

8 ~ 11 ARC MIN

RAMseries Specification

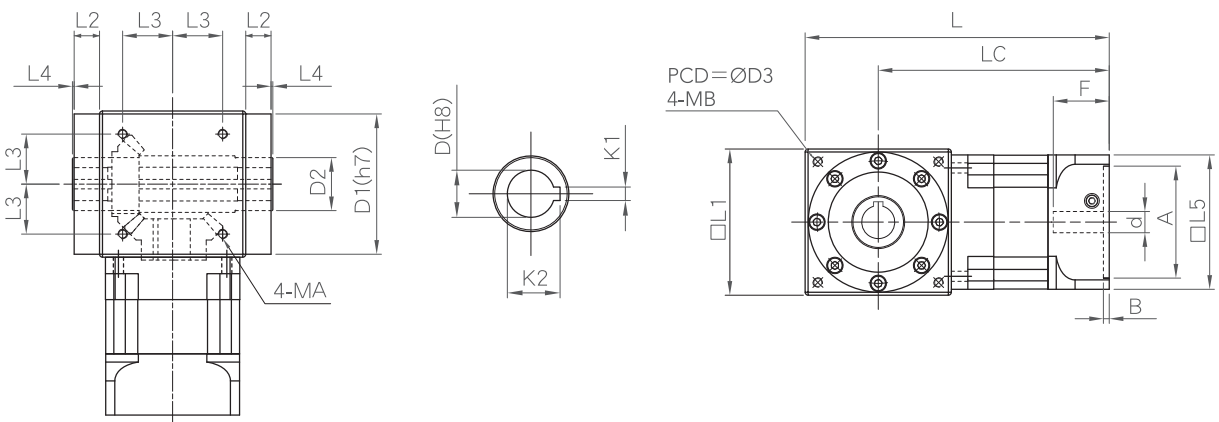
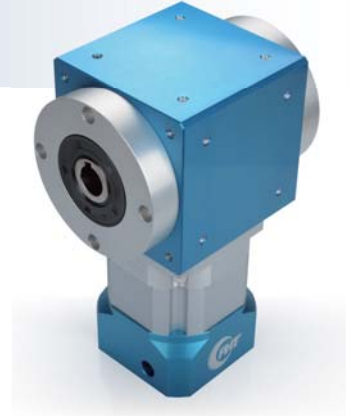
PHT VERTEX PRECISION COMPONENTS CORP.

| Information | Stage | Ratio | RAM060 | RAM090 | RAM120 | RAM150 |
|-----------------------------------|-------|--------------|---|--------------|--------------|--------------|
| Defined Output Torque (Nm) | 1 | 3 | 44 | 168 | 260 | 476 |
| | | 4 | 54 | 188 | 306 | 560 |
| | | 5 | 48 | 180 | 292 | 536 |
| | | 7 | 46 | 176 | 285 | 520 |
| | | 10 | 44 | 168 | 260 | 476 |
| | 2 | 9 | 44 | 168 | 260 | 476 |
| | | 12 | 44 | 168 | 260 | 476 |
| | | 15 | 44 | 168 | 260 | 476 |
| | | 16 | 54 | 188 | 306 | 560 |
| | | 20 | 48 | 180 | 292 | 536 |
| | | 21 | 44 | 168 | 260 | 476 |
| | | 25 | 48 | 180 | 292 | 536 |
| | | 28 | 46 | 176 | 285 | 520 |
| | | 30 | 44 | 168 | 260 | 476 |
| | | 35 | 46 | 176 | 285 | 520 |
| | | 40 | 44 | 168 | 260 | 476 |
| | | 49 | 46 | 176 | 285 | 520 |
| | | 50 | 44 | 168 | 260 | 476 |
| 70 | 44 | 168 | 260 | 476 | | |
| Peak Output Torque (Nm) | 1, 2 | 3~70 | 3 times of Defined Output Torque | | | |
| Backlash (arc min) | 1 | 3~10 | ≤ 8 | ≤ 8 | ≤ 8 | ≤ 8 |
| | 2 | 9~70 | ≤ 11 | ≤ 11 | ≤ 11 | ≤ 11 |
| Defined Input Speed (RPM) | 1 | 3, 4, 5 | 3300 | 2600 | 2300 | 2200 |
| | | 7, 10 | 4000 | 2900 | 2700 | 2700 |
| | 2 | 9~40 | 4400 | 3200 | 3000 | 3000 |
| | | 49, 50 70 | 4800 5500 | 3600 4200 | 3300 3900 | 3200 3500 |
| Efficiency (%) | 1 | 3~10 | ≥ 91 | ≥ 91 | ≥ 91 | ≥ 91 |
| | 2 | 9~70 | ≥ 88 | ≥ 88 | ≥ 88 | ≥ 88 |
| Noise (dB) | | | 65 | 65 | 65 | 65 |
| Life Time (hrs) | | | 20000 | | | |
| Temperature (°C) | 1, 2 | 3~70 | -15°C~+90°C | | | |
| Protection Rank | | | IP64 | | | |
| Lubricant | | | Synthetic Lubricant, ISO VG220 | | | |

