ANFIELD

Orbital Motors

ANFIELD

TABLE OF CONTENTS

Introduction

Anfield introduces their range of INTERCHANGEABLE Low Speed-High Torque Hydraulic Motors.

This extensive product range of Multi Displacement LSHT hydraulic motors are manufactured in accordance with ISO 9001-2008 quality standards and have been accepted world wide as a competitively priced, high quality gerotor type design product. These motors are interchangeable with other leading Domestic and European Manufacturers. Performance driven, these products are available from stock throughout the North American market from our extensive distributor network.

USER GUIDE

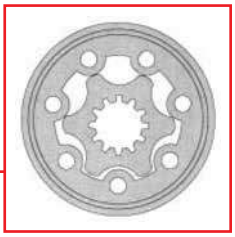
For optimal utilization of these motors the following is recommended.

1. Normal oil operating temperature should be 70 to 150 degrees F (20 to 60 degrees C).
2. Maximum operating temperature should not exceed 190 degrees F. (90 degrees C).
3. Filtration level per ISO Cleanliness Code level 18/3.
4. Minimum oil viscosity should be 100 SUS.
5. Motors should be operated at less than 30% of rated performance for the first hour of operation.
6. Simultaneous maximum torque and maximum speed is NOT recommended.

TECHNICAL DATA

Model	Distributor type	Displacement		Maximum Operating Pressure		Speed RPM
		in^3/rev	cm^3/rev	PSI	MPa	
BMM	Axial	0.5-3.05	8-50	2030	14	30-1950
BMP/BMPH	Axial	3-24	50-400	2400	16.3	30-880
BMR/BMRS	Axial	3-23	50-375	3000	20	30-970
BMH	Axial	12-30	200-500	3000	20	30-430
BMSY	Disc	5-23	80-375	3250	22.5	30-800
BMT	Disc	10-49	160-800	3400	24	30-705
BMV	Disc	19-49	315-800	4000	28	10-446
BMER	Axial	7.2-45.45	118-745	3481	24	30-490

Model BMM



The BMM GEROTOR gear set, shaft distribution flow, hydraulic motors are a compact, highly efficient, low speed-high torque design which can be used in either parallel or series systems.

These low weight advanced construction design motors are manufactured in accordance with the requirements of the ISO 9001-2008 quality system.

BMM TECHNICAL SPECIFICATIONS

DISTRIBUTION TYPE			BMM 8	BMM 12.5	BMM 20	BMM 32	BMM 40	BMM 50
GEOMETRIC DISPLACEMENT		[in^3./rev.]	[.50]	[.79]	[1.21]	[1.93]	[2.43]	[3.07]
		cm^3/rev.	**8.2**	**12.9**	**19.9**	**31.6**	**39.8**	**50.3**
MAX. SPEED RPM		RATED	1537	1256	814	513	452	358
		CONT.	1950	1550	1000	630	500	400
		INT.	**2450**	**1940**	**1250**	**800**	**630**	**500**
MAX. TORQUE [LB. IN.] N*M	RATED	[LB. IN.]	[71]	[115]	[168]	[274]	[327]	[292]
		N*M	**8**	**13**	**19**	**31**	**37**	**33**
	CONT.	[LB. IN.]	[97]	[142]	[221]	[354]	[398]	[407]
		N*M	**11**	**16**	**25**	**40**	**45**	**46**
	INT.	[LB. IN.]	[133]	[203]	[310]	[504]	[619]	[778]
		N*M	**15**	**23**	**35**	**57**	**70**	**88**
	PEAK	[LB. IN.]	[186]	[292]	[451]	[566]	[725]	[884]
		N*M	**21**	**33**	**51**	**64**	**82**	**100**
MAX. OUTPUT [HP] KW	RATED	[HP]	[1.7]	[2.3]	[2.3]	[2.3]	[2.3]	[1.6]
		KW	**1.3**	**1.7**	**1.7**	**1.7**	**1.7**	**1.2**
	CONT.	[HP]	[2.4]	[3.2]	[3.2]	[3.2]	[2.9]	[2.4]
		KW	**1.8**	**2.4**	**2.4**	**2.4**	**2.2**	**1.8**
	INT.	[HP]	[3.4]	[4.3]	[4.3]	[4.3]	[4.3]	[4.3]
		KW	**2.6**	**3.2**	**3.2**	**3.2**	**3.2**	**3.2**
MAX. PRES-SURE DROP [PSI] MP_A	RATED	[PSI]	[1305]	[1305]	[1305]	[1305]	[1232]	[870]
		MP_A	**9**	**9**	**9**	**9**	**8.5**	**6**
	CONT.	[PSI]	[1450]	[1450]	[1450]	[1450]	[1305]	[1015]
		MP_A	**10**	**10**	**10**	**10**	**9**	**7**
	INT.	[PSI]	[2030]	[2030]	[2030]	[2030]	[2030]	[2030]
		MP_A	**14**	**14**	**14**	**14**	**14**	**14**
	PEAK	[PSI]	[2900]	[2900]	[2900]	[2320]	[2320]	[2320]
		MP_A	**20**	**20**	**20**	**16**	**16**	**16**
MAX. FLOW [GPM] L/MIN	RATED	[GPM]	[3.7]	[4.7]	[4.7]	[4.7]	[5.2]	[5.2]
		L/MIN	**14**	**18**	**18**	**18**	**20**	**20**
	CONT.	[GPM]	[4.2]	[5.2]	[5.2]	[5.2]	[5.2]	[5.2]
		L/MIN	**16**	**20**	**20**	**20**	**20**	**20**
	INT.	[GPM]	[5.2]	[6.6]	[6.6]	[6.6]	[6.6]	[6.6]
		L/MIN	**20**	**25**	**25**	**25**	**25**	**25**
WEIGHT [LB] KG		[LB]	[4.2]	[4.4]	[4.6]	[4.9]	[5.1]	[5.3]
		KG	**1.9**	**2**	**2.1**	**2.2**	**2.3**	**2.4**

- Rated speed and rated torque: Output value of speed and torque under rated flow and rated pressure.
- Continuous pressure: Max. value of operating motor continuously.
- Intermittent pressure: Max. value of operating motor in 6 seconds per minute.
- Peak pressure: Max. value of operating motor in 0.6 second per minute.

BMM PERFORMANCE DATA

BMM 8 [0.50 in³/rev] 8.2 cm³/rev.

GPM / L/min		[507] 3.5	[725] 5	[1015] 7	[1450] 10	[1740] 12 (Max cont.)	[2030] 14 (Max int.)	[PSI] MPA
Flow (L/min)	[0.53] 2	[27] 3 **228**	[44] 5 **218**	[71] 8 **206**	[88] 10 **156**	[106] 12 **111**	[124] 14 **58**	TORQUE [LB-IN]
	[1.1] 4	[27] 3 **474**	[44] 5 **471**	[62] 7 **463**	[97] 11 **426**	[115] 13 **391**	[133] 15 **331**	TORQUE (N•M)
	[2.1] 8	[27] 3 **953**	[44] 5 **946**	[62] 7 **926**	[97] 11 **884**	[115] 13 **855**	[133] 15 **816**	SPEED (RPM)
	[3.2] 12	[18] 2 **1444**	[44] 5 **1426**	[62] 7 **1402**	[88] 10 **1360**	[115] 13 **1324**	[133] 15 **1288**	
Max cont	[3.9] 15		[35] 4 **1912**	[62] 7 **1900**	[88] 10 **1861**	[106] 12 **1833**	[124] 14 **1780**	Max cont.
Max int.	[5.3] 20		[0.00] 0 **2432**	[53] 6 **2395**	[88] 10 **2350**	[97] 11 **2328**	[124] 14 **2281**	Max int.

BMM 12.5 [0.79 in³/rev] 12.9 cm³/rev.

GPM / L/min		[507] 3.5	[725] 5	[1015] 7	[1450] 10	[1740] 12 (Max cont.)	[2030] 14 (Max int.)	[PSI] MPA
Flow (L/min)	[0.53] 2	[53] 6 **140**	[71] 8 **136**	[97] 11 **119**	[142] 16 **68**	[168] 19 **35**		TORQUE [LB-IN]
	[1.1] 4	[53] 6 **296**	[71] 8 **289**	[106] 12 **274**	[150] 17 **229**	[168] 19 **200**	[203] 23 **145**	TORQUE (N•M)
	[2.1] 8	[44] 5 **605**	[71] 8 **596**	[106] 12 **583**	[150] 17 **543**	[177] 20 **514**	[212] 24 **469**	SPEED (RPM)
	[3.2] 12	[44] 5 **912**	[71] 8 **905**	97] 11 **895**	[141] 16 **859**	[177] 20 **834**	[212] 24 **784**	
	[3.9] 15	[44] 5 **1152**	[62] 7 **1144**	[389] 44 **1136**	[407] 46 **1102**	[168] 19 **1078**	[203] 23 **1036**	
Max cont	[5.3] 20	[27] 3 **1542**	[62] 7 **1532**	[88] 10 **1521**	[133] 15 **1500**	[168] 19 **1482**	[195] 22 **1437**	Max cont.
Max int.	[6.6] 25	[18] 2 **1910**	[53] 6 **1891**	[80] 9 **1878**	[124] 14 **1848**	[159] 18 **1828**	[195] 22 **1788**	Max int.

BMM 20 [1.21 in³/rev] 19.9 cm³/rev.

GPM / L/min		[246] 1.7	[507] 3.5	[725] 5	[1015] 7	[1450] 10 (Max cont.)	[1740] 12	[2030] 14 (Max int.)	[PSI] MPA
Flow (L/min)	[0.53] 2	[27] 3 **99**	[80] 9 **96**	[124] 14 **89**	[168] 19 **74**	[230] 26 **42**	[265] 30 **21**		TORQUE [LB-IN]
	[1.1] 4	[35] 4 **197**	[80] 9 **191**	[124] 14 **182**	[168] 19 **178**	[230] 26 **134**	[274] 31 **112**	[318] 36 **74**	TORQUE (N•M)
	[2.1] 8	[35] 4 **398**	[80] 9 **395**	[115] 13 **391**	[168] 19 **377**	[239] 27 **340**	[274] 31 **319**	[318] 36 **288**	SPEED (RPM)
	[3.2] 12	[27] 3 **596**	[71] 8 **594**	[115] 13 **588**	[159] 18 **579**	[230] 26 **545**	[274] 31 **523**	[327] 37 **493**	
	[3.9] 15	[27 3 **745**	[71] 8 **741**	[106] 12 **738**	[150] 17 **728**	[221] 25 **695**	[265] 30 **684**	[318] 36 **660**	
Max cont	[5.3] 20	[9] 1 **998**	[53] 6 **995**	[97] 11 **991**	[168] 19 **985**	[212] 24 **962**	[256] 29 **1916**	[310] 35 **1885**	Max cont.
Max int.	[6.6] 25		[35] 4 **1247**	[80] 9 **1245**	[124] 14 **1242**	[203] 23 **1189**	[248] 28 **1180**	[292] 33 **1176**	Max int.

BMM 32 [1.93 in³/rev] 31,6 cm³/rev.

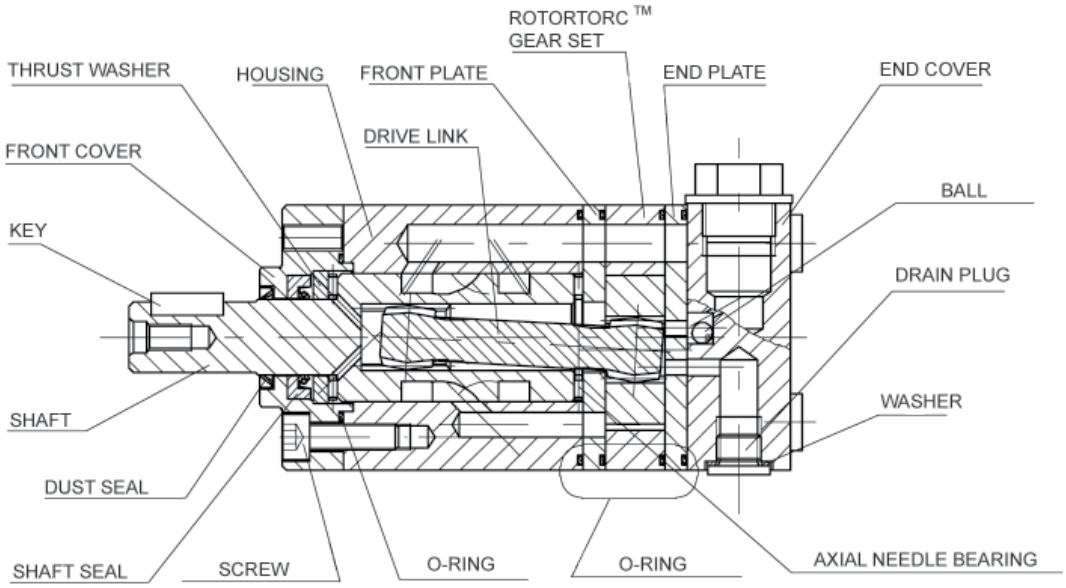
GPM / L/min		[246] 2	[507] 3.5	[725] 5	[1015] 7	[1450] 10 (Max cont.)	[1740] 12	[2030] 14 (Max int.)	[PSI] MPA
Flow (L/min)	[0.53] 2	[62] 7 **61**	[133] 15 **57**	[186] 21 **52**	[248] 28 **47**	[354] 40 **16**			TORQUE [LB-IN]
	[1.1] 4	[62] 7 **126**	[133] 15 **121**	[186] 21 **114**	[256] 29 **106**	[363] 41 **82**	[424] 48 **67**	[504] 57 **49**	TORQUE (N•M)
	[2.1] 8	[62] 7 **250**	[133] 15 **244**	[186] 21 **239**	[256] 29 **231**	[363] 41 **207**	[433] 49 **194**	[513] 58 **167**	SPEED (RPM)
	[3.2] 12	[53] 6 **378**	[115] 13 **374**	[177] 20 **369**	[248] 28 **362**	[354] 40 **338**	[424] 48 **322**	[513] 58 **297**	
	[3.9] 15	[35] 4 **476**	[106] 12 **472**	[159] 18 **468**	[239] 27 **462**	[345] 39 **441**	[415] 47 **429**	[504] 57 **406**	
Max cont	[5.3] 20	[27] 3 **633**	[88] 10 **630**	[150] 17 **627**	[221] 25 **619**	[327] 37 **601**	[407] 46 **585**	[486] 55 **566**	Max cont.
Max int.	[6.6] 25	[9] 1 **791**	[70] 8 **789**	[133] 15 **787**	[203] 23 **783**	[309] 35 **766**	[380] 43 **753**	[460] 52 **732**	Max int.

BMM 40 [2.43 in³/rev] 39.8 cm³/rev.

		[435] 3	[725] 5	[1015] 7	[1232] 9	[1450] 10	[1740] 12	[PSI] MPA
GPM	[0.53]	[142]	[239]	[318]	[389]	[451]		
L/min	2	16	27	36	44	51		
		45	**40**	**34**	**28**	**17**		
	[1.1]	[142]	[239]	[327]	[389]	[460]	[548]	TORQUE [LB-IN]
	4	16	27	37	44	52	62	TORQUE (N•M)
		96	**93**	**85**	**79**	**65**	**52**	SPEED (RPM)
Flow (L/min)	[2.1]	[133]	[230]	[319]	[389]	[460]	[557]	
	8	15	26	36	44	52	63	
		197	**195**	**182**	**176**	**166**	**154**	
	[3.2]	[124]	[221]	[310]	[380]	[451]	[548]	
	12	14	25	35	43	51	62	
		293	**287**	**282**	**277**	**268**	**257**	
	[3.9]	[115]	[212]	[301]	[371]	[442]	[548]	
	15	13	24	34	42	50	62	
		371	**365**	**360**	**355**	**347**	**338**	
Max cont	[5.3]	[88]	[186]	[274]	[345]	[425]	[522]	Max cont.
	20	10	21	31	39	48	59	
		497	**492**	**487**	**480**	**472**	**463**	
Max int.	[6.6]	[62]	[168]	[256]	[327]	[389]	[495]	Max int.
	25	7	19	29	37	44	56	
		622	**617**	**612**	**607**	**600**	**591**	

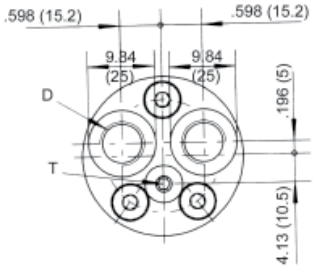
BMM 50 [3.07 in³/rev] 50.3 cm³/rev.

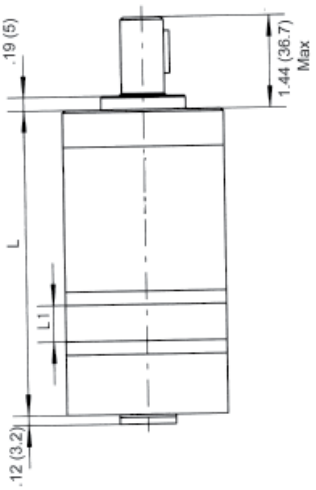
		[217] 1.5	[435] 3	[725] 5	[1015] 7	[1450] 10	[PSI] MPA
GPM	[0.53]	[97]	[203]	[318]	[442]		
L/min	2	11	23	36	50		
		37	**33**	**27**	**22**		
	[1.1]	[97]	[195]	[318]	[442]	[619]	TORQUE [LB-IN]
	4	11	22	36	50	70	TORQUE (N•M)
		76	**73**	**68**	**63**	**55**	SPEED (RPM)
Flow (L/min)	[2.1]	[97]	[186]	[310]	[442]	[628]	
	8	11	21	35	50	71	
		157	**154**	**149**	**145**	**137**	
	[3.2]	[97]	[177]	[292]	[433]	[628]	
	12	11	20	33	49	71	
		237	**234**	**231**	**226**	**218**	
	[3.9]	[88]	[159]	[283]	[416]	[610]	
	15	10	18	32	47	69	
		296	**295**	**294**	**288**	**282**	
Max cont	[5.3]	[71]	[124]	[256]	[389]	[566]	Max cont.
	20	8	14	29	44	64	
		395	**395**	**393**	**390**	**381**	
Max int.	[6.6]	[35]	[88]	[221]	[354]	[522]	Max int.
	25	4	10	25	40	59	
		498	**496**	**494**	**490**	**484**	

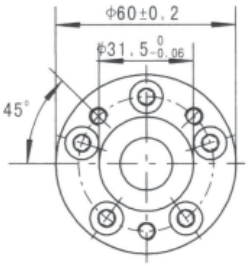


BMM END PORT INSTALLATION DATA

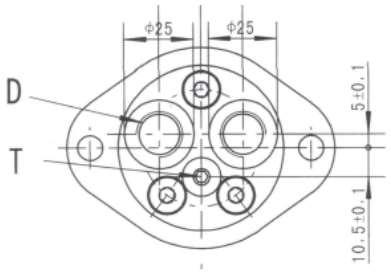
U Style

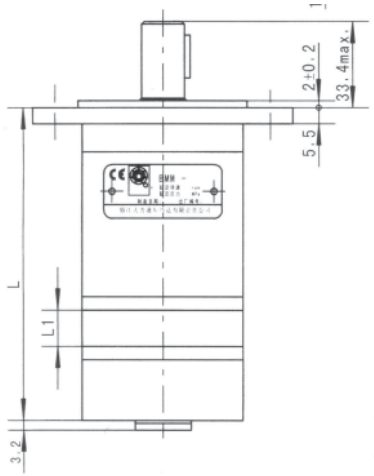


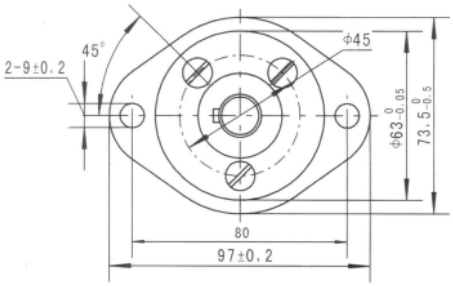




F Style



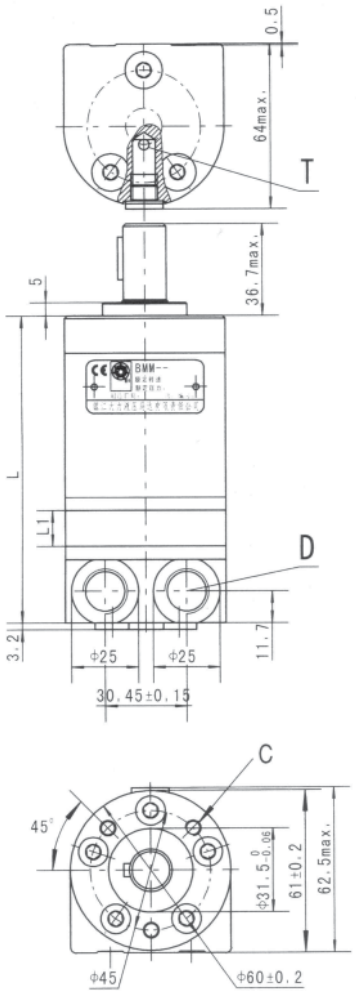




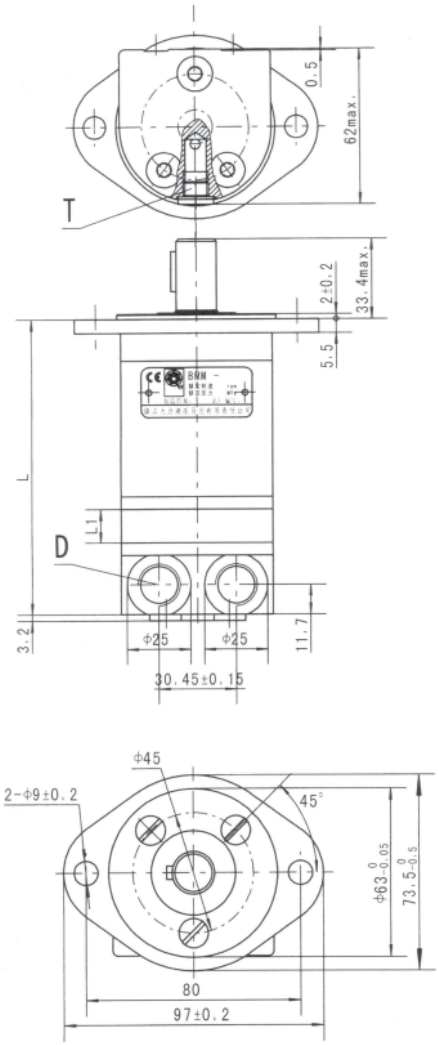
MODEL BMM	U				F			
	L		L1		L		L1	
	inches	mm	inches	mm	inches	mm	inches	mm
BMM 8	4.09	104	.13	3.5	4.21	107	.13	3.5
BMM 12.5	4.17	106	.21	5.5	4.29	109	.21	5.5
BMM 20	4.29	109	.33	8.5	4.40	112	.33	8.5
BMM 32	4.48	114	.53	13.5	4.60	117	.53	13.5
BMM 40	4.64	118	.67	17	4.64	118	.67	17
BMM 50	4.80	122	.84	21.5	4.92	125	.84	21.5

PORT SIZES	U	F
D	9/16-18 SAE	9/16-18 SAE
T	3/8-24 SAE	3/8-24 SAE

U Style



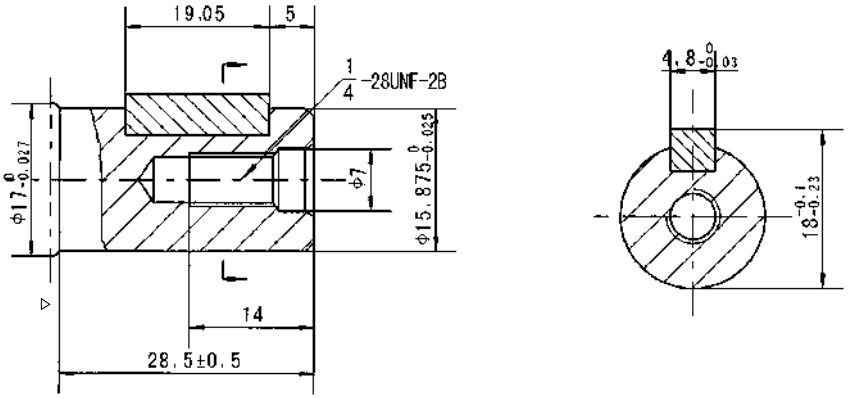
F Style



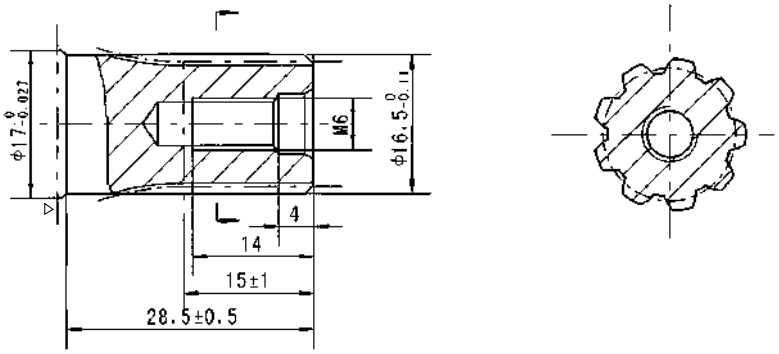
MODEL BMM	U				F			
	L		L1		L		L1	
	inches	mm	inches	mm	inches	mm	inches	mm
BMM 8	4.13	105	.13	3.5	4.29	109	.13	3.5
BMM 12.5	4.21	107	.21	5.5	4.37	111	.12	5.5
BMM 20	4.33	110	.33	8.5	4.48	114	.33	8.5
BMM 32	4.52	115	.53	13.5	4.68	119	.53	13.5
BMM 40	4.64	118	.67	17	4.64	118	.67	17
BMM 50	4.84	123	.84	21.5	5.00	127	.84	21.5

PORT SIZES	U	F
D	9/16-18 SAE	9/16-18 SAE
T	3/8-24 SAE	3/8-24 SAE

Shaft B: Cylindricall shaft Ø15.875
Parallel Key 4.8x4.8x19.35



Shaft C: Involute spline shaft
B17x14 DIN5482

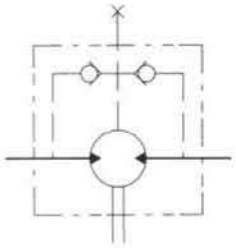


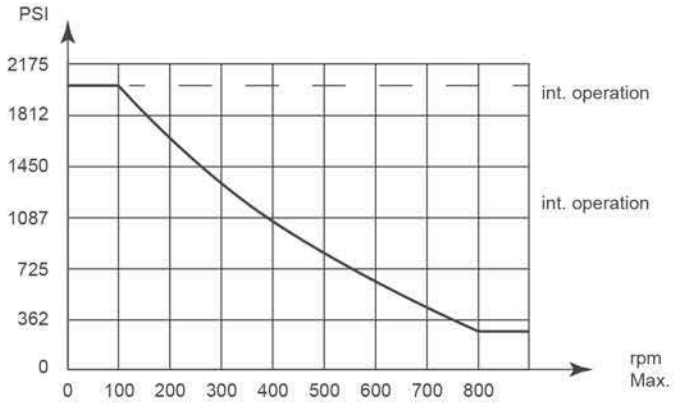
▷Motor Mounting Surface

(Dimensions in mm)

BMM Series Hydraulic Motor

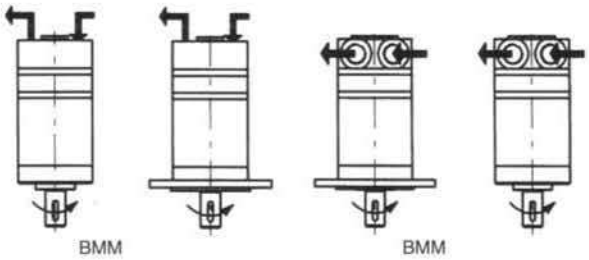
Permissible shaft seal pressure





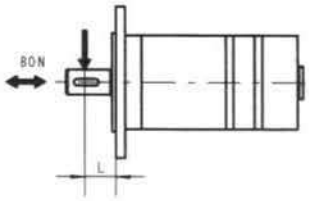
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Direction of shaft rotation



Status of the shaft's radial force

$$F_r = \frac{130400}{61.5+L} \text{ N}$$



F_r =Radial Force (N)
L =Distance (mm)
n =Speed (rpm)
Rhomb-flange L=15mm
Square-flange L=20mm

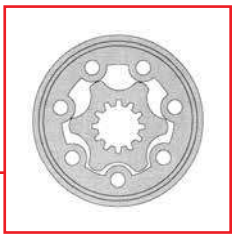
BMM ORDERING INFORMATION

	1	2	3	4	5	6
BMM						

1	2		3		4		5		6	
DISP. cc (cu. in.)	**FLANGE**		**OUTPUT SHAFT**		**PORT AND DRAIN PORT**		**ROTATION DIRECTION**		**PAINT**	
8 (.5)	**U**	Circle Flange	**B**	5/8" Straight Key	**U**	Side Port 9/16 - 18 SAE Drain 3/8 -24 SAE	**NONE**	STANDARD	**00**	NO PAINT
12.5 (.79)	**F**	2-Bolt Flange	**C**	9 Tooth Spline	**1U**	Back Port 9/16 - 18 SAE Drain 3/8 -24 SAE	**R**	OPPOSITE	**NONE**	BLACK
20 (1.21)					**E**	Side Port G 3/8 Drain G 1/8			**B**	BLUE
32 (1.93)					**1E**	Back Port G 3/8 Drain G 1/8			**S**	SILVER GRAY
40 (2.43)										
50 (3.07)										

For options not listed here, please contact us.

Model BMP/BMPH



The BMP and BMPH Gerotor gear set, shaft distribution flow, hydraulic motors are a compact, highly efficient, low speed-high torque design which can be used in either parallel or series systemsThese low weight advanced construction design motors are manufactured in accordance with the requirements of the ISO 9001-2008 quality system.

BMP/BMPH TECHNICAL SPECIFICATIONS

DISTRIBUTION TYPE			BMP 36	BMP 50	BMP 80	BMP 100	BMP 125	BMP 160	BMP 200	BMP 250	BMP 315	BMP 400
GEOMETRIC DISPLACEMENT		[in³./rev.]	[2.20]	[3.15]	[4.74]	[5.87]	[7.19]	[9.49]	[11.59]	[14.10]	[19.01]	[23.57]
		cm³/rev.	36	51.7	77.7	96.2	117.9	155.5	189.9	231	311.7	386.2
MAX. SPEED RPM		RATED	1050	850	650	520	390	310	260	200	156	130
		CONT.	1078	879	740	589	475	370	296	237	189	149
		INT.	**1210**	**975**	**827**	**673**	**594**	**463**	**370**	**297**	**236**	**185**
MAX. TORQUE [LB. IN.] N*M	RATED	[LB. IN.]	[486]	[716]	[1141]	[1424]	[1786]	[1804]	[2291]	[2874]	[3051]	[3847]
		N*M	**55**	**81**	**129**	**161**	**202**	**204**	**259**	**325**	**345**	**435**
	CONT.	[LB. IN.]	[486]	[716]	[1141]	[1423]	[1786]	[2167]	[2529]	[3184]	[3591]	[4847]
		N*M	**55**	**81**	**129**	**161**	**202**	**245**	**286**	**360**	**406**	**435**
	INT.	[LB. IN.]	[672]	[955]	[1512]	[1884]	[2370]	[3025]	[3449]	[4033]	[4466]	[4714]
		N*M	**76**	**108**	**171**	**213**	**268**	**342**	**390**	**456**	**505**	**533**
MAX. OUTPUT [HP] KW	RATED	[HP]	[8]	[9]	[12]	[12]	[11]	[9]	[9]	[9]	[7]	[8]
		KW	**6**	**7**	**8.6**	**8.6**	**8**	**6.5**	**6.9**	**6.6**	**5.5**	**5.8**
	CONT.	[HP]	[8]	[9]	[12]	[12]	[12]	[12]	[11]	[11]	[10]	[10]
		KW	**6**	**7**	**9.1**	**9**	**9.1**	**8.7**	**8.1**	**8.2**	**7.2**	**6.1**
	INT.	[HP]	[10]	[12]	[16]	[16]	[16]	[16]	[15]	[14]	[12]	[10]
		KW	**8**	**8.9**	**11.8**	**11.9**	**11.8**	**11.9**	**10.9**	**10.1**	**8.6**	**7.2**
MAX. PRES-SURE DROP [PSI] MPA	RATED	[PSI]	[1812]	[1812]	[1812]	[1812]	[1812]	[1450]	[1450]	[1450]	[1232]	[1232]
		MPA	**12.5**	**12.5**	**12.5**	**12.5**	**12.5**	**10**	**10**	**10**	**8.5**	**8.5**
	CONT.	[PSI]	[1812]	[1812]	[1812]	[1812]	[1812]	[1812]	[1595]	[1595]	[1595]	[1450]
		MPA	**12.5**	**12.5**	**12.5**	**12.5**	**12.5**	**12.5**	**11**	**11**	**11**	**10**
	INT.	[PSI]	[2392]	[2392]	[2392]	[2392]	[2392]	[2392]	[2392]	[2030]	[1812]	[1522]
		MPA	**16.5**	**16.5**	**16.5**	**16.5**	**16.5**	**16.5**	**16.5**	**14**	**12.5**	**10.5**
	PEAK	[PSI]	[2392]	[2392]	[2392]	[2392]	[2392]	[2392]	[2392]	[2030]	[1812]	[1522]
		MPA	**16.5**	**16.5**	**16.5**	**16.5**	**16.5**	**16.5**	**16.5**	**14**	**12.5**	**10.5**
MAX. FLOW [GPM] L/MIN	RATED	[GPM]	[10.4]	[11.8]	[14.5]	[14.5]	[14.5]	[14.5]	[14.5]	[14.5]	[14.5]	[14.5]
		L/MIN	**40**	**45**	**55**	**55**	**55**	**55**	**55**	**55**	**55**	**55**
	CONT.	[GPM]	[10.4]	[11.8]	[15.8]	[15.8]	[15.8]	[15.8]	[15.8]	[15.8]	[15.8]	[15.8]
		L/MIN	**40**	**45**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**
	INT.	[GPM]	[11.8]	[13.2]	[19.8]	[19.8]	[19.8]	[19.8]	[19.8]	[19.8]	[19.8]	[19.8]
		L/MIN	**45**	**50**	**75**	**75**	**75**	**75**	**75**	**75**	**75**	**75**
WEIGHT [LB] KG		[LB]	[12.3]	[12.3]	[12.6]	[13]	[13.2]	[13.7]	[14.1]	[14.6]	[15.2]	[16.3]
		KG	**5.6**	**5.6**	**5.7**	**5.9**	**6**	**6.2**	**6.4**	**6.6**	**6.9**	**7.4**

* Rated speed and rated torque: Output value of speed and torque under rated flow and rated pressure.
* Continuous pressure: Max. value of operating motor continuously.
* Intermittent pressure: Max. value of operating motor in 6 seconds per minute.
* Peak pressure: Max. value of operating motor in 0.6 second per minute.

BMP 36 [2.19 in³/rev] 36 cm³/rev.

Flow GPM L/min		[435] 3	[870] 6	[1015] 7	[1160] 8	[1450] 10	[1595] 11	[1813] 12	[2493] 16.5
		[115] 13 **214**	[212] 24 **205**	[256] 29 **200**	[301] 34 **194**	[380] 43 **187**	[424] 48 **179**	[486] 55 **168**	[654] 74 **138**
	[4.0] 15	[115] 13 **406**	[221] 25 **398**	[256] 29 **391**	[301] 34 **383**	[380] 43 **374**	[424] 48 **353**	[495] 56 **353**	[663] 75 **324**
	[5.3] 20	[115] 13 **541**	[212] 24 **534**	[256] 29 **528**	[301] 34 **521**	[380] 43 **513**	[424] 48 **500**	[495] 56 **486**	[627] 76 **458**
	[7.9] 30	[106] 12 **814**	[212] 24 **804**	[256] 29 **792**	[301] 34 **778**	[380] 43 **763**	[424] 48 **749**	[495] 56 **726**	[672] 76 **701**
	[9.2] 35	[106] 12 **952**	[203] 23 **944**	[248] 28 **930**	[301] 34 **913**	[380] 43 **897**	[424] 48 **879**	[495] 56 **858**	[672] 76 **833**
Max cont	[11.9] 45	[106] 12 **1090**	[203] 23 **1078**	[248] 28 **1064**	[283] 32 **1048**	[362] 41 **1024**	[415] 47 **998**	[486] 55 **977**	[663] 75 **943**
Max int.	[13.2] 50	[97] 11 **1232**	[194] 22 **1218**	[230] 26 **1196**	[283] 32 **1175**	[362] 41 **1149**	[407] 46 **1118**	[477] 54 **1080**	[654] 74 **1044**

[PSI] MPA

TORQUE [LB-IN]
TORQUE (N•M)
SPEED (RPM)

Max cont.

Max int.

BMP 50 [3.15 in³/rev] 51.7 cm³/rev.

Flow GPM L/min		[435] 3	[870] 6	[1015] 7	[1160] 8	[1450] 10	[1595] 11	[1813] 12	[2393] 16
		[150] 17 **154**	[336] 38 **149**	[389] 44 **144**	[442] 50 **141**	[557] 63 **135**	[619] 70 **129**	[699] 79 **123**	[920] 104 **92**
	[4.0] 15	[168] 19 **292**	[336] 38 **286**	[389] 44 **238**	[442] 50 **277**	[566] 64 **273**	[628] 71 **267**	[708 80 **262**	[929] 105 **231**
	[5.3] 20	[150] 17 **390**	[336] 38 **385**	[389] 44 **382**	[451] 51 **376**	[566] 64 **374**	[628] 71 **367**	[708] 80 **360**	[946] 107 **332**
	[7.9] 30	[142] 16 **586**	[327] 37 **579**	[389] 44 **572**	[442] 50 **568**	[566] 64 **562**	[628] 71 **556**	[716] 81 **546**	[955] 108 **516**
	[9.2] 35	[133] 15 **683**	[318] 36 **675**	[380] 43 **670**	[442] 50 **663**	[557] 63 **656**	[628] 71 **647**	[708] 80 **641**	[946] 107 **614**
Max cont	[11.9] 45	[124] 14 **879**	[301] 34 **868**	[371] 42 **862**	[433] 49 **855**	[557] 63 **849**	[619] 70 **840**	[708] 80 **833**	[946] 107 **799**
Max int.	[13.2] 50	[115] 13 **975**	[292] 33 **962**	[363] 41 **955**	[425] 48 **949**	[548] 62 **943**	[601] 68 **937**	[699] 79 **927**	

[PSI] MPA

TORQUE [LB-IN]
TORQUE (N•M)
SPEED (RPM)

Max cont.

Max int.

BMP 80 [4.74 in³/rev] 77.7 cm³/rev.

Flow GPM L/min		[435] 3	[870] 6	[1015] 7	[1160] 8	[1450] 10	[1595] 11	[1814] 12	[2394] 16
		[256] 29 **97**	[531] 60 **94**	[619] 70 **91**	[708] 80 **88**	[893] 101 **84**	[982] 111 **79**	[1132] 128 **74**	[1486] 168 **50**
	[4.0] 15	[256] 29 **184**	[539] 61 **181**	[628] 71 **178**	[716] 81 **175**	[893] 101 **171**	[1008] 114 **167**	[1141] 129 **162**	[1503] 170 **140**
	[5.3] 20	[248] 28 **247**	[531] 60 **243**	[628] 71 **241**	[716] 81 **238**	[893] 101 **235**	[931] 112 **231**	[1141] 129 **225**	[1503] 170 **205**
	[7.9] 30	[221] 25 **370**	[515] 58 **366**	[610] 69 **363**	[699] 79 **360**	[884] 100 **356**	[982] 111 **351**	[1132] 128 **346**	[1512] 171 **323**
	[9.2] 35	[212] 24 **432**	[504] 57 **427**	[601] 68 **424**	[690] 78 **421**	[876] 99 **416**	[973] 110 **412**	[1114] 126 **407**	[1512] 171 **387**
	[11.9] 45	[195] 22 **555**	[478] 54 **550**	[584] 66 **546**	[681] 77 **542**	[858] 97 **538**	[964] 109 **532**	[1097 124 **528**	[1495] 169 **503**
	[13.2] 50	[177] 20 **616**	[469] 53 **609**	[566] 64 **606**	[633] 75 **603**	[849] 96 **599**	[946] 107 **594**	[1088] 123 **588**	[1486] 168 **561**
Max cont	[15.8] 60	[168] 19 **740**	[460] 52 **732**	[557] 63 **727**	[654] 74 **723**	[840] 95 **718**	[946] 107 **713**	[1088] 123 **707**	[1486] 168 **675**
Max int.	[19.8] 75	[142 16 **827**	[416] 47 **820**	[522] 59 **817**	[637] 72 **813**	[805] 91 **808**	[929] 105 **804**	[1070] 121 **796**	

[PSI] MPA

TORQUE [LB-IN]
TORQUE (N•M)
SPEED (RPM)

Max cont.

Max int.

BMP 100 [5.87 in³/rev] 96.2 cm³/rev.

Flow GPM L/min		[435] 3	[870] 6	[1015] 7	[1160] 8	[1450] 10	[1595] 11	[1813] 12	[2393] 16
		[318] 36 **78**	[663] 75 **75**	[778] 88 **73**	[893] 101 **70**	[1114] 126 **63**	[1247] 141 **67**	[1415] 160 **56**	[1857] 210 **34**
	[4.0] 15	[310] 35 **149**	[663] 75 **145**	[787] 89 **143**	[893] 101 **141**	[1132] 128 **137**	[1247] 141 **134**	[1415] 160 **129**	[1884] 213 **109**
	[5.3] 20	[292] 33 **199**	[654] 74 **196**	[778] 88 **195**	[893] 101 **191**	[1114] 126 **189**	[1238] 140 **185**	[1424] 161 **179**	[1875] 212 **161**
	[7.9] 30	[274] 31 **299**	[637] 72 **296**	[752] 85 **293**	[867] 98 **291**	[1088] 123 **288**	[1212] 137 **284**	[1386] 157 **280**	[1884] 213 **259**
	[9.2] 35	[256] 29 **349**	[610] 69 **345**	[734] 83 **344**	[849] 96 **341**	[1070] 121 **337**	[1194] 135 **335**	[1371] 155 **330**	[1875] 212 **310**
	[11.9] 45	[248] 28 **449**	[584] 66 **445**	[716] 81 **442**	[831] 94 **439**	[1052] 119 **435**	[1176] 133 **432**	[1353] 153 **428**	[1840] 208 **405**
	[13.2] 50	[212] 24 **498**	[575] 65 **493**	[690] 78 **491**	[822] 93 **490**	[1565] 117 **486**	[1167] 132 **481**	[1344] 152 **477**	[1831] 207 **457**
Max cont	[15.8] 60	[203] 23 **598**	[557] 63 **593**	[681] 77 **589**	[814] 92 **587**	[1026] 116 **583**	[1158] 131 **578**	[1335] 151 **573**	[1831] 207 **549**
Max int.	[19.8] 75	[177] 20 **673**	[504] 57 **667**	[654] 74 **664**	[778] 88 **661**	[999] 113 **657**	[1141] 129 **654**	[1327] 150 **648**	

[PSI] MPA

TORQUE [LB-IN]
TORQUE (N•M)
SPEED (RPM)

Max cont.

Max int.

BMP 125 [7.19 in³/rev] 117,9 cm³/rev.

GPM L/min		[435] 3	[870] 6	[1015] 7	[1160] 8	[1450] 10	[1595] 11	[1813] 12	Max cont. [2393] 16	[PSI] MPA
[2.1] 8		[398] 45 **62**	[831] 94 **60**	[982] 111 **59**	[1123] 127 **56**	[1397] 158 **54**	[1557] 176 **50**	[1778] 201 **46**	[2326] 263 **26**	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
[4.0] 15		[389] 44 **118**	[831] 94 **115**	[982] 111 **114**	[1123] 127 **113**	[1415] 160 **110**	[1565] 177 **108**	[1786] 202 **105**	[2361] 267 **86**	
[5.3] 20		[371] 42 **158**	[822] 93 **156**	[973] 110 **155**	[1123] 127 **152**	[1406] 159 **150**	[1557] 176 **148**	[1786] 202 **144**	[2370] 268 **129**	
[7.9] 30	Flow (L/min)	[354] 40 **238**	[808] 91 **235**	[955] 108 **233**	[1097] 124 **231**	[1380] 156 **229**	[1539] 174 **225**	[1751] 198 **222**	[2370] 268 **205**	
[9.2] 35		[336] 38 **227**	[787] 89 **274**	[937] 106 **273**	[1079] 122 **272**	[1362] 154 **268**	[1521] 172 **266**	[1733] 196 **263**	[2361] 267 **247**	
[11.9] 45		[327] 37 **356**	[752] 85 **353**	[911] 103 **352**	[1061] 120 **349**	[1335] 151 **347**	[1503] 170 **343**	[1716] 194 **341**	[2326] 263 **321**	
[13.2] 50		[292] 33 **396**	[743 84 **392**	[884] 100 **390**	[1044] 118 **390**	[1318] 149 **387**	[1477] 167 **383**	[1698] 192 **380**	[2299] 260 **363**	
Max cont [15.8] 60		[283] 32 **475**	[716] 81 **471**	[876] 99 **469**	[1026] 116 **467**	[1300] 147 **465**	[1468] 166 **461**	[1689] 191 **457**	[2291] 259 **436**	Max cont.
Max int. [19.8] 75		[230] 26 **594**	[663] 75 **588**	[822] 93 **587**	[973] 110 **581**	[1256] 142 **576**	[1406] 159 **584**	[1636] 185 **579**		Max int.

BMP 160 [9.49 in³/rev] 155.5 cm³/rev.

GPM L/min		[435] 3	[870] 6	[1015] 7	[1160] 8	[1450] 10	[1595] 11	[2030] 14	Max cont. [2393] 16	[PSI] MPA
[2.1] 8		[504] 57 **48**	[1070] 121 **47**	[1256] 142 **46**	[1433] 162 **44**	[1786] 202 **42**	[1990] 225 **40**	[2419] 243 **39**	[2954] 334 **24**	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
[4.0] 15		[495] 56 **93**	[1070] 121 **90**	[1256 142 **90**	[1433] 162 **89**	[1804] 204 **88**	[2008] 227 **86**	[2167] 245 **86**	[3016] 341 **75**	
[5.3] 20		[486] 55 **123**	[1061] 120 **122**	[1238] 140 **121**	[1433] 162 **119**	[1795] 203 **117**	[1999] 226 **116**	[2158] 244 **116**	[3025] 342 **104**	
[7.9] 30	Flow (L/min)	[478] 54 **185**	[1035] 117 **183**	[1229] 139 **182**	[1415] 160 **180**	[1778] 201 **178**	[1981] 224 **176**	[2140] 242 **175**	[3007] 340 **163**	
[9.2] 35		[460] 52 **215**	[1017] 115 **213**	[1212] 137 **213**	[1406] 159 **211**	[1760] 199 **210**	[1946] 220 **208**	[2140] 242 **207**	[2980] 337 **196**	
[11.9] 45		[442] 50 **277**	[991] 112 **275**	[1185] 134 **275**	[1380] 156 **273**	[1733] 196 **271**	[1946] 220 **169**	[2105] 238 **268**	[2963] 335 **256**	
[13.2] 50		[398] 45 **308**	[973] 110 **307**	[1167] 132 **305**	[1353] 153 **303**	[1716] 194 **302**	[1910] 216 **299**	[2061] 233 **299**	[2919] 330 **287**	
Max cont [15.8] 60		[389] 44 **370**	[937] 106 **368**	[1150] 130 **365**	[1335] 151 **364**	[1698] 192 **362**	[1893] 214 **360**	[2043] 231 **359**	[2901] 328 **347**	Max cont.
Max int. [19.8] 75		[283] 32 **463**	[849] 96 **458**	[1052] 119 **457**	[1256] 142 **456**	[1610] 182 **453**	[1813] 205 **451**	[1963] 222 **451**		Max int.

BMP 200 [11.59 in³/rev] 189.9 cm³/rev.

GPM L/min		[435] 3	[870] 6	[1015] 7	[1160] 8	[1450] 10	[1595] 11	Max cont. [2175] 15	[PSI] MPA
[2.1] 8		[646] 73 **39**	[1353] 153 **37**	[1583] 179 **36**	[1804] 204 **35**	[2264] 256 **32**	[2503] 283 **28**	[3405] 385 **12**	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
[4.0] 15		[646] 73 **74**	[1344] 152 **72**	[1592] 180 **71**	[1813] 205 **71**	[2291] 259 **70**	[2353] 266 **68**	[3449] 390 **58**	
[5.3] 20		[628] 71 **99**	[1335] 151 **98**	[1574] 178 **97**	[1804] 204 **95**	[2264] 256 **94**	[2521] 285 **91**	[3449] 390 **81**	
[7.9] 30	Flow (L/min)	[601] 68 **148**	[1318] 149 **147**	[1548] 175 **146**	[1786] 202 **144**	[2246] 154 **142**	[2503] 283 **139**	[3431] 388 **128**	
[9.2] 35		[575] 65 **173**	[1291] 146 **172**	[1530] 173 **171**	[1769] 200 **169**	[2229] 252 **168**	[2485] 281 **165**	[3414] 386 **155**	
[11.9] 45		[557] 63 **222**	[1256] 142 **221**	[1503] 170 **220**	[1733] 196 **218**	[2184] 247 **216**	[2450] 259 **214**	[3378] 382 **203**	
[13.2] 50		[513] 58 **247**	[1220] 138 **245**	[1468] 166 **244**	[1707] 193 **244**	[2158] 244 **242**	[2406] 272 **239**	[3343 378 **229**	
Max cont [15.8] 60		[495] 56 **296**	[1203] 136 **294**	[1442] 163 **293**	[1689] 191 **292**	[2131] 241 **290**	[2379] 269 **287**	[3317] 375 **277**	Max cont.
Max int. [19.8] 75		[371] 42 **370**	[1070] 121 **367**	[1327] 150 **367**	[1565] 177 **365**	[1999] 226 **364**			Max int.

