



GN

Thermoforming Equipment



GN DX Series

To meet the growing demand for APET packaging, we have developed the GN DX Series Thermoformers. These Thermoformers are energy efficient, servo driven, with increased capability to cut APET while still being able to convert most thermoformable grade sheet.

■ 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 DX Series Thermoformers

The **GN DX Series** Thermoformers have quickly become the choice of customers throughout the world requiring a larger forming area and cutting capacity to provide maximum part production.

All DX machines incorporate servo movements to provide maximum cycle speed and efficiency.

Features and benefits:

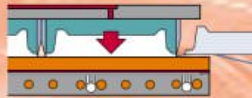
- In-mould cutting ensuring consistent and accurate trim
- Servo driven platen
- Oversized roller bearings
- High speed forming system
- Multi-zone contact heating system
- Electric preheater
- Microprocessor-based control systems (PLC)
- Servo sheet transport
- Nip roll material unwind
- Adjustable stripping point
- Photo scanning available for preprinted sheet
- Static eliminator
- Built-in diagnostic system
- Internet connectivity



FORMING THE W

Technology

1



Heating - Plastic material is unwound from a roll and fed into the forming area. Here it is trapped in place by a double toggle mechanism which closes the forming press. Compressed air is injected through the mould ensuring complete contact of the plastic material with the heating platen. Exact, uniform and rapid heating is achieved by the unique heating platen assembly.

2



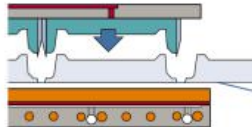
Forming - As the thermoplastic material reaches the optimum forming temperature, air is exhausted from the mould. Forming air pressure is then applied through thousands of tiny holes in the heating platen assembly. This forming pressure forces the plastic into every detail of the mould cavity.

3



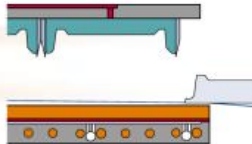
Cutting - As the forming air is vented, a second toggle movement forces the knife edge of the cutting die through the plastic sheet.

4



Ejecting - The press then opens and the formed parts are ejected with pressurized air.

5



Transporting - The formed parts, still connected to the material web, are transported to the stripping and stacking stations.



O R L D

GN

Thermoforming Equipment

■ GN Stacking Units

GN Stacking Units can easily be attached to any thermoformer to create a completely automated and efficient high-speed thermoforming production system designed to improve the performance of the GN thermoformer. GN Stacking units accurately count, stack and deliver the formed parts onto the receiving station.

■ GN Up Stacking Unit

The GN Up Stacking unit is ideally suited to stack and count square or rectangular parts and deliver them to a receiving platform.

Stacking Rate:
Maximum 30 cycles/minute
Maximum 1800 cycles/hour



■ GN RSX Robotic Stacking Unit

The GN RSX Robotic Stacking unit is a complete product handling system designed to improve the performance of the GN thermoformer. Vacuum cups attach themselves to the plastic product prior to stripping them from the web and placing them in pre-counted stacks to be delivered to the receiving station.

Stacking Rate:
Maximum 20 cycles/minute
Maximum 1200 cycles/hour

Design features:

- Ensures consistent part separation from web
- Simple, inexpensive tool specific change parts
- Minimal set-up
- User friendly operation
- Easily adapts to most GN Thermoformers (please consult GN)
- A/B and A/B/C stacking capabilities
- Optional rotating head to stack any possible configuration



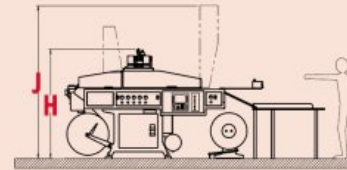
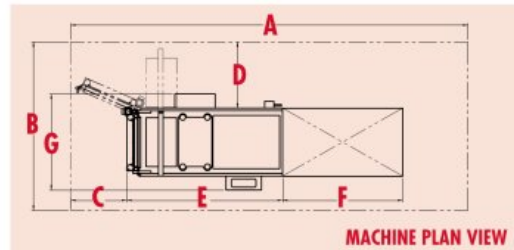
Machine specifications

