# SUFON MOTOR

## BMT SERIES HYDRAULIC MOTOR

BMT series motor adapt the advanced Geroler gear set design 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 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 tapered roller bearings that permit high axial and radial forces.Can offer capacities of high pressure and high torque in the wide of applications.
* Advanced design in disc distrbution flow, which can automatically compensate in operating with high volume efficiency and long life, provide smooth and reliable operation.

## Main Specificaion

| Type | | BMT 160 | BMT 200 | BMT 230 | BMT 250 | BMT 315 | BMT 400 | BMT 500 | BMT 630 | BMT 800 |
|---|---|---|---|---|---|---|---|---|---|---|
| Geometric displacement ($cm^3$/rev.) | | 161.1 | 201.4 | 232.5 | 251.8 | 326.3 | 410.9 | 523.6 | 629.1 | 801.8 |
| Max. speed (rpm) | cont. | 625 | 625 | 536 | 500 | 380 | 305 | 240 | 196 | 154 |
| | int. | 780 | 750 | 643 | 600 | 460 | 365 | 285 | 233 | 185 |
| Max. torque (N•m) | cont. | 470 | 590 | 670 | 730 | 950 | 1080 | 1220 | 1318 | 1464 |
| | int. | 560 | 710 | 821 | 880 | 1140 | 1260 | 1370 | 1498 | 1520 |
| | peak | 669 | 838 | 958 | 1036 | 1346.3 | 1450.3 | 1643.8 | 1618.8 | 1665 |
| Max. output (kW) | cont. | 27.7 | 34.9 | 34.7 | 34.5 | 34.9 | 31.2 | 28.8 | 25.3 | 22.2 |
| | int. | 32 | 40 | 40 | 40 | 40 | 35 | 35 | 27.5 | 26.8 |
| Max. pressure drop (MPa) | cont. | 20 | 20 | 20 | 20 | 20 | 18 | 16 | 14 | 12.5 |
| | int. | 24 | 24 | 24 | 24 | 24 | 21 | 18 | 16 | 13 |
| | peak | 28 | 28 | 28 | 28 | 28 | 24 | 21 | 19 | 16 |
| Max. flow (L/min) | rated | 80 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | cont. | 100 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 |
| | int. | 125 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 |
| Max. inlet pressure (MPa) | cont. | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 |
| | int. | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | peak | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Weight (kg) | | 19.5 | 20 | 20.4 | 20.5 | 21 | 22 | 23 | 24 | 25 |

* 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

BMT 160 [161.1cm³/rev.]

Pressure (MPa)

| Flow (L/min) | 4 | 8 | 10 | 12 | 16 (Max.cont.) | 20 | 24 (Max.int.) |
|---|---|---|---|---|---|---|---|
| 10 | 88 | 176 | 228 | 275 | 361 | 447 | 535 |
| | **60** | **59** | **58** | **56** | **54** | **50** | **44** |
| 20 | 89 | 181 | 234 | 277 | 372 | 459 | 557 |
| | **121** | **120** | **117** | **114** | **109** | **103** | **95** |
| 40 | 91 | 180 | 235 | 277 | 381 | 471 | 573 |
| | **249** | **246** | **243** | **236** | **230** | **223** | **212** |
| 60 | 82 | 178 | 235 | 277 | 381 | 470 | 572 |
| | **371** | **367** | **362** | **356** | **349** | **340** | **330** |
| 80 | 78 | 173 | 229 | 276 | 379 | 466 | 567 |
| | **492** | **489** | **485** | **478** | **470** | **462** | **447** |
| 100 (Max.cont.) | 70 | 160 | 218 | 269 | 370 | 455 | 558 |
| | **614** | **611** | **606** | **598** | **590** | **582** | **570** |
| 125 (Max.int.) | 58 | 148 | 211 | 261 | 359 | 448 | 552 |
| | **770** | **764** | **758** | **750** | **741** | **731** | **715** |

BMT 200 [201.4cm³/rev.]

Pressure (MPa)

| Flow (L/min) | 4 | 8 | 10 | 12 | 16 (Max.cont.) | 20 | 24 (Max.int.) |
|---|---|---|---|---|---|---|---|
| 10 | 124 | 233 | 289 | 340 | 454 | 560 | 669 |
| | **47** | **46** | **45** | **42** | **39** | **37** | **33** |
| 20 | 125 | 239 | 298 | 347 | 468 | 576 | 696 |
| | **95** | **94** | **92** | **90** | **87** | **84** | **75** |
| 40 | 120 | 241 | 296 | 352 | 475 | 589 | 716 |
| | **195** | **193** | **191** | **187** | **183** | **178** | **167** |
| 60 | 116 | 237 | 295 | 352 | 478 | 589 | 718 |
| | **297** | **295** | **292** | **287** | **282** | **276** | **263** |
| 80 | 108 | 231 | 289 | 350 | 474 | 586 | 716 |
| | **395** | **393** | **389** | **384** | **377** | **370** | **359** |
| 100 | 99 | 227 | 286 | 344 | 471 | 580 | 712 |
| | **493** | **490** | **486** | **482** | **475** | **467** | **460** |
| 125 (Max.cont.) | 84 | 208 | 276 | 333 | 459 | 566 | 697 |
| | **615** | **611** | **607** | **602** | **595** | **588** | **572** |
| 150 (Max.int.) | 70 | 194 | 260 | 324 | 447 | 554 | 682 |
| | **743** | **740** | **735** | **727** | **717** | **706** | **682** |

BMT 250 [251.8cm³/rev.]

Pressure (MPa)

| Flow (L/min) | 4 | 8 | 10 | 12 | 16 (Max.cont.) | 20 | 24 (Max.int.) |
|---|---|---|---|---|---|---|---|
| 10 | 138 | 286 | 355 | 419 | 559 | 689 | 824 |
| | **38** | **38** | **37** | **36** | **34** | **32** | **31** |
| 20 | 143 | 296 | 364 | 432 | 580 | 708 | 853 |
| | **76** | **75** | **74** | **72** | **70** | **67** | **62** |
| 40 | 139 | 301 | 372 | 440 | 593 | 723 | 884 |
| | **156** | **154** | **152** | **149** | **146** | **142** | **134** |
| 60 | 132 | 294 | 372 | 441 | 592 | 727 | 888 |
| | **237** | **236** | **233** | **229** | **224** | **219** | **207** |
| 80 | 128 | 283 | 364 | 433 | 587 | 721 | 887 |
| | **317** | **316** | **314** | **308** | **303** | **299** | **284** |
| 100 | 126 | 282 | 355 | 427 | 582 | 716 | 879 |
| | **396** | **394** | **391** | **387** | **381** | **373** | **359** |
| 125 (Max.cont.) | 116 | 260 | 340 | 414 | 568 | 703 | 864 |
| | **495** | **492** | **488** | **483** | **476** | **469** | **454** |
| 150 (Max.int.) | 88 | 242 | 320 | 397 | 552 | 686 | 847 |
| | **592** | **589** | **585** | **580** | **572** | **565** | **545** |

Torque (N•m) 552
Speed (rpm) **572**

BMT 315 [326.3cm³/rev.]

