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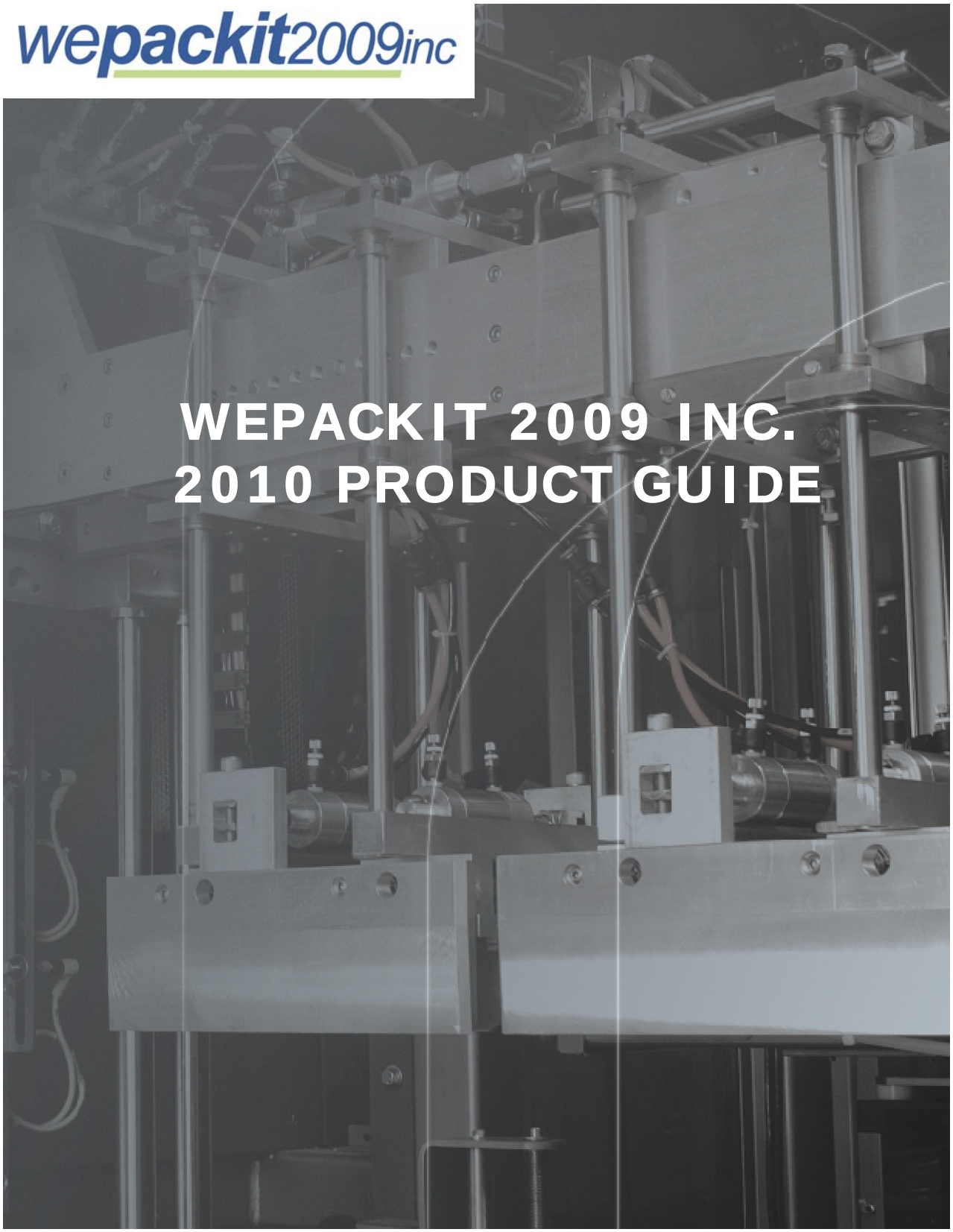

WEPACKIT 2009 INC.
2010 PRODUCT GUIDE

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1. INTRODUCTION

Wepackit 2009 Inc. is a Manufacturer of automated case packing equipment. This includes case erecting, de-casing, top loading, closing and sealing. We also offer fully automated solutions that integrate our entire product line with connecting conveying and product manipulation.

HISTORY

Wepackit 2009 Inc. is a privately owned, independently operated company located in Orangeville, Ontario Canada. It was incorporated in 1987; it has since been manufacturing packaging machinery for Canada, United States and Mexico, providing case packaging solutions for our valued Customers for over 20 successful years.

In August of 2005; we relocated to our present manufacturing facility, a 93,000 square foot building located in Orangeville, Ontario Canada, which has enabled us the freedom to adjust or expand our production without restrictions and is better equipped to address the Customer's needs with shorter deliveries. Wepackit 2009 Inc. is vertically integrated and believes in producing as much as possible in house, which results in tighter control over quality and lead times with the ability to adjust to changing Customer's requirements.

Wepackit 2009 Inc. is well situated to handle our Customer's case erecting, case packing, case sealing and tray-forming requirements. Wepackit 2009 Inc. is very fortunate to have in place a very experienced Agent's network. Our objective is to stay "Lean and Mean" working as a team with all our sales staff and agents.

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MODEL HISTORY

The Wepackit 2009 Inc. case packer was introduced in 1987 as the MPM-250 (mechanical heads) and the MPV-250 (vacuum heads).

- 1990: Model upgrade to MPM-300 and MPV-300
- 2002: Model upgrade to 700CP
- 2005: Flexible pouch case packer FP500
- 2009: Mono-Block 660MB carton erector, packer, closer
- 2010: Mono-Block 670MB case erector, packer, taper/sealer
- 2010: 600CP Gantry Style Case Packer stand alone or in-line

The high throughput packer was introduced in 1992 as the MPM-350

- 1999: Servo version of machine became available as 400CP
- 2003: Model upgrade to 350CP

The first erector was released in 1990 as the MPE-300

- 1995: High speed model MPE-350 became available
- 2001: 300EXL Model became available for oversized boxes
- 2006: Model upgrade to 310E
- 2006: Smaller footprint version became available as the 320E
- 2009: Even smaller footprint 330E
- 2010: 325E Model with a footprint and range between the 320E & the 330E

The 720XL was introduced in 2000.

- 2000: 720XLM model became available for oversized boxes
- 2006: Model upgrade to 720E
- 2008: Model upgrade to 720E XL

The first tray former 300TF was released in 1994

- 2002: Tri-seal version became available as the 300TF-TS

The first top case closer/taper was introduced in 1990 and has evolved into our present models 400TT72 and 400TT50 top case closer/sealers.

- 2002 Tri-seal version became available as the 400TT-TS

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OUR PHILOSOPHY

Wepackit 2009 Inc.'s objective is to provide cost effective automation for customers that demand a short return on investment. It has taken over twenty years of automation evolution to come up with this product line. In packaging automation it's easy to put a servomotor on a machine for every motion. It's difficult to make things simple, which is where Wepackit excels.

- Robust components for demanding environments
- Apply the appropriate level of technology for the application (avoid extra cost with servos where possible
- Reduce customers potential downtime with the availability to acquire replacement and supporting parts
- Study the package and focus on product registration
- Automation is a means to an end; cases-out-the-door is what counts for customers
- Strive to deliver the best possible R.O.I.
- Service & support the client without any compromise

PURPOSE

The purpose of this document is to offer the customer detailed information on Wepackit 2009 Inc.'s product line, capabilities and standards. It is for use in the early stages of the project, and is replaced by the specific information contained in the machine manuals at time of delivery.

SCOPE

This document is intended to be used as a pre-sales document, and does not replace the operating manual. The customer's specific quote and user manual precedes any information contained in this document.

INDUSTRIES SERVICED

Below is a partial list of industries that Wepackit 2009 Inc.'s client's service. Although this list is expanding daily, it will give you a good indication of the variety of products Wepackit 2009 Inc. automates.

Adhesives
Automotive
Baby Products
Bakery
Beer
Beverage
Canned Foods
Contract Packaging
Chemical
Construction Materials
Cosmetics
Dairy
Food
Health Care
Paint
Oil
Pharmaceutical
Plastics
Register Receipt Roll & Paper Products
Wine

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2. PROJECT LIFE CYCLE

Every Wepackit 2009 Inc. project begins with three very important components to initiate a project: purchase order, all engineering samples and down payment. These three items will enable us to evaluate the entire scope of the project, and confirm that we have all the tools to start.

For some projects, the next step is the on-site project start customer meeting. This is sometimes referred to as the pre-project evaluation. This step involves an on-site engineering visit for layout development/verification, as well as further understanding of customer needs. This step ensures that customer expectations are met, and the face-to-face discussions on the layout ensure that the space is being used properly.

From this meeting and all documentation, an Order Confirmation is developed and presented to the customer for approval, describing our understanding and scope of the project. Once customer approval has been documented, a manufacturing slot is assigned, and engineering can be scheduled. Delays in customer approval of the Order Confirmation directly affect the quoted lead time.

The equipment is then designed, fabricated, and assembled. In the meantime, the customer is assembling requested quantities of testing samples. These samples **must be actual product and cases**, in order to best simulate the production environment. Samples must arrive prior to machine power-up.

Once the equipment has been fully assembled and wired, it is thoroughly tested with the customer supplied test samples. The customer will be notified when their machine or line will be ready for a Factory Acceptance Test (FAT).

During the FAT, the customer is given the opportunity to review the equipment and compare it to the quote, purchase order and order confirmation. After approval, some minor changes resulting from the FAT may be requested by the customer. The machine is then disassembled and cleaned.

Upon completion of the FAT, the customer makes arrangements with Wepackit 2009 Inc. to arrange for a service technician to come to their plant. This technician is capable of start-up, commissioning and training at the customer's plant.

As a final Quality Control measure, department heads such as Accounting, Sales and Manufacturing sign off on the machine for release to the customer. The machine is then loaded onto a logistics trailer, and strapped securely in place for transportation to the customer's plant.

Unloading of the equipment does not require any heavy equipment such as fork lifts. Castors on all major pieces enable two people to comfortably unload all equipment. Manual pump-trucks may be required for some small pieces loaded on pallets.

The equipment is then set & levelled, and supplied power and air. This must be done prior to the service technician's arrival. The service technician must be present for power-up on the customer's floor.

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3. SAFETY & CONTROLS

FULLY ENCLOSED SAFETY GUARDING

The entire Wepackit 2009 Inc. product line utilizes fully guarded interlocked safety guarding (OSHA compliant). Guard doors are placed in areas where personnel are required to enter the machine on a regular basis. These doors are monitored with safety interlocks, which create an e-stop condition when an open door is detected.

An e-stop condition cuts all power from the motor and eliminates all sources of energy stored in the pneumatic devices. All motors are locked into place to eliminate the possibility of movement during an e-stop.

In applications where a full tier consists of many products, a customer may elect to keep control of picked product when an e-stop is pressed. This means a pick head will not drop a tier during an e-stop or when a guard door is open. Customers must ask for this option ahead of time.

Wepackit 2009 Inc. standard equipment does not comply with Category 3 safety requirements. This is offered as an option, if requested by the customer.

CONTROLS

Wepackit 2009 Inc. equipment will typically come with a standard set of pushbutton operator controls. Here is a list of the minimum amount of controls for our product line.

720E XL Erector Standard Controls

E-STOP pushbutton
E-STOP RESET pushbutton
AUTO/RUN/OFF selector switch

- Auto: erects cases continuously, until the full box sensor is blocked. Will resume box erecting when full box sensor is cleared.
- Run: Side belts will continue to run, and clear any partially erected cases. Will not erect subsequent cases.
- OFF: cycle stop state

300 Series Case Erector Standard Controls

E-STOP pushbutton
E-STOP RESET pushbutton
JOG pushbutton: press and hold, and the machine will cycle until it reaches home position and stops. When completed, the machine will be ready to run in full auto mode. The selector switch (see below) must be in the “JOG” position.
JOG/SINGLE/AUTO selector switch

- Jog: enables the JOG pushbutton. Will not erect cases when in this position.
- Single: will erect and discharge one case
- Auto: erects cases continuously, until the full box sensor is blocked. Will resume box erecting when full box sensor is cleared.

Manual pneumatic shut-off and lockable disconnect at FRL
Manual electric shut-off and lockable disconnect at main electrical panel

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Top Taper Standard Controls
Start pushbutton: Starts the machine, and places it into a state where cases can be fed into the machine for normal operation.
Stop pushbutton: Stops the machine, and places it into a state where cases will not be accepted into the machine.

Case Packer Standard Controls
E-STOP Pushbutton
E-STOP RESET pushbutton
HEAD MANUAL/AUTO selector switch

- Manual: mode allows the jogging of the pick head
- Auto: does not enable the jog pushbuttons; and allows the machine to operate in Auto Mode

PICK UP JOG selector switch: jogs the pick head towards the product conveyor
PACK JOG SELECTOR switch: jogs the pick head towards the box conveyor
PRODUCT CONVEYOR ON/OFF/AUTO selector switch
BOX CONVEYOR ON/OFF/AUTO selector switch
Manual pneumatic shut-off and lockable disconnect at FRL
Manual electric shut-off and lockable disconnect at main electrical panel

Optional Colour Touch Screen
Colour touch screens are available as optional equipment. This option allows better machine feedback to the operator, providing additional information such as status, faults, counters, warnings, etc.

