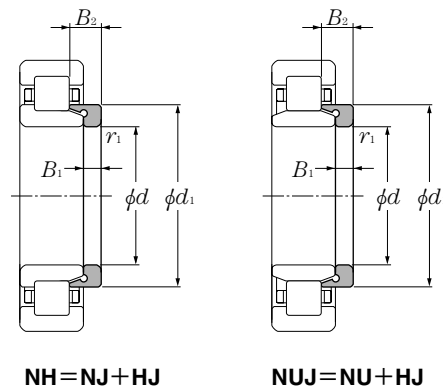


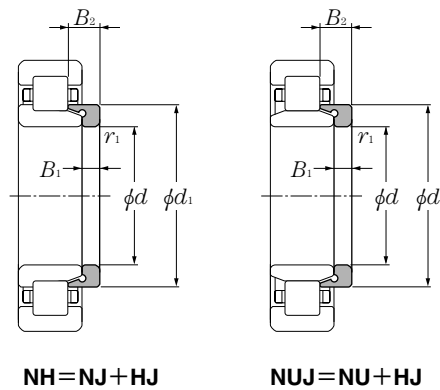
L type collar ring



d 20 ~ 60mm

| Dimensions | | | | | | Bearing numbers | Mass kg (approx.) | Dimensions | | | | | | Bearing numbers | Mass kg (approx.) |
|------------|-------|-------|-------|--------------------|---------|-----------------|-------------------------|------------|-------|---------|--------|--------------------|-------|-----------------|-------------------------|
| mm | | | | | mm | | | | | | | | | | |
| d | d_1 | B_1 | B_2 | $r_{1s \min}^{1)}$ | | | | d | d_1 | B_1 | B_2 | $r_{1s \min}^{1)}$ | | | |
| 20 | 29.9 | 3 | 6.75 | 0.6 | HJ204 | 0.012 | 40 | 54.2 | 5 | 9 | 1.1 | HJ208 | 0.046 | | |
| | 29.5 | 3 | 5.5 | 0.6 | HJ204E | 0.009 | | 53.9 | 5 | 8.5 | 1.1 | HJ208E | 0.042 | | |
| | 29.9 | 3 | 7.5 | 0.6 | HJ2204 | 0.013 | | 54.2 | 5 | 9.5 | 1.1 | HJ2208 | 0.047 | | |
| | 29.5 | 3 | 6.5 | 0.6 | HJ2204E | 0.01 | | 53.9 | 5 | 9 | 1.1 | HJ2208E | 0.045 | | |
| | 31.8 | 4 | 7.5 | 0.6 | HJ304 | 0.017 | | 58.4 | 7 | 12.5 | 1.5 | HJ308 | 0.083 | | |
| | 31.1 | 4 | 6.5 | 0.6 | HJ304E | 0.014 | | 57.6 | 7 | 11 | 1.5 | HJ308E | 0.07 | | |
| | 31.8 | 4 | 8.5 | 0.6 | HJ2304 | 0.018 | | 58.4 | 7 | 14.5 | 1.5 | HJ2308 | 0.09 | | |
| 31.1 | 4 | 7.5 | 0.6 | HJ2304E | 0.015 | 57.6 | 7 | 12.5 | 1.5 | HJ2308E | 0.08 | | | | |
| 25 | 34.8 | 3 | 7.25 | 0.6 | HJ205 | 0.015 | 45 | 59 | 5 | 9.5 | 1.1 | * HJ209 | 0.053 | | |
| | 34.5 | 3 | 6 | 0.6 | HJ205E | 0.012 | | 58.9 | 5 | 8.5 | 1.1 | HJ209E | 0.047 | | |
| | 34.8 | 3 | 7.5 | 0.6 | HJ2205 | 0.015 | | 58.9 | 5 | 9 | 1.1 | HJ2209E | 0.05 | | |
| | 34.5 | 3 | 6.5 | 0.6 | HJ2205E | 0.013 | | 64 | 7 | 12.5 | 1.5 | HJ309 | 0.099 | | |
| | 39 | 4 | 8 | 1.1 | HJ305 | 0.025 | | 64.5 | 7 | 11.5 | 1.5 | HJ309E | 0.093 | | |
| | 38 | 4 | 7 | 1.1 | HJ305E | 0.021 | | 64 | 7 | 15 | 1.5 | HJ2309 | 0.109 | | |
| | 39 | 4 | 9 | 1.1 | HJ2305 | 0.027 | | 64.5 | 7 | 13 | 1.5 | HJ2309E | 0.103 | | |
| | 38 | 4 | 8 | 1.1 | HJ2305E | 0.024 | | 71.8 | 8 | 13.5 | 2 | HJ409 | 0.175 | | |
