Rovanco® Piping Systems
20535 S.E. Frontage Road
Joliet, IL 60431
(815) 741-6700

EWELCON®-S Electrically Welded Joint Installation Instructions

INS-EWC-S

Revised 06/28/2023

Fig. 1

Electrically welded shrinkable sleeve

Heating element set

Shrinkable sleeve, packed in sun protection foil. The sleeve is to be inserted over the casing pipes before the welding of inner steel pipes. Leave the foil on the sleeve!
See Figure 1

Fig. 2

Tools

A: LPG burner

B: PE cleaner

C: Abrasive belt

(electric belt sander recommended)

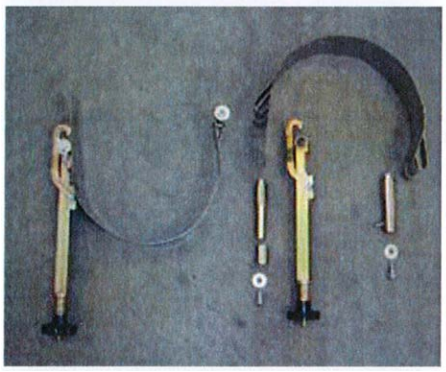
D: Lintless cleaning rag

E: Hot air blower

F: Soldering gun

G: Clamp set
See Figure 2

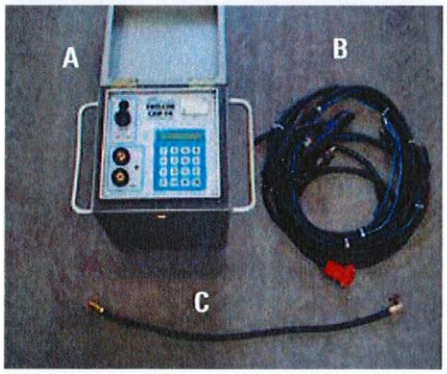
Fig. 3



Clamp set G

The clamp plates will be changed for each dimension; the clamp levers and bolts can be used universally. The sliding block in the clamp lever points to the clamp plates when clamping. The star handle is used to adjust the prestress.
See Figure 3

Fig. 4



A: EWELCON®-Welding Device CAW 05

B: Cable set

C: Jump cable
See Figure 4

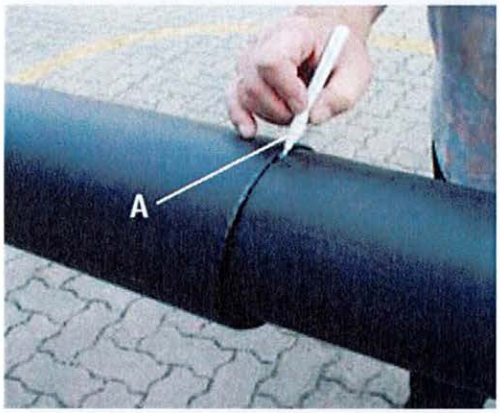
Fig. 5

Remove the sun protection foil Attention: do not do this until you are ready to continue straight away!
See Figure 5

Fig. 6

Thoroughly remove dirt and moisture from the casing pipe and the inside of the sleeve.
See Figure 6

Fig. 7



Place the sleeve over the middle of the joint area and mark the location of the both ends of sleeve (“A” point) on the casing pipe.
See Figure 7

Fig. 8

Sand all around the circumference of both casing pipes within the A marks.
See Figure 8

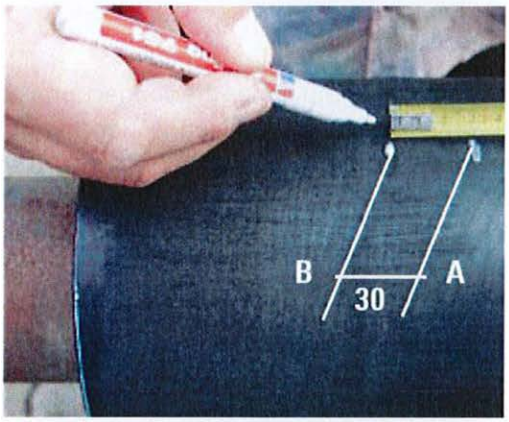
Fig. 9

Sand an area 5 cm wide all around the circumference of the inside of both ends of the sleeve.
See Figure 9

Fig. 10

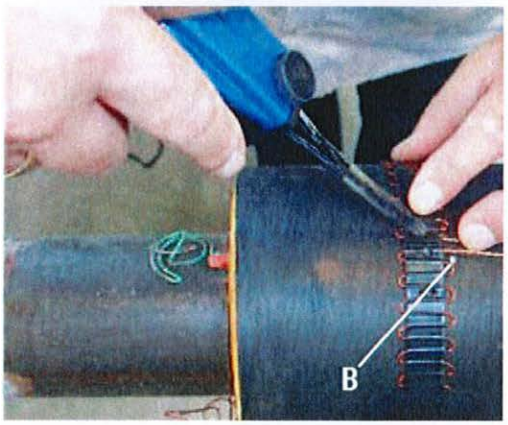
Clean the sanded area of the casing pipe and the sleeve with PE-cleaner.
See Figure 10

