

## CABLE CONNECTIONS

### Electronic pin brazing unit S30 XC

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German Cathodic Protection



For use when a cathodic protection system is to be applied to steel, ductile or cast-iron pipelines, vessels, tanks or reinforcement bars. Pin brazing is a simple, maintenance free alternative to thermite welding.



#### The advantages of pin brazing

- Works in any weather condition
- Very fast method, the pin brazing process takes only a second
- Does not affect internal coatings
- Economical
- Safe for the operator
- Uses lower temperature than thermite welding

#### Electronic Pin Brazing Unit S30 XC

S30 XC is a small handheld pin brazing unit made specially for cathodic protection and grounding installations. S30 XC is electronically controlled, powered by 3 pcs of 12 V batteries which are easily exchangeable using a cassette system. The power (36V DC) comes from sealed high power batteries located in a separate battery box for easy replacement.

Supplied as standard with patented automatic S4 brazing gun, uses brazing pins without fuse wire.

#### Technical Specifications

Voltage	36V DC	Width	230 mm
Number of brazes	40-60	Height	390 mm
Weight (13Ah/16Ah)	22/25 kg	Length	280 mm

#### Unit S30XC SAFE 9307 is supplied with:

Braze S4 Automatic gun	SAFE 9102
Electronic unit	SAFE 9627
Batteries, sealed, high power 16 Ah, 3 pcs.	SAFE 8093
Grinder 36 V DC	SAFE 8005
Earthing device	SAFE 8067
Carrying harness	SAFE 9523
Tool case	SAFE 9524

#### Brazing pins

The Pin brazing system use a special, patented brazing pin with silver content for a melting temperature of less than 700°C (1300°F). The special pin brazing technique ensures that only the solder material melts. The steel structure is never damaged.



SAFE No.	Dimensions mm	Qty. pack
10051	Ø 8	100
10301	Ø 8 extra	100
10191	Ø 9.5	100
10381	M8, Threaded brazing pin, L=16	50
10401	M10, Threaded brazing pin, L=24	50
10421	M12, Threaded brazing pin, L=24	50

#### Ferrules

Ferrules are used in pin brazing to prevent the brazing gun from sticking to the work piece and for better distribution of the oxygen during the process.

SAFE No.	Dimensions mm	Qty. pack
2003	Ø 8	100
2009	Ø 9.5	100
2012	Ø 12 use for all threaded brazing pins (M8/M10/M12)	100

#### Accessories

Grinding machine 36 V DC	SAFE 8005
Grinding Pin/Stone	SAFE 8025
Tool case	SAFE 9524
Carrying harness	SAFE 9523
Battery Charger, stationary use	SAFE 8049
Battery charger, for car use	SAFE 8055
High power batteries, sealed 13 Ah	SAFE 8092
High power batteries, sealed 16 Ah	SAFE 8093
Carbide burr	SAFE 8014
S4-Automatic gun, self adjusted	SAFE 9102
Extension cable 5 m (to extend existing gun)	SAFE 9235
Extension cable 5 m (to extend existing ground)	SAFE 9237
Extension cable 5 m (to extend existing grinder)	SAFE 9338
Rail transport wagon HANDY	SAFE 9361
Extra battery box for 16 Ah excl. batteries. With lid and handle.	SAFE 9320
Extra battery box for 13 Ah excl. batteries. With lid and handle.	SAFE 9321
Battery adapter for charging of separate battery box	SAFE 9318
Angle device for S4 gun	SAFE 9232
Pin holder 8-9.5	SAFE 9211
Pin holder M8	SAFE 9213
Pin holder M10	SAFE 9215
Pin holder M12	SAFE 9217
Ring holder 8-9.5	SAFE 9202
Ring holder M8/M10/M12	SAFE 9204
Extension set for S4 / 8-9.5	SAFE 9227
Extension set threaded pins	SAFE 9229

#### Cable Lugs - Field made bonds

To obtain a perfect bond, it is essential that only lugs are used which have been specially manufactured for pin brazing.

The lug is crimped to the cable using a crimping tool. Lugs are supplied in kits with brazing pins and ferrules so there is no risk of mixing the materials.



Cable lug SAFE No.	Cable area	D inner	D outer	Qty. pack	Complete kit incl. Brazing pin
6056CP	10 mm <sup>2</sup>	6	9	100	SAFE 10051
6057Cp	16 mm <sup>2</sup>	6.5	9	100	SAFE10051
6080CP	25 mm <sup>2</sup>	8	12	100	SAFE10301
6091CP	Ø 8 mm	8.5	12	100	SAFE10301
6081CP	35 mm <sup>2</sup>	9	12	100	SAFE10301
6079CP	50 mm <sup>2</sup>	11	14	100	SAFE10301

For connecting smaller cable sizes, use terminal sleeves and lugs as follows:

2.5 mm<sup>2</sup>, use sleeve SAFE 6700 + lug SAFE 6056  
 4.0 mm<sup>2</sup>, use sleeve SAFE 6701 + lug SAFE 6056  
 6.0 mm<sup>2</sup>, use sleeve SAFE 6702 + lug SAFE 6056