



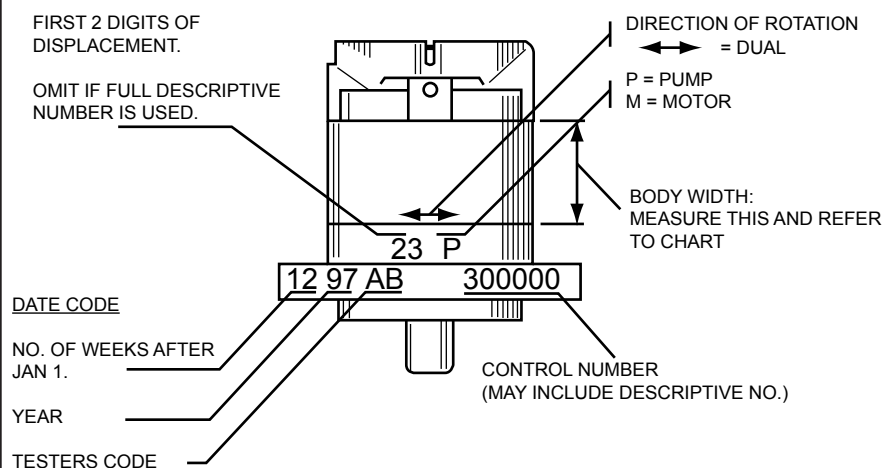
Cross Gear Pumps & Motors

Field Identification:

Direction of rotation is marked on the unit. Stock number is a 6 digit starting with 3..... (date code and partial description noted as below) stamped on the flange.

Measure width of body or gears if unable to read computer stock number.

Model	Gear Width	Body Width
40P005	0.372"	0.779"
40P007	0.558"	0.965"
40P010	0.744"	1.151"
40P012	0.930"	1.337"
40P015	1.116"	1.523"
40P018	1.339"	1.746"
50P015	0.675"	1.082"
50P019	0.867"	1.274"
50P023	1.031"	1.438"
50P027	1.218"	1.625"
50P033	1.467"	1.874"
50P038	1.689"	2.096"
50P052	2.311"	2.718"
60P040	1.015"	1.518"
60P051	1.280"	1.783"
60P061	1.545"	2.048"
60P071	1.795"	2.298"
60P081	2.045"	2.548"
60P092	2.325"	2.828"



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PERFORMANCE DATA - PUMPS: GPM/RPM						PERFORMANCE DATA - MOTORS: RPM/GPM							
RPM	1000	1500	2000	2500	3000	GPM	5	10	15	20	30	50	
MODEL	GPM	GPM	GPM	GPM	GPM	MODEL	RPM	RPM	RPM	RPM	RPM	RPM	
40P005	1.7	2.6	3.5	4.3	5.2	40M005	1732	2310					
40P007	2.8	4.1	5.5	6.9	8.3	40M007	1155						
40P010	3.7	6.5	7.4	9.2	11.0	40M010	866	1732	2599				
40P012	4.9	7.3	9.7	12.1	14.6	40M012	693	1386	2079				
40P015	5.8	8.8	11.7	14.6	17.5	40M015	577	1155	1732	2310			
40P018	7.0	10.5	14.0	17.5		40M018	481	962	1443	1925	2887		
50P015	5.9	8.8	11.8	14.6	17.8	50M015	684	1368	2052	2736			
50P019	7.6	11.4	15.2	19.0	22.8	50M019	533	1066	1599	2132			
50P023	9.0	13.6	18.1	22.6	27.1	50M023	448	896	1344	1792	2688		
50P027	10.7	16.0	21.4	26.7	32.0	50M027	379	759	1138	1518	2276		
50P033	12.9	19.3	25.7	32.1	38.6	50M033	315	630	945	1260	1890		
50P038	14.8	22.2	29.6	37.0		50M038	274	547	821	1094	1641	2736	
50P052	20.3	30.4	40.6			50M052	199	400	600	800	1199	1999	
60P040	15.8	23.7	31.6	39.4	47.3	60M040	257	513	770	1027	1540	2567	
60P051	20.1	30.1	40.1	50.2	60.2	60M051	202	404	606	807	1211	2018	
60P061	24.0	36.0	47.9	59.9	71.8	60M061	169	338	507	676	1014	1690	
60P071	27.9	41.8	55.7	69.6	83.6	60M071		291	436	582	872	1454	
60P081	31.8	47.6	63.5	79.4		60M081		255	383	510	765	1275	
60P092	36.0	54.1	72.1	90.1		60M092		225	337	450	674	1124	

Note: Above performance figures are approximate and are based on 2000 psi operating pressure. Operation on shaded areas is not recommended. Maximum speeds achievable using largest stepped port sizes. Refer to Green Catalogue page 1.02 for Pump Speed vs Port Size Limitations.





40 Series

SAE 'A' 2 Bolt Mount - 5/8" Dia. Straight Keyed Shaft

Stock No.	Model Code	Displacement		Max. Pressure		Port Size		List Price
		cu. in/rev	cc/rev	bar	psi	inlet	outlet	
360001	40PH05DACSC	0.50	8.2	207	3000	1-1/16" UNO	1-1/16" UNO	
360004	40PH07DACSC	0.75	12.3					
360005	40PH10DACSC	1.00	16.4					
360006	40PH12DACSC	1.25	20.5					
360028	40PH15DACSC	1.50	24.6					
360003	40PH18DACSC	1.80	29.5					

SAE 'A' 2 Bolt Mount - 5/8" Dia. 9 Tooth Splined Shaft

Stock No.	Model Code	Displacement		Max. Pressure		Port Size		List Price
		cu. in/rev	cc/rev	bar	psi	inlet	outlet	
360042	40PH05DAASC	0.50	8.2	207	3000	1-1/16" UNO	1-1/16" UNO	
360043	40PH07DAASC	0.75	12.3					
360047	40PH10DAASC	1.00	16.4					
360044	40PH12DAASC	1.25	20.5					
360045	40PH15DAASC	1.50	24.6					
360046	40PH18DAASC	1.80	29.5					

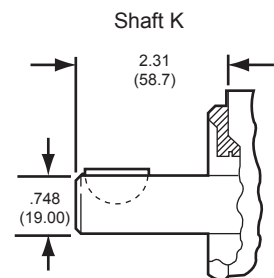
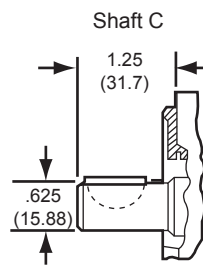
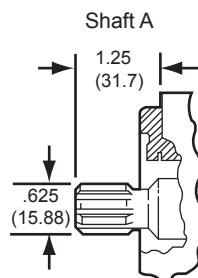
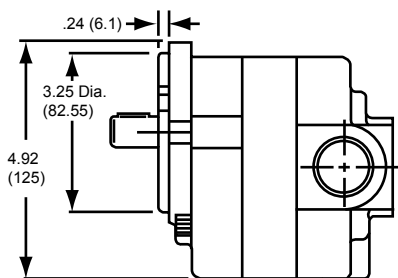
SAE 'A' 2 Bolt Mount - 3/4" Dia. Straight Keyed Shaft

Stock No.	Model Code	Displacement		Max. Pressure		Port Size		List Price
		cu. in/rev	cc/rev	bar	psi	inlet	outlet	
360187	40PH05DAKSC	0.50	8.2	207	3000	1-1/16" UNO	1-1/16" UNO	
360160	40PH07DAKSC	0.75	12.3					
360161	40PH10DAKSC	1.00	16.4					
360162	40PH12DAKSC	1.25	20.5					
360163	40PH15DAKSC	1.50	24.6					
360183	40PH18DAKSC	1.80	29.5					

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Porting Options (Optional Rear Cover) - Addition To List Price

Model Code	Stock No.	Description	Inlet	Outlet	List Price
SA	4P0007-003ADD	Side Ports	1-5/16" UNO	1-1/16" UNO	
RB	4P0007-001ADD	Rear Ports	1-5/16" UNO	1-1/16" UNO	
RD	4P0007-002ADD	Rear Ports	1-1/16" UNO	1-1/16" UNO	





50 Series

SAE 'B' 2 Bolt Mount - 7/8" Dia. Straight Keyed Shaft

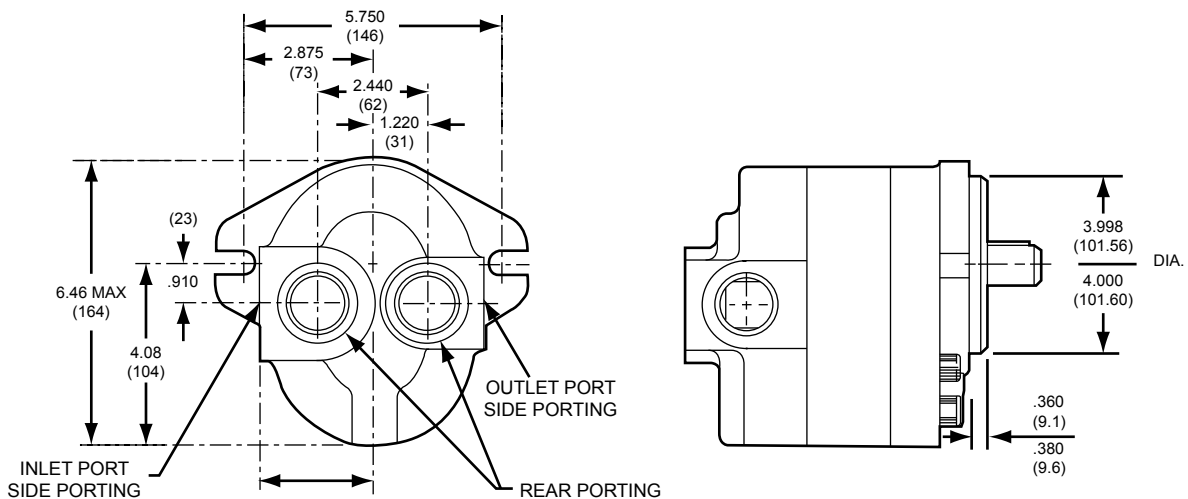
Stock No.	Model Code	Displacement		Max. Pressure		Port Size		List Price
		cu. in/rev	cc/rev	bar	psi	inlet	outlet	
300043	50PH15DBCSC	1.52	24.9	207	3000	1-5/16" UNO	1-5/16" UNO	
300022	50PH19DBCSC	1.95	32.0					
300006	50PH23DBCSC	2.32	38.0					
300044	50PH27DBCSC	2.74	44.9					
300045	50PH33DBCSC	3.36	54.1					
300007	50PH38DBCSC	3.80	62.3					
300445	50PH52DBCSC	5.20	85.2					

SAE 'B' 2 Bolt Mount - 7/8" Dia. 13 Tooth Splined Shaft

Stock No.	Model Code	Displacement		Max. Pressure		Port Size		List Price
		cu. in/rev	cc/rev	bar	psi	inlet	outlet	
300116	50PH15DBASC	1.52	24.9	207	3000	1-5/16" UNO	1-5/16" UNO	
300107	50PH19DBASC	1.95	32.0					
300135	50PH23DBASC	2.32	38.0					
300108	50PH27DBASC	2.74	44.9					
300098	50PH33DBASC	3.36	54.1					
300099	50PH38DBASC	3.80	62.3					
300428	50PH52DBASC	5.20	85.2					

Porting Options (Optional Rear Cover) - Addition To List Price

Model Code	Stock No.	Description	Inlet	Outlet	List Price
SA	5P0007-015ADD	Side Ports	1-7/8" UNO	1-5/16" UNO	
SB	5P0007-012ADD	Side Ports	1-5/8" UNO	1-5/16" UNO	
RD	5P0007-019ADD	Rear Ports	1-7/8" UNO	1-5/16" UNO	
RE	5P0007-016ADD	Rear Ports	1-5/8" UNO	1-5/16" UNO	
RF	5P0007-008ADD	Rear Ports	1-5/16" UNO	1-5/16" UNO	





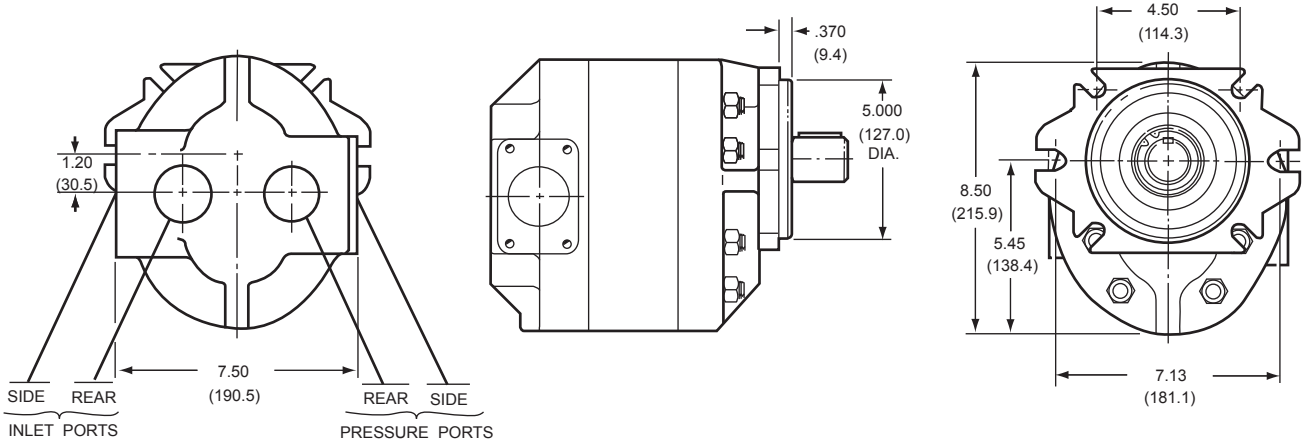
60 Series

SAE 'C' 2 Bolt Mount - 1-1/4" Dia. Straight Keyed Shaft

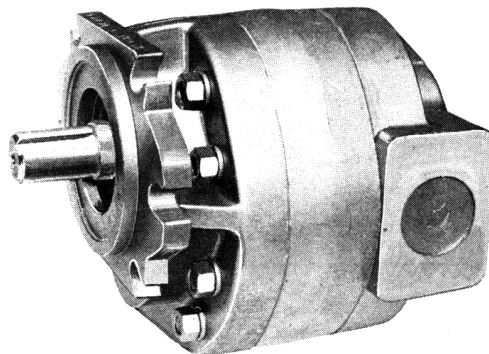
Stock No.	Model Code	Displacement		Max. Pressure		Port Size		List Price
		cu. in/rev	cc/rev	bar	psi	inlet	outlet	
330012	60PB61DCCSF	6.15	100.8	207	3000	1-7/8" UNO	1-7/8" UNO	
330005	60PB71DCCSF	7.15	117.2					
330009	60PB81DCCSF	8.15	133.6					
330010	60PB92DCCSF	9.25	151.6					

SAE 'C' 2 Bolt Mount - 1-1/4" Dia. 14 Tooth Splined Shaft

Stock No.	Model Code	Displacement		Max. Pressure		Port Size		List Price
		cu. in/rev	cc/rev	bar	psi	inlet	outlet	
330029	60PB61DCASF	6.15	100.8	207	3000	1-7/8" UNO	1-7/8" UNO	
330030	60PB71DCASF	7.15	117.2					
330055	60PB81DCASF	8.15	133.6					
330044	60PB92DCASF	9.25	151.6					



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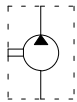




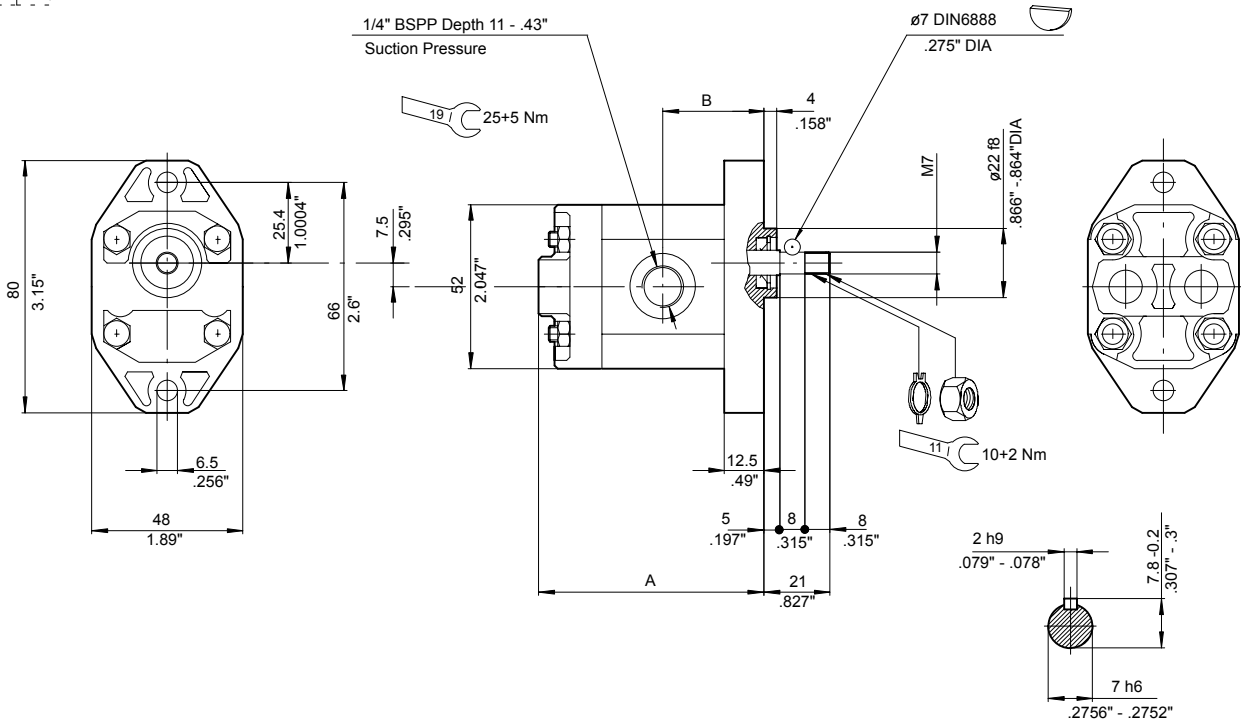
AP05 Series

DIN Group 05 - 2 Bolt Mount - Parallel Shaft

Stock No.	Model Code	Displacement	Dimension mm		Port Size		List Price
		cc/rev	A	B	Inlet	Outlet	
100261204	AP05/0.25D810	0.25	64.5	29.0	1/4" BSPP	1/4" BSPP	
100361202	AP05/0.5D810	0.50	67.0	30.5			
100461202	AP05/0.75D810	0.75	69.0	31.5			
100561202	AP05/0.9D810	0.90	70.5	32.0			



Group **AP05** Code **810**



AP05	Displacement		Maximum Pressure						Min. RPM		Max. RPM	
			P1		P2		P3		P<P1	P>P1	P<P1	P>P1
			bar	psi	bar	psi	bar	psi				
Type	cc/rev	Cu.in/rev										
AP05/0.25	0.25	.0125	190	2700	200	2900	22	3150	800	1000	6000	7000
AP05/0.5	0.5	.030	210	3000	230	3300	25	3600	650	800	6000	7000
AP05/0.75	0.75	.045	210	3000	230	3300	25	3600	650	800	6000	7000
AP05/0.9	0.9	.055	210	3000	230	3300	25	3600	650	800	6000	7000
AP05/1.2	1.2	.073	190	2700	200	2900	22	3150	550	700	5000	6000

