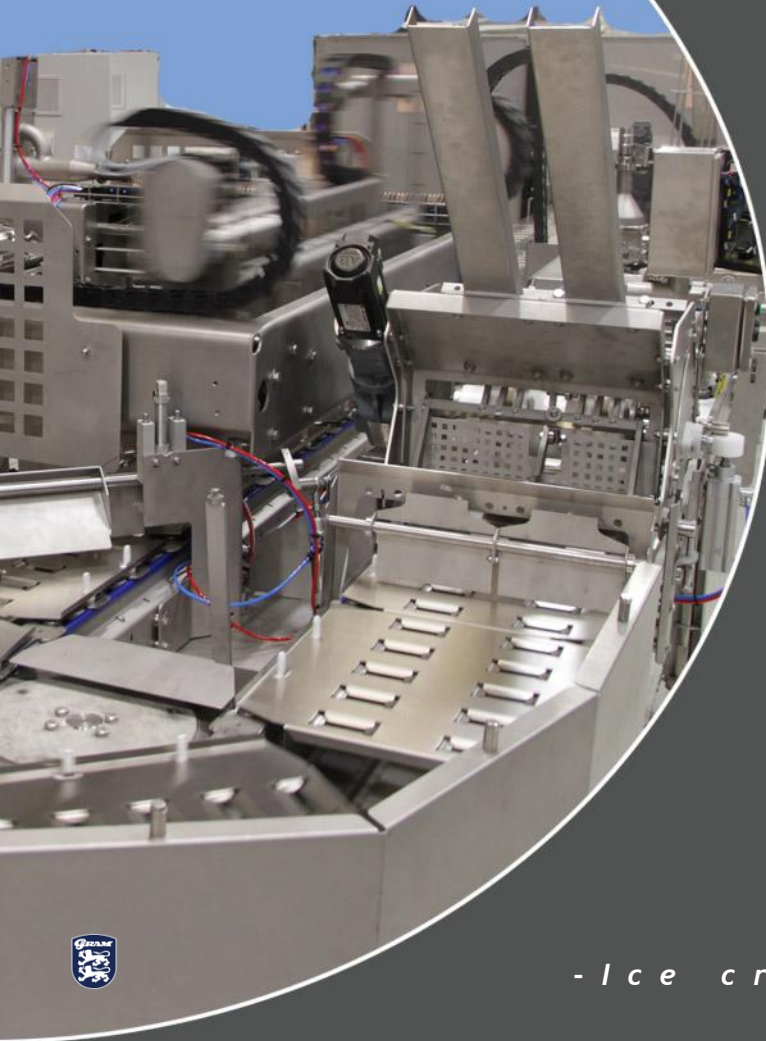


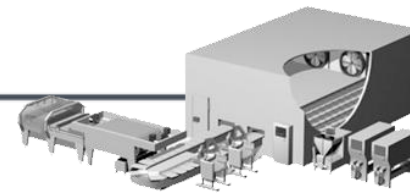
Gram Equipment

BTT Extrusion line

7.000 Stick products per Hour



- l c e c r e a m t h e w a y y o u l i k e i t . . .



