

SECTION B

GEAR PUMPS, GEAR MOTORS, HAND PUMPS & P.T.O GEARBOXES

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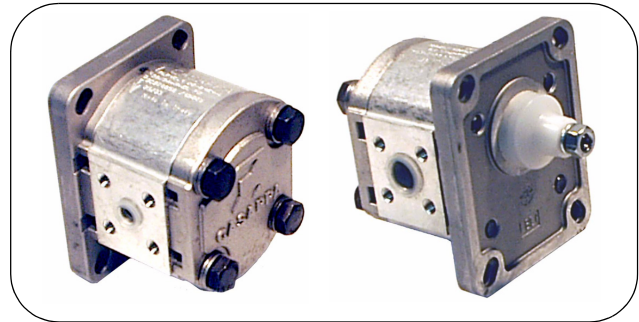
HYDRAULIC GEAR PUMPS

Polaris Series - Group 1

Mount Type: EUROMOUNT

Application: Standard Duty SHAFT

PLP10 - Group 1 EURO Mount



PUMP TYPE	DISP. CC/REV	MAX PRESSURE			MAX SHAFT SPEED	PORTS		DIM MM		LIST PRICE
		P1	P2	P3		ADAPTOR		A	B	
		BAR				IN	OUT			
PLP10-1D-81E1-BBBA	1	260	280	290	4000	1GQ12	1GQ12	65.7	31.6	\$POA
PLP10-2D-81E1-BBBA	2							68.9	33.2	\$POA
PLP10-3.15D-81E1-BBBA	3.1							72.5	35	\$POA
PLP10-4D-81E1-BBBA	4	250	270	280				75.3	36.4	\$POA
PLP10-5D-81E1-BBBA	4.9							78.5	38	\$POA
PLP10-6.3D-81E1-BBBA	6.2							230	250	260
PLP10-8D-81E1-BBBA	7.9	180	200	210	88	42.8	\$POA			
PLP10-10D-81E1-BBBA	9.9				140	160	170			

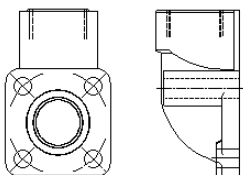
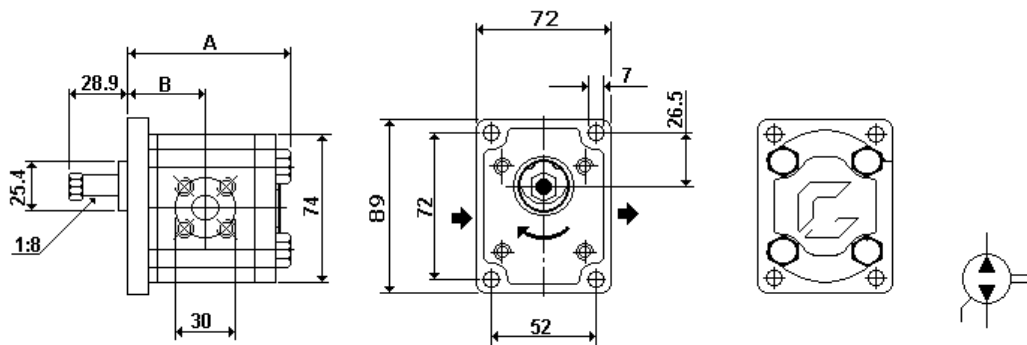
p1 = continuous max. pressure p2 = intermittent max. pressure p3 = peak pressure

SERIES

PLP10-10 D- 81 E1 - BBBA

DISPLACEMENT CODE

Rotation Code	Shaft Code	Mount Code	Port Code
S = Counterclockwise	81 = Taper	E1 = Euro Mount	BB = IN PORT
D = Clockwise	1 IN 8		BA = OUT PORT



Port Connectors
Must be ordered separately

PORT CONNECTORS

Part No.	Port	Price
1GQ12	1/2" BSPP	\$POA

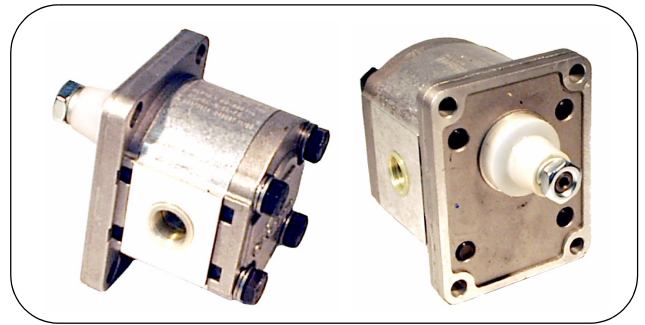
MULTIPLE PUMP PRICING

ARRANGED FOR		Price
**PLP10/10 - Double	+	\$POA
**PLP10/10/10 - Triple	+	\$POA

HYDRAULIC GEAR PUMPS

Polaris Series - Group 1
Mount Type: EUROMOUNT/HD
Application: Heavy Duty SHAFT

PLP10 - Group 1 EURO Mount HD



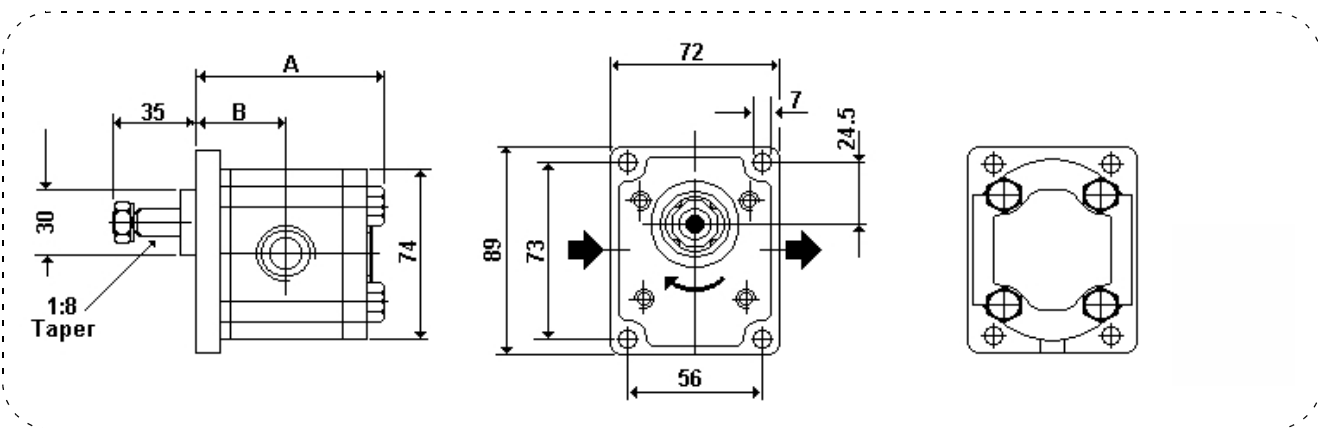
PUMP TYPE	DISP. CC/REV	MAX PRESSURE			MAX SHAFT SPEED	PORTS		DIM MM		LIST PRICE	
		P1	P2	P3		BSPB		A	B		
		BAR				IN	OUT				
PLP10-1D-86E7-GCGC	1	260	280	290	4000	3/8"	3/8"	65.7	31.6	\$POA	
PLP10-2D-86E7-GCGC	2							68.9	33.2	\$POA	
PLP10-3.15D-86E7-GCGC	3.1							72.5	35	\$POA	
PLP10-4D-86E7-GCGC	4	250	270	280		3500	1/2" (GD)	1/2" (GD)	75.3	36.4	\$POA
PLP10-5D-86E7-GDGD	4.9								78.5	38	\$POA
PLP10-6.3D-86E7-GDGD	6.2	230	250	260					82.5	40	\$POA
PLP10-8D-86E7-GDGD	7.9	180	200	210	88		42.8	\$POA			
PLP10-10D-86E7-GDGD	9.9	140	160	170	94.5		46	\$POA			

p1 = continuous max. pressure p2 = intermittent max. pressure p3 = peak pressure

SERIES **PLP10-10 D- 86 E7 - GDGD**

DISPLACEMENT CODE

Rotation Code	Shaft Code	Mount Code	Port Code
S = Counterclockwise	Taper = 86 1 IN 8 HEAVY DUTY	E7 = Euro Mount HD	GC = 3/8" BSPB
D = Clockwise			GD = 1/2" BSPB



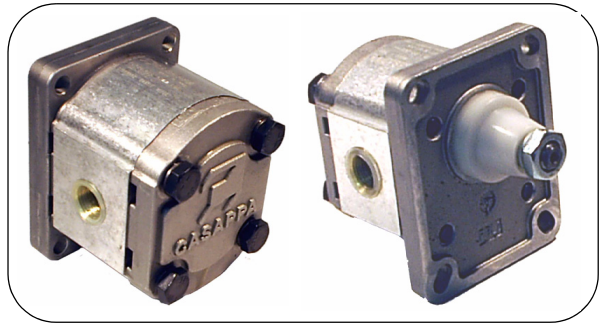
MULTIPLE PUMP PRICING
 Same price as single pumps plus assembly kits.

ARRANGED FOR	Price
**PLP10/10 - Double	+ \$POA
**PLP10/10/10 - Tripe	+ \$POA

HYDRAULIC GEAR PUMPS

Polaris Series - Group 2
Mount Type: EUROMOUNT

PLP20 - Group 2 EURO Mount

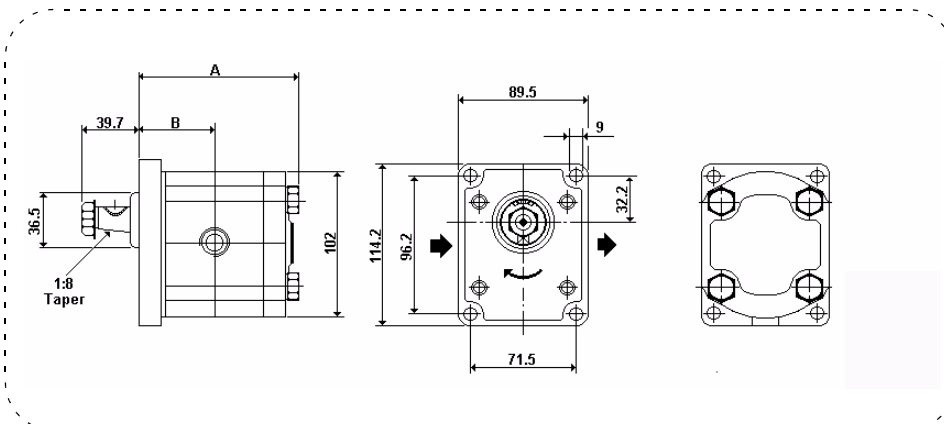


PUMP TYPE	DISP. CC/REV	MAX PRESSURE			MAX SHAFT SPEED	PORTS		DIM MM		LIST PRICE
		P1	P2	P3		ADAPTOR		A	B	
		BAR				IN	OUT			
PLP20-4D-82E2-GDGD	4.8	250	280	300	4000	1/2" (GD)	1/2" (GD)	93	43.7	\$POA
PLP20-6.3D-82E2-GDGD	6.5							95.5	45	\$POA
PLP20-8D-82E2-GDGD	8.3							98	46.2	\$POA
PLP20-9D-82E2-GDGD	9.0				3500			99.3	46.9	\$POA
PLP20-11.2D-82E2-GDGD	11.1							102.5	48.5	\$POA
PLP20-14D-82E2-GEGD	14.4							107.5	51	\$POA
PLP20-16D-82E2-GEGD	16.0	200	220	240	3000	3/4" (GE)	1/2" (GD)	111	52.7	\$POA
PLP20-20D-82E2-GEGD	20.8							117.5	56	\$POA
PLP20-25D-82E2-GEGD	26				125.5			60	\$POA	
PLP20-31.5D-82E2-GEGD	32.6				135.5			65	\$POA	

p1 = continuous max. pressure p2 = intermittent max. pressure p3 = peak pressure

SERIES PLP20-14 D- 82 E2 - GEGD
DISPLACEMENT CODE

Rotation Code	Shaft Code	Mount Code	Port Code
S = Counterclockwise	82 = Taper	E2 = Euro Mount	GD = 1/2" BSPP
D = Clockwise	1 IN 8		GE = 3/4" BSPP