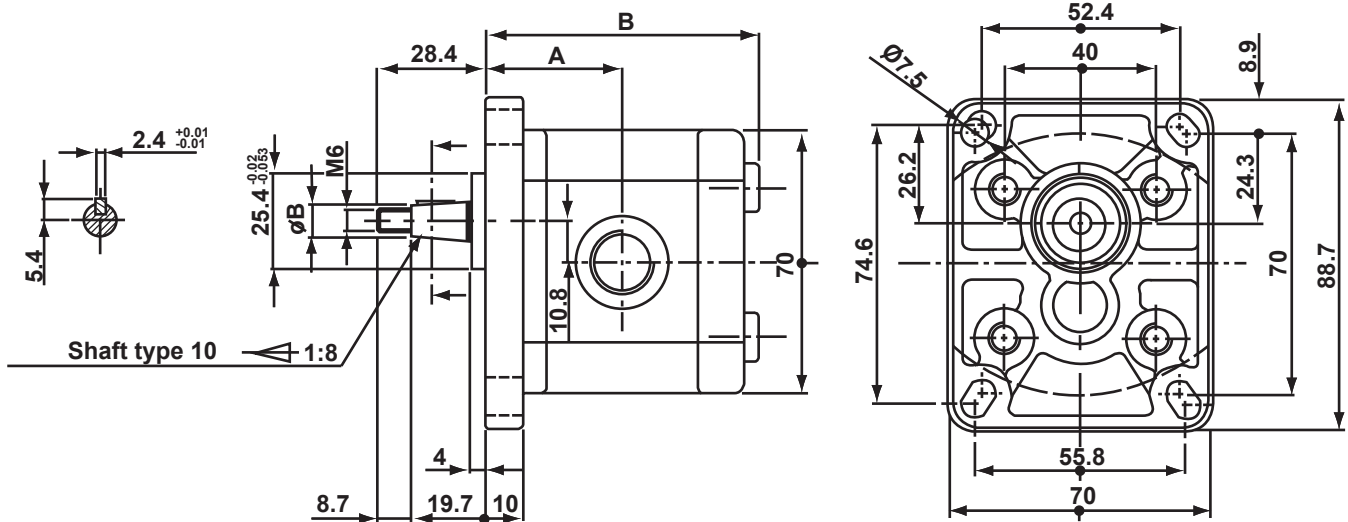
P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure
P3 = Peak Pressure



1SPA Series

DIN Group 1 - 4 Bolt Mount - 1:8 Taper Shaft

Stock No.	Displacement cc/rev	Dimension mm		Max. Speed RPM	Max. Pressure Bar			Port Size	List Price
		A	B		P1	P2	P3		
1SPA09D10GG	0.89	34.8	70.4	6000	240	260	290	3/8" BSPP	
1SPA12D10GG	1.18	35.35	74.2	6000	240	260	290		
1SPA16D10GG	1.60	36.2	74.4	6000	240	260	290		
1SPA20D10GG	2.00	36.95	74.7	5500	220	250	270		
1SPA25D10GG	2.50	37.95	79.4	5000	220	250	270		
1SPA32D10GG	3.20	39.3	79.4	4500	210	240	260		
1SPA37D10GG	3.70	40.3	84.1	4000	210	240	260		
1SPA42D10GG	4.20	41.25	84.5	3500	190	210	230		
1SPA50D10GG	5.00	42.8	89.1	3000	180	210	230		
1SPA63D10GG	6.30	45.35	94.2	2700	170	190	210		
1SPA78D10GG	7.76	48.2	99.9	2500	170	190	210		
1SPA98D10GG	9.78	52.15	105.1	2000	150	170	190		



Type	Displacement cm ³ /rev	Max Speed RPM	Max Flow ltr/min	Min Speed RPM	Min Flow ltr/min	Volumetric Output
1SP 0.9	0.89	6000	5.3	600	0.49	92%
1SP 1.2	1.18	6000	7.1		0.65	
1SP 1.6	1.69	6000	9.6		0.61	
1SP 2.0	2.0	5500	11	400	0.76	95%
1SP 2.5	2.5	5000	12.5		0.95	
1SP 3.2	3.2	4500	14.4		1.21	
1SP 3.7	3.7	4000	14.8		1.40	
1SP 4.2	4.2	3500	14.7		1.60	
1SP 5.0	5.0	3000	15		1.90	
1SP 6.3	6.3	2700	17		2.39	
1SP 7.8	7.76	2500	19.4		2.95	
1SP 9.8	9.78	2000	19.6		3.71	

P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure
P3 = Peak Pressure



1SPA Series

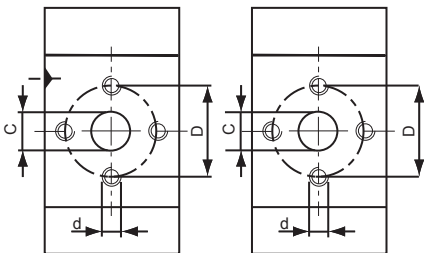
DIN Group 1 - 4 Bolt Mount - 1:8 Taper Shaft

Stock No.	Displacement cc/rev	Dimension mm		Max. Speed RPM	Max. Pressure Bar			Port Size	List Price
		A	B		P1	P2	P3		
1SPA09D10NN	0.89	34.8	70.4	6000	240	260	290	Refer to table below.	
1SPA12D10NN	1.18	35.35	74.2	6000	240	260	290		
1SPA16D10NN	1.60	36.2	74.4	6000	240	260	290		
1SPA20D10NN	2.00	36.95	74.7	5500	220	250	270		
1SPA25D10NN	2.50	37.95	79.4	5000	220	250	270		
1SPA32D10NN	3.20	39.3	79.4	4500	210	240	260		
1SPA37D10NN	3.70	40.3	84.1	4000	210	240	260		
1SPA42D10NN	4.20	41.25	84.5	3500	190	210	230		
1SPA50D10NN	5.00	42.8	89.1	3000	180	210	230		
1SPA63D10NN	6.30	45.35	94.2	2700	170	190	210		
1SPA78D10NN	7.76	48.2	99.9	2500	170	190	210		
1SPA98D10NN	9.78	52.15	105.1	2000	150	170	190		

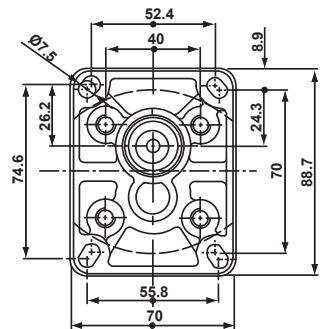
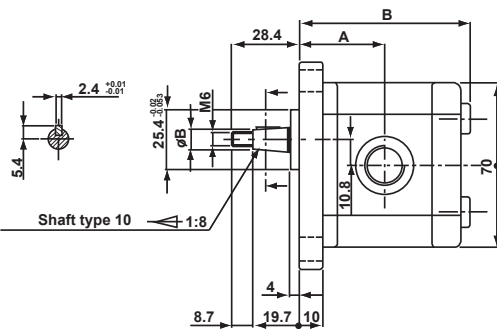
TYPE NN

SUCTION

DELIVERY



Type	C	D	d
0.9 - 2.0	10	26	M5
2.5 - 9.8	13	30	M6



Type	Displacement cm ³ /rev	Max Speed RPM	Max Flow ltr/min	Min Speed RPM	Min Flow ltr/min	Volumetric Output
1SP 0.9	0.89	6000	5.3	600	0.49	92%
1SP 1.2	1.18	6000	7.1		0.65	
1SP 1.6	1.69	6000	9.6		0.61	
1SP 2.0	2.0	5500	11	400	0.76	95%
1SP 2.5	2.5	5000	12.5		0.95	
1SP 3.2	3.2	4500	14.4		1.21	
1SP 3.7	3.7	4000	14.8		1.40	
1SP 4.2	4.2	3500	14.7		1.60	
1SP 5.0	5.0	3000	15		1.90	
1SP 6.3	6.3	2700	17		2.39	
1SP 7.8	7.76	2500	19.4		2.95	
1SP 9.8	9.78	2000	19.6		3.71	

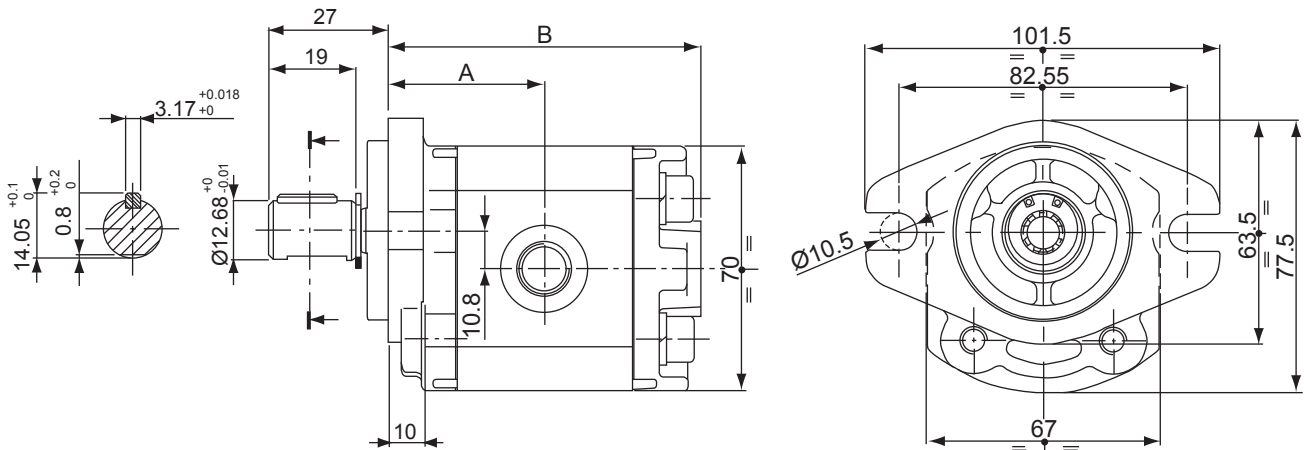
P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure
P3 = Peak Pressure



1SPA Series

SAE AA Group 1 - 2 Bolt Mount - 1/2" Dia. Straight Keyed Shaft

Stock No.	Displacement cc/rev	Dimension mm		Max. Speed RPM	Max. Pressure Bar			Port Size	List Price
		A	B		P1	P2	P3		
1SPA09DSAEAA13U	0.89	38.3	77.1	6000	240	260	290	9/16" UNO	
1SPA12DSAEAA13U	1.18	38.8	78.2	6000	240	260	290		
1SPA16DSAEAA13U	1.60	39.7	79.9	6000	240	260	290		
1SPA20DSAEAA13U	2.00	40.4	81.4	5500	220	250	270	3/4" UNO	
1SPA25DSAEAA13U	2.50	41.4	83.4	5000	220	250	270		
1SPA32DSAEAA13U	3.20	42.8	86.1	4500	210	240	260		
1SPA37DSAEAA13U	3.70	43.8	88.1	4000	210	240	260		
1SPA42DSAEAA13U	4.20	44.7	90.0	3500	190	210	230		
1SPA50DSAEAA13U	5.00	46.3	93.1	3000	180	210	230		
1SPA63DSAEAA13U	6.30	48.8	98.2	2700	170	190	210		
1SPA78DSAEAA13U	7.76	51.7	103.9	2500	170	190	210		
1SPA98DSAEAA13U	9.78	55.6	111.8	2000	150	170	190		



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Type	Displacement cm ³ /rev	Max Speed RPM	Max Flow ltr/min	Min Speed RPM	Min Flow ltr/min	Volumetric Output
1SP 0.9	0.89	6000	5.3	600	0.49	92%
1SP 1.2	1.18	6000	7.1		0.65	
1SP 1.6	1.69	6000	9.6		0.61	
1SP 2.0	2.0	5500	11	400	0.76	95%
1SP 2.5	2.5	5000	12.5		0.95	
1SP 3.2	3.2	4500	14.4		1.21	
1SP 3.7	3.7	4000	14.8		1.40	
1SP 4.2	4.2	3500	14.7		1.60	
1SP 5.0	5.0	3000	15		1.90	
1SP 6.3	6.3	2700	17		2.39	
1SP 7.8	7.76	2500	19.4		2.95	
1SP 9.8	9.78	2000	19.6	3.71		

P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure
P3 = Peak Pressure



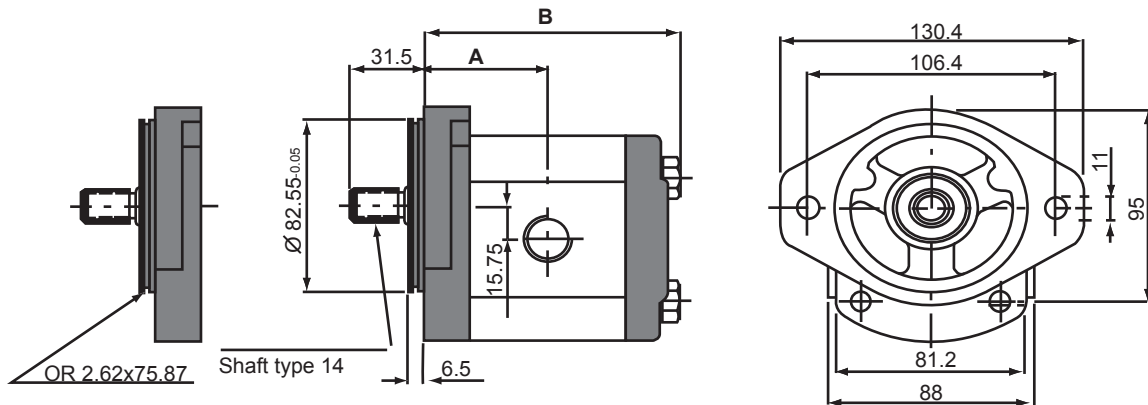
HC2P Series

SAE 'A' - 2 Bolt Mount - 5/8" Dia. Straight Keyed Shaft - Cast Iron End Covers

Stock No.	Model Code	Displacement	Ports		Dimension mm		Max. Speed RPM	Max. Pressure Bar			List Price
		cc/rev	Inlet	Outlet	A	B		P1	P2	P3	
HC02P00040	HC02PG4DSAE13U	4.0	7/8" UNO	7/8" UNO	44.4	93.0	4000	280	300	320	
HC02P00041	HC02PG6DSAE13U	6.0			46.0	96.3	4000	280	300	320	
HC02P00042	HC02PG8DSAE13U	8.5			48.1	100.5	3500	280	300	320	
HC02P00043	HC02PG11DSAE13U	11.0	1-1/16" UNO	7/8" UNO	50.2	104.6	3500	280	300	320	
HC02P00044	HC02PG14DSAE13U	14.0			52.7	109.6	3500	270	280	290	
HC02P00100	HC02PG16DSAE13U	16.5			54.8	113.8	3500	230	240	250	
HC02P00045	HC02PG19DSAE13U	19.5			57.3	118.8	3300	210	220	230	
HC02P00046	HC02PG22DSAE13U	22.5			59.8	123.8	2800	190	200	210	
HC02P00047	HC02PG26DSAE13U	26.0	62.7	129.6	2500	170	180	190			

SAE 'A' - 2 Bolt Mount - 5/8" Dia. 9 Tooth Splined Shaft - Cast Iron End Covers

Stock No.	Model Code	Displacement	Ports		Dimension mm		Max. Speed RPM	Max. Pressure Bar			List Price
		cc/rev	Inlet	Outlet	A	B		P1	P2	P3	
HC02P00048	HC02PG4DSAE14U	4.0	7/8" UNO	7/8" UNO	44.4	93.0	4000	280	300	320	
HC02P00049	HC02PG6DSAE14U	6.0			46.0	96.3	4000	280	300	320	
HC02P00050	HC02PG8DSAE14U	8.5			48.1	100.5	3500	280	300	320	
HC02P00051	HC02PG11DSAE14U	11.0	1-1/16" UNO	7/8" UNO	50.2	104.6	3500	280	300	320	
HC02P00052	HC02PG14DSAE14U	14.0			52.7	109.6	3500	270	280	290	
HC02P00099	HC02PG16DSAE14U	16.5			54.8	113.8	3500	230	240	250	
HC02P00053	HC02PG19DSAE14U	19.5			57.3	118.8	3300	210	220	230	
HC02P00054	HC02PG22DSAE14U	22.5			59.8	123.8	2800	190	200	210	
HC02P00055	HC02PG26DSAE14U	26.0	62.7	129.6	2500	170	180	190			



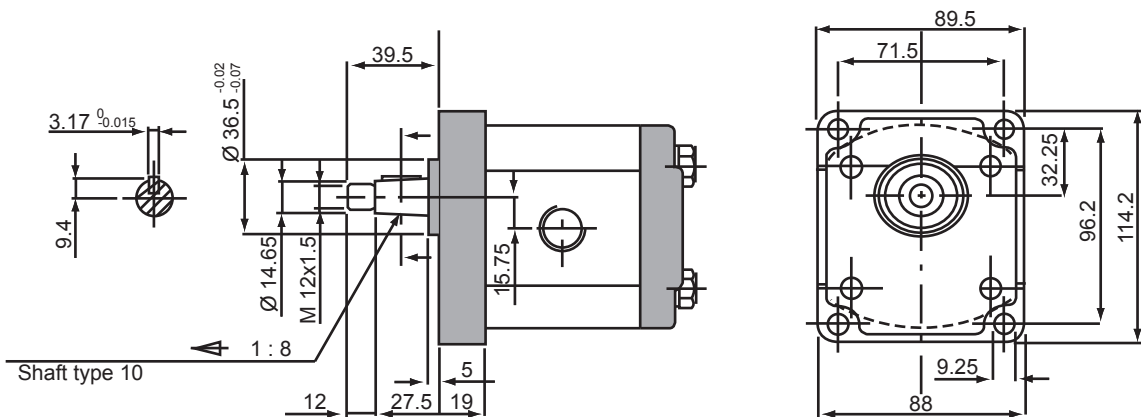
P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure
P3 = Peak Pressure



HC2P Series

DIN Group 2 - 4 Bolt Mount - 1:8 Taper Shaft - Cast Iron End Covers

Stock No.	Model Code	Displacement	Ports		Dimension mm		Max. Speed RPM	Max. Pressure Bar			List Price
		cc/rev	Inlet	Outlet	A	B		P1	P2	P3	
HC02P00056	HC02PG4DSTND10U	4.0	7/8" UNO	7/8" UNO	44.4	93.0	4000	280	300	320	
HC02P00057	HC02PG6DSTND10U	6.0			46.0	96.3	4000	280	300	320	
HC02P00058	HC02PG8DSTND10U	8.5			48.1	100.5	3500	280	300	320	
HC02P00059	HC02PG11DSTND10U	11.0	1-1/16" UNO	7/8" UNO	50.2	104.6	3500	280	300	320	
HC02P00060	HC02PG14DSTND10U	14.0			52.7	109.6	3500	270	280	290	
HC02P00061	HC02PG16DSTND10U	16.5			54.8	113.8	3500	230	240	250	
HC02P00062	HC02PG19DSTND10U	19.5			57.3	118.8	3300	210	220	230	
HC02P00063	HC02PG22DSTND10U	22.5			59.8	123.8	2800	190	200	210	
HC02P00064	HC02PG26DSTND10U	26.0			62.7	129.6	2500	170	180	190	



Type	Displacement	Max. Speed	Max Flow LPM	Min. Speed	Min. Flow LPM	Volumetric Output	Weight Kgs
HC 2P 4	4.0	4000	15.20	500 RPM	1.9	95%	3.40
HC 2P 6	6.0	4000	22.8		2.85		3.55
HC 2P 8	8.5	3500	28.26		4.03		3.70
HC 2P 11	11.0	3500	36.57		5.22		3.80
HC 2P 14	14.0	3500	46.55		6.65		3.90
HC 2P 16	16.5	3500	54.86		7.83		4.05
HC 2P 19	19.5	3300	61.13		9.26		4.20
HC 2P 22	22.5	2800	59.85		10.68		4.35
HC 2P 26	26.0	2500	61.75		12.35		4.50

SAE / DIN Group 2 Accessories

Stock No.	Description	Pressure	Vent	List Price
0029CVLPIB	Rear Cover c/w Relief	10 - 100 bar	P to T	add
0029CVLPIN	Rear Cover c/w Relief	40 - 200 bar	P to T	add
0029CVLPIR	Rear Cover c/w Relief	180 - 350 bar	P to T	add

P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure
P3 = Peak Pressure

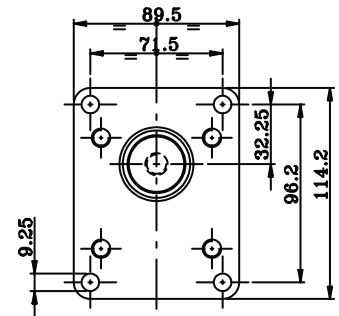
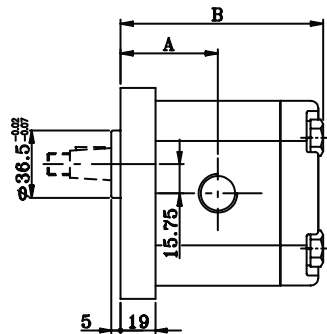
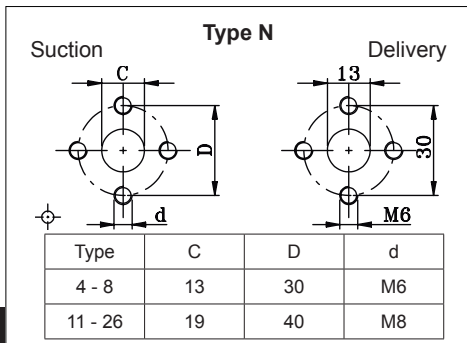




