

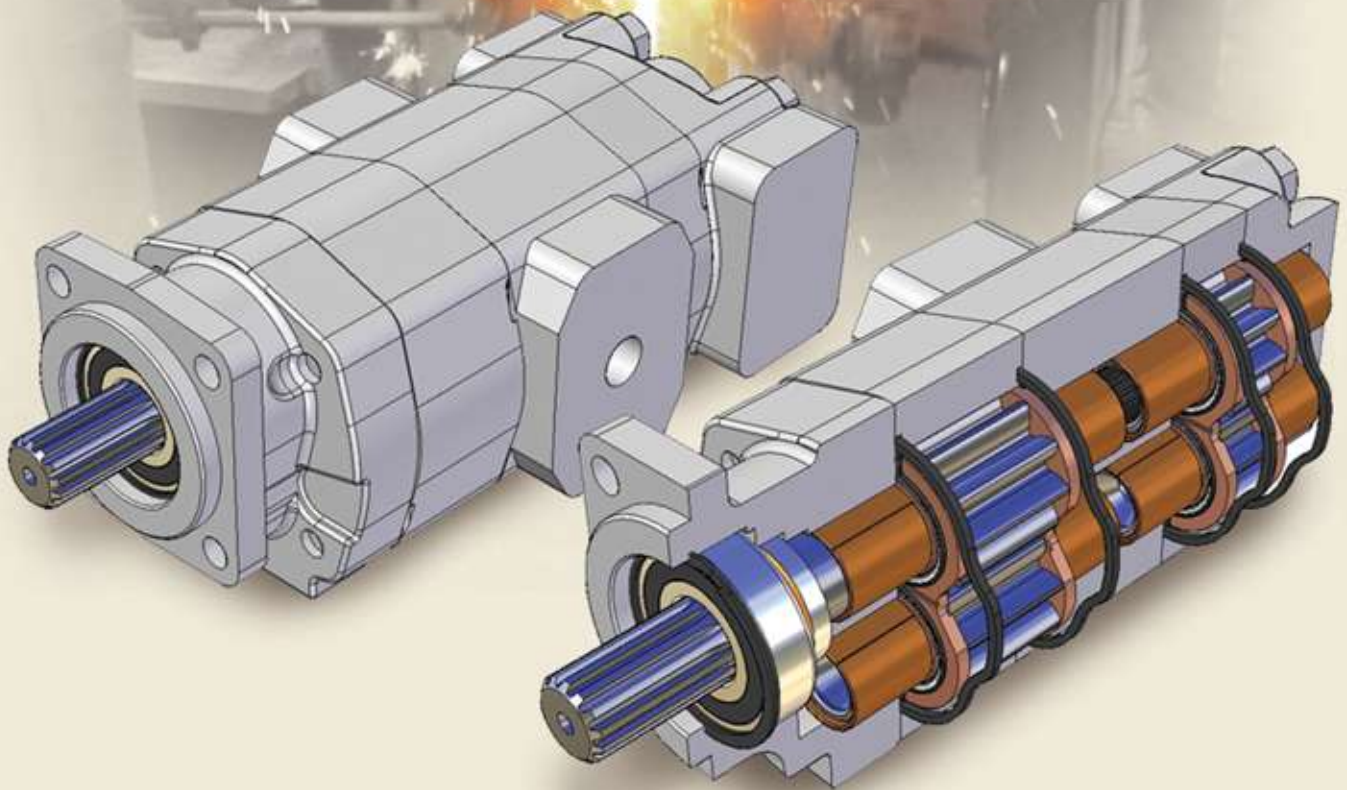
2010

Gear Pump Manufacturing

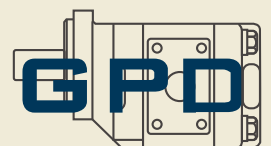
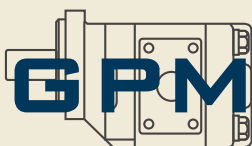
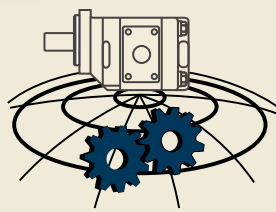
Getting the World into Gear

BUSHING PUMP RANGE

Technical & Dimensional Catalogue



DOSCO

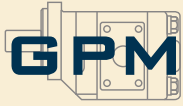


Manufactured in South Africa

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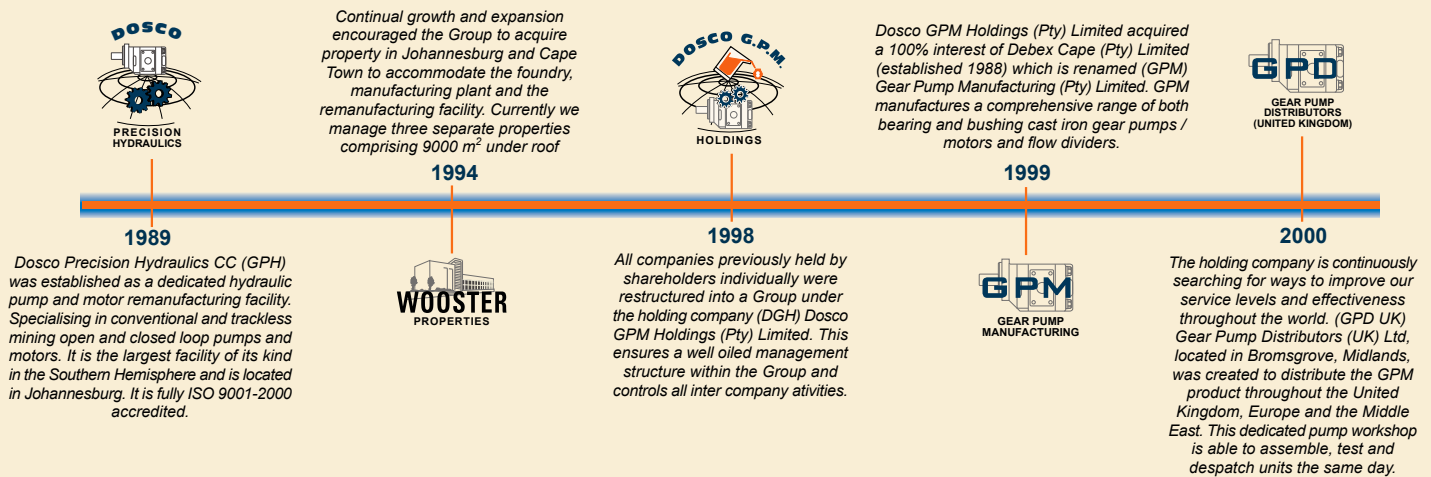




Company Profile

Group Synergy

We believe that a group of companies only makes any sense when the Group as a whole amounts to more than the sum of its individual components or entities. We are involved in hydraulic pumps and motors only, we have a focused foundry operation, a unique manufacturing facility, a world-class remanufacturing facility and distribution centres with reputations for excellence in customer service.



GEAR PUMP MANUFACTURING

Gear Pump Manufacturing (Pty) Ltd. is a wholly owned subsidiary of Dosco GPM Holdings Group. The Dosco GPM Group specialises in the manufacture and repair of hydraulic pumps and motors. GPM is located in Cape Town, South Africa and has been involved in the manufacture and assembly of SAE mounted cast iron pumps and components since 1985.

Approximately 70% of our production is exported to countries in North and South America, Europe, the Middle East, South East Asia, Africa and Australasia.

As a consequence of our reinvestment philosophy and policy, we have been successful in doubling our sales and production capacity during the last three years.



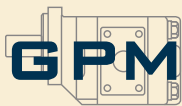
Technology Investments

Our plant modernisation programme is ongoing. Within the last year we increased our CNC milling capacity by a third and doubled both our CNC turning and thrust plate CNC milling capacities through the purchase of additional machinery.



Inventory

Our inventory philosophy remains unchanged and we continue to maintain substantial investments in inventory both at our Cape Town plant as well as at various distribution centres worldwide.



Company Profile

The Group invested in their own foundry in answer to foundry delays and declining quality grey iron castings. (ETS) Engineering Technology Services (Pty) Limited commenced production of castings, firstly in Grey Iron, later to be followed by SG Iron, Bronze and Compacted Graphite Iron.



(MTS) Manufacturing Technology Services (Pty) Ltd. was set up to manufacture specialised housings, shafts and couplings primarily for DPH. As such, MTS is a specialist machine shop and is equipped with all the necessary machine tools to perform this function. This concept proved very successful and MTS now performs work previously done by subcontractors and to a higher quality standard and quicker turnaround time.



Further growth into West and East Africa was necessary as our product is now found on numerous Original Equipment Manufacturers equipment and in meeting customer demands to service mining and civil construction operations throughout Africa.

2002



2003

This facility (GPD AUS) Gear Pump Distributors Australia Pty Limited, located in Sydney, distributes products manufactured by GPM into the Asia Pacific region. GPD AUS supplies new and repaired pumps / motors and flow dividers, and ships parts daily to numerous OEM and hydraulic repair facilities. These units are tested on a pump test stand designed and built by Dosco.

2004



2008

Precision hydraulics International was established to oversee the Groups international operations. The market determines the level of expertise required and we have always prided ourselves on our customer service, quality and extensive product range.

2010



Foundry

The Group's in-house foundry, Engineering Technology Services (Pty) Limited, is also located in Cape Town. Expansion has mirrored that of GPM. Physically, the facility has been expanded by more than 50% in order to cater for increased volumes. Currently the foundry produces Grey Iron, SG Iron and Compacted Graphite Iron. In the interests of the environment and to further contain costs, we invested in a swarf pelletising machine. Consequently, a large portion of the foundry raw material is obtained by pelletising iron and steel swarf and off cuts from the GPM facility. Bronze castings for the machining of thrust plates are produced in a similar fashion. Reclaimed machining coolants and cutting oils are recycled.



Porting & Pump Assemblies

We have porting capabilities to suit the needs of all our customers. Our volumes of pump assemblies have more than quadrupled during the last two years. This necessitated the construction of a new and substantially larger pump assembly area as well as new and upgraded test stands. All assemblies are tested on computerised test stands which have multiple flow, pressure, temperature and speed testing capability.

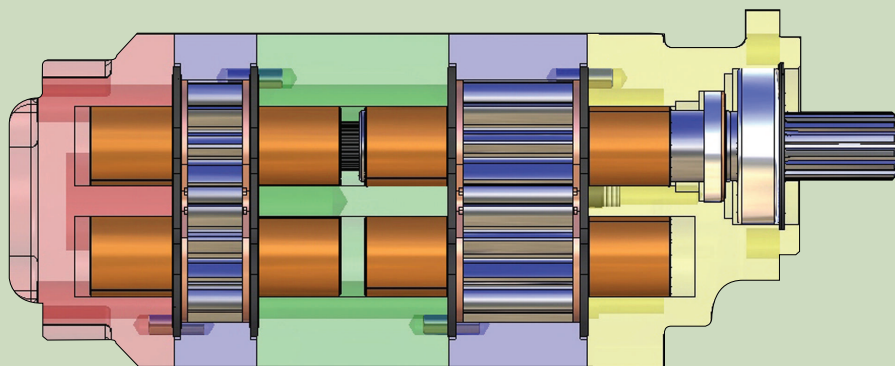


Quality Assurance

We have been accredited in accordance with the ISO 9001-2008 standard since 1992. Our quality management system makes use of statistical analyses to determine manufacturing process capability. The stability of manufacturing processes is continuously monitored and managed via machine run charts. In line with our technology investment philosophy, we have recently invested in a 3 dimensional co-ordinate measurement machine. This will increase productivity by means of faster first-off measurement as well as enabling expanded statistical sampling checks.

