 3/4	2
Displacement (cc/rev) (cu in/rev)	16 (0.99)	24.1 (1.48)	32.2 (1.97)	40.3 (2.46)	48.3 (2.96)	56.4 (3.45)	64.5 (3.94)
Maximum Pressure (BAR) (PSI)	207 (3000)	207 (3000)	207 (3000)	207 (3000)	207 (3000)	172 (2500)	172 (2500)
Maximum Speed (RPM)	2400	2400	2400	2400	2400	2400	2400





SPEED/GEAR WIDTH	1	1 1/4	1 1/2	1 3/4	2
600	4.2 (15.9)	5.4 (20.4)	6.5 (24.6)	7.6 (28.7)	9.0 (34.0)
900	6.0 (22.7)	7.5 (28.5)	10.0 (37.8)	11.5 (43.5)	13.5 (51.0)
1200	8.5 (32.0)	11.0 (41.5)	14.0 (53.0)	16.0 (60.5)	19.0 (71.9)
1500	11.0 (41.6)	14.0 (53.0)	17.5 (66.2)	20.5 (77.6)	24.0 (90.0)
1800	13.5 (51.1)	17.5 (66.2)	21.5 (81.5)	25.5 (96.5)	29.0 (109.77)
2100	16.0 (60.5)	21.0 (79.5)	25.5 (96.5)	29.5 (111.6)	34.5 (130.5)
2400	18.5 (70.0)	24.0 (90.0)	29.5 (111.6)	34.0 (128.0)	39.5 (149.0)

Note: Speed in RPM, Flow in US GPM (Flow in Litres/min in parentheses).

FLOW RATE 2 (20) 36 1 3/4 (17) 32 1 1/2 (15) 1 1/4 (12) Flow (GPM) 1 (10) 600 900 1200 1500 1800 2100 2400 Speed (RPM)



Note: Horsepower calculated at 2000 psi for all gear widths

INPUT POWER LIMITING FACTOR

SHAFT STYLE	INTEGRAL SHAFT & GEAR	TWO PIECE STYLE
SAE 'A' Spline (5/8" 9 tooth)	2600	2600
SAE 'B' Spline (7/8" 13 tooth)	7900	5850
SAE 'B' Key (7/8" keyed)	4850	4850
SAE 'BB' Spline (1" 15 tooth)	-	5850
SAE 'BB' Key (1" keyed)	7250	5850
SAE 'C' Spline (1 1/4" 14 tooth)	-	5850
Connecting Shaft	-	5850

For each section of a pump, this is determined by the maximum pressure (psi) multiplied by the gear width (inches).

Multiple pumps, each section is added together. The total must not exceed the numbers in the corresponding table.





GP/GM 131 SERIES PUMPS



The GP/GM 131 units are a medium to high pressure series of pumps.

The GP 131 Series is built with rugged cast iron design, utilising heavy duty roller bearings and is suitable for most mobile applications. The pumps are doweled to withstand high pressure shocks.

The GM 131 Series of gear motors are made from cast iron and utilise needle roller bearings. They are a medium duty, high speed, low torque motor, suitable for most industrial and agricultural applications.

Displacements range from 16cc to 64cc, with pressures up to 205 Bar.



- Flanged Ports (Code 61)
- Viton Seals
- Multiple Assembly
- Continental Shaft
- Cloverleaf PTO Mount
- Shorten/Drill and Tap Shafts
- Rear Ports
- Transmission Seals with drain
- Stepped 151/176 series
- Pad mount
- Relief Valve in rear cover

CODE	05	07	10	12	15	17	20
Gear Size (inches)	1/2	3/4	1	1 1/4	1 1/2	1 3/4	2
Displacement (cc/rev) (cu in/rev)	16 (0.99)	24.1 (1.48)	32.2 (1.97)	40.3 (2.46)	48.3 (2.96)	56.4 (3.45)	64.5 (3.94)
Maximum Pressure (BAR) (PSI)	207 (3000)	207 (3000)	207 (3000)	207 (3000)	207 (3000)	172 (2500)	172 (2500)
Maximum Speed (RPM)	2000-2400	2000-2400	2000-2400	2000-2400	2000-2400	2000-2400	2000-2400

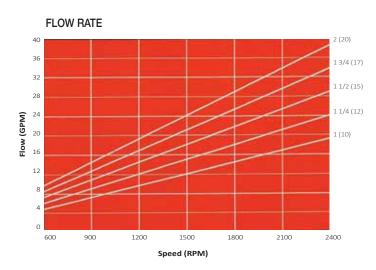
 $T = \frac{HP \times 63025}{RPM}$

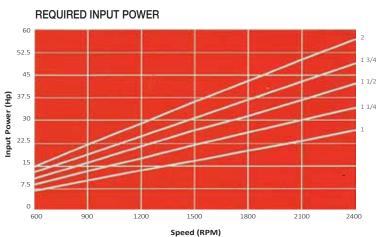




SPEED/GEAR WIDTH	1	1 1/4	1 1/2	1 3/4	2
600	4.0 (17.0)	5.0 (22.0)	6.0 (26.0)	7.0 (29.0)	8.5 (34.0)
900	6.0 (23.0)	7.5 (28.5)	10.0 (39.0)	11.5 (43.5)	13.5 (51.0)
1200	8.5 (32.0)	11.0 (41.5)	14.0 (53.0)	16.0 (60.5)	19.0 (70.0)
1500	11.0 (42.0)	14.0 (53.0)	17.5 (66.0)	20.5 (77.0)	24.0 (88.0)
1800	13.5 (51.5)	17.5 (66.2)	21.5 (81.5)	25.5 (94.5)	29.0 (105.0)
2100	16.0 (60.5)	21.0 (79.5)	25.5 (94.5)	29.5 (108.5)	34.5 (123.0)
2400	18.5 (70.0)	24.0 (91.0)	29.5 (109.0)	34.0 (124.0)	39.5 (140.0)

Note: Speed in RPM, Flow in US GPM (Flow in Litres/min in parentheses).





Note: Horsepower calculated at 2000 psi for all gear widths

INPUT POWER LIMITING FACTOR

SHAFT STYLE	INTEGRAL SHAFT & GEAR	TWO PIECE STYLE
SAE 'A' Spline (5/8" 9 tooth)	2600	2600
SAE 'B' Spline (7/8" 13 tooth)	7900	5850
SAE 'B' Key (7/8" keyed)	4850	4850
SAE 'BB' Spline (1" 15 tooth)	-	5850
SAE 'BB' Key (1" keyed)	7250	5850
SAE 'C' Spline (1 1/4" 14 tooth)	-	5850
Connecting Shaft	-	5850

For each section of a pump, this is determined by the maximum pressure (psi) multiplied by the gear width (inches).

Multiple pumps, each section is added together. The total must not exceed the numbers in the corresponding table.

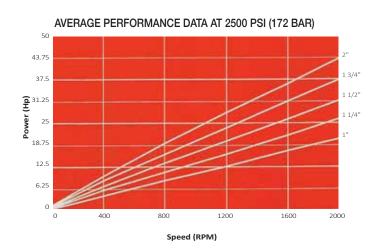




AVERAGE PERFORMANCE

SPEED	INPUT FLOW	OUTPUT TORQUE	OUTPUT POWER	INPUT FLOW	OUTPUT TORQUE	OUTPUT POWER	INPUT FLOW	OUTPUT TORQUE	OUTPUT POWER
800	10.0 (38.0)	718 (81.0)	9.3 (7.0)	53.0 (14.0)	1125.0 (127.0)	14.3 (10.7)	18.0 (68.0)	1475.0 (166.0)	18.7 (14.0)
1200	14.0 (53.0)	712 (80.6)	13.7 (10.2)	72.0 (19.0)	1112.0 (126.0)	21.2 (15.8)	24.0 (91.0)	1462.0 (165.0)	28.0 (21.0)
1600	17.0 (64.0)	706 (80.0)	18.0 (13.5)	24.0 (91.0)	1100.0 (124.0)	28.0 (21.0)	32.0 (121.0)	1450.0 (163.0)	36.0 (27.0)
2000	20.5 (78.0)	693 (78.0)	21.8 (16.3)	29.5 (112.0)	1075.0 (121.0)	34.3 (25.6)	39.0 (148.0)	1412.0 (160.0)	45.0 (33.5)

Note: Input Flow US GPM (LPM in parentheses) Output Torque in lbs (Nm in parentheses) Output Power Hp (kW in parentheses)





INPUT POWER LIMITING FACTOR

SHAFT STYLE	INTEGRAL SHAFT & GEAR	TWO PIECE STYLE
SAE 'A' Spline (5/8" 9 tooth)	2600	2600
SAE 'B' Spline (7/8" 13 tooth)	7900	5850
SAE 'B' Key (7/8" keyed)	4850	4850
SAE 'BB' Spline (1" 15 tooth)	-	5850
SAE 'BB' Key (1" keyed)	7250	5850
SAE 'C' Spline (1 1/4" 14 tooth)	-	5850
Connecting Shaft	-	5850

For each section of a motor, this is determined by the maximum pressure (psi) multiplied by the gear width (inches).

Multiple motors, each section is added together. The total must not exceed the numbers in the corresponding table.





GP/GM 151 SERIES PUMPS



GP/GM 151 units are a medium to high pressure series of pumps.

Built with rugged cast iron design, utilising heavy duty roller bearings, the GP 151 Series is suitable for most mobile applications. The pumps are doweled to withstand high pressure shocks.

Displacements range from 21cc to 104cc, with pressures up to: GM - 170 Bar/ GP - 205 Bar.

