

# EFCO CLIC® SKH RADIATING CABLE CLAMP

For the fastest fixing of radiating cables

- innovative
- ingeniously simple
- time-saving
- reliable

**efco**  
.SWISS

smart fixing

## EFCO CLIC® SKH – the new development

**EFCO (previously Egli Fischer), the company from which the famous CLIC system originated, is launching the radiating cable clamp of the future.**

The CLIC brand, known among experts as synonymous with radiating cable mounts, is currently used in the millions worldwide. In collaboration with leading radiating cable manufacturers and installers, a fundamentally new solution was developed on the basis of this experience and subjected to extensive practical tests. The result: the new generation of radiating cable clamps EFCO CLIC SHK.

### Fields of use of radiating cables

In railway or road tunnels, in safety tunnels, in mining, and in very large buildings, reliable communication is essential. Radiating cables, which act as antennae, are installed for this purpose. They enable uninterrupted communication for radio reception and mobile phones, and the use of two-way radio in emergencies for fire brigades, rescue services and police.

Generally, the radiating cables are run along the ceiling of the tunnel, along the course of the tunnel, and can emit or receive a stable signal over the entire tunnel length.

Based on the experience gained worldwide with the CLIC system in relation to radiating cable mounts, it has been found that the simple and secure fixing of the mount to the surface and the speed of installation of radiating cables as well as the associated costs are important factors to consider. The outcome, the "new generation CLIC SKH", exceeded the set targets and reduced the cost-intensive installation time by more than 50%.



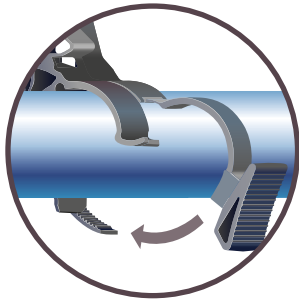
### Performance profile of the new generation

- Installation is time- and cost-saving
- Self-explanatory (pre-positioning/fixing)
- One-piece components for easier assembly and optimal storage
- High load capacity and fatigue resistance with long service life
- Pre-assemblable integrated fire safety strap
- No noticeable reduction in the PIM value at the fire protection point
- Sturdy large base for stable installation on any surface
- Wide range of fixing materials available
- Patented



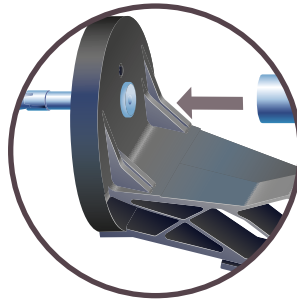
## Product features and accessories that ensure quick and secure fastening of radiating cables.

- Simple and quick mounting of the clamp and the cable
- High stability thanks to truss and honeycomb structure
- Available in 4 sizes for these radiating cable dimensions: ½", ⅞", 1¼", 1⅝"
- One-piece radiating cable clamp with a constant spacing of 80 mm to the mounting surface



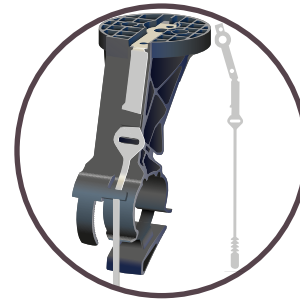
### **Sophisticated patented closure system that does not require additional screws**

- Pre-fastening and alignment in the spring clip – the cable is held in place even when the locking clip is open.
- Ergonomic contact surface on the locking clip for secure manual locking – no unintentional opening possible.
- Spacer wings on the spring clip to create a distance to the radiating cable when using the CLIC FSB fire safety strap.



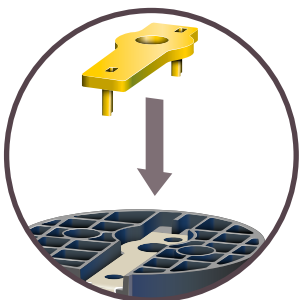
### **Cost-efficient fastening of the clamp due to excellent accessibility of the fastener**

- Fastening the plug-screw combination or the nail anchor to the base of the CLIC SKH radiating cable clamp reduces the length of the parts and thus the portion of material as a cost factor – especially with A4 stainless steel or HCR 1.4529.



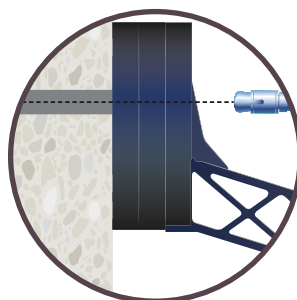
### **Integrable fire safety solution**

- The functionally optimised one-piece CLIC FSB fire safety strap ensures a significantly lower impairment of the radiated power than all other fire safety point solutions.
- Integrated mounting bracket for the patented method of pre-assembling the fire safety strap
- The strap is also available in 4 sizes for these radiating cable dimensions: ½", ⅞", 1¼", 1⅝".
- Delivery in small packages of 50 pieces



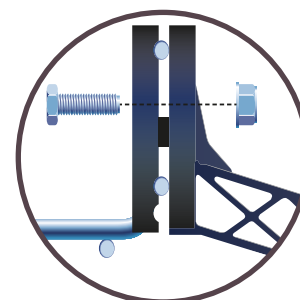
### **Isolation plate against radiation losses**

- Minimal impairment of the PIM radiation value
- The CLIC IPL isolation plate provides 100% galvanic separation of the CLIC FSB fire safety strap from the mounting surface and from the metal anchoring.
- Delivery in small packages of 50 pieces



### **Multifunctional mounting plate increases the distance if require**

- The CLIC MPL multifunctional mounting plate is used to compensate for unevenness or to increase the distance in 10 mm steps.
- Delivery in small packages of 50 pieces



