FAKRA Outer

Zoom image

Description

The FAKRA Outer is the third phase of the Mecal process for crimping FAKRA wires. The machine is comprised of a P107C, an electrical-pneumatic control panel with PLC and a special mini applicator.

P107C

The P107C press is standard. This application is the final phase in a semi-automatic process but it can be combined with an automatic line. The press also includes the TT1000 Crimp Force Analyzer.

MRSP **OUTER**

Left-side feed Restyling Mini Applicator with pneumatic terminal feeding. It connects to the press with a Mecal STD baseplate, shut height at bottom dead center of 135.8mm. The continuous adjustment head offers a resolution of 0.01mm to control the crimping height on the SLEEVE and on the insulation. The machine includes the following control sensors:

OUTER terminal locking on crimping supports

linear positioning / OUTER terminal presence on crimping supports

reel end

forward motion of terminal from the band

Technical Specifications

ID	**FAKRA Outer**
CODE	**BB220000011729**
AIR PRESSURE	**5 - 7 BAR**
DIMENSIONS mm	**W280xH880xD310**
DIMENSIONS (")	**W11"xH34,65"xD12,2"**
WEIGHT	**85 kg (189 lb)**
POWER	**0.55KW (0.75HP) monophasic**
POWER SUPPLY	**220V 50~60Hz**
WIRE SECTION	**RG174, RTK031, RG58/59**
MAX STRIPPING LENGTH	**16mm (0,63")**
END MACHINING LENGTH	**max 3mm (max 0.12")**
CYCLE TIME	**approx 3,4 sec**

Inner positioning inside the OUTER

The mini applicator includes an electrical connection and two panel-controlled pneumatic connections in order to facilitate removal from the press to allow maintenance or replacement of spare parts.

CENTRAL CONTROL UNIT

The electro-pneumatic central control unit is located on the right side of the press and it uses a panel electrical connection and two pneumatic connections to interface with the mini applicator and the press. The MECAL's own PLC controls the functions of the mini applicator and can also be set to execute the STEP BY STEP operating cycle. The version for automatic machines includes a connection with IN – OUT signals required based on need.

SEMIAUTOMATIC OPERATING CYCLE

The operating cycle begins by using a pedal and includes the following operating steps, in order:

Locking the terminal on crimping supports with dual control through sensors and three available operating conditions:

a) terminal lock sensor ON; linear positioning sensor ON – the machine is ready for the next step *(terminal is present and in alignment)*

b) terminal lock sensor OFF, linear positioning sensor OFF the machine is in KO and enters into the ALARM mode *(terminal present but not in alignment)*

c) terminal lock sensor ON, linear positioning sensor OFF the machine is restored and makes another movement forward *(terminal absent from the reel)*

separation of the terminal from the band

movement of the terminal toward the upper part of the mini applicator. Dedicated centering units guide the terminal along the INNER positioning

insertion of centering clamps for the INNER

closure of the centering clamps for the INNER on the INNER positioning

waiting for insertion of coaxial wire with the INNER

insertion of coaxial wire with Inner on positioning support

activation of the INNER positioning sensor

closure of the locking clamps of the coaxial wire

opening and movement of the INNER centering clamp

movement of the OUTER terminal from the upper part of the mini

applicator to its original position with the following controls via sensors:

a) if the INNER position sensor stays ON during movement, the machine is OK for the next step (point 12)

b) if the INNER position sensor turns OFF during movement (after verifying any abnormality on the positioning), the system is released and starts from point 3, giving the operator the opportunity to remove the coaxial wire and check the problem. The coaxial wire is NOT damaged or discarded.

crimping through the standard cycle of the press

opening the terminal locking system

opening the coaxial wire locking

forward movement of the successive terminal