

Fico Molding Line

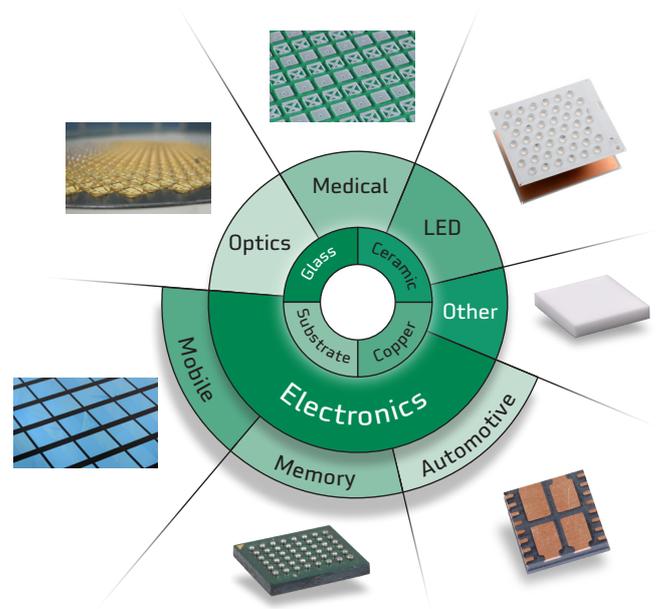


Large panel and wafer molding for exposed products

The unique Fico Molding Line (FML) is a modular molding system, able to mold wafers and panels of up to 340 mm. The foil assisted high vacuum molding press molds exposed die products, free from any compound residue. Despite the small cap height and large molding surface, the end product remains free from voids, flash or bleed.

The Fico Molding Line can fully automatically mold a wide range of products, from Flip Chip molded underfill and eMUF on BGA to C2W and eWLB. The patented molding construction keeps each individual products on the wafer or panel exactly in place.

Future Proof Equipment



The Fico Molding Line

Market average

- Overmolding
- MUF
- Min. cap height 250 µm
- 300 mm wafers
- Fixed design

Fico Molding Line

- Overmolding + Exposed Die
- MUF + Exposed Die
- Cap height as low as 120 µm
- 340 mm wafers
- Modular building blocks

WAFERS & PANELS



EASY OPERATION



PRESS



FOIL MOLDING

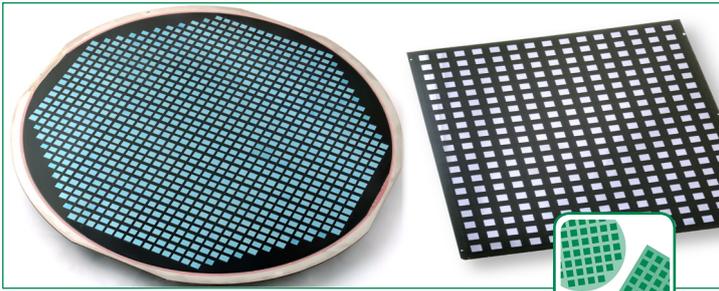


VACUUM



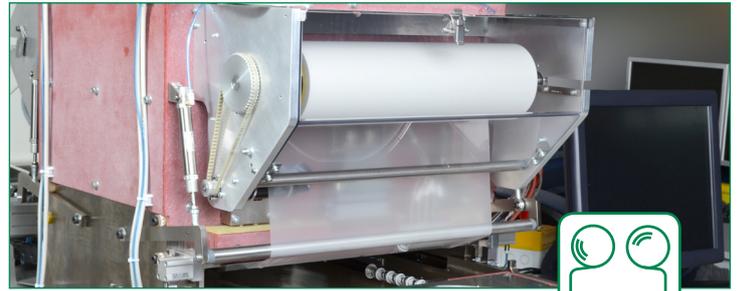
STANDARD BUILDING BLOCKS





Wafers and panels

- Wafer diameter up to 340 mm (>12")
- Panel size up to 300 x 340 mm
- Low cap size, down to 120 µm
- Small channels



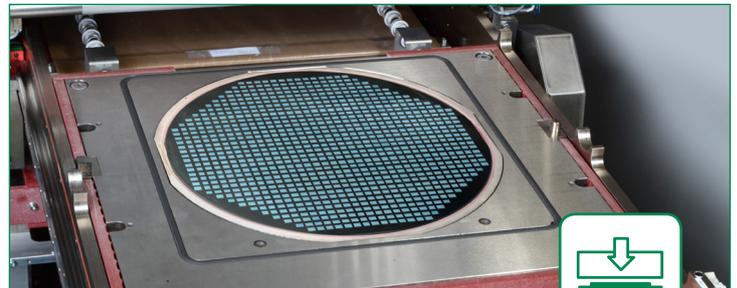
Foil molding

- Exposed die molding for Flip Chip & Wafer packaging
- Bleed free molding, without post processing
- No mold cleaning necessary



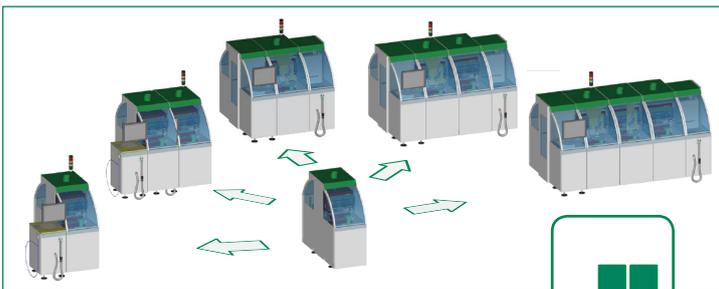
Easy operation

- Fast tool exchange
- Easy accessible machine
- Touch screen interface
- Intuitive interface
- Intuitive menu control



Molding press

- Top edge injection transfer molding
- Standard pellet material handling
- Dynamic clamping control, protects from die crack
- Mold integrated degating
- Accurate multi zone temperature control



Standard building blocks

- Modular building blocks for wafers and panels
- Fully compatible automatic and manual systems
- Tools and process parameters fully exchangeable
- Universal parts (low spare stock)
- Common modules (FML-FCL-FSL)



Vacuum

- Supreme board and wafer vacuum
- Cavity vacuum control
- Void free end product
- Suited for complex molded underfill (MUF) packages
- Suited for ultra low packaging and micro SIP sealing

Machine Dimensions

- WxDxH: 768* x 1800 x 1800 mm
- Weight: approx. 2000 kg

Product Dimensions

- Wafers: max. 340 mm
- Panels: max. 300 x 340 mm

Press and Mold

- Max. clamp force: 1200 kN
- Max. transfer pressure: 150 bar
- Pellet diameter: 14-18 mm
- 2-4 injection plungers
- Max. pellet stack length: 120 mm
- Max. cavity temp diff.: 2°C

Supply Requirements

- Voltage: 208-480VAC - 3-
- Frequency: 50 / 60 Hz
- Power rating: 7.5 kVA
- Avg. air cons.: 1.5 m³/h @ 6 bar
- Factory exhaust: 100 m³/h

Speed

- Max. 15 carriers/hour/press

Noise Level

- Lower than 73 dB(A)

*single building block width