### **Multifunctional mounting plate as counter-support for wire mesh cable ducts**

- The CLIC MPL multifunctional mounting plate serves as a counter-support when fixing the SKH to wire mesh cable ducts. The screw's hexagon head is countersunk in the MPL, making it twist-proof to prevent damage to cables in the wire mesh cable duct.
- Delivery in small packages of 50 pieces

## Dimensions

The following diameters are available:

RADIATING CABLE	CLAMPING RANGE	WALL DISTANCE
1/2"	13.7 – 16.2 mm	80 mm
7/8"	26.5 – 29.5 mm	80 mm
1 1/4"	37 – 39 mm	80 mm
1 5/8"	44.2 – 50 mm	80 mm

## Material

The EFCO CLIC SHK is made of a special, high-quality plastic to ensure high stability and a long service life. Resistant to environmental conditions typical for road tunnels and chemicals, the material can be used at temperatures ranging from -20 °C to +90 °C.

## Suitable for high-speed tunnels

The EFCO CLIC SHK is suitable for use in railway tunnels with high-speed traffic. Due to its ribbed construction and the use of a plastic material with superior elasticity of expansion, the fatigue strength of the EFCO CLIC SHK can be guaranteed in tunnels with a cross-section  $A \geq 41 \text{ m}^2$ .



High-speed

## Fire safety device

Every EFCO CLIC SHK can be extended to a fire-safe installation by inserting the CLIC FSB stainless steel fire safety strap. This eliminates the need for a separate fire safety point. The CLIC FSB has been designed to reduce the radiating power losses (PIM value) of the radiating cable to an absolute minimum.

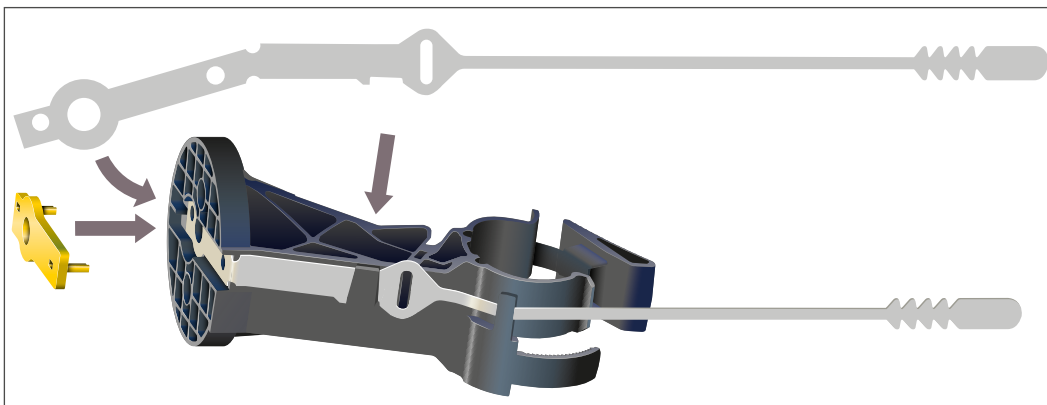


## Isolation plate

The CLIC IPL isolation plate galvanically separates the CLIC FSB fire safety strap from the mounting surface as well as from the metal anchoring. "Earthing" of the fire safety strap, which encloses the radiating cable when mounted, is prevented and so, consequently, is any conduction of the transmitted signal.



The EFCO CLIC IPL should not be missing from any fire safety point.



Insertion sketch of the EFCO CLIC fire safety strap made of stainless steel A4 / 1.4401 with new EFCO CLIC IPL isolation plate

## Mounting

The EFCO CLIC SKH is designed for a vast variety of mounting options, such as on concrete walls, mounting rails, mesh tracks, etc.

- The specially developed setting tool and the open and therefore simple access to the fastening point in the base of the clamp make it easy to hammer in or tighten plugs, nail anchors and screws both manually and mechanically.
- The cable is provisionally held securely by the spring clip with its insertion aids when being inserted into the CLIC SKH. Afterwards, the cable can be easily readjusted by the fitter. Suitable recesses are provided for the guides on some cables.
- Brief pressure exerted by hand on the movable, large-diameter clasp snaps it into the toothed clip.
- The cable is fixed and locked in position.
- One "click" and the secure locking mechanism ensures that the radiating cable clamp will not open under any circumstances, even under impact and torsional loads.