2SPA Series

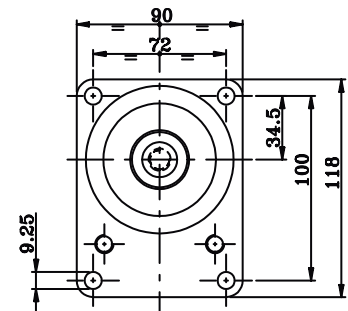
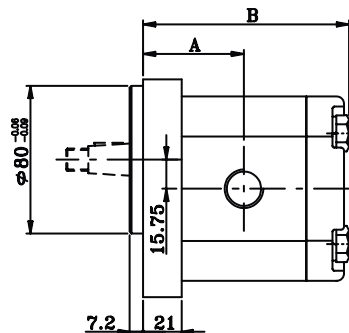
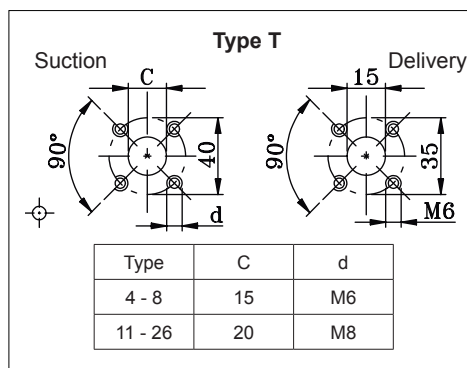
DIN Group 2 - 4 Bolt Mount - 1:8 Taper Shaft

Stock No.	Model Code	Displacement cc/rev	Port Adaptors		Dimension mm		Max. Speed RPM	Max. Pressure Bar			List Price
			Inlet	Outlet	A	B		P1	P2	P3	
2SPA4D10N	HC02SPA4D10N	4.0	FG1230	FG1230	44.4	93.0	4000	280	300	320	
2SPA6D10N	HC02SPA6D10N	6.0			46.0	96.3	4000	280	300	320	
2SPA8D10N	HC02SPA8D10N	8.5			48.1	100.5	3500	280	300	320	
2SPA11D10N	HC02SPA11D10N	11.0	FG3440	FG1230	50.2	104.6	3500	280	300	320	
2SPA14D10N	HC02SPA14D10N	14.0			52.7	109.6	3500	270	280	290	
2SPA16D10N	HC02SPA16D10N	16.5			54.8	113.8	3500	230	240	250	
2SPA19D10N	HC02SPA19D10N	19.5			57.3	118.8	3300	210	220	230	
2SPA22D10N	HC02SPA22D10N	22.5			59.8	123.8	2800	190	200	210	
2SPA26D10N	HC02SPA26D10N	26.0			62.7	129.6	2500	170	180	190	



Bosch Group 2 - 4 Bolt Mount - 1:5 Taper Shaft

Stock No.	Model Code	Displacement cc/rev	Port Adaptors		Dimension mm		Max. Speed RPM	Max. Pressure Bar			List Price		
			Inlet	Outlet	A	B		P1	P2	P3			
2SPA4DB80C11T	HC02SPA4DB80C11T	4.0	FG 121	FG 121	46.4	95	4000	280	300	320			
2SPA6DB80C11T	HC02SPA6DB80C11T	6.0			BKAL	BKAL	48	98.3	4000	280	300	320	
2SPA8DB80C11T	HC02SPA8DB80C11T	8.5	FG 122	FG 121	50.1	102.5	3500	280	300	320			
2SPA11DB80C11T	HC02SPA11DB80C11T	11.0			BKAL	BKAL	52.2	106.6	3500	280	300	320	
2SPA14DB80C11T	HC02SPA14DB80C11T	14.0			BKAL	BKAL	54.7	111.6	3500	270	280	290	
2SPA16DB80C11T	HC02SPA16DB80C11T	16.5					56.8	115.8	3500	230	240	250	
2SPA19DB80C11T	HC02SPA19DB80C11T	19.5					59.3	120.8	3300	210	220	230	
2SPA22DB80C11T	HC02SPA22DB80C11T	22.5					61.8	125.8	2800	190	200	210	
2SPA26DB80C11T	HC02SPA26DB80C11T	26.0	64.7	131.6	2500	170	180	190					



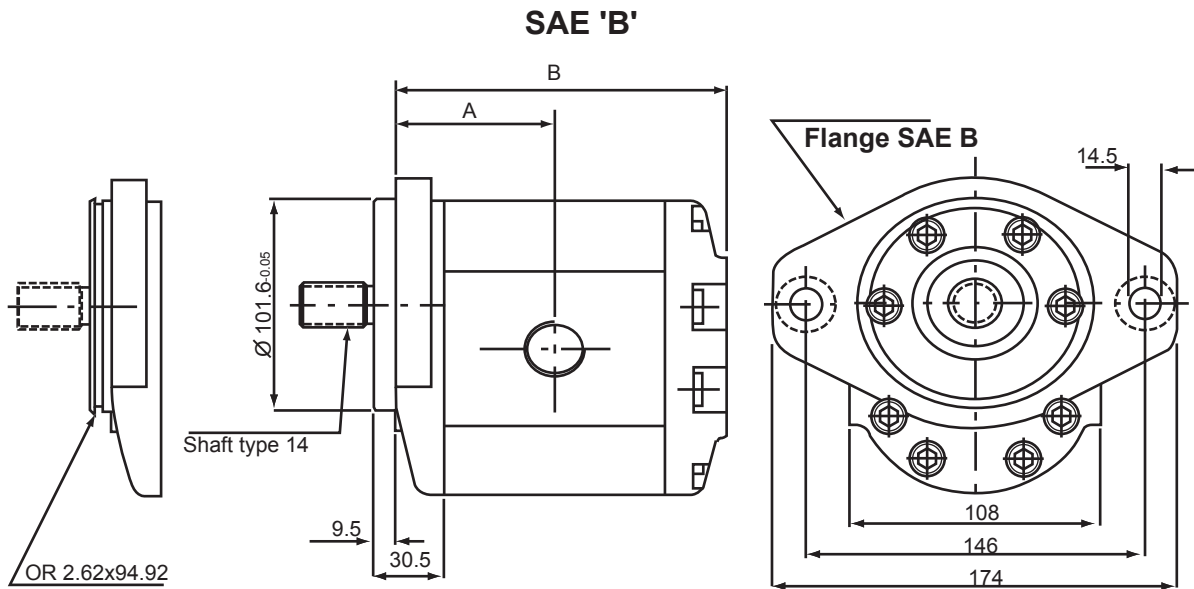
P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure
P3 = Peak Pressure



HC3P Series

SAE 'B' 2 Bolt Mount - 7/8" Dia. Straight Keyed Shaft - Aluminium End Covers

Stock No.	Model Code	Displacement	Ports		Dimension mm		Max. Speed RPM	Max. Pressure Bar			List Price
		cc/rev	Inlet	Outlet	A	B		P1	P2	P3	
3SPA19DSAEB13W	HC03P19DSAEB13W	19	1-5/16" UNO	1-1/16" UNO	59.4	125.3	3500	250	270	300	
HC03P00040	HC03P22DSAEB13W	22.3			60.9	128.3	3500	240	260	290	
HC03P00027	HC03P29DSAEB13W	29.3			63.9	134.3	3300	220	240	260	
3SPA33DSAEB13W	HC03P33DSAEB13W	32.9			65.4	137.3	3300	220	230	260	
HC03P00028	HC03P36DSAEB13W	36.4			66.9	140.3	3300	210	230	250	
HC03P00029	HC03P44DSAEB13W	43.5			69.9	146.3	3000	200	220	240	
HC03P00030	HC03P52DSAEB13W	51.7			73.4	153.3	3000	200	210	240	
3SPA62DSAEB13W	HC03P62DSAEB13W	61.1			77.4	161.3	2500	180	190	200	



SAE 'B' 2 Bolt Mount - 7/8" Dia. 13 Tooth Splined Shaft - Aluminium End Covers

Stock No.	Model Code	Displacement	Ports		Dimension mm		Max. Speed RPM	Max. Pressure Bar			List Price
		cc/rev	Inlet	Outlet	A	B		P1	P2	P3	
3SPA19DSAEB14W	HC03P19DSAEB13W	19	1-5/16" UNO	1-1/16" UNO	59.4	125.3	3500	250	270	300	
HC03P00035	HC03P22DSAEB14W	22.3			60.9	128.3	3500	240	260	290	
HC03P00036	HC03P29DSAEB14W	29.3			63.9	134.3	3300	220	240	260	
3SPA33DSAEB14W	HC03P33DSAEB13W	32.9			65.4	137.3	3300	220	240	260	
HC03P00037	HC03P36DSAEB14W	36.4			66.9	140.3	3300	210	230	250	
HC03P00038	HC03P44DSAEB14W	43.5			69.9	146.3	3000	200	220	240	
HC03P00039	HC03P52DSAEB14W	51.7			73.4	153.3	3000	200	210	240	
3SPA62DSAEB14W	HC03P62DSAEB14W	61.1			77.4	161.3	2500	180	190	200	

P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure
P3 = Peak Pressure

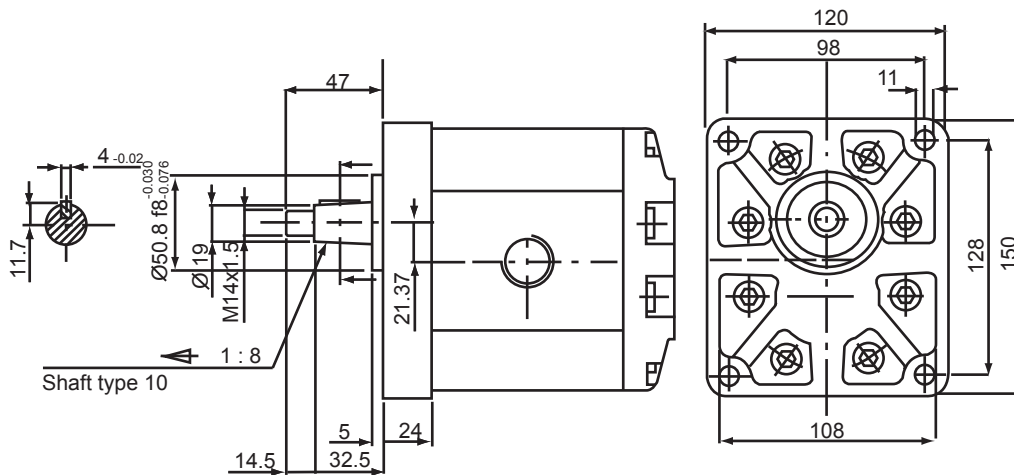
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HC3P Series

DIN Group 3 - 4 Bolt Mount - 1:8 Taper Shaft - Aluminium End Covers

Stock No.	Model Code	Displacement cc/rev	Ports		Dimension mm		Max. Speed RPM	Max. Pressure Bar			List Price
			Inlet	Outlet	A	B		P1	P2	P3	
3SPA19D10W	HC03P19DSTND10W	19	1-5/16" UNO	1-1/16" UNO	62.4	128.3	3500	250	270	300	
HC03P00041	HC03P22DSTND10W	22.3			63.9	131.3	3500	240	260	290	
HC03P00023	HC03P29DSTND10W	29.3			66.9	137.3	3300	220	240	260	
3SPA33D10W	HC03P33DSTND10W	32.9			68.4	140.3	3300	220	230	260	
HC03P00024	HC03P36DSTND10W	36.4			69.9	143.3	3300	210	230	250	
HC03P00025	HC03P44DSTND10W	43.5			72.9	149.3	3000	200	220	240	
HC03P00026	HC03P52DSTND10W	51.7			76.4	156.3	3000	200	210	240	
3SPA62D10W	HC03P62DSTND10W	61.1			80.4	164.3	2500	180	190	200	



Type	Displacement	Max. Speed	Max Flow LPM	Min. Speed	Min. Flow LPM	Volumetric Output	Weight Kgs
HC 3P 19	19.0	3500	66.50	700 RPM	13.30	92%	5.23
HC 3P 22	22.3	3500	71.80		14.36		5.43
HC 3P 29	29.3	3300	88.95		18.86		5.68
HC 3P 33	32.9	3300	108.00		23.00		5.78
HC 3P 36	36.4	3300	110.51		23.44		5.90
HC 3P 44	43.5	3000	120.06		28.01		6.25
HC 3P 52	51.7	3000	142.69		33.29		6.58
HC 3P 62	61.1	2500	152.75		42.70		6.87

DIN Group 3 Accessories

Stock No.	Description	Pressure	Vent	List Price
0039CVLPB	Rear Cover c/w Relief	20 - 100 bar	P to T	add
0039CVLPN	Rear Cover c/w Relief	40 - 200 bar	P to T	add
0039CVLPR	Rear Cover c/w Relief	180 - 350 bar	P to T	add

P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure
P3 = Peak Pressure



HC Series Multiple Gear Pumps

Stock No.	Description		List Price
41300049A	Group 1 + Group 1 Adaptor Kit	<p>Kit Part Number: 41300049A</p>	
413000050	Group 2 + Group 1 Adaptor Kit	<p>Kit Part Number: 413000050</p>	
413000057	Group 2 + Group 2 Adaptor Kit	<p>Kit Part Number: 413000057</p>	
413000058A	Group 3 + Group 1 Adaptor Kit	<p>Kit Part Number: 413000058A</p>	
413000077	Group 3 + Group 2 Adaptor Kit	<p>Kit Part Number: 413000077</p>	
413000076	Group 3 + Group 3 Adaptor Kit	<p>Kit Part Number: 413000076</p>	

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Technical Features

- * Performance of units in multiple pump applications are the same as single pump.
- * Maximum rotation speed of multiple pumps is governed by the slower pump.
- * Maximum allowable torque is calculated using the following formula.

$$T = \frac{D \times P}{64}$$

Where: T = Maximum allowable input torque (Nm)
 D = Combined pump displacements (cm³/rev)
 P = Maximum working pressure (bar)

Maximum allowable input torque	
Group 1	18 Nm
Group 2	98 Nm
Group 3	240 Nm



K1PS G Series Pumps

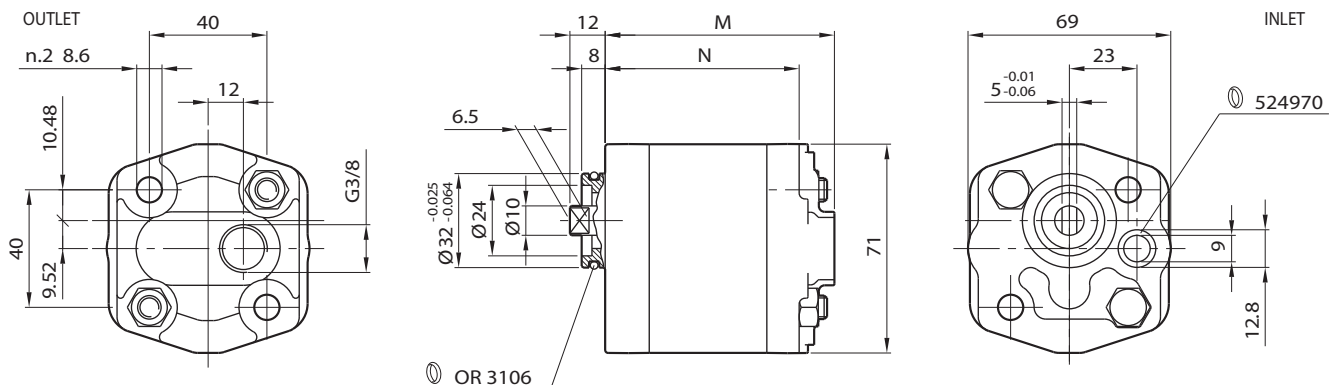
Group 1 - Power Pack Style - Tang Drive - Front Manifold P

Stock No.	Displacement cc/rev	Ports		Dimension mm		Max. Speed RPM	Max. Pressure Bar			List Price
		Inlet	Outlet	N	M		P1	P2	P3	
K2507PA014	0.84	3/8" BSPP	9 Ø	74	62	6000	230	250	270	
K1PS16G	1.1			75	62	6000	230	250	270	
K1PS2G	1.3			75	63	6000	230	250	270	
K1PS25G	1.6			76	64	6000	230	250	270	
K1PS33G	2.1			78	66	6000	230	250	270	
K1PS42G	2.7			80	68	5000	210	230	250	
K1PS5G	3.2			82	70	4500	210	230	250	
K1PS58G	3.7			84	72	4000	210	230	250	
K1PS67G	4.2			86	74	3500	190	210	230	
K1PS75G	4.8			88	76	3000	190	210	230	
K1PS92G	5.8			92	80	2100	160	180	200	
K1PS115G	8.0			100	88	2100	160	180	200	
C164088000	9.8			120	95	2100	160	180	200	



Left Hand Rotation

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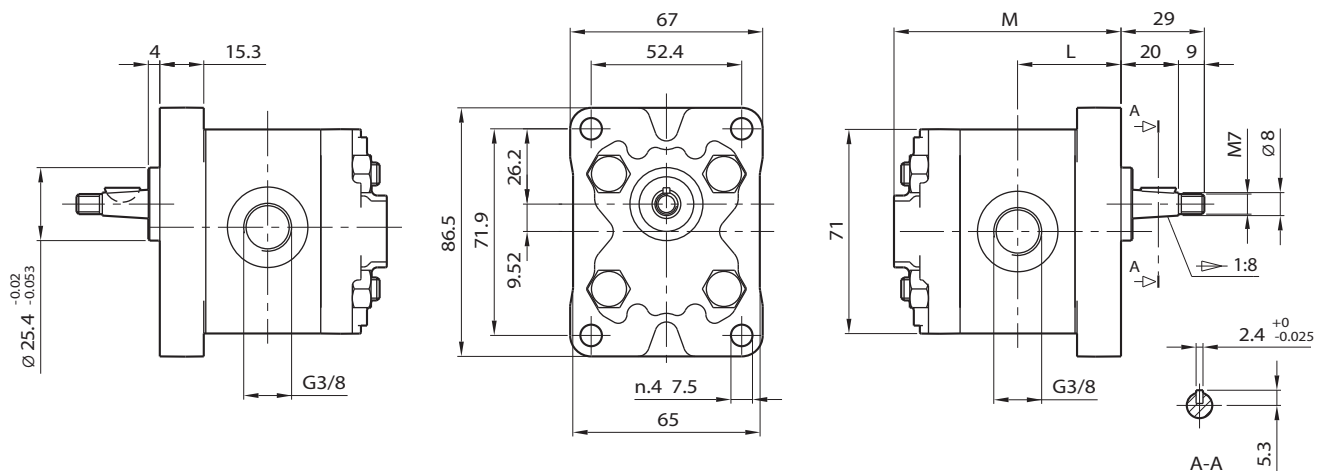
P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure
P3 = Peak Pressure



1P Series Pumps

DIN Group 1 - 4 Bolt Mount - 1:8 Taper Shaft - Aluminium

Stock No.	Displacement cc/rev	Ports		Dimension mm		Max. Speed RPM	Max. Pressure Bar			List Price
		Inlet	Outlet	L	M		P1	P2	P3	
1PD16GAS	1.1	3/8" BSPP	3/8" BSPP	34	75	6000	230	250	270	
1PD2GAS	1.3			34.5	76	6000	230	250	270	
1PD25GAS	1.6			35	77	6000	230	250	270	
1PD33GAS	2.1			36	79	6000	230	250	270	
1PD42GAS	2.7			37	81	6000	230	250	270	
1PD5GAS	3.2			38	83	5000	210	230	250	
1PD58GAS	3.7			39	85	4500	210	230	250	
1PD67GAS	4.2			40	87	4000	210	230	250	
1PD75GAS	4.8			41	89	3500	190	210	230	
1PD92GAS	5.8			43	93	3000	190	210	230	
1PD115GAS	8.0			47	101	2100	160	180	200	