BUSHING RANGE

Pump & Motor Specifications



CODE

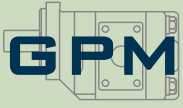
Manufactured in South Africa

DASH SIZE GEAR WIDTH	-05 0.50"(1/2")	-07 0.75"(3/4")	-10 1.00"(1")	-12 1.25"(1 1/4")	-15 1.50"(1 1/2")	-17 1.75"(1 3/4")	-20 2.00"(2")	-22 2.25"(2 1/4")	-25 2.50"(2 1/2")
215 Gear Housing Width	0.88"(7/8")	1.13"(11/8")	1.38"(13/8")	1.63"(15/8")	1.88"(17/8")	2.13"(21/8")	2.38"(23/8")		
cc/rev	10.00	15.00	20.00	25.00	30.00	35.00	40.00		
Lpm (at 1000rpm)	10.00	15.00	20.00	25.00	30.00	35.00	40.00		
cu in (cu in/rev)	0.61	0.92	1.22	1.53	1.84	2.15	2.44		
US gpm (at 1000rpm)	4.23	6.37	8.51	10.65	12.76	14.90	17.04		
Max Pressure(bar)	240	240	240	240	220	200	170		
Max Pressure(psi)	3500	3500	3500	3500	3200	2900	2500		
Max Speed (rpm)	3000	3000	3000	3000	3000	3000	3000		
Pump Weight (kg)	8.00	8.00	8.00	8.50	9.00	9.50	10.00		
Additional sect add (kg)	8.00	8.00	8.00	8.50	9.00	9.50	10.00		
230 Gear Housing Width	1.00"(1")	1.25"(1 1/4")	1.50"(1 1/2")	1.75"(1 3/4")	2.00"(2")	2.25"(2 1/4")	2.50"(2 1/2")		
cc/rev	16.00	24.10	32.20	40.30	48.30	56.40	64.50		
Lpm (at 1000rpm)	16.00	24.10	32.20	40.30	48.30	56.40	64.50		
cu in (cu in/rev)	0.99	1.48	1.97	2.46	2.96	3.45	3.94		
US gpm (at 1000rpm)	4.23	6.37	8.51	10.65	12.76	14.90	17.04		
Max Pressure(bar)	240	240	240	240	240	220	200		
Max Pressure(psi)	3500	3500	3500	3500	3500	3250	3000		
Max Speed (rpm)	3000	3000	3000	3000	3000	3000	3000		
Pump Weight (kg)	16.00	16.00	16.00	16.60	17.20	17.80	18.40		
Additional sect add (kg)	14.40	14.40	14.40	14.90	15.50	16.00	16.60		
250 Gear Housing Width	1.00"(1")	1.25"(1 1/4")	1.50"(1 1/2")	1.75"(1 3/4")	2.00"(2")	2.25"(2 1/4")	2.50"(2 1/2")	2.75"(2 3/4")	3.00"(3")
cc/rev	20.80	31.20	41.70	52.10	62.60	73.00	83.50	94.00	104.40
Lpm (at 1000rpm)	20.80	31.20	41.70	52.10	62.60	73.00	83.50	94.00	104.40
cu in (cu in/rev)	1.28	1.91	2.55	3.19	3.82	4.46	5.10	5.74	6.38
US gpm (at 1000rpm)	5.50	8.24	11.02	13.76	16.54	19.29	22.06	24.84	27.58
Max Pressure(bar)	240	240	240	240	240	220	200	190	170
Max Pressure(psi)	3500	3500	3500	3500	3500	3250	3000	2750	2500
Max Speed (rpm)	2400	2400	2400	2400	2400	2400	2400	2400	2400
Pump Weight (kg)	22.70	22.70	22.70	23.40	24.10	24.80	25.50	26.20	26.90
Additional sect add (kg)	22.70	22.70	22.70	23.40	24.10	24.80	25.50	26.20	26.90
265 Gear Housing Width		1.25"(1 1/4")	1.50"(1 1/2")	1.75"(1 3/4")	2.00"(2")	2.25"(2 1/4")	2.50"(2 1/2")	2.75"(2 3/4")	3.00"(3")
cc/rev		44.00	59.00	73.50	88.00	102.00	118.00	132.60	147.00
Lpm (at 1000rpm)		44.00	59.00	73.50	88.00	102.00	118.00	132.60	147.00
cu in (cu in/rev)		2.68	3.60	4.49	5.37	6.22	7.20	8.09	8.97
US gpm (at 1000rpm)		11.62	15.59	19.42	23.25	26.95	31.18	35.03	38.84
Max Pressure(bar)		240	240	240	240	240	240	220	200
Max Pressure(psi)		3500	3500	3500	3500	3500	3500	3250	3000
Max Speed (rpm)		2400	2400	2400	2400	2400	2400	2400	2400
Pump Weight (kg)		24.90	24.90	26.00	27.10	28.20	29.30	30.40	31.50
Additional sect add (kg)		22.70	22.70	23.40	24.10	24.80	25.50	26.20	26.90

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.

Useful Formulae	To Convert	Inches	Bar	Cu In/rev	US GPM	US GPM	kg
	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 FEATURES

Pumps & Motors

FLUID POWER FOR MOBILE EQUIPMENT

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.

GPM pumps are manufactured under statistical analysis process control which is monitored by the South African Bureau of Standards to an ISO 9001-2008 quality management system.

MAJOR FEATURES

Sectional Construction: Standard Parts can be assembled in a wide variety of configurations to suit almost any application. All gear housings are cast from an extra complex iron with a minimum tensile strength of 380 Mpa (55000 Psi) and hardness between 200 and 250 Brinell.

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 super 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.

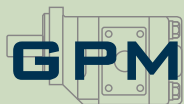
Bearings: Latest technology Teflon plain bush bearing are utilized on all gear journals to improve pressure and speed capability.

Motors: are available with capacities ranging from 83 NM to 517 NM @ 1000RPM. Basically similar in design to pumps, they are engineered for extreme heavy duty applications, with high efficiency characteristics. Motor speed is in direct proportion to the volume of oil delivered to the inlet port and output torque is in proportion to the pressure supplied to the motor. All other equipment required to match our pumps and motors is readily available.

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.



BUSHING FEATURES

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 table below)

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

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

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

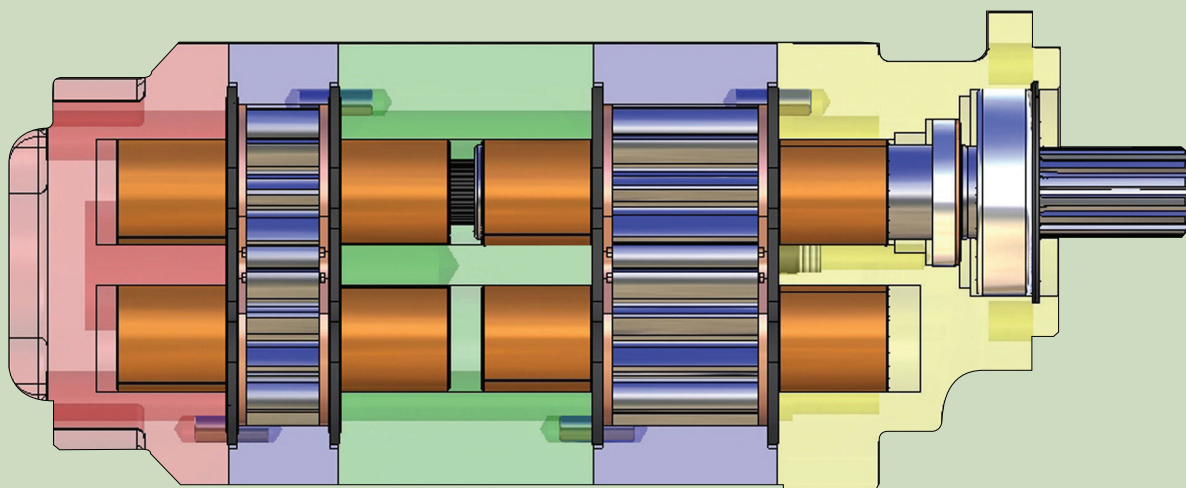


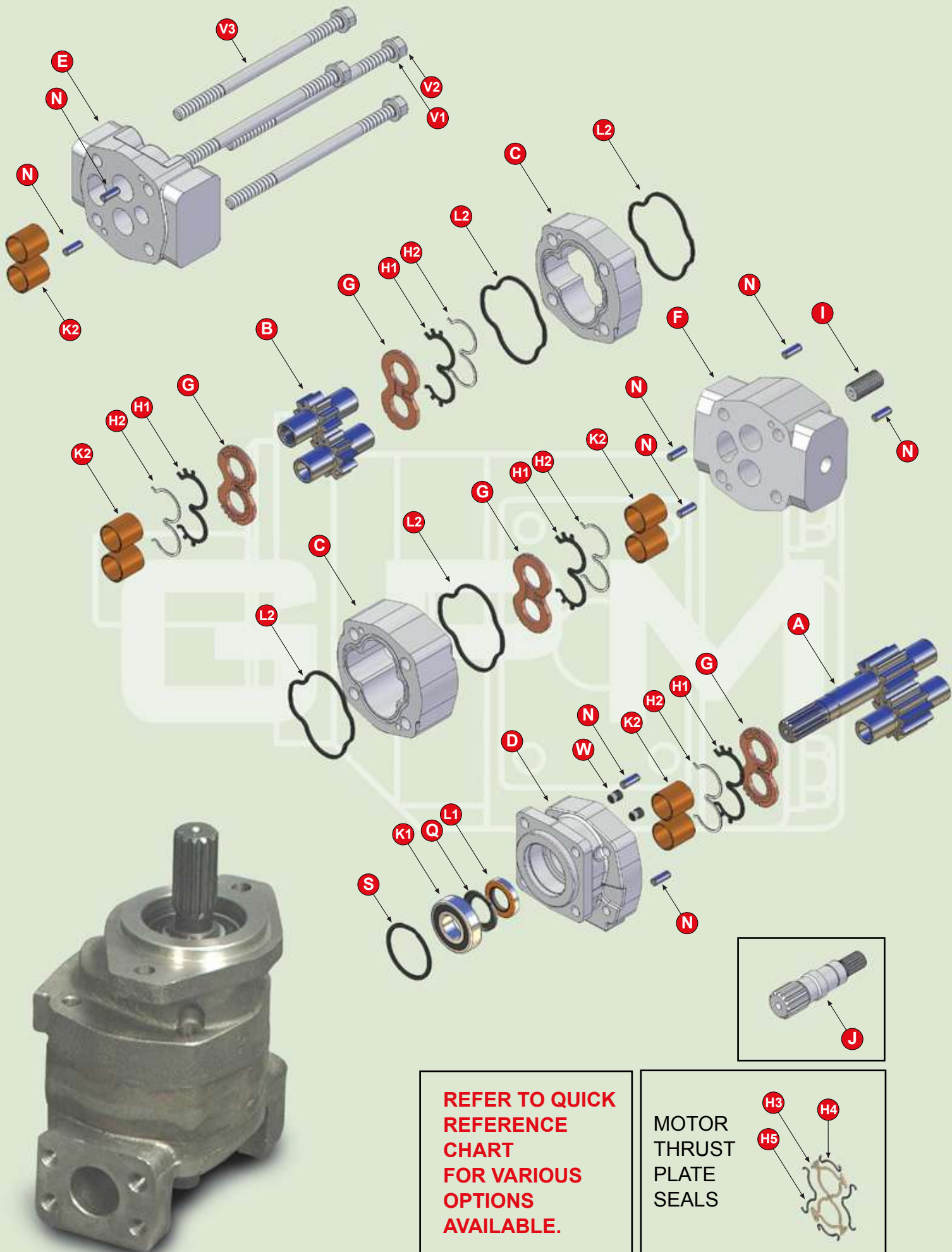
WARRANTY POLICY

Gear Pump Manufacturing (GPM), warrants all of its products to be free from defect in material and workmanship, for a period of eighteen (18) months from date of delivery or twelve (12) months from date of installation, whichever event occurs first.

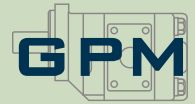
This warranty is expressly in lieu of any other warranties expressed or implied including any warranty of fitness for a particular purpose. The purchaser's sole and exclusive remedy shall be limited to the repair, replacement or exchange of the warranted products at our option, FOB GPM factory.

No special, incidental, consequential or other damages shall be recoverable. GPM shall not be liable for consequential damages or contingent liabilities including but not limited to loss of life, personal injury, loss of crops, loss due to fire or water damage, loss of business income, down time cost and trade or other commercial loss arising out of the failure of the product. GPM will in no event be liable for any sum in excess of the price received by it for the product for which liability is claimed or asserted.





