## /T $\cong$ Bee Leitzke Retaining Ring Assortments

No. of No. of


Retaining Ring Includes


6LD28 Internal Internal
Retaining Ring BSEAB
$\begin{array}{lll}9 & 300 & \text { (50) Each: E-25x1/4 in, E-37x3/8 in, (40) Each: E-18×3/16 in, E-50x1/2 in, (30) Each: } \mathrm{E}-6 \times 1 / 16 \text { in, } \mathrm{E}-12 \times 1 / 8\end{array}$
12255 (25) Each: E-12x1/8 in, E-15 $\times 5 / 32$ in, $\mathrm{E}-18 \times 3 / 16$ in, SE- $21 \times 7 / 32$ in, E-25x1/4 in, SE- $31 \times 5 / 16$ in, $\mathrm{E}-37 \times 3 / 8$ in,

## E-Style (Metric) Retaining Ring Assortment

External Retaining Ring Assortment Each: $2.3 \mathrm{~mm}, 3.2 \mathrm{~mm}, 4 \mathrm{~mm}, 5 \mathrm{~mm}, 6 \mathrm{~mm}, 7 \mathrm{~mm}, 8 \mathrm{~mm}, 9 \mathrm{~mm}, 10 \mathrm{~mm}, 12 \mathrm{~mm}, 15 \mathrm{~mm}, 19 \mathrm{~mm}$
$12218(30)$ Each: SH-37x3/8 in, SH-50x1/2 in, (20) Each: SH-25x1/4 in, SH-31x5/16 in, SH-43x7/16 in, SH-56x9/16 in, SH-62x5/8 in, SH-
(
12240 (25) Each: SH-25x1/4 in, SH-31x5/16 in, SH-37x3/8 in, SH-43x7/16 in, SH-50x1/2 in, SH-56x9/16 in, SH-62x5/8 in, SH-
21273 (25) Each: SH-25x1/4 in, SH-31x5/16 in, SH-37x3/8 in, SH-43x7/16 in, SH-50x1/2 in, SH-56x9/16 in, SH-62x5/8 in, SH-75x3/4 in, (10)
Each: SH-81x13/16 in, SH-87x7/8 in, SH-100x1 in, SH-125x1 $1 / 4$ in and (5) Each: SH-131x1 $5 / 16$ in, SH- $137 \times 13 / 8$ in, SH-150x1 $1 / 2$ in, SH-
6LD37

## External (Metric) Retaining Ring Assortment

External and E-Style Retaining Ring Assortment
23540 E-Rings (30) Each: E-12x1/8 in, E-18x3/16 in, E-25x1/4 in, E-31×5/16 in, E-37x3/8 in, E-62x5/8 in, (25) Each: E-43x7/16 in, E-50x1/2 in, SE-74x3/4 in, (20) Each:
in SH-93x15/16 in, SH-100x1 in (15) Each: SH-112x1 $1 / 8$ in, (10) Each. SH-125x1 $1 / 4$ in SH- $137 \times 13 / 8$ in SH-150x1 $1 / 2$ in, Plastic Container, and Retaining Ring Pliers Internal Retaining Ring Assortment

