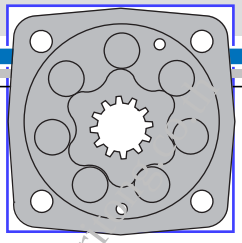


Model BMSY

BMSY new series motor adapt the advanced Geroler gear set designed with disc distribution flow and high pressure.The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

Characteristic featutres:

* 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 tapered 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 disc distribution flow, which can automatically compensate in operating with high volume efficiency and long life , provide smooth and reliable operation.
* The new series motor is suitable for vehicles with greater loads and pressure drop.

BMSY TECHNICAL SPECIFICATIONS

Type		BMSY BMSYS 80	BMSY BMSYS 100	BMSY BMSYS 125	BMSY BMSYS 160	BMSY BMSYS 200	BMSY BMSYS 250	BMSY BMSYS 315	BMSY BMSYS 400	BMSY BMSYS 475
Geometric displacement (cm^3/rev.)		80.6	100.8	125	154	194	243	311	394	475
Max. speed (rpm)	cont.	800	748	600	470	375	300	240	185	155
	int.	988	900	720	560	450	360	280	225	185
Max. torque (N•m)	cont.	225	290	365	485	586	708	880	880	910
	int.	305	290	480	590	705	860	1000	980	990
Max. output (kW)	cont.	16	18	18	18.1	18.1	18	17	11	9
	int.	20	22	23	25	24	23.8	20.2	12	11
Max. pressure drop (MPa)	cont.	20.5	20.5	20.5	21	21	20	20	16	14
	int.	27.5	27.5	27.5	26	25	25	24	19	15
	peak	29.5	29.5	29.5	28	27	27	26	21	17.5
Max. flow (L/min)	cont.	65	75	75	75	75	75	75	75	75
	int.	80	90	90	90	90	90	90	90	90
Max. inlet pressure (MPa)	cont.	25	25	25	25	25	25	25	25	25
	int.	30	30	30	30	30	30	30	30	30
Weight (kg)		9.8	10	10.3	10.7	11.1	11.6	12.3	13.2	14.3

* 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

BMSY80 [80.6cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	20.5 (Max.cont.)	22.5 (Max.int.)
15	35 / **180**	80 / **174**	120 / **168**	158 / **164**	195 / **158**	228 / **151**	249 / **143**
30	35 / **362**	80 / **352**	120 / **346**	158 / **338**	195 / **330**	232 / **322**	260 / **310**
40	35 / **487**	79 / **480**	119 / **468**	155 / **457**	193 / **446**	227 / **438**	250 / **425**
50	30 / **612**	77 / **603**	117 / **592**	153 / **581**	192 / **572**	224 / **558**	248 / **542**
60	28 / **735**	77 / **726**	117 / **718**	153 / **703**	192 / **687**	224 / **673**	243 / **646**
65 (Max.cont.)	26 / **794**	75 / **786**	116 / **773**	151 / **760**	188 / **744**	217 / **722**	236 / **706**
80 (Max.int.)	24 / **981**	72 / **968**	109 / **955**	142 / **925**	176 / **893**	206 / **870**	227 / **832**

BMSY100 [100.8cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	20.5 (Max.cont.)	22.5 (Max.int.)
15	48 / **146**	95 / **144**	150 / **139**	200 / **135**	250 / **130**	282 / **120**	310 / **105**
30	45 / **291**	94 / **289**	146 / **278**	198 / **274**	250 / **269**	290 / **258**	317 / **242**
40	43 / **387**	89 / **384**	142 / **374**	196 / **359**	248 / **350**	288 / **335**	316 / **320**
50	40 / **486**	88 / **483**	135 / **473**	194 / **462**	247 / **450**	286 / **430**	315 / **420**
60	37 / **588**	88 / **584**	132 / **574**	185 / **562**	244 / **550**	283 / **538**	312 / **520**
75 (Max.cont.)	35 / **740**	80 / **735**	130 / **720**	180 / **705**	240 / **696**	279 / **676**	310 / **653**
90 (Max.int.)	30 / **850**	75 / **840**	124 / **810**	170 / **787**	236 / **770**	271 / **750**	303 / **747**

BMSY125 [125cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	20.5 (Max.cont.)	22.5 (Max.int.)
15	55 / **115**	120 / **113**	176 / **110**	245 / **104**	309 / **98**	345 / **90**	375 / **84**
30	55 / **231**	120 / **228**	175 / **223**	250 / **214**	315 / **202**	364 / **188**	404 / **172**
40	53 / **312**	118 / **309**	178 / **290**	250 / **289**	315 / **278**	364 / **262**	403 / **235**
50	50 / **391**	115 / **386**	176 / **378**	248 / **365**	315 / **352**	362 / **339**	397 / **308**
60	45 / **469**	113 / **461**	171 / **450**	241 / **437**	308 / **425**	358 / **400**	397 / **372**
75 (Max.cont.)	45 / **588**	110 / **574**	167 / **560**	240 / **544**	306 / **526**	352 / **505**	389 / **481**
90 (Max.int.)	40 / **710**	105 / **696**	162 / **680**	237 / **661**	301 / **646**	343 / **628**	378 / **610**

TORQUE(N•m) 301
SPEED (r/min) **646**

BMSY160 [154cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	21 (Max.cont.)	22.5 (Max.int.)
15	70 / **93**	142 / **91**	215 / **89**	298 / **85**	372 / **80**	435 / **76**	476 / **58**
30	73 / **189**	151 / **187**	225 / **181**	312 / **176**	382 / **170**	456 / **162**	492 / **153**
40	75 / **252**	152 / **250**	228 / **246**	314 / **239**	383 / **234**	454 / **228**	488 / **212**
50	70 / **313**	148 / **310**	225 / **306**	305 / **298**	372 / **293**	445 / **285**	480 / **272**
60	68 / **378**	143 / **376**	218 / **370**	296 / **362**	370 / **353**	442 / **346**	480 / **332**
75 (Max.cont.)	62 / **475**	140 / **469**	211 / **461**	291 / **450**	365 / **441**	439 / **432**	475 / **414**
90 (Max.int.)	59 / **567**	131 / **561**	202 / **554**	286 / **543**	357 / **532**	425 / **520**	460 / **509**

cont.
int.