BUSHING RANGE - Quick Reference

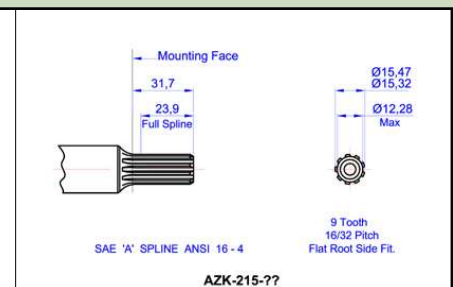
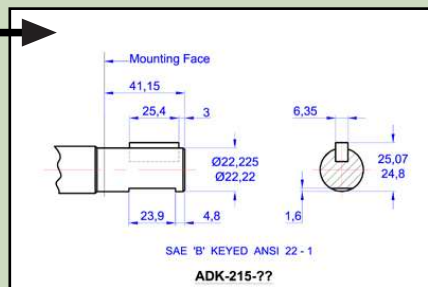


SOLID SHAFT GEAR SET

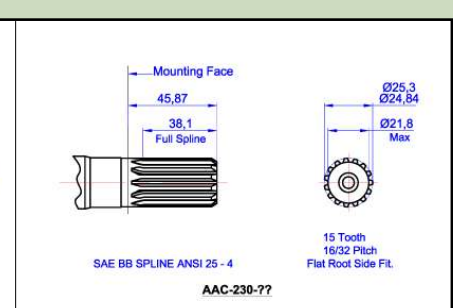
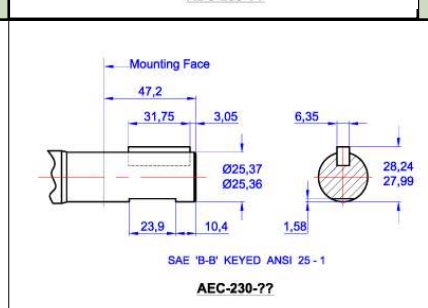
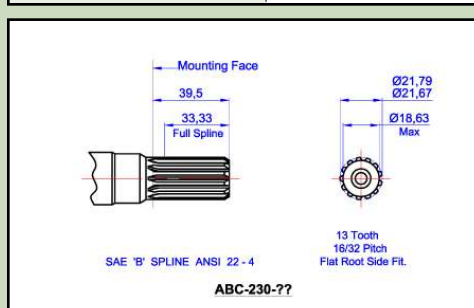
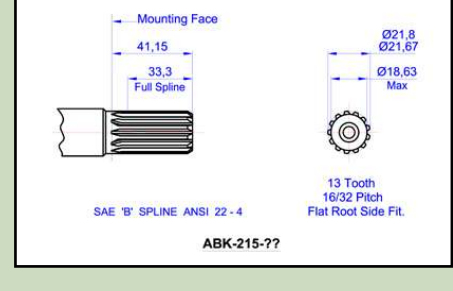
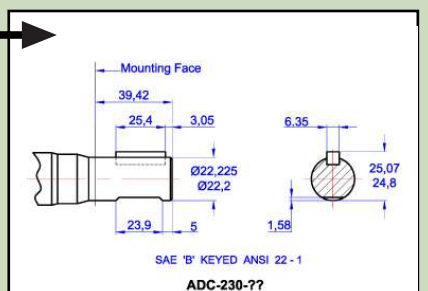
Dimensions are for reference purposes only

215	
SOLID SHAFT GEAR SET	
7/8" KEY SAE B	
7/8" KEY SHORT SAE B	ADK-215-??
1" KEY SAE BB	
1 1/4" KEY SAE C	
9 SPLINE 5/8" SHORT SAE A	AZK-215-??
13 SPLINE 7/8" SAE B	
13 SPLINE 7/8" SHORT SAE B	ABK-215-??
14 SPLINE 1 1/4" SAE C	
15 SPLINE 1" SAE BB	

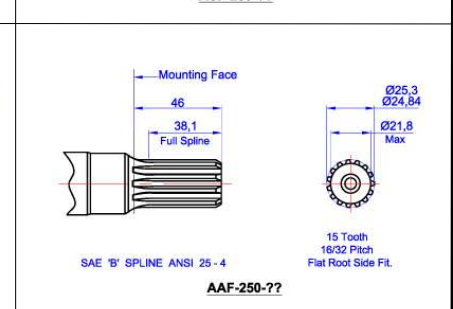
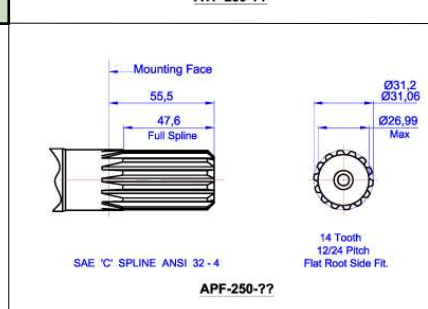
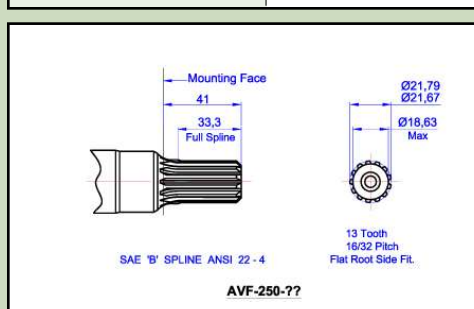
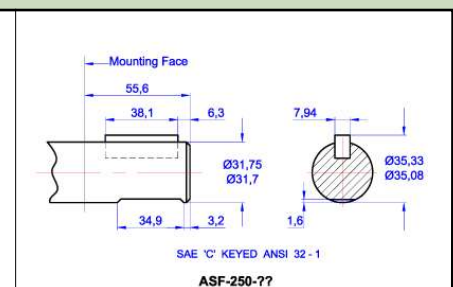
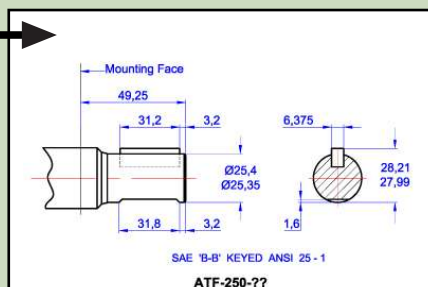
****PLEASE CONTACT GPM FOR SPECIALS**
SUBSTITUTE ?? WITH CORRECT GEAR SIZE CODE



230	
SOLID SHAFT GEAR SET	
7/8" KEY SAE B	ADC-230-??
7/8" KEY SHORT SAE B	
1" KEY SAE BB	AEC-230-??
1 1/4" KEY SAE C	
9 SPLINE 5/8" SHORT SAE A	
13 SPLINE 7/8" SAE B	ABC-230-??
13 SPLINE 7/8" SHORT SAE B	ABC-230-4-??
14 SPLINE 1 1/4" SAE C	
15 SPLINE 1" SAE BB	AAC-230-??



250	
SOLID SHAFT GEAR SET	
7/8" KEY SAE B	
7/8" KEY SHORT SAE B	
1" KEY SAE BB	ATF-250-??
1 1/4" KEY SAE C	ASF-250-??
9 SPLINE 5/8" SHORT SAE A	
13 SPLINE 7/8" SAE B	AVF-250-??
13 SPLINE 7/8" SHORT SAE B	
14 SPLINE 1 1/4" SAE C	APF-250-??
15 SPLINE 1" SAE BB	AAF-250-??

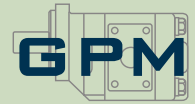


Manufactured in South Africa

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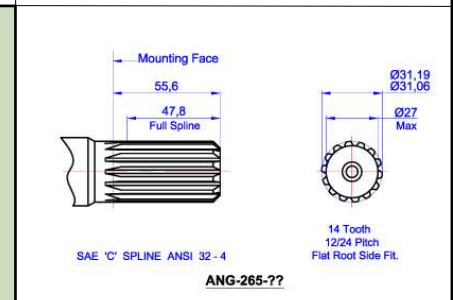
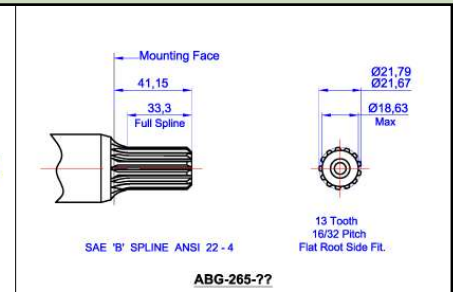
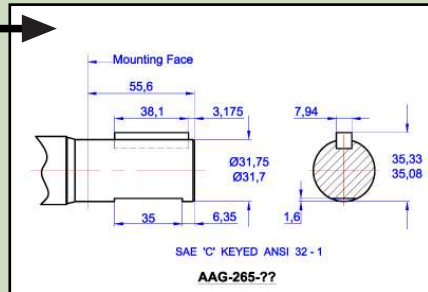
BUSHING RANGE - Quick Reference



SOLID SHAFT GEAR SET

Dimensions are for reference purposes only

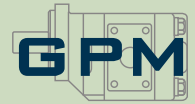
	265
SOLID SHAFT GEAR SET	
7/8" KEY SAE B	
7/8" KEY SHORT SAE B	
1" KEY SAE BB	
1 1/4" KEY SAE C	AAG-265-??
9 SPLINE 5/8" SHORT SAE A	
13 SPLINE 7/8" SAE B	ABG-265-??
13 SPLINE 7/8" SHORT SAE B	
14 SPLINE 1 1/4" SAE C	ANG-265-??
15 SPLINE 1" SAE BB	



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SUBSTITUTE ?? WITH CORRECT GEAR SIZE CODE

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BUSHING RANGE - Quick Reference



LOOSE GEAR SETS

Dimensions are for reference purposes only

	215
LOOSE GEAR SETS	
STANDARD	BVK-215-??

"ALSO MAKE SERIES 115 = BBA-115-??
ALSO MAKE SERIES 137 = BJA-137-??
SUBSTITUTE ?? WITH CORRECT GEAR SIZE CODE

Part no.	Dimn. 'A'
BVK-20	50.8
BVK-18	47.6
BVK-17	44.4
BVK-16	41.2
BVK-15	38.1
BVK-13	34.9
BVK-12	31.7
BVK-11	28.5
BVK-10	25.4
BVK-08	22.2
BVK-07	19.0
BVK-06	15.8
BVK-05	12.7
BVK-03	9.5

BVK - 215 - ??

	230
LOOSE GEAR SETS	
STANDARD	BVC-230-??

Part no.	Dimn. 'A'
BVC-25	63.5
BVC-22	57.1
BVC-20	50.8
BVC-17	44.4
BVC-15	38.1
BVC-12	31.7
BVC-10	25.4
BVC-07	19.0
BVC-05	12.7

BVC - 230 - ??

	250
LOOSE GEAR SETS	
STANDARD	BMF-250-??

Part no.	Dimn. 'A'
BMF-25	63.5
BMF-22	57.1
BMF-20	50.8
BMF-17	44.4
BMF-15	38.1
BMF-12	31.7
BMF-10	25.4
BMF-07	19.0
BMF-05	12.7

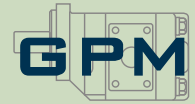
BMF - 250 - ??

	265
LOOSE GEAR SETS	
STANDARD	BPG-265-??

Part no.	Dimn. 'A'
BPG-25	63.4
BPG-22	57.1
BPG-20	50.7
BPG-17	44.4
BPG-15	39.0
BPG-12	31.7
BPG-10	25.3
BPG-07	19.0

BPG - 265 - ??

BUSHING RANGE - Quick Reference

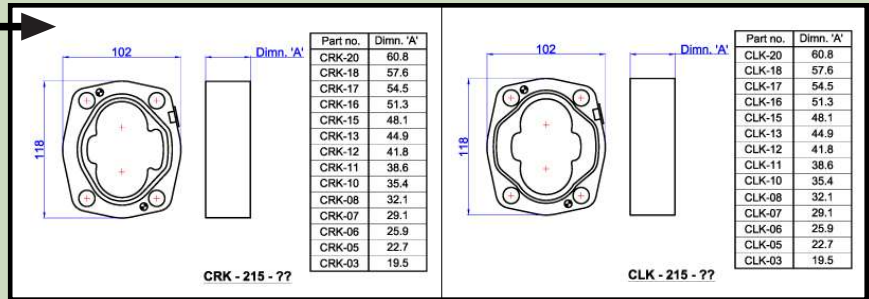


GEAR HOUSING

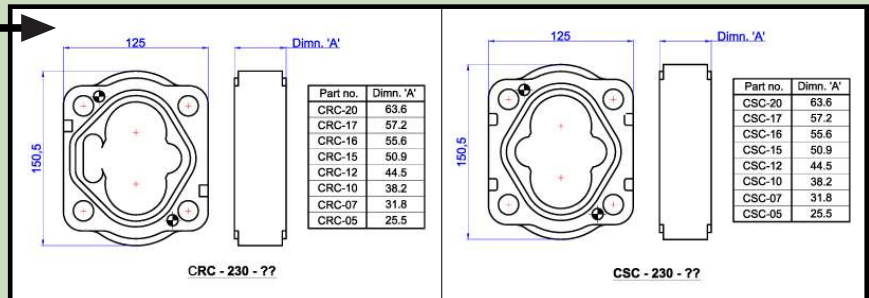
Dimensions are for reference purposes only

215	
GEAR HOUSING	
PUMP	CRK-215-??
MOTOR	CLK-215-??
PUMP - BI ROTATION	

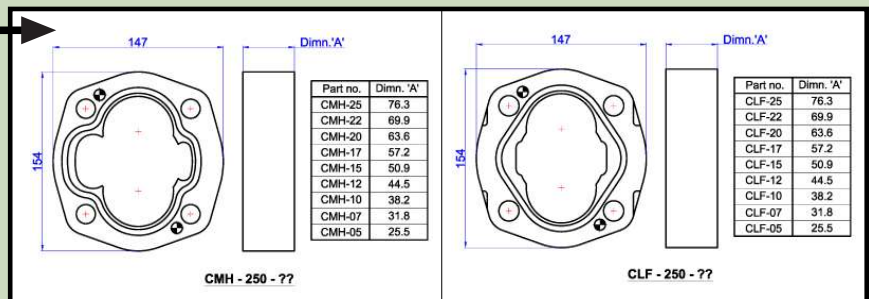
SUBSTITUTE ?? WITH CORRECT GEAR SIZE CODE