| 43.6 | 6 | 10.5 | 1.5 | HJ405 | 0.057 | 50 | 64.6 | 5 | 10 | 1.1 | HJ210 | 0.063 | | | |
| 30 | 41.7 | 4 | 8.25 | 0.6 | HJ206 | | 0.025 | 63.9 | 5 | 9 | 1.1 | * HJ210E | 0.055 | | |
| | 41.1 | 4 | 7 | 0.6 | HJ206E | | 0.017 | 64.6 | 5 | 9.5 | 1.1 | HJ2210 | 0.061 | | |
| | 41.7 | 4 | 8.5 | 0.6 | HJ2206 | | 0.025 | 71 | 8 | 14 | 2 | HJ310 | 0.142 | | |
| | 41.1 | 4 | 7.5 | 0.6 | HJ2206E | | 0.02 | 71.4 | 8 | 13 | 2 | HJ310E | 0.134 | | |
| | 45.9 | 5 | 9.5 | 1.1 | HJ306 | | 0.039 | 71 | 8 | 17 | 2 | HJ2310 | 0.157 | | |
| | 44.9 | 5 | 8.5 | 1.1 | HJ306E | | 0.035 | 71.4 | 8 | 14.5 | 2 | HJ2310E | 0.15 | | |
| | 45.9 | 5 | 11.5 | 1.1 | HJ2306 | | 0.043 | 78.8 | 9 | 14.5 | 2.1 | HJ410 | 0.23 | | |
| | 44.9 | 5 | 9.5 | 1.1 | HJ2306E | 0.035 | 55 | 70.8 | 6 | 11 | 1.1 | * HJ211 | 0.084 | | |
| 50.5 | 7 | 11.5 | 1.5 | HJ406 | 0.08 | 70.8 | | 6 | 9.5 | 1.1 | HJ211E | 0.072 | | | |
| 35 | 47.6 | 4 | 8 | 0.6 | HJ207 | 0.03 | | 70.8 | 6 | 10 | 1.1 | HJ2211E | 0.076 | | |
| | 48 | 4 | 7 | 0.6 | HJ207E | 0.027 | | 77.2 | 9 | 15 | 2 | HJ311 | 0.182 | | |
| | 47.6 | 4 | 8.5 | 0.6 | HJ2207 | 0.031 | | 77.7 | 9 | 14 | 2 | HJ311E | 0.168 | | |
| | 48 | 4 | 8.5 | 0.6 | HJ2207E | 0.031 | | 77.2 | 9 | 18.5 | 2 | HJ2311 | 0.203 | | |
| | 50.8 | 6 | 11 | 1.1 | HJ307 | 0.056 | | 77.7 | 9 | 15.5 | 2 | HJ2311E | 0.185 | | |
| | 51 | 6 | 9.5 | 1.1 | HJ307E | 0.048 | | 85.2 | 10 | 16.5 | 2.1 | HJ411 | 0.29 | | |
| | 50.8 | 6 | 14 | 1.1 | HJ2307 | 0.064 | 60 | 78.4 | 6 | 11 | 1.5 | * HJ212 | 0.108 | | |
| | 51 | 6 | 11 | 1.1 | HJ2307E | 0.055 | | 77.6 | 6 | 10 | 1.5 | * HJ212E | 0.094 | | |
| 59 | 8 | 13 | 1.5 | HJ407 | 0.12 | | | | | | | | | | |

1) Minimal allowable dimension for chamfer dimension r . Note: 1. This L type collar ring is used with **NU** type cylindrical roller bearings; in duplex arrangements with **NJ** or **NU** type bearing numbers, they become **NH** type and **NUJ** type respectively. For bearing dimensions, allowable rotations, and mass, please refer to pages **B-80** to **B-84**. 2. " * " indicates L type collar rings that can also be used with dimension series **22** bearings.