BMP 250 [14.10 in³/rev] 231 cm³/rev.

GPM L/min		[435] 3	[870] 6	[1015] 7	[1160] 8	[1450] 10	[1595] 11	Max cont. [2030] 14	[PSI] MPA
[2.1] 8		[822] 93 **31**	[1725] 195 **29**	[1999] 226 **29**	[2291] 259 **27**	[2874] 325 **25**	[3157] 357 **24**		TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
[4.0] 15		[814] 92 **60**	[1698] 192 **58**	[1999] 226 **57**	[2299] 260 **57**	[2874] 325 **55**	[3184] 360 **55**	[4033] 456 **46**	
[5.3] 20		[796] 90 **79**	[1689] 191 **78**	[1990] 225 **77**	[2282] 258 **76**	[2848] 322 **75**	[3148] 356 **75**	[4024] 455 **65**	
[7.9] 30	Flow (L/min)	[761] 86 **119**	[1663] 188 **118**	[1955] 221 **117**	[2255] 255 **116**	[2821] 319 **114**	[3131] 354 **114**	[3997] 452 **103**	
[9.2] 35		[725] 82 **138**	[1627] 184 **138**	[1919] 217 **137**	[2220] 251 **135**	[2804] 317 **133**	[3095] 350 **133**	[3962] 448 **124**	
[11.9] 45		[699] 79 **179**	[1583] 179 **178**	[1893] 214 **177**	[2176] 246 **176**	[2759] 312 **173**	[3051] 345 **173**	[3909] 442 **163**	
[13.2] 50		[654] 74 **198**	[1539] 174 **197**	[1848] 209 **197**	[2149] 243 **195**	[2706] 306 **194**	[2998] 339 **193**	[3874] 438 **185**	
Max cont [15.8] 60		[628] 71 **237**	[1512] 171 **236**	[1822] 206 **236**	[2113] 239 **234**	[2680] 303 **232**	[2972] 336 **232**	[3829] 433 **224**	Max cont.
Max int. [19.8] 75		[469] 53 **297**	[1353] 153 **295**	[1672] 189 **295**	[1955 221 **293**	[2582] 292 **232**	[2759] 312 **291**		Max int.

BMP/BMPH PERFORMANCE DATA

BMP 315 [19.02 in³/rev] 311.7 cm³/rev.

GPM L/min		[435] 3	[870] 6	[1015] 7	[1160] 8	Max cont. [1450] 10	Max int. [1813] 12
	[2.1]	[1026]	[2149]	[2494]	[2768]	[3431]	
	8	116	243	282	313	388	
		25	**24**	**22**	**16**	**13**	
	[4.0]	[1017]	[2149]	[2512]	[2865]	[3591]	[4449]
	15	115	243	284	324	406	503
		47	**46**	**45**	**43**	**41**	**20**
	[5.3]	[1008]	[2140]	[2494]	[2857]	[3582]	[4466]
	20	114	242	282	323	405	505
		63	**62**	**61**	**58**	**56**	**54**
Flow (L/min)	[7.9]	[964]	[2096]	[2450]	[2821]	[3546]	[4431]
	30	109	237	277	319	401	501
		94	**93**	**92**	**90**	**88**	**77**
	[9.2]	[929]	[2052]	[2414]	[2777]	[3511]	[4395]
	35	105	232	273	314	397	497
		110	**109**	**108**	**106**	**103**	**93**
	[11.9]	[876]	[1999]	[2370]	[2733]	[3458]	[4342]
	45	99	226	268	309	391	491
		141	**141**	**139**	**137**	**135**	**124**
	[13.2]	[814]	[1928]	[2317]	[2689]	[3396]	[4298]
	50	92	218	262	304	384	486
		157	**157**	**155**	**154**	**151**	**141**
Max cont	[15.8]	[787]	[1901]	[2282]	[2644]	[3352]	[4236]
	60	89	215	258	299	379	479
		189	**188**	**187**	**185**	**182**	**171**
Max int.	[19.8]	[610]	[1716]	[2097]	[2459]	[3140]	
	75	69	194	237	278	355	
		236	**235**	**234**	**232**	**229**	

[PSI] MPA

TORQUE [LB-IN]
TORQUE (N•M)
SPEED (RPM)

Max cont.

Max int.

BMP 400 [23.57 in³/rev] 386.2 cm³/rev.

GPM L/min		[435] 3	[870] 6	[1015] 7	[1160] 8	Max cont. [1232,50] 8	Max int. [1812,50] 12
	[2.1]	[1300]	[2688]	[3131]			
	8	147	304	354			
		20	**19**	**16**			
	[4.0]	[1300]	[2724]	[3175]	[3608]	[3847]	[4705]
	15	147	308	359	408	435	532
		37	**36**	**35**	**33**	**32**	**25**
	[5.3]	[1273]	[2697]	[3166]	[3599]	[3847]	[4714]
	20	144	305	358	407	435	533
		50	**49**	**47**	**45**	**43**	**38**
Flow (L/min)	[7.9]	[1229]	[2662]	[3113]	[3555]	[3803]	[4687]
	30	139	301	352	402	430	530
		74	**73**	**72**	**70**	**68**	**62**
	[9.2]	[1176]	[2600]	[3051]	[3502]	[3741]	[4643]
	35	133	294	345	396	423	525
		86	**86**	**85**	**82**	**80**	**75**
	[11.9]	[1105]	[2538]	[2998]	[3440]	[3679]	[4572]
	45	125	287	339	389	416	517
		111	**111**	**109**	**106**	**105**	**100**
	[13.2]	[1035]	[2459]	[2918]	[3378]	[3591]	[4502]
	50	117	278	330	382	406	509
		124	**124**	**122**	**120**	**119**	**113**
Max cont	[15.8]	[990]	[2423]	[2883]	[3334]	[3573]	[4466]
	60	112	274	326	377	404	505
		149	**149**	**147**	**145**	**144**	**137**
Max int.	[19.8]	[778]	[2146]	[2635]	[3104]	[3325]	
	75	88	246	298	351	376	
		185	**185**	**185**	**182**	**181**	

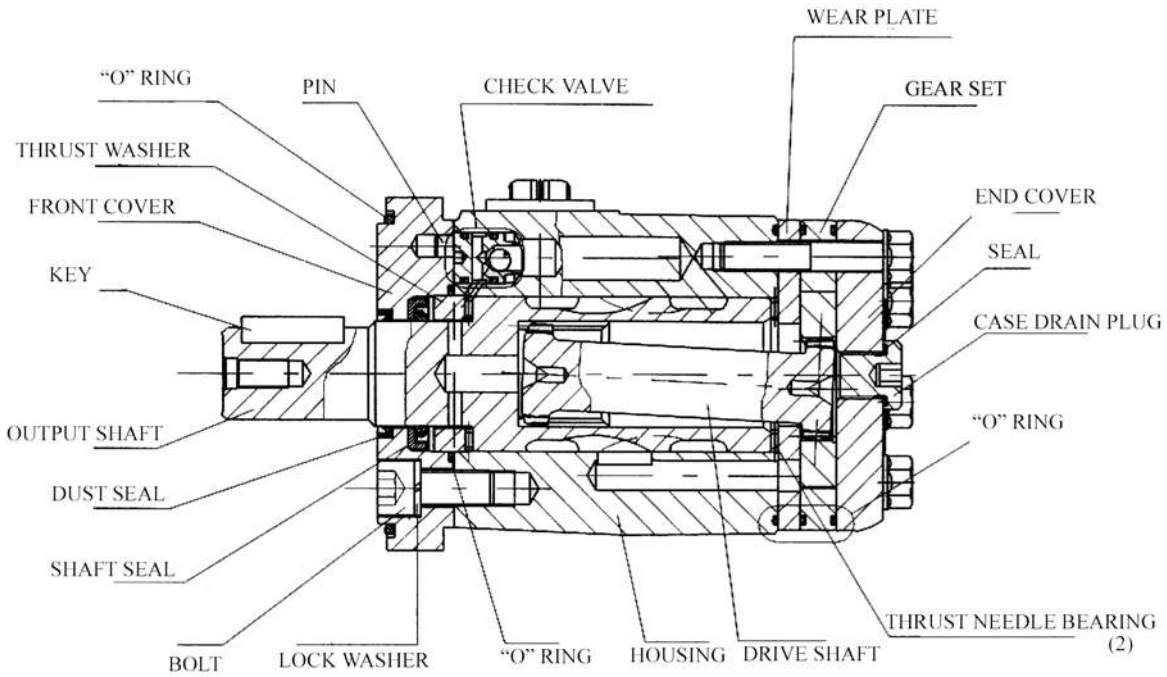
[PSI] MPA

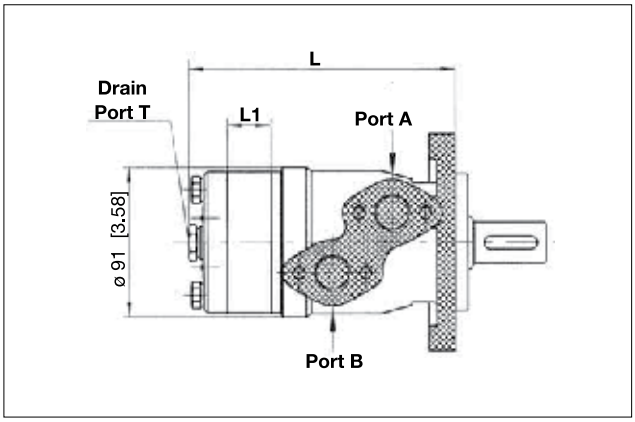
TORQUE [LB-IN]
TORQUE (N•M)
SPEED (RPM)

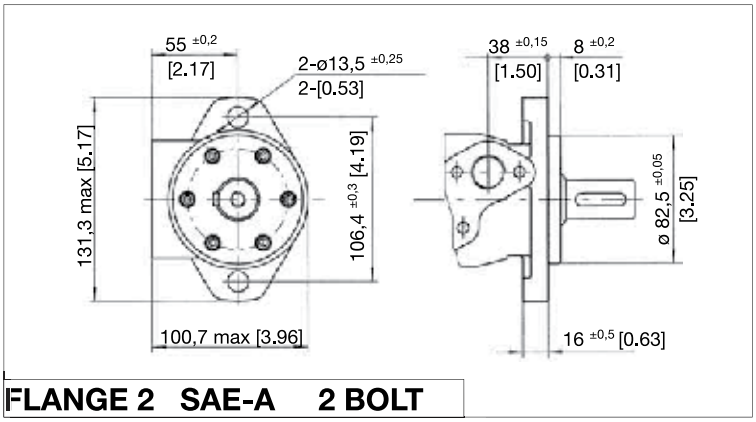
Max cont.

Max int.

BMP CROSS SECTION

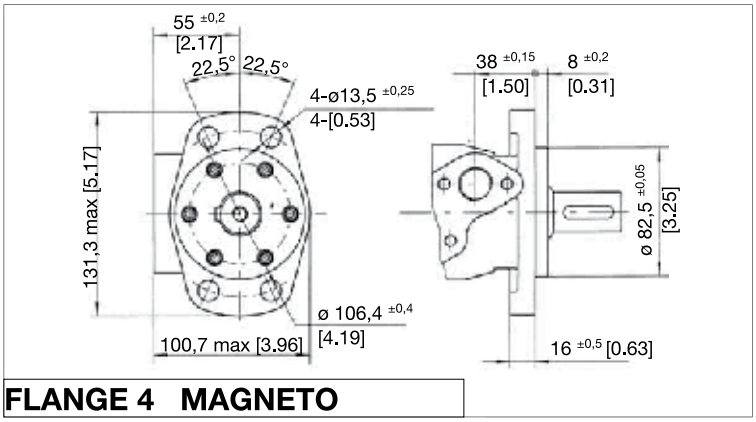




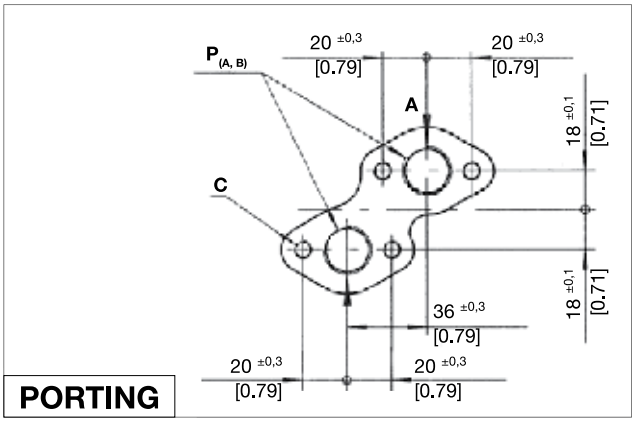


FLANGE 2 SAE-A 2 BOLT

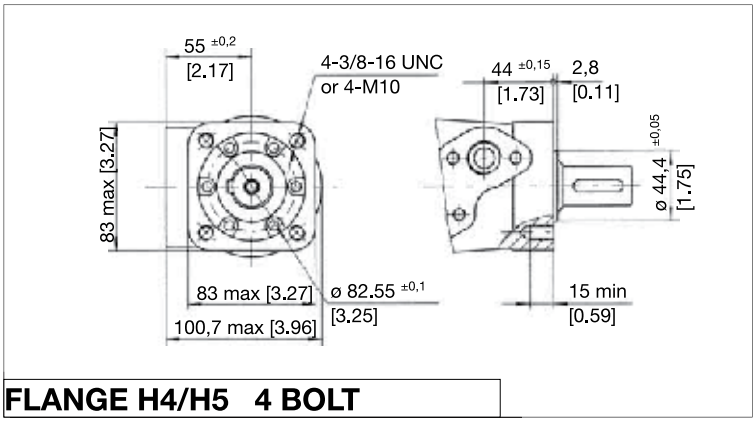
	[INCHES]		MILLIMETERS	
MODEL	L	L1	L	L1
BMP 50	[5.39]	[.28]	137	7
BMP 80	[5.53]	[0.41]	140.5	10.5
BMP 100	[5.63]	[0.51]	143	13
BMP 125	[5.75]	[0.63]	146	16
BMP 160	[5.94]	[0.83]	151	21
BMP 200	[6.18]	[1.02]	157	26
BMP 250	[6.38]	[1.26]	162	32
BMP 315	[6.77]	[1.65]	172	42
BMP 400	[7.17]	[2.05]	182	52



FLANGE 4 MAGNETO



PORTING

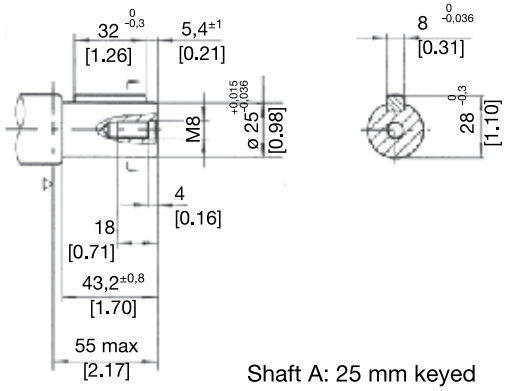


FLANGE H4/H5 4 BOLT

PORT & DRAIN PORT ORDERING CODES

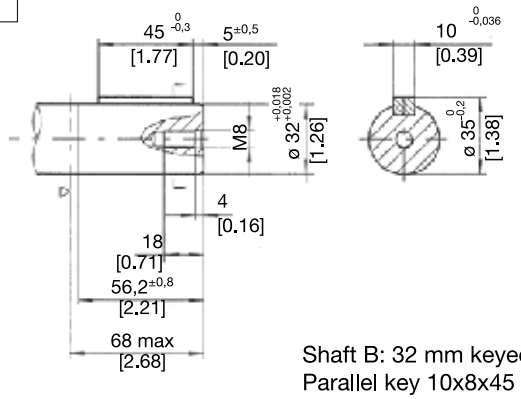
ORDER CODE	D	DEPTH	M	DEPTH	S	DEPTH	P	DEPTH	R	DEPTH
PORTS - A and B	G 1/2	15 mm	M22 X 1.5	15 mm	7/8-14 O-RING	17 mm	1/2-14NPTF	15 mm	PT(RC)1/2	15 mm
TANK PORT - T	G 1/4	12 mm	M14 X1.5	12 mm	7/16-20UNF	12 mm	7/16-20UNF	12 mm	PT(RC)1/4	9.7 mm
BOLTS - C	4-M8	13 mm	4-M8	13 mm	4-5/16-18UNC	13 mm	4-5/16-18UNC	13 mm	4-M8	13 mm

A



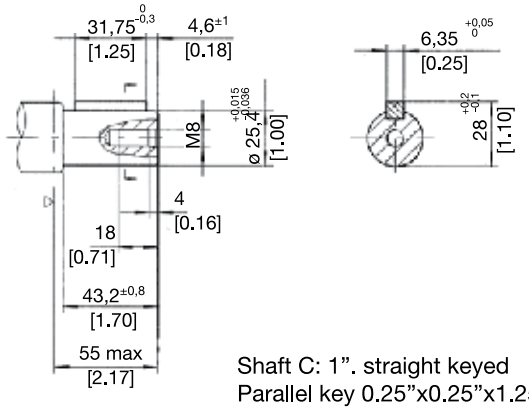
Shaft A: 25 mm keyed
Parallel key 8x7x32

B



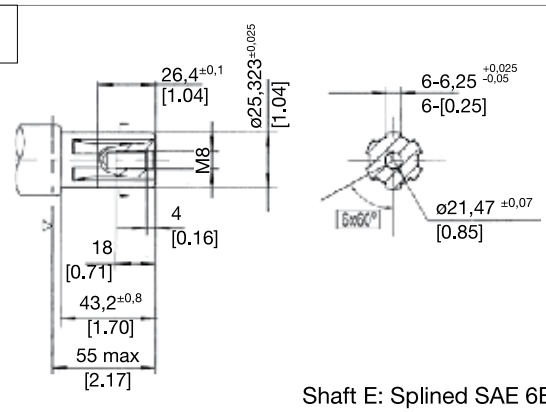
Shaft B: 32 mm keyed
Parallel key 10x8x45

C



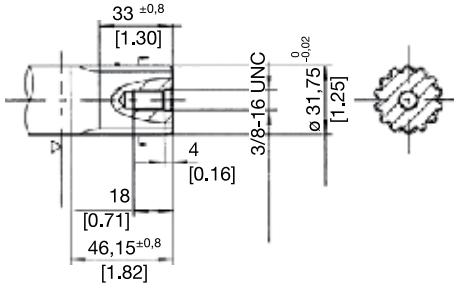
Shaft C: 1". straight keyed
Parallel key 0.25"x0.25"x1.25"

E



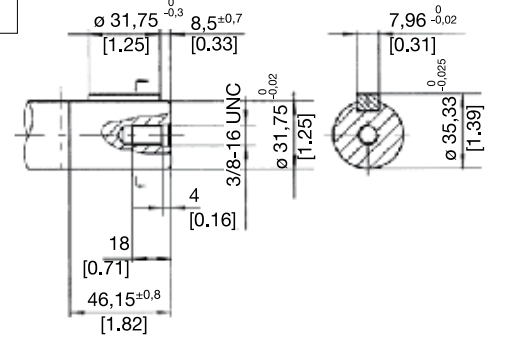
Shaft E: Splined SAE 6B

F



Shaft F: 1 1/4 " 14 Splined
14-DP12/24

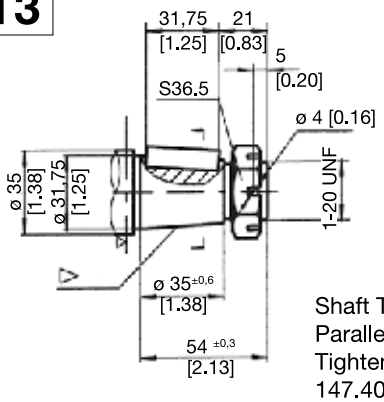
G



Shaft G: 1 1/4 " Straight keyed
Parallel key 0.31"x0.31"x1.25"

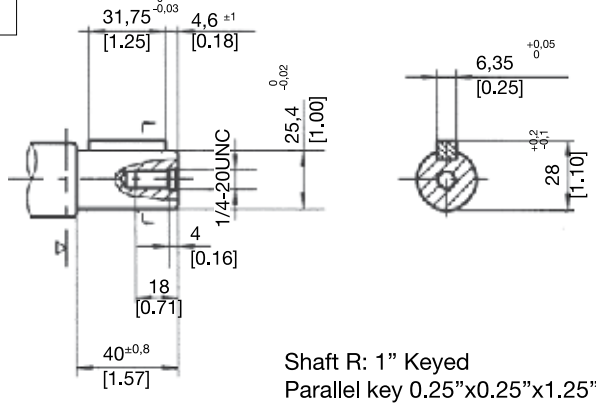
▷ Motor Mounting Surface

T3



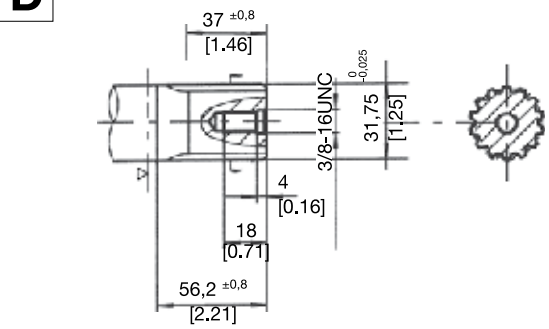
Shaft T3: 1 1/4 "" Tapered
Parallel key .031"x.031"x1.25"
Tightening torque:
147.40±7.37 ft.lb.

R



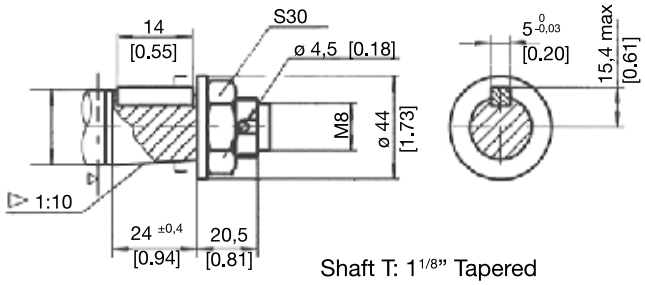
Shaft R: 1" Keyed
Parallel key 0.25"x0.25"x1.25"

FD



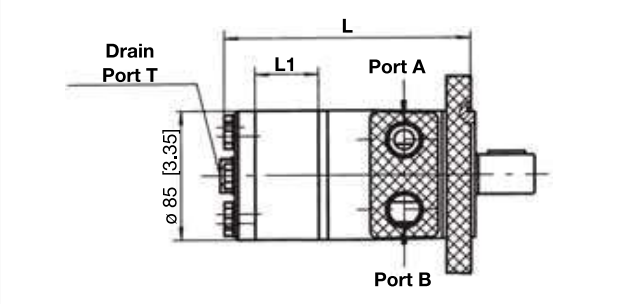
Shaft FD: 1 1/4"-14 Splined
14-DP12/24

T

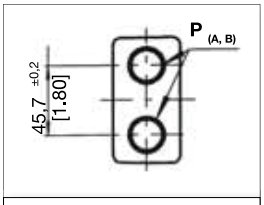


Shaft T: 1 1/8" Tapered
Parallel key
Tightening torque:
147.40±7.37 ft.lb.

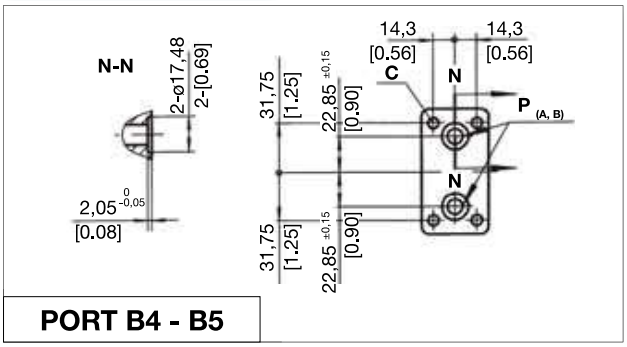
▷ Motor Mounting Surface



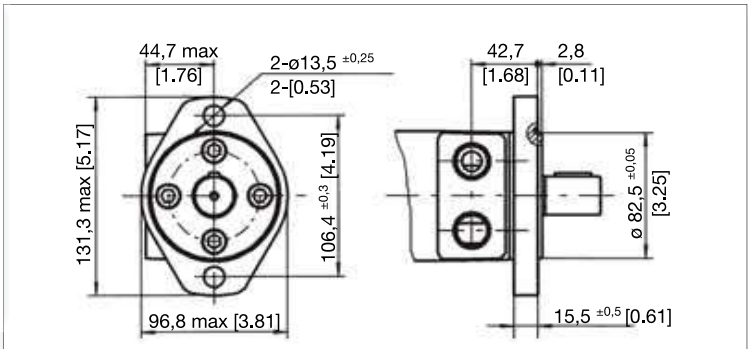
	[INCHES]		MILLIMETERS	
MODEL	L	L1	L	L1
BMPH 50	[5.39]	[.28]	141	7
BMPH 80	[5.53]	[0.41]	144.5	10.5
BMPH 100	[5.63]	[0.51]	147	13
BMPH 125	[5.75]	[0.63]	150	16
BMPH 160	[5.94]	[0.83]	155	21
BMPH 200	[6.18]	[1.02]	160	26
BMPH 250	[6.38]	[1.26]	166	32
BMPH 315	[6.77]	[1.65]	176	42
BMPH 400	[7.17]	[2.05]	186	52



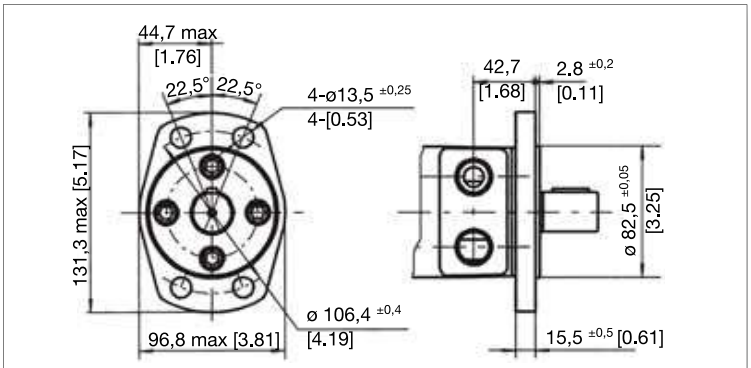
PORT G-S-P-T-R



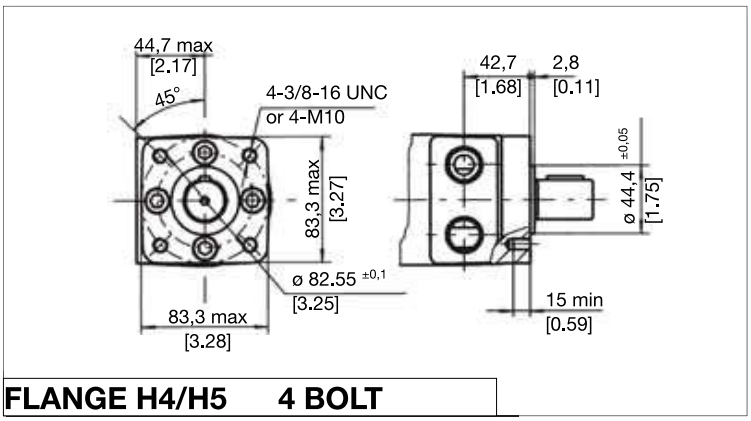
PORT B4 - B5



FLANGE H2 SAE-A 2 BOLT



FLANGE H6 MAGNETO

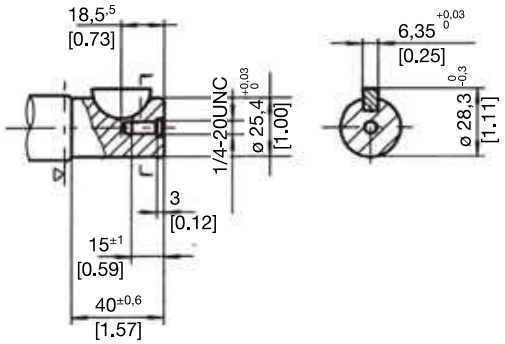


FLANGE H4/H5 4 BOLT

PORT & DRAIN PORT ORDERING CODES

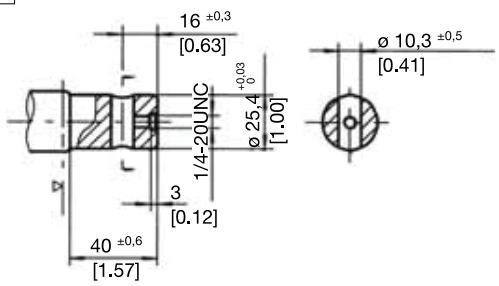
ORDER CODE	G	DEPTH	S	DEPTH	P	DEPTH	T	DEPTH	R	DEPTH	B4	DEPTH	B5	DEPTH
PORTS - A and B	G 1/2	15 mm	7/8-14 O-RING	17 mm	1/2-14NPTF	15 mm	3/4 16 O-RING	15 mm	PT(RC) 1/2	15 mm	Ø10	-	Ø10	-
TANK PORT - T	G 1/4	12 mm	7/16-20UNF	12 mm	7/16-20UNF	12 mm	7/16-20UNF	12 mm	PT(RC) 1/4	9.7 mm	7/16 20UNF	12 mm	G 1/4	12 mm
BOLTS - C	-	-	-	-	-	-	-	-	-	-	4-5/16 18UNC	13 mm	4-M8	13 mm

K



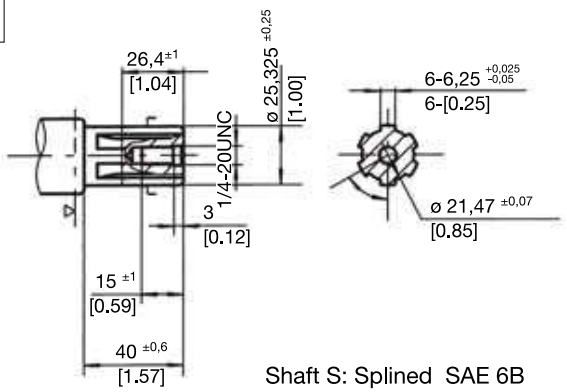
Shaft K: 1” Woodruff key
Woodruff Keyed 1” x .25”

H



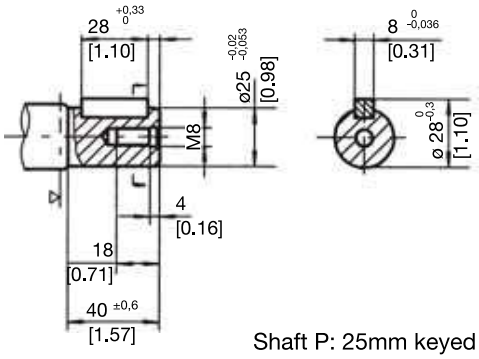
Shaft H: 1” Round Cross Hole
Cross hole .41”

S



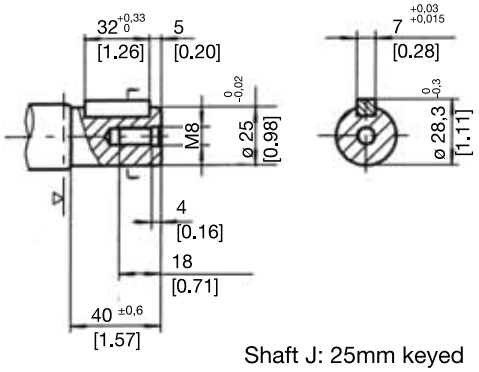
Shaft S: Splined SAE 6B

P



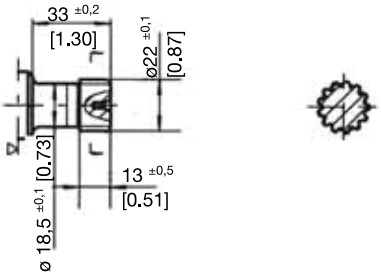
Shaft P: 25mm keyed
Parallel key 8 x 7 x 28

J



Shaft J: 25mm keyed
Parallel key 7 x 7 x 32

I

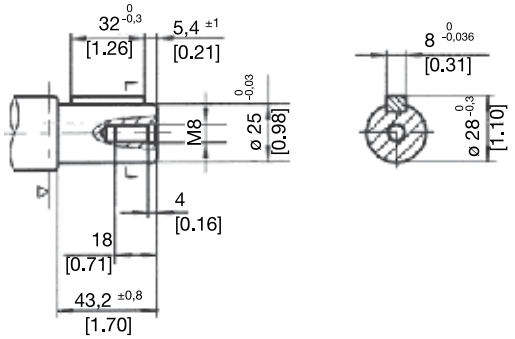


Shaft I: 7/8-13 Splined
13-DP16/32

▷ Motor Mounting Surface

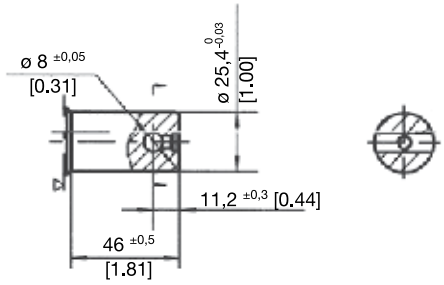
BMPH MOTOR SHAFT EXTENSIONS

A



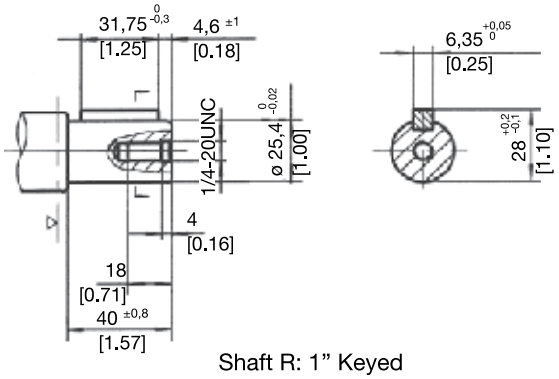
Shaft A: 25 mm Keyed
Parallel key 8x7x32

H1



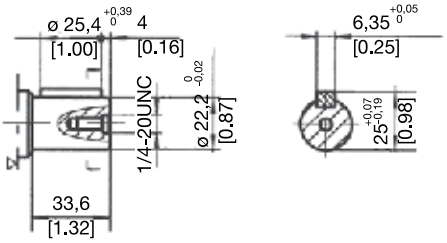
Shaft H1: 1” Round
Cross Hole .31

R



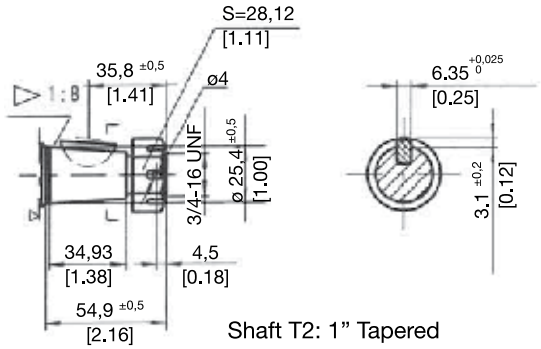
Shaft R: 1” Keyed
Parallel key .25 x .25 x 1.25

D



Shaft D: 7/8 Keyed
Parallel key .25 x .25 x 1.00

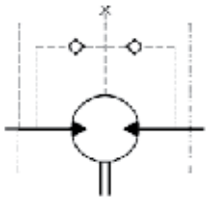
T2

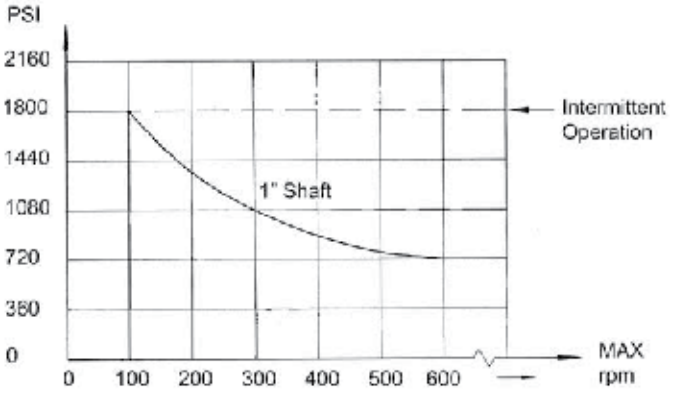


Shaft T2: 1” Tapered
Woodruff key 1.00 x .25
Tightening torque:200±10Nm

▷ Motor Mounting Surface

Shaft Seal Rated Pressure



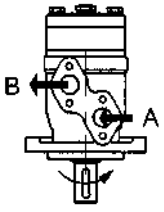


Case Drain

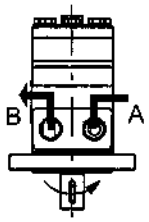
In applications without a motor drain line, the pressure exerted on the shaft seal is marginally in excess of the return line pressure. When the drain line is used, the pressure exerted on the shaft seal is equal to the return line pressure

Direction of shaft rotation: Standard

When facing shaft end of motor,shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise port "B" is pressurized.

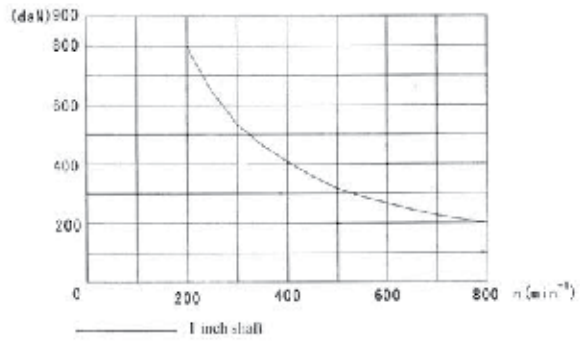


BMP

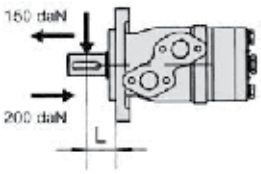


BMPH

Status of the shaft's radial force



$$Fr = \frac{800}{n} + \frac{2500}{95 + L}$$



Fr = Radial Force (daN)
L = Distance (mm)
n = Speed (rpm)

Rhomb Flange L=30mm
Square Flange L=24mm

BMP ORDERING INFORMATION

	1	2	3	4	5	6	7	8
BMP	N1							

1	2	3		4		5		6		7		8	
N1	**DISP. cc (cu. in.)**	**FLANGE**		**OUTPUT SHAFT**		**PORT AND DRAIN PORT**		**ROTATION DIRECTION**		**PAINT**		**SPECIAL OPTIONS**	
Needle Bearing for High Radial Load (Standard)	**36 (2.2)**	**2**	SAE - A 2 Bolt Pilot: 3.25”	**C**	Shaft 1” Straight Parallel Key 0.25”x0.25”x1.25”	**S**	Port: 7/8” - 14 O-ring Manifold Drain: 7/16”-20 UNF Bolts: 4 x 5/16”-18UNC	**NONE**	STANDARD	**00**	NO PAINT	**NONE**	STANDARD
	50 (3.15)	**4**	Magneto Pilot Pilot: 3.25”	**F**	1¼” 14 Splined 14-DP12/24	**P**	Port: 1/2” - 14 NPTF Manifold Drain: 7/16”-20 UNF Bolts: 4 x 5/16”-18UNC	**R**	OPPOSITE	**NONE**	BLACK	**0**	NO CASE DRAIN
	80 (4.74)	H4	SAE - A 4 Bolt Pilot: 3.25”	**E**	Splined SAE 6B	**D**	Port: G 1/2 Manifold Mount Drain: G 1/4 Bolts: 4 x M8					**F**	FREE RUNNING
	100 (5.87)			**R**	Short shaft 1” Parallel key 0.25”x0.25”x1.25”	**M**	Port: M22x1.5 Manifold Mount Drain: M14x1.5 Bolts: 4 x M8					**LS**	LOW SPEED VALVE
	125 (7.2)			**FD**	1¼” 14 Splined (long) 14-DP12/24							**HTS**	HIGH TEMP SEAL
	160 (9.51)			**G**	1¼” Straight Parallel key 0.31”x0.31”x1.25”								
	200 (11.59)			**A**	Shaft 25mm Parallel key 8x7x32								
	250 (14.09)			**B**	Shaft 32mm Parallel key 10x8x45								
	315 (19.13)			**T**	1⅛” Tapered Parallel key 0.20”×0.20”×0.55”								
	400 (23.61)			**T3**	1⅛” Tapered Parallel key 0.20”×0.20”×1.00”								

Please contact us for options not listed above.

	1	2	3	4	5	6	7	8
BMPH	N1							

1	2	3		4		5		6		7		8	
N1	DISP. cc (cu. in.)	FLANGE		OUTPUT SHAFT		PORT AND DRAIN PORT		ROTATION DIRECTION		PAINT		SPECIAL OPTIONS	
Needle Bearing for High Radial Load (Standard)	36 (2.2)	H2	SAE - A 2 Bolt Pilot: 3.25"	K	Shaft: 1" woodruff Key Woodruff key 1"x.25	S	7/8 - 14 O-RING, 7/16-20 UNF	NONE	STANDARD	00	NO PAINT	NONE	STANDARD
	50 (3.15)	H6	Magneto Pilot Pilot: 3.25"	S	Shaft: Splined SAE 6B	P	1/2 - 14 NPTF, 7/16-20 UNF	R	REVERSE	NONE	BLACK	0	NO CASE DRAIN
	80 (4.74)	H4	SAE - A 4 Bolt Pilot: 3.25"	H	Shaft: 1" Round Cross Hole Cross Hole .41"	T	3/4 - 16 O-RING, 7/16-20 UNF					F	FREE RUNNING
	100 (5.87)			H1	Shaft: 1" Round Cross Hole Cross Hole .31"	G	G 1/2, G 1/4					LS	LOW SPEED VALVE
	125 (7.2)			I	Shaft: 7/8-13 Splined	B4	10mm O-RING MANIFOLD 4x5/16-18 UNC 7/16-20 UNF (G1/4)					HTS	HIGH TEMP SEAL
	160 (9.51)			D	Shaft: 7/8 Parallel key: .25x.25x1.00	B5	10mm O-RING MANIFOLD 4xM8, 7/16-20 UNF (G1/4)						
	200 (11.59)			T2	Shaft:1" Tapered Woodruff Key 1.00x.25								
	250 (14.09)			A	Shaft 25mm Parallel key 8x7x32								
	315 (19.13)			P	Shaft 25mm Parallel key 8x7x28								
	400 (23.61)			J	Shaft 25mm Parallel key 7x7x32								

Please contact us for options not listed above.

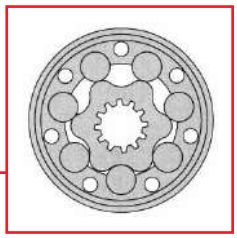
MOUNT	SHAFT	PORTS	BRAND	DISPLACEMENT Cm³/Rev (In³/Rev)								
				51.7 (3.15)	77.7 (4.74)	96.2 (5.87)	117.9 (7.2)	155.5 (9.5)	189.9 (11.6)	231 (14.1)	312 (19)	387 (23.6)
4 BOLT FLANGE	Woodruff Keyed	1/2" NPT	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H4-K-P ADM50-4RP 101-1001 151-2121	BMPH-80-H4-K-P ADM75-4RP 101-1002 151-2122	BMPH-100-H4-K-P ADM100-4RP 101-1003 151-2123	BMPH-125-H4-K-P N/A 101-1755 151-2124	BMPH-160-H4-K-P ADM150-4RP 101-1004 151-2125	BMPH-200-H4-K-P ADM50-4RP 101-1005 151-2126	BMPH-250-H4-K-P ADM50-4RP 101-1006 151-2127	BMPH-315-H4-K-P ADM300-4RP 101-1007 151-2128	BMPH-400-H4-K-P ADM400-4RP 101-1008 151-2129
		#10 SAE	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H4-K-S ADM50-4RO 101-1009 151-2041	BMPH-80-H4-K-S ADM75-4RO 101-1010 151-2042	BMPH-100-H4-K-S ADM100-4RO 101-1011 151-2043	BMPH-125-H4-K-S N/A 101-1751 151-2044	BMPH-160-H4-K-S ADM150-4RO 101-1012 151-2045	BMPH-200-H4-K-S ADM200-4RO 101-1013 151-2046	BMPH-250-H4-K-S ADM250-4RO 101-1014 151-2047	BMPH-315-H4-K-S ADM300-4RO 101-1015 151-2048	BMPH-400-H4-K-S ADM400-4RO 101-1016 151-2049
		Manifold	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H4-K-B4 ADM50-4RT 101-1017 151-2201	BMPH-80-H4-K-B4 ADM75-4RT 101-1018 151-2202	BMPH-100-H4-K-B4 ADM100-4RT 101-1019 151-2203	BMPH-125-H4-K-B4 N/A 101-1759 151-2201	BMPH-160-H4-K-B4 ADM150-4RT 101-1020 151-2205	BMPH-200-H4-K-B4 ADM200-4RT 101-1021 151-2206	BMPH-250-H4-K-B4 ADM250-4RT 101-1022 151-2207	BMPH-315-H4-K-B4 ADM300-4RT 101-1023 151-2208	BMPH-400-H4-K-B4 ADM400-4RT 101-1024 151-2209
	Splined	1/2" NPT	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H4-S-P ADM50-4SP 101-1049 151-2131	BMPH-80-H4-S-P ADM75-4SP 101-1050 151-2132	BMPH-100-H4-S-P ADM100-4SP 101-1051 151-2133	BMPH-125-H4-S-P N/A 101-1766 151-2134	BMPH-160-H4-S-P ADM150-4SP 101-1052 151-2135	BMPH-200-H4-S-P ADM200-4SP 101-1053 151-2136	BMPH-250-H4-S-P ADM250-4SP 101-1054 151-2137	BMPH-315-H4-S-P ADM300-4SP 101-1055 151-2138	BMPH-400-H4-S-P ADM400-4SP 101-1056 151-2139
		#10 SAE	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H4-S-S ADM50-4SO 101-1057 151-2051	BMPH-80-H4-S-S ADM75-4SO 101-1058 151-2052	BMPH-100-H4-S-S ADM100-4SO 101-1059 151-2053	BMPH-125-H4-S-S N/A 101-1872 151-2054	BMPH-160-H4-S-S ADM150-4SO 101-1060 151-2055	BMPH-200-H4-S-S ADM200-4SO 101-1061 151-2056	BMPH-250-H4-S-S ADM250-4SO 101-1062 151-2057	BMPH-315-H4-S-S ADM300-4SO 101-1063 151-2058	BMPH-400-H4-S-S ADM400-4SO 101-1064 151-2059
		Manifold	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H4-S-B4 ADM50-4ST 101-1065 151-2211	BMPH-80-H4-S-B4 ADM75-4ST 101-1066 151-2212	BMPH-100-H4-S-B4 ADM100-4ST 101-1067 151-2213	BMPH-125-H4-S-B4 N/A 101-1770 151-2214	BMPH-160-H4-S-B4 ADM150-4ST 101-1068 151-2215	BMPH-200-H4-S-B4 ADM200-4ST 101-1069 151-2216	BMPH-250-H4-S-B4 ADM250-4ST 101-1070 151-2217	BMPH-315-H4-S-B4 ADM300-4ST 101-1071 151-2218	BMPH-400-H4-S-B4 ADM400-4ST 101-1072 151-2219
2 BOLT FLANGE	Woodruff Keyed	1/2" NPT	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H2-K-P ADM50-2RP 101-1025 151-2081	BMPH-80-H2-K-P ADM75-2RP 101-1026 151-2082	BMPH-100-H2-K-P ADM100-2RP 101-1027 151-2083	BMPH-125-H2-K-P N/A 101-1706 151-2084	BMPH-160-H2-K-P ADM150-2RP 101-1028 151-2085	BMPH-200-H2-K-P ADM200-2RP 101-1029 151-2086	BMPH-250-H2-K-P ADM250-2RP 101-1030 151-2087	BMPH-315-H2-K-P ADM300-2RP 101-1031 151-2088	BMPH-400-H2-K-P ADM400-2RP 101-1032 151-2089
		#10 SAE	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H2-K-S ADM50-2RO 101-1033 151-2001	BMPH-80-H2-K-S ADM75-2RO 101-1034 151-2002	BMPH-100-H2-K-S ADM100-2RO 101-1035 151-2003	BMPH-125-H2-K-S N/A 101-1702 151-2004	BMPH-160-H2-K-S ADM150-2RO 101-1036 151-2005	BMPH-200-H2-K-S ADM200-2RO 101-1037 151-2006	BMPH-250-H2-K-S ADM250-2RO 101-1038 151-2007	BMPH-315-H2-K-S ADM300-2RO 101-1039 151-2008	BMPH-400-H2-K-S ADM400-2RO 101-1040 151-2009
		Manifold	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H2-K-B4 ADM50-4RT 101-1041 151-2161	BMPH-80-H2-K-B4 ADM75-4RT 101-1042 151-2162	BMPH-100-H2-K-B4 ADM100-4RT 101-1043 151-2163	BMPH-125-H2-K-B4 N/A 101-11710 151-2164	BMPH-160-H2-K-B4 ADM150-4RT 101-1044 151-2165	BMPH-200-H2-K-B4 ADM200-4RT 101-1045 151-2166	BMPH-250-H2-K-B4 ADM250-4RT 101-1046 151-2167	BMPH-315-H2-K-B4 ADM300-4RT 101-1047 151-2168	BMPH-400-H2-K-B4 ADM400-4RT 101-1048 151-2169
	Splined	1/2" NPT	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H2-S-P ADM50-2SP 101-1073 151-2091	BMPH-80-H2-S-P ADM75-2SP 101-1074 151-2092	BMPH-100-H2-S-P ADM100-2SP 101-1075 151-2093	BMPH-125-H2-S-P N/A 101-1727 151-2094	BMPH-160-H2-S-P ADM150-2SP 101-1076 151-2095	BMPH-200-H2-S-P ADM200-2SP 101-1077 151-2096	BMPH-250-H2-S-P ADM250-2SP 101-1078 151-2097	BMPH-315-H2-S-P ADM300-2SP 101-1079 151-2098	BMPH-400-H2-S-P ADM400-2SP 101-1080 151-2099
		#10 SAE	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H2-S-S ADM50-2SO 101-1081 151-2011	BMPH-80-H2-S-S ADM75-2SO 101-1082 151-2012	BMPH-100-H2-S-S ADM100-2SO 101-1083 151-2013	BMPH-125-H2-S-S N/A 101-1723 151-2014	BMPH-160-H2-S-S ADM150-2SO 101-1084 151-2015	BMPH-200-H2-S-S ADM200-2SO 101-1085 151-2016	BMPH-250-H2-S-S ADM250-2SO 101-1086 151-2017	BMPH-315-H2-S-S ADM300-2SO 101-1087 151-2018	BMPH-400-H2-S-S ADM400-2SO 101-1088 151-2019
		Manifold	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H2-S-B4 ADM50-2ST 101-1089 151-2171	BMPH-80-H2-S-B4 ADM75-2ST 101-1090 151-2172	BMPH-100-H2-S-B4 ADM100-2ST 101-1091 151-2173	BMPH-125-H2-S-B4 N/A 101-1731 151-2174	BMPH-160-H2-S-B4 ADM150-2ST 101-1092 151-2175	BMPH-200-H2-S-B4 ADM200-2ST 101-1093 151-2176	BMPH-250-H2-S-B4 ADM250-2ST 101-1094 151-2177	BMPH-300-H2-S-B4 ADM300-2ST 101-1095 151-2178	BMPH-400-H2-S-B4 ADM400-2ST 101-1096 151-2179

Note: The cross reference information in this chart is to be used only as a reference for guideline purposes only. After selecting a model from above, review motor specifications to determine compatibility with specific application.