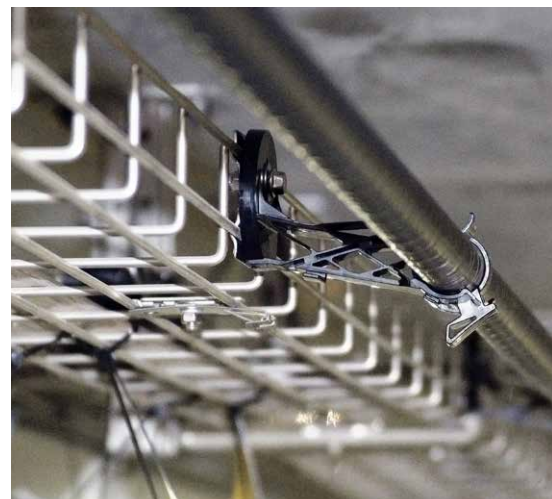


*Mounting the CLIC SKH directly on the tunnel wall.*

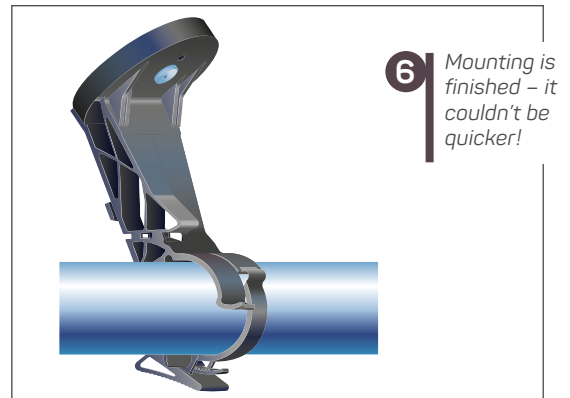
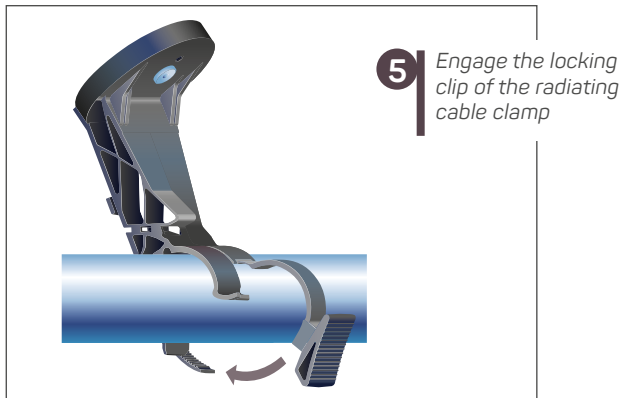
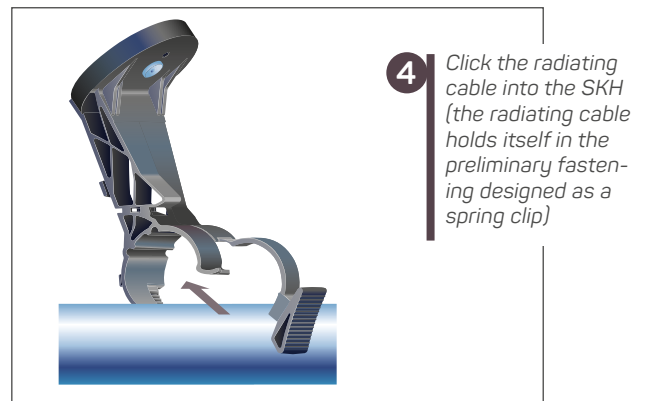
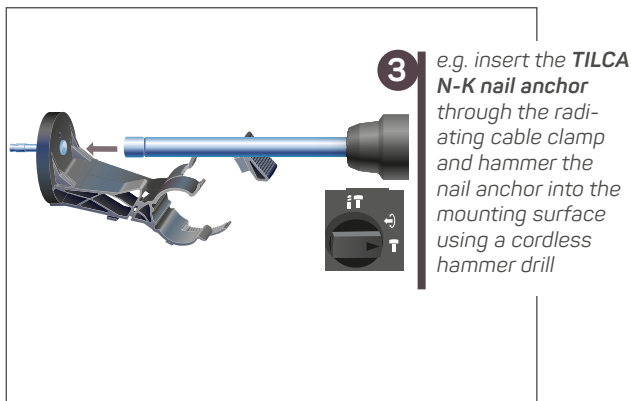
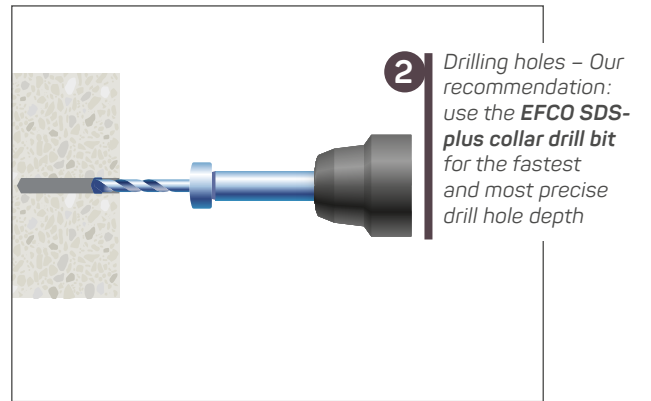
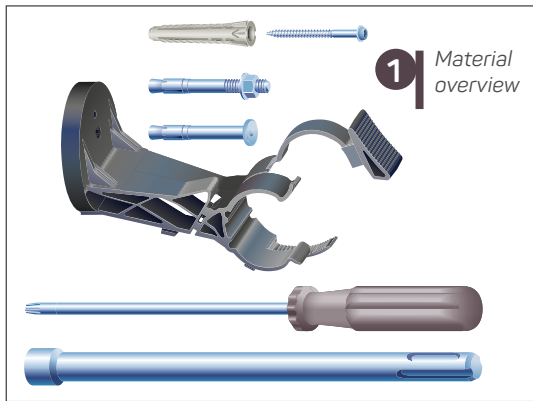
*Installation on a mesh track in a tunnel – watch the video:*



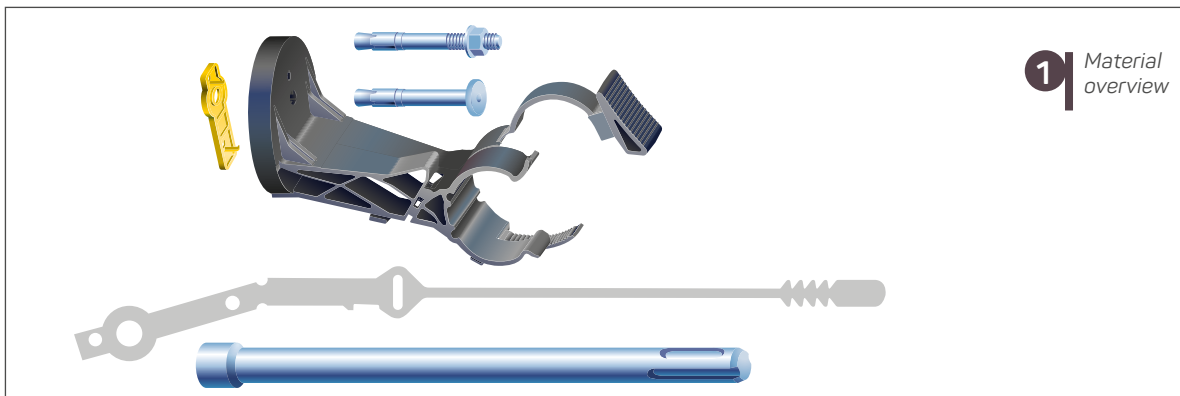
*The radiating cable is mounted on a mesh track in a tunnel using CLIC SKH.*

