Orbital Motors

Low Speed, High Torque Motors

BME2

Series

ANFIELD

Strength in Products,
Strength in Service

BME2 SERIES HYDRAULIC MOTOR

BME2 series motor adapt the advanced Geroler gear set designed with high speed distribution flow and high pressure, and have good stability in low speed , and can keep high volume efficiency. The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

Characteristic features:

* Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.

* The output shaft adapts in needle roller bearings that permit high axial and radial forces. The case can offers capacities of high pressure and high torque in the wide of applications.

* Advanced design in high speed distribution flow, which can automatically compensate in operating with high volume efficiency and long life , provide smooth and reliable operation.

* Lowest leakage rate, most accurate timing methods.Commutator rotates 6x faster than shaft speed. It make the distribution in a high precision reduces life-cycle cost, maintain high volume efficiencies and can run very smoothly at low speed, gear box not required.

Main Specification

Type		BME2 65	BME2 80	BME2 100	BME2 125	BME2 160	BME2 200	BME2 230	BME2 250	BME2 295	BME2 315	BME2 375
Geometric displacement (cm^3/rev.)		66.8	81.3	101.6	127	157.2	193.6	226	257	287.8	314.5	370
Max. speed (rpm)	cont.	667	543	439	350	283	229	247	216	196	178	152
	int.	842	689	553	441	355	289	328	287	254	235	199
Max. torque (N•m)	cont.	126	157	191	245	307	382	378	381	393	448	439
	int.	176	215	268	335	422	520	528	543	547	587	613
Max. output (kW)	cont.	8.3	8.8	7.9	8.9	8.9	9	9.9	9.3	8.7	8	7.6
	int.	13.9	14.4	13.5	14.1	15.6	15.7	17.9	16.5	15.6	14.3	14
Max. pressure drop (MPa)	cont.	14	14	14	14	14	14	12	11	10	10	9
	int.	19	19	19	19	19	19	165	15.5	14.5	13.5	12.5
	peak	20	20	20	20	20	20	18	18	17	16	16
Max. flow (L/min)	cont.	45	45	45	45	45	45	57	57	57	57	57
	int.	57	57	57	57	57	57	75	75	75	75	75

* 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.

Performance Data

BME2 65 [66.8 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14 (Max.cont.)	19 (Max.int.)
2	26 **22**	54 **16**	83 **4**		
5	27 **69**	56 **62**	87 **53**	118 **42**	
10	29 **145**	60 **141**	91 **132**	123 **122**	171 **95**
15	30 **221**	62 **216**	94 **207**	126 **196**	176 **149**
20	28 **295**	58 **290**	91 **279**	122 **261**	174 **232**
25	24 **368**	55 **365**	90 **352**	121 **341**	172 **312**
34	22 **501**	54 **493**	89 **478**	119 **457**	171 **423**
Max.cont. 45	20 **667**	52 **660**	85 **642**	115 **621**	168 **587**
Max.int. 57	15 **842**	46 **835**	80 **814**	112 **789**	163 **735**

BME2 80 [81.3 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14 (Max.cont.)	19 (Max.int.)
2	33 **18**	70 **14**	106 **4**		
5	35 **55**	72 **51**	111 **44**	150 **25**	
10	36 **121**	75 **118**	114 **113**	155 **107**	215 **88**
15	37 **181**	77 **178**	116 **171**	157 **162**	215 **148**
20	35 **242**	74 **238**	112 **231**	151 **223**	206 **205**
25	35 **303**	71 **298**	108 **289**	148 **275**	202 **261**
34	31 **411**	69 **407**	105 **396**	145 **382**	198 **373**
Max.cont. 45	23 **543**	62 **537**	100 **521**	139 **513**	12 **501**
Max.int. 57	18 **689**	55 **681**	98 **665**	134 **649**	186 **618**

BME2 100 [101.6 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14 (Max.cont.)	19 (Max.int.)
2	40 **15**	82 **11**	126 **4**		
5	41 **44**	83 **36**	150 **28**	206 **12**	
10	42 **97**	91 **95**	138 **94**	177 **81**	230 **54**
15	42 **147**	91 **144**	138 **137**	185 **124**	257 **93**
20	38 **195**	88 **192**	136 **182**	180 **169**	244 **138**
25	39 **244**	89 **241**	142 **230**	191 **221**	268 **194**
34	31 **331**	79 **328**	131 **323**	179 **308**	250 **273**
Max.cont. 45	21 **439**	70 **436**	119 **433**	168 **419**	241 **383**
Max.int. 57	10 **553**	60 **545**	109 **534**	158 **527**	232 **491**