	GN3021DX	GN3625DX
Forming Area	760mm x 530mm (30" x 21") maximum	915mm x 635mm (36" x 25") maximum
Depth of Draw	125mm (5") maximum	125mm (5") maximum
Knife Length	8500mm (335") for APET 9525mm (375") for other thermoformable materials	10500mm (413") for APET 11430mm (450") for other thermoformable materials
Sheet Width	815mm (32") maximum	965mm (38") maximum
Material Thickness Range	0.15mm - 1.00mm (0.006" - 0.040")	0.15mm - 1.00mm (0.006" - 0.040")
Material Roll Diameter	711mm (28") maximum	711mm (28") maximum
Dry Cycles per Minute	30 maximum	30 maximum
Main Supply Voltage	380V to 480V 24 Volt DC Control Voltage	380V to 480V 24 Volt DC Control Voltage
Power Consumption	7.5 Kilowatts/hr (Approximate)	12 Kilowatts/hr (Approximate)
Air Pressure	6.8 bar (100 PSI) minimum	6.8 bar (100 PSI) minimum
Air Consumption	1315 Litres/min (48 CFM) (Approximate)	2300 Litres/min (80 CFM) (Approximate)
Cooling Water Consumption	6 Litres/min @ 15 °C - 20 °C (1,5 gal/min @ 58 °F - 68 °F)	14 Litres/min @ 15 °C - 20 °C (3 gal/min @ 58 °F - 68 °F)
Machine Dimensions (l x w x h)	2895mm x 1850mm x 2160mm (114" x 73" x 85")	3200mm x 2100mm x 2210mm (126" x 83" x 87")
Machine Weight	3420 kg (7540 lbs)	5987 kg (13200 lbs)

MACHINE WITH RECEIVING STATION

	GN3021DX	GN3625DX
DIM "A" MACHINE ONLY	18' - 6" 5640 mm	19' - 6" 5945 mm
DIM "A" MC + RECEIVING STATION	25' - 6" 7776 mm	26' - 6" 8080 mm
DIM "B"	13' - 10" 4215 mm	14' - 6" 4420 mm
DIM "C"	6' - 0" 1830 mm	6' - 0" 1830 mm
DIM "D"	4' - 6" 1372 mm	4' - 6" 1372 mm
DIM "E"	9' - 6" 2900 mm	10' - 6" 3200 mm
DIM "F"	7' - 0" 2135 mm	7' - 0" 2135 mm
DIM "G"	6' - 1" 1850 mm	6' - 11" 2100 mm
DIM "H"	7' - 1" 2160 mm	7' - 3" 2210 mm
DIM "J"	8' - 10" 2700 mm	9' - 3" 2820 mm

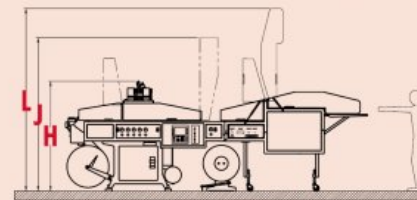
All dimensions are approximate



MACHINE WITH UP STACKER

	GN3021DX	GN3625DX
DIM "A" MC + STACKER	27' - 0" 8230 mm	28' - 6" 8675 mm
DIM "F" STACKER OPTION	7' - 6" 2275 mm	7' - 10" 2390 mm
DIM "L" STACKER OPTION	9' - 10" 3000 mm	10' - 4" 3150 mm

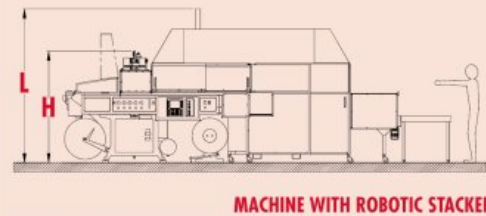
All dimensions are approximate



MACHINE WITH ROBOTIC STACKER

	GN3021DX	GN3625DX
DIM "A" MC + STACKER	29' - 10" 9100 mm	35' - 0" 10650 mm
DIM "F" STACKER OPTION	10' - 3" 3125 mm	14' - 3" 4344 mm
DIM "L" STACKER OPTION	9' - 5" 2900 mm	9' - 5" 2900 mm

All dimensions are approximate



SPECIFICATIONS SUBJECT TO CHANGE



GN

Thermoforming Equipment

GN's Vision: Build Success With Our Customers!



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

GN Thermoforming Equipment

PO Box 710, 345 Old Trunk 3
 Chester, Nova Scotia
 Canada B0J 1J0
 Tel +1-902/275 3571
 E-Mail gn@gncanada.com
www.gncanada.com

GN Europe

Znojemská 64
 CZ - 586 01
 Jihlava, Czech Republic
 Tel +420 567 313 078
 Fax +420 567 313 079
 E-mail gn@gneurope.com

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

ISO 9001-2008



Printed June 2013