



**CHOSEN BY LEADING
COMPONENT MANUFACTURERS
WORLDWIDE**

PUNCHING MACHINE

PAM - series



-
- Punch via and registration holes in green tape
 - Suitable to punch most via forming designs
 - Manual programming, CAD input, NcDrill and DXF files
 - Tool breakage detection
 - Automatic sheet alignment for re-punching

**SUITABLE FOR PRODUCTION AND
LABORATORY PRODUCTION**

BASIC CONFIGURATION:

The PAM series of punching machines are mainly designed for LTCC and HTCC applications, where it's required to be able to punch all kinds of patterns. The PAM series uses single pin punching tool or grid tool to punch via holes, registration holes or cavities in green ceramic tapes, either on carrier film or free-standing.

Every hole size is punched using a different tool. Up to 4 or up to 8 different single punching tool dimensions can be installed on the machine.

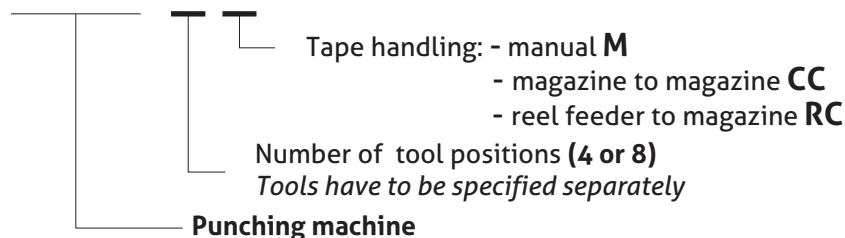
Special multiple pins (gang) punching tools are available in order to punch grid type pattern to increase productivity. Numerous versions are available, starting with the basic unit, where the operator places single sheet on an alignment table, the machine picks the sheet with a vacuum tool and punches it according to the program, up to the fully automatic version, where individual sheets are cut from a roll, punched and transferred to a magazine. Machine comes (standard) with pin breakage control and sheet vision alignment for sheet alignment against pre-punched registration holes.

SINGLE PIN TOOL		GRID TOOL
Pneumatic driven	Servo motor driven	Max. area 45 x 45 mm Max. distance between round pins 6 mm Max. punch die 1 mm
Round 0.1 - 5 mm	Round 0.1 - 3 mm	
Square 0.5 x 0.5 - 3 x 3 mm	Square 0.5 x 0.5 - 3 x 3 mm	

Technical specification			
Punching speed	20 holes/s in distance 1 x 1 mm	Pin breakage test	by camera and vision control (every hole, last hole)
Punching area	up to 225 x 225 mm max.; (9 x 9 inch)	Work (sheet) fixing	by vacuum, optional metal frames fixing
Tape thickness	up to 500 microns (20mils) (to be confirmed)	Pin exchanging	less than 2 minutes
X,Y drive	high precision ball screw and AC servo motors	Control	PC
Positioning accuracy	+/- 5 microns	Optional	Vacuum pump can be supplied
Programming	manual on the machine or CAD file input (NcDrill or DXF)	Tape handling	manual by operator, automatic from magazine to magazine, automatic from roll to magazine
Carrier film thickness	20 to 70 microns (0.8 to 3 mils)	Safety	CE compliant

How to order: *

PAM-x x



* Options and other requirements have to be specified separately.



Grajski trg 15, 360 Žužemberk, Slovenija
 T +386 7 3885 200
 F +386 7 3885 203
 info@keko-equipment.com
 www.keko-equipment.com