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4. MODELS
INNOVATIVE 600 SERIES CASE PACKERS AND COMBINATION PACKERS

600CP GANTRY STYLE CASE PACKER

The **600CP** base machine is an extremely small two axis gantry style with a 20" centre to centre providing a cost effective case packaging solution. Base Machine Footprint is only 36" x 48". Available in VFD's or Servo Drives and is most applicable to small "Pack Patterns". Product gripping systems include vacuum, mechanical and clamp.

HIGHLY CUSTOMIZABLE

The **600CP** Top Load Design makes the machine adaptable to a wide variety of Customer requirements.

Without much difficulty the frame can be increased to accommodate larger "Pack Patterns". It can also be customized for packing room constraints. The addition of a servo channelizer and in-feed conveyor only increases the length to 6 feet.

SPEED & PRECISION *(without the price tag)*

- Cycles @ up to 15 cycles per minute
- Bottles & Cans (up to 350 per minute)
- Cartons (up to 240 per minute)
- Dairy Tubs (up to 120 per minute)
- Thermoform Trays / Clamshells (up to 90 per minute)
- Large Pouches / Side Gusseted Bags (up to 60 per minute)
- Personal Care Products

OUR DESIGN, CONSTRUCTION & SUPPORT PHILOSOPHY

- Robust components for demanding environments
- Apply the appropriate level of technology for the application
- Study the package and focus on product registration
- Automation is a means to an end; cases-out-the-door is what counts for customers
- Strive to deliver the best possible R.O.I.
- Service & support the client without any compromise

STANDARD FEATURES

- PANASONIC PLC COMPLETE WITH COLOUR HMI PROVIDING "FAULT FEEDBACK IDENTIFICATION"
- PICK UP HEAD MECHANISM FREQUENCY DRIVE CONTROLLED
- PNEUMATIC OR SERVO CHANNELIZER
- UL/CSA APPROVED ELECTRICAL COMPONENTS
- ANTI-CORROSION PAINT FINISH
- CASTORS FOR PORTABILITY

UTILITIES - AIR

- 220/3/60 – 7 CFM (80PSI) STD.

SYSTEM OPTIONS

- A/B OR OMRON PLC
- PANASONIC SERVO DRIVES AVAILABLE AS REQUIRED
- FULL STAINLESS STEEL
- PARTIAL STAINLESS STEEL
- PRODUCT LAYER PAD INSERTION
- LEFT OR RIGHT HAND
- 480V OPTION

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660MB MONO-BLOCK CARTON ERECTOR, PACKER, CLOSER

Small footprint all-in-one quick-lock carton erecting, X-Y Gantry style top load packing and top flap tucking. This system is ideal for small products and where floor space is limited. Easy to operate and maintain, smarter by design.

SEQUENCE OF EVENTS

The **660MB** Mono Block fully automatic carton packing system will accept products onto the product in-feed conveyor. The products will be channelized (lane divided) across the width of the in-feed conveyor if necessary and advanced to the pick area within the mono-block frame.

A folded auto-bottom chipboard carton will be removed by vacuum pickers from the horizontal magazine, erected, placed on the carton in-feed conveyor and staged for loading.

Once the required pattern of products has been collated at the pick station, the **660MB** pick head will descend upon the pattern securing the products by a gripping system. The secured products are lifted vertically from the conveyor and placed within the staged carton.

The loaded carton is then discharged to the carton closer where the carton top flaps are folded & tucked.

The **660MB** cycles at up to 15 cycles per minute and has the capability to load multiple cartons per cycle.

660MB (Foot Print 108" x 80")

Model combination of quick-lock Bottom carton erector, gantry style packer & carton top flap tucker

STANDARD FEATURES

- PANASONIC PLC COMPLETE WITH COLOUR HMI PROVIDING "FAULT FEEDBACK IDENTIFICATION"
- PICK UP HEAD MECHANISM FREQUENCY DRIVE CONTROLLED
- PNEUMATIC OR SERVO CHANNELIZER
- UL/CSA APPROVED ELECTRICAL COMPONENTS
- ANTI-CORROSION PAINT FINISH
- CASTORS FOR PORTABILITY

UTILITIES - AIR

- 220/3/60 – 7 CFM (80PSI) STD.

SYSTEM OPTIONS

- A/B OR OMRON PLC
- PANASONIC SERVO DRIVES AVAILABLE AS REQUIRED
- FULL STAINLESS STEEL
- STAINLESS STEEL WASH-DOWN
- PARTIAL STAINLESS STEEL
- PRODUCT LAYER PAD INSERTION
- LEFT OR RIGHT HAND

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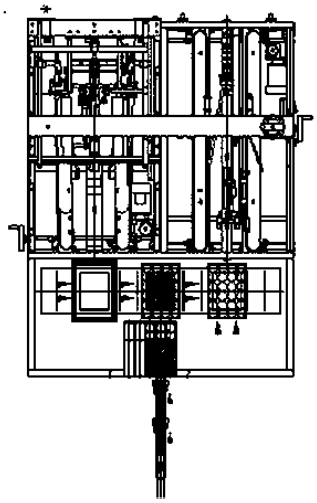
670MB MONO BLOCK CASE ERECTOR. PACKER, CLOSER

Small footprint all-in-one rsc case erecting, X-Y Gantry Style top load packing and rsc case closing/taping. This system is ideal for small products and where floor space is limited. Easy to operate and maintain, smarter by design.



Model combination of RSC case erector, gantry style packer & RSC case closer / taper

SEQUENCE OF EVENTS

The **670MB** Mono Block fully automatic rsc case packing system will accept products onto the product in-feed conveyor. The products will be channelized (lane divided) across the width of the conveyor if necessary and advanced to the pick area within the mono-block frame.

An rsc blank is shuttled from the magazine, erected, bottom taped, tipped to standing position on the case in-feed conveyor and staged for loading.

Once the required pattern of products has Been collated in the pick area the **670MB** Pick head will descend upon the pattern securing the products by a gripping system. The products are lifted vertically from the conveyor and placed within the staged case.

The Loaded cast is then discharged to the case closer where the top flaps are closed and top taped.

The **660MB** cycles at up to 15 cycles per minute and has the capability to load multiple cases per cycle.

STANDARD FEATURES

- PANASONIC PLC COMPLETE WITH COLOUR HMI PROVIDING “FAULT FEEDBACK IDENTIFICATION”
- PICK UP HEAD MECHANISM FREQUENCY DRIVE CONTROLLED
- PNEUMATIC OR SERVO CHANNELIZER
- ERECTED CASE DISCHARGE W/CASE TIPPING
- ACTIVE FLAP CLOSING
- UL/CSA APPROVED ELECTRICAL COMPONENTS
- ANTI-CORROSION PAINT FINISH
- CASTORS FOR PORTABILITY
- ONE OPERATOR/MAINTENANCE MANUAL

STANDARD UTILITIES - AIR

- 220/3/60 – 7 CFM (80PSI) STD.

SYSTEM OPTIONS

- A/B OR OMRON PLC
- PANASONIC SERVO DRIVES AVAILABLE AS REQUIRED
- FULL STAINLESS STEEL
- STAINLESS STEEL WASH-DOWN
- PARTIAL STAINLESS STEEL
- PRODUCT LAYER PAD INSERTION
- LEFT OR RIGHT HAND

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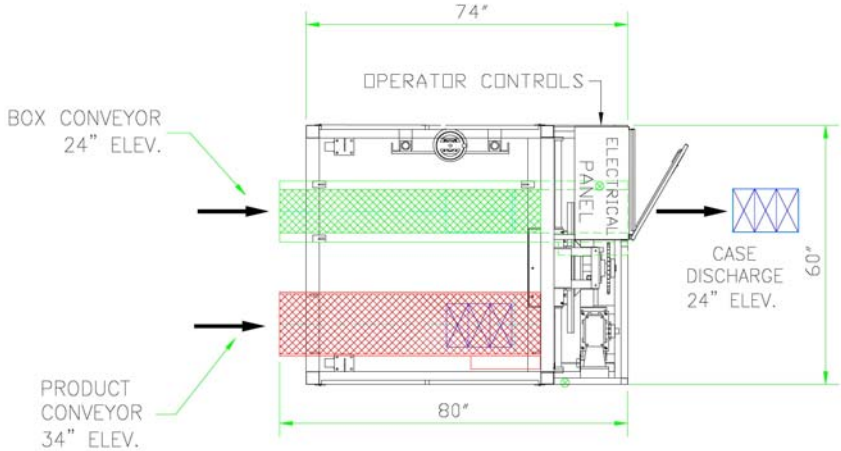
700CP SMALL FOOTPRINT CASE PACKER

The 700CP is a cantilevered design case packer. It is capable of loading at a rate of up to 10 cycles per minute, utilizing a load length of up to 32". Its inverted "U" shaped cam track enables the tooling to travel vertically for the pick and load portion of the cycle.
The 700CP is a cost effective extremely robust mechanical fully automatic case packaging solution. It includes all the necessary in-feed/discharge conveying, collation and tooling required for your application. Our history proves that it is applicable for a wide variety of industries including dairy, pharmaceutical, food, beverage, bakery, automotive, oil, chemical, adhesive, paper, etc. This simple system applies commonsense & dependable designs that focus on your bottom line.

Speed & Precision (without the price tag)
Without the use of over-complex, burdensome and costly servo technology, the 700CP is able to achieve moderate to high speed case packing without the costs. Example –

- Bottles & Cans (400 per minute)
- Cartons (240 per minute)
- Dairy Tubs (120 per minute)
- Thermoform Trays / Clamshells (90 per minute)
- Large Sacs / Side Gusseted Bags (60 per minute)
- 18" x 32" Pick Area & up to 10 cycles/min.



Highly Customizable
The 700CP provides an enormously flexible platform for your ever changing needs. The top load design allows for quick, simple and accurate tooling changeovers between package sizes and types.

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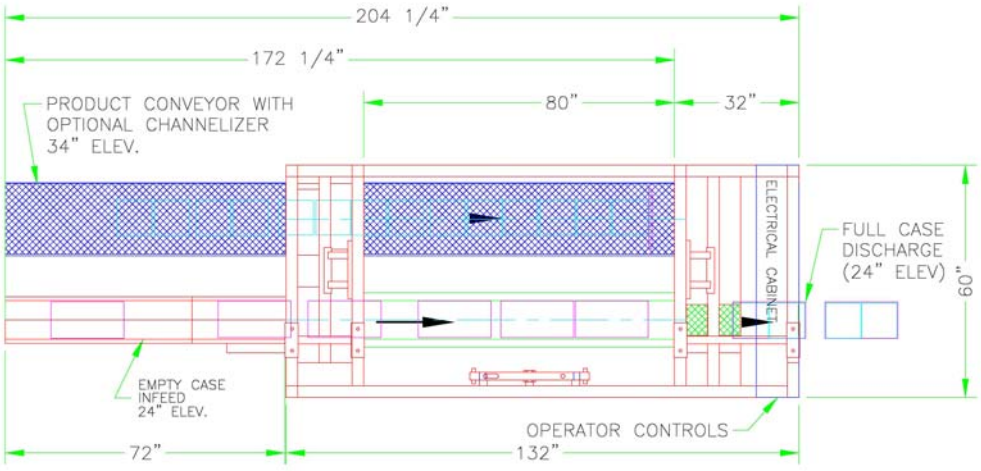
350CP HIGH THROUGHPUT CASE PACKER

The 350CP is a fully automatic case, and tray loading system for high volume products. It is similar to the 700CP without the cantilever design. Instead, it is supported at both ends of the head beam, allowing the loading of multiple cases simultaneously, thus increasing the throughput. It has a much larger pick and load area, which is scaleable depending on customer requirements. The user-friendly design permits multiple container handling with rapid and simple change-over Simple mechanical cam following technology allows for ease of use and a low maintenance demands. With a very rugged construction (eg. 3" tubular welded frame), the 350CP is an automation investment, returning payback well into the future.

Once containers arrive into the pick area, the 350CP's heads descend on the product, securing it with vacuum or mechanical grippers. Containers are lifted vertically and placed within staged cases. As an on-demand system, the cycle is repeated until the cases are completely packed.