P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure
P3 = Peak Pressure



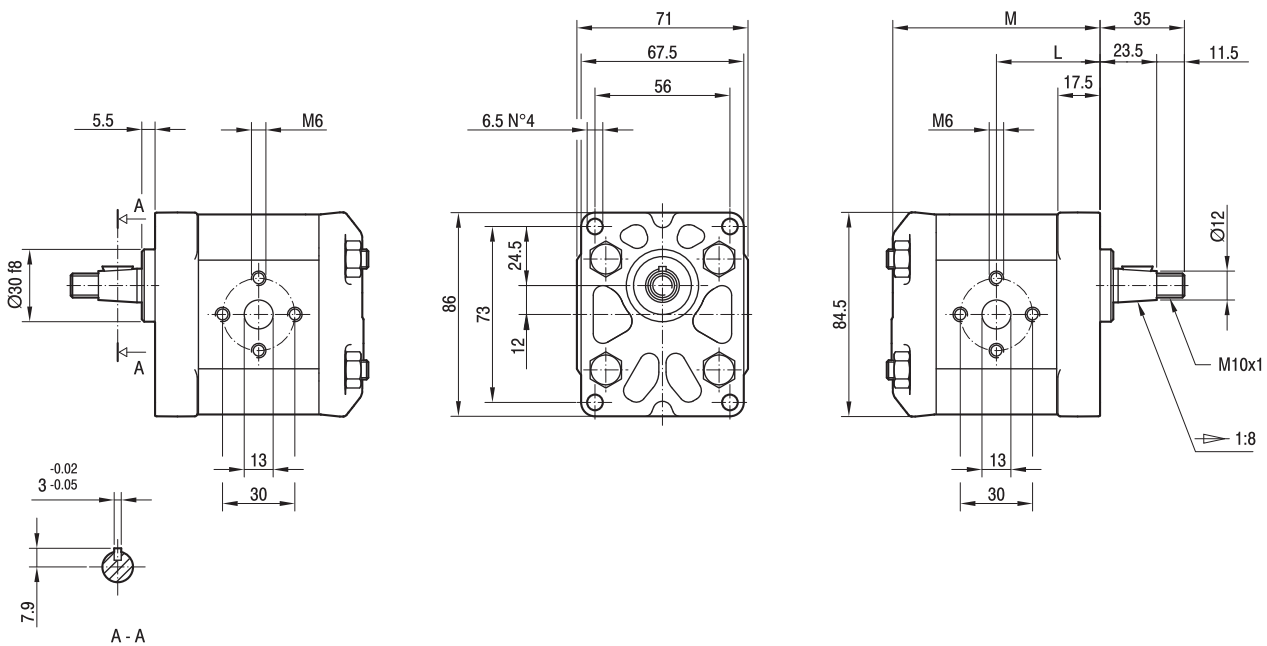
ALP1 Series Pumps

DIN Group 1 Heavy - 4 Bolt Mount - 1:8 Taper Shaft - Aluminium (Heavy)

Stock No.	Displacement cc/rev	Port Adaptors		Dimension mm		Max. Speed RPM	Max. Pressure Bar			List Price
		Inlet	Outlet	L	M		P1	P2	P3	
ALP1D2TOE	1.4	FG3830	FG3830	40	80.5	6000	250	270	290	
ALP1D3TOE	2.1	FG3830	FG3830	41	82.5	6000	250	270	290	
ALP1D4TOE	2.8	FG3830	FG3830	42	84.5	5000	250	270	290	
ALP1D5TOE	3.5	FG3830	FG3830	43	86.5	5000	250	270	290	
ALP1D6TOE	4.1	FG3830	FG3830	44	88.5	4000	250	270	290	
ALP1D7TOE	5.2	FG1230	FG3830	45.5	91.5	4000	230	245	260	
ALP1D9TOE	6.2	FG1230	FG3830	47	94.5	3800	230	245	260	
ALP1D11TOE	7.6	FG1230	FG3830	49	98.5	3200	200	215	230	
ALP1D13TOE	9.3	FG1230	FG1230	51.5	103.5	2600	180	195	210	
ALP1D16TOE	11.0	FG1230	FG1230	54	108.5	2300	170	185	200	
ALP1D20TOE	13.8	FG1230	FG1230	58	116.5	1800	150	165	180	

OUTLET

INLET



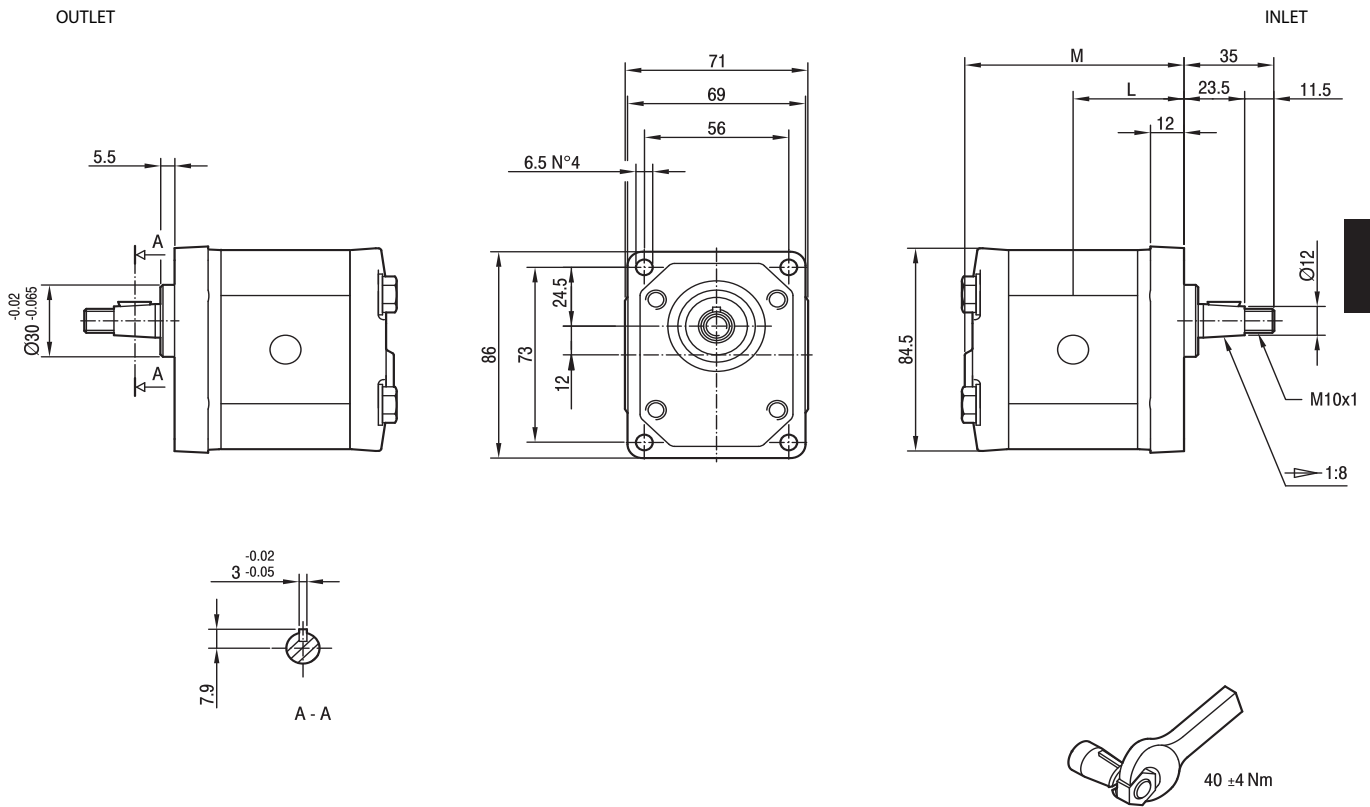
P1 = Continuous Operating Pressure
 P2 = Intermittent Operating Pressure
 P3 = Peak Pressure



GHP1 Series Pumps

DIN Group 1 Heavy - 4 Bolt Mount - 1:8 Taper Shaft - Cast Iron (Heavy)

Stock No.	Displacement cc/rev	Ports		Dimension mm		Max. Speed RPM	Max. Pressure Bar			List Price
		Inlet	Outlet	L	M		P1	P2	P3	
GHP1D2T0FG	1.4	1/2" BSPP	3/8" BSPP	40	79	6000	270	290	310	
GHP1D3T0FG	2.1	1/2" BSPP	3/8" BSPP	41	81	6000	270	290	310	
GHP1D4T0FG	2.8	1/2" BSPP	3/8" BSPP	42	83	5000	270	290	310	
GHP1D5T0FG	3.5	1/2" BSPP	3/8" BSPP	43	85	5000	270	290	310	
GHP1D6T0FG	4.1	1/2" BSPP	1/2" BSPP	44	87	4000	270	290	310	



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P1 = Continuous Operating Pressure
 P2 = Intermittent Operating Pressure
 P3 = Peak Pressure

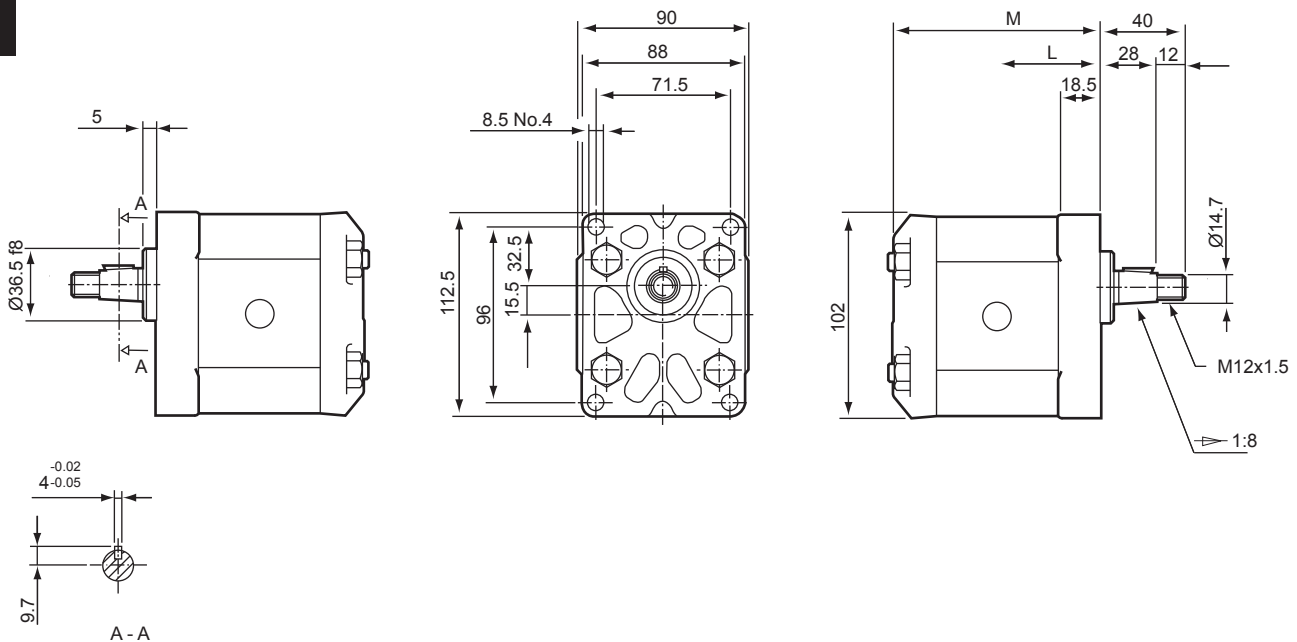


ALP2 Series Pumps

DIN Group 2 - 4 Bolt Mount - 1:8 Taper Shaft - Aluminium

Stock No.	Model Code	Displacement cc/rev	Ports		Dimension mm		Max. Speed RPM	Max. Pressure Bar			List Price
			Inlet	Outlet	L	M		P1	P2	P3	
2D6GAS	ALP2D6FG	4.5	1/2" BSPP	1/2" BSPP	45.5	93.5	4000	250	270	290	
2D9GAS	ALP2D9FG	6.4			47	96.5	4000	250	270	290	
2D10GAS	ALP2D10FG	7.0			47.5	97.5	4000	250	270	290	
2D12GAS	ALP2D12FG	8.3			48.5	99.5	3500	250	270	290	
2D13GAS	ALP2D13FG	9.6			49.5	101.5	3000	250	270	290	
2D16GAS	ALP2D16FG	11.5			51	104.5	3000	230	250	270	
2D20GAS	ALP2D20FG	14.1	3/4" BSPP	1/2" BSPP	53	108.5	4000	230	250	270	
2D22GAS	ALP2D22FG	16.0			54.5	111.5	4000	210	225	240	
2D25GAS	ALP2D25FG	17.9			56	114.5	3600	210	225	240	
2D30GAS	ALP2D30FG	21.1			58.5	119.5	3200	180	195	210	
2D34GAS	ALP2D34FG	23.7			60.5	123.5	3000	180	195	210	
2D37GAS	ALP2D37FG	25.5			62	126.5	2800	170	185	200	
2D40GAS	ALP2D40FG	28.2			64	130.5	2500	170	185	200	
2D50GAS	ALP2D50FG	35.2			69.5	141.5	2500	140	155	170	

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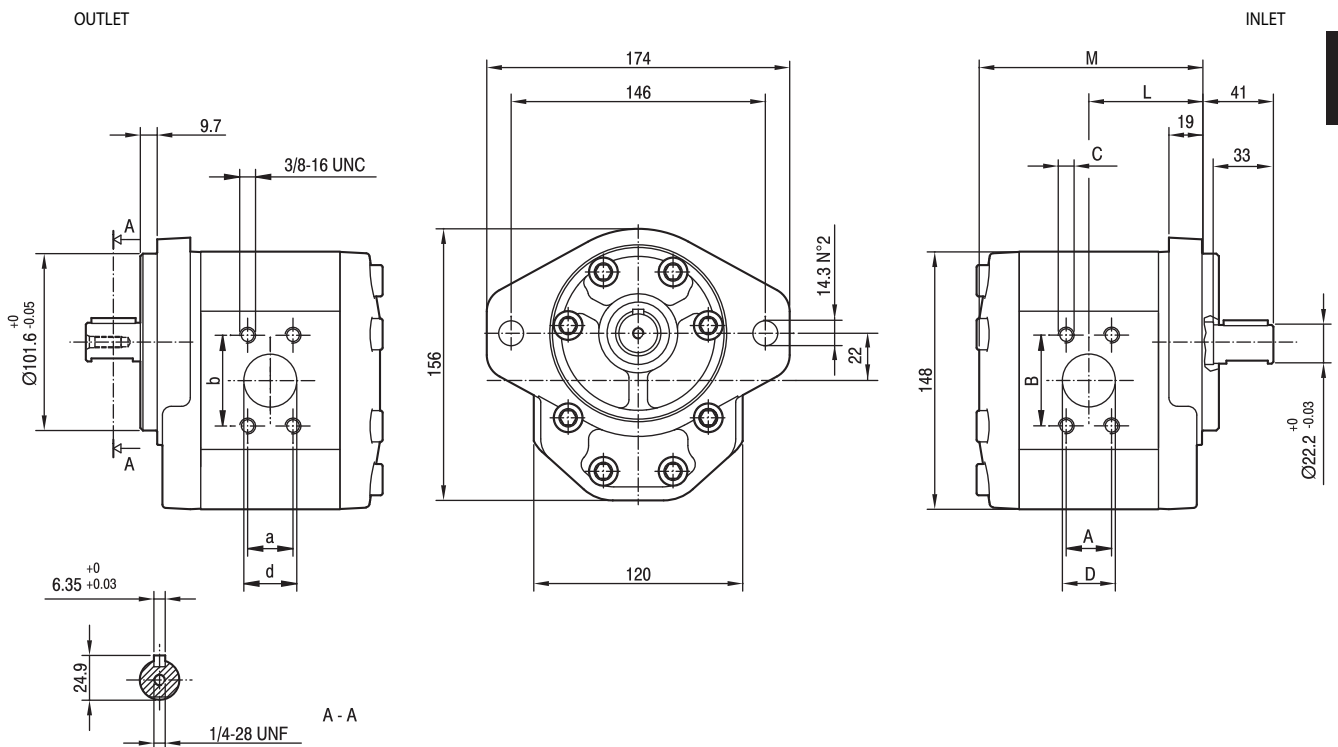
P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure
P3 = Peak Pressure



GHP3A Series Pumps

SAE 'B' 2 Bolt Mount - 7/8" Straight Keyed Shaft - Cast Iron End Covers

Stock No.	Displacement	Ports		Dimension mm		Max. Speed RPM	Max. Pressure Bar			List Price
	cc/rev	Inlet	Outlet	L	M		P1	P2	P3	
GHP3AD40C1FA	26	1-5/16" UN	1-1/16" UN	67	132	3300	280	295	310	
GHP3AD50C1FA	33	1-5/16" UN	1-1/16" UN	69.5	137	3300	270	285	300	
GHP3AD60C1FA	39	1-5/8" UN	1-1/16" UN	71.5	141	3000	260	275	290	
GHP3AD66C1FA	44	1-5/8" UN	1-1/16" UN	73	144	2800	250	265	280	
GHP3AD80C1FA	52	1-5/8" UN	1-1/16" UN	76	150	2500	230	245	260	
GHP3AD94C1FA	61	1-7/8" UN	1-5/16" UN	79	156	2800	210	225	240	
GHP3AD110C1FA	71	1-7/8" UN	1-5/16" UN	82.5	163	2500	200	215	230	
GHP3AD120C1FA	78	1-7/8" UN	1-5/16" UN	85	168	2300	180	195	210	



P1 = Continuous Operating Pressure
 P2 = Intermittent Operating Pressure
 P3 = Peak Pressure



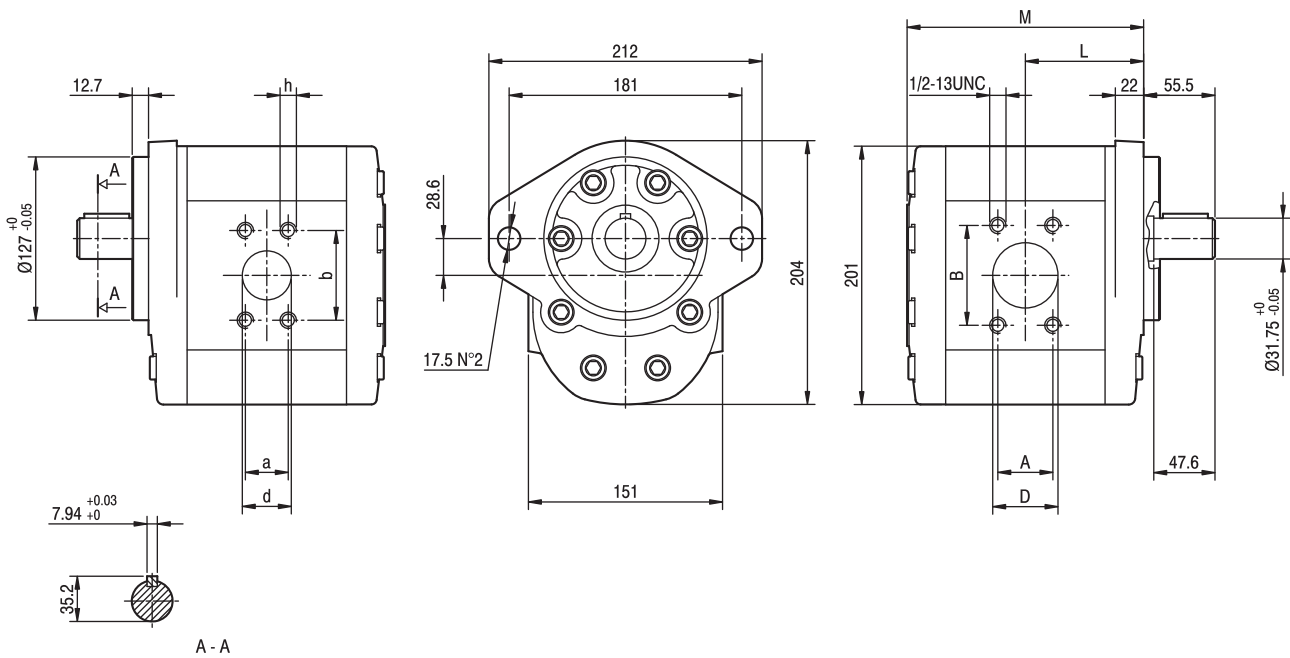
ALP4E Series Pumps

SAE 'C' 2 Bolt Mount - 1-1/4" Straight Keyed Shaft - Aluminium End Covers

Stock No.	Displacement cc/rev	Flange Code 61		Dimension mm		Max. Speed RPM	Max. Pressure Bar			List Price
		Inlet	Outlet	L	M		P1	P2	P3	
ALP4ED130C0A	87	SAE 1-1/2"	SAE 1-1/4"	92	184	2800	240	260	280	
ALP4ED160C0A	106	SAE 2"	SAE 1-1/2"	96	192	2300	200	220	240	
ALP4ED190C0A	128	SAE 2"	SAE 1-1/2"	100	201	2500	180	200	220	
ALP4ED220C0A	147	SAE 2"	SAE 1-1/2"	104	209	2200	170	190	210	
ALP4ED250C0A	166	SAE 2"	SAE 1-1/2"	108	217	2000	160	170	190	

