



# GN

Thermoforming Equipment



## GN TM Series



## ■ At the cutting edge

GN Thermoforming Equipment has set the world standard for the plastics industry by developing a complete line of robust and dependable thermoforming machines. All GN technology incorporates an in-mould cutting system for consistent and accurate trim. These machines are easy to use and ideally suited to produce high quality thermoformed plastic products from a variety of roll-fed thermoformable materials.

Continuous research and development are the cornerstones of GN's advanced technology. Our team of experienced engineers focuses on equipment design and continuous improvement based on customer feedback and industry trends.

GN ensures the productivity of its thermoforming machines with one of the industry's most comprehensive customer service programs. Our worldwide network of agents and qualified GN technicians are available to offer a reliable after sales service.

Leading plastic package manufacturers around the world have come to rely on GN Thermoformers to make their businesses more productive and profitable.

## ■ GN TM Series Thermoformers

The GN Tilt Mould Thermoformers are plug assisted machines which are ideally suited for products ranging from cups and lids to complex shaped packages, all with accurate trim. Depending on material type, thickness and number of cavities, product output rates are up to 24,000 parts per hour.

Tool change time is minimal due to the light weight tool and equipment simplicity. A single stacking component ensures accurately nested rows of a wide variety of products.

The combination of forming and trimming tools with hardened punch and dies guarantee long tool life while maintaining high accuracy.

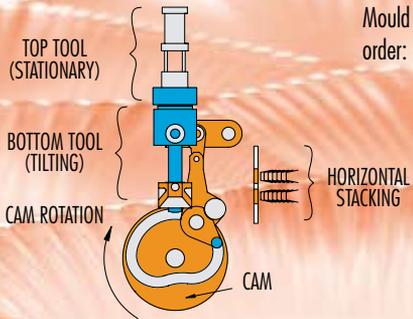


# FORMING THE W

## Technology

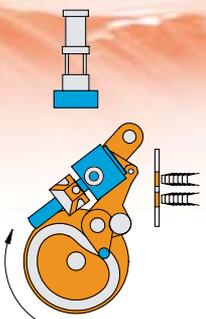


1



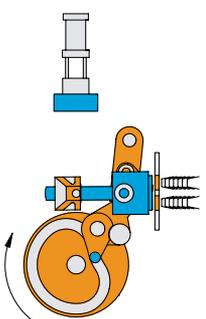
Mould in **"UP"** position, operations occur in the following order: clamping, plugging, forming and cutting.

2



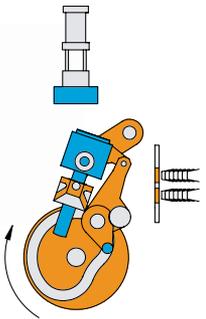
Mould tilting as it moves from **"CUTTING"** to **"EJECT"** position.

3



Mould in **"EJECT"** position, parts ejected to stacking tray.

4



Material transport, mould returning to **"UP"** position.

Process repeats with mould in **"UP"** position.

O R L D

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### ■ GN TM series Thermoformers

#### Features and benefits:

- Electronic control of camshaft with variable cam speed within one cycle
- Horizontal Stacking
- Servo-drive sheet transport system
- Double guided spike chains
- Multi-zone heating
- Production setting storage for up to 32 moulds
- Pneumatic roll lift

#### Features and benefits unique to the GN1407TM-B Thermoformer

- Specially designed to process Polypropylene (PP) sheet
- Multi-zone heating of top and bottom ovens

### ■ Number of cavities in relation to part diameter

GN1406TM-B Inline formation

#### GN1406TM-B TOOLS FOR CUPS & LIDS

44mm Ø	12 cavity
45mm Ø - 56mm Ø	10 cavity
57mm Ø - 70mm Ø	8 cavity
71mm Ø - 72mm Ø	4 cavity
73mm Ø - 100mm Ø	3 cavity
101mm Ø - 150mm Ø	2 cavity

Depending upon material type and thickness.

