

## Electronic PinBrazing

Cable Bonding System for Cathodic Protection and Grounding

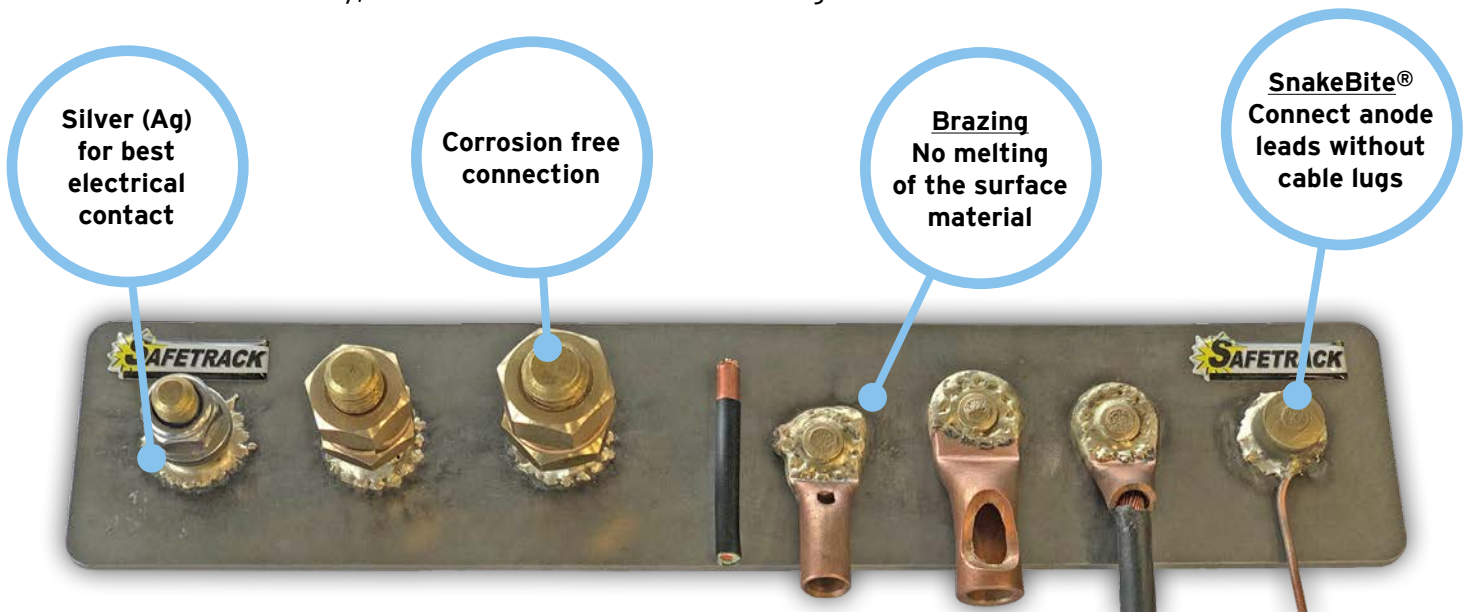


# PinBrazing

Track record with over  
100 million safe connections.

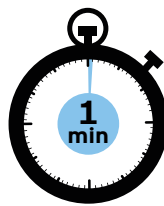
## Connect cables, fast and safe

Safetrack® patented electronic PinBrazing system is an extremely efficient, low temperature arc brazing method used for attaching electrical connectors to steel structures within Cathodic Protection systems such as pipelines, vessels, reinforcement bars, wind power, grounding, etc, without the need for welding. No need for different carbon moulds for different wires. Safetrack® application methods always use materials of the highest quality to ensure the best electrical conductivity, corrosion resistance and strength.



### Weather proof

With Safetrack patented PinBrazing system you can complete your installations in any weather, any time. Rain or snow is no longer a problem.



### 1-minute process

The reduced time on site not only makes this method very cost efficient, it minimizes the risk to operators. The same type of consumables is used regardless the connection.



### Safe for the user

No exothermic reaction and no risk for steam explosions. Our PinBrazing method is safe for the operator and safe for the material. You can apply cables in any direction with the same material.