OUTLET

INLET



P1 = Continuous Operating Pressure
 P2 = Intermittent Operating Pressure
 P3 = Peak Pressure



ALP1 Modular Gear Pumps

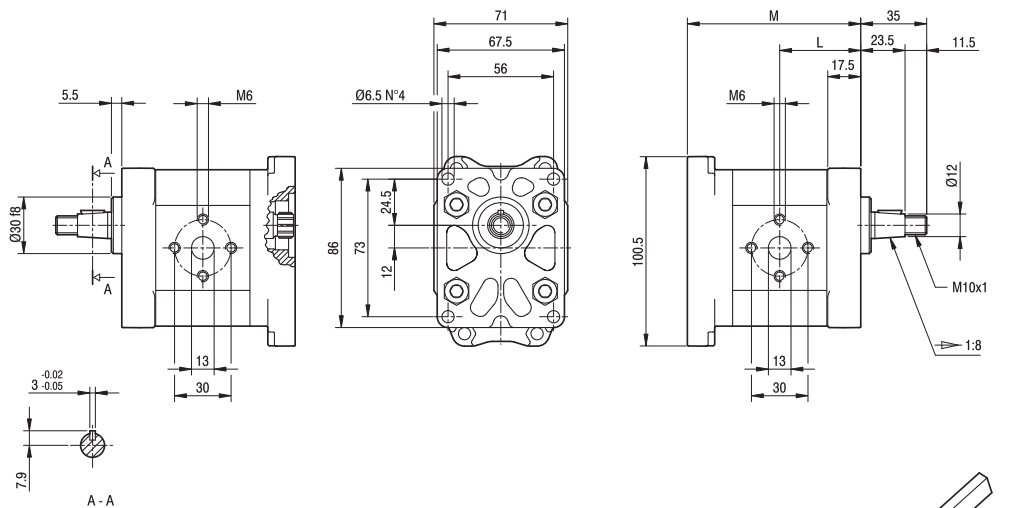
DIN Group 1 Heavy - 4 Bolt Mount - 1:8 Taper Shaft - Aluminium (Heavy)

Front Pump	Dimension mm		Rear Pump	Dimension mm		Displacement cc/rev	Ports		Max. Speed RPM	Max. Pressure Bar			List Price
	L	M		L	M		Inlet	Outlet		P1	P2	P3	
ALPA1D2FG	40	86	ALPP1D2FG	48	86.5	1.4	1/2" BSPP	1/2" BSPP	6000	250	270	290	
ALPA1D3FG	41	88	ALPP1D3FG	47	88.5	2.1			6000	250	270	290	
ALPA1D4FG	42	90	ALPP1D4FG	48	90.5	2.8			5000	250	270	290	
ALPA1D5FG	43	92	ALPP1D5FG	49	92.5	3.5			5000	250	270	290	
ALPA1D6FG	44	94	ALPP1D6FG	50	94.5	4.1			4000	250	270	290	
ALPA1D7FG	45.5	97	ALPP1D7FG	51.5	97.5	5.2			4000	230	245	260	
ALPA1D9FG	47	100	ALPP1D9FG	53	100.5	6.2			3800	230	245	260	
ALPA1D11FG	49	104	ALPP1D11FG	55	104.5	7.6			3200	200	215	230	
ALPA1D13FG	51.5	109	ALPP1D13FG	57.5	109.5	9.3			2600	180	195	210	

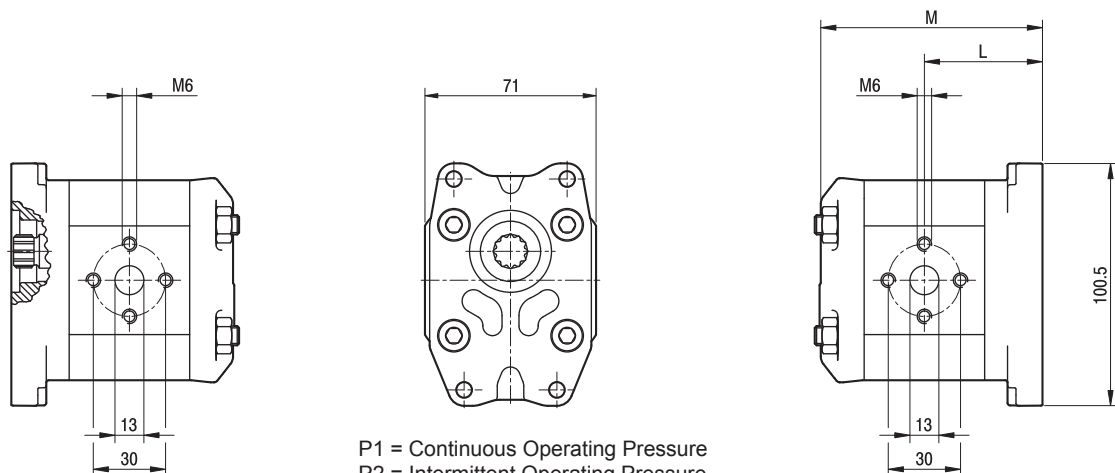
650164

ALP1 to ALP1 Joining Kit

ALPA1



ALPP1



P1 = Continuous Operating Pressure
 P2 = Intermittent Operating Pressure
 P3 = Peak Pressure

8

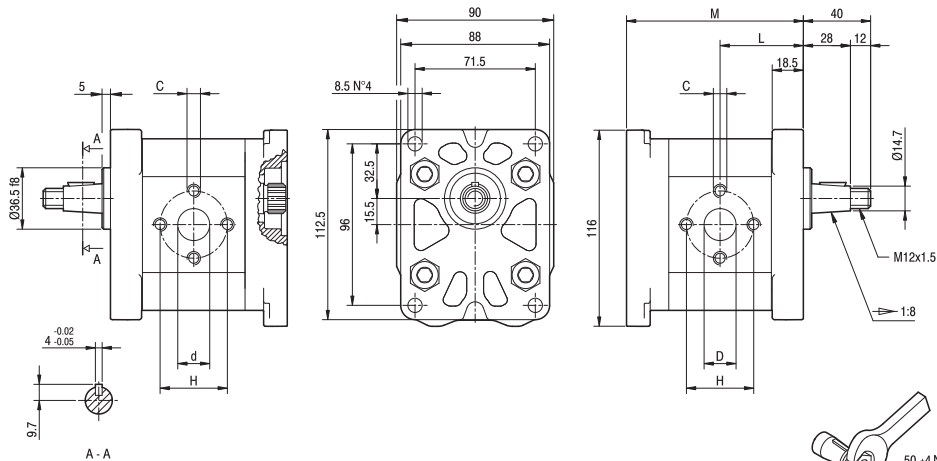


ALP2 Modular Gear Pumps

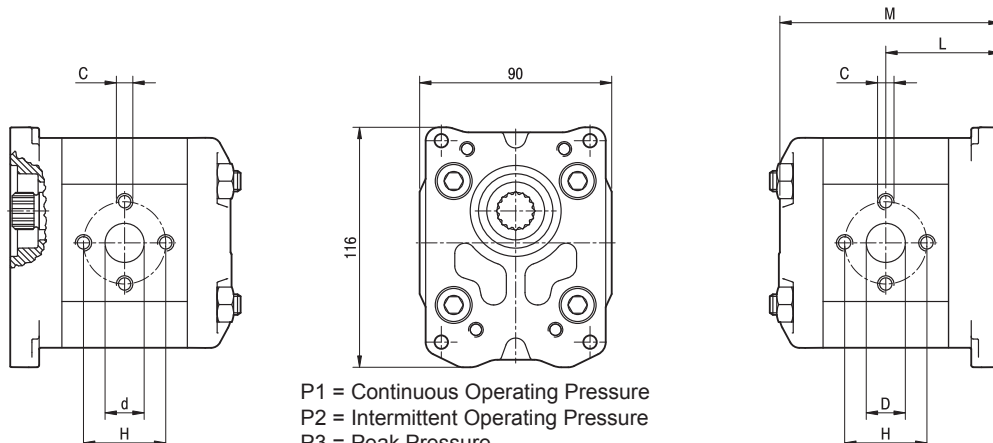
DIN Group 2 - 4 Bolt Mount - 1:8 Taper Shaft - Aluminium

Front Pump	Dimension mm		Rear Pump	Dimension mm		Displacement cc/rev	Ports		Max. Speed RPM	Max. Pressure Bar			List Price	
	L	M		L	M		Inlet	Outlet		P1	P2	P3		
ALPA2D6FG	45.5	97	ALPP2D6FG	51.5	99.5	4.5	1/2" BSPP	1/2" BSPP	4000	250	270	290		
ALPA2D9FG	47	100	ALPP2D9FG	53	102.5	6.4			4000	250	270	290		
ALPA2D10FG	47.5	101	ALPP2D10FG	53.5	103.5	7.0			4000	250	270	290		
ALPA2D12FG	48.5	103	ALPP2D12FG	54.5	105.5	8.3			3500	250	270	290		
ALPA2D13FG	49.5	105	ALPP2D13FG	55.5	107.5	9.6			3000	250	270	290		
ALPA2D16FG	51	108	ALPP2D16FG	57	110.5	11.5			4000	230	250	270		
ALPA2D20FG	53	112	ALPP2D20FG	59	114.5	14.1	3/4" BSPP	1/2" BSPP	4000	230	250	270		
ALPA2D22FG	54.5	115	ALPP2D22FG	60.5	117.5	16.0			4000	210	225	240		
ALPA2D25FG	56	118	ALPP2D25FG	62	120.5	17.9			3600	210	225	240		
ALPA2D30FG	58.5	123	ALPP2D30FG	64.5	125.5	21.1			3200	180	195	210		
ALPA2D34FG	60.5	127	ALPP2D34FG	66.5	129.5	23.7			3000	180	195	210		
ALPA2D37FG	62	130	ALPP2D37FG	68	132.5	25.5			2800	170	185	200		
ALPA2D40FG	64	134	ALPP2D40FG	70	136.5	28.2			2500	170	185	200		
ALPA2D50FG	69.5	145	ALPP2D50FG	75.5	147.5	35.2			2500	140	155	170		
650167			ALP2 to ALP1 Joining Kit											
650168			ALP2 to ALP2 Joining Kit											

ALPA2



ALPP2



P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure
P3 = Peak Pressure

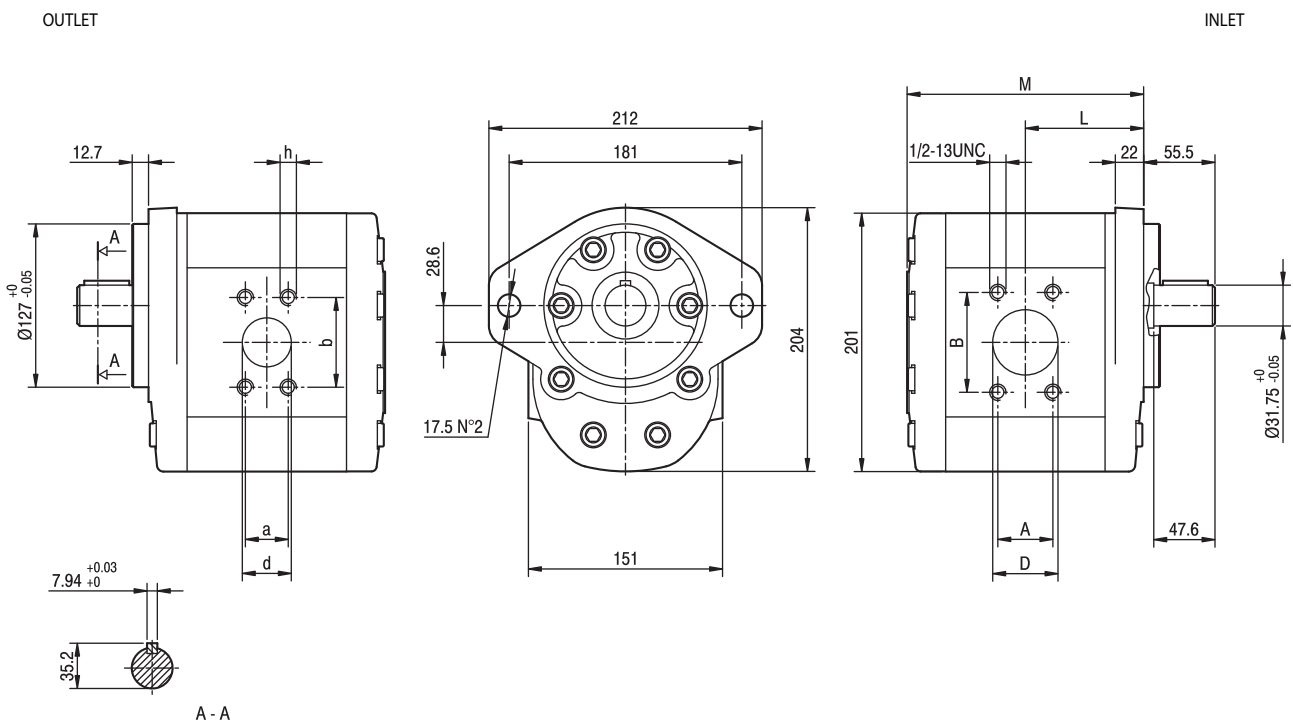




ALPA4 Modular Gear Pumps

SAE 'C' 2 Bolt Mount - 1-1/4" Straight Keyed Shaft - Aluminium End Covers

Stock No.	Displacement	Flange Code 61		Dimension mm		Max. Speed RPM	Max. Pressure Bar			List Price
	cc/rev	Inlet	Outlet	L	M		P1	P2	P3	
ALPA4ED130C0A	87	SAE 1-1/2"	SAE 1-1/4"	92	184	2800	240	260	280	
ALPA4ED160C0A	106	SAE 2"	SAE 1-1/2"	96	192	2300	200	220	240	
ALPA4ED190C0A	128	SAE 2"	SAE 1-1/2"	100	201	2500	180	200	220	
ALPA4ED220C0A	147	SAE 2"	SAE 1-1/2"	104	209	2200	170	190	210	
ALPA4ED250C0A	166	SAE 2"	SAE 1-1/2"	108	217	2000	160	170	190	
650173	ALPA4 to ALPP2 Joining Kit									
650174	ALPA4 to ALPI3 Joining Kit									



P1 = Continuous Operating Pressure
 P2 = Intermittent Operating Pressure
 P3 = Peak Pressure



DM Series

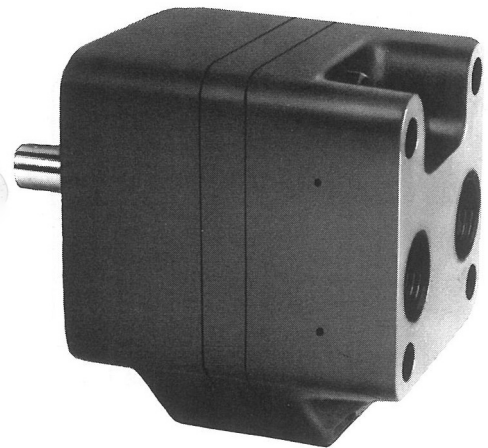
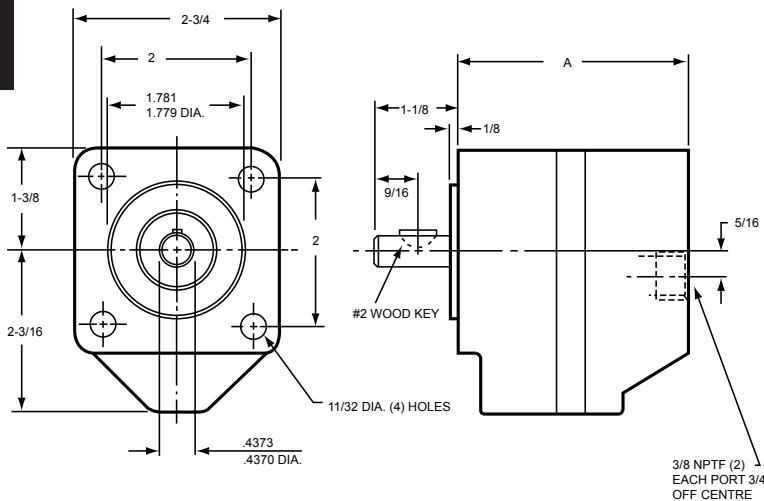
Delta Cast Iron Gear Motors

Stock No.	Displacement cu. in/rev	Max. Speed RPM	Torque In/Lbs per 100 psi Theor.	Max. Pressure		Port Size		Dimension A	List Price
				BAR	PSI	Inlet	Outlet		
DM1	0.065	4000	1.05	105	1500	3/8" NPT	3/8" NPT	2.82"	
DM2	0.108	4000	1.75	105	1500			2.91"	
DM4	0.187	4000	3.00	105	1500			3.08"	
DM6	0.316	3000	5.10	65	950			3.36"	
DM8	0.468	3000	7.50	45	650			3.68"	

"DM" series hydraulic motors are designed with performance in mind, including: high-strength cast iron bodies with precision machined filling and trapping grooves, hardened alloy gears and shafts to run smoothly, special Buna N and O-ring shaft seals to withstand up to 200 psi return line back pressure, anti-friction bearings for 60-70% starting torque, ball thrust bearings to withstand thrust and radial shaft loads and integral check valves to permit bi-directional rotation (to eliminate the need for external case drains). And, they will turn as slow as 300 rpm ... or lower on low-torque applications.

"DM" series motors are found in materials handling equipment, agricultural implements, snow removal equipment, marine gear and numerous industrial equipment and machine tools ... as drives for pumps, fans, compressors, mowers and other applications where moderate starting torque and moderate-to-high-speed efficiency is needed.

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Recommendations:

Oil: Clean oil means long life - 25 micron is generally a satisfactory goal, this is of prime importance on initial fill. Use industrial petroleum-based hydraulic oil from SAE 10 to 30 wear and oxidation inhibitors. Optimum performance is attained with operating viscosity around 200 SSU. Reservoir capacity should be sufficient to result in temperatures between 50°F to 150°F. Temperature should not exceed 200°F.

Installation: Hydraulic motor controls should be placed on the pressure side of the motor in order to preclude high seal or case pressures. Return line should be straight to tank.

DM1 thru DM8: Be especially careful since these units require that the mounting bolts are installed to complete the assembly. The two shipping bolts are not sufficient to make the assembly intact and care should be exercised while handling in this condition.

Bolt Torque Requirement: 13 - 17 ft lbs.

