AIR CRIMPER 080 DUPLEX

INTRODUCTION

AIR CRIMPER 080D is developed for large volume cable assembly of modular plugs by means of corresponding dies. It is able to accommodate two dies simultaneously. Do not use this machine for other purposes without consultation with supplier. It is a sophisticated machine consisting of precisely machined parts and quality pneumatic components, requiring clean environment for flawless function.

KEY BENEFITS

Portal frame design
Hardened steel
Full cycle with time delay at upper dead point
No electricity needed for operation
Easily switch from right to left hand operation
Adjustable crimp height
Vast range of dies sets available
Special dies sets available upon request
Fast production changeover time
Easy removal of plugs after processing
Recalibration after long term use

MAIN TECHNICAL DATA:

Stroke:	20mm
Cycle time:	adjustable, min.1 sec.
Pressforce*:	5600N at 6bar
Input pressure:	min.4bar, max.10bar
Air connection:	8mm hose
Dimensions:	320 x 250 x 125mm
Weight:	15 kg

*(3mm before upper dead point)

MAINTENANCE

Always use the machine in clean production environment.

Clean the machine using a soft dry cloth. Never use solvents or other aggressive agents.

Follow procedure to lubricate the machine:

1. **Disconnect air supply in order to avoid serious injury to your body parts. Do not get caught by the machine as it may start at any time.**
2. Remove plexiglas covers at front and back.
3. Put a drop of general machine oil to each of moving parts visible including two vertical sliding grooves
4. Reattach plastic plexiglas covers at the back and the front side.
5. Connect air supply line and perform 20 full cycles of crimping for lubricant to spread.

During prolonged non-operational time keep the machine in dry space and protected from dust.

Never disassemble the machine. Only trained personnel should perform these tasks.

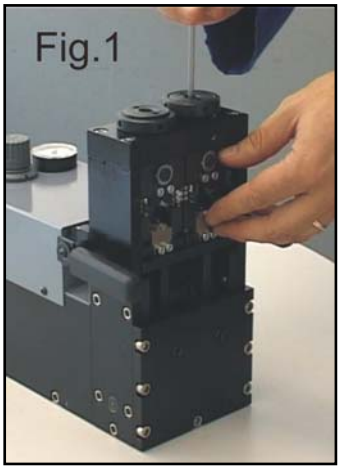
MAINTENANCE OF DIE SETS FOR AIR CRIMPER

- Every Air Crimper die set is for use with specific plug. Using this tool for any other purpose, or for crimping of any other objects, can result in damaging the tool and the objects being crimped and prevention of its normal further functioning, for what manufacturer cannot be held responsible.
- Die set incorporates possibility of periodical adjustment of the crimping force and tool recalibration via eccentric axle. Advised is to apply certain pretension on tool in order to maintain correct crimp performance. Check recalibrating procedure.
- For removal of dust, moisture and other contaminants usage of clean brush or soft, lint-free cloth is recommended. Do not use aggressive agents (thinner, alcohol) or hard objects that could damage the tool.
- Make sure that during the work bearing surfaces, shafts and pivot points are protected with thin coat of quality machine or motor oil. Do not oil excessively.
- When the tool is not in use, store it in dry space and protected from dust. That will keep other objects from becoming stuck between crimping dies and damaging them. Keep the tool in a dry and clean area.
- Use only original spare parts.
- Always use the machine in clean production environment.

APPLICATION

Only dies set approved by manufacturer should be used. For a detailed list of corresponding dies for your application contact your supplier. Never use this machine for any other purpose other than described. Improper use may result with tool malfunction for which the manufacturer cannot be held responsible.

INSERTING THE DIES SET



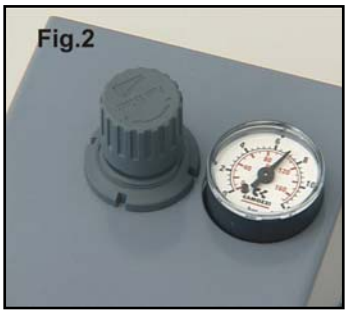
1. **Disconnect air supply in order to avoid serious injury to your body parts.**
   Do not get caught by the machine as it may start at any time.

2. Detach front and back Plexiglas protective covers. Position the dies set as per Fig.1 and using 4mm hex socket key firmly tighten the M5 bolt. Prevent the rotation of the dies set by holding it.
3. Reattach the Plexiglas covers.
4. Perform a few idle running cycles to check positioning of dies set.

AIR SUPPLY CONNECTION

Use 8mm plastic hose for air supply.

Air supply has to be oil&water free. In case proper air treatment is necessary contact your local supplier for details.

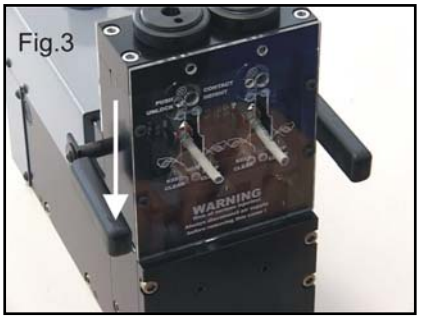


MAX. INPUT PRESSURE: 10 bar
MIN. INPUT PRESSURE: 4 bar (necessary for time delay feature)

Avoid operation under max. value of air pressure. Use pressure value only as high as necessary for application.
It will save energy and keep your equipment running longer.

