

# MotionTek Drive Systems

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## Linear Round Rail & Bearing Block — Technical Specifications & Catalogue

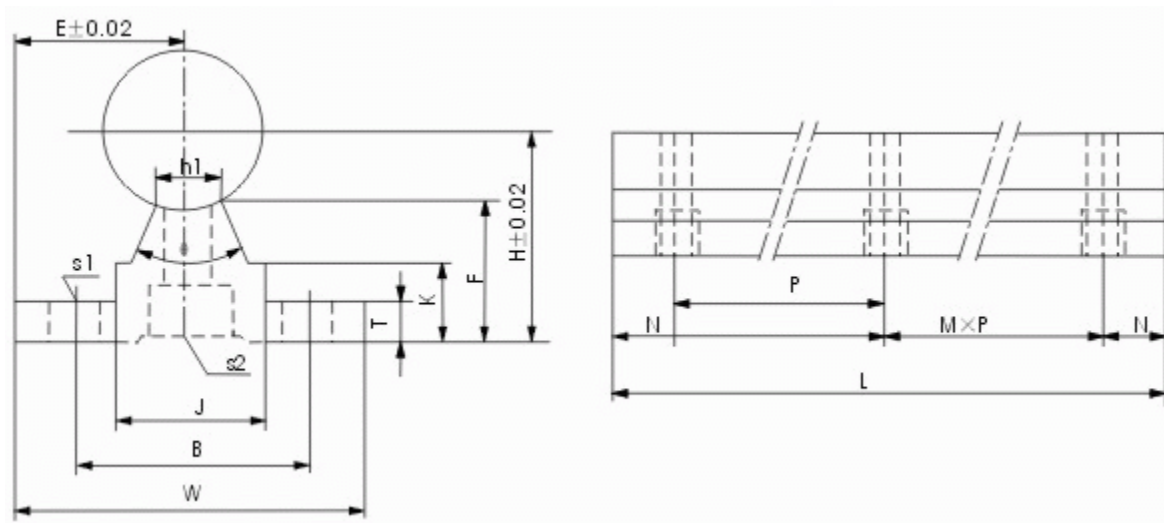
- Linear round rail (LRR) for CNC machines and linear motion systems. Available in shaft diameters 10mm to 50mm. Standard lengths up to 4000mm (157").
- Pillow block bearing (LRB) single and double configurations. Open block and closed type linear motion bearings available. Sizes 10mm to 50mm diameter.
- Complete system: Linear round rail (LRR), single bearing block (LRB), double bearing block (LRBL), open type (LMO) and close type (LMC) bearings.

## Linear Round Rail & Bearing Block



*For items length 2000mm and higher, shipping will be calculated based on location after purchase. Please contact us for any question.*

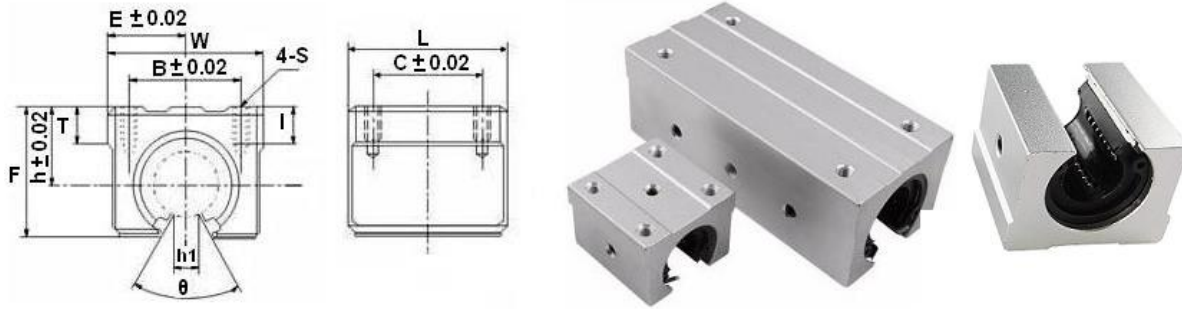
## LINEAR ROUND RAIL DIMENSIONAL SPECIFICATIONS (ALL DIMENSIONS IN mm)



| Part# | ( $\varnothing$ )<br>(mm) | H     | E     | W  | L   | F     | T     | K     | J     | h1    | $\theta$ | B  | N  | M     | x P   | S1  | S2 | Weight<br>kg/m |
|-------|---------------------------|-------|-------|----|-----|-------|-------|-------|-------|-------|----------|----|----|-------|-------|-----|----|----------------|
| LRR10 | 10                        | 18.00 | 16.00 | 32 | 200 | 13.50 | 4.00  | 8.90  | 12.40 | 4.70  | 80       | 22 | 50 | 1x150 | 4.50  | M4  | —  | 1.50           |
| LRR12 | 12                        | 20.46 | 17.00 | 34 | 200 | 15.00 | 4.50  | 9.80  | 15.00 | 6.00  | 80       | 25 | 50 | 1x150 | 4.50  | M4  | —  | 1.70           |
| LRR16 | 16                        | 25.00 | 20.00 | 40 | 200 | 17.80 | 5.00  | 11.70 | 18.50 | 8.00  | 80       | 30 | 25 | 1x150 | 5.50  | M5  | —  | 2.30           |
| LRR20 | 20                        | 27.00 | 22.50 | 45 | 200 | 17.70 | 5.00  | 10.00 | 19.00 | 8.00  | 50       | 30 | 25 | 1x150 | 5.50  | M6  | —  | 2.80           |
| LRR25 | 25                        | 33.00 | 27.50 | 55 | 200 | 21.00 | 6.00  | 12.00 | 21.50 | 8.00  | 50       | 35 | 25 | 1x150 | 6.50  | M6  | —  | 3.00           |
| LRR30 | 30                        | 37.00 | 30.00 | 60 | 200 | 22.80 | 7.00  | 13.00 | 26.50 | 10.30 | 50       | 40 | 25 | 1x150 | 6.50  | M8  | —  | 3.20           |
| LRR35 | 35                        | 43.00 | 32.50 | 65 | 200 | 26.50 | 8.00  | 15.50 | 28.00 | 13.00 | 50       | 45 | 25 | 1x150 | 9.00  | M8  | —  | 4.00           |
| LRR40 | 40                        | 48.00 | 37.50 | 75 | 200 | 29.40 | 9.00  | 17.00 | 38.00 | 15.50 | 50       | 55 | 25 | 1x150 | 9.00  | M8  | —  | 4.50           |
| LRR50 | 50                        | 62.00 | 47.50 | 95 | 200 | 38.80 | 11.00 | 21.00 | 45.00 | 20.00 | 50       | 70 | 25 | 1x150 | 11.00 | M10 | —  | 5.00           |