BMSY PERFORMANCE DATA

BMSY200 [194cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	21 (Max.cont.)	22.5 (Max.int.)
15	87 / **74**	179 / **73**	273 / **71**	371 / **68**	471 / **64**	562 / **60**	610 / **48**
30	91 / **150**	190 / **148**	288 / **143**	386 / **140**	489 / **134**	572 / **128**	618 / **119**
40	94 / **198**	193 / **195**	296 / **192**	394 / **188**	498 / **183**	584 / **178**	645 / **167**
50	90 / **248**	191 / **246**	292 / **241**	389 / **236**	493 / **230**	580 / **223**	634 / **212**
60	85 / **300**	185 / **295**	279 / **288**	382 / **281**	483 / **273**	575 / **263**	622 / **251**
75 (Max.cont.)	78 / **374**	176 / **370**	271 / **364**	370 / **360**	472 / **352**	561 / **340**	610 / **331**
90 (Max.int.)	68 / **443**	163 / **440**	265 / **435**	361 / **428**	456 / **424**	545 / **413**	599 / **400**

BMSY250 [243cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	20 (Max.cont.)	22.5 (Max.int.)
15	110 / **59**	231 / **58**	351 / **56**	462 / **53**	585 / **50**	681 / **46**	778 / **35**
30	116 / **119**	236 / **117**	359 / **114**	475 / **108**	597 / **102**	700 / **92**	790 / **80**
40	118 / **162**	241 / **159**	363 / **156**	480 / **150**	599 / **143**	706 / **134**	796 / **121**
50	111 / **203**	234 / **201**	352 / **197**	472 / **191**	591 / **182**	693 / **173**	788 / **158**
60	106 / **244**	224 / **242**	345 / **237**	462 / **230**	582 / **220**	685 / **208**	772 / **194**
75 (Max.cont.)	101 / **303**	214 / **299**	340 / **294**	454 / **285**	570 / **272**	670 / **260**	760 / **244**
90 (Max.int.)	93 / **363**	209 / **359**	335 / **354**	447 / **348**	559 / **340**	657 / **328**	749 / **303**

BMSY315 [311cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	20 (Max.cont.)	22.5 (Max.int.)
15	148 / **48**	304 / **47**	456 / **45**	613 / **43**	762 / **41**	879 / **39**	978 / **27**
30	155 / **95**	314 / **93**	465 / **91**	635 / **89**	778 / **86**	884 / **82**	988 / **67**
40	160 / **127**	321 / **125**	479 / **121**	650 / **117**	798 / **115**	906 / **109**	997 / **91**
50	155 / **159**	314 / **157**	465 / **153**	638 / **149**	780 / **145**	886 / **142**	988 / **128**
60	151 / **187**	306 / **185**	453 / **181**	620 / **176**	765 / **169**	886 / **157**	976 / **143**
75 (Max.cont.)	146 / **238**	300 / **236**	445 / **232**	613 / **227**	755 / **224**	875 / **220**	966 / **196**
90 (Max.int.)	135 / **286**	284 / **283**	436 / **278**	601 / **272**	740 / **265**	863 / **257**	952 / **232**

BMSY400 [394cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	16 (Max.cont.)	17.5 (Max.int.)
15	186 / **37**	379 / **36**	578 / **35**	779 / **33**	896 / **31**	986 / **29**
30	190 / **75**	388 / **73**	590 / **71**	791 / **68**	905 / **65**	991 / **61**
40	195 / **99**	394 / **97**	596 / **95**	797 / **93**	912 / **90**	998 / **85**
50	191 / **125**	388 / **123**	587 / **118**	785 / **114**	904 / **109**	983 / **102**
60	186 / **149**	388 / **146**	587 / **142**	785 / **137**	904 / **131**	983 / **122**
75 (Max.cont.)	181 / **187**	372 / **183**	576 / **177**	770 / **171**	891 / **164**	973 / **153**
90 (Max.int.)	176 / **226**	367 / **221**	571 / **214**	766 / **208**	883 / **199**	965 / **183**

TORQUE (N•m) 766
SPEED (rpm) **208**

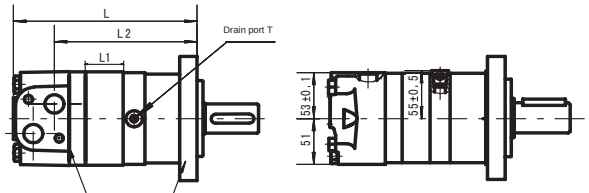
BMSY475 [475cm³/rev.]

Pressure (MPa)

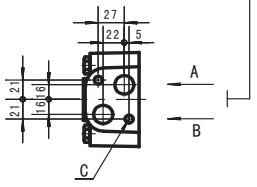
Flow (L/min)	3.5	7	10.5	14 (Max.cont.)	15 (Max.int.)
15	218 / **30**	439 / **29**	661 / **28**	892 / **27**	995 / **25**
30	223 / **61**	450 / **60**	676 / **58**	910 / **56**	1002 / **53**
40	228 / **82**	461 / **80**	689 / **77**	927 / **74**	1017 / **68**
50	224 / **103**	456 / **101**	682 / **97**	920 / **92**	1008 / **86**
60	220 / **123**	451 / **121**	677 / **118**	913 / **112**	998 / **105**
75 (Max.cont.)	212 / **155**	443 / **153**	664 / **147**	901 / **140**	980 / **132**
90 (Max.int.)	196 / **186**	421 / **184**	643 / **178**	877 / **170**	959 / **157**

cont.
int.

