SICON
Connectors with Stepless Shear-Off Bolts

www.pfisterer.com
SICON Customized
PFISTERER also manufactures SICON shear bolt connectors to meet individual customer requirements. Our experts will carry out all the necessary consultation, dimensioning, engineering, pilot production, testing and series production.

Simple Installation with Standard Tools

SICON bolted connectors are installed directly onto the ends of the conductor with a standard allen key. The innovative design of the stepless shear bolt allows installation regardless of the conductor type. Thanks to the special design of the bolt, optimal contact force is always achieved.

Easy to Install

All SICON connectors can be easily installed, even under tight spots. The bolt shears off smoothly when it is tightened. The remains stay in the tool and can be safely disposed of. The bolt always shears off at the top edge of the connector body. This way, there are no sharp protrusions. All edges of the connector body are rounded.

Cost-Effective Thanks to Versatility

Every SICON connector covers a wide x-section range. This way, you always have the right connectors with you on site. And even if during repair work it is unclear what type of conductors must be connected and in which condition are they in, SICON is the right choice.

SICON connectors are electrically/mechanically type-tested in accordance with IEC 61238-1 class A.
SICON Bolt Prevents Installation Errors

The patented SICON bolt was developed without predetermined shear-off points. This means that the full load capacity of the thread is always used, thus ensuring perfect contact pressure. A friction disc on the tip of the bolt ensures that the conductor strands are not damaged.

All Conductors are Optimally Connected

SICON connectors can be used independently of the conductor material, type, voltage level and current. No matter whether aluminum or copper, solid or stranded – the conductor is always connected with perfect contact pressure. For aluminum conductors, this means with a contact force up to 30% higher than of conventional connectors. The transverse grooves in the clamping channel break through the oxidation layers and reliably establish the contact.

Benefits
- Reliable connection for all conductors
- Optimal contact force for all conductors
- No damage to individual strands
- Installation with standard tools
- Ideal for all type of joints or termination
- Wide application range

SICON in Numbers
- Conductor cross-section: 10–630 mm²
- Conductor material: aluminum, copper (all common types)
Covering Caps
- Cover up completely the entire bore countersinks
- Restore a full cylindrical shape

No sharp edges - which eliminates possible damages of the joint body.

Centering Rings
- "One-click" fast installation
- Centered position of small conductors

Minimizes voltage stress at transition from connector body to cable insulation.

Oil Stop
- Easier centering in the middle of the stress control area
- Fits into shorter joints, bigger application range

Stepless Shear-Off Bolt
- No predetermined shear-off points
- Always full load capacity of the thread
- No time consuming rework necessary

The optimal shear off torque will always be reached automatically.

Short Connector Length
- Ensures proper conductor positioning
- Eliminates oil leakage when connecting oil impregnated conductors

Accommodates transition applications from polymeric to oil impregnated conductors.

Covering Caps
- Cover up completely the entire bore countersinks
- Restore a full cylindrical shape

No sharp edges - which eliminates possible damages of the joint body.
Breaks through oxidation layers
Higher tensile strength
Higher cross-line conductivity of stranded conductors, increased current flow from inner to outer strands
Ensures low contact resistance and long term reliability.

Universal Application
- Covers a wide cross section range
- All conductor designs
- For aluminum and copper conductors

Reduces inventory and prevents accidental use of wrong connector.

Transverse Grooves
- Independent contact force of aluminum and copper conductors
- Higher contact force
- No damage of single strands
Reliable and good electrical contact.

Installation with Standard Tools
- Ratched and appropriate hexagonal socket
- Impact wrench

Easy installation.

Friction Disc
- Covers a wide cross section range
- All conductor designs
- For aluminum and copper conductors

Reduces inventory and prevents accidental use of wrong connector.

Copper

Aluminum

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Easy installation.

Friction Disc
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- Higher contact force
- No damage of single strands
Reliable and good electrical contact.
The branch connector can be used to join 3 different conductors regardless of size or material. These are typically used when joining two main lines and then running a tap or a branch. These can be used in heat shrink, cold shrink and hand-taped joints.

The split connector can be used in installations where it is difficult to install the connector on the conductor. The connector comes apart in 2 pieces and allows easy installation. The 2 pieces are then bolted together in the middle to form one connector again. Typical uses are PILC to PILC 3/C joints and any tight spot where it is difficult to bend the cable.

SICON Application Range

Split Connector

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Branch Connector

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Cable Lug

PFISTERER SICON bolted cable lugs enable you to connect the cable ends of electrical devices with a bolt or a stud. Standard cable lugs are used in cable terminations for indoor and outdoor applications and can be used in both heat shrink and cold shrink accessories.

Centered cable lugs are mainly used in seperable connectors. Cable lugs with 2-hole palms are also available. And with the SICON CopperTop, PFISTERER enables uncomplicated conductor material transition from aluminium to copper.
## Product Selection Guide

<table>
<thead>
<tr>
<th>Connector cross-section</th>
<th>L (mm)</th>
<th>OD (mm)</th>
<th>ID (mm)</th>
<th>h (mm)</th>
<th>x (mm)</th>
<th>z (mm)</th>
<th>Artikel-Nr. (Al + Cu)</th>
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<td>50 - 240</td>
<td>140</td>
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<td>185 - 400</td>
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<td>332 907 082</td>
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Others are available by special request.

### Cable Lug (MCCL) – Two Mounting Holes with Mounting Hole Distance 44.5 mm [y]

<table>
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### Technical Drawings

- **Branch Connector**: ![Branch Connector Diagram](image1)
- **Standard Cable Lug**: ![Standard Cable Lug Diagram](image2)
- **Cable Lug**: ![Cable Lug Diagram](image3)
- **Bolted Connector**: ![Bolted Connector Diagram](image4)

SICON PFISTERER
In 1921, Karl Pfisterer founded his factory in Stuttgart for special electrical products with the aim of improving the world of power transmission. The PFISTERER Group has pursued this goal of quality and technological leadership for more than 100 years. Today, PFISTERER is one of the world’s leading specialists and system suppliers for energy infrastructure – with a complete range of cable accessories, overhead line technology and components along the entire transmission chain from power generation to consumption. With state-of-the-art manufacturing processes and 1,200 employees at 18 international locations, PFISTERER not only connects the power grids of today and tomorrow, but also makes an important contribution to a sustainable and secure energy supply.