



THURNE

CD Mono Card Dispenser

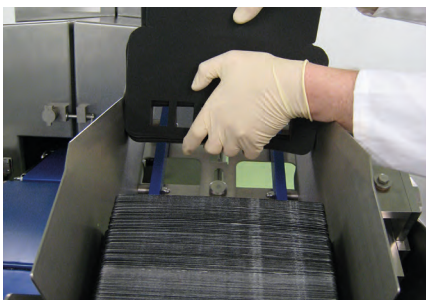


Key Performance

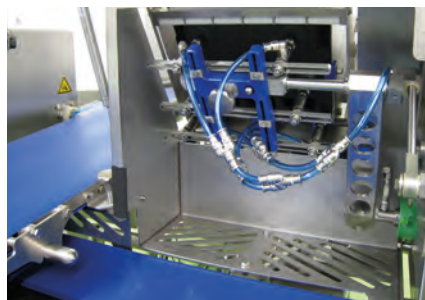
- High speed up to 70 cards per minute
- Reliable performance
- Accurate placement
- Servo control for maximum reliability and precision
- Safe reloading while running eliminates downtime

Accurate Placement of L-Boards and Cards for THURNE® IBS 2000 Select Lines

- Multi-position vacuum head to suit all card formats
- Set centralized position of the head is stored in each program, with servo controlled fine adjustment via HMI possible during production
- Controlled via slicer HMI for easy operation
- Allen Bradley PLC control
- Indicator lights display machine status
- Convenient access for thorough cleaning
- Scores highly on AMI hygiene checklist