CODE	05	07	10	12	15	17	20	22	25
Gear Size (inches)	1/2	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2
Displacement (cc/rev) (cu in/rev)	20.9 (1.28)	31.3 (1.91)	41.8 (2.55)	52.2 (3.19)	62.7 (3.83)	73.1 (4.46)	83.6 (5.1)	94.0 (5.74)	104.5 (6.38)
Maximum Pressure (BAR) (PSI)	207 (3000)	207 (3000)	207 (3000)	207 (3000)	207 (3000)	207 (3000)	172 (2500)	172 (2500)	172 (2500)
Maximum Speed (RPM)	2000-2400	2000-2400	2000-2400	2000-2400	2000-2400	2000-2400	2000-2400	2000-2400	2000-2400

OPTIONS

- Flanged Ports (Code 61)
- Viton Seals
- Multiple Assembly
- Continental Shaft
- Shorten/Drill and Tap Shafts
- Rear Ports
- Transmission Seals with drain
- Stepped with 131 series

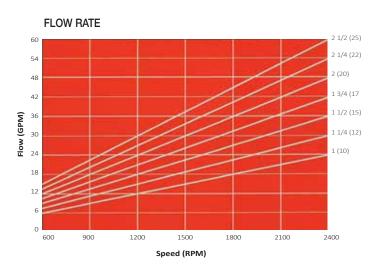
 $T = \frac{HP \times 63025}{RPM}$

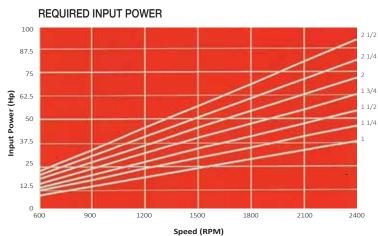




SPEED/GEAR WIDTH	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2
600	5.5 (21.0)	7.0 (26.5)	8.5 (32.0)	10.0 (38.0)	11.0 (41.5)	12.6 (48.0)	14.0 (53.0)
900	8.5 (32.0)	11.0 (41.5)	13.0 (49.0)	16.0 (60.5)	17.5 (66.5)	19.0 (72.0)	21.0 (79.0)
1200	11.5 (43.5)	15.0 (57.0)	18.0 (68.0)	21.5 (81.5)	24.0 (91.0)	26.5 (100.0)	29.0 (110.0)
1500	15.0 (57.0)	19.0 (72.0)	23.0 (87.0)	27.0 (102.0)	30.5 (115.0)	33.5 (127.0)	37.5 (142.0)
1800	18.0 (68.0)	23.0 (87.0)	28.0 (106.0)	33.0 (125.0)	37.0 (140.0)	41.0 (155.0)	46.0 (174.0)
2100	21.0 (79.5)	27.0 (102.0)	32.5 (123.0)	38.5 (146.0)	43.5 (165.0)	48.0 (182.0)	54.0 (204.0)
2400	24.0 (91.0)	31.0 (117.0)	37.5 (142.0)	44.0 (167.0)	50.0 (189.0)	55.5 (210.0)	62.0 (235.0)

Note: Speed in RPM, Flow in US GPM (Flow in Litres/min in parentheses).





Note: Horsepower calculated at 2000 psi for all gear widths

INPUT POWER LIMITING FACTOR

SHAFT STYLE	INTEGRAL SHAFT & GEAR	TWO PIECE STYLE
SAE 'B' Spline (7/8" 13 tooth)	6100	6100
SAE 'BB' Spline (1" 15 tooth)	-	8500
SAE 'BB' Key (1" keyed)	5600	5600
SAE 'C' Spline (1 1/4" 14 tooth)	12900	8500
SAE 'C' Key (1 1/4" keyed)	10900	8500
Connecting Shaft	-	8500

For each section of a pump, this is determined by the maximum pressure (psi) multiplied by the gear width (inches).

Multiple pumps, each section is added together. The total must not exceed the numbers in the corresponding table.





(235.0)

AVERAGE PERFORMANCE

(96.0)

	1"	Gears		1 1/2" Gears				2" Gears			2 1/2" Gears	;
SPEED	INPUT FLOW	OUTPUT TORQUE	OUTPUT POWER									
800	11.0	912.0	11.5	16.0	1425.0	17.5	21.5	1912.0	23.0	26.5	2375.0	30.0
	(42.0)	(103.0)	(8.3)	(61.0)	(161.0)	(13.0)	(81.0)	(216.0)	(17.2)	(100.0)	(267.0)	(22.0)
1200	16.0	900.0	16.8	23.0	1400.0	26.2	31.0	1868.0	35.0	37.5	2337.0	44.0
	(61.0)	(101.0)	(12.6)	(87.0)	(158.0)	(19.6)	(117.0)	(211.0)	(25.0)	(142.0)	(263.0)	(33.0)
1600	20.5	887.0	21.8	30.5	1375.0	33.7	40.5	1837.0	46.0	50.0	2275.0	56.0
	(78.0)	(100.0)	(16.3)	(115.0)	(155.0)	(25.0)	(153.0)	(207.0)	(34.5)	(189.0)	(256.0)	(42.0)
2000	25.5	837.0	26.2	38.0	1300.0	40.6	50.0	1762.0	56.0	62.0	2175.0	68.0

30.2)

(146)

(189.0)

(198.0)

Note: Input Flow US GPM (LPM in parentheses) Output Torque in lbs (Nm in parentheses) Output Power Hp (kW in parentheses)

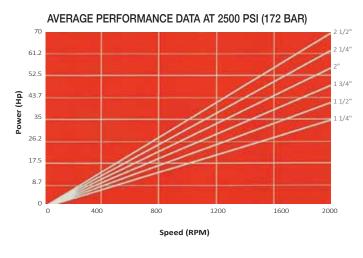
(144.0)

(19.5)

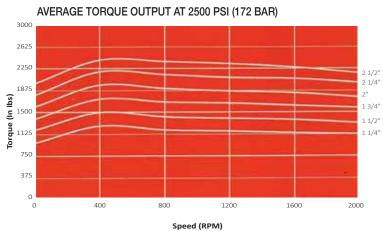
 $HP = \frac{T \times RPM}{63025}$

(51.0)

(245.0)



(94.0)



(42.0)

INPUT POWER LIMITING FACTOR

SHAFT STYLE	INTEGRAL SHAFT & GEAR	TWO PIECE STYLE
SAE 'B' Spline (7/8" 13 tooth)	6100	6100
SAE 'BB' Spline (1" 15 tooth)	9400	-
SAE 'BB' Key (1" keyed)	5600	5600
SAE 'C' Spline (1 1/4" 14 tooth)	12900	8500
SAE 'C' Key (1 1/4" keyed)	10900	8500
Connecting Shaft	-	8500

For each section of a motor, this is determined by the maximum pressure (psi) multiplied by the gear width (inches).

Multiple motors, each section is added together. The total must not exceed the numbers in the corresponding table.

Refer to start of section for an explanation of the PL factor. $\label{eq:planet} % \begin{subarray}{ll} \end{subarray} \begin{subarray}{$





GP/GM 176 SERIES PUMPS



GP/GM 176 units are a medium to high pressure series of pumps/motors.

Built with rugged cast iron design, utilising heavy duty roller bearings, the GP/GM 176 Series is suitable for most mobile applications. The pumps are doweled to withstand high pressure shocks.

Displacements range from 50cc to 201cc, with pressures up to: GM - 200 Bar/ GP - 205 Bar.

10

1

67.2 (4.1)



OPTIONS

(RPM)

CODE

Gear Size (inches)

(cc/rev) (cu in/rev) Maximum Pressure

Displacement

(BAR) (PSI) Maximum Speed

• Flanged Ports (Code 61)

07

3/4

50.4 (3.08)

207 (3000) 207 (3000)

2000-2400 2000-2400

- Viton Seals
- Multiple Assembly
- Continental Shaft
- Shorten/Drill and Tap Shafts

207 (3000) 207 (3000)

• Lube Thrust Plates

12

1 1/4

15

1 1/2

17

13/4

207 (3000)

- Transmission Seals with drain
- Stepped with 131 series

 $T = HP \times 63025$ **RPM**

2000-2400 2000-2400 2000-2400 2000-2400 2000-2400 2000-2400 2000-2400

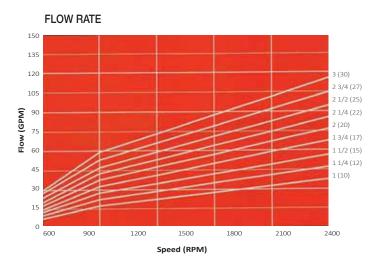


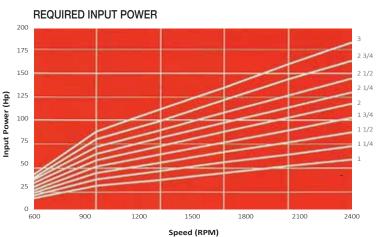


2000-2400

SPEED/GW	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3
600	6.5 (24.5)	9.2 (38.0)	12.5 (47.0)	14.5 (56.0)	17.5 (66.0)	20.0 (76.0)	23.5 (89.0)	25.0 (94.0)	28.0 (106.0)
1200	17.5 (66.0)	22.5 (85.0)	27.5 (104.0)	32.5 (123.0)	37.5 (142.0)	42.5 (161.0)	47.0 (178.0)	53.0 (201.0)	59.0 (223.0)
1500	22.5 (85.0)	28.5 (108.0)	34.5 (131.0)	41.0 (155.0)	47.5 (142.0)	53.0 (201.0)	59.0 (224.0)	66.0 (250.0)	73.0 (276.0)
1800	27.5 (104.0)	35.0 (132.0)	42.0 (159.0)	50.0 (189.0)	57.0 (216.0)	64.0 (242.0)	71.0 (269.0)	79.0 (299.0)	87.5 (331.0)
2100	32.5 (123.0)	41.0 (155.0)	49.0 (185.0)	59.0 (223.0)	67.0 (254.0)	74.5 (282.0)	82.5 (312.0)	92.0 (348.0)	101.5 (384.0)
2400	37.5 (142.0)	47.0 (178.0)	56.5 (214.0)	67.5 (255.0)	76.5 (290.0)	85.5 (324.0)	94.5 (357.0)	105.0 (397.0)	116.0 (439.0)

Note: Speed in RPM, Flow in US GPM (Flow in Litres/min in parentheses).





Note: Horsepower calculated at 2000 psi for all gear widths

INPUT POWER LIMITING FACTOR

SHAFT STYLE	INTEGRAL SHAFT & GEAR	TWO PIECE STYLE
SAE 'C' Spline (1 1/4" 14 tooth)	8000	8000
SAE 'C' Tandem (1 1/4" 14 tooth)	12500	-
SAE 'C' Key (1 1/4" keyed)	7500	7500
Connecting Shaft	-	10000

For each section of a pump, this is determined by the maximum pressure (psi) multiplied by the gear width (inches).

Multiple pumps, each section is added together. The total must not exceed the numbers in the corresponding table.





