

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

- // Perfect forming cutting and handling for all kind of shallow products
- // Safe stacking and de-nesting even for difficult-shaped trays



The F86 is a fully automatic electro mechanically driven thermoformer with in-mould trim, which nullifies shrinkage effects on trim accuracy. It has been designed to process all types of thermoformable materials, including polypropylene, and coextruded barrier 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 especially designed for handling shallow products with minimum stacking height and for eliminating “de-nesting” of different product types, thanks to the adjustable inclination setting.

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

The cutting device is made by excentrics, placed on the upper press (an OMV international patent).

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F86 – two dynamic versions



Thermoformer for high production of lids and other shallow products of any type of thermoformable materials

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Unique automation allows for in-line quality control and handling of products with difficult stacking design



- // Hole-punching facility for lids
- // Upper press in motion for positive-formed lids

Other special features of F86:

- // **Sheet index:** Especially designed with “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 zones individually controlled.
- // **Sequencing:** Operator has screen access to 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 recipe 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 situations.

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 by “PRE-CLAMPING” technique, assure an even rim thickness over the lid circumference.
- // Upper press in motion allowing smooth unloading operation for positive-formed articles (lids)
- // Capability of Hole-Punching Device installation in the second station of the rotary drum, to pierce holes in the formed lids.

FV86 Specific features:

- // Capability of Robot installation in the second station of the rotary drum, to rotate alternatively the formed products, in order to avoid the stacked products nesting.

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	m ³ /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	cm ³ /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)

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