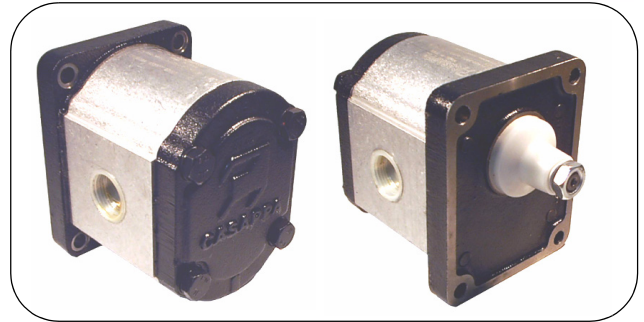
ARRANGED FOR	PRICE
**PLP20/20 +	\$POA
**PLP20/10 +	\$POA
**PLP20/20/20 +	\$POA
**PLP20/20/10 +	\$POA
**PLP20/10/10 +	\$POA

MULTIPLE PUMP PRICING - Same price as single pumps plus assembly kit.

HYDRAULIC GEAR PUMPS

Polaris Series - Group 3
Mount Type: EUROMOUNT

PLP30 - Group 3 EURO Mount

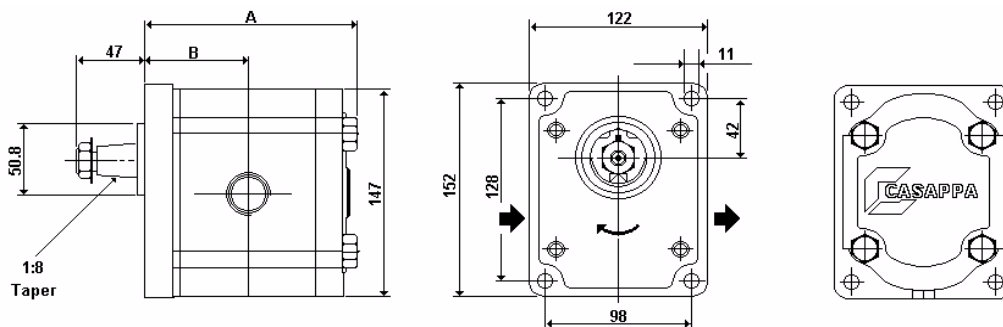


PUMP TYPE	DISP. CC/REV	MAX PRESSURE			MAX SHAFT SPEED	PORTS		DIM MM		LIST PRICE
		P1	P2	P3		ADAPTOR		A	B	
		BAR				IN	OUT			
PLP30-22D-83E3-GFGF	21.89	250	270	280	3000	1" (GF)	1" (GF)	130	63	\$POA
PLP30-27D-83E3-GFGF	26.58							133	64.5	\$POA
PLP30-34D-83E3-GFGF	34.39	240	260	270				138	67	\$POA
PLP30-38D-83E3-GFGF	38.53							141	68.5	\$POA
PLP30-43D-83E3-GFGF	43.77							144	70	\$POA
PLP30-51D-83E3-GFGF	51.59	210	230	240	2500	1 1/4" (GG)	1" (GF)	149	72.5	\$POA
PLP30-61D-83E3-GGGF	60.97	190	210	220				155	75.5	\$POA
PLP30-73D-83E3-GGGF	73.47	170	190	200				163	79.5	\$POA

p1 = continuous max. pressure p2 = intermittent max. pressure p3 = peak pressure

SERIES **PLP30-43 D- 83 E3 - GFGF**
DISPLACEMENT CODE

Rotation Code	Shaft Code	Mount Code	Port Code
S = Counterclockwise	83 = Taper	E3 = Euro Mount	GF = 1" BSPP
D = Clockwise	1 IN 8		GG = 1 1/4" BSPP



MULTIPLE PUMP PRICING
Same price as single pumps plus assembly kit.

ARRANGED FOR	PRICE	ARRANGED FOR	PRICE
**PLP30/30	+ \$POA	**PLP30/30/10	+ \$POA
**PLP30/20	+ \$POA	**PLP30/20/20	+ \$POA
**PLP30/10	+ \$POA	**PLP30/20/10	+ \$POA
**PLP30/30/30	+ \$POA	**PLP30/10/10	+ \$POA
**PLP30/30/20	+ \$POA		

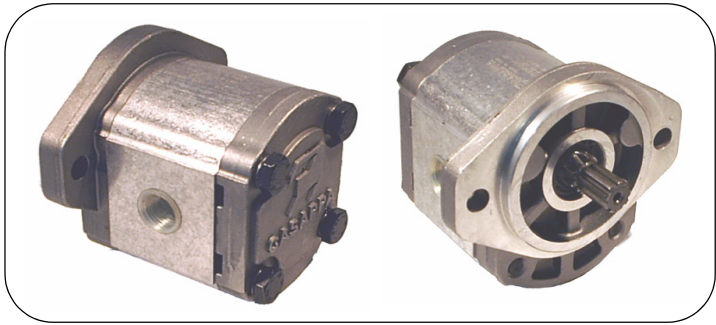
HYDRAULIC GEAR PUMPS

Polaris Series - Group 2

Mount Type: SAE "A" 2 Bolt Mount

Application: Heavy Duty

PLP20 - Group 2 SAE



PUMP TYPE	DISP. CC/ REV	MAX PRESSURE			MAX SHAFT SPEED	PORTS		DIM MM		LIST PRICE
		P1	P2	P3		ADAPTOR		A	B	
		BAR				IN	OUT			
PLP20-4D-03S1-GDGD	4.8	250	280	300	4000	1/2" (GD)	1/2" (GD)	95	45.7	\$POA
PLP20-6.3D-03S1-GDGD	6.5							97.5	47	\$POA
PLP20-8D-03S1-GDGD	8.3							100	48.2	\$POA
PLP20-9D-03S1-GDGD	9				101.3			48.9	\$POA	
PLP20-11.2D-03S1-GDGD	11.1									
PLP20-14D-03S1-GE	14.4									104.5
PLP20-16D-03S1-GE	16	3000	3/4" (GE)	1/2" (GD)	109.5	53	\$POA			
PLP20-20D-03S1-GE	20.8				200	220	240	113	54.7	\$POA
PLP20-25D-03S1-GE	26				170	190	210	119.5	58	\$POA
PLP20-31.5D-03S1-GE	32.6	130	150	170	2000	127.5	62	\$POA		
								137.5	67	\$POA

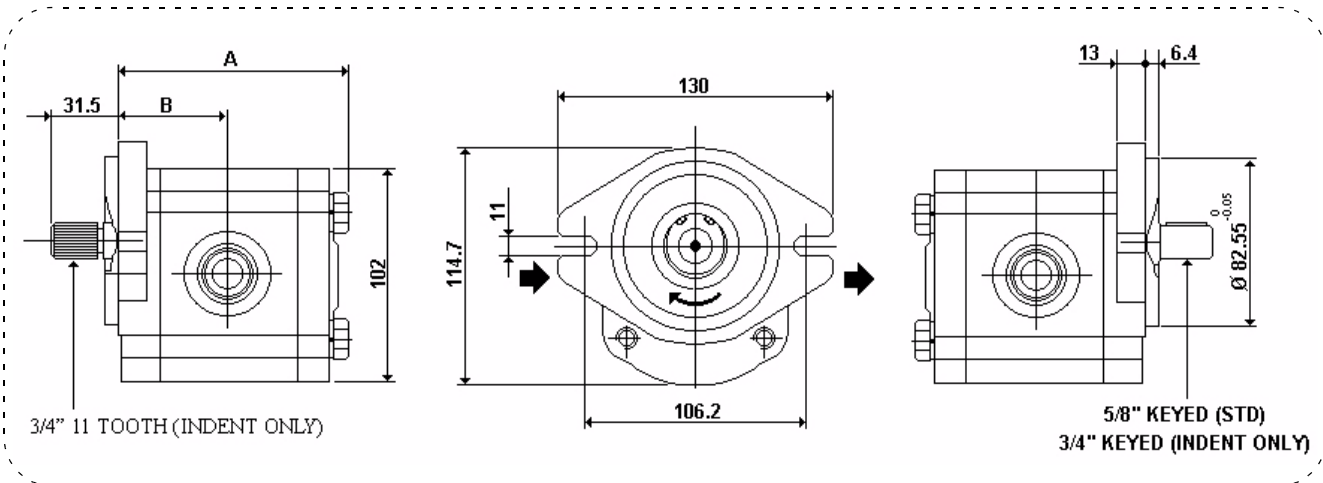
p1 = continuous max. pressure

p2 = intermittent max. pressure

p3 = peak pressure

SERIES **PLP20-20 D- 31 S1 - GEGD**

Rotation Code	Shaft Code	Mount Code	Port Code
S = Counterclockwise	03 = 5/8" 9 Tooth 31 = 5/8" Keyed 49 = 3/4" Keyed 07 = 3/4" 11 Tooth	S1 = SAE "A" 2 BOLT	GD = 1/2" BSPP
D = Clockwise			GE = 3/4" BSPP

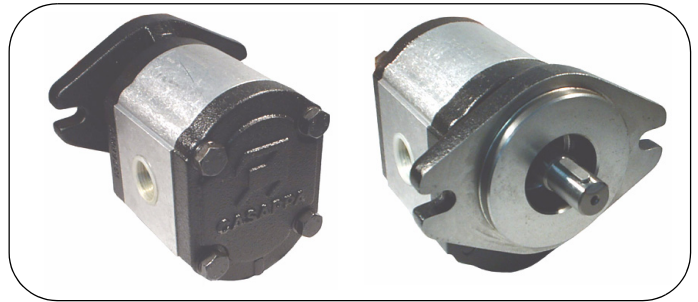


MULTIPLE PUMP PRICING - Same price as single pumps plus assembly kit.