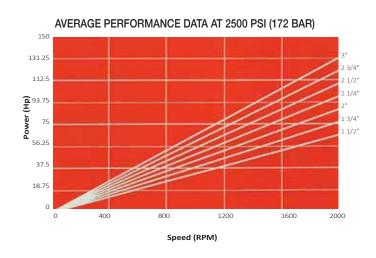
AVERAGE PERFORMANCE

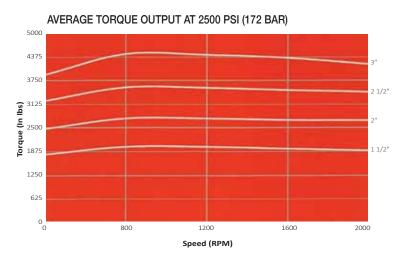
1 1/2" Gears	2" Gears	2 1/2" Gears	3" Gears

SPEED	INPUT FLOW	OUTPUT TORQUE	OUTPUT POWER									
800	25.0	2000.0	25.4	32.0	2750.0	34.9	42.0	3750.0	47.6	49.5	4450.0	56.5
	(94.6)	225.0	18.9	(121.0)	310.0	26.0	(159.0)	423.0	35.5	(187.0)	502.0	42.1
1200	36.0	2000.0	38.1	48.0	2750.0	52.4	60.0	3560.0	67.8	72.5	4400.0	83.8
	(136.2)	225.0	28.4	(181.6)	310.0	39.1	(227.0)	402.0	50.6	(274.0)	497.0	62.5
1600	48.0	1950.0	49.5	64.0	2710.0	68.8	78.0	3500.0	88.9	94.0	4355.0	110.6
	(181.6)	220.0	36.9	(242.0)	306.0	51.3	(295.0)	395.0	66.3	(356.0)	492.0	82.5
2000	59.5	1900.0	60.3	78.5	2700.0	85.7	96.5	3450.0	109.5	115.0	4184.0	132.8
	(225.0)	214.0	44.9	(297.0)	305.0	63.9	(365.0)	389.0	81.7	(435.0)	472.0	99.0

Note: Input Flow US GPM (LPM in parentheses) Output Torque in lbs (Nm in parentheses) Output Power Hp (kW in parentheses)







INPUT POWER LIMITING FACTOR

SHAFT STYLE	INTEGRAL SHAFT & GEAR	TWO PIECE STYLE
SAE 'C' Spline (1 1/4" 14 tooth)	8000	8000
SAE 'C' Tandem (1 1/4" 14 tooth)	12500	-
SAE 'C' Key (1 1/4" keyed)	7500	7500
Connecting Shaft	-	10000

For each section of a motor, this is determined by the maximum pressure (psi) multiplied by the gear width (inches).

Multiple motors, each section is added together. The total must not exceed the numbers in the corresponding table.





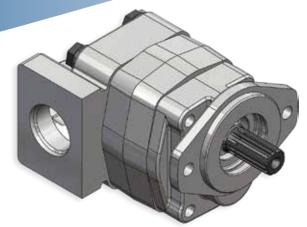
GP/GM 215 SERIES PUMPS



The GP/GM 215 is the smallest of a series of high pressure gear pumps/motors.

Compacted graphite iron gear housings are utilised, combined with teflon-coated steel bush journal bearings. This provides excellent performance in high pressure mobile applications.

Available in 10cc to 40cc configurations, with a pressure rating of up to 240 Bar (dependent on gear size).



OPTIONS

- Double Bearing SEC with 1" keyed Shaft (Fan Motor only P70)
- Multiple sections
- Rear Ports available
- Flanged Ports (Code 61)
- Common inlet for multiple
- pump assemblies

CODE	05	07	10	12	15	17	20
Gear Size (inches)	1/2	3/4	1	1 1/4	1 1/2	1 3/4	2
Displacement (cc/rev) (cu in/rev)	10.2 (0.62)	15.2 (0.93)	20.3 (1.24)	25.4 (1.55)	30.5 (1.86)	35.6 (2.17)	40.6 (2.48)
Maximum Pressure (BAR) (PSI)	240 (3500)	240 (3500)	240 (3500)	240 (3500)	220 (3200)	220 (2900)	172 (2500)
Maximum Speed (RPM)	3000	3000	3000	3000	3000	3000	3000

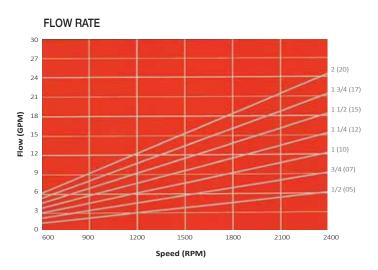
 $T = \frac{HP \times 63025}{RPM}$

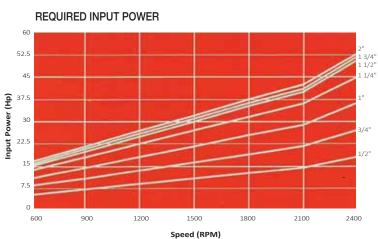




SPEED/GEAR WIDTH	1/2	3/4	1	1 1/4	1 1/2	1 3/4	2
900	2.3 (8.7)	3.5 (13.2)	4.6 (17.4)	5.8 (22.0)	7.0 (26.5)	8.1 (30.6)	9.3 (35.2)
1200	3.1 (11.7)	4.6 (17.4)	6.1 (23.0)	7.7 (29.0)	9.3 (35.2)	11.8 (44.6)	12.9 (48.8)
1500	3.9 (14.7)	5.9 (22.3)	7.8 (29.5)	9.7 (36.7)	11.6 (43.9)	13.5 (51.0)	15.6 (59.0)
1800	4.6 (17.4)	7.0 (26.5)	9.3 (35.2)	11.6 (44.0)	13.9 (52.6)	16.2 (61.3)	18.6 (70.4)
2100	5.5 (20.8)	8.2 (31.0)	10.8 (40.8)	13.5 (51.0)	16.2 (61.3)	18.9 (71.5)	21.8 (82.5)
2400	6.1 (23.0)	9.3 (35.2)	12.4 (46.9)	15.5 (58.6)	18.6 (70.4)	21.7 (82.1)	24.7 (93.4)
3000	7.8 (29.5)	11.6 (44.0)	15.6 (73.0)	19.3 (73.0)	23.2 (87.8)	27.1 (102.5)	31.1 (117.7)

Note: Speed in RPM, Flow in US GPM (Flow in Litres/min in parentheses).





Note: Horsepower calculated at 2000 psi for all gear widths

1/2" at 3500 psi 3/4" at 3500 psi 1" at 3500 psi 1 1/4" at 3500 psi 1 1/2" at 3300 psi 1 3/4" at 2900 psi

INPUT POWER LIMITING FACTOR

SHAFT STYLE	INTEGRAL SHAFT & GEAR	TWO PIECE STYLE
SAE 'A' Spline (5/8" 9 tooth)	4450	-
SAE 'B' Spline (7/8" 13 tooth)	13200	-
SAE 'B' Key (7/8" keyed)	9500	-
Connecting Shaft	-	5500

For each section of a pump, this is determined by the maximum pressure (psi) multiplied by the gear width (inches).

Multiple pumps, each section is added together. The total must not exceed the numbers in the corresponding table.



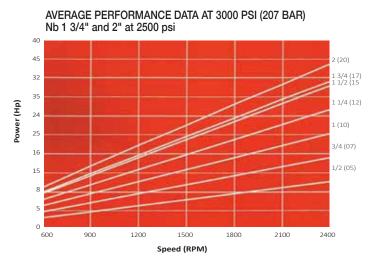


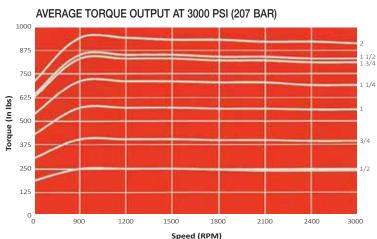
AVERAGE PERFORMANCE

	1" G	iears	1 1/4" (Gears	1 1/2'	' Gears	1 3/4'	Gears	2" G	ears
SPEED	INPUT FLOW	OUTPUT TORQUE								
900	6.0	570.0	7.0	711.0	8.2	850.0	9.6	830.0	11.0	940.0
	(22.7)	(64.0)	(26.5)	(80.0)	(31.0)	(96.0)	(36.3)	(93.0)	(41.6)	(106.0)
1200	7.5	570.0	9.2	711.0	11.0	850.0	13.0	830.0	14.6	940.0
	(28.3)	(64.0)	(35.0)	(80.0)	(41.6)	(96.0)	(49.0)	(93.0)	(55.0)	(106.0)
1500	9.2	570.0	11.5	710.0	13.6	850.0	16.0	830.0	18.0	930.0
	(35.0)	(64.0)	(43.5)	(80.0)	(51.6)	(96.0)	(60.5)	(93.0)	(68.0)	(105.0)
1800	11.3	565.0	14.0	705.0	16.0	840.0	19.0	820.0	21.5	930.0
	(42.7)	(63.0)	(53.0)	(79.0)	(60.5)	(94.0)	(72.0)	(92.0)	(81.0)	(105.0)
2100	12.8	565	16.0	705.0	19.0	840.0	22.0	820.0	25.0	920.0
	(48.6)	(63.0)	(60.5)	(79.0)	(72.0)	(94.0)	(83.6)	(92.0)	(94.6)	(104.0)
2400	14.5	560.0	18.2	690.0	21.6	830.0	25.5	810.0	28.0	920.0
	(55.0)	(62.0)	(69.0)	(78.0)	(82.0)	(93.0)	(96.5)	(91.0)	(106.0)	(104.0)
3000	18.0	560.0	22.5	690.0	27.0	830.0	31.5	810.0	36.0	910.0
	(68.5)	(62.0)	(85.0)	(78.0_	(102.0)	(93.0)	(119.5)	(91.0)	(136.0)	(102.0)

Note: Input Flow US GPM (LPM in parentheses) Output Torque in lbs (Nm in parentheses)

 $HP = \frac{T \times RPM}{63025}$





Note: Torque calculated at 3000 psi (1 3/4" and 2" at 2500 psi)

INPUT POWER LIMITING FACTOR

SHAFT STYLE	INTEGRAL SHAFT & GEAR	TWO PIECE STYLE
SAE 'A' Spline (5/8" 9 tooth)	4450	-
SAE 'B' Tandem (7/8" 13 tooth)	13000	-
SAE 'B' Key (7/8" keyed)	9000	-
Connecting Shaft	-	5250

For each section of a motor, this is determined by the maximum pressure (psi) multiplied by the gear width (inches).

Multiple motors, each section is added together. The total must not exceed the numbers in the corresponding table.

Refer to start of section for an explanation of the PL factor. $\label{eq:planet} % \begin{subarray}{ll} \end{subarray} \begin{subarray}{$





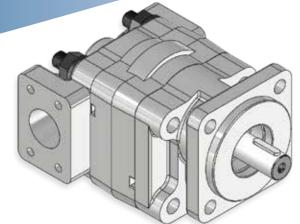
GP/GM 230 SERIES PUMPS



The GP/GM 230 is the next size series of high pressure gear pumps/motors.

Compacted graphite iron gear housings are utilised, combined with teflon-coated steel bush journal bearings. This provides excellent performance in high pressure mobile applications.

Available in 16cc to 64cc configurations, with a pressure rating of up to 240 Bar (dependent on gear size).