| 12 | 180 | (25) Each: $\mathrm{HO}-25 \times 1 / 4$ in, $\mathrm{HO}-37 \times 3 / 8$ in, $\mathrm{HO}-50 \times 1 / 2$ in, $\mathrm{HO}-62 \times 5 / 8$ in, $\mathrm{HO} 0-75 \times 3 / 4$ in, (10) Each: $\mathrm{HO}-87 \times 7 / 8$ in, $\mathrm{HO}-100 \times 1$ in, $\mathrm{HO}-$ $112 \times 1 \frac{1 / 8}{}$ in, $\mathrm{HO}-125 \times 1^{1 / 4}$ in, (5) Each: $\mathrm{HO}-150 \times 1 \frac{1}{2}$ in, $\mathrm{HO}-162 \times 15 / 8$ in, $\mathrm{HO}-175 \times 13 / 4$ in and Plastic Container |  | 6LD28 |
| :---: | :---: | :---: | :---: | :---: |
| 12 | 218 | (30) Each: $\mathrm{HO}-37 \times 3 / 8$ in, $\mathrm{HO}-50 \times 1 / 2$ in, (20) Each: $\mathrm{HO}-25 \times 1 / 4$ in, $\mathrm{HO}-31 \times 5 / 16$ in, $\mathrm{HO}-43 \times 7 / 16$ in, $\mathrm{HO}-56 \times 9 / 16$ in, $\mathrm{HO}-62 \times 5 / 8$ in, $\mathrm{HO}-$ $75 \times 3 / 4$ in, (15) Each: HO-87x7/8 in, (10) Each: HO-81×13/16 in, HO-100x1 in, (3) Each: HO-125x1 $1 / 4$ in, and Plastic Container | Itw Bee Leitzke | 4F413 |
| 23 | 395 | (25) Each: $\mathrm{HO}-25 \times 1 / 4$ in, $\mathrm{HO}-37 \times 3 / 8$ in, $\mathrm{HO}-50 \times 1 / 2$ in, $\mathrm{HO}-56 \times 9 / 16$ in, $\mathrm{HO}-62 \times 5 / 8$ in, (20) Each: $\mathrm{HO}-75 \times 3 / 4$ in, $\mathrm{HO}-77 \times 0.777$ in, $\mathrm{HO}-81 \times 13 / 16$ in, $\mathrm{HO}-87 \times 7 / 8$ in, $\mathrm{HO}-90 \times 0.901$ in, $\mathrm{HO}-93 \times 15 / 16$ in, $\mathrm{HO}-102 \times 1.023$ in, ( 15 ) Each: $\mathrm{HO}-100 \times 1$ in, $\mathrm{HO}-112 \times 11 / 8$ in, $\mathrm{HO}-118 \times 13 / 16$ in, $\mathrm{HO}-125 \times 1$ 1/4 in, (10) Each: $\mathrm{HO}-106 \times 1$ $1 / 16$ in, $\mathrm{HO}-131 \times 15 / 16$ in, $\mathrm{HO}-137 \times 13 / 8$ in, $\mathrm{HO}-143 \times 17 / 16$ in, $\mathrm{HO}-150 \times 11 / 2$ in, $\mathrm{HO}-156 \times 19 / 16$ in, $\mathrm{HO}-162 \times 15 / 8$ in, Plastic Case, and Retaining Ring Pliers | Itw Bee Leitzke | 5A204 |
| 25 | 243 | (25) Each: $\mathrm{HO}-37 \times 3 / 8$ in, $\mathrm{HO}-43 \times 7 / 16$ in, $\mathrm{HO}-50 \times 1 / 2$ in, $\mathrm{HO}-62 \times 5 / 8$ in, $\mathrm{HO}-68 \times 11 / 16$ in, $\mathrm{HO}-75 \times 3 / 4$ in, (10) Each: $\mathrm{HO}-81 \times 13 / 16$ in, $\mathrm{HO}-87 \times 7 / 8$ in, $\mathrm{HO}-100 \times 1$ in, $\mathrm{HO}-106 \times 11 / 16$ in, $\mathrm{HO}-112 \times 11 / 8$ in, $\mathrm{HO}-125 \times 11 / 4$ in, (5) Each: $\mathrm{HO}-137 \times 13 / 8$ in, $\mathrm{HO}-150 \times 11 / 2$ in, (3) Each: $\mathrm{HO}-162 \times 15 / 8$ in, $\mathrm{HO}-175 \times 13 / 4 \mathrm{in}, \mathrm{HO}-187 \times 17 / 8$ in, $\mathrm{HO}-200 \times 2$ in, (2) Each: HO-225x2 $1 / 4$ in, $\mathrm{HO}-237 \times 23 / 8$ in, $\mathrm{HO}-250 \times 21 / 2$ in, $\mathrm{HO}-262 \times 25 / 8$ in, (1) Each: $\mathrm{HO}-275 \times 23 / 4 \mathrm{in}, \mathrm{HO}-287 \times 27 / 8$ in, $\mathrm{HO}-300 \times 3$ in, and Plastic Container | - | 6LD30 |
| Internal/External/E-Style (Metric) Retaining Ring Assortment |  |  |  |  |
| 24 | 480 | E-Rings (25) Each: DE-3.2x3.2mm, DE-4x4mm, DE-5x5mm, DE-6x6mm, DE-7x7mm, DE-8x8mm, DE-10x10mm, DE-12x12mm, Internal Rings (25) Each: <br> DHO-8x8mm, DHO-10x10mm, DHO-12x12mm, DHO-14×14mm, (10) Each: DHO-16×16mm, DHO-18×18mm, DHO-20×20mm, DHO-24×24mm, External Rings <br> (25) Each: DSH-8x8mm, DSH-10×10mm, DSH-12x12mm, DSH-14×14mm, (10) Each: DSH-16x16mm, DSH-18×18mm, DSH-20x20mm, DSH-24×24mm | - | 6LD33 |
| Internal (Metric) Retaining Ring Assortment |  |  |  |  |
| Internal and External Retaining Ring Assortment |  |  |  |  |
| 20 | 221 | Internal Rings (15) Each: $\mathrm{HO}-37 \times 3 / 8$ in, $\mathrm{HO}-43 \times 7 / 16$ in, $\mathrm{HO}-50 \times 1 / 2$ in, (10) Each: $\mathrm{HO}-56 \times 9 / 16$ in, $\mathrm{HO} 0-62 \times 5 / 8$ in, $\mathrm{HO} 0-75 \times 3 / 4$ in, (9) Each: $\mathrm{HO} 0-87 \times 7 / 8$ in, $\mathrm{HO} 0-93 \times 15 / 16$ in, (8) Each: HO-100x1 in, HO-102×1.023 in, External Rings (20) Each: SH-25x1/4 in, SH-31×5/16 in, (15) Each: SH-37x3/8 in, SH-43×7/16 in, (10) Each: SH-50×1/2 in, (8) Each: SH-62×5/8 in, SH-68×11/16 in, (6) Each: SH-75×3/4 in, (5) Each: SH-78×25/32 in, SH-87×7/8 in, Plastic Container, and Retaining Ring Pliers | Itw Bee Leitzke | 4F420 |
| 20 | 410 | Internal Rings (25) Each: HO-37x3/8 in, HO-43x7/16 in, HO-50x1/2 in, HO-56x9/16 in, HO-62x5/8 in, HO-75x3/4 in, (10) Each: HO-87x7/8 in, HO-100x1 in, HO-112x1 $1 / 8$ in, $\mathrm{HO}-125 \times 1 \frac{1}{1 / 4}$ in, External Rings (25) Each: SH-25x1/4 in, SH-31×5/16 in, SH-37x3/8 in, SH-43x7/16 in, SH-50x1/2 in, SH-62x5/8 in, SH-68x11/16 in, SH-75x3/4 in, (10) Each: SH-87x7/8 in, SH-100x1 in, and Plastic Container | - | 6LD32 |