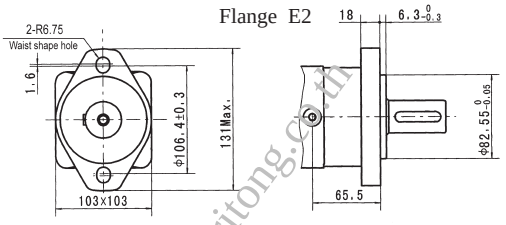
BMSY DIMENSIONS & MOUNTING DATA



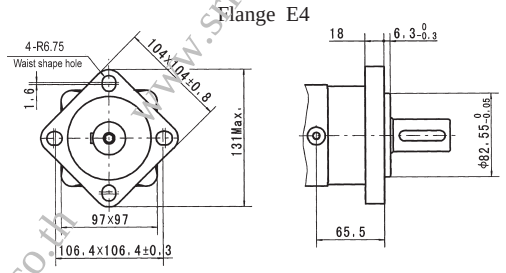
Porting
D、M、S、P



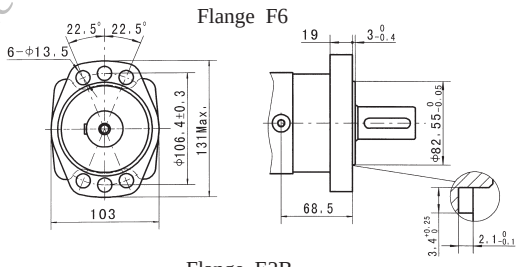
Flange E2



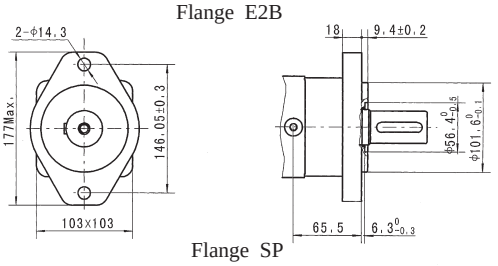
Flange E4



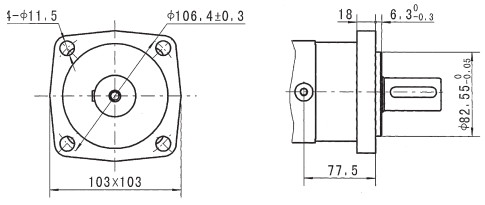
Flange F6



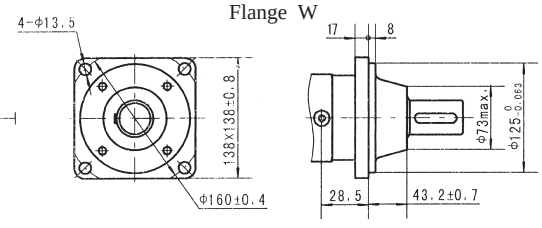
Flange E2B



Flange SP



Flange W



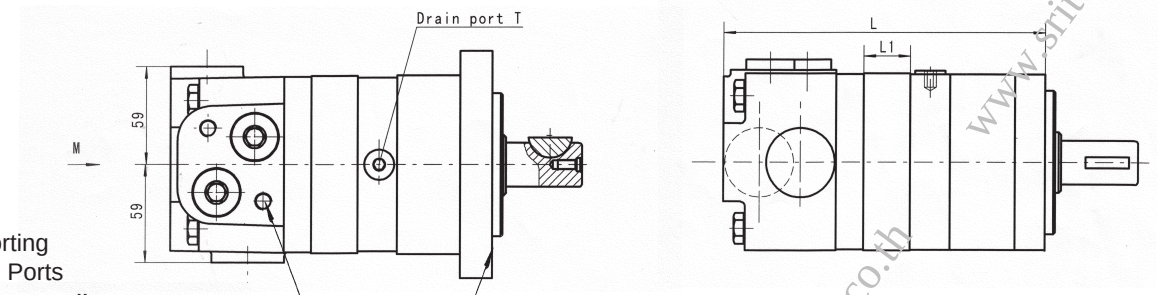
Model	L	L1	L2
BMSY-80	170	16	126.5
BMSY-100	174	20	130.5
BMSY-125	179	25	135.5
BMSY-160	181	27	137.5
BMSY-200	188	34	144.5
BMSY-250	196	42	152.5
BMSY-315	208	54	164.5
BMSY-400	223	69	179.5
BMSY-475	237	83	193.5

Model	L	L1	L2
BMSY-80-W	132.5	16	89
BMSY-100-W	136.5	20	93
BMSY-125-W	141.5	25	98
BMSY-160-W	143.5	27	100
BMSY-200-W	150.5	34	107
BMSY-250-W	158.5	42	115
BMSY-315-W	170.5	54	127
BMSY-400-W	185.5	69	142
BMSY-475-W	199.5	83	156

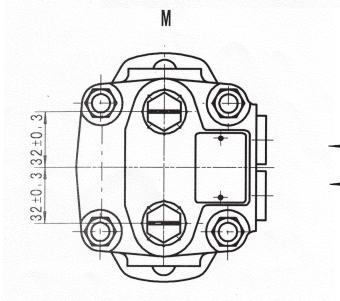
Note:If the mounting SP is used,the dimensions of L and L2 should plus 12mm.

Code / Mounting	D (depth)	M (depth)	S (depth)	P (depth)
P(A,B)	G1/2(15)	M22x1.5(15)	7/8-14 O-ring (17)	1/2-14NPTF (15)
T	G1/4(12)	M14x1.5(12)	7/16-20UNF(12)	7/16-20UNF(12)
C	2-M10(13)	2-M10 (13)	2-3/8-16UNC (13)	2-3/8-16UNC (13)

BMSY DIMENSIONS & MOUNTING DATA



Porting
End Ports

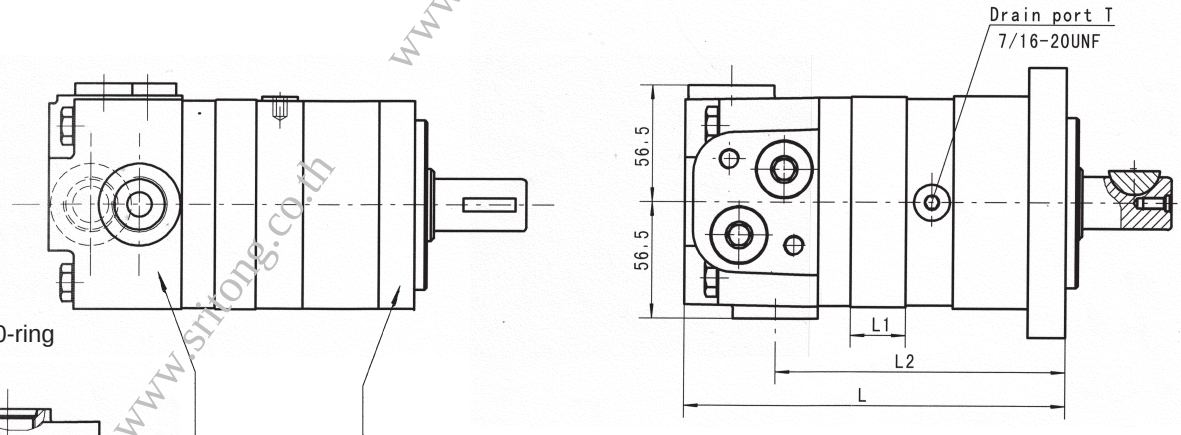


Mounting \ Code	EE-D (depth)	EE-M2 (depth)	EE-S2 (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (17)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)

