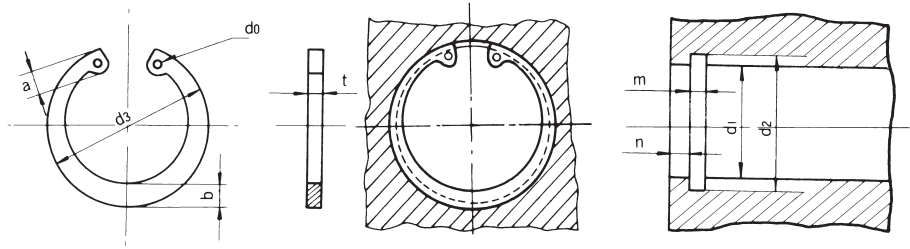


# C-Type Retaining Rings For Holes (Nominals $\phi 10 \sim \phi 63$ )

JIS B 2804 (Ref.)



Unit : mm

| Dimensions Code | Nominals $d_1$ | Dimensions of Retaining Rings |            |       |            |            |         |       | Thrust Loading Allowance (Ref.)<br>kN | Groove Dimensions (Ref.) |              |       |           |      |
|-----------------|----------------|-------------------------------|------------|-------|------------|------------|---------|-------|---------------------------------------|--------------------------|--------------|-------|-----------|------|
|                 |                | $d_3$                         |            | t     |            | b          | a       | $d_0$ |                                       | $d_2$                    |              | m     |           | n    |
|                 |                | Basic                         | Tolerance  | Basic | Tolerance  | Approx.    | Approx. | Min.  |                                       | Basic                    | Tolerance    | Basic | Tolerance | Min. |
| 17010           | 10             | 10.7                          | $\pm 0.18$ | 1     | $\pm 0.05$ | 1.8        | 3.1     | 1.2   | 4.71                                  | 10.4                     | $+0.11$<br>0 | 1.15  | 1.5       |      |
| 17011           | 11             | 11.8                          |            |       |            |            | 3.2     |       | 5.22                                  |                          |              |       |           | 11.4 |
| 17012           | 12             | 13                            |            |       |            |            | 3.3     | 5.69  | 12.5                                  |                          |              |       |           |      |
| 17013           | 13             | 14.1                          |            |       |            |            | 3.5     | 6.16  | 13.6                                  |                          |              |       |           |      |
| 17014           | 14             | 15.1                          |            |       |            |            | 3.6     | 6.67  | 14.6                                  |                          |              |       |           |      |
| 17015           | 15             | 16.2                          |            |       |            | 2          | 1.7     | 3.6   | 7.18                                  |                          |              |       |           | 15.7 |
| 17016           | 16             | 17.3                          |            |       |            |            |         | 3.7   | 7.65                                  |                          |              |       |           | 16.8 |
| 17017           | 17             | 18.3                          |            |       |            |            |         | 3.8   | 8.08                                  |                          |              |       |           | 17.8 |
| 17018           | 18             | 19.5                          |            |       |            |            |         | 4.0   | 8.55                                  |                          |              |       |           | 19   |
| 17019           | 19             | 20.5                          |            |       |            |            |         | 4.0   | 9.10                                  |                          |              |       |           | 20   |
| 17020           | 20             | 21.5                          | $\pm 0.2$  | 1.2   | 2.5        | 4.0        | 2       | 9.57  | 20                                    | $+0.21$<br>0             | 1.35         | 1.5   |           |      |
| 17021           | 21             | 22.5                          |            |       |            | 4.1        |         | 10.20 |                                       |                          |              |       | 22        |      |
| 17022           | 22             | 23.5                          |            |       |            | 4.1        |         | 12.71 |                                       |                          |              |       | 23        |      |
| 17024           | 24             | 25.9                          |            |       |            | 4.3        |         | 13.81 |                                       |                          |              |       | 25.2      |      |
| 17025           | 25             | 26.9                          |            |       |            | 4.4        |         | 14.59 |                                       |                          |              |       | 26.2      |      |
| 17026           | 26             | 27.9                          | $\pm 0.25$ | 1.5   | 3          | 4.6        | 2.5     | 15.38 | 27.2                                  | $+0.25$<br>0             | 1.65         | 2     |           |      |
| 17028           | 28             | 30.1                          |            |       |            | 4.6        |         | 16.24 |                                       |                          |              |       | 29.4      |      |
| 17030           | 30             | 32.1                          |            |       |            | 4.7        |         | 17.26 |                                       |                          |              |       | 31.4      |      |
| 17032           | 32             | 34.4                          |            |       |            | 5.2        |         | 19.30 |                                       |                          |              |       | 33.7      |      |
| 17034           | 34             | 36.5                          |            |       |            | 5.2        |         | 24.32 |                                       |                          |              |       | 35.7      |      |
| 17035           | 35             | 37.8                          | $\pm 0.06$ | 1.75  | 3.5        | 5.2        | 2.5     | 25.11 | 37                                    | $+0.14$<br>0             | 1.90         | 2     |           |      |
| 17036           | 36             | 38.8                          |            |       |            | 5.2        |         | 25.89 |                                       |                          |              |       | 38        |      |
| 17037           | 37             | 39.8                          |            |       |            | 5.2        |         | 26.83 |                                       |                          |              |       | 39        |      |
| 17038           | 38             | 40.8                          |            |       |            | 5.3        |         | 27.46 |                                       |                          |              |       | 40        |      |
| 17040           | 40             | 43.5                          |            |       |            | 5.7        |         | 32.01 |                                       |                          |              |       | 42.5      |      |
| 17042           | 42             | 45.5                          | $\pm 0.4$  | 2     | 4          | 5.8        | 2.5     | 35.70 | 44.5                                  | $+0.3$<br>0              | 2.2          | 2     |           |      |
| 17045           | 45             | 48.5                          |            |       |            | 5.9        |         | 37.78 |                                       |                          |              |       | 47.5      |      |
| 17047           | 47             | 50.5                          |            |       |            | 4.5        |         | 6.1   |                                       |                          |              |       | 39.62     | 49.5 |
| 17048           | 48             | 51.5                          |            |       |            |            |         | 6.2   |                                       |                          |              |       | 40.80     | 50.5 |
| 17050           | 50             | 54.2                          |            |       |            | $\pm 0.45$ |         | 1.75  |                                       |                          |              |       | 4.5       | 6.5  |
| 17052           | 52             | 56.2                          | 6.5        | 50.21 | 55         |            |         |       |                                       |                          |              |       |           |      |
| 17055           | 55             | 59.2                          | 5.1        | 6.5   | 53.35      |            | 58      |       |                                       |                          |              |       |           |      |
| 17056           | 56             | 60.2                          |            | 6.6   | 54.52      |            | 59      |       |                                       |                          |              |       |           |      |
| 17058           | 58             | 62.2                          |            | 6.8   | 56.09      |            | 61      |       |                                       |                          |              |       |           |      |
| 17060           | 60             | 64.2                          | 5.5        | 2     | 5.5        | 6.8        | 2.5     | 57.66 | 63                                    | $+0.3$<br>0              | 2.2          | 2     |           |      |
| 17062           | 62             | 66.2                          |            |       |            | 6.9        |         | 60.41 |                                       |                          |              |       | 65        |      |
| 17063           | 63             | 67.2                          |            |       |            | 6.9        |         | 61.98 |                                       |                          |              |       | 66        |      |

