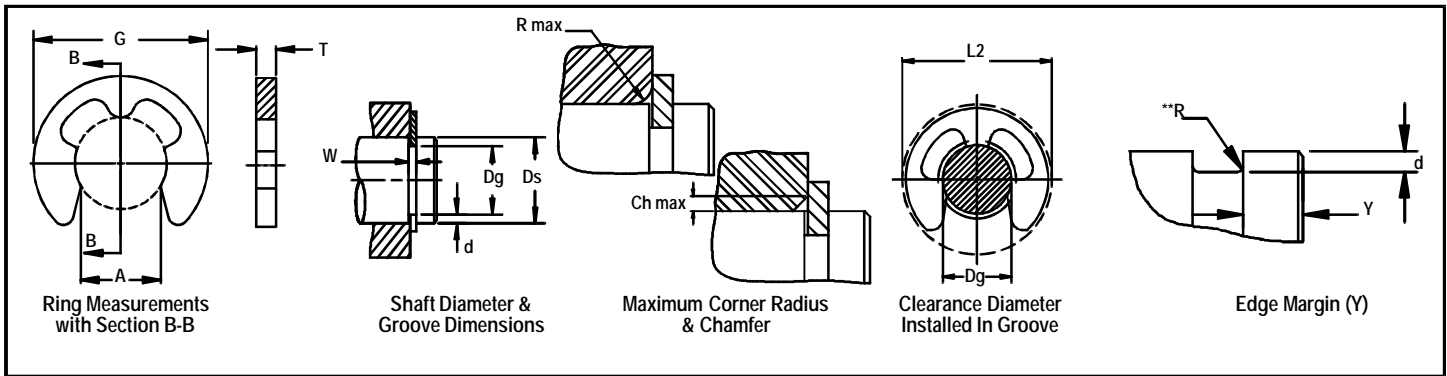




Rotor Clip DE Retaining Rings: DIN 6799-Metric- Radially Assembled, External Retaining Rings

The three prongs of this popular retaining ring make contact with the bottom of the groove, resulting in exceptional thrust loadings.