Stick products
Up to 7.000 pcs/hour

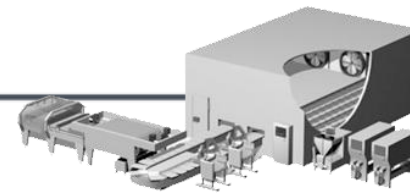


Sandwich
Up to 7.000 pcs/hour

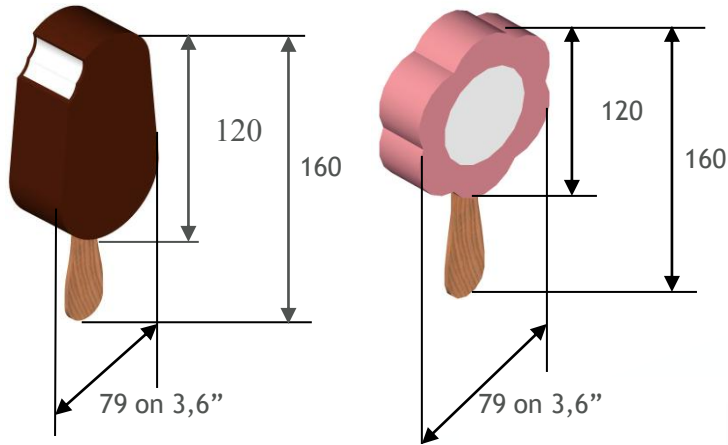


Candy bars
Up to 7.000 pcs/hour

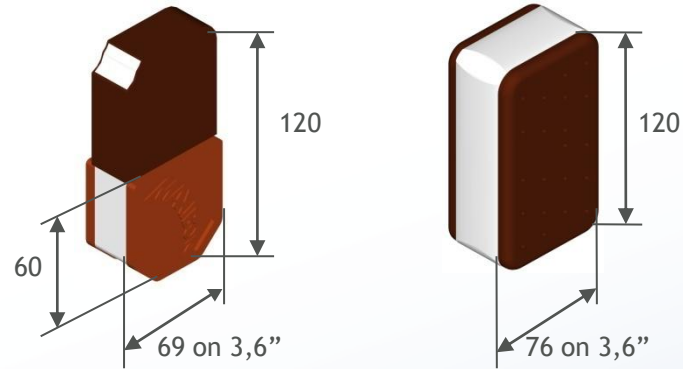




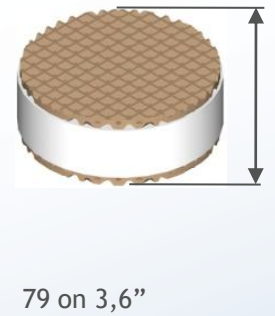
Stick



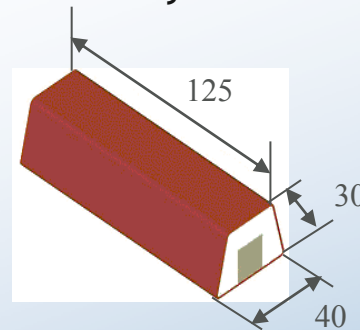
Sandwich

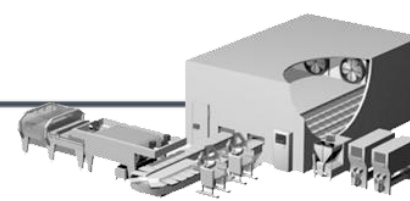


Round Sandwich



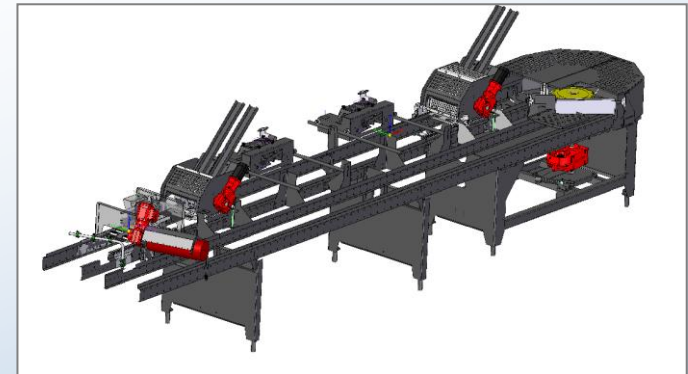
Candy bar

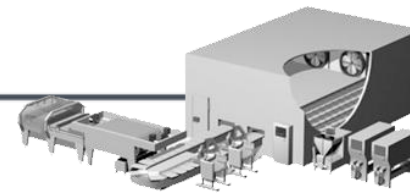




Features:

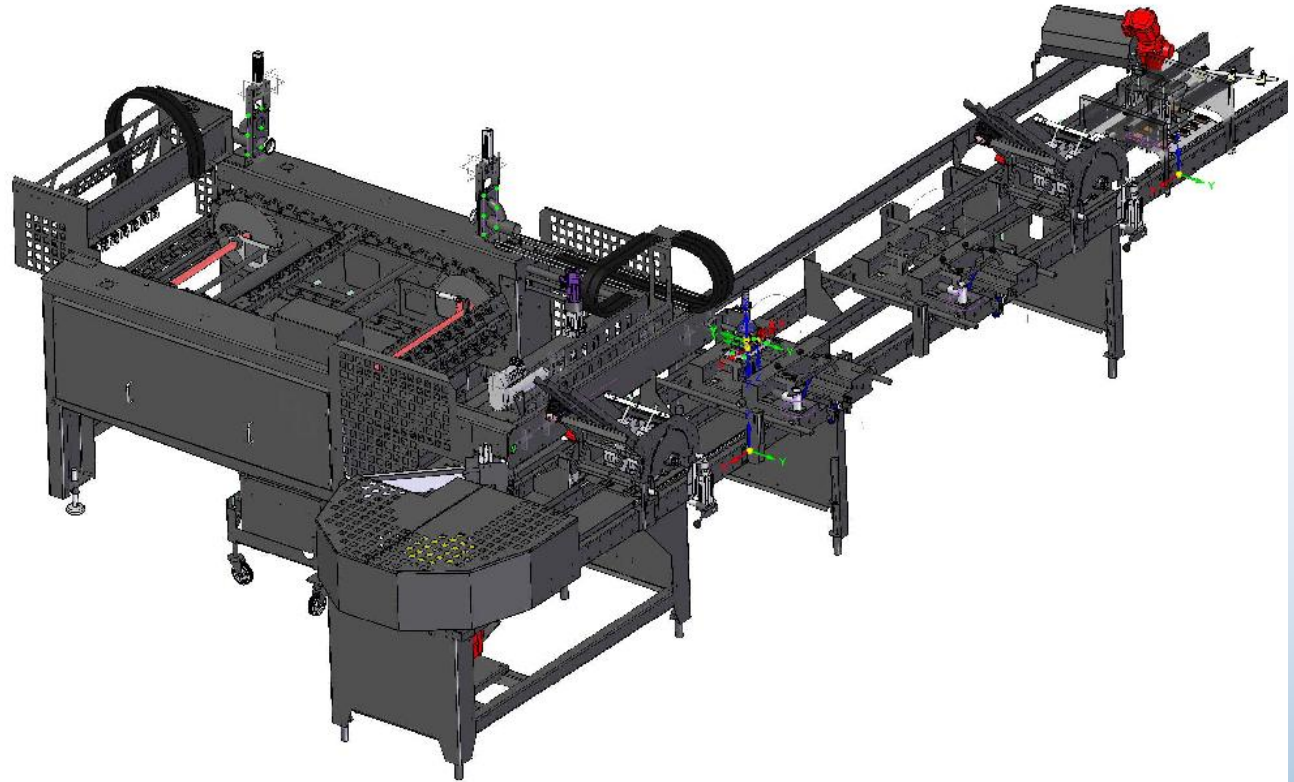
- Heavy duty construction
- Easy attachment / detachment of equipment
- Chain blower removes water from chain before entering the tunnel.
- Product in place detector to avoid damaged grippers/trays.
- Fixed spring scraper with “hammer on-demand”
- Open cable trays
- Easy access
- Hygienic wash down design
- Washing station

