

APPLICATION

The RS-33S Compensating Counter Stacker integrates counting, jogging, and compensated stacking into a single automated operation to minimize manning requirements. It works behind saddle stitchers, perfect binders and inserts with simple and quick non-tool setup or change-over regardless of product size, thickness and running speed (within specifications). The output stacks are of excellent quality, ready for packing into boxes, shrink-wrapping, etc.

FUNCTION

The individual books, or stacks of books, are delivered from an up-stream system, preferably with the spine leading, and is conveyed by the positive control belt system on the inclined infeed. The books, or stacks of books are counted just prior to entering the upper bin.

Books are accumulated in the upper bin up to a maximum quantity as selected during the setup procedure. When the "bin count" is reached, the flipper rods in the bottom of the upper bin unit rotate and release the books down into the basket on the turntable. To minimize the drop from the upper bin to turntable, 330mm (13.00") stackers are equipped with "table pick-up." This feature has the turntable rise to receive the books from the upper bin unit (minimizing the distance of the drop and eliminating the bounce that occurs with the drop of thick/heavy books).

Machine: Compensating Counter Stacker

Model: RS-3310S

Once the books are received, the table lowers (enough to clear the photo eye) and awaits the next drop. Table pick-up is an option on 235mm (9.25") stackers.

If compensation is desired, the turntable will rotate 180° while books are accumulating in the upper bin unit. These operations are repeated until the number of books selected for the stack is reached. When the stack is complete, it is pushed out (ejected) on to the delivery table.

FEATURES

- Heavy duty steel design
- Caster-mounted for easy transport
- Inclined infeed ramp with belts and height adjustment
- Photocell product counter
- Minimal drop distance (125mm, 5.00") of products into the upper bin unit, improving stack integrity
- Upper bin unit product jogger.
- Table pick-up
- Pneumatically actuated gates on the turntable basket
- Stack ejector (pusher), adjustable in speed and stroke length.

ADVANTAGES

- Produces excellent quality stacks
- Manpower reduction
- Minimal space requirement
- Quiet, smooth operation
- Accurate stack counts
- Minimal maintenance; easy to work on
- Extremely reliable
- Operator interface panel and industry standard high speed PLC. Simple text prompt to set counters and timers. Job parameters such as counter and timer values may be assigned a job number and stored on-line for recall when the same format is run again. Screen displays running speed and totalizer.