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Unit : mm

| Dimensions Code | Nominals $d_1$ | Dimensions of Retaining Rings |                |       |           |         |            |       | Thrust Loading Allowance (Ref.)<br>kN | Groove Dimensions (Ref.) |            |       |            |      |
|-----------------|----------------|-------------------------------|----------------|-------|-----------|---------|------------|-------|---------------------------------------|--------------------------|------------|-------|------------|------|
|                 |                | $d_3$                         |                | t     |           | b       | a          | $d_0$ |                                       | $d_2$                    |            | m     |            | n    |
|                 |                | Basic                         | Tolerance      | Basic | Tolerance | Approx. | Approx.    | Min.  |                                       | Basic                    | Tolerance  | Basic | Tolerance  | Min. |
| 17065           | 65             | 69.2                          | ±0.45          | 2.5   | ±0.08     | 5.5     | 7          | 2.5   | 79.24                                 | 68                       | +0.3<br>0  | 2.7   | +0.14<br>0 | 2.5  |
| 17068           | 68             | 72.5                          |                |       |           | 6       | 7.4        |       | 81.59                                 | 71                       |            |       |            |      |
| 17070           | 70             | 74.5                          |                |       |           | 6       | 7.4        |       | 84.34                                 | 73                       |            |       |            |      |
| 17072           | 72             | 76.5                          |                |       |           | 6.6     | 7.8        |       | 86.30                                 | 75                       |            |       |            |      |
| 17075           | 75             | 79.5                          |                |       |           | 6.6     | 7.8        |       | 91.01                                 | 78                       |            |       |            |      |
| 17078           | 78             | 82.5                          | ±0.55          | 3     | ±0.09     | 8       | 8          | 3     | 94.14                                 | 81                       | +0.35<br>0 | 3.2   | 3          |      |
| 17080           | 80             | 85.5                          |                |       |           | 7       | 8          |       | 96.50                                 | 83.5                     |            |       |            |      |
| 17082           | 82             | 87.5                          |                |       |           | 7       | 8          |       | 98.85                                 | 85.5                     |            |       |            |      |
| 17085           | 85             | 90.5                          |                |       |           | 7.6     | 8.2        |       | 122.39                                | 88.5                     |            |       |            |      |
| 17088           | 88             | 93.5                          |                |       |           | 7.6     | 8.3        |       | 127.09                                | 91.5                     |            |       |            |      |
| 17090           | 90             | 95.5                          | 8              | 8.3   | 130.23    | 93.5    | +0.54<br>0 | 4.2   | +0.18<br>0                            | 4                        |            |       |            |      |
| 17092           | 92             | 97.5                          | 8              | 8.3   | 131.80    | 95.5    |            |       |                                       |                          |            |       |            |      |
| 17095           | 95             | 100.5                         | 8.3            | 8.7   | 138.86    | 98.5    |            |       |                                       |                          |            |       |            |      |
| 17098           | 98             | 103.5                         | 8.3            | 8.8   | 141.22    | 101.5   |            |       |                                       |                          |            |       |            |      |
| 17100           | 100            | 105.5                         | 8.3            | 8.8   | 142.00    | 103.5   |            |       |                                       |                          |            |       |            |      |
| 17102           | 102            | 108                           | ±0.65          | 4     | ±0.10     | 9       | 9          | 3.5   | 196.13                                | 106                      | +0.63<br>0 | 4.2   | 6          |      |
| 17105           | 105            | 112                           |                |       |           | 8.9     | 9.1        |       | 200.84                                | 109                      |            |       |            |      |
| 17108           | 108            | 115                           |                |       |           | 8.9     | 9.5        |       | 210.25                                | 112                      |            |       |            |      |
| 17110           | 110            | 117                           |                |       |           | 8.9     | 10.2       |       | 211.82                                | 114                      |            |       |            |      |