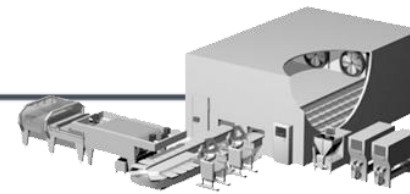




MODULAR WORKTABLE

- Integrated chain drive comprises of motor with frequency converter
- Chain tension unit comprising air cylinder, controls and sensors
- Hygienic design





- The synchronisation of the cutters compensate for variations in the tunnel chain, which results in a more accurate placement of the Ice-cream on the biscuit.
- 2 Servomotor controlled Extruder cutters
- Cutting wire with intermediate heating of the wire
- Adjustable cutting speed of cutting wire to optimize product falling angel on trays.
- High safety. No access to moveable parts during production.
- Easy change over of cutting wire and adjustable wire tension with air cylinder.



Vertical extruder
For extruded production

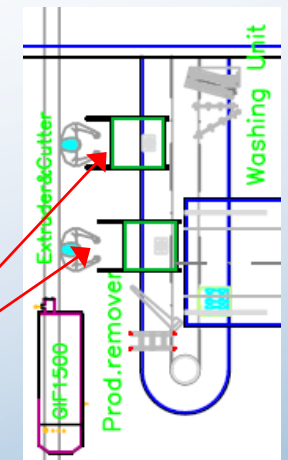
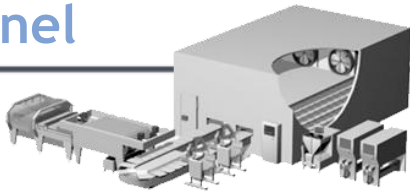


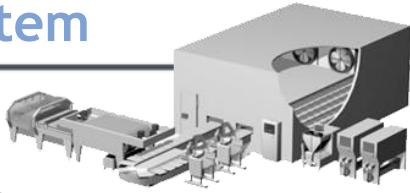
Image from Layout





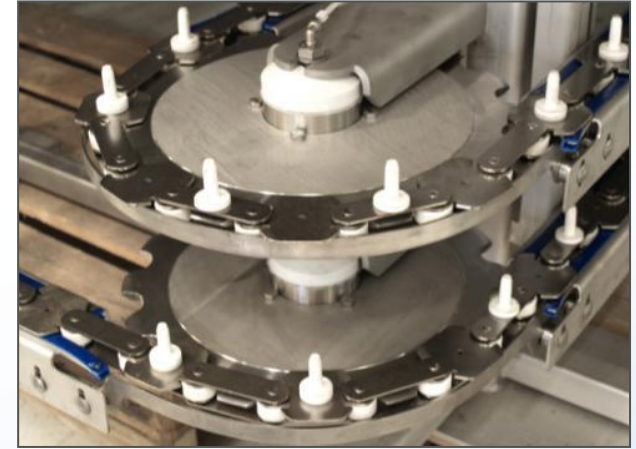
- Horak Tunnel house made of sandwich panels with non slip corrosion resistant aluminium floor panels.
- Option for fully welded stainless steel floor.
- Tunnel is mounted with 2 Doors for easy access and quick defrost can be done with doors open mounted on suction and pressure side.
- Main drive are mounted on top of middle deck for easy maintenance access.
- Strong Gram BT frame design.
- Godhart galvanized Evaporators are mounted on top and equipped with wide fin spacing on the first row for collection of moisture.
- 150 mm free tier height for hardening tunnel of bulks ext. (165 mm for cones)

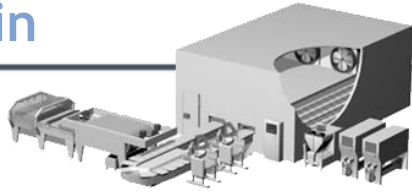




Features:

- All supports in open stainless steel design ensures easy cleaning
- Low friction tray guide
- Aseptic drive motors with direct drive placed on intermediate deck for easy access
- Spring loaded torque arm ensures gentle quick stops without chain overload
- Stainless steel bearings in gearwheel with lubrication nipples
- Conical inlet to chainwheel to compensate for the “polygon effect”
- Air cylinder tension system with variable pressure to ensure safe start up and minimum wear during normal running.
- Emergency stop wire inside the tunnel





