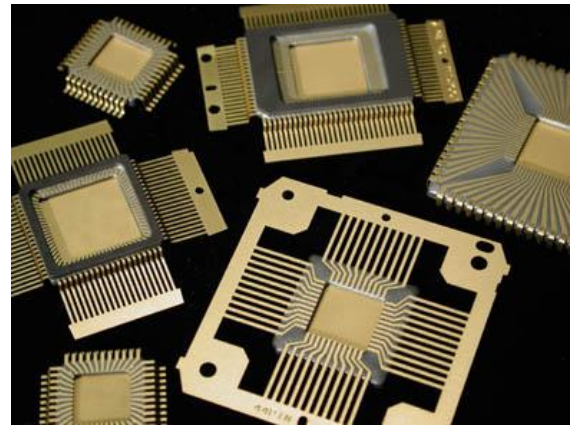
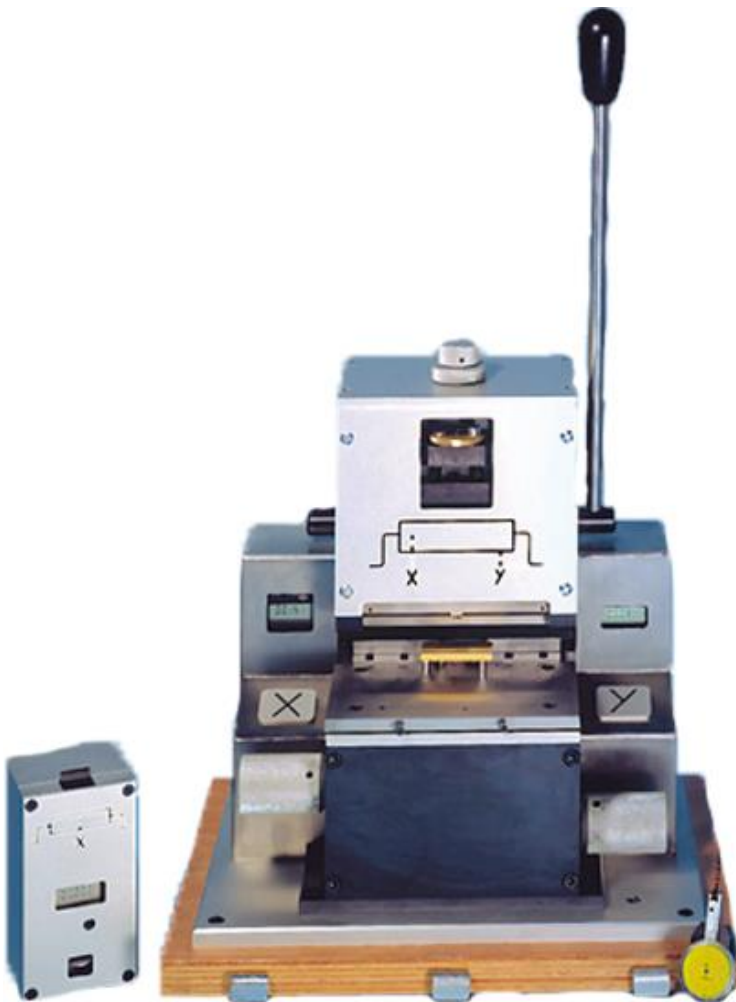


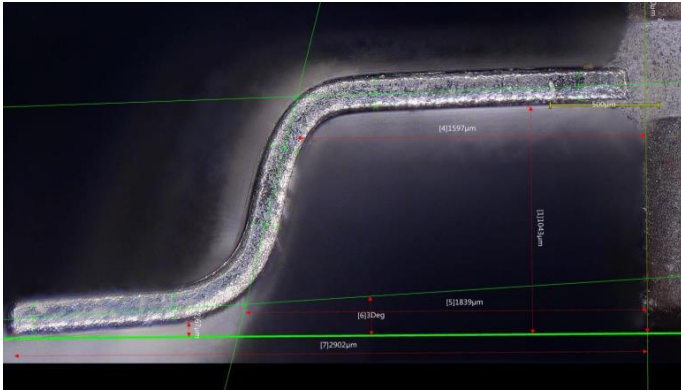
MCCH150 - Forming and cutting machine for Flat Pack Components



Machine designed to form and cut **Quad Flat Package (QFP, LQFP, TQFP, BQFP...)** as well as all the hybrid cases including fine-pitch components, one side at a time.