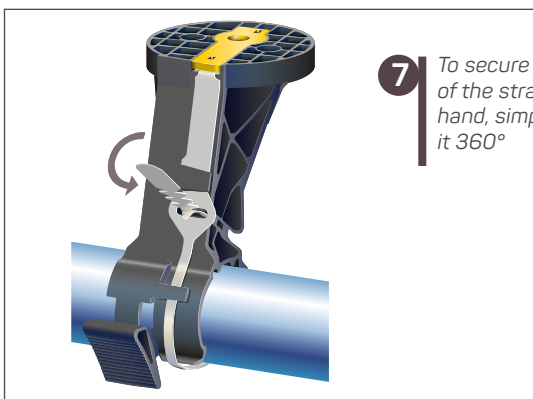
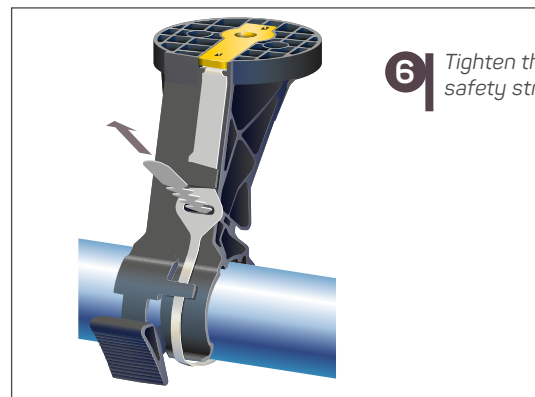
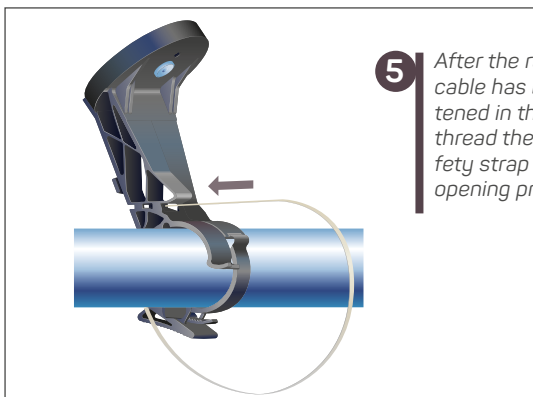
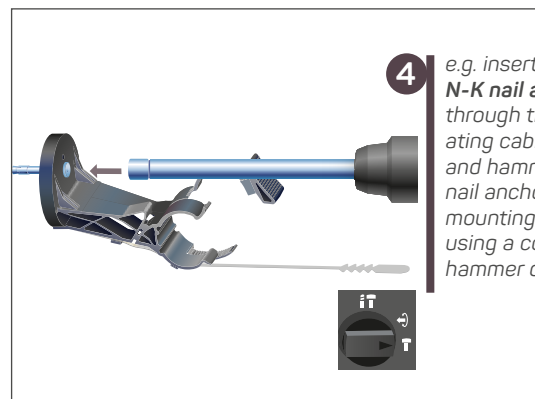
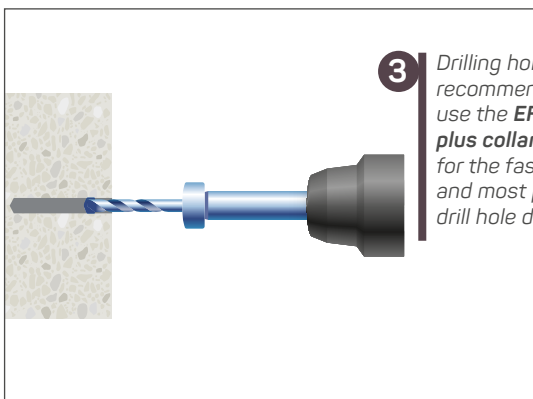
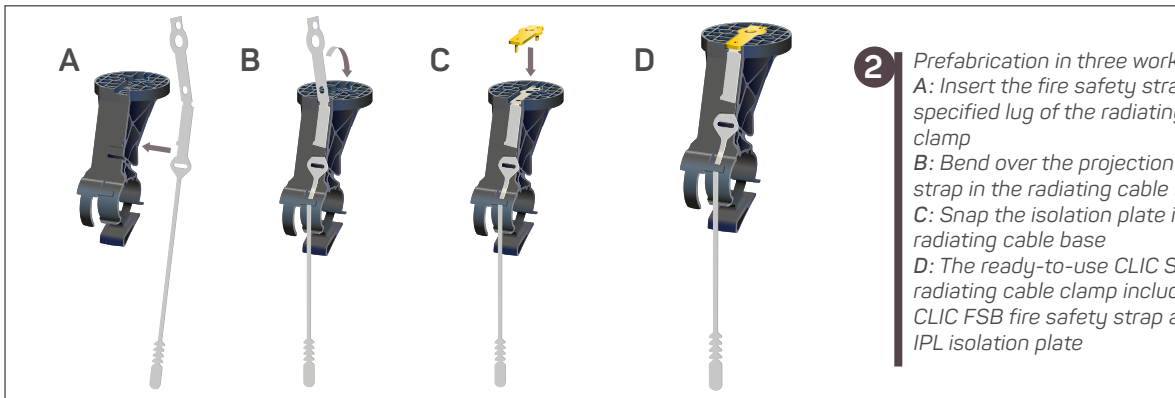