HYDRAULIC GEAR PUMPS

Polaris Series - Group 3
Mount Type: SAE "B" 2 Bolt Mount
Application: Heavy Duty

PLP30 - Group 3 SAE



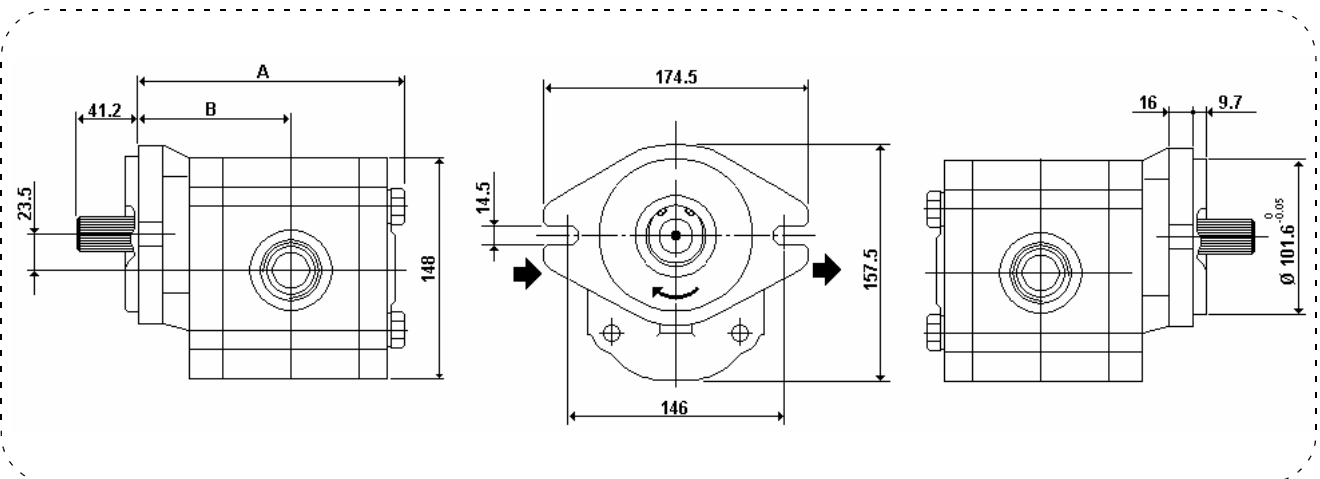
PUMP TYPE	DISP. CC/REV	MAX PRESSURE			MAX SHAFT SPEED	PORTS		DIM MM		LIST PRICE
		P1	P2	P3		ADAPTOR		A	B	
		BAR PSI				IN	OUT			
PLP30-22D-04S5-GFGF	21.89	250	270	280	3000	1" (GF)	1" (GF)	158	92	\$POA
PLP30-27D-04S5-GFGF	26.58							163	94.5	\$POA
PLP30-34D-04S5-GFGF	34.39	240	260	270				168	97	\$POA
PLP30-38D-04S5-GFGF	38.53							173	99.5	\$POA
PLP30-43D-04S5-GFGF	43.77	260	250	260				174	100	\$POA
PLP30-51D-04S5-GFGF	51.59	210	230	240				179	102.5	\$POA
PLP30-61D-04S5-GGGF	60.97	190	210	220	2500	1 1/4" (GG)	1" (GF)	185	105.5	\$POA
PLP30-73D-04S5-GGGF	73.47	170	190	200				193	109.5	\$POA

p1 = continuous max. pressure p2 = intermittent max. pressure p3 = peak pressure

SERIES **PLP30-43 D- 04 S5 - GFGF**

DISPLACEMENT CODE

Rotation Code	Shaft Code	Mount Code	Port Code
S = Counterclockwise	04 = 7/8" 13 Tooth	S1 = SAE "A" 2 BOLT	GF = 1" BSPP
D = Clockwise	32 = 7/8" Keyed	S5 = SAE "B" 2 BOLT	GG = 1 1/4" BSPP

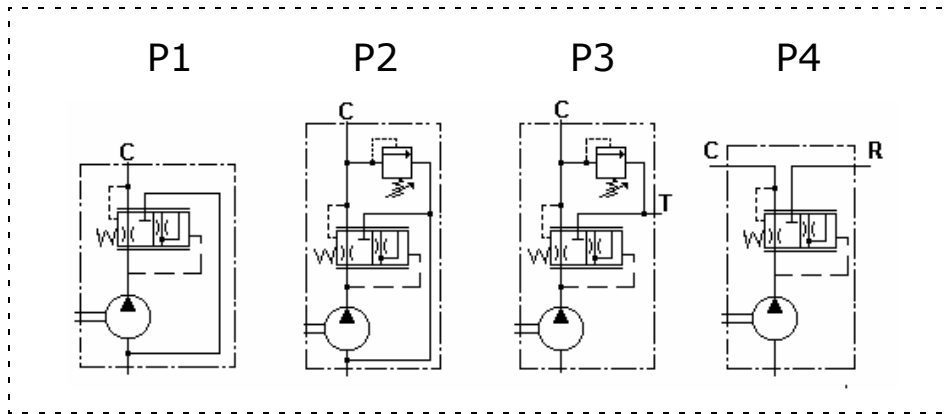


MULTIPLE PUMP PRICING - Same price as single pumps plus assembly kit.

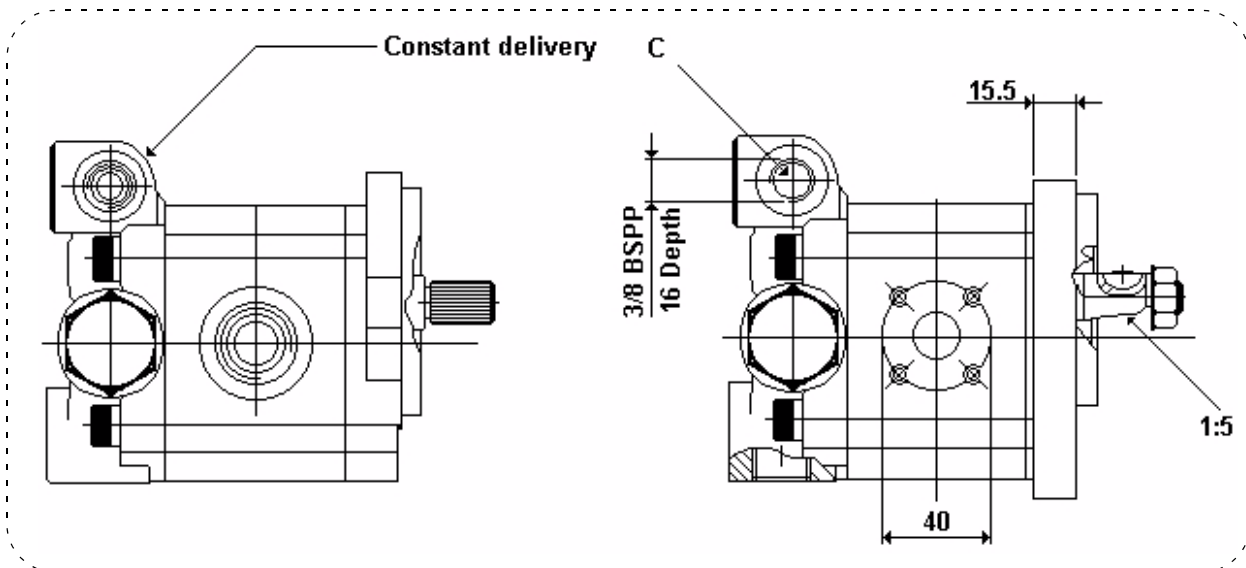
HYDRAULIC GEAR PUMPS

POLARIS SERIES GROUP 2

Circuit Options



- P1 = Constant Flow at 'C'; Excess flow to inlet.**
 - P2 = Constant Flow at 'C'; With Relief; Excess flow to inlet.**
 - P3 = Constant Flow at 'C'; With Relief; Excess flow to tank.**
 - P4 = Constant Flow at 'C'; Excess Flow Avail at 'R' for Second Circuit.**
- To suit both "E2" EURO mount and "S1" SAE A mount.



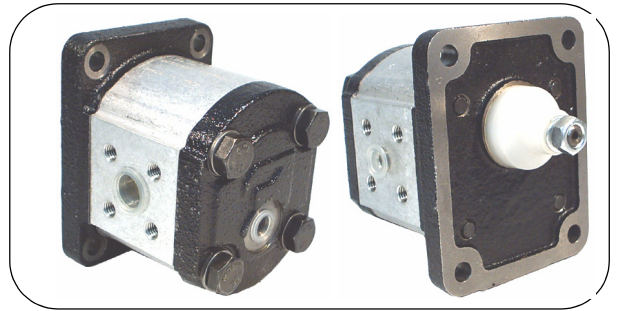
NB: Constant flow rate must be stated with order. Example pump code with 'P2' option and 8 Lt/Min constant flow at 'C'. **PLP20-20-82E2-GEGD-P2-8**

PRICING: Please consult the sales centre for pricing of these options.

HYDRAULIC GEAR MOTORS

Polaris Series - Group 1
Mount Type:EUROMOUNT SERIES

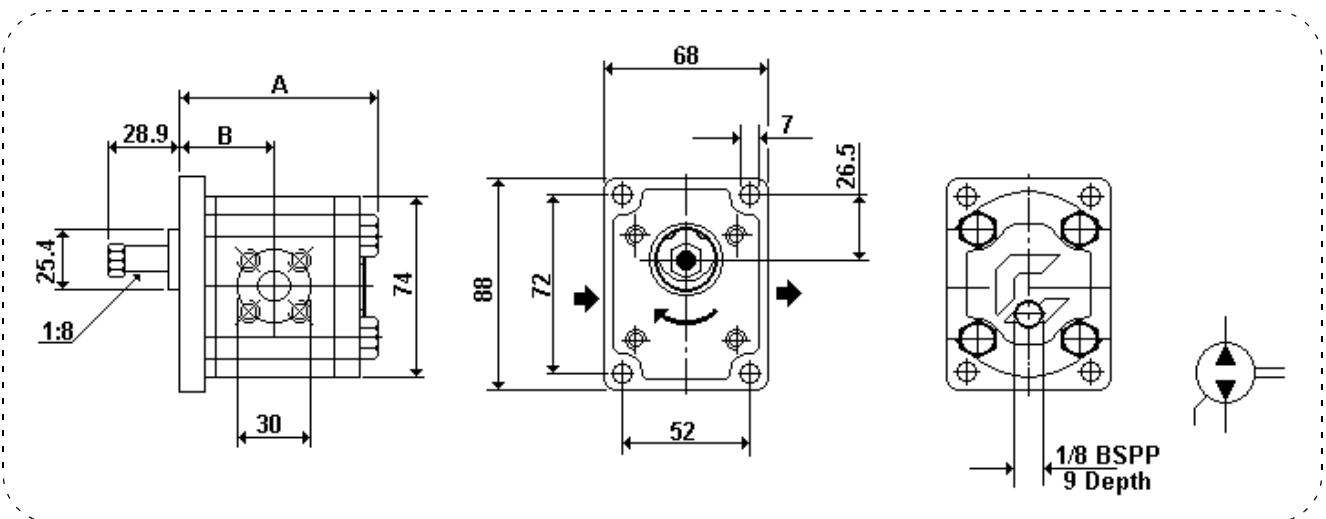
PLM10 - Group 1 EURO Mount



PUMP TYPE	DISP. CC/REV	MAX CONT PRESSURE	MAX SHAFT SPEED	PORTS		OUTPUT KW	TORQUE NM	LIST PRICE
		BAR		Adaptor				
				IN	OUT	AT 100 BAR AND 1000 RPM		
PLM10-2R-81E1-BBBA	2	221	4000	1GQ12	1GQ12	0.27	2.71	\$POA
PLM10-3.15R-81E1-BBBA	3.1					0.42	4.20	\$POA
PLM10-4R-81E1-BBBA	4	213				0.54	5.42	\$POA
PLM10-5R-81E1-BBBA	4.9					0.66	6.63	\$POA
PLM10-6.3R-81E1-BBBA	6.2	196	3500			0.83	8.39	\$POA
PLM10-8R-86E7-GDGD	7.9					1.06	10.70	\$POA
PLM10-10R-86E7-GDGD	9.9	213				1.33	13.40	\$POA