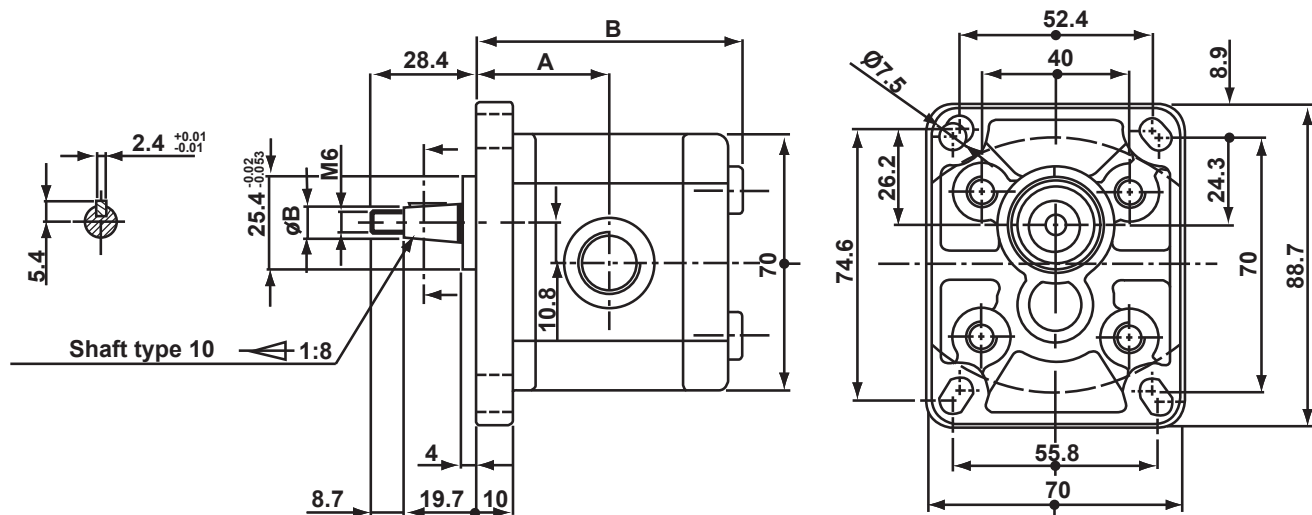
Maintenance: Basically means keep the system clean.



1SMA Series Reversible Motors

DIN Group 1 - 4 Bolt Mount - 1:8 Taper Shaft

Stock No.	Displacement cc/rev	Port Size		Dimension mm		Max. Speed RPM	Max. Pressure Bar		Weight Kg	List Price
		Inlet	Outlet	A	B		P1	P2		
1SMA25RK10GG	2.5	3/8" BSPP	3/8" BSPP	38	80	4000	180	200	2	
1SMA32RK10GG	3.2			39	80	4000	180	200	2	
1SMA37RK10GG	3.7			40	84	4000	170	190	2	
1SMA42RK10GG	4.2			41	85	3500	170	190	2	



Reversible motors have a 1/4" BSPP case drain port. This allows 2 or more motors to be connected in series. It is not possible to plug case drain even if you use the motor in one direction. Maximum back pressure on case drain is 30 bar.

Avoid axial and radial loads on the shafts.

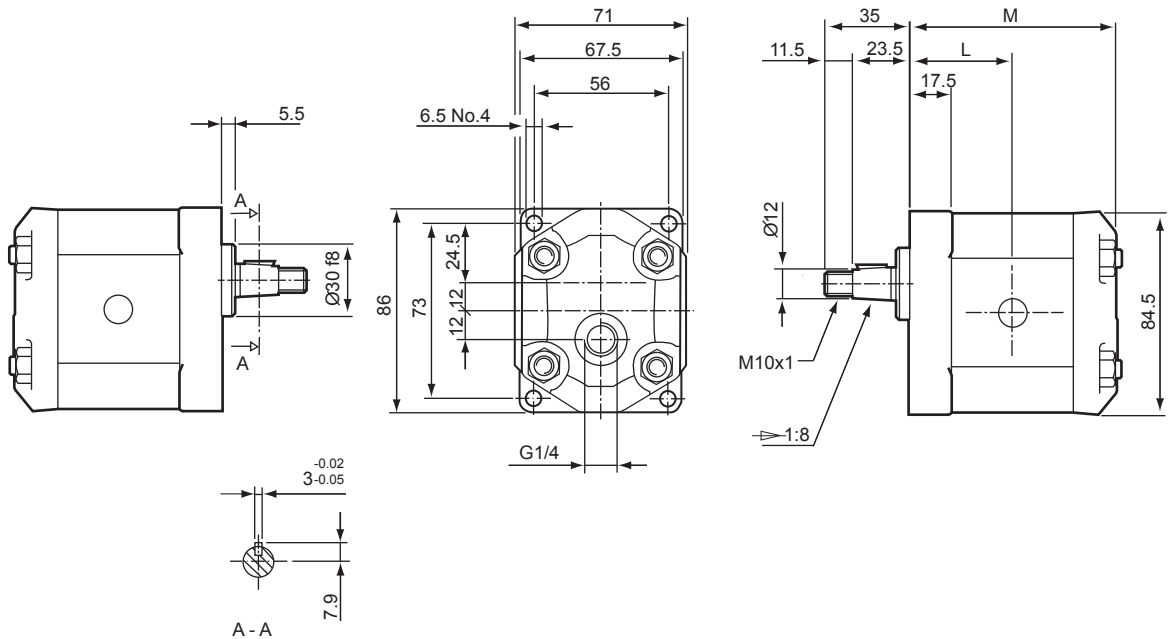
P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure



ALM1 Series Reversible Motors

DIN Group 1 (Heavy) - 4 Bolt Mount - 1:8 Taper Shaft (Heavy)

Stock No.	Displacement	Ports		Dimension mm		Max. Speed RPM	Max. Pressure Bar		Weight Kg	List Price
	cc/rev	Inlet	Outlet	L	M		P1	P2		
ALM1R4FGE1	2.8	1/2" BSPP	1/2" BSPP	42	84.5	5000	180	200	2	
ALM1R5FGE1	3.5			43	86.5	5000	180	200	2	
ALM1R6FGE1	4.1			44	88.5	4000	170	190	2	
ALM1R7FGE1	5.5			45.5	91.5	4000	170	190	2	
ALM1R9FGE1	6.2			47	94.5	3800	160	180	2	
ALM1R11FGE1	7.6			49	98.8	3200	130	150	2	



Reversible motors have a 1/4" BSPP case drain port. This allows 2 or more motors to be connected in series. It is not possible to plug case drain even if you use the motor in one direction. Maximum back pressure on case drain is 30 bar.

Avoid axial and radial loads on the shafts.

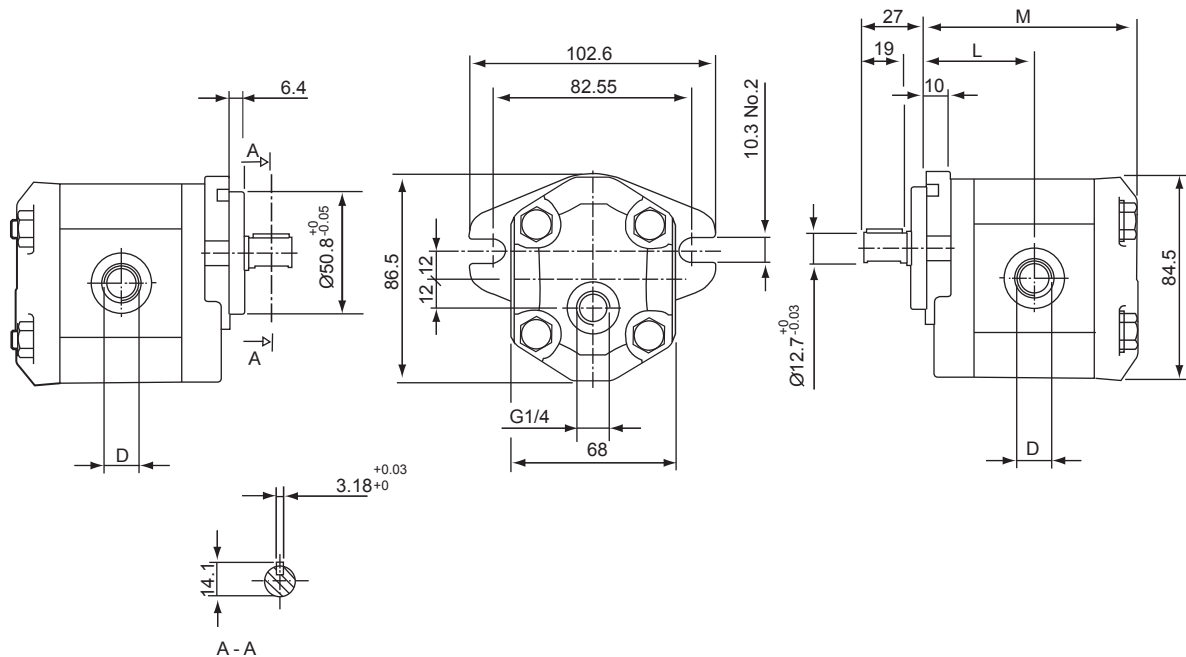
P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure



ALM1A Series Reversible Motors

SAE 'AA' - 2 Bolt Mount - 1/2" Dia. Straight Keyed Shaft

Stock No.	Displacement	Ports		Dimension mm		Max. Speed RPM	Max. Pressure Bar		Weight Kg	List Price
	cc/rev	Inlet	Outlet	L	M		P1	P2		
ALM1AR4C1FAE1	2.8	3/4" UNO	3/4" UNO	44	86.5	5000	180	200	2	
ALM1AR5C1FAE1	3.5			45	88.5	5000	180	200	2	
ALM1AR6C1FAE1	4.1			46	90.5	4000	170	190	2	
ALM1AR7C1FAE1	5.5			47.5	93.5	3500	170	190	2	
ALM1AR9C1FAE1	6.2	7/8" UNO	7/8" UNO	49	96.5	3000	160	180	2	
ALM1AR11C1FAE1	7.6			51	100.5	3500	130	150	2	



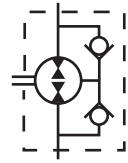
Reversible motors have a 1/4" BSPP case drain port. This allows 2 or more motors to be connected in series. It is not possible to plug case drain even if you use the motor in one direction. Maximum back pressure on case drain is 30 bar.

Avoid axial and radial loads on the shafts.

P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure

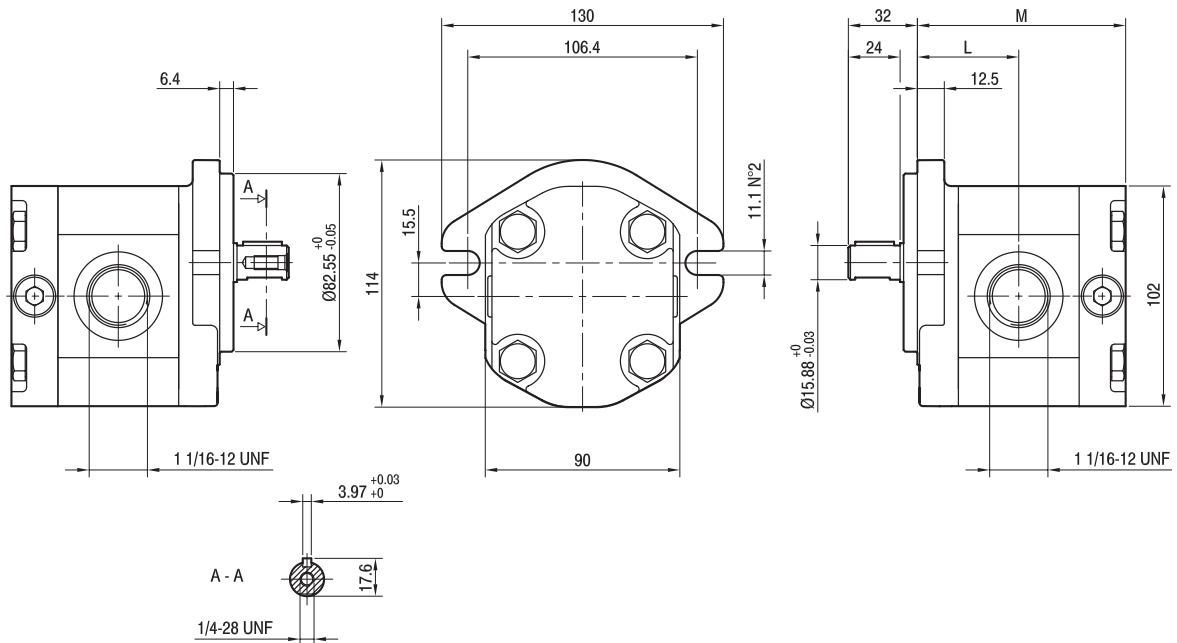


ALM2AEO Series Reversible Pump/Motor



SAE 'A' - 2 Bolt Mount - 5/8" Dia. Straight Keyed Shaft

Stock No.	Displacement cc/rev	Ports		Dimension mm		Max. Speed RPM	Max. Pressure Bar		Weight Kg	List Price
		Inlet	Outlet	L	M		P1	P2		
ALM2AR6EO	4.5	1-1/16" UNO	1-1/16" UNO	45.5	93.5	4000	250	270	3	
ALM2AR9EO	6.4			47	96.5	4000	250	270	3	
ALM2AR10EO	7.0			47.5	97.5	4000	250	270	3	
ALM2AR12EO	8.3			48.5	99.5	4000	250	270	3	
ALM2AR13EO	9.6			49.5	101.5	4000	250	270	3	
ALM2AR16EO	11.5			51	104.5	4000	230	250	3	
ALM2AR20EO	14.1			53	108.5	3200	230	250	3.2	
ALM2AR22EO	16.0			54.5	111.5	2800	210	225	3.3	
ALM2AR25EO	17.9			56	114.5	2500	210	225	3.4	
ALM2AR30EO	21.1			58.5	119.5	2200	180	195	3.5	
ALM2AR34EO	23.7			60.5	123.5	2000	180	195	3.6	
ALM2AR40EO	28.2			64	130.5	1800	170	185	3.7	



Reversible pump/motor complete with check valves in rear cover. The pump/motor is without case drain. Maximum back pressure on outlet = 10 bar. Not suitable for series connection.

Avoid axial and radial loads on the shafts.

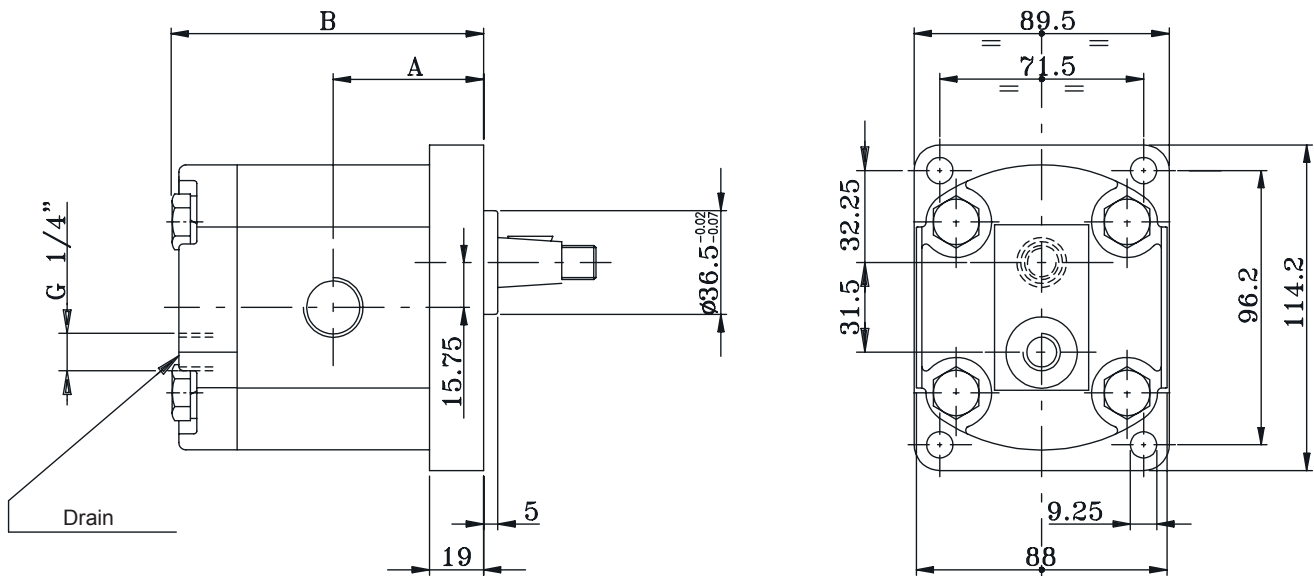
P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure



2SMG Series Reversible Motors

DIN Group 2 - 4 Bolt Mount - 1:8 Taper Shaft - Cast Iron End Covers

Stock No.	Displacement	Ports		Dimension mm		Max. Speed RPM	Max. Pressure Bar		Weight Kg	List Price
	cc/rev	Inlet	Outlet	A	B		P1	P2		
2SMG4RK10U	4.0	7/8" UNO	7/8" UNO	44.4	93.0	4000	230	230	2.30	
2SMG6RK10U	6.0			46.0	96.3	4000	230	230	2.45	
2SMG8RK10U	8.5			48.1	100.5	3500	230	230	2.60	
2SMG11RK10U	11.0	1-1/16" UNO	1-1/16" UNO	50.2	104.6	3500	230	230	2.70	
2SMG14RK10U	14.0			52.7	109.6	3500	230	230	2.80	
2SMG16RK10U	16.5			54.8	113.8	3500	195	200	2.95	
2SMG19RK10U	19.5			57.3	118.8	3300	180	185	3.10	
2SMG22RK10U	22.5			59.8	123.8	2800	165	170	3.25	
2SMG26RK10U	26.0			62.7	129.6	2500	150	155	3.40	



Reversible motors have a 1/4" BSPP case drain port. This allows 2 or more motors to be connected in series. It is not possible to plug case drain even if you use the motor in one direction. Maximum back pressure on case drain is 30 bar.

Avoid axial and radial loads on the shafts.

P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure

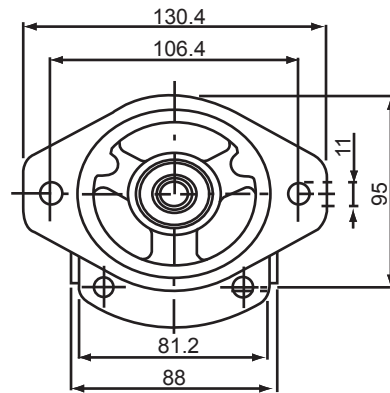
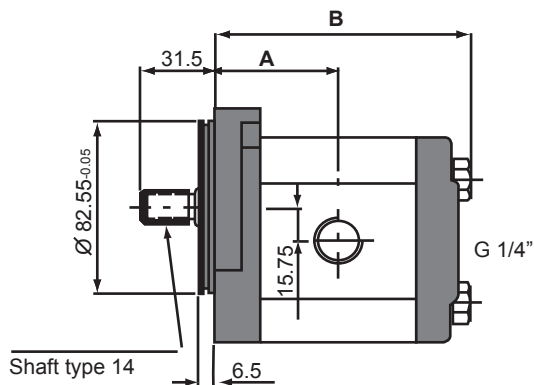
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2SMG Series Reversible Motors

SAE 'A' - 2 Bolt Mount - 5/8" Straight Keyed Shaft - Cast Iron End Covers

Stock No.	Displacement	Ports		Dimension mm		Max. Speed RPM	Max. Pressure Bar		Weight Kg	List Price
	cc/rev	Inlet	Outlet	A	B		P1	P2		
2SMG4RSAEK13U	4.0	7/8" UNO	7/8" UNO	44.4	93.0	4000	230	230	2.30	
2SMG6RSAEK13U	6.0			46.0	96.3	4000	230	230	2.45	
2SMG8RSAEK13U	8.5			48.1	100.5	3500	230	230	2.60	
2SMG11RSAEK13U	11.0	1-1/16" UNO	1-1/16" UNO	50.2	104.6	3500	230	230	2.70	
2SMG14RSAEK13U	14.0			52.7	109.6	3500	230	230	2.80	
2SMG16RSAEK13U	16.5			54.8	113.8	3500	195	200	2.95	
2SMG19RSAEK13U	19.5			57.3	118.8	3300	180	185	3.10	
2SMG22RSAEK13U	22.5			59.8	123.8	2800	165	170	3.25	
2SMG26RSAEK13U	26.0			62.7	129.6	2500	150	155	3.40	



Reversible motors have a 1/4" BSPP case drain port. This allows 2 or more motors to be connected in series. It is not possible to plug case drain even if you use the motor in one direction. Maximum back pressure on case drain is 30 bar.

Avoid axial and radial loads on the shafts.