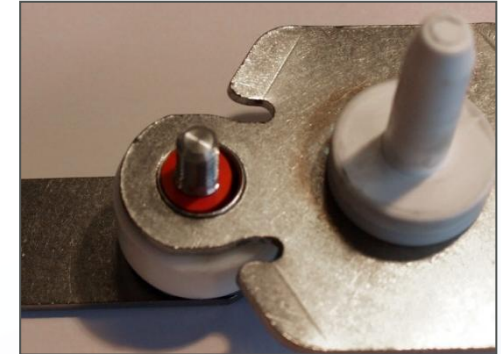
Features:

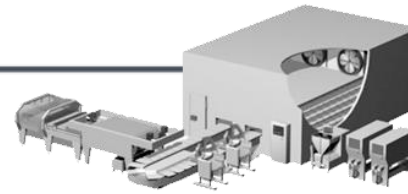
- Stainless steel - lubrication free
- Antifreeze - open design to allow water to drain out of the chain
- Easy to service and assemble and replacement of bushings
Low maintenance cost of the chain
- Highly flexible which allows smooth running also with the angles of a tray tunnel
- Lifetime minimum 10.000 hours
- Trays attached over several chain-links to ensure a smooth movement and low acceleration of chain wheels
- Small pitch (3")

Double side supports for the main chain.



Eccentric red spacer crushes ice build-up in the chain

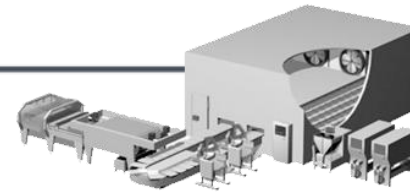




GRAM DIPCO TRANSFER SYSTEM 10 Row 3,6" Pitch

- Based on well proven slatted conveyor design with lubrication free chain.
- Delivered in 1 model:
F40: 40 Slats fixed to chain
Chocolate tank moving up/down
- Automatic chain tension unit.
- Servo drive on main Chain.
- Main electrical cabinet mounted on the side.

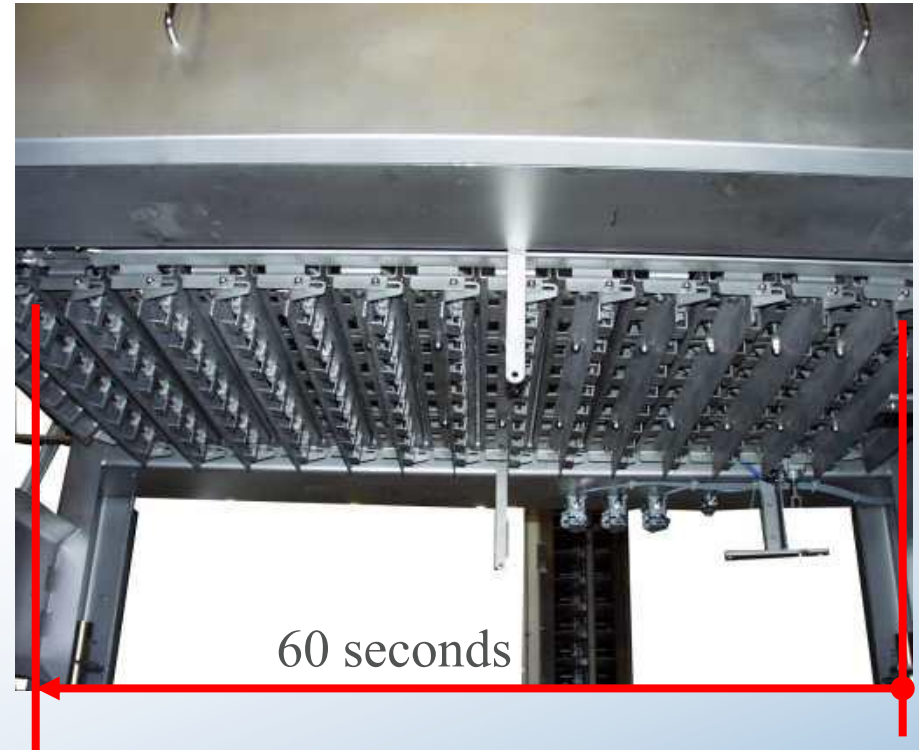


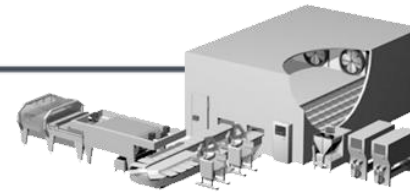


GRAM DIPCO TRANSFER DIPPING SYSTEM MODELS

- Delivered in 3 models:
F40: 40 Slats fixed to chain
Chocolate tank moving up/down
- Made in 10 Row version

