SPARK MACHINERY

COLD MICRO PERFORATORS
MODEL CNCP

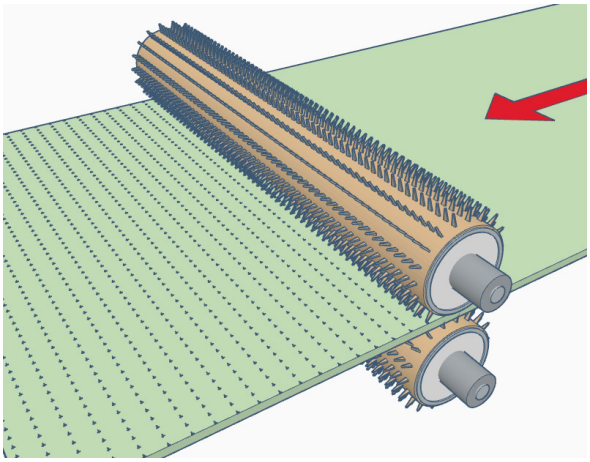
The **CNCP MICRO-PERFORATOR** is a model designed to punch **MICRO HOLES** of various diameters in **MOVING MATERIAL**. It has to be inserted into existing machinery. Solid and functional, it guarantees excellent performance to create perforated materials in the **BUILDING** sector and in particular in the field of **THERMAL AND ACOUSTIC INSULATION**.

HOLES OF
Ø 50µ → Ø 1,8mm

How it works

Punching takes place through a perforation group consisting of 2 needle shafts. The film passes through the 2 rollers which, approaching the material, perforate it continuously. Perforation is made by means of needles fixed on interchangeable bronze sleeves, which are inserted into shafts.

The CNCP moves thanks to the motion of the film, adacting perfectly to the speed of the processing line.

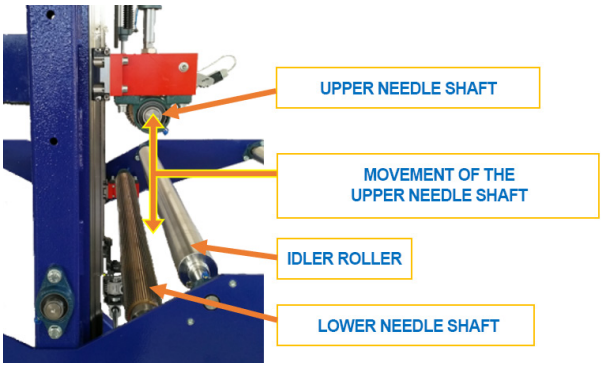


DATA SHEET	
Needle roller Ø	Variable
Needles Ø	Min. Ø50µ - Max. Ø1,8mm
Material of the half segments	Bronze
Needle shafts movement	Shafts move thanks to the movement of the material
Movement of the upper needle shaft	Movement by asynchronous motor 400 V+N+T - 50Hz and pneumatic movement
Penetration adjustment	Micrometric screws with graduated knobs
Air pressure	6 BAR

OPTIONALS
• **Idler rolls**

TECHNICAL DESCRIPTION AND COMPONENTS

Punching can be adjusted by the operator or can be carried out under pressure, i.e., with pistons that push the upper needle shaft downwards. In this way, every needle sinks its entire length into the material.



The pneumatic cylinders, assisted by their pressure regulators, allow quick disengagement in case of need.

1: Basic Structure

The basic structure is composed of a solid steel frame with adjustable feet on the bottom.

2: Upper perforation group

The upper perforation group is made of an **upper perforation roller** and an **asynchronous motor** that gives motion to a **gearbox** on which a **trapezoidal screw** is mounted. This screw is inserted in a **nut** fixed to a **plate**. The latter is connected to a **pneumatic piston**, associated with **linear rails** to which the needle roller is fixed.

It is possible to lower the needle shaft by a maximum of 300 mm.

An **incremental encoder** is housed on the output shaft of the gearbox.

3: Lower perforation group

The lower perforation group is similar to the upper group but with the elements reversed and a development in height reduced by 50mm.

4: Needle shaft

It consists of a steel roller on which bronze half segments with needles fixed are mounted. These3 half segments are fixed to the shaft by means of countersunk screws. Thanks to this system, it is possible to change the half segments individually when they wear out, without having to disassemble the entire needle shaft, so that the replacement process is quick and easy to perform.

5: Idler rolls

The idler rolls group is composed of 3 aluminum idler rolls.

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