Easy loading of card denester



Multi-position vacuum head

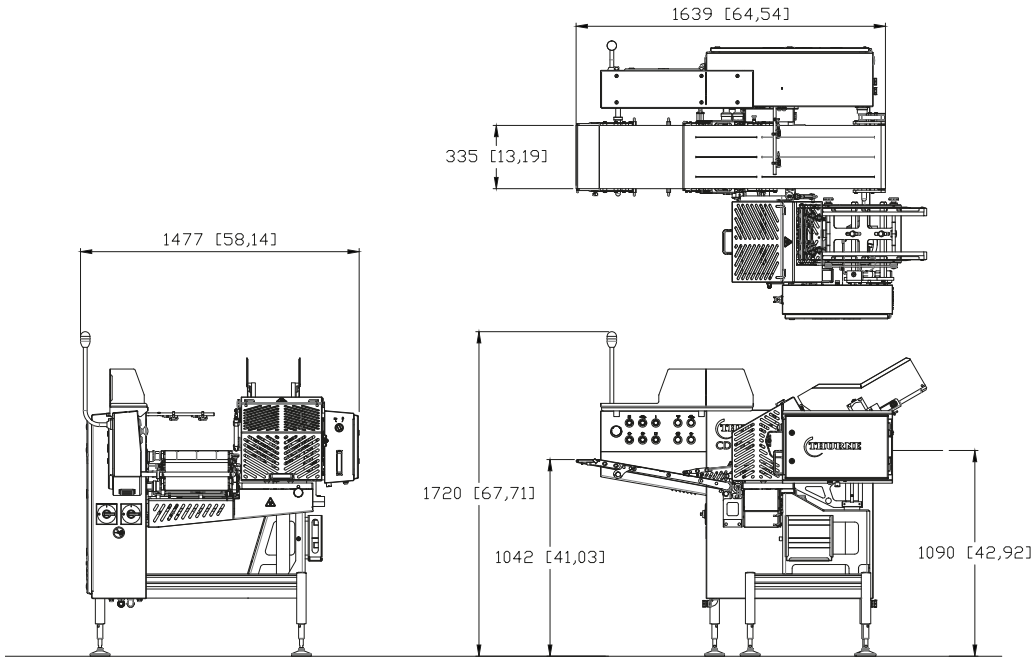


Opens to provide access to all working parts

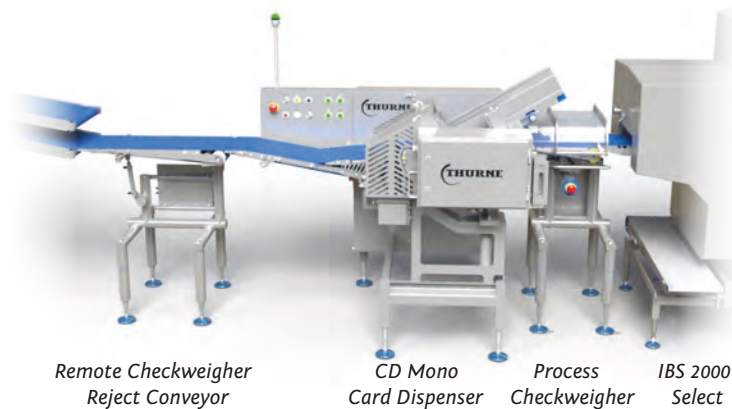
THURNE CD Mono Card Dispenser

Card Specification	
Card width	200 - 290 mm
Card length	150 - 230 mm

Specification	
Denester Capacity	Up to 1500 L-boards
Max. speed	up to 70 packs/minute



THURNE® Card Dispenser Integration with IBS 2000 Select and Thurne Process Checkweigher with Remote Reject



CONTACT

Thurne-Middleby Ltd
 Gresham House • Pinetrees Business Park • Salhouse Road • Norwich NR7 9BB • UK
 Tel. +44 (0)1603 700755 • Fax. +44 (0)1603 700844

Thurne USA
 4300 West Bryn Mawr Avenue • Chicago, IL 60646-5943 • U.S.A.
 Tel: +1 773 478-9700 Fax: +1 773 478-8689

info@thurne.com
 www.thurne.com



Key Performance

- High throughput
- Range of circular blades for optimum slice quality & pack presentation
- Product retraction eliminates sliver slices
- Hygienic design for quick and easy cleaning

Efficient Slicing of delicate Carpaccio

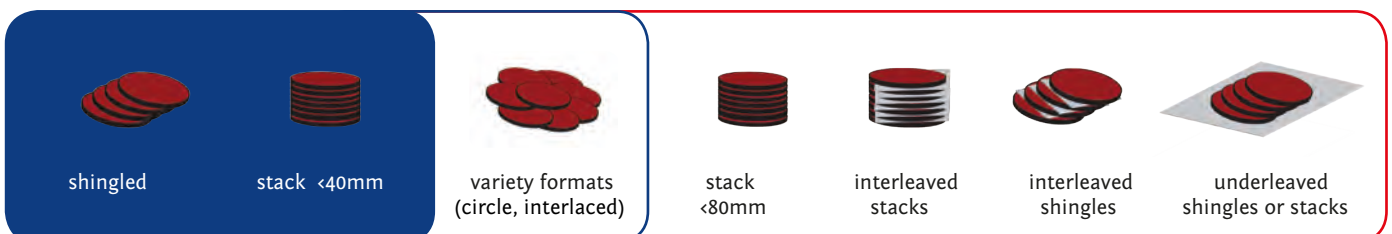
THURNE® Variety Conveyor

- Efficient single log slicing into variety formats such as circles and interlaced shingles
- Multi-log slicing into shingled and stack packs <40mm
- Quick and easy change of patterns via the slicer control panel
- Available for retrofit at a later stage
- Integration with 3rd party underleaver possible





THURNE® Interleaver

- Independent cutting of paper and of product
- Optimisation of the product blade for the application and increased blade life
- Twin lane operation for up to 1200 interleaved slices/min
- Can interleave single slices within a stack <80mm or shingle and/or insert a sheet under complete groups (underleave)
- Controllable paper positioning for excellent presentation
- Easy access for quick reel change and cleaning
- Available for retrofit at a later stage

Pack presentations include:

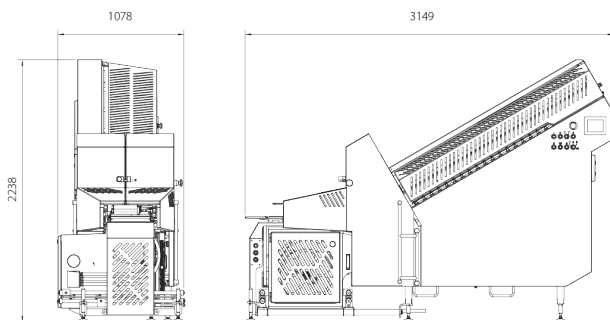


Technical Information	
Feed	Gripper with load assist
Blade	Orbital
Max. speed	up to 600 rpm (orbital)
Slice thickness	0.3 to 30 mm
Max. cutting area (WxH)	300 x 147 mm, 172 mm dia. 11 3/4" x 5 3/4", 6 3/4" dia.
Max. product length	1250 mm 49 1/4"