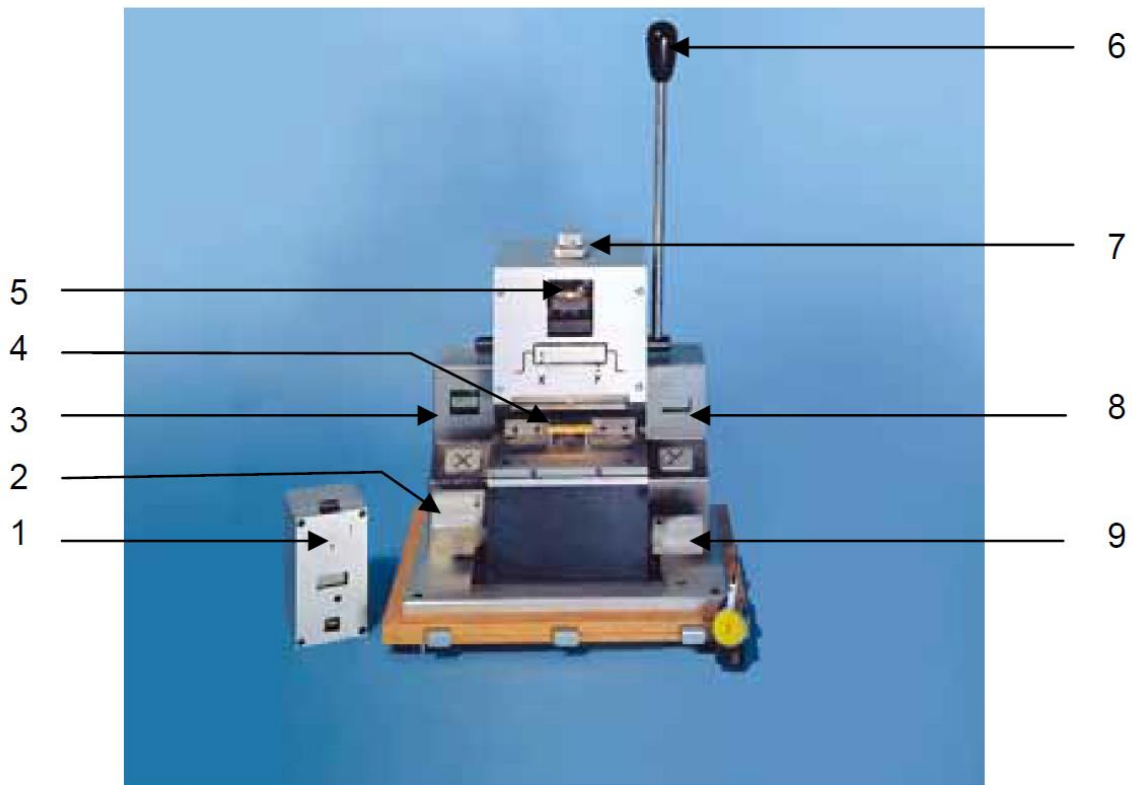
Features

- Prevents any risk of damage to the component such as lead-to-body cracks, thanks to a strong and adjustable pressure on the leads
- Easy set-up through electronic micrometers display (mm or inch)
- Overall precision within 3/100 mm
- Interchangeable dies for specific body-to-bend, footpad, lead thickness, designed and made to measure by our mechanical experts
- Adjustable parameters : leads height, stand-off, body-to-bend (with optional PMT160)
- Allows dimensions up to 149 x 149 mm
- Supplied with a dimension controller, allowing correction to component manufacturing tolerances
- Thanks to its possibilities of adjustment, the MCCH150 ensures parallelism and stability of the components on PCB
- No handling between forming and cutting, both operations are done in the same time inducing less risk of damage or lead skew to the component
- Entirely autonomous machine: no air, no electric supply



Technical data	
Forming	Side by side
Dimensions : LxWxH	350 x 300 x 350 mm
Weight	35 kg
Maximum size of components	149 x 149 mm
Contents	Forming machine Support pawn Leads dimensions sensor Level comparator PMT160 (optional)

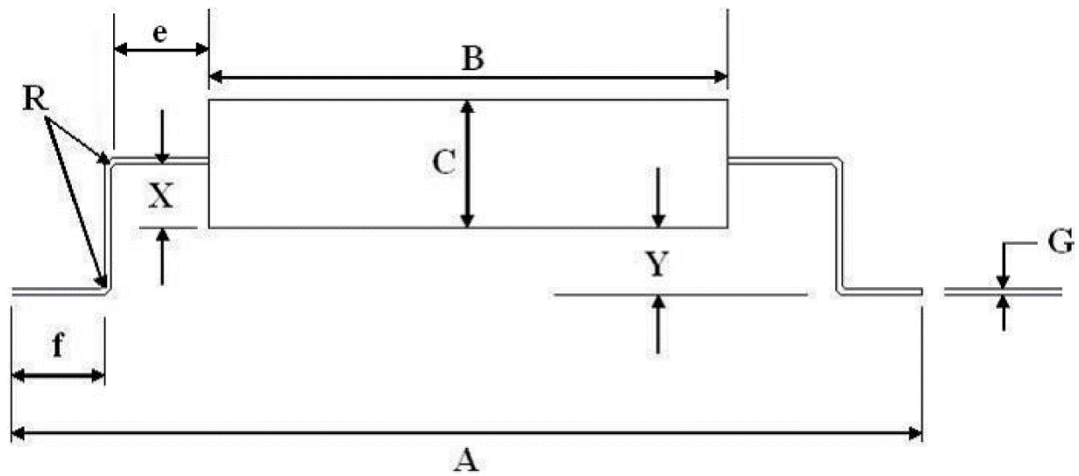
Performs state-of-the-art repeatable forming
Equips major aerospace and defence specialists in Europe and worldwide