| 17112           | 112            | 119                           |                |       |           | 8.9     | 10.2       |       | 214.96                                | 116                      |            |       |            |      |
| 17115           | 115            | 122                           | 9.5            | 10.2  | 221.24    | 119     | +0.63<br>0 | 4.2   | +0.2<br>0                             | 7.5                      |            |       |            |      |
| 17120           | 120            | 127                           | 9.5            | 10.7  | 231.44    | 124     |            |       |                                       |                          |            |       |            |      |
| 17125           | 125            | 132                           | 10             | 10.7  | 240.07    | 129     |            |       |                                       |                          |            |       |            |      |
| 17130           | 130            | 137                           | 10             | 10.7  | 252.62    | 134     |            |       |                                       |                          |            |       |            |      |
| 17135           | 135            | 142                           | 10.8           | 11    | 258.90    | 139     |            |       |                                       |                          |            |       |            |      |
| 17140           | 140            | 147                           | 10.8           | 11    | 271.45    | 144     | +0.72<br>0 | 4.0   | +0.2<br>0                             | 7.5                      |            |       |            |      |
| 17145           | 145            | 152                           | 10.8           | 11    | 279.29    | 149     |            |       |                                       |                          |            |       |            |      |
| 17150           | 150            | 158                           | 11.5           | 11.8  | 290.28    | 155     |            |       |                                       |                          |            |       |            |      |
| 17155           | 155            | 164                           | 11.5           | 11.8  | 299.69    | 160     |            |       |                                       |                          |            |       |            |      |
| 17160           | 160            | 169                           | 12             | 12.5  | 307.54    | 165     |            |       |                                       |                          |            |       |            |      |
| 17165           | 165            | 174.5                         | 12             | 12.7  | 320.09    | 170     | +0.72<br>0 | 4.0   | +0.2<br>0                             | 7.5                      |            |       |            |      |
| 17170           | 170            | 179.5                         | 12.5           | 12.5  | 333.43    | 175     |            |       |                                       |                          |            |       |            |      |
| 17175           | 175            | 184.5                         | 12.5           | 13    | 337.35    | 180     |            |       |                                       |                          |            |       |            |      |
| 17180           | 180            | 189.5                         | 13             | 13    | 345.19    | 185     |            |       |                                       |                          |            |       |            |      |
| 17185           | 185            | 194.5                         | 13.5           | 13.5  | 356.96    | 190     |            |       |                                       |                          |            |       |            |      |
| 17190           | 190            | 199.5                         | ±1.44<br>-0.72 | 4     | ±0.10     | 13.5    | 13.5       | 4.0   | 368.73                                | 195                      | +0.72<br>0 | 4.0   | 7.5        |      |
| 17195           | 195            | 204.5                         |                |       |           | 14      | 14         |       | 373.44                                | 200                      |            |       |            |      |
| 17200           | 200            | 209.5                         |                |       |           | 14      | 14         |       | 376.58                                | 205                      |            |       |            |      |

Remarks 1. Thrust load will change according to material and Hardness of shafts.  
2. Thrust load are calculated by safe factor 4.

Notes 1. Equate quality of stainless material with SUS-304CSP when thickness was not specified within JIS ( JIS G 4313 Stainless Spring Steels ).

|              |                       |               |                        |          |  |         |  |  |  |
|--------------|-----------------------|---------------|------------------------|----------|--|---------|--|--|--|
| Product code | <b>117</b>            | Material code | <b>02...SUS304-CSP</b> |          | <b>Part Number Structure (Standardized Product Code)</b> |         |  |  |  |
|              |                       |               |                        |          | Product  | Surface |  |  |  |
| Surface code | <b>01...Burnished</b> | Hardness      | <b>HRC<br/>37 ~ 46</b> |          |  |         |  |  |  |
|              |                       |               |                        | Material | Dimensions code  |         |  |  |  |