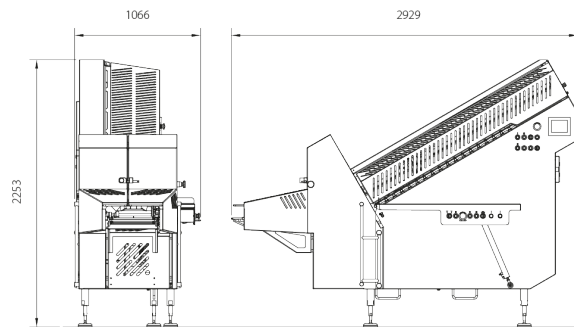
Pack Examples: Beef Carpaccio	
	Shingle pack 10 slices
	Underleaved shingle 6 slices
	Interleaved Shingle 10 slices
	Circle 11 slices

Services	
Electrical	380V to 480V, 50/60Hz @ 11kVA, 3 Phase + Earth & Neutral Interleaver supplied from slicer
Air	10 Normalised litres/min @ 5 bar min.
Weight	1250 kg (2750 lbs)

Interleaving Material	
Cut off length	50 to 400 mm
Material	Clear, opaque and translucent interleaving film and paper. 60- 150 microns thickness
Reel spec	Single reel 80 to 300mm wide. Twin reels, total width up to 300mm. 450mm maximum diameter, 76mm bore



CP 1000 with Interleaver



CP 1000 with Variety Conveyor

CONTACT

Thurne-Middleby Ltd
Gresham House • Pinetrees Business Park • Salhouse Road • Norwich NR7 9BB • UK
Tel. +44 (0)1603 700755 • Fax. +44 (0)1603 700844

Thurne USA
4300 West Bryn Mawr Avenue • Chicago, IL 60646-5943 • U.S.A.
Tel: +1 773 478-9700 Fax: +1 773 478-8689

info@thurne.com
www.thurne.com



THURNE

CS 1000 Cheese Slicer



Key Performance

- High throughput
- Up to 1400 interleaved slices / min
- Involute or orbital blade
- Optimum slice quality and pack presentation at speeds up to 1500 rpm

High performance slicer for hard natural cheeses such as Gouda, Cheddar, Edam and Emmental

Slicer Features

- Efficient multi-log slicing of cheese stacks and shingles
- Range of high speed involute and orbital blades with and without serration and coatings
- Orbital blade available for softer cheeses (subject to testing), slicing at up to 600 rpm
- Cheese specific change parts minimize product build up on contact surfaces, thus optimising performance and presentation
- Product retraction eliminates sliver slices
- Optional Stacker for tall stacks of 40-100mm
- Hygienic construction designed for ready to eat applications
- Optional Predictive Technology for better on-weights in moulded cheese logs

THURNE® Interleaver

- Independent cutting of paper and of product
- Optimisation of the product blade for the application and increased blade life
- Twin lane operation for up to 1400 interleaved slices/min
- Can interleave single slices within a stack or shingle and/or insert a sheet under complete groups (underleave)
- Controllable paper positioning for excellent presentation
- Easy access for quick reel change and cleaning
- Available for retrofit at a later stage



shingled



stack <40mm



stagger stack







tall stack <100mm
optional



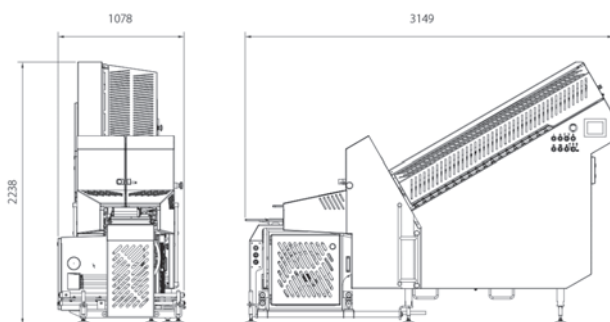
interleaved
optional

Technical Information	
Feed	Gripper with load assist table
Blade	Orbital or Involute
Max. speed without interleaf	up to 600 rpm (orbital) up to 1500 rpm (involute)
Max. speed interleaved	up to 600 rpm (orbital) up to 700 rpm (involute)
Slice thickness	0.3 to 30 mm
Max. cutting area (WxH)	300 x 147 mm, 172 mm dia. 11 3/4" x 5 3/4", 6 3/4" dia.
Max. product length	1250 mm 49 1/4"