2

Technical functions	
1	Leads sensor
2	X knurling wheel
3	X display
4	Support pawn
5	Spring pressure adjustment
6	Operation lever
7	Cutting knife switching on/off
8	Stand-off (Y) display
9	Stand-off (Y) knurling wheel

Geometrical features



Dimensions description

A : Tip to tip dimension. It will be the addition of the width of the casing and dimensions e and f (e and f resulting from the die)

B : Body width

C : Overall body thickness

e : Body-to-bend e is determined by the thickness of the forming anvil. It can be adjusted by adding a micrometric plate of translation (ref. PMT 160).

f : Footpad f is determined by the thickness of the cutting anvil.

R : Bending radius

G : Lead thickness.

X : Body thickness under leads.

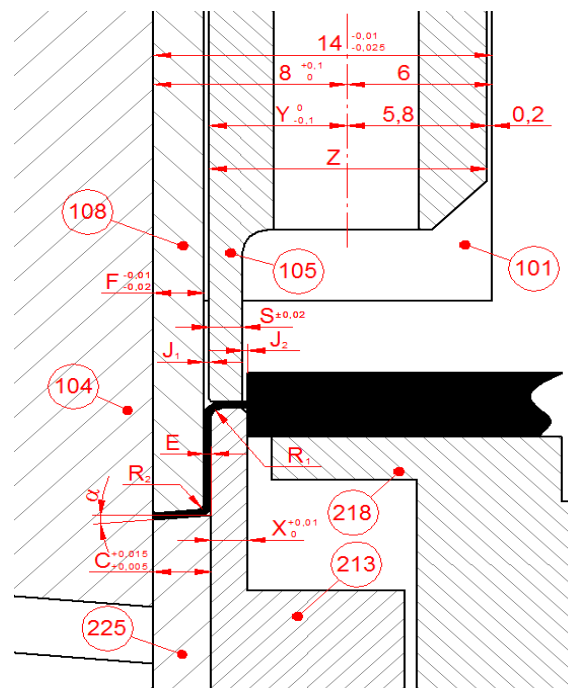
Y : Desired stand-off above PCB

Designation	Geometrical specifications	
	Minimum dimension (mm)	Maximum dimension (mm)
A	/	/
B	/	149
C	1	15
e ₂ *	0,6	2,5
f ₂	0,6	/
R	0,3	0,6
G	0,15	0,60
X	0	15
Y	0	15
	/	7°

* : see PMT160 for body-to-bend adjustment

Processing details

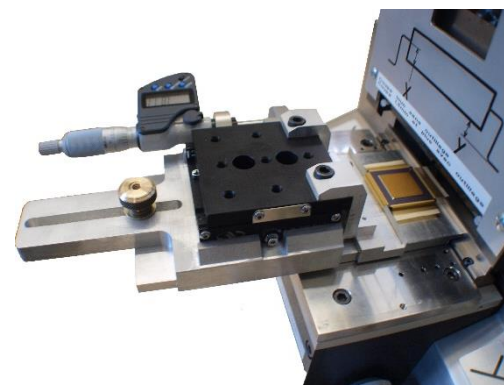
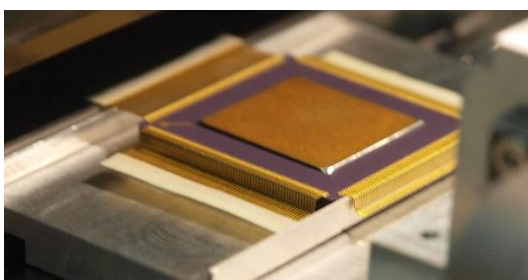
- A specific die corresponding with the desired final lay-out of component is inserted in the MCCH150. This die takes into account the following parameters :
 - Body-to-bend e
 - Footpad f
 - Angle allowing a downward contact with PCB
 - Lead thickness G
- Setting of the machine to zero using the support pawn and the level comparator
- The lead probe is used to measure X dimension, from bottom of leads to bottom of casing
- The X value is carried over to the MCCH150 micrometer. If a stand-off is necessary, e.g. in case an insulation drain is laid on the PCB, the appropriate Y value will be inserted in the second micrometer.
- Once the machine is ready, simply rest and hold the component on the pawn and use the lever to form and cut the leads.
- Cutting can be disengaged if necessary.



Mechanical lay-out

Micrometric plate of translation (PMT160)

The micrometric plate of translation enables continuous adjustment of the e value from 1,1 to 16 mm. Thus, miscellaneous components can be processed with the same die.



Ref. PMT160