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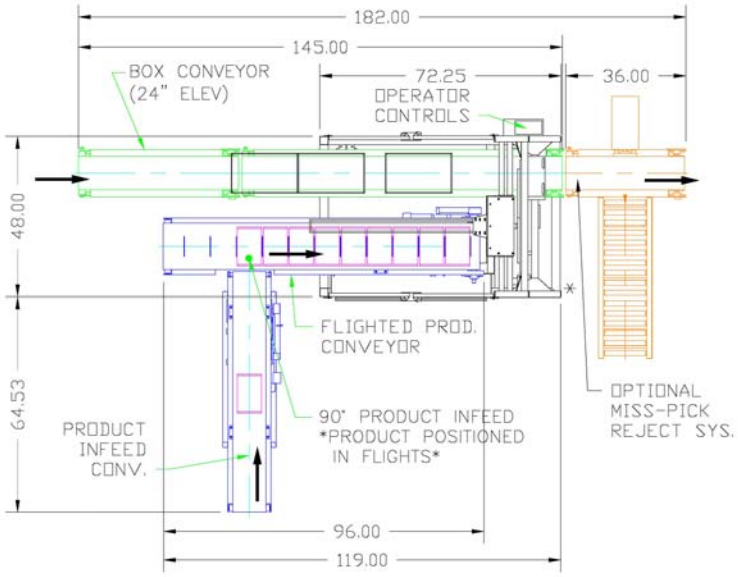
FP500 FLEXIBLE POUCH CASE PACKER

The FP500 Flexible Pouch Case Packing System applies straightforward and easily managed technology to achieve dependability in any rigorous production environment. This system will accept a variety of flexible bag types (eg. pillow, stand-up, side gusseted) comfortably at up to 90 bags per minute.

Package orientation and registration is delivered and maintained by the system, which automatically controls the in-feed and stages the corrugated case to complete the loading process (see – Sequence of Operation). Ideally suited to operations where space is at a premium, the FP500's extremely small footprint of **48" x 72"** allows for easy placement in congested production environments.

Bag Pack Patterns (Pillow or Stand-Up)
Versatility without a premium, the FP500 quickly changes-over to a wide range of multiple layer bag packing patterns.

SEQUENCE OF OPERATION – Bags are "pretreated" to improve orientation, separation and center registration upon in-feed (if required). Introduced onto a registration controlling conveyor, packages are indexed forward until arriving into the system's pick position. Formed and bottom sealed cases are in-fed and controlled in the staged pack position. Once the required package quantity has been indexed into position, the system's pick head descends, securing the load by vacuum. The secured packages are lifted vertically and then placed within the staged case(s). This sequence is repeated until the case is fully loaded and then is discharged. When required, package rotation and overlapping is performed on the pick head itself.



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WEPACKIT 2009 INC.
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310E CASE ERECTOR

The 310E is the workhorse of the Wepackit 2009 Inc. erector line-up. It is designed to work in demanding environments all day, every day. Change-overs are done in 1-3 minutes through three handwheels, with a very forgiving set-up. Maintenance requirements are minimal, and spare parts are all off-the-shelf components available from your local supplier.

- Less than 3 minute tool-less changeover
- 120" x 48" Footprint
- Ergonomic magazine positioned inside the frame. Shuttle design for consistent blank escapement.
- Magazine capacity for approx. 80-100 "C" Flute Cases (29 ECT Minimum (175#)
- Positive Vacuum 2-Side Case Erection
- Top & bottom mechanical forming
- Panasonic PLC with 3 Year Warranty
- 4" Panasonic HMI for In-Depth Machine Control
- Case Erection Jam Detection and Automated Shut-Down
- Rugged Construction - 2 ½" Square Tube Welded Frame
- Mild Steel Construction-Anti Corrosion Paint
- 2" Tape Head
- Castors for Portability
- Full Interlocked Guarding W/Clear Lexan
- Solid State Sensing Devices
- One Operator / Maintenance Manual
- Optional hot melt bottom sealing
- 220/3/60 Electrics / Air 7 CFM @ 80 PSI
- UL/CSA Approved components

Erector Options

- A/B or Omron PLC
- Stainless steel construction
- Stainless steel wash-down
- Electrical (480/3/60)
- Left or right hand operation
- Jam detection & low-level alarms

Case Range (Inches)

	MIN	MAX
Knock-down Length	**11.5**	**44**
Box Length	**6**	**24**
Box Width	**5.5**	**18**
Box Depth (body only)	**4.5**	**20**
Box Height (body+top flap)		**23**

*oversized case beyond noted range is possible with additional qualification

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NEW GENERATION OF 300 SERIES CASE ERECTORS:

There are three additions to the Wepackit 2009 Inc. line-up of reliable, robust, efficient, user-friendly and safe erectors, the **320E**, **325E** and **330E**. These models have all features in common except case ranges and footprints. In response to the growing demand for higher speeds with smaller footprints, our proven designs of the **310E** and the original **300E** have undergone a shrinking effect. Allowing for the speed by using our shuttle design for a consistent blank escapement and positive dual vacuum grip for separation in the process, the cycle time is greatly increased. Functions of the machines are made easy by utilizing more in-depth operator controls via touch screens, counters for adjustments with more features included as standard. Ergonomic magazine is positioned inside the frame.

COMMON FEATURES:

- Up to 25 cases/minute*
- Less than 3 minute tool-less changeover (5 main adjustments, 4 hand cranks with Seco counters, 1 adjustment with a scale)
- Low level magazine detection
- 3 Condition Stack Light with HMI Fault Feedback
- 4” Panasonic HMI for In-Depth Machine Control
- Panasonic PLC with 3 Year Warranty
- Magazine capacity for approx. 80 to 100 “C” Flute Cases @ 29 ECT Minimum 175#)(Qty. TBD upon receipt of samples)
- Positive vacuum 2 side pull open case erection
- Top & bottom mechanical forming, adjustable active minor and major flap closing
- Double lower with single upper flight chains for positive precise case indexing controlled by a Variable Frequency Drive
- Low chain index speeds for positive tape and or glue sealing
- Case erection jam detection and automated shut-down
- Rugged Construction - 2 x 2 Tube welded frame with formed 11 gauge sheet metal, coated with 2 part epoxy paint
- Mild steel construction-anti corrosion paint
- 2” Tape head
- Castors for portability
- Fully guarded w/clear Lexan – c/w mechanical interlock door switches
- Solid State Sensing Devices
- One Operator / Maintenance Manual
- 220/3/60 Electrics / Air 80 PSI 7 CFM
- UL/CSA Approved Components

ERECTOR OPTIONS

- Stainless steel construction
- Stainless steel wash-down
- A/B or Omron PLC
- Electrical (480/3/60)
- Left or right hand operation

*speed and performance is determined upon evaluation of samples

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UNIQUE MODEL SPECIFICATIONS OF 320E, 325E, 330E:

320E CASE ERECTOR (FREE-STANDING)

CASE RANGE (inches)	320E MIN	MAX
Knock-down Length		34
Box Length	6	22
Box Width	5.5	14
Box Depth (body only)	4.5	16
Box Height (body + flap)		20

Footprint 48" x 96"
Speeds up to 25 cpm

325E CASE ERECTOR (FREE STANDING)

CASE RANGE (inches)	325E MIN	MAX
Knock-down Length		30
Box Length	5	17
Box Width	5	12
Box Depth (body only)	4.5	15
Box Height (body + flap)		18

Footprint 40" x 84"
Speeds up to 25 cpm

330E CASE ERECTOR (FREE-STANDING)

CASE RANGE (inches)	330E MIN	MAX
Knock-down Length		24
Box Length	5	16
Box Width	5	12
Box Depth (body only)	4.5	14
Box Height (body + flap)		17

Footprint 40" x 72"
Speeds up to 25 cpm

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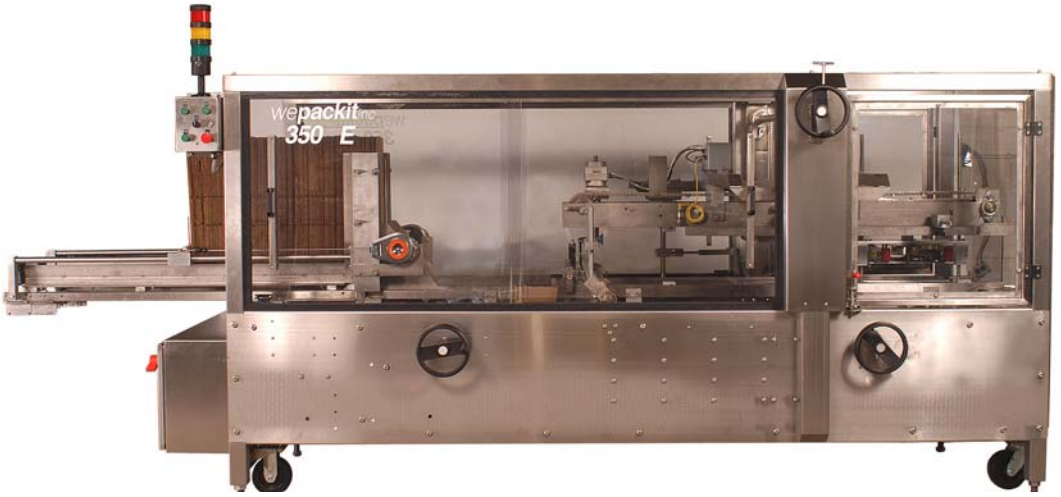
350E HIGH SPEED CASE ERECTOR

The **350E High Speed Case Erector** erects and bottom tapes RSC and HSC corrugate cases at up to **30 cases per minute.***



Open Frame Design And No-Tool Handwheel Change Over maintenance are greatly assisted by a standard open frame design, allowing full access to all erection sequences. Operating adjustment and magazine loading are positioned at standard operator height, providing for quick and easy access. Externally mounted **power-assisted** hand-wheels permit quick and effortless case size adjustment.

Included Features

- Magazine capacity for 200 cases
- Powered large storage magazine
- 4" Panasonic HMI for In-Depth Machine Control
- Panasonic PLC with 3 Year Warranty
- Fully guarded w/clear lexan interlocked
- Castors
- 2" tape head
- Operator Maintenance Manual
- 220/3/60 – 7CFM (80PSI)
- UL/CSA Approved Components

Erector Options

- Stainless steel construction
- Stainless steel wash-down
- A/B or Omron PLC
- Electrical (480/3/60)
- Left or right hand operation
- Jam detection & low level alarms

CASE RANGE (inches)	350E	
	MIN	**MAX**
Knock-down Length		**30**
Box Length	**7**	**18**
Box Width	**6**	**16**
Box Depth (body only)	**7**	**15**
Box Height (body + flap)		**21**

Footprint 48" x 120" + 24" magazine
Speeds up to 30 cpm
*speed and performance is determined upon evaluation of samples

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720E XL SMALL FOOTPRINT ERECTOR

The 720E XL is a small footprint fully automatic case erector available. Either as a mobile stand-alone system for hand packing operation or integrated into a case packing line, the 720E XL will fulfil your packaging needs. Over 20 years of packaging experience has allowed the 720E XL to evolve into a simple, reliable and efficient machine. It is capable of changeovers in less than 60 seconds; it utilizes off-the-shelf components, and requires minimal maintenance.

INCLUDED FEATURES:

- 46" x 72" Footprint
- Fast changeovers
- Simple and safe vertical magazine that advances cases consistently
- Magazine Capacity For Approximately 100 'C' Flute Cases @ 29 ECT Minimum (175#)
- Speeds Up To 12 Cases Per Minute*
- Positive side-gripping belts
- Fully Guarded with Clear Lexan c/w Interlocks
- Panasonic PLC with 3 Year Warranty
- 4" Panasonic HMI for In-Depth Machine Control
- Mild Steel Construction - Anti-Corrosion Paint Finish
- Tape Bottom Sealer (2" Tape Head)
- Standard Discharge Height 24"
- Castors For Portability
- One Operator Manual
- 220/3/60 Electrics Air 80 PSI 10 CFM
- UL/CSA Approved Components

*speed and performance is determined upon evaluation of samples

Erector Options

- A/B or Omron PLC
- Stainless steel construction
- Stainless steel wash-down
- Electrical (480/3/60)
- Left or right hand operation
- Jam detection & low-level alarms

CASE RANGE (inches)

	MIN	MAX
Knock-down Length		30
Box Length	6	20
Box Width	5.5	15
Box Depth (body)	4.5	16
Height (body + top flap)		20

Square cases not run on standard machine
*speeds up to 12 cpm

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400TT CASE CLOSER / TAPER

The **400TT is a fully automatic top case closer and taper / sealer.** This system will accept up to 30 cases per minute closing and sealing top flaps. The 400TT is an independent system which is often integrated into fully automatic case packing systems due to its dependability. Built in accordance with our standard and robust construction principles, the **400TT** is typically 2 to 3 times heavier as compared to light-duty style machines. Allowing for ease of maintenance, all components are easily sourced, meeting U.S. and Canadian Standards.

Sequence Of Operation

An on-demand and fully automatic system, the 400TT will accept a single loaded corrugate case per cycle. The case body is secured within positive gripping side belts (ensuring case squaring and consistent entry). As the case enters the system, the leading top minor flap is plowed down into position and the trailing minor flap actively closed by a pneumatic arm. Major flaps are then plowed down to close position and the case is pulled across the 2" tape head, taped and discharged.