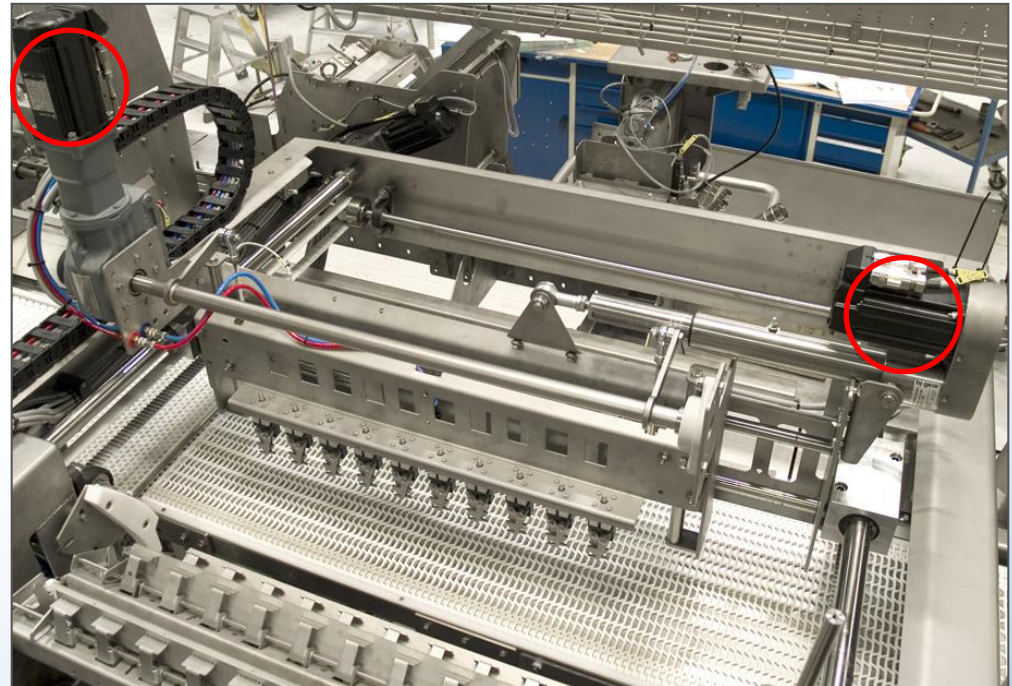
10 Row = Pitch 3,6" 91,44mm
- Chocolate drying time is app. 60 seconds





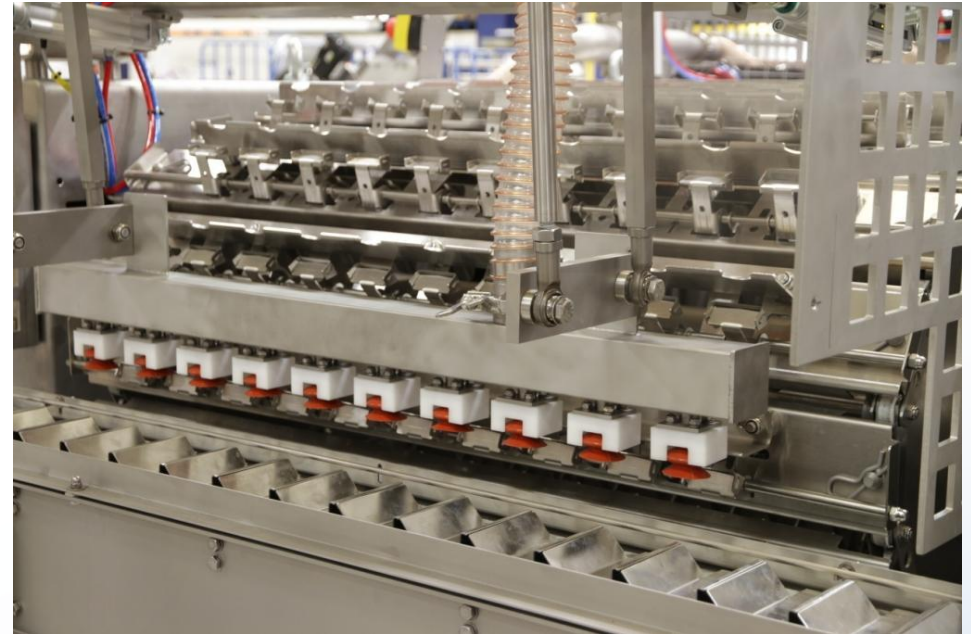
GRAM DIPCO TRANSFER ROBOT SYSTEM FROM TRAYS TO DIPCO

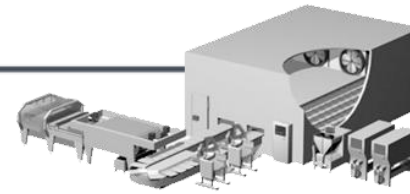
- Positive transfer through complete production process
- 2 Servo axes robot for moving products from the trays to DIPCO



GRAM transfer robot from Dipco to Polopak pocketconveyor.

