

# Smart and flexible ...

## LHMT

LEITERPLATTEN HANDLING  
UND MANUFACTURING  
TECHNOLOGIES

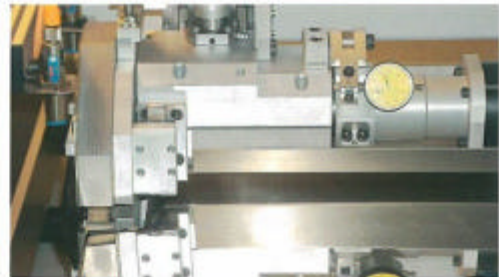


## ...the 4-Axes-CNC Scoring Machine SCM 411

The manual PC-controlled  
Scoring Machine for small and medium  
lot sizes:

- safe, fast productivity
- high precision
- flexible with high reliability

## 4-Axes-CNC Scoring Machine SCM 411



### Flexibility and Productivity

The SCM 411 can do CNC-controlled linear scoring jobs in X- and Y-direction on Printed Circuit Boards. CNC controlled cutter drives allow for interrupted cuts (Jump-Scoring). It is the ideal machine for new users of Scoring Technology.

The SCM 411, with an additional PC in connection with the built-in PC Controller and new drive systems with programmable speeds achieves a high user friendliness for the customer with simple operating procedures.

### Functions/Design

- The operator creates the complete score program in X- and Y-direction for a job on a PC, defines the desired scoring depth for every cut or calls up the program from memory.
- The machine is equipped with 2 CNC-axes for moving and positioning the upper and lower scoring blade.

This results in the following possibilities of application technology:

- Positioning of the cutting tools from top and bottom via software by servo drive.
- Programming of the web thickness by software. Changing web thickness from cut to cut is possible.
- Interrupted scores within the PCB (Jump Scoring) are possible.

### Technical Specifications

Scoring-Process:	Simultaneous scoring of the PCB from top and bottom.
PCB-Format:	min. app. 120 x 120 mm (5" x 5") max. app. 650 x 650 mm (25" x 25"). Option: (27" x 27")
PCB-Thickness:	app. 0,5–3,2 mm (.031" – 125")
Programmability:	
a) Web size:	continuously automatically adjustable (min. 0,1 mm)
b) Score position:	programmable in 0.01 mm steps
Tolerance:	Score position: max. $\pm 0,03$ mm Web size: max. $\pm 0,03$ mm
First score from center of tooling hole:	app. 5 mm
Index system:	interchangeable, cylindrical tooling pins, pneumatic clamping device.
Programming:	at PC with menu guide, large program memory.
Cutter:	diamond profile cutters, carbide, or coated carbide-profile-cutters with 30°, 45° or 60° tip angle.
Working speed:	
positioning X-axis:	max. 30 m/min.
score movement Y-Axis:	max. 30 m/min.
Controller:	Sieb + Meyer PC Drive System 2652

Programming interface (Score Programming) contains all programming aids and can be chosen individually.  
Available are IMR, Imbach and Sieb&Meyer



**Option:** Freely supported, conical tooling pins (2,0–5,0 mm) to adjust warped PCBs

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