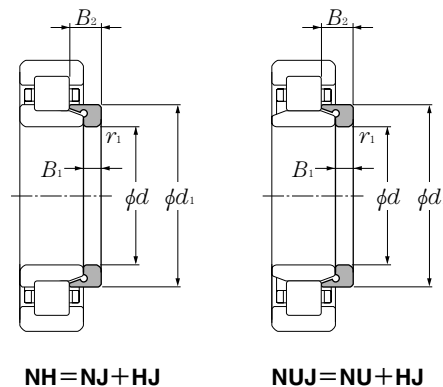
d 60 ~ 105mm

| | Dimensions | | | | | Bearing numbers | Mass kg (approx.) |
|-----------|----------------|----------------|----------------|-----------------------------------|-----------------|-----------------|-------------------------|
| | mm | | | | | | |
| d | d ₁ | B ₁ | B ₂ | r _{1s min} ¹⁾ | | | |
| 60 | 84.2 | 9 | 15.5 | 2.1 | HJ312 | 0.22 | |
| | 84.6 | 9 | 14.5 | 2.1 | HJ312E | 0.205 | |
| | 84.2 | 9 | 19 | 2.1 | HJ2312 | 0.245 | |
| | 84.6 | 9 | 16 | 2.1 | HJ2312E | 0.23 | |
| | 91.8 | 10 | 16.5 | 2.1 | HJ412 | 0.34 | |
| 65 | 84.8 | 6 | 11 | 1.5 | HJ213 | 0.123 | |
| | 84.5 | 6 | 10 | 1.5 | HJ213E | 0.111 | |
| | 84.8 | 6 | 11.5 | 1.5 | HJ2213 | 0.126 | |
| | 84.5 | 6 | 10.5 | 1.5 | HJ2213E | 0.118 | |
| | 91 | 10 | 17 | 2.1 | HJ313 | 0.28 | |
| | 91 | 10 | 15.5 | 2.1 | HJ313E | 0.25 | |
| | 91 | 10 | 20 | 2.1 | HJ2313 | 0.304 | |
| | 91 | 10 | 18 | 2.1 | HJ2313E | 0.29 | |
| 70 | 89.6 | 7 | 12.5 | 1.5 | * HJ214 | 0.15 | |
| | 89.5 | 7 | 11 | 1.5 | HJ214E | 0.13 | |
| | 89.5 | 7 | 11.5 | 1.5 | HJ2214E | 0.138 | |
| | 98 | 10 | 17.5 | 2.1 | HJ314 | 0.33 | |
| | 98 | 10 | 15.5 | 2.1 | HJ314E | 0.293 | |
| | 98 | 10 | 20.5 | 2.1 | HJ2314 | 0.358 | |
| | 98 | 10 | 18.5 | 2.1 | HJ2314E | 0.35 | |
| 110.5 | 12 | 20 | 3 | HJ414 | 0.605 | | |
| 75 | 94 | 7 | 12.5 | 1.5 | * HJ215 | 0.156 | |
| | 94.5 | 7 | 11 | 1.5 | HJ215E | 0.141 | |
| | 94.5 | 7 | 11.5 | 1.5 | HJ2215E | 0.164 | |
| | 104.2 | 11 | 18.5 | 2.1 | HJ315 | 0.4 | |
| | 104.6 | 11 | 16.5 | 2.1 | HJ315E | 0.35 | |
| | 104.2 | 11 | 21.5 | 2.1 | HJ2315 | 0.432 | |
| | 104.6 | 11 | 19.5 | 2.1 | HJ2315E | 0.41 | |
| | 116.0 | 13 | 21.5 | 3 | HJ415 | 0.71 | |
| 80 | 101.2 | 8 | 13.5 | 2 | * HJ216 | 0.207 | |
| | 101.7 | 8 | 12.5 | 2 | * HJ216E | 0.193 | |
| | 111.8 | 11 | 19.5 | 2.1 | HJ316 | 0.47 | |
| | 111 | 11 | 17 | 2.1 | HJ316E | 0.405 | |
| | 111.8 | 11 | 23 | 2.1 | HJ2316 | 0.511 | |