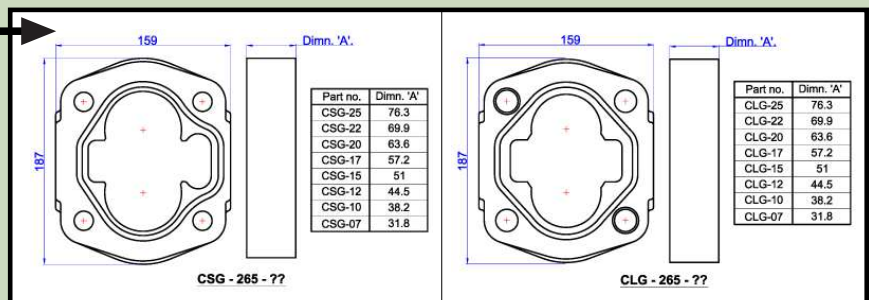
230	
GEAR HOUSING	
PUMP	CRC-230-??
MOTOR	CSC-230-??
PUMP - BI ROTATION	



250	
GEAR HOUSING	
PUMP	CMH-250-??
MOTOR	CLF-250-??
PUMP - BI ROTATION	



265	
GEAR HOUSING	
PUMP	CSG-265-??
MOTOR	CLG-265-??
PUMP - BI ROTATION	

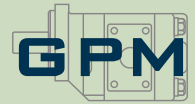


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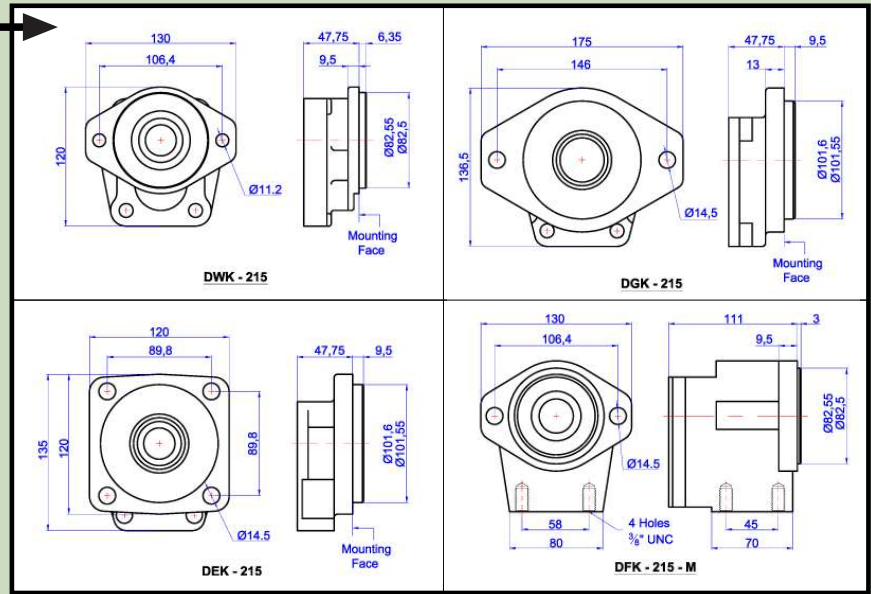
BUSHING RANGE - Quick Reference



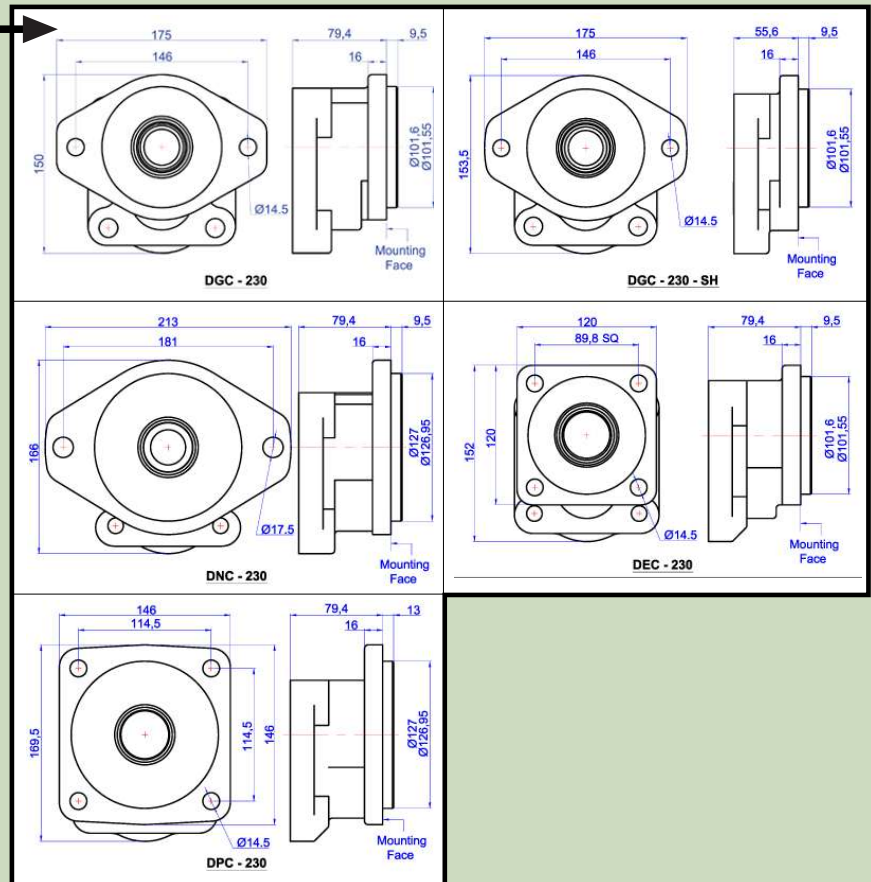
SHAFT END COVERS

Dimensions are for reference purposes only

SHAFT END COVERS	215
2 BOLT 3.25" SAE A	DWK-215
2 BOLT 3.25" SAE A WITH S/RETAINER	DWK-215-SPL
2 BOLT 3.25" SAE A MOTOR	DWK-215-M
2 BOLT 4" SAE B	DGK-215
2 BOLT 4" SAE B MOTOR	DGK-215-M
2 BOLT 4" SAE B SHORT	
2 BOLT 5" SAE C	
2 BOLT 5" SAE C MOTOR	
4 BOLT 4" SAE B	DEK-215
4 BOLT 4" SAE B MOTOR	
4 BOLT 5" SAE C	
4 BOLT 5" SAE C MOTOR	
4 BOLT DIN PTO	
2/4 BOLT 4" SAE B	
2/4 BOLT 5" SAE C	
PAD MOUNT MOTOR	DFK-215-M



SHAFT END COVERS	230
2 BOLT 3.25" SAE A	
2 BOLT 3.25" SAE A WITH S/RETAINER	
2 BOLT 3.25" SAE A MOTOR	
2 BOLT 4" SAE B	DGC-230
2 BOLT 4" SAE B MOTOR	
2 BOLT 4" SAE B SHORT	DGC-230-SH
2 BOLT 5" SAE C	DNC-230
2 BOLT 5" SAE C MOTOR	
4 BOLT 4" SAE B	DEC-230
4 BOLT 4" SAE B MOTOR	
4 BOLT 5" SAE C	DPC-230
4 BOLT 5" SAE C MOTOR	
4 BOLT DIN PTO	
2/4 BOLT 4" SAE B	
2/4 BOLT 5" SAE C	
PAD MOUNT MOTOR	



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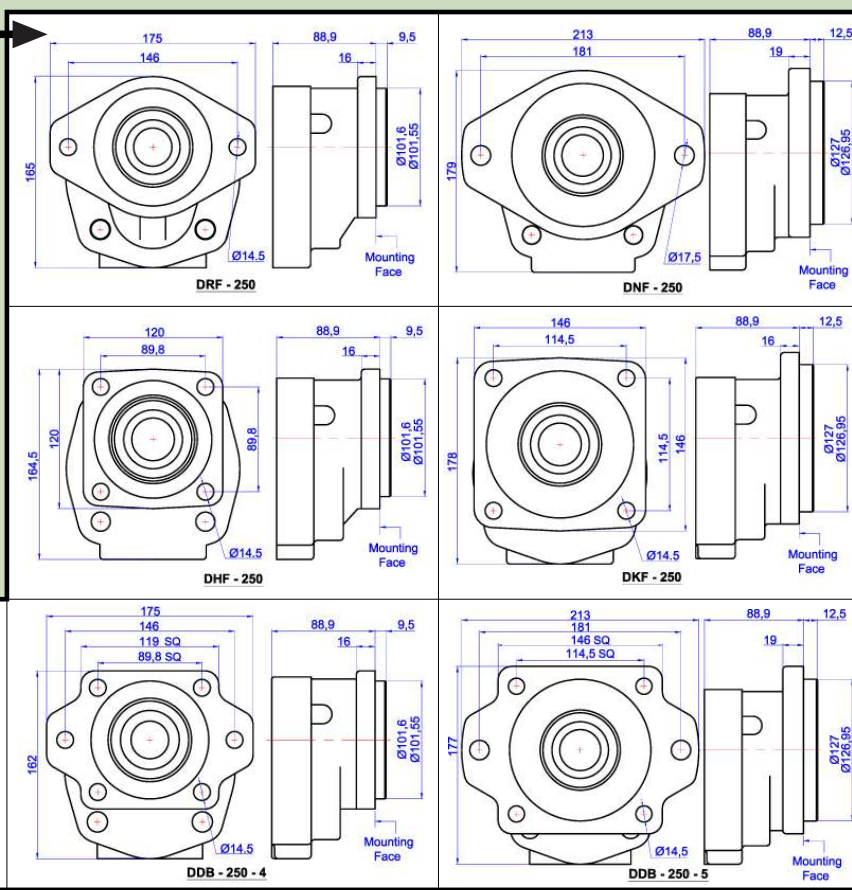
BUSHING RANGE - Quick Reference



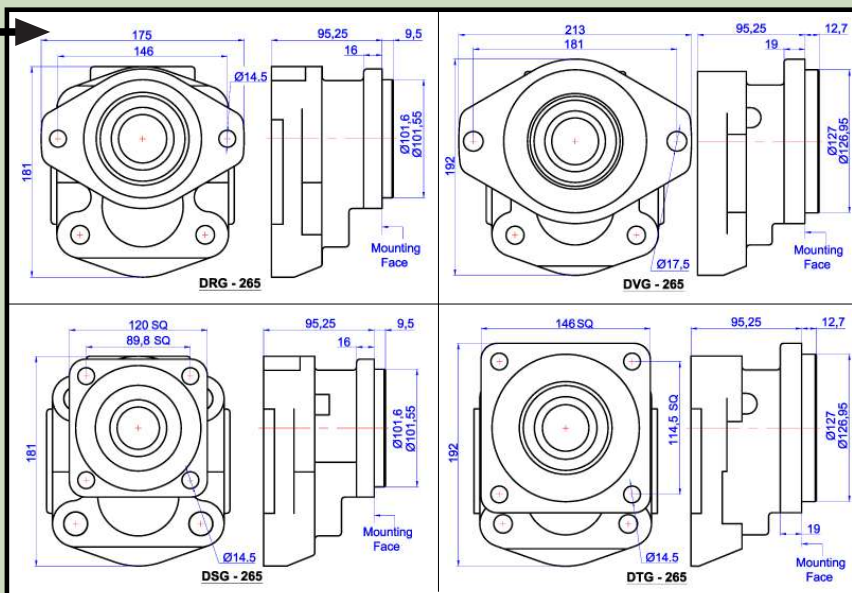
SHAFT END COVERS

Dimensions are for reference purposes only

SHAFT END COVERS	250
2 BOLT 3.25" SAE A	
2 BOLT 3.25" SAE A WITH S/RETAINER	
2 BOLT 3.25" SAE A MOTOR	
2 BOLT 4" SAE B	DRF-250
2 BOLT 4" SAE B MOTOR	
2 BOLT 4" SAE B SHORT	
2 BOLT 5" SAE C	DNF-250
2 BOLT 5" SAE C MOTOR	
4 BOLT 4" SAE B	DHF-250
4 BOLT 4" SAE B MOTOR	
4 BOLT 5" SAE C	DKF-250
4 BOLT 5" SAE C MOTOR	
4 BOLT DIN PTO	DZF-250
2/4 BOLT 4" SAE B	DDB-250-4
2/4 BOLT 5" SAE C	DDB-250-5
PAD MOUNT MOTOR	