Pressure (MPa)

| Flow (L/min) | 4 | 8 | 10 | 12 | 16 (Max.cont.) | 20 | 24 (Max.int.) |
|---|---|---|---|---|---|---|---|
| 10 | 184 | 363 | 453 | 545 | 734 | 891 | 1062 |
| | **30** | **29** | **28** | **27** | **26** | **25** | **23** |
| 20 | 189 | 380 | 472 | 562 | 757 | 917 | 1109 |
| | **60** | **59** | **58** | **56** | **54** | **52** | **50** |
| 40 | 191 | 381 | 484 | 570 | 774 | 954 | 1149 |
| | **121** | **120** | **118** | **115** | **112** | **109** | **104** |
| 60 | 189 | 376 | 493 | 573 | 772 | 962 | 1154 |
| | **183** | **181** | **179** | **175** | **172** | **168** | **158** |
| 80 | 179 | 369 | 479 | 565 | 768 | 954 | 1153 |
| | **244** | **242** | **239** | **236** | **231** | **227** | **217** |
| 100 | 169 | 357 | 467 | 562 | 758 | 942 | 1143 |
| | **305** | **304** | **301** | **298** | **294** | **289** | **276** |
| 125 (Max.cont.) | 147 | 336 | 447 | 544 | 745 | 920 | 1127 |
| | **380** | **378** | **375** | **371** | **367** | **362** | **349** |
| 150 (Max.int.) | 119 | 318 | 432 | 526 | 713 | 894 | 1097 |
| | **458** | **456** | **453** | **449** | **444** | **431** | **425** |

## Performance Data

BMT 400 [410.9cm³/rev.]

Pressure (MPa)

| Flow (L/min) | 3 | 6 | 9 | 12 | 15 (Max.cont.) | 18 | 21 (Max.int.) |
|---|---|---|---|---|---|---|---|
| 10 | 176 / **24** | 367 / **23** | 560 / **22** | 715 / **21** | 885 / **20** | 1050 / **19** | 1209 / **18** |
| 20 | 179 / **49** | 370 / **48** | 565 / **47** | 726 / **44** | 899 / **42** | 1071 / **40** | 1236 / **38** |
| 40 | 176 / **96** | 370 / **95** | 567 / **93** | 733 / **90** | 919 / **87** | 1091 / **83** | 1263 / **79** |
| 60 | 174 / **145** | 361 / **143** | 563 / **139** | 729 / **135** | 920 / **131** | 1095 / **127** | 1269 / **121** |
| 80 | 166 / **193** | 353 / **191** | 553 / **188** | 719 / **184** | 912 / **180** | 1084 / **176** | 1263 / **170** |
| 100 | 150 / **242** | 339 / **240** | 538 / **238** | 708 / **234** | 896 / **228** | 1067 / **224** | 1252 / **218** |
| Max.cont. 125 | 135 / **302** | 309 / **300** | 524 / **298** | 688 / **294** | 873 / **289** | 1045 / **285** | 1221 / **278** |
| Max.int. 150 | 126 / **364** | 292 / **362** | 508 / **358** | 666 / **354** | 852 / **350** | 1020 / **346** | 1197 / **339** |

BMT 500 [523.6cm³/rev.]

Pressure (MPa)

| Flow (L/min) | 3 | 6 | 9 | 12 | 14 (Max.cont.) | 16 | 18 (Max.int.) |
|---|---|---|---|---|---|---|---|
| 10 | 222 / **18** | 451 / **18** | 692 / **18** | 892 / 17 | 1050 / **16** | 1193 / **15** | 1340 / **13** |
| 20 | 231 / **37** | 464 / **36** | 714 / **35** | 918 / 34 | 1070 / **33** | 1220 / **32** | 1377 / **30** |
| 40 | 230 / **75** | 466 / **74** | 727 / **73** | 941 / 72 | 1094 / **70** | 1244 / **68** | 1422 / **64** |
| 60 | 225 / **113** | 457 / **112** | 714 / **111** | 941 / 109 | 1088 / **107** | 1245 / **105** | 1409 / **101** |
| 80 | 213 / **151** | 431 / **150** | 696 / **149** | 927 / 147 | 1076 / **145** | 1244 / **143** | 1401 / **138** |
| 100 | 194 / **189** | 420 / **188** | 680 / **187** | 901 / 185 | 1063 / **183** | 1224 / **181** | 1383 / **177** |
| Max.cont. 125 | 182 / **237** | 398 / **236** | 641 / **235** | 877 / 233 | 1024 / **231** | 1199 / **229** | 1352 / **225** |
| Max.int. 150 | 147 / **284** | 369 / **283** | 618 / **282** | 853 / 280 | 1004 / **278** | 1167 / **276** | 1325 / **272** |

BMT 630 [629.1cm³/rev.]

Pressure (MPa)

| Flow (L/min) | 3 | 6 | 9 | 10.5 | 12 (Max.cont.) | 14 | 16 (Max.int.) |
|---|---|---|---|---|---|---|---|
| 10 | 233 / **14** | 520 / **14** | 795 / **13** | 902 / **13** | 1074 / **13** | 1194 / **11** | 1363 / **11** |
| 20 | 237 / **28** | 554 / **27** | 837 / **27** | 953 / **26** | 1117 / **26** | 1239 / **24** | 1407 / **22** |
| 40 | 239 / **62** | 553 / **62** | 860 / **61** | 987 / **60** | 1171 / **59** | 1308 / **56** | 1483 / **54** |
| 60 | 223 / **94** | 544 / **94** | 863 / **92** | 978 / **91** | 1172 / **90** | 1318 / **86** | 1498 / **82** |
| 80 | 220 / **123** | 537 / **122** | 854 / **121** | 965 / **119** | 1172 / **118** | 1314 / **114** | 1497 / **110** |
| 100 | 208 / **156** | 522 / **155** | 832 / **153** | 945 / **152** | 1156 / **150** | 1303 / **147** | 1488 / **142** |
| Max.cont. 125 | 201 / **196** | 499 / **196** | 810 / **194** | 931 / **192** | 1137 / **191** | 1292 / **187** | 1472 / **183** |
| Max.int. 150 | 174 / **233** | 492 / **232** | 785 / **231** | 921 / **230** | 1121 / **227** | 1277 / **223** | 1454 / **217** |

Torque (N•m) 1121
Speed (rpm) **227**

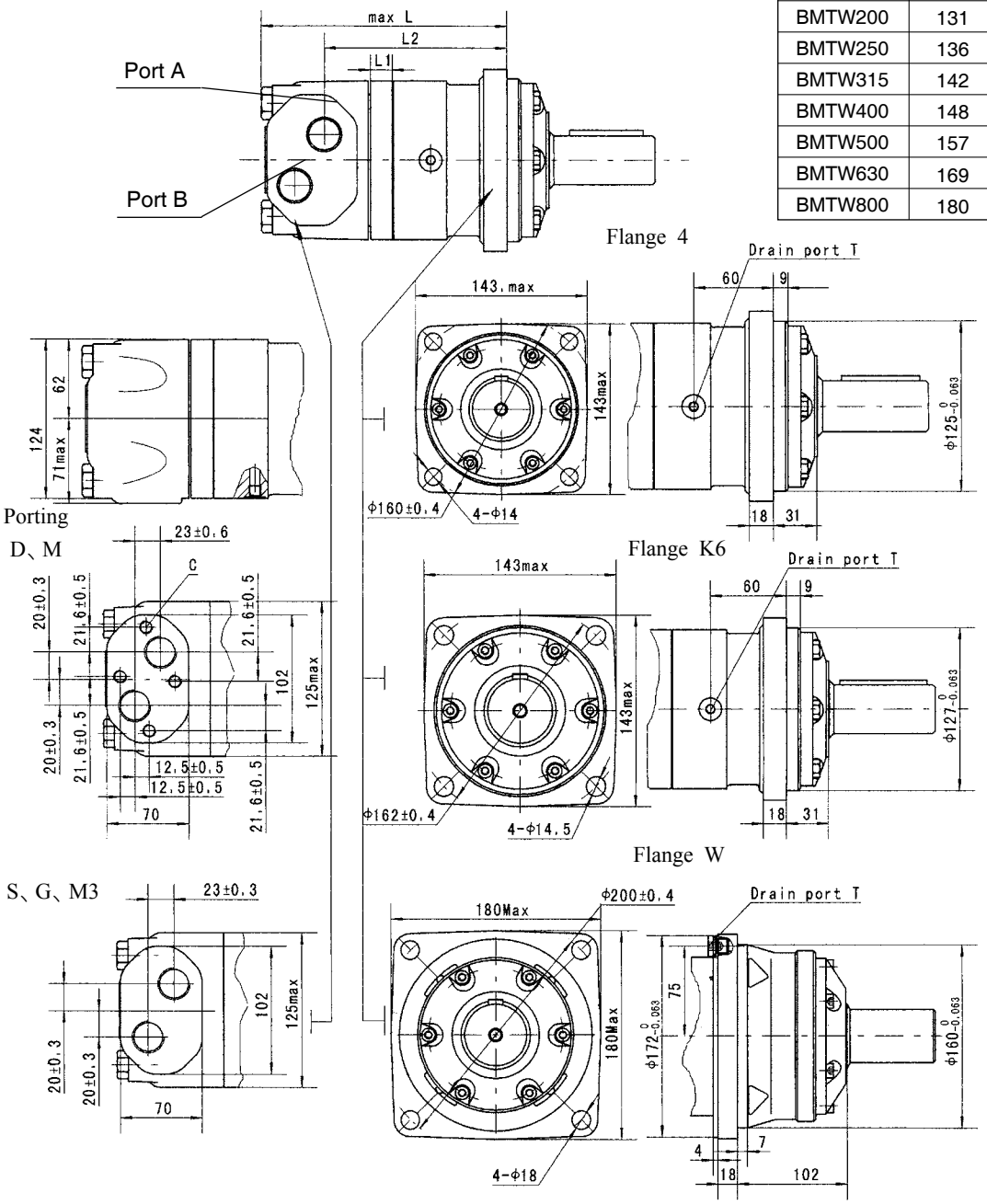
BMT 800 [801.8cm³/rev.]