| | Dimensions | | | | | Bearing numbers | Mass kg (approx.) |
|------------|----------------|----------------|----------------|-----------------------------------|----------------|-----------------|-------------------------|
| | mm | | | | | | |
| d | d ₁ | B ₁ | B ₂ | r _{1s min} ¹⁾ | | | |
| 80 | 111 | 11 | 20 | 2.1 | HJ2316E | 0.45 | |
| | 122 | 13 | 22 | 3 | HJ416 | 0.78 | |
| 85 | 108.2 | 8 | 14 | 2 | * HJ217 | 0.25 | |
| | 107.7 | 8 | 12.5 | 2 | HJ217E | 0.21 | |
| | 107.7 | 8 | 13 | 2 | HJ2217E | 0.216 | |
| | 117.5 | 12 | 20.5 | 3 | HJ317 | 0.56 | |
| | 118.4 | 12 | 18.5 | 3 | HJ317E | 0.505 | |
| 90 | 114.2 | 9 | 15 | 2 | HJ218 | 0.305 | |
| | 114.6 | 9 | 14 | 2 | HJ218E | 0.272 | |
| | 114.2 | 9 | 16 | 2 | HJ2218 | 0.315 | |
| | 114.6 | 9 | 15 | 2 | HJ2218E | 0.308 | |
| | 125 | 12 | 21 | 3 | HJ318 | 0.63 | |
| 95 | 124.7 | 12 | 18.5 | 3 | HJ318E | 0.548 | |
| | 125 | 12 | 26 | 3 | HJ2318 | 0.704 | |
| | 124.7 | 12 | 22 | 3 | HJ2318E | 0.69 | |
| | 121 | 9 | 15.5 | 2.1 | HJ219 | 0.352 | |
| | 121 | 9 | 14.0 | 2.1 | HJ219E | 0.304 | |
| 100 | 121 | 9 | 16.5 | 2.1 | HJ2219 | 0.363 | |
| | 121 | 9 | 15.5 | 2.1 | HJ2219E | 0.335 | |
| | 132 | 13 | 22.5 | 3 | HJ319 | 0.76 | |
| | 132.7 | 13 | 20.5 | 3 | HJ319E | 0.7 | |
| | 132 | 13 | 26.5 | 3 | HJ2319 | 0.826 | |
| | 132.7 | 13 | 24.5 | 3 | HJ2319E | 0.8 | |
| | 128 | 10 | 17 | 2.1 | HJ220 | 0.444 | |
| 128 | 10 | 15 | 2.1 | HJ220E | 0.38 | | |
| 105 | 128 | 10 | 18 | 2.1 | HJ2220 | 0.456 | |
| | 128 | 10 | 16 | 2.1 | HJ2220E | 0.385 | |
| | 140.5 | 13 | 22.5 | 3 | HJ320 | 0.895 | |
| | 140.3 | 13 | 20.5 | 3 | HJ320E | 0.8 | |
| | 140.5 | 13 | 27.5 | 3 | HJ2320 | 0.986 | |
| 140.3 | 13 | 23.5 | 3 | HJ2320E | 0.92 | | |
| 105 | 135.0 | 10 | 17.5 | 2.1 | HJ221 | 0.505 | |

1) Minimal allowable dimension for chamfer dimension r. Note: 1. This L type collar ring is used with **NU** type cylindrical roller bearings; in duplex arrangements with **NJ** or **NU** type bearing numbers, they become **NH** type and **NUJ** type respectively. For bearing dimensions, allowable rotations, and mass, please refer to pages **B-84** to **B-88**. 2. " * " indicates L type collar rings that can also be used with dimension series **22** bearings.