Standard Utilities

- 220/3/60 Electrics / Air 5CFM (80PSI)

400TT72 Model

L	x	W	x	D	
6"		5.5"		5"	**min**
24"		18"		14"	**max**

Footprint 40" x 72"

400TT50 Model

L	x	W	x	D	
5"		5"		4.5"	**min**
16"		12"		14"	**max**

Footprint 40" x 50"

400TT Options

- Hot Melt Applicator
- Top & Bottom case taping
- Stainless steel construction
- Stainless steel wash-down
- Low Level Tape Alert
- 480/3/60 Electrics
- Left or Right Hand operation
- FOL Top Flap and Aalternate Flap
- Sequence Folding
- Bottom Belt to aid in transporting overweight cases through the system

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300TF TRAY FORMER

The **300TF Mechanical Tray Former** is a heavy duty tray former designed for sustained 3 shifts per day production. The 300TF is fully automatic, operating either on-demand or as integrated to a fully automatic loading system. Smooth and consistent tray formation is achieved as tray vertical formation processes are supported by linear bearing bushings on dual 1-1/4" harden ground shafts.

Sequence Of Operation

A single flat blank is picked from the magazine and placed into the transfer position. A flighted chain transfers the blank to the forming section, along the way a hot melt applicator applies adhesive to the inner minor tray corner tabs. Once the blank is stopped above the forming section, it is gently driven through the forming section. The cycle is completed when the next tray pushes it out onto the discharge conveyor, giving the hot melt sufficient time to dry.

Included Features

- Hot Melt Applicator
- Panasonic PLC with 3 Year Warranty
- 4" Panasonic HMI for In-Depth Machine Control
- One Set of Change Parts (forming section & mandrel)
- Castors
- Operator Maintenance Manual
- 220/3/60 Electrics / Air 5CFM (80PSI)

Tray Size Range (blank size)

Standard Model - 36" x 72" Footprint

L	x	W	
8"		8"	**min**
20"		20"	**max**

Speeds up to 35 tpm

XL Model - 54" x 88" Footprint

L	x	W	
20"		8"	**min**
40"		27"	**max**

System Options

- A/B or Omron PLC
- Stainless Steel construction
- Stainless Steel wash-down
- Low level magazine alert
- 480/3/60 Electrics
- Left or Right Hand operation
- Erecting and sealing of tri-seal corrugated cartons

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250CE AUTO-BOTTOM CARTON ERECTOR

The **250CE AUTO-BOTTOM CARTON ERECTOR** is a simple automation solution for the erection of pre-glued auto-locking cartons (cardboard or corrugate). Operating on-demand the **250CE** will secure a single carton from its side mounted storage magazine, erect and lock the bottom and then deposit the finished box on the standard powered discharge. This heavy duty system can operate independently or as integrated in to a fully automatic line delivering up to 30 cartons per minute.

Included Features

- Panasonic PLC with 3 Year Warranty
- 4" Panasonic HMI for In-Depth Machine Control
- Fully Guarded with Clear Lexan c/w Interlocks
- Magazine Capacity for Approx. 80 – 100 Cartons
- Castors
- Operator Maintenance Manual
- 220/3/60 Electrics / Air 5CFM (80PSI)

System Options

- A/B or Omron PLC
- Stainless Steel construction
- Low Level Carton Magazine Alert
- 480/3/60 Electrics
- Left or Right Hand Operation
- UL/CSA Approved Components

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WEPACKIT EQUIPMENT INTEGRATION

CASE PACKER THROUGHPUT RATES

The throughput rates are calculated based on cycles per minute. As an example, the 700CP is capable of a maximum of 10 cycles per minute. That means it can pick a full tier of product, load it into the case, and return to the pick position 10 times in one minute. If a full tier is comprised of 1 product and the packer is loading one case at a time, the throughput is 10 products per minute (resulting in 10 cases per minute. If the same machine is loading 2 cases at a time, the throughput would be 20 products per minute. The 350CP is capable of 8 cycles per minute, and the FP500 is capable of 14 cycles per minute.

Example 1:
A 700CP running at up to 10 cycles per minute is loading a full tier consisting of 10 products per layer. A case consists of 5 layers, and the packer is loading 2 cases simultaneously. Therefore the packer will pick and place 20 products per cycle, resulting in a throughput of 200 products per minute. Each case requires 5 layers, which means it will take 5 cycles to fill 5 layers and complete one case. Therefore the actual output of the machine is 4 cases per minute (if it was loading one case at a time, the output would be 2 cases per minute).

Example 2:
A 350CP running at up to 8 cycles per minute is loading a full tier consisting of 24 products per layer. A case consists of 1 layer, and the packer is loading 5 cases simultaneously. Therefore the packer will pick and place 120 products per cycle (24 products x 5 at a time), resulting in a throughput of 960 products per minute (120/cycle x 8 cycles/min). Each case requires 1 layer, which means it will take 1 cycle to fill one case. Therefore the actual output of the machine is 40 cases per minute (5 cases loaded at a time x 8 cycles/minute = 40 cases/min).

LAYOUT OPTIONS

Wepackit 2009 Inc. equipment is designed as a modular component that can operate as a stand-alone unit or as a line integrated machine. For example, an erector can produce cases on demand for a manual packing plant, and it can be part of a fully automatic system consisting of an erector, packer and taper. When an automatic system is purchased from Wepackit 2009 Inc., all integrating conveyors necessary for it to erect, pack and seal a case is included. The end result is a fully automatic packing system that only requires power and air to run.

CUSTOMER UPSTREAM CONVEYOR

The customer's upstream conveyor is required to transport the product at the same orientation at the required speeds. Gaps are required between product, which will avoid product surges greater than what the machine is capable of handling. If required, the machine can be designed with the ability to handle certain levels of backpressure during normal operation (see product metering).

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PRODUCT INFEED CONVEYOR

The product conveyor is typically 34" elevation (10" higher than the case conveyor. This offset allows us to minimize the vertical travel required to get the full tier over the top of the empty case. This creates a shorter cycle time required from the tooling.

The infeed conveyor accepts product from a single file configuration. Many full tier pack patterns require multiple lane configurations. Therefore a device that diverts product from a single lane to multiple lanes across the product conveyor is required. This is typically accomplished through the use of a channelizer. A channelizer is a device that utilizes an array of pneumatic cylinders arranged in such a way that it provides consistent positioning of a diverting rail.

PRODUCT METERING

Product metering is the ability to handle surges of product prior to its entrance into the case packer. These surges often result in accumulated product and increased backpressure. As a result, the machine is required to handle increased throughput in order to deplete the accumulated product upstream.

Various devices such as product stops and starwheels can be utilized to alleviate backpressure and properly meter the product into the machine.

PRODUCT MANIPULATION

Certain products require manipulation in order form the proper tier pattern. This includes turning, rotation, up-ending, etc. Depending on the product requirements, Wepackit 2009 Inc. can design appropriate product manipulation on the product infeed conveyor.

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6. FULLY AUTOMATIC PACKING SYSTEM

Wepackit 2009 Inc. fully automatic packing systems mainly consist of an erector, packer and closer. There is a wide variety of combinations and permutations, depending on the customer's spatial restrictions, speed requirements and budget. They will be further broken down according to the packer, which typically determines what the rest of the line will look like.

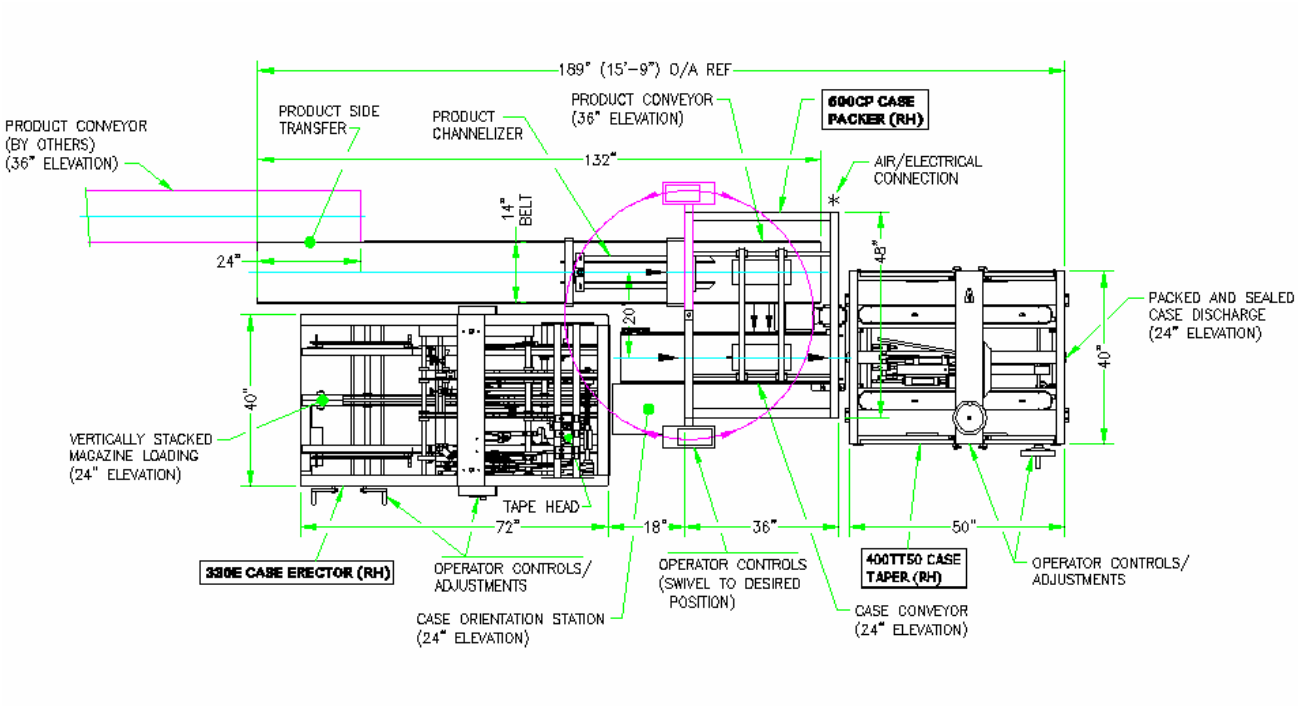
At the end of the line is always a top closer/sealer. This can either be done with glue using a 400TG72 or with tape utilizing a 400TT72. Their footprints are identical, which means the layouts will be valid for all systems discussed below.

Layouts contained in this document are generic, and are not representative of the smallest/largest overall footprints available. Overall layout dimensions are product and plant dependent.

TYPICAL LINE LAYOUTS

600CP FULLY AUTOMATIC LINE LAYOUT

The **600 Series** Gantry Style Case Packer with a **330E** Case Erector and a **400TT50** Case Closer/Taper provides our smallest case packing line footprint and offers a throughput of 15 – 30 cases per minute.



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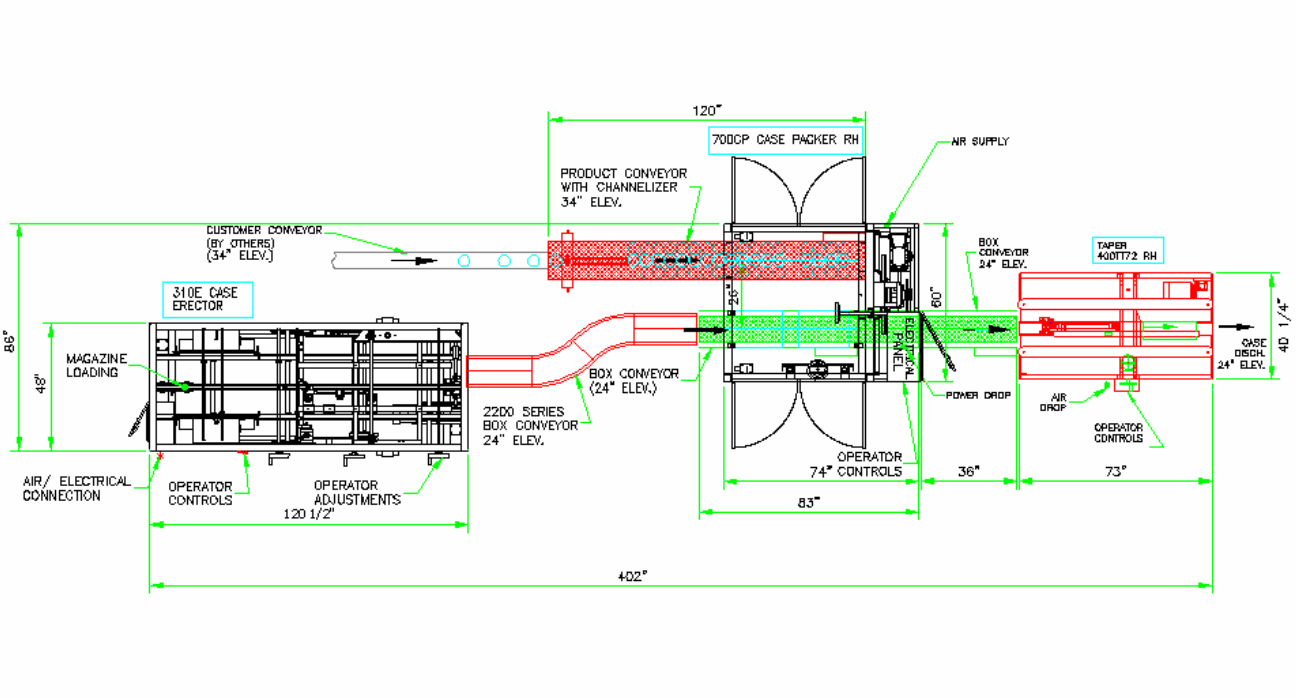
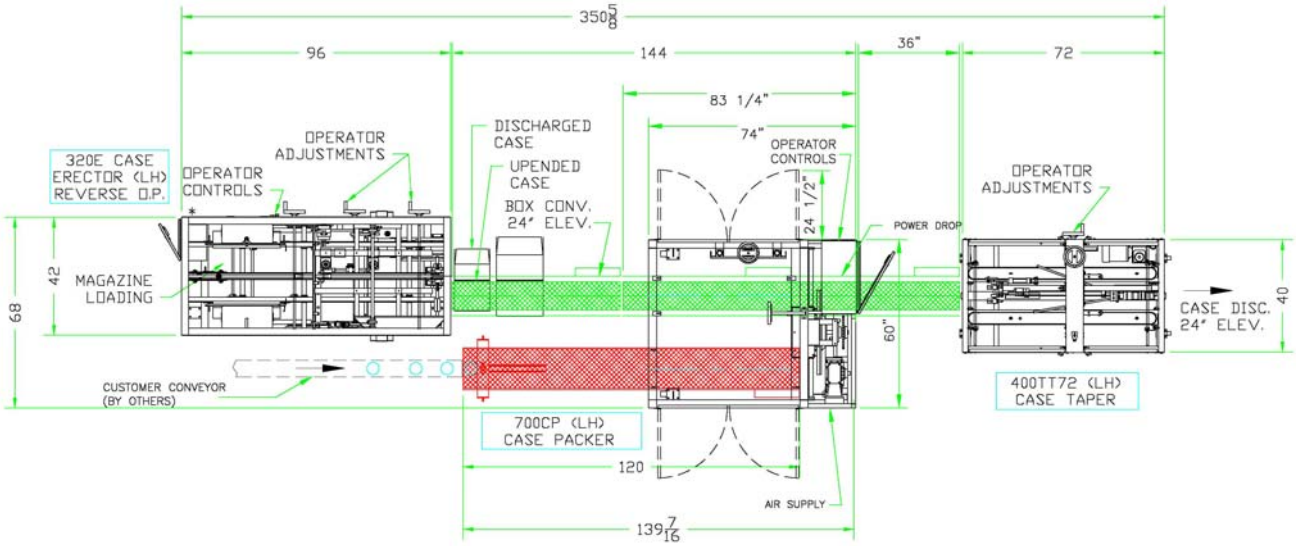
700CP Fully Automatic Packing System