SHAFT END COVERS	265
2 BOLT 3.25" SAE A	
2 BOLT 3.25" SAE A WITH S/RETAINER	
2 BOLT 3.25" SAE A MOTOR	
2 BOLT 4" SAE B	DRG-265
2 BOLT 4" SAE B MOTOR	DRG-265-M
2 BOLT 4" SAE B SHORT	
2 BOLT 5" SAE C	DVG-265
2 BOLT 5" SAE C MOTOR	DVG-265-M
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
4 BOLT DIN PTO	
2/4 BOLT 4" SAE B	
2/4 BOLT 5" SAE C	
PAD MOUNT MOTOR	

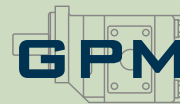


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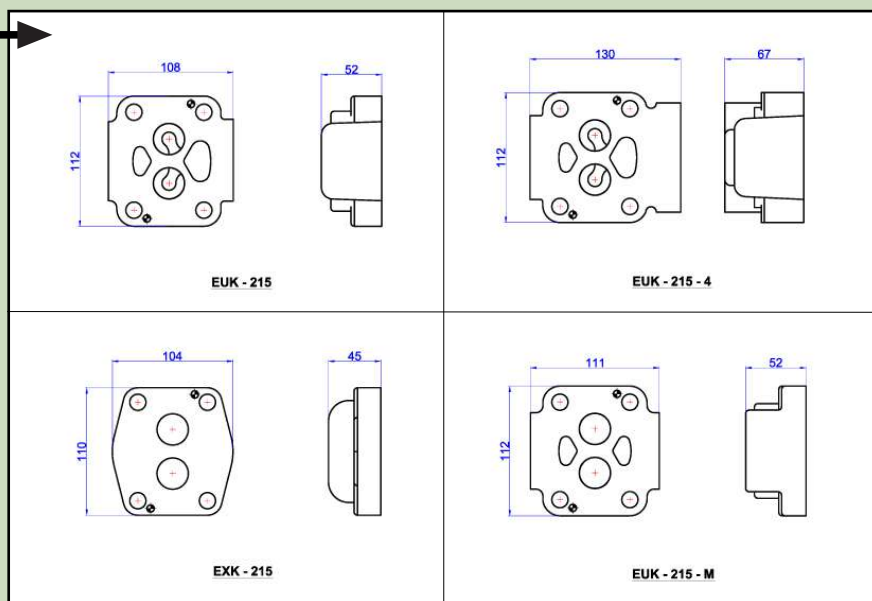
BUSHING RANGE - Quick Reference



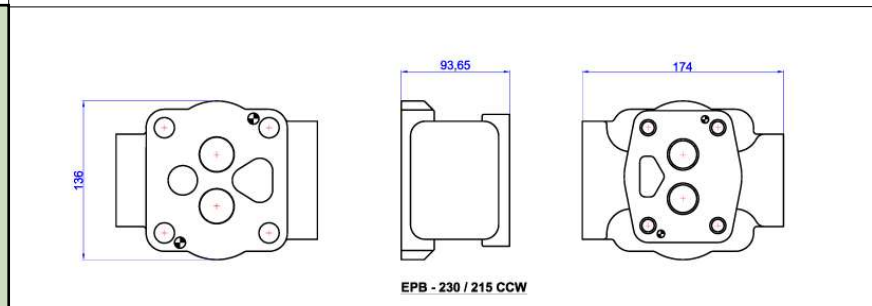
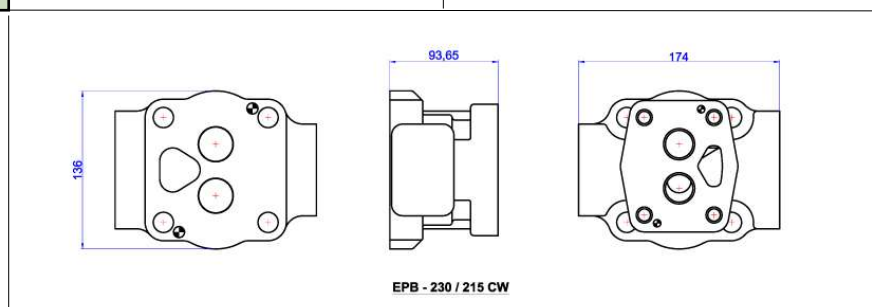
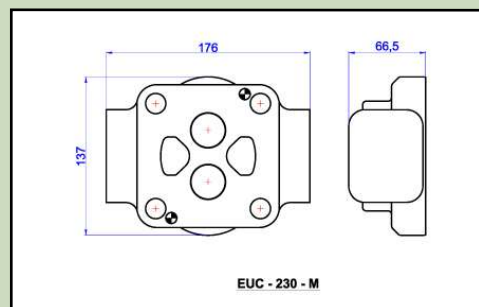
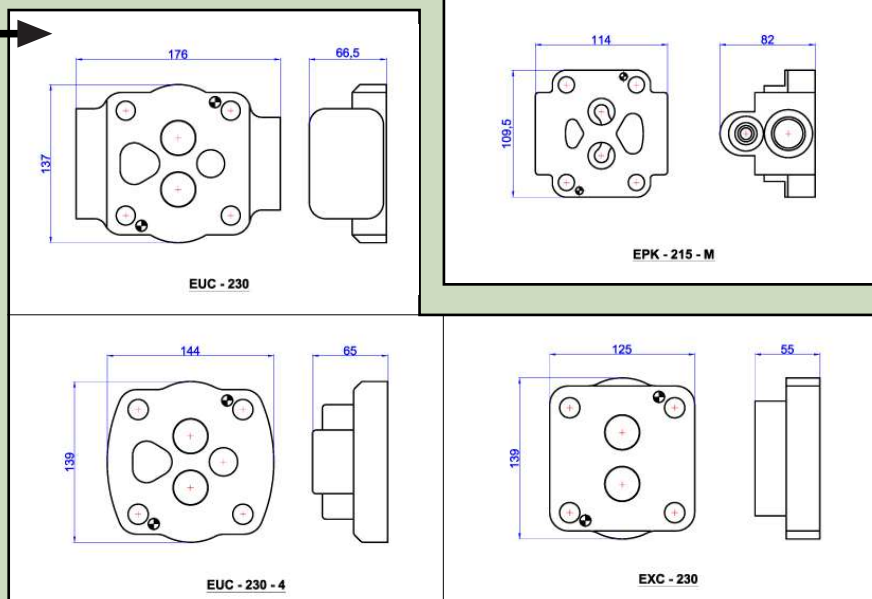
PORT END COVERS

Dimensions are for reference purposes only

PORT END COVERS	215
PORTED	EUK-215
PORTED 4 PORT	EUK-215-4
TANDEM	EXK-215
MOTOR	EUK-215-M
MOTOR TANDEM	
FAN MOTOR	EPK-215-M
STEP DOWN CW	
STEP DOWN CCW	
ADD ON 2 BOLT A CW	
ADD ON 2 BOLT A CCW	
ADD ON 2 BOLT B CW	
ADD ON 2 BOLT B CCW	



PORT END COVERS	230
PORTED	EUC-230
PORTED 4 PORT	EUC-230-4
TANDEM	EXC-230
MOTOR	EUC-230-M
MOTOR TANDEM	
FAN MOTOR	
STEP DOWN CW	EPB-230/215 CW
STEP DOWN CCW	EPB-230/215 CCW
ADD ON 2 BOLT A CW	
ADD ON 2 BOLT A CCW	
ADD ON 2 BOLT B CW	
ADD ON 2 BOLT B CCW	



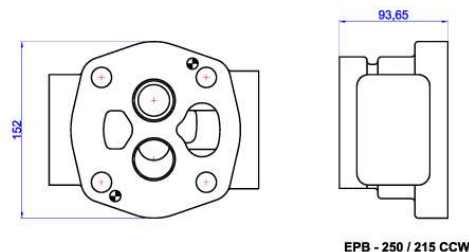
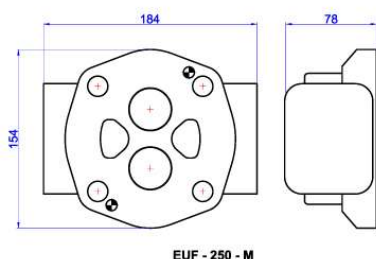
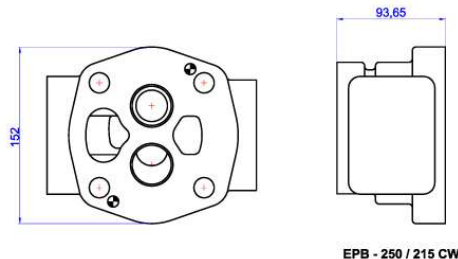
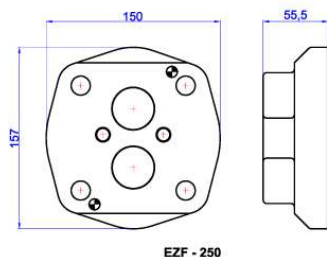
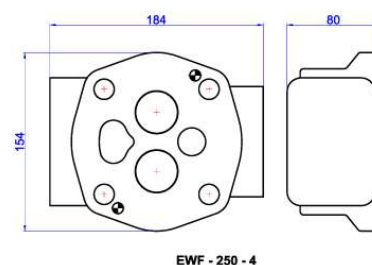
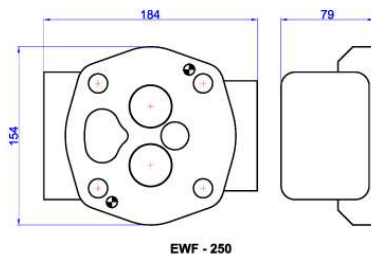
BUSHING RANGE - Quick Reference



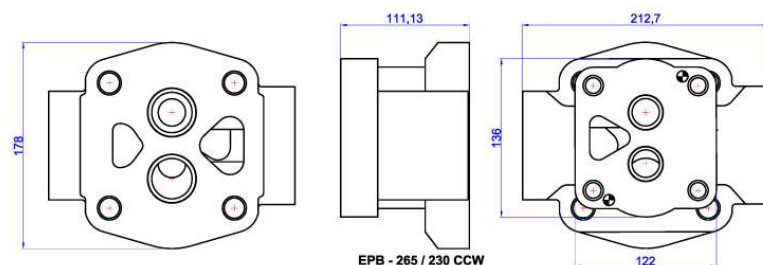
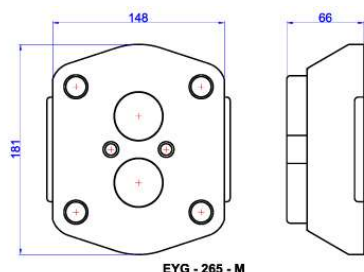
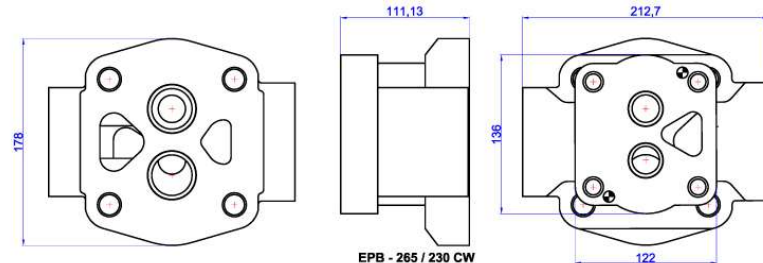
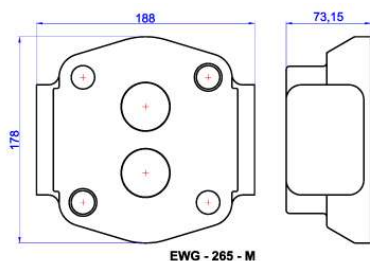
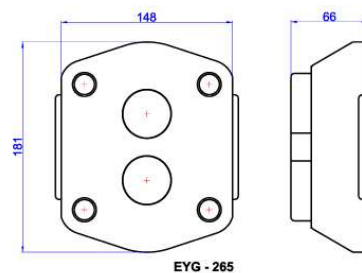
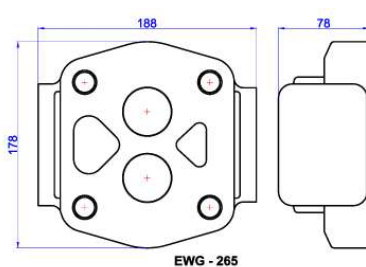
PORT END COVERS