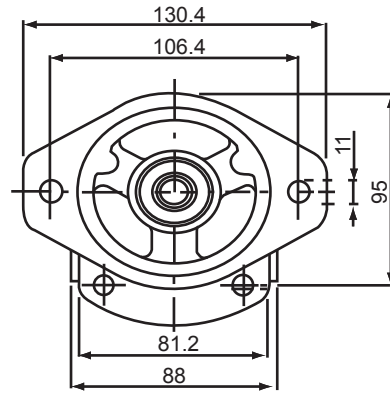
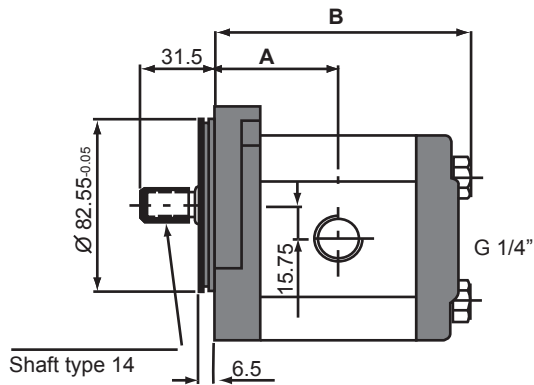
P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure



2SMG Series Reversible Motors

SAE 'A' - 2 Bolt Mount - 5/8" 9 Tooth Splined Shaft - Cast Iron End Covers

Stock No.	Displacement	Ports		Dimension mm		Max. Speed RPM	Max. Pressure Bar		Weight Kg	List Price
	cc/rev	Inlet	Outlet	A	B		P1	P2		
2SMG4RSAEK14U	4.0	7/8" UNO	7/8" UNO	44.4	93.0	4000	230	230	2.30	
2SMG6RSAEK14U	6.0			46.0	96.3	4000	230	230	2.45	
2SMG8RSAEK14U	8.5			48.1	100.5	3500	230	230	2.60	
2SMG11RSAEK14U	11.0	1-1/16" UNO	1-1/16" UNO	50.2	104.6	3500	230	230	2.70	
2SMG14RSAEK14U	14.0			52.7	109.6	3500	230	230	2.80	
2SMG16RSAEK14U	16.5			54.8	113.8	3500	195	200	2.95	
2SMG19RSAEK14U	19.5			57.3	118.8	3300	180	185	3.10	
2SMG22RSAEK14U	22.5			59.8	123.8	2800	165	170	3.25	
2SMG26RSAEK14U	26.0			62.7	129.6	2500	150	155	3.40	



Reversible motors have a 1/4" BSPP case drain port. This allows 2 or more motors to be connected in series. It is not possible to plug case drain even if you use the motor in one direction. Maximum back pressure on case drain is 30 bar.

Avoid axial and radial loads on the shafts.

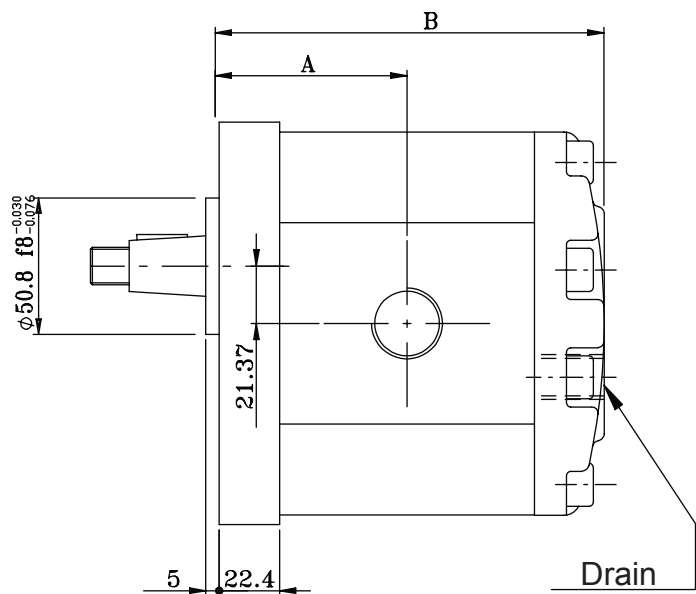
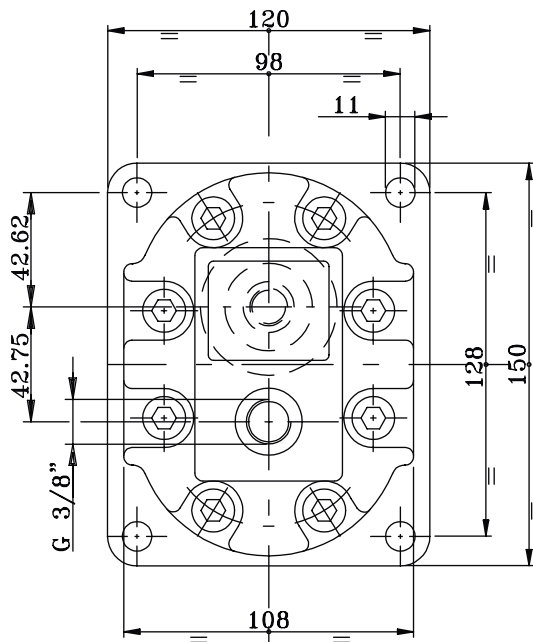
P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure



3SMG Series Reversible Motors

DIN Group 3 - 4 Bolt Mount - 1:8 Taper Shaft - Cast Iron End Covers

Stock No.	Displacement	Ports		Dimension mm		Max. Speed RPM	Max. Pressure Bar		Weight Kg	List Price
	cc/rev	Inlet	Outlet	A	B		P1	P2		
3SMG29RK10G	29.3	1" BSPP	1" BSPP	66.9	137.3	3300	190	230	5.67	
3SMG33RK10G	32.9			68.4	140.3	3300	190	220	5.81	
3SMG36RK10G	36.4			69.9	143.3	3300	180	205	5.94	
3SMG44RK10G	43.5			72.9	149.3	3000	170	205	6.22	
3SMG52RK10G	51.7			76.4	156.3	3000	170	195	6.53	



Reversible motors have a 3/8" BSPP case drain port. This allows 2 or more motors to be connected in series. It is not possible to plug case drain even if you use the motor in one direction. Maximum back pressure on case drain is 30 bar.

Avoid axial and radial loads on the shafts.

P1 = Continuous Operating Pressure
P2 = Intermittent Operating Pressure



HC-PTO

PTO Driven Gear Pumps

Stock No.	Shaft Configuration	Max. PTO Speed	Displacement	Max. Pressure		Port Size		Minimum Hose Sizes		List Price
		RPM	cu. in/rev	BAR	PSI	Inlet	Outlet	Inlet	Outlet	
HCPTO1A ¹	6 Tooth 1-3/8" dia	540	9.9	155	2250	#16 SAE	#12 SAE	1-1/4"	3/4"	
HCPTO2A ²	6 Tooth 1-3/8" dia	540	5.7					1"	1/2"	
HCPTO3A ¹	21 Tooth 1-3/8" dia	1000	5.7					1-1/4"	3/4"	
HCPTO7A ²	6 Tooth 1-3/8" dia	540	3.6					1"	1/2"	

¹ #16 SAE to 1-1/4" Hose Barb Adaptor included.

² #16 SAE to 1" Hose Barb Adaptor included.

Performance Data - Pumps: HP/GPM/PSI

		INPUT HP	GPM OUTPUT	INPUT HP	GPM OUTPUT	INPUT HP	GPM OUTPUT	INPUT HP	GPM OUTPUT
Model	RPM	500 PSI		1000 PSI		1500 PSI		2000 PSI	
HCPTO1A	540	8.4	21.4	16.1	21.0	23.8	21.0	32.1	21.0
HCPTO2A	540	4.9	12.2	9.3	11.9	13.8	11.6	18.1	11.4
HCPTO3A	1000	9.3	23.4	17.4	23.0	25.9	22.6	34.3	22.4
HCPTO7A	540	2.9	7.6	5.9	7.2	8.8	7.2	11.9	7.1

Unique Features:

- Self-adjusting wear plates on BOTH SIDES of the gears.
- Proper size HOSE ADAPTORS are provided for inlet ports.
- TWO OUTLET PORTS are provided with a PLUG to seal unused port and a proper HOSE ADAPTOR.
- Centre section is made of high strength aluminium alloy EXTRUSIONS for added safety.



Plus Standard Features:

- Reliable
- Efficient
- Roller Bearings
- Run-fitted aluminium body
- Internal spline with thru-drive feature
- High-tensile cast iron end plates
- Slips on to tractor PTO (no gear box required)
- Two-bolt installation on farm tractors of all sizes

Ideal For ...

- Tractor front-end loaders
- Pull-type cotton pickers
- Cotton balers (module)
- Tractors imported without integral hydraulics
- Landscaping equipment
- Rotary mowers
- Street sweepers



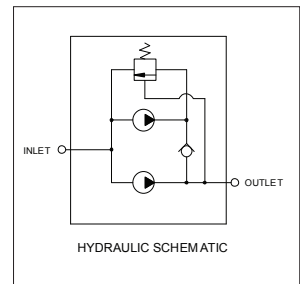
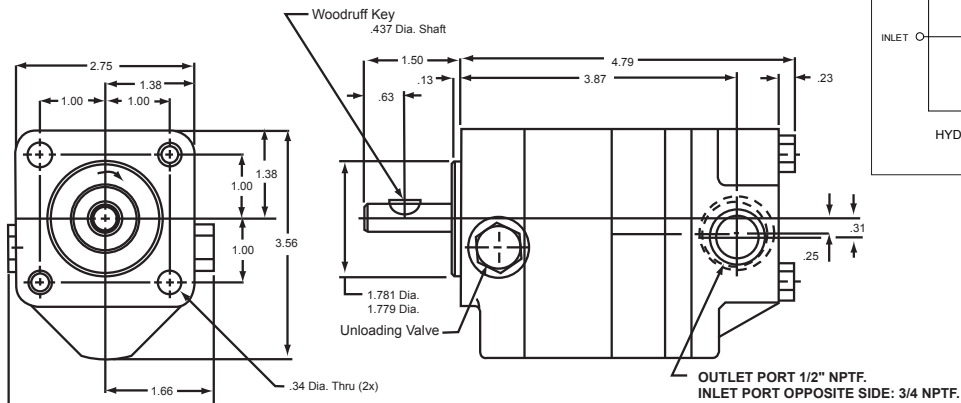
HI-LOW

MTE Hi-Lo Pumps - Cast Iron

Stock No.	HP Rating	Displacement cc/rev	Max Pressure PSI	Max Speed RPM	Unloading Valve Setting	Inlet Port Size	Outlet Port Size	A Dim. inch	B Dim. inch	C Dim. inch	List Price
L62	3 HP	5.3 + 1.8	3000	3800	500 PSI	3/4" NPT	1/2" NPT	0.437	4.29	3.37	
4081	5 HP	8.2 + 3.3	3000	3800	500 PSI	3/4" NPT	1/2" NPT	0.437	4.79	3.87	
5184	6.5 HP	10.6 + 3.1	3000	3800	500 PSI	1" TUBE	1/2" NPT	0.500	6.24	5.30	
5185	9 HP	13.1 + 3.1	3000	3800	500 PSI	1" TUBE	1/2" NPT	0.500	6.57	5.65	

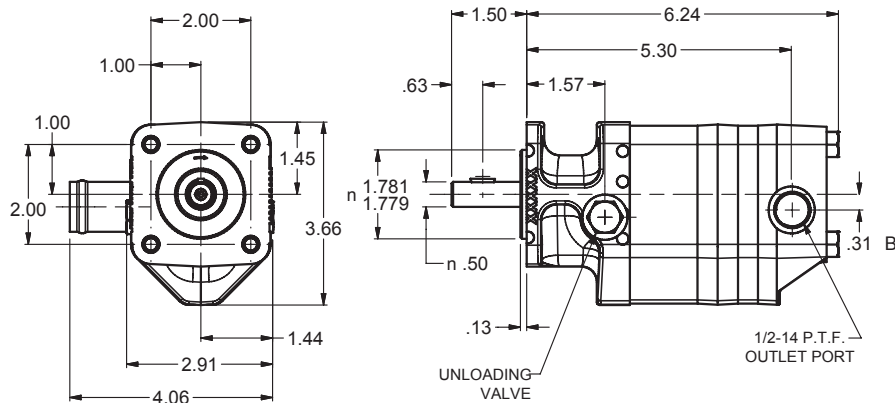
Rotation: All Models rotate clockwise facing the pump shaft.
 Mounting: SAE 4F17 four bolt all models.

Dimensions for L62 - 3 HP and 4081 - 5 HP

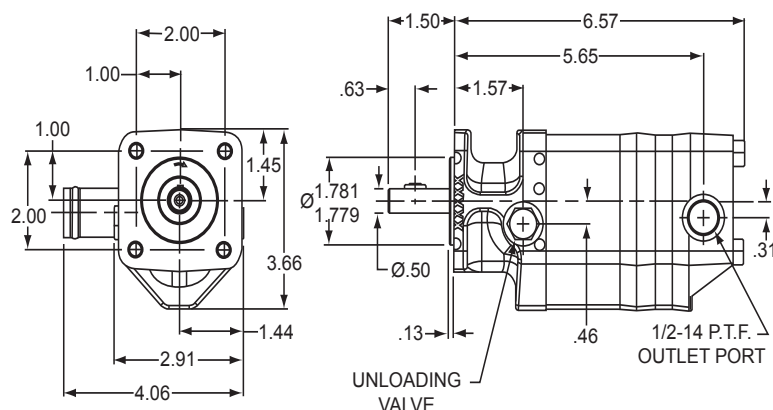


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Dimensions for 5184 - 6.5 HP



Dimensions for 5185 - 9 HP





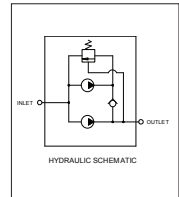
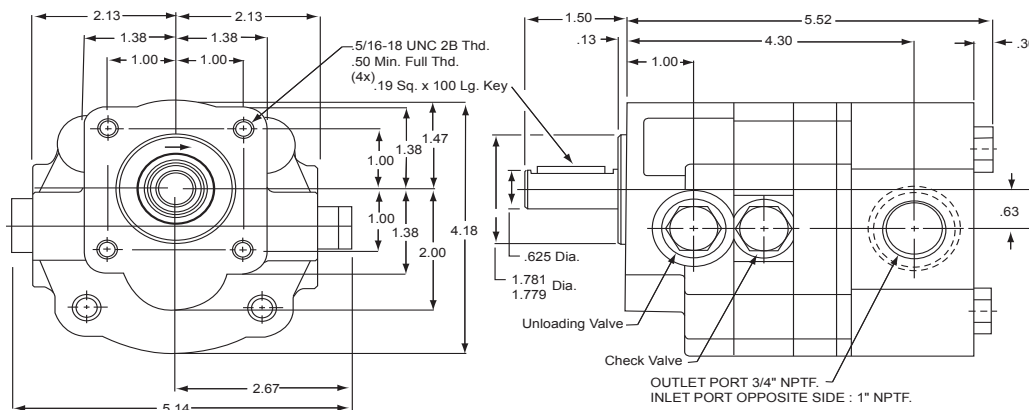
HI-LOW

MTE Hi-Lo Pumps - Cast Iron

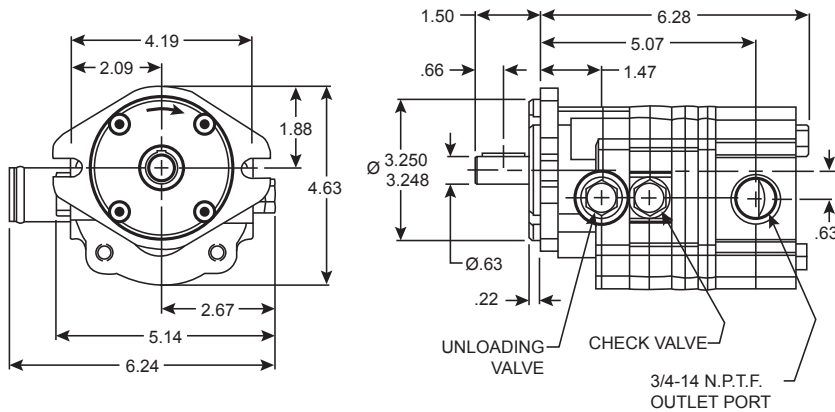
Stock No.	HP Rating	Displacement cc/rev	Max Pressure PSI	Max Speed RPM	Unloading Valve Setting	Inlet Port Size	Outlet Port Size	A Dim. inch	B Dim. inch	C Dim. inch	List Price
4171	10 HP	14 + 3.6	3500	3600	600 PSI	1" NPT	3/4" NPT	0.625	5.52	4.30	
5278	13 HP	16 + 6.7	3000	3800	500 PSI	1" TUBE	1/2" NPT	0.625	6.28	5.07	
L262	13 HP	16 + 7	3000	3800	500 PSI	1" TUBE	1/2" NPT	0.625	5.82	4.59	

Rotation: All Models rotate clockwise facing the pump shaft.
 Mounting: SAE 4F17 four bolt (4171, L262) SAE A 2B (5278)

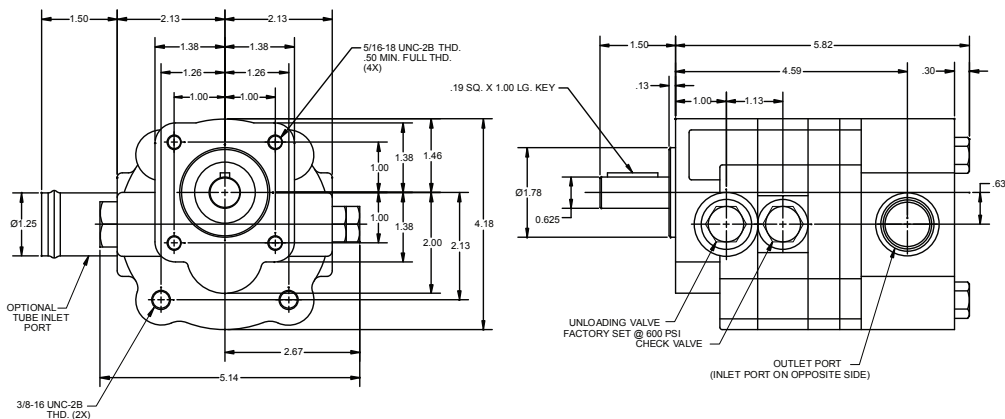
Dimensions for 4171 - 10 HP



Dimensions for 5278 - 13 HP



Dimensions for L262 - 13 HP

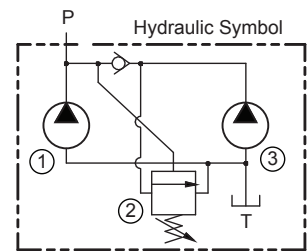
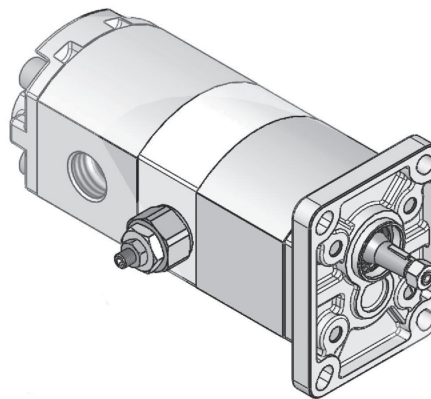
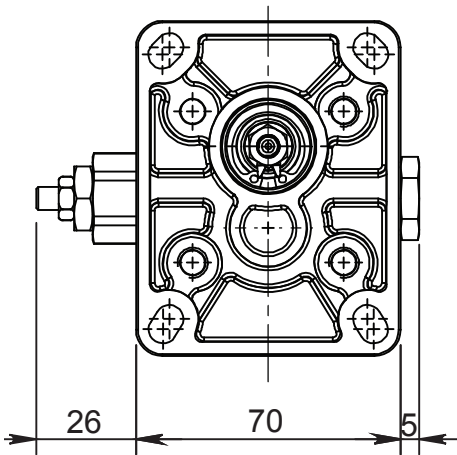




