

# THERMOFORMING SOLUTIONS

## MULTI-STATION PRESSURE FORMING MACHINE



**RRPLAST**™

Extrusionline Front Runner



# RR MULTI-STATION THERMOFORMING MACHINE

## 3 STATION & 4 STATION

- MATERIAL: PP/PS/PET/PVC/PLA/BIODEGRADABLE
- SHEET THICK: 0.15 MM - 1.2 MM
- MAX SHEET WIDTH: 710MM
- FORMING AREA: 650 MM X 540 MM
- PRODUCT DEPTH: UP TO 130 MM
- DRY CYCLE: 60
- OPERATION CYCLE: UP TO 30-40
- RUNNING POWER 55 KW

**RUNNING CYCLE SPEED 30-40 CYCLE/MIN FOR HINGED CONTAINERS**  
"Steel Rule Cutting Technology Forming Machine"



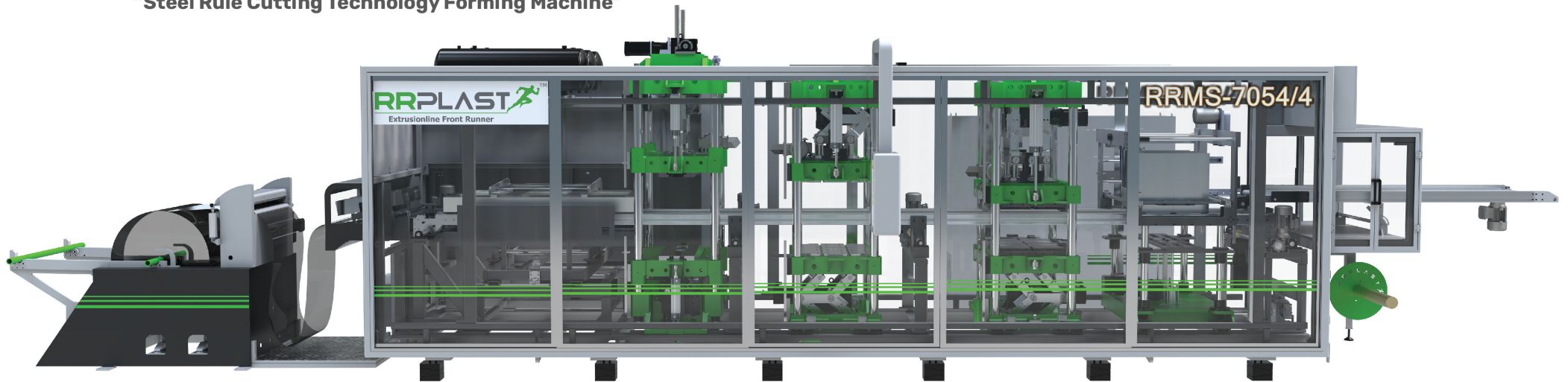
BAKERY PACKAGING



FRUIT PUNNETS



MEAL TRAY



### Main Technical Parameters

Technical Features	RRMSF 70/54 Three Station Pressure Forming Machine
Material to be Formed	PET/PP/PS/PLA/OPS/PVC
Sheet Thickness	0.15 mm TO 1.2 mm
Max/Min Sheet Width	720/420 mm
Maximum Dry Run Cycle	60 Cycle/min
Operation Cycles (PET/PS)	25-40 Cycles/Minute [Depending on Sheet Thickness, Product Depth, Product Design]
Operation Cycles (PP)	20-30 Cycles/Minute [Depending on Sheet Thickness, Product Depth, Product Design]
Maximum Mould Dimensions	700 mm X 540 mm
Height of Positive Forming	130 mm
Depth of Negative Forming	130 mm
Unwinder Sheet Roll	Up to 1 meter Diameter and 600 kg weight
Total Running Load	55 kW
Dimension of Machine(L*W*H mtr)	14 X 4.5 X 3 - 4 Station
	12 X 4.5 X 3 - 3 Station

Note: The specification are subjected to change without prior notice.