GN1407TM-B Inline formation

#### GN1407TM-B TOOLS FOR CUPS & LIDS

54mm Ø - 56mm Ø	10 cavity
57mm Ø - 72mm Ø	8 cavity
73mm Ø - 84mm Ø	6 cavity
85mm Ø - 100mm Ø	3 cavity
101mm Ø - 154mm Ø	2 cavity
155mm Ø - 180mm Ø	1 cavity

Depending upon material type and thickness.



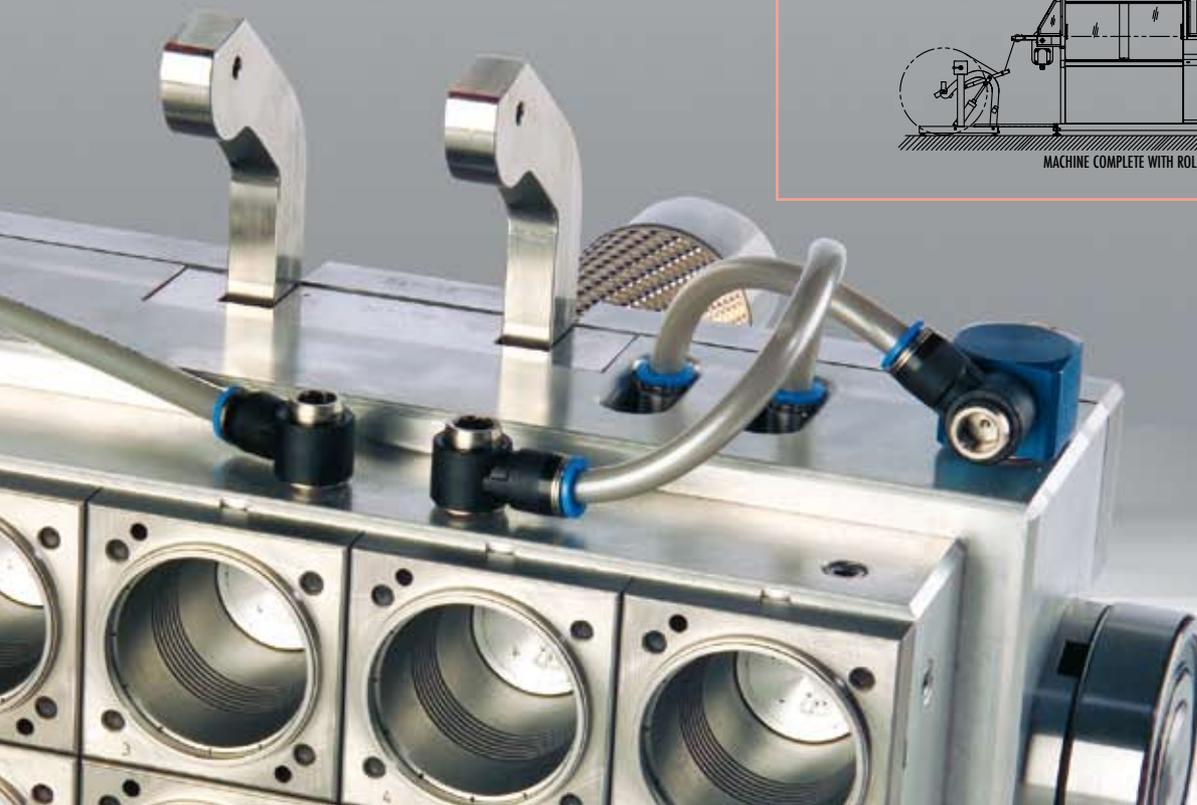
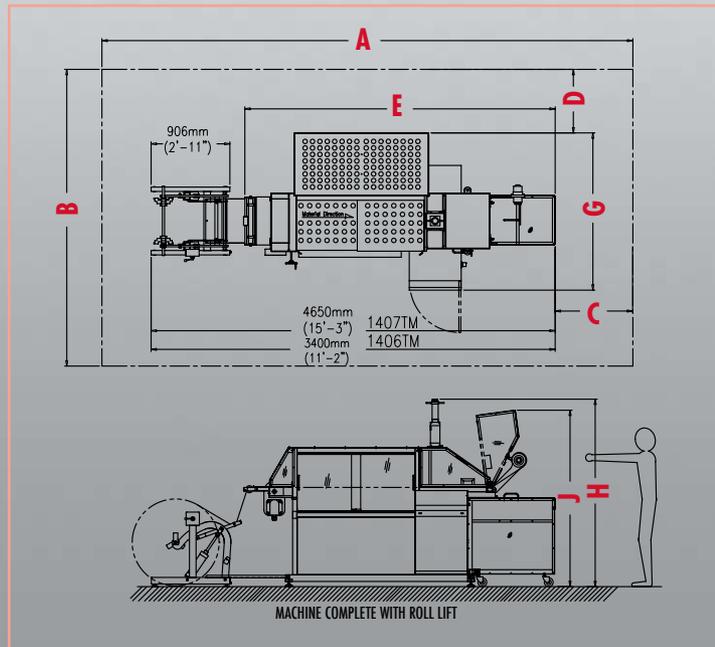
# Machine specifications