## Mounting



## Mounting with fire safety strap

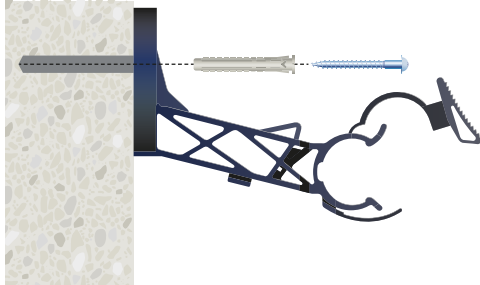




## Fastening systems

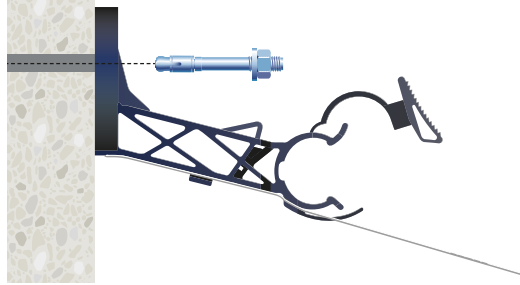
### Parts list for Universal fastening

- The combination of DELTA XM-L multipurpose plugs with the specially adapted CLIC SKH pan-head screw with trapezoidal thread enables cost-effective and removable fastening on various mounting surfaces. By means of push-through pre-assembly of the plug, this system also pays attention to efficiency



No	EFCO-Art.-No	Description	SU
1	A 88.47_	CLIC SKH Radiating cable clamp	100/150
2	A 62.196	CLIC SKH PH 4.5x55 A4 T25 Pan-Head special screw	150
3	A 10.418	DELTA XM-L 6x50 Multipurpose plug, long	150

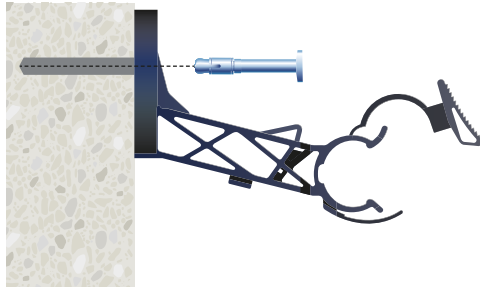
- Design as fire safety point
- For the fire safety point, the use of a TILCA N or N-K nail anchor as a purely metal connection to the mounting surface is mandatory



No	EFCO-Art.-No	Description	SU
1	A 88.47_	CLIC SKH Radiating cable clamp	100/150
2	A 88.49_	CLIC FSB Fire safety strap incl. CLIC IPL Isolation plate	50
3	A 44.99_	TILCA N-K Nail anchor stainless steel A4 or HCR 1.4529	200

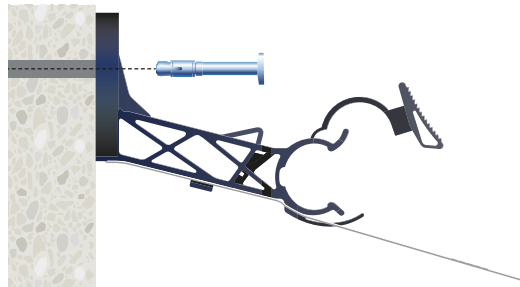
### Parts list for Forever fastening

- Highest efficiency through mechanical setting of the pre-assembled anchor using a cordless hammer drill and setting tool
- The TILCA N-K nail anchor permanently fastens the system without the possibility of non-destructive dismantling



No	EFCO-Art.-No	Description	SU
1	A 88.47_	CLIC SKH Radiating cable clamp	100/150
2	A 44.99_	TILCA N-K Nail anchor stainless steel A4 or HCR 1.4529	200

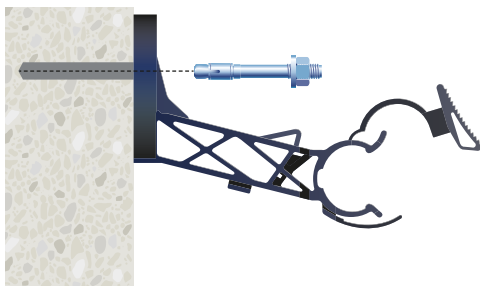
- Design as fire safety point
- Minimal impairment of the PIM radiation value
- The CLIC IPL isolation plate galvanically separates the CLIC FSB fire protection strap from the mounting surface and the TILCA N-K nail anchor



No	EFCO-Art.-No	Description	SU
1	A 88.47_	CLIC SKH Radiating cable clamp	100/1500
2	A 88.49_	CLIC FSB Fire safety strap incl. CLIC IPL Isolation plate	50
3	A 44.99_	TILCA N-K Nail anchor stainless steel A4 or HCR 1.4529	200

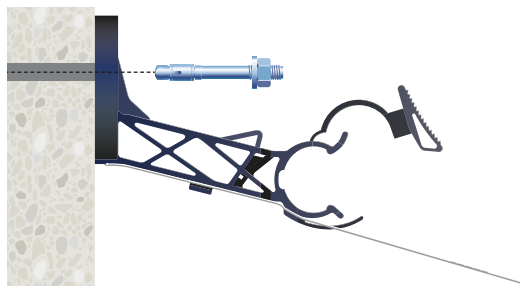
### Parts list for Removable fastening

- Guaranteed efficiency through mechanical setting of the pre-assembled anchor using a cordless hammer drill and setting tool
- The TILCA N nail anchor allows the system to be dismantled