SERIES **PLM10- 4 R- 81 E1 - BBBA**
DISPLACEMENT CODE

Rotation Code	Shaft Code	Mount Code	Port Code
S = Counterclockwise	81 = Taper 86 = H.D. Taper	E1 = EURO MOUNT E7 = H.D. MOUNT	BB = IN PORT Adaptor
D = Clockwise			BA = OUT PORT Adaptor
R = Reverse			

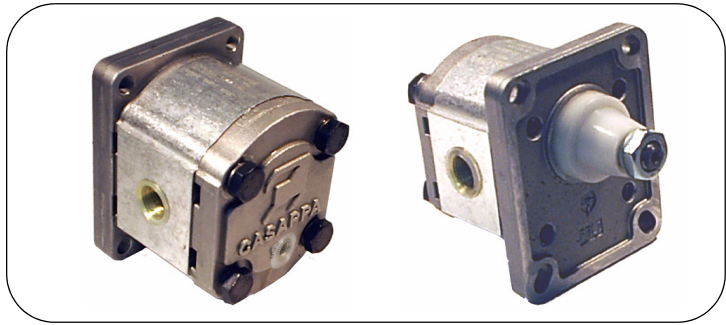


The above pressure ratings are for reversible motors. NB: A drain line to tank must be run for reversible motors
For input flow allow volumetric efficiency of: 90% Output KW figures allow for overall efficiency of:82%
Output torque figures allow for mechanical efficiency of:85%

HYDRAULIC GEAR MOTORS

Polaris Series - Group 2
Mount Type:EUROMOUNT SERIES "82E2"

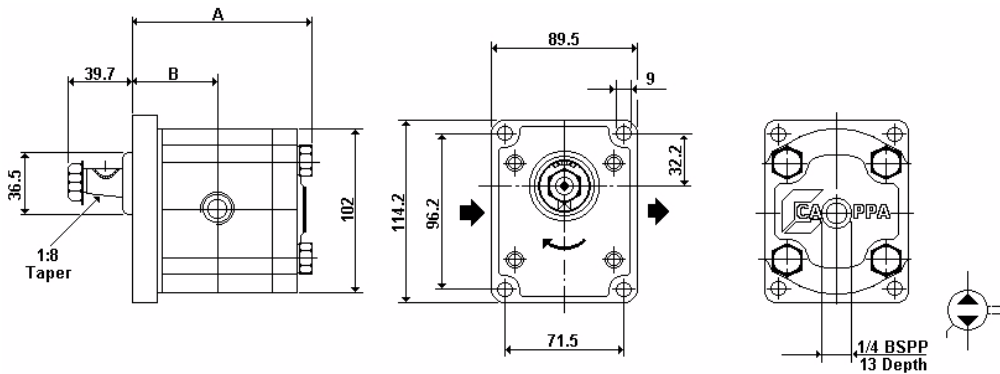
PLM20 - Group 2 EURO "82E2"



PUMP TYPE	DISP. CC/REV	MAX CONT PRESSURE	MAX SHAFT SPEED	PORTS		OUTPUT KW	TORQUE NM	LIST PRICE
		BAR		IN	OUT	AT 100 BAR AND 1000 RPM		
PLM20-4R-82E2-GDGD	4.8	213	4000	1/2" (GD)	1/2" (GD)	0.64	6.50	\$POA
PLM20-6.3R-82E2-GDGD	6.5					0.87	8.80	\$POA
PLM20-8R-82E2-GDGD	8.3					1.11	11.24	\$POA
PLM20-9R-82E2-GDGD	9		1.20			12.18	\$POA	
PLM20-11.2R-82E2-GDGD	11.1		1.49			15.03	\$POA	
PLM20-14R-82E2-GEGD	14.4		1.93			19.50	\$POA	
PLM20-16R-82E2-GEGD	16.0	170	3000	3/4" (GE)	1/2" (GD)	2.22	22.48	\$POA
PLM20-20R-82E2-GEGD	20.8					3.48	28.16	\$POA
PLM20-25R-82E2-GEGD	26		145			2500	4.37	35.20
PLM20-31.5R-82E2-GEGD	32.6	111				5.48	44.14	\$POA

SERIES **PLM20-14 R- 82 E2 - GEGD**
DISPLACEMENT CODE

Rotation Code	Shaft Code	Mount Code	Port Code
S = Counterclockwise	82 = Taper	E2 = EURO MOUNT	GD = 1/2" BSPP GE = 3/4" BSPP
D = Clockwise			
R = Reverse			

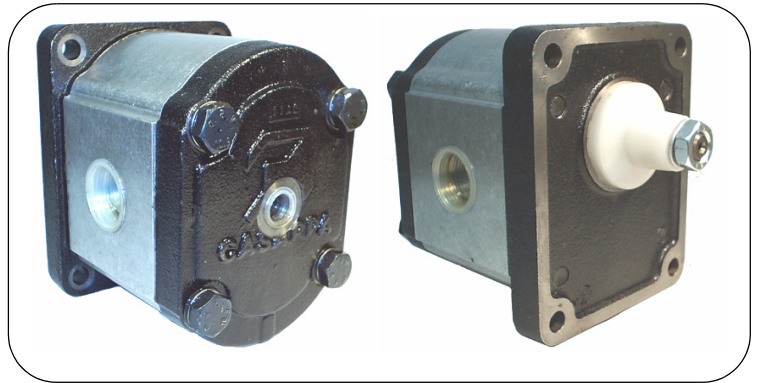


The above pressure ratings are for reversible motors. NB: A drain line to tank must be run for reversible motors
For input flow allow volumetric efficiency of: 90% Output KW figures allow for overall efficiency of:82%
Output torque figures allow for mechanical efficiency of:85%

HYDRAULIC GEAR MOTORS

Polaris Series - Group 3
Mount Type:EUROMOUNT SERIES "83E3"

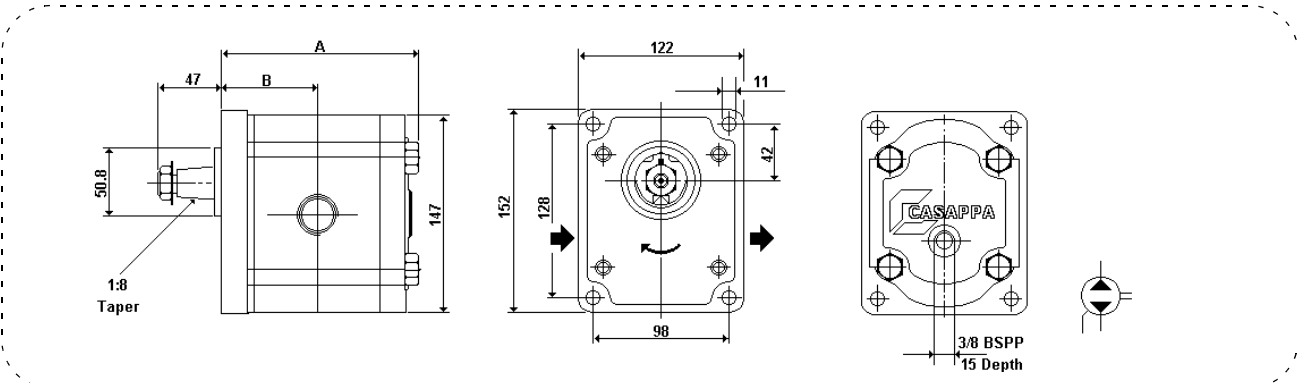
PLM30 - Group 3 EURO "83E3"



PUMP TYPE	DISP. CC/REV	MAX CONT PRESSURE	MAX SHAFT SPEED	PORTS		OUTPUT KW	TORQUE NM	LIST PRICE
		BAR		IN	OUT	AT 100 BAR AND 1000 RPM		
PLM30-22R-83E3-GFGF	21.89	213	3000	1" (GF)	1" (GF)	2.93	29.64	\$POA
PLM30-27R-83E3-GFGF	26.58					3.56	36	\$POA
PLM30-34R-83E3-GFGF	34.39	204				4.61	46.56	\$POA
PLM30-38R-83E3-GFGF	38.53					5.14	52.17	\$POA
PLM30-43R-83E3-GFGF	43.77	196				5.87	59.26	\$POA
PLM30-51R-83E3-GFGF	51.59	179	2500	1 1/4" (GG)	1" (GF)	6.91	69.45	\$POA
PLM30-61R-83E3-GFGF	60.97	162				8.17	82.55	\$POA

SERIES **PLM30-43 R- 83 E3 - GFGF**
DISPLACEMENT CODE

Rotation Code	Shaft Code	Mount Code	Port Code
S = Counterclockwise	83 = Taper	E3 = EURO MOUNT	GF = 1" BSPP GG = 1 1/4" BSPP
D = Clockwise			
R = Reverse			



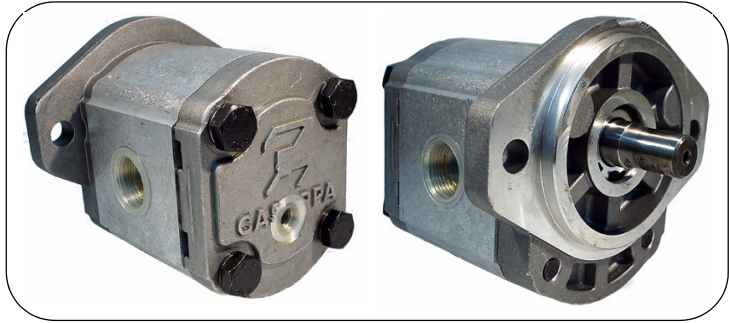
The above pressure ratings are for reversible motors.