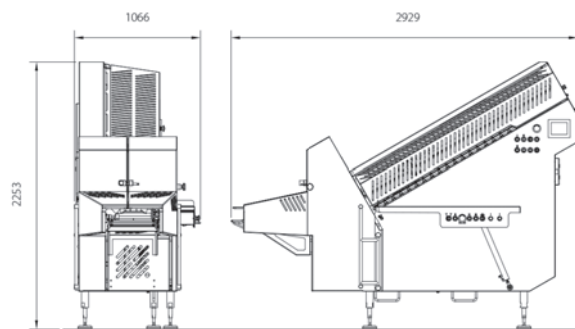
Pack Examples	
	Shingle pack 10 slices, 250g
	Stack pack 10 slices, 240g
	Interleaved Stack 6 slices
	Interleaved Shingle 6 slices

Services	
Electrical	380V to 480V, 50/60Hz @ 11kVA, 3 Phase + Earth & Neutral Interleaver supplied from slicer
Air	10 Normalised litres/min @ 5 bar min.
Weight	1000 kg (2200 lbs)

Interleaving Material	
Cut off length	50 to 400 mm
Material	Clear, opaque and translucent interleaving film and paper. 60- 150 microns thickness
Reel spec	Single reel 80 to 300mm wide. Twin reels, total width up to 300mm. 450mm maximum diameter 76mm bore



CS 1000 with Interleaver



CS 1000

CONTACT

Thurne-Middleby Ltd
Gresham House • Pinetrees Business Park • Salhouse Road • Norwich NR7 9BB • UK
Tel. +44 (0)1603 700755 • Fax. +44 (0)1603 700844

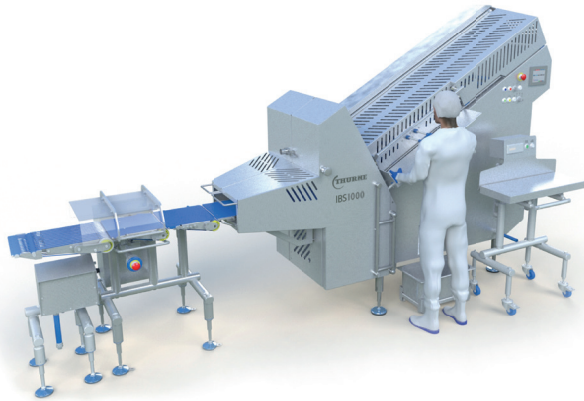
Thurne USA
4300 West Bryn Mawr Avenue • Chicago, IL 60646-5943 • U.S.A.
Tel: +1 773 478-9700 Fax: +1 773 478-8689

info@thurne.com
www.thurne.com



THURNE

IBS 1000 Bacon Slicer



IBS 1000 with Predictive Upgrade

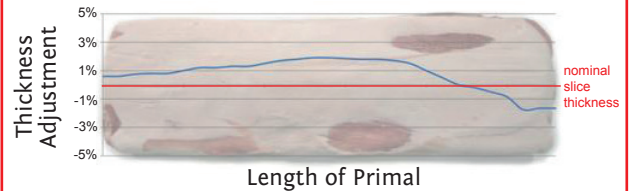
Key Performance

- Fast reload of <6 seconds
- High blade speed up to 1500 rpm
- Gripper fed for high yields
- Minimum butt ends (80-100g typical)
- Yield improvement of 1.5 to 2% vs. traditional flatbed slicers

High quality retail and food service bacon slicing for manual packing operations

- High speed bacon blade for consistent slice thickness and integrity
- Small, space saving footprint
- New high yield gripper for minimum butt ends (80-100g typical)
- Hygienic, stainless steel construction to 'ready to eat' product standards
- Safe operation backed up by CE marking
- Designed to be simple to operate, service and maintain
- **new Predictive Upgrade for retail packs**
 - Enhanced on-weight performance for stacked and shingled retail pack formats reduces rework
 - Reduction of EOL giveaway by up to 3.5%
 - Includes a predictive weighcell positioned adjacent to the slicer on a mobile stand. For best performance a process weigher is recommended

Predictive Technology - How it works



- Average changes through the length of the primal, i.e. fat/lean ratio, density and size, are used to create a predicted "Profile", which is used to automatically adjust the slice thickness as the slicer proceeds along the product length.
- To account for variation in the actual size of the primal a pre-slicer weighcell is used to "scale" the profile according to weight.
- A predictive slicer's performance is enhanced with pressed product as this reduces variance and makes the product more predictable.