Torque (N•m) 158
Speed (rpm) **527**

BME2 125 [127 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14 (Max.cont.)	19 (Max.int.)
2	52 **12**	150 **9**	158 **3**		
5	55 **35**	112 **31**	170 **22**	221 **15**	290 **10**
10	57 **78**	117 **75**	180 **69**	242 **63**	335 **46**
15	56 **116**	118 **113**	180 **109**	245 **99**	331 **76**
20	55 **155**	117 **153**	178 **147**	242 **136**	331 **110**
25	52 **593**	111 **188**	177 **182**	238 **172**	325 **151**
34	43 **264**	105 **262**	169 **254**	231 **244**	326 **220**
Max.cont. 45	38 **350**	95 **348**	159 **346**	219 **331**	314 **301**
Max.int. 57	21 **441**	176 **439**	141 **431**	280 **417**	302 **384**

cont.
int.

Performance Data

BME2 160 [157.2 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14 (Max.cont.)	19 (Max.int.)
2	64 **10**	132 **8**	199 **2**		
5	68 **28**	138 **26**	208 **19**	281 **10**	
10	71 **62**	147 **60**	221 **56**	303 **53**	419 **38**
15	72 **93**	148 **91**	225 **87**	307 **79**	426 **61**
20	71 **126**	148 **123**	223 **118**	305 **110**	422 **95**
25	62 **157**	140 **155**	218 **152**	296 **141**	415 **129**
34	56 **214**	134 **211**	211 **206**	287 **197**	408 **181**
45 (Max.cont.)	47 **283**	127 **281**	205 **275**	281 **266**	391 **241**
57 (Max.int.)	36 **355**	97 **352**	182 **346**	260 **336**	370 **311**

BME2 200 [193.6 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14 (Max.cont.)	19 (Max.int.)
2	80 **9**	163 **7**	245 **3**		
5	88 **23**	178 **21**	266 **18**	352 **12**	
10	89 **49**	181 **48**	275 **43**	378 **39**	517 **27**
15	91 **76**	188 **73**	280 **68**	382 **63**	520 **44**
20	89 **101**	182 **98**	275 **95**	374 **86**	517 **69**
25	78 **127**	170 **125**	271 **121**	376 **113**	518 **101**
34	64 **173**	158 **171**	268 **165**	363 **156**	502 **143**
45 (Max.cont.)	51 **229**	157 **227**	252 **221**	351 **212**	494 **196**
57 (Max.int.)	36 **289**	138 **286**	231 **279**	330 **271**	469 **256**

BME2 230 [226 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	12 (Max.cont.)	16.5 (Max.int.)
2	97 **7**	191 **4**	280 **2**		
5	101 **18**	199 **14**	301 **8**	348 **4**	
10	103 **43**	214 **42**	325 **40**	378 **36**	527 **29**
15	104 **65**	215 **63**	327 **59**	375 **52**	528 **47**
20	101 **86**	210 **84**	321 **81**	371 **75**	524 **66**
25	95 **108**	201 **106**	316 **102**	364 **94**	511 **87**
34	82 **147**	188 **145**	308 **141**	358 **135**	501 **128**
45	55 **197**	158 **195**	276 **191**	329 **186**	485 **176**
57 (Max.cont.)	19 **247**	130 **244**	256 **240**	301 **230**	451 **221**
75 (Max.int.)		65 **328**	183 **323**	250 **311**	401 **303**

Torque (N•m) 250
Speed (rpm) **311**

BME2 250 [257 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	11 (Max.cont.)	15.5 (Max.int.)
2	112 **6**	207 **3**	309 **1**		
5	115 **18**	218 **14**	320 **8**	348 **4**	
10	113 **39**	235 **38**	358 **35**	379 **31**	543 **23**
15	113 **58**	234 **56**	357 **53**	381 **45**	542 **3**
20	111 **77**	233 **75**	356 **72**	376 **65**	541 **48**
25	109 **97**	228 **95**	354 **89**	371 **81**	532 **69**
34	91 **131**	213 **128**	346 **123**	364 **116**	521 **103**
45	89 **174**	211 **172**	345 **165**	361 **157**	518 **135**
57 (Max.cont.)	73 **216**	208 **213**	339 **205**	342 **197**	487 **184**
75 (Max.int.)		74 **287**	198 **284**	301 **278**	441 **267**

cont.
int.