Fig. 11



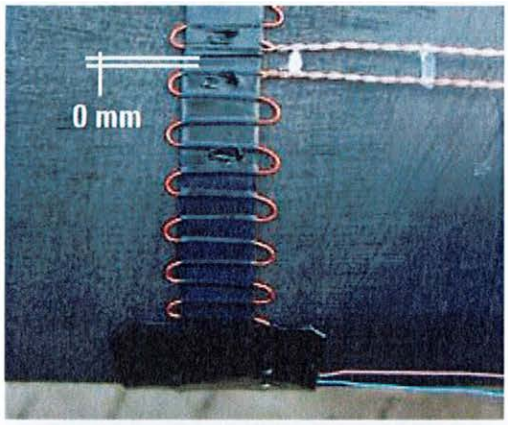
Mark “B” point 30mm from the “A” point. This is where the heating element is to install.
See Figure 11

Fig. 12



Affix the heating element to the inside of the “B” mark on the apex of the casing pipe using the soldering gun; use at least 6 points of solder for each heating element. Leave the connection ends at 12 o’clock.
See Figure 12

Fig. 13

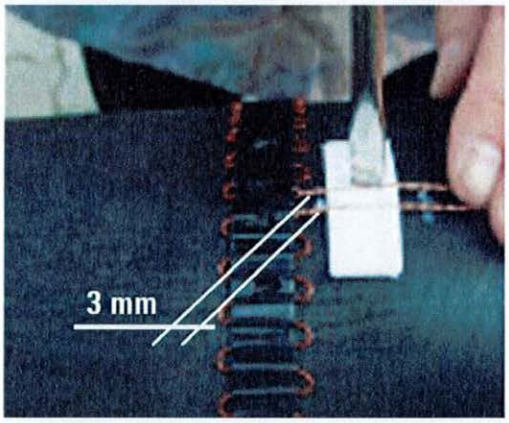


The ends of the lead frame must be in direct contact. Thus, the heating wires also have same interval (S mm) at this position as over the rest of the circumference.
See Figure 13

Fig. 14

Warning: only in the case the ends of the lead frame cannot be joined: Carefully warm the middle area of the heating area with a hot air blower (setting: 120°C, lay the heating element on the pipe and stretch.
See Figure 14

Fig. 15



Slip the clearance clip under the connection wire and push the connection wires into the grooves using a screwdriver. Heating coil clearance: 3mm.
See Figure 15

Fig. 16

Slide the sleeve over the joint area up to the mark “A”.

Attention: Don’t damage the wires!

The wires must stick out

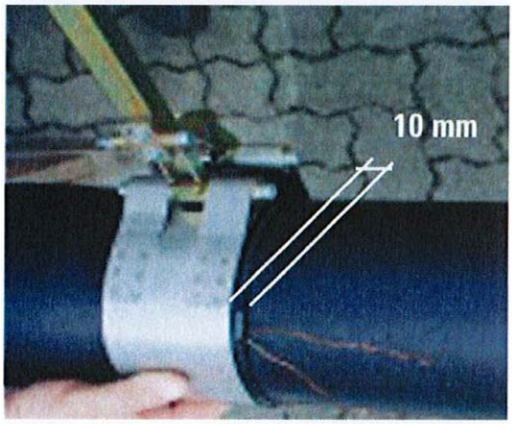
lengthwise from the sleeve.

Shrink 10cm of the sleeve ends with a soft LPG flame. Lift and center the edges of the sleeve with a wedge (e.g. a screwdriver); remove the wedge at the right moment!
See Figure 16

Fig. 17

Leave the sleeve to cool to max. 45°C.
See Figure 17

Fig. 18



Firmly clamp the ends of the

with quick clamp levers without leaving any clearance. Distance from edge: 10mm

Attention: Do not position the doubled plates

and the clamp opening over the connection

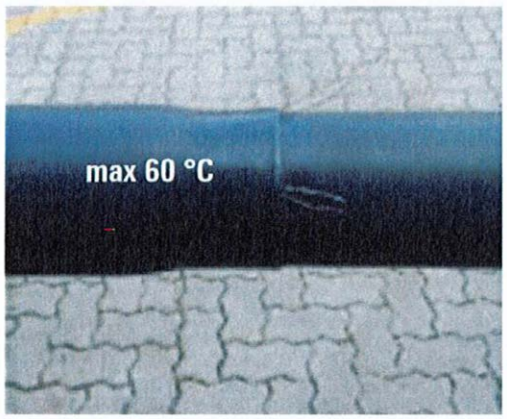
wires or the heating element!
See Figure 18

Fig. 19

Diameters from 90 to 280 (1 welding section). Connect the connection wires of the left and right heating element using the jump cable. Connect the free connection wires to the CAWOS welding device. Connect the thermocouple. Switch on the welding process. Follow the instructions on the device's display.

Diameters from 315 to 450 (2 welding section). Connect the both connection wires of one heating element. Connect the thermocouple. Switch on the process. Follow the instructions on the device's display. Repeat the steps for the second heating element.
See Figure 19

Fig. 20



Disconnect the cables when the welding procedure has been completed. Leave the sleeve to cool to max 60°C. Remove the clamps.
See Figure 20