Pack presentations include:



Bulk

Bulk with pack definition






stack <100mm

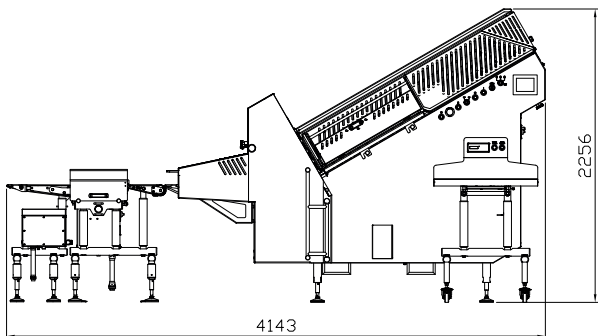
retail shingle

retail stack

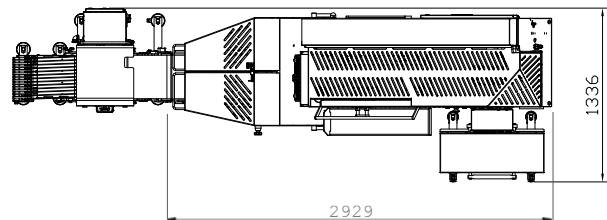
Technical Information	
Feed	Gripper feed
Blade	Involute
Max. speed	up to 1500 rpm
Slice thickness	0.5 to 30 mm
Max. cutting area (WxH)	300 x 100 mm 11 3/4" x 4" approx.
Max. product length	850 mm 33 1/2"

Services	
Electrical	380V to 460V ± 10%, 50/60Hz @ 11kVA, 3 Phase + Earth & Neutral
Air	10 Normalised litres/min @ 5 bar min.
Weight	1000 kg (2200 lbs)

Capacity Estimate, 1500rpm, average log length 550mm, average weight 6kg				
				
Bulk, 5mm	Bulk with Pack Definition, 14 slices, 5mm	5lbs Wholesale Stacks, 14 slices, 5mm	Retail Shingles, 8 slices, 3mm, 250g	Retail Stacks, 8 slices, 3mm, 250g
<2.0 t/hr	<1.9 t/hr	<1.6 t/hr	<1.2 t/hr up to 80 packs/min	<1.2 t/hr up to 80 packs/min



IBS 1000 with Predictive Upgrade shown



CONTACT

Thurne-Middleby Ltd
 Gresham House • Pinetrees Business Park • Salhouse Road • Norwich NR7 9BB • UK
 Tel. +44 (0)1603 700755 • Fax. +44 (0)1603 700844

Thurne USA
 4300 West Bryn Mawr Avenue • Chicago, IL 60646-5943 • U.S.A.
 Tel: +1 773 478-9700 Fax: +1 773 478-8689

info@thurne.com
 www.thurne.com



THURNE

IBS 2000 Select Bacon Slicer



Key Performance

- 2.4% minimum increase in #1 slices
- Unprecedented yield / throughput improvement in food service portions and retail drafts
- Proven vision technology maximizes on-weights while minimizing giveaway

Maximum slicing performance in retail and food service bacon applications

- High speed involute blade (up to 1750rpm) for high throughput
- Accurate grouping at high speed
- Produces fixed weight-fixed slice count, fixed weight-variable slice count or fixed thickness-fixed slice count packs
- Precise thickness control ensures high quality slice consistency without sliver slices
- Continuous feed via compact autoloader for products up to 915mm length
- Low maintenance components for reliability
- THURNE® Card Dispenser for retail applications available
- Can be integrated with third party underleaver to suit food service applications