OPTIONS

- Flanged Ports Code 61 (Code 62 available on request)
- Viton Seals
- Multiple Assembly
- Continental Shaft
- Shorten/Drill and Tap Shafts
- Rear Ports
- Transmission Seals with drain
- Stepdown options with GP 215
- 2 Bolt 'A' mount available on request
- Common inlet port for multiple sections/stepdown pumps

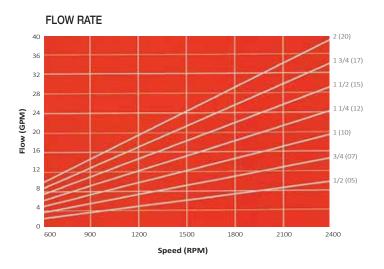
CODE	05	07	10	12	15	17	20
Gear Size (inches)	1/2	3/4	1	1 1/4	1 1/2	1 3/4	2
Displacement (cc/rev) (cu in/rev)	10.2 (0.62)	15.2 (0.93)	20.3 (1.24)	25.4 (1.55)	30.5 (1.86)	35.6 (2.17)	40.6 (2.48)
Maximum Pressure (BAR) (PSI)	240 (3500)	240 (3500)	240 (3500)	240 (3500)	240 (3500)	220 (2900)	207 (3000)
Maximum Speed (RPM)	3000	3000	3000	3000	3000	3000	3000

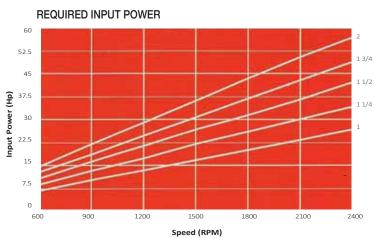




SPEED/GEAR WIDTH	1/2	3/4	1	1 1/4	1 1/2	1 3/4	2
600	2.57 (7.5)	3.47 (13.0)	4.61 (17.4)	5.76 (21.8)	6.9 (26.0)	8.0 (30.5)	9.3 (35.0)
900	3.4 (12.8)	5.2 (19.5)	6.9 (26.0)	8.7 (33.0)	10.5 (40.0)	12.2 (46.0)	14.0 (53.0)
1200	5.0 (18.9)	6.9 (26.0)	9.4 (35.6)	11.8 (44.6)	14.4 (54.0)	16.5 (62.0)	19.0 (71.5)
1500	5.7 (21.5)	8.6 (32.7)	17.7 (44.5)	14.8 (56.5)	17.8 (67.0)	20.8 (79.0)	23.8 (90.0)
1800	7.0 (26.5)	10.6 (40.0)	14.0 (53.5)	17.8 (67.0)	21.6 (82.0)	25.0 (94.0)	28.5 (108.0)
2100	8.1 (30.6)	12.3 (47.0)	16.5 (62.5)	21.0 (80.0)	25.3 (95.0)	29.5 (111.0)	33.5 (127.0)
2400	9.2 (35.0)	14.3 (54.0)	19.0 (72.0)	24.0 (91.0)	29.0 (109.0)	33.7 (127.0)	38.5 (145.0)
3000	11.5 (44.0)	17.8 (67.5)	24.0 (91.0)	30.0 (114.0)	36.0 (136.0)	42.0 (159.0)	48.0 (182.0)

Note: Speed in RPM, Flow in US GPM (Flow in Litres/min in parentheses).





Note: Horsepower calculated at 2000 psi for all gear widths

INPUT POWER LIMITING FACTOR

SHAFT STYLE	INTEGRAL SHAFT & GEAR	TWO PIECE STYLE
SAE 'B' Spline (7/8" 13 tooth)	8400	6250
SAE 'B' Key (7/8" keyed)	6250	6250
SAE 'BB' Spline (1" 15 tooth)	13000	-
SAE 'BB' Key (1" keyed)	9300	6250
SAE 'C' Spline (1 1/4" 14 tooth)	-	6250
Connecting Shaft	-	6250

For each section of a pump, this is determined by the maximum pressure (psi) multiplied by the gear width (inches).

Multiple pumps, each section is added together. The total must not exceed the numbers in the corresponding table.



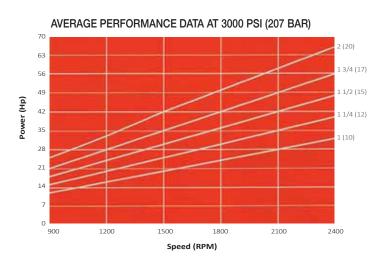


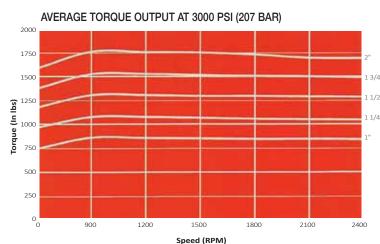
AVERAGE PERFORMANCE

	1" G	iears	1 1/4" (Gears	1 1/2	' Gears	1 3/4" Gears		2" Gears	
SPEED	INPUT FLOW	OUTPUT TORQUE								
900	9.5	865.0	11.3	1080.0	13.7	1310.0	15.8	1530.0	17.7	1765.0
	(35.0)	(97.0)	(43.0)	(122.0)	(52.0)	(148.0)	(60.0)	(172.0)	(67.0)	(199.0)
1200	11.8	860.0	14.7	1080.0	17.7	1310.0	20.6	1530.0	22.7	1760.0
	(45.0)	(97.0)	(56.0)	(122.0)	(67.0)	(148.0)	(78.0)	(172.0)	(86.0)	(199.0)
1500	14.5	855.0	18.2	1070.0	21.6	1300.0	24.8	1520.0	28.5	1755.0
	(55.0)	(96.0)	(69.0)	(120.0)	(82.0)	(146.0)	(94.0)	(171.0)	(108.0)	(198.0)
1800	17.1	850.0	21.6	1060.0	25.8	1300.0	29.3	1510.0	33.5	1735.0
	(65.0)	(96.0)	(82.0)	(119.0)	(98.0)	(146.0)	(111.0)	(170.0)	(127.0)	(196.0)
2100	20.3	850.0	25.0	1055.0	29.8	1295.0	34.3	1505.0	38.8	1700.0
	(77.0)	(96.0)	(95.0)	(119.0)	(113.0)	(146.0)	(130.0)	(170.0)	(147.0)	(192.0)
2400	23.2	845.0	28.4	1050.0	33.2	1290.0	38.8	1495.0	44.1	1695.0
	(88.0)	(95.0)	(107.0)	(118.0)	(126.0)	(145.0)	(147.0)	(169.0)	(167.0)	(191.0)
3000	28.8	830.0	35.1	1040.0	42.2	1280.0	49.2	1485.0	56.3	1685.0
	(109.0)	(93.0)	(107.0)	(117.0)	(159.0)	(144.0)	(186.0)	(167.0)	(213.0)	(190.0)

Note: Input Flow US GPM (LPM in parentheses) Output Torque in lbs (Nm in parentheses)

 $HP = \frac{T \times RPM}{63025}$





INPUT POWER LIMITING FACTOR

SHAFT STYLE	INTEGRAL SHAFT & GEAR	TWO PIECE STYLE
SAE 'B' Spline (7/8" 13 tooth)	8450	6250
SAE 'B' Key (7/8" keyed)	6250	6250
SAE 'BB' Spline (1" 15 tooth)	13000	-
SAE 'BB' Key (1" keyed)	9300	6250
SAE 'C' Spline (1 1/4" 14 tooth)	-	6250
Connecting Shaft	-	6250

For each section of a motor, this is determined by the maximum pressure (psi) multiplied by the gear width (inches).

Multiple motors, each section is added together. The total must not exceed the numbers in the corresponding table.

Refer to start of section for an explanation of the PL factor. $\label{eq:planeton}$





GP/GM 250 SERIES PUMPS



The GP/GM 250 is the mid range series of high pressure gear pumps.

Compacted graphite iron gear housings are utilised, combined with teflon-coated steel bush journal bearings. This provides excellent performance in high pressure mobile applications.

Available in 20cc to 104cc configurations, with a pressure rating of up to 240 Bar (dependent on gear size).

CODE	05	07	10	12	15	17	20	22	25
Gear Size (inches)	1/2	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2
Displacement (cc/rev) (cu in/rev)	20.9 (1.28)	31.3 (1.91)	41.8 (2.55)	52.2 (3.19)	62.7 (3.83)	73.1 (4.46)	83.6 (5.1)	94.0 (5.74)	104.5 (6.38)
Maximum Pressure (BAR) (PSI)	240 (3500)	240 (3500)	240 (3500)	240 (3500)	240 (3500)	220 (3200)	207 (3000)	190 (2750)	173 (2500)
Maximum Speed (RPM)	2400	2400	2400	2400	2400	2400	2400	2400	2400

OPTIONS

- Flanged Ports Code 61 (Code 62 on request)
- Viton Seals
- Multiple Assembly
- Shorten/Drill and Tap Shafts
- Rear Ports

- Transmission Seals with drain
- Stepped down with 215 series
- Add On options with 2 Bolt 'A' or 'B', 9 or 13 tooth female inputs
- Common inlets for multiple sections and step downs

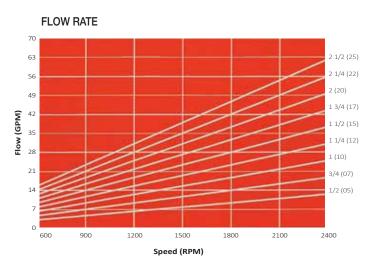


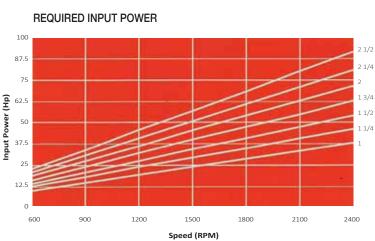




SPEED/GW	1/2	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/4
600	2.65 (10.0)	4.2 (16.0)	5.8 (22.0)	7.4 (28.0)	9.2 (35.0)	10.8 (41.0)	12.4 (47.0)	13.7 (52.0)
900	3.97 (15.0)	6.3 (24.0)	8.8 (33.5)	11.3 (43.0)	13.7 (52.0)	16.0 (61.0)	18.5 (70.0)	20.8 (79.0)
1200	5.5 (21.0)	9.0 (34.0)	12.0 (46.0)	15.3 (58.0)	18.5 (70.0)	21.6 (82.0)	24.8 (94.0)	28.0 (106.0)
1500	7.0 (27.0)	11.2 (42.5)	15.2 (57.5)	19.2 (73.0)	23.0 (88.0)	27.4 (104.0)	31.0 (118.0)	34.8 (132.0)
1800	8.45 (32.0)	13.4 (51.0)	18.2 (69.0)	23.0 (87.5)	28.0 (106.0)	32.7 (124.0)	37.5 (142.0)	41.7 (158.0)
2100	9.9 (37.5)	15.4 (59.5)	21.2 (80.5)	27.0 (102.0)	32.5 (123.0)	38.0 (144.0)	43.6 (165.0)	48.8 (185.0)
2400	11.3 (43.0)	17.9 (68.0)	24.3 (92.0)	30.7 (116.5)	37.0 (140.0)	43.3 (164.0)	49.6 (188.0)	55.4 (210.0)

Note: Speed in RPM, Flow in US GPM (Flow in Litres/min in parentheses).