Performance Data

BME2 295[287.8 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	11	Max.int. 14.5
5	121 **15**	243 **14**	368 **10**	509 **5**
10	125 **33**	253 **31**	381 **27**	529 **20**
15	129 **51**	261 **50**	393 **47**	547 **41**
20	127 **68**	259 **67**	390 **63**	545 **55**
25	126 **86**	255 **84**	386 **80**	539 **69**
34	123 **116**	248 **114**	380 **110**	531 **98**
45	115 **154**	234 **153**	368 **148**	522 **136**
Max.cont. 57	108 **196**	227 **194**	359 **187**	514 **176**
Max.int. 75		211 **254**	349 **246**	506 **231**

Torque (N•m) 506
Speed (rpm) **231**

BME2 315[314.5 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	11	Max.int. 13.5
5	136 **11**	281 **8**	427 **3**	
10	139 **30**	287 **29**	438 **26**	574 **20**
15	141 **47**	295 **46**	448 **43**	587 **40**
20	138 **62**	287 **61**	442 **58**	587 **53**
25	131 **78**	280 **75**	431 **71**	567 **66**
34	117 **106**	269 **104**	423 **98**	557 **91**
45	114 **141**	253 **138**	397 **132**	535 **125**
Max.cont. 57	86 **178**	219 **173**	383 **168**	505 **162**
Max.int. 75		108 **235**	287 **231**	416 **219**

BME2 375[370 cm³/rev.]

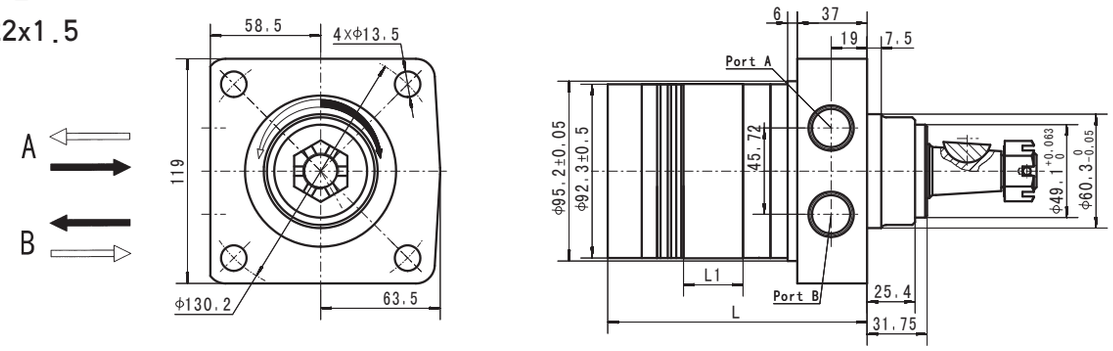
Pressure (MPa)

Flow (L/min)	3.5	7	9	Max.int. 12.5
5	151 **10**	315 **7**	412 **3**	
10	155 **25**	324 **24**	427 **21**	606 **18**
15	162 **40**	331 **39**	439 **37**	613 **32**
20	158 **53**	326 **52**	434 **49**	602 **45**
25	151 **67**	316 **65**	424 **62**	589 **58**
34	141 **91**	309 **89**	417 **85**	580 **80**
45	138 **121**	300 **119**	408 **115**	572 **107**
Max.cont. 57	118 **152**	281 **150**	393 **144**	550 **136**
Max.int. 75		258 **199**	369 **191**	518 **183**

cont.
int.

