

FORMA

Thermoforming Machines for hard film foils

- Automatic vacuum forming cycles
- Positive and negative forming
- Easy and quick tool change system
- Servo-drive sheet transport system
- Double guided spike chains
- Multi-zone controlled heating
- Uniform wall thickness
- Blowback formed film release
- Fast and dependable production process
- Three different slitting/punching units
- Flexibility and size conversion



Thermoforming machine with FPW slitting module



FORMA - quick overview

FORMA series thermoforming machines are dependable and easy to use. Hard films forming is made efficiently and economically even with small, large batch sizes or multi cavity forms. Uniform wall thickness is achieved by the use pre-blowing in positive forming and pre-stretching technology in negative forming. Production process combines the best aspects of both pressure forming and thermo-vacuum forming technologies: exceptional precision and speed.

FORMA series thermoformers produce uniform, high quality plastic packages and articles made from roll-fed thermoplastic materials like OPS, PVC, HIPS, PET, PP, PLA and other thermoformable films. HMI and PLC controlled automated functions allow for shortest cycle times and optimum contour definition. The robust design of all highly-stressed elements ensures continuous operation with constant availability and long-term production performance.

Depending on production demands machines are equipped with special finishing (cutting/stacking) modules. Each FORMA machine can be equipped with automatic foil feeder which allows usage of heavier film weight. Especially dedicated to work with FPP and FPN modules.

Features:

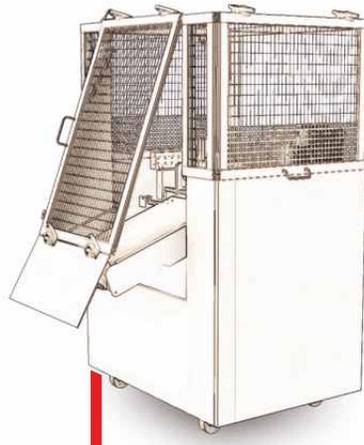
- Compact design and small footprint
- Economical production for small and large batch runs
- Special design combines the most efficient pressure and vacuum forming
- High output production due to short cycle times
- Simple operation with minimum operator training
- Fast tool change
- Ergonomic design
- Pre-blowing for uniform surface thickness
- Optional punch for forming deep negative products
- Optional table cooling
- Change of forming area size by the use of reducing frame
- Smooth operation and flexibility

Custom built machines and tooling are available upon request. Each machine is built according to customer's needs and production specifications. We can modify and adjust machines parameters if required at additional cost.

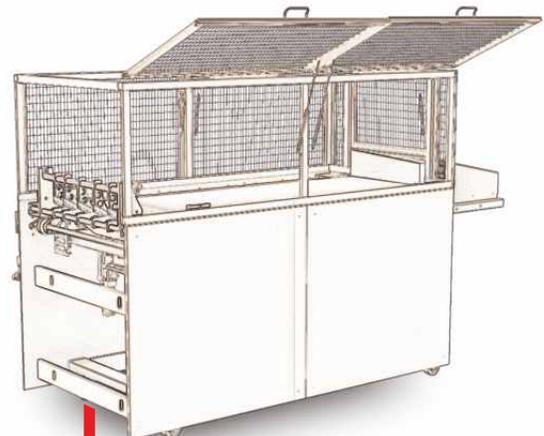
All ZEMAT machines are fully CE compliant and EMI, OSHA, FCC rated.



FPP Module
Positive
Cross cutting



FPN Module
Positive and negative
Cross cutting



FPW Module
Positive
Cross and lengthwise cutting

Technical specification

Forma 57

Forma 67

Forma 69

Technical specification	Forma 57	Forma 67	Forma 69
Forming area	500x700 mm	670x670 mm	670x970 mm
Film width	540 mm	700 mm	700 mm
Positive/negative forming	+ / +	+ / +	+ / +
Max. height of pos/neg forming*	150/150* mm	150/140* mm	150/120* mm
Table stroke	300 mm		
Installed power	~10 kW	~15 kW	~20 kW
Power supply	400 V; 50 Hz		
Efficiency	< 20 s/cycle	< 35 s/cycle	< 45 s/cycle
Working pressure	0,4 ÷ 0,8 Mpa		
Air usage	100 nl/cycle	120 nl/cycle	140 nl/cycle
Film thickness	0,2 ÷ 4 mm		
Heating zones	3		
Film cooling	Air fans		

* forming machine without slitting unit

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