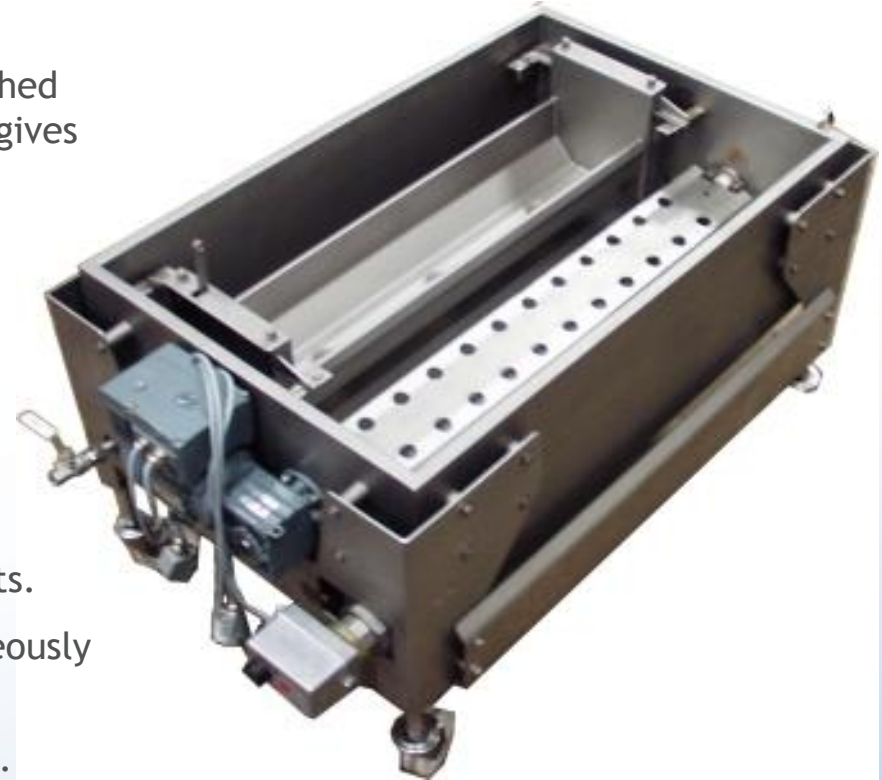
- Positive transfer
- Pneumatic moving robot arm with easy operation.
- Vacuum suction head for Sandwich
- Special Gram design grippers for Sticks

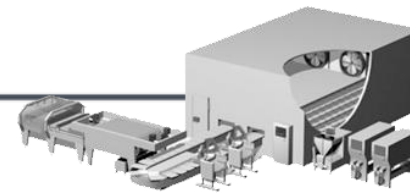




F40 CHOCOLATE DIPPING UNIT

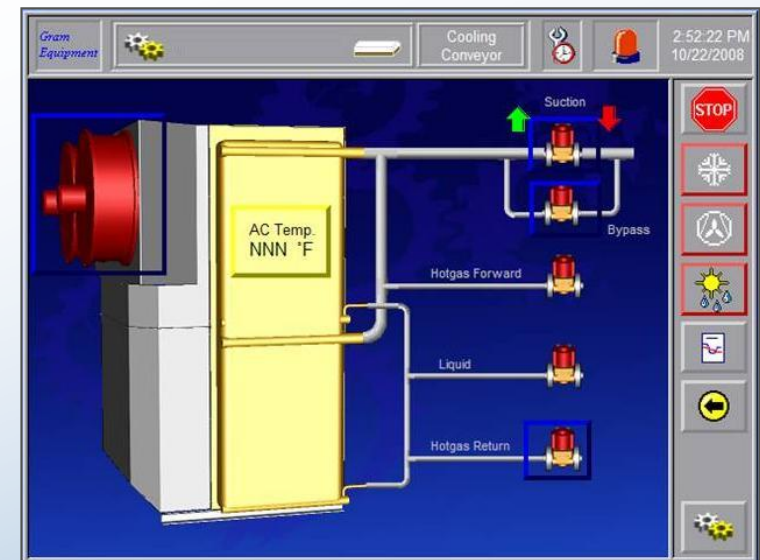
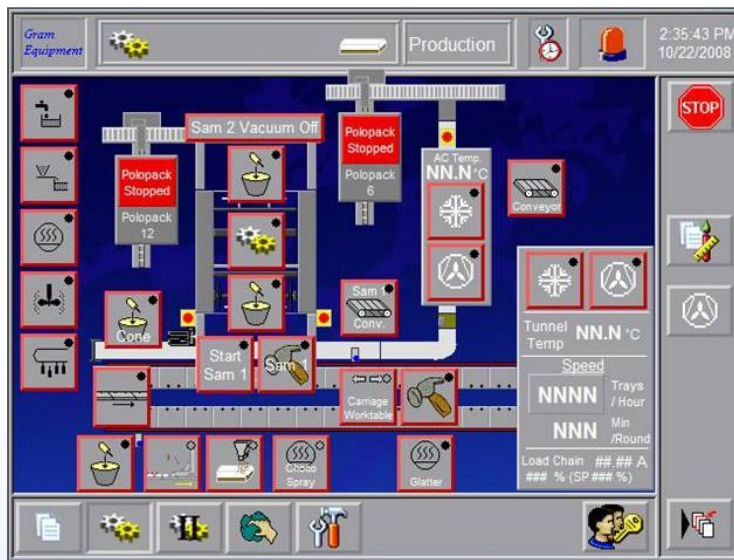
- Pumpless dipping available - benefits includes: no crushed sticks in chocolate, nuts not recycled through a pump gives better product quality simple construction with low maintenance.
- Water jacket tank with electrical heating.
- 1 chocolate color in same dip
- Agitator for circulation of the chocolate
- Chocolate tank moves up and down for dipping products.
- Nut feeding through optional vibrator feeder simultaneously with filling chocolate as option.
- Electrical heated drip tray is mounted under the Dipco.