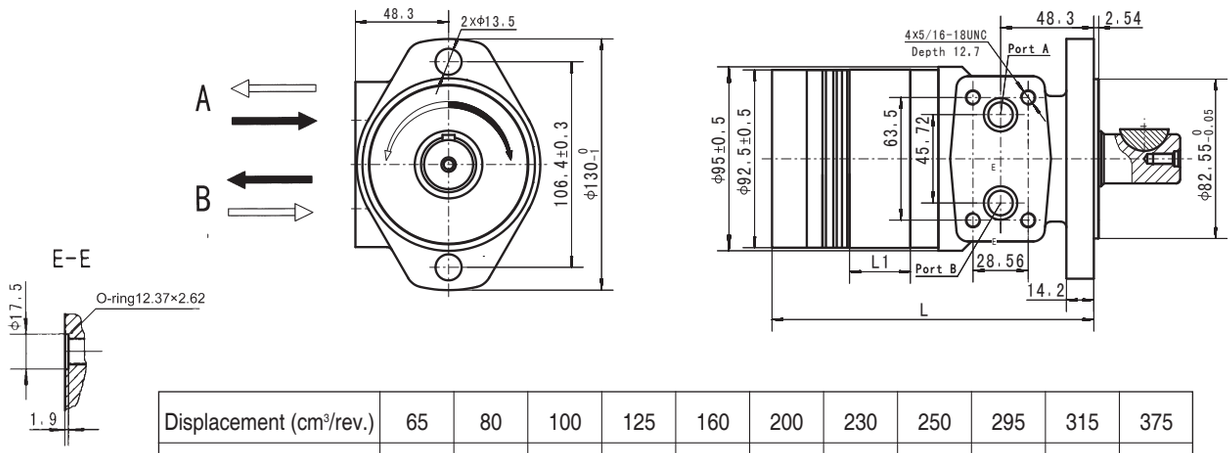
BME2 DIMENSIONS AND MOUNTING DATA

Wheel Mount
Code： Port A、B
WS 7/8—14 O—ring
WD G1/2
WM M22x1.5



Displacement (cm³/rev.)	65	80	100	125	160	200	230	250	295	315	375
L1(mm)	13	16	20	25	30.5	38.1	44	50	56	62	74
L(mm)	119	122	126	131	136.5	144	150	156	162	168	180
Weight(kg)	7.4	7.5	7.8	8	8.3	8.7	9.2	9.6	10	10.3	10.8

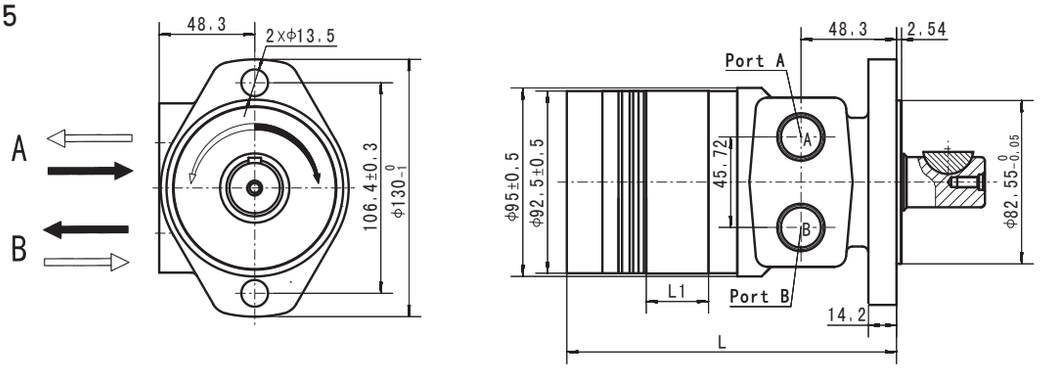
Code:HM Manifold
A、B Port Ø12.7



Displacement (cm³/rev.)	65	80	100	125	160	200	230	250	295	315	375
L1(mm)	13	16	20	25	30.5	38.1	44	50	56	62	74
L(mm)	149	152	156	161	166.5	174	180	186	192	198	210
Weight(kg)	6.4	6.5	6.8	7	7.3	7.7	8.2	8.6	9	9.3	9.8

