

Fico AMS-LM Top Foil



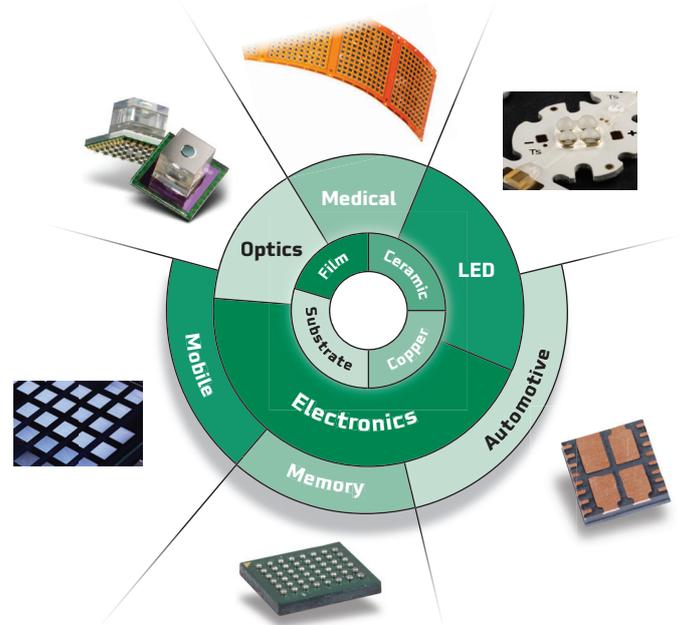
The Art of Large Mold Top Foil Molding

Molding is a process where micro chips are encapsulated in plastic.

In line with the market trend of larger substrates and exposed dies, Besì has introduced a new large-substrate top-foil molding machine. The Fico AMS-LM Top Foil can handle substrates up to 102 x 280 mm and handles all current single sided packages.

Large substrates allow a high board utilisation and in combination with the high output of the Fico AMS-LM, performance and yield increase significantly. On top of that the special foil molding feature allows bleed free production of bare die molded underfill products.

Future Proof Equipment



The Fico Approach

Conventional

- Moving blocks
- Complex handling
- Large and heavy mold
- Expensive PR-set

Fico AMS-LM Top Foil

- Individually moving blocks
- 35% less moving parts
- Modular mold design
- Low cost PR-set

CASSETTE HANDLER



VISION



LEADFRAME HANDLER



FOIL UNITS



PELLET SUPPLY



MOLDING PRESS





Cassette Handler

- High capacity
- Freely accessible
- Slot to slot copy
- Two or four deck version
- Bar code and RFID reader (optional)



Vision

- Leadframe orientation check
- Mark inspection
- Optical Character Verification (OCV)



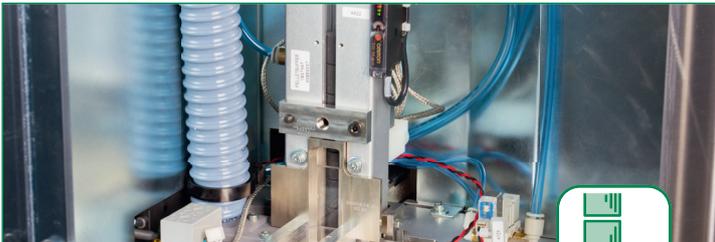
Leadframe Handler

- Automatic orientation correction
- Leadframe pre-heating
- Anti warpage leadframe cooling
- Air cushion transport



Foil Units

- Bare die molding
- Bleed free molding
- No mold cleaning necessary



Pellet Supply

- Remote pellet feed (up to 40m)
- Pellet length check
- Pellet cooling
- Pellet age control



Molding Press

- Topedge molding (no gold layer)
- Flash free molding
- Dynamic Clamping Control (DCC)
- 17 process patents
- Board and cavity vacuum
- Individual, equal board clamping

<p>Machine Dimensions</p> <ul style="list-style-type: none"> • WxDxH: 3145 x 1652 x 1976 mm • Weight: approx. 3450 kg <p>Leadframe Size</p> <ul style="list-style-type: none"> • Width: 74 - 102 mm • Length: 100 - 280 mm • Thickness: 0.1 - 1.5 mm • Max. height: 2 mm 	<p>Cassette Dimensions</p> <ul style="list-style-type: none"> • Width: 80 - 120 mm • Length: 180 - 300 mm • Height: 100 - 165 mm • Storage capacity: 800 mm <p>Supply Requirements</p> <ul style="list-style-type: none"> • Voltage: 208 - 480 VAC • Frequency: 50 / 60 Hz 	<p>Performance</p> <ul style="list-style-type: none"> • Uptime: 98% • MTBF: ≥ 200h for a MTTR of 1 h • MTBA: ≥ 3 h 	<ul style="list-style-type: none"> • Power rating: 9 kVA • Compressed air: 5 - 10 bar • Average air cons.: 6 m³ at 6 bar • Factory exhaust: 300 m³ at 50 Hz <p>Press & Mold</p> <ul style="list-style-type: none"> • Max. clamp force: 600 kN • Max. mold opening: 90 mm • Max. transfer pressure: 180 bar • Pellet diameter: 11, 14, 14.3 mm • Max. number of plungers: 10 • Max. cavity temp. diff.: 2°C
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• MTTR: ≥ 1 h

• MTTA: ≤ 3 min