DUAL HOLLOW SHAFTS

RAM-Hseries

PHT VERTEX PRECISION COMPONENTS CORP.



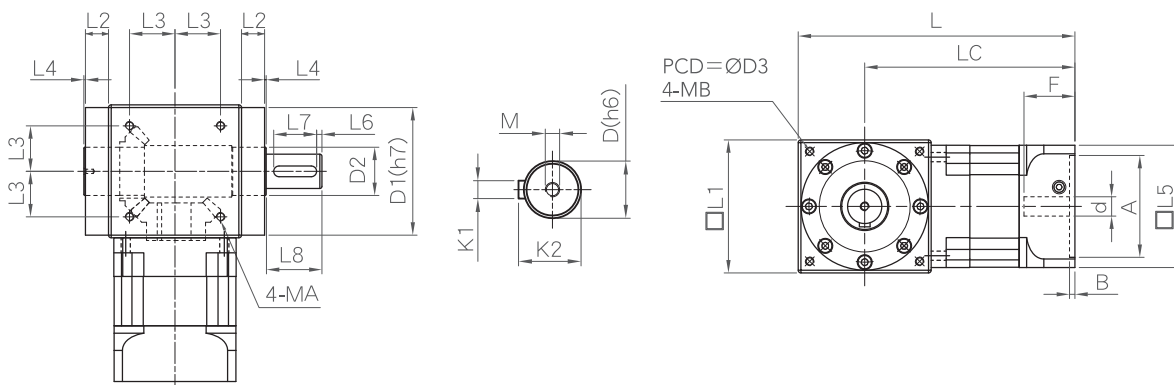
Unit: mm

| Info. | RAM060 H | RAM090 H | RAM120 H | RAM150 H |
|-------|----------------|----------------|-----------------|-----------------|
| L 1 | 83.0 | 114.0 | 124.0 | 154.0 |
| L 2 | 17.0 | 21.5 | 21.5 | 21.0 |
| L 3 | 28.284 | 33.587 | 38.890 | 45.962 |
| MA | M5 x P0.8 x 10 | M6 x P1.0 x 12 | M8 x P1.25 x 14 | M10 x P1.5 x 22 |
| L 4 | 1.5 | 1.5 | 1.5 | 1.5 |
| L 5 | 60.0 | 94.0 | 114.0 | 142.0 |
| LC | Stage 1 | 146.0 | 187.0 | 282.0 |
| | Stage 2 | 168.0 | 215.3 | 333.8 |
| L | Stage 1 | 187.5 | 244.0 | 359.0 |
| | Stage 2 | 209.5 | 272.3 | 410.8 |
| D | 16.0 | 20.0 | 28.0 | 40.0 |
| D1 | 79.0 | 109.0 | 119.0 | 149.0 |
| D2 | 25.0 | 30.0 | 45.0 | 55.0 |
| D3 | 100.0 | 130.0 | 145.0 | 190.0 |
| MB | M5 x P0.8 x 10 | M6 x P1.0 x 12 | M8 x P1.25 x 14 | M10 x P1.5 x 22 |
| K1 | 5.0 | 6.0 | 8.0 | 12.0 |
| K2 | 18.3 | 22.8 | 31.3 | 43.3 |
| d | ≦ 14.0 | ≦ 24.0 | ≦ 28.0 | ≦ 42.0 |
| A | 30~50 | 50~80 | 55~110 | 95~130 |
| B | 6.0 | 6.0 | 5.0 | 10.0 |
| F | ≦ 35.0 | ≦ 47.5 | ≦ 47.5 | ≦ 66.5 |