| RING NO. | NOM SIZE | SHAFT | | GROOVE SIZE | | | | RING SIZE & WEIGHT | | | | CLEARANCE | | | SUPPLEMENTARY DATA | | | | | | |
|----------|----------|---------|------|-------------|--------|-------|-------|--------------------|-------|-------|--------|-------------------|---------------------|-------------|--------------------|----------------------------|-------|----------------------|-------------------|------------|-------|
| | | Ds (mm) | | DIAMETER | | WIDTH | | THICKNESS | | GAP | | Free Outside Dia. | Re-leased in groove | EDGE MARGIN | Thrust Load Ring* | THRUST LOAD (at shaft Ds') | | Allowable Rad./Cham. | Max. Load w/ R/Ch | RPM Limits | |
| | | Dg | From | To | Dg | Tol. | W | Tol. | A | Tol. | A | Tol. | Kg/1000 | G Ref | L2 Max. | Y Min. | Pr kN | Pg kN | Ds' | R/Ch Max. | Pr kN |
| DE-0.8 | 0.8 | 1 | 1.4 | 0.8 | -0.04 | 0.24 | +0.04 | 0.2 | | 0.58 | | 0.003 | 1.95 | 2.25 | 0.4 | 0.08 | 0.03 | 1.2 | 0.3 | 0.04 | 50000 |
| DE-1.2 | 1.2 | 1.4 | 2.0 | 1.2 | | 0.34 | -0.00 | 0.3 | | 1.01 | | 0.009 | 2.9 | 3.25 | 0.6 | 0.12 | 0.04 | 1.5 | 0.4 | 0.06 | 47000 |
| DE-1.5 | 1.5 | 2.0 | 2.5 | 1.5 | -0.060 | 0.44 | | 0.4 | | 1.28 | ±0.04 | 0.021 | 3.9 | 4.25 | 0.8 | 0.22 | 0.07 | 2.0 | 0.6 | 0.11 | 42000 |
| DE-1.9 | 1.9 | 2.5 | 3.0 | 1.9 | | 0.54 | | 0.5 | | 1.61 | | 0.040 | 4.40 | 4.8 | 1.0 | 0.35 | 0.10 | 2.5 | 0.7 | 0.17 | 40000 |
| DE-2.3 | 2.3 | 3.0 | 4.0 | 2.3 | | 0.64 | | 0.6 | | 1.94 | | 0.069 | 5.90 | 6.3 | 1.0 | 0.50 | 0.15 | 3.0 | 0.9 | 0.24 | 38000 |
| DE-3.2 | 3.2 | 4.0 | 5.0 | 3.2 | | 0.64 | | 0.6 | ±0.02 | 2.70 | | 0.088 | 6.90 | 7.3 | 1.0 | 0.65 | 0.22 | 4.0 | 0.9 | 0.32 | 35000 |
| DE-4 | 4.0 | 5.0 | 7.0 | 4.0 | -0.075 | 0.74 | +0.05 | 0.7 | | 3.34 | | 0.158 | 8.85 | 9.3 | 1.2 | 0.95 | 0.25 | 5.0 | 1.0 | 0.47 | 32000 |
| DE-5 | 5.0 | 6.0 | 8.0 | 5.0 | | 0.74 | -0.00 | 0.7 | | 4.11 | ±0.048 | 0.236 | 10.85 | 11.3 | 1.2 | 1.15 | 0.90 | 7.0 | 1.0 | 0.60 | 28000 |
| DE-6 | 6.0 | 7.0 | 9.0 | 6.0 | | 0.74 | | 0.7 | | 5.26 | | 0.255 | 11.8 | 12.3 | 1.2 | 1.35 | 1.10 | 8.0 | 1.1 | 0.70 | 25000 |
| DE-7 | 7.0 | 8.0 | 11.0 | 7.0 | | 0.94 | | 0.9 | | 5.84 | | 0.474 | 13.8 | 14.3 | 1.5 | 1.80 | 1.25 | 9.0 | 1.3 | 1.00 | 22000 |
| DE-8 | 8.0 | 9.0 | 12.0 | 8.0 | -0.090 | 1.05 | | 1.0 | | 6.52 | | 0.660 | 15.75 | 16.3 | 1.8 | 2.50 | 1.42 | 10.0 | 1.5 | 1.25 | 20000 |
| DE-9 | 9.0 | 10.0 | 14.0 | 9.0 | | 1.15 | | 1.1 | | 7.63 | ±0.058 | 1.090 | 18.20 | 18.8 | 2.0 | 3.00 | 1.60 | 11.0 | 1.6 | 1.50 | 17000 |
| DE-10 | 10.0 | 11.0 | 15.0 | 10.0 | | 1.25 | | 1.2 | | 8.32 | | 1.250 | 19.70 | 20.4 | 2.0 | 3.50 | 1.70 | 12.0 | 1.8 | 1.75 | 15000 |
| DE-12 | 12.0 | 13.0 | 18.0 | 12.0 | -0.110 | 1.35 | +0.08 | 1.3 | ±0.03 | 10.45 | | 1.630 | 22.7 | 23.4 | 2.5 | 4.70 | 3.10 | 15.0 | 1.9 | 2.30 | 13000 |
| DE-15 | 15.0 | 16.0 | 24.0 | 15.0 | | 1.55 | -0.00 | 1.5 | | 12.61 | ±0.07 | 3.370 | 28.70 | 29.4 | 3.0 | 7.80 | 7.00 | 20.0 | 2.2 | 3.30 | 11000 |
| DE-19 | 19.0 | 20.0 | 31.0 | 19.0 | | 1.80 | | 1.75 | | 15.92 | | 6.420 | 36.50 | 37.6 | 3.5 | 11 | 10 | 25.0 | 2.5 | 3.60 | 7600 |
| DE-24 | 24.0 | 25.0 | 38.0 | 24.0 | -0.130 | 2.05 | | 2.00 | | 21.88 | ±0.084 | 8.550 | 43.50 | 44.6 | 4.0 | 15 | 13 | 30.0 | 3.0 | 4.00 | 5500 |
| DE-30 | 30.0 | 32.0 | 42.0 | 30.0 | | 2.55 | | 2.50 | | 25.80 | | 13.50 | 51.3 | 52.6 | 4.5 | 23.00 | 16.50 | 36.0 | 3.5 | 5.30 | 4200 |

*SHARP CORNER ABUTMENT
ALL DIMENSIONS IN MILLIMETERS.
FOR HARDNESS SPECIFICATIONS, SEE END OF THIS SECTION.
**The radius "R" on the load side must not exceed 0.1W.

TABLE 1: HARDNESS RANGES-ROTOR CLIP
STAINLESS STEEL RINGS (PH 15-7 MO)

| RING | SIZE RANGE | SCALE | ROCKWELL HARDNESS |
|------|------------|-------|-------------------|
| DE | 0.8-1.9 | 15N | 82.5-86 |
| | 2.3-6 | 30N | 63-69.5 |
| | 7-30 | C | 44-51 |

TABLE 3: HARDNESS RANGES-ROTOR CLIP
CARBON STEEL RINGS (SAE 1060-1090)

| RING | SIZE RANGE | SCALE | ROCKWELL HARDNESS |
|------|------------|-------|-------------------|
| DE | 0.8-1.9 | 15N | 83.5-87.5 |
| | 2.3-6 | 30N | 65-72 |
| | 7-30 | C | 46-54 |

*Hardness cannot be checked with any degree of accuracy directly on these rings.