

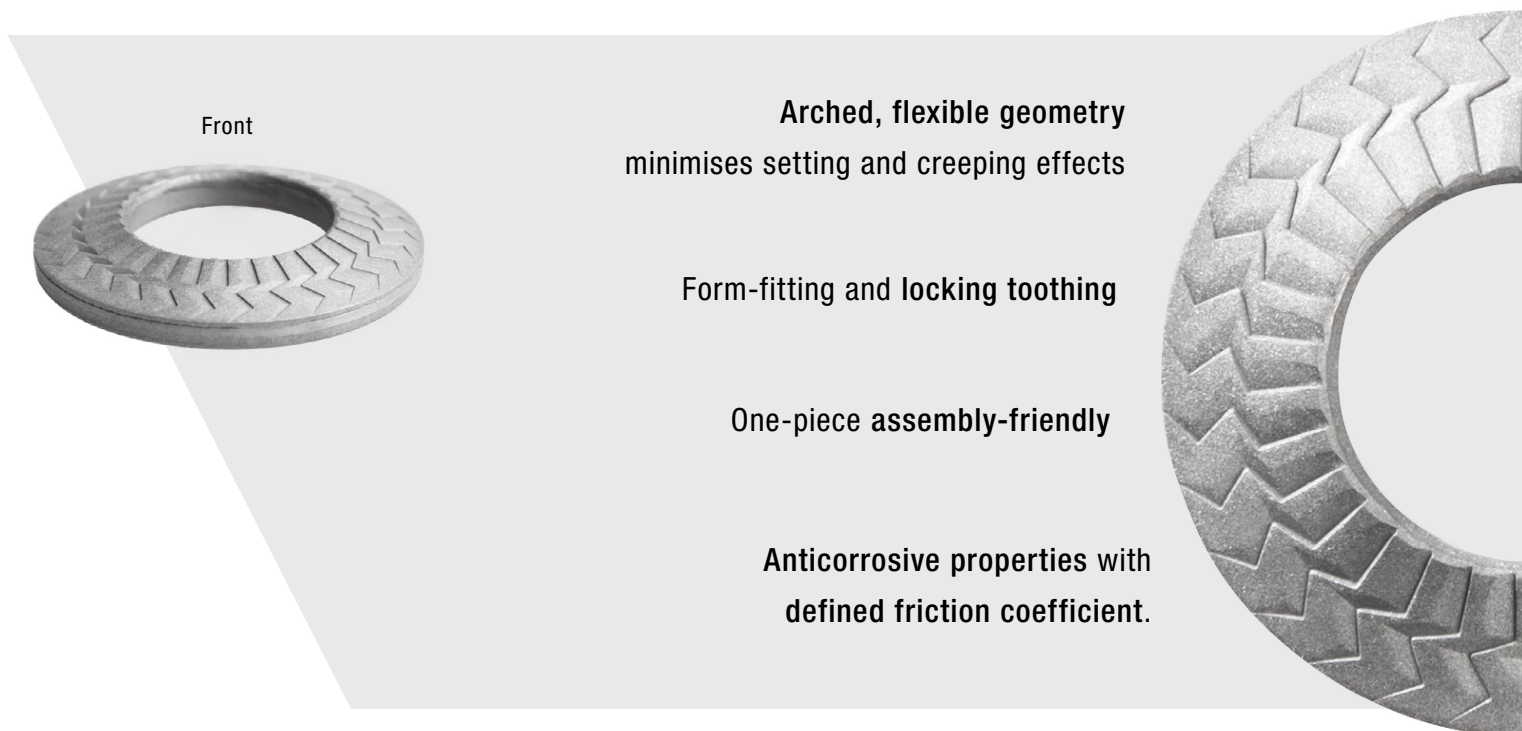
NSK E – Effective locking of electrical screw connections

- Bolt locking for bus bar and cable shoe connections
- Offsets settling effects
- Single-part, easy to fit screw locking element

The challenges posed by electrical screw connections

In the electronics industry, loose screw connections inevitably lead to system failures. Frequent causes for the failure of electrical screw connections are:

- **Loss of preload tension as a result of increased settling due to**
 - The high number of joints when using multi-part screw locking mechanisms
 - The screws and conductive materials having different thermal expansion coefficients
 - Reduced torques when fitting conductive materials made from copper and aluminium
- **Connections working loose**
 - Due to their inherent vibration, there is a greater risk of connections working loose
- **Damage to the conductive materials and formation of chips**
 - The soft conductive materials are highly susceptible to damage
 - Chip formation is more likely



Essential functional criteria for safe electronic screw joints

- Uniform contact pressure in a defined area
- Permanent contact pressure
- Optimal corrosion protection
- Protection of the counter-face
- Anti-rotation lock effect

Technical characteristics



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- **Steel design, hardened, 430-480 HV10**
 - Surface: zinc/nickel coating
 - Corrosion resistance: 168h (DIN 9227) / 720h (NSS)
- **Stainless steel design A4, 1.4401**
- **Special materials possible upon request**
- **Screw-and-washer or nut-and-washer assemblies available as captive variants upon request**

NSK-E: Provides effective, lasting protection Electrical screw connections

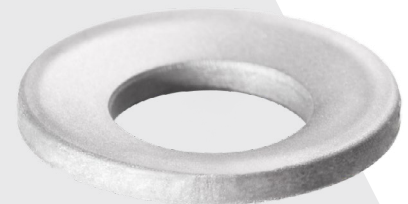


The special stamped runner design protects the backing.

Security effect for short clamping lengths and dynamic loads

Screw locking in the event of thermal expansions

Continuous contact pressure and preservation of the pretensioning force



Rear

Variants:

Galvanised spring steel

| NSK E | Item no | DA | S | H |
|---------|---------|-------------|-----------|-----------|
| NSK E3 | 070905 | Ø 7.10-0.30 | 1.00±0.05 | 1.10+0.20 |
| NSK E4 | 070910 | Ø 9.10-0.40 | 1.20±0.05 | 1.30+0.20 |
| NSK E5 | 070920 | 10.10-0.40 | 1.20±0.05 | 1.50+0.20 |
| NSK E6 | 070930 | 12.10-0.43 | 1.60±0.05 | 1.70+0.20 |
| NSK E8 | 070940 | 16.10-0.43 | 1.60±0.05 | 2.20+0.25 |
| NSK E10 | 070950 | 20.10-0.52 | 1.80±0.10 | 2.30+0.35 |
| NSK E12 | 070960 | 24.10-0.52 | 2.00±0.10 | 2.50+0.35 |
| NSK E16 | 070980 | 30.10-0.52 | 2.20±0.10 | 2.70+0.35 |

Stainless steel A4 1.4401

| NSK E | Item no | DA | S | H |
|---------|---------|-------------|------------|-----------|
| NSK E3 | 076905 | Ø 7.30-0.40 | 1.0±0.05 | 1.50+0.20 |
| NSK E4 | 076910 | Ø 9.40-0.40 | 1.2±0.05 | 1.90+0.20 |
| NSK E5 | 076920 | 10.10-0.40 | 1.2±0.05 | 2.0+0.20 |
| NSK E6 | 076930 | 12.10-0.43 | 2.25±0.075 | 2.20+0.20 |
| NSK E8 | 076940 | 16.10-0.43 | 2.25±0.075 | 2.80+0.25 |
| NSK E10 | 076950 | 20.10-0.52 | 2.4±0.10 | 3.00+0.35 |
| NSK E12 | 076960 | 24.10-0.52 | 2.7±0.10 | 3.40+0.35 |
| NSK E16 | 076980 | 30.10-0.52 | 3.0±0.10 | 3.60+0.35 |

Other screw locking solutions

NSK-L



Standard bores and elongated hole fastenings for strength classes up to 12.9

NSK-B



Elongated hole fastenings for strength classes up to 12.9

NSK-M



Strength classes up to 8.8



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NSK-K



Electroconductive connections

NSK-S



Strength classes up to 5.6

SK-Z



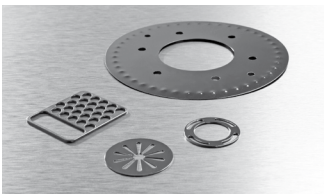
Cylinder head screws

Special washers



Customer-specific tailored solutions

Precision sheet metal forming:



Forming technology

Blanking technology

Stamping technology

Deep drawing technology

Contact

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