Char-Lynn® is a registered trademark of the Eaton Corporation

ANFIELD

Model BMR/BMRS



The BMR/BMRS series advanced GEROLER gear set, shaft distribution flow, hydraulic motors are a compact, low noise, high efficient high torque low speed design. The GEROLER gear set also affords a reliable smooth start up at low pressure..

The special design of the valve linkage and high pressure capability of the shaft seal provides a long operating life and these motors can be used in either series or parallel operation.

The low weight advanced construction design is manufactured in accordance with the requirements of ISO 9000-2000 quality system.

BMR TECHNICAL SPECIFICATIONS

DISTRIBUTION TYPE			BMR 50	BMR 80	BMR 100	BMR 125	BMR 160	BMR 200	BMR 250	BMR 315	BMR 375
GEOMETRIC DISPLACEMENT		[in³./rev.]	[3.13]	[4.92]	[6.15]	[7.62]	[9.59]	[12.16]	[15.38]	[19.19]	[23.27]
		cm³/rev.	**51.3**	**80.6**	**100.8**	**124.9**	**157.2**	**199.2**	**252**	**314.5**	**370**
MAX. SPEED RPM		RATED	755	750	600	475	375	300	240	190	160
		CONT.	**970**	**940**	**750**	**600**	**470**	**375**	**300**	**240**	**200**
MAX. TORQUE [LB. IN.] N*M	RATED	[LB. IN.]	[884]	[1415]	[1769]	[2211]	[2830]	[2919]	[3113]	[3184]	[3714]
		N*M	**100**	**160**	**200**	**250**	**320**	**330**	**352**	**360**	**420**
	CONT.	[LB. IN.]	[884]	[1680]	[2123]	[2582]	[3210]	[3166]	[3113]	[3184]	[3714]
		N*M	**100**	**190**	**240**	**292**	**363**	**358**	**352**	**360**	**420**
	INT.	[LB. IN.]	[1114]	[1946]	[2476]	[3007]	[3803]	[3962]	[4157]	[4157]	[4847]
		N*M	**126**	**220**	**280**	**340**	**430**	**448**	**470**	**470**	**548**
MAX. OUTPUT [HP] KW	RATED	[HP]	[10]	[17]	[17]	[16]	[17]	[14]	[12]	[9]	[9]
		KW	**7.7**	**12.3**	**12.3**	**12.0**	**12.3**	**10**	**9**	**7**	**6.5**
	CONT.	[HP]	[10]	[20]	[20]	[19]	[19]	[15]	[12]	[9]	[12]
		KW	**7.7**	**15**	**15**	**14**	**14**	**11**	**9**	**7**	**8.6**
	INT.	[HP]	[13]	[23]	[23]	[22]	[22]	[19]	[16]	[12]	[16]
		KW	**9.7**	**17**	**17**	**16**	**16**	**14**	**12**	**9**	**12**
MAX. PRES-SURE DROP [PSI] MPA	RATED	[PSI]	[2030]	[2030]	[2030]	[2030]	[2030]	[1740]	[1595]	[1232]	[1232]
		MPA	**14**	**14**	**14**	**14**	**14**	**12**	**11**	**8.5**	**8.5**
	CONT.	[PSI]	[2030]	[2537]	[2537]	[2537]	[2392]	[1885]	[1595]	[1232]	[1232]
		MPA	**14**	**17.5**	**17.5**	**17.5**	**16.5**	**13**	**11**	**8.5**	**8.5**
	INT.	[PSI]	[2537]	[2900]	[2900]	[2900]	[2900]	[2537]	[2030]	[1667]	[1667]
		MPA	**17.5**	**20**	**20**	**20**	**20**	**17.5**	**14**	**11.5**	**11.5**
MAX. FLOW [GPM] L/MIN	CONT.	[GPM]	[10.6]	[15.8]	[15.8]	[15.8]	[15.8]	[15.8]	[15.8]	[15.8]	[15.8]
		L/MIN	**40**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**
	INT.	[GPM]	[13.2]	[19.8]	[19.8]	[19.8]	[19.8]	[19.8]	[19.8]	[19.8]	[19.8]
		L/MIN	**50**	**75**	**75**	**75**	**75**	**75**	**75**	**75**	**75**
WEIGHT [LB] KG		[LB]	[15]	[15]	[15]	[16]	[17]	[18]	[19]	[20]	[20]
		KG	**6.7**	**6.9**	**6.9**	**7.2**	**7.5**	**8**	**8.5**	**9**	**9.3**

* Rated speed and rated torque: Output value of speed and torque under rated flow and rated pressure.
* Continuous pressure: Max. value of operating motor continuously.
* Intermittent pressure: Max. value of operating motor in 6 seconds per minute.
* Peak pressure: Max. value of operating motor in 0.6 second per minute.

BMR 50 [3.13 in³/rev] 51.3 cm³/rev.

GPM / L/min		[725] 5	[1015] 7	[1305] 9	[1450] 10	[1740] 12	[2030] 14	Max cont. [2320] 16	Max int. [2537] 17.5	[PSI] MPA
[1.3] 5		[310] 35 **95**	[398] 45 **84**	[539] 61 **76**	[593] 67 **73**	[681] 77 **69**	[778] 88 **46**			
[2.6] 10		[318] 36 **184**	[407] 46 **173**	[548] 62 **165**	[610] 69 **162**	[708] 80 **150**	[840] 95 **130**	[955] 108 **111**	[1061] 120 **84**	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
[3.9] 15		[310] 35 **283**	[433] 49 **277**	[557] 63 **269**	[646] 73 **261**	[778] 88 **250**	[884] 100 **230**	[964.] 109 **211**	[1088] 123 **185**	
[5.3] 20	Flow (L/min)	[305] 34.5 **377**	[416] 47 **375**	[539] 61 **365**	[610] 69 **361**	[734] 83 **346**	[849] 96 **330**	[964] 109 **308**	[1114] 126 **276**	
[6.6] 25		[301] 34 **476**	[398] 45 **468**	[539] 61 **460**	[610] 69 **453**	[716] 81 **438**	[849] 96 **423**	[964] 109 **395**	[1114] 126 **361**	
[7.9] 30		[292] 33 **576**	[389] 44 **569**	[531] 60 **561**	[593] 67 **554**	[708] 80 **542**	[840] 95 **531**	[955] 108 **500**	[1114] 126 **465**	
[9.2] 35		[274] 31 **669**	[371] 42 **665**	[522] 59 **657**	[584] 66 **654**	[708] 80 **638**	[822] 93 **623**	[946] 107 **598**	[1097] 124 **561**	
Max cont [10.6] 40		[265] 30 **760**	[363] 41 **758**	[513] 58 **753**	[584] 66 **750**	[699] 79 **738**	[814] 92 **724**	[937] 106 **700**	[1079] 122 **670**	Max cont.
Max int. [11.9] 45		[261] 29.5 **856**	[354] 40 **856**	[504] 57 **850**	[575] 65 **845**	[690] 78 **835**	[796] 90 **815**	[929] 105 **799**	[1070] 121 **780**	Max int.

BMR 80 [4.92 in³/rev] 80.6 cm³/rev.

GPM / L/min		[725] 5	[1015] 7	[1305] 9	[1450] 10	[1740] 12	[2030] 14	Max cont. [2320] 16	Max int. [2537] 17.5	[PSI] MPA
[2.6] 10		[486] 55 **115**	[681] 77 **109**	[867] 98 **106**	[946] 107 **101**	[1150] 130 **91**	[1318] 149 **75**	[1503] 170 **53**	[1592] 180 **45**	
[5.3] 20		[442] 50 **239**	[722] 81.6 **235**	[929] 105 **227**	[1044] 118 **224**	[1167] 132 **209**	[1415] 160 **196**	[1574] 178 **172**	[1671] 189 **160**	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
[7.9] 30		[425] 48 **364**	[654] 74 **360**	[858] 97 **357**	[1008] 114 **345**	[1159] 131 **332**	[1327] 150 **321**	[1584] 179 **300**	[1680] 190 **284**	
[10.6] 40	Flow (L/min)	[398] 45 **488**	[628] 71 **483**	[840] 95 **475**	[929] 105 **472**	[1132] 128 **460**	[1318] 149 **447**	[1565] 177 **420**	[1663] 188 **408**	
[13.2] 50		[371] 42 **619**	[619] 70 **615**	[796] 90 **607**	[867] 98 **598**	[1106] 125 **593**	[1300] 147 **568**	[1512] 171 **547**	[1654] 187 **535**	
[15.8] 60		[336] 38 **740**	[557] 63 **725**	[752] 85 **721**	[840] 95 **715**	[1044] 118 **707**	[1256] 142 **688**	[1495] 169 **667**	[1636] 185 **657**	
Max cont [18.5] 70		[318] 36 **860**	[513] 58 **853**	[708] 80 **839**	[787] 89 **837**	[991] 112 **823**	[1229] 139 **811**	[1450] 164 **790**	[1583] 179 **776**	Max cont.
Max int. [19.8] 75		[256] 29 **925**	[495] 56 **915**	[681] 77 **910**	[751] 85 **899**	[973] 110 **888**	[1176] 133 **871**	[1424] 161 **853**	[1565] 177 **837**	Max int.

BMR 100 [6.15 in³/rev] 100.8 cm³/rev

GPM / L/min		[725] 5	[1015] 7	[1305] 9	[1450] 10	[1740] 12	[2030] 14	Max cont. [2320] 16	Max int. [2537] 17.5	[PSI] MPA
[2.6] 10		[619] 70 **99**	[884] 100 **95**	[1079] 122 **87**	[1220] 138 **84**	[1406] 159 **74**	[1610] 182 **63**	[1857] 210 **52**	[1963] 222 **44**	
[5.3] 20		[601] 68 **199**	[840] 95 **194**	[1088] 123 **188**	[1265] 143 **182**	[1459] 165 **175**	[1769] 200 **162**	[1955] 221 **150**	[2105] 238 **138**	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
[7.9] 30		[548] 62 299	[831] 94 294	[1070] 121 288	[1238] 140 284	[1450] 164 278	[1716] 194 263	[1946] 220 249	[2123] 240 236	
[10.6] 40	Flow (L/min)	[522] 59 **400**	[778] 88 **398**	[1052] 119 **387**	[1185] 134 **385**	[1424] 161 **380**	[1698] 192 **366**	[1928] 218 **350**	[2105] 238 **336**	
[13.2] 50		[486] 55 **498**	[734] 83 **496**	[1035] 117 **488**	[1106] 125 **484**	[1389] 157 **475**	[1636] 185 **464**	[1919] 217 **450**	[2078] 235 **436**	
[15.8] 60		[425] 48 **599**	[699] 79 **595**	[973] 110 **587**	[1052] 119 **585**	[1344] 152 **579**	[1592] 180 **569**	[1893] 214 **552**	[2061] 233 **538**	
Max cont [18.5] 70		[380] 43 699	[619] 70 693	[884] 100 687	[991] 112 683	[1256] 142 679	[1503] 170 668	[1778] 201 648	[2025] 229 636	Max cont.
Max int. [19.8] 75		[345] 39 **748**	[557] 63 **741**	[858] 97 **737**	[929] 105 **735**	[1238] 140 **720**	[1477] 167 **713**	[1742] 197 **697**	[2008] 227 **686**	Max int.

BMR 125 [7.62 in³/rev] 124.9 cm³/rev.

GPM / L/min		[725] 5	[1015] 7	[1305] 9	[1450] 10	[1740] 12	[2030] 14	Max cont. [2320] 16	Max int. [2537] 17.5	[PSI] MPA
[2.6] 10		[796] 90 **73**	[1079] 122 **71**	[1415] 160 **66**	[1530] 173 **63**	[1813] 205 **55**	[2096] 237 **42**	[2282] 258 **23**	[2388] 270 **14**	
[5.3] 20		[752] 85 **154**	[1044] 118 **152**	[1046] 159 **150**	[1521] 172 **145**	[1840] 208 **138**	[2211] 250 **123**	[2459] 278 **109**	[2582] 292 **91**	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
[7.9] 30		[725] 82 **237**	[946] 107 **236**	[1397] 158 **233**	[1450] 164 **226**	[1822] 206 **219**	[2131] 241 **207**	[2450] 277 **192**	[2574] 291 **170**	
[10.6] 40	Flow (L/min)	[699] 79 **315**	[929] 105 **313**	[1327] 150 **309**	[1424] 161 **307**	[1804] 204 **302**	[2105] 238 **297**	[2432] 275 **272**	[2556] 289 **254**	
[13.2] 50		[663] 75 **398**	[849] 96 **397**	[1282] 145 **395**	[1415] 160 **391**	[1751] 198 **381**	[2087] 236 **368**	[2317] 262 **353**	[2494] 282 **337**	
[15.8] 60		[548] 62 **475**	[840] 95 **473**	[1229] 139 **471**	[1397] 158 **470**	[1618] 183 **463**	[1963] 222 **450**	[2246] 254 **427**	[2467] 279 **416**	
Max cont [18.5] 70		[522] 59 **554**	[734] 83 **553**	[1106] 125 **551**	[1327] 150 **550**	[1574] 178 **546**	[1875] 212 **538**	[2211] 250 **514**	[2317] 262 **500**	Max cont.
Max int. [19.8] 75		[495] 56 **598**	[708] 80 **597**	[1079] 122 **593**	[1282] 145 **590**	[1521] 172 **586**	[1813] 205 **577**	[2167] 245 **551**	[2308] 261 **537**	Max int.

BMR 160 [9.59 in³/rev] 157.2 cm³/rev.

Flow (L/min) GPM / L/min		Max cont. [725] 5	[1015] 7	[1305] 9	[1450] 10	[1740] 12	[2030] 14	Max int. [2320] 16	[2537] 17.5	[PSI] MPA
[2.6]	10	[1017] 115 **58**	[1415] 160 **55**	[1822] 203 **52**	[1946] 220 **50**	[2299] 260 **44**	[2653] 300 **38**	[3007] 340 **34**	[3202] 362 **26**	
[5.3]	20	[1026] 116 **119**	[1415] 160 **115**	[1813] 205 **111**	[2034] 230 **108**	[2344] 265 **103**	[2830] 320 **95**	[3140] 355 **84**	[3361] 380 **76**	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
[7.9]	30	[929] 105 **184**	[1397] 158 **181**	[1786] 202 **177**	[1955] 221 **172**	[2308] 261 **165**	[2697] 305 **153**	[3042] 344 **134**	[3343] 378 **130**	
[10.6]	40	[884] 100 **246**	[1282] 145 **244**	[1733] 196 **239**	[1928] 218 **237**	[2273] 257 **230**	[2644] 299 **218**	[3007] 340 **199**	[3308] 374 **184**	
[13.2]	50	[796] 90 **307**	[1238] 140 **305**	[1680] 190 **302**	[1848] 209 **300**	[2211] 250 **292**	[2609] 295 **280**	[2972] 336 **262**	[3237] 366 **244**	
[15.8]	60	[743] 84 **370**	[1203] 136 **368**	[1592] 180 **364**	[1760] 199 **362**	[2123] 240 **355**	[2529] 286 **342**	[2919] 330 **334**	[3184] 360 **304**	
[18.5] Max cont	70	[575] 65 **435**	[1061] 120 **434**	[1450] 164 **430**	[1592] 180 **427**	[1972] 223 **416**	[2476] 280 **405**	[2830] 320 **335**	[3095] 350 **366**	Max cont.
[19.8] Max int.	75	[522] 59 **465**	[1026] 116 **462**	[1397] 158 **458**	[1548] 175 **456**	[1946] 220 **447**	[2406] 272 **433**	[2777] 314 **416**	[3025] 342 **395**	Max int.

BMR 200 [9.59 in³/rev] 157.2 cm³/rev.

Flow (L/min) GPM / L/min		Max cont [725] 5	[1015] 7	[1305] 9	[1508] 10.5	[1740] 12	Max int. [2030] 14	[2537] 17.5	[PSI] MPA
[2.6]	10	[1309] 148 **49**	[1813] 205 **47**	[2255] 255 **45**	[2565] 290 **43**	[2892] 327 **40**	[3272] 370 **30**	[3909] 442 **24**	
[5.3]	20	[1238] 140 **99**	[1786] 202 **97**	[2211] 250 **93**	[2857] 323 **90**	[2919] 330 **86**	[3635] 411 **78**	[3962] 448 **65**	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
[7.9]	30	[1150] 130 **149**	[1707] 193 **146**	[2131] 241 **140**	[2715] 307 **136**	[2874] 325 **131**	[3334] 377 **122**	[3936] 445 **105**	
[10.6]	40	{1105] 125 **200**	[1645] 186 **197**	[2052] 232 **192**	[2697] 305 **188**	[2768] 313 **181**	[3449] 390 **170**	[3856] 436 **149**	
[13.2]	50	[1061] 120 **250**	[1565] 177 **247**	[1990] 225 **242**	[2609] 295 **238**	[2697] 305 **231**	[3378] 382 **218**	[3776] 427 **193**	
[15.8]	60	[973] 110 **300**	[1468] 166 **298**	[1954] 221 **291**	[2521] 285 **287**	[2582] 292 **282**	[3290] 372 **268**	[3706] 419 **236**	
[18.5] Max cont	70	[867] 98 **350**	[1327] 150 **347**	[1813] 205 **342**	[2158] 244 **338**	[2459] 278 **331**	[2927] 331 **318**	[3626] 410 **282**	Max cont.
[19.8] Max int.	75	[752] 85 **375**	[1247] 141 **372**	[1760] 199 **366**	[2078] 235 **362**	[2370] 268 **357**	[2857] 323 **343**	[3538] 400 **310**	Max int.

BMR 250 [15.38 in³/rev] 252 cm³/rev.

Flow (L/min) GPM / L/min		Max cont. [435] 3	[725] 5	[1015] 7	[1160] 8	[1450] 10	[1595] 11	Max int. [2030] 14	[2537] 17.5	[PSI] MPA
[2.6]	10	[1017] 115 **40**	[1415] 180 **38**	[2220] 251 **37**	[2609] 295 **35**	[3095] 350 **32**	[3361] 380 **30**	[4157] 470 **22**	[4732] 535 **16**	
[5.3]	20	[973] 110 **79**	[1574] 178 **78**	[2229] 252 **75**	[2600] 294 **74**	[3113] 352 **70**	[3405] 385 **68**	[4157] 470 **57**	[4847] 548 **48**	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
[7.9]	30	[884] 100 **120**	[1503] 170 **119**	[2193] 248 **117**	[2521] 285 **116**	[3078] 348 **110**	[3370] 381 **107**	[4148] 469 **95**	[4820] 545 **79**	
[10.6]	40	[805] 91 **158**	[1406] 159 **157**	[2052] 232 **156**	[2370] 268 **154**	[2936] 332 **151**	[3237] 366 **148**	[4068] 460 **130**	[4687] 530 **110**	
[13.2]	50	[716] 81 **200**	[1309] 148 **198**	[1910] 216 **196**	[2229] 252 **195**	[2830] 320 **163**	[3113] 352 **160**	[4006] 453 **152**	[4608] 521 **147**	
[15.8]	60	[663] 75 **241**	[1167] 132 **240**	[1778] 201 **239**	[2078] 235 **237**	[2697] 305 **232**	[3007] 340 **228**	[3829] 433 **210**	[4466] 505 **180**	
[18.5] Max cont	70	[442] 50 **280**	[1035] 117 **279**	[1671] 189 **277**	[1946] 220 **276**	[2565] 290 **271**	[2830] 320 **268**	[3644] 412 **250**	[4378] 495 **215**	Max cont.
[19.8] Max int.	75	[371] 42 300	[929] 105 299	[1592] 180 298	[1866] 211 297	[2485] 281 295	[2742] 310 289	[3582] 405 272	[4298] 486 239	Max int.

BMR 315 [19.19 in³/rev] 314.5 cm³/rev.

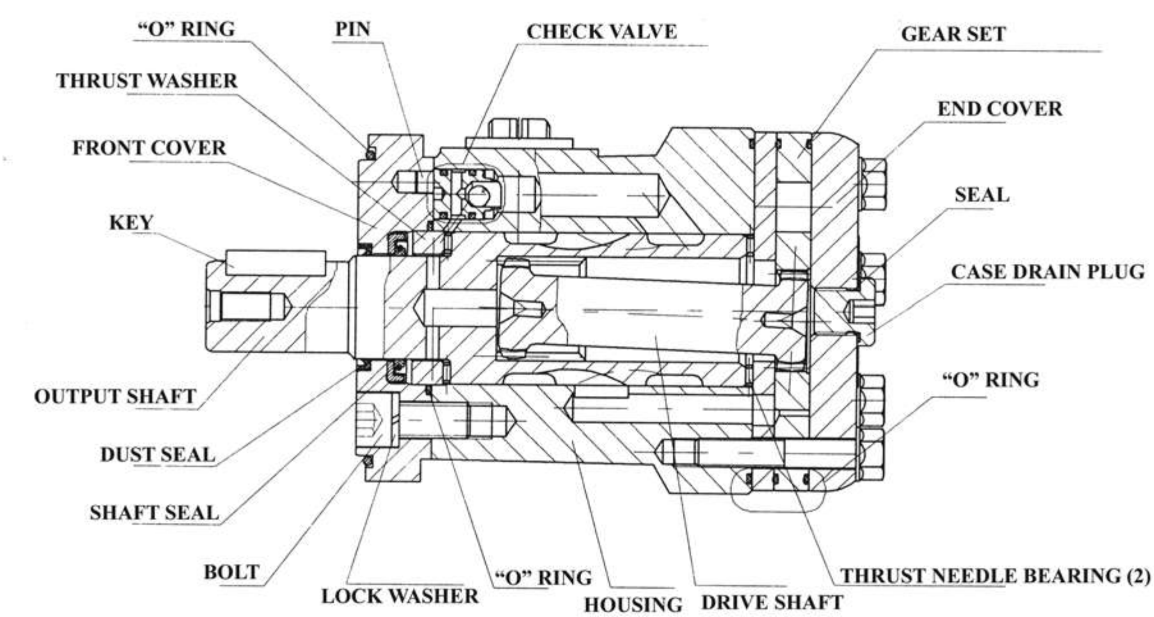
Flow (L/min) GPM / L/min		Max cont. [435] 3	[725] 5	[942] 6,5	[1160] 8	[1305] 9	Max int. [1885] 13	[1957] 13,5	[PSI] MPA
[2.6]	10	[1194] 135 **31**	[1901] 215 **29**	[2467] 279 **28**	[3033] 343 **27**	[3387] 383 **27**	[4555] 515 **24**	[4864] 550 **22**	
[5.3]	20	[1176] 133 **62**	[1910] 216 **61**	[2556] 289 **60**	[3086] 349 **58**	[3361] 380 **57**	[4493] 508 **52**	[4882] 552 **50**	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
[7.9]	30	[1105] 125 **95**	[1813] 205 **92**	[2432] 275 **91**	[3016] 341 **90**	[3316] 375 **88**	[4369] 494 **81**	[4802] 543 **79**	
[10.6]	40	[999] 113 **123**	[1724] 195 **121**	[2361] 267 **120**	[2963] 335 **118**	[3246] 367 **117**	[4289] 485 **106**	[4652] 526 **104**	
[13.2]	50	[814] 92 **155**	[1503] 170 **154**	[2237] 253 **152**	[2839] 321 **149**	[3113] 352 **147**	[4192] 474 **137**	[4519] 511 **133**	
[15.8]	60	[707] 80 **190**	[1415] 160 **187**	[2043] 231 **193**	[2697] 305 **179**	[2954] 334 **176**	[4050] 458 **163**	[4351] 492 **157**	
[18.5] Max cont	70	[504] 57 **222**	[1203] 136 **220**	[1901] 215 **217**	[2520] 285 **212**	[2830] 320 **208**	[3927] 444 **192**	[4245] 480 **185**	Max cont.
[19.8] Max int.	75	[486] 55 **235**	[1097] 124 **234**	[1813] 205 **231**	[2379] 269 **227**	[2724] 308 **225**	[3776] 427 **408**	[4148] 469 **201**	Max int.

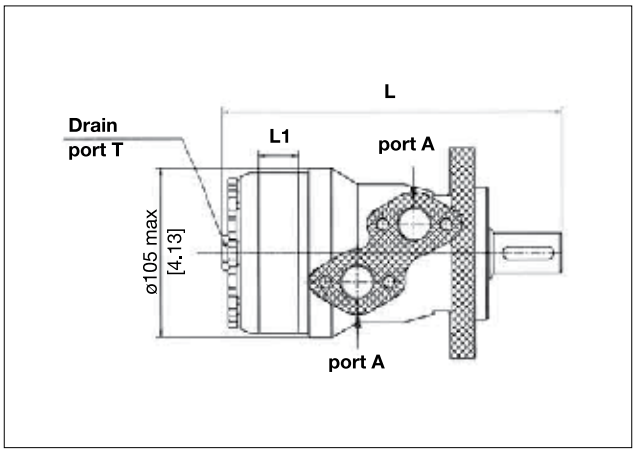
BMR/BMRS PERFORMANCE DATA

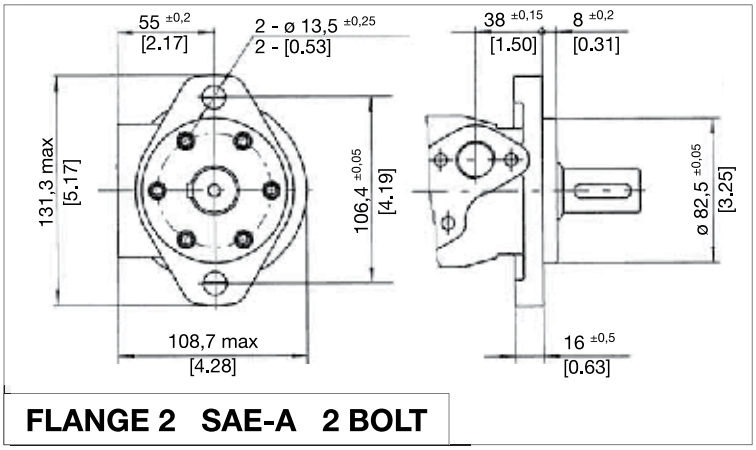
BMR 375 [22.58 in³/rev] 370 cm³/rev.

		[435] 3	[725] 5	[942] 6.5	[1160] 8	[1305] 9 (Max cont.)	[1885] 13	[1957] 13.5 (Max int.)	[PSI] MPA
GPM L/min	[2.6] 10	[1415] 160 **26**	[2388] 270 **25**	[3007] 340 **24**	[3714] 420 **22**	[4157] 470 **21**	[4864] 550 **19**	[5395] 610 **17**	
Flow (L/min)	[5.3] 20	[1406] 159 **53**	[2299] 260 **52**	[3007] 340 **51**	[3626] 410 **49**	[4157] 470 **47**	[4776] 540 **42**	[5351] 605 **37**	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
	[7.9] 30	[1327] 150 **79**	[1990] 225 **78**	[2918] 330 **77**	[3538] 400 **75**	[3980] 450 **73**	[4687] 530 **67**	[5306] 600 **60**	
	[10.6] 40	[1194] 135 **106**	[2123] 240 **105**	[2742] 310 **104**	[3317] 375 **102**	[3803] 430 **99**	[4599] 520 **93**	[5218] 590 **85**	
	[13.2] 50	[1061] 120 **134**	[2034] 230 **132**	[2609] 295 **131**	[3184] 360 **129**	[3714] 420 **126**	[4466] 505 **120**	[5041] 570 **110**	
	[15.8] 60	[867] 98 **159**	[1857] 210 **158**	[2432] 275 **157**	[3007] 340 **155**	[3449] 390 **153**	[4334] 490 **147**	[4864] 550 **135**	
Max cont	[18.5] 70	[663] 75 **187**	[1548] 175 **186**	[2211] 250 **185**	[2830] 320 **183**	[3272] 370 **180**	[4112] 465 **175**	[4687] 530 **160**	Max cont.
Max int.	[19.8] 75	[575] 65 **200**	[1415] 160 **199**	[2034] 230 **198**	[2742] 310 **195**	[3184] 360 **192**	[3980] 450 **187**	[4555] 515 **178**	Max int.

BMR/BMRS CROSS SECTION

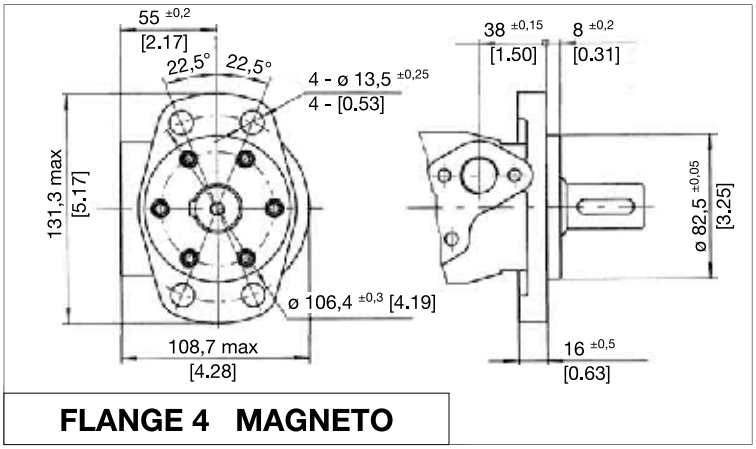




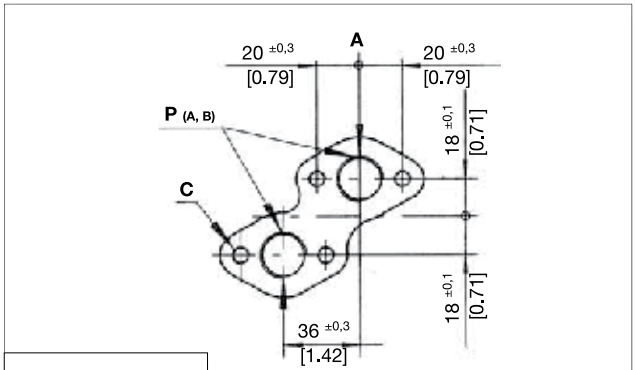


FLANGE 2 SAE-A 2 BOLT

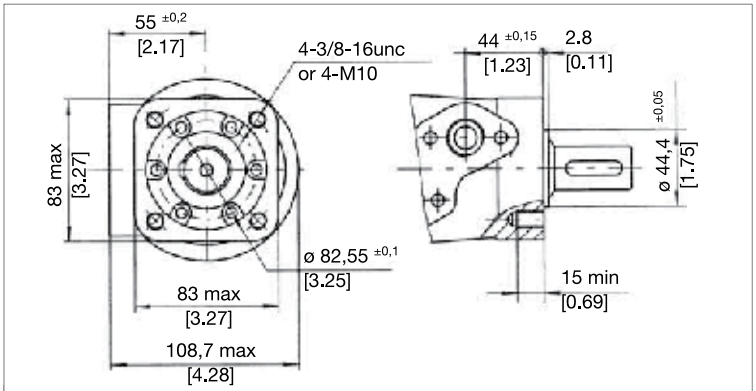
	[INCHES]		MILLIMETERS	
MODEL	L	L1	L	L1
BMR 50	[5.51]	[0.39]	140	10
BMR 80	[5.75]	[0.63]	146	16
BMR 100	[5.91]	[0.79]	150	20
BMR 125	[6.10]	[0.98]	155	25
BMR 160	[6.36]	[1.24]	161.5	31.5
BMR 200	[6.69]	[1.57]	170	40
BMR 250	[7.09]	[1.97]	180	50
BMR 315	[7.56]	[2.44]	192	62
BMR 375	[8.03]	[2.91]	204	74



FLANGE 4 MAGNETO



PORTING
D,M,S,P,R

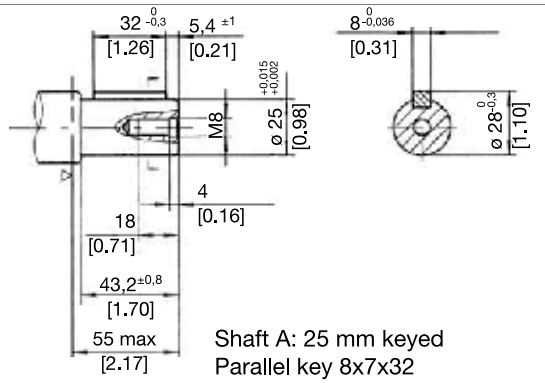


FLANGE H4/H5 4 BOLT

PORT & DRAIN PORT ORDERING CODES

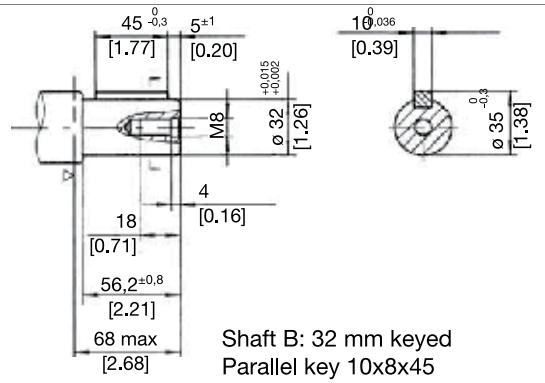
ORDER CODE	D	DEPTH	M	DEPTH	S	DEPTH	P	DEPTH	R	DEPTH
PORTS - A and B	G 1/2	15 mm	M22 X 1.5	15 mm	7/8-14 O-RING	17 mm	1/2-14NPTF	15 mm	PT(RC)1/2	15 mm
TANK PORT - T	G 1/4	12 mm	M14 X1.5	12 mm	7/16-20UNF	12 mm	7/16-20UNF	12 mm	PT(RC)1/4	9.7 mm
BOLTS - C	4-M8	13 mm	4-M8	13 mm	4-5/16-18UNC	13 mm	4-5/16-18UNC	13 mm	4-M8	13 mm

A



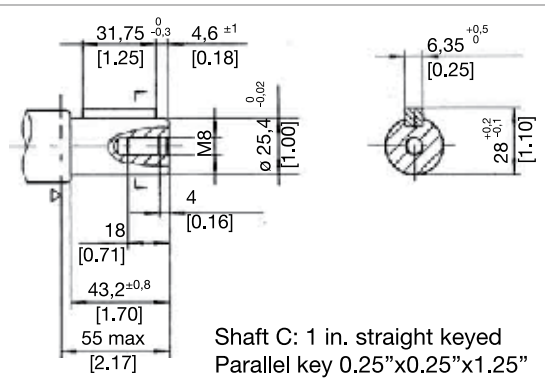
Shaft A: 25 mm keyed
Parallel key 8x7x32

B



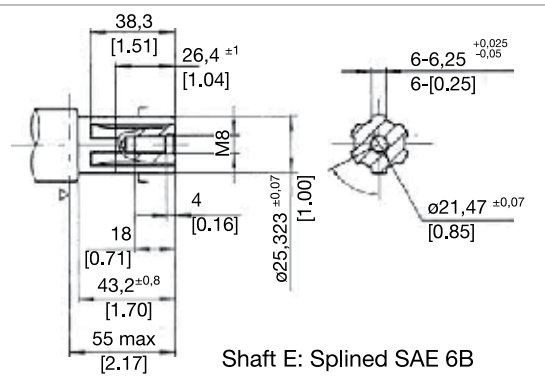
Shaft B: 32 mm keyed
Parallel key 10x8x45

C



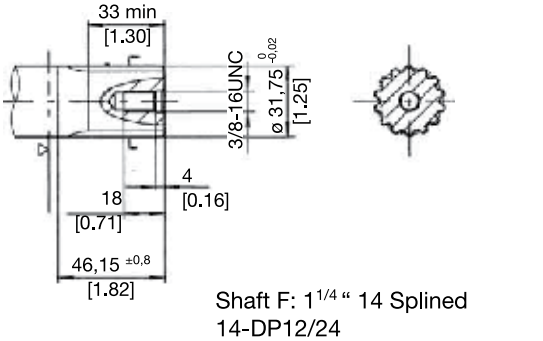
Shaft C: 1 in. straight keyed
Parallel key 0.25”x0.25”x1.25”

E



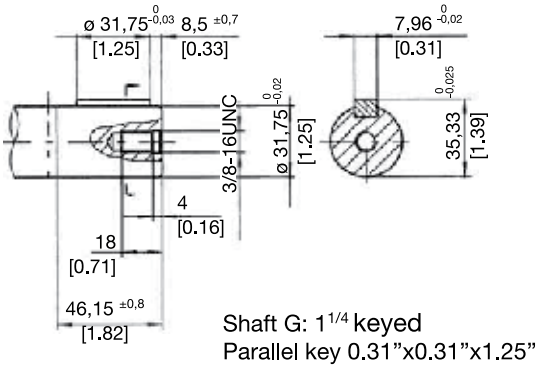
Shaft E: Splined SAE 6B

F



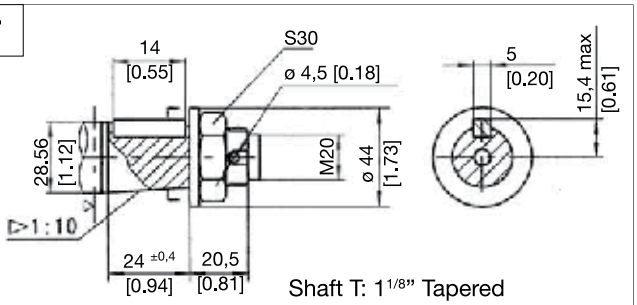
Shaft F: 1 1/4 “ 14 Splined
14-DP12/24

G



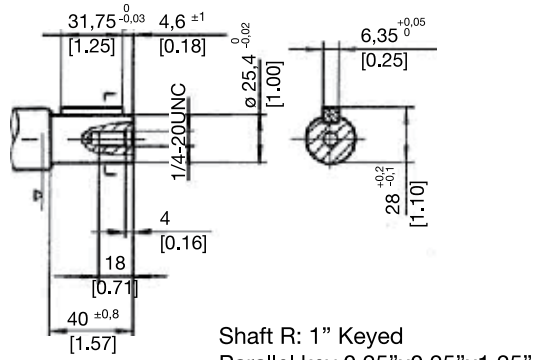
Shaft G: 1 1/4 keyed
Parallel key 0.31”x0.31”x1.25”

T



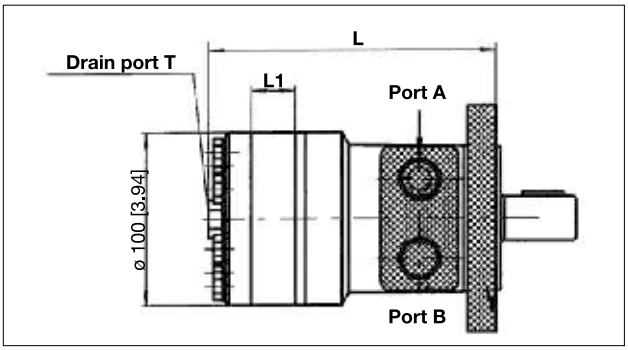
Shaft T: 1 1/8” Tapered
Parallel Key B5X5X14
Tightening torque:
100+10NM

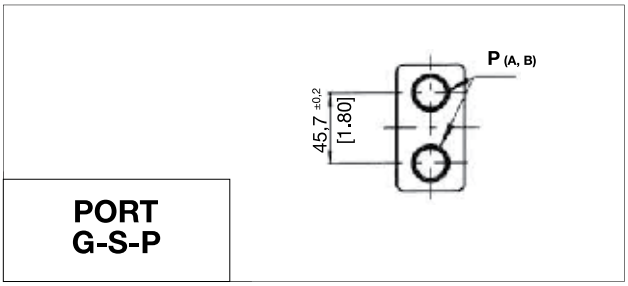
R



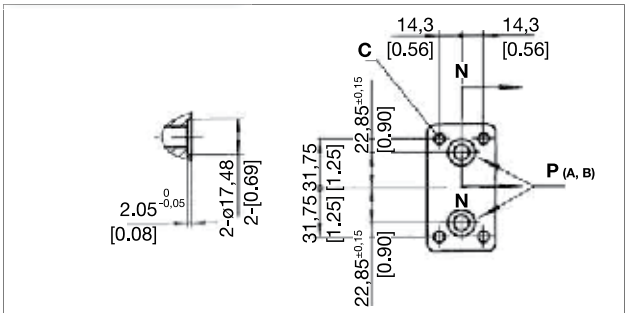
Shaft R: 1” Keyed
Parallel key 0.25”x0.25”x1.25”

▷ Motor Mounting Surface



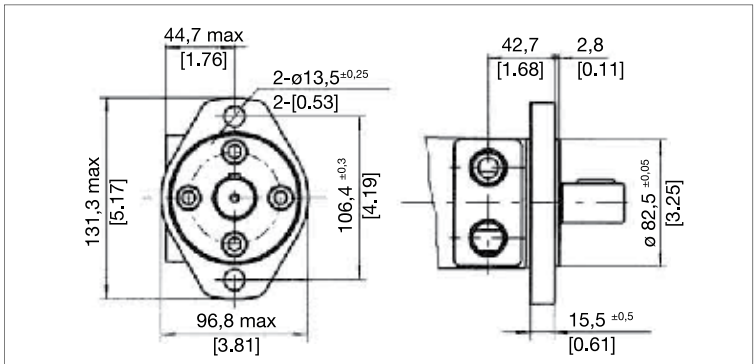


PORT G-S-P

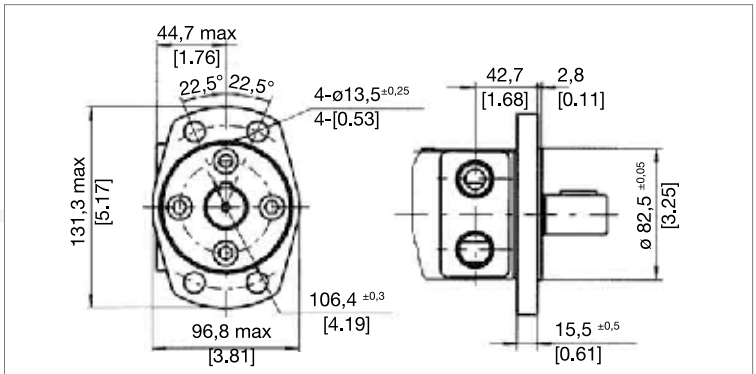


PORT B4 -B5

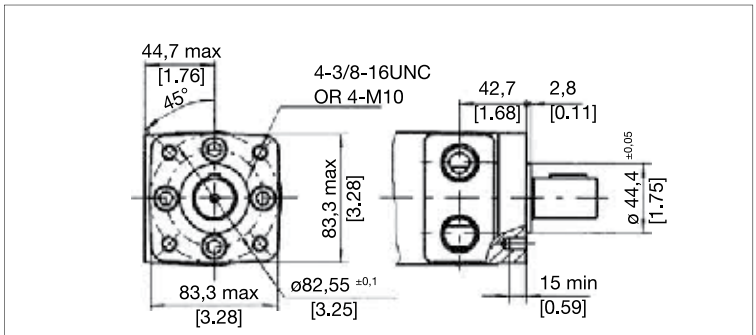
	[INCHES]		MILLIMETERS	
MODEL	**L**	**L1**	**L**	**L1**
BMRS 50	[5.67]	[0.39]	144	10
BMRS 80	[5.91]	[0.63]	150	16
BMRS 100	[6.06]	[0.79]	154	20
BMRS 125	[6.26]	[0.98]	159	25
BMRS 160	[6.12]	[1.24]	155.5	31.5
BMRS 200	[6.85]	[1.57]	174	40
BMRS 250	[7.24]	[1.97]	184	50
BMRS 315	[7.72]	[2.44]	196	62
BMRS 375	[8.19]	[2.91]	208	74



FLANGE H2



FLANGE H6

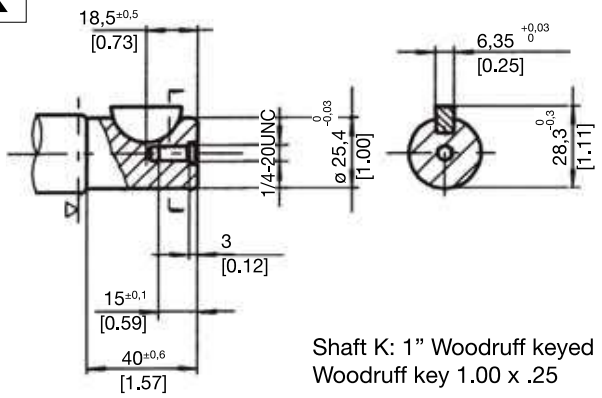


FLANGE H4/H5

PORT & DRAIN PORT ORDERING CODES

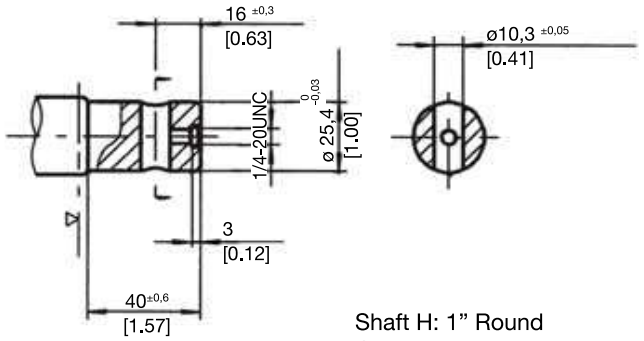
ORDER CODE	G	DEPTH	S	DEPTH	P	DEPTH	R	DEPTH	M1	DEPTH	M2	DEPTH	M3	DEPTH	B4	DEPTH	B5	DEPTH
PORTS A and B	G 1/2	15 mm	7/8-14 O-RING	17 mm	1/2 14NPTF	15 mm	PT(RC) 1/2	15 mm	M18 X 1.5	15 mm	M20 X 1.5	15 mm	M22 X 1.5	15 mm	Ø10	-	Ø10	-
TANK PORT T	G 1/4	12 mm	7/16 20UNF	12 mm	7/16 20UNF	12 mm	PT(RC) 1/4	9.7 mm	M10 X 1	12 mm	M10 X 1	12 mm	M10 X 1	12 mm	7/16 20UNF	12 mm	G1/4	12 mm
BOLTS - C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4-5/16 18UNC	13 mm	4-M8	13 mm

K



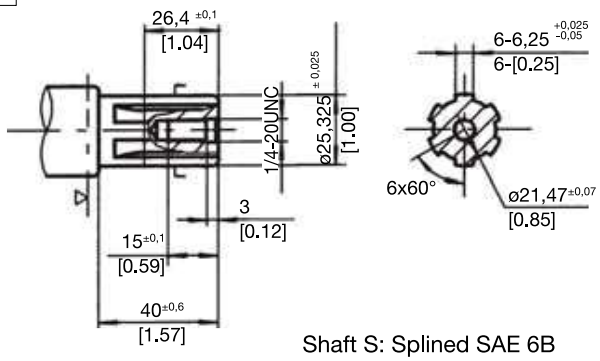
Shaft K: 1” Woodruff keyed
Woodruff key 1.00 x .25