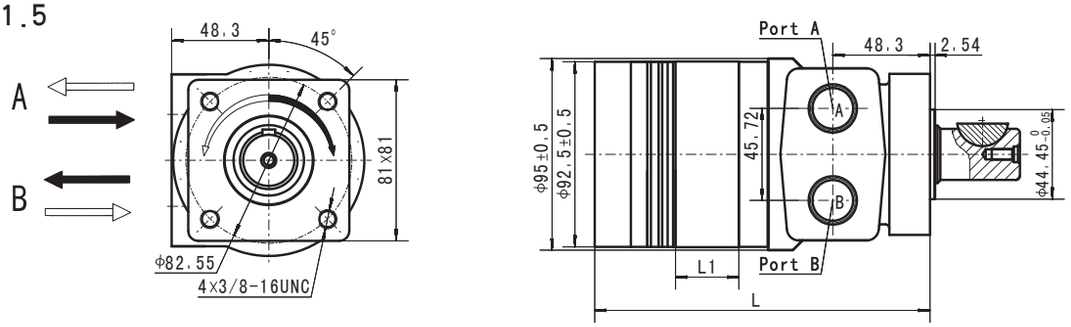
BME2 DIMENSIONS AND MOUNTING DATA

Code： Port A、B
HS 7/8—14UNF
HP 1/2—14NPTF
HD G1/2
HG M22x1.5



Displacement (cm³/rev.)	65	80	100	125	160	200	230	250	295	315	375
L1(mm)	13	16	20	25	30.5	38.1	44	50	56	62	74
L(mm)	149	152	156	161	166.5	174	180	186	192	198	210
Weight(kg)	6.4	6.5	6.8	7	7.3	7.7	8.2	8.6	9	9.3	9.8

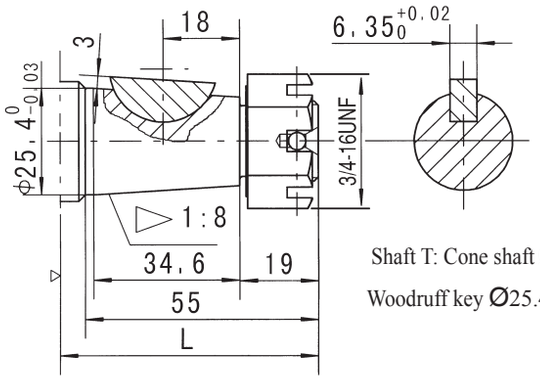
Code： Port A、B
H4S 7/8—14UNF
H4P 1/2—14NPTF
H4D G1/2
H4G M22x1.5



Displacement (cm³/rev.)	65	80	100	125	160	200	230	250	295	315	375
L1(mm)	13	16	20	25	30.5	38.1	44	50	56	62	74
L(mm)	149	152	156	161	166.5	174	180	186	192	198	210
Weight(kg)	6.4	6.5	6.8	7	7.3	7.7	8.2	8.6	9	9.3	9.8

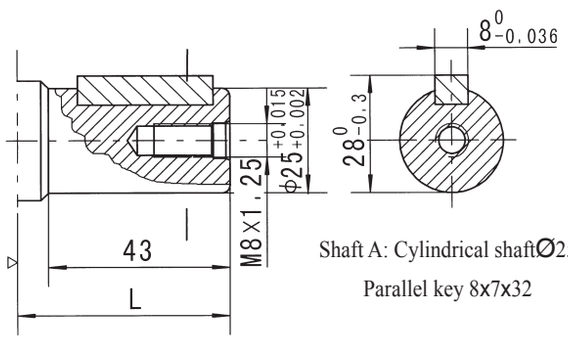
BME2 SHAFT EXTENSIONS DIMENSIONS DATA

Shaft T



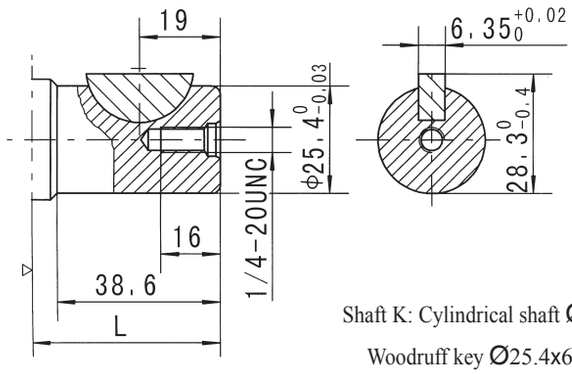
Shaft T: Cone shaft Ø25.4
Woodruff key Ø25.4x6.35

Shaft A



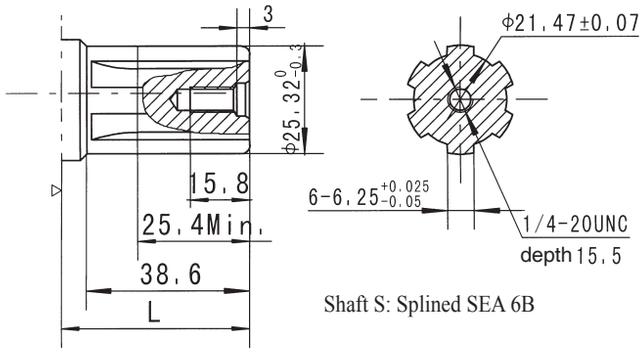
Shaft A: Cylindrical shaftØ25
Parallel key 8x7x32