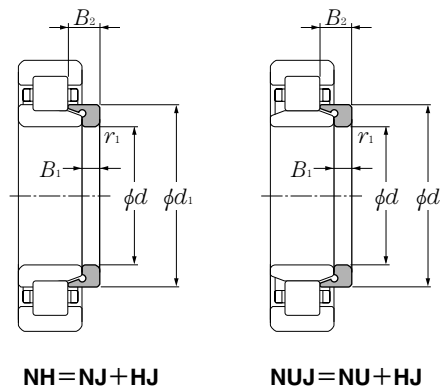
L type collar ring



d 105 ~ 200mm

| Dimensions | | | | | | Bearing numbers | Mass kg (approx.) | Dimensions | | | | | Bearing numbers | Mass kg (approx.) |
|------------|----------------|----------------|----------------|-----------------------------------|----------------|-----------------|-------------------------|----------------|----------------|-----------------------------------|----------------|----------------|-----------------|-------------------------|
| mm | | | | | mm | | | | | | | | | |
| d | d ₁ | B ₁ | B ₂ | r _{1s min} ¹⁾ | | d | d ₁ | B ₁ | B ₂ | r _{1s min} ¹⁾ | | | | |
| 105 | 147.0 | 13 | 22.5 | 3 | HJ321 | 0.97 | 150 | 194 | 12 | 19.5 | 3 | HJ230E | 1.18 | |
| | 110 | 141.5 | 11 | 18.5 | 2.1 | HJ222 | | 0.615 | 193 | 12 | 26.5 | 3 | HJ2230E | 1.39 |
| | | 142.1 | 11 | 17 | 2.1 | HJ222E | | 0.553 | 194 | 12 | 24.5 | 3 | HJ2230E | 1.42 |
| | | 141.5 | 11 | 20.5 | 2.1 | HJ2222 | | 0.645 | 210 | 15 | 26.5 | 4 | HJ330 | 2.37 |
| | | 142.1 | 11 | 19.5 | 2.1 | HJ2222E | | 0.605 | 211 | 15 | 25 | 4 | HJ330E | 2.25 |
| 155.5 | | 14 | 23 | 3 | HJ322 | 1.17 | | 210 | 15 | 34 | 4 | HJ2330 | 2.69 | |
| 156.6 | | 14 | 22 | 3 | HJ322E | 1.09 | | 211 | 15 | 31.5 | 4 | HJ2330E | 2.6 | |
| 155.5 | | 14 | 28 | 3 | HJ2322 | 1.28 | | 160 | 207 | 12 | 21 | 3 | HJ232 | 1.48 |
| 156.6 | 14 | 26.5 | 3 | HJ2322E | 1.25 | 207.8 | | | 12 | 20 | 3 | HJ232E | 1.34 | |
| 120 | 153 | 11 | 19 | 2.1 | HJ224 | 0.715 | | | 207 | 12 | 28 | 3 | HJ2232 | 1.69 |
| | 153.9 | 11 | 17 | 2.1 | HJ224E | 0.634 | 206.6 | | 12 | 24.5 | 3 | HJ2232E | 1.61 | |
| | 153 | 11 | 22 | 2.1 | HJ2224 | 0.767 | 225 | | 15 | 28 | 4 | HJ332 | 2.75 | |
| | 153.9 | 11 | 20 | 2.1 | HJ2224E | 0.705 | 223.2 | | 15 | 25 | 4 | HJ332E | 2.4 | |
| | 168.5 | 14 | 23.5 | 3 | HJ324 | 1.4 | 225 | | 15 | 37 | 4 | HJ2332 | 3.16 | |
| | 169.2 | 14 | 22.5 | 3 | HJ324E | 1.28 | 223.2 | 15 | 32 | 4 | HJ2332E | 2.85 | | |
| | 168.5 | 14 | 28 | 3 | HJ2324 | 1.53 | 170 | 220.5 | 12 | 22 | 4 | HJ234 | 1.7 | |
| 169.2 | 14 | 26 | 3 | HJ2324E | 1.42 | 221.4 | | 12 | 20 | 4 | HJ234E | 1.51 | | |
| 130 | 165.5 | 11 | 19 | 3 | HJ226 | 0.84 | | 220.5 | 12 | 29 | 4 | HJ2234 | 1.93 | |
| | 164.7 | 11 | 17 | 3 | HJ226E | 0.684 | | 220.2 | 12 | 24 | 4 | HJ2234E | 1.82 | |
| | 165.5 | 11 | 25 | 3 | HJ2226 | 0.953 | | 238 | 16 | 29.5 | 4 | HJ334 | 3.25 | |
| | 164.7 | 11 | 21 | 3 | HJ2226E | 0.831 | | 238 | 16 | 38.5 | 4 | HJ2334 | 3.71 | |
| | 182 | 14 | 24 | 4 | HJ326 | 1.62 | | 180 | 230.5 | 12 | 22 | 4 | HJ236 | 1.8 |
| | 183 | 14 | 23 | 4 | HJ326E | 1.53 | 231.4 | | 12 | 20 | 4 | HJ236E | 1.7 | |
| | 182 | 14 | 29.5 | 4 | HJ2326 | 1.8 | 230.5 | | 12 | 29 | 4 | HJ2236 | 2.04 | |
| 183 | 14 | 28 | 4 | HJ2326E | 1.75 | 230.2 | 12 | | 24 | 4 | HJ2236E | 1.91 | | |
| 140 | 179.5 | 11 | 19 | 3 | HJ228 | 1 | 252 | | 17 | 30.5 | 4 | HJ336 | 3.85 | |
| | 180.2 | 11 | 18 | 3 | HJ228E | 0.929 | 252 | | 17 | 40 | 4 | HJ2336 | 4.42 | |
| | 179.5 | 11 | 25 | 3 | HJ2228 | 1.14 | 190 | | 244.5 | 13 | 23.5 | 4 | HJ238 | 2.2 |
| | 180.2 | 11 | 23 | 3 | HJ2228E | 1.11 | | 245.2 | 13 | 21.5 | 4 | HJ238E | 1.94 | |
| | 196 | 15 | 26 | 4 | HJ328 | 1.93 | | 244.5 | 13 | 31.5 | 4 | HJ2238 | 2.52 | |
| | 196.8 | 15 | 25 | 4 | HJ328E | 1.91 | | 244 | 13 | 26.5 | 4 | HJ2238E | 2.38 | |
| | 196 | 15 | 33.5 | 4 | HJ2328 | 2.21 | | 265 | 18 | 32 | 5 | HJ338 | 4.45 | |
| 196.8 | 15 | 31 | 4 | HJ2328E | 2.3 | 265 | | 18 | 41.5 | 5 | HJ2338 | 5.05 | | |
| 150 | 193 | 12 | 20.5 | 3 | HJ230 | 1.24 | | 200 | 258 | 14 | 25 | 4 | HJ240 | 2.6 |