The **700CP** with a **310E** provide case packing lines that offer a throughput of 15 cases per minute solutions.



The **700CP** with a **320E** or **330E** gives a 25 case/min, robust construction capable of 24/7 harsh environments, and a smaller footprint.



Note: The throughputs shown can be increased if packing 2 or more cases simultaneously is possible.

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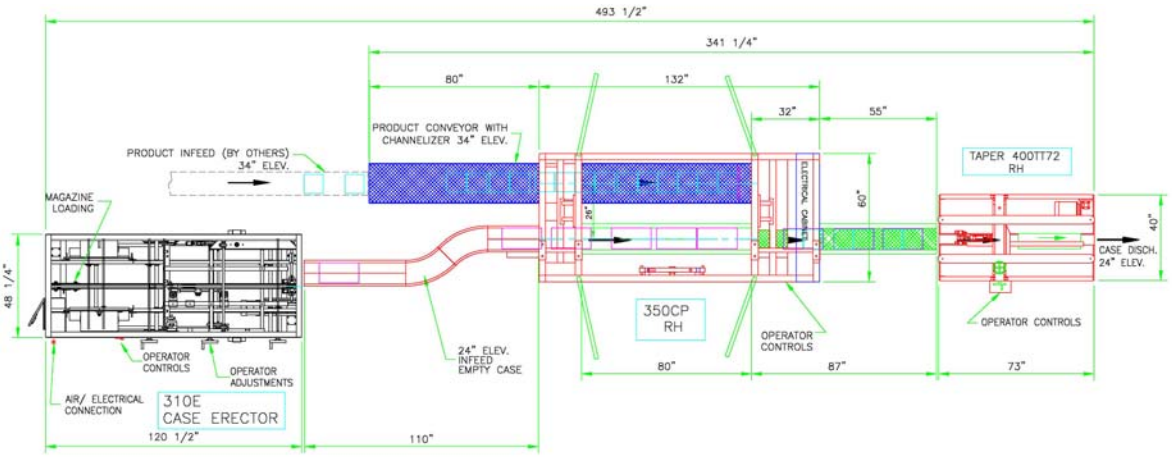
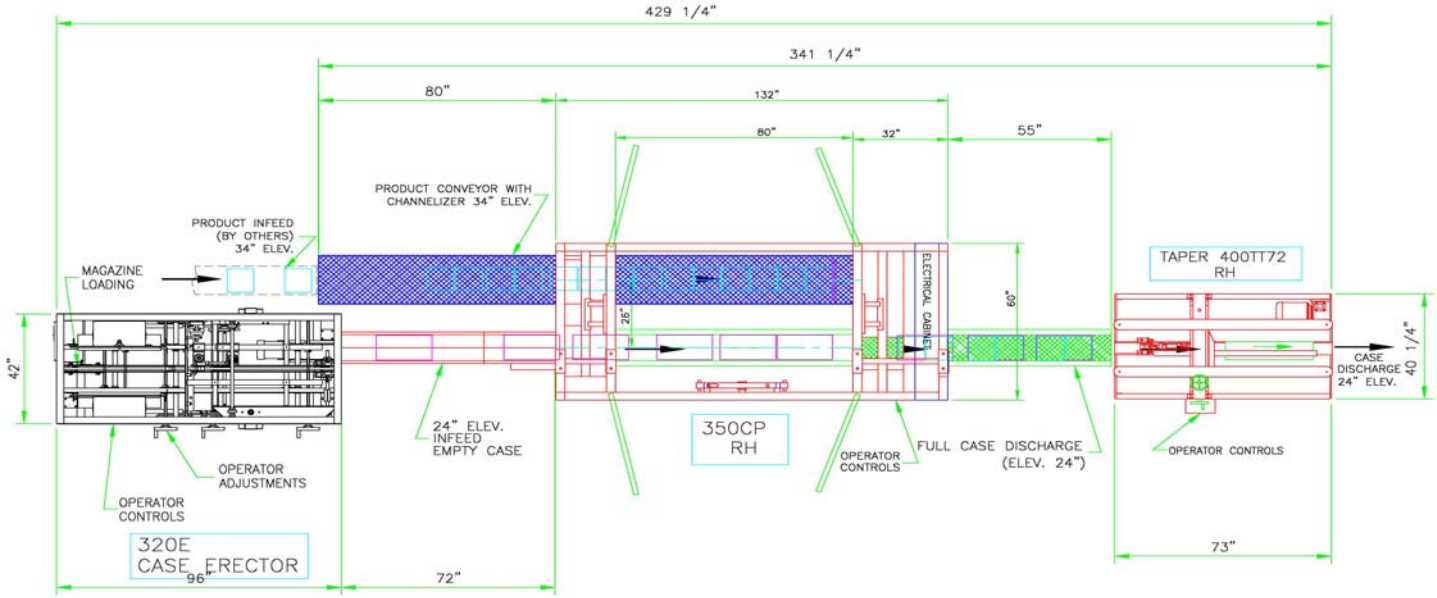
350CP Fully Automatic Packing System

The **350CP** with a **310E** gives a 15 case/min, robust construction capable of 24/7 harsh environments, and a larger case range. (shown below)

The **350CP** with a **320E** or a **330E** case erector gives an up to 25 case/min throughput, robust construction capable of 24/7 harsh environments, and a larger case range. (shown below)





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Empty Box Conveyor
The empty box conveyor accepts empty boxes in preparation for loading, and is typically at a 24" elevation (10" lower than the product conveyor). It accepts cases single file, with the narrow dimension leading. As a rule of thumb, it is typically required to have enough empty boxes accumulated on it for 2 times the number of tooling. For example, if the packer is loading 4 cases at a time, there should be 8 empty cases accumulated on the conveyor.

The empty box conveyor contains an array of pneumatic cylinders that are used as empty box stops. These box stops pre-stage the empty boxes, allowing them quick entrance into the packer load area, thus minimizing cycle time.

Full Box Conveyor
The full box conveyor transports the fully loaded cases from the packer load area to an area outside of the machine. This conveyor is the same elevation as the empty box conveyor (typically 24", or 10" lower than the product conveyor). The full box conveyor must be long enough to accept the full compliment of cases being loaded. This ensures that the full boxes will evacuate the load area quickly, making room for the incoming empty boxes.

Case Turning
There are some instances where the cases are required to enter the case packer with the long dimension leading (length leading). If this is required, a metering conveyor and case turner is added to the empty box infeed conveyor. The metering conveyor ensures there is a gap between empty boxes. This gap is required for case turning. Case turning is typically done with a friction wheel or pneumatic swing arm. A friction wheel is a rotating disc that makes contact with one side of a case, forcing it to spin on the conveyor as it is being transported. A turning arm is a device that secures itself to the case through vacuum cups, and actively spins the case by rotating the box.

Upon exiting the case packer, it is often required to have the full cases traveling with the narrow dimension leading (width leading). Note that top tapers require this orientation to operate properly. If required, another metering conveyor and case turner is added to the full box conveyor.

Tier Sheet Inserter Module
The tier sheet module is contains a magazine for tier sheets and a vacuum plate that grabs the tier and places it into the case. The vacuum plate is connected to the head beam, and follows the same path at the same time. The full tier and tier pad take turns entering the box, ensuring proper placement of both. Without sacrificing cycle time, the tier pad module can insert sheets/pads between every layer, and either on the top or bottom of the case. Adding a tier pad at the top and bottom of the case can be done at the expense of cycle time.

Miss-Pick Annunciation and Reject
Applications where a flighted in-feed conveyor is used, there is the opportunity to have a miss-pick detection system. This identifies products that have not properly been loaded into the box, and rejects it down a reject chute. The corresponding incomplete box is identified and rejected from the line. It is also available on P.O.S. rolls without flighted conveyors, since low cycle times are required (6 cycles/min max).

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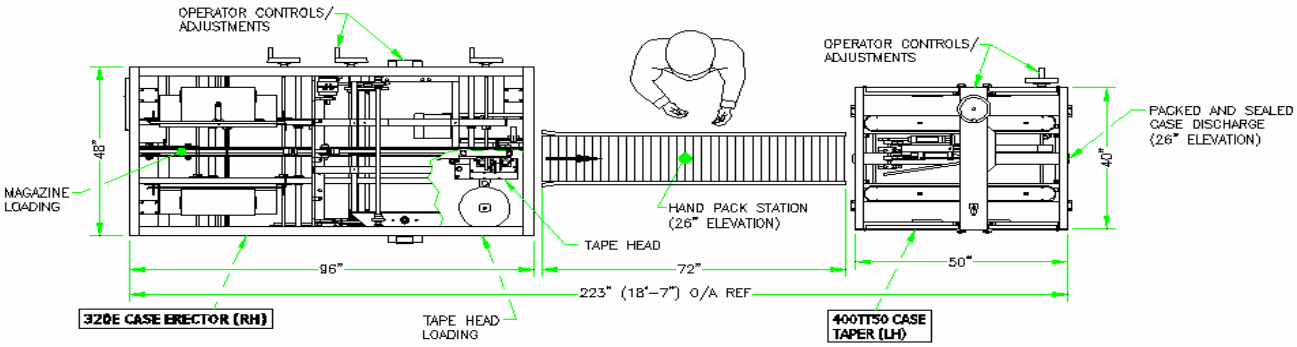
Hand Pack Station

Here is a simple configuration containing two standard Wepackit 2009 Inc. machines: a 400TT72 and 320E connected with a 10' section of live roller conveyor. With proper controls and box stops, this creates a simple hand pack station that allows an operator to receive an empty case on demand. There is the opportunity to manually fill the case at the operator's pace, and the depressing of a foot switch releases the full case to the taper. An empty case will immediately take the place of the filled case at the manual pack station.



The live roller conveyor is divided into 3 sections: a live outfeed from the erector; a live infeed to the case sealer; and an operator foot controlled center section(packstation).