H



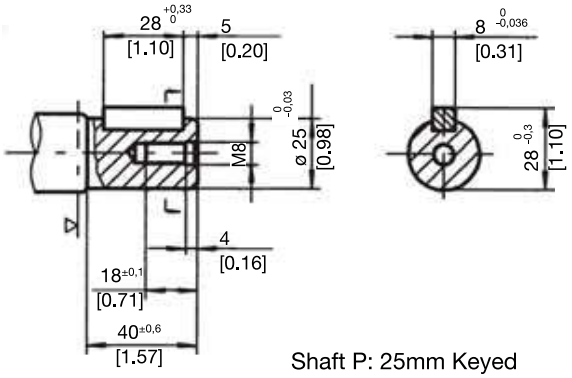
Shaft H: 1” Round
Cross Hole .41

S



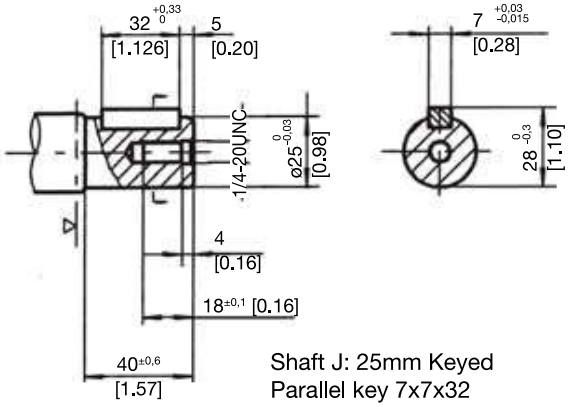
Shaft S: Splined SAE 6B

P



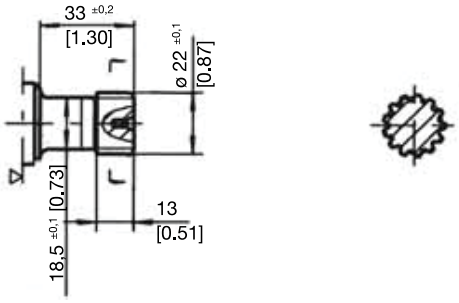
Shaft P: 25mm Keyed
Parallel key 8x7x28

J



Shaft J: 25mm Keyed
Parallel key 7x7x32

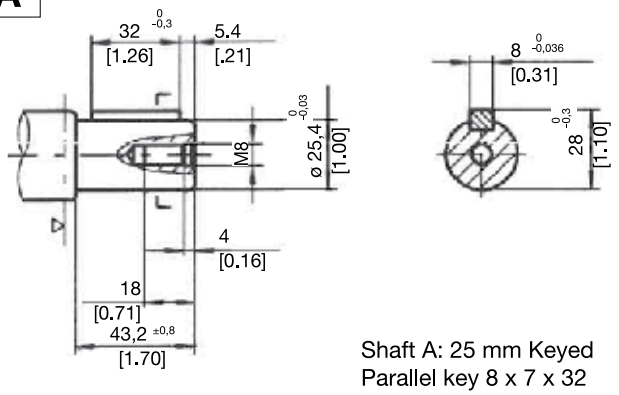
I



Shaft I: 7/8-13 Splined
13-DP 16/32

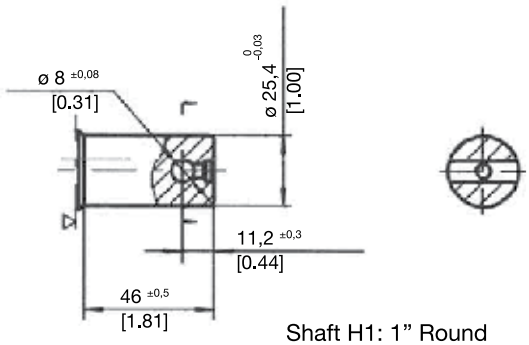
▷ Motor Mounting Surface

A



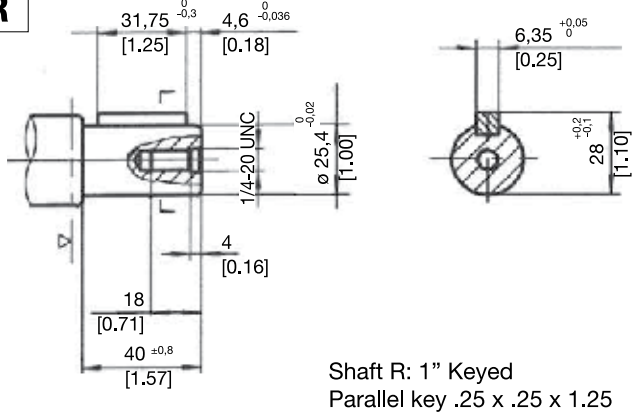
Shaft A: 25 mm Keyed
Parallel key 8 x 7 x 32

H1



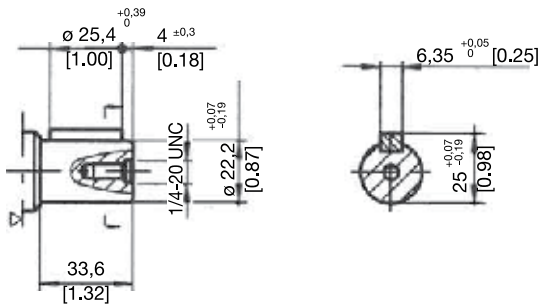
Shaft H1: 1” Round
Cross Hole .31

R



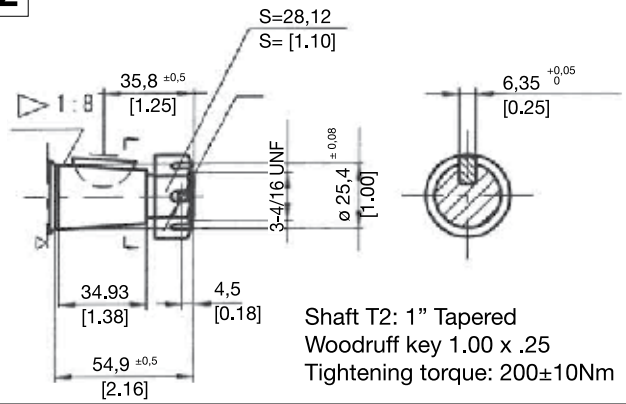
Shaft R: 1” Keyed
Parallel key .25 x .25 x 1.25

D



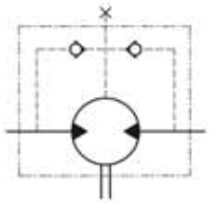
Shaft D: 7/8 Keyed
Parallel key .25 x .25 x 1.00

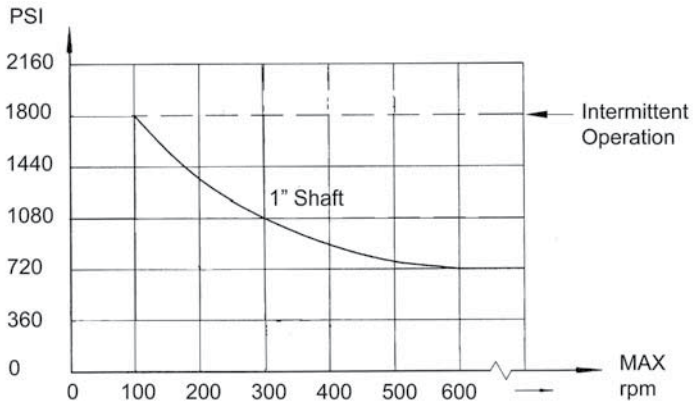
T2



Shaft T2: 1” Tapered
Woodruff key 1.00 x .25
Tightening torque: 200±10Nm

PERMISSIBLE SHAFT SEAL PRESSURE

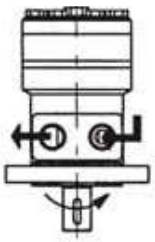




IN APPLICATIONS WITHOUT A DRAIN LINE, THE PRESSURE EXERTED ON THE SHAFT SEAL WILL EXCEED THE PRESSURE IN THE RETURN LINE. IN APPLICATIONS USING A DRAIN LINE, THE PRESSURE ON THE OUTPUT SHAFT SEAL CAN EQUAL THE PRESSURE IN DRAIN LINE.

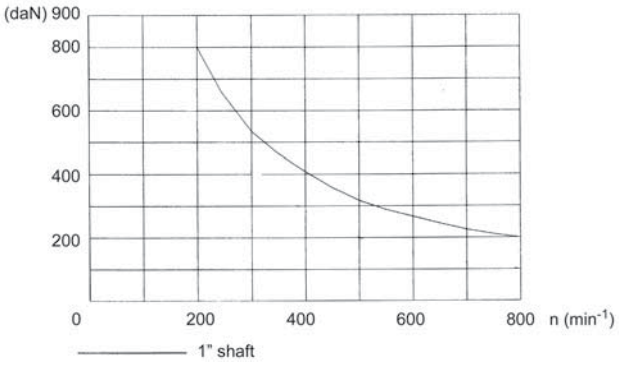
SHAFT ROTATION DIRECTION

BMR

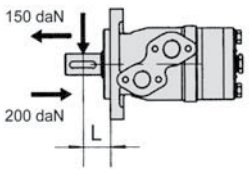


BMRS

STATUS OF THE SHAFT'S RADIAL FORCE



$$Fr = \frac{800}{n} * \frac{2500}{95 + L}$$



Fr = Radial Force (daN)
L = Distance (mm)
n = Speed (rpm)

Rhomb Flange L=30mm
Square Flange L=24mm

BMR ORDERING INFORMATION

	1	2	3	4	5	6	7
BMR							

1	2		3		4		5		6		7	
DISP. cc (cu. in.)	**FLANGE**		**OUTPUT SHAFT**		**PORT AND DRAIN PORT**		**ROTATION DIRECTION**		**PAINT**		**SPECIAL OPTIONS**	
50 (3.15)	**2**	SAE - A 2 Bolt Pilot: 3.25”	**A**	Shaft 25mm Parallel key 8x7x32	**D**	G1/2 Manifold Mount 4xM8, G1/4	**NONE**	STANDARD	**00**	NO PAINT	**NONE**	STANDARD
80 (4.74)	**4**	4 Bolt Magneto Pilot: 3.25”	**B**	Shaft 32mm Parallel key 10x8x45	**S**	7/8-14 O-ring manifold 4x5/16-18UNC, 7/16-20UNF	**R**	OPPOSITE	**NONE**	BLACK	**0**	NO CASE DRAIN
100 (5.87)	**H4**	SAE - A 4 Bolt Pilot: 3.25”	**C**	Shaft 1” 25” x 0.25” x 1”	**P**	1/2-14 NPTF Manifold 4x5/16-18UNC, 7/16-20UNF					**F**	FREE RUNNING
125 (7.2)			**E**	Splined SAE 6B	**R**	PT(Rc)1/2 Manifold 4xM8, PT(Rc)1/4					**LS**	LOW SPEED
160 (9.51)			**R**	Short shaft 1” Parallel key 25” x 0.25” x 1”							**HPS**	HIGH PRESSURE SEAL
200 (11.59)			**F**	1¼” 14 Splined 14-DP12/24								
250 (14.09)			**FD**	Long 1¼” 14 Splined 14-DP12/24								
315 (19.13)			**G**	1¼” Parallel key 31” x 0.31” x 1.25”								
375 (23.27)			**T**	1⅛” Tapered Parallel key B5X5X14								

For options not listed here, please contact us.

BMRS ORDERING INFORMATION

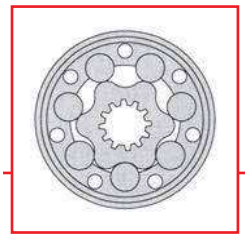
	1	2	3	4	5	6	7
BMRS							

1	2		3		4		5		6		7	
DISP. cc (cu. in.)	FLANGE		OUTPUT SHAFT		PORT AND DRAIN PORT		ROTATION DIRECTION		PAINT		SPECIAL OPTIONS	
50 (3.15)	H2	SAE - A 2 Bolt Pilot: 3.25”	K	Shaft K: 1” Woodruff Woodruff key 1.00x.25	S	7/8 - 14 O-RING 7/16-20 UNF (G1/4)	NONE	STANDARD	00	NO PAINT	NONE	STANDARD
80 (4.74)	H4	SAE - A 4 Bolt Pilot: 3.25”	S	Shaft S: Splined SAE 6B	P	1/2 NPTF, 7/16-20UNF	R	OPPOSITE	NONE	BLACK	0	NO CASE DRAIN
100 (5.87)	H6	4 Bolt Magneto Pilot: 3.25”	H	Shaft H: 1” Round Cross Hole .41	G	G1/2, G1/4					F	FREE RUNNING
125 (7.2)			H1	Shaft H1: 1” Round Cross Hole .31	B4	Ø10 O-ring manifold 4 x 5/16- 18 7/16-20UNF (G 1/4)					LS	LOW SPEED
160 (9.51)			I	7/8” 13 Splined 13-DP16/32	B5	Ø10 O-ring manifold 4 x M8, 7/16-20UNF (G 1/4)					HPS	HIGH PRESSURE SEAL
200 (11.59)			D	Shaft D: 7/8 Parallel key .25x.25x1.00								
250 (14.09)												
315 (19.13)												
375 (23.27)												

For options not listed here, please contact us.

MOUNT	SHAFT	PORTS	BRAND	DISPLACEMENT Cm³/Rev (In³/Rev)								
				51.3 (3.13)	80.6 (4.92)	100.8 (6.15)	124.9 (7.62)	157.2 (9.59)	199.2 (12.15)	252 (15.38)	314.5 (19.19)	370 (22.58)
4 BOLT FLANGE	Woodruff Keyed	1/2" NPT	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H4-K-P AEM50-4RP 103-1573 151-2421	BMRS-80-H4-K-P AEM75-4RP 103-1002 151-2422	BMRS-100-H4-K-P AEM100-4RP 103-1003 151-2423	BMRS-125-H4-K-P N/A 103-1574 151-2424	BMRS-160-H4-K-P AEM150-4RP 103-1004 151-2425	BMRS-200-H4-K-P AEM50-4RP 103-1005 151-2426	BMRS-250-H4-K-P AEM50-4RP 103-1006 151-2427	BMRS-315-H4-K-P AEM300-4RP 103-1007 151-2428	BMRS-375-H4-K-P ADM400-4RP 103-1008 151-2429
		#10 SAE	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H4-K-S ADM50-4RO 103-1570 151-2341	BMRS-80-H4-K-S AEM75-4RO 103-1010 151-2342	BMRS-100-H4-K-S AEM100-4RO 103-1011 151-2343	BMSR-125-H4-K-S N/A 103-1571 151-2344	BMRS-160-H4-K-S AEM150-4RO 103-1012 151-2345	BMRS-200-H4-K-S AEM200-4RO 103-1013 151-2346	BMRS-250-H4-K-S AEM250-4RO 103-1014 151-2347	BMRS-315-H4-K-S AEM300-4RO 103-1015 151-2348	BMRS-375-H4-K-S AEM400-4RO 103-1016 151-2349
		Manifold	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H4-K-F AEM50-4RT 103-1576 151-2501	BMRS-80-H4-K-F AEM75-4RT 103-1018 151-2502	BMRS-100-H4-K-F AEM100-4RT 103-1019 151-2503	BMRS-125-H4-K-F N/A 103-1577 151-2504	BMRS-160-H4-K-F AEM150-4RT 103-1020 151-2505	BMRS-200-H4-K-F AEM200-4RT 103-1021 151-2506	BMRS-250-H4-K-F AEM250-4RT 103-1022 151-2507	BMRS-315-H4-K-F AEM300-4RT 103-1023 151-2508	BMRS-375-H4-K-F AEM400-4RT 103-1024 151-2509
	Splined	1/2" NPT	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H4-S-P AEM50-4SP 103-1582 151-2431	BMRS-80-H4-S-P AEM75-4SP 103-1050 151-2432	BMRS-100-H4-S-P AEM100-4SP 103-1051 151-2433	BMRS-125-H4-S-P N/A 101-1583 151-2434	BMRS-160-H4-S-P AEM150-4SP 103-1052 151-2435	BMRS-200-H4-S-P AEM200-4SP 103-1053 151-2436	BMRS-250-H4-S-P AEM250-4SP 103-1054 151-2437	BMRS-315-H4-S-P AEM300-4SP 103-1055 151-2438	BMRS-375-H4-S-P AEM400-4SP 103-1056 151-2439
		#10 SAE	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H4-S-S AEM50-4SO 103-1579 151-2351	BMRS-80-H4-S-S AEM75-4SO 103-1058 151-2352	BMRS-100-H4-S-S AEM100-4SO 103-1059 151-2353	BMRS-125-H4-S-S N/A 103-1580 151-2354	BMRS-160-H4-S-S AEM150-4SO 103-1060 151-2355	BMRS-200-H4-S-S AEM200-4SO 103-1061 151-2356	BMRS-250-H4-S-S AEM250-4SO 103-1062 151-2357	BMRS-315-H4-S-S AEM300-4SO 103-1063 151-2358	BMRS-375-H4-S-S AEM400-4SO 103-1064 151-2359
		Manifold	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H4-S-F AEM50-4ST 103-1585 151-2511	BMRS-80-H4-S-F AEM75-4ST 103-1066 151-2512	BMRS-100-H4-S-F AEM100-4ST 103-1067 151-2513	BMRS-125-H4-S-F N/A 103-1586 151-2514	BMRS-160-H4-S-F AEM150-4ST 103-1068 151-2515	BMRS-200-H4-S-F AEM200-4ST 103-1069 151-2516	BMRS-250-H4-S-F AEM250-4ST 103-1070 151-2517	BMRS-315-H4-S-F AEM300-4ST 103-1071 151-2518	BMRS-375-H4-S-F AEM400-4ST 103-1072 151-2519
2 BOLT FLANGE	Woodruff Keyed	1/2" NPT	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H2-K-P AEM50-2RP 103-1540 151-2381	BMRS-80-H2-K-P AEM75-2RP 103-1026 151-2382	BMRS-100-H2-K-P AEM100-2RP 103-1027 151-2383	BMRS-125-H2-K-P N/A 103-1541 151-2384	BMRS-160-H2-K-P AEM150-2RP 103-1028 151-2385	BMRS-200-H2-K-P AEM200-2RP 103-1029 151-2386	BMRS-250-H2-K-P AEM250-2RP 103-1030 151-2387	BMRS-315-H2-K-P AEM300-2RP 103-1031 151-2388	BMRS-375-H2-K-P AEM400-2RP 103-1032 151-2389
		#10 SAE	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H2-K-S AEM50-2RO 103-1537 151-2301	BMRS-80-H2-K-S AEM75-2RO 103-1034 151-2302	BMRS-100-H2-K-S AEM100-2RO 103-1035 151-2303	BMRS-125-H2-K-S N/A 103-1536 151-2304	BMRS-160-H2-K-S AEM150-2RO 103-1036 151-2305	BMRS-200-H2-K-S AEM200-2RO 103-1037 151-2306	BMRS-250-H2-K-S AEM250-2RO 103-1038 151-2307	BMRS-315-H2-K-S AEM300-2RO 103-1039 151-2308	BMRS-375-H2-K-S AEM400-2RO 103-1040 151-2309
		Manifold	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H2-K-F ADM50-4RT 103-1543 151-2461	BMRS-80-H2-K-F AEM75-4RT 103-1042 151-2462	BMRS-100-H2-K-F AEM100-4RT 103-1043 151-2463	BMRS-125-H2-K-F N/A 103-1544 151-2464	BMRS-160-H2-K-F AEM150-4RT 103-1044 151-2465	BMRS-200-H2-K-F AEM200-4RT 103-1045 151-2464	BMRS-250-H2-K-F AEM250-4RT 103-1046 151-2465	BMRS-315-H2-K-F AEM300-4RT 103-1047 151-2466	BMRS-375-H2-K-F AEM400-4RT 103-1048 151-2467
	Splined	1/2" NPT	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H2-S-P AEM50-2SP 103-1555 151-2391	BMRS-80-H2-S-P AEM75-2SP 103-1074 151-2392	BMRS-100-H2-S-P AEM100-2SP 103-1075 151-2393	BMRS-125-H2-S-P N/A 103-1556 151-2394	BMRS-160-H2-S-P AEM150-2SP 103-1076 151-2395	BMRS-200-H2-S-P AEM200-2SP 103-1077 151-2396	BMRS-250-H2-S-P AEM250-2SP 103-1078 151-2397	BMRS-315-H2-S-P AEM300-2SP 103-1079 151-2398	BMRS-375-H2-S-P AEM400-2SP 103-1080 151-2399
		#10 SAE	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H2-S-S ADM50-2SO 103-1552 151-2311	BMRS-80-H2-S-S AEM75-2SO 103-1082 151-2312	BMRS-100-H2-S-S AEM100-2SO 103-1083 151-2313	BMRS-125-H2-S-S N/A 103-1553 151-2314	BMRS-160-H2-S-S AEM150-2SO 103-1084 151-2315	BMRS-200-H2-S-S AEM200-2SO 103-1085 151-2316	BMRS-250-H2-S-S AEM250-2SO 103-1086 151-2317	BMRS-315-H2-S-S AEM300-2SO 103-1087 151-2318	BMRS-375-H2-S-S AEM400-2SO 103-1088 151-2319
		Manifold	ANFIELD PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H2-S-F ADM50-2ST 103-1558 151-2471	BMRS-80-H2-S-F AEM75-2ST 103-1090 151-2472	BMRS-100-H2-S-F AEM100-2ST 103-1091 151-2473	BMRS-125-H2-S-F N/A 103-1559 151-2474	BMRS-160-H2-S-F AEM150-2ST 103-1092 151-2475	BMRS-200-H2-S-F AEM200-2ST 103-1093 151-2476	BMRS-250-H2-S-F AEM250-2ST 103-1094 151-2477	BMRS-300-H2-S-F AEM300-2ST 103-1095 151-2478	BMRS-375-H2-S-F AEM400-2ST 103-1096 151-2479

Note: The cross reference information in this chart is to be used only as a reference for guideline purposes only. After selecting a model from above, review motor specifications to determine compatibility with specific application.



Model BMER-2

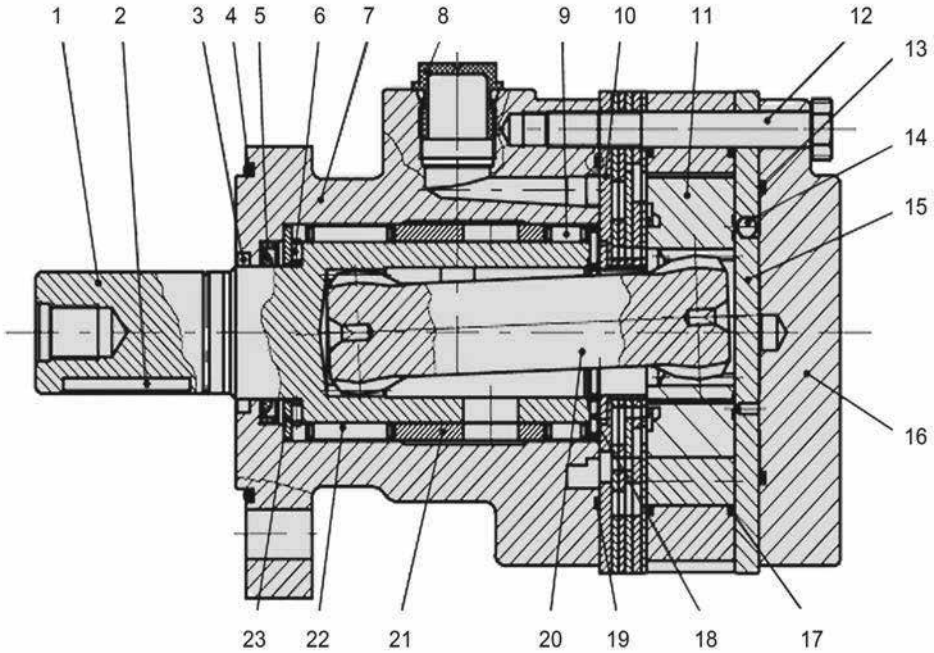
The BMER-2 series motor adapts the GEROLER gear set design with high speed distribution flow and high pressure. These motors can be supplied with various options for multifunctional operations in accordance with the application requirements. The output shaft tapered roller bearings permit high axial and radial forces offering a smooth operation during low pressure start up and high pressure operation. These low weight advanced construction design motors are manufactured in accordance with the requirements of ISO 9001-2000 quality system.

BMER-2 TECHNICAL SPECIFICATIONS

MODEL		BMER-2 125	BMER-2 160	BMER-2 200	BMER-2 230	BMER-2 250	BMER-2 300	BMER-2 350	BMER-2 375	BMER-2 475	BMER-2 540	BMER-2 750
DISPLACEMENT in^3/rev (cm^3/rev)		7.20 (118)	9.52 (156)	11.96 (196)	13.91 (228)	15.68 (257)	18.08 (296)	21.05 (345)	22.63 (371)	28.18 (462)	32.94 (540)	45.45 (745)
MAX SPEED RPM	CONT.	360	375	330	290	290	250	220	200	160	140	100
	INT.	490	470	425	365	350	315	270	240	195	170	120
MAX TORQUE IN•LBF	CONT.	2876	3983	4691	5531	6195	7169	8009	8762	9602	8673	9293
	INT.	3363	4646	5310	6284	6992	8231	9160	10089	10443	10974	10443
MAX DIFFERENTIAL PSI	CONT.	2973	2973	2973	2973	2973	2973	2973	2973	2538	2030	1523
	INT.	3481	3481	3481	3481	3481	3481	3481	3481	2756	2538	1740
MAX FLOW GPM	CONT.	11.88	15.85	18.49	18.49	19.81	21.13	21.13	19.81	19.81	19.81	19.81
	INT.	15.85	19.81	22.45	22.45	23.77	25.09	25.09	23.77	23.77	23.77	23.77
WEIGHT		27.45 lbs	29.00 lbs	29.20 lbs	29.45 lbs	30.15 lbs	31.00 lbs	32.00 lbs	32.35 lbs	33.35 lbs	35.10 lbs	37.75 lbs

Continuous (Cont.) = maximum of continuous operation. Intermittent (Int.) = maximum operating range for 6 seconds per minute

BMER-2 CROSS SECTION

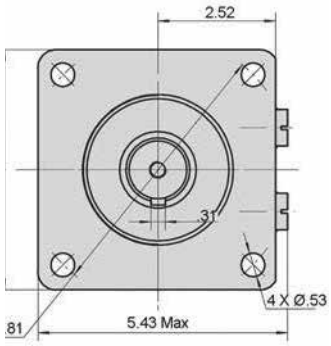


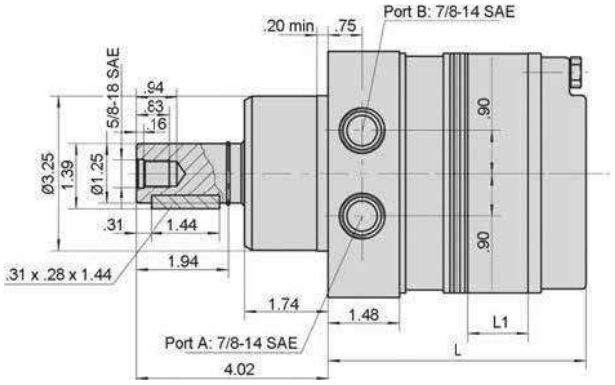
Display Key

1 Output Shaft
2 Key
3 Dust Seal
4 “O” Ring
5 Shaft Seal
6 Axial Needle Bearing
7 Housing
8 Port Plug
9 Radial Needle Bearing
10 Timing Plate
11 Rolortorc Gear Set
12 Bolt
13 “O” Ring
14 Ball
15 Balance Plate
16 End Cover
17 “O” Ring
18 Axial Needle Bearing
19 “O” Ring
20 Drive Shaft
21 Spacer Bushing
22 Radial Needle Bearing
23 Thrust Washer

WS - Wheel Drive

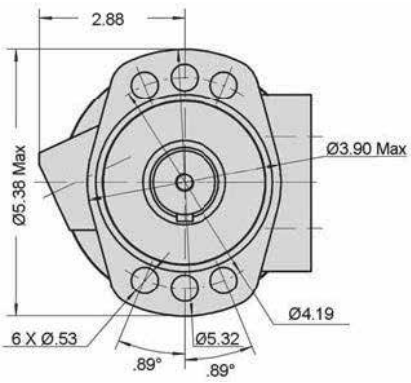
Motor Size	L	L1
125	4.68”	0.40”
160	4.80”	0.53”
200	4.94”	0.67”
230	5.04”	0.77”
250	5.14”	0.87”
300	5.30”	1.00”
350	5.43”	1.16”
375	5.53”	1.25”
475	5.83”	1.55”
540	6.14”	1.86”
750	6.93”	2.50”

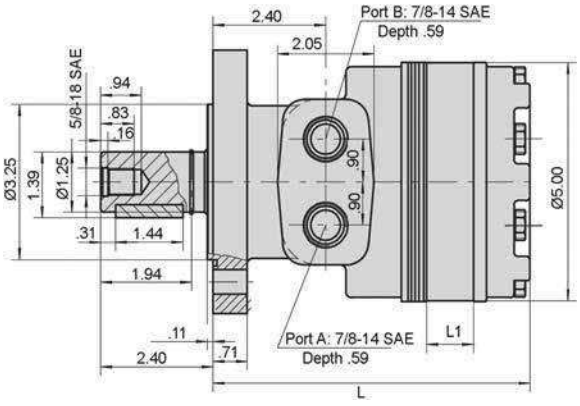




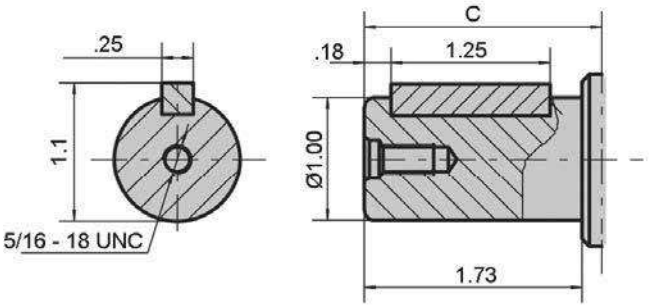
FS - Magneto Mount

Motor Size	L	L1
125	6.18”	0.40”
160	6.30”	0.53”
200	6.44”	0.67”
230	6.54”	0.77”
250	6.63”	0.87”
300	6.77”	1.00”
350	6.93”	1.16”
375	7.03”	1.25”
475	7.32”	1.55”
540	7.64”	1.86”
750	8.27”	2.50”

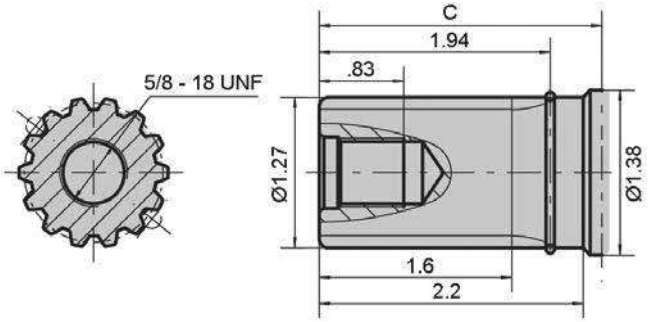




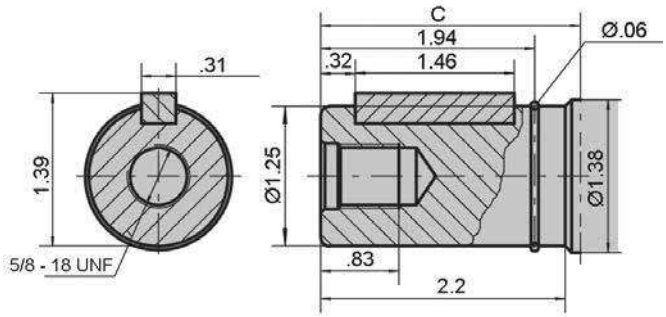
RW - 1” Keyed



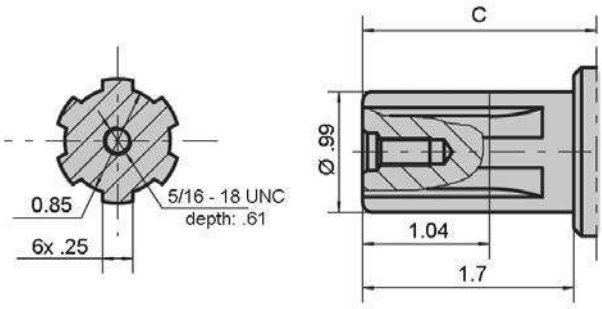
FD1 - 14-Tooth Spline



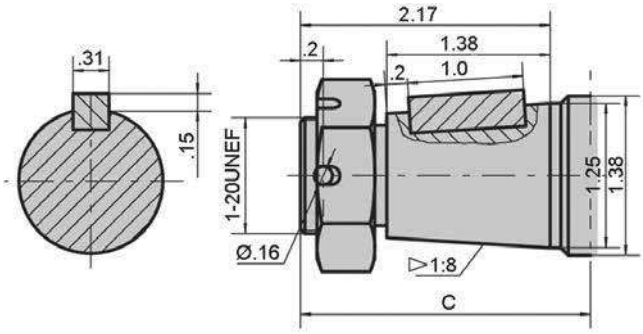
G2 - 1¼” Keyed



SW - 6B Spline



T4 - 1¼” Tapered



Dimension “C”

From Mounting Flange to Shaft End

Shaft Code	Wheel Mount (WS)	Magneto Mount (FS)
RW	3.58”	1.96”
G2	4.05”	2.40”
T4	4.21”	2.56”
FD1	4.05”	2.40”
SW	3.58”	1.96”

BMER-2-125 [118cm³/rev.]

Pressure (PSI)

Flow (L/min)	254	508	1015	1523	2030	2538	1740 Max.cont.	2031 Max.int.
2	20 **14**	50 **13**	96 **11**	137 **7**				
4	24 **28**	53 **26**	110 **24**	166 **19**	221 **13**			
8		55 **60**	113 **54**	174 **50**	225 **45**	266 **39**	294 **35**	336 **26**
15		53 **115**	114 **110**	180 **100**	234 **96**	275 **90**	326 **84**	348 **76**
25		48 **194**	110 **185**	164 **173**	226 **168**	272 **160**	323 **155**	352 **149**
34			108 **276**	166 **260**	220 **244**	278 **232**	315 **225**	373 **217**
45			98 **362**	160 **350**	215 **342**	271 **325**	308 **322**	369 **303**
53 Max.cont.			90 **423**	152 **418**	208 **404**	265 **399**	304 **371**	
60 Max.int.			82 **488**	141 **472**	205 **455**	260 **442**	300 **421**	

BMER-2-160 [156cm³/rev.]

Pressure (PSI)

Flow (L/min)	254	508	1015	1523	2030	2538	1740 Max.cont.	2031 Max.int.
2	35 **8**	74 **4**	146 **3**	218 **3**	298 **2**			
4	29 **22**	78 **19**	157 **18**	235 **16**	316 **14**	370 **13**	424 **8**	
8	35 **47**	78 **44**	158 **42**	236 **40**	312 **37**	373 **34**	450 **32**	526 **27**
15	37 **93**	74 **90**	155 **86**	234 **84**	310 **82**	368 **79**	440 **75**	517 **69**
25		68 **155**	152 **151**	227 **147**	308 **142**	364 **137**	436 **131**	499 **124**
34		68 **214**	152 **213**	227 **210**	308 **204**	364 **198**	436 **191**	499 **184**
45		64 **282**	143 **280**	218 **275**	296 **268**	360 **263**	425 **256**	481 **245**
53			135 **330**	216 **327**	293 **322**	357 **315**	421 **306**	476 **296**
60 Max.cont.			122 **379**	207 **376**	284 **368**	350 **362**	416 **356**	467 **345**
68			109 **423**	196 **419**	273 **414**	345 **406**	156 **345**	
75 Max.int.			104 **472**	188 **466**	270 **270**	337 **450**	156 **337**	

BMER-2-200 [196cm³/rev.]

Pressure (PSI)

Flow (L/min)	254	508	1015	1523	2030	2538	1740 Max.cont.	2031 Max.int.
2	39 **8**	88 **4**	132 **4**	286 **3**	370 **2**			
4	42 **16**	85 **14**	188 **13**	270 **11**	361 **10**	427 **9**	506 **6**	
8	43 **35**	90 **32**	192 **29**	291 **28**	367 **27**	450 **25**	529 **23**	600 **19**
15	38 **74**	92 **71**	196 **68**	298 **64**	381 **60**	462 **58**	530 **55**	602 **50**
25		82 **124**	188 **121**	283 **117**	377 **113**	456 **108**	528 **103**	605 **92**
34		79 **170**	183 **169**	270 **167**	362 **160**	447 **154**	515 **146**	591 **135**
45			163 **223**	259 **218**	352 **212**	441 **208**	510 **199**	593 **189**
53			149 **260**	256 **258**	350 **254**	440 **248**	501 **241**	582 **230**
60			132 **299**	248 **292**	336 **284**	432 **276**	497 **272**	575 **263**
68 Max.cont.			120 **336**	230 **332**	330 **327**	412 **319**	486 **310**	570 **301**
75			108 **375**	208 **372**	311 **365**	403 **358**	480 **350**	
85 Max.int.				184 **425**	280 **420**	380 **411**	462 **390**	

Torque (N•m) 380
Speed (rpm) **411**

BMER-2-230 [228cm³/rev.]

Pressure (PSI)

Flow (L/min)	254	508	1015	1523	2030	2538	1740 Max.cont.	2031 Max.int.
2	44 **6**	90 **4**	182 **3**	291 **2**	374 **1**			
4	48 **15**	100 **13**	216 **11**	310 **11**	405 **9**	484 **7**	549 **3**	
8	50 **31**	104 **29**	212 **27**	320 **25**	421 **23**	518 **20**	603 **16**	700 **10**
15	44 **63**	106 **61**	207 **58**	318 **55**	426 **52**	529 **47**	623 **41**	712 **34**
25		101 **103**	209 **100**	324 **96**	428 **92**	532 **87**	620 **81**	705 **71**
34		88 **145**	205 **143**	316 **139**	421 **133**	522 **126**	623 **120**	702 **109**
45			186 **192**	294 **187**	422 **182**	507 **176**	595 **170**	688 **160**
53			175 **226**	290 **221**	393 **215**	496 **208**	584 **203**	678 **194**
60			152 **256**	270 **253**	390 **248**	485 **242**	569 **235**	661 **222**
68 Max.cont.			140 **292**	265 **288**	351 **283**	482 **278**	563 **273**	642 **256**
75			124 **324**	235 **321**	344 **344**	448 **308**	552 **300**	
85 Max.int.				207 **366**	335 **360**	442 **351**	546 **338**	

cont.
int.

BMER-2 PERFORMANCE DATA

ANFIELD

BMER-2-250 [257cm³/rev.]

Pressure (PSI)

Flow (L/min)	254	508	1015	1523	2030	2538	1740 Max.cont.	2031 Max.int.
2	48 **5**	111 **2**						
4	54 **12**	113 **11**	237 **10**	362 **9**	471 **8**	570 **6**	642 **3**	
8	54 **27**	115 **26**	244 **24**	366 **22**	482 **20**	587 **18**	688 **14**	
15	50 **57**	113 **56**	256 **54**	367 **51**	485 **48**	591 **45**	692 **43**	794 **37**
25	44 **95**	114 **93**	241 **90**	360 **86**	488 **82**	593 **77**	699 **72**	782 **63**
34		95 **129**	226 **125**	348 **121**	481 **116**	590 **111**	686 **106**	774 **96**
45		77 **174**	215 **173**	346 **170**	468 **166**	572 **161**	674 **155**	779 **143**
53		66 **203**	200 **202**	325 **200**	448 **196**	564 **190**	657 **184**	756 **175**
60			180 **232**	296 **229**	438 **225**	550 **220**	642 **215**	741 **202**
68			162 **262**	294 **261**	415 **257**	548 **250**	637 **241**	730 **228**
Max.cont. 75			137 **290**	274 **289**	388 **388**	520 **280**	618 **273**	726 **260**
85			130 **328**	261 **326**	370 **322**	509 **316**	604 **307**	
Max.int. 90			85 **348**	224 **347**	358 **344**	490 **336**		

BMER-2-300 [296cm³/rev.]

Pressure (PSI)

Flow (L/min)	254	508	1015	1523	2030	2538	1740 Max.cont.	2031 Max.int.
2	50 **3**	93 **1**						
4	62 **11**	141 **10**	294 **9**	429 **8**	502 **7**	618 **4**		
8	63 **22**	147 **21**	298 **20**	432 **19**	565 **16**	667 **13**	761 **9**	819 **5**
15	66 **48**	144 **47**	305 **45**	427 **43**	568 **39**	671 **33**	810 **28**	894 **20**
25	59 **82**	138 **81**	289 **80**	420 **76**	552 **71**	676 **64**	791 **56**	932 **44**
34	48 **113**	130 **112**	297 **110**	393 **107**	562 **102**	689 **96**	805 **86**	926 **73**
45		96 **150**	268 **149**	385 **148**	527 **143**	636 **135**	753 **124**	880 **112**
53		76 **177**	242 **176**	383 **175**	524 **173**	631 **165**	758 **152**	900 **138**
60		64 **200**	225 **199**	362 **198**	506 **193**	627 **186**	753 **174**	892 **162**
68			200 **225**	333 **224**	470 **222**	630 **212**	750 **201**	882 **194**
Max.cont. 75			178 **251**	322 **250**	464 **464**	610 **240**	741 **232**	870 **215**
85			140 **285**	316 **284**	455 **278**	570 **270**	728 **257**	
Max.int. 95			106 **316**	260 **314**	431 **311**	552 **307**	700 **292**	

BMER-2-350 [345cm³/rev.]

Pressure (PSI)

Flow (L/min)	254	508	1015	1523	2030	2538	1740 Max.cont.	2031 Max.int.
2	63 **4**	133 **4**						
4	64 **10**	135 **9**	290 **8**	440 **7**				
8	68 **21**	146 **20**	310 **20**	458 **19**	589 **18**	735 **16**	847 **12**	
15	72 **42**	150 **41**	314 **40**	468 **39**	627 **37**	769 **35**	880 **32**	984 **26**
25	63 **70**	148 **69**	313 **68**	470 **66**	628 **63**	765 **60**	892 **55**	1018 **46**
34	52 **97**	133 **96**	304 **95**	455 **93**	619 **89**	760 **85**	905 **78**	1034 **68**
45		100 **129**	261 **128**	442 **127**	583 **125**	736 **118**	887 **112**	1028 **101**
53		85 **152**	247 **150**	418 **148**	566 **145**	715 **139**	880 **132**	1024 **118**
60		65 **171**	233 **170**	410 **169**	550 **167**	712 **162**	842 **155**	996 **143**
68			218 **195**	387 **194**	543 **190**	696 **185**	825 **175**	976 **162**
Max.cont. 75			206 **215**	373 **214**	515 **515**	680 **206**	822 **197**	966 **183**
85			176 **243**	355 **242**	510 **239**	679 **234**	808 **227**	
Max.int. 95				353 **272**	509 **269**	645 **265**		

Torque (N•m) 645
Speed (rpm) **265**

BMER-2-375 [371cm³/rev.]

Pressure (PSI)

Flow (L/min)	254	508	1015	1523	2030	2538	1740 Max.cont.	2031 Max.int.
2	75 **3**							
4	83 **8**	160 **8**	330 **7**	488 **6**	636 **5**	761 **3**		
8	81 **18**	170 **17**	356 **17**	527 **16**	679 **14**	822 **12**	948 **9**	1060 **5**
15	76 **39**	162 **38**	356 **37**	533 **35**	683 **32**	845 **29**	978 **25**	1102 **18**
25	68 **65**	156 **64**	350 **62**	524 **59**	680 **55**	857 **48**	994 **44**	1138 **35**
34	58 **90**	148 **89**	339 **87**	506 **83**	690 **77**	841 **71**	993 **63**	1145 **53**
45		121 **120**	302 **119**	478 **117**	650 **113**	813 **108**	972 **100**	1134 **90**
53		95 **141**	282 **140**	466 **138**	628 **134**	785 **128**	934 **120**	1103 **105**
60		75 **161**	264 **161**	428 **160**	592 **158**	766 **155**	925 **151**	1070 **141**
68			232 **182**	422 **180**	585 **176**	756 **169**	901 **161**	1066 **148**
Max.cont. 75			207 **201**	380 **200**	556 **556**	738 **190**	865 **181**	1012 **165**
85			175 **228**	370 **226**	526 **221**	700 **216**	832 **206**	
Max.int. 90			148 **242**	316 **240**	500 **237**	654 **226**		

cont.
int.

BMER-2-475 [462cm³/rev.]

Flow (L/min)	Pressure (PSI) 254	508	1015	1523	2030	2538 Max.cont.	1740 Peak
2	93 **2**	186 **1**					
4	98 **7**	202 **6**	405 **5**	608 **5**	805 **4**		
8	98 **15**	206 **14**	430 **13**	652 **13**	844 **12**	1005 **10**	1180 **8**
15	94 **31**	202 **30**	441 **28**	654 **28**	875 **26**	1056 **23**	1238 **20**
25	94 **52**	202 **51**	441 **48**	654 **45**	875 **43**	1056 **39**	1238 **35**
34	75 **72**	180 **71**	420 **68**	660 **65**	850 **61**	1085 **55**	1266 **44**
45		144 **96**	380 **95**	627 **93**	835 **90**	1062 **84**	1261 **73**
53		116 **113**	346 **112**	573 **111**	795 **107**	1008 **102**	1212 **90**
60		82 **128**	318 **128**	539 **127**	790 **124**	975 **119**	1186 **110**
68		58 **146**	272 **145**	520 **144**	740 **141**	955 **136**	1156 **125**
Max.cont. 75			230 **161**	480 **160**	702 **702**	920 **153**	1116 **140**
85			200 **182**	454 **180**	662 **177**	876 **168**	
Max.int. 90			150 **194**	378 **193**	615 **190**	840 **182**	

BMER-2-540 [540cm³/rev.]

Flow (L/min)	Pressure (PSI) 254	508	1015	1523	2030 Max.cont.	2538 Max.int.
2	105 **2**	198 **2**				
4	125 **6**	231 **5**	470 **5**	688 **4**	932 **4**	1136 **3**
8	134 **13**	238 **13**	496 **12**	749 **11**	966 **11**	1175 **8**
15	122 **27**	230 **26**	505 **26**	750 **25**	981 **24**	1218 **21**
25	100 **44**	225 **43**	500 **42**	774 **41**	986 **39**	1220 **35**
34	80 **62**	212 **61**	481 **60**	748 **58**	977 **54**	1243 **49**
45		173 **82**	437 **82**	714 **81**	936 **79**	1190 **75**
53		142 **97**	416 **97**	678 **96**	938 **94**	1170 **89**
60		106 **110**	380 **110**	664 **109**	896 **108**	1158 **106**
68		85 **125**	357 **124**	616 **124**	870 **123**	1108 **120**
Max.cont. 75			318 **138**	600 **137**	826 **826**	1100 **132**
85			292 **154**	538 **153**	780 **152**	
Max.int. 90			214 **169**	486 **168**	755 **168**	

Torque (N•m) 486
Speed (rpm) **168**

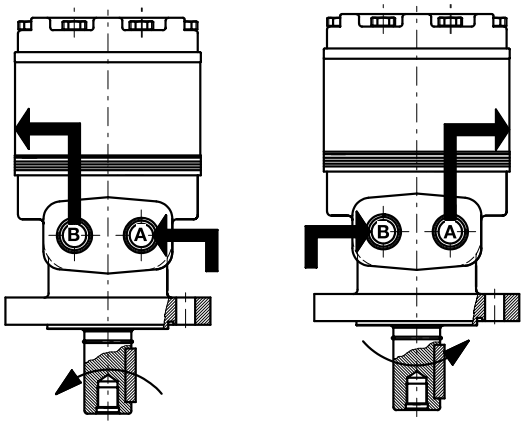
BMER-2-750 [745cm³/rev.]

Flow (L/min)	Pressure (PSI) 254	508	1015	1523 Max.cont.	2030 Max.int.	2538 Peak
2	145 **2**	280 **1**				
4	160 **4**	321 **4**	654 **4**	960 **3**	1115 **3**	1312 **2**
8	162 **9**	335 **9**	688 **9**	1026 **8**	1159 **8**	1347 **7**
15	156 **19**	330 **19**	694 **18**	1047 **18**	1184 **17**	1376 **16**
25	142 **32**	320 **31**	688 **30**	1046 **30**	1179 **29**	1373 **27**
34	110 **44**	288 **44**	658 **42**	1021 **41**	1169 **40**	1366 **37**
45	71 **60**	242 **59**	620 **59**	982 **58**	1143 **58**	1345 **55**
53		202 **70**	568 **69**	941 **68**	1105 **67**	1308 **66**
60		140 **79**	527 **78**	898 **77**	1086 **76**	1286 **74**
68		100 **90**	486 **90**	852 **89**	1034 **88**	1251 **87**
Max.cont. 75		65 **99**	425 **99**	812 **98**	980 **97**	1178 **96**
83			395 **110**	745 **109**	906 **108**	
Max.int. 90			298 **120**	660 **119**	800 **117**	

cont.
int.

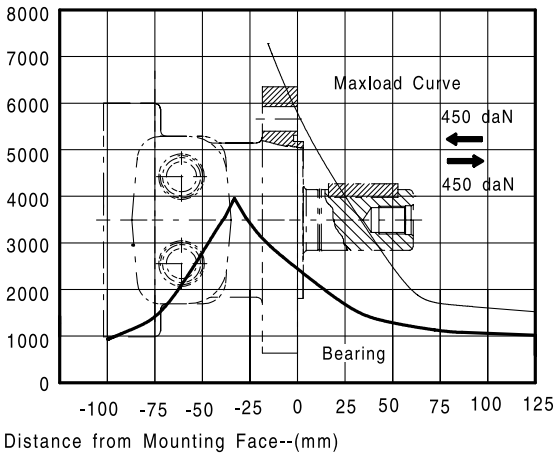
Shaft Rotation Direction: Reverse Timed

When facing shaft end of motor,shaft to rotate:
- Clockwise when port “B” is pressurized.
- Counter-clockwise when port “A” is pressurized.