Pressure (MPa)

| Flow (L/min) | 3 | 6 | 9 | 10.5 | 12.5 (Max.cont.) | 13 (Max.int.) |
|---|---|---|---|---|---|---|
| 10 | 346 / **12** | 677 / **12** | 1003 / **11** | 1159 / **11** | 1365 / **11** | 1390 / **10** |
| 20 | 356 / **24** | 692 / **24** | 1034 / **24** | 1183 / **23** | 1404 / **22** | 1458 / **18** |
| 40 | 365 / **50** | 703 / **50** | 1066 / **49** | 1236 / **48** | 1459 / **46** | 1516 / **40** |
| 60 | 354 / **74** | 703 / **73** | 1060 / **71** | 1237 / **71** | 1464 / **68** | 1520 / **63** |
| 80 | 332 / **99** | 686 / **98** | 1050 / **98** | 1226 / **96** | 1464 / **93** | 1514 / **86** |
| 100 | 305 / **125** | 654 / **123** | 1025 / **123** | 1207 / **121** | 1445 / **118** | 1506 / **110** |
| Max.cont. 125 | 280 / **154** | 622 / **153** | 989 / **153** | 1181 / **150** | 1422 / **149** | 1487 / **140** |
| Max.int. 150 | 247 / **185** | 590 / **184** | 953 / **183** | 1156 / **181** | 1406 / **179** | 1476 / **172** |

# BMT DIMENSIONS AND MOUNTING DATA

| Model | L | L1 | L2 |
|---|---|---|---|
| BMTW160 | 127 | 17 | 77 |
| BMTW200 | 131 | 21 | 81 |
| BMTW250 | 136 | 14 | 86 |
| BMTW315 | 142 | 20 | 91 |
| BMTW400 | 148 | 27 | 98 |
| BMTW500 | 157 | 35 | 106 |
| BMTW630 | 169 | 47 | 118 |
| BMTW800 | 180 | 58 | 129 |

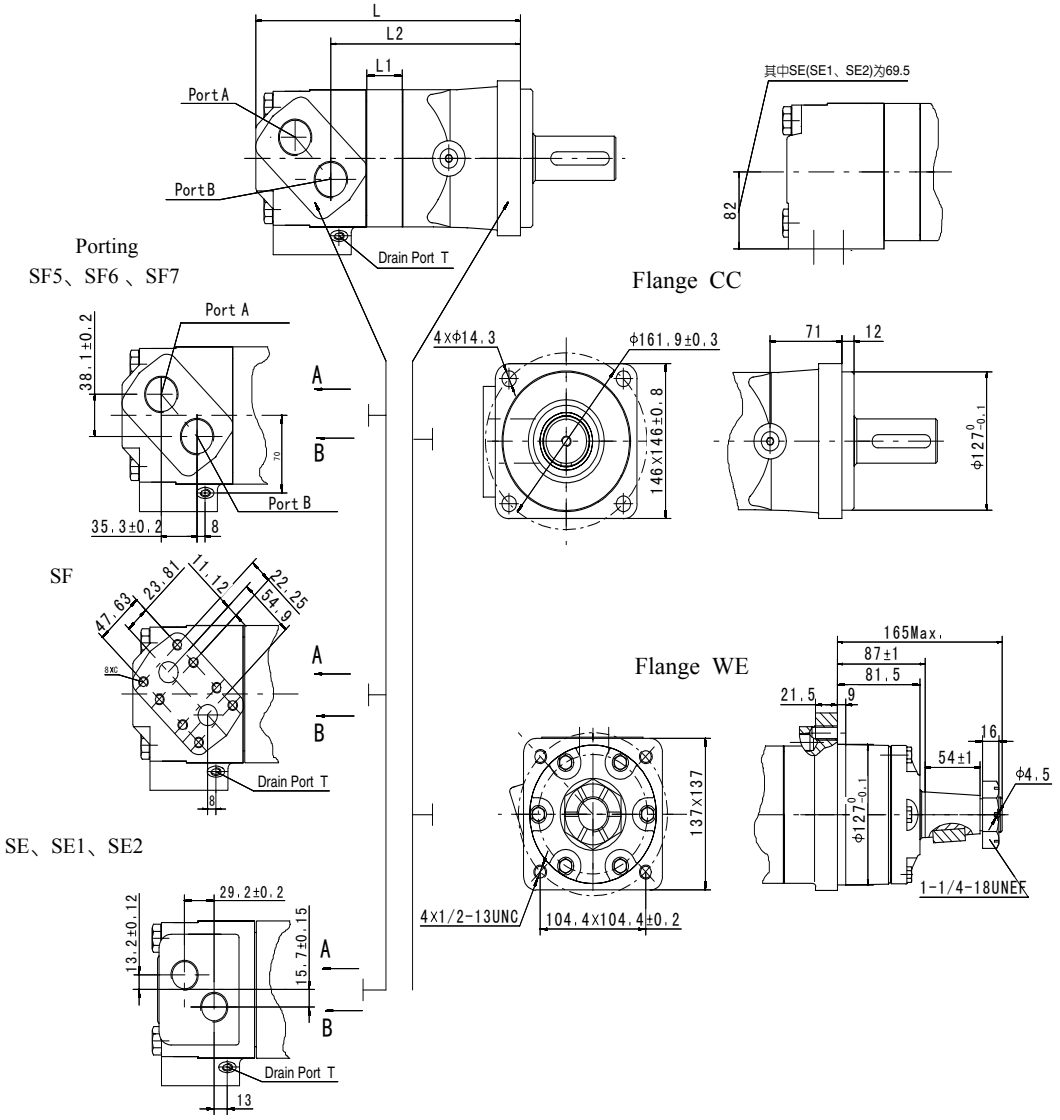



| Model | L | L1 | L2 |
|---|---|---|---|
| BMT160 | 193 | 17 | 142.5 |
| BMT200 | 197 | 21 | 146.5 |
| BMT250 | 204 | 14 | 152.5 |
| BMT315 | 210 | 20 | 158.5 |
| BMT400 | 217 | 27 | 165.5 |
| BMT500 | 225 | 35 | 173.5 |
| BMT630 | 237 | 47 | 185.5 |
| BMT800 | 248 | 58 | 196.5 |

| Content / Mounting | Code | | | | | |
|---|---|---|---|---|---|---|
| | D (depth) | M (depth) | S (depth) | G (depth) | M3 (depth) | S1 (depth) |
| P(A,B) | G3/4 (18) | M27 x 2 (18) | 1-1/16-12UN (18) | G3/4 (18) | M27 x 2 (18) | 1-1/16-12UN (18) |
| T | G1/4 (12) | M14 x 1.5 (12) | 9/16-18UNF (12) | G1/4 (12) | M14 x 1.5 (12) | 7/16-20UNF (12) |
| C | 4-M10(10) | 4-M10(10) | -- | -- | -- | -- |