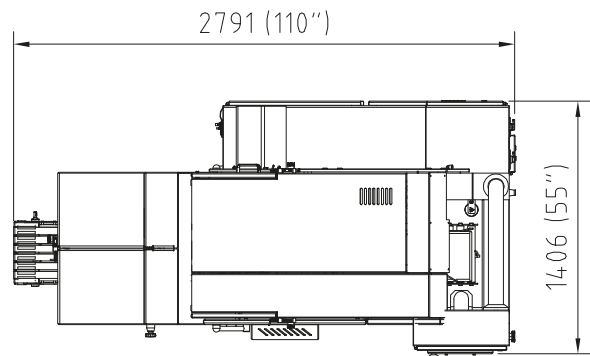
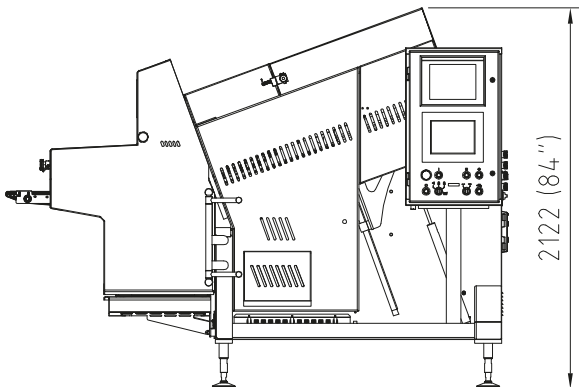


Performance - Retail (subject to slice count)	
12oz (350g) retail packs	Up to 82 packs/min
1lb retail packs	Up to 60 packs/min
1.5lb (~680g) stack packs	Up to 50 packs/min

Performance - Food Service (subject to slice count)	
Food service sheets - Layout (Individual slices)	Up to 110 sheets/min
Food service sheets - Bulk	Up to 60 sheets/min
Bulk for manual packing	Up to 1750 slices/min

Technical Information	
Feed	Continuous with powered top and bottom feed tracks and compact autoloader
Blade	Involute
Max. speed	up to 1750 rpm
Slice thickness	0.012" to 0.79" 0.3 to 20 mm
Max. cutting area (WxH)	2 3/4" x 11" 280 x 70mm
Max. product length	36" (39 1/2" optional) 915 mm (1000mm optional)

Services	
Electrical	380V to 480V ± 10% 50/60Hz @ 11kVA 3 Phase + Earth (No Neutral)
Air	420 Normalised litres/min 5 bar minimum
Approx. Weight	4409 lbs 2000 kg



CONTACT

Thurne-Middleby Ltd
 Gresham House • Pinetrees Business Park • Salhouse Road • Norwich NR7 9BB • UK
 Tel. +44 (0)1603 700755 • Fax. +44 (0)1603 700844

info@thurne.com
 www.thurne.com

Thurne USA
 4300 West Bryn Mawr Avenue • Chicago, IL 60646-5943 • U.S.A.
 Tel: +1 773 478-9700 Fax: +1 773 478-8689