SINGLE SOLID SHAFT

RAM-S series

PHT VERTEX PRECISION COMPONENTS CORP.



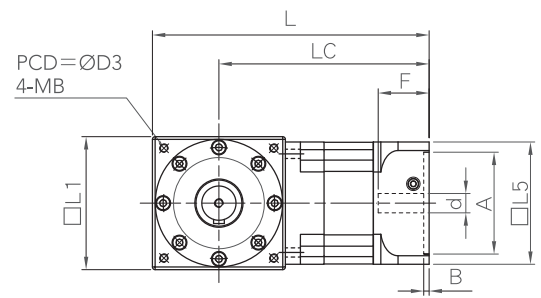
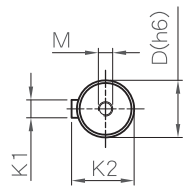
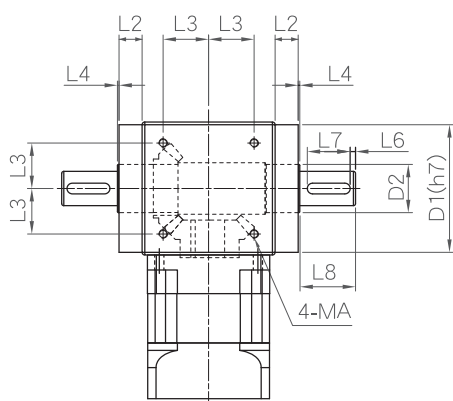
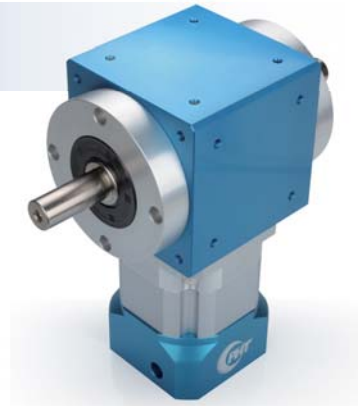
Unit: mm