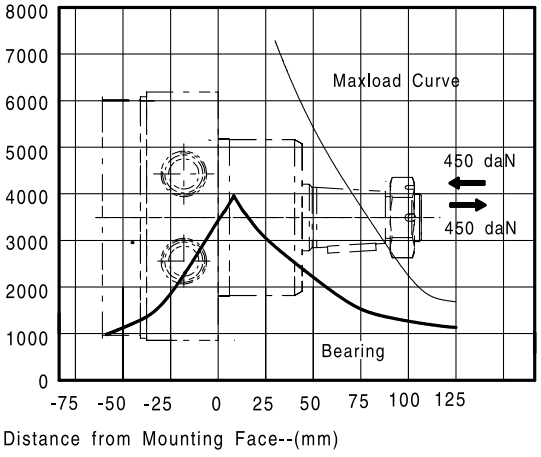


Axial and Radial Forces

BMER-2 for Magneto Mount
Side load - (daN)



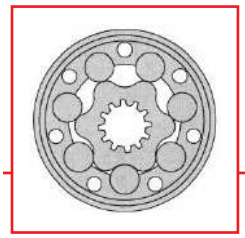
BMER-2 for Wheel Mount
Side load - (daN)



BMER-2 ORDERING INFORMATION

	1	2	3	4	5	6
BMER-2						

1	2		3		4		5		6	
FRAME SIZE	**MOUNTING FLANGE**		**DRIVE SHAFT**		**PORT SIZE**		**ROTATION DIRECTION**		**OPTIONS**	
125 (720)	**WS**	Wheel Drive Pilot: 3.25”	**RW**	1” Keyed	**S**	7/8” - 14 SAE	**OMIT**	Clockwise	**CR**	Cavity Relief Valve
160 (9.52)	**FS**	Magneto Mount Pilot: 3.25”	**G2**	1¼” Keyed			**R**	Counter-clockwise		
200 (11.96)			**T4**	1¼” Tapered						
230 (13.91)			**FD1**	14-Tooth Spline						
250 (15.68)			**SW**	6B Spline						
300 (18.08)										
350 (21.05)										
375 (22.63)										
475 (28.18)										
540 (32.94)										
750 (45.45)										



Model BMH

The BMH series advanced GEROLER gear set, shaft distribution flow, hydraulic motor is a compact, low noise, high efficient high torque low speed design. The GEROLER gear set also affords a reliable smooth start up at low pressure. The special design of the valve linkage and high pressure capability of the shaft seal provides a long operating life and these motors can be used in either series or parallel operation. The low weight advanced construction design is manufactured in accordance with the requirements of ISO 9001-2008 quality system.

BMH TECHNICAL SPECIFICATIONS

DISTRIBUTION TYPE			BMH 200	BMH 250	BMH 315	BMH 400	BMH 500
GEOMETRIC DISPLACEMENT		[in^3./rev.]	[12.40]	[15.62]	[19.29]	[24.80]	[29.86]
		cm^3/rev.	**203.2**	**255.9**	**316.1**	**406.4**	**489.2**
MAX. SPEED RPM		RATED	263	209	169	131	109
		CONT.	366	290	236	183	155
		INT.	**439**	**348**	**282**	**220**	**166**
MAX. TORQUE [LB. IN.] N*M	RATED	[LB. IN.]	[2636]	[3317]	[4015]	[4219]	[4059]
		N*M	**298**	**375**	**454**	**477**	**459**
	CONT.	[LB. IN.]	[4510]	[5492]	[6545]	[7641]	[7066]
		N*M	**510**	**621**	**740**	**864**	**799**
	INT.	[LB. IN.]	[5121]	[6208]	[7314]	[8738]	[8588]
		N*M	**579**	**702**	**827**	**988**	**971**
	PEAK	[LB. IN.]	[5757]	[6987]	[8225]	[9658]	[9658]
		N*M	**651**	**790**	**930**	**1092**	**1092**
MAX. OUTPUT [HP] KW	RATED	[HP]	[11]	[11]	[11]	[9]	[7]
		KW	**8.2**	**8.2**	**8.2**	**6.6**	**5.2**
	CONT.	[HP]	[15]	[12]	[13]	[10]	[9]
		KW	**11.2**	**9.2**	**9.8**	**7.4**	**6.5**
	INT.	[HP]	[23]	[20]	[17]	[17]	[15]
		KW	**17**	**15**	**13**	**13**	**11**
MAX. PRESSURE DROP [PSI] MP_A	RATED	[PSI]	[1813]	[1813]	[1813]	[1450]	[1160]
		MP_A	**12.5**	**12.5**	**12.5**	**10**	**8**
	CONT.	[PSI]	[2538]	[2538]	[2538]	[2248]	[1813]
		MP_A	**17.5**	**17.5**	**17.5**	**15.5**	**12.5**
	INT.	[PSI]	[2900]	[2900]	[2900]	[2755]	[2320]
		MP_A	**20**	**20**	**20**	**19**	**16**
	PEAK	[PSI]	[3263]	[3263]	[3263]	[3045]	[2610]
		MP_A	**22.5**	**22.5**	**22.5**	**21**	**18**
MAX. FLOW [GPM] L/MIN	RATED	[GPM]	[15.8]	[15.8]	[15.8]	[15.8]	[15.8]
		L/MIN	**60**	**60**	**60**	**60**	**60**
	CONT.	[GPM]	[19.8]	[19.8]	[19.8]	[19.8]	[19.8]
		L/MIN	**75**	**75**	**75**	**75**	**75**
	INT.	[GPM]	[23.7]	[23.7]	[23.7]	[23.7]	[23.7]
		L/MIN	**90**	**90**	**90**	**90**	**90**
WEIGHT [LB] KG		[LB]	[23]	[24]	[25]	[27]	[29]
		KG	10.5	11	11.5	12.3	13

* Rated speed and rated torque: Output value of speed and torque under rated flow and rated pressure.
* Continuous pressure: Max. value of operating motor continuously.
* Intermittent pressure: Max. value of operating motor in 6 seconds per minute.
* Peak pressure: Max. value of operating motor in 0.6 second per minute.

BMH 200 [12.40 in³/rev] 203.2 cm³/rev.

GPM L/min	L/min	[507] 3.5	[1015] 7	[1522] 10.5	[2030] 14	[2537] 17.5	[2900] 20
[1.3]	5	[867] 98 **25**	[1716] 194 **25**	[2512] 284 **22**			
[2.6]	10	[893] 101 **43**	[1804] 204 **41**	[2662] 301 **36**	[3458] 391 **29**	[4263] 482 **14**	
[5.3]	20	[876] 99 **100**	[1778] 201 **97**	[2689] 304 **93**	[3555] 402 **85**	[4502] 509 **69**	[5094] 576 **56**
[7.9]	30	[858] 97 **145**	[1742] 197 **143**	[2653] 300 **139**	[3555] 402 **130**	[4510] 510 **114**	[5121] 579 **101**
[10.6]	40	[796] 90 **200**	[1680] 190 **200**	[2582] 292 **200**	[3529] 399 **188**	[4484] 507 **168**	[5112] 578 **153**
[13.2]	50	[725] 82 **248**	[1618] 183 **246**	[2512] 284 **244**	[3467] 392 **235**	[4422] 500 **213**	[5050] 571 **199**
[15.9]	60	[646] 73 **292**	[1539] 174 **290**	[2423] 274 **287**	[3396] 384 **279**	[4360] 493 **260**	[4979] 563 **244**
[18.5]	70	[557] 63 **352**	[1442] 163 **350**	[2335] 264 **349**	[3308] 374 **338**	[4254] 481 **318**	[4900] 554 **301**
[19.8]	75	[522] 59 **366**	[1389] 157 **365**	[2291] 259 **363**	[3237] 366 **355**	[4201] 475 **335**	[4838] 547 **319**
[21.1]	80	[469] 53 **381**	[1327] 150 **381**	[2238] 253 **380**	[3166] 358 **371**	[4121] 466 **352**	[4758] 538 **338**
[23.8]	90	[345] 39 **443**	[1238] 140 **437**	[2131] 241 **434**	[3078] 348 **426**	[4033] 456 **407**	[4652] 526 **392**

Flow (L/min) — Max cont. — Max int. — [PSI] MPA — TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM) — Max cont. — Max int.

BMH 250 [15.61 in³/rev] 255.9 cm³/rev.

GPM L/min	L/min	[507] 3.5	[1015] 7	[1305] 9	[1740] 12	[2102] 14.5	[2537] 17.5	[2900] 20
[1.3]	5	[1070] 121 **19**	[2176] 246 **19**	[2812] 318 **18**	[3520] 398 **14**			
[2.6]	10	[1150] 130 **34**	[2282] 258 **33**	[2927] 331 **31**	[3759] 425 **29**	[4555] 515 **23**	[5262] 595 **12**	
[5.3]	20	[1150] 130 **78**	[2282] 258 **77**	[2936] 332 **76**	[3821] 432 **73**	[4599] 520 **65**	[5492] 621 **53**	[6208] 702 **42**
[7.9]	30	[1079] 122 **115**	[2220] 251 **113**	[2892] 327 **111**	[3794] 429 **105**	[4599] 520 **96**	[5492] 621 **84**	[6191] 700 **75**
[10.6]	40	[1017] 115 **157**	[2123] 240 **157**	[2857] 323 **156**	[3732] 422 **150**	[4537] 513 **139**	[5448] 616 **127**	[6173] 698 **114**
[13.2]	50	[929] 105 **196**	[2052] 232 **195**	[2777] 314 **192**	[3635] 411 **185**	[4466] 505 **173**	[5359] 606 **159**	[6076] 687 **147**
[15.9]	60	[831] 94 **232**	[1946] 220 **230**	[2671] 302 **226**	[3546] 401 **218**	[4387] 496 **206**	[5271] 596 **192**	[5979] 676 **180**
[18.5]	70	[720] 81.4 **274**	[1848] 209 **274**	[2547] 288 **274**	[3440] 389 **266**	[4281] 484 **252**	[5147] 582 **238**	[5890] 666 **222**
[19.8]	75	[637] 72 **290**	[1795] 203 **289**	[2476] 280 **287**	[3370] 381 **279**	[4201] 475 **266**	[5076] 574 **251**	[5828] 659 **236**
[21.1]	80	[584] 66 **303**	[1716] 194 **302**	[2414] 273 **298**	[3281] 371 **290**	[4130] 467 **279**	[5006] 566 **264**	[5757] 651 **249**
[23.8]	90	[433] 49 **348**	[1574] 178 **347**	[2264] 256 **345**	[3140] 355 **337**	[4006] 453 **325**	[4882] 552 **309**	[5607] 634 **292**

Flow (L/min) — Max cont. — Max int. — [PSI] MPA — TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM) — Max cont. — Max int.

BMH 315 [19.29 in³/rev] 316.1 cm³/rev.

GPM L/min	L/min	[507] 3.5	[1087] 7.5	[1450] 10	[1957] 13.5	[2247] 15.5	[2537] 17.5	[2900] 20
[1.3]	5	[1371] 155 **16**	[2874] 325 **13**					
[2.6]	10	[1442] 163 **27**	[3025] 342 **24**	[4015] 454 **18**	[4917] 556 **14**			
[5.3]	20	[1495] 169 **63**	[3087] 349 **61**	[4048] 469 **55**	[5147] 582 **48**	[5872] 664 **40**	[6483] 733 **32**	[7155] 809 **19**
[7.9]	30	[1459] 165 **93**	[3042] 344 **89**	[4157] 470 **82**	[5130] 580 **77**	[5917] 669 **67**	[6545] 740 **59**	[7287] 824 **46**
[10.6]	40	[1362] 154 **126**	[2980] 337 **126**	[4112] 465 **119**	[5103] 577 **111**	[5864] 663 **99**	[6518] 737 **88**	[7314] 827 **73**
[13.2]	50	[1247] 141 **159**	[2874] 325 **155**	[4024] 455 **148**	[5023] 568 **139**	[5802] 656 **126**	[6438] 728 **115**	[7287] 824 **98**
[15.9]	60	[1070] 121 **187**	[2759] 312 **186**	[3891] 440 **179**	[4908] 555 **169**	[5687] 643 **154**	[6323] 715 **143**	[7181] 812 **124**
[18.5]	70	[911] 103 **222**	[2636] 298 **222**	[3759] 425 **215**	[4785] 541 **205**	[5581] 631 **187**	[6217] 703 **176**	[7075] 800 **157**
[19.8]	75	[831] 94 **236**	[2538] 287 **233**	[3688] 417 **224**	[4678] 529 **215**	[5510] 623 **196**	[6155] 696 **184**	[7004] 792 **166**
[21.1]	80	[725] 82 **246**	[2450] 277 **244**	[3591] 406 **236**	[4581] 518 **228**	[5404] 611 **210**	[6085] 688 **197**	[6934] 784 **174**
[23.8]	90	[548] 62 **282**	[2264] 256 **280**	[3414] 386 **275**	[4387] 496 **266**	[5245] 593 **248**	[5917] 669 **234**	[6783] 767 **209**

Flow (L/min) — Max cont. — Max int. — [PSI] MPA — TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM) — Max cont. — Max int.

BMH 400 [24.80 in³/rev] 406.40 cm³/rev.

GPM L/min	L/min	[507] 3.5	[870] 6	[1522] 10.5	[1812] 12.5	[2247] 15.5	[2755] 19
[1.3]	5	[1733] 196 **13**	[3078] 348 **13**	[4564] 516 **10**			
[2.6]	10	[1813] 205 **22**	[3210] 363 **21**	[4829] 546 **21**	[6209] 702 **17**	[7597] 859 **11**	
[5.3]	20	[1848] 209 **50**	[3237] 366 **49**	[4802] 543 **46**	[6262] 708 **41**	[7730] 874 **36**	[8738] 988 **31**
[7.9]	30	[1778] 201 **73**	[3157] 357 **72**	[4793] 542 **70**	[6244] 706 **63**	[7641] 864 **56**	[8703] 984 **51**
[10.6]	40	[1725] 195 **99**	[3060] 346 **98**	[4705] 532 **96**	[6200] 701 **86**	[7588] 858 **77**	[8605] 973 **71**
[13.2]	50	[1530] 173 **123**	[2936] 332 **122**	[4581] 518 **118**	[6076] 687 **107**	[7500] 848 **97**	[8473] 958 **90**
[15.9]	60	[1362] 154 **146**	[2821] 319 **144**	[4431] 501 **141**	[5908] 668 **128**	[7368] 833 **115**	[8349] 944 **106**
[18.5]	70	[1221] 138 **174**	[2697] 305 **173**	[4245] 480 **169**	[5740] 649 **156**	[7199] 814 **141**	[8181] 925 **130**
[19.8]	75	[1132] 128 **183**	[2600] 294 **181**	[4121] 466 **177**	[5634] 637 **163**	[7093] 802 **149**	[8057] 911 **138**
[21.1]	80	[999] 113 **192**	[2450] 277 **191**	[3989] 451 **188**	[5492] 621 **174**	[6951] 786 **158**	[7951] 899 **144**
[23.8]	90	[796] 90 **220**	[2264] 256 **220**	[3829] 433 **215**	[5262] 595 **202**	[6783] 767 **183**	[7792] 881 **165**

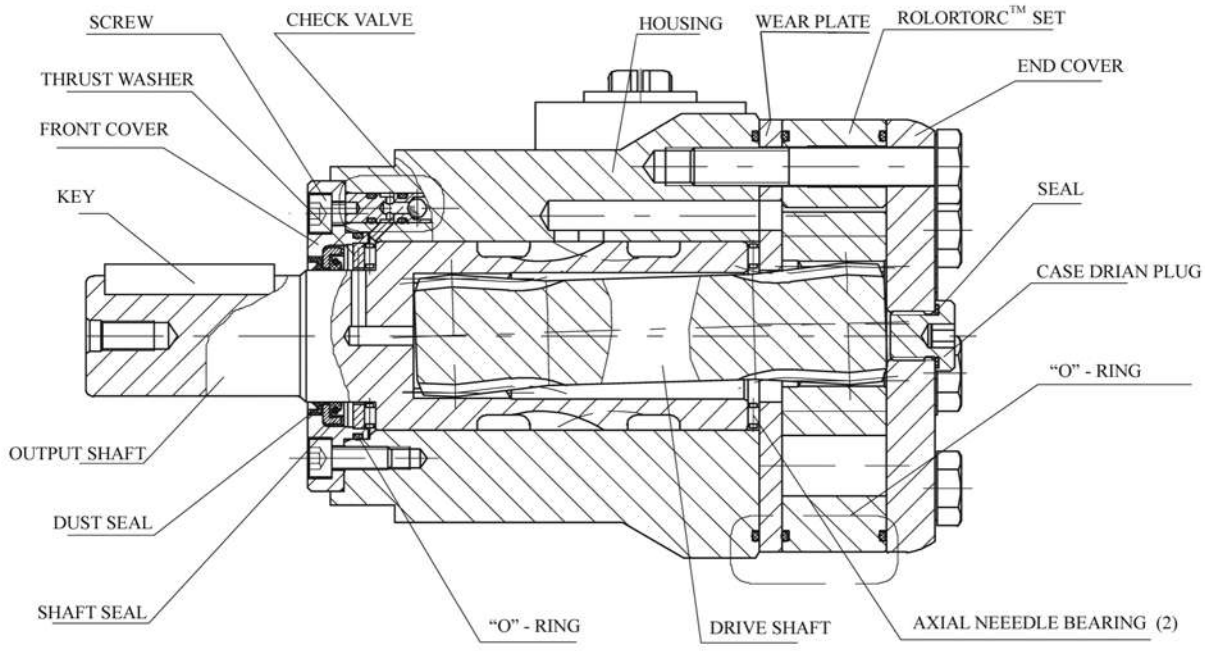
Flow (L/min) — Max cont. — Max int. — [PSI] MPA — TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM) — Max cont. — Max int.

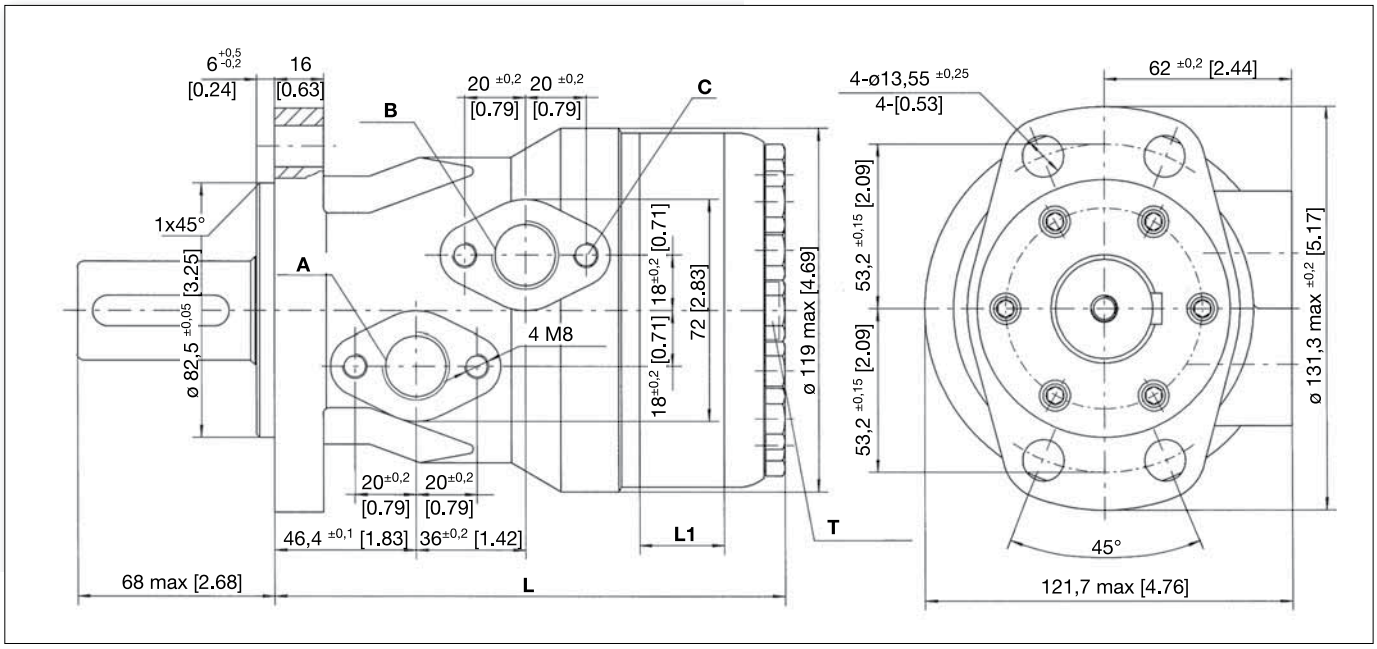
BMH PERFORMANCE DATA

BMH 500 [29.85 in³/rev] 489.2 cm³/rev.

		362 2.5	725 5	1232 8.5	1450 10	Max cont. 1812 12.5	Max int. 2320 16	[PSI] MPA
GPM L/ min	[1.3] 5	[1459] 165 **11**	[2804] 317 **11**	[4564] 516 **8**				
	[2.6] 10	[1574] 178 **20**	[2963] 335 **19**	[4908] 555 **17**	[5917] 669 **15**	[6996] 791 **13**	[8570] 969 **9**	
	[5.3] 20	[1565] 177 **42**	[2927] 331 **42**	[4944] 559 **41**	[5952] 673 **38**	[7066] 799 **36**	[8738] 988 **29**	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
Flow (L/min)	[7.9] 30	[1521] 172 **64**	[2830] 320 **63**	[4891] 553 **61**	[5864] 663 **57**	[7004] 792 **53**	[8694] 983 **47**	
	[10.6] 40	[1442] 163 **85**	[2733] 309 **85**	[4785] 541 **83**	[5784] 654 **79**	[6925] 783 **75**	[8588] 971 **67**	
	[13.2] 50	[1291] 146 **103**	[2618] 296 **103**	[4625] 523 **103**	[5616] 635 **97**	[6792] 768 **93**	[8437] 954 **85**	
	[15.9] 60	[1070] 121 **124**	[2432] 275 **124**	[4440] 502 **123**	[5430] 614 **117**	[6606] 747 **113**	[8260] 934 **103**	
	[18.5] 70	[858] 97 **148**	[2264] 256 **148**	[4263] 482 **148**	[5280] 597 **140**	[6447] 729 **134**	[8110] 917 **122**	
Max cont	[19.8] 75	[699] 79 **155**	[2123] 240 **155**	[4148] 469 **155**	[5147] 582 **152**	[6315] 714 **144**	[7977] 902 **130**	
	[21.1] 80	[531] 60 **166**	[1999] 226 **166**	[4006] 453 **166**	[5041] 570 **159**	[6200] 701 **153**	[7818] 884 **139**	Max cont.
Max int.	[23.8] 90	[301] 34 **166**	[1778] 201 **165**	[3723] 421 **164**	[4864] 550 **157**	[5952] 673 **156**	[7685] 869 **155**	Max int.

BMH CROSS SECTION





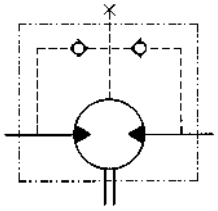
	[INCHES]		MILLIMETERS	
MODEL	**L**	**L1**	**L**	**L1**
BMH 200	[6.61]	[1.06]	168	27
BMH 250	[6.89]	[1.34]	175	34
BMH 315	[7.24]	[1.65]	184	42
BMH 400	[7.68]	[2.13]	195	54
BMH 500	[8.11]	[2.56]	206	65

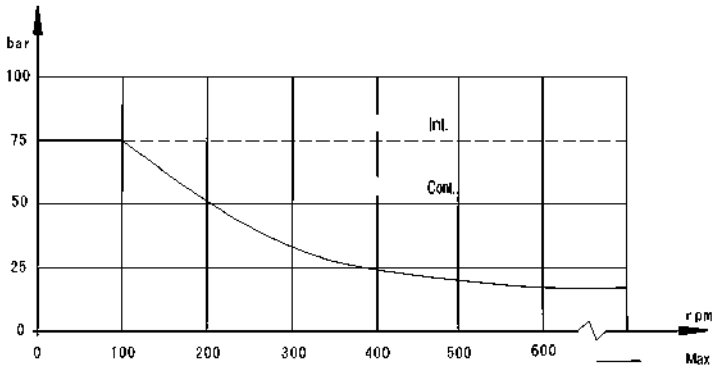
PORT & DRAIN PORT ORDERING CODES

ORDER CODE	D	DEPTH	M	DEPTH	S	DEPTH	P	DEPTH	R	DEPTH
PORTS - A and B	G 1/2	15 mm	M22 X 1.5	15 mm	7/8-14 O-RING	15 mm	1/2-14NPTF	15 mm	PT(RC)1/2	15 mm
TANK PORT - T	G 1/4	12 mm	M14 X 1.5	12 mm	7/16-20 UNF	12 mm	7/16-20 UNF	12 mm	PT(RC)1/4	1/4
BOLTS - C	(4)-M8	13 mm	4-M8	13 mm	4-M8	13 mm	4-M8	13 mm	4-M8	13 mm

Permissible shaft seal pressure

In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

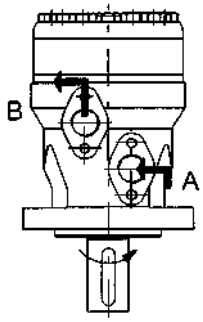




Direction of shaft rotation: Standard

When facing shaft end of motor,shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise port "B" is pressurized.

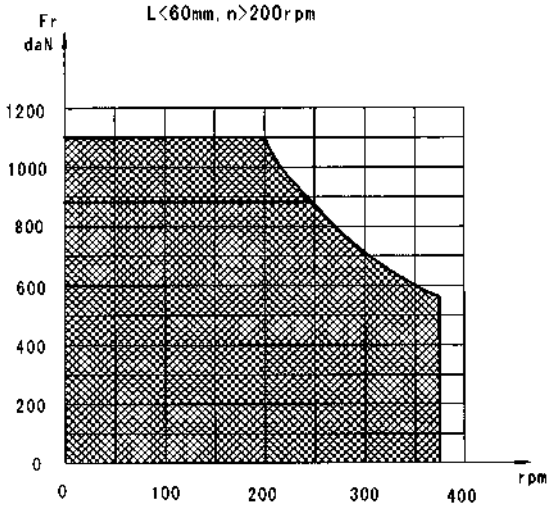
BMH



Status of the shaft's radial force

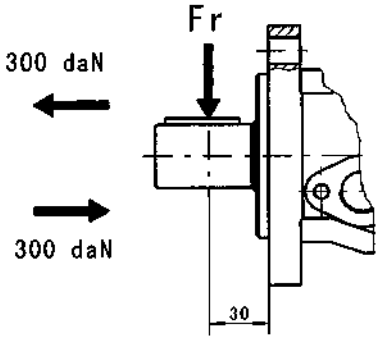
$$F_r = \frac{1100}{n} \times \frac{25000}{103.5+L} \text{ daN}$$

L<60mm, n>200rpm



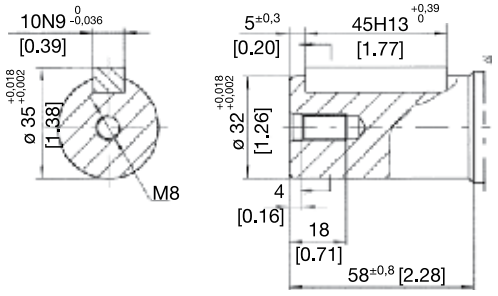
—— shaft Φ1" (Φ25.4mm)and shaft SAE 6B

The drawing is the Possible load when L=30mm.



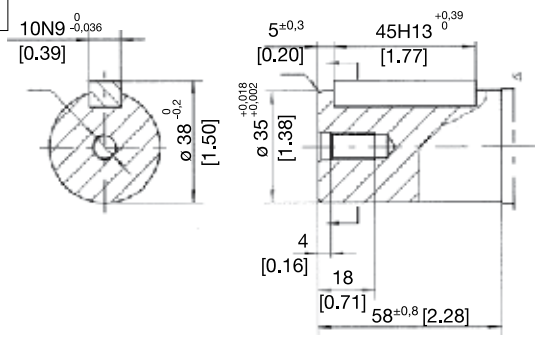
F_r =Radial Force (daN)
L =Distance (mm)
n =Speed (rpm)

B



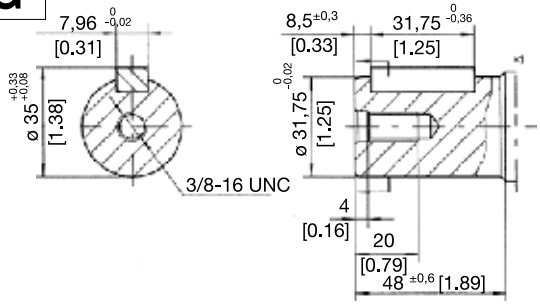
Shaft B: 32 mm keyed
Parallel key 10x8x45

M



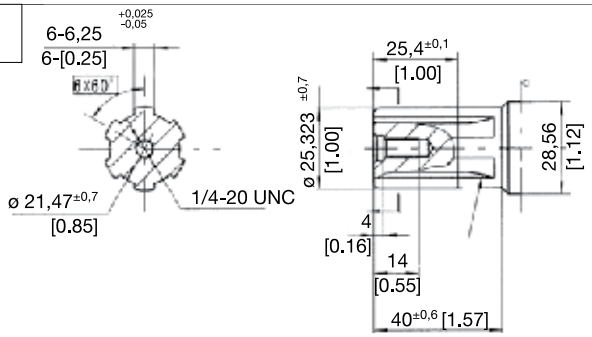
Shaft M: 35mm Keyed
Parallel key 10x8x45

G



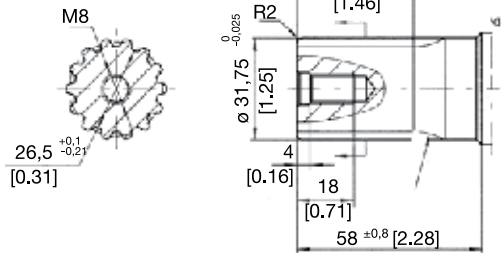
Shaft G: 1 1/4 Keyed
Parallel key .31x.31x1.25

S



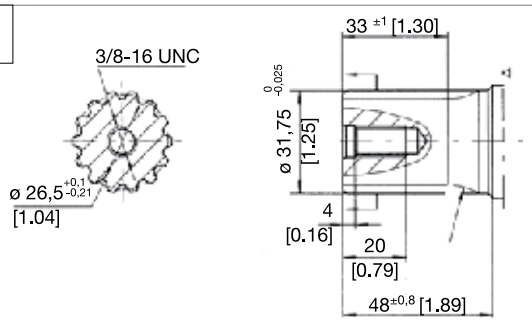
Shaft S: Splined SAE 6B

FD



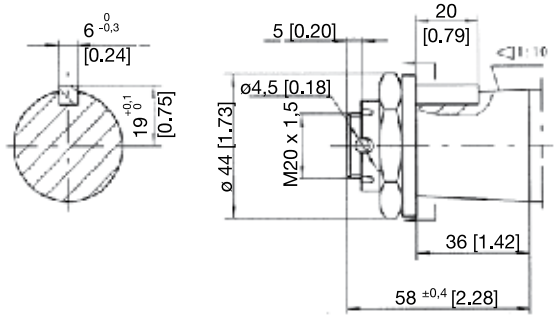
Shaft FD: 1 1/4 14 Splined
Long DP 12/24

F



Shaft F: 1 1/4 14 Splined
DP 12/24

T1



Shaft T1: 35mm Tapered • Parallel key B6x6x20
Tightening torque: 200±10Nxm

▷ Motor Mounting Surface

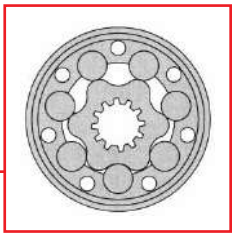
BMH ORDERING INFORMATION

	1	2	3	4	5	6	7
BMH							

1	2		3		4		5		6		7	
DISP. cc (cu. in.)	**FLANGE**		**OUTPUT SHAFT**		**PORT AND DRAIN PORT**		**ROTATION DIRECTION**		**PAINT**		**SPECIAL OPTIONS**	
200 (12.4)	**4**	MAGNETO 3.25" PILOT	**B**	Shaft: 32mm Keyed parallel key 10x8x45	**D**	G1/2 Manifold mount 4 X M8 G1/4	**NONE**	STANDARD	**00**	NO PAINT	**NONE**	STANDARD
250 (15.62)			**M**	Shaft: 35 Keyed parallel key 10x8x45	**S**	7/8-14 O-ring Manifold mount 4 X M8 7/16-20 UNF	**R**	OPPOSITE	**NONE**	BLACK	**0**	NO CASE DRAIN
315 (19.29)			**F**	Shaft: 11/4 14 splined 14-DP12/24	**M**	M22 x 1.5 Manifold mount 4 X M8 M14 x 1.5					**F**	FREE RUNNING
400 (24.80)			**FD**	Long Shaft: 11/4 14 splined 14-DP12/24	**P**	1/2-14 NPTF Manifold 4xM8 7/16-20 UNF					**LS**	LOW SPEED
500 (29.86)			**G**	Shaft 11/4 Keyed parallel key .31x.31x11/4	**R**	PT(Rc)1/2 Manifold mount 4 X M8 ,PT(Rc)1/4					**HPS**	HIGH PRESSURE SEAL
			T1	35mm tapered parallel key B6x6x20								
			S	Shaft: Splined SAE 6B								

For options not listed here, please contact us.

Model BMSY



The BMSY series motor adapts the advanced GEROLER gear set design with DISC distribution flow and high pressure. These motors can be supplied with various options for multifunctional operations in accordance with the application requirements. The output shaft tapered roller bearings permit high axial and radial forces offering a smooth operation during low pressure start up and high pressure operation. These low weight advanced construction design motors are manufactured in accordance with the requirements of the ISO 9001-2008 quality system.

BMSY TECHNICAL DATA

DISTRIBUTION TYPE			BMSY 80	BMSY 100	BMSY 125	BMSY 160	BMSY 200	BMSY 250	BMSY 315	BMSY 400	BMSY 475
GEOMETRIC DISPLACEMENT		[in³./rev.]	[4.92]	[6.15]	[7.63]	[9.40]	[11.84]	[14.83]	[18.97]	[24.04]	[28.98]
		cm³/rev.	80.6	100.8	125	154	194	243	311	394	475
MAX. SPEED RPM		RATED	675	540	432	337	270	216	171	135	110
		CONT.	800	748	600	470	375	300	240	185	155
		INT	988	900	720	560	450	360	280	225	185
MAX. TORQUE [LB. IN.] N*M	RATED	[LB. IN.]	[1548]	[1946]	[2414]	[3936]	[4466]	[5483]	[6191]	[6766]	[6898]
		N*M	**175**	**220**	**273**	**445**	**505**	**620**	**700**	**765**	**780**
	CONT.	[LB. IN.]	[1990]	[2565]	[3228]	[4289]	[5183]	[6262]	[7783]	[7783]	[8048]
		N*M	**225**	**290**	**365**	**485**	**586**	**708**	**880**	**880**	**910**
	INT.	[LB. IN.]	[2211]	[2830]	[3538]	[4776]	[5704]	[7128]	[8490]	[8490]	[8490]
		N*M	**250**	**320**	**400**	**540**	**645**	**806**	**960**	**960**	**960**
MAX. OUTPUT [HP] KW	RATED	[HP]	[16]	[17]	[17]	[17]	[17]	[17]	[15]	[13]	[12]
		KW	**12**	**12.4**	**12.4**	**12.4**	**12.4**	**12.4**	**11.2**	**9.6**	**8.6**
	CONT.	[HP]	[21]	[24]	[24]	[24]	[24]	[24]	[23]	[15]	[12]
		KW	**16**	**18**	**18**	**18.1**	**18.1**	**18**	**17**	**11**	**9**
	INT.	[HP]	[27]	[29]	[31]	[34]	[32]	[32]	[27]	[16]	[15]
		KW	**20**	**22**	**23**	**25**	**24**	**23.8**	**20.2**	**12**	**11**
MAX. PRESSURE DROP [PSI] MPA	RATED	[PSI]	[2320]	[2320]	[2320]	[2755]	[2755]	[2610]	[2320]	[2030]	[1740]
		MPA	**16**	**16**	**16**	**19**	**19**	**18**	**16**	**14**	**12**
	CONT.	[PSI]	[2913]	[2913]	[2913]	[3045]	[3045]	[2900]	[2900]	[2320]	[2030]
		MPA	**20.5**	**20.5**	**20.5**	**21**	**21**	**20**	**20**	**16**	**14**
	INT.	[PSI]	[3263]	[3263]	[3263]	[3263]	[3263]	[3263]	[3263]	[2538]	[2175]
		MPA	**22.5**	**22.5**	**22.5**	**22.5**	**22.5**	**22.5**	**22.5**	**17.5**	**15**
	PEAK	[PSI]	[4278]	[4278]	[4278]	[3263]	[3263]	[3263]	[3263]	[2900]	[2538]
		MPA	**29.5**	**29.5**	**29.5**	**22.5**	**22.5**	**22.5**	**22.5**	**20**	**17.5**
MAX. FLOW [GPM] L/MIN	CONT.	[GPM]	[17.17]	[19.8]	[19.8]	[19.8]	[19.8]	[19.8]	[19.8]	[19.8]	[19.8]
		L/MIN	**65**	**75**	**75**	**75**	**75**	**75**	**75**	**75**	**75**
	INT.	[GPM]	[21.14]	[23.7]	[23.7]	[23.7]	[23.7]	[23.7]	[23.7]	[23.7]	[23.7]
		L/MIN	**80**	**90**	**90**	**90**	**90**	**90**	**90**	**90**	**90**
MAX. INLET PRESSURE [PSI] MPA	RATED	[PSI]	[3045]	[3045]	[3045]	[3045]	[3045]	[3045]	[3045]	[3045]	[3045]
		MPA	**21**	**21**	**21**	**21**	**21**	**21**	**21**	**21**	**21**
	CONT.	[PSI]	[3625]	[3625]	[3625]	[3625]	[3625]	[3625]	[3625]	[3625]	[3625]
		MPA	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**
	INT.	[PSI]	[4350]	[4350]	[4350]	[4350]	[4350]	[4350]	[4350]	[4350]	[4350]
		MPA	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**
WEIGHT [LB] KG		[LB]	[22]	[22.4]	[23]	[24]	[24]	[26]	[27]	[29]	[31]
		KG	**9.8**	**10**	**10.3**	**10.7**	**11.1**	**11.6**	**12.3**	**13.2**	**14.3**

- Rated speed and rated torque: Output value of speed and torque under rated flow and rated pressure.
- Continuous pressure: Max. value of operating motor continuously.
- Intermittent pressure: Max. value of operating motor in 6 seconds per minute.
- Peak pressure: Max. value of operating motor in 0.6 second per minute.

BMSY PERFORMANCE DATA

BMSY 80 [4.92 in³/rev] 80.6 cm³/rev.

Flow GPM / L/min		[508] 3.5	[1015] 7	[1523] 10.5	[2030] 14	[2538] 17.5	[3045] 20.5	[3263] 22.5	[PSI] MPA
GPM	[3.9]	[310]	[708]	[1061]	[1397]	[1725]	[2016]	[2202]	
L/	15	35	80	120	158	195	228	249	
min		**180**	**174**	**168**	**164**	**158**	**151**	**143**	
	[7.9]	[310]	[708]	[1061]	[1397]	[1725]	[2016]	[2202]	TORQUE [LB-IN]
	30	35	80	120	158	195	232	260	TORQUE (N•M)
		362	**352**	**346**	**338**	**330**	**322**	**310**	SPEED (RPM)
Flow (L/min)	[10.6]	[310]	[699]	[1057]	[1311]	[1707]	[2008]	[2211]	
	40	35	79	119	155	193	227	250	
		487	**480**	**468**	**457**	**446**	**438**	**425**	
	[13.2]	[265]	[681]	[1035]	[1353]	[1698]	[1981]	[2193]	
	50	30	77	117	153	192	224	248	
		612	**603**	**592**	**581**	**572**	**558**	**542**	
	[15.9]	[248]	[681]	[1035]	[1353]	[1698]	[1981]	[2149]	
	60	28	77	117	153	192	224	243	
		735	**726**	**718**	**703**	**687**	**673**	**646**	
Max cont	[17.17]	[230]	[663]	[1026]	[1335]	[1663]	[1919]	[2087]	
	65	26	75	116	151	188	217	236	
		794	**786**	**773**	**760**	**744**	**722**	**706**	
Max int.	[21.19]	[212]	[637]	[964]	[1256]	[1557]	[1823]	[2009]	
	80	24	72	109	142	176	206	227	
		981	**968**	**955**	**925**	**893**	**870**	**832**	

Max cont. | Max int.

BMSY 100 [6.15 in³/rev] 100.8 cm³/rev.

Flow GPM / L/min		[508] 3.5	[1015] 7	[1523] 10.5	[2030] 14	[2538] 17.5	[3045] 20.5	[3263] 22.5	[PSI] MPA
GPM	[3.9]	[425]	[840]	[1327]	[1769]	[2211]	[2494]	[2742]	
L/	15	48	95	150	200	250	282	310	
min		**146**	**144**	**139**	**135**	**130**	**120**	**105**	
	[7.9]	[398]	[831]	[1291]	[1751]	[2211]	[2565]	[2804]	TORQUE [LB-IN]
	30	45	94	146	198	250	290	317	TORQUE (N•M)
		291	**289**	**278**	**274**	**269**	**258**	**242**	SPEED (RPM)
Flow (L/min)	[10.6]	[380]	[787]	[1256]	[1733]	[2193]	[2517]	[2795]	
	40	43	89	142	196	248	288	316	
		387	**384**	**374**	**359**	**350**	**335**	**320**	
	[13.2]	[354]	[778]	[1194]	[1716]	[2184]	[2529]	[2786]	
	50	40	88	135	194	247	286	315	
		486	**483**	**473**	**462**	**450**	**430**	**420**	
	[15.9]	[327]	[778]	[1167	[1636]	[2158]	[2563]	[2759]	
	60	37	88	132	185	244	283	312	
		588	**584**	**574**	**562**	**550**	**538**	**520**	
Max cont	[19.8]	[310]	[708]	[1150]	[1592]	[2123]	[2467]	[2742]	
	75	35	80	130	180	240	279	310	
		740	**735**	**720**	**705**	**696**	**676**	**653**	
Max int.	[23.8]	[245]	[663]	[1047]	[1503]	[2087]	[2397]	[2684]	
	90	30	75	124	170	236	271	303	
		850	**840**	**810**	**787**	**770**	**750**	**747**	

Max cont. | Max int.

BMSY 125 [1.63 in³/rev] 125 cm³/rev.

Flow GPM / L/min		[508] 3.5	[1015] 7	[1523] 10.5	[2030] 14	[2538] 17.5	[3045] 20.5	[3263] 22.5	[PSI] MPA
GPM	[3.9]	[486]	[1061]	[1557]	[2167]	[2733]	[3051]	[3317]	
L/	15	55	120	176	245	309	345	375	
min		**115**	**113**	**110**	**104**	**98**	**90**	**84**	
	[7.9]	[486]	[1061]	[1548]	[2241]	[2786]	[3219]	[3573]	TORQUE [LB-IN]
	30	55	120	175	250	315	364	404	TORQUE (N•M)
		231	**228**	**225**	**214**	**202**	**188**	**172**	SPEED (RPM)
Flow (L/min)	[10.6]	[469]	[1044]	[1574]	[2211]	[2786]	[3219]	[3564]	
	40	53	118	178	250	315	364	403	
		312	**309**	**290**	**289**	**278**	**262**	**235**	
	[13.2]	[442]	[1017]	[1557]	[2193]	[2784]	[3201]	[3511]	
	50	50	115	176	248	315	362	397	
		391	**386**	**378**	**365**	**352**	**339**	**308**	
	[15.9]	[398]	[999]	[1512]	[2131]	[2729]	[3166]	[3511]	
	60	45	113	171	241	308	358	397	
		469	**461**	**450**	**437**	**425**	**400**	**372**	
Max cont	[19.8]	[398]	[913]	[1477]	[2123]	[2706]	[3113]	[3440]	
	75	45	110	167	240	306	352	389	
		588	**574**	**560**	**544**	**526**	**505**	**481**	
Max int.	[23.8]	[354]	[929]	[1433]	[2096]	[2662]	[3033]	[3343]	
	90	40	105	162	237	301	343	378	
		710	**696**	**680**	**661**	**646**	**628**	**610**	

Max cont. | Max int.

BMSY 160 [9.4 in³/rev] 154 cm³/rev.

Flow GPM / L/min		[508] 3.5	[1015] 7	[1523] 10.5	[2030] 14	[2538] 17.5	[3045] 21	[3263] 22.5	[PSI] MPA
GPM	[3.9]	[619]	[1256]	[1901]	[2636]	[3290]	[3847]	[4210]	
L/	15	70	142	215	298	372	435	476	
min		**93**	**91**	**89**	**85**	**80**	**76**	**58**	
	[7.9]	[646]	[1335]	[1990]	[2759]	[3378]	[4033]	[4351]	TORQUE [LB-IN]
	30	73	151	225	312	382	456	492	TORQUE (N•M)
		189	**187**	**181**	**176**	**170**	**162**	**153**	SPEED (RPM)
Flow (L/min)	[10.6]	[663]	[1344]	[2016]	[2777]	[3387]	[4015]	[4316]	
	40	75	152	228	314	383	454	488	
		252	**250**	**246**	**239**	**234**	**228**	**212**	
	[13.2]	[619]	[1309]	[1990]	[2697]	[3290]	[3936]	[4245]	
	50	70	148	225	305	372	445	480	
		313	**310**	**306**	**298**	**293**	**285**	**272**	
	[15.9]	[601]	[1265]	[1928]	[2618]	[3272]	[3909]	[4245]	
	60	68	143	218	296	370	442	480	
		378	**376**	**370**	**362**	**353**	**346**	**332**	
Max cont	[19.8]	[548]	[1238]	[1866]	[2574]	[3228]	[3883]	[4201]	
	75	62	140	211	291	365	439	475	
		475	**469**	**461**	**450**	**441**	**432**	**414**	
Max int.	[23.8]	[522]	[1159]	[1786]	[2529]	[3157]	[3759]	[4068]	
	90	59	131	202	286	357	425	460	
		567	**561**	**554**	**543**	**532**	**520**	**509**	

Max cont. | Max int.

BMSY 200 [11.8 in³/rev] 194 cm³/rev.

Flow (L/min) GPM L/min		[508] 3.5	[1015] 7	[1523] 10.5	[2030] 14	[2538] 17.5	[3045] 21	Max cont. [3263] 22.5	[PSI] MPA
	[3.9] 15	[769] 87 **74**	[1583] 179 **73**	[2414] 273 **71**	[3281] 371 **68**	[4166] 471 **64**	[4970] 562 **60**	[5395] 610 **48**	
	[7.9] 30	[805] 91 **150**	[1680] 190 **148**	[2547] 288 **143**	[3414] 386 **140**	[4325] 489 **134**	[5059] 572 **128**	[5466] 618 **119**	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
	[10.6] 40	[831] 94 **198**	[1707] 193 **195**	[2618] 296 **192**	[3485] 394 **188**	[4404] 498 **183**	[5165] 584 **178**	[5704] 645 **167**	
	[13.2] 50	[796] 90 **248**	[1689] 191 **246**	[2582] 292 **241**	[3440] 389 **236**	[4360] 493 **230**	[5130] 580 **223**	[5607] 634 **212**	
	[15.9] 60	[752] 85 **300**	[1636] 185 **295**	[2467] 279 **288**	[3378] 382 **281**	[4272] 483 **273**	[5085] 575 **263**	[5501] 622 **251**	
Max cont	[19.8] 75	[690] 78 **374**	[1557] 176 **370**	[2397] 271 **364**	[3272] 370 **360**	[4174] 472 **352**	[4961] 561 **340**	[5395] 610 **331**	Max cont.
Max int.	[23.8] 90	[601] 68 **443**	[1442] 163 **440**	[2344] 265 **435**	[3193] 361 **428**	[4033] 456 **424**	[4820] 545 **413**	[5298] 599 **400**	Max int.

BMSY 250 [14.8 in³/rev] 243 cm³/rev.

Flow (L/min) GPM L/min		[508] 3.5	[1015] 7	[1523] 10.5	[2030] 14	[2537] 17.5	[2900] 20	Max cont. [3262] 22.5	[PSI] MPA
	[3.9] 15	[773] 110 **59**	[2043] 231 **58**	[3104] 351 **56**	[4086] 462 **53**	[5174] 585 **50**	[6023] 681 **46**	[6881] 778 **35**	
	[7.9] 30	[1026] 116 **119**	[2087] 236 **117**	[3175] 359 **114**	[4201] 475 **108**	[5280] 597 **102**	[6191] 700 **92**	[6987] 790 **80**	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
	[10.6] 40	[1044] 118 **162**	[2131] 241 **159**	[3210] 363 **156**	[4245] 480 **150**	[5298] 599 **143**	[6244] 706 **134**	[7040] 796 **121**	
	[13.2] 50	[982] 111 **203**	[2069] 234 **201**	[3113] 352 **197**	[4174] 472 **191**	[5227] 591 **182**	[6129] 693 **173**	[6969] 788 **158**	
	[15.9] 60	[937] 106 **244**	[1981] 224 **242**	[3051] 345 **237**	[4086] 462 **230**	[5147] 582 **220**	[6058] 685 **208**	[6828] 772 **194**	
Max cont	[19.8] 75	[893] 101 **303**	[1893] 214 **299**	[3007] 340 **294**	[4015] 454 **285**	[5041] 570 **272**	[5925] 670 **260**	[6721] 760 **244**	Max cont.
Max int.	[23.8] 90	[822] 93 **363**	[1848] 209 **359**	[2963] 335 **354**	[3953] 447 **348**	[4944] 559 **340**	[5811] 657 **328**	[6624] 749 **303**	Max int.