Note:1)The thickness of the stator and rotor for disp. from 160 to 200 is the dimension of L1 adding on 3mm.
2)The thickness of the stator and rotor for disp. from 250 to 800 is the dimension of L1 adding on 7mm.

# BMTE DIMENSIONS AND MOUNTING DATA

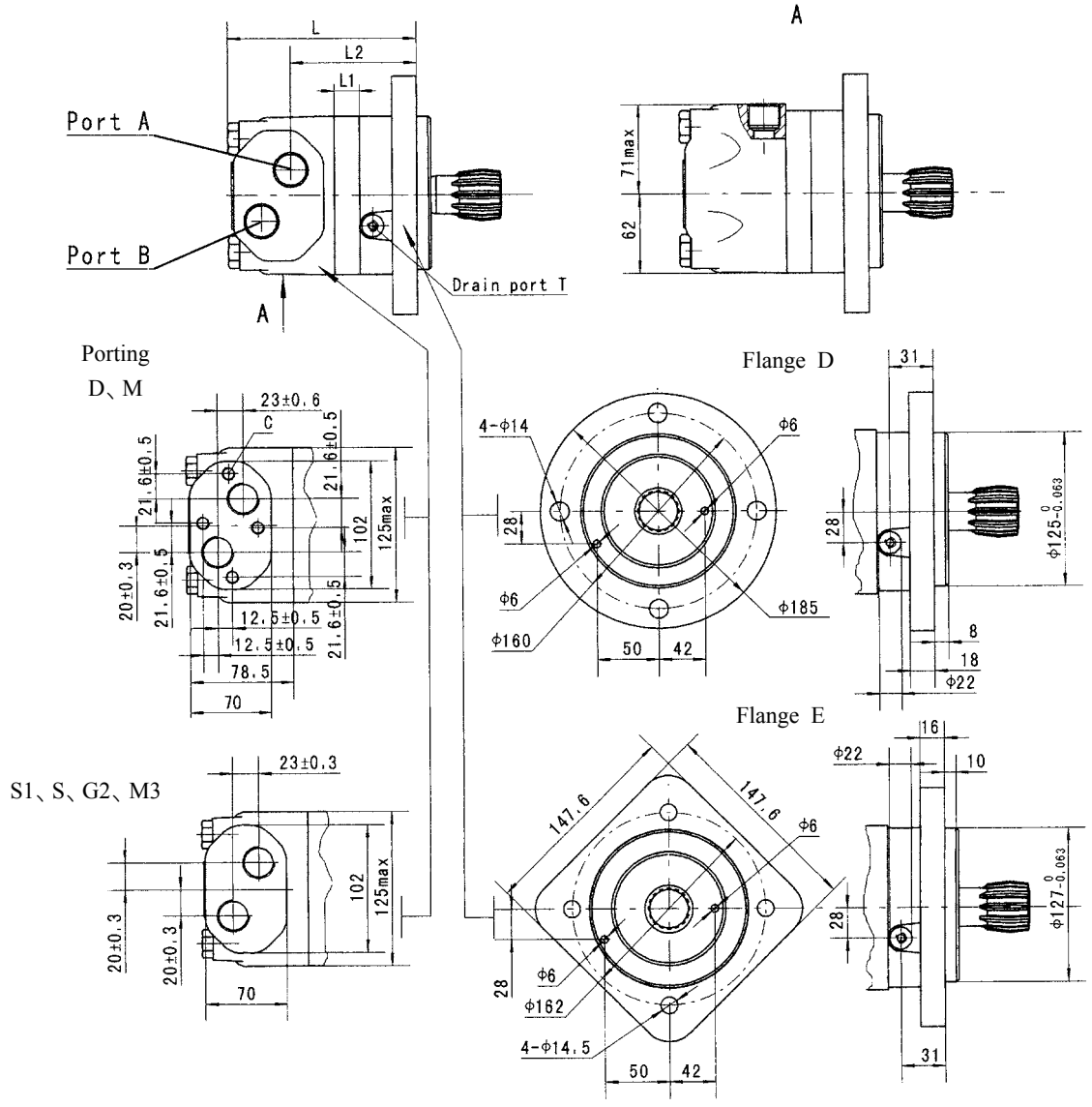



| Model | L | L1 | L2 |
|---|---|---|---|
| BMTE230 | 238.5 | 12 | 164.5 |
| BMTE250 | 240.5 | 14 | 166.5 |
| BMTE315 | 246.5 | 20 | 172.5 |
| BMTE400 | 253.5 | 27 | 179.5 |
| BMTE500 | 261.5 | 35 | 187.5 |
| BMTE630 | 273.5 | 47 | 199.5 |
| BMTE800 | 284.5 | 58 | 210.5 |

Note:1)The data for the port of SF (SF5 and SF6and sf7 )
2)The data for the port of SE (SE1 and SE2) and flange WE:L-70 and L2-59.
3)The thickness of the stator and rotor for disp,from 315 to 800 is the dimension of L1 adding on 7mm.

| Content / Mounting | Code | | | | | | |
|---|---|---|---|---|---|---|---|
| | SF5(depth) | SF6 (depth) | SF7 (depth) | SF (depth) | SE (depth) | SE1 (depth) | SE2(depth) |
| P(A,B) | 1-5/16-12UN (18) | M33 x 2 (18) | G1 (18) | 3/4" (18) | 1-1/16-12UN (18) | 1-1/16-12UN (18) | G3/4 (18) |
| T | 7/16-20UNF (12) | M14 x 1.5 (12) | G1/4 (12) | 7/16-20UNF (12) | 9/16-18UNF (12) | 7/16-20UNF (12) | G1/4 (12) |
| C | -- | -- | -- | 8 x 3/8-16UNC | -- | | |

