Product Specification C-Coil Annealing Device AT-CCAD

Product: C-Coil Annealing Device - working with protective gas
Type: AT-CCAD
Edition: 12/24

1. Description

The C-Coil annealing device works with protective gas.
Protective gas annealing has the advantage that it is a clean process. No finishing work is necessary.
After removing the coils from the annealing station, the ends of the C-Coils are about 50°C or less. This depends on the cooling time.

2. Technical Data

CU strands height x thickness:	25–40 mm x 3–7 mm
Inside bend radius (90°):	35 – 50 mm
Max. length of the bent arm:	800 mm (option 1100 mm)
Capacity:	2 bar ends / annealing process
Cycle time:	3 to 5 minutes
Tightening:	pneumatic
Annealing temperature:	max. 700°C

3. Scope of supply

The C-Coil annealing device consists of:

1 or 2 pcs. annealing device including inductors (controlled by PLC)
1 or 2 pcs. medium frequency generator with control interface
1 or 2 pcs. cooling unit for inductor
1 or 2 pcs. water cooling system

To be supplied by the customer:
Inert gas (CO^2 or equivalent)
E-Power supply

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4. Operation

Two pieces of copper bars (C-shape) are inserted into the annealing device. When they are in the correct position, the annealing process begins. During the whole process, protecting inert gas is supplied. The annealing process is controlled by thermocouples. Once the desired annealing temperature is reached, the MFG system is switched off, and the rods are cooled to approximately 40 °C using a coolant. If the cooling down temperature is reached, the bars can be taken out of the device. The correct heating and cooling temperatures, as well as the required power, must be determined through preliminary tests.

5. Machine picture

Annealed result

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