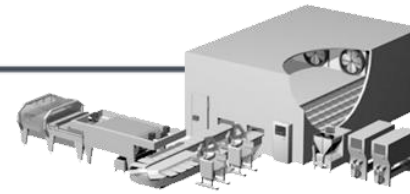




EASY TO OPERATE

- The large (10,4”) touch screen display shows the working parameters and the alarms.
- Allows control of fan speed, evaporator DIPCO conveyor, tray washing devices, optional attachments, etc
- Set of parameters (recipies) can be stored with the proper “product” name in the memory of the panel with up to 100 recipies.
- Online control available through VPN Cisco box for the complete line.



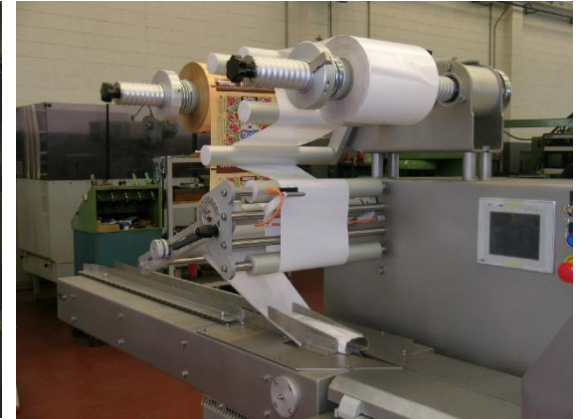


Polopak 6
single lane with 3 servo drives
wrapping machine
for up to 7.000pcs/h



Technical Features: Polopak 6

- Full stainless steel frame with integrated control box
- Friendly user interface with colour touch screen
- Pneumatic control of the roller pressure
- 2 *reel holders* for two reels of max dia 350 mm
- Folding box interchangeable with other Polopaks
- Servo driven cross sealing adjustable in height to fit the product thickness
- Servo driven hot/cold longitude sealing with 2 *pairs of rollers*
- Servomotor driven in-feed conveyoyr
- Outlet conveyoyr driven *by separate drive*
- PIP - Picture In Place sensor
- Synchronization with Tunnels or Moulded stick machines



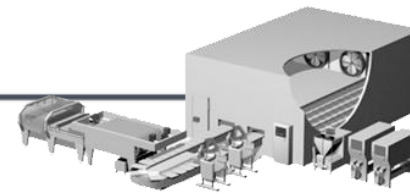
Ice cream the way you like it...

Control System

Polopak 6

- AllenBradley touch screen panel
- PLC with 3 servos
- Heat Seal
- Picture in place
- Adjustable sealing pressure

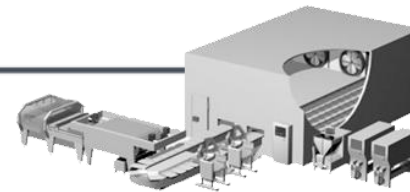




Products	Max Product sizes	
Description	Find product pitch on trays	
Tray size	457,2 (18") x 430	
Pitch (")	3,6"	6"
Product Size	L x H x W	
Stick	160x30x79	-
Full Sandwich	120x30x76	-
Half Sandwich	120x30x69	-
Round Sandwich	30x79	-
Candybar	-	125x30x40
Max product hight in tunnel for bulk hardening.	150	150

- Not available





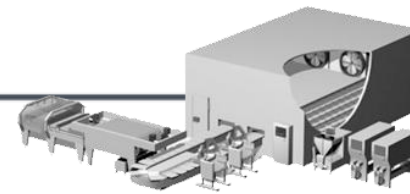
Choose cooling time:

Max product width	79mm	
Products per tray	2 x 5 =10	
Capacity 7.000	Tunnel A	Tunnel B
Freezing time	16,5 Min. 197 Trays	20 Min. 239 Trays

Slat conveyor overview:

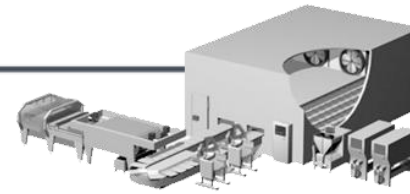
F40 Model
 40 fixed slats
 Transfer from tray pneumatic up/down
 Transfer to Polopak pneumatic swing arm
 One colour DIPCO choc dip





Tunnel Model	Candybar
Tunnel Model	Candybar
Volume	85 ml
Max filler strokes / min.	50
Recommended freezing	20 min.
Pitch (")	6
Max product dimension	125x30x40
Products per tray	4 x 3 = 12
Tunnel Model no	Pc-hr/fr.t
Model 0A – 197 Trays	5.000/20
Model 0B – 239 Trays	6.000/20





• EVAPORATOR CAPACITY

Evaporators included in the standard model are based on **-43C** suction temperature being available at the machine.