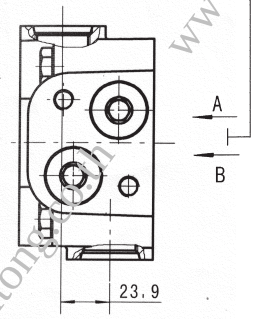
End Ports P(A,B)

Model	L	L1
BMSY-80	176	16
BMSY-100	180	20
BMSY-125	185	25
BMSY-160	187	27
BMSY-200	194	34
BMSY-250	202	42
BMSY-315	214	54
BMSY-400	229	69
BMSY-475	243	83

Model	L	L1
BMSY-80-WE	148	16
BMSY-100-WE	152	20
BMSY-125-WE	157	25
BMSY-160-WE	159	27
BMSY-200-WE	166	34
BMSY-250-WE	174	42
BMSY-315-WE	186	54
BMSY-400-WE	201	69
BMSY-475-WE	215	83



Porting
ED 1-1/16-12UN 0-ring
180°Apart ports

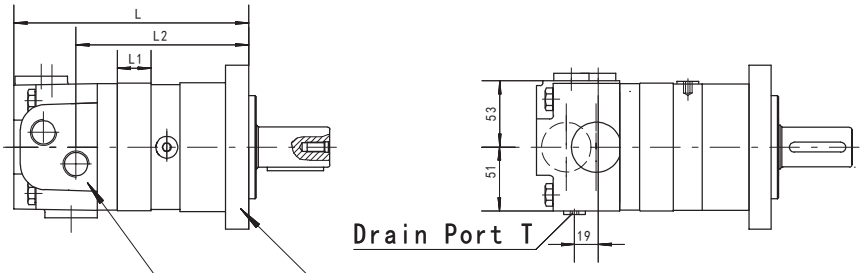


Mounting \ Code	ED (depth)
P(A,B)	1-1/16-12UN (18)
T	7/16-20UNF (12)

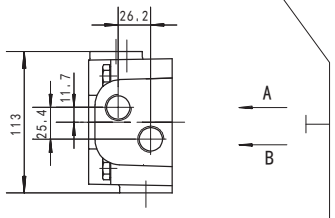
Model	L	L1	L2
BMSY-80	176	16	130
BMSY-100	180	20	134
BMSY-125	185	25	139
BMSY-160	187	27	141
BMSY-200	194	34	148
BMSY-250	202	42	156
BMSY-315	214	54	168
BMSY-400	229	69	183
BMSY-475	243	83	197

Model	L	L1	L2
BMSY-80-WE	148	16	102
BMSY-100-WE	152	20	106
BMSY-125-WE	157	25	111
BMSY-160-WE	159	27	113
BMSY-200-WE	166	34	119
BMSY-250-WE	178	42	127
BMSY-315-WE	190	54	139
BMSY-400-WE	205	69	154
BMSY-475-WE	219	83	168

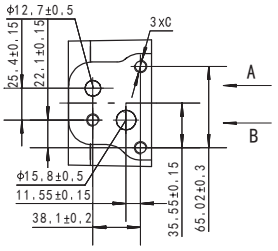
BMSY DIMENSIONS & MOUNTING DATA



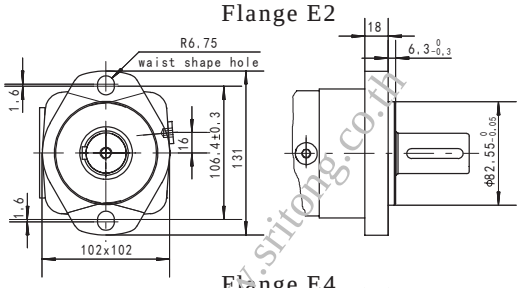
Porting
DB、DU、SU、SB、M4



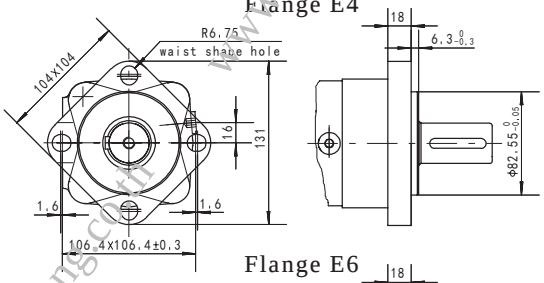
Porting MU、MM



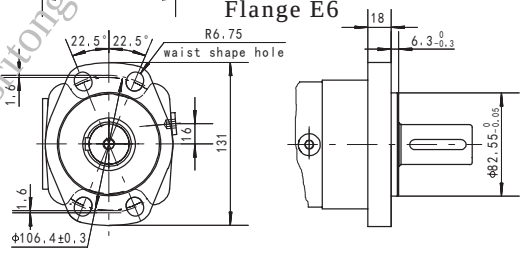
Flange E2



Flange E4



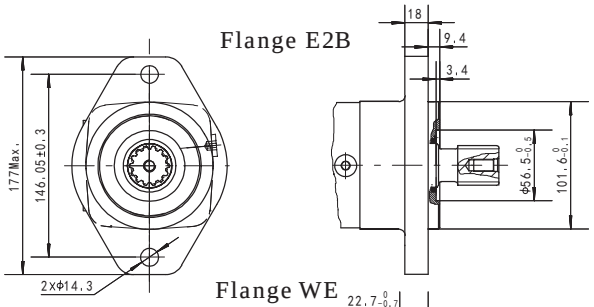
Flange E6



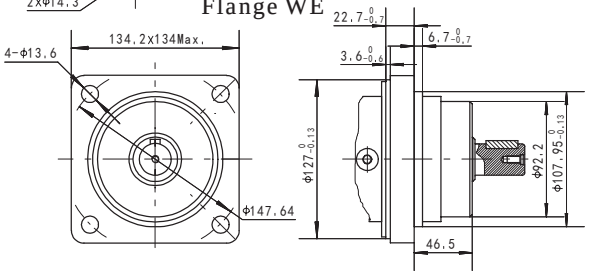
Model	L	L1	L2
BMSY-80	177	16	126.5
BMSY-100	181	20	130.5
BMSY-125	186	25	135.5
BMSY-160	188	27	137.5
BMSY-200	195	34	144.5
BMSY-250	203	42	152.5
BMSY-315	215	54	164.5
BMSY-400	230	69	179.5
BMSY-475	244	83	193.5