### Ergonomic & Economical

- Automated brazing gun (patent) – No adjustment needed
- No special training needed
- Lightweight & easy to carry
- Minimum maintenance
- No waste of consumables
- No noise
- Battery powered

### Reliable method

- Over 70 years of track record
- 100 million installed connections
- Lowest possible transition resistance, only 5 micro ohms/brazed joint
- Secure connection every time
- Constant Energy Control System (patent)
- Used in over 65 countries worldwide
- Stronger connection than the cable itself

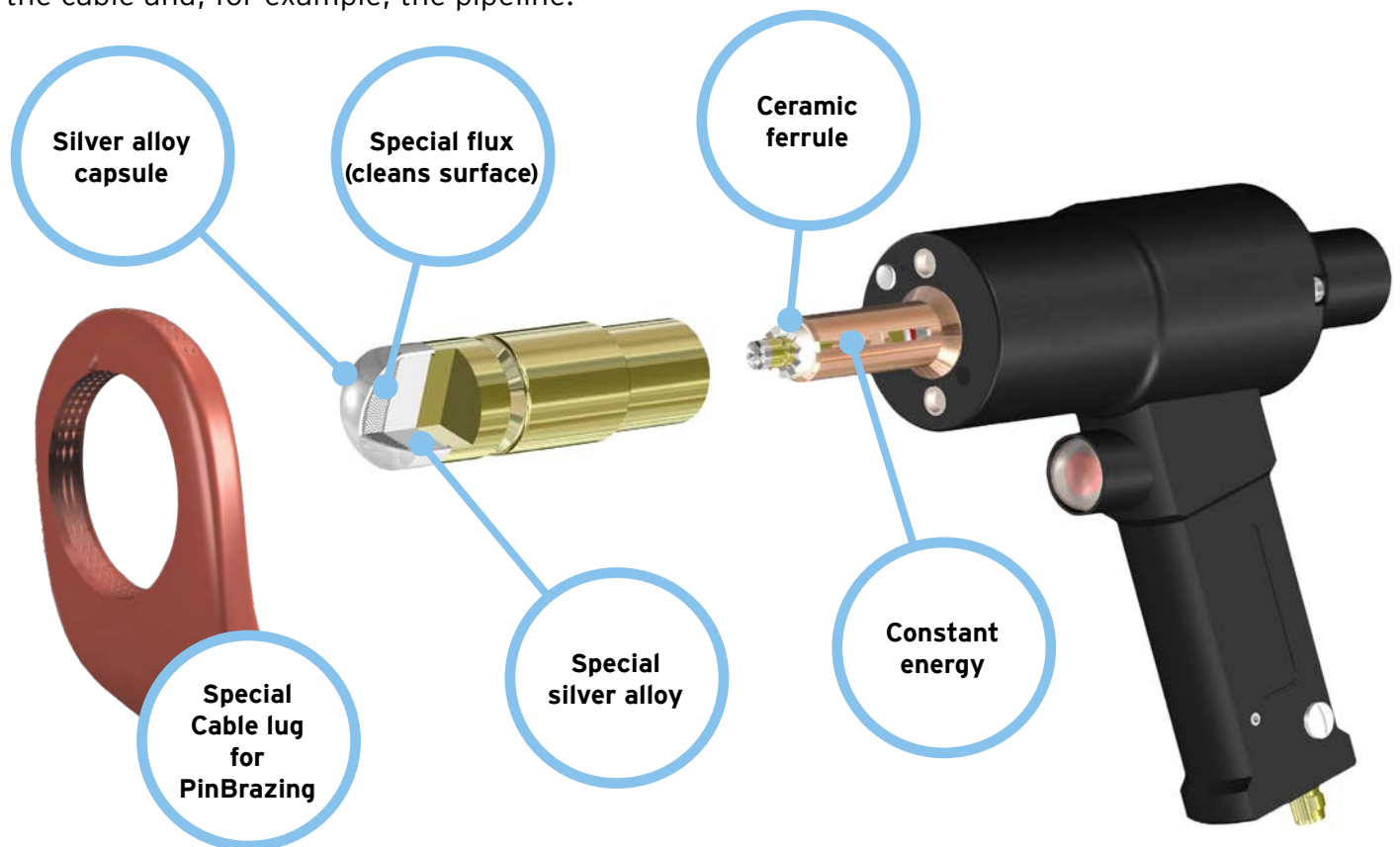
### Safe for the material

- Low temperature – Melting point of the silver alloy 650°C/1200°F
- Safe for the internal coating
- Suitable for use on pipe lay barge
- No welding = No melting of the pipe
- No mixing of pipe material and copper from the cables

# The process

Grind the surface, attach the grounding device and prepare the gun with the brazing material. Pull the trigger and the equipment will distribute an exact amount of energy (patent) to the brazing pin. The flux cleans the surface and the special silver alloy melts onto the connected material and surface.