BMSY 315 [18.9 in³/rev] 311 cm³/rev.

Flow (L/min) GPM L/min		[508] 3.5	[1015] 7	[1522] 10.5	[2030] 14	[2537] 17.5	[2900] 20	Max cont. [3262] 22.5	[PSI] MPA
	[3.9] 15	[1309] 148 **48**	[2689] 304 **47**	[4033] 456 **45**	[5421] 613 **43**	[6739] 762 **41**	[7774] 879 **39**	[8649] 978 **27**	
	[7.9] 30	[1371] 155 **95**	[2777] 314 **93**	[4112] 465 **91**	[5616] 635 **89**	[6881] 778 **86**	[7818] 884 **82**	[8738] 988 **67**	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
	[10.6] 40	[1415] 160 **127**	[2839] 321 **125**	[4236] 479 **121**	[5749] 650 **117**	[7040] 796 **115**	[8013] 906 **109**	[8817] 997 **91**	
	[13.2] 50	[1371] 155 **159**	[2777] 314 **157**	[4112] 465 **153**	[5642] 638 **149**	[6898] 780 **145**	[7836] 886 **142**	[8738] 988 **128**	
	[15.9] 60	[1535] 151 **187**	[2706] 306 **185**	[4006] 453 **181**	[5483] 620 **176**	[6766] 765 **169**	[7836] 886 **157**	[8632] 976 **143**	
Max cont	[19.8] 75	[1291] 146 **238**	[2653] 300 **236**	[3936] 445 **232**	[5421] 613 **227**	[6677] 755 **224**	[7739] 875 **220**	[8543] 966 **196**	Max cont.
Max int.	[23.8] 90	[1194] 135 **286**	[2512] 284 **283**	[3856] 436 **278**	[5315] 601 **272**	[6545] 740 **265**	[7632] 863 **257**	[8419] 952 **232**	Max int.

BMSY 400 [24.0 in³/rev] 394 cm³/rev.

Flow (L/min) GPM L/ min		[508] 3.5	[1015] 7	[1523] 10.5	[2030] 14	[2320] 16	Max cont. [2538] 17.5	[PSI] MPA
	[3.9] 15	[1645] 186 **37**	[3352] 379 **36**	[5112] 578 **35**	[6889] 779 **33**	[7924] 896 **31**	[8720] 986 **29**	
	[7.9] 30	[1680] 190 **75**	[3431] 388 **73**	[5218] 590 **71**	[6996] 791 **68**	[8004] 905 **65**	[8764] 991 **61**	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
	[10.6] 40	[1725] 195 **99**	[3485] 394 **97**	[5271] 596 **95**	[7049] 797 **93**	[8066] 912 **90**	[8826] 998 **85**	
	[13.2] 50	[1689] 191 **125**	[3431] 388 **123**	[5191] 587 **118**	[6943] 785 **114**	[7995] 904 **109**	[8694] 983 **102**	
	[15.9] 60	[1645] 186 **149**	[3431] 388 **146**	[5191] 587 **142**	[6943] 785 **137**	[7995] 904 **131**	[8694] 983 **122**	
Max cont	[19.8] 75	[1601] 181 **187**	[3290] 372 **183**	[5094] 576 **177**	[6810] 770 **171**	[7880] 891 **164**	[8605] 973 **153**	Max cont.
Max int.	[23.8] 90	[1557] 176 **226**	[3246] 367 **221**	[5050] 571 **214**	[6775] 766 **208**	[7809] 883 **199**	[8534] 965 **183**	Max int.

BMSY PERFORMANCE DATA

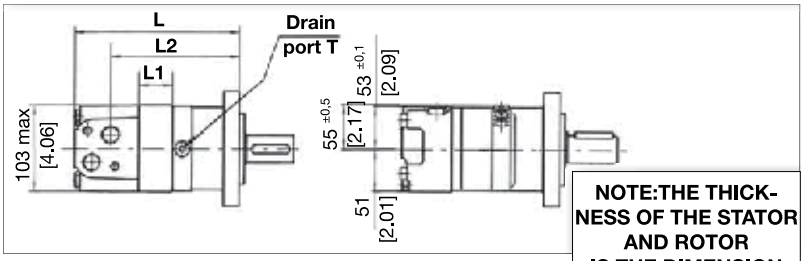
BMSY 475 [28.9 in³/rev] 475 cm³/rev.

		Max cont.			Max int.	
		[508]	[1015]	[1523]	[2030]	[2538]	[PSI]
		3.5	7	10.5	14	17.5	MPA
GPM	[3.9]	[1928]	[3883]	[5843]	[7889]	[8800]	
L/ min	15	218	439	661	892	995	
		30	**29**	**28**	**27**	**25**	
	[7.9]	[1972]	[3980]	[5979]	[8048]	[8862]	TORQUE [LB-IN]
	30	223	450	676	910	1002	TORQUE (N•M)
		61	**60**	**58**	**56**	**53**	SPEED (RPM)
Flow (L/min)	[10.6]	[2016]	[4077]	[6094]	[8198]	[8994]	
	40	228	461	689	927	1017	
		82	**80**	**77**	**74**	**68**	
	[13.2]	[1981]	[4033]	[6032]	[8136]	[8915]	
	50	224	456	682	920	1008	
		103	**101**	**97**	**92**	**86**	
	[15.9]	[1946]	[3989]	[5987]	[8075]	[8826]	
	60	220	451	677	913	998	
		123	**121**	**118**	**112**	**105**	
Max cont	[19.8]	[1875]	[3918]	[5872]	[7968]	[8667]	
	75	212	443	664	901	980	
		155	**153**	**147**	**140**	**132**	
Max int.	[23.8]	[1733]	[3723]	[5687]	[7756]	[8481]	
	90	196	421	643	877	959	
		186	**184**	**178**	**170**	**157**	

Max cont.

Max int.

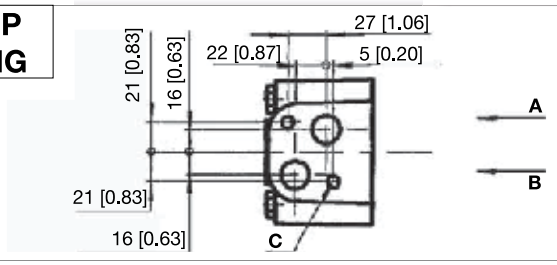
MOUNTING DATA



NOTE:THE THICK-NESS OF THE STATOR AND ROTOR IS THE DIMENSION OF L1 PLUS 3MM

	[INCHES]			MILLIMETERS		
MODEL	**L**	**L1**	**L2**	L	L1	L2
BMSY 80	[6.69]	[0.63]	[4.98]	170	16	126.5
BMSY 100	[6.85]	[0.79]	[5.14]	174	20	130.5
BMSY 125	[7.05]	[0.98]	[5.33]	179	25	135.5
BMSY 160	[7.15]	[1.09]	[5.43]	181.5	27.5	137.7
BMSY 200	[7.44]	[1.39]	[5.72]	189	35.1	145.2
BMSY 250	[7.92]	[1.85]	[6.19]	201	47	157.2
BMSY 315	[8.39]	[2.33]	[6.67]	213	59	169.2
BMSY 400	[25.4]	[2.72]	[7.07]	223	69	179.5
BMSY 475	[9.33]	[3.27]	[7.22]	237	83	183.5

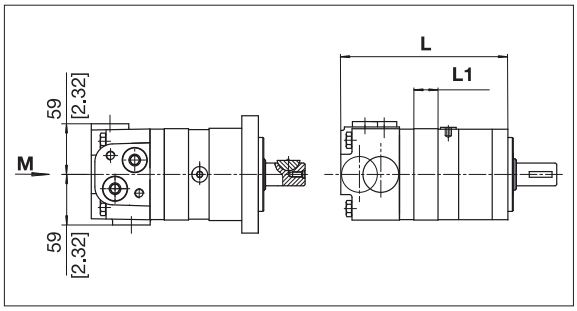
D-M-S-P PORTING



	[INCHES]			MILLIMETERS		
MODEL	**L**	**L1**	**L2**	L	L1	L2
BMSY 80 W	[5.22]	[0.63]	[3.50]	132.5	16	89
BMSY 100 W	[5.37]	[0.79]	[3.66]	136.5	20	93
BMSY 125 W	[5.57]	[0.98]	[3.86]	141.5	25	98
BMSY 160 W	[5.67]	[1.08]	[3.96]	143.9	27.5	100.5
BMSY 200 W	[5.96]	[1.38]	[4.25]	151.4	35.1	108
BMSY 250 W	[6.43]	[1.85]	[4.72]	163.4	47	120
BMSY 315 W	[6.91]	[2.32]	[5.20]	175.4	59	132
BMSY 400 W	[7.30]	[2.72]	[5.59]	185.5	69	142
BMSY 475 W	[7.85]	[3.27]	[6.14]	199.5	83	156

PORT & DRAIN PORT ORDERING CODES

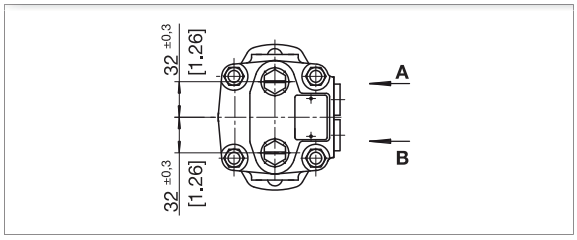
ORDER CODE	D depth	M depth	S depth	P depth
PORTS - A AND B	G 1/2 18 mm	M 22 x 1.5 18 mm	7/8-14 O-ring 18 mm	1/2-14 NPT 15 mm
TANK PORT - T	G 1/4 12 mm	M 14 x 1.5 12 mm	7/16-20UNF 12 mm	7/16-20 UNF 12 mm
BOLTS-C	2-M10 13 mm	2-M10 13 mm	2-3/8-16 unc 13 mm	2-3/8-16 unc 13 mm



MODEL	[INCHES] L	[INCHES] L1	MILLIMETERS L	MILLIMETERS L1
BMSY 80	[6.93]	[0.63]	176	16
BMSY 100	[7.09]	[0.79]	180	20
BMSY 125	[7.28]	[0.98]	185	25
BMSY 160	[7.36]	[1.06]	187	27
BMSY 200	[7.64]	[1.34]	194	34
BMSY 250	[7.95]	[1.65]	202	42
BMSY 315	[8.43]	[2.13]	214	54
BMSY 400	[9.02]	[2.72]	229	69
BMSY 475	[9.57]	[3.27]	243	83

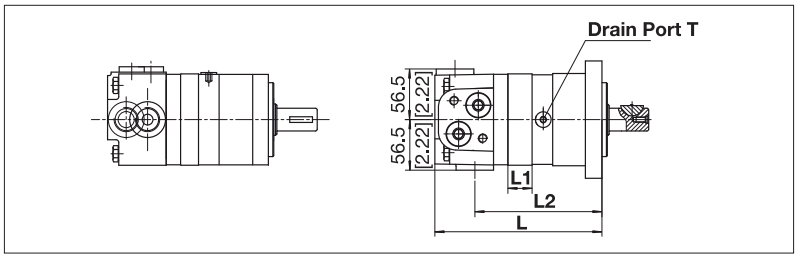
MODEL	[INCHES] L	[INCHES] L1	MILLIMETERS L	MILLIMETERS L1
BMSY 80 WE	[5.83]	[0.63]	148	16
BMSY 100 WE	[5.98]	[0.79]	152	20
BMSY 125 WE	[6.18]	[0.98]	157	25
BMSY 160 WE	[6.26]	[1.06]	159	27
BMSY 200 WE	[6.54]	[1.34]	166	34
BMSY 250 WE	[6.85]	[1.65]	174	42
BMSY 315 WE	[7.32]	[2.13]	186	54
BMSY 400 WE	[7.91]	[2.72]	201	69
BMSY 475 WE	[8.46]	[3.27]	215	83

PORTING END PORTS



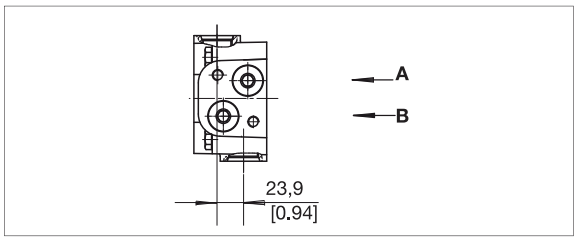
PORT & DRAIN PORT ORDERING CODES

ORDER CODE	EE-D depth	EE-M2 depth	EE-S2 depth
PORTS - A AND B	G 1/2 18 mm	M22x1.5 - 18 mm	7/8-14 O-ring 18 mm
TANK PORT - T	G 1/4 12 mm	M14x1.5 - 12 mm	7/16-20 UNF 12 mm



MODEL	[INCHES] L	[INCHES] L1	[INCHES] L2	MILLIMETERS L	MILLIMETERS L1	MILLIMETERS L2
BMSY 80	[6.93]	[0.63]	[5.12]	176	16	130
BMSY 100	[7.09]	[0.79]	[5.28]	180	20	134
BMSY 125	[7.28]	[0.98]	[5.47]	185	25	139
BMSY 160	[7.36]	[1.06]	[5.55]	187	27	141
BMSY 200	[7.64]	[1.34]	[5.83]	194	34	148
BMSY 250	[7.95]	[1.65]	[6.14]	202	42	156
BMSY 315	[8.43]	[2.13]	[6.61]	214	54	168
BMSY 400	[9.02]	[2.72]	[7.20]	229	69	183
BMSY 475	[9.57]	[3.27]	[7.76]	243	83	197

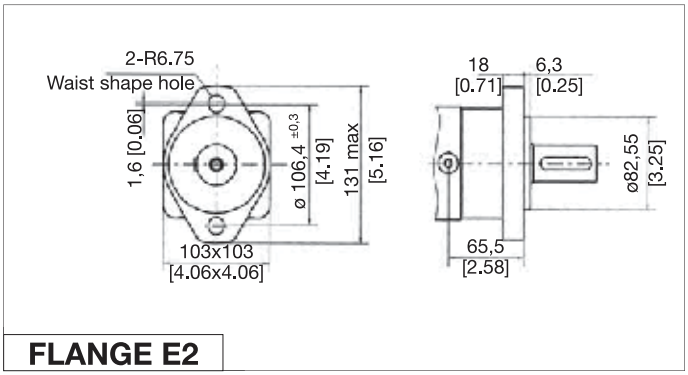
ED PORTING 180° PORTS



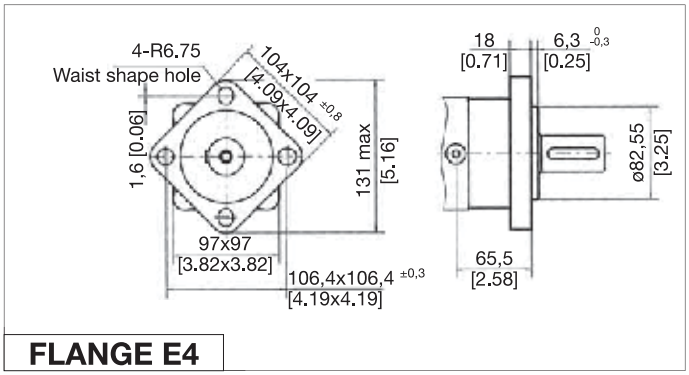
MODEL	[INCHES] L	[INCHES] L1	[INCHES] L2	MILLIMETERS L	MILLIMETERS L1	MILLIMETERS L2
BMSY 80	[5.83]	[0.63]	[4.02]	148	16	102
BMSY 100	[5.98]	[0.79]	[4.17]	152	20	106
BMSY 125	[6.18]	[0.98]	[4.37]	157	25	111
BMSY 160	[6.26]	[1.06]	[4.45]	159	27	113
BMSY 200	[6.54]	[1.34]	[4.69]	166	34	119
BMSY 250	[7.01]	[1.65]	[5.00]	178	42	127
BMSY 315	[7.48]	[2.13]	[5.47]	190	54	139
BMSY 400	[8.07]	[2.72]	[6.06]	205	69	154
BMSY 475	[8.62]	[3.27]	[6.61]	219	83	168

PORT & DRAIN PORT ORDERING CODES

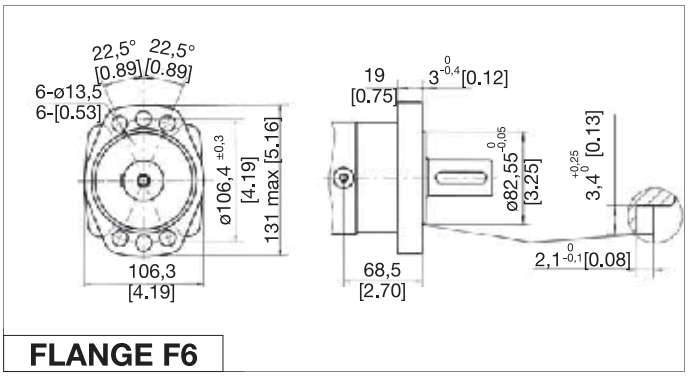
ORDER CODE	ED depth
PORTS - A AND B	1-1/16-12 UN O-ring 18 mm
T	7/16-20 UNF 12 mm



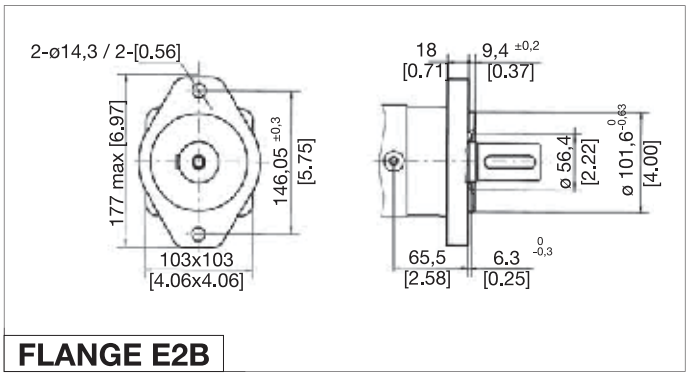
FLANGE E2



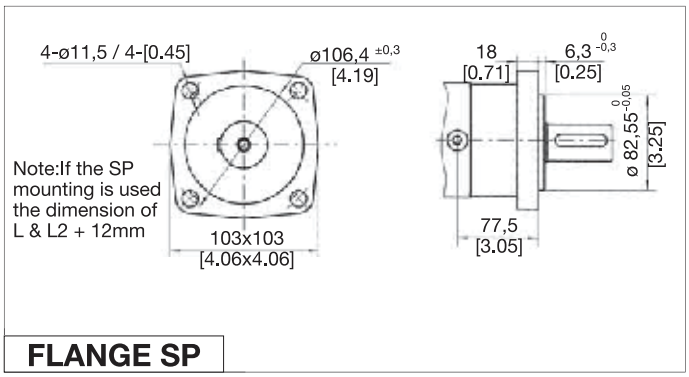
FLANGE E4



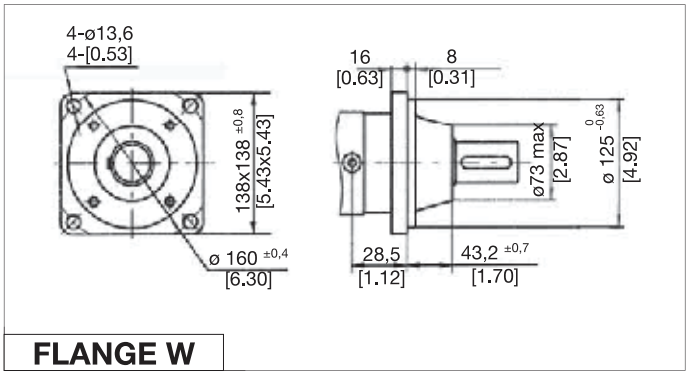
FLANGE F6



FLANGE E2B

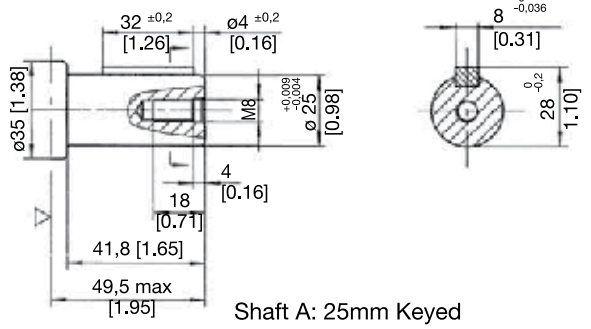


FLANGE SP



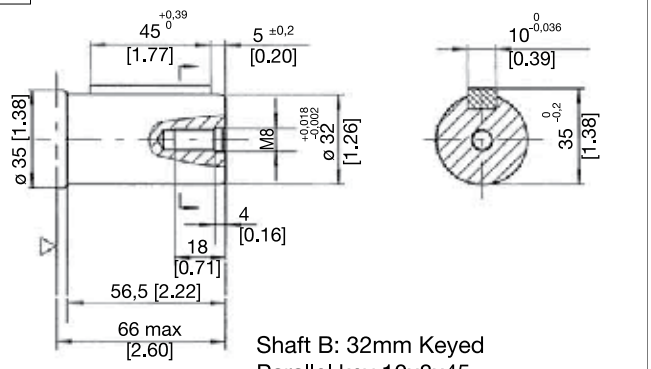
FLANGE W

A



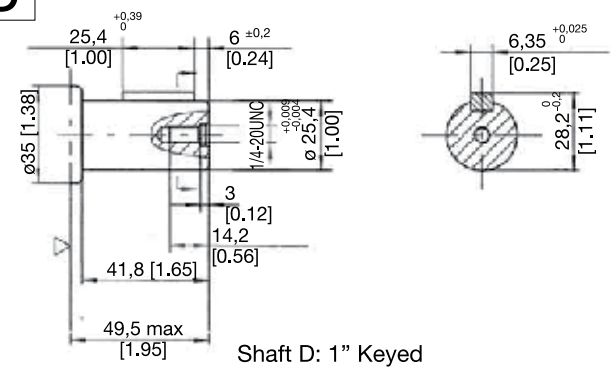
Shaft A: 25mm Keyed
Parallel key 8x7x32

B



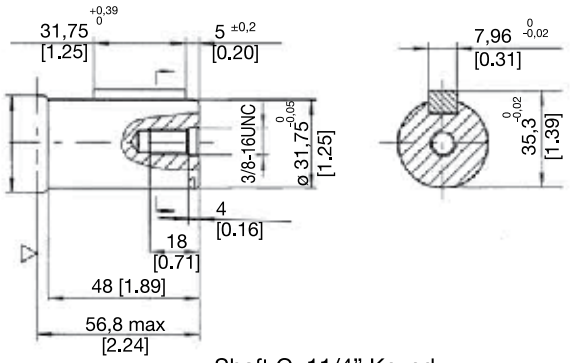
Shaft B: 32mm Keyed
Parallel key 10x8x45

D



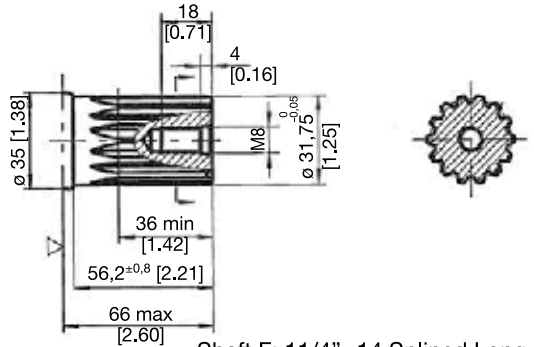
Shaft D: 1” Keyed
Parallel key .25x.25x1.0

G



Shaft G: 11/4” Keyed
Parallel key .31x.31x1.25

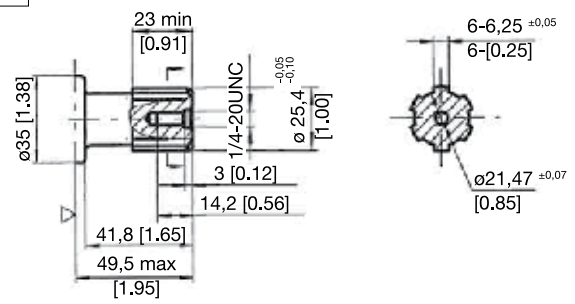
FD



Shaft F: 11/4” -14 Splined Long
14-DP12/24

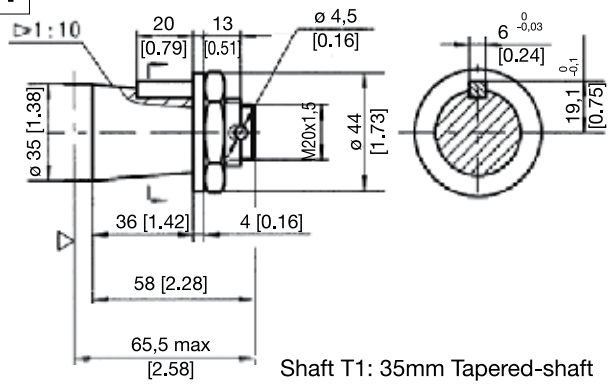
▷ Motor Mounting Surface

S1



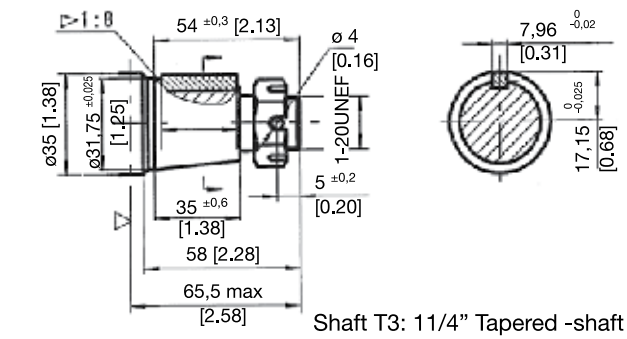
Shaft S1: Splined SAE 6B

T1



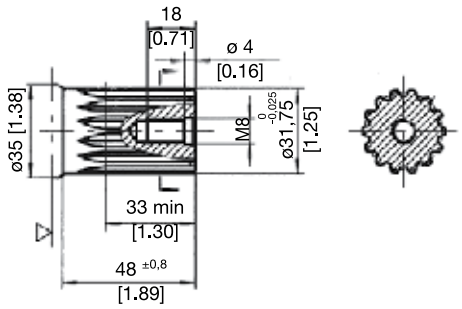
Shaft T1: 35mm Tapered-shaft
Parallel key B6x6x20

T3



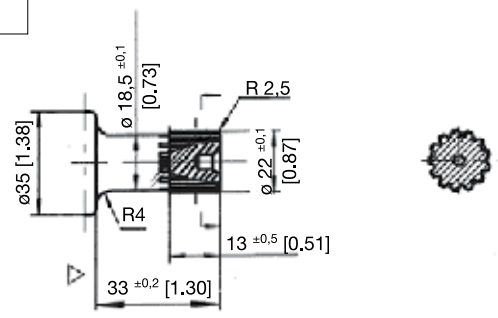
Shaft T3: 11/4” Tapered -shaft
Parallel key .31x.31x11/4
Tightening torque:200±10Nm

F



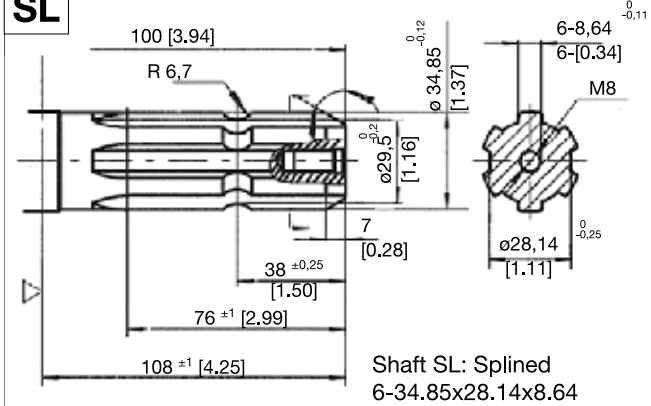
Shaft F : 11/4” 14 Splined Take out
14-DP12/24

I



Shaft I: 7/8” 13 Splined
13-DP16/32

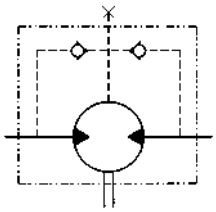
SL

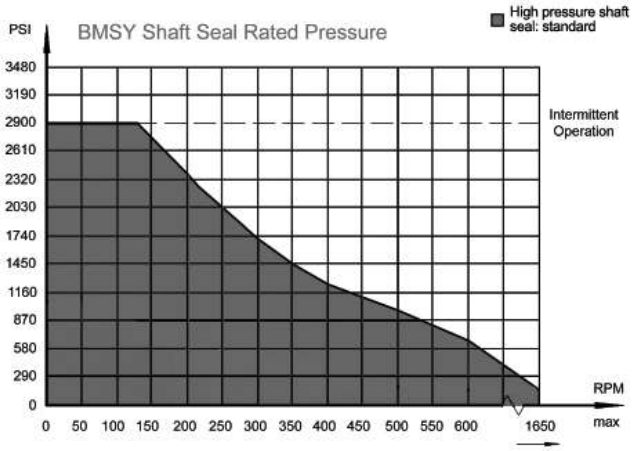


Shaft SL: Splined
6-34.85x28.14x8.64

▷ Motor Mounting Surface

Permissible shaft seal pressure

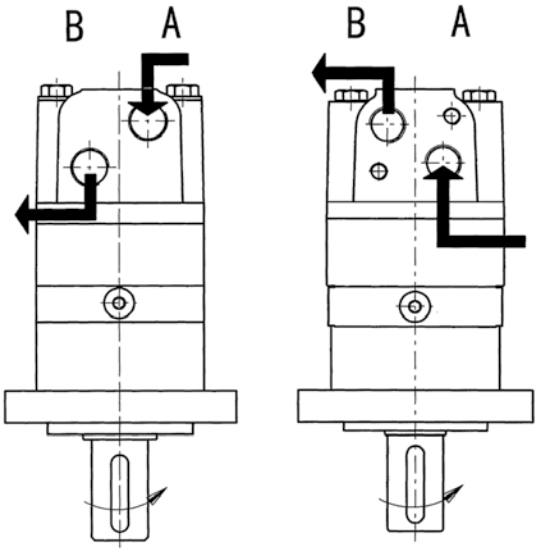




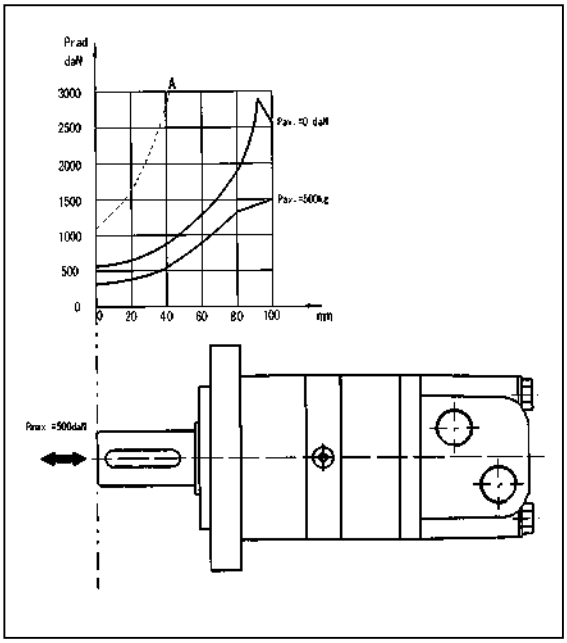
IN APPLICATIONS WITHOUT A DRAIN LINE, THE PRESSURE EXERTED ON THE SHAFT SEAL WILL EXCEED THE PRESSURE IN THE RETURN LINE. IN APPLICATIONS USING A DRAIN LINE, THE PRESSURE ON THE OUTPUT SHAFT SEAL CAN EQUAL THE PRESSURE IN DRAIN LINE.

Standard direction of shaft rotation: Standard

When facing shaft end of motor,shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise port "B" is pressurized.



Axial and Radial forces



The output shaft runs in tapered bearings that permit high axial and radial forces, Curve "A" shows max radial shaft load, Any shaft loads exceeding the values quoted in the curve will involve a risk of breakage, The two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.

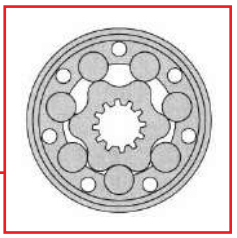
ORDERING INFORMATION

	1	2	3	4	5	6	7
BMSY							CV

1	2		3		4		5		6		7	
DISP. cc (cu. in.)	**FLANGE**		**OUTPUT SHAFT**		**PORT AND DRAIN PORT**		**ROTATION DIRECTION**		**PAINT**		**SPECIAL OPTIONS**	
80 (4.92)	**E2**	SAE 2-bolt, Pilot 3.25”	**D**	Shaft: 1” parallel Key .25x.25x1.0	**S**	7/8-14 O-ring Manifold 2-3/8-16 UNC, 7/16-20UNF	**NONE**	STANDARD	**00**	NO PAINT	**CV**	INTERNAL CHECK VALVE (STANDARD)
100 (6.15)	**E4**	4-bolt flange, Pilot 3.25”	**G**	Shaft: 11/4” parallel Key .31x.31x1.25	**P**	1/2-14 NPTF Manifold 2-3/8-16 UNC, 7/16-20UNF	**R**	OPPOSITE	**NONE**	BLACK	**F**	FREE RUNNING
125 (7.63)	**F6**	Magneto flange, Pilot 3.25”	**A**	Shaft: 25mm parallel Key 8x7x32	**D**	G1/2 Manifold mount 2-M10, G1/4					**LL**	LOW LEAKAGE
160 (9.4)	**SP**	4 Bolt-flange, Pilot 3.25”	**B**	Shaft: 32mm parallel Key 10x8x45	**M**	M22 x 1.5 Manifold mount 2-M10, M14x1.5					**LS**	LOW SPEED VALVE
200 (11.84)	**W**	Wheel-flange	**F**	Shaft 11/4-14,splined 14DP12/24							**HPS**	HIGH PRESSURE SEAL
250 (14.83)	**E2B**	SAE B 2-Bolt Pilot 4.00”	**FD**	Long Shaft: 11/4-14 splined 14-DP12/24	**REAR PORTED OPTIONS**							
315 (18.97)			**SL**	Shaft: Ø34.85, Splined 6-34.85x28.14x8.64	**EE M2**	M22x1.5 M14x1.5						
400 (24.04)			**T1**	35mm Tapered parallel Key B6x6x20	**EE S2**	7/8-14 UNF O-RING 7/16-20 UNF						
475 (28.99)			**T3**	1/14 Tapered parallel Key .31x.31x1.250	**ED**	1-1/16-12 UNF O-RING 7/16-20 UNF						
			S1	Shaft: SAE-6 B splined								
			I	Shaft: 7/8-13 splined 13-DP16/32								

Please contact us for any options not listed above.

Model BMT



The BMT series motor adapts the advanced GEROLOR gear set design with DISC distribution flow and high pressure. These motors can be supplied with various options for multifunctional operations in accordance with the application requirements. The output shaft tapered roller bearings permit high axial and radial forces offering a smooth operation during low pressure start up and high pressure operation. These low weight advanced construction design motors are manufactured in accordance with the requirements of the ISO 9001-2008 quality system. The BMT series comes in 4 styles: BMT, BMTE, BMTS, and BMTJ.

BMT TECHNICAL SPECIFICATIONS

DISTRIBUTION TYPE			BMT 160	BMT 200	BMT 250	BMT 315	BMT 400	BMT 500	BMT 630	BMT 800
GEOMETRIC DISPLACEMENT		[in³./rev.]	[9.83]	[12.29]	[15.37]	[19.92]	[25.08]	[31.96]	[38.39]	[48.93]
		cm³/rev.	161.1	201.4	251.8	326.3	410.9	523.6	629.1	801.8
MAX. SPEED RPM		RATED	470	475	381	294	228	183	150	121
		CONT.	614	615	495	380	302	237	196	154
		INT	770	743	592	458	364	284	233	185
MAX. TORQUE [IN. LB.] N*M	RATED	[IN.LB]	[3352]	[4166]	[5147]	[6704]	[7924]	[9401]	[10,224]	[10,675]
		N*M	**379**	**471**	**582**	**758**	**896**	**1063**	**1156**	**1207**
	CONT.	[IN. LB.]	[4166]	[5209]	[6430]	[8508]	[9684]	[11,011]	[11,656]	[12,948]
		N*M	**471**	**589**	**727**	**962**	**1095**	**1245**	**1318**	**1464**
	INT.	[IN. LB.]	[507]	[6350]	[7853]	[10,206]	[11,223]	[12,461]	[13,248]	[13,443]
		N*M	**57.3**	**718**	**888**	**1154**	**1269**	**1409**	**1498**	**1520**
	PEAK	[IN.LB]	[5917]	[7411]	[9162]	[11,907]	[12,826]	[14,538]	[14,317]	[1725]
		N*M	**669**	**838**	**1036**	**1346.3**	**1450.3**	**1643.8**	**1618.8**	**1665**
MAX. OUTPUT [HP] KW	RATED	[HP]	[25.0]	[31.4]	[31.1]	[31.2]	[28.7]	[27.3]	[24.4]	[20.5]
		KW	**18.7**	**23.4**	**23.2**	**23.3**	**21.4**	**20.4**	**18.2**	**15.3**
	CONT.	[HP]	[37.1]	[46.8]	[46.2]	[46.8]	[41.8]	[38.6]	[33.9]	[29.8]
		KW	**27.7**	**34.9**	**34.5**	**34.9**	**31.2**	**28.8**	**25.3**	**22.2**
	INT.	[HP]	[42.9]	[53.6]	[53.6]	[53.6]	[46.9]	[46.9]	[36.8]	[35.9]
		KW	**32**	**40**	**40**	**40**	**35**	**35**	**27.5**	**26.8**
MAX. PRES-SURE DROP [PSI] MPA	RATED	[PSI]	[2320]	[2320]	[2320]	[2320]	[2175]	[2030]	[1740]	[1523]
		MPA	**16**	**16**	**16**	**16**	**15**	**14**	**12**	**10.5**
	CONT.	[PSI]	[2900]	[2900]	[2900]	[2900]	[2610]	[2320]	[2030]	[1813]
		MPA	**20**	**20**	**20**	**20**	**18**	**16**	**14**	**12.5**
	INT.	[PSI]	[3480]	[3480]	[3480]	[3480]	[3045]	[2610]	[2320]	[1885]
		MPA	**24**	**24**	**24**	**24**	**21**	**18**	**16**	**13**
	PEAK	[PSI]	[4060]	[4060]	[4060]	[4060]	[3480]	[3045]	[2755]	[2320]
		MPA	**28**	**28**	**28**	**28**	**24**	**21**	**19**	**16**
MAX. FLOW [GPM] L/MIN	RATED	[GPM]	[21.1]	[26.4]	[26.4]	[26.4]	[26.4]	[26.4]	[26.4]	[26.]
		L/MIN	**80**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
	CONT.	[GPM]	[26.4]	[33]	[33]	[33]	[33]	[33]	[33]	[33]
		L/MIN	**100**	**125**	**125**	**125**	**125**	**125**	**125**	**125**
	INT.	[GPM]	[33]	[39.6]	[39.6]	[39.6]	[39.6]	[39.6]	[39.6]	[39.6]
		L/MIN	**125**	**150**	**150**	**150**	**150**	**150**	**150**	**150**
MAX. INLET PRESSURE [PSI] MPA	RATED	[PSI]	[3045]	[3045]	[3045]	[3045]	[3045]	[3045]	[3045]	[3045]
		MPA	**21**	**21**	**21**	**21**	**21**	**21**	**21**	**21**
	CONT.	[PSI]	[3045]	[3045]	[3045]	[3045]	[3045]	[3045]	[3045]	[3045]
		MPA	**21**	**21**	**21**	**21**	**21**	**21**	**21**	**21**
	INT.	[PSI]	[3625]	[3625]	[3625]	[3625]	[3625]	[3625]	[3625]	[3625]
		MPA	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**
	PEAK	[PSI]	[4350]	[4350]	[4350]	[4350]	[4350]	[4350]	[4350]	[4350]
		MPA	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**
WEIGHT [LB] KG		[LB]	[43]	[44]	[45]	[46]	[48]	[52]	[53]	[55]
		KG	**19.5**	**20**	**20.5**	**21**	**22**	**23**	**24**	**25**

- Continuous pressure: Max. value of operating motor continuously.
- Rated speed and rated torque: Output value of speed and torque under rated flow and rated pressure.
- Intermittent pressure: Max. value of operating motor in 6 seconds per minute.
- Peak pressure: Max. value of operating motor in 0.6 second per minute.

BMT (E,S,J) PERFORMANCE DATA

ANFIELD

BMT 160 [9.83 in³./rev.] 161.1 cm³/rev.

GPM / L/ min	Flow (L/min)	[580] 4	[1160] 8	[1450] 10	[1740] 12	[2320] 16	[2900] 20	[3480] 24	[PSI] MPA
[2.7]		[778]	[1557]	[2016]	[2432]	[3193]	[3953]	[4732]	
10		88	176	228	275	361	447	535	
		60	**59**	**58**	**56**	**54**	**50**	**44**	
[5.3]		[787]	[1601]	[2070]	[2450]	[3290]	[4059]	[4926]	TORQUE [LB-IN]
20		89	181	234	277	372	459	557	TORQUE (N•M)
		121	**120**	**117**	**114**	**109**	**103**	**95**	SPEED (RPM)
[10.6]		[805]	[1592]	[2079]	[2450]	[3370]	[4166]	[5068]	
40		91	180	235	277	381	471	573	
		249	**246**	**243**	**236**	**230**	**223**	**212**	
[15.9]		[725]	[1574]	[2078]	[2449.79]	[3370]	[4157]	[5059]	
60		82	178	235	277	381	470	572	
		371	**367**	**362**	**356**	**349**	**340**	**330**	
[21.1]		[689.84]	[1530.02]	[2025.28]	[2440.95]	[3351.88]	[4121.31]	[5014.55]	
80		78	173	229	276	379	466	567	
		492	**489**	**485**	**478**	**470**	**462**	**447**	
[26.4]	Max cont.	[619]	[1415]	[1928]	[2379]	[3272]	[4024]	[4935]	
100		70	160	218	269	370	455	558	
		614	**611**	**606**	**598**	**590**	**582**	**570**	
[33.0]	Max int.	[513]	[1309]	[1866]	[2308]	[3175]	[3962]	[4882]	
125		58	148	211	261	359	448	552	
		770	**764**	**758**	**750**	**741**	**731**	**715**	

Max cont.

Max int.

BMT 200 [12.29 in³./rev.] 201.4 cm³/rev.

GPM / L/ min	Flow (L/min)	[580] 4	[1160] 8	[1450] 10	[1740] 12	[2320] 16	[2900] 20	[3480] 24	[PSI] MPA
[2.7]		[1097]	[2061]	[2556]	[3007]	[4015]	[4953]	[5917]	
10		124	233	289	340	454	560	669	
		47	**46**	**45**	**42**	**39**	**37**	**33**	
[5.3]		[1106]	[2114]	[2635.52]	[3069]	[4139]	[5094]	[6155]	TORQUE [LB-IN]
20		125	239	298	347	468	576	696	TORQUE (N•M)
		95	**94**	**92**	**90**	**87**	**84**	**75**	SPEED (RPM)
[10.6]		[1061]	[2131]	[2618]	[3113]	[4201]	[5210]	[6332]	
40		120	241	296	352	475	589	716	
		195	**193**	**191**	**187**	**183**	**178**	**167**	
[15.9]		[1026]	[2096]	[2609]	[3113]	[4227]	[5209]	[6350]	
60		116	237	295	352	478	589	718	
		297	**295**	**292**	**287**	**282**	**276**	**263**	
[21.1]		[955]	[2043]	[2556]	[3095]	[4192]	[5183]	[6332]	
80		108	231	289	350	474	586	716	
		395	**393**	**389**	**384**	**377**	**370**	**359**	
[26.4]		[876]	[2008]	[2529]	[3042]	[4166]	[5130]	[6297]	
100		99	227	286	344	471	580	712	
		493	**490**	**486**	**482**	**475**	**467**	**460**	
[33.0]	Max cont.	[743]	[1840]	[2441]	[2945]	[4059]	[5006]	[6164]	
125		84	208	276	333	459	566	697	
		615	**611**	**607**	**602**	**595**	**588**	**572**	
[39.6]	Max int.	[619]	[1716]	[2299]	[2865]	[3953]	[4900]	[6032]	
150		70	194	260	324	447	554	682	
		743	**740**	**735**	**727**	**717**	**706**	**682**	

Max cont.

Max int.

BMT 250 [15.37 in³./rev.] 251.8 cm³/rev.

GPM / L/ min	Flow (L/min)	[580] 4	[1160] 8	[1450] 10	[1740] 12	[2320] 16	[2900] 20	[3480] 24	[PSI] MPA
[2.7]		[1220]	[2529]	[3140]	[3706]	[4944]	[6094]	[7287]	
10		138	286	355	419	559	689	824	
		38	**38**	**37**	**36**	**34**	**32**	**31**	
[5.3]		[1265]	[2618]	[3219]	[3821]	[5130]	[6262]	[7544]	TORQUE [LB-IN]
20		143	296	364	432	580	708	853	TORQUE (N•M)
		76	**75**	**74**	**72**	**70**	**67**	**62**	SPEED (RPM)
[10.6]		[1229]	[2662]	[3290]	[3891]	[5244]	[6394]	[7818]	
40		139	301	372	440	593	723	884	
		156	**154**	**152**	**149**	**146**	**142**	**134**	
[15.9]		[1167]	[2600]	[3290]	[3900]	[5236]	[6430]	[7853]	
60		132	294	372	441	592	727	888	
		237	**236**	**233**	**229**	**224**	**219**	**207**	
[21.1]		[1132]	[2503]	[3219]	[3829]	[5191]	[6377]	[7845]	
80		128	283	364	433	587	721	887	
		317	**316**	**314**	**308**	**303**	**299**	**284**	
[26.4]		[1114]	[2494]	[3140]	[3776]	[5147]	[6332]	[7774]	
100		126	282	355	427	582	716	879	
		396	**394**	**391**	**387**	**381**	**373**	**359**	
[33.0]	Max cont.	[1026]	[2299]	[3007]	[3661]	[5023]	[6217]	[7641]	
125		116	260	340	414	568	703	864	
		495	**492**	**488**	**483**	**476**	**469**	**454**	
[39.6]	Max int.	[778]	[2140]	[2830]	[3511]	[4882]	[6067]	[7491]	
150		88	242	320	397	552	686	847	
		592	**589**	**585**	**580**	**572**	**565**	**545**	

Max cont.

Max int.

BMT 315 [19.92 in³./rev.] 326.3 cm³/rev.

GPM / L/ min	Flow (L/min)	[580] 4	[1160] 8	[1450] 10	[1740] 12	[2320] 16	[2900] 20	[3480] 24	[PSI] MPA
[2.7]		[1627]	[3210]	[4006]	[4820]	[6491]	[7880]	[9392]	
10		184	363	453	545	734	891	1062	
		30	**29**	**28**	**27**	**26**	**25**	**23**	
[5.3]		[1672]	[3361]	[4174]	[4970]	[6695]	[8110]	[9808]	TORQUE [LB-IN]
20		189	380	472	562	757	917	1109	TORQUE (N•M)
		60	**59**	**58**	**56**	**54**	**52**	**50**	SPEED (RPM)
[10.6]		[1689]	[3370]	[4280]	[5041]	[6845]	[8437]	[10,162]	
40		191	381	484	570	774	954	1149	
		121	**120**	**118**	**115**	**112**	**109**	**104**	
[15.9]		[1672]	[3325]	[4360]	[5068]	[6828]	[8508]	[10,206]	
60		189	376	493	573	772	962	1154	
		183	**181**	**179**	**175**	**172**	**168**	**158**	
[21.1]		[1583]	[3263]	[4236]	[4997]	[6951]	[8437]	[10,197]	
80		179	369	479	565	786	954	1153	
		244	**242**	**239**	**236**	**231**	**227**	**217**	
[26.4]		[1495]	[3157]	[4130]	[4970]	[6704]	[8331]	[10,109]	
100		169	357	467	562	758	942	1143	
		305	**304**	**301**	**298**	**294**	**289**	**276**	
[33.0]	Max cont.	[1300]	[2972]	[3953]	[4811]	[6589]	[8136]	[9967]	
125		147	336	447	544	745	920	1127	
		380	**378**	**375**	**371**	**367**	**362**	**349**	
[39.6]	Max int.	[1052]	[2812]	[3821]	[4652]	[6306]	[7907]	[9702]	
150		119	318	432	526	713	894	1097	
		458	**456**	**453**	**449**	**444**	**431**	**425**	

Max cont.

Max int.

BMT 400 [25.08 in³./rev.] 410,9 cm³/rev.