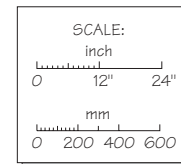
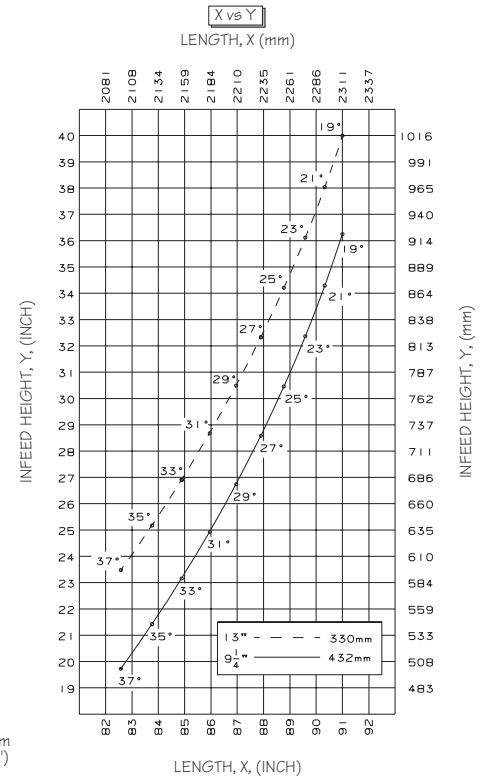
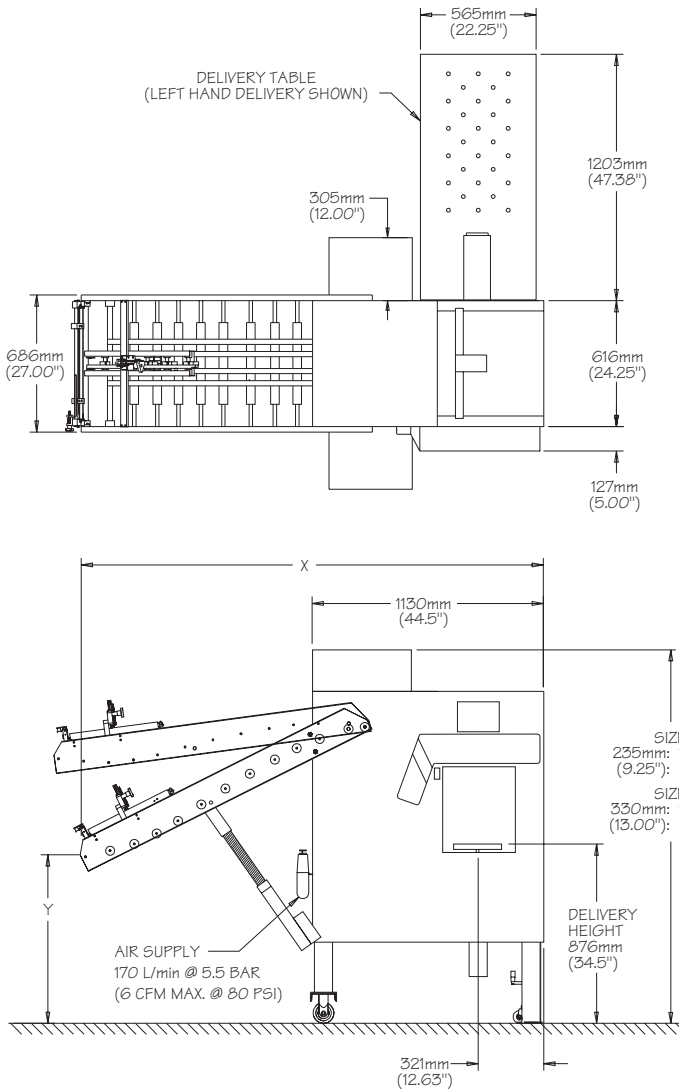
NOTICE

RIMA ENTERPRISES does not warrant operating capabilities of equipment. The equipment described herein is powered to cycle mechanically as indicated. However, it must be understood that actual operating capabilities vary under different conditions for which RIMA ENTERPRISES can assume no responsibility. The warranties contained in RIMA ENTERPRISES standard terms and conditions are the only warranties applicable to this equipment. RIMA ENTERPRISES reserves the right to change the specifications of this equipment without notice.

Specifications

Machine: Compensating Counter Stacker

Model: RS-3310S



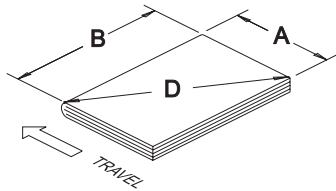
Specifications

Machine: Compensating Counter Stacker

Model: RS-3310S

Standard Specifications

Product size	Minimum		Maximum	
	"A" Dimension	102mm (4.00")		320mm (12.63")
"B" Dimension	152mm (6.00")		470mm (18.50")	
"D" Dimension	Limited by "A" & "B"		520mm (20.50")	
Thickness	7mm (0.25")		64mm (2.50")	
Operating Speed	Up to 15,000 products per hour, depending on product counter setting and pusher cycle time. See Capacity Chart on the following page			
Stack Height (Maximum)		Size 235mm (9.25")	Size 330mm (13.00")	
	Upper Bin	127mm (5.00")	127mm (5.00")	
	Total Stack	235mm (9.25")	330mm (13.00")	
Infeed Height (See Floor Plan)	Minimum	559mm (22.00")	660mm (26.00")	
	Maximum	914mm (36.00")	1016mm (40.00")	
Delivery Table Height	876mm (34.50")			
Product Orientation	Spine Leading (Preferred)			
Input Power	1.5 KVA (See Voltage Selection Specifications)			
Servo Power	3.0 KVA			
Air Requirement	170 L/min @ 5.5 bar (6cfm @ 80 psi)			
Weight	660 kg (1400 lb)			