THURNE

IBS 4600 Precooked Bacon Slicer

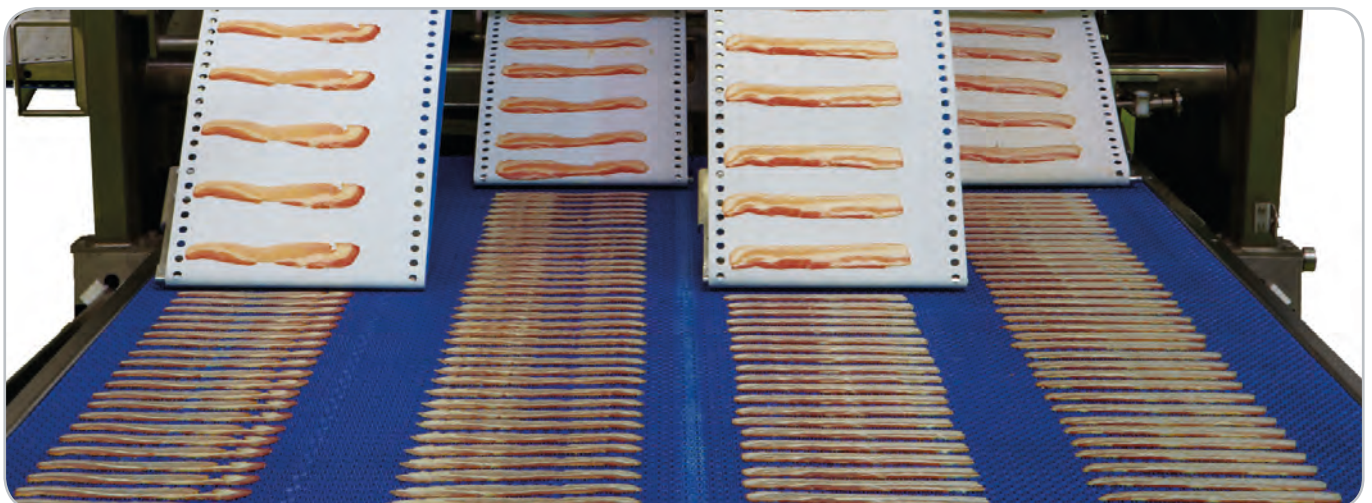


Key Performance

- Up to 600 slices / minute / lane
- 5% more raw slices per pound (minimum)
- Consistent slicing accuracy and laydown, each and every slice, belly after belly, shift after shift

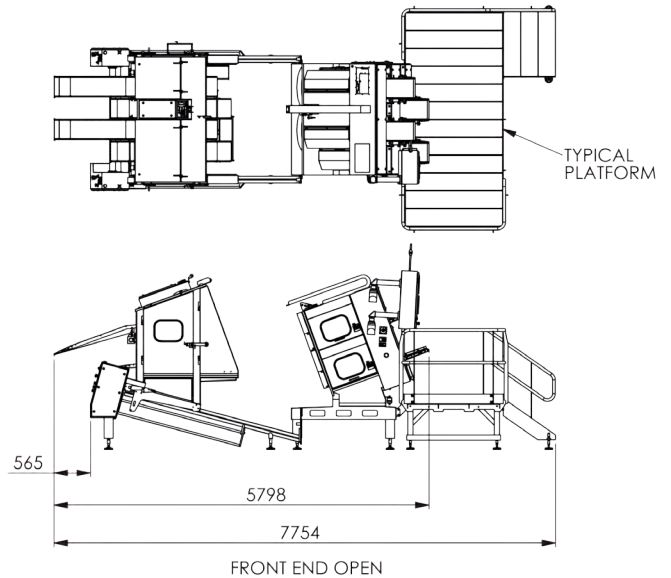
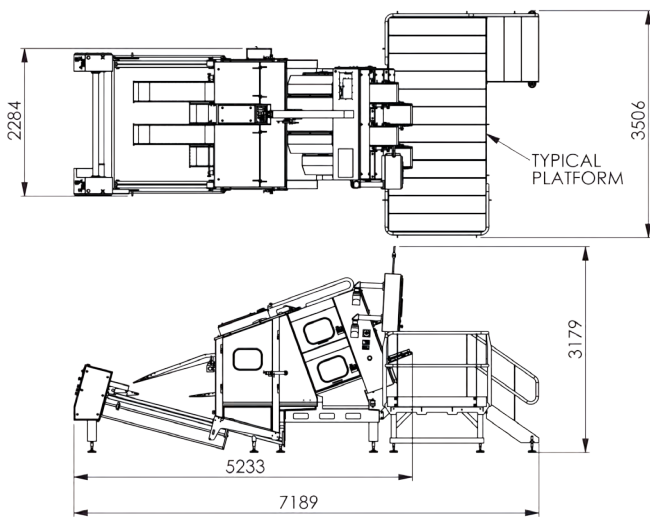
The world's first slicer with four independent blades, feeds and vision systems

- Available with 3 or 4 lanes
- Fast & easy loading with independent feeds
- High performance, controlled weight precision slicing
- Full yield control with minimal giveaway
- Uniform appearance, texture and quality of end product
- Interface with microwave cooker for consistent cooked weights



Technical Information	
Feed	Continuous
Blade	Involute
Max. speed	600 rpm / lane
Slice thickness	1 to 6 mm
Max. cutting area (WxH)	11" x 2.5" 280 x 64 mm
Max. product length	36" 915 mm
Outfeed belt width	1330 mm (4 lane)

Services	
Electrical	380V to 480V ± 10% 50/60Hz @ 22kVA 3 Phase + Earth (No Neutral)
	Rated Current 33A @ 380Vac and 26A @ 480Vac Running current 13A @ 380Vac and 10A @ 480Vac
Air	22 Normalised litre/min 0.5MPa (72.5 PSI) minimum
Weight	8820 lbs 4000 kg