Dimensions are for reference purposes only

PORT END COVERS	250
PORTED	EWf-250
PORTED 4 PORT	EWf-250-4
TANDEM	EZF-250
MOTOR	EUF-250-M
MOTOR TANDEM	
FAN MOTOR	
STEP DOWN CW	EPB-250/215 CW
STEP DOWN CCW	EPB-250/215 CCW
ADD ON 2 BOLT A CW	EAAP250 2bA CW
ADD ON 2 BOLT A CCW	EAAP250 2bA CCW
ADD ON 2 BOLT B CW	EAAP250 2bB CW
ADD ON 2 BOLT B CCW	EAAP250 2bB CCW



PORT END COVERS	265
PORTED	EWG-265
PORTED 4 PORT	EYG-265
TANDEM	EYG-265
MOTOR	EWG-265-M
MOTOR TANDEM	EYG-265-M
FAN MOTOR	
STEP DOWN CW	EPB-265/230 CW
STEP DOWN CCW	EPB-265/230 CCW
ADD ON 2 BOLT A CW	EAAP265 2bA CW
ADD ON 2 BOLT A CCW	EAAP265 2bA CCW
ADD ON 2 BOLT B CW	EAAP265 2bB CW
ADD ON 2 BOLT B CCW	EAAP265 2bB CCW



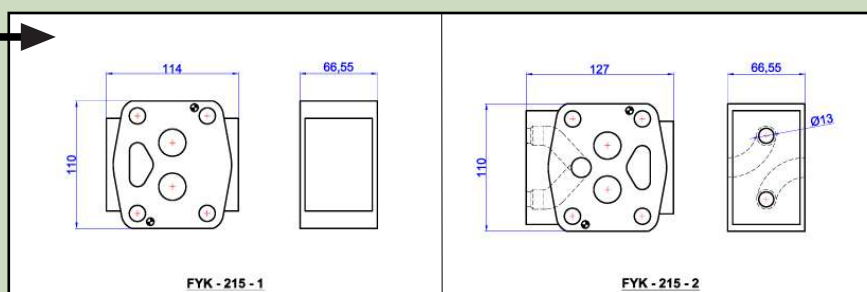
BUSHING RANGE - Quick Reference



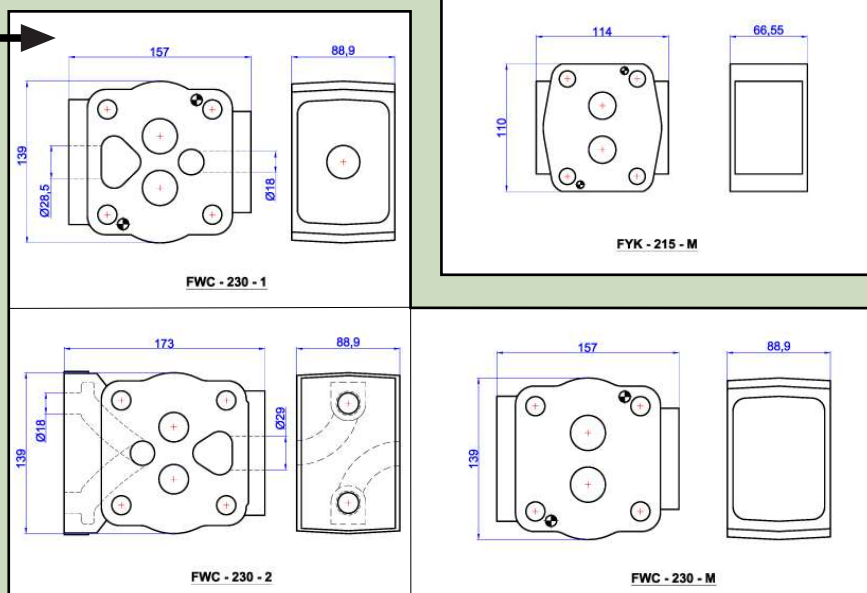
BEARING CARRIERS

Dimensions are for reference purposes only

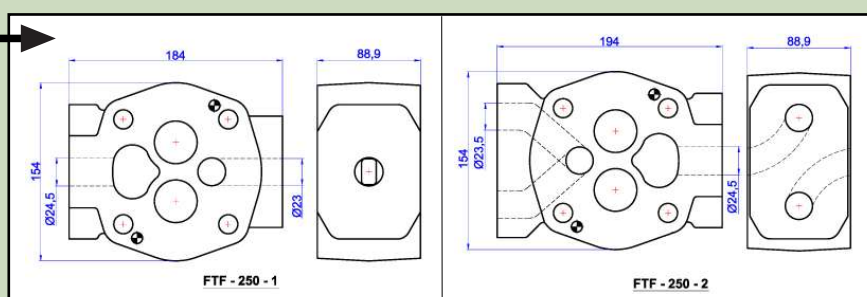
215	
BEARING CARRIERS	
1 OUTLET	FYK-215-1
2 OUTLET	FYK-215-2
MOTOR	FYK-215-M
3" SUCTION	



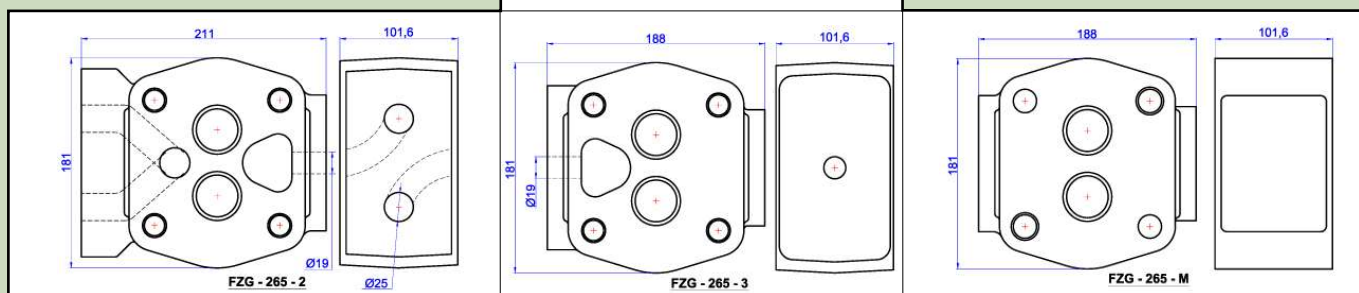
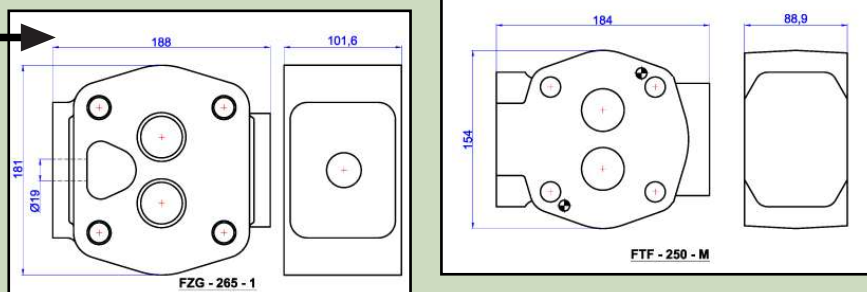
230	
BEARING CARRIERS	
1 OUTLET	FWC-230-1
2 OUTLET	FWC-230-2
MOTOR	FWC-230-M
3" SUCTION	



250	
BEARING CARRIERS	
1 OUTLET	FTF-250-1
2 OUTLET	FTF-250-2
MOTOR	FTF-250-M
3" SUCTION	



265	
BEARING CARRIERS	
1 OUTLET	FZG-265-1
2 OUTLET	FZG-265-2
MOTOR	FZG-265-M
3" SUCTION	FZG-265-3



BUSHING RANGE - Quick Reference



THRUST PLATES

	215	230	250	265
THRUST PLATES				
PUMP	GCI-215	GCI-230	GCI-250	GCI-265
MOTOR	GM-215	GM-230	GM-250	GM-265



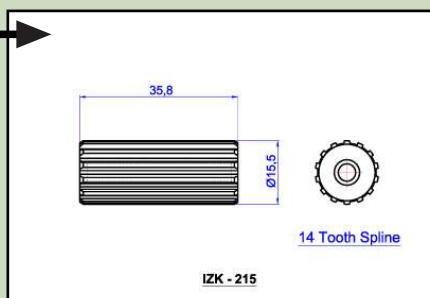
THRUST PLATE SEALS

THRUST PLATE SEALS					
PUMP CHANNEL SEAL	H1	HCI-215-CS	HCI-230-CS	HCI-250-CS	HCI-265-CS
PUMP CHANNEL SEAL BACKUP	H2	HCI-215-CSBU	HCI-230-CSBU	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



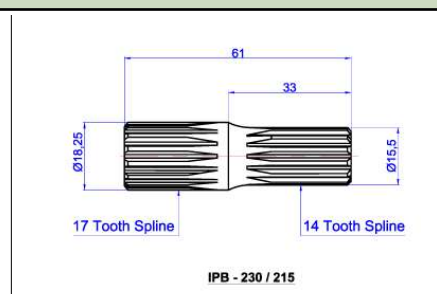
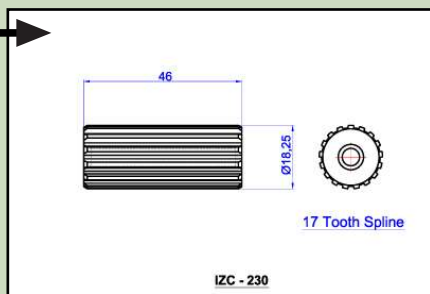
CONNECTING SHAFTS

215	
CONNECTING SHAFTS	
STANDARD	IZK-215
STEP DOWN	
ADD ON TO 9 SPLINE	
ADD ON TO 13 SPLINE	
ADD ON TO 15 SPLINE	

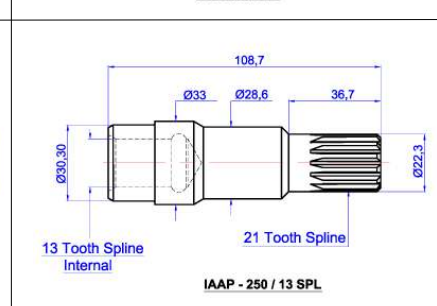
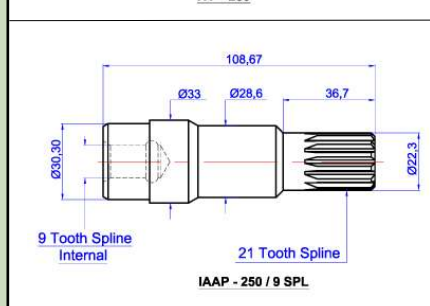
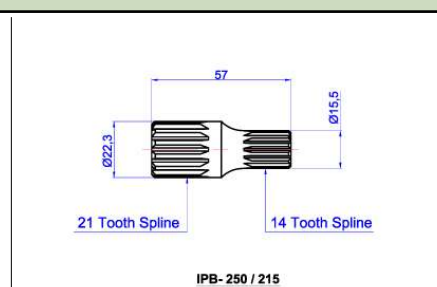
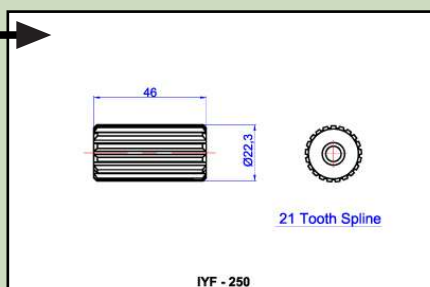


Dimensions are for reference purposes only

230	
CONNECTING SHAFTS	
STANDARD	IZC-230
STEP DOWN	IPB-230/215
ADD ON TO 9 SPLINE	
ADD ON TO 13 SPLINE	
ADD ON TO 15 SPLINE	



250	
CONNECTING SHAFTS	
STANDARD	IYF-250
STEP DOWN	IPB-250/215
ADD ON TO 9 SPLINE	IAAP-250/9SPL
ADD ON TO 13 SPLINE	IAAP-250/13SPL
ADD ON TO 15 SPLINE	



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BUSHING RANGE - Quick Reference



CONNECTING SHAFTS

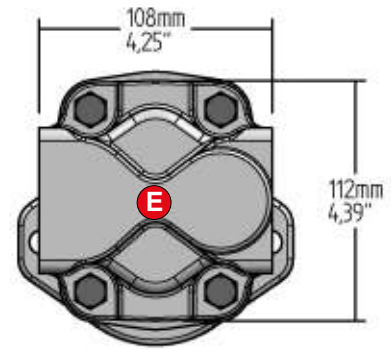
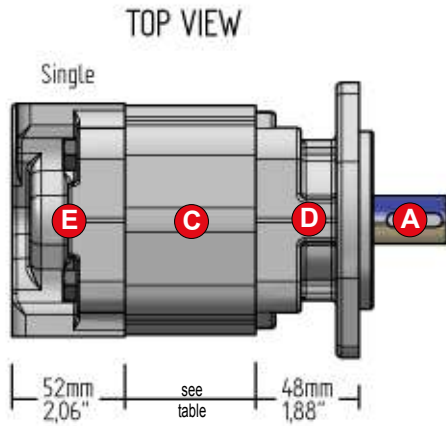
Dimensions are for reference purposes only

