# F37 & F37-X The smart drivers

wifag//polytype group



# The universal thermoformers



# Designed for all types of thermoplastic materials

The F<sub>37</sub> models are automatic, electro mechanically driven, thermoforming machines with in-mould trim, which nullifies shrinkage effects on trim accuracy. They have been designed to process all types of thermoplastic materials.

// Unique RIM-rolling device for cups to be placed on request // Capability to form the widest range of cups and containers // Unique stacking design, handles both cups & trays // Repeatable settings and quick mould changes

Technical Specifications of F37 Thermoformer – In Mould Trim			Technical Specifications of F37-X Thermoformer – In Mould Trim		
Materials	PS - PP - PET	– PE – PLA – PVC	Materials	PS - PP - PE	T – PE – PLA – PVC
Max. forming area	mm	780 x 420	Max. forming area	mm	800 x 550
Max. sheet width	mm	860	Max. sheet width	mm	860
Sheet thickness	mm	2,5	Max. sheet thickness	mm	2,5
Max. forming depth	mm	150	Max. forming depth	mm	150
Max. positive forming	mm	10	Max. positive forming	mm	10
Forming system		compressed air	Forming system		compressed air
Dry cycles	strokes/min	40	Dry cycles	stroke/min	40
Mould closing/cutting force	daN	50.000	Mould closing/cutting force	daN	60.000
External dimensions	mm	10.000 x 6.000 x 3.500 (h)	External dimension	mm	10.500 x 6.000 x 3.500 (h)

#### Index drive

- // Electronic servo drive with profiled acceleration/deceleration torque.
- // The chain rails can be retracted away from the form station, during mould change, for easy access.

#### **Oven (Heating elements)**

- // C shape oven with top and bottom ceramic heater elements arranged in longitudinal zones.
- // Special features are built into the oven to avoid sag problems typically experienced in traditional ovens.
- // Sheet edge preheaters, located at the entrance of the oven.



The forming station and automatic product handling is designed for multiple row moulds, in-line and/or staggered layout. The international patented "vacuum plate" and unloading system, including stacking and counting, provides a labor free handling with high hygienic.

The design incorporates the "Smart Drive" and the moving parts in automated product handling are made of light weight, durable carbon fibre material, which assures optimized cycle speed with lower production costs.

- The "Smart Drive" consists of:
- **// Drives** are step by step adjustable Servo Drives
- **// Sequencing:** Operator has screen access to all machine functions with precision time settings available
- // Recipe card assures accurate repeat settings and quick mould changes
- // Important maintenance records and production information

### Forming station

- // Platen movement is driven by a toggle/cam assembly where the trim is operated by an independent servomotor.
- // The lower platen is driven by a brushless servo motor. During the forming/trimming phase, motor stops, reverts and after the end of the forming cycle it begins a new cycle. The stroke of the lower platen is adjustable depending on product height (Depth of draw)

### Plug assist

// Third motion servo driven plug assist independent from platen movement assure optimum process window

### Stacking system

// Designed for easy handling of both shallow and deep objects

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