Note: Horsepower calculated at 2000 psi for all gear widths

INPUT POWER LIMITING FACTOR

SHAFT STYLE	INTEGRAL SHAFT & GEAR	TWO PIECE STYLE
SAE 'B' Spline (7/8" 13 tooth)	6450	6450
SAE 'BB' Spline (1" 15 tooth)	9900	-
SAE 'BB' Key (1" keyed)	7100	7100
SAE 'C' Spline (1 1/4" 14 tooth)	19000	9000
SAE 'C' Key (1 1/4" keyed)	13900	9000
Connecting Shaft	-	9000

For each section of a pump, this is determined by the maximum pressure (psi) multiplied by the gear width (inches).

Multiple pumps, each section is added together. The total must not exceed the numbers in the corresponding table.



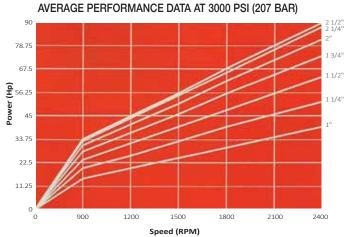


AVERAGE PERFORMANCE

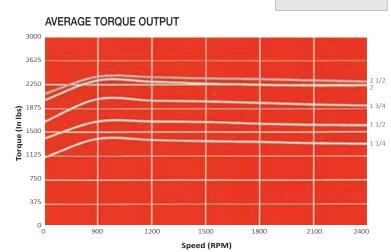
SPEED	INPUT FLOW	OUTPUT TORQUE	INPUT FLOW	OUTPUT TORQUE	INPUT FLOW	OUTPUT TORQUE	INPUT FLOW	OUTPUT TORQUE
900	14.5	1400.0	17.1	1672.0	22.9	2320.0	29.0	2380.0
	(55.0)	(160.0)	(65.0)	(188.0)	(87.0)	(262.0)	(110.0)	(268.0)
1200	19.2	1380.0	22.9	1672.0	30.6	2300.0	37.5	2370.0
	(73.0)	(156.0)	(87.0)	(189.0)	(116.0)	(259.0)	(142.0)	(267.0)
1500	23.7	1360.0	28.2	1663.0	37.7	2270.0	45.9	2350.0
	(90.0)	(154.0)	(107.0)	(188.0)	(143.0)	(256.0)	(174.0)	(265.0)
1800	28.0	1350.0	33.2	1637.0	44.3	2250.0	54.0	2340.0
	(106.0)	(153.0)	(126.0)	(185.0)	(168.0)	(254.0)	(205.0)	(264.0)
2100	32.2	1330.0	38.5	1619.0	51.5	2240.0	62.8	2320.0
	(122.0)	(150.0)	(146.0)	(183.0)	(195.0)	(253.0)	(238.0)	(262.0)
2400	36.9	1320.0	44.1	1610.0	58.0	2240.0	70.8	2300.0
	(140.0)	(149.0)	(167.0)	(182.0)	(220.0)	(253.0)	(268.0)	(259.0)

Note: Input Flow US GPM (LPM in parentheses) Output Torque in lbs (Nm in parentheses)

 $HP = \frac{T \times RPM}{63025}$



Note: 2 1/4" and 2 1/2" at 2500 psi (172 Bar)



Note: Torque calculated at 3000 psi, except 2 1/4" and 2 1/2" gears (2500 psi)

INPUT POWER LIMITING FACTOR

SHAFT STYLE	INTEGRAL SHAFT & GEAR	TWO PIECE STYLE
SAE 'B' Spline (7/8" 13 tooth)	6450	6450
SAE 'BB' Spline (1" 15 tooth)	9900	9000
SAE 'BB' Key (1" keyed)	700	7000
SAE 'C' Spline (1 1/4" 14 tooth)	19000	9000
SAE 'C' Key (1 1/4" keyed)	13900	9000
Connecting Shaft	-	9000

For each section of a motor, this is determined by the maximum pressure (psi) multiplied by the gear width (inches).

Multiple motors, each section is added together. The total must not exceed the numbers in the corresponding table.





GP/GM 265 SERIES PUMPS



The GP/GM 265 is the largest of a series of high pressure gear pumps.

Compacted graphite iron gear housings are utilised, combined with teflon-coated steel bush journal bearings. This provides excellent performance in high pressure mobile applications.

Available in 44cc to 147cc configurations, with a pressure rating of up to 240 Bar (dependent on gear size).

10

59 (3.6)

2400

12

1 1/4

73.8 (4.5)

2400

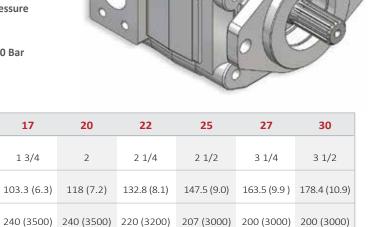
15

1 1/2

88.5 (5.4)

2400

240 (3500) 240 (3500)



2400

OPTIONS

(RPM)

CODE

Gear Size (inches)

(cc/rev) (cu in/rev)

Maximum Pressure

Displacement

(BAR) (PSI)

Maximum Speed

• Flanged Ports Code 61 (Code 62 on request)

240 (3500) 240 (3500)

- Viton Seals
- Multiple Assembly
- Shorten/Drill and Tap Shafts

07

3/4

44.3 (2.7)

2400

• Transmission Seals with drain

• Stepped down with 230 series

2400

Add On options with 2 Bolt 'A' or 'B',
 9, 13 or 15 tooth female inputs

2400

2400

 Common inlets for multiple sections and step downs $T = \frac{HP \times 63025}{RPM}$

2400

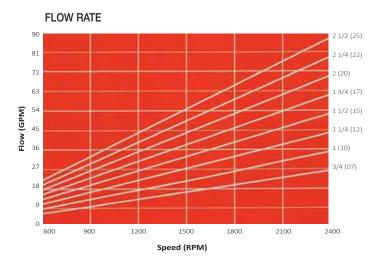


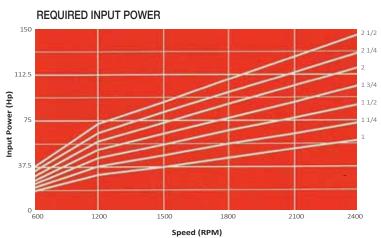


2400

SPEED/GW	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2
600	5.9 (22.5)	7.5 (28.5)	10.0 (37.8)	12.5 (47.3)	14.7 (55.6)	16.5 (62.4)	19.0 (72.0)	21.0 (79.6)
900	8.6 (32.5)	11.4 (43.1)	15.4 (58.2)	18.9 (71.6)	22.0 (83.0)	25.2 (95.5)	28.0 (106.0)	31.5 (119.4)
1200	11.4 (43.0)	16.6 (63.0)	21.0 (79.6)	25.0 (94.6)	30.0 (114.0)	34.0 (128.6)	38.7 (146.4)	42.5 (161.0)
1500	14.8 (56.0)	20.5 (77.6)	26.0 (98.4)	32.0 (121.0)	38.0 (144.0)	43.0 (162.7)	49.5 (187.4)	53.7 (203.5)
1800	18.5 (70.0)	25.5 (96.6)	31.5 (119.5)	39.0 (148.0)	45.6 (172.7)	51.6 (195.3)	59.4 (225.0)	64.5 (244.0)
2100	21.5 (81.3)	30.0 (113.9)	37.6 (142.0)	45.0 (170.0)	53.2 (201.1)	60.8 (230.4)	70.0 (265.0)	77.0 (291.0)
2400	25.0 (94.6)	34.6 (131.0)	43.0 (162.8)	52.0 (196.0)	61.5 (232.9)	70.3 (266.0)	80.0 (302.8)	88.0 (333.0)

Note: Speed in RPM, Flow in US GPM (Flow in Litres/min in parentheses).





Note: Horsepower calculated at 2000 psi for all gear widths

INPUT POWER LIMITING FACTOR

SHAFT STYLE	INTEGRAL SHAFT & GEAR	TWO PIECE STYLE
SAE 'C' Spline (1 1/4" 14 tooth)	14900	11950
SAE 'C' Key (1 1/4" keyed)	10800	10800
Connecting Shaft	-	11950

For each section of a pump, this is determined by the maximum pressure (psi) multiplied by the gear width (inches).

Multiple pumps, each section is added together. The total must not exceed the numbers in the corresponding table.





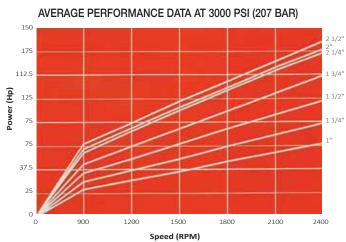
AVERAGE PERFORMANCE

1 1/2" Gears	1 3/4" Gears	2" Gears	2 1/2" Gears
1 1/2 Gcars	1 3/4 Gcars	z dcars	2 1/2 Ocurs

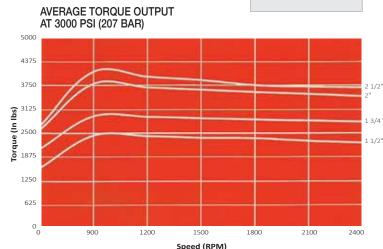
SPEED	INPUT FLOW	OUTPUT TORQUE	INPUT FLOW	OUTPUT TORQUE	INPUT FLOW	OUTPUT TORQUE	INPUT FLOW	OUTPUT TORQUE
900	25.8	2445.0	29.5	2950.0	33.0	3800.0	40.0	4120.0
	(98.0)	(276.0)	(112.0)	(333.0)	(125.0)	(429.0)	(151.0)	(460.0)
1200	33.0	2425.0	37.5	2930.0	42.5	3700.0	52.0	3980.0
	(125.0)	(274.0)	(142.0)	(331.0)	(161.0)	(418.0)	(197.0)	(450.0)
1500	40.0	2380.0	46.0	2890.0	52.0	3640.0	63.5	3890.0
	(151.0)	(269.0)	(174.0)	(326.0)	(197.0)	(411.0)	(240.0)	(440.0)
1800	47.0	2370.0	53.8	2860.0	61.0	3580.0	75.0	3760.0
	(178.0)	(267.0)	(204.0)	(323.0)	(231.0)	(404.0)	(284.0)	(425.0)
2100	54.0	2300.0	62.6	2830.0	70.0	3530.0	87.0	3717.0
	(204.0)	(260.0)	(237.0)	(319.0)	(267.0)	(398.0)	(329.0)	(420.0)
2400	61.0	2250.0	70.5	2800.0	80.0	3470.0	98.5	3700.0
	(231.0)	(254.0)	(267.0)	(316.0)	(303.0)	(392.0)	(373.0)	(418.0)

Note: Input Flow US GPM (LPM in parentheses) Output Torque in lbs (Nm in parentheses)

 $HP = \frac{T \times RPM}{63025}$



Note: 2 1/2" gears at 2500 psi (172 Bar)



Note: Torque calculated at 300 psi, except for 2 1/2" gears (2500 psi)

INPUT POWER LIMITING FACTOR

SHAFT STYLE	INTEGRAL SHAFT & GEAR	TWO PIECE STYLE
SAE 'C' Spline (1 1/4" 14 tooth)	14900	11950
SAE 'C' Key (1 1/4" keyed)	10800	10800
Connecting Shaft	-	11950

For each section of a motor, this is determined by the maximum pressure (psi) multiplied by the gear width (inches).