265			
CONNECTING SHAFTS			
STANDARD	IAG-265		
STEP DOWN	IPB-265/230		
ADD ON TO 9 SPLINE	IAAP-265/9SPL		
ADD ON TO 13 SPLINE	IAAP-265/13SPL		
ADD ON TO 15 SPLINE	IAAP-265/15SPL		

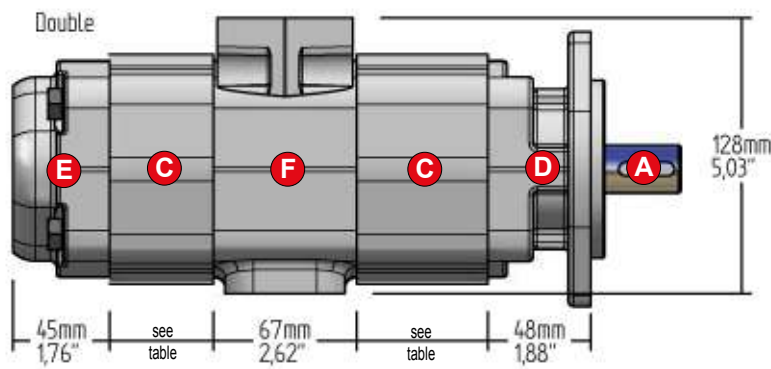
		215	230	250	265
J LOOSE SHAFTS					
7/8" KEY			JCK-230		
1" KEY		JGD-215	JCD-230		
1 1/8" KEY			JHH-230	JHH-250	
1 1/4" KEY			JCW-230		
14 SPLINE 1 1/4"			JCH-230		
15 SPLINE 1"				JFG-250	
17 SPLINE					JKG-265
K BEARINGS/BUSHES					
BUSHES	K2	KBUSH-215	KBUSH-230	KBUSH-250	KBUSH-265
SHAFT BALL BEARING	K1		KX-131-40	KX-151-58	KX-176-59
ADD ON				KAAP-250/265	KAAP-250/265
L SEALS					
BODY SEALS	L2	LUB-215-239	LUB-131-242	LUB-250-244	LUB-265-250
MOTOR BODY SEAL		LUB-215-239M			
PUMP SEAL STANDARD	L1	LX-215	LX-131-16	LX-151-17	LX-176-10
MOTOR SEAL STANDARD		LX-215-M	LX-131-9	LX-151-8	LX-176-1
PUMP SEAL TELLTALE				LPA-250-TT	
PUMP SEAL LOOSE SHAFT			LX-131-18		
MOTOR SEAL LOOSE SHAFT			LX-131-11		
PUMP SEAL VITON			LX-131V-16	LX-151V-17	LX-176V-10
M RETAINERS					
SEAL RETAINER TELLTALE			MNA-230-1	MPA-250	MTT-265
N DOWELS					
STANDARD		NDOWEL-215	NDOWEL-131	NDOWEL-131	NDOWEL-265
MOTOR					NDOWEL-265M
Q SPACER					
SEAL SPACER		QAE-215	QAE-131	QAC-151	
BEARING SPACER			QVB-131-2	QVB/AC-151	QVB-176
SHAFT SPACER			QTB-131		QAF-176
R KEYS					
SELECT AS PER KEY SHAFT		RX-??	RX-??	RX-??	RX-??
S SNAP RINGS/CIRCLIPS					
SHAFT			SX-131-100	SX-151-125	SX-176-137
SHAFT END COVER		SX-215	SX-131-206	SX-151-283	SX-176-315
ADD ON				SAAP250/265	SAAP250/265
V FASTENERS					
BOLTS		VBOLT 1/2" X ?	VBOLT 5/8" X ?	VBOLT 5/8" X ?	VBOLT 5/8" X ?
NUTS	V2	VNUT 1/2"	VNUT 5/8"	VNUT 5/8"	VNUT 5/8"
WASHERS	V1	VWASHER 1/2"	VWASHER 5/8"	VWASHER 5/8"	VWASHER 5/8"
STUDS 06"-11"	V3	VSTUD 1/2"x6-11	VSTUD 5/8"x6-11	VSTUD 5/8"x6-11	VSTUD 5/8"x6-11
STUDS 11"-16"	V3	VSTUD 1/2"x11-16	VSTUD 5/8"x11-16	VSTUD 5/8"x11-16	VSTUD 5/8"x11-16
STUDS 16"-21"	V3	VSTUD 1/2"x16-21	VSTUD 5/8"x16-21	VSTUD 5/8"x16-21	VSTUD 5/8"x16-21
STUDS 21"-26"	V3	VSTUD 1/2"x21-26	VSTUD 5/8"x21-26	VSTUD 5/8"x21-26	VSTUD 5/8"x21-
W SMALL PARTS					
PLUG DRAIN		WX-131-11	WX-131-11	WX-131-11	WX-131-11
PLUG SHAFT END COVER		WT-131-1391	WT-131-1391	WT-131-1391	WT-131-1391
CHECK VALVES		WM-131-1391	WM-131-1391	WM-131-1391	WM-131-1391

SERIES 215

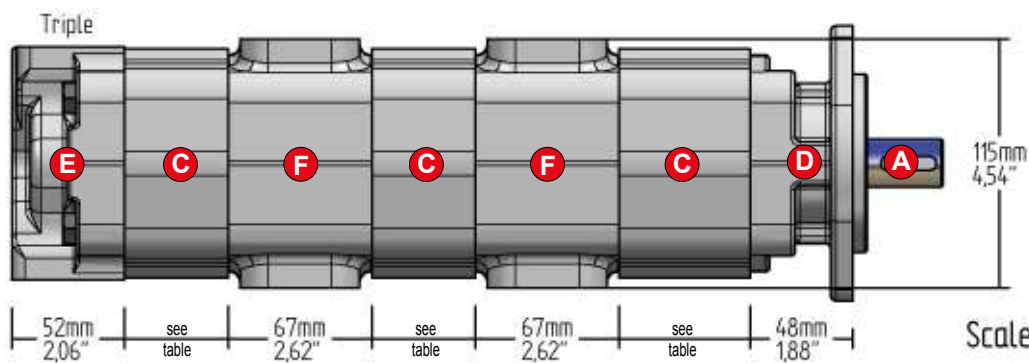
Dimensions are for reference purposes only



REAR VIEW



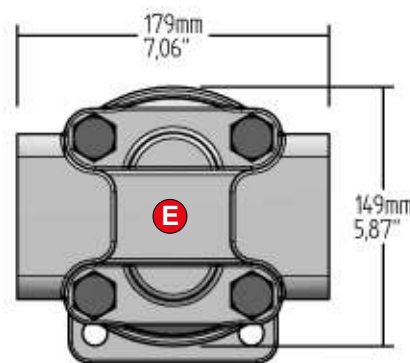
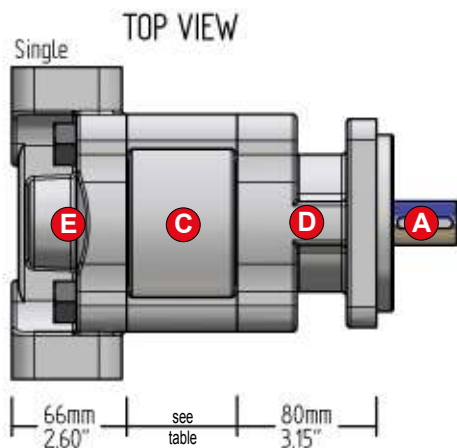
HOUSING TABLE C		
	inches	mm
-05	7/8"	22.22
-07	1 1/8"	28.57
-10	1 3/8"	34.92
-12	1 5/8"	41.27
-15	1 7/8"	47.62
-17	2 1/8"	53.97
-20	2 3/8"	60.32



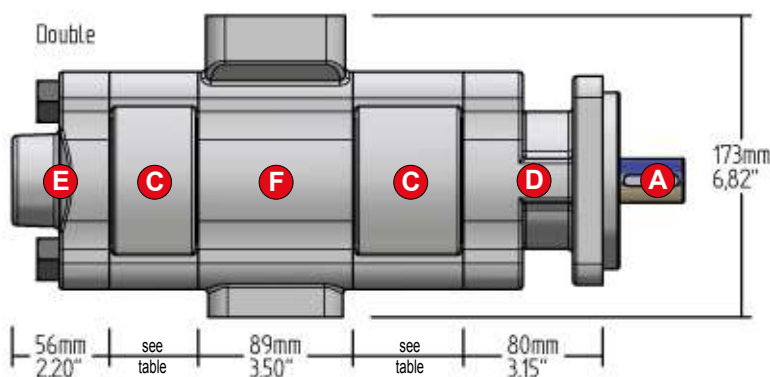
Scale 1 : 3,51

SERIES 230

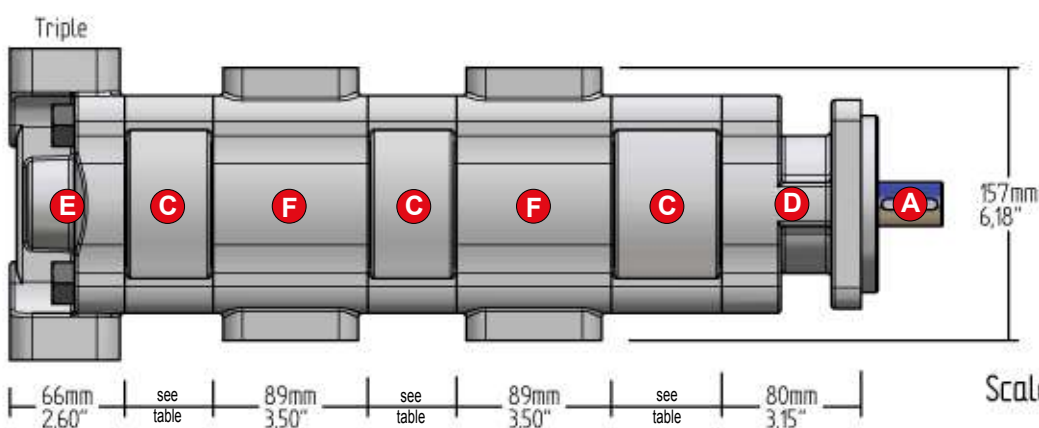
Dimensions are for reference purposes only



REAR VIEW



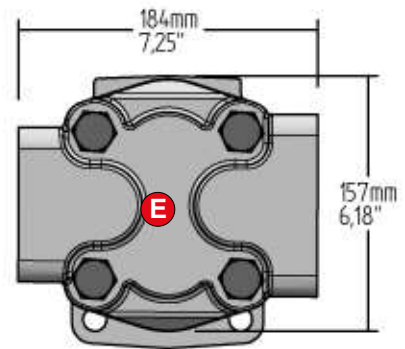
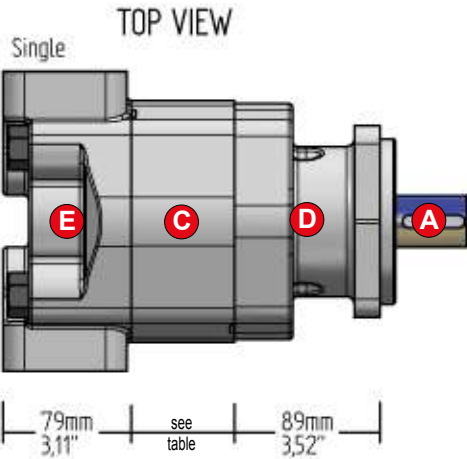
HOUSING TABLE C		
	inches	mm
-05	1"	25.40
-07	1 1/4"	31.75
-10	1 1/2"	38.10
-12	1 3/4"	44.45
-15	2"	50.80
-17	2 1/4"	57.15
-20	2 1/2"	63.50