Specifications

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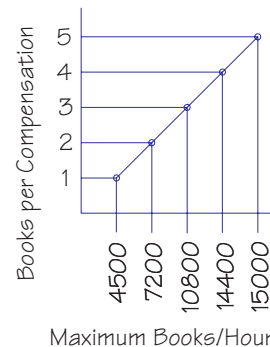
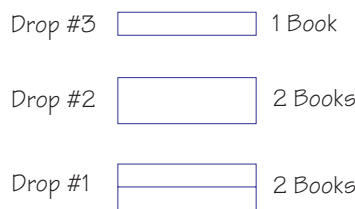
Operating Capacity

Book Thickness	Eject Time (Sec)	Stacks Per Min.	Run Speed (PPM)	Run Speed (PPH)
41mm - 80mm (1.63" - 3.15") (2 Product per Drop)	1.0	60	120	7200
	1.5	40	80	4800
	2.0	30	60	3600
	2.5	24	48	2880
32mm - 41mm (1.25" - 1.63") (3 Product per Drop)	1.0	60	180	10800
	1.5	40	120	7200
	2.0	30	90	5400
	2.5	24	72	4320
25mm - 32mm (1.00" - 1.25") (4 Product per Drop)	1.0	60	240	14400
	1.5	40	160	9600
	2.0	30	120	7200
	2.5	24	96	5760
22mm - 25mm (0.88" - 1.00") (5 Product per Drop)	1.0	60	250	15000
	1.5	40	200	12000
	2.0	30	150	9000
	2.5	24	120	7200
Pusher Cycle Time Minimum)		Size 235mm (9.25")	Size 330mm (13.00")	
	Single Side Delivery	1.5 Sec.	2.0 Sec.	
	Alternating Delivery	1.0 Sec.	1.5 sec.	
	Single Side Delivery w/381mm (15") Table	1.0 Sec.	1.0 Sec.	

The above capacity chart showing PPH (product per hour) is based on pusher cycle time and stacking to maximum stack height. On machines equipped with table pickup, if stack height is less than maximum, add 0.15 seconds for every 50mm (2.00") less than full stack height. A consideration of 0.3 to 0.7 seconds should be made for machines equipped with table pickup, to allow time for the table to rise to its uppermost position.

Another limiting factor of maximum run speed is when the last drop quantity prior to push is less than the Drop or Compensate Counter Setting, whichever is less.

Example: Count Settings, Drop 2, Compensate 2, Total 5. Maximum Book/Hour is 4500.



STANDARD SPECIFICATIONS

TURNTABLES

Custom turntables are necessary when ordering RS-3313 or RS-3310 equipped with RS-3300-087 Option.

The turntables must be customized to each customer's requirements. By doing so, the optimum stack quality can be obtained.

To specify the "custom" turntable, the dimensions of the products to be run must be known along with the orientation of the product. The table should be specified in terms of the "A" and "B" dimensions of the product. The "A" dimension of the product is in the direction of flow as it enters the basic stacker. The "B" dimension of the product is measured perpendicular to the direction of flow. See the product size specification for further clarification.

The custom turntables should be sized to the most commonly run products. Other product sizes can effectively be run on a custom turntable, if they are within 76mm (3.00") larger for the "B" dimension for the table, and not more than 13mm (.50") larger for the "A" dimension. Products smaller than the table cannot be run.

Size specifications given for the custom turntables should be the dimensions of the actual product. The turntables will be machined 6mm