Multiple motors, each section is added together. The total must not exceed the numbers in the corresponding table.

Refer to start of section for an explanation of the PL factor. $\label{eq:planet} % \begin{subarray}{ll} \end{subarray} \begin{subarray}{$





GF 131 / 151 / 176 FLOW DIVIDERS



Rotary Gear Flow Dividers are an excellent means of splitting a single pump output flow into as many as 6 independent flows. The divided flows can either be equal or unequal in displacement and are pressure independent.

They are manufactured from the same high quality components used across the GPM pump and motor series.

Unlike fixed spool or orifice-type flow dividers, rotary gear flow dividers utilise all the available input horsepower. Unwanted downstream energy is used internally, rather than being converted into heat.

EXAMPLE

Two motors are running off a single pump. One motor runs at 1000 psi and the other runs at 2000 psi. Input flow is 20gpm.

For a **Fixed Spool Divider**, the calculation would be as follows:

Input HP = (GPM x PSI) Downstream HP Motor 1 =
$$(10 \times 2000)$$
 1714 = (20×2000) 2 = **11.6 Hp** Motor 1 = (10×1000) 1714 = **5.8 Hp**

For Rotary Flow Dividers Input HP = Total Output HP

There would be a small loss due to friction between the rotating parts (approximately 1-2%). Again as in the example on the left, there is a lower down -stream pressure in the second motor. The excess energy in the second gear section of the flow divider transfers across the unit via the connecting shaft, helping to drive the first gear seaction. This lowers the input pressure to drive both sections, therefore no energy is converted into heat.

The following formula can be used to calculate the input pressure: (*This example assumes one inch gears for both sections*)

Input Pressure x Total Gear Width = (Pressure x Gear Width [1] +
Pressure x Gear Width [2])

PSI x 2" =
$$(2000 \times 1") + (1000 \times 1")$$

PSI = $3000/2$ "
Input PSI = **1500 psi**

Input flow in a rotary flow divider is still 20 gpm, but the input pressure has dropped to 1500 PSI.

Therefore 20 GPM x 1500 PSI = **17.4 Hp**

Energy saved using a rotary flow instead of a fixed spool divider

(In a fixed spool flow divider, 5.9 Hp would be converted to heat).

By using a rotary gear flow divider instead of a fixed spool, the input pressure and heat output of the system can be lowered.

This results in 2 advantages:

- No wasted horsepower converted into heat
- Extended pump life due to the pump working at lower pressure

Pressure Intensification

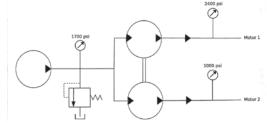
Maximum pressure relief valves must be used in all downstream legs of a rotary flow divider, and between the hydraulic pump and the inlet port of the flow divider. This guards against unwanted pressure intensification. However pressure intensification can be a desirable feature in a hydraulic circuit.

In the previous example the maximum pump pressure is 2000 psi, but Motor 1 may be required to go to 2400 psi, with Motor 2 remaining at 1000 psi. The same formula is applied:

Input PSI x Total Gear Width =
$$(P1 \times GW1) + (P2 \times GW2)$$

PSI = 3400
2
Input PSI = **1700 psi**

The pump pressure rises to 1700 psi to achieve 2400 psi on Motor 1.







GF 131 SERIES - Size Selection

SIZE / SPEED	600	900	1200	1500	1800
1/2	2 (7)	3 (11)	4 (15)	5 (19)	6 (22)
3/4	3 (11)	5 (19)	7 (26)	8 (30)	10 (39)
1	4 (15)	6 (24)	9 (34)	11 (43)	14 (53)
1 1/4	5 (19)	8 (30)	11 (43)	14 (55)	18 (68)
1 1/2	6 (22)	10 (38)	14 (53)	17 (66)	21 (81)
1 3/4	7 (26)	12 (45)	16 (60)	20 (77)	25 (94)
2	8 (30)	13 (50)	19 (70)	23 (88)	29 (110)

Note: Output flow in US GPM (LPM in parentheses). Recommended range in dark columns.

GF 151 SERIES - Size Selection

SIZE / SPEED	600	900	1200	1500	1800	2100
1/2	2 (7.5)	4.5 (17)	6 (22.5)	8 (30.5)	9.5 (36)	11 (41.5)
3/4	3.5 (13)	6 (22.5)	9 (34)	11.5 (43.5)	14 (53)	16 (60.5)
1	5 (19)	8.5 (32)	12 (45.5)	15 (57)	18 (68)	21.5 (81.5)
1 1/4	6.5 (24.5)	10.5 (39.5)	15 (57)	19 (72)	23 (87)	27 (102)
1 1/2	8 (30.5)	13 (49)	18 (68)	23 (87)	27.5 (104)	32.5 (123)
1 3/4	9.5 (36)	15 (57)	21 (79.5)	27 (102)	32.5 (123)	38.5 (146)
2	11 (41.5)	17.5 (66)	24 (91)	31 (117)	37.5 (142)	44 (167)
2 1/4	12.5 (47.5)	20 (75.5)	27 (102)	35 (132)	42 (159)	49.5 (187)
2 1/2	14 (53)	22 (83.5)	30 (114)	39 (148)	47 (178)	55 (208)

Note: Output flow in US GPM (LPM in parentheses). Recommended range in dark columns.

GF 176 SERIES - Size Selection

SIZE / SPEED	600	900	1200	1500	1800	2100
1/2	2 (7.5)	4.5 (17)	6 (22.5)	8 (30.5)	9.5 (36)	11 (41.5)
3/4	3.5 (13)	6 (22.5)	9 (34)	11.5 (43.5)	14 (53)	16 (60.5)
1	5 (19)	8.5 (32)	12 (45.5)	15 (57)	18 (68)	21.5 (81.5)
1 1/4	6.5 (24.5)	10.5 (39.5)	15 (57)	19 (72)	23 (87)	27 (102)
1 1/2	8 (30.5)	13 (49)	18 (68)	23 (87)	27.5 (104)	32.5 (123)
1 3/4	9.5 (36)	15 (57)	21 (79.5)	27 (102)	32.5 (123)	38.5 (146)
2	11 (41.5)	17.5 (66)	24 (91)	31 (117)	37.5 (142)	44 (167)
2 1/4	12.5 (47.5)	20 (75.5)	27 (102)	35 (132)	42 (159)	49.5 (187)
2 1/2	14 (53)	22 (83.5)	30 (114)	39 (148)	47 (178)	55 (208)
2 3/4						
3						

Note: Output flow in US GPM (LPM in parentheses). Recommended range in dark columns.

EXAMPLE Flow Divider Selection RPM

Input is 28 GPM Output required is 19 x 9 GPM

At 1200 RPM = 2" Gears x 1" Gears for a GF 131

(Depending on downstream maximum pressure requirements)

Note: For pressures above 3000 psi (207 Bar), Bush Series Flow Dividers are available in 230, 250 and 265 Series







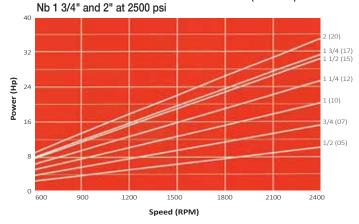
The GM 215 Fan Motor is a specially designed motor with an overhung load adapter built in.

Features of the motor include:

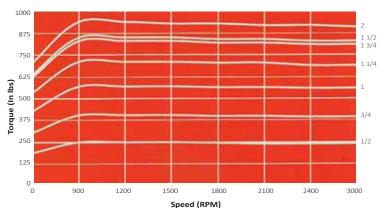
- Combination 2 Bolt 'A' mounting flange and bottom pad mount
- Long standout 1" keyed shaft, drilled and tapped to 5/16" unf
- Can be ordered with a built in over run, anticavitation check valve in the rear cover
- Special double front bearings make it suitable as a belt driven pump, or direct mounted fan drive motor

CODE	05	07	10	12	15	17	20
Gear Size (inches)	1/2	3/4	1	1 1/4	1 1/2	1 3/4	2
Displacement (cc/rev) (cu in/rev)	10.2 (0.62)	24.1 (1.48)	32.2 (1.97)	40.3 (2.46)	48.3 (2.96)	56.4 (3.45)	64.5 (3.94)
Maximum Pressure (BAR) (PSI)	240 (3500)	240 (3500)	240 (3500)	240 (3500)	220 (3200)	207 (3000)	172 (2500)
Maximum Speed (RPM)	3000	3000	3000	3000	3000	3000	3000

AVERAGE PERFORMANCE DATA AT 3000 PSI (207 BAR)



AVERAGE TORQUE OUTPUT AT 3000 PSI (207 BAR)



Note: Torque calculated at 3000 psi (2500 for 1 3/4" and 2")

AVERAGE PERFORMANCE

	1" 6	Gears	1 1/4" (Gears	1 1/2'	' Gears	1 3/4	' Gears	2" G	iears
SPEED	INPUT	OUTPUT	INPUT	OUTPUT	INPUT	OUTPUT	INPUT	OUTPUT	INPUT	OUTPUT
	FLOW	TORQUE	FLOW	TORQUE	FLOW	TORQUE	FLOW	TORQUE	FLOW	TORQUE
900	6.0	570.0	7.0	711.0	8.2	850.0	9.6	830.0	11.0	940.0
	(22.7)	(64.0)	(26.5)	(80.0)	(31.0)	(96.0)	(36.3)	(93.0)	(41.6)	(106.0)
1200	7.5	570.0	9.2	711.0	11.0	850.0	13.0	830.0	14.6	940.0
	(28.3)	(64.0)	(35.0)	(80.0)	(41.6)	(96.0)	(49.0)	(93.0)	(55.0)	(106.0)
1500	9.2	570.0	11.5	710.0	13.6	850.0	16.0	830.0	18.0	930.0
	(35.0)	(64.0)	(43.5)	(80.0)	(51.6)	(96.0)	(60.5)	(93.0)	(68.0)	(105.0)
1800	11.3	565.0	14.0	705.0	16.0	840.0	19.0	820.0	21.5	930.0
	(42.7)	(63.0)	(53.0)	(79.0)	(60.5)	(94.0)	(72.0)	(92.0)	(81.0)	(105.0)
2100	12.8	565.0	16.0	705.0	19.0	840.0	22.0	820.0	25.0	920.0
	(48.6)	(63.0)	(60.5)	(79.0)	(72.0)	(94.0)	(83.6)	(92.0)	(94.6)	(104.0)
2400	14.5	560.0	18.2	690.0	21.6	830.0	25.5	810.0	28.0	920
	(55.0)	(62.0)	(69.0)	(78.0)	(82.0)	(93.0)	(96.5)	(91.0)	(106.0)	(104.0)
3000	18.0	560.0	22.5	690.0	27.0	830.0	31.5	810.0	36.0	910.0
	(68.5)	(62.0)	(85.0)	(78.0)	(102.0)	(93.0)	(119.5)	(91.0)	(136.0)	(102.0)