ⓘ *Tip: Air pressure of approximately 7 bar is required for a pair of most demanding shielded modular plugs available today.*

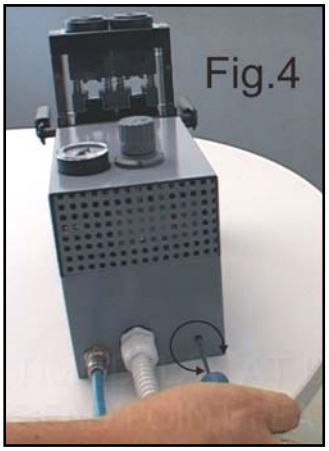
The machine is delivered with pressure regulator with push-lock feature. Adjust the value of working pressure and check it on pressure gauge next to regulator as shown on Fig.2



OPERATION

AIRCRIMPER 080 DUPLEX version is operated by foot actuation.
The pedal is supplied with the machine.

Follow procedure to perform crimping:



1. Check compatibility between the plug/connector and corresponding dies set. Ask your supplier for corresponding dies for your application. Never use dies set which are not corresponding to your connector.
2. Load the plug with wire/cable according to connector manufacturers' instructions.
3. Insert the plug/cable assembly into the dies set. **Never try to put you fingers behind protective Plexiglas or inside the opening for plug inserting.**
4. Make sure the plug is fully inserted in the die set and press the pedal to start the cycle. Keep the pedal pressed for one second. The machine will perform the full cycle and return to open state automatically. There is no need to hold the pedal all the time.
5. Press the release handle to remove the processed assembly. Fig.3
6. The machine is ready for next cycle.

TIME DELAY SETTING

AIRCRIMPER 080 DUPLEX has possibility of setting the time delay at upper dead point. Time delay has purpose to ensure proper crimping where materials being deformed have enough time to achieve final shape. Full cycle feature is part of this feature.

Follow procedure to perform time delay setting:

1. Locate the setup screw at the back of machine as shown on Fig.4 You will need flat screw driver 0.4 x 2.5
2. Turning the setup screw in clockwise direction increases the time delay
3. Turning the setup screw in counter-clockwise direction decreases the time delay

RECALIBRATION AFTER LONG TERM USE

After long term use recalibration may become necessary. Recalibration in terms of neutralization of excessive clearance in pivot points is performed by tightening of screws as shown on Fig.5
It is necessary only if machine is no longer able to close the die set fully.

Follow procedure to perform recalibration:

1. **Disconnect air supply in order to avoid serious injury to your body parts.**
   Do not get caught by the machine as it may start at any time.
2. Remove Plexiglas protective covers front and back.
3. Remove dies set from the machine
4. Unscrew positioning screw **A** as shown on Fig.5
5. Unscrew security nut **B** using the key supplied with the machine
6. Turn the Plug bolt **C** clockwise as much as needed to reduce the clearance, using the 10mm hex socket key. Check for stripe markings on the top of bolt to see how much you moved the plug. One distance between two markings equals 0, 17 mm of height movement. Full turn CW moves the plug by 2mm downwards.
7. Reattach positioning screw. Make sure you've matched the slot in the bolt **C** by visually aligning the marking stripes with the positioning screw.
8. Tighten the security nut **B**
9. **Reattach protective Plexiglas covers front and back.**

Fig. 5

ADJUSTABLE CRIMP HEIGHT

120 series die sets, compatible to AIRCRIMPER 080 series machines, have the possibility of separate adjustment of crimping height of contacts.
Die sets are delivered in “neutral” position, preset to achieve the height of contacts within 6,02+/-0,12 mm.
It is however possible to increase or decrease the value of contact height by following the procedure:

1. Push the security pin **P** on Fig.6 thru the hole, on Plexiglas cover, with the sign “Push Unlock” using small pin punch of approx.3mm dia.
2. Turn the adjusting wheel **W**, using the screwdriver, by desired value. Clockwise turning increases the contact height and counterclockwise turning decreases the contact height value.
3. Release the security bolt.

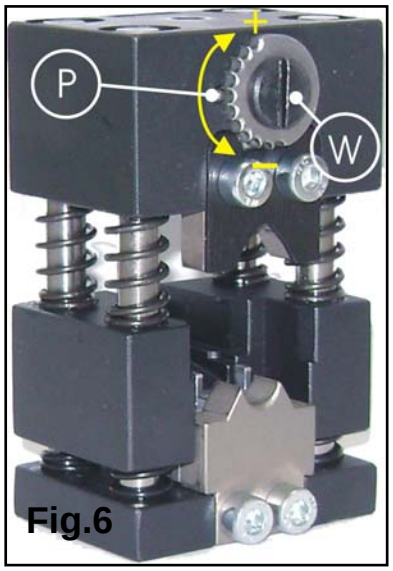


Fig.6