Model	L	L1	L2
BMSY-80-WE	148.5	16	98
BMSY-100-WE	152.5	20	102
BMSY-125-WE	157.5	25	107
BMSY-160-WE	159.5	27	109
BMSY-200-WE	166.5	34	116
BMSY-250-WE	174.5	42	124
BMSY-315-WE	186.5	54	136
BMSY-400-WE	201.5	69	151
BMSY-475-WE	215.5	83	165

Flange E2B



Flange WE

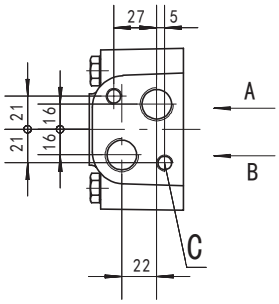


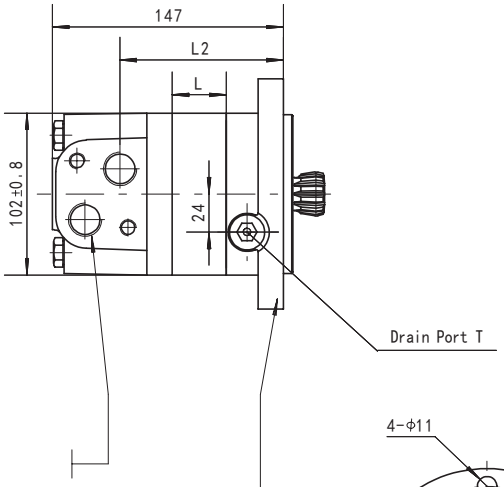
Code / Mounting	DB(depth)	DU (depth)	SU (depth)	SB (depth)	M4 (depth)	MU	MM
P(A,B)	G1/2(15)	G1/2(15)	7/8-14O-ring(17)	7/8-14O-ring(17)	M22x1.5(15)	Φ12.7,Φ15.8	Φ12.7,Φ15.8
T	G1/4(12)	7/16-20UNF(12)	7/16-20UNF(12)	G1/4(12)	M14x1.5(12)	7/16-20UNF(12)	G1/4(12)
C	-					3/8-16UNC	M10

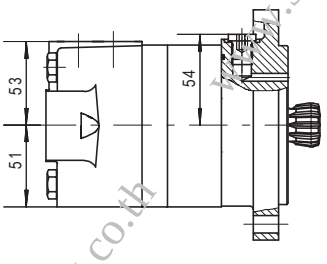
BMSYS DIMENSIONS & MOUNTING DATA

Porting

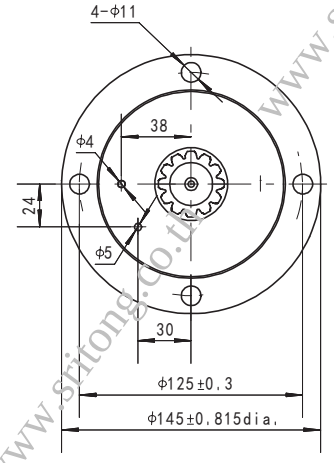
D、M、S、P

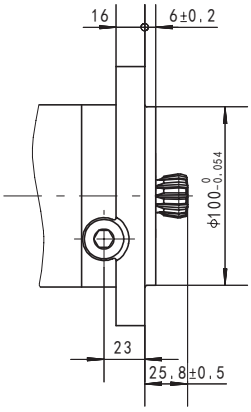




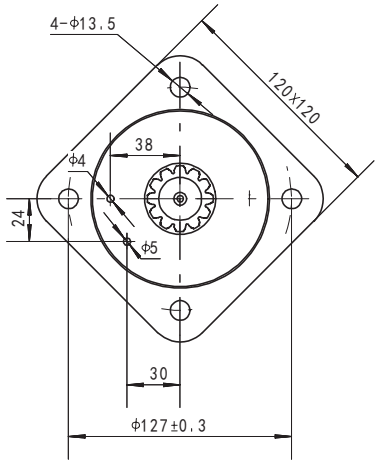


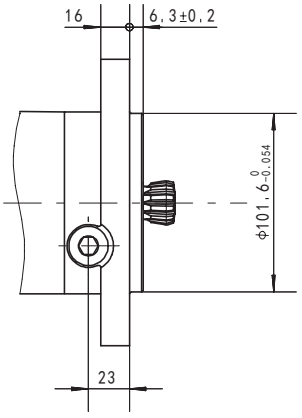
Flange D





Flange E

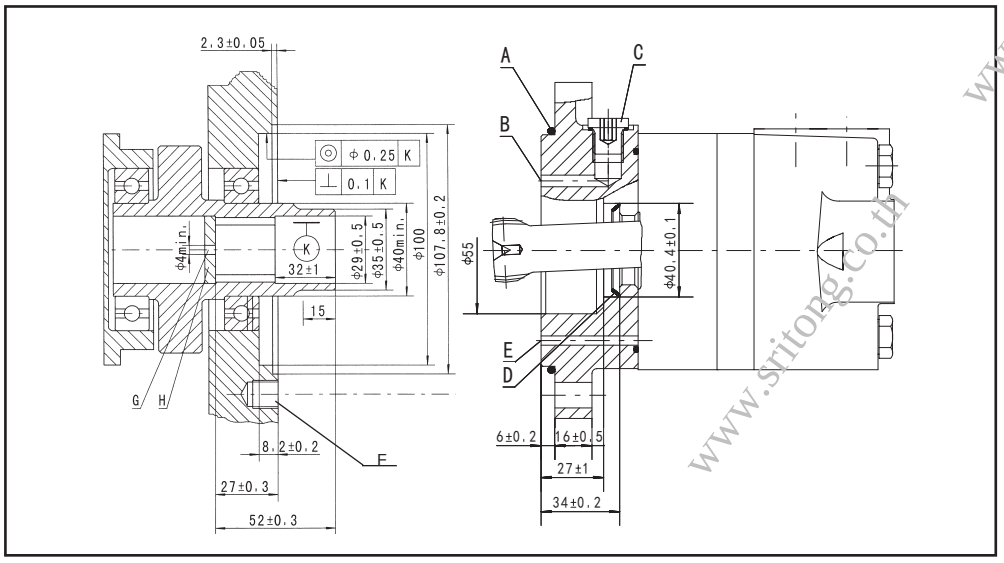




Model	L	L1	L2
BMSYS-80	129	16	85
BMSYS-100	133	20	89
BMSYS-125	138	25	94
BMSYS-160	140	27	96
BMSYS-200	147	34	103
BMSYS-250	155	42	111
BMSYS-315	167	54	123
BMSYS-400	182	69	138
BMSYS-475	196	83	152