PUMP IDENTIFICATION

EXTERNAL - PORT END COVER VIEW

Measurements in Millimeters	120	131	125	151	176	215	230	250	265
A B A	127.00	122.20	128.50	128.50					
В	80.00	90.40	90.40	90.40					
A	120.00	125.00		130.00	155.70				
A A						115.00	184.00	194.00	196.00
В						60.00	90.50	90.00	108.00

EXTERNAL - SHAFT END COVER VIEW

	120	131	125	151	176	215	230	250	265
SHAFT BEARING OD	52.00	52.00		68.50	80.00		52.00	68.50	80.00
SCREW IN RETAINER		Х							

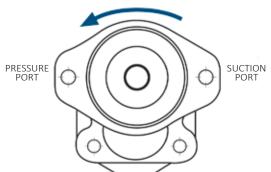
INTERNAL

	120	131	125	151	176	215	230	250	265
DOWEL PINS		Χ		Χ	Х	Х	Х	Χ	Х
GEAR DIAMETER	53.30	53.30	60.83	60.83	76.10	44.50	53.30	60.83	76.10
ROLLER BEARING OD	43.00	43.00	49.00	49.00	59.00				
ID	27.00	27.00	32.00	32.00	38.10				
BUSH OD					27.10	30.30	37.00	42.30	
ID					24.30	27.40	33.20	38.50	

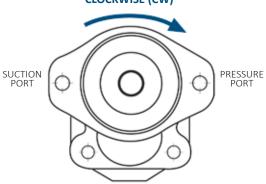
ROTATION

TO DETERMINE ROTATION VIEW PUMP AS SHOWN. LOOK AT THE SHAFT END COVER OF PUMP WITH THE DRIVE SHAFT AT THE TOP. NOTE THE LOCATION OF THE PORTS.

COUNTER CLOCKWISE (CCW)



CLOCKWISE (CW)



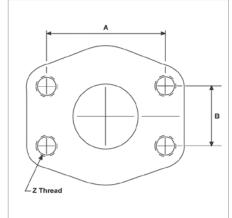




PORT IDENTIFICATION

Dimensions are for reference purpose only





Port		UNO (ODT)		
Size	Dash Size	Port ID mm (inches)	Thread mm (inches)	
1/8"	- 05	6.85 (0.27)	5/16"- 24	
1/4"	- 07	10.00 (0.39)	7/16"- 20	
3/8"	- 09	13.00 (0.51)	9/16"- 18	
1/2"	- 12	17.00 (0.69)	3/4"- 16	
5/8"	- 14	20.50 (0.81)	7/8"- 14	
3/4"	- 17	24.50 (0.98)	1 1/6"- 12	
1"	- 21	30.50 (1.20)	1 5/6"- 12	
1 1/4"	- 26	39.00 (1.54)	1 5/8"- 12	
1 1/2"	- 30	45.00 (1.77)	1 7/8"- 12	
2"	- 40	61.50 (2.42)	2 1/2"- 12	

Port		NPT	
Size	Dash Size	Port ID mm (inches)	Thread mm (inches)
1/8"	- 02	8.3 (0.32)	1/8" - 27
1/4"	- 04	10.75 (0.42)	1/4" - 18
3/8"	- 06	14.25 (0.56)	3/8" - 18
1/2"	- 08	17.50 (0.68)	1/2" - 14
5/8"	NA	NA	NA
3/4"	- 12	22.75 (0.89)	3/4" - 14
1"	- 16	28.50 (1.12)	1" - 11.50
1 1/4"	- 20	37.50 (1.47)	1 1/4" - 11.50
1 1/2"	- 24	43.50 (1.71)	1 1/2" - 11.50
2"	- 32	55.50 (2.18)	2" - 11.50

Port		BSPP	
Size	Dash Size	Port ID mm (inches)	Thread mm (inches)
1/8"	- 02	8.59 (0.34)	1/8"- 28
1/4"	- 04	11.46 (0.45)	1/4"- 19
3/8"	- 06	14.96 (0.59)	3/8"- 19
1/2"	- 08	19.00 (0.74)	1/2"- 14
5/8"	NA	NA	NA
3/4"	- 12	24.50 (0.96)	3/4"- 14
1"	- 16	30.50 (1.20)	1"- 11
1 1/4"	- 20	39.50 (1.56)	1 1/4"- 11
1 1/2"	- 24	45.00(1.77)	1 1/2"- 11
2"	- 32	57.00 (2.24)	2"- 11

PORTING ABBREVIATIONS

NPT - National Pipe Thread Tapered

DDT - SAE Straight Thread (JIC)

SFU - Split Flange (UNC) ²

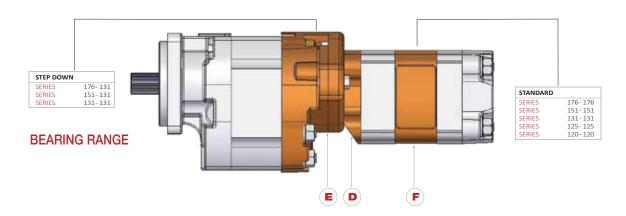
SFM - Split Flange (Metric)

RSP - British Standard Pine





TORQUE SETTINGS



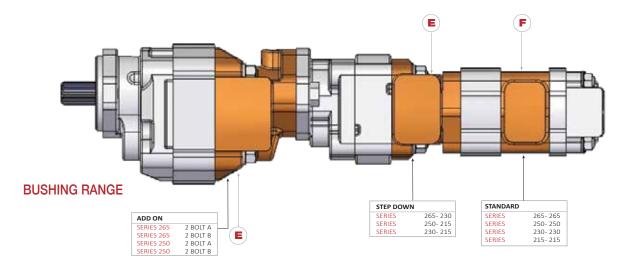
PUMPS, MOTORS & FLOW DIVIDERS

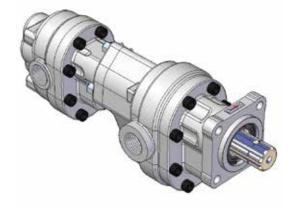
BEARING RANGE

LAIMINGTIA						
MODEL	BOLT/	Nm	Kpm	FT-LBS	IN-LBS	
MODEL	Thread	Grade	MIII	кріп	r I-LD3	IIV-LD3
GP120	9/16" UNC	8	244	25	180	2160
GM120	9/16" UNC	8	244	25	180	2160
GP125	5/8" UNC	8	271	27.5	200	2400
GM125	5/8" UNC	8	271	27.5	200	2400
GP131	5/8" UNC	8	271	27.5	200	2400
GM131	5/8" UNC	8	271	27.5	200	2400
GF131	5/8" UNC	8	271	27.5	200	2400
GP151	5/8" UNC	8	271	27.5	200	2400
GM151	5/8" UNC	8	271	27.5	200	2400
GF151	5/8" UNC	8	271	27.5	200	2400
GP176	5/8" UNC	8	271	27.5	200	2400
GM176	5/8" UNC	8	271	27.5	200	2400
GF176	5/8" UNC	8	271	27.5	200	2400
Add on units						
GP131/131	1/2" UNC	5	68	7	50	600
GP151/131	1/2" UNC	5	68	7	50	600
GP151/151	1/2" UNC	5	68	7	50	600
GP176/131	5/8" UNC	5	113	11.5	83	1000

BUSHING RANGE

	BOLT/	STUD				
MODEL	Thread	Grade	Nm	Kpm	FT-LBS	IN-LBS
GP215	1/2" UNC	8	192	19.5	110	1700
GM215	1/2" UNC	8	192	19.5	110	1700
GF215	1/2" UNC	8	192	19.5	110	1700
GP230	5/8" UNC	8	271	27.5	200	2400
GM230	5/8" UNC	8	271	27.5	200	2400
GF230	5/8" UNC	8	271	27.5	200	2400
GP250	5/8" UNC	8	271	27.5	200	2400
GM250	5/8" UNC	8	271	27.5	200	2400
GF230	5/8" UNC	8	271	27.5	200	2400
GP265	5/8" UNC	8	271	27.5	200	2400
GM265	3/4" UNC	8	609	62	450	5400
GF265	3/4" UNC	8	609	62	450	5400
Add on units						
GP230AAP	1/2" UNC	5	68	7	50	600
GP250AAP	1/2" UNC	5	68	7	50	600
GP265AAP	1/2" UNC	5	68	7	50	600





The outstanding features of the GPM range of truck pumps include:

- High strength cast iron construction
- Proven bush journal bearing design
- Two piece design to aid pump stability under high pressure
- Working pressures to 300 Bar (reduced on larger displacements)
- GP3T Series available in DIN, AUS, UNI and 2 Bolt 'B' mounts
- 4 Bolt Cloverleaf pattern PTO mount pumps are available in GP 120 Series
- Tandem pumps available

GP3T-230 SERIES - Frame Sizes

CODE	07	10	12	15
Gear Size (inches)	3/4	1	1 1/4	1 1/2
Displacement (cc/rev) (cu in/rev)	24.2 (1.48)	32.3 (1.97)	40.4 (2.46)	48.4 (2.96)
Maximum Pressure (BAR) (PSI)	300 (4350)	300 (4350)	300 (4350)	300 (4350)
Maximum Speed (RPM)	3000	3000	3000	3000

GP3T-250 - Frame Sizes

CODE	12	15
Gear Size (inches)	1 1/4	1 1/2
Displacement (cc/rev) (cu in/rev)	52.3 (3.19)	62.7 (3.83)
Maximum Pressure (BAR) (PSI)	300 (4350)	300 (4350)
Maximum Speed (RPM)	2400	2400

GP3T-265 - Frame Sizes

CODE	12	13	15	17	20	22	25
Gear Size (inches)	1 1/4	1 3/8	1 1/2	1 3/4	2	2 1/4	2 1/2
Displacement (cc/rev) (cu in/rev)	73.8 (4.5)	80.0 (4.9)	88.5 (5.4)	103.3 (6.3)	118.0 (7.2)	132.8 (8.1)	147.5 (9.0)
Maximum Pressure (BAR) (PSI)	270 (3900)	270 (3900)	270 (3900)	240 (3500)	240 (3500)	220 (3200)	200 (2900)
Maximum Speed (RPM)	2400	2400	2400	2400	2400	2400	2400

Please Note:

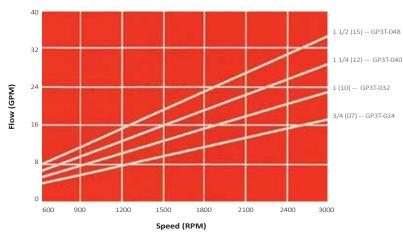
Maximum pressures on UNI, AUS, and SAE B style truck pumps are reduced due to driveshaft limitations.