1) Minimal allowable dimension for chamfer dimension r. Note: 1. This L type collar ring is used with **NU** type cylindrical roller bearings; in duplex arrangements with **NJ** or **NU** type bearing numbers, they become **NH** type and **NUJ** type respectively. For bearing dimensions, allowable rotations, and mass, please refer to pages **B-88** to **B-94**. 2. " * " indicates L type collar rings that can also be used with dimension series **22** bearings.



d 200 ~ 320mm

| | Dimensions | | | | Bearing numbers | Mass kg (approx.) |
|------------|----------------|----------------|----------------|-----------------------------------|-----------------|-------------------------|
| | mm | | | | | |
| d | d ₁ | B ₁ | B ₂ | r _{1s min} ¹⁾ | | |
| 200 | 259 | 14 | 23 | 4 | HJ240E | 2.35 |
| | 258 | 14 | 34 | 4 | HJ2240 | 2.99 |
| | 257.8 | 14 | 28 | 4 | HJ2240E | 2.86 |
| | 280 | 18 | 33 | 5 | HJ340 | 5 |
| | 280 | 18 | 44.5 | 5 | HJ2340 | 5.76 |
| 220 | 286 | 15 | 27.5 | 4 | HJ244 | 3.55 |
| | 307 | 20 | 36 | 5 | HJ344 | 7.05 |
| 240 | 313 | 16 | 29.5 | 4 | HJ248 | 4.65 |
| | 335 | 22 | 39.5 | 5 | HJ348 | 8.2 |
| 260 | 340 | 18 | 33 | 5 | HJ252 | 6.2 |
| | 362 | 24 | 43 | 6 | HJ352 | 11.4 |
| 280 | 360 | 18 | 33 | 5 | HJ256 | 7.39 |
| | 390 | 26 | 46 | 6 | HJ356 | 13.9 |
| 300 | 387 | 20 | 34.5 | 5 | HJ260 | 9.14 |
| 320 | 415 | 21 | 37 | 5 | HJ264 | 11.3 |

1) Minimal allowable dimension for chamfer dimension r. Note: 1. This L type collar ring is used with **NU** type cylindrical roller bearings; in duplex arrangements with **NJ** or **NU** type bearing numbers, they become **NH** type and **NUJ** type respectively. For bearing dimensions, allowable rotations, and mass, please refer to pages **B-94** to **B-97**. 2. " * " indicates L type collar rings that can also be used with dimension series **22** bearings.