## E-Style External Retaining Rings

Provide a large shoulder on small-diameter shafts. Snap directly into deep grooves from the side of the shaft to ensure extra thrust capacity. Inch-system rings meet ASME standard; metric-system rings meet DIN standard.

| For Shaft Dia. | Fits Groove Dia. | Fits Groove Width | Free I.D. | Free O.D. Thickness |  | BLACK PHOSPHATE STEEL |  | STAINLESS STEEL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Item | Pkg. | Item | Pkg. |
|  |  |  |  |  |  | No. | Qty. | No. | Qty. |
| E Style Retaining Ring |  |  |  |  |  |  |  |  |  |
| $1 / 16$ in | 0.052 in | 0.012 in | 0.051 in | 0.14 in | 0.01 in | 5DY81 | 100 | 5DE39 | 100 |
| $3 / 32$ in | 0.074 in | 0.02 in | 0.073 in | 0.187 in | 0.015 in | - | - | 5DE41 | 100 |
| 7/64 in | 0.079 in | 0.02 in | 0.076 in | 0.375 in | 0.015 in | - | $\overline{50}$ | 5DE43 | 25 |
| $1 / 8 \mathrm{in}$ | 0.095 in | 0.02 in | 0.094 in | 0.23 in | 0.015 in | 6LC51 | 50 | 5DE45 | 100 |
| $9 / 64$ in | 0.102 in | 0.02 in | 0.1 in | 0.203 in | 0.015 in | - | - | 5DE47 | 100 |
| $5 / 32$ in | 0.116 in | 0.029 in | 0.114 in | 0.282 in | 0.025 in | - | - | 5DE49 | 25 |
| 11/64 in | 0.127 in | 0.029 in | 0.125 in | 0.312 in | 0.025 in | - | - | 5DE51 | 25 |
| $3 / 16$ in | 0.147 in | 0.029 in | 0.145 in | 0.335 in | 0.025 in | - | - | 5DE53 | 25 |
| 7/32 in | 0.188 in | 0.029 in | 0.185 in | 0.437 in | 0.025 in | - | - | 5DE55 | 50 |
| $1 / 4$ in | 0.21 in | 0.029 in | 0.207 in | 0.527 in | 0.025 in | - | - | 5DE57 | 50 |
| $5 / 16$ in | 0.25 in | 0.029 in | 0.243 in | 0.5 in | 0.025 in | - | - | 5DE59 | 50 |
| $3 / 8$ in | 0.303 in | 0.039 in | 0.3 in | 0.66 in | 0.035 in | - | - | 5DE61 | 10 |
| $7 / 16$ in | 0.343 in | 0.039 in | 0.337 in | 0.687 in | 0.035 in | - | - | 5DE63 | 10 |
| $1 / 2 \mathrm{in}$ | 0.396 in | 0.046 in | 0.392 in | 0.8 in | 0.042 in | - | - | 5DE65 | 10 |
| 5/8 in | 0.485 in | 0.046 in | 0.48 in | 0.94 in | 0.042 in | - | - | 5DE67 | 10 |
| $3 / 4$ in | 0.625 in | 0.056 in | 0.616 in | 1.0 in | 0.05 in | 5DY91 | 50 | 5DE69 | 10 |
| 7/8 in | 0.675 in | 0.056 in | 0.668 in | 1.3 in | 0.05 in | - | - | 5DE71 | 1 |
| 1 in | 0.835 in | 0.056 in | 0.822 in | 1.5 in | 0.05 in | - | - | 5DE73 | 1 |
| $13 / 16$ in | 1.079 in | 0.068 in | 1.066 in | 1.626 in | 0.062 in | - | - | 5DE75 | 1 |
| $13 / 8$ in | 1.23 in | 0.068 in | 1.213 in | 1.875 in | 0.062 in | - | - | 5DE77 | 1 |
| 3 mm | 2.3 mm | 0.64 mm | - | 5.9 mm | 0.6 mm | 5DV13 | 100 | 5DA32 | 10 |

Note: Zinc-plated steel retaining rings are also available; on Grainger.com, search for "retaining rings."

## E-Style Retaining Ring Applicators

Easily and quickly install standard radial retaining rings on a shaft.

| Ring Size | Blade <br> Width | Blade <br> Length | Tip <br> Length | For Use With E-Style Rings | Item <br> No. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0.062 in | 0.265 in | 1.438 in | 0.375 in | 5DE39 and 5CB85, 5DY81 | 4VCY8 |


| Ring Size | Blade <br> Width | Blade <br> Length | Tip <br> Length | For Use With E-Style Rings | Item <br> No. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0.5 in | 1.125 in | 2.39 in | 0.765 in | 5DE65 and 5CE21, 6LC63 | 4VDA3 |
| 0.625 in | 1.125 in | 2.39 in | 0.765 in | 5DE67 and 5CE23, 6LC65 | 4VDA4 |
| 0.75 in | 1.562 in | 2.625 in | 0.969 in | 5DE69 and 5CE25, 5DY91 | 4VDA5 |
| 2.3 mm | 0.5 in | 1.438 in | 0.375 in | 5DV13 and 5DA32 | 4VCX8 |
| 3.2 mm | 0.5 in | 1.438 in | 0.375 in | 5DV15 and 5DA34 | 4VCX9 |
| 4 mm | 0.5 in | 1.438 in | 0.375 in | 5DV17 and 5DA36 | 4VCY1 |
| 5 mm | 0.812 in | 2.218 in | 0.593 in | 5DV19 and 5DA38 | 4VCY2 |
| 6 mm | 0.812 in | 2.218 in | 0.593 in | 5DV21 and 5DA40 | 4VCY3 |
| 7 mm | 0.812 in | 2.218 in | 0.593 in | 5DV23 and 5DA42 | 4VCY4 |
| 8 mm | 0.812 in | 2.218 in | 0.593 in | 5DV25 and 5DA44 | 4VCY5 |
| 9 mm | 1.125 in | 2.39 in | 0.765 in | 5DV27 and 5DA46 | 4VCY6 |
| 10 mm | 1.125 in | 2.39 in | 0.765 in | 5DV29 and 5DA48 | 4VCY7 |