NB: A drain line to tank must be run for reversible motors For input flow allow volumetric efficiency of: 90% Output KW figures allow for overall efficiency of:82% Output torque figures allow for mechanical efficiency of:85%

HYDRAULIC GEAR MOTORS

Polaris Series - Group 2
Mount Type: SAE "A" 2 BOLT MOUNT

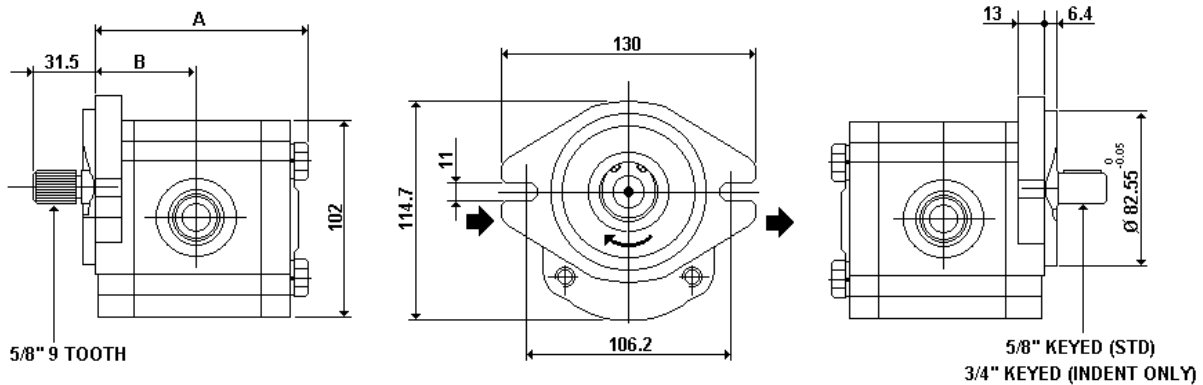
PLM20 - Group 2 SAE



PUMP TYPE	DISP. CC/REV	MAX CONT PRESSURE	MAX SHAFT SPEED	PORTS		OUTPUT KW	TORQUE NM	LIST PRICE
		BAR		IN	OUT	AT 100 BAR AND 1000 RPM		
PLM20-4R-31S1-GDGD	4.8	213	4000	1/2" (GD)	1/2" (GD)	0.64	6.50	\$POA
PLM20-6.3R-31S1-GDGD	6.5					0.87	8.80	\$POA
PLM20-8R-31S1-GDGD	8.3					1.11	11.24	\$POA
PLM20-9R-31S1-GDGD	9		3500			1.20	12.18	\$POA
PLM20-11.2R-31S1-GDGD	11.1					1.49	15.03	\$POA
PLM20-14R-31S1-GEED	14.4					1.93	19.50	\$POA
PLM20-16R-31S1-GEED	16.0	170	3000	3/4" (GE)	1/2" (GD)	2.22	22.48	\$POA
PLM20-20R-31S1-GEED	20.8					3.48	28.16	\$POA
PLM20-25R-31S1-GEED	26					4.37	35.20	\$POA
PLM20-31.5R-31S1-GEED	32.6	145	2500			5.48	44.14	\$POA
		111						

SERIES **PLM20-16 R- 31 S1 - GEGD**
DISPLACEMENT CODE

Rotation Code	Shaft Code	Mount Code	Port Code
S = Counterclockwise	03 = 5/8" 9 Tooth 31 = 5/8" Keyed 49 = 3/4" Keyed	S1 = SAE "A" 2 BOLT	GD = 1/2" BSPP GE = 3/4" BSPP
D = Clockwise			
R = Reverse			



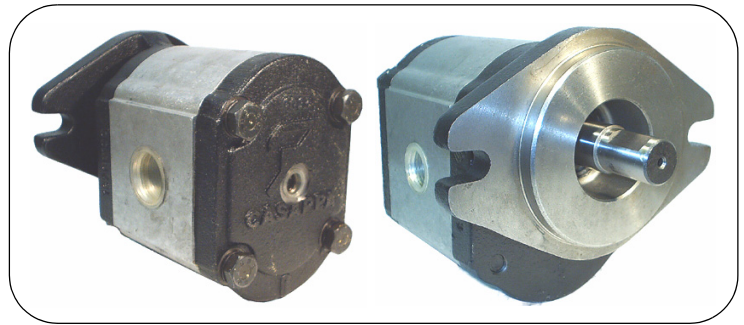
The above pressure ratings are for reversible motors.

NB: A drain line to tank must be run for reversible motors. For input flow allow volumetric efficiency of: 90%
Output KW figures allow for overall efficiency of: 82% Output torque figures allow for mechanical efficiency of: 85%

HYDRAULIC GEAR MOTORS

Polaris Series - Group 3
Mount Type:SAE "B" 2 BOLT MOUNT

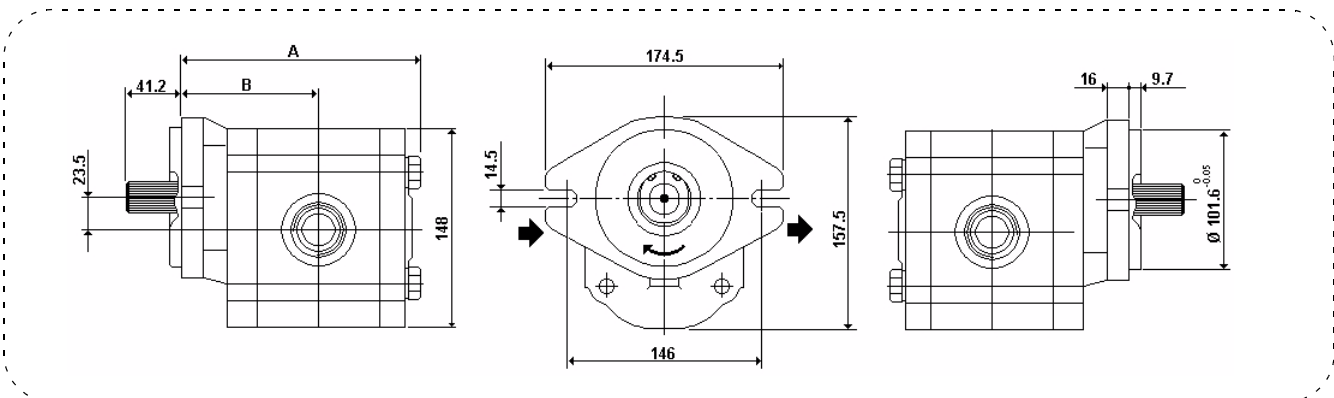
PLM30 - Group 3 SAE



PUMP TYPE	DISP. CC/REV	MAX CONT PRESSURE	MAX SHAFT SPEED	OUTPUT KW	TORQUE NM	LIST PRICE
		BAR		AT 100 BAR AND 1000 RPM		
PLM30-22R-04S5-GFGF	21.89	213	3000	2.93	29.64	\$POA
PLM30-27R-04S5-GFGF	26.58			3.56	36	\$POA
PLM30-34R-04S5-GFGF	34.39			4.61	46.56	\$POA
PLM30-38R-04S5-GFGF	38.53	204		5.14	52.17	\$POA
PLM30-43R-04S5-GFGF	43.77			5.87	59.26	\$POA
PLM30-51R-04S5-GFGF	51.59	179		2500	6.91	69.45
PLM30-61R-04S5-GFGF	60.97	162	8.17		82.55	\$POA

SERIES **PLM30-43 R- 04S5 - GFGF**
DISPLACEMENT CODE

Rotation Code	Shaft Code	Mount Code	Port Code
S = Counterclockwise	04 = 7/8" 13 Tooth 32 = 7/8" Keyed	S5 = SAE "B" 2 BOLT	GF = 1" BSPP GG = 1 1/4" BSPP
D = Clockwise			
R = Reverse			



The above pressure ratings are for reversible motors.

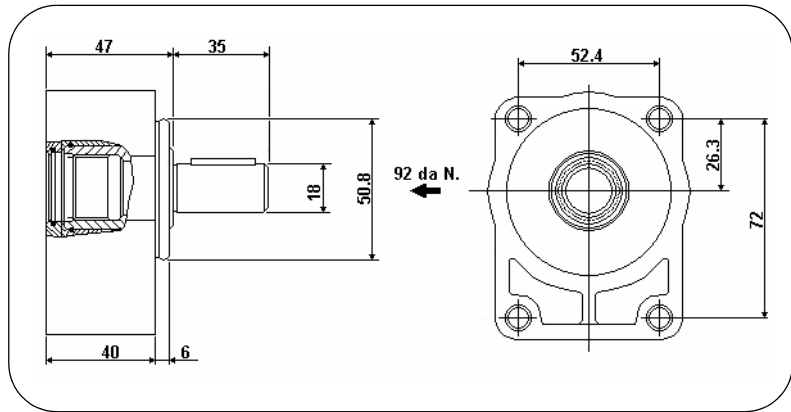
NB: A drain line to tank must be run for reversible motors For input flow allow volumetric efficiency of: 90%
Output KW figures allow for overall efficiency of:82% Output torque figures allow for mechanical efficiency of:85%

OVERHUNG LOAD ADAPTORS SUITS CASAPPA

POLARIS EURO MOUNT SERIES MODEL SU/1-C

Suits Polaris Group 1
(Standard Duty)
Requires Splined Hub
Part No. 31001000

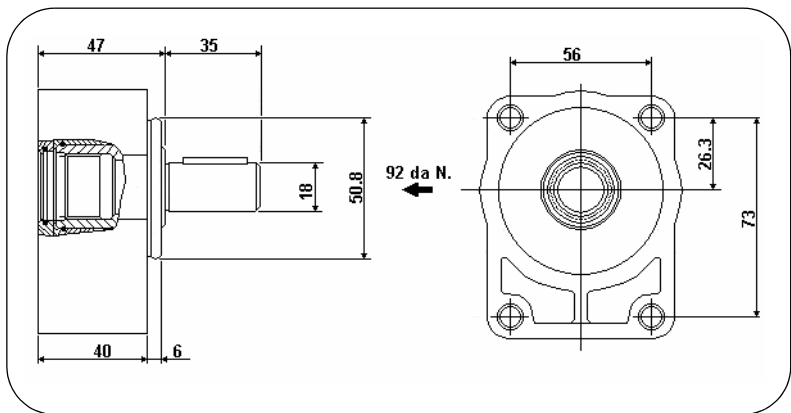
Part No.	List Price
SU/1-C	\$POA
31001000	\$POA



MODEL SU/1M-C

Suits Polaris Group 1
(Heavy Duty)
Requires Splined Hub
Part No. 31001200

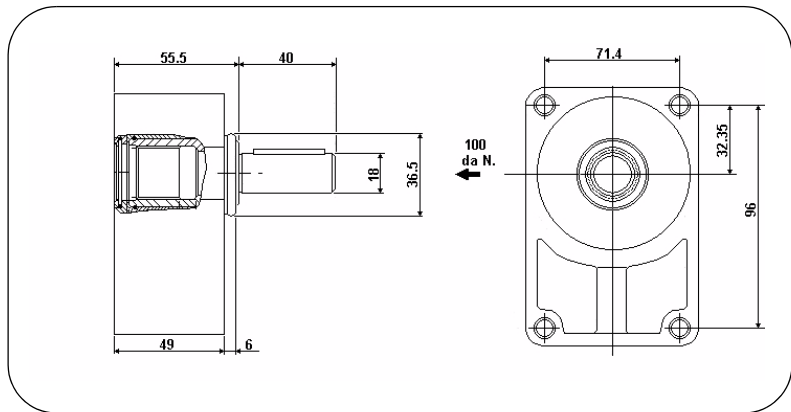
Part No.	List Price
SU/1M-C	\$POA
31001200	\$POA