No	EFCO-Art.-No	Description	SU
1	A 88.47_	CLIC SKH Radiating cable clamp	100/150
2	A 44.96_	TILCA N Nail anchor stainless steel A4 or HCR 1.4529	200

- Design as fire safety point
- Minimal impairment of the PIM radiation value
- The CLIC IPL isolation plate galvanically separates the CLIC FSB fire protection strap from the mounting surface and the TILCA N-K nail anchor



No	EFCO-Art.-No	Description	SU
1	A 88.47_	CLIC SKH Radiating cable clamp	100/150
2	A 88.49_	CLIC FSB Fire safety strap incl. CLIC IPL Isolation plate	50
3	A 44.96_	TILCA N Nail anchor stainless steel A4 or HCR 1.4529	200

### Recommended accessories for quick and easy EFCO CLIC SKH installation

- The TILCA STNK setting tool fits all TILCA N & N-K nail anchors

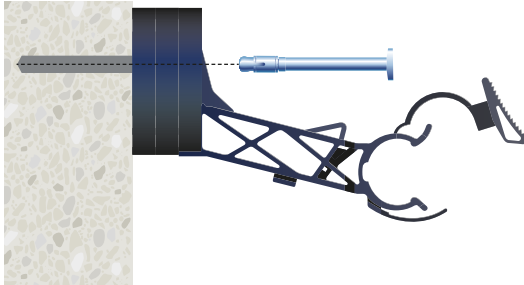
No	EFCO-Art.-No	Description	SU
1	A 45.999	TILCA STNK Setting tool SDS plus 6x205	200
2	A 45.862	EFCO SDS-plus 2x2 Collar drill bit Ø6x125/42	1





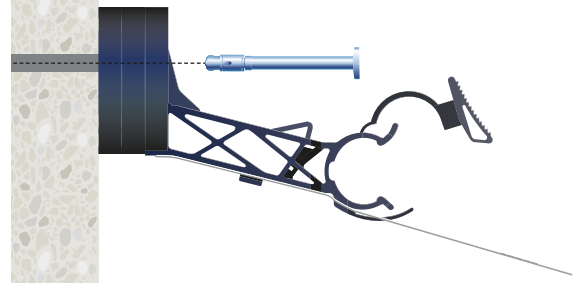
### Parts list for Higher Distance fastening

- With the stackable CLIC MPL multifunctional mounting plate, either the distance to the wall can be extended in 10 mm steps or unevenness in the course of the wall can be corrected at specific points
- Matched TILCA N-K nail anchors allow fastening with up to 3 CLIC MPL multifunctional mounting plates



No	EFCO-Art.-No	Description	SU
1	A 88.47	CLIC SKH Radiating cable clamp	100/150
2	A 88.995	CLIC MPL Multifunctional mounting plate	100
3	A 44.96	TILCA N-K Nail anchor stainless steel A4 or HCR 1.4529	200

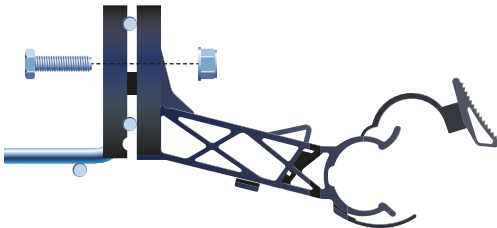
- Design as fire safety point
- For the fire safety point, the use of a TILCA N or N-K nail anchor is mandatory, as the combination of a plastic plug with a screw does not meet fire regulations



No	EFCO-Art.-No	Description	SU
1	A 88.47	CLIC SKH Radiating cable clamp	100/150
2	A 88.995	CLIC MPL Multifunctional mounting plate	50
3	A 88.49	CLIC FSB Fire safety strap incl. CLIC IPL Isolation plate	50
4	A 44.96	TILCA N-K Nail anchor stainless steel A4 or HCR 1.4529	200

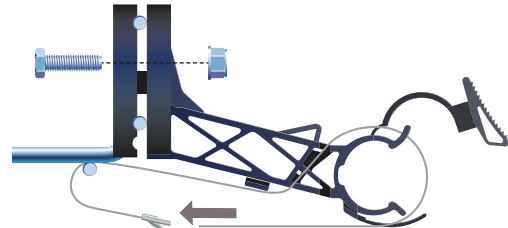
### Parts list for fastening to wire mesh cable duct

- The CLIC MPL multifunctional mounting plate is the ideal counter-support when mounting the SKH on wire mesh cable ducts. The pre-assembled hexagon head screw facilitates efficient working.
- The hexagonal lock nut with polyamide insert additionally secures the screw connection in the case of vibrations



No	EFCO-Art.-No	Description	SU
1	A 88.47	CLIC SKH Radiating cable clamp	100/150
2	A 88.995	CLIC MPL Multifunctional mounting plate	50
3	A 73.631	Hexagon head screw DIN 933 A4 M6x30	200
4	A 73.629	Hexagonal lock nuts w. flange & polyamide insert M6 A4	500

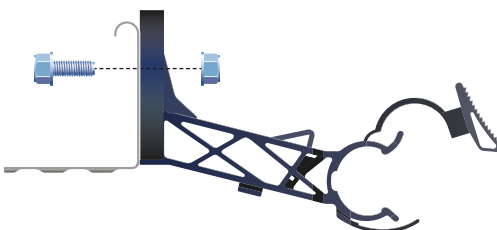
- Design as fire safety point
- The stainless steel cable tie is attached directly to the wire mesh cable duct