Precise & Simple Operation

Automation With Cost Saving

Repeatability With Same Accuracy

Quick Mould Change

#### Characteristics

- Low operation noise
- Easy to operate
- High speed
- Fully automatic
- Robust in construction

#### Applications

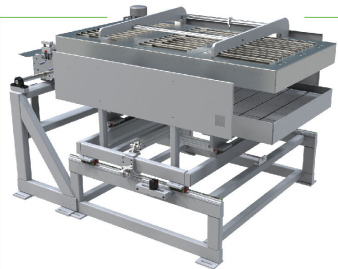
- Trays
- Hinged container
- Hinged sweet box
- Meal trays
- Electrical applications

### MATERIAL UNWINDER SYSTEM

- Roll lifting system - Pneumatic
- Able to work with double-roll
- Analog-controlled, non-stop roll opener
- Roll dia - 1 meter or 600 kg can be loaded



### PRE-HEATING SYSTEM



- 15 minutes in the preheating system with 30 kW hot air circulation capacity
- 25 minutes in the preheating system with 45 kW hot air circulation capacity

This is an oven which ensure high heat materials like PP to expand naturally before the plastic sheet enters into the thermoforming machine and its chain pins. This eliminates distortion on the sheet and reduces sagging.

### FORMING STATION

- 4 Column - servo motor group
- Servo-driven plug assist on top press (optional bottom)
- Forming by air pressure and/or vacuum
- Tool fixing system with electrical safety interlocks
- Clamp frame or plug assist on top and bottom of former
- Motorized mould height adjustment
- Pneumatic weight balancing system
- Log life, special needle bearings, gap less joints
- System for taking up the play between the nuts and shafts whilst in group motions
- Flow control sensor for cooling water



### HOLE PUNCHING STATION



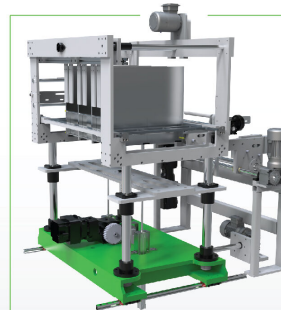
- Servo motor driven, top and bottom independent
- Individual motion control of stroke movement of top - and bottom - hole tables
- Motorized vertical adjustment of top table
- The motorized position adjustment of the station with rotary encoder
- Pneumatic weight balancing system
- Long-life, special needle bearings, gap less joints
- Vacuum device for hole-punching scraps

### CUTTING STATION

- Servo motor driven, top and bottom independent
- Motorized precision cutting adjustment on top table by 0.03 mm/pulse
- Cutting knife heating (max 170c) and isolation plate
- Motorized cutting knives X-Y adjustment system with measurement by rotary encoder
- The motorized position adjustment of the station with rotary encoder
- Tool fixing system with electrical safety interlocks
- Pneumatic weight balancing system
- Long-life, special needle bearings, gap less joints
- System for taking up the play between the nut and shaft (very important for long knife life)



### UPWARD STACKER UNIT



- Servo motor-driven vertical stacker
- The motorized position adjustment of the station with rotary encoder
- Electrically driven conveyor
- Variable working modes
- High-speed & more accurate stacking

# INMOULD CUTTING THERMOFORMING MACHINE

## WITH ROBOTIC PICK UP

- RRTFM thermoforming machine is the latest technology machine developed by RR Plast according to the market and customer demand
- PP, PS, PET, PLA, and Biodegradable material sheets can be formed
- Highly efficient and less maintenance
- Hygiene packing with the help of the robot
- Complete Turnkey solution provided - Sheet -> Thermoforming -> Mould -> Robotic Pickup -> Skeleton Crusher