Shaft K



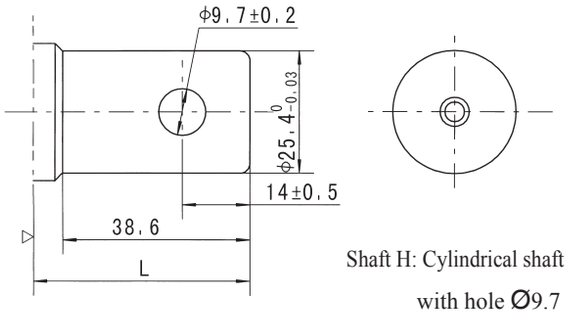
Shaft K: Cylindrical shaft Ø25.4
Woodruff key Ø25.4x6.35

Shaft S



Shaft S: Splined SEA 6B

Shaft H



Shaft H: Cylindrical shaft Ø25.4
with hole Ø9.7

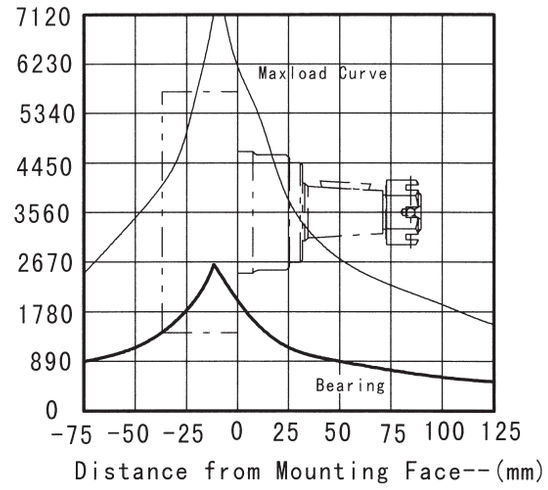
Dimension L

Mounting \ Shaft	T	A	K	S	H
WS	90.2	78.2	73.9	73.9	73.9
HS/HP	61	49	44.7	44.7	44.7
H4S/H4P					
HM					

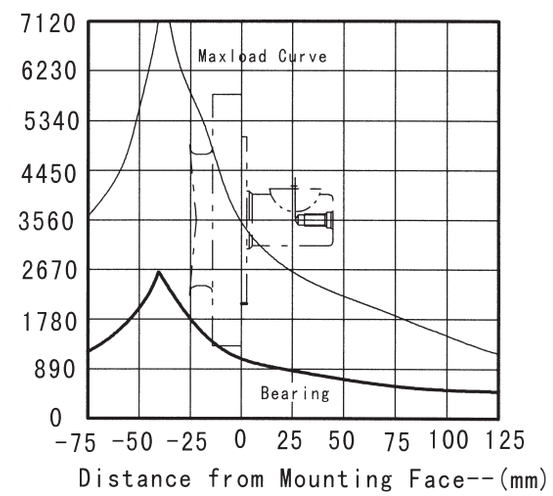
▷ Motor Mounting Surface

Permissble Shaft Loads

BME2 for Wheel Mounting



BME2 for Other Mounting



The bearing curve represents al lowable bearing loads for an L_{10} bearing life at $3x10^6$ revolutions,

The maximum load curve is defined by bearing static load capacity, This curve should not be exceeded at any time including shock loads.