Code / Mounting	D (depth)	M (depth)	S (depth)	P (depth)
P(A,B)	G1/2(15)	M22x1.5(15)	7/8-14O-ring(17)	1/2-14NPTF(15)
T	G1/4(12)	M14x1.5(12)	7/16-20UNF(12)	7/16-20UNF(12)
C	2-M10(13)	2-M10(13)	2-3/8-16UNC(13)	2-3/8-16UNC(13)

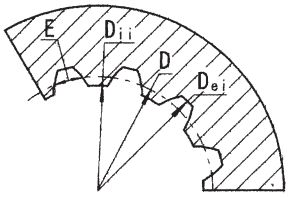
BMSYS DIMENSIONS & MOUNTING DATA



A: O-ring:100x3
B: External drain channel
C: Drain connection G 1/4;12 mm deep
D: Conical seal ring
E: Internal drain channal
F: M10;min. 15mm deep
G: Oil circulation hole
H: Hardened stop plate

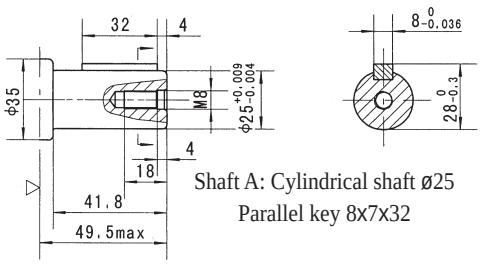
INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

Fillet Root Side Fit		mm
Number of Teeth	Z	12
Diametral Pitch	DP	12/24
Pressure Angle	α_D	30°
Pitch Dia.	D	ø25.4
Major Dia.	D_{ei}	ø28 $^{0}_{-0.1}$
Minor Dia.	D_{ii}	ø23 $^{+0.033}_{0}$
Space Width [Circular]	E	4.308±0.02

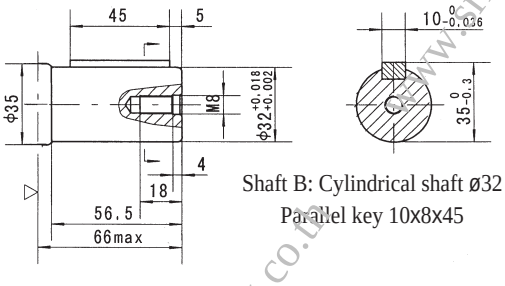


Hardering Specification: HRC 62±2
Effective case depth 0.7±0.2

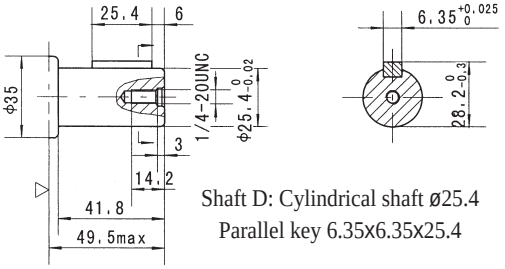
BMSY MOTOR SHAFT EXTENSIONS



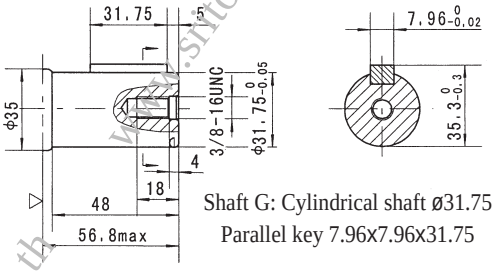
Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32



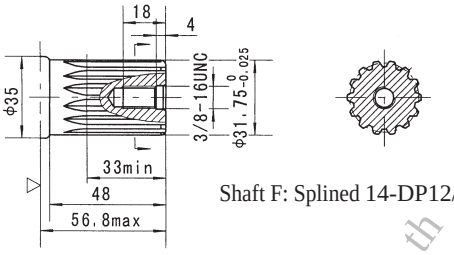
Shaft B: Cylindrical shaft ø32
Parallel key 10x8x45



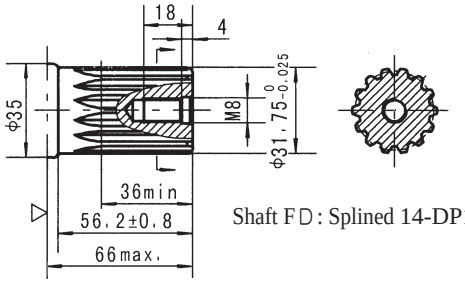
Shaft D: Cylindrical shaft ø25.4
Parallel key 6.35x6.35x25.4



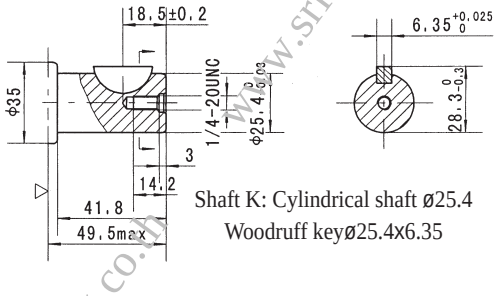
Shaft G: Cylindrical shaft ø31.75
Parallel key 7.96x7.96x31.75