H=Housing Outer Diameter | E=Flange Height | W=Flange Width | L=Rail Length per piece | F=Hole Spacing | T=Flange Thickness | K=Key Width | J=Key Height | h1=Inner Bore |  $\theta$ =Angle | B=Bolt Circle | N=No. of Holes | M=Thread Size | x P=Pitch | S1=Slot Width | S2=Slot Depth

## LINEAR ROUND RAIL BEARING BLOCK (LRB / LRBL / LMO / LMC)



### BEARING BLOCK DIMENSIONAL SPECIFICATIONS — SINGLE BEARING (LRB)

| Part# | Dia | h  | E    | W   | B   | C    | S  | I    | c  | F  | T  | h1  | θ  | M (mm) | x   | C (kgf) | Co (kgf) | Weight (kg) |
|-------|-----|----|------|-----|-----|------|----|------|----|----|----|-----|----|--------|-----|---------|----------|-------------|
| LRB10 | 10  | 15 | 18   | 36  | 32  | 24   | 7  | 6    | 80 | 25 | 20 | M5  | 10 | —      | 28  | 42      | 0.07     |             |
| LRB12 | 12  | 17 | 20   | 40  | 39  | 27.6 | 8  | 8.5  | 80 | 28 | 26 | M5  | 10 | —      | 31  | 45      | 0.10     |             |
| LRB16 | 16  | 20 | 22.5 | 45  | 45  | 33   | 9  | 10   | 80 | 32 | 30 | M5  | 12 | —      | 44  | 68      | 0.15     |             |
| LRB20 | 20  | 23 | 24   | 48  | 50  | 39   | 11 | 10   | 60 | 35 | 35 | M6  | 12 | —      | 66  | 105     | 0.20     |             |
| LRB25 | 25  | 27 | 30   | 60  | 65  | 47   | 14 | 11.5 | 50 | 40 | 40 | M6  | 12 | —      | 75  | 120     | 0.45     |             |
| LRB30 | 30  | 33 | 35   | 70  | 70  | 56   | 15 | 14   | 50 | 50 | 50 | M8  | 18 | —      | 120 | 210     | 0.63     |             |
| LRB35 | 35  | 37 | 40   | 80  | 80  | 63   | 18 | 16   | 50 | 55 | 55 | M8  | 18 | —      | 127 | 240     | 0.92     |             |
| LRB40 | 40  | 42 | 45   | 90  | 90  | 72   | 20 | 19   | 50 | 65 | 65 | M10 | 20 | —      | 165 | 307     | 1.33     |             |
| LRB50 | 50  | 53 | 60   | 120 | 110 | 92   | 25 | 23   | 50 | 94 | 80 | M10 | 20 | —      | 292 | 607     | 3.00     |             |

### BEARING BLOCK DIMENSIONAL SPECIFICATIONS — DOUBLE BEARING (LRBL)

| Part#  | Dia | h  | E    | W  | B   | C  | S  | I    | c  | F  | T   | h1  | θ  | M (mm) | x   | C (kgf) | Co (kgf) | Weight (kg) |
|--------|-----|----|------|----|-----|----|----|------|----|----|-----|-----|----|--------|-----|---------|----------|-------------|
| LRBL16 | 16  | 20 | 22.5 | 45 | 85  | 33 | 9  | 10   | 80 | 32 | 60  | M5  | 12 | —      | 91  | 139     | 0.30     |             |
| LRBL20 | 20  | 23 | 24   | 48 | 96  | 39 | 11 | 10   | 60 | 35 | 70  | M6  | 12 | —      | 104 | 162     | 0.40     |             |
| LRBL25 | 25  | 27 | 30   | 60 | 130 | 47 | 14 | 11.5 | 50 | 40 | 100 | M6  | 12 | —      | 115 | 184     | 0.90     |             |
| LRBL30 | 30  | 33 | 35   | 70 | 140 | 56 | 15 | 14   | 50 | 50 | 110 | M8  | 18 | —      | 185 | 324     | 1.26     |             |
| LRBL40 | 40  | 42 | 45   | 90 | 175 | 72 | 20 | 19   | 50 | 65 | 140 | M10 | 20 | —      | 155 | 475     | 2.60     |             |



| Item # | Bearing Type       | Description | Bearing Diameter |
|--------|--------------------|-------------|------------------|
| LMO16  | Open Type Bearing  | Open Type   | 16mm / 0.629"    |
| LMO20  | Open Type Bearing  | Open Type   | 20mm / 0.787"    |
| LMC16  | Close Type Bearing | Close Type  | 16mm / 0.629"    |
| LMC20  | Close Type Bearing | Close Type  | 20mm / 0.787"    |