# BMTS DIMENSIONS AND MOUNTING DATA

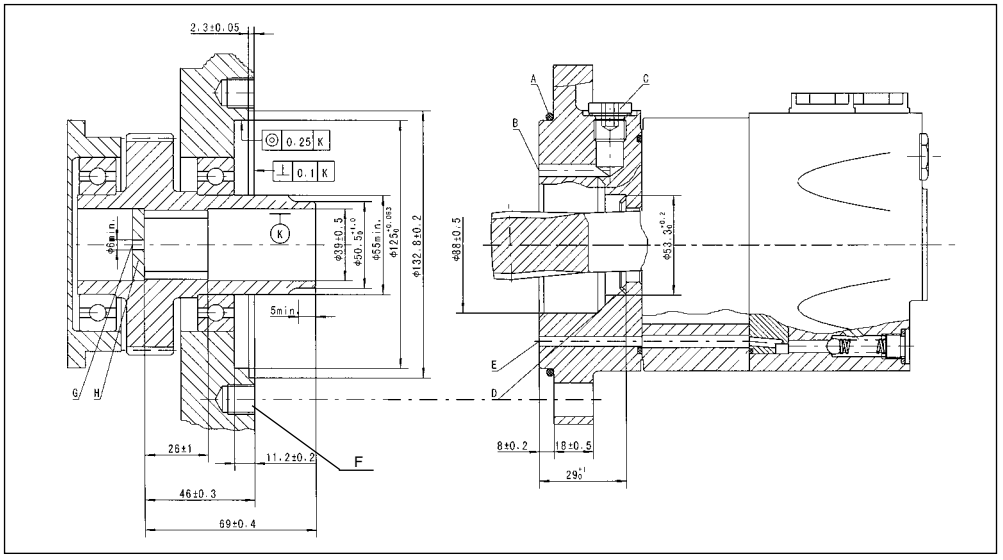



| Model | L | L1 | L2 |
|---|---|---|---|
| BMT160 | 148 | 17 | 96.5 |
| BMT200 | 152 | 21 | 100.5 |
| BMT250 | 157 | 14 | 109 |
| BMT315 | 163 | 20 | 115 |
| BMT400 | 170 | 27 | 122 |
| BMT500 | 178 | 35 | 130 |
| BMT630 | 190 | 47 | 142 |
| BMT800 | 201 | 58 | 153 |

| Content / Mounting | Code | | | | | |
|---|---|---|---|---|---|---|
| | D (depth) | M (depth) | S (depth) | G (depth) | M3 (depth) | S1 (depth) |
| P(A,B) | G3/4 (18) | M27 x 2 (18) | 1-1/16-12UN (18) | G3/4 (18) | M27 x 2 (18) | 1-1/16-12UN (18) |
| T | G1/4 (12) | M14 x 1.5 (12) | 9/16-18UNF (12) | G1/4 (12) | M14 x 1.5 (12) | 7/16-20UNF (12) |
| C | 4-M10(10) | 4-M10(10) | -- | -- | -- | -- |

Note:1)The thickness of the stator and rotor for disp.from 160 to 200 is the dimension of L1 adding on 3mm.
2)The thickness of the stator and rotor for disp.from 250 to 800 is the dimension of L1 adding on 7mm.

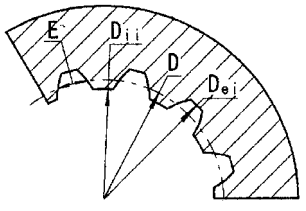
# BMTS MOUNTING DATA




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

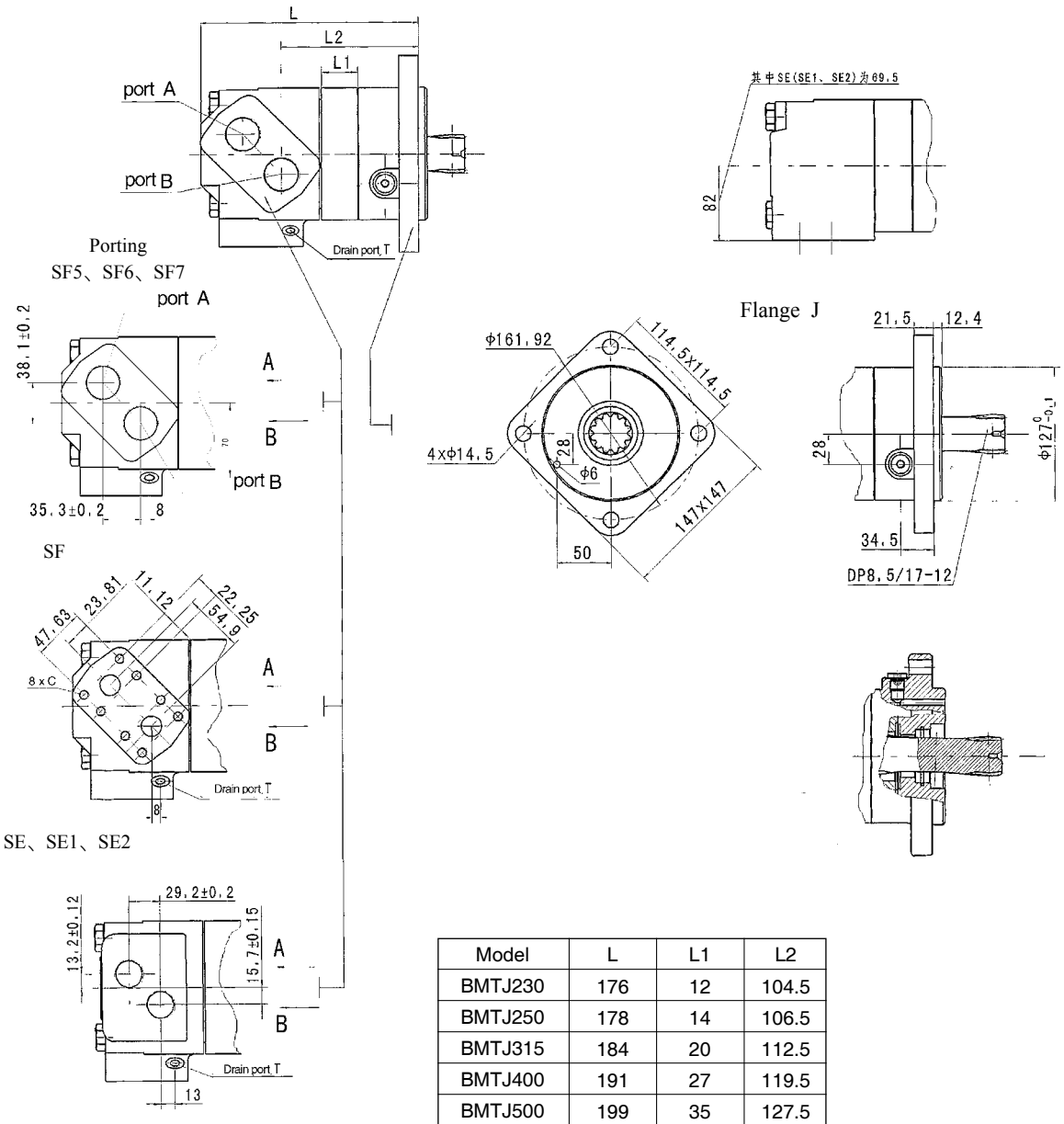
## INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

| Fillet Root Side Fit | | mm |
|---|---|---|
| Number of Teeth | Z | 16 |
| Diametral Pitch | DP | 12/24 |
| Pressure Angle | $\alpha_D$ | 30° |
| Pitch Dia. | D | ø33.8656 |
| Major Dia. | $D_{ei}$ | ø38.4 $^{+0.25}_{0}$ |
| Minor Dia. | $D_{ii}$ | ø32.15 $^{+0.04}_{0}$ |
| Space Width [Circular] | E | 4.516±0.037 |




