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PFISTERER



SICON

Connectors with Stepless Shear-Off Bolts

THE PFISTERER GROUP

PFISTERER



the power connection

SICON

The Right Connection for All Conductors

For years now, bolted clamps, connectors, and cable lugs have been gaining ground - with good reason. Bolted connectors offer technical and practical advantages that compression technology cannot match.

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 and ANSI C119.4.



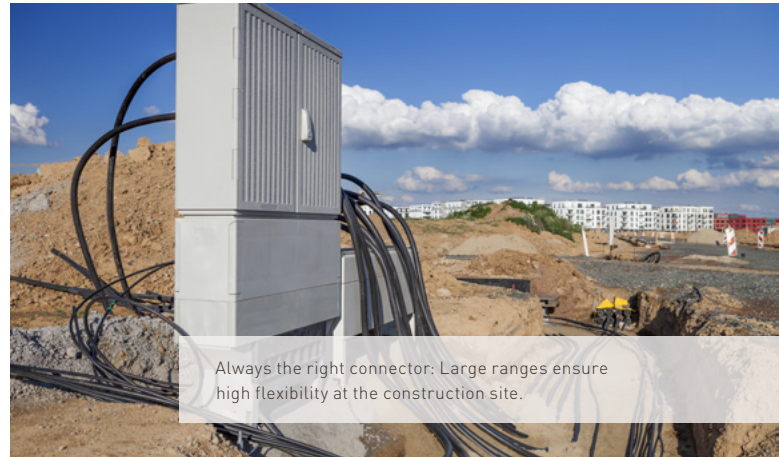
Extensive product range:
SICON provides the right connector for any application.

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.

SICON Bolt Prevents Installation Errors

The patented SICON bolt was developed without a 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.



Always the right connector: Large ranges ensure high flexibility at the construction site.



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 terminations
- Wide application range

SICON in Numbers

- Conductor cross-section: #7- 1600 kcmil
- Conductor material: aluminum, copper (all common types)



Always the right choice: SICON combines all conductor designs and materials safely and reliably.

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.

Stepless Shear-Off Bolt

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

The correct shear off torque will always be reached automatically.

Centering Rings

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

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

Short Connector Length

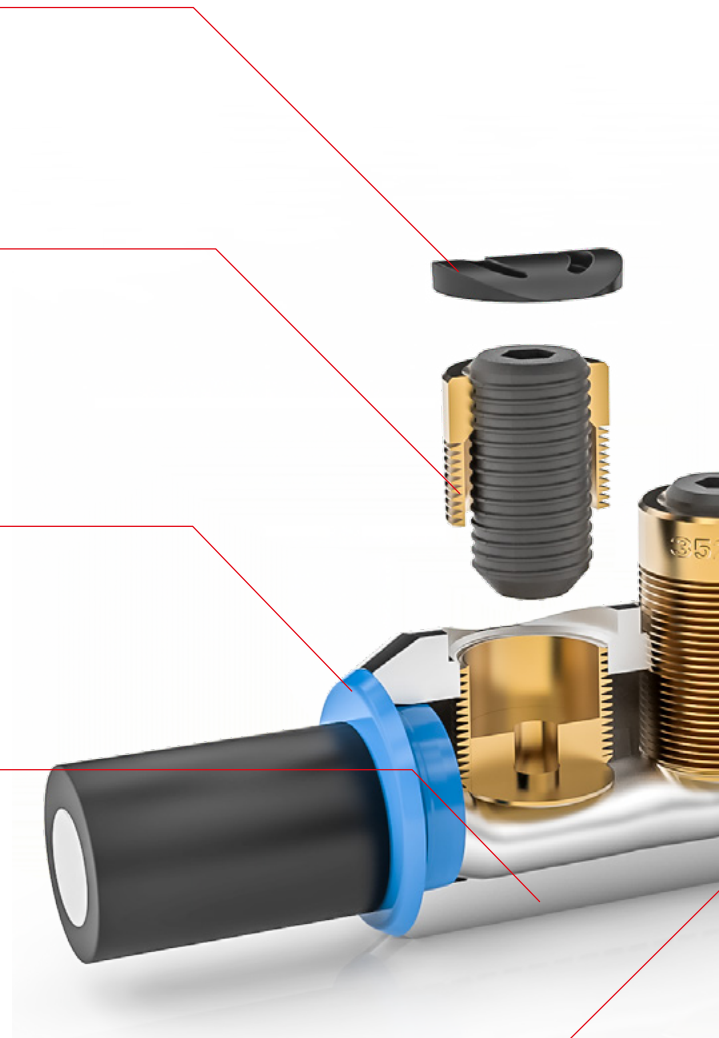
- Easier centering in the middle of the stress control