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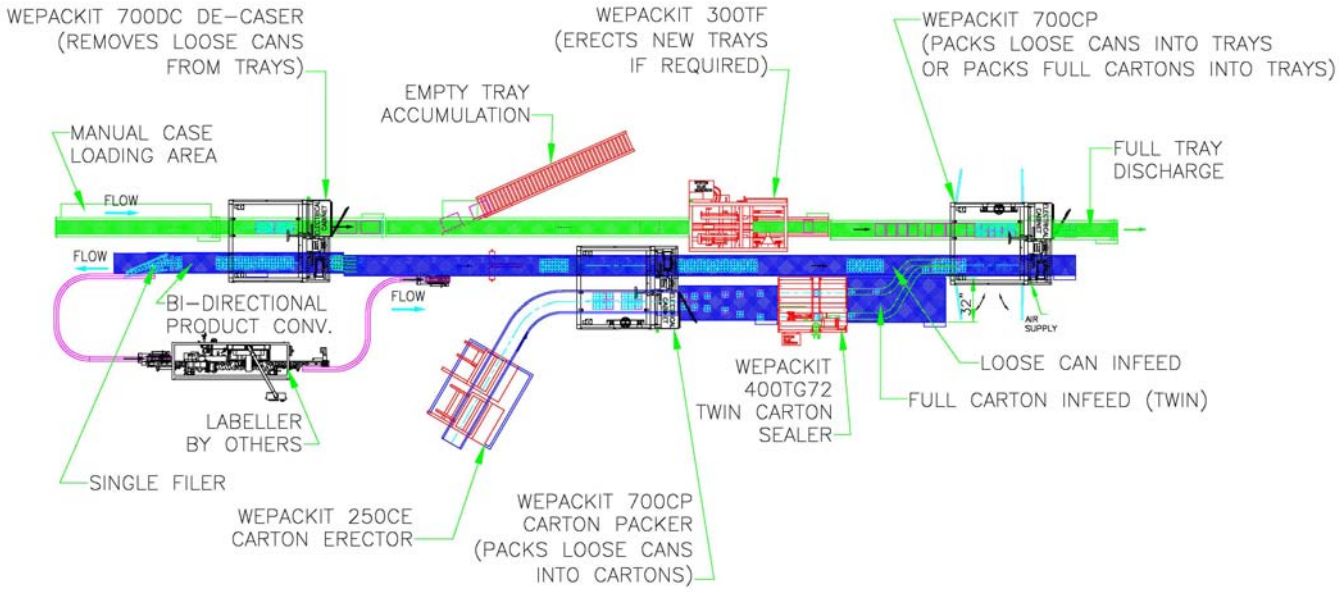
CANNED BEVERAGE CONFIGURATION CHANGE

Certain industries, such as in energy drinks, configuration changes are required. Below is an example of a project where we were required to remove loose cans (8oz, 8oz Slim, 12oz, 12oz Slim, 16oz, 24oz) from a tray and pack them into the following configurations (each configuration has an additional optional label):

- Loose cans into new trays (old tray discarded)
- Loose cans into cartons, cartons into trays (new or original tray)
- Loose cans with new label into cartons, cartons into trays (new or original tray)
- Note that trays are 12 and 24 pack
- Note that carton configurations are 2x2, 2x3, 2x4, 2x6



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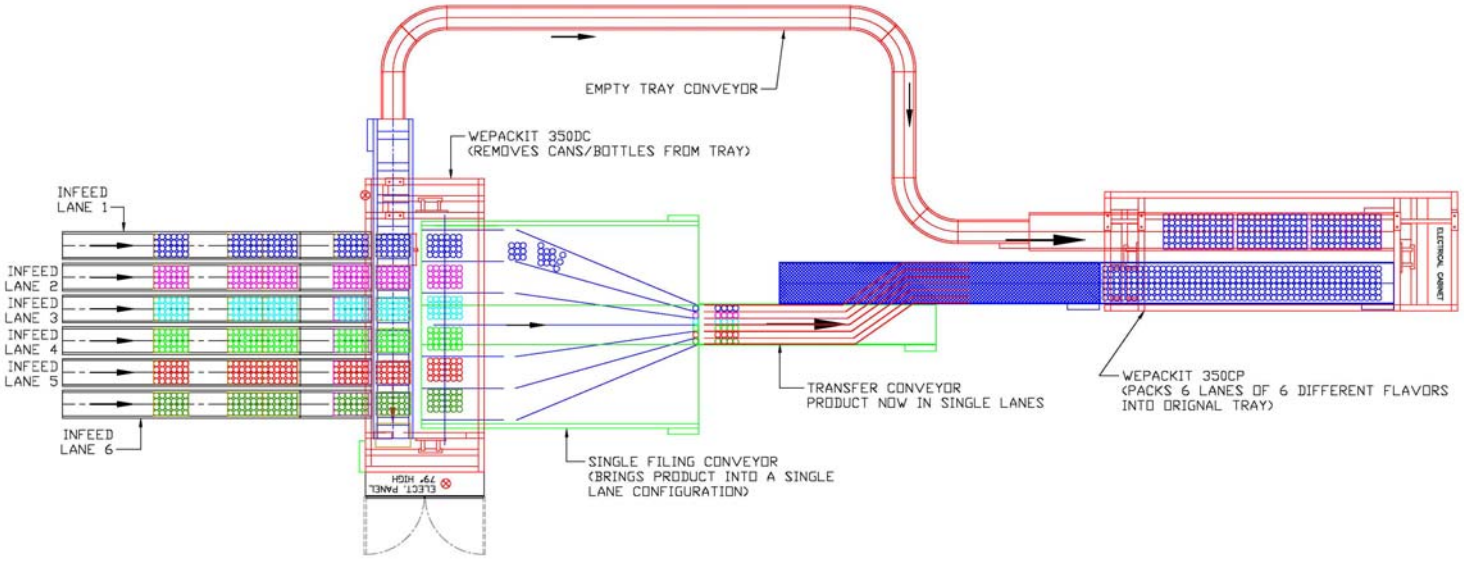
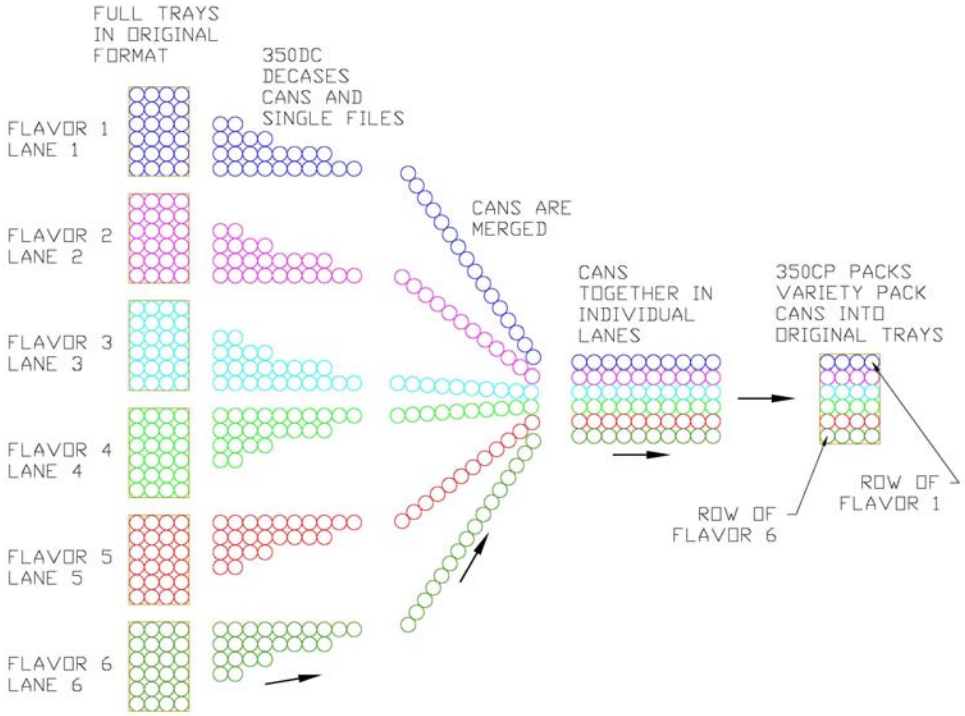
VARIETY PACK LINE

Also called Rainbow Packs, Wepackit 2009 Inc. specializes in de-casing and re-packing beverages in multi-flavored packs. Below is an example of a 350DC that removes bottles from existing trays. The 6 independent infeed conveyors allow for anywhere from 2-6 different flavors that can be used in the final variety pack. Each of the 6 lanes are single-filed, and transferred to the 350CP where they are packed back into their original tray as a variety pack.



Below is a conceptual sketch illustrating the product manipulation involved with obtaining variety pack:



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7. FREIGHT, INSTALLATION AND SUPPORT

FREIGHT

Freight is typically paid for by the customer and arranged by Wepackit 2009 Inc. We regularly ship throughout North and Central America. Paperwork to get our shipment through Customs is typically handled with ease and delays are a rarity.

Our machines come standard with castors, and do not require any special equipment to unload the machines. It typically only requires two people to unload all equipment and push them to their required positions. From there they can raise the machines onto their leveling screws to their level position.

INSTALLATION

Wepackit 2009 Inc. offers on-site training, service and installation support for customers. When installing a new machine or packaging line the customer typically sets and levels the machine and provides power and air. From there the Wepackit 2009 Inc. service technician can power-up the machine for start-up and commissioning.

POST-SALES SUPPORT FOR USA

For any future service support, please contact Wepackit USA www.wepackitusa.com
Service contact Steven Johnson 1-484-880-9757 steve@wepackitusa.com
Parts contact Chris Lewis 336-908-4649 chris@wepackitusa.com

WARRANTY

All commercial component warranties are provided by the manufacturer of the component. Wepackit 2009 Inc. shall warrant all Wepackit 2009 Inc. manufactured parts for a period of 12 months from the date of shipment to the Customer. Warranty is void if not properly installed under the guidance of Wepackit 2009 Inc., or if modified without the consent of Wepackit 2009 Inc. Shipping, duty, taxes, service and installation are not included for any warranty item.

CONTACT INFORMATION

For all inquiries, please contact Wepackit 2009 Inc. at 519-942-1701. Typical inquiries are often referred to the Director of Sales.
Change Part Tooling inquiries for existing equipment are directed to Doug Galloway.

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8.APPENDIX

TYPES OF FLUTING

The "Flute" refers to the wave shaped cardboard reinforcement that make up the board's core. This is the board's corrugation.
Flutes come in several sizes, known as flute profiles. The standard profiles range from A-flute (the largest) to F-flute and below (microflutes).

A-flute = approximately 33 flutes/linear foot (1/4" thick)
B-flute = approximately 47 flutes/linear foot (1/8" thick)
C-flute = approximately 39 flutes/linear foot (11/64" thick)
E-flute = approximately 90 flutes/linear foot (1/16" thick)
F-flute = approximately 128 flutes/linear foot (1/32" thick)

Generally, larger flutes provide greater strength and cushioning, while smaller flutes have better printability and flexibility.
Flute profiles can be mixed and matched within the same piece of combined board, to manipulate printability, compression strengths, cushioning strengths and the total thickness of the board. For instance, CE double wall gets its durability from its C-flute layer, while the E-flute gives it a smoother printing surface.

A-Flute

A-Flute, the original flute, is the highest flute size, and therefore, when combined with an inner and outer facing, is the thickest. A-Flute makes the most of corrugate cushioning and stacking properties for fragile and delicate items. Because A-Flute offers excellent stiffness qualities and short column crush resistance, it has application across a broad range of customer uses.

B-Flute

B-Flute, the second flute size adopted by the corrugated industry, has lower arch heights than A-Flute and more flutes per foot. This means that the medium contacts and supports the liners at a greater number of points, providing a stiff, flat surface for high quality printing and die cutting and with excellent crush resistant properties. B-Flute is also preferred for high speed, automatic packing lines and for pads, dividers, partitions and other forms of inner packing. Complex die cuts and beverage trays are excellent applications for B-Flute as are can cases, wrap-around blanks, glass-to-glass packs and slip sheets. B-Flute is generally combined with light weight liners but can be used with heavier facings if the need arises.

- good puncture resistance
- less space consumed in warehouse
- uses: canned goods, displays

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C-Flute

C-Flute came along next to split the difference between A and B Flutes. It's thinner than A-flute, thicker than B, and offers good cushioning, stacking and printing properties. C-Flute is by far the most widely used flute size. An estimated 80% of today's corrugated containers are made of C-Flute board.

- good stacking strength
- good crushing resistance
- very common
- uses: glass, furniture, dairy

E-Flute

E-Flute has the greatest number of flutes per foot which gives it the greatest crush resistance and the flattest surface for high quality printing applications. The thin board profile of E-Flute (it is one-fourth the thickness of C-Flute) reduces box size and saves storage space. Because of its thin profile and excellent cushioning properties, E-Flute can often substitute for conventional folding cartons or solid fiber containers. Examples of E-Flute applications include boxes for cosmetics, fragile glass and ceramic items and delicate instruments. Another growing end-use is for pizza boxes where the retailer wants a cost effective container with good graphics and excellent product protection.

- light weight
- strong alternative to paper board
- superior printing surface
- excellent for custom die cut boxes
- uses: displays, point of purchase boxes

F-Flute

F-Flute, the newest flute, is just a little more than half the thickness of E-Flute and is the newest growth segment in the corrugated industry. The idea behind the new flute, originally developed in Europe, is to make packages with lower fibre content.
With F-Flute, converters can reduce the total amount of fibre in the packaging, thereby creating a more rigid box with less solid waste going into landfills. In Europe, F-Flute is being used for specialty packaging, point-of-purchase displays, jewelry and cosmetic packages and shoe boxes. In the U.S., the McDonald's Big Mac clamshell in F-Flute has received great attention. Dairy Queen, too, is using the F-Flute clamshell for its "Ultimate Sandwich" and its hot dogs.