**HYGIENE PACKAGING**

**LESS LABOUR COST**



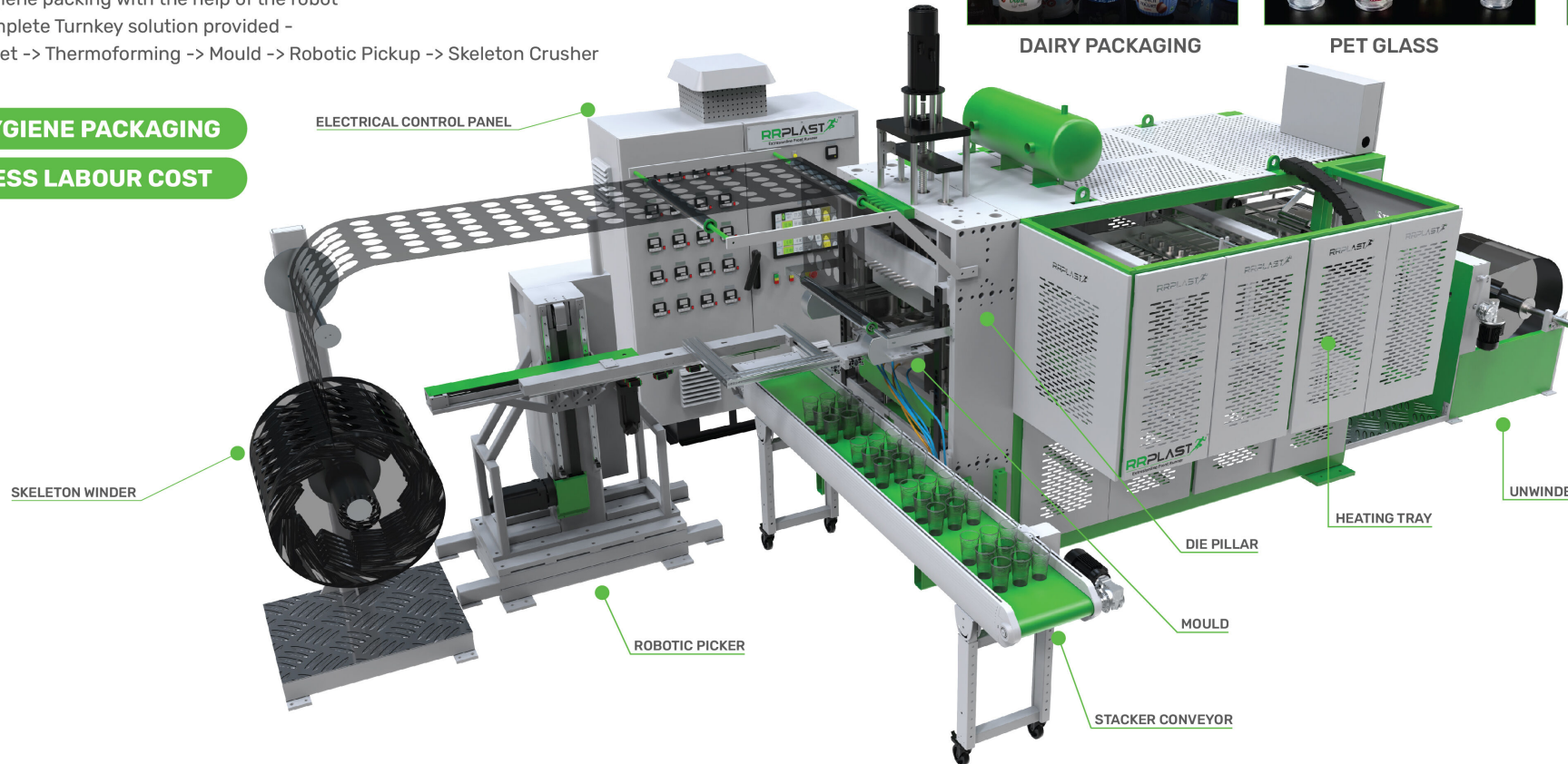
DAIRY PACKAGING



PET GLASS



PLATES & BOWLS



**35  
CYCLE/MIN**  
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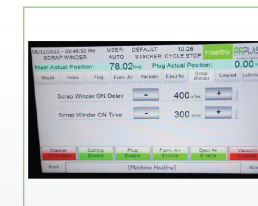
Model	Type	Forming Area	Sheet Thickness	Running Load	Dry Cycle/min	Working Cycles/min Without Robot	Working Cycles/min With Robot
RRTFM 6535-3S	Fully Servo Type	650 mm X 350 mm	0.3 mm to 2 mm	40 kW Max	60	PP up to 30 HIPS up to 45 PET up to 40	PP up to 20-25 HIPS up to 20-25 PET up to 20-25

### Optional features:-

- Robotic stacker or Pellet/Belt conveyor type available
- Thermoforming moulds for PP, PS, and PET
- An in-line crusher can be provided
- AC for panel (Optional)
- Auto lubrication provided
- Baumüller Germany servo software used