CONTACT

Thurne-Middleby Ltd

Gresham House • Pinetrees Business Park • Salhouse Road • Norwich NR7 9BB • UK
Tel. +44 (0)1603 700755 • Fax. +44 (0)1603 700844

Thurne USA

4300 West Bryn Mawr Avenue • Chicago, IL 60646-5943 • U.S.A.
Tel: +1 773 478-9700 Fax: +1 773 478-8689

info@thurne.com

www.thurne.com



THURNE

Polyslicer 1000



Key Performance

- High speed up to 1500 slices / min / lane
- High versatility
- Compact footprint
- Easy to use

Versatile high performance slicing for processed and cooked meats and cheese

- High speed involute and orbital blade options with serration and coatings to enable optimum slicing for every application
- Orbital blade for delicate or large products running at up to 600 rpm
- High performance involute blade running at up to 1500 rpm
- Product retraction eliminates sliver slices
- Variety of pack presentation formats
- Hygienic construction suitable for ready to eat applications
- Modular build secures future proof investment when requirements change:
 - THURNE® Interleaver can be retrofitted
 - THURNE® Variety Conveyor can be retrofitted
 - THURNE® Stacker for tall stacks <100mm can be retrofitted



Pack presentations include:



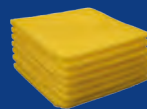
shingled



stack



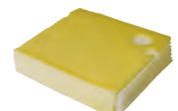
wafer-thin



stagger stack



Variety Packs
optional

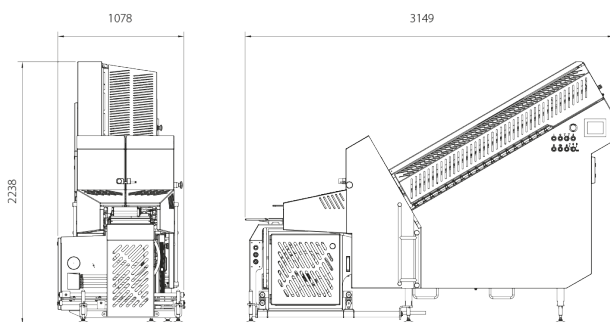


Interleaved Packs
optional

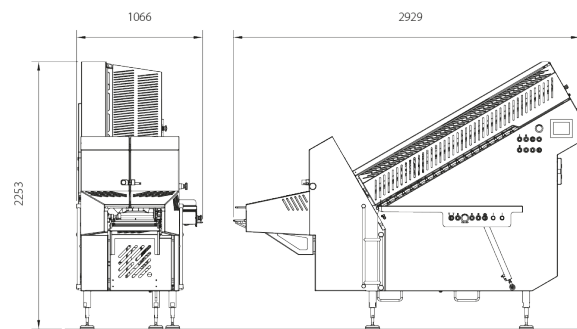
Technical Information	
Feed	Gripper feed with load assist table
Blade	Orbital or Involute
Max. speed	up to 700 rpm (interleaved) up to 1500 rpm
Slice thickness	0.3 to 30 mm
Max. cutting area (WxH)	300 x 147 mm, 172 mm dia. 11 3/4" x 5 3/4", 6 3/4" dia.
Max. product length	1250 mm 49 1/4"

Interleaving Material	
Cut off length	50 to 400 mm
Material	Clear, opaque and translucent interleaving film and paper. 60- 150 microns thickness
Reel spec	Single reel 80 to 300mm wide. Twin reels, total width up to 300mm. 450mm maximum diameter 76mm bore

Services	
Electrical	380V to 460V ± 10%, 50/60Hz @ 11kVA, 3 Phase + Earth & Neutral
Air	10 Normalised litres/min @ 5 bar min.
Weight	1250 kg (2750 lbs)



Polyslicer 1000 with Interleaver



Polyslicer 1000

CONTACT

Thurne-Middleby Ltd

Gresham House • Pinetrees Business Park • Salhouse Road • Norwich NR7 9BB • UK
Tel. +44 (0)1603 700755 • Fax. +44 (0)1603 700844

Thurne USA

4300 West Bryn Mawr Avenue • Chicago, IL 60646-5943 • U.S.A.
Tel: +1 773 478-9700 Fax: +1 773 478-8689

info@thurne.com

www.thurne.com