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TYPES OF CORRUGATED MATERIALS

Single Face Sheet

A corrugated medium with a linerboard facing adhered to one side. It can be manufactured in sheets or rolls. Single face is principally used as a wrapping material, and occasionally for interior packing or padding.

Single Wall Corrugated

A corrugated medium with a linerboard facing adhered to both sides. It is also referred to as “Double Face”. This popular and versatile 3-ply construction is converted into a wide variety of containers and packaging components. This type is the most popular, and offers a wide range of strengths.

Double Wall Corrugated

Two corrugated mediums (B & C Flutes) with a linerboard facing adhered between them and to both sides. This 5-ply construction is most applicable for packing heavy items where high rigidity and protection is required. It offers extra padding and strength, which is suitable for stacking heavy items.

Triple Wall Corrugated

Three corrugated mediums and four linerboard facings (2 layers of C-Flute and one layer of B-Flute). This 7-ply construction is used where large container sizes are involved, such as pallet packs. It is very strong, crush resistant, and is excellent for storage and transit.

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CORRUGATE OUTSIDE LINERS

To vary the look of your corrugated box, you have the following choices in outside liner grades:

Kraft

Naturally brown in color. The most commonly used and least expensive liner.

#3 White

Mottled white, with underlying kraft showing through. Provides a cleaner look and better printability than kraft.

#1 White

Bleached bright white. Offers very good printability, but easily soils during transit.

Premium Grades

Surfaces have a bright white clay coating, minimizing porosity so printing inks sit up on the surface. Gives excellent printability as colors are more vibrant and lower absorbency improves registration. However, because of the high hold-out, ink rub can be a problem.

Litho

Printed labels (for labels laminated onto corrugated boxes).

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Conversion Charts

Minimum Bursting Test, Singlewall, Doublewall (lbs. per sq. in)	Minimum Edge Crush Test **(ECT)** (lbs. per in. width)	Minimum Combined Weight of Facings, Including Center Facing(s) of Doublewall	Maximum Weight of Box and Contents (lbs.)	Maximum Outside Dimensions, Length, Width, and Depth Added (inches)
SINGLEWALL				
125	23	52	20	40
150	26	66	35	50
175	29	75	50	60
200	32	84	65	75
250	40	111	80	85
275	44	138	95	95
350	55	180	120	105
DOUBLEWALL				
200	42	92	80	85
275	48	110	100	95
350	51	126	120	105
400	61	180	140	110
500	71	222	160	115
600	82	270	180	120
E FLUTE				
150	26	66	35	50
200	32	84	50	60
F FLUTE				
150	26	66	35	50
200	32	84	50	60

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WEPACKIT 2009 SPECIFICATIONS

RSC SPECIFICATIONS AND GUIDELINES

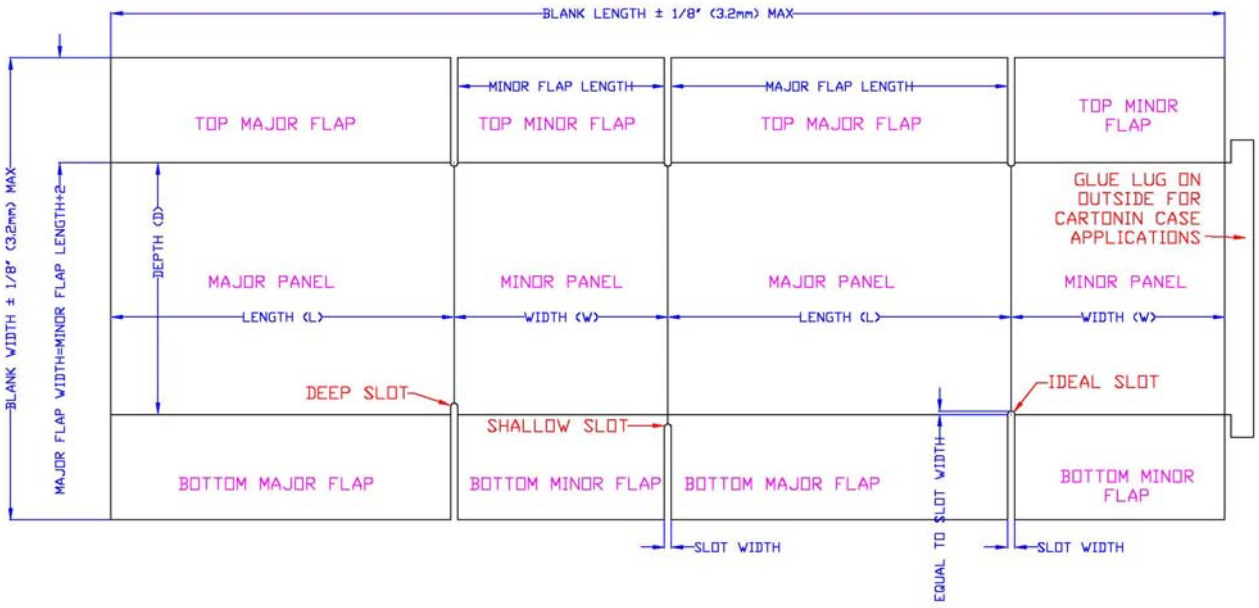
This section outlines general construction guidelines to be followed for RSC/HSC used on Wepackit 2009 Inc. automation systems. It is understood that it is very difficult to adhere to these specifications. The objective is to come as close to it as possible. The important factor is consistency, which directly affects equipment set-up.

GENERAL CONSTRUCTION GUIDELINES

- The RSC/HSC shall be constructed without delamination or rough cut
- The case shall meet the manufacturer ECT/Burst Strength and shall be at least 29 ECT (175 Mullen)
- All panel scores shall be well pronounced, allowing easy folding without misdirection of crease path
- Slots must be clean of debris
- Tapered slots (1/4 in) are ideal
- The case's 'hand' shall match the system's 'hand': i.e. 'Right hand' case can only run on a 'Right hand' case erector

RSC/HSC TYPICAL TOLERANCES

The following section outlines typical RSC/HSC tolerances to be followed for RSC/HSC on Wepackit 2009 Inc. equipment. Consistent corrugate ensures extended operation with minimal machine adjustments. Deep or Shallow slots are unacceptable because they will create problems when folding the flaps. See drawing below for recommendations.



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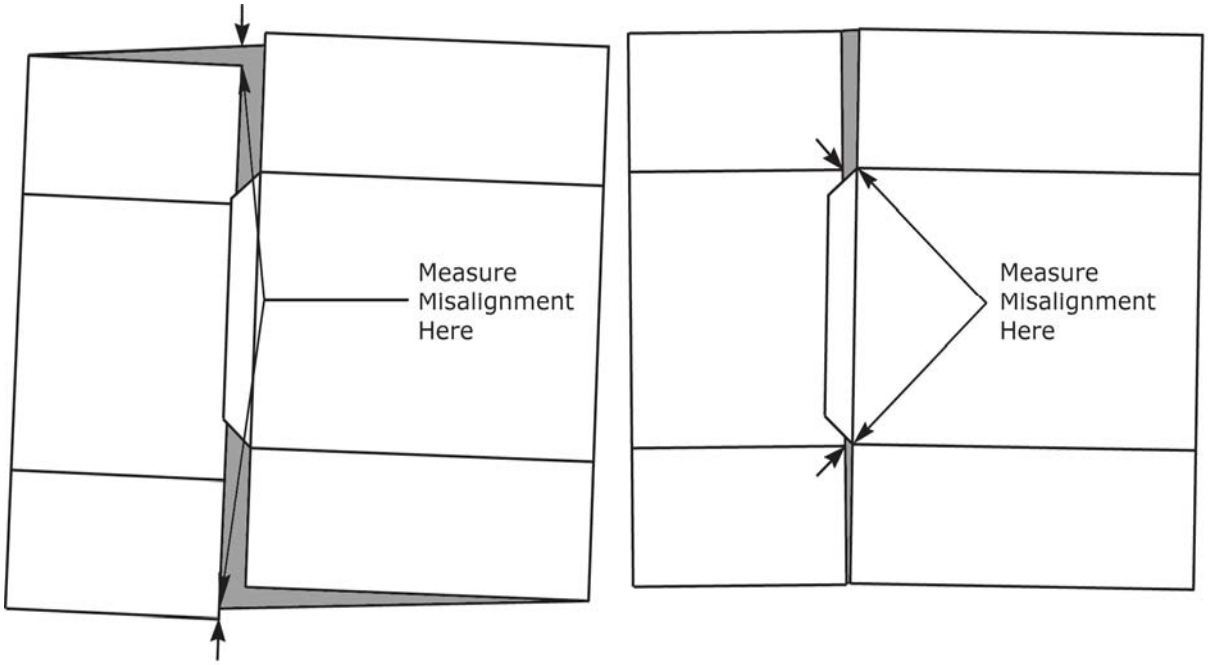
The width dimension of the major flaps shall be:

- As a minimum*: Width = ("Minor Flap Length" ÷ 2) – 1/2"
- Ideally**: Width = ("Minor Flap Length" ÷ 2) – 1/4"
- At most***: Width = ("Minor Flap Length" ÷ 2) – 1/16"

* A flap **shorter** than this dimension will likely create a gap when sealing
** Critical to the 720E XL setup. Side belt pressure is used, which is sensitive to width variances.
*** Likely to create an overlap on case sealing. This results in an unstable and uneven box.

The MAJOR FLAP WIDTH is typically shorter than the CASE WIDTH ÷2 due to the slots.

RSC/HSC OUT-OF-SQUARE AND FISHTAILING ("V" JOINT)
The following section outlines Out-of-Square and Fishtailing ("V" Joint) manufacturing defects. These defects can create serious problems when erecting, sealing and closing RSC/HSCs. Therefore the maximum allowance difference between the two (2) measurements shall be **1/8" (3.2mm)**.



Out-Of-Square Fishtailing

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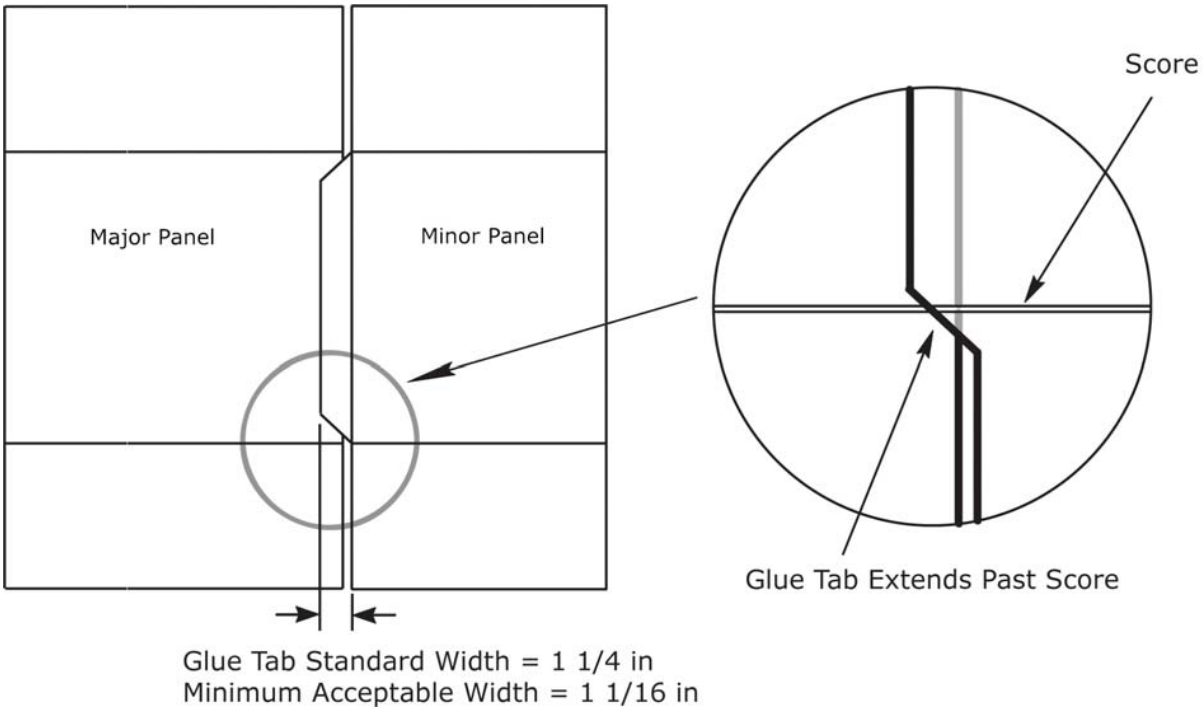
GLUE TAB SPECIFICATIONS AND TOLERANCES

The following section outlines Glue Tab Specification and Tolerances to be followed on RSC/HSC running on Wepackit 2009 Inc. equipment.