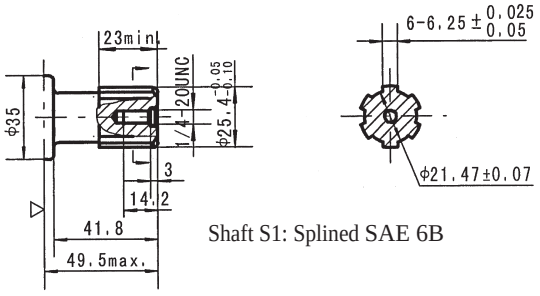
Shaft F: Splined 14-DP12/24



Shaft FD: Splined 14-DP12/24



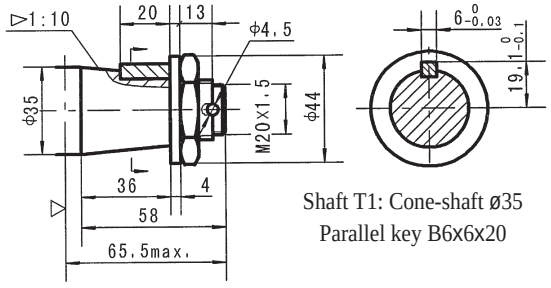
Shaft K: Cylindrical shaft ø25.4
Woodruff keyø25.4x6.35



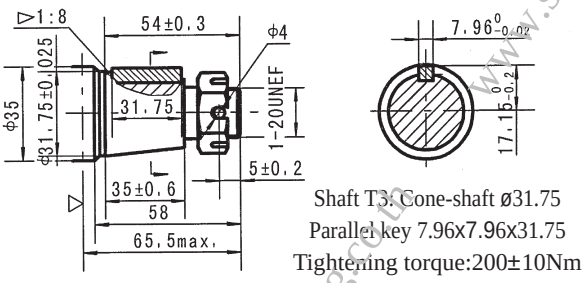
Shaft S1: Splined SAE 6B

▷ Motor Mounting Surface(Dimension corresponding mounting E2, by analogy with others)

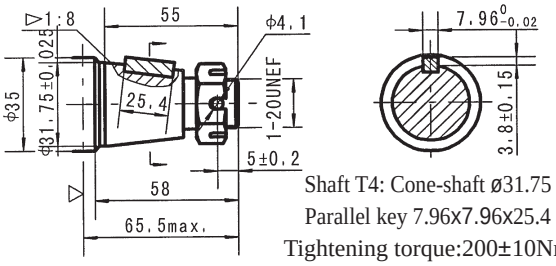
BMSY MOTOR SHAFT EXTENSIONS



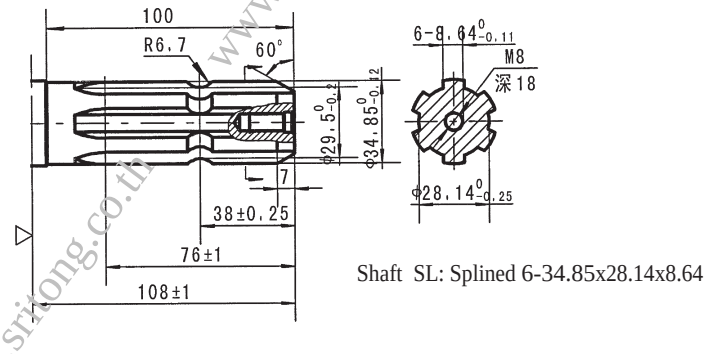
Shaft T1: Cone-shaft ø35
Parallel key B6x6x20



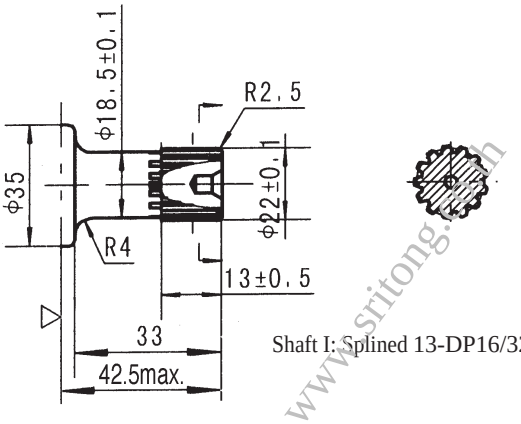
Shaft T3: Cone-shaft ø31.75
Parallel key 7.96x7.96x31.75
Tightening torque:200±10Nm



Shaft T4: Cone-shaft ø31.75
Parallel key 7.96x7.96x25.4
Tightening torque:200±10Nm



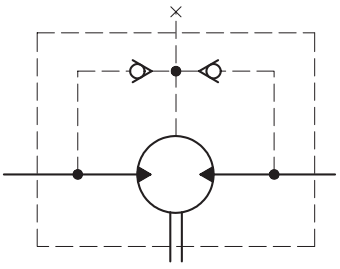
Shaft SL: Splined 6-34.85x28.14x8.64

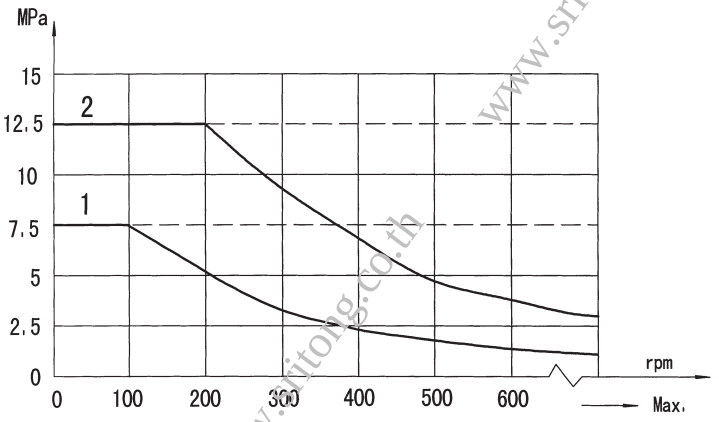


Shaft I: Splined 13-DP16/32

▽ Motor Mounting Surface(Dimension corresponding mounting E2, by analogy with others)
Note:Mounting SP is the same with shaft modle T1、D、B、F and G.