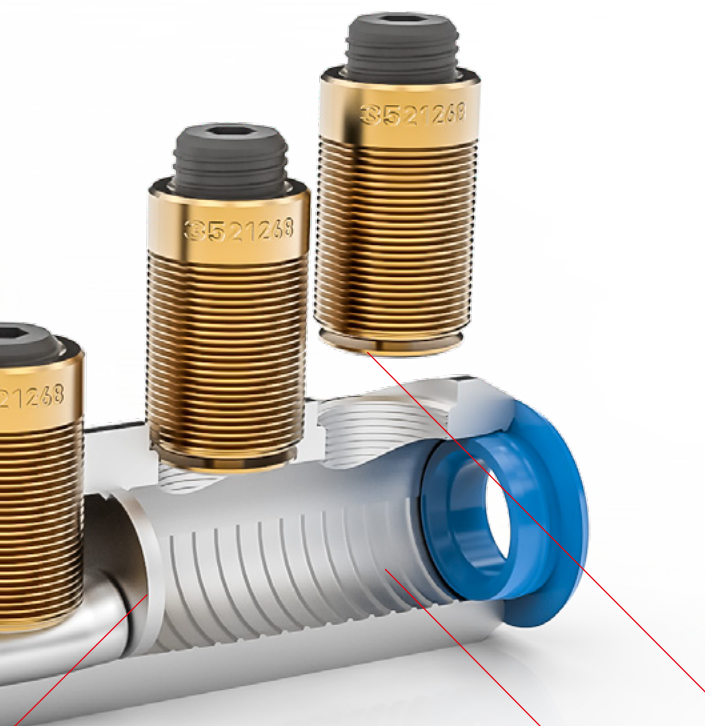
Fits into shorter joints, bigger application range.

Oil Stop

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

Accommodates transition applications from polymeric to oil impregnated conductors.





Right Connection for All Conductors

- 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



Installation with Standard Tools

- Ratched and appropriate hexagonal socket
- Impact wrench

Easy installation.



Transverse Grooves

- 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.

Friction Disc

- Independent contact force of aluminum and copper conductors
- Higher contact force
- No damage of single strands

Reliable and good electrical contact.

SICON Application Range

Split Connector

This 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.



Branch Connector

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.



Cable Lug Central Palm

This center-palm connector is mainly used in 600A T bodies as well as 600A Disconnectable joints.



Cable Lug NEMA

The 2-hole NEMA pad lug is typically used in the installation of terminations. These can be used in cold shrink, heat shrink and hand-taped applications. These can also be used in LV applications when connecting to bus work or in pad mount transformers.