Positioning, Length and Width of Glue Tab

The glue tab (or lug) shall be located off the minor panel and glued onto the major panel. This is because out of spec cases will have variances down the length of the case, and not across the width. This directly affects the 720E setup where the side belts are positioned for a specific case width, and variations across the width may affect performance.



In applications where cartons are being placed into cases, it is recommended that the lug be glued to the outside of the case. This eliminates a natural catch point created by an internally glued lug.

The glue tab shall be at least 1 1/16” in width and extend more than 1/16” (1.2 mm) beyond horizontal male scores. Non-compliance causes out-of-square cases.

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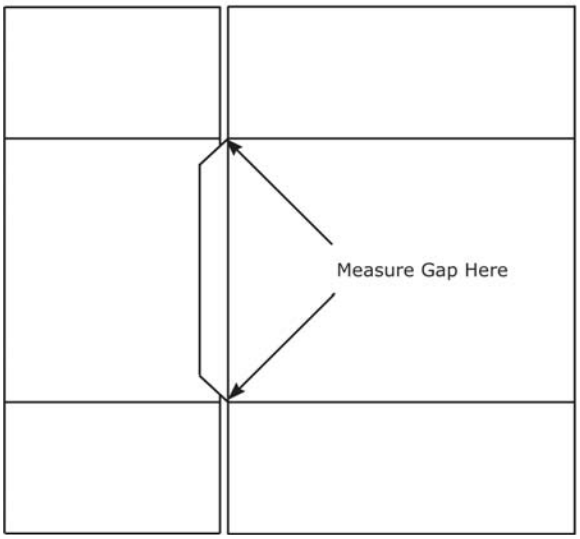
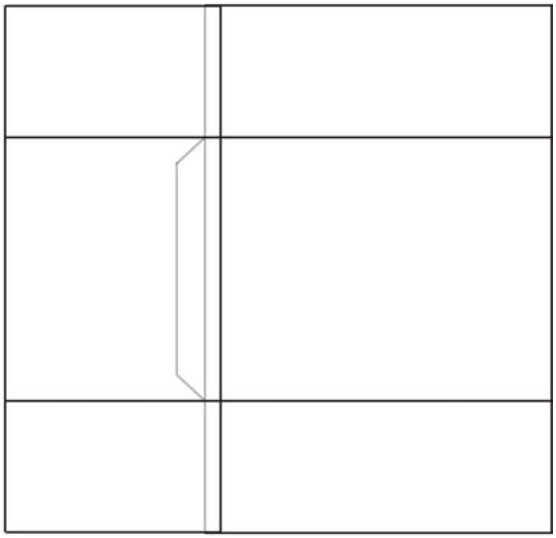
Gap Tolerances and Overlap
The glue tab gap shall conform to the following guidelines. Non-conformance can create problems when erecting, sealing and closing RSC/HSCs.

	B-Flute	C-Flute
Minimum	1/16 in	1/16 in
Ideal	3/16 in	7/32 in
Maximum	5/16 in	3/8 in

Any amount of overlap is unacceptable:



Inside view of knock-down RSC

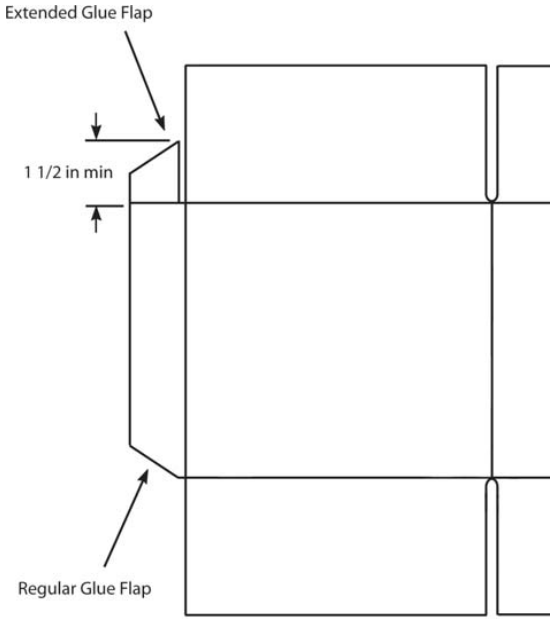


Outside view of overlapped knock-down RSC

Regular and Extended Glue Tab
Extended glue tabs are required when packing products with square corners. A regular glue tab will most likely create interference with this type of product when the case packing system places the container into the RSC/HSC.

Note: In order for a glue tab to be called extended, it must extend at least 1 ½ in from the score.

The best configuration has the manufacturer's seam on the outside of the case. This eliminates the possibility of product getting caught on the manufacturer's seam during loading.



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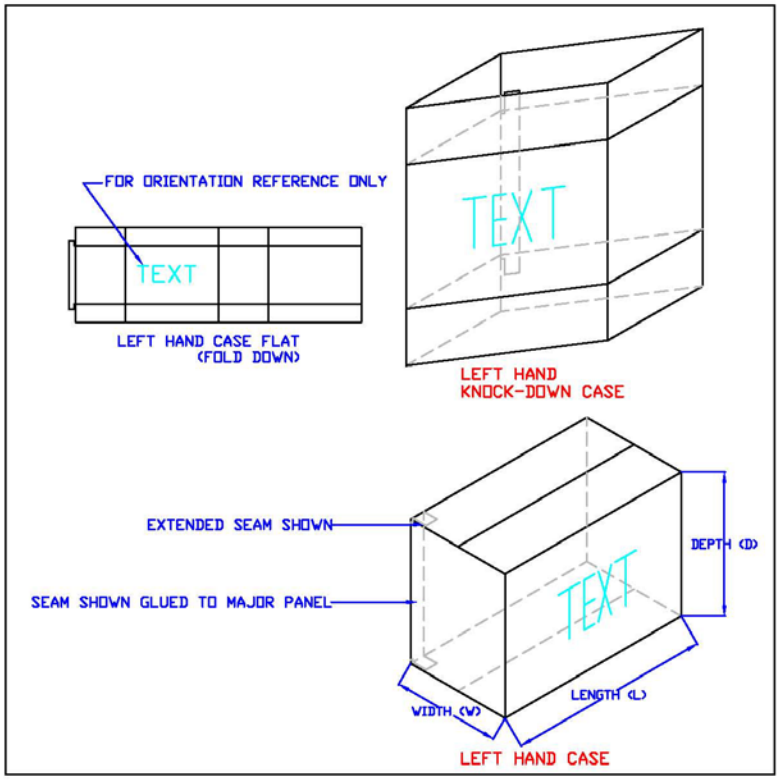
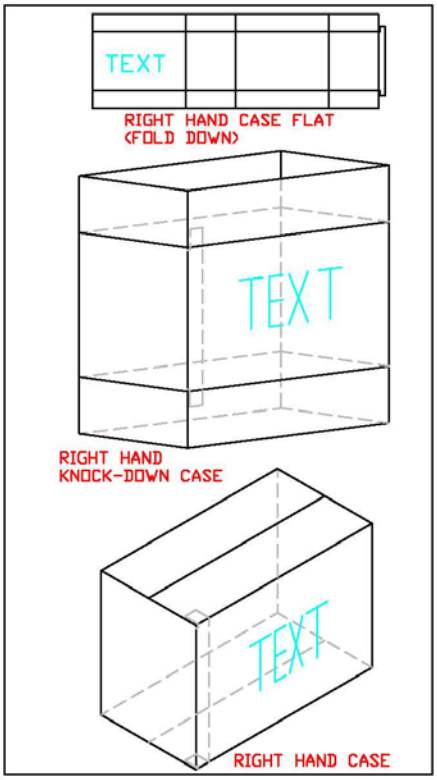
Case Handing Diagram

This sketch illustrates the difference between Left Hand and Right Hand cases. This is important because LH cases can only run on LH erectors, and vice-versa.





V-Cut Specifications

V-Cut Specification for 375ml Bottles

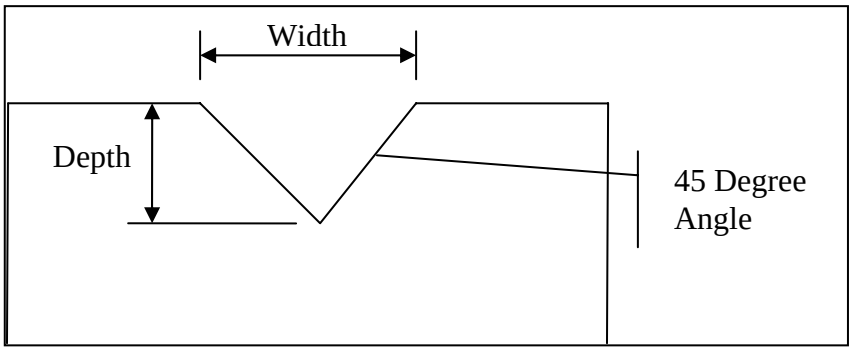
- 1.5” wide x ¾” deep min.

V-Cut Specification for 750ml Bottles

- 2” wide x 1” deep min.

V-Cut Specification for 1.5L Bottles

- 2.5” wide x 1.25” deep min.



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9.GLOSSARY OF TERMS

Below is a list of terms as they pertain to Wepackit 2009 Inc. equipment. Many of these terms are used universally, but some are specific to Wepackit 2009 Inc.

AFM - All Flaps Meet

Bundle - A shipping unit of two or more cases wrapped and fastened together by suitable means.

Bursting Strength - Measurement of the resistance of a material to bursting expressed in pounds per square inch. The test is made on a Mullen tester.

Carton - Container usually constructed of chipboard/fiberboard material

Case - Container constructed of fluted corrugate material.

Certificate, Box Makers - A statement printed on a corrugated fibreboard box or a solid fibreboard box testifying that all applicable construction requirements have been observed.

Chipboard - A paperboard generally made from recycled paper stock. Applications include: partitions within boxes, backing sheets for padded paper, sample boards and the center ply or plies of solid fiberboard.

Depth - Height of the case (does not include any flaps)

Die Cut - A cut made with special steel rule dies. The act of making a part of container which is cut and scored to shape by such tools. Also used to denote a board which has been die-cut.

FAT - Factory Acceptance Test. Used as a pre-ship verification, to allow the customer to confirm that their equipment meets all requirements outlined in the Quote and P.O.

Fibreboard - As used in our industry, a general term applied to fabricated paperboard utilized in container manufacture.

Flaps - The closing members of a fibreboard box.

Flute Direction - The normal direction is parallel to the depth of the box. Side stacked boxes may have their fluting reversed, but this may pose a problem during case erecting.

Flute or Corrugation - One of the wave shapes in the inner portion of combined corrugated fibreboard.

FOL – Full Overlap Slotted Container. A box made with all flaps the same length (box width). The outer Flaps will come within in one inch of a complete overlap when closed. This box style is very resistant to rough handling. If the box is stacked on its bottom panel the overlapping flaps provide super cushioning. Extra stacking strength is realized when the box is stacked on its side.

HSC - Half Slotted Container. A box made in a similar format to the RSC, but there are no top flaps.

IFM - Inner Flaps Meet

Knocked Down (KD) - A case that has not yet been erected.

Kraft - A word meaning strength applied to pulp, paper, or paperboard produced from wood fibers by the sulfate process.

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Left Hand Packer - Packer that picks from the product conveyor into the box, moving it from right to left (while looking downstream). As a result, the product conveyor is on the right side of the machine and the case conveyor is on the left.

Left Side - On the left side, while looking downstream.

Length - Long dimension of the case

Liner - A creased fibreboard sheet inserted in a container and covering all side walls.

Major Flap - The longest of the closing members of a case. Can be a top or bottom major flap.

Manufacturers Joint - The pre-glued joint on a knocked down case. Sometimes called a lug.

Minor Flap: The shortest of the closing members of a case. Can be a top or bottom minor flap.

Operator Side - While looking downstream, the side where the operator controls are located.

Pad - A corrugated or solid fibreboard sheet or other authorized material used for extra protection or for separating tiers or layers of articles when packed for shipment.

Panel - A “face” or “side” of a box. Major Panels have larger surface area than their corresponding Minor Panels. Flaps are not considered part of a panel.

Partitions - A set of corrugated or solid fibreboard pieces slotted so they interlock when assembled to form a number of cells into which articles may be placed for shipment.

POL - Partial Overlap Slotted Container

Product - Item that is being placed into the case. Can be a bottle, bag, carton, roll, etc.

Right Hand Packer - Packer that picks from the product conveyor into the box, moving it from left to right (while looking downstream). As a result, the product conveyor is on the left side of the machine and the case conveyor is on the right.

Right Side - On the right side, while looking downstream

RSC - A regular slotted case run on a printer/slotter with top and bottom, side, or end flaps

Score - An impression or crease in corrugated or solid fibreboard to locate and facilitate folding.

Slit - A cut made in a fibreboard sheet without removal of material.

Slit-Score - A cut made in a fibreboard sheet extending through only a portion of the thickness.

Slot - A cut made in a fibreboard sheet, usually to form flaps and thus permit folding.

Tab-Loc - an RSC with it's major and minor flaps attached with a tab and folded down on the outside of the erected case

Tray - A corrugated container formed from a flat blank with sides and ends folded up and glued or stapled

Width - Short dimension of the case