MODEL SU/2

Suits Polaris Group 2
Requires Splined Hub
Part No. 31000700

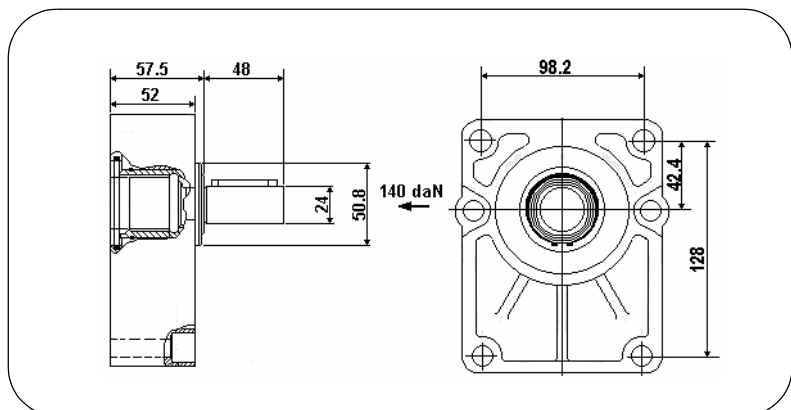
Part No.	List Price
SU/2	\$POA
31000700	\$POA



MODEL SU/3

Suits Polaris Group 3
Requires Splined Hub
Part No. 31003500

Part No.	List Price
SU/3	\$POA
31003500	\$POA



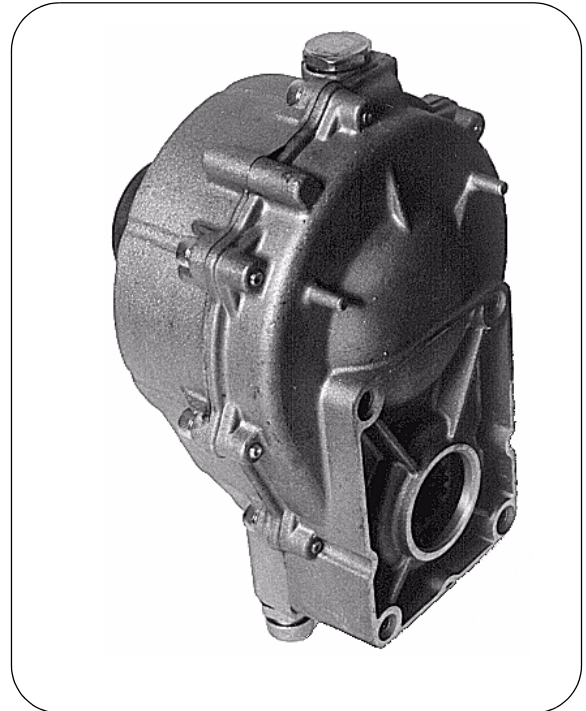
ML32

GEARBOXES

Designed for the fitment of the Casappa group 2 PLP20 range of gear pumps and the be driven from the power take off an agricultural tractor.

Designed for

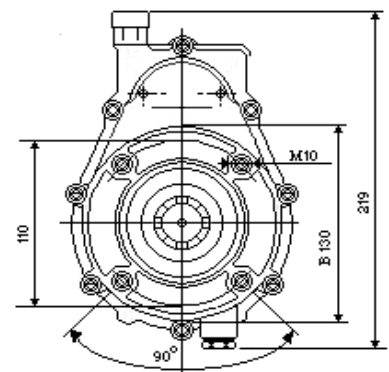
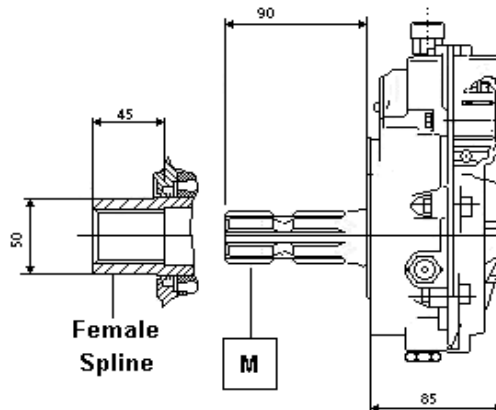
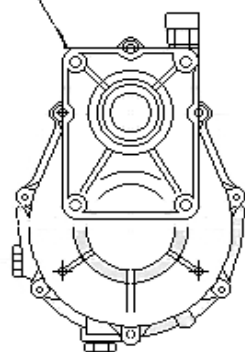
PLP20

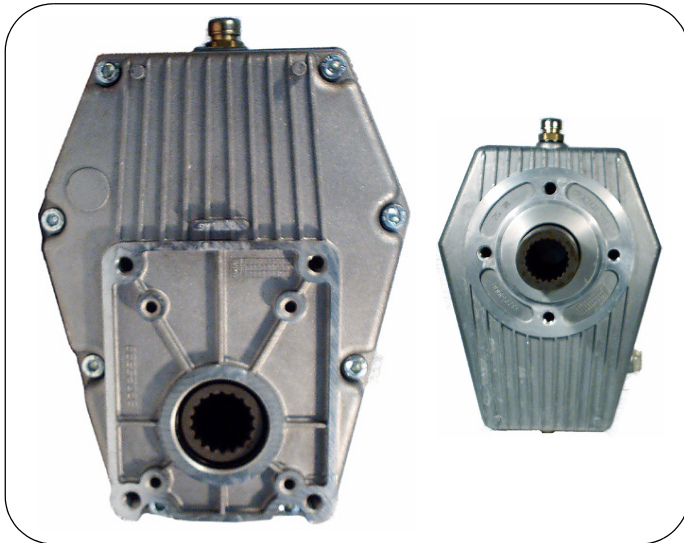


GEARBOXES

PART NUMBER	INPUT SPLINE			RATIO	Torque nm		LIST PRICE
	TYPE	SIZE	NO. TEETH		Input	Output	
ML32-2-1/3	FEMALE	1 3/8"	6	3:1	180	58	\$POA
ML32-1-1/3	MALE	1 3/8"	6	3:1	180	58	\$POA
31000700	SPLINED HUB SUIT GROUP 2 TAPER						\$POA

Group 2 mount





ML52

GEARBOXES

Designed for the fitment of the Casappa group 3 PLP30 range of gear pumps and the be driven from the power take off an agricultural tractor.

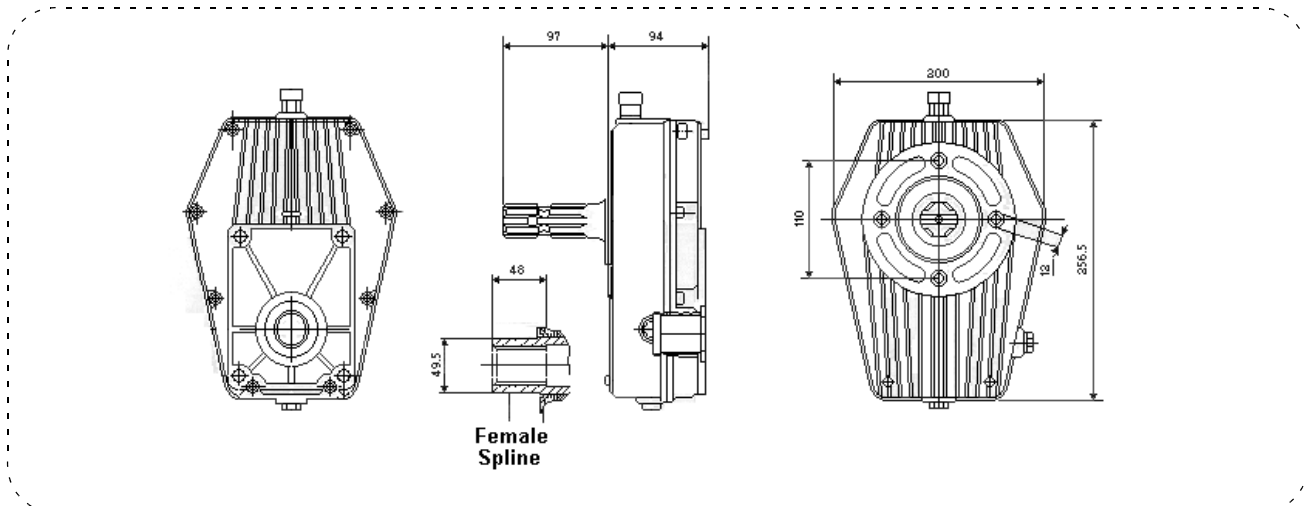
Designed for

PLP30

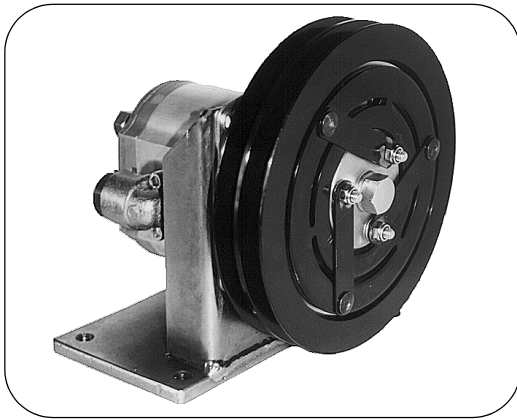
PART NUMBER	INPUT SPLINE			RATIO	Torque NM		LIST PRICE
	TYPE	SIZE	NO. TEETH		Input	Output	
ML52-2-1/3	FEMALE	1.3/8"	6	3:1	483	161	\$POA
ML52-2-1/3.4	FEMALE	1.3/8"		3:4:1	452	133	\$POA
ML52-1-1/3	MALE	1.3/8"		3:1	483	161	\$POA
ML52-1-1/3.4	MALE	1.3/8"		3:4:1	452	133	\$POA
ML52-18-1/2	FEMALE	1.3/8"	21	2:1	434	217	\$POA
31003500	SPLINED HUB SUIT GROUP 3 TAPER						\$POA
25-008	GASKET						\$POA

GEARBOXES WITH THROUGH INPUT SHAFT

NEW model	INPUT SPLINE			RATIO	LIST PRICE
ML52/B-8-1/3	FEM/MALE	1 3/8"	6	3:1	\$POA
ML52/B-7-1/3	FEM/FEM	1 3/8"	6	3:1	\$POA



MA7A / MA7B



Electric Clutch for Pump Drives:

Designed to interface with Casappa Group 2 Gear Pumps. Ideal for small ships anchor winch drives.