In 1 second, you have created an extremely efficient and reliable silver contact between the cable and, for example, the pipeline.



## Any direction

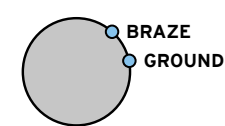
Pinbrazing in any direction without changing the material or parameters.

## Automated gun –Connects to these units

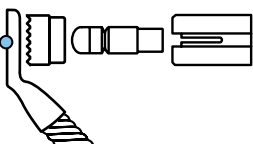
All Safetrack® PinBrazing units use our patented automated brazing gun. It ensures correct lift level which is essential for achieving optimal brazing result and connection.

Our brazing gun is lightweight, easy to use and requires little to zero maintenance.

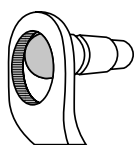
## Step by step



**1.** Clean the brazing & grounding area with a grinding machine (special pin required).



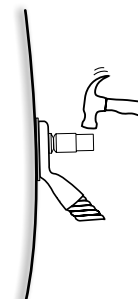
**2.** Attach the ground device and point the prepared material to the grinded brazing area.



**3.** Pull the trigger. The pin lifts and creates an arc. The special flux powder cleans and prepares the surface.



**4.** An exact amount of energy (patent) melts the silver alloy and completes the connection in 1 second.



**5.** Finish by knocking off the control shaft of the brazing pin with a hammer. You have now created an extremely efficient and reliable silver connection.

# PinBrazing equipment

What separates Safetrack® PinBrazing systems from other brands is the patented properties: Constant Energy, Automatic brazing devices, easy handling and low to no need for maintenance.

## ECONECT<sup>®</sup> – a whole new level of performance.



- **High capacity**  
60 brazings per charge  
1h Recharge
- **Battery powered**  
Nano Li-Ion, long life and lead-free.
- **Automatic Gun**  
Self adjusting (patent)
- **Digitized**  
Same perfect brazing result everytime (patent)
- **Lightweight**  
Only 9,8kg (21,6 lb)
- **Prepared for Safebond<sup>®</sup>**(patent)
- **Part no. 94365**  
Cpl. set with charger (add grinder: 593070 cordless)



### S30 X/C

Electronic PinBrazing equipment

- 40–60 brazings per charge
- Constant Energy (Patent)
- Automatic Brazing Gun (patent)
- Weight: 22–25kg (13/16Ah)
- **Part no. 9308CP/9307CP**  
Cpl. set with charger (add grinder 593070 Cordless)



### S300

Electronic PinBrazing equipment

- Requires welding inverter, no batteries.
- Unlimited capacity
- Constant Energy (Patent)
- Automatic Brazing Gun (patent)
- Weight: 6,5kg
- **Part no. 9380** (add welding inverter RW674010 & grinder 593070 Cordless)

## SL87 / SL88

Patented PinBrazing gun with the ability to extend up to 8 meters. It is made for connecting cathodic protection cables in drilled holes or holes made with vacuum excavation (Hydrovac). PinBrazing in holes as small as 10" (25cm) and up to 26'/8m deep.



- Requires unit Econect or S30 X/C
- Includes camera for easy operation
- Self adjusting lift height (patent)
- Grounding included in gun
- Weight: 19kg
- **Part no. 91061** (for S30 X/C)
- **Part no. 91062** (for Econect)  
Add wire brusher 8007040 (220V)/8007045 (110V) with special bracket 8007048 and extension rods 9106115.



## Quality – Tested & Approved

Safetrack material is thoroughly tested by third party, on site and in our own laboratory for corrosion resistance, fatigue tests etc.

**Safetrack Baavhammar AB**  
ISO 9001 certified.  
ISO 14001 certified

# Consumables

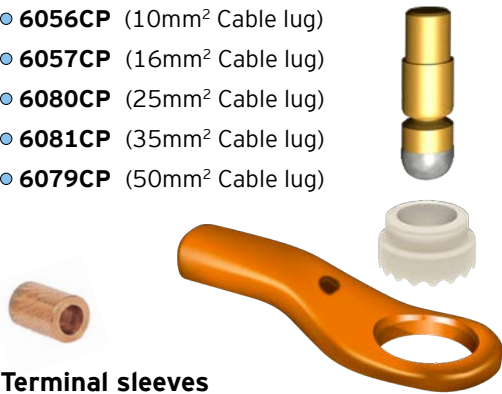
a selection for all needs and situations

