

Large forming area with OMV's unique “pre-clamping” technology for high quality lids

- ❖ Perfect forming, cutting, and handling for all types of shallow products
- ❖ Efficient stacking and de-nesting even for difficult-shaped trays



The F86 is a fully automatic, servo driven, thermoforming machine. The in-mould trim eliminates issues caused by post forming shrinkage and ensures accurate, clean concentric trimmed parts from cycle to cycle and run to run. The F86 has been designed to process all types of thermoplastic and multilayer, co-extruded materials.

This machine is characterized by a special ejection and unloading system (an OMV international patent) including a guided vacuum plate, 4-station rotary transport wheel, a stacker, a rotary arm and one unloading robot. In addition, the unloading and transfer conveyors have been specifically designed for handling shallow products with minimum stacking height and for eliminating “de-nesting” of different product types, due to the adjustable inclination setting.

There is also available space to install optional quality control station, hole punch station, or other in-line operations before stacking and unloading. OMV's “Quick tool change feature” minimizes down time during tool changes.

An Alternate stacking feature is available to ensure consistent denesting of parts

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F86 – two dynamic versions



The no.1 thermoformer for high volume lids and other shallow products in any type of thermoformable materials



Specialized automation allows for in-line quality control and easy handling of products with difficult stacking geometry



- ❖ Hole-punching station for lids
- ❖ Upper press movement for positive-formed lids

Technical Specifications of F86 THERMOFORMER - In Mould Trim			
Materials		PS - PP - ABS - PE	
		FV86	FC86
Max. forming area	mm	855 x 650	825 x 600
Max. sheet width	mm	925	910
Sheet thickness	mm	0,2 - 2,5	0,2 - 2,5
Max. forming depth	mm	95	30
Max. positive forming	mm	10	15
Forming with compressed air	bar	6	6
Dry cycles	strokes/min	32	32
Oven size	mm	2.700 x 1.000	2.700 x 1.000
Mould closing/Cutting force	daN	40.000	40.000
Max cutting length	mm	11.000	11.000
Max. air consumption	Nl/min	10.000	10.000
Max. cooling required(at 8°-10°C)	kcal/h	50.000	50.000
Max vacuum consumption	m3/h	160	160
External dimensions	mm	6.600 x 11.400 x 3.200	
Weight	kg	25.000	25.000
Total installed motor power	kW	99	104
Total installed heating power	kW	173	173

Technical Specifications of F86 THERMOFORMER - In-line System			
Materials		HIPS - PP - ABS - HDPE	
		FV86 - D100	FC86 - D80
Gross output HIPS	kg/h	640 - 660	360 - 380
Gross output PP	kg/h	470 - 500	270 - 290
Sheet thickness HIPS	mm	0,2 - 2,2	0,2 - 2,2
Sheet thickness PP*	mm	0,4 - 2,2	0,4 - 2,2
Extruder size	mm	100	80
L/D ratio for water/air cooled	mm	35/1 - 33/1	35/1 - 33/1
Extruder motor power	kW	175	110
Max. screw rev.	Rpm	225	290
Flat die width	mm	1.100	1.100
Lip opening	mm	0,2 - 2,5	0,2 - 2,5
Gear pump capacity	cm³/turn	92,6	92,6
Calender roll Ø (Upper-Middle-Lower)	mm	270 - 350 - 350	270 - 350 - 350
Pull roll diameter (haul-off)	mm	170	170
Rubber roll diameter	mm	130	130
Effective rolls width	mm	1.200	1.200
Max. cooling required (at 8°-10°C)	kcal/h	100.000	82.000
Total installed motor power	kW	461	376
Total installed heating power	kW	292	284

*PP Sheet thickness can be reduced to a minimum of 0,2 mm with the additional air knife (optional)

Other special features of F86:

- **Sheet index:** Specifically designed with a “double width pin-chain” to transport sheet into the forming station using servo drive for precise index accuracy.
- **Servo:** Automatically programs and displays selected index length and speed on the screen.
- **C-Shape oven:** With top and bottom ceramic heater elements arranged in longitudinal and transverse zones individually controlled.
- **Sequencing:** Operators have password controlled access to screen for all machine functions with precision time setting available. The single machine functions may also be individually switched ON or OFF.
- **Mould set-up storage:** A formula card is used to recall all previous job settings there by minimizing start-up time and scrap when changing moulds.
- **OMV Process Controller**
- **Alarm:** the controller will display alarm and emergency alerts.

The F86 thermoformer is supplied in two versions for two different applications: FC86 for lids and FV86 for trays, plates and shallow containers.

FC86 Specific features:

- Lids forming method uses the “PRE-CLAMPING” technique, assuring an even rim thickness around the circumference or skirt of the lid
- Moving upper press allows for a smooth unloading operation for positive-formed articles (lids)
- Optional Hole-Punching Device installation in the second station of the rotary drum to pierce holes in the formed lids.

FV86 Specific features:

Optional Robot installation in the second station of the rotary drum to rotate the formed products in order to achieve alternate stacked parts for easy denesting at end user

F86 Product characteristics						
Use	Dimension mm	Depth mm	Weight gr	Cavities	Cycles min	Production hour
FV86						
Plate	220	25	17	8	25	12.000
Plate	178 x 178	36,3	15,5	12	25	18.000
FC86						
Lid	118,2	7,2	4,9	20	24	28.800
Lid	95,5 x 145,5	12,7	5,0	18	24	26.000