Permissible shaft seal pressure

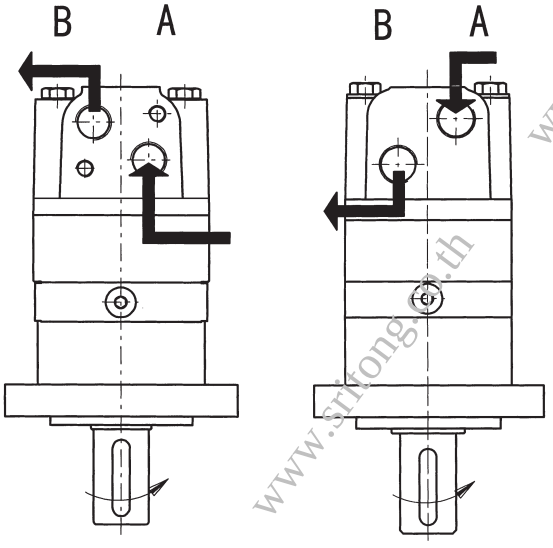




Note:1.Chart for standard shaft seal;
2.Chart for high pressure shaft seal.

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.



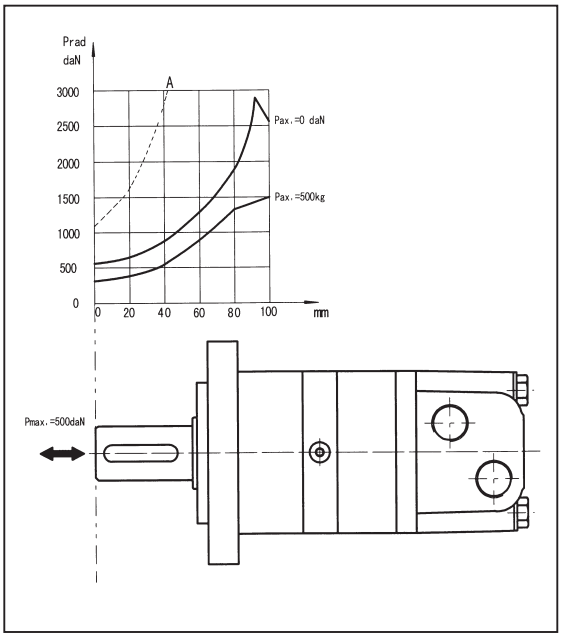
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Oil flow in drain line

The table shows the Max. oil flow in the drain line at a return pressure less than 0.5-1MPa.

Pressure drop (MPa)	Viscosity (mm^2/s)	Oil flow in the drain line (L/min.)
14	20	1.5
	35	1
21	20	3
	35	2

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.

Order Information

BMSY [1] – [2] – [3] – [4] – [5] – [6] – [7] – [8]

Pos.1	2	3		4		5		6		7		8	
Code	Disp.	Flange		Output Shaft		Port and Drain Port		Rotation Direction		Paint		Unusually Function	
Omit	80 100 125 160 200 250 315 400 475	E2 E4 F6 W E2B SP	2- 13.5 Rhomb-flange Ø106.4, pilot Ø82.5×6.3 4-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×6.3 6-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×2.6 4-Ø13.5 Wheel-flange Ø160 , pilot Ø125×8 2-Ø14.3 Rhomb-flange Ø146.05, pilot Ø101.6×9.4 4-Ø11.5 Square-flangeØ106.4 pilot Ø82.5×6.3	B D G F FD SL T1 T3 S1 I	Shaft Ø 32 , parllel key 10×8×45 Shaft Ø 25.4 , parllel key6.35×6.35×25.4 Shaft Ø 31.75 , parllel key 7.96×7.96×31.75 Shaft Ø 31.75 , splined key 14-DP12/24 Long Shaft Ø31.75 , splined key 14-DP12/24 shaft Ø34.85,Splined key 6-34.85×28.14×8.64 Cone-shaft Ø35 ,parllel key B6×6×20 Cone-shaft Ø 31.75 , parllel key 7.96×7.96×31.75 ShaftØ25.4 ,splined key SAE 6B Sub-shaft Ø22 , splined key 13-DP16/32	D M S P	G1/2 Manifold Mount 2-M10 , G1/4 M22×1.5 Manifold Mount 2-M10 , M14×1.5 7/8-14UNF O-ring manifold 2-3/8-16 , 7/16-20UNF 1/2-14NPTF manifold 2-3/8-16UNC , 7/16-20UNF	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver gray	Omit F LS	Standard Free Running Low Speed
S		D E	4-Ø11 Circle-flangeØ125 , pilot Ø100×6 4-Ø13.5Circle-flangeØ127, pilot Ø101.6×6.3	Omit	Short shaft 12-DP12/24								

Pos.1	2	3		4		5		6		7		8	
Code	Disp.	Flange		Output Shaft		Port and Drain Port		Rotation Direction		Paint		Unusually Function	
Omit	80 100 125 160 200 250 315 400 475	E2 E4 E6 E2B WE	2-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×6.3 4-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×6.3 6-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×6.3 2-Ø14.3 Rhomb-flange Ø146.05, pilot Ø101.6×9.4 4-Ø13.6Wheel-flangeØ147.6, pilot Ø107.95×6.4	A B K G F FE T4 S1 I	Shaft Ø25 , parllel key 8×7×32 Shaft Ø32 , parllel key 10×8×45 Shaft Ø25.4 , Woodruff key Ø25.4×6.35 Shaft Ø31.75 , parllel key 7.96×7.96×31.75 Shaft Ø31.75 , splined key 14-DP12/24 Shaft Ø31.75 , splined key 14-DP12/24 Cone-shaft Ø31.75 , parllel key 7.96×7.96×25.4 ShaftØ25.4 ,splined key SAE 6B Sub-shaft Ø21.74 , splined key 13-DP16/32	EE-D EE-M EE-S2 ED DB DU SB SU M4 MU MM G M2 S2	G1/2, G1/4 2M22×1.5, M14×1.5 7/8-14UNF O-ring, 7/16-20 UNF 1-1/16-12UN O-ring, 7/16-20 UNF G1/2, G1/4 G1/2, 7/16-20 UNF 7/8-14UNF O-ring, G1/4 7/8-14UNF O-ring, 7/16-20 UNF M22×1.5, M14×1.5 1/2",5/8"Crosshole Manifold 3×3/8-16UNC,7/16-20UNF 1/2", 5/8"Crosshole Manifold 3×M10, G1/4 G1/2, G1/4 M22×1.5, M14×1.5 7/8-14UNF O-ring, 7/16-20 UNF	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver gray	Omit F LS	Standard Free Running Low Speed

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.The informations of mounting flange,output shaft and frorts are the same as BMS serier.The SP flange afflies to shafts of T1、D、B、F、G. If the specification is not in the table or you have specific requirements, please contact us.