| Info. | RAM060 S | RAM090 S | RAM120 S | RAM150 S |
|-------|----------------|----------------|-----------------|------------------|
| L 1 | 83.0 | 114.0 | 124.0 | 154.0 |
| L 2 | 17.0 | 21.5 | 21.5 | 21.0 |
| L 3 | 28.284 | 33.587 | 38.890 | 45.962 |
| MA | M5 x P0.8 x 10 | M6 x P1.0 x 12 | M8 x P1.25 x 14 | M10 x P1.5 x 22 |
| L 4 | 1.5 | 1.5 | 1.5 | 1.5 |
| L 5 | 60.0 | 94.0 | 114.0 | 142.0 |
| L 6 | 3.0 | 5.0 | 5.0 | 5.0 |
| L 7 | 20.0 | 25.0 | 40.0 | 45.0 |
| L 8 | 27.0 | 49.0 | 52.0 | 67.0 |
| LC | Stage 1 | 146.0 | 187.0 | 282.0 |
| | Stage 2 | 168.0 | 215.3 | 333.8 |
| L | Stage 1 | 187.5 | 244.0 | 359.0 |
| | Stage 2 | 209.5 | 272.3 | 410.8 |
| D | 16.0 | 20.0 | 32.0 | 42.0 |
| D1 | 79.0 | 109.0 | 119.0 | 149.0 |
| D2 | 25.0 | 30.0 | 45.0 | 55.0 |
| D3 | 100.0 | 130.0 | 145.0 | 190.0 |
| MB | M5 x P0.8 x 10 | M6 x P1.0 x 12 | M8 x P1.25 x 14 | M10 x P1.5 x 22 |
| M | M4 x P0.7 x 15 | M6 x P1.0 x 20 | M8 x P1.25 x 27 | M12 x P1.75 x 32 |
| K1 | 5.0 | 6.0 | 10.0 | 12.0 |
| K2 | 18.0 | 22.5 | 35.0 | 45.0 |
| d | ≤ 14.0 | ≤ 24.0 | ≤ 28.0 | ≤ 42.0 |
| A | 30~50 | 50~80 | 55~110 | 95~130 |
| B | 6.0 | 6.0 | 5.0 | 10.0 |
| F | ≤ 35.0 | ≤ 47.5 | ≤ 47.5 | ≤ 66.5 |

DUAL SOLID SHAFTS

RAM-2S series

PHT VERTEX PRECISION COMPONENTS CORP.