ROBOTIC STACKER



PLC WITH TOUCH SCREEN



INMOULD CUTTING TFM MOULD

## ROLL FEED CRUSHER

WITH BLOWER & SILO



### Main Technical Parameters

Model (Skeleton Sheet)	RRSG-750/SK	RRSG-1000/SK	RRSG-1200/SK
Application	Sheet Thickness 0.2-2 mm Thermoforming Skeleton / Sheet		
Output (kg) PP/PET (for HIPS 25% extra output)	200-300	400-500	550-700
Motor (kW)	18.5	30	37.5
Blade Width (mm/inch)	750 (30")	1000 (40")	1200 (48")
Rotating Blades	3 + 3	3 + 3	3 + 3
Fixed Blades	2 + 2	2 + 2	2 + 2
Screen Size (mm)	12	12	12
Blower Motor (kW)	2.25	3.75	3.75
Silo (ltr)	500	500	500

Note: The specification are subjected to change without prior notice

### Sheet Skeleton Grinder Features:-

- Suitable to crush PP, PET, PS, ABS, and TPE material sheets
- The soundproof design ensures a low noise level
- Cutting chamber design ensures a low noise level
- Control nip feeding ensures continuous operation & consistent output
- High-quality material D2 is used for blades
- Inbuilt control panel with drive & relay provided
- Dust cyclone separators can effectively remove the air from regrind and facilitate the material collecting
- The cutting chamber made of high rigidity material, after processing by CNC machine, has features like high intensity, super wearability, no contamination, long service life, and easy maintenance and repair.



## THERMOFORMING APPLICATIONS

### AGRICULTURE PACKAGING



KIWI PUNNETS



GRAPES PUNNETS



STRAWBERRY PUNNET

### FOOD DELIVERY PACKAGING



MEAL TRAY



BIRYANI BOX



SWEET PACKAGING

### BAKERY PACKAGING



CAKE CONTAINER



MACARONS TRAY



PASTRY PACKAGING

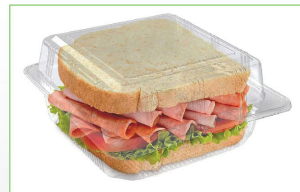
### FAST FOOD PACKAGING



HOT DOG PACKAGING



FOOD PACKAGING



SANDWICH PACKAGING

### WATER & JUICE



WATER GLASS



JUICE GLASS



PACKAGED WATER CUP

### DAIRY PACKAGING



ICE CREAM CUP



YOGURT CUP



CHOCOLATE TRAY

### MEAT, FISH & EGG PACKAGING



MEAT TRAY



EGG TRAY



FISH TRAY

### DRY FRUIT & SNACKS PACKAGING



DRY FRUIT PACKAGING



SNACKS PACKAGING

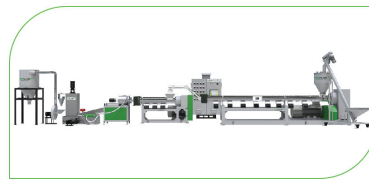


FRIES, CHIPS & COOKIES

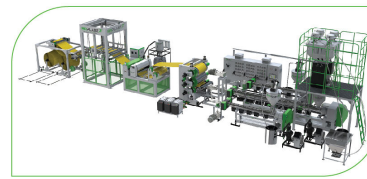
**INDIAN AT HEART - GLOBAL IN SPIRIT**



**EXPORT TO MORE THAN 60 COUNTRIES**



**VENTED RECYCLING PLANT**



**PP, PS SHEET LINE**



**DIRECT FEED RECYCLING PLANT**



**ROTO COMPOUNDING PLANT**

**RRPLAST**<sup>TM</sup>  
Extrusionline Front Runner

**40**  
YEARS OF INNOVATION

## **R.R. Plast Extrusions Pvt. Ltd.**

Manufacturer & Exporter of Plastic Extrusion Machinery & Equipment

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**Factory:** Survey No. 164/4, 12/1, NH-3, Behind Hotel Pariwar Garden, Village Asangaon (W) Shahapur, Thane, Maharashtra, India, Pin - 421 601

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