- Standard 53 kw up to 7,000 prods 120ml 100% overrun

NOTE: Optional evaporator sizes are available if only -40 suction temperature is available.

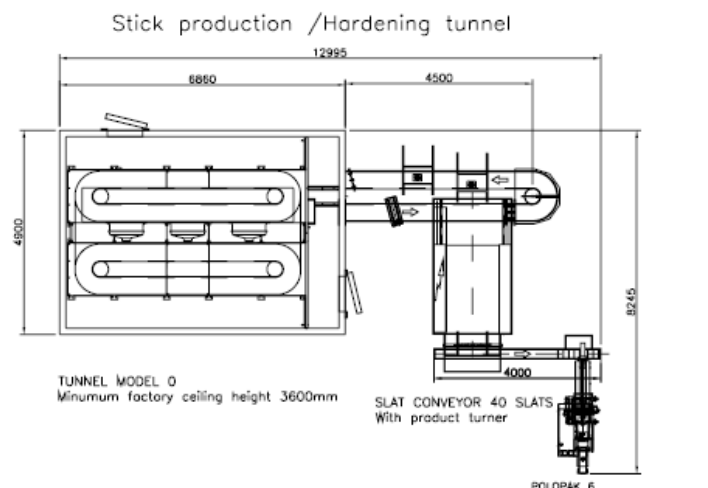
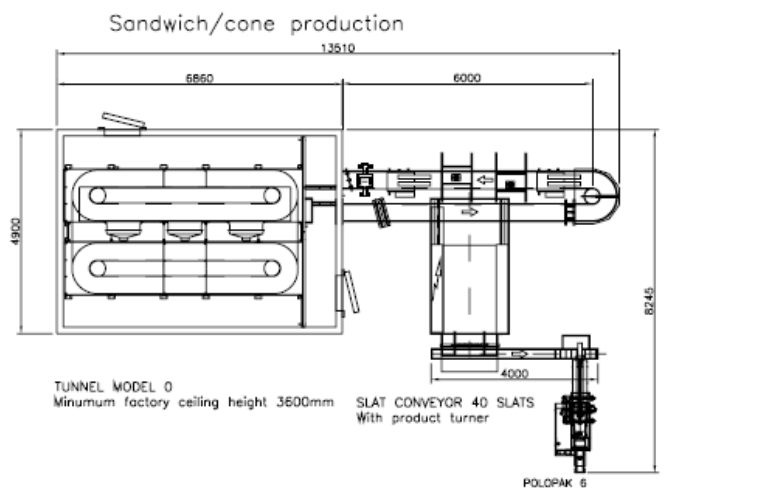
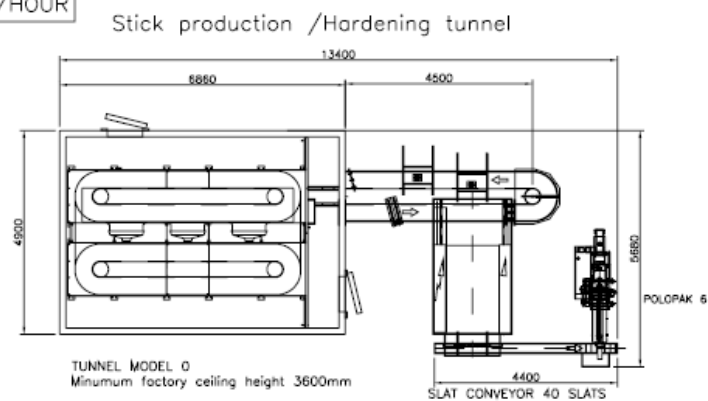
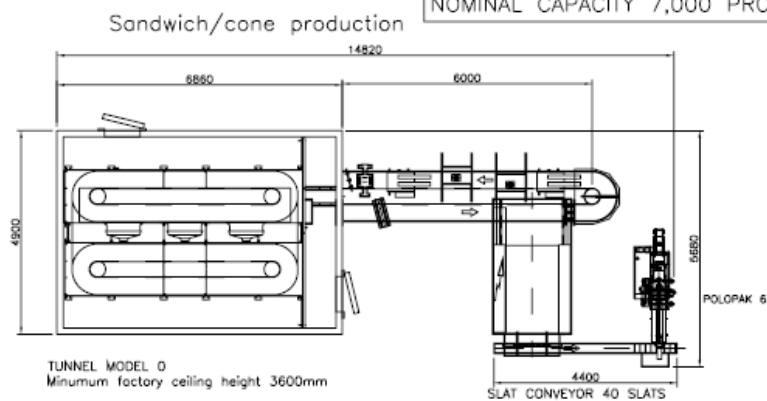


PACKING:

- Polopak 6



NOMINAL CAPACITY 7,000 PROD/HOUR



Description:		General drawing	
Rev. Type		550 2196	
Design: BIT LAYOUTS		Medium	
Drawn: 25. Mar. 2011		Rev. 001	
Checked: 25. Mar. 2011		Rev. 001	
		Part no.	Sheet No. Size Scale
66 367 2230		1/4	02 A1 1:50
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Ice cream the way you like it...

Gram Equipment



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