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

# BMTJ DIMENSIONS AND MOUNTING DATA

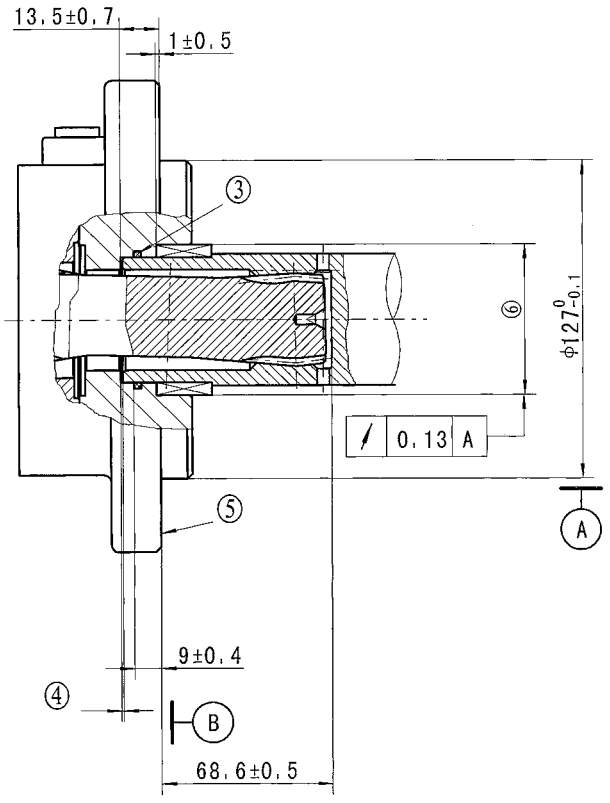


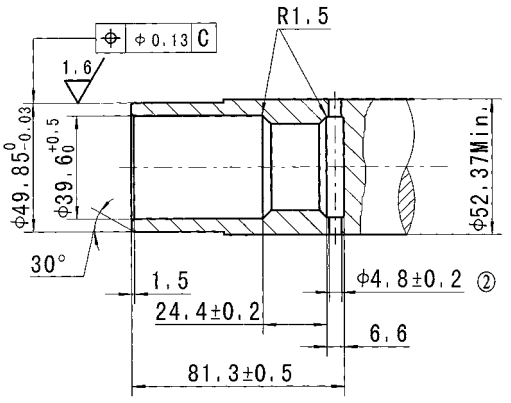

| Model | L | L1 | L2 |
|---|---|---|---|
| BMTJ230 | 176 | 12 | 104.5 |
| BMTJ250 | 178 | 14 | 106.5 |
| BMTJ315 | 184 | 20 | 112.5 |
| BMTJ400 | 191 | 27 | 119.5 |
| BMTJ500 | 199 | 35 | 127.5 |
| BMTJ630 | 211 | 47 | 139.5 |
| BMTJ800 | 222 | 58 | 150.5 |

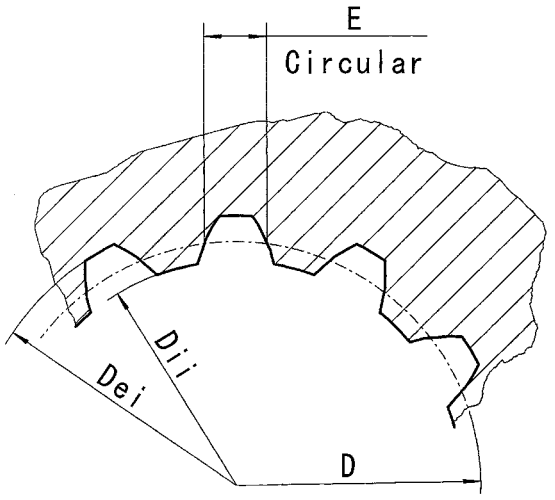
Note:1)The data for the port of SF (SF5 and SF6 andSF7).
2)The data for the port of SE (SE1 and SE2) and flange WE:L-70 and L2-59.
3)The thickness of the stator and rotor is the dimension of L1 adding on 7mm.

| Content / Mounting | Code | | | | | | |
|---|---|---|---|---|---|---|---|
| | SF5 (depth) | SF6 (depth) | SF7 (depth) | SF (depth) | SE (depth) | SE1 (depth) | SE2 (depth) |
| P(A,B) | 1-5/16-12UN (18) | M33 x 2 (18) | G1 (18) | 3/4" (18) | 1-1/16-12UN (18) | 1-1/16-12UN (18) | G3/4 (18) |
| T | 7/16-20UNF (12) | M14 x 1.5 (12) | G1/4 (12) | 7/16-20UNF (12) | 9/16-18UNF (12) | 7/16-20UNF (12) | G1/4 (12) |
| C | -- | -- | -- | 8 x 3/8-16UNC | -- | | |

# BMTJ DIMENSIONS AND MOUNTING DATA




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. | $\alpha_D$ | ø35.858823 |
| Major Dia. | $D_{ei}$ | ø38.97$^{+0.20}_{0}$ |
| Minor Dia. | $D_{ii}$ | ø33.3$^{+0.18}_{0}$ |
| Space Width［Circular］ | E | 5.866±0.032 |
| Dimension between two pins(ø4) | $M_e$ | 26.929-27.084 |

①Internal spline in mating part to be as follows:Material to be ASTM A304, 8620H. Carborize to a hardness of 60-64HRC with case depth (to 50HRC) of 0.75-1［.030-.040］ (dimensions apply after heat treat).

②Mating part to have critical dimensions as shown,
Oil holes must be provided and open for proper oil circulation.

③Some means of maintaining clearance between shaft and mounting flange must be provided.

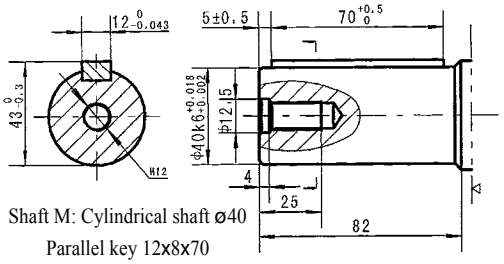
④Seal to be furnished with motor for proper oil circulation thru splines.

⑤Similar to SAE "C" Four Bolt Flange

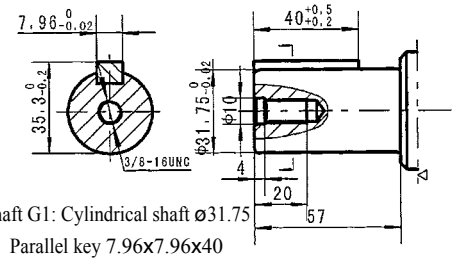
⑥Counterbore designed to adapt to a standard sleeve bearing 50.010-50.038［1.9689-1.9700］ID by 60.51-60.079［2.3642-2.3653］ O.D.(Oilite bronze sleeve bearing).

C This surface to be diameter of output shaft.