See our wide range of accessories and consumables  
[www.safetrack.se](http://www.safetrack.se)

## Cable lug Kit

Includes 100 pcs of each  
 Brazing pin/Ceramic ferrule/Cable lug  
 (Cable lugs are made specifically for PinBrazing)

- **6056CP** (10mm<sup>2</sup> Cable lug)
- **6057CP** (16mm<sup>2</sup> Cable lug)
- **6080CP** (25mm<sup>2</sup> Cable lug)
- **6081CP** (35mm<sup>2</sup> Cable lug)
- **6079CP** (50mm<sup>2</sup> Cable lug)



### Terminal sleeves

- **6700** (2,5mm<sup>2</sup> use with 6056CP)
- **6701** (4,0mm<sup>2</sup> use with 6056CP)
- **6702** (6,0mm<sup>2</sup> use with 6056CP)

## Brazing pins & Ceramic ferrules

- **10051** (8mm)
  - **10301** (8mm X)
  - **10191** (9,5mm)
  - **10381** (M8)
  - **10401** (M10)
  - **10421** (M12)
- **2003**
- **2009**
- **2012**

## SnakeBite®



SnakeBite® – Patented PinBrazing connection for connecting anode leads without cable lugs. Just bend the wire to a round shape with the enclosed special plier and pinbraz directly to the pipe.

- Connect anodes directly to pipe
- Safe for internal coatings
- No need for cable lugs
- No need for crimping tools
- No dangerous explosive material
- **1090CP**  
 (kit of 100 Brazing pins & Ceramic ferrules incl. pliers)

## References



Over 100 million connections in over 65 countries worldwide with safe, consistent and reliable result.

- **Gazprom**
- **Acergy** (Pipelaying vessels)
- **CABGOC** (Chevron)
- **Exxon Mobil**
- **Subsea 7**, (Pipelaying vessels)
- **SAIPEM**
- **etc.**

For more information, please visit:  
[www.safetrack.se](http://www.safetrack.se)



**Safetrack Baavhammar AB**  
 Möllebergavägen 339-24  
 245 93 Staffanstorp, Sweden

**Tel:** +46 (0)40 44 53 00  
**email:** sales@safetrack.se  
**web:** www.safetrack.se

## Accessories



**Grounding Magnet**  
 Powerful, Switchable  
 Complete device with cable  
 ● 80730



**Grounding Grip**  
 For non-magnetic material  
 No need to grind first  
 ● 8071



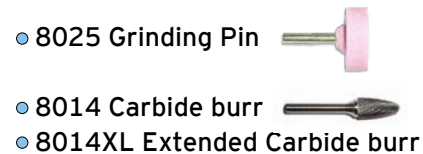
**Insulation Bag**  
 For Econect  
 Increased capacity in even colder weather  
 ● 937005



**Cordless Grinder 18V**  
 Connects to Econect/S30 X/C  
 Complete with 2 batteries &  
 230V Charger  
 ● 593070



**Carrying Harness**  
 For Econect  
 Carry on your back  
 Complete with holster  
 ● 93690



● 8025 Grinding Pin  
 ● 8014 Carbide burr  
 ● 8014XL Extended Carbide burr



● 80561 Car charger Econect  
 ● 8055 Car charger S30 X/C



**Ring Holder**  
 ● 9202 for 8-9,5 mm pin  
 ● 9204 for M8-M12 threaded pin



**Pin Holder**  
 ● 9211 for 8-9,5 mm pin  
 ● 9213 for M8 threaded pin  
 ● 9215 for M10 threaded pin  
 ● 9217 for M12 threaded pin



**Extended Pin & Ring Holder**  
 PinBrazed in narrow spaces (Cpl. set)  
 ● 9227 for 8-9,5mm pin  
 ● 9229 for M8-M12 threaded pin

## Leading manufacturer of patented electrical cable connection system

Safetrack Baavhammar AB, founded 1988, is the leading manufacturer of electrical cable connection systems for the Railway, Grounding and Cathodic Protection Industry. With systems such as PinBrazing, SafePlug®, SafeBond® and temporary rail cable clamps in our assortment, Safetrack supplies all the modern cable application methods to clients in more than 65 countries.

For more information about our solutions for Cable Bonding Technologies, please visit: [www.safetrack.se](http://www.safetrack.se)