Order Information

	1		2		3		4		5		6		7
BME2		–		–		–		–		–		–	

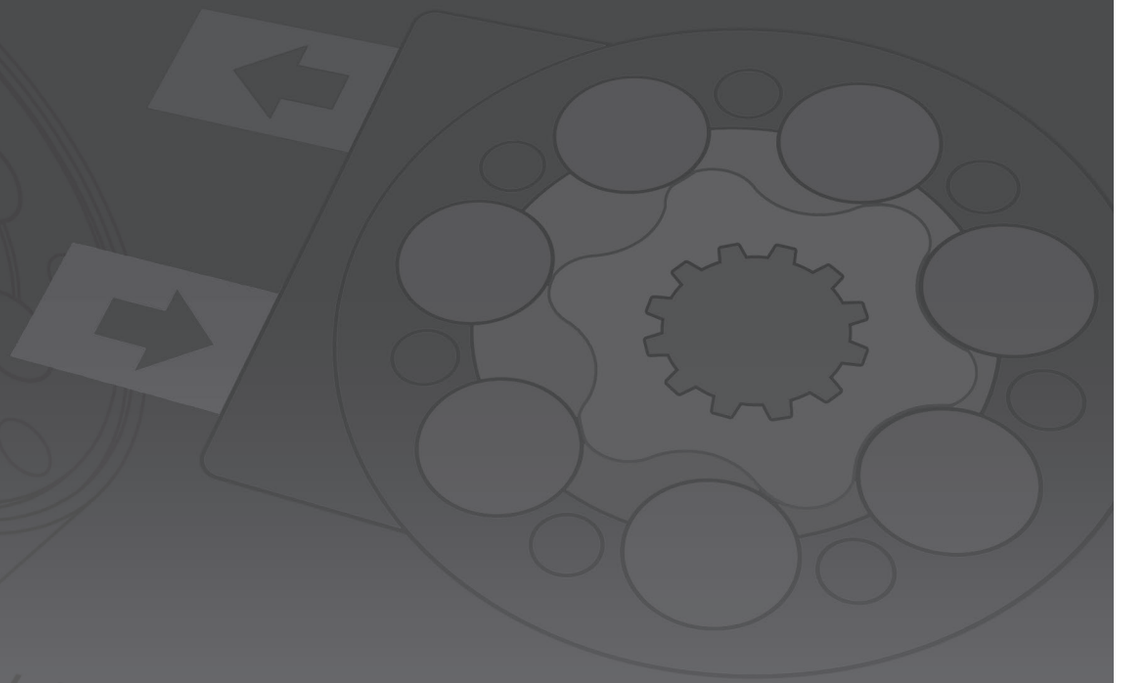
Pos.1	2	3		4		5		6		7	
Code	Disp.	Flange,Pilot,Ports		Output Shaft		Rotation Direction		Paint		Unusually Function	
Omit	65 80 100 125 160 200 230 250 295 315 375	WS	4-Ø13.5 Wheel - flange,Pilot Ø60.3×7 Port 7/8-14 O-ring	T	Cone-Shaft Ø25.4,Woodruff key Ø25.4×6.35	Omit	Standard	00 Omit B S	No paint Blue Black Silver grey	Omit	Standard
		WD	4-Ø13.5 Wheel -flange,Pilot Ø60.3×7 Port G1/2	A	Cylindrical Shaft Ø25, Parallel key 8×7×32						
		WM	4-Ø13.5 Wheel -flange,Pilot Ø60.3×7 Port M22*1.5	K	Cylindrical Shaft Ø25.4, Woodruff key Ø25.4×6.35						
		HM	2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port 1/2” Manifold mount 4×5/8-18	S	Shaft Ø25.4, Splined key SAE 6B	R	Opposite				
		HS	2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port 7/8-14 O-ring	H	Cylindrical Shaft Ø25.4,Pin Hole Ø9.7						
		HP	2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port 1/2-14 NPFT Pipe								
		HD	2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port G1/2								
		HG	2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port M22x1.5								
		H4S	4-3/8-16 Square- flange,Pilot Ø44.4×2.54 Port 7/8-14 O-ring								
		H4P	4-3/8-16 Square- flange,Pilot Ø44.4×2.54 Port 1/2-14 NPFT Pipe								
		H4D	4-3/8-16 Square- flange,Pilot Ø44.4×2.54 Port G1/2								
		H4G	4-3/8-16 Square- flange,Pilot Ø44.4×2.54 Port M22x1.5								

Note:When the table is used, please fill the code of left rows in the table and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contract us.

NOTES

Strength in Products, Strength in Service

- Pressure Switches
- Temperature Switches
- Differential Switches
- Level Switches
- Vacuum Switches
- Transducers
- Gear Pumps
- Vane Pumps
- Dump Pumps
- Variable Piston Pumps
- Orbital Motors
- Vane Motors
- Gear Motors
- Monoblock Valves
- High Pressure Ball Valves
- Flow Controls & Needle Valves
- Drive Couplings
- Flanges
- Gauges
- Test Points



ANFIELD

Anfield Industries Inc.

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

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