No	EFCO-Art.-No	Description	SU
1	A 88.47	CLIC SKH Radiating cable clamp	100/150
2	A 88.995	CLIC MPL Multifunctional mounting plate	50
3	A 73.631	Hexagon head screw DIN 933 A4 M6x30	200
4	A 73.629	Hexagonal lock nuts w. flange & polyamide insert M6 A4	500
5	Z 13.16	Stainless steel cable ties 316 (A4) 7.9xLength	100

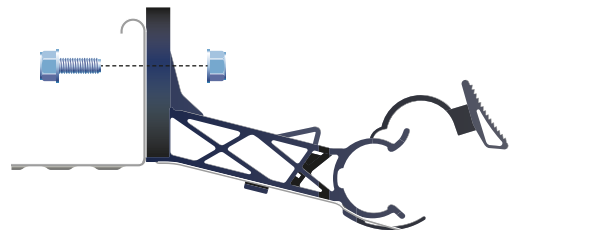
### Parts list for fastening to track

- The large bearing surface of the base guarantees a stable support on the track as well as efficient assembly
- The hexagonal lock nut with polyamide insert additionally secures the screw connection in the case of vibrations



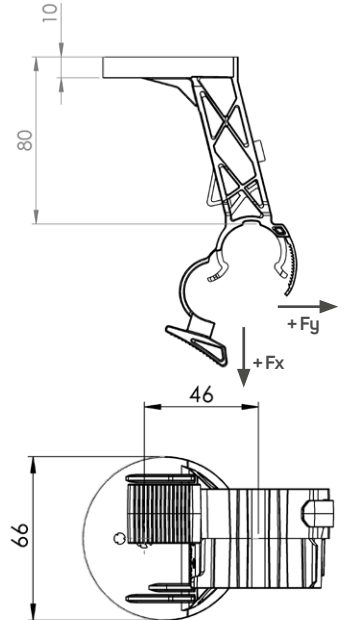
No	EFCO-Art.-No	Description	SU
1	A 88.47	CLIC SKH Radiating cable clamp	100/150
2	A 64.100	Hexagon head screw w. flange DIN 6921 A4 M6x20	200
3	A 73.629	Hexagonal lock nuts w. flange & polyamide insert M6 A4	500

- Design as fire safety point
- Minimal impairment of the PIM radiation value
- The CLIC IPL isolation plate galvanically separates the CLIC FSB fire protection strap from the mounting surface and the TILCA N-K nail anchor



No	EFCO-Art.-No	Description	SU
1	A 88.47	CLIC SKH Radiating cable clamp	100/150
2	A 88.49	CLIC FSB Fire safety strap incl. CLIC IPL Isolation plate	50
3	A 64.100	Hexagon head screw w. flange DIN 6921 A4 M6x20	200
4	A 73.629	Hexagonal lock nuts w. flange & polyamide insert M6 A4	500

## Product overview of radiating cable clamp EFCO CLIC SKH



### EFCO CLIC SKH Radiating cable clamp

CLIC SKH Type	Wall distance mm	Base Ø mm	Base thickness mm	Safe working load in +Fy/+Fx directions, N
1/2"	80	66	10	300
3/8"	80	66	10	300
1 1/4"	80	66	10	300
1 5/8"	80	66	10	300

### EFCO CLIC SKH Radiating cable clamp

- Material high performance polymer
- Colour black (RAL 9011)

EFCO-Art.-No	Description	Clamping range Ø mm	Size	Mounting hole for fastening Ø mm	SU
A 88.470	CLIC SKH 1/2"	13.7 – 16.2	1/2"	7.6	150
A 88.471	CLIC SKH 3/8"	26.5 – 29.5	3/8"	7.6	150
A 88.472	CLIC SKH 1 1/4"	37 – 39	1 1/4"	7.6	100
A 88.473	CLIC SKH 1 5/8"	44.2 – 50	1 5/8"	7.6	100



### EFCO CLIC MPL Multifunctional mounting plate

- Material PA6 + GF
- Colour black (RAL 9011)
- Recesses for mesh bar spacing 37.5 and 50 mm

EFCO-Art.-No	Description	Height mm	fits to	Through-hole Ø mm	SU
A 88.995	CLIC MPL	10	SKH 1/2" to 1 5/8"	7.6	50



### EFCO CLIC Fire safety strap

- Material stainless steel A4 (1.4401)

EFCO-Art.-No	Description	fits to	Size	SU
A 88.490	CLIC FSB 1/2" incl. CLIC IPL	A88.470	1/2"	50
A 88.491	CLIC FSB 3/8" incl. CLIC IPL	A88.471	3/8"	50
A 88.492	CLIC FSB 1 1/4" incl. CLIC IPL	A88.472	1 1/4"	50
A 88.493	CLIC FSB 1 5/8" incl. CLIC IPL	A88.473	1 5/8"	50



### EFCO CLIC IPL Isolation plate

- Material PP
- Colour yellow (RAL 1018)

EFCO-Art.-No	Description	fits to	SU
A 88.994	CLIC IPL	SKH 1/2" to 1 5/8"	50



## Mounting material for CLIC SKH radiating cable clamp



### DELTA XM-L Multipurpose plug, long

- In combination with the CLIC SKH pan-head screw, suitable for push-through mounting through the EFCO CLIC SKH radiating cable clamp (reduced drill hole depth 50 mm)