		[435] 3	[870] 6	[1305] 9	[1740] 12	[2175] 15	[2610] 18	[3045] 21	[PSI] / MPA
GPM / L/ min	[2.7] 10	[1557] 176 **24**	[3246] 367 **23**	[4953] 560 **22**	[6323] 715 **21**	[7827] 885 **20**	[9286] 1050 **19**	[10,692] 1209 **18**	
	[5.3] 20	[1583] 179 **49**	[3272] 370 **48**	[4997] 565 **47**	[6421] 726 **44**	[7951] 899 **42**	[9472] 1071 **40**	[10,931] 1236 **38**	TORQUE [LB-IN] / TORQUE (N•M) / SPEED (RPM)
Flow (L/min)	[10.6] 40	[1557] 176 **96**	[3272] 370 **95**	[5015] 567 **93**	[6483] 733 **90**	[8128] 919 **87**	[9649] 1091 **83**	[11,170] 1263 **79**	
	[15.9] 60	[1539] 174 **145**	[3193] 361 **143**	[4979] 563 **139**	[6447] 729 **135**	[8136] 920 **131**	[9684] 1095 **127**	[11,223] 1269 **121**	
	[21.1] 80	[1468] 166 **193**	[3122] 353 **191**	[4891] 553 **188**	[6359] 719 **184**	[8066] 912 **180**	[9587] 1084 **176**	[11,170] 1263 **170**	
	[26.4] 100	[1327] 150 **242**	[2998] 339 **240**	[4758] 538 **238**	[6262] 708 **234**	[7924] 896 **228**	[9437] 1067 **224**	[11,073] 1252 **218**	
Max cont.	[33.0] 125	[1194] 135 **302**	[2733] 309 **300**	[4634] 524 **298**	[6085] 688 **294**	[7721] 873 **289**	[9242] 1045 **285**	[10,799] 1221 **178**	Max cont.
Max int.	[39.6] 150	[1114] 126 **364**	[2582] 292 **362**	[4493] 508 **358**	[5890] 666 **354**	[7535] 852 **350**	[9021] 1020 **346**	[10,586] 1197 **339**	Max int.

BMT 500 [31.96 in³./rev.] 523,6 cm³/rev.

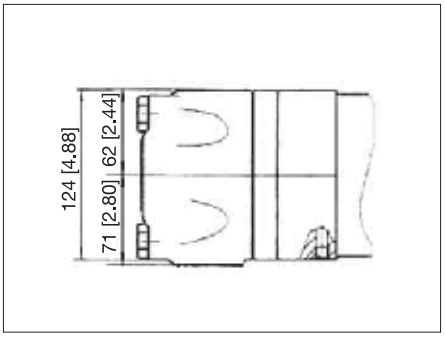
		[435] 3	[870] 6	[1305] 9	[1740] 12	[2030] 14	[2320] 16	[2610] 18	[PSI] / MPA
GPM / L/ min	[2.7] 10	[1963] 222 **18**	[3989] 451 **18**	[6120] 692 **18**	[7889] 892 **17**	[9286] 1050 **16**	[10,551] 1193 **15**	[11,851] 1340 **13**	
	[5.3] 20	[2043] 231 **37**	[4104] 464 **36**	[6313] 714 **35**	[8119] 918 **34**	[9463] 1070 **33**	[10,790] 1220 **32**	[12,178] 1377 **30**	TORQUE [LB-IN] / TORQUE (N•M) / SPEED (RPM)
Flow (L/min)	[10.6] 40	[2034] 230 **75**	[4121] 466 **74**	[6430] 727 **73**	[8322] 941 **72**	[9675] 1094 **70**	[11,002] 1244 **68**	[12,576] 1422 **64**	
	[15.9] 60	[1990] 225 **113**	[4042] 457 **112**	[6315] 714 **111**	[8322] 941 **109**	[9622] 1088 **107**	[11,011] 1245 **105**	[12,461] 1409 **101**	
	[21.1] 80	[1884] 213 **151**	[3812] 431 **150**	[6155] 696 **149**	[8198] 927 **147**	[9516] 1076 **145**	[11,002] 1244 **143**	[12,390] 1401 **138**	
	[26.4] 100	[1716] 194 **189**	[3714] 420 **188**	[6014] 680 **187**	[7968] 901 **185**	[9401] 1063 **183**	[10,825] 1224 **181**	[12,231] 1383 **177**	
Max cont.	[33.0] 125	[1610] 182 **237**	[3520] 398 **236**	[5669] 641 **235**	[7756] 877 **233**	[9056] 1024 **231**	[10,604] 1199 **229**	[11,957] 1352 **225**	Max cont.
Max int.	[39.6] 150	[1300] 147 **284**	[3263] 369 **283**	[5466] 618 **282**	[7544] 853 **280**	[8879] 1004 **278**	[10,321] 1167 **276**	[11,718] 1325 **272**	Max int.

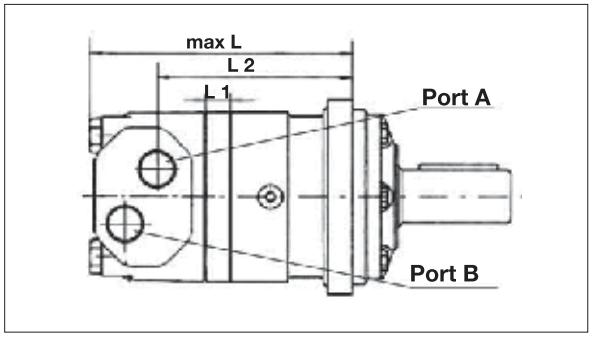
BMT 630 [38.39 in³./rev.] 629,1 cm³/rev.

		[435] 3	[870] 6	[1305] 9	[1522] 10.5	[1740] 12	[2030] 14	[2320] 16	[PSI] / MPA
GPM / L/ min	[2.7] 10	[2061] 233 **14**	[4599] 520 **14**	[7031] 795 **13**	[7977] 902 **13**	[9498] 1074 **13**	[10,560] 1194 **11**	[12,054] 1363 **11**	
	[5.3] 20	[2096] 237 **28**	[4900] 554 **27**	[7402] 837 **27**	[8428] 953 **26**	[9879] 1117 **26**	[10,958] 1239 **24**	[12,444] 1407 **22**	TORQUE [LB-IN] / TORQUE (N•M) / SPEED (RPM)
Flow (L/min)	[10.6] 40	[2114] 239 **62**	[4891] 553 **62**	[7606] 860 **61**	[8729] 987 **60**	[10,356] 1171 **59**	[11,568] 1308 **56**	[13,116] 1483 **54**	
	[15.9] 60	[1972] 223 **94**	[4811] 544 **94**	[7632] 863 **92**	[8649] 978 **91**	[10,365] 1172 **90**	[11,656] 1318 **86**	[13,248] 1498 **82**	
	[21.1] 80	[1946] 220 **123**	[4749] 537 **122**	[7553] 854 **121**	[8534] 965 **119**	[10,365] 1172 **118**	[11,621] 1314 **114**	[13,239] 1497 **110**	
	[26.4] 100	[1840] 208 **156**	[4617] 522 **155**	[7358] 832 **153**	[8358] 945 **152**	[10,224] 1156 **150**	[11,524] 1303 **147**	[13,160] 1488 **142**	
Max cont.	[33.0] 125	[1778] 201 **196**	[4413] 499 **196**	[7164] 810 **194**	[8234] 931 **192**	10,056] 1137 **191**	[11,426] 1292 **187**	[13,018] 1472 **183**	Max cont.
Max int.	[39.6] 150	[1539] 174 **233**	[4351] 492 **232**	[6943] 785 **231**	[8145] 921 **230**	[9914] 1121 **227**	[11,294] 1277 **223**	[12,859] 1454 **217**	Max int.

BMT 800 [48.93 in³./rev.] 801,8 cm³/rev.

		[435] 3	[870] 6	[1305] 9	[1522] 10.5	[1812] 12.5	[1885] 13	[PSI] / MPA
GPM / L/ min	[2.7] 10	[3060] 346 **12**	[5987] 677 **12**	[8871] 1003 **11**	[10,250] 1159 **11**	[12,072] 1365 **11**	[12,293] 1390 **10**	
	[5.3] 20	[3148] 356 **24**	[6120] 692 **24**	[9145] 1034 **24**	[10,462] 1183 **23**	[12,417] 1404 **22**	[12,895] 1458 **18**	TORQUE [LB-IN] / TORQUE (N•M) / SPEED (RPM)
Flow (L/min)	[10.6] 40	[3228] 365 **50**	[6217] 703 **50**	[9428] 1066 **49**	[10,931] 1236 **48**	[12,903] 1459 **46**	[13,408] 1516 **40**	
	[15.9] 60	[3131] 354 **74**	[6217] 703 **73**	[9375] 1060 **71**	[10,940] 1237 **71**	[12,948] 1464 **68**	[13,443] 1520 **63**	
	[21.1] 80	[2936] 332 **99**	[6067] 686 **98**	[9286] 1050 **98**	[10,843] 1226 **96**	[12,948] 1464 **93**	[13,390] 1514 **86**	
	[26.4] 100	[2697] 305 **125**	[5784] 654 **123**	[9065] 1025 **123**	[10.675] 1207 **121**	[12,780] 1445 **118**	[13,319] 1506 **110**	
Max cont.	[33.0] 125	[2476] 280 **154**	[5501] 622 **153**	[8747] 989 **153**	[10,445] 1181 **150**	[12,576] 1422 **149**	[13,151] 1487 **140**	Max cont.
Max int.	[39.6] 150	[2184] 247 **185**	[5218] 590 **184**	[8428] 953 **183**	[10,224] 1156 **181**	[12,435] 1406 **179**	[13,054] 1476 **172**	Max int.



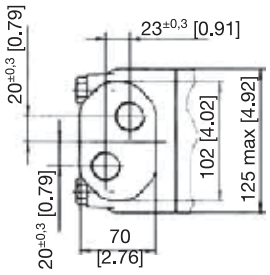


	[INCHES]		MILLIMETERS	
MODEL	L1	L2	L1	L2
BMTW160	[0.67]	[3.03]	17	77
BMTW200	[0.83]	[3.19]	21	81
BMTW250	[1.07]	[3.42]	27	87
BMTW315	[0.79]	[3.58]	20	91
BMTW400	[1.07]	[3.86]	27	98
BMTW500	[1.38]	[4.17]	35	106
BMTW630	[1.85]	[4.64]	47	118
BMTW800	[2.29]	[5.08]	58	129

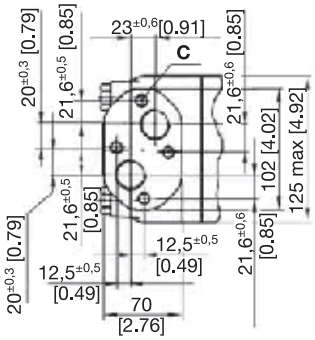
	[INCHES]			MILLIMETERS		
MODEL	L	L1	L2	L	L1	L2
BMT160	[7.60]	[0.67]	[5.61]	193	17	142.5
BMT200	[7.76]	[0.83]	[5.77]	197	21	146.5
BMT250	[8.00]	[1.07]	[6.01]	203	27	152.5
BMT315	[8.19]	[0.79]	[6.17]	208	20	156.5
BMT400	[8.47]	[1.07]	[6.44]	215	27	163.5
BMT500	[8.78]	[1.38]	[6.76]	223	35	171.5
BMT630	[9.26]	[1.85]	[7.23]	235	47	183.5
BMT800	[9.69]	[2.29]	[7.66]	246	58	194.5

Note: 1) The thickness of the stator and rotor for displacements from 160-250 is the dimension of L1 + 3mm
2) The thickness of the stator and rotor for displacements from 315-800 is the dimension of L1 + 7mm.

PORTS S1,S,G,M3



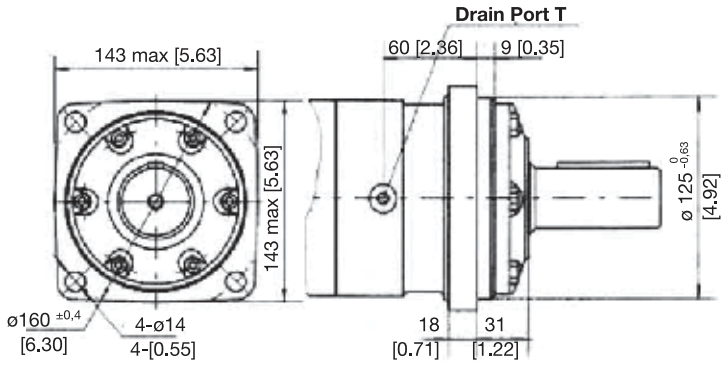
PORTS D,M



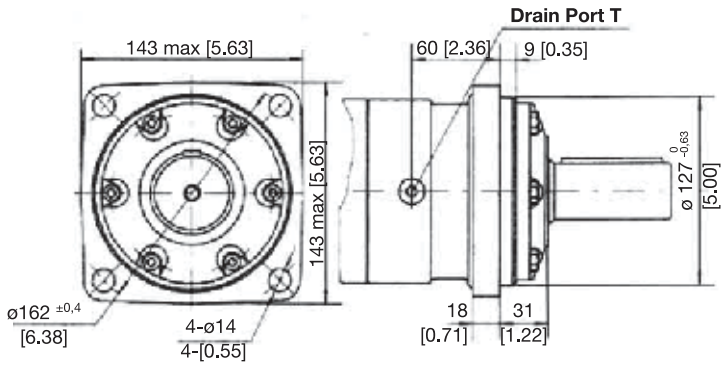
PORT & DRAIN PORT ORDERING CODES

ORDER CODE	D	DEPTH	M	DEPTH	S	DEPTH	G	DEPTH	M3	DEPTH	S1	DEPTH
PORTS - A and B	G 3/4	18 mm	M27 X 2	18 mm	1-1/16-12 UN	18 mm	G 3/4	18 mm	M27 X 2	18 mm	1-1/16-12 UN	18 MM
TANK PORT - T	G 1/4	12 mm	M14 X1.5	12 mm	9/16-18UNF	12 mm	G 1/4	12 mm	M14X1.5	12MM	7/16-20UNF	12MM
BOLTS - C	4-M10	10 mm	4-M10	10 mm	-	-	-	-	-	-	-	-

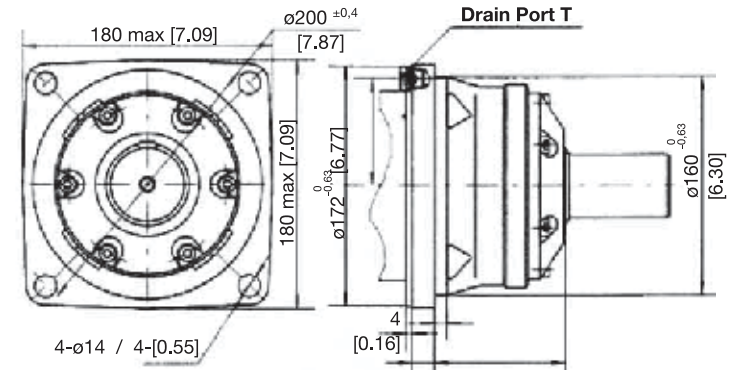
FLANGE 4



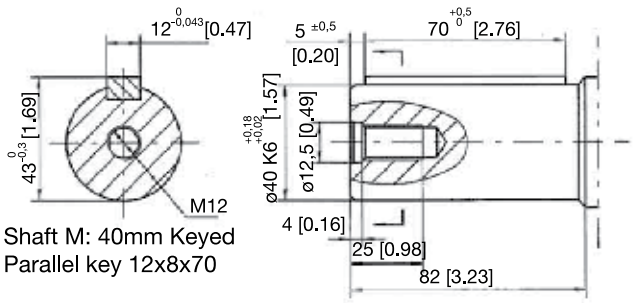
FLANGE K6



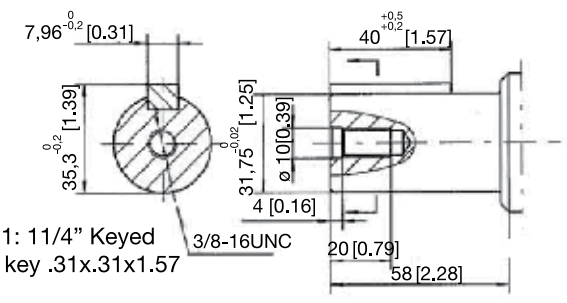
FLANGE W



G1

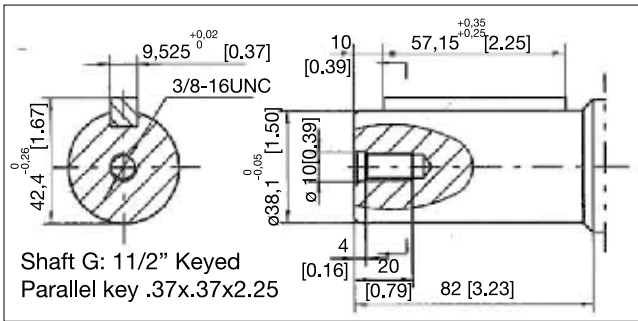


Shaft M: 40mm Keyed
Parallel key 12x8x70

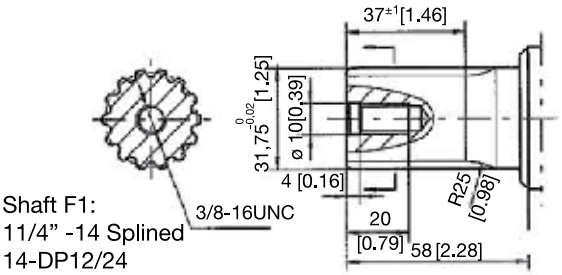


Shaft G1: 11/4” Keyed
Parallel key .31x.31x1.57

F1

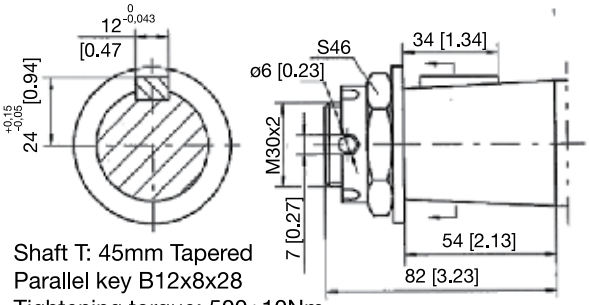


Shaft G: 11/2” Keyed
Parallel key .37x.37x2.25

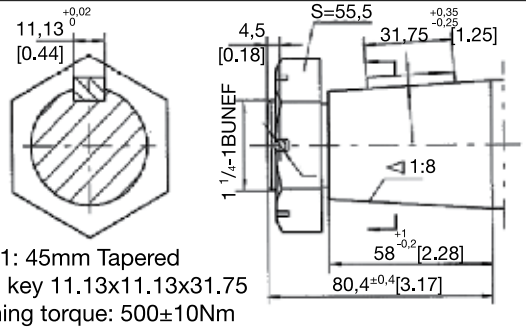


Shaft F1:
11/4” -14 Splined
14-DP12/24

T1

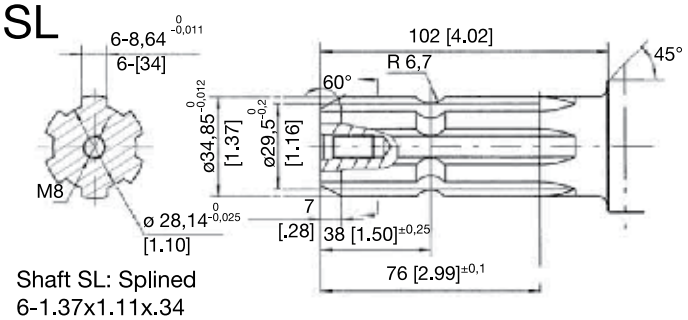


Shaft T: 45mm Tapered
Parallel key B12x8x28
Tightening torque: 500±10Nm



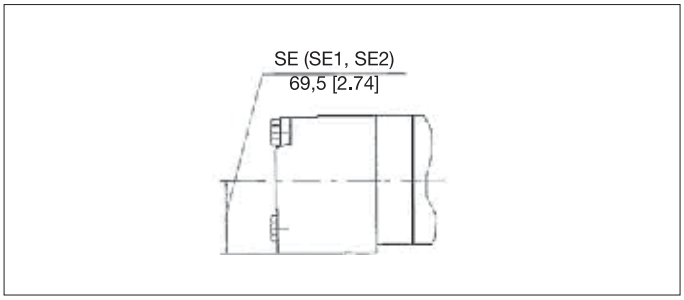
Shaft T1: 45mm Tapered
Parallel key 11.13x11.13x31.75
Tightening torque: 500±10Nm

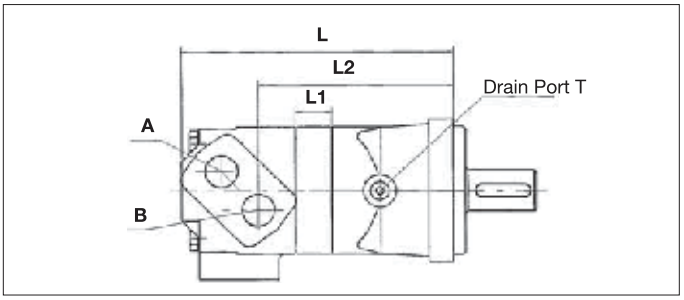
SL

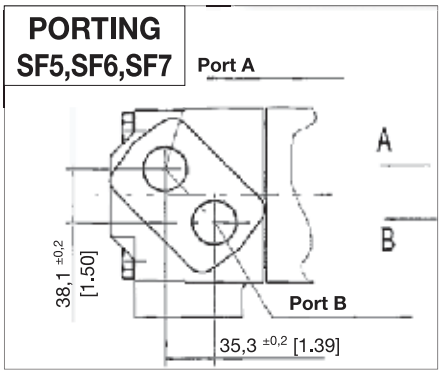


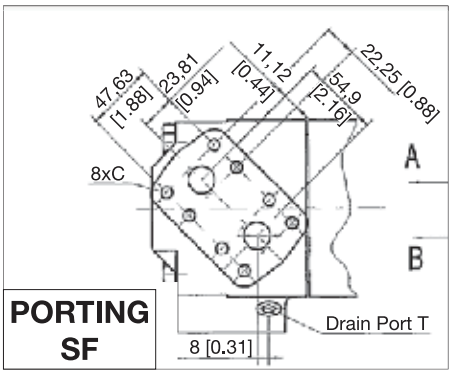
Shaft SL: Splined
6-1.37x1.11x.34

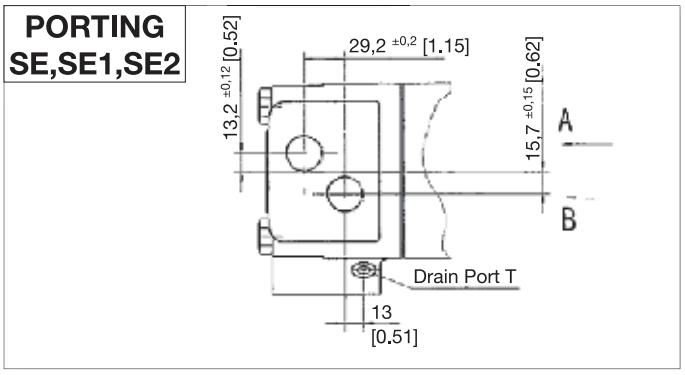
▷ Motor Mounting Surface









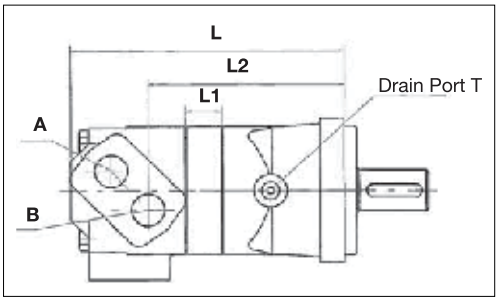


	[INCHES]			MILLIMETERS		
MODEL	**L**	**L1**	**L2**	**L**	**L1**	**L2**
BMTE 230	[9.39]	[0.48]	[6.48]	238.5	12	164.5
BMTE 250	[9.47]	[0.56]	[6.56]	240.5	14	166.5
BMTE 315	[9.71]	[0.79]	[6.80]	246.5	20	172.5
BMTE 400	[9.98]	[1.07]	[7.07]	253.5	27	179.5
BMTE 500	[10.30]	[1.38]	[7.39]	261.5	35	187.5
BMTE 630	[10.77]	[1.85]	[7.86]	273.5	47	199.5
BMTE 800	[11.20]	[2.29]	[8.29]	284.5	58	210.5

Note: 1)The dimentional data for ports SF,SF1 and SF2 are as the chart indicates
2) The dimensional data for ports DV,MV and SV are as followed: L dimension-16mm and L2 dimension + 6.5mm.
3) The dimensional data for ports SE,SE1,SE2 and WE are as followed: L dimension -70mm and L2 dimension -52mm
4)The thickness of the stator and rotor for displacements from 315-800 is the dimension of L1 + 7mm.

ORDER CODE	SF6	DEPTH	SF7	DEPTH	SF	DEPTH	SF3/SF5	DEPTH	SE	DEPTH	SE1	DEPTH	SE2	DEPTH
PORTS - A and B	M33X2	18 mm	G1	18 mm	3/4”	18 mm	1-5/16-12UN	18 mm	1-1/16-12UN	18 mm	1-1/16-12UN	18 mm	G3/1	18 mm
TANK PORT - T	M14X1.5	12 mm	G 1/4	12 mm	7/16-20UNF	12 mm	7/16-20UNF	12 mm	9/16 UNF	12 mm	7/16-20UNF	12 mm	G 1/4	12 mm
BOLTS - C	-	-	-	-	8X3/8-16UNC	-	-							

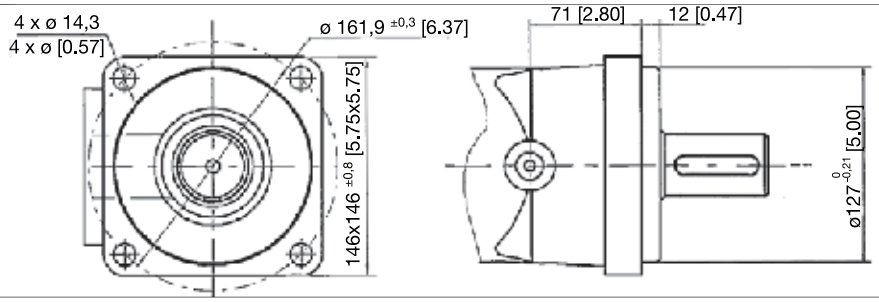
BMTE MOUNTING FLANGE DATA



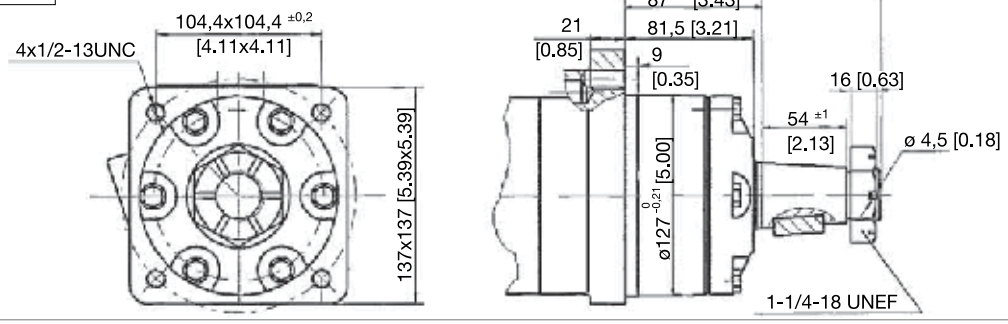
NOTE:
THE THICKNESS OF THE STATOR AND ROTOR FOR DISPLACEMENTS 315-800 IS THE DIMENSION OF L1 + 7 MM

	[INCHES]			MILLIMETERS		
MODEL	**L**	**L1**	**L2**	**L**	**L1**	**L2**
BMTE 230	[9.39]	[0.48]	[6.48]	238.5	12	164.5
BMTE 250	[9.47]	[0.56]	[6.56]	240.5	14	166.5
BMTE 315	[9.71]	[0.79]	[6.80]	246.5	20	172.5
BMTE 400	[9.98]	[1.07]	[7.07]	253.5	27	179.
BMTE 500	[10.30]	[1.38]	[7.39]	261.5	35	187.5
BMTE 630	[10.77]	[1.85]	[7.86]	273.5	47	199.5
BMTE 800	[11.20]	[2.29]	[8.29]	284.5	58	210.5

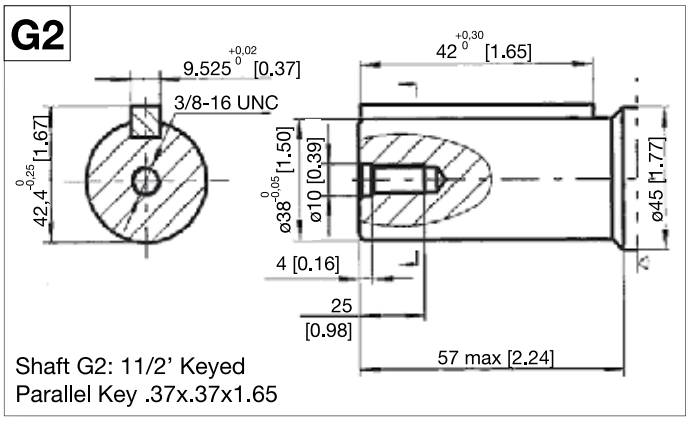
FLANGE CC



FLANGE WE

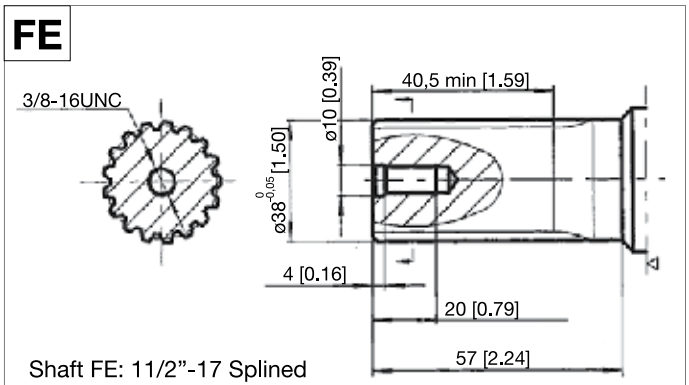


G2



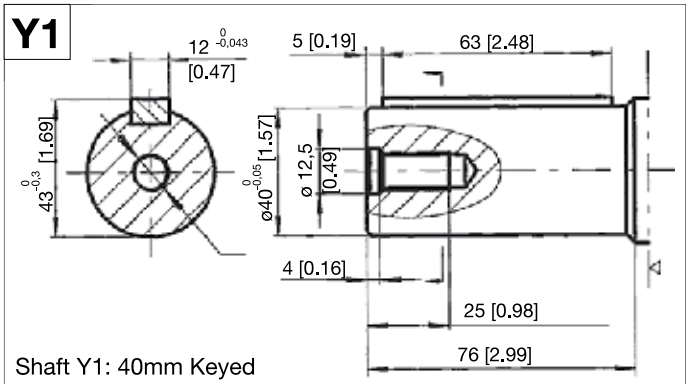
Shaft G2: 11/2’ Keyed
Parallel Key .37x.37x1.65

FE



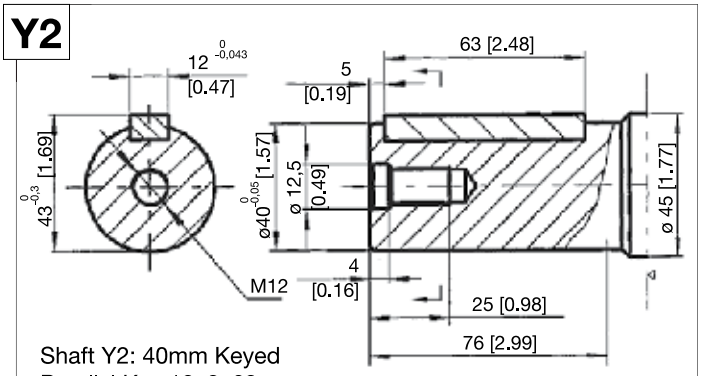
Shaft FE: 11/2”-17 Splined
17-dp12/24

Y1



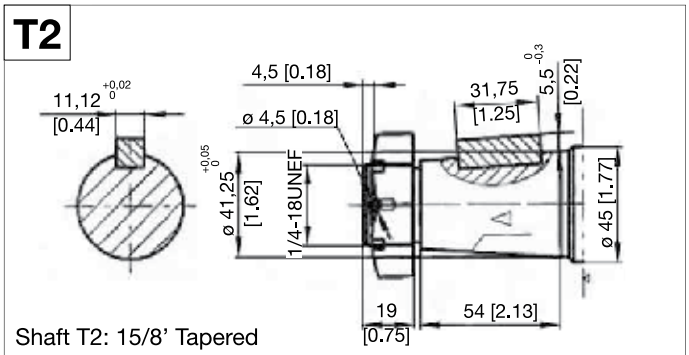
Shaft Y1: 40mm Keyed
Parallel Key 12x8x63

Y2



Shaft Y2: 40mm Keyed
Parallel Key 12x8x63

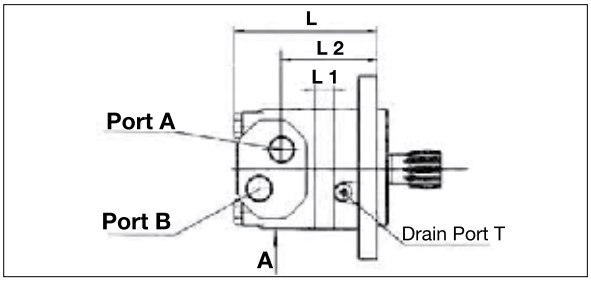
T2

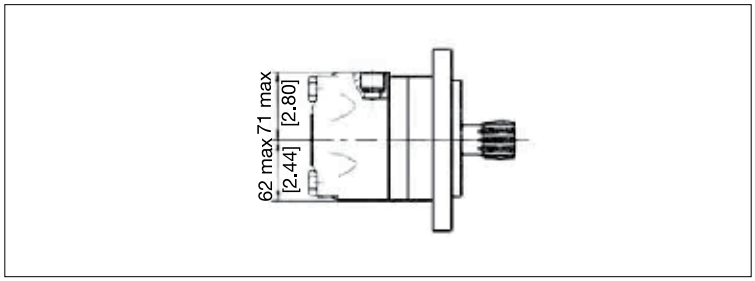


Shaft T2: 15/8’ Tapered
Parallel Key .44x.44x1.25
Tightening torque: 500±10Nm

▷ Motor Mounting Surface

BMTS DIMENSION & MOUNTING DATA

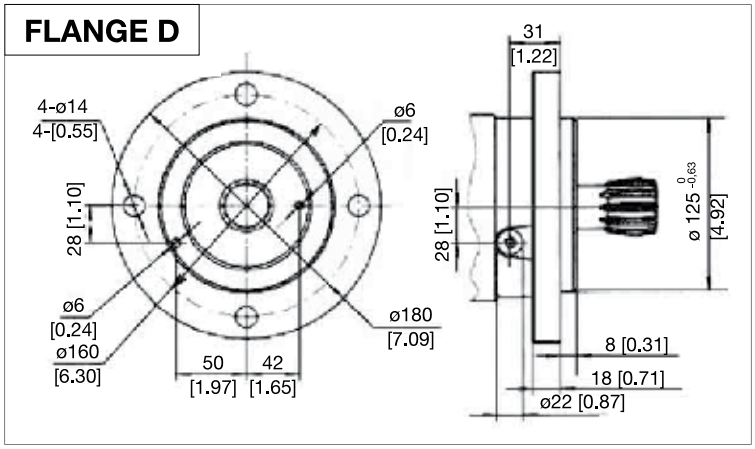




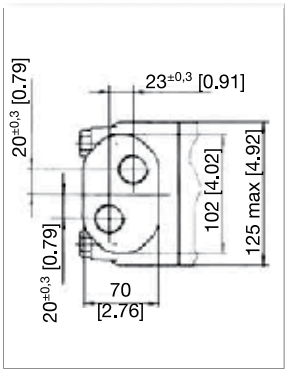
	[INCHES]			MILLIMETERS		
MODEL	L	L1	L2	L	L1	L2
BMTS 160	[5.83]	[0.67]	[3.80]	148	17	96.5
BMTS 200	[5.98]	[0.83]	[3.96]	152	21	100.5
BMTS 250	[6.22]	[1.06]	[4.23]	158	27	107.5
BMTS 315	[6.42]	[0.79]	[4.53]	163	20	115
BMTS 400	6.69]	[1.06]	[4.80]	170	27	122
BMTS 500	[7.01]	[1.38]	[5.12]	178	35	130
BMTS 630	[7.48]	[1.85]	[5.59]	190	47	142
BMTS 800	[7.91]	[2.28]	[6.02]	201	58	153

Note: 1)The thickness of the stator and rotor for displacements from 160-250 is the dimension of L1 + 3mm
2)The thickness of the stator and rotor for displacements from 315-800 is the dimension of L1 + 7mm.

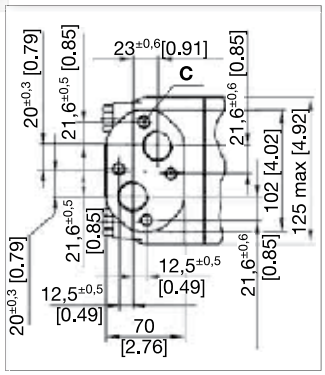
FLANGE D



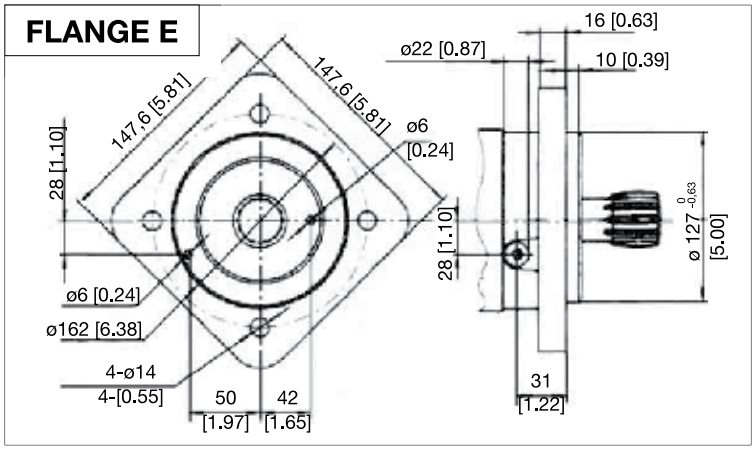
PORTS S1,S,G2,M3



PORTS D,M

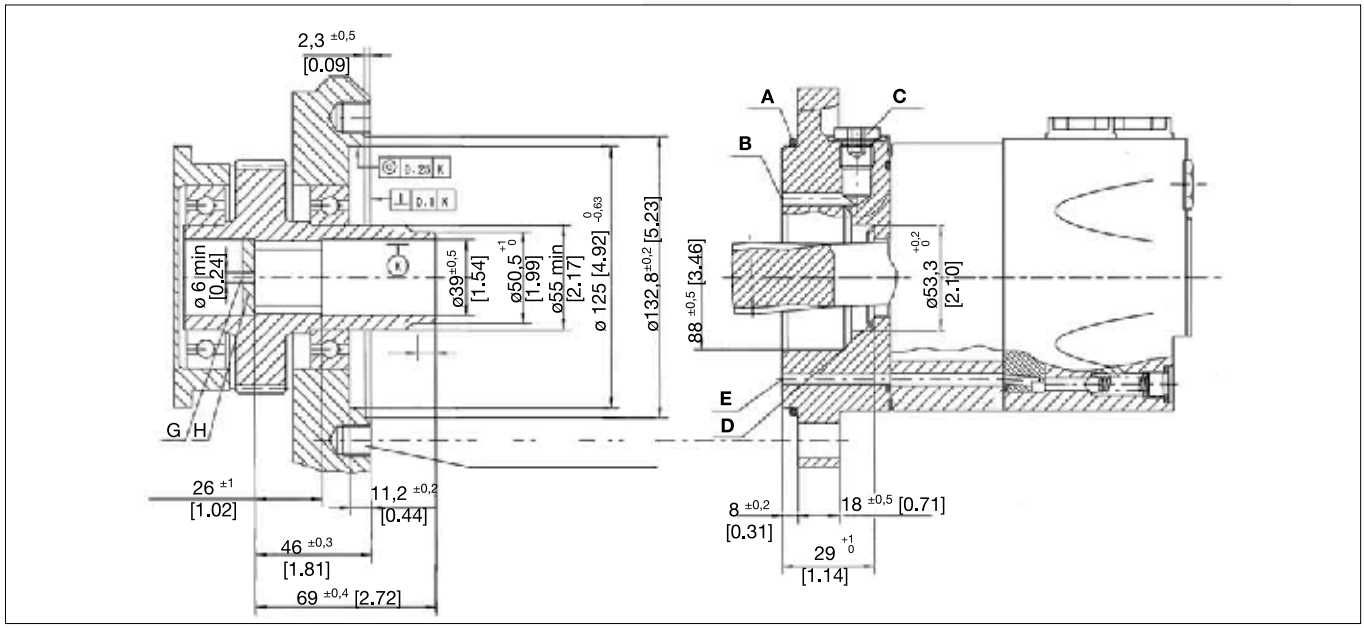


FLANGE E



PORT & DRAIN PORT ORDERING CODES

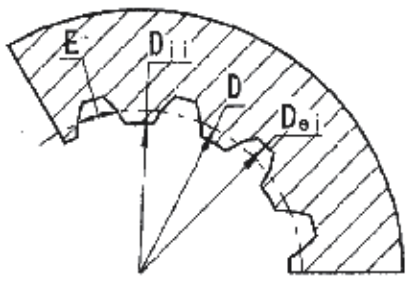
ORDER CODE	D	DEPTH	M	DEPTH	S	DEPTH	G	DEPTH	M3	DEPTH	S1	DEPTH
PORTS - A and B	G 3/4	18 mm	M27 X 2	18 mm	1-1/16-12 UN	18 mm	G 3/4	18 mm	M27 X 2	18 mm	1-1/16-12 UN	18 MM
TANK PORT - T	G 1/4	12 mm	M14 X1.5	12 mm	9/16-18UNF	12 mm	G 1/4	12 mm	M14X1.5	12 mm	7/16-20UNF	12MM
BOLTS - C	4-M10	10 mm	4-M10	10 mm								



A: O-ring:125x3
B: External drain channel
C: Drain connection G 1/4;12 mm deep
D: Conical seal ring
E: Internal drain channel
F: M12;min. 18mm deep
G: Oil circulation hole
H: Hardened stop plate

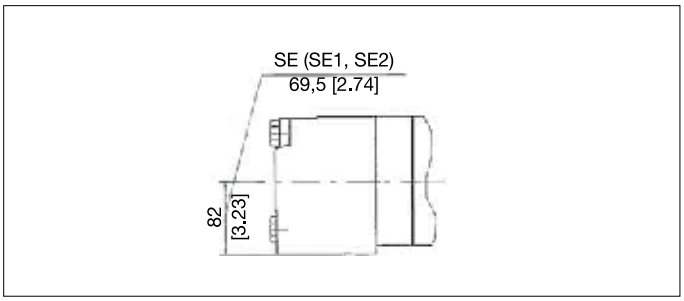
INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

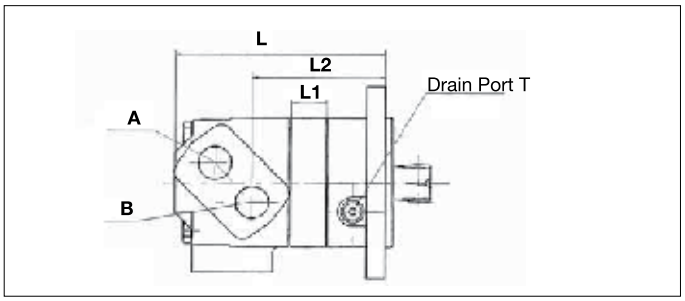
FILLET ROOT SIDE FIT		mm
NUMBER OF TEETH	Z	16
DIAMETRAL PITCH	DP	12/24
PRESSURE ANGLE	α_D	30°
PITCH DIA.	D	Ø33.8656
MAJOR DIA.	D_{EI}	Ø38.4
MINOR DIA.	D_{II}	Ø32.15
SPACE WIDTH CIRCULAR	E	4.516 ±0.037



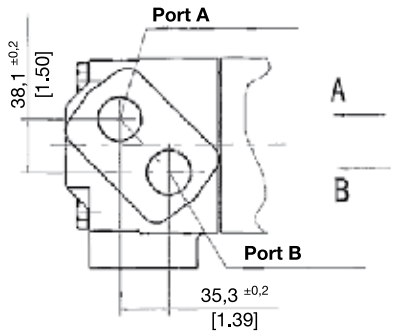
Hardening Specification: HRC 62±2
Effective case depth 0.7±0.2

BMTJ PORTING DATA

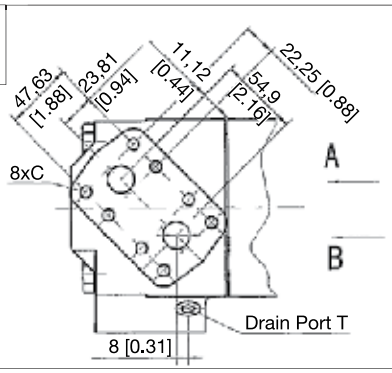




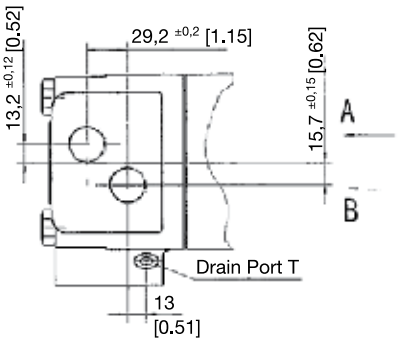
PORTING SF6,SF7,SF3



PORTING SF



PORTING SE,SE1,SE2

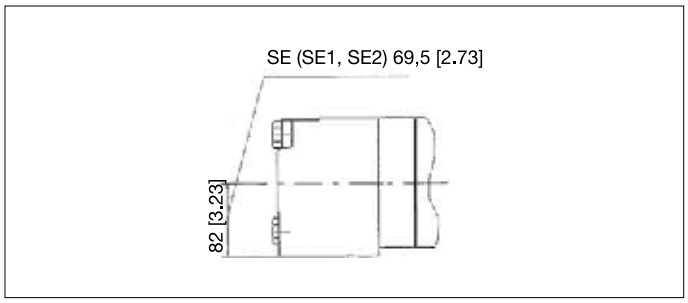


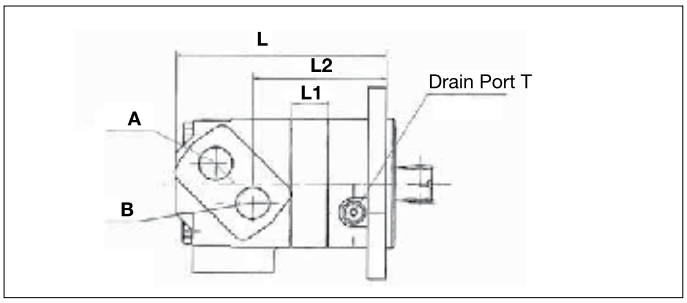
	[INCHES]			MILLIMETERS		
MODEL	**L**	**L1**	**L2**	**L**	**L1**	**L2**
BMTJ 230	[6.93]	[0.48]	[41.15]	176	12	104.5
BMTJ 250	[7.01]	[0.56]	[4.20]	178	14	106.5
BMTJ 315	[7.25]	[0.79]	[4.43]	184	20	112.5
BMTJ 400	[7.52]	[1.07]	[4.71]	191	27	119.5
BMTJ 500	[7.84]	[1.38]	[5.02]	199	35	127.5
BMTJ 630	[8.31]	[1.85]	[5.50]	211	47	139.5
BMTJ 800	[8.74]	[2.29]	[5.93]	222	58	150.5

Note:
1) The dimentional data for ports SF,SF1 and SF2 are as the chart indicates
2) The dimensional data for ports DV,MV and SV are as followed: L dimension-16mm and L2 dimension + 6.5mm.
3) The dimensional data for ports SE,SE1,SE2 and WE are as followed: L dimension -70mm and L2 dimension -59 mm
4) The thickness of the stator and rotor for displacements from 315-800 is the dimension of L1 + 7mm.