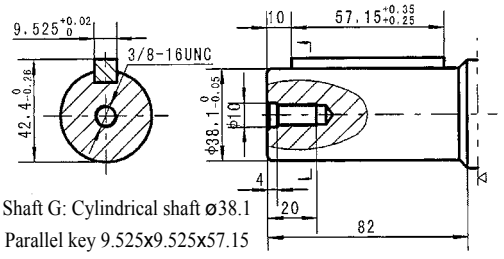
# SHAFT EXTENSIONS FOR BMT(E) MOTORS



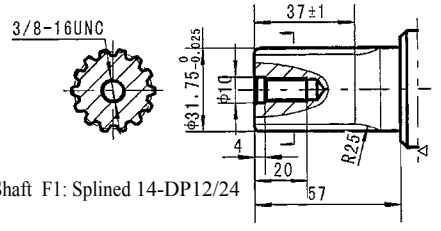

Shaft M: Cylindrical shaft ø40
Parallel key 12x8x70



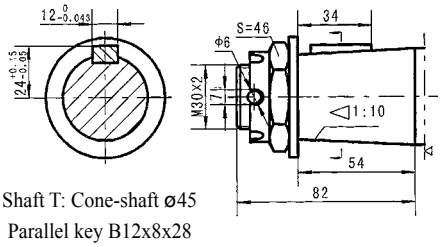

Shaft G1: Cylindrical shaft ø31.75
Parallel key 7.96x7.96x40



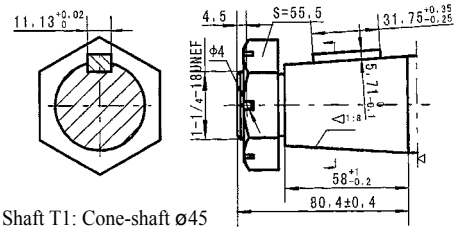

Shaft G: Cylindrical shaft ø38.1
Parallel key 9.525x9.525x57.15



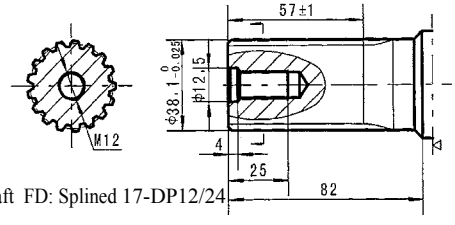

Shaft F1: Splined 14-DP12/24



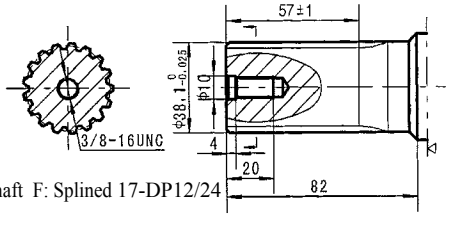

Shaft T: Cone-shaft ø45
Parallel key B12x8x28
Tightening torque:500 ± 10Nm



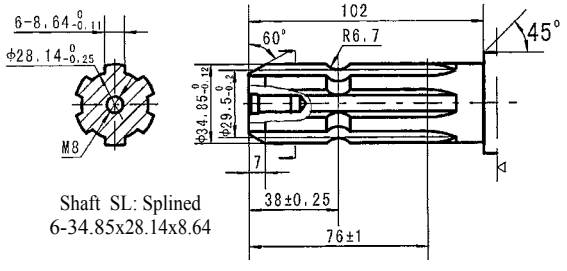

Shaft T1: Cone-shaft ø45
Parallel key 11.13x11.13x31.75
Tightening torque:500 ± 10Nm



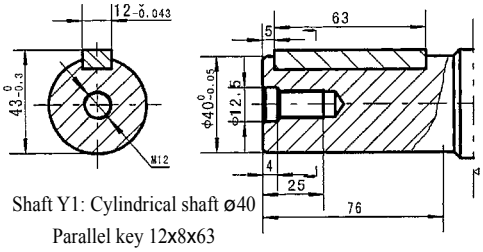

Shaft FD: Splined 17-DP12/24




Shaft F: Splined 17-DP12/24



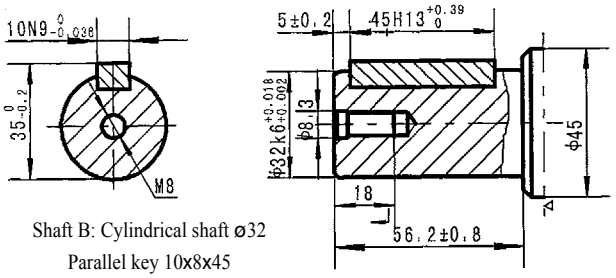

Shaft SL: Splined
6-34.85x28.14x8.64



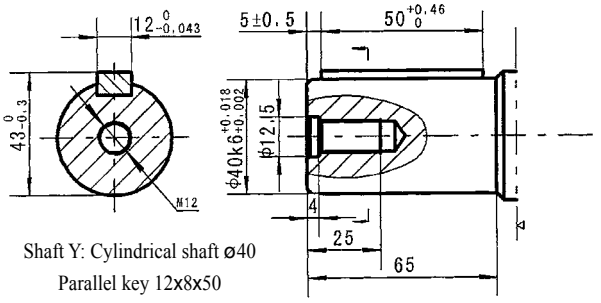

Shaft Y1: Cylindrical shaft ø40
Parallel key 12x8x63

▷ Motor Mounting Surface

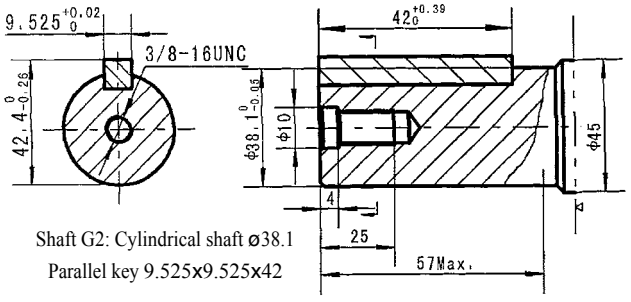
# SHAFT EXTENSIONS FOR BMT(E) MOTORS



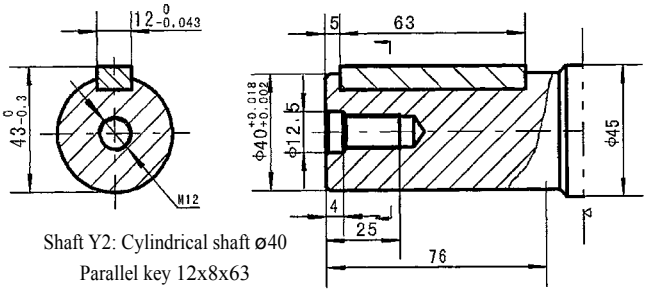

Shaft B: Cylindrical shaft ø32
Parallel key 10x8x45



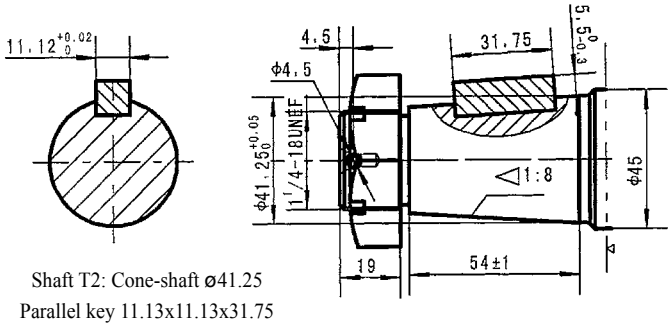

Shaft Y: Cylindrical shaft ø40
Parallel key 12x8x50



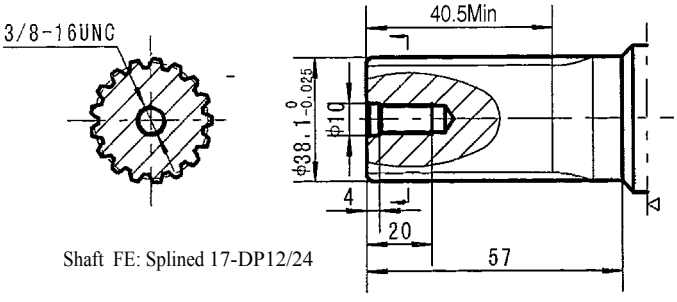

Shaft G2: Cylindrical shaft ø38.1
Parallel key 9.525x9.525x42




Shaft Y2: Cylindrical shaft ø40
Parallel key 12x8x63



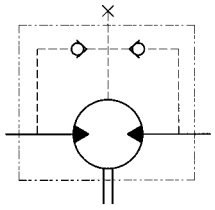

Shaft T2: Cone-shaft ø41.25
Parallel key 11.13x11.13x31.75
Tightening torque:500 ± 10Nm

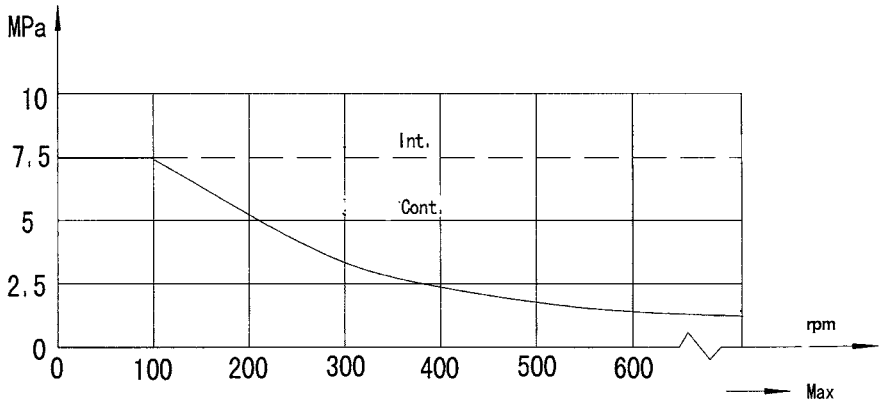



Shaft FE: Splined 17-DP12/24

▷ Motor Mounting Surface

## Permissible shaft seal pressure

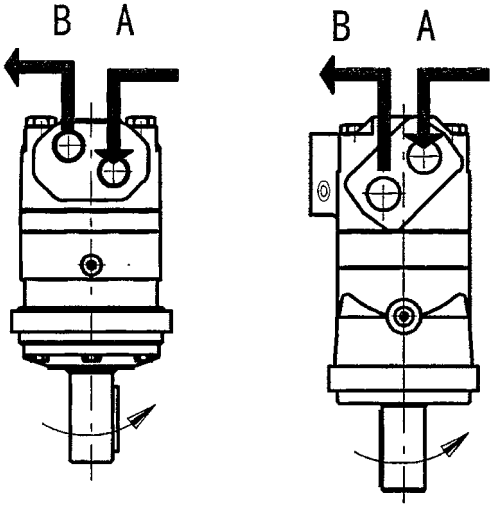




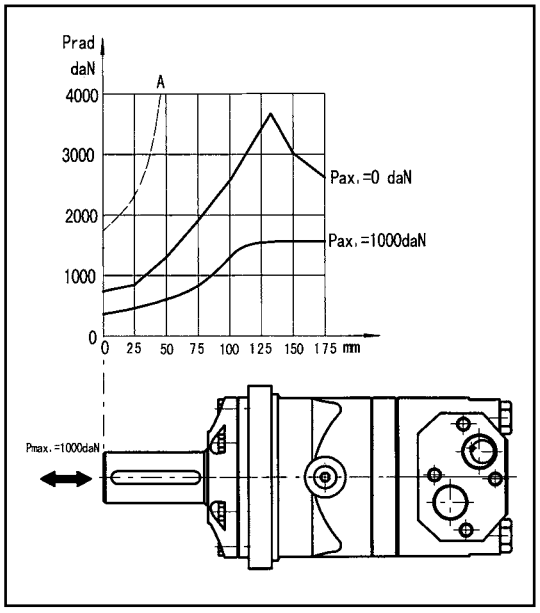

In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

## 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.

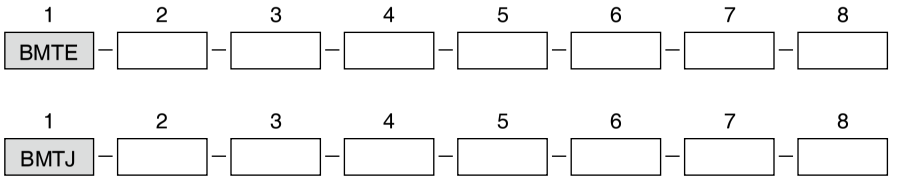
## Order Information

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| BMT | – | – | – | – | – | – | – | – |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| BMTS | – | – | – | – | – | – | – | – |

| Pos.1 | 2 | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Code | Disp. | Flange | | Output Shaft | | Port and Drain Port | | Rotation Direction | | Paint | | Unusually Function | |
| BMT | 160<br>200<br>250<br>315<br>400<br>500<br>630<br>800 | 4 | 4-Ø14 Square-flangeØ160, pilotØ125 × 9 | M | Shaft Ø40 , parllel key 12 × 8 × 70 | D | G3/4 Manifold Mount,4-M10 , G1/4 | Omit | Standard | 00 | No paint | Omit | Standard |
| | | K6 | 4-Ø14.5Square-flangeØ162, pilotØ127 × 9 | G | Shaft Ø38.1 ,parllel key 9.52 × 9.52 × 57.15 | M | M27 × 2 Manifold Mount,4-M10, M14 × 1.5 | R | Opposite | Omit | Blue | LL | Low Leakage |
| | | W | 4-Ø18 Wheel-flangeØ200, pilotØ160 × 7 | F | Shaft Ø38.1 ,splined tooth 17-DP12/24 | S | 1-1/16-12UN O-ring, 9/16-18UNF | | | B | Black | F | Free Running |
| | | | | FD | Shaft Ø38.1 ,splined tooth 17-DP12/24 | S1 | 1-1/16-12UN O-ring, 7/16-20UNF | | | S | Silver grey | LS | Low Speed |
| | | | | T | Cone-shaft 1:10 Ø45 ,parllel key B12 × 8 × 28 | G | G3/4,G1/4 | | | | | | |
| | | | | T1 | Cone-shaft 1:8 Ø45 , parllel key 11.13 × 11.13 × 31.75 | M3 | M27 × 2,M14 × 1.5 | | | | | | |
| | | | | SL | shaft Ø34.85,Splined key Splined key 6-34.85 × 28.14 × 8.64 | | | | | | | | |
| | | | | G1 | shaftØ31.75 , parllel key 7.96 × 7.96 × 40 | | | | | | | | |
| | | | | F1 | Shaft Ø31.75,splined tooth 14-DP12/24 | | | | | | | | |
| BMTS | | D | 4-Ø14 Circle-flange Ø160, pilot Ø125 × 8 | Omit | Short shaft 16-DP12/24 | | | | | | | | |
| | | E | 4-Ø14.5 Square-flange Ø162, pilot Ø127 × 10 | | | | | | | | | | |

## Order Information




| Pos.1 | 2 | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Code | Disp. | Flange | | Output Shaft | | Port and Drain Port | | Rotation Direction | | Paint | | Unusually Function | |
| BMTE | 230<br>250<br>315<br>400<br>500<br>630<br>800 | CC | 4-Ø14.3 Square-flange Ø161.9, pilotØ127 × 12 | G2<br>FE<br>Y1<br>Y2<br>T2 | Shaft Ø38.1 ,parllel key 9.52 × 9.52 × 42<br>Shaft Ø38.1 ,splined tooth 17-DP12/24<br>ShaftØ40,parllel key 12 × 8 × 63<br>ShaftØ40,parllel key 12 × 8 × 63<br>Cone-shaft 1:8 Ø41.25 , parllel key 11.13 × 11.13 × 31.75 | SF<br>SF5<br>SF6<br>SF7<br>SE<br>SE1<br>SE2 | 3/4" , Manifold Mount,8-3/8-16UNC, 7/16-20UNF<br>1-5/16-12UN O-ring,7/16-20 UNF<br>M33 × 2,M14 × 1.5<br>G1,G1/4<br>1-1/16-12UN O-ring,9/16-18UNF<br>1-1/16-12UN O-ring,7/16-20 UNF<br>G3/4,G1/4 | Omit<br>R | Standard<br>Opposite | 00<br>Omit<br>B<br>S | No paint<br>Blue<br>Black<br>Silver grey | Omit<br>LL<br>F<br>LS | Standard<br>Low Leakage<br>Free Running<br>Low Speed |
| | | WE | 4-1/2-13UNC Wheel-flangeØ147.6, pilotØ127 × 9 | T3 | Cone-shaft 1:8 Ø41.25 , parllel key 11.13 × 11.13 × 31.75 | | | | | | | | |
| BMTJ | | J | 4-Ø14.5 Square-flange Ø161.9 pilot Ø127 × 12.4 | Omit | Short shaft 12-DP8.5/17 | | | | | | | | |

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 contact us .