Interfaces with Group 2 Gear Pumps

MAX SPEED	= 4000 RPM
VOLTAGE	= 12 - 24 VOLTS D.C.
ELECTRICAL INPUT	= 12 VOLTS AT 4.5 AMP
MAX TRANSMITTED POWER	= 3KW PER 1000 RPM
PULLEY O.D.	= 178mm (7")

MODEL	PULLEY TYPE	VOLTAGE	LIST PRICE
MA7A-12	2 X 'A' SECTION	12	\$POA
MA7A-24	2 X 'A' SECTION	24	\$POA
MA7B-12	1 X 'B' SECTION	12	\$POA
MA7B-24	1 X 'B' SECTION	24	\$POA

NB: Pressure limitation of the larger displacements is determined by the maximum power transmitted by the belts i.e. 3 kW per 1000 RPM.

Price includes the clutch and foot bracket but excludes the pump.

CLUTCH ASSEMBLY & INSTALLATION INSTRUCTIONS:

Your Pump/Clutch Unit is normally supplied assembled. If for any reason your Clutch is supplied unassembled then the unit must be assembled using Feeler Gauges to ensure concentricity between Armature and the Pulley.

BELT TENSIONING INSTRUCTIONS:

Each drive belt must be tensioned to provide 16mm of deflection per metre of centre distance between the Pulleys when a given load is applied at the centre of the belt.

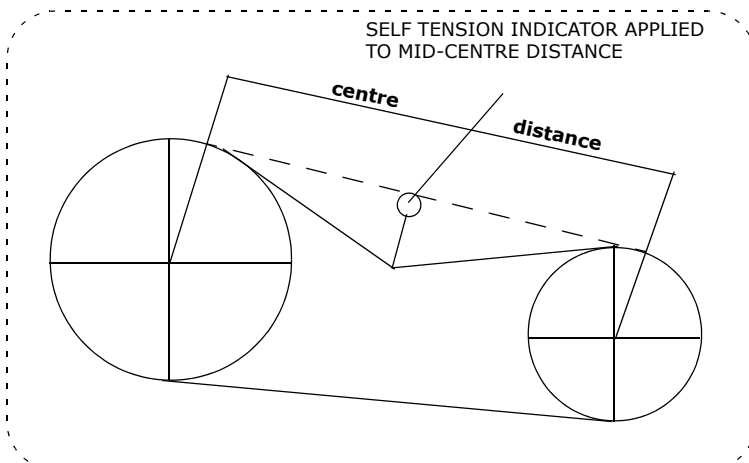
Belt deflection (mm) = 16 X M (Pulley centres in metres)

Loading:-

2 X A section belts = 1.5 Kg per belt
1 X B section belt = 2.75 Kg

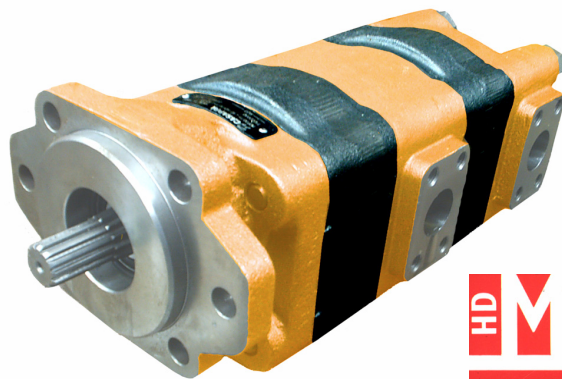
(Your Vee belt supplier can supply you with a belt tensioning indicator device.)

NB: Failure to comply with above instructions may result in damage to the Unit and may void your warranty.



GEAR PUMPS AND MOTORS

MORE POWER, LESS NOISE, LONGER LIFE.



HD MAGNUM[®]

- * **Available as:-** Single and multiple pumps, motors and flow dividers.
- * Max. Intermittent Pressures to 280 BAR (4000 PSI)
- * Max. Rotational Speeds to: 3000 RPM
- * Higher Volumetric Efficiency
- * Lower Noise Level
- * Higher Contaminant resistance
- * Bush Bearings for Longer Life
- * High Strength Cast Iron Housings

Available in 2 ranges: Magnum 30 and Magnum 35

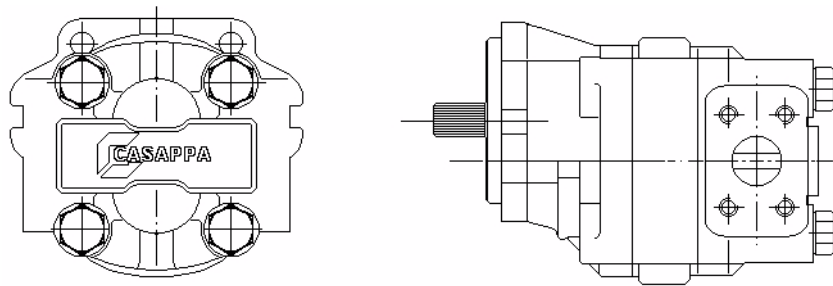
	Magnum 30 (17cc to 82cc)	Magnum 35 (50cc to 125cc)
Standard Mounting	SAE "A" & "B" 2/4 Bolt	SAE "C" 2/4 Bolt
Standard keyed shafts	7/8" & 1"	1 - 1/4"
Standard splined shafts	13T x 7/8" & 15T x 1"	14 Tooth 1 - 1/4" OD

For other options please consult our Sales Department.

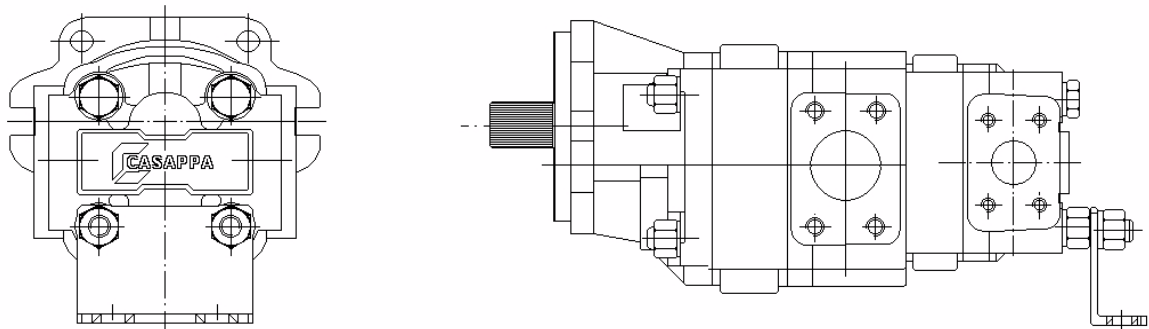
HD MAGNUM[®]

Please contact our Technical Staff regarding port options.

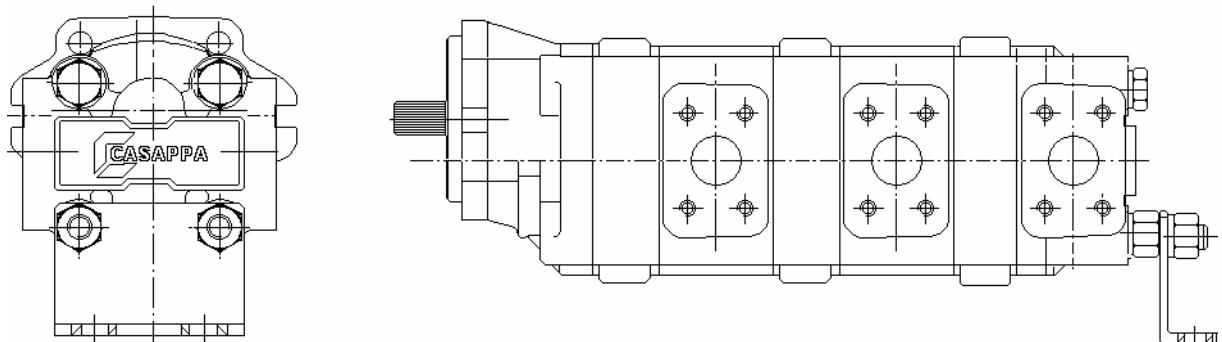
Single Pumps / Motors HDP30 and HDP35 Series



Double Pumps HDP35 to HDP30



Multiple Pumps



GEAR PUMPS - Series 30

HD MAGNUM[®]

HDP30 GEAR PUMP

SERIES 30



PUMP TYPE	Displacement cm ³ /rev	MAX PRESSURE	RPM		LIST PRICE
		P1	Max	Min	
		BAR			
HDP30-17D2-04S3-OFOD	17.20	280	3000	400	\$POA
HDP30-22D2-04S3-OFOD	21.89				\$POA
HDP30-27D1-04S3-OFOD	26.58				\$POA
HDP30-34D1-05S3-OFOD	34.39	270	2500	300	\$POA
HDP30-43D1-05S3-OGOF	43.77	260			\$POA
HDP30-51D1-05S3-OGOF	51.59	230			\$POA
HDP30-61D1-05S3-OGOF	60.97	200	2000	250	\$POA
HDP30-73D1-33S3-OGOF	73.47	190	1700		\$POA
HDP30-82D1-05S3-OGOF	81.29	170	1500		\$POA

SERIES
DISPLACEMENT CODE

HDP30 - 51 D1 - 04 53 - OGOF

Rotation Code	Shaft Code	Mount Code	Port Code
D1=C.W. SOLID SHAFT D2=C.W. INTERGRAL SHAFT	04=13 TOOTH 7/8" 05=15 TOOTH 1" 06=14 TOOTH 1 1/4" 32=7/8" KEYED 33=1" KEYED 34=1 1/4" KEYED	S1 = SAE "A" 2 BOLT S3 = SAE "B" 2/4 BOLT S8 = SAE "C" 2/4 BOLT	OD = 1 - 1/16" UNO OF = 1 - 5/16" UNO OG = 1 - 5/8" UNO SB = 3/4" C61 FLANGE SD = 1 1/4" C61 FLANGE SE = 1 1/2" C61 FLANGE
S1=C.C.W SOLID SHAFT S2=C.C.W INTERGRAL SHAFT			

GEAR PUMPS - Series 35

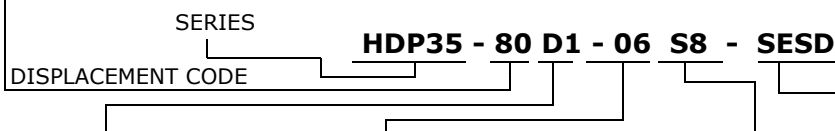
HD MAGNUM[®]

HDP35 GEAR PUMP

SERIES 35



PUMP TYPE	Displacement cm ³ /rev	MAX PRESSURE	RPM		LIST PRICE
		P1	Max	Min	
		BAR			
HDP35-50D1-06S8-SESD	50.77	270	3000	400	\$POA
HDP35-63D1-06S8-SESD	63.46				
HDP35-71D1-06S8-SESD	71.92	250			
HDP35-80D1-06S8-SESD	80.39				
HDP35-90D1-06S8-SFSE	90.96	230	2700	400	\$POA
HDP35-100D1-06S8-SFSE	99.43	210			
HDP35-112D1-06S8-SFSE	112.12	190			
HDP35-125D1-06S8-SFSE	124.81	170	2500	250	\$POA



Rotation Code	Shaft Code	Mount Code	Port Code
D1 = Counterclockwise	06 = 14 TOOTH SPLINE	S4 = SAE "B" 4 BOLT	SD = 1.1/4" C61 FLANGE
S1 = Clockwise	34 = 1 1/4" KEYED	S8 = SAE "C" 2/4 BOLT	SE = 1.1/2" C61 FLANGE
			SF = 2" C61 FLANGE

HD MAGNUM[®]

Multiple Pump Pricing

For Multiple Pump prices use the same price as single pumps for each section plus an allowance for the following additions and deductions.