	GN1406TM-B	GN1407TM-B
Forming Area	320mm x 150mm (12.6" x 5.9") maximum	320mm x 180mm (12.6" x 7.1") maximum
Depth of Draw (negative)	120mm (4.7") maximum	120mm (4.7") maximum
Depth of Draw (positive)	25mm (1") maximum	25mm (1") maximum
Sheet Width	380mm (15") maximum (depending on material type)	350mm (13.8") maximum (depending on material type)
Material Thickness Range	0.25mm - 1.2mm (0.010" - 0.048")	0.35mm - 2.0mm (0.014" - 0.080")
Material Roll Diameter	1000mm (39.3") maximum	1000mm (39.3") maximum
Dry Cycles per Minute	45 maximum	30 maximum
Main Supply Voltage	3x 400V+ N+PE, 50-60Hz (380V - 415V) 24 Volt DC Control Voltage	3x 400V+ N+PE, 50-60Hz (380V - 415V) 24 Volt DC Control Voltage
Power Consumption	15 Kilowatts/hr (Approximate)	40 Kilowatts/hr (Approximate)
Air Pressure	6 bar (87 PSI) minimum	6 bar (87 PSI) minimum
Air Consumption (Average)	1250 Litres/min (43.75 CFM)	1250 Litres/min (43.75 CFM)
Cooling Water Consumption (Average)	20 Litres/min @ 15 °C - 20 °C (5.2 gal/min @ 58 °F - 68 °F)	15 Litres/min @ 15 °C - 20 °C (4.0 gal/min @ 58 °F - 68 °F)
Machine Dimensions (l x w x h)	2400mm x 1750mm x 2050mm (94" x 69" x 81")	3650mm x 1800mm x 2258mm (144" x 71" x 89")
Machine Weight	1000kg (2200 lb)	1400kg (3080 lb)

## MACHINE COMPLETE WITH ROLL LIFT

	GN1406TM-B	GN1407TM-B
DIM "A"	23' - 7" 7200mm	24' - 7" 7494mm
DIM "B"	11' - 4" 3450mm	11' - 4" 3450mm
DIM "C"	6' - 0" 1830mm	6' - 0" 1830mm
DIM "D"	3' - 2" 948mm	3' - 2" 948mm
DIM "E"	7' - 10" 2400mm	12' - 0" 3650mm
DIM "G"	5' - 9" 1750mm	5' - 11" 1800mm
DIM "H"	6' - 9" 2050mm	7' - 5" 2258mm
DIM "J"	6' - 10" 2072mm	6' - 8" 2030mm

All dimensions are approximate



# GN

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**GN's Vision: Build Success With Our Customers!**



**Cost effective tooling is designed, manufactured and production tested at our facility.**

### **GN Thermoforming Equipment**

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**A world wide network of GN representatives  
is available to assist you.**

ISO 9001-2008