GP3T-062 max 280 Bar GP3T-072 max 250 Bar GP3T-080 max 230 Bar GP3T-088 max 201 Bar GP3T-102 max 180 Bar GP3T-118 max 160 Bar GP3T-132 max 140 Bar GP3T-147 max 130 Bar





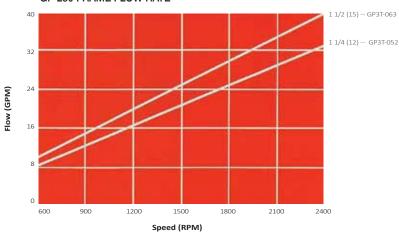
GP 230 FRAME FLOW RATE



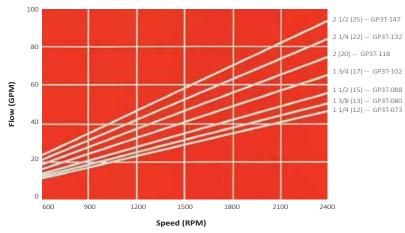
Please Note: Maximum pressures on UNI, AUS, and SAE B style truck pumps are reduced due to driveshaft limitations.

> GP3T-062 max 280 Bar GP3T-072 max 250 Bar GP3T-080 max 230 Bar GP3T-088 max 201 Bar GP3T-102 max 180 Bar GP3T-118 max 160 Bar GP3T-132 max 140 Bar GP3T-147 max 130 Bar

GP 250 FRAME FLOW RATE



GP 260 FRAME FLOW RATE

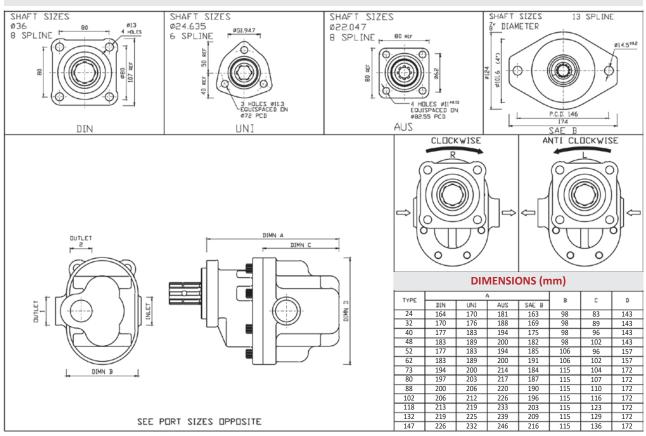






PTO TRUCK PUMP DIMENSIONS

Manufactured in South Africa



- Working Pressure up to 300 BAR
- Heavy Duty Bushing Design
- High Strength Steel Gears
- Pressure Balanced Thrust Plates
- Quality Compacted Graphite Bodies
- Interchangeable Parts

									Man
	07	10	12	13	15	17	20	22	25
RAME GP 230									
Part Number	GP3-024	GP3-032	GP3-040		GP3-048				
Gear Size (in)	0.75	1.00	1.25		1.50				
Displacement (cm³/Rev)	24	32	40		48				
Pressure (Bar)	300	300	300		300				
Inlet Port (Bspp)	1.00	1.00	1.00		1.00				
Outlet Port (Bspp)	0.75	0.75	0.75		0.75				
Weight (Kg) - UNI/DIN	8.0/9.0	8.5/9.5	9.0/10.0		9.0/10.0			PUMP	
								- OIVIP	
RAME GP 250								CDECI	EIC ATI
Part Number			GP3-052		GP3-062			SPECI	FIGALI
			1.25		1.50				
Gear Size (in) Displacement (cm³/Rev)									
Pressure (Bar)			52		62				
Inlet Port (Bspp)			300 1.00		300 1.00				
Outlet Port (Bspp)			1.00		1.00				
Weight (Kg) - UNI/DIN			9.5/10.5		10.5/11.5				
- 0 - (0) /			3.3/10.3		10.5/11.5				
DAME OD 265	_								
RAME GP 265 Part Number			CD2 072	CD2 000	CD2 000	CD2 402	CD2 440	CD2 422	CD2 447
			GP3-073	GP3-080	GP3-088	GP3-102	GP3-118	GP3-132	GP3-147
Gear Size (in)			1.25	1.38	1.50	1.75	2.00	2.25	2.50
Displacement (cm³/Rev) Pressure (Bar)			73	80	88	102	118	132	147
ressure (Bar) ilet Port (Bspp)			270	270	270	240	240	220	200
utlet Port (BSpp)			1.25	1.25	1.25	1.25	1.25	1.50	1.50
Veight (Kg) - UNI/DIN			1.00	1.00	1.00	1.00	1.00	1.00	1.00
weight (Rg) - ONI/DIN			13.0/14.0	13.5/14.5	14.0/16.0	14.0/16.0	14.5/16.5	15.0/16.5	15.5/16.5

The above data are average results based on a series of tests and are not necessarily representative of any single unit. Gear Pump Manufacturing reserves the right to amend the technical data without notice













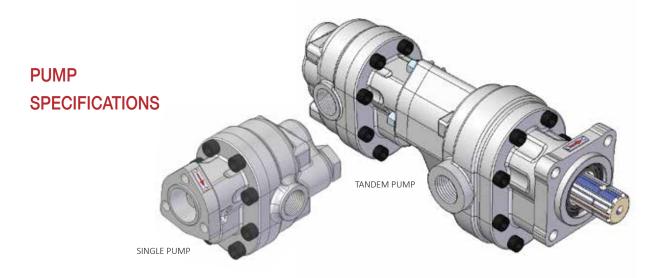












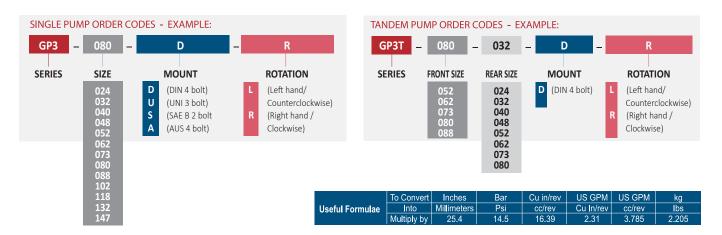
GP3 - Single & Bi Pumps

	cc/rev	Lpm (at 1000rpm)	cu in (cu in/rev)	Max Pressure (bar)	Max Pressure (psi)	Max Speed (rpm)	Pump Weight (kg)
024 / 024 BI	24.10	24.10	1.48	300	4300	3000	9.20
032 / 032 BI	32.20	32.20	1.97	300	4300	3000	9.75
040 / 040 BI	40.30	40.30	2.46	300	4300	3000	10.00
048 / 048 BI	48.30	48.30	2.96	300	4300	3000	10.65
052 / 052 BI	52.10	52.10	3.19	300	4300	2400	11.25
062 / 062 BI	62.60	62.60	3.82	300	4300	2400	11.85
073 / 073 BI	73.50	73.50	4.49	270	3900	2400	15.00
080 / 080 BI	80.60	80.60	4.92	270	3900	2400	15.15
088 / 088 BI	88.00	88.00	5.37	270	3900	2400	15.25
102 -	102.00	102.00	6.22	240	3500	2400	15.90
118 -	118.00	118.00	7.20	240	3500	2400	16.25
132 -	132.60	132.60	8.09	220	3200	2400	16.30
147 -	147.00	147.00	8.97	200	3200	2400	17.30

GP3T - Tandem Pump

	cc/rev	Lpm (at 1000rpm)	cu in (cu in/rev)	Max Pressure (bar)	Max Pressure (psi)	Max Speed (rpm)	Pump Weight (kg)
052	52.10	52.10	3.19	300	4300	2400	12.90
062	62.60	62.60	3.82	300	4300	2400	13.65
073	73.50	73.50	4.49	270	3900	2400	16.10
080	80.60	80.60	4.92	270	3900	2400	16.55
088	88.00	88.00	5.37	270	3900	2400	16.80

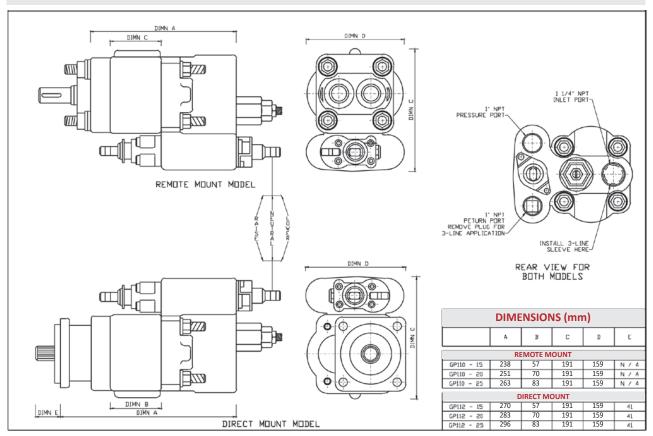
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DUMP PUMPS

DUMP PUMP DIMENSIONS

Manufactured in South Africa



PUMP SPECIFICATIONS

Manufactured in South Africa

			manacc	area iii Soutii Airica
REMOTE MOUNT / TWIN SHAFT	15	20	22	25
- mounting bracket optional				
Part Number	GP110-15	GP110-20		GP110-25
Gear Size (in)	1.50	2.00		2.50
Displacement (cm³/Rev)	62.6	83.5		104.4
Pressure (Bar)	172	172		172
Inlet Port (NPT)	1.25	1.25		1.25
Outlet Port (NPT)	1.00	1.00		1.00
Weight (Kg)	27.5	28.5		29.5
DIRECT MOUNT				
SAE B/13 SPLINE				
Part Number	GP112-15	GP112-20		GP112-25
Gear Size (in)	1.50	2.00		2.50
Displacement (cm³/Rev)	62.6	83.5		104.4
Pressure (Bar)	172	172		172
Inlet Port (NPT)	1.25	1.25		1.25
Outlet Port (NPT)	1.00	1.00		1.00
Weight (Kg)	29	30		31
PAD MOUNT / TWIN SHAFT				
Part Number		GP113-20	GP113-22	GP113-25
Gear Size (in)		2.00	2.25	2.50
Displacement (cm³/Rev)		83.5	94.0	104.4
Pressure (Bar)		172	172	172
Inlet Port (NPT)		1.50	1.50	1.50
Outlet Port (ODT)		0.75	0.75	0.75
Weight (Kg)		20.5	21.5	22.5

The above data are average results based on a series of tests and are not necessarily representative of any single unit.
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Туре	Series	Displacement Code	Shift Options	Rotation
GP	110	15	S	L
	112	20	M	R
	113	22	Α	В
		25		

GP=Pump	110 = remote mount	15 = 62.6	S = standard	L = counterlock
	112 = direct mount	20 = 83.5	M = manual	R = clock
	113 = pad mount	22 = 94.0	A = air	B = bi rotation
		25 = 104.4		

Example: GP112-25-M-L







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