| For Shaft Dia. | $\begin{gathered} \text { Fits } \\ \text { Groove } \\ \text { Dia. } \end{gathered}$ | Fits Groove Width | Free I.D. | Free O.D. Thickness |  | Phosphate STEEL |  | STAINLESS STEEL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Item | Pkg. | Item | Pkg. |
|  |  |  |  |  |  | No. | Qty. | No. | Qty. |
| 4 mm | 3.2 mm | 0.64 mm | - | 6.9 mm | 0.6 mm | 5DV15 | 100 | 5DA34 | 10 |
| 5 mm | 4.0 mm | 0.74 mm | - | 8.85 mm | 0.7 mm | 5DV17 | 100 | 5DA36 | 10 |
| 6 mm | 5.0 mm | 0.74 mm | - | 10.85 mm | 0.7 mm | 5DV19 | 100 | 5DA38 | 10 |
| 7 mm | 6.0 mm | 0.74 mm | - | 11.8 mm | 0.7 mm | 5DV21 | 100 | 5DA40 | 10 |
| 8 mm | 7.0 mm | 0.94 mm | - | 13.8 mm | 0.9 mm | 5DV23 | 100 | 5DA42 | 10 |
| 9 mm | 8.0 mm | 1.05 mm | - | 15.75 mm | 1 mm | 5DV25 | 100 | 5DA44 | 10 |
| 10 mm | 9.0 mm | 1.15 mm | - | 18.2 mm | 1.1 mm | 5DV27 | 100 | 5DA46 | 10 |
| 11 mm | 10.0 mm | 1.25 mm | - | 19.7 mm | 1.2 mm | 5DV29 | 100 | 5DA48 | 5 |
| 13 mm | 12.0 mm | 1.35 mm | - | 22.7 mm | 1.3 mm | 5DV31 | 100 | 5DA50 | 5 |
| 16 mm | 15.0 mm | 1.55 mm | - | 28.7 mm | 1.5 mm | 5DV33 | 50 | 5DA52 | 1 |
| 20 mm | 19.0 mm | 1.8 mm | - | 36.5 mm | 1.75 mm | 5DV35 | 25 | 5DA53 | 1 |
| 25 mm | 24.0 mm | 2.05 mm | - | 43.5 mm | 2 mm | 5DV37 | 10 | 5DA55 | 1 |
| 32 mm | 30.0 mm | 2.55 mm | - | 51.3 mm | 2.5 mm | 5DV39 | 10 | 5DA57 | , |
| Bowed E Style Retaining Ring |  |  |  |  |  |  |  |  |  |
| 1/8 in | 0.095 in | 0.022 in | 0.094 in | 0.23 in | 0.01 in | $5 \mathrm{CU11}$ | 100 | - | - |
| 3/16 in | 0.147 in | 0.03 in | 0.145 in | 0.335 in | 0.015 in | $5 \mathrm{CU13}$ | 100 | - | - |
| $1 / 4$ in | 0.21 in | 0.047 in | 0.207 in | 0.527 in | 0.025 in | 5CU15 | 100 | - | - |
| $3 / 8$ in | 0.303 in | 0.06 in | 0.3 in | 0.66 in | 0.035 in | $5 \mathrm{CU17}$ | 100 | - | - |
| $1 / 2$ in | 0.396 in | 0.073 in | 0.392 in | 0.8 in | 0.042 in | 5CU19 | 100 | - | - |
| $5 / 8$ in | 0.485 in | 0.077 in | 0.48 in | 0.94 in | 0.042 in | 5CU21 | 100 | - | - |
| $3 / 4$ in | 0.58 in | 0.085 in | 0.574 in | 1.12 in | 0.05 in | 5CU23 | 25 | - | - |