1102C

EFCO-Art.-No	Description	Ø Drill hole mm	Plug length mm	Drill hole depth mm	Ø Screw mm	Carton/box of pcs	SU
A 10.418	DELTA XM-L 6x50	6	50	50	4 - 5	1500	150

min. screw length = plug length L + clamping strength t<sub>fix</sub> + Ø screw



### CLIC SKH Pan-head screw with special trapezoidal thread

- This thread prevents the plug from being cut when using cordless screwdrivers
- Material stainless steel A4 (1.4578), head TX 25

1137F

EFCO-Art.-No	Description	Ø Screw mm	Length mm	Clamping strength t <sub>fix</sub> mm	SU
A 62.196	CLIC SKH PH 4,5x55 A4 T25	4.5	55	10	150



### TILCA Nail anchor N-K (fire safety)

- Material zing-plated, stainless steel A4, HCR (1.4529)
- ETA 17/1004

1123B

EFCO-Art.-No	Description	Ø mm	Length mm	Material	Drill hole Ø mm	Drill hole depth h <sub>min</sub> mm	Clamping strength t <sub>fix</sub> mm	SU
A 44.991	TILCA N-K	6	44	Stainless steel A4	6	35	10 SKH	200
A 44.997	TILCA N-K	6	54	Stainless steel A4	6	35	20 SKH + 1 MPL	200
A 44.995	TILCA N-K	6	69	Stainless steel A4	6	40	30 SKH + 2 MPL	200
A 44.996	TILCA N-K	6	89	Stainless steel A4	6	50	40 SKH + 3 MPL	100
A 44.998	TILCA N-K	6	44	HCR 1.4529	6	35	10 SKH	200
A 44.999	TILCA N-K	6	54	HCR 1.4529	6	35	20 SKH + 1 MPL	200
A 45.000	TILCA N-K	6	69	HCR 1.4529	6	40	30 SKH + 2 MPL	200
A 45.001	TILCA N-K	6	89	HCR 1.4529	6	50	40 SKH + 3 MPL	100
A 44.974	TILCA N-K	6	44	zinc-plated	6	35	10 SKH	200
A 44.977	TILCA N-K	6	54	zinc-plated	6	35	20 SKH + 1 MPL	200
A 44.975	TILCA N-K	6	69	zinc-plated	6	35	30 SKH + 2 MPL	200
A 44.976	TILCA N-K	6	89	zinc-plated	6	35	40 SKH + 3 MPL	100



### TILCA Nail anchor N with nut/washer (fire safety)

- Material zing-plated, stainless steel A4, HCR (1.4529)
- ETA 17/1004
- removable

1123B

EFCO-Art.-No	Description	Ø mm	Length mm	Material	Drill hole Ø mm	Drill hole depth h <sub>min</sub> mm	Clamping strength t <sub>fix</sub> mm	SU
A 44.961	TILCA N	6	49	Stainless steel A4	6	35	10 SKH	200
A 44.962	TILCA N	6	49	HCR 1.4529	6	35	10 SKH	200
A 44.960	TILCA N	6	49	zinc-plated	6	35	10 SKH	200



### TILCA STNK Setting tool

1115A

EFCO-Art.-No	Description	fits to	Shank	VE
A 45.999	TILCA STNK SDS plus 6x205	TILCA Nail anchor N-K & N	SDS plus	1



### EFCO SDS-plus 2x2 Collar drill bit

1115A

EFCO-Art.-No	Description	fits to	Shank	Drill hole depth mm	Ø Drill hole mm	SU
A 45.862	EFCO SDS-plus 2x2 Collar drill bit	TILCA Nail anchor	SDS-plus	42	6	1



### EFCO Hammer drill SDS-plus 4x4 S

1408B

EFCO-Art.-No	Description	Drill Ø mm	Total length mm	Effective length mm	SU
D 08.305	EFCO SDS-plus 4x4 S, 6x115/50	6	115	50	1
D 08.383	EFCO SDS-plus 4x4 S, 6x115/50 – 10x multipack	6	115	50	10
D 08.306	EFCO SDS-plus 4x4 S, 6x165/100	6	165	100	1
D 08.384	EFCO SDS-plus 4x4 S, 6x165/100 – 10x multipack	6	165	100	10



## Mounting material for CLIC SKH radiating cable clamp on track systems

### Stainless steel cable ties

- Design for fire safety point on mesh track
- Material stainless steel 316 (A4)

4033

EFCO-Art.-No	Description	Size	fits to	SU
Z 13.166	Stainless steel cable tie TY-MET YLS 316 (A4) 7.9x360	7.9x360	SKH ½" und ⅞"	50
Z 13.167	Stainless steel cable tie TY-MET YLS 316 (A4) 7.9x520	7.9x520	SKH ¼" und ⅝"	50



### Hexagon head screw with flange

- Design according to DIN 6921 without shank
- Material stainless steel A4

1134A

EFCO-Art.-No	Description	Thread	Length mm	SW	SU
A 64.100	Hexagon head screw with flange M6x20 A4	M6	20	10	200



### Hexagon head screw

- Design according to DIN 933 without shank
- Material stainless steel A4

1134A

EFCO-Art.-No	Description	Thread	Length mm	SW	SU
A 73.631	Hexagon head screw M6x30 A4	M6	30	10	200



### Hexagonal lock nuts with flange

- Design according to DIN 6926
- Material stainless steel A4 & polyamide insert

1134B

EFCO-Art.-No	Description	Thread	h mm	SW	SU
A 73.629	Hexagonal lock nuts with flange & polyamide insert M6 A4	M6	9	10	500



### Washer – large

- Design according to DIN 9021
- Material stainless steel A4

1134B

EFCO-Art.-No	Description	d1 mm	d2 mm	s mm	SU
A 73.634	Washer – large 6.4x18x1.6 A4	6.4	18.0	1.6	500



## Interested?

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Subject to change.