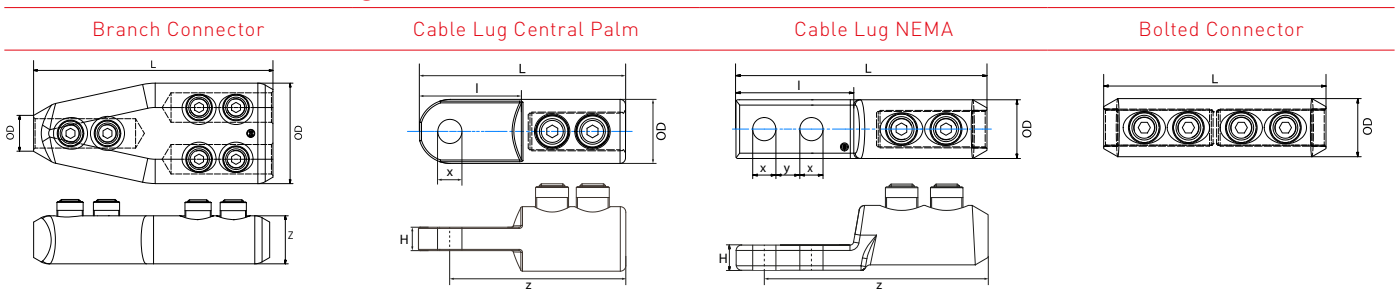


Product Selection Guide

Connector range (kcmil)	L (inch)	OD (inch)	l (inch)	H (inch)	z (inch)	Connector range (mm ²)	L (mm)	OD (mm)	l (mm)	H (mm)	z (mm)	Hex Size	Part No. (Al + Cu)
Bolted Connector (MC-OS)													
#7-3/0 AWG	2.32	0.94				10 - 95	59	24				5	332 601 012
#5-300	3.50	1.1				16 - 150	89	28				5	332 593 012
1/0-500	4.41	1.30				50 - 240	112	33				6	332 592 012
1/0-500 sector	4.41	1.38				50 - 240 sector	112	35				6	332 614 012
1/0-600	4.88	1.38				50 - 300	124	35				6	332 632 012
3/0-600	5.20	1.50				95 - 300	132	38				8	332 602 012
350-800	6.73	1.65				185 - 400	171	42				8	332 617 012
500-1000	7.80	2.05				240 - 500	198	52				8	332 640 012
600-1250	8.19	2.05				300 - 630	208	52				8	332 603 012
Cable Lug NEMA (MCL) – Mounting Holes 2 x 0.56" [14.2 mm] [x] and Mounting Hole Distance 1.75" [44.5 mm] [y]													
#5-300	5.87	1.10	3.35	0.39	3.41	16 - 150	149	28	85	10	86.6	5	332 599 052
1/0-500	6.32	1.30	3.35	0.55	3.86	50 - 240	160.5	33	85	14	98.1	6	332 595 052
3/0-600	6.75	1.50	3.35	0.55	4.30	95 - 300	171.5	38	85	14	109.1	8	332 605 052
350-800	7.52	1.65	3.35	0.55	5.02	185 - 400	191	42	85	14	127.6	8	332 625 052
500-1000	8.37	2.05	3.35	0.67	5.83	240 - 500	212.5	52	85	17	148.1	8	332 920 052
600-1250	8.37	2.05	3.35	0.67	5.83	300 - 630	212.5	52	85	17	148.1	8	332 606 052
Cable Lug Central Palm (MCL-E) – Mounting Hole 0.69" [17.5 mm] [x]													
#5-300	4.29	1.10	2.02	0.51	3.52	16 - 150	109	28	51	13	89.5	5	332 901 012
1/0-500	4.74	1.38	2.02	0.51	3.98	50 - 240	120.5	35	51	13	101	6	332 811 032
3/0-600	5.14	1.50	2.02	0.51	4.37	95 - 300	130.5	38	51	13	111	8	332 900 012
350-800	5.87	1.66	2.02	0.51	5.06	185 - 400	149	42	51	13	128.5	8	332 907 022
600-1250	6.56	2.05	2.02	0.51	5.71	300 - 630	166.5	52	51	13	145	8	332 910 022
1600	7.30	2.28	2.02	0.51	6.61	800	185.5	58	51	13	168	8	332 918 012
Branch Connector (BMC)													
1/0-500	5.51	1.18/2.68			1.30	50 - 240	140	30/68			33	6	332 447 012
Split Connector (SPLIT-MC)													
1/0-600	6.22	1.38				50 - 300	158	35				6	332 974 012
Repair Connector (RMC-OS)													
350-800	17.56	1.65				184 - 400	446	42				8	332 617 062

Others are available by special request

Technical Drawings



PFISTERER North America Inc.

The PFISTERER Group, which also includes LAPP Insulators, is amongst the world's leading specialist equipment and system suppliers in the energy infrastructure industry. Around 2,700 employees develop, produce and distribute components and complete solutions for the particularly sensitive interfaces in modern energy networks. With a complete range of products and services, the PFISTERER Group provides customised solutions for the complete transmission chain from low and medium to high and ultra-high voltage. Everything from a single source. Worldwide For our customers, that means: the best possible solutions for all their requirements – now and in the future.