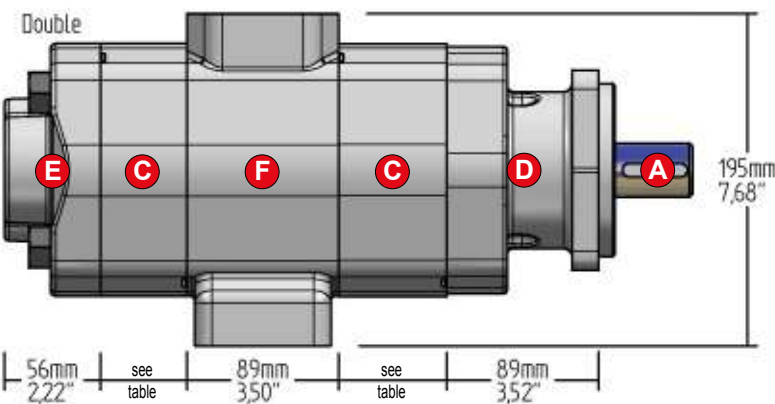
Scale 1 : 4,35

SERIES 250

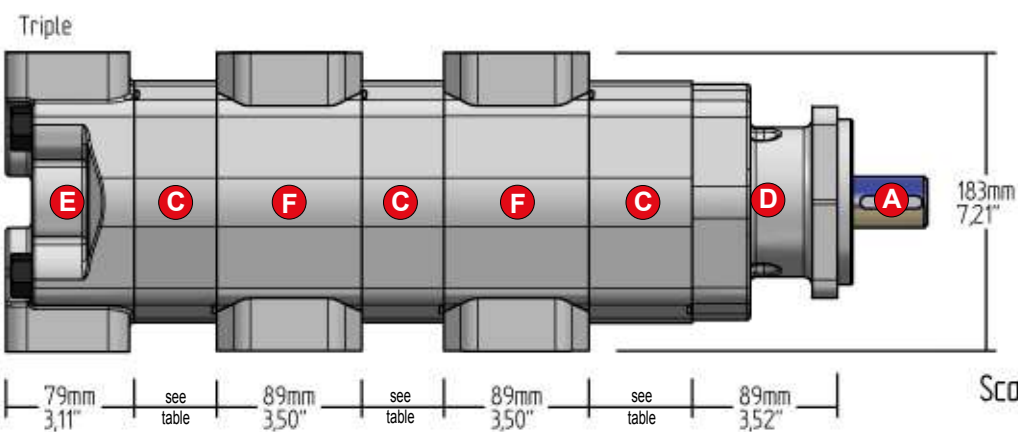
Dimensions are for reference purposes only



REAR VIEW



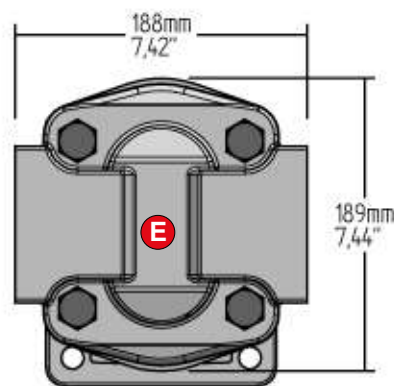
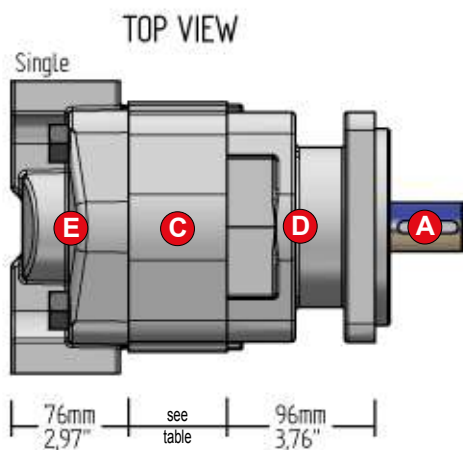
HOUSING TABLE C		
	inches	mm
-05	1"	25.40
-07	1 1/4"	31.75
-10	1 1/2"	38.10
-12	1 3/4"	44.45
-15	2"	50.80
-17	2 1/4"	57.15
-20	2 1/2"	63.50
-22	2 3/4"	69.85
-25	3"	76.20



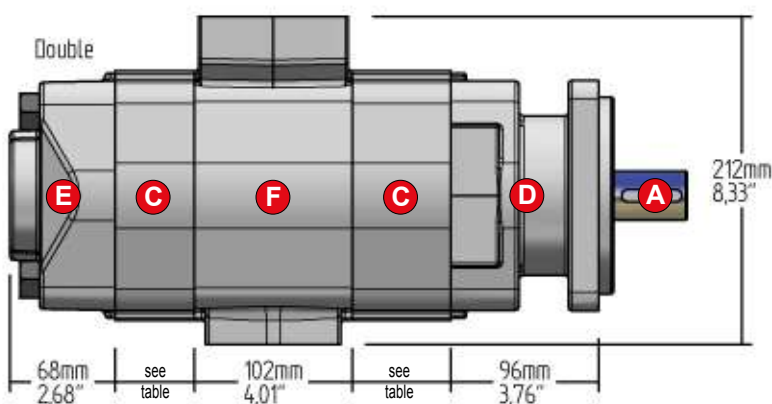
Scale 1 : 4,65

SERIES 265

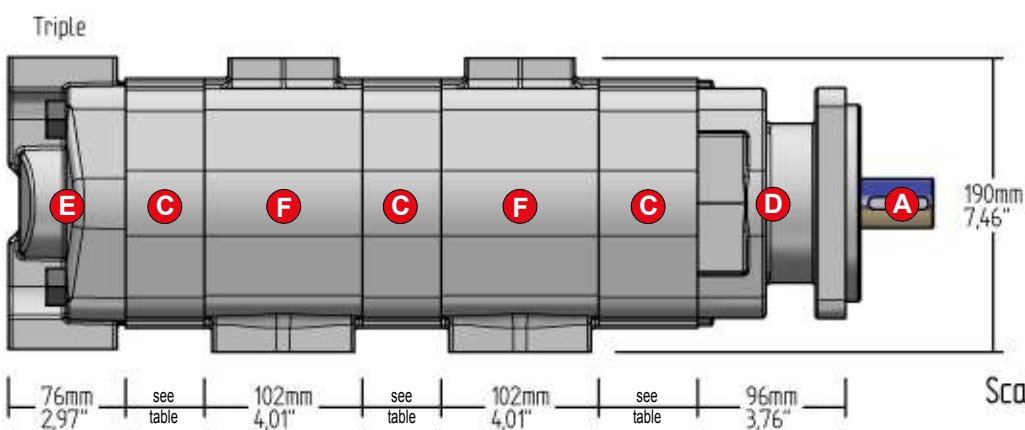
Dimensions are for reference purposes only



REAR VIEW



HOUSING TABLE C		
	inches	mm
-05		
-07	1 1/4"	31.75
-10	1 1/2"	38.10
-12	1 3/4"	44.45
-15	2"	50.80
-17	2 1/4"	57.15
-20	2 1/2"	63.50
-22	2 3/4"	69.85
-25	3"	76.20



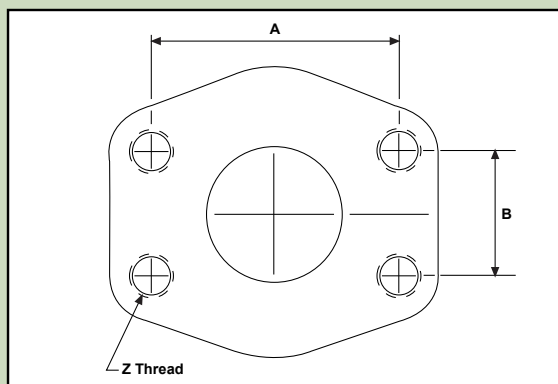
Scale 1 : 4,88

BUSHING RANGE - Porting



Dimensions are for reference purposes only

SAE Flange Size (D)	Dash Size	A		B		Thread (Z)	
		mm	inches	mm	inches	UNC	Metric
1/2"	- 08	38.10	1.5	17.48	0.69	5/16"	M8
3/4"	- 12	47.63	1.88	22.23	0.88	3/8"	M10
1"	- 16	52.37	2.06	26.19	1.03	3/8"	M10
1 1/4"	- 20	58.72	2.31	30.18	1.19	7/16"	M10
1 1/2"	- 24	69.85	2.75	35.71	1.41	1/2"	M12
2"	- 32	77.77	3.06	42.88	1.69	1/2"	M12
2 1/2"	- 40	88.90	3.50	50.80	2.00	1/2"	M12
3"	- 48	106.38	4.19	61.93	2.44	5/8"	M16



Port Size	UNO (ODT)		
	Dash Size	Port ID (mm)	Thread
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	17.60 (0.69)	3/4" - 16
5/8"	- 14	20.50 (0.81)	7/8" - 14
3/4"	- 17	25.00 (0.98)	1 1/16"-12
1"	- 21	31.30 (1.23)	1 5/16" - 12
1 1/4"	- 26	39.20 (1.54)	1 5/8" - 12
1 1/2"	- 30	45.60 (1.79)	1 7/8" - 12
2"	- 40	61.50 (2.42)	2 1/2" - 12

mm (inches)

UNF

Port Size	NPT		
	Dash Size	Port ID (mm)	Thread
1/8"	- 02	10.32 (0.40)	1/8" - 27
1/4"	- 04	13.89 (0.55)	1/4" - 18
3/8"	- 06	17.06 (0.67)	3/8" - 18
1/2"	- 08	21.43 (0.84)	1/2" - 14
5/8"	NA	NA	NA
3/4"	- 12	26.98 (1.06)	3/4" - 14
1"	- 16	33.33 (1.31)	1" - 11 1/2
1 1/4"	- 20	42.46 (1.67)	1 1/4" - 11 1/2
1 1/2"	- 24	48.42 (1.90)	1 1/2" - 11 1/2
2"	- 32	60.32 (2.37)	2" - 11 1/2

mm (inches)

NPT

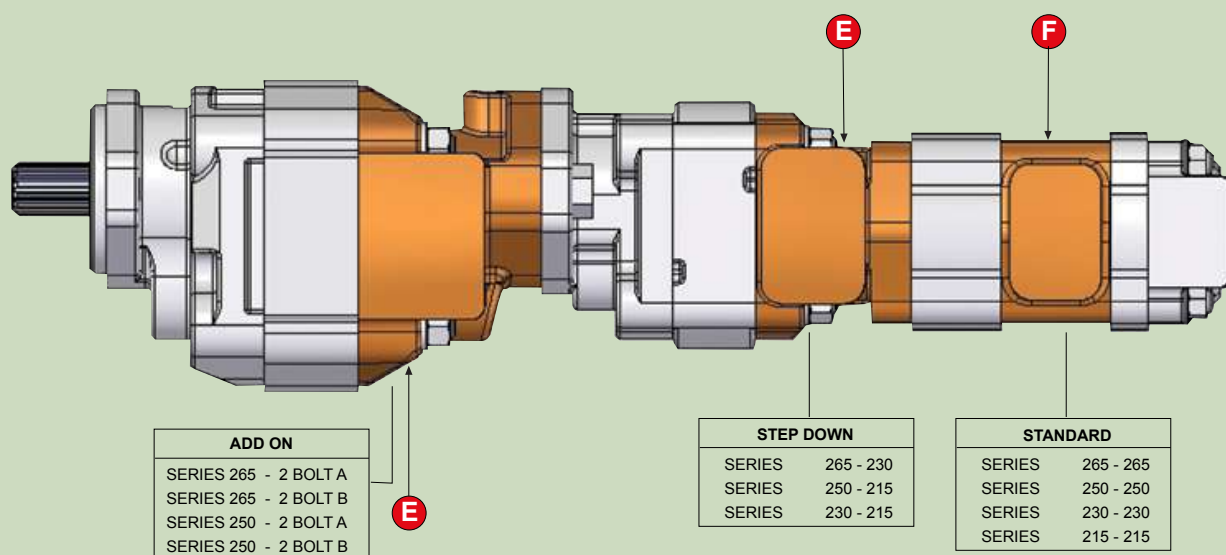
Port Size	BSPP		
	Dash Size	Port ID (mm)	Thread
1/8"	- 02	8.59 (0.34)	1/8" - 28
1/4"	- 04	11.46 (0.45)	1/4" - 19
3/8"	- 06	14.96 (0.59)	3/8" - 19
1/2"	- 08	18.65 (0.73)	1/2" - 14
5/8"	NA	NA	NA
3/4"	- 12	24.13 (0.95)	3/4" - 14
1"	- 16	30.30 (1.19)	1" - 11
1 1/4"	- 20	38.97 (1.53)	1 1/4" - 11
1 1/2"	- 24	44.86 (1.77)	1 1/2" - 11
2"	- 32	56.67 (2.23)	2" - 11

mm (inches)

BSPP

PUMPS, MOTORS AND FLOWDIVIDERS

Model	Thread	Bolt/Stud 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
GF250	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



Cape Town - South Africa



Manufacturing Plant (Cape Town)

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TECHNICAL: gerald@dosco.co.za
Website: www.dosco.co.za



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Fax: +61 (0) 2 9674 1934
e-mail: mikee@gearpump.com.au
Website: www.gearpump.com.au

Distributor (Birmingham)

Gear Pump Distributors (UK) Ltd
Unit 14, Aston Fields Trading Estate, 18 Sugarbrook Road, Bromsgrove, Worcestershire B60 3DW
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Manufactured in South Africa



Member of the Fluid Power Institute