PORT & DRAIN PORT ORDERING CODES

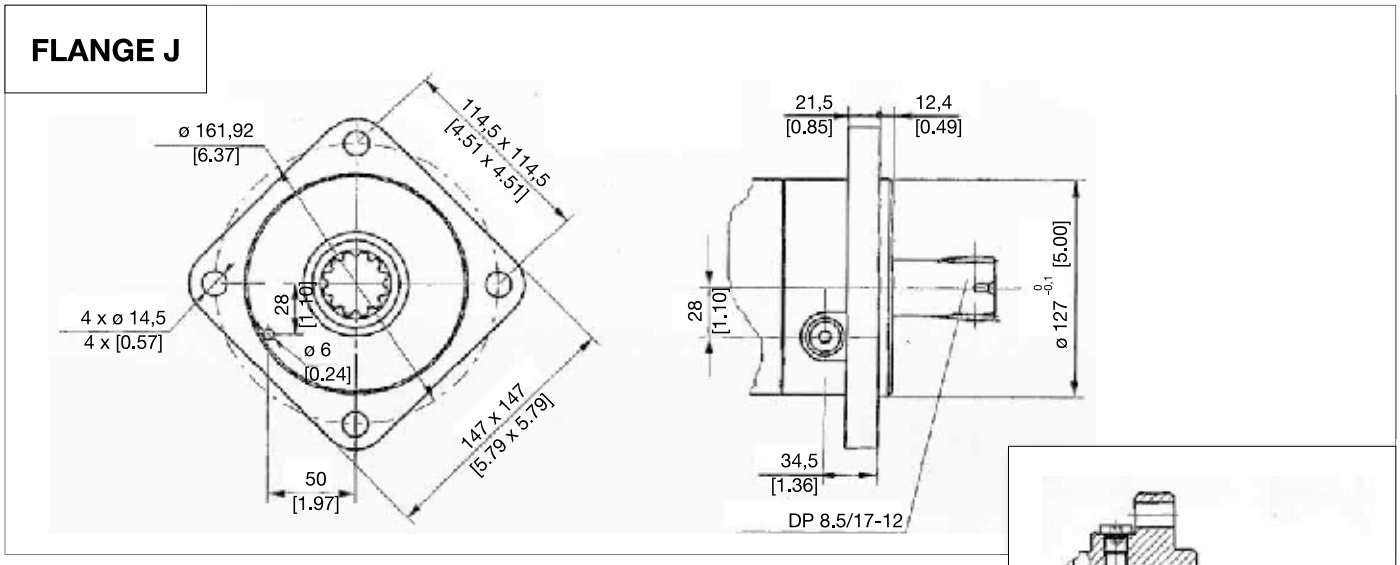
ORDER CODE	SF6	DEPTH	SF7	DEPTH	SF	DEPTH	SF3	DEPTH	SE	DEPTH	SE1	DEPTH	SE2	DEPTH
PORTS - A and B	M33X2	18 mm	G1	18 mm	3/4”	18 mm	1-5/16-12UN	18 mm	1-16-12UN	18 mm	1-1/16-12UN	18 mm	G3/4	18 mm
TANK PORT - T	M14X1.5	12 mm	G1/4	12 mm	7/16-20UNF	12 mm	7/16-20UNF	12 mm	9/16-18UNF	12 mm	7/16-20UNF	12 mm	G1/4	12 mm
BOLTS - C					8X3/8-16UNC	-	-	-						

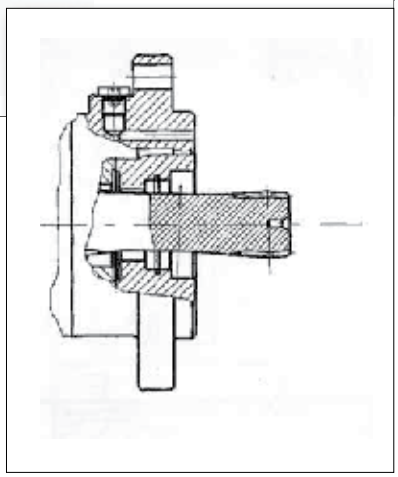




NOTE: THE THICKNESS OF THE STATOR AND ROTOR FOR DISPLACEMENTS 230-800 IS THE DIMENSION OF L1 + 7MM

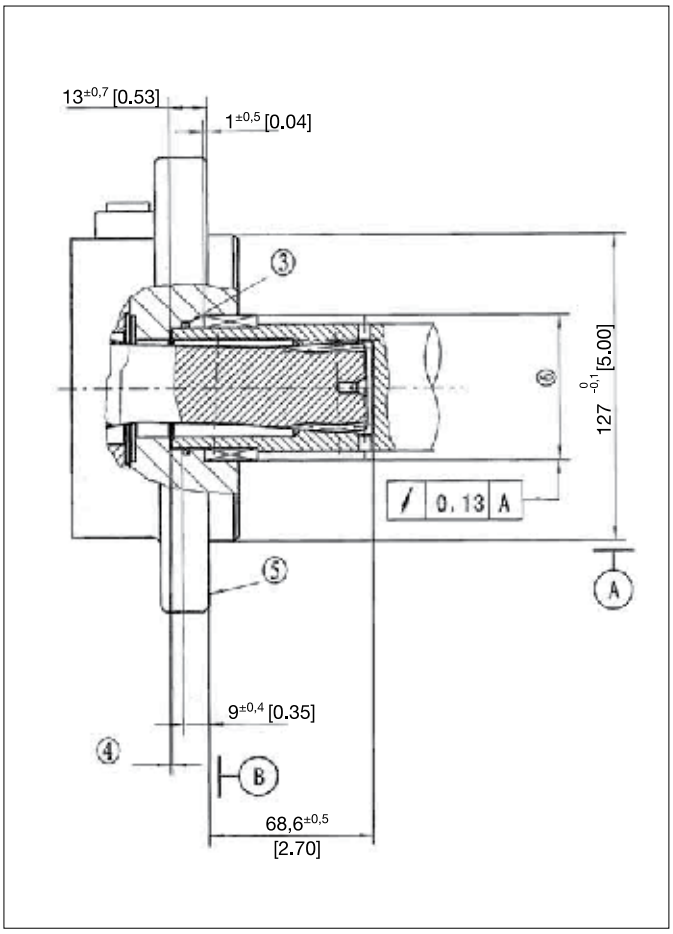
FLANGE J

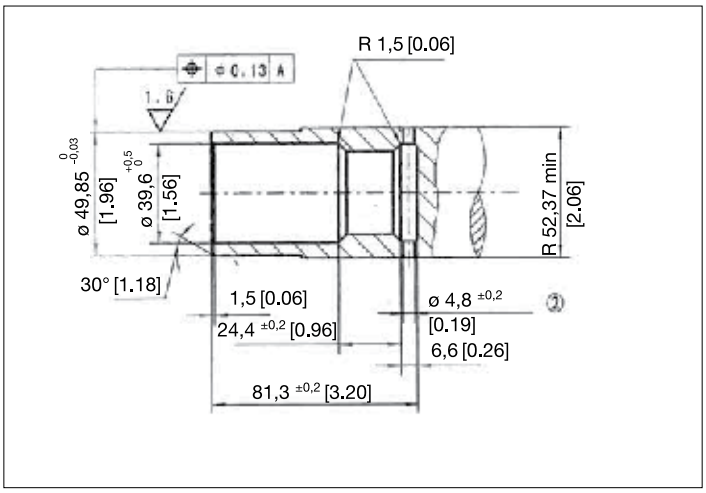


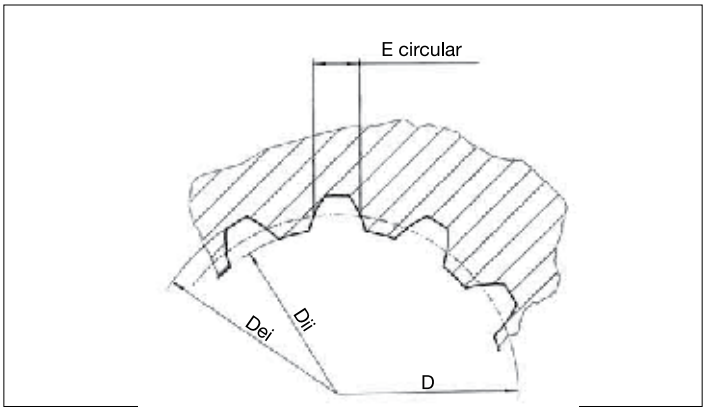


	[INCHES]			MILLIMETERS		
MODEL	**L**	**L1**	**L2**	**L**	**L1**	**L2**
BMTJ 230	[6.93]	[0.48]	[41.15]	176	12	104.5
BMTJ 250	[7.01]	[0.56]	[4.20]	178	14	106.5
BMTJ 315	[7.25]	[0.79]	[4.43]	184	20	112.5
BMTJ 400	[7.52]	[1.07]	[4.71]	191	27	119.5
BMTJ 500	[7.84]	[1.38]	[5.02]	199	35	127.5
BMTJ 630	[8.31]	[1.85]	[5.50]	211	47	139.5
BMTJ 800	[8.74]	[2.29]	[5.93]	222	58	150.5

▷ Motor Mounting Surface





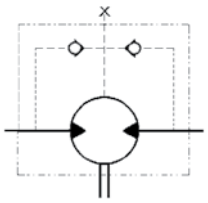


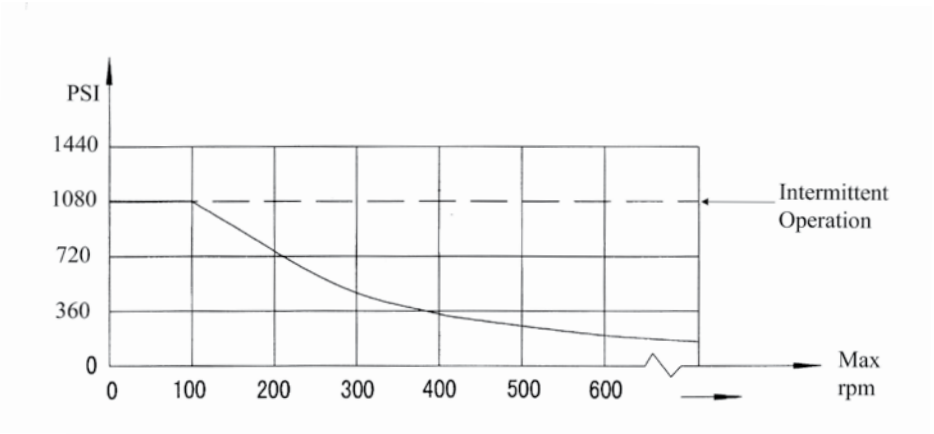
INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

FILLET ROOT SIDE FIT		mm
NUMBER OF TEETH	Z	12
DIAMETRAL PITCH	DP	8.5/17
PRESSURE ANGLE	D	30°
PITCH DIA.	D	ø 35.858823
MAJOR DIA.	DEI	ø 38.97 +0,20 0
MINOR DIA.	DII	ø 33.3 +0,18 0
SPACE WIDTH CIRCULAR	E	5.866 ±0.032
DIMENSION BETWEEN TWO PINS (Ø4)	ME	26.929-27.084

1. Internal spline in mating part to be as follows: Material to be ASTM A304, 8620H. Carborize to a hardness of 60-64 HRC with case depth (to 50HRC) of 0.75-1 [.030-.040] (dimensions apply after heat treat).
2. Mating part to have critical dimensions as shown. Oil holes must be provided and open for proper oil circulation.
3. Some means of maintaning clearance between shaft and mounting flange must be provided
4. Seal to be furnished with motor for proper oil circulation thru splines
5. Similar to SAE “C” Four Bolt Flange
6. Counterbore designed to adapt to a standard sleeve bearing 50.010-50.038 [1.9689-1.9700] ID by 60.51-60.079 [2.3642-2.3653] O.D. (Oilite Bronze sleeve bearing)

SHAFT SEAL RATED PRESSURE

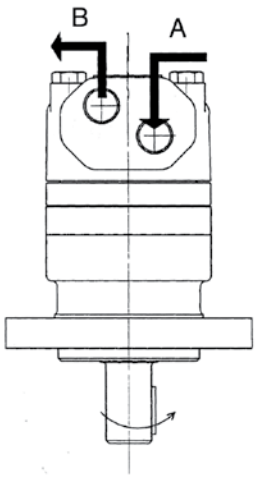




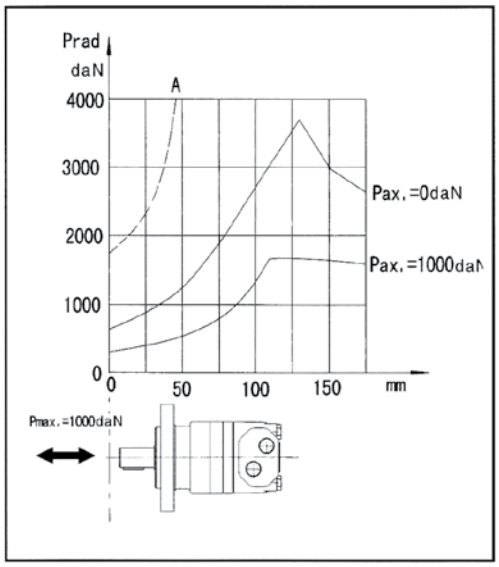
CASE DRAIN

In applications without a motor drain line, the pressure exerted on the shaft seal is marginally in excess of the return line pressure. When the drain line is used the pressure exerted on the shaft seal is equal to the return line pressure.

SHAFT ROTATION DIRECTION



Axial and Radial forces



The output shaft runs tapered bearings that permit high axial and radial forces, Curve “A” shows max radial shaft load, Any shaft loads exceeding the values quoted in the curve will involve risk of breakage. The two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.

BMT ORDERING INFORMATION

	1	2	3	4	5	6	7
BMT							

1	2		3		4		5		6		7	
DISP. cc (cu. in.)	**FLANGE**		**OUTPUT SHAFT**		**PORT AND DRAIN PORT**		**ROTATION DIRECTION**		**PAINT**		**SPECIAL OPTIONS**	
160 (9.83)	**4**	4-Ø14 Square-flange Ø160, pilot Ø125x9	**M**	Shaft: 40mmKeyed Key 12x9x70	**D**	G3/4 Manifold Mount 4-M10, G1/4	**NONE**	STANDARD	**00**	NO PAINT	**NONE**	STANDARD
200 (12.29)	**K6**	4-Ø14.5 Square-flange Ø162, pilot Ø127x9	**G**	Shaft: 11/2" Keyed parallel Key .38x.38x2.25	**M**	M27x2 Manifold Mount 4-M10, M14x1.5	**R**	OPPOSITE	**NONE**	BLACK	**F**	FREE RUNNING
250 (15.37)	**W**	4-Ø18 Wheel-flange Ø200, pilot Ø160x7	**F**	Shaft: 11/2"-17,Splined 17-DP12/24	**S**	1 1/16-12un, 9/16-18UNF					**LL**	LOW LEAKAGE VALVE
315 (19.92)			**T**	Shaft: 45mm Tapered parallel key B12x28x8	**S1**	1-1/16-12UN, 7/16-20UNF					**LS**	LOW SPEED VALVE
400 (25.08)			**T1**	Shaft: 45mm Tapered key 11.13x11.13x31.75	**G**	G3/4 - G1/4					**HP**	HIGH PRESSURE SEAL
500 (31.96)			**S L**	Shaft: Ø34.85, splined 6-34.85x28.14x8.64	**M3**	M27x2 - M14x1.5					**HT**	HIGH TEMP SEAL
630 (38.39)			**G1**	Shaft: 11/4 Keyed parallel key 7.96x7.96x40								
800 (48.93)			**F1**	Shaft: 11/4"-14 Splined 14-DP12/24								

Please contact us for any options not listed.

BMTE ORDERING INFORMATION

	1	2	3	4	5	6	7
BMTE							

1	2		3		4		5		6		7	
DISP. cc (cu. in.)	FLANGE		OUTPUT SHAFT		PORT AND DRAIN PORT		ROTATION DIRECTION		PAINT		SPECIAL OPTIONS	
250 (15.37)	CC	4-Ø14.3 Square-flange Ø169.9, pilot Ø127x12	G2	11/2" KEYED PARALLEL KEY .37X.37X1.65	SF	3/4" MANIFOLD MOUNT, 8-3/8-16UNC 7/16-20UNF	NONE	STANDARD	00	NO PAINT	NONE	STANDARD
315 (19.92)	WE	4-Ø18 Wheel-flange Ø147, pilot Ø127x9	FE	11/2"-17 SPLINED 17-DP 12/24	SE	1-1/16-12UNF ORING 9/16-18 UNF	R	OPPOSITE	NONE	BLACK	F	FREE RUNNING
400 (25.08)			Y1	40MM KEYED PARALLEL KEY 12X8X63	SE1	1-1/16-12UNF ORING 7/16-20UNF					LL	LOW LEAKAGE
500 (31.96)			Y2	40MM KEYED PARALLEL KEY 12X8X63	SE2	G3/4 - G1/4					LS	LOW SPEED VALVE
630 (38.34)			T2	15/8" TAPERED PARALLEL KEY .44X.44X1.25	SF3	1-5/16-12UNF 7/16-20UNF					HP	HIGH PRESSURE SEAL
800 (48.93)					SF5	1-5/16-12UNF O-ring 7/16-20 UNF on rear cover					HT	HIGH TEMP SEAL
					SF6	M33x2, M14x1.5						
					SF7	G1, G 1/4						

Please contact the factory for any options not listed.

BMTS ORDERING INFORMATION

	1	2	3	4	5	6	7
BMTS							

1	2		3		4		5		6		7	
DISP. cc (cu. in.)	**FLANGE**		**OUTPUT SHAFT**		**PORT AND DRAIN PORT**		**ROTATION DIRECTION**		**PAINT**		**SPECIAL OPTIONS**	
160 (9.83)	**D**	4-Ø14 Circle-flange Ø160, pilot Ø125x8	**SS**	Short shaft DP12/24	**D**	G3/4 Manifold Mount 4-M10, G1/4	**NONE**	STANDARD	**00**	NO PAINT	**NONE**	STANDARD
200 (12.29)	**E**	4-Ø14.5 Square-flange Ø162, pilot Ø127x10			**M**	M27x2 Manifold Mount 4-M10, M14x1.5	**R**	REVERSE	**NONE**	BLACK	**F**	FREE RUNNING
250 (15.37)					**S**	17/16-12 O-RING, 9/16-18UNF					**LL**	LOW LEAKAGE VALVE
315 (19.92)					**S1**	1-1/16-12 O-RING, 7/16-20UNF					**LS**	LOW SPEED
400 (25.08)					**G**	G3/4 - G1/4						
500 (31.96)					**M3**	M27x2 - M14x1.5						
630 (38.39)												
800 (48.93)												

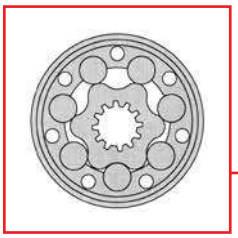
Please contact the factory for any options not listed.

BMTJ ORDERING INFORMATION

	1	2	3	4	5	6	7
BMTJ							

1	2		3		4		5		6		7	
DISP. cc (cu. In.)	**FLANGE**		**OUTPUT SHAFT**		**PORT AND DRAIN PORT**		**ROTATION DIRECTION**		**PAINT**		**SPECIAL OPTIONS**	
250 (15.37)	**J**	Squareflange 169.9mm, pilot 127mmx12.4	**SS**	Short shaft 12-DP8.5/17	**SF**	3/4", Manifold Mount, 8-3/8UNC 7/16-20UNF	**NONE**	STANDARD	**00**	NO PAINT	**NONE**	STANDARD
315 (19.92)					**SF6**	M33x2, M14x1.5	**R**	REVERSE	**NONE**	BLACK	**F**	FREE RUNNING
400 (25.08)					**SF7**	G1, G 1/4					**LL**	LOW LEAKAGE
500 (31.96)					**SE**	1-1/16-12 UN O-RING 9/16-18UNF					**LS**	LOW SPEED
630 (38.39)					**SE1**	1-1/16-12UNC O-RING 7/16-20UNF						
800 (48.93)					**SE2**	G3/4 - G1/4						
					SF3	1-5/16-12 ORING 7/16-20UNF						

Please contact the factory for any options not listed.



Model BMV

ANFIELD

The BMV series adapts the advanced GEROLER gear set design with **DISC** distribution flow and high pressure. These motors can be supplied with various options for multifunctional operations in accordance with the application requirements. The output shaft tapered roller bearings permit high axial and radial forces offering a smooth operation during low pressure startup and high pressure operation. These low weight advanced construction design motors are manufactured in accordance with the requirements of ISO 9001-2008 quality system.

BMV TECHNICAL SPECIFICATIONS

DISTRIBUTION TYPE			BMV 315	BMV 400	BMV 500	BMV 630	BMV 800	BMV 1000
GEOMETRIC DISPLACEMENT		[in./rev.]	[20.32]	[25.57]	[31.61]	[40.63]	[48.88]	[60.40]
		cm^3/rev.	**333**	**419**	**518**	**666**	**801**	**990**
MAX. SPEED RPM		RATED	335	270	215	170	140	105
		CONT.	446	354	386	223	185	145
		INT	**649**	**526**	**425**	**331**	**275**	**220**
MAX. TORQUE [LB. IN.] N*M	RATED	[LB. IN.]	[6456]	[9021]	[10701]	[12576]	[14061]	[17821]
		N*M	**730**	**1020**	**1210**	**1422**	**1590**	**2015**
	CONT.	[LB. IN.]	[8181]	[10790]	[12824]	[14504]	[16008]	[17821]
		N*M	**925**	**1220**	**1450**	**1640**	**1810**	**2015**
	INT.	[LB. IN.]	[9728]	[12727]	[15742]	[17688]	[18661]	[20164]
		N*M	**1100**	**1439**	**1780**	**2000**	**2110**	**2280**
	PEAK	[LB. IN.]	[11931]	[15035]	[18758]	[20677]	[21845]	[21226]
		N*M	**1349**	**1700**	**2121**	**2338**	**2470**	**2400**
MAX. OUTPUT [HP] KW	RATED	[HP]	[34]	[39]	[37]	[34]	[31]	[28]
		KW	**25.6**	**28.8**	**27.2**	**25.3**	**23.3**	**21.2**
	CONT.	[HP]	[58]	[61]	[78]	[52]	[47]	[38]
		KW	**43**	**45.2**	**58.6**	**38.3**	**35.1**	**28.6**
	INT.	[HP]	[70]	[70]	[70]	[62]	[54]	[54]
		KW	**52**	**52**	**52**	**46**	**40**	**40**
MAX. PRESSURE DROP [PSI] MP_A	RATED	[PSI]	[2320]	[2320]	[2320]	[2320]	[2030]	[2030]
		MP_A	**16**	**16**	**16**	**16**	**14**	**14**
	CONT.	[PSI]	[2900]	[2900]	[2900]	[2610]	[2320]	[2030]
		MP_A	**20**	**20**	**20**	**18**	**16**	**14**
	INT.	[PSI]	[3480]	[3480]	[3480]	[3045]	[2610]	[2329]
		MP_A	**24**	**24**	**24**	**21**	**18**	**16**
	PEAK	[PSI]	[4060]	[4060]	[4060]	[3480]	[3045]	[2610]
		MP_A	**28**	**28**	**28**	**24**	**21**	**18**
MAX. FLOW [GPM] L/MIN	RATED	[GPM]	[29.0]	[29.0]	[29.0]	[29.0]	[29.0]	[29.0]
		L/MIN	**110**	**110**	**110**	**110**	**110**	**110**
	CONT.	[GPM]	[39.6]	[39.6]	[39.6]	[39.6]	[39.6]	[39.6]
		L/MIN	**150**	**150**	**150**	**150**	**150**	**150**
	INT.	[GPM]	[59.4]	[59.4]	[59.4]	[59.4]	[59.4]	[59.4]
		L/MIN	**225**	**225**	**225**	**225**	**225**	**225**
MAX. INLET PRESSURE [PSI] MP_A	RATED	[PSI]	[3045]	[3045]	[3045]	[3045]	[3045]	[3045]
		MP_A	**21**	**21**	**21**	**21**	**21**	**21**
	CONT.	[PSI]	[3045]	[3045]	[3045]	[3045]	[3045]	[3045]
		MP_A	**21**	**21**	**21**	**21**	**21**	**21**
	INT.	[PSI]	[3625]	[3625]	[3625]	[3625]	[3625]	[3625]
		MP_A	**25**	**25**	**25**	**25**	**25**	**25**
	PEAK	[PSI]	[4350]	[4350]	[4350]	[4350]	[4350]	[4350]
		MP_A	**30**	**30**	**30**	**30**	**30**	**30**
WEIGHT [LB] KG		[LB]	[70]	[72]	[74]	[77]	[80]	[84.6]
		KG	**31.8**	**32.6**	**33.5**	**34.9**	**36.5**	**38.6**

- Rated speed and rated torque: Output value of speed and torque under rated flow and rated pressure.
- Continuous pressure: Max. value of operating motor continuously.
- Intermittent pressure: Max. value of operating motor in 6 seconds per minute.
- Peak pressure: Max. value of operating motor in 0.6 second per minute.

BMV 315 [20.32 in³/rev] 333 cm³/rev.

GPM / L/min		[1015] 7 [PSI] MPA	[1450] 10	[2030] 14	[2320] 16	[2610] 18	[2900] 20 Max cont.	[3045] 21	[3480] 24 Max int.
[7.9] 30		[2697] 305 **89**	[3847] 435 **85**	[5351] 605 **79**	[6350] 718 **71**	[6987] 790 **70**	[7889] 892 **68**	[8331] 942 **62**	[9375] 1060 **55**
[15.9] 60		[2680] 303 **183**	[3936] 445 **179**	[5528] 625 **174**	[6509] 736 **168**	[7323] 828 **163**	[8181] 925 **160**	[8561] 968 **154**	[9702] 1097 **148**
[23.8] 90	Flow (L/min)	[2653] 300 **275**	[3891] 440 **272**	[5528] 625 **266**	[6456] 730 **258**	[7305] 826 **254**	[8154] 922 **248**	[8508] 962 **242**	[9569] 1082 **235**
[27.7] 105		[2609] 295 **325**	[3847] 435 **320**	[5483] 620 **312**	[6421] 726 **306**	[7270] 822 **300**	[8110] 917 **292**	[8473] 958 **290**	[9534] 1078 **285**
[31.7] 120		[2565] 290 **371**	[3812] 431 **366**	[5395] 610 **359**	[6368] 720 **350**	[7252] 820 **345**	[8066] 912 **337**	[8419] 952 **332**	[9463] 1070 **325**
[39.6] 150	Max cont	[2459] 278 **464**	[3635] 411 **459**	[5324] 602 **454**	[6332] 716 **445**	[7093] 802 **435**	[7995] 904 **428**	[8331] 942 **422**	[9348] 1057 **412**
[50.2] 190	Max int.	[2299] 260 **595**	[3467] 392 **588**	[5200] 588 **582**	[6279] 710 **575**	[7031] 795 **568**	[7889] 892 **562**	[8225] 930 **555**	

TORQUE [LB-IN]
TORQUE (N•M)
SPEED (RPM)

Max cont.

Max int.

BMV 400 [25.56 in³/rev] 419 cm³/rev.

GPM / L/min		[1015] 7 [PSI] MPA	[1450] 10	[2030] 14	[2320] 16	[2610] 18	[2900] 20 Max cont.	[3045] 21	[3480] 24 Max int.
[7.9] 30		[3467] 392 **71**	[5236] 592 **70**	[7181] 812 **68**	[8800] 995 **63**	[9286] 1050 **60**	[10,436] 1180 **56**	[10,569] 1195 **52**	[12,249] 1385 **47**
[15.9] 60		[3555] 402 **146**	[5430] 614 **142**	[7270] 822 **138**	[9021] 1020 **132**	[9463] 1070 **127**	[10,790] 1220 **124**	[10,922] 1235 **120**	[12,603] 1425 **118**
[23.8] 90	Flow (L/min)	[3502] 396 **240**	[5359] 606 **238**	[7208] 815 **232**	[8977] 1015 **228**	[9419] 1065 **222**	[10,701] 1210 **217**	[10,834] 1225 **212**	
[27.7] 105		[3449] 390 **270**	[5306] 600 **266**	[7119] 805 **261**	[8932] 1010 **258**	[9392] 1062 **254**	[10,657] 1205 **250**	[10,790] 1220 **248**	
[31.7] 120		[3396] 384 **294**	[5253] 594 **290**	[7058] 798 **286**	[8888] 1005 **284**	[9330] 1055 **280**	[10,613] 1200 **276**	[10,701] 1210 **272**	
[39.6] 150	Max cont	[3317] 375 **370**	[5147] 582 **365**	[7005] 792 **360**	[8862] 1002 **358**	[9198] 1040 **355**			
[50.2] 190	Max int.	[3184] 360 **485**	[5076] 574 **480**	[6960] 787 **475**	[8729] 987 **472**	[9065] 1025 **470**			

TORQUE [LB-IN]
TORQUE (N•M)
SPEED (RPM)

Max cont.

Max int.

BMV 500 [31.60 in³/rev] 518 cm³/rev.

GPM / L/min		[1015] 7 [PSI] MPA	[1450] 10	[2030] 14	[2320] 16	[2610] 18	[2900] 20 Max cont.	[3045] 21	[3480] 24 Max int.
[7.9] 30		[3909] 442 **57**	[5970] 675 **55**	[8826] 998 **53**	[10,436] 1180 **52**	[11,143] 1260 **50**	[12,470] 1410 **48**	[13,133] 1485 **44**	[15,557] 1759 **40**
[15.9] 60		[4024] 455 **117**	[6058] 685 **115**	[9065] 1025 **111**	[10,701] 1210 **106**	[11,188] 1265 **101**	[12,780] 1445 **97**	[13,354] 1510 **95**	[15,742] 1780 **90**
[23.8] 90	Flow (L/min)	[3980] 450 **186**	[5996] 678 **184**	[9021] 1020 **183**	[10,657] 1205 **180**	[11,143] 1260 **178**	[12,824] 1450 **173**	[13,443] 1520 **170**	[15,795] 1786 **166**
[27.7] 105		[3936] 445 **205**	[5943] 672 **202**	[8950] 1012 **198**	[10,613] 1200 **194**	[11,099] 1255 **192**	[12,788] 1446 **187**	[13,381] 1513 **186**	
[31.7] 120		[3891] 440 **240**	[5908] 668 **238**	[8888] 1005 **235**	[10,560] 1194 **232**	[11,055] 1250 **230**	[12,373] 1399 **226**	[13,354] 1510 **225**	
[39.6] 150	Max cont	[3847] 435 **294**	[5864] 663 **290**	[8844] 1000 **286**	[10,489] 1186 **282**	[11,020] 1246 **278**			
[50.2] 190	Max int.	[3785] 428 **373**	[5819] 658 **368**	[8782] 993 **362**					

TORQUE [LB-IN]
TORQUE (N•M)
SPEED (RPM)

Max cont.

Max int.

BMV 630 [40.63 in³/rev] 666 cm³/rev.

GPM / L/min		[1015] 7 [PSI] MPA	[1450] 10	[2030] 14	[2320] 16	[2610] 18	[2900] 20 Max cont.	[3045] 21	[3480] 24 Max int.
[7.9] 30		[5395] 610 **43**	[7783] 880 **41**	[11,320] 1280 **38**	[12,417] 1404 **36**	[14,292] 1616 **34**	[15,742] 1780 **31**	[16,300] 1843 **30**	[17,564] 1986 **29**
[15.9] 60		[5439] 615 **90**	[7853] 888 **87**	[11,816] 1336 **84**	[12,488] 1412 **82**	[14,398] 1628 **81**	[15,919] 1800 **77**		
[23.8] 90	Flow (L/min)	[5377] 608 **140**	[7765] 878 **138**	[11,771] 1331 **136**	[12,576] 1422 **134**	[14,504] 1640 **132**	[16,008] 1810 **128**		
[27.7] 105		[5306] 600 **164**	[7712] 872 **162**	[11,727] 1326 **158**	[12,514] 1415 **155**	[14,433] 1632 **153**	[15,831] 1790 **149**		
[31.7] 120		[5262] 595 **186**	[7650] 865 **183**	[11,586] 1310 **180**	[12,426] 1405 **177**	[14,372] 1625 **174**	[15,742] 1780 **171**		
[39.6] 150	Max cont	[5218] 590 **235**	[7562] 855 **232**	[11,515] 1302 **228**	[12,364] 1398 **224**				
[50.2] 190	Max int.	[5183] 586 **298**	[7482] 846 **292**						

TORQUE [LB-IN]
TORQUE (N•M)
SPEED (RPM)

Max cont.

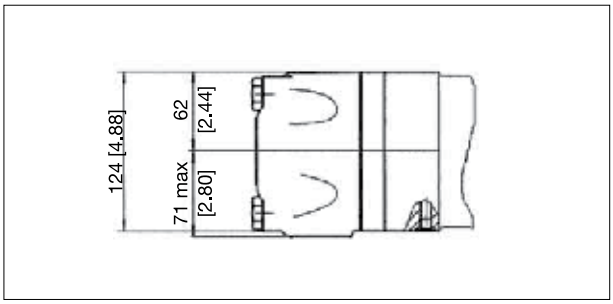
Max int.

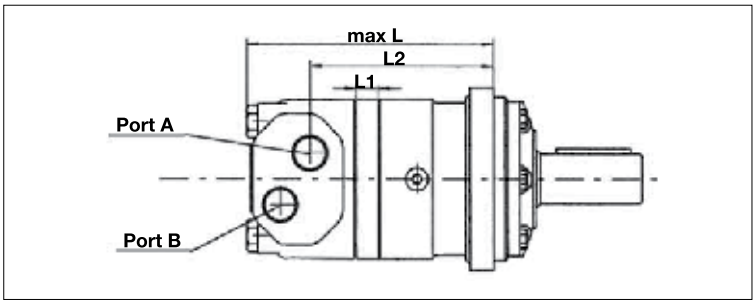
BMV 800 [48.87 in³/rev] 801 cm³/rev.

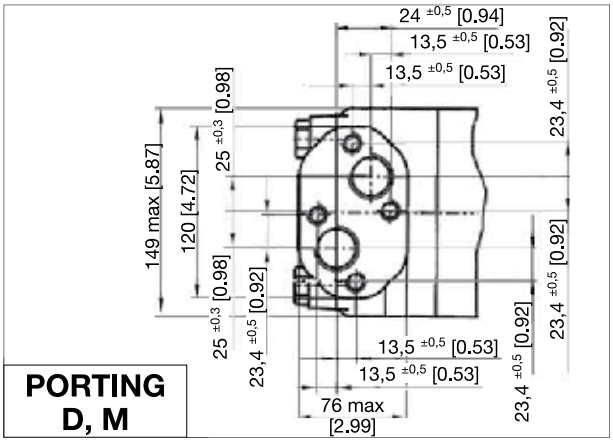
Flow (L/min) GPM / L/min	[1015] 7	[1450] 10	[2030] 14	Max cont. [2320] 16	[PSI] MPA
[7.9] 30	[6987] 790 **35**	[10,056] 1137 **33**	[13,991] 1582 **30**	[15,831] 1790 **28**	
[15.9] 60	[7093] 802 **68**	[10,100] 1142 **66**	[14,062] 1590 **62**	[16,008] 1810 **60**	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
[23.8] 90	[7031] 795 **110**	[10,038] 1135 **107**	[13,974] 1580 **102**	[15,919] 1800 **100**	
[27.7] 105	[6960] 787 **129**	[9994] 1130 **125**	[13,938] 1576 **120**	[15,848] 1792 **117**	
[31.7] 120	[6916] 782 **146**	[9941] 1124 **142**	[13,699] 1549 **136**	[15,565] 1760 **132**	
Max cont [39.6] 150	[6863] 776 **184**	[9781] 1106 **180**	[13,522] 1529 **176**		Max cont.
Max int. [50.2] 190	[6792] 768 **233**	[9728] 1100 **229**			Max int.

BMV 1000 [60.40 in³/rev] 990 cm³/rev.

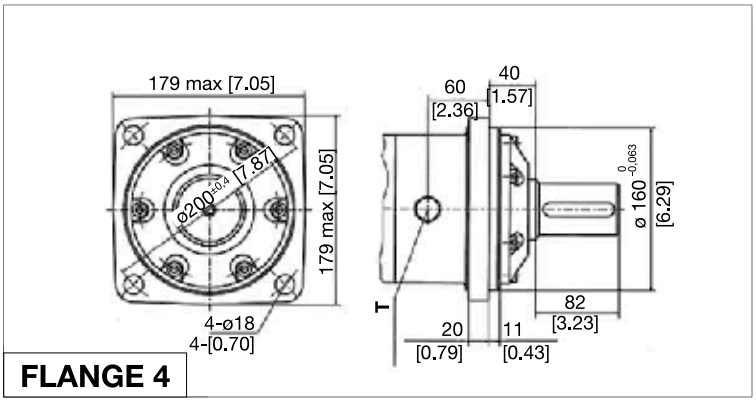
Flow (L/min) GPM / L/min	[1015] 7	[1450] 10	[2030] 14	Max cont. [2320] 16	[PSI] MPA
[7.9] 30	[8649] 978 **28**	[12410] 1410 **27**	[12511] 1980 **26**	[20075] 2270 **24**	
[15.9] 60	[8773] 992 **58**	[12576] 1422 **56**	[17821] 2015 **55**	[20129] 2280 **51**	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
[23.8] 90	[8129] 987 **87**	[12603] 1425 **85**	[17715] 2003 **82**	[20129] 2276 **76**	
[27.7] 105	[8694] 983 **101**	[12541] 1418 **98**	[17635] 1994 **94**	[19837] 2243 **87**	
[31.7] 120	[8623] 975 **113**	[12461] 1409 **109**	[17582] 1988 **105**	[19669] 2224 **100**	
Max cont [39.6] 150	[8499] 961 **140**	[12099] 1368 **136**	[16830] 1903 **123**		Max cont.
Max int. [50.2] 190	[8340] 943 **170**	[11833] 1338 **158**			Max int.



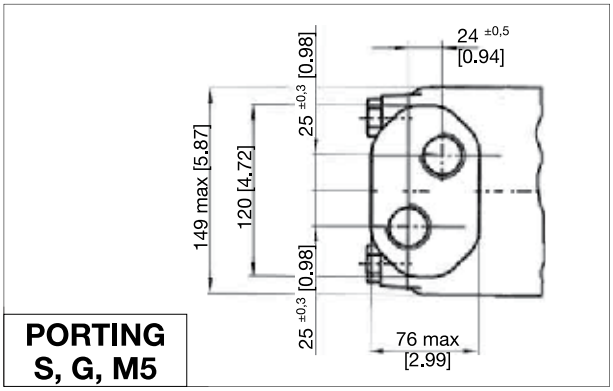




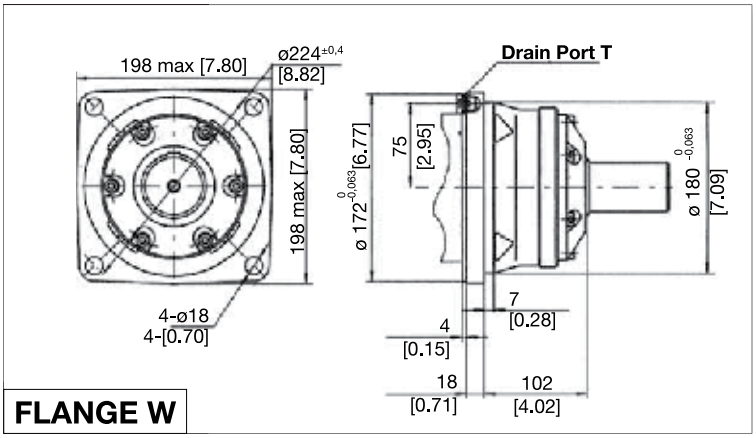
PORTING D, M



FLANGE 4



PORTING S, G, M5



FLANGE W

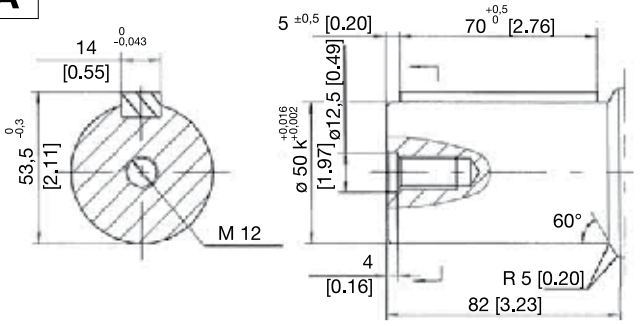
	[INCHES]			MILLIMETERS		
MODEL	**L**	**L1**	**L2**	**L**	**L1**	**L2**
BMV315	[8.55]	[0.79]	[6.36]	217	20	161.5
BMV400	[8.82]	[1.06]	[6.63]	224	27	168.5
BMV500	[9.13]	[1.38]	[6.95]	232	35	176.5
BMV630	[9.61]	[1.85]	[7.42]	244	47	188.5
BMV800	[10.04]	[2.28]	[7.85]	255	58	199.5

	[INCHES]			MILLIMETERS		
MODEL	**L**	**L1**	**L2**	**L**	**L1**	**L2**
BMVW315	[5.85]	[0.79]	[3.68]	148.5	20	93.5
BMV400	[6.12]	[1.06]	[3.96]	155.5	27	100.5
BMV500	[6.44]	[1.38]	[4.27]	163.5	35	108.5
BMV630	[6.91]	[1.85]	[4.74]	175.5	47	120.5
BMV800	[7.34]	[2.28]	[5.18]	186.5	58	131.5

PORT & DRAIN PORT ORDERING CODES

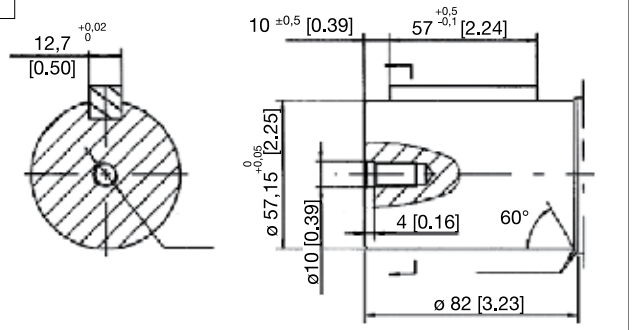
ORDER CODE	D	DEPTH	M	DEPTH	S	DEPTH	G	DEPTH	M5	DEPTH
PORTS - A and B	G 1	18 mm	M33 X 2	18 mm	1-5/16-12UN	18 mm	G 1	18 mm	M33 X 2	18 mm
TANK PORT - T	G 1/4	12 mm	M14 X1.5	12 mm	9/16-18UNF	12 mm	G 1/4	12 mm	M14X1.5	12 mm
BOLTS - C	4-M12	10 mm	4-M12	10 mm	-	-	-	-	-	-

A



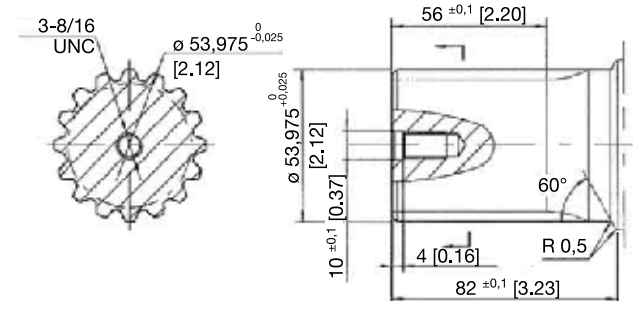
Shaft A: 50mm Keyed
Parallel key 14x9x70

C



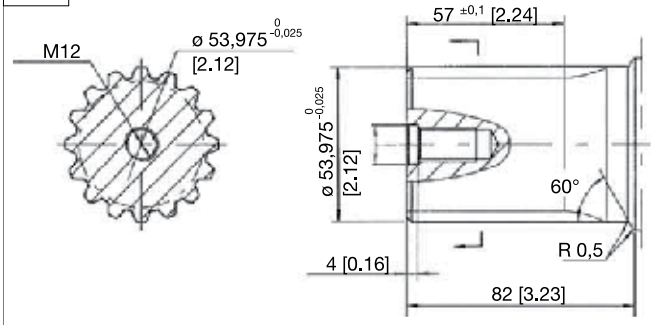
Shaft C: 21/4" Keyed
Parallel key 12.7x12.7x57

B



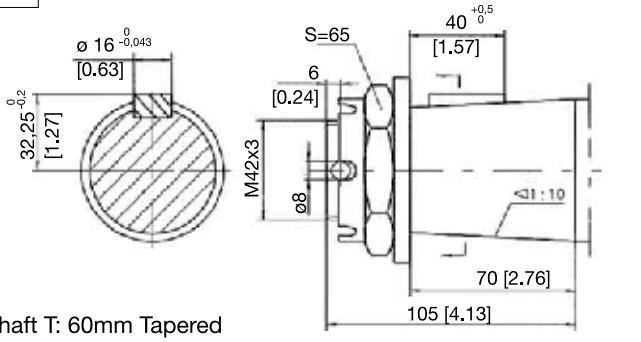
Shaft B: 2 1/8"-16 Splined
16-DP 8/16

BD



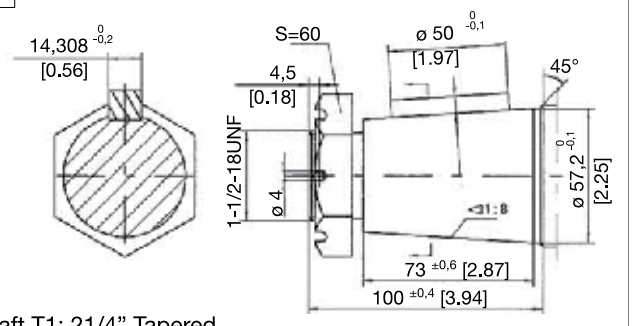
Shaft BD: 2 1/8'-16 Splined
16-DP 8/16

T



Shaft T: 60mm Tapered
Parallel key B16x10x32
Tightening torque: 750±50Nm

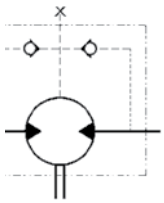
T1

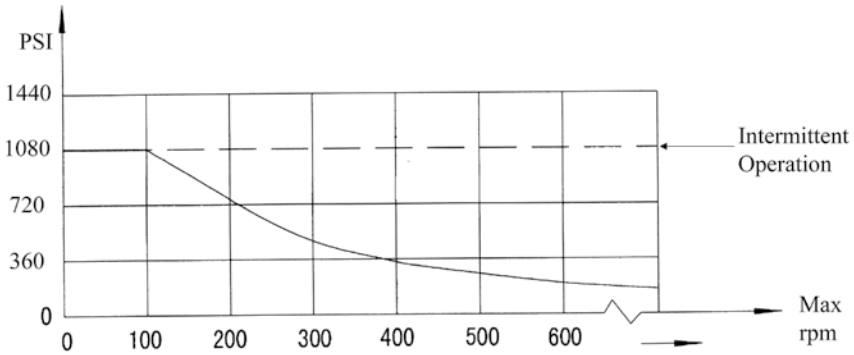


Shaft T1: 21/4" Tapered
Parallel key 14.308x14.308x50
Tightening torque: 750±50Nm

▷ Motor Mounting Surface

SHAFT SEAL RATED PRESSURE

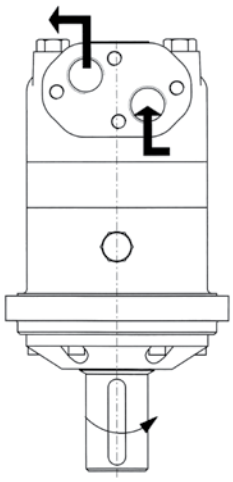




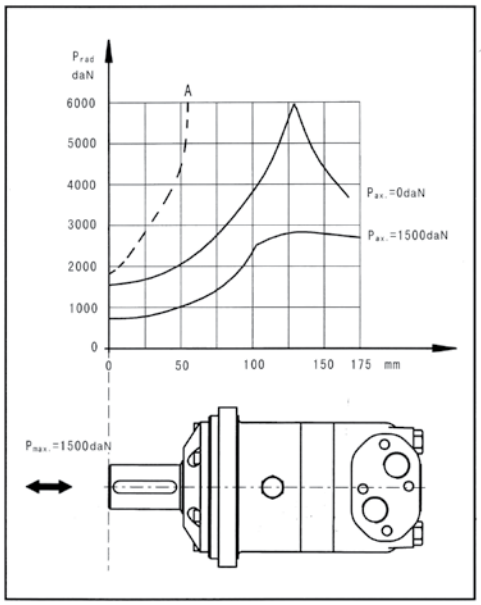
CASE DRAIN

In applications without a motor drain line, the pressure exerted on the shaft seal is marginally in excess of the return line pressure. When the drain line is used the pressure exerted on the shaft seal is equal to the return line pressure.

SHAFT ROTATION DIRECTION



Axial and Radial forces



The output shaft runs tapered bearings that permit high axial and radial forces, Curve “A” shows max radial shaft load, Any shaft loads exceeding the values quoted in the curve will involve risk of breakage. The two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.

BMV ORDERING INFORMATION

	1	2	3	4	5	6
BMV						

1	2		3		4		5		6	
DISP. cc (cu. in.)	FLANGE		OUTPUT SHAFT		PORT AND DRAIN PORT		ROTATION DIRECTION		PAINT	
315 (20.32)	4	4-Ø14.5 Square-flange pilot Ø160x11	A	Shaft: 50mm Keyed, parallel key 14x9x70	D	G1 Manifold 4xM12, G1/4	NONE	STANDARD	00	NO PAINT
400 (25.57)	W	4-Ø18 Wheel-flange Ø224, pilot Ø180x10	BD	Shaft: 2 1/8” Splined 16-DP8/16	M	M33x2 Manifold 4-M12, M14x1.5	R	OPPOSITE	NONE	BLACK
500 (31.61)	K6	4-Ø14.2 Square flange pilot Ø161.9	B	Shaft: 2 1/8” Splined 16-DP8/16	S	1-5/16-12UN, 9/16-18UNF				
630 (40.63)			C	Shaft: 2 1/4” Keyed parallel key 12.7x12.7x57	G	G1, G1/4				
800 (48.88)			T	60mm Tapered parallel key B16x10x32	M5	M33x2, M14x1.5				
1000 (60.4)			T1	2 1/4” Tapered parallel key 14.308x14.308x50						

Notes












Strength in Products, Strength in Service

- Pressure Switches
- Temperature Switches
- Transducers
- Gear Pumps
- Flow Dividers
- Hydraulic Motors
- Jaw Couplings
- High Pressure Ball Valves
- Flow Control and Needle Valves
- Test Points
- Gauges
- Monoblock Valves
- Sectional Valves

ANFIELD
INDUSTRIES INC.

USA
Anfield Industries Inc.
375 International Park, Suite 300
Newnan, Georgia 30265
Phone: (404) 530-3804
Fax: (404) 530-3805
Email: info@anfieldindustries.com
Web: www.anfieldindustries.com

Canada
MP Filtri Canada, Inc.
8831 Keele Street
Concord, Ontario
L4K 2N1, Canada
Phone: (905) 303-1369
Fax: (905) 303-7256
Email: sales@mpfiltricanada.com
Web: www.mpfiltricanada.com

Motors Catalog
2017 R0417