

# ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

## ISO RECOMMENDATION R 1123

ROLLING BEARINGS  
TAPERED ROLLER BEARINGS  
INCH SERIES  
CHAMFER DIMENSION LIMITS

1st EDITION

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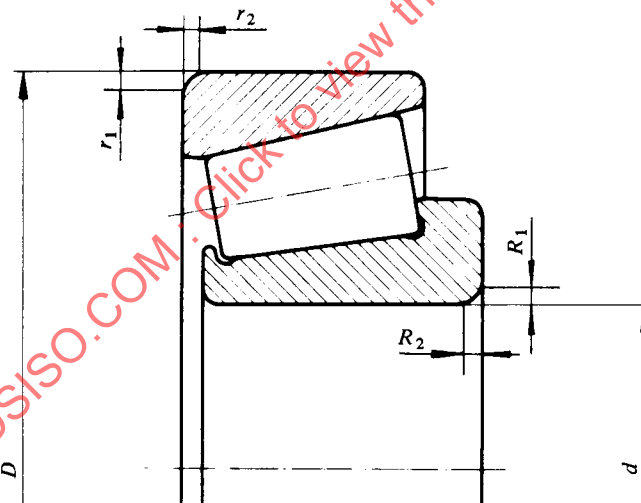
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**ROLLING BEARINGS**  
**TAPERED ROLLER BEARINGS**  
**INCH SERIES**  
**CHAMFER DIMENSION LIMITS**

**1. SCOPE**

This ISO Recommendation comprises the maximum chamfer dimension limits for the chamfers, for which minimum values  $R_{\min}$  and  $r_{\min}$  are given in ISO Recommendation R 355, Part I, *Rolling bearings – Tapered roller bearings – Boundary dimensions*.

**2. SYMBOLS**



- $d$  = inner ring bore diameter
- $D$  = outer ring outside diameter
- $R$  = nominal dimension of inner ring backface chamfer
- $R_1$  = height of inner ring backface chamfer
- $R_2$  = width of inner ring backface chamfer
- $r$  = nominal dimension of outer ring backface chamfer
- $r_1$  = height of outer ring backface chamfer
- $r_2$  = width of outer ring backface chamfer

### 3. CHAMFER DIMENSION LIMITS

TABLE 1 — Inner ring

| Bore diameter<br><i>d</i><br>nominal |       | Chamfer height |             | Chamfer width |             |
|--------------------------------------|-------|----------------|-------------|---------------|-------------|
|                                      |       | $R_1$          |             | $R_2$         |             |
| Over                                 | Incl. | Min.           | Max.        | Min.          | Max.        |
| Values in inches                     |       |                |             |               |             |
| —                                    | 2     | $R$            | $R + 0.015$ | $R$           | $R + 0.035$ |
| (2)                                  | 4     | $R$            | $R + 0.020$ | $R$           | $R + 0.050$ |
| (4)                                  | 10    | $R$            | $R + 0.025$ | $R$           | $R + 0.070$ |
| Values in millimetres                |       |                |             |               |             |
| —                                    | 50.8  | $R$            | $R + 0.38$  | $R$           | $R + 0.89$  |
| (50.8)                               | 101.6 | $R$            | $R + 0.51$  | $R$           | $R + 1.27$  |
| (101.6)                              | 254   | $R$            | $R + 0.64$  | $R$           | $R + 1.78$  |

The value of  $R$  is identical with that of  $R_{\min}$  in ISO Recommendation R 355, Part I.

TABLE 2 — Outer ring

| Outside diameter<br><i>D</i><br>nominal |         | Chamfer height |             | Chamfer width |             |
|-----------------------------------------|---------|----------------|-------------|---------------|-------------|
|                                         |         | $r_1$          |             | $r_2$         |             |
| Over                                    | Incl.   | Min.           | Max.        | Min.          | Max.        |
| Values in inches                        |         |                |             |               |             |
| —                                       | 4       | $r$            | $r + 0.023$ | $r$           | $r + 0.042$ |
| (4)                                     | 6.625   | $r$            | $r + 0.025$ | $r$           | $r + 0.046$ |
| (6.625)                                 | 14      | $r$            | $r + 0.033$ | $r$           | $r + 0.053$ |
| Values in millimetres                   |         |                |             |               |             |
| —                                       | 101.6   | $r$            | $r + 0.58$  | $r$           | $r + 1.07$  |
| (101.6)                                 | 168.275 | $r$            | $r + 0.64$  | $r$           | $r + 1.17$  |
| (168.275)                               | 355.6   | $r$            | $r + 0.84$  | $r$           | $r + 1.35$  |

The value of  $r$  is identical with that of  $r_{\min}$  in ISO Recommendation R 355, Part I.