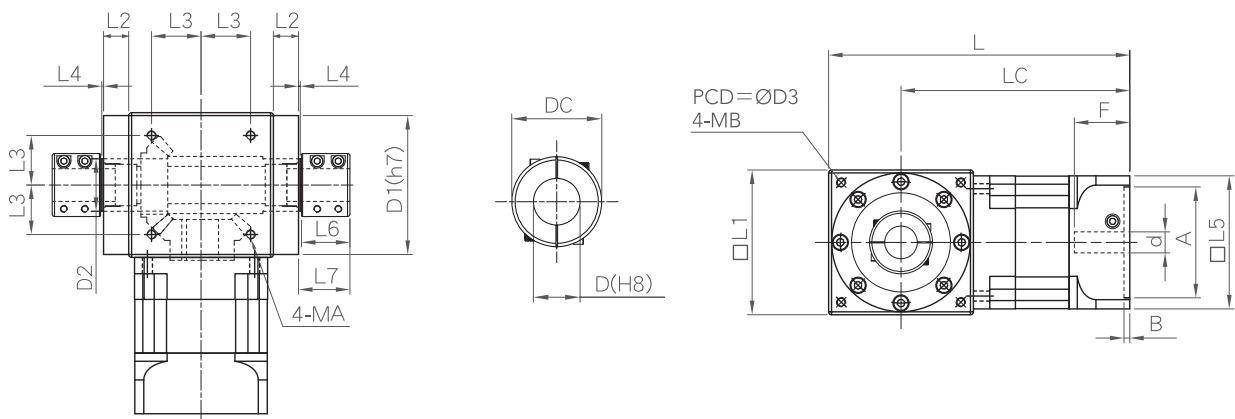
Unit: mm

| Info. | RAM060 2S | RAM090 2S | RAM120 2S | RAM150 2S |
|-------|----------------|----------------|-----------------|------------------|
| L 1 | 83.0 | 114.0 | 124.0 | 154.0 |
| L 2 | 17.0 | 21.5 | 21.5 | 21.0 |
| L 3 | 28.284 | 33.587 | 38.890 | 45.962 |
| MA | M5 x P0.8 x 10 | M6 x P1.0 x 12 | M8 x P1.25 x 14 | M10 x P1.5 x 22 |
| L 4 | 1.5 | 1.5 | 1.5 | 1.5 |
| L 5 | 60.0 | 94.0 | 114.0 | 142.0 |
| L 6 | 3.0 | 5.0 | 5.0 | 5.0 |
| L 7 | 20.0 | 25.0 | 40.0 | 45.0 |
| L 8 | 27.0 | 49.0 | 52.0 | 67.0 |
| LC | Stage 1 | 146.0 | 187.0 | 282.0 |
| | Stage 2 | 168.0 | 215.3 | 333.8 |
| L | Stage 1 | 187.5 | 244.0 | 359.0 |
| | Stage 2 | 209.5 | 272.3 | 410.8 |
| D | 16.0 | 20.0 | 32.0 | 42.0 |
| D1 | 79.0 | 109.0 | 119.0 | 149.0 |
| D2 | 25.0 | 30.0 | 45.0 | 55.0 |
| D3 | 100.0 | 130.0 | 145.0 | 190.0 |
| MB | M5 x P0.8 x 10 | M6 x P1.0 x 12 | M8 x P1.25 x 14 | M10 x P1.5 x 22 |
| M | M4 x P0.7 x 15 | M6 x P1.0 x 20 | M8 x P1.25 x 27 | M12 x P1.75 x 32 |
| K1 | 5.0 | 6.0 | 10.0 | 12.0 |
| K2 | 18.0 | 22.5 | 35.0 | 45.0 |
| d | ≤ 14.0 | ≤ 24.0 | ≤ 28.0 | ≤ 42.0 |
| A | 30~50 | 50~80 | 55~110 | 95~130 |
| B | 6.0 | 6.0 | 5.0 | 10.0 |
| F | ≤ 35.0 | ≤ 47.5 | ≤ 47.5 | ≤ 66.5 |

COLLAR CLAMP

RAM-D series

PHT VERTEX PRECISION COMPONENTS CORP.



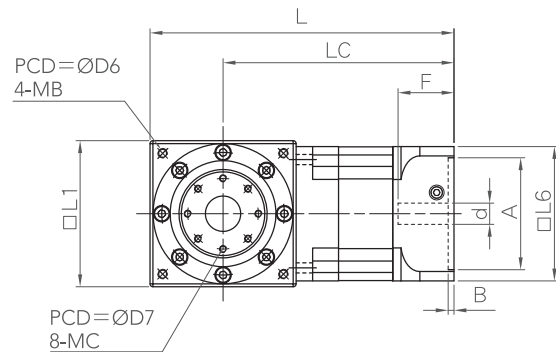
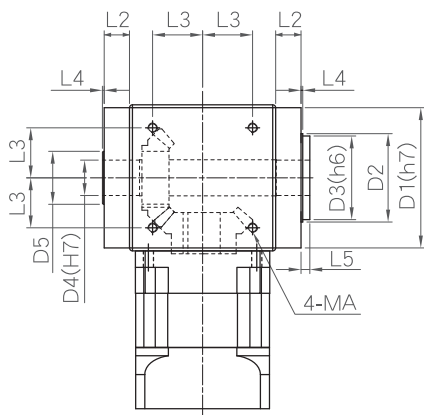
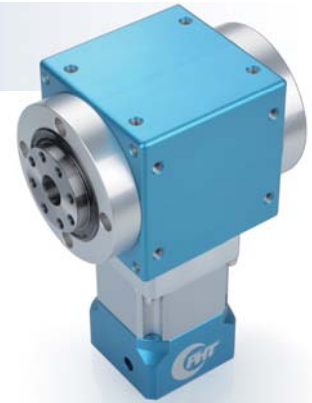
Unit: mm