HI-LOW

Group 1 - Hi-Low with Unloading (20-50 Bar) (2) - 4 Bolt Taper

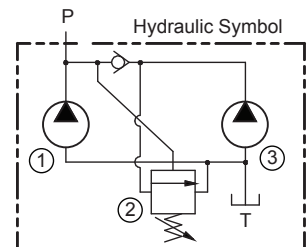
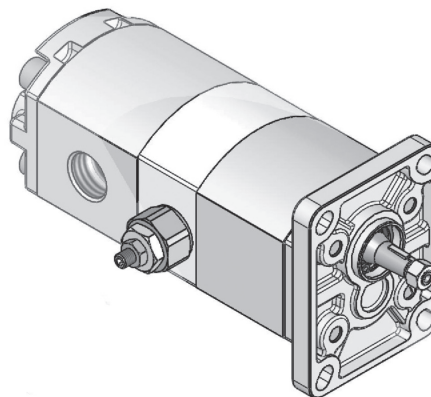
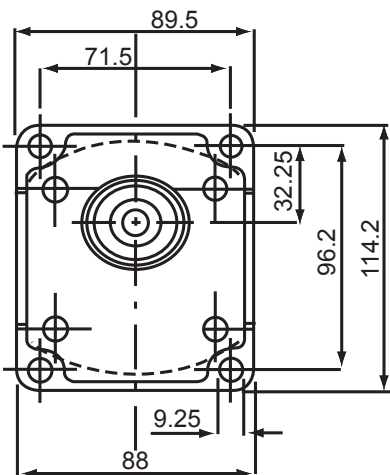
Stock No.	Model Code	1 Displacement 3		Max. Pressure		Port Size		List Price
		cc/rev	cc/rev	bar	psi	inlet	outlet	
1SPA1650DVD**	1SPAD10GG	1.60	5.00	210	3000	1/2" G	3/8" G	
1SPA2063DVD**	1SPAD10GG	2.00	6.30	210	3000	1/2" G	3/8" G	
1SPA2578DVD**	1SPAD10GG	2.50	7.80	210	3000	1/2" G	3/8" G	



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Group 2 - Hi-Low with Unloading (20-50 Bar) (2) - 4 Bolt Taper

Stock No.	Model Code	1 Displacement 3		Max. Pressure		Port Size		List Price
		cc/rev	cc/rev	bar	psi	inlet	outlet	
GHP2HLD0616	GHP2	4.50	11.50	210	3000	1-1/16" UN	7/8" UN	
GHP2HLD1222	GHP2	8.30	16.00	210	3000	1-1/16" UN	7/8" UN	
GHP2HLD1230	GHP2	8.30	22.00	210	3000	1-1/16" UN	7/8" UN	
2SPG1119DVD**	2SPG	11.00	19.00	210	3000	1-1/16" UN	7/8" UN	
2SPG1422DVD**	2SPG	14.00	22.00	210	3000	1-1/16" UN	7/8" UN	
2SPG1626DVD**	2SPG	16.00	26.00	210	3000	1-1/16" UN	7/8" UN	





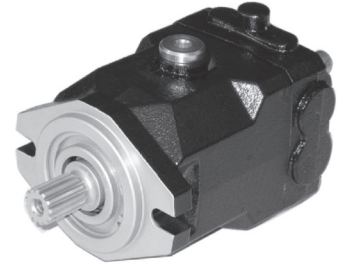
Axial Piston Motors Fixed Displacement MF21/28



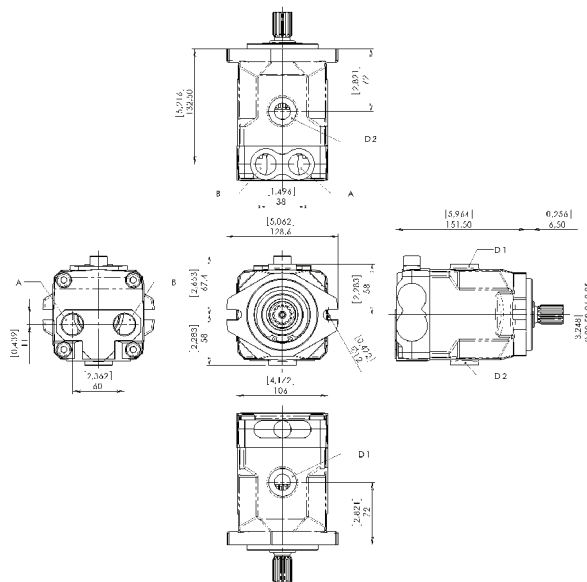
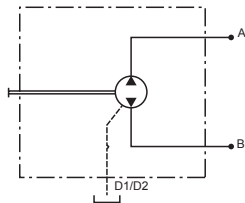
ORDERING INFORMATION

MF

DISPLACEMENT PORT LOC. ROTATION SHAFT PORTS OPTIONS



Stock No.	Displacement		Maximum Pressure		Max.	Mounting Flange	List Price
	cu.in./rev	cc/rev	Bar	PSI	RPM		
MF21****	1.28	21	350	5000	4000	SAE A	
MF28****	1.71	28	350	5000	4000	SAE A	
Port Location							Add To List
1	A & B Rear (Standard)						
2	A & B on Opposite Sides						
3	A & B on Side						
Direction of Rotation							
B	Bi Directional (Standard)						
Shaft							
1	7/8" Parallel Keyed						
2	1" Parallel Keyed						
5	7/8" 13T Spline						
Ports							
T	3/4" BSPP						
Options							
V	Purge Valve						





Axial Piston Motors Fixed Displacement MF34,46,50,64



ORDERING INFORMATION

MF

DISPLACEMENT PORT LOC. ROTATION SHAFT PORTS OPTIONS



Stock No.	Displacement		Maximum Pressure		Max. RPM	Mounting Flange	List Price
	cu.in./rev	cc/rev	Bar	PSI			
MF341B***	2.07	34	400	5800	3800	SAE B	
MF461B***	2.80	46	400	5800	3800	SAE B	
MF501B***	3.00	50	400	5800	3800	SAE B	
MF641B***	3.90	64	400	5800	3800	SAE B	

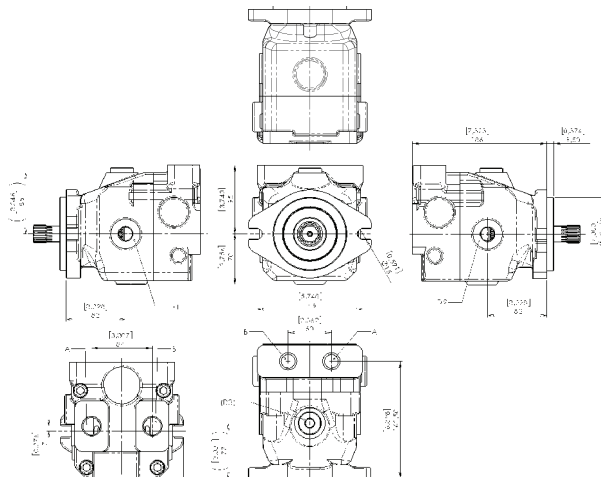
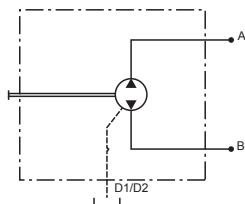
Port Location		Add To List
1	A & B Rear (Standard)	
2	A & B on Opposite Sides	
3	A & B on Side	

Direction of Rotation	
B	Bi Directional (Standard)

Shaft	
1	30mm Parallel Keyed
3	1" 15T Spline
5	7/8" 13T Spline
7	1-3/8" 21T Spline

Ports	
G	3/4" Code 62 Flange
T	3/4" BSPP

Options	
V	Purge Valve



8



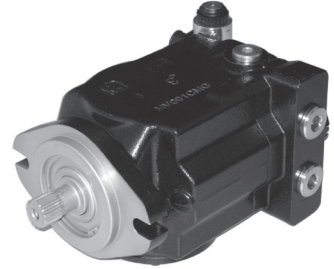
Axial Piston Motors Variable Displacement MV46,50,64



ORDERING INFORMATION

MV

DISPLACEMENT CONTROLS PORT LOC. ROTATION SHAFT PORTS OPTIONS



Stock No.	Displacement		Maximum Pressure		Max.	Mounting Flange	List Price
	cu.in./rev	cc/rev	Bar	PSI	RPM		
MV46XX/23***B***	2.80	46	400	5800	4000	SAE B	
MV50XX/25***B***	3.05	50	400	5800	4000	SAE B	
MV64XX/32***B***	3.90	64	400	5800	4000	SAE B	

Controls		Add To List
E1	12 Volt Electrical Control	
E2	24 Volt Electrical Control	
ID	Remote Hydraulic Servo Control	

Port Location		
1	A & B Rear	

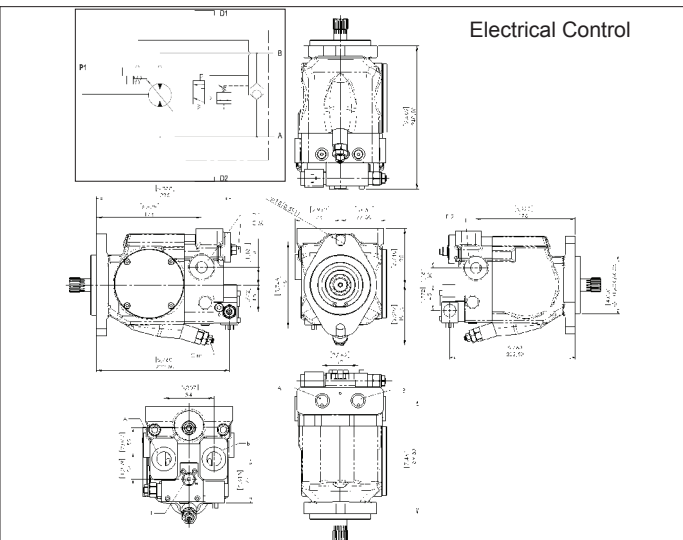
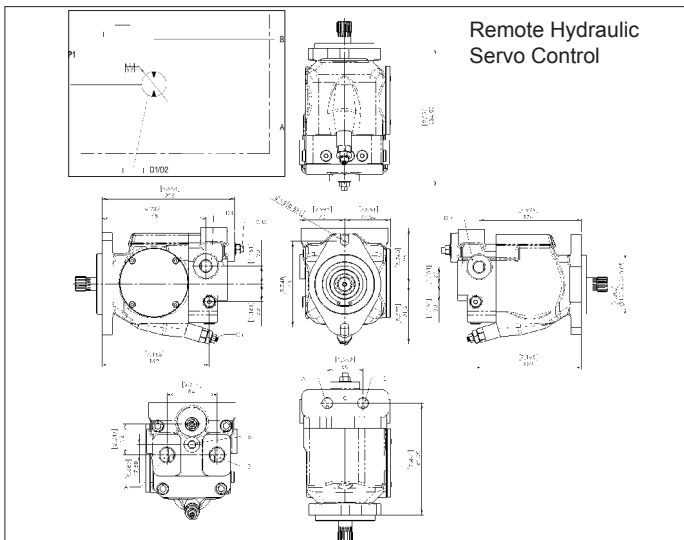
Direction of Rotation		
B	Bi Directional (Standard)	

Shaft		
3	1" 15T Spline	
5	7/8" 13T Spline	

Ports		
T	3/4" BSPP	

Options		
V	Purge Valve	

8





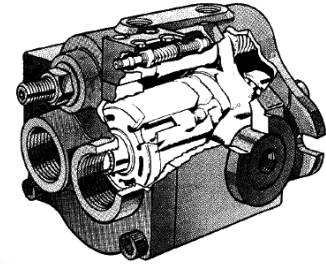
Axial Piston Pumps HPV Series



ORDERING INFORMATION

HPV

DISPLACEMENT ROTATION SEALS PORTS SHAFT CONTROLS



Stock No.	Displacement		Maximum Pressure		Max.	Mounting Flange	List Price
	cu.in./rev	cc/rev	Bar	PSI	RPM		
HPV6B35RF01R**	0.88	14.4	241	3500	3000	SAE A	
HPV10B35RF01R**	1.26	21.1	241	3500	2800	SAE B	
HPV15B35RF01R**	2.09	34.2	241	3500	2500	SAE B	
HPV20B35RF01R**	2.62	42.9	241	3500	2300	SAE C	
HPV29B30RF01R**	3.78	61.9	206	3000	2300	SAE C	
Rotations							Add To List
RF	Clockwise						
LF	Counter Clockwise						
Seals							
O	Buna N						
P	Viton						
Ports							
		HPV6	HPV10	HPV15	HPV20	HPV29	
1R	Rear	1-1/16" UNO	1-5/8" UNO	1-5/8" UNO	1-5/8" UNO	1-5/8" UNO	
1S/5S	Side	1-5/16" UNO	1-5/8" UNO	1-5/8" UNO	1-1/4" SAE CODE 62	1-1/2" SAE CODE 61	
Shafts							
		HPV6	HPV10	HPV15	HPV20	HPV29	
OMIT	Parallel	3/4"	7/8"	7/8"	1-1/4"	1-1/4"	
12	Splined	7/8" - 13T	7/8" - 13T	7/8" - 13T	1-1/4" - 14T	1-1/4" 14T	
Controls							
OMIT	Pressure Compensated						
7	Remote Pressure						
19	Load Sense						
26	Horsepower Control						
Tandem (Thru Drive)							
21	SAE A Rear Pad 5/8" - 9T						
22	SAE B Rear Pad 7/8" - 13T						
31	SAE A Rear Pad 7/8" - 13T						
23	SAE C Rear Pad 1-1/4" - 14T						

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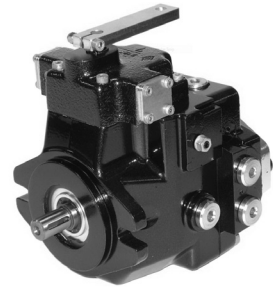


Axial Piston Pumps Closed Loop C1 Series

ORDERING INFORMATION

C1

DISPLACEMENT CONTROLS REAR COVER RELIEF ROTATION SHAFT OPTIONS



Stock No.	Displacement		Maximum Pressure		Max.	Mounting Flange	List Price
	cu.in./rev	cc/rev	Bar	PSI	RPM		
C114****G*	0.85	14	250	3625	3600	SAE A	
C118****G*	1.1	18	250	3625	3600	SAE A	

Controls		Add To List
LWX	Manual without Zeroing	
LNX	Manual with Zeroing	
LRX	Manual Lever with Feedback	
IND	Hydraulic Proportional without Feedback	
IRX	Hydraulic Proportional with Feedback	

Rear Cover Thru Drive		Add To List
1	Without Thru Drive with Charge Pump	
2	Without Thru Drive without Charge Pump	
3	SAE A 5/8" 9 Tooth Female Spline with Charge Pump	
4	SAE A 5/8" 9 Tooth Female Spline without Charge Pump	

Pressure Relief Valve		Add To List
21	210 Bar	

Direction of Rotation		Add To List
R	Right Hand Rotation CW	
L	Left Hand Rotation CCW	

Drive Shaft		Add To List
1	Splined 5/8" 9 Tooth Male	
5	Parallel 5/8" Keyed	

Options		Add To List
00	Without Options	
FI	With Filter	
FE	With Filter and Electrical Sensor	
BP	With Bypass	



Axial Piston Pumps Closed Loop C2 Series



ORDERING INFORMATION

C2

DISPLACEMENT CONTROLS REAR COVER RELIEF ROTATION SHAFT OPTIONS



Stock No.	Displacement		Maximum Pressure		Max.	Mounting Flange	List Price
	cu.in./rev	cc/rev	Bar	PSI	RPM		
C221****G*	1.28	21	300	4350	3600	SAE B	
C228****G*	1.70	28	300	4350	3600	SAE B	

Controls **Add To List**

LRX	Manual Lever with Feedback	
LNX	Manual with Zeroing	
IRX	Hydraulic Proportional with Feedback	
INP	Hydraulic Proportional without Feedback	
E12/E14	Electric Impulse 12 or 24 Volt	
E22/E24	Electric 2 Position 12 or 24 Volt	
ER2/ER4	Electric Proportional with Feedback	
EP2/EP4	Electric Proportional without Feedback	
EH2/EH4	Hydraulic / Electric Proportional with Feedback	

Rear Cover Thru Drive

1	Without Thru Drive with Charge Pump	
2	Without Thru Drive without Charge Pump	
3	SAE A 5/8" 9 Tooth Female Spline with Charge Pump	
4	SAE B 7/8" 13 Tooth Female Spline with Charge Pump	

Pressure Relief Valve

25	250 Bar	
----	---------	--

Direction of Rotation

R	Right Hand Rotation CW	
L	Left Hand Rotation CCW	

Drive Shaft

1	Splined 7/8" 13 Tooth Male (with 3 rear cover)	
3	Splined 1" 15 Tooth Male (with 4 rear cover)	
5	Splined 1" 15 Tooth Male (with 3 rear cover)	

Options

00	Without Options	
FI	With Filter	
FE	With Filter and Electrical Sensor	
BP	With Bypass	

8



Axial Piston Pumps Closed Loop C3 Series



ORDERING INFORMATION

C3

DISPLACEMENT

CONTROLS

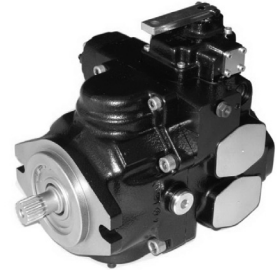
REAR COVER

RELIEF

ROTATION

SHAFT

OPTIONS



Stock No.	Displacement		Maximum Pressure		Max.	Mounting Flange	List Price
	cu.in./rev	cc/rev	Bar	PSI	RPM		
C346****G*	2.80	46	350	5075	3600	SAE B	
C350****G*	3.05	50	350	5075	3600	SAE B	
C364****G*	3.90	64	350	5075	3600	SAE B	

Controls		Add To List
LRX	Manual Lever with Feedback	
LNX	Manual with Zeroing	
IRX	Hydraulic Proportional with Feedback	
INP	Hydraulic Proportional without Feedback	
E12/E14	Electric Impulse 12 or 24 Volt	
E22/E24	Electric 2 Position 12 or 24 Volt	
ER2/ER4	Electric Proportional with Feedback	
EP2/EP4	Electric Proportional without Feedback	
EH2/EH4	Hydraulic / Electric Proportional with Feedback	

Rear Cover Thru Drive		
1	Without Thru Drive with Charge Pump	
2	Without Thru Drive without Charge Pump	
3	SAE A 5/8" 9 Tooth Female Spline with Charge Pump	
4	SAE B 7/8" 13 Tooth Female Spline with Charge Pump	
12	SAE B 1" 15 Tooth Female Spline with Charge Pump	

Pressure Relief Valve		
25	250 Bar	

Direction of Rotation		
R	Right Hand Rotation CW	
L	Left Hand Rotation CCW	

Drive Shaft		
1	Splined 1" 15 Tooth Male (with 3 rear cover)	
2	Splined 1" 15 Tooth Male (with 4 and 12 rear cover)	
5	Splined 7/8" 13 Tooth Male (with 3 rear cover)	

Options		
00	Without Options	
FI	With Filter	
FE	With Filter and Electrical Sensor	
BP	With Bypass	

8



Vane Pumps - Pressure Compensated PVR Series



ORDERING INFORMATION

PVR **RF**
 DISPLACEMENT PRESSURE RANGE SEALS MECHANICAL OPTIONS



Flanged Mounted
SAE "A" 2-Bolt

Stock No.	Displacement		Maximum Pressure		Max.	Mounting Flange	List Price
	cu.in./rev	cc/rev	Bar	PSI	RPM		
PVR64B20RF0*	0.7	11.5	138	2000	3600	SAE A	
PVR66B20RF0*	0.9	14.8	138	2000	2800	SAE A	
PVR68B20RF0*	1.2	19.7	138	2000	2100	SAE A	
PVR610B10RF0*	1.4	23.1	69	1000	1800	SAE A	
PVR1515B5RF*	2.4	39.3	138	2000	2400	SAE B	
PVR1520B15RF*	2.8	46	103	1500	2250	SAE B	
PVR1530B10RF*	4.3	70.5	69	1000	1800	SAE B	
PVR5050B15RF*	7.7	126	103	1500	1900	SAE D	
PVR5070B15RF*	9.9	162	103	1500	1900	SAE D	

Compensating Pressure Range		Add To List
20	51 - 137 Bar	
Seals		
O	Buna N	
P	Viton	
Mechanical Options		
6	Maximum Volume Control	
15	Handwheel Pressure Control	
21	SAE A Rear Pad Thru Drive Option	
36	Handwheel Volume Control	
22	SAE B Rear Pad Thru Drive Option	
23	SAE C Rear Pad Thru Drive Option	

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