Front Pump Section	List Price Addition	List Price Reduction
**HDP30 PLP20 - PRIMARY	\$POA	NIL
**HDP30 /30 - PRIMARY	\$POA	NIL
**HDP35/PLP20 - PRIMARY	\$POA	NIL
**HDP35 HDP30 - PRIMARY	\$POA	NIL
**HDP35/35 - PRIMARY	\$POA	NIL

Intermediate Pump Section	List Price Addition	List Price Reduction
**HDP30 PLP20 - INTER	\$POA	NIL
**HDP30/30 - INTER	NIL	\$POA
**HDP35/PLP20 - INTER	\$POA	NIL
**HDP35/30 - INTER	NIL	\$POA
**HDP35/35 - INTER	NIL	\$POA

Rear Pump Section	List Price Addition	List Price Reduction
PLP20	See PLP20 Page B4	NIL
**HDP30 - REAR	NIL	\$POA
**HDP35 - REAR	NIL	\$POA

NB: For multiple PLP20 series pricing refer to pages B3.

NB: The above should be used as a close guide only - Contact our Office with full details of your requirements to obtain firm pricing.

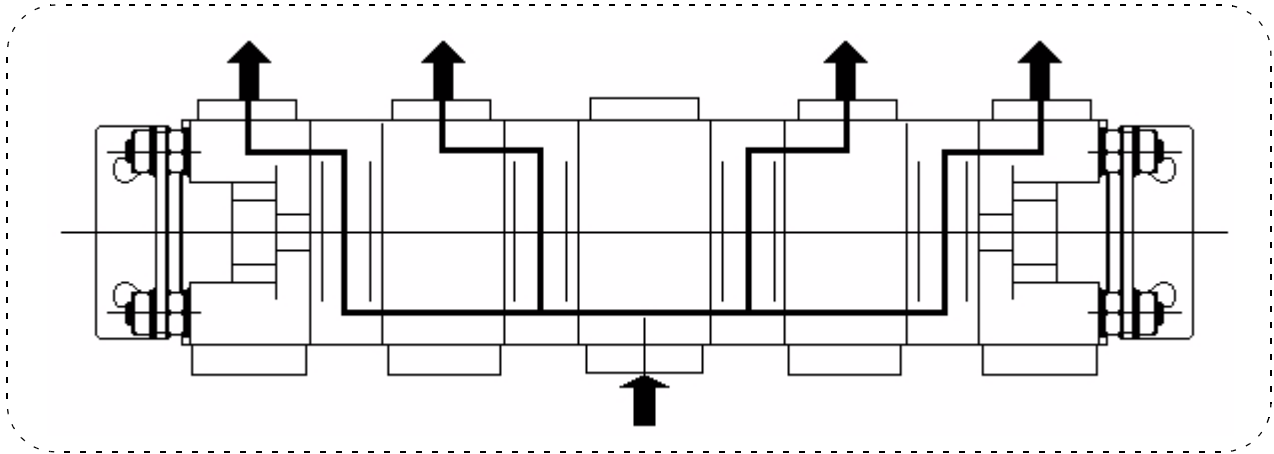
HD MAGNUM[®]

POLARIS *** MAGNUM

PLO

HDD

ROTARY FLOW DIVIDERS



Rotary flow dividers are extremely versatile fluid power components which can optimise hydraulic circuitry by reducing installation and operating costs, improving pump life and increasing the function possibilities of the circuit itself.

The flow divider has two or more independent gear sections connected by a common shaft. Fluid enters via a common feed gallery and exits via a delivery port in each gear section.

Since the gear sections all turn at the same speed, output flow from the gear sections will be proportional to their individual displacements except for small losses in volumetric efficiency.

Unlike the traditional variable orifice flow divider, rotary flow dividers do not create heat.

Flow dividers can also be utilised as pressure intensifiers.

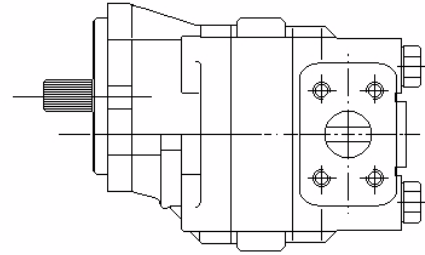
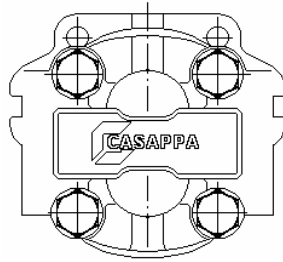
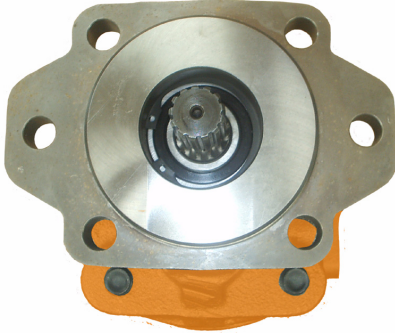
They are available in both Polaris and Magnum series.

Contact our Sales Office for further details.

Price on application.

HD MAGNUM[®]

HDM30 GEAR MOTOR



MOTOR TYPE	Displacement cm ³ /rev	MAX PRESSURE		RPM		Output kW	Torque NM	LIST PRICE
		P1				at 100 BAR and 1000 RPM		
		BAR		Max	Min			
HDM30-17R2-04S3-ODOD	17.20	238	3000	4000	2.2	21	\$POA	
HDM30-22R2-04S3-ODOD	21.89				2.7	26	\$POA	
HDM30-27R1-04S3-ODOD	26.58				3.2	31	\$POA	
HDM30-34R1-04S3-ODOD	34.39				4.4	42	\$POA	
HDM30-43R1-04S3-ODOD	43.77	230			5.4	52	\$POA	
HDM30-51R1-04S3-ODOD	51.59	221	2500	300	6.8	65	\$POA	
HDM30-61R1-04S3-ODOD	60.97	170	2000	250	7.7	74	\$POA	
HDM30-73R1-04S3-OFOF	73.47	161	1700		9.6	92	\$POA	
HDM30-82R1-04S3-OFOF	81.29	144	1500		11.0	105	\$POA	

SERIES

HDM30 - 17 R 2 - 04 S5 - ODOD

DISPLACEMENT CODE

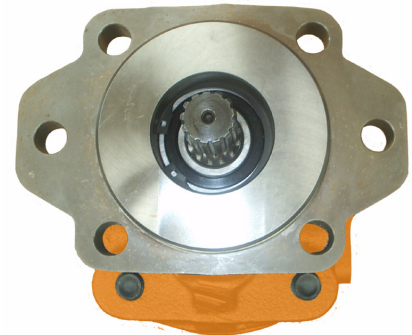
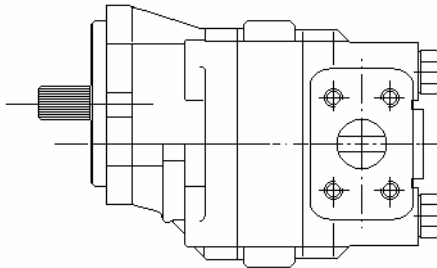
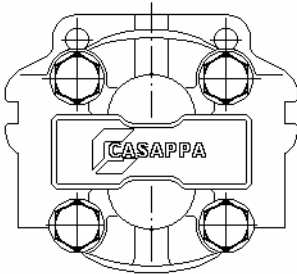
Rotation Code	SHAFT TYPE	Shaft Code	Mount Code	Port Code
S = Counterclockwise D = Clockwise R = Reversible	1 = SOLID SHAFT 2 = STUB SHAFT	04 = 7/8" 13 Tooth 05 = 1" 15 Tooth 06 = 1 1/4" 14 Tooth 32 = 7/8" Keyed 33 = 1" Keyed 34 = 1 1/4" Keyed	S1 = SAE "A" 2 BOLT S3 = SAE "B" 2/4 BOLT S8 = SAE "C" 2/4 BOLT	OD = 1 1/16" Oring Boss OF = 1 5/16" Oring Boss

NB: Listed pressures are for reversible motors, for single rotation motors refer to pump figures

NB: Output kW and torque figures are for reversible motors.

HDM35 GEAR MOTOR

HD MAGNUM[®]



MOTOR TYPE	Displacement cm ³ /rev	MAX PRESSURE	RPM		Output kW	Torque NM	LIST PRICE
		P1			at 100 BAR and 1000 RPM		
		BAR	Max	Min			
HDM35-50R1-06S8-OFOF	50.77	230	3000	400	6.3	60	\$POA
HDM35-63R1-06S8-OFOF	63.46				7.9	75	\$POA
HDM35-71R1-06S8-OFOF	71.92				9.0	86	\$POA
HDM35-80R1-06S8-OFOF	80.39	196	2700	400	10.2	97	\$POA
HDM35-90R1-06S8-OFOF	90.96				11.5	110	\$POA
HDM35-100R1-06S8-OFOF	99.43	179			13.1	125	\$POA
HDM35-112R1-06S8-OFOF	112.12	162			14.7	140	\$POA
HDM35-125R1-06S8-OFOF	124.81	145	2500	250	15.9	152	\$POA

SERIES **HDM35-50 R 1- 06 S8 - OFOF**
DISPLACEMENT CODE

Rotation Code	SHAFT TYPE	Shaft Code	Mount Code	Port Code
S = Counterclockwise D = Clockwise R = Reversible	1 = SOLID SHAFT 2 = STUB SHAFT	06 = 1 1/4" 14 Tooth 34 = 1 1/4" Keyed	S4 = SAE "B" 4 BOLT S8 = SAE "C" 2/4 BOLT	OFOF = 1 5/16" Oring Boss

NB: Listed pressures are for reversible motors, for single rotation motors refer to pump figures.

NB: Output kW and torque figures are for reversible motors.

SEAL KITS

To suit Polaris and Magnum

PUMP SEAL KITS		
SERIES	MODEL	LIST PRICE
POLARIS	SK-PLP10-81E1	\$POA
	SK-PLP10-86E7	\$POA
	SK-PLP20	\$POA
	SK-PLP30-83E3	\$POA
	SK-PLP30-SAE	\$POA
MAGNUM	SK-HDP30	\$POA
	SK-HDP35	\$POA

MOTOR SEAL KITS		
SERIES	MODEL	LIST PRICE
POLARIS	SK-PLM10-81E1-R	\$POA
	SK-PLM10-86E7	\$POA
	SK-PLM20	\$POA
	SK-PLM30-83E3-R	\$POA
	SK-PLM30-SAE-R	\$POA
MAGNUM	SK-HDM30	\$POA
	SK-HDM35	\$POA