| Info. | RAM060 D | RAM090 D | RAM120 D | RAM150 D |
|-------|----------------|----------------|-----------------|-----------------|
| L 1 | 83.0 | 114.0 | 124.0 | 154.0 |
| L 2 | 17.0 | 21.5 | 21.5 | 21.0 |
| L 3 | 28.284 | 33.587 | 38.890 | 45.962 |
| MA | M5 x P0.8 x 10 | M6 x P1.0 x 12 | M8 x P1.25 x 14 | M10 x P1.5 x 22 |
| L 4 | 1.5 | 1.5 | 1.5 | 1.5 |
| L 5 | 60.0 | 94.0 | 114.0 | 142.0 |
| L 6 | 33.5 | 33.5 | 42.5 | 42.5 |
| L 7 | 35.0 | 35.0 | 44.0 | 44.0 |
| LC | Stage 1 | 146.0 | 187.0 | 282.0 |
| | Stage 2 | 168.0 | 215.3 | 333.8 |
| L | Stage 1 | 187.5 | 244.0 | 359.0 |
| | Stage 2 | 209.5 | 272.3 | 410.8 |
| DC | 30.0 | 36.0 | 54.0 | 66.0 |
| D | 16.0 | 20.0 | 28.0 | 40.0 |
| D1 | 79.0 | 109.0 | 119.0 | 149.0 |
| D2 | 25.0 | 30.0 | 45.0 | 55.0 |
| D3 | 100.0 | 130.0 | 145.0 | 190.0 |
| MB | M5 x P0.8 x 10 | M6 x P1.0 x 12 | M8 x P1.25 x 14 | M10 x P1.5 x 22 |
| d | ≤ 14.0 | ≤ 24.0 | ≤ 28.0 | ≤ 42.0 |
| A | 30~50 | 50~80 | 55~110 | 95~130 |
| B | 6.0 | 6.0 | 5.0 | 10.0 |
| F | ≤ 35.0 | ≤ 47.5 | ≤ 47.5 | ≤ 66.5 |

FLANGE ROTATING

RAM-F series

PHT VERTEX PRECISION COMPONENTS CORP.



Unit: mm

| Info. | RAM060 F | RAM090 F | RAM120 F | RAM150 F |
|-------|------------------|------------------|------------------|-------------------|
| L 1 | 83.0 | 114.0 | 124.0 | 154.0 |
| L 2 | 17.0 | 21.5 | 21.5 | 21.0 |
| L 3 | 28.284 | 33.587 | 38.890 | 45.962 |
| MA | M5 x P0.8 x 10 | M6 x P1.0 x 12 | M8 x P1.25 x 14 | M10 x P1.5 x 22 |
| L 4 | 1.5 | 1.5 | 1.5 | 1.5 |
| L 5 | 7.5 | 7.5 | 7.5 | 7.5 |
| L 6 | 60.0 | 95.0 | 114.0 | 142.0 |
| LC | Stage 1 | 146.0 | 187.0 | 282.0 |
| | Stage 2 | 168.0 | 215.3 | 333.8 |
| L | Stage 1 | 187.5 | 244.0 | 359.0 |
| | Stage 2 | 209.5 | 272.3 | 410.8 |
| D1 | 79.0 | 109.0 | 119.0 | 139.0 |
| D2 | 45.0 | 60.0 | 75.0 | 80.0 |
| D3 | 44.0 | 59.0 | 71.0 | 79.0 |
| D4 | 15.0 | 20.0 | 30.0 | 35.0 |
| D5 | 25.0 | 30.0 | 45.0 | 55.0 |
| D6 | 100.0 | 130.0 | 145.0 | 190.0 |
| MB | M5 x P0.8 x 10 | M6 x P1.0 x 12 | M8 x P1.25 x 14 | M10 x P1.5 x 22 |
| D7 | 35.0 | 50.0 | 60.0 | 68.0 |
| MC | 8-M5 x P0.8 x 12 | 8-M5 x P0.8 x 15 | 8-M6 x P1.0 x 15 | 12-M6 x P1.0 x 15 |
| d | ≤ 14.0 | ≤ 24.0 | ≤ 28.0 | ≤ 42.0 |
| A | 30~50 | 50~80 | 55~110 | 95~130 |
| B | 6.0 | 6.0 | 5.0 | 10.0 |
| F | ≤ 35.0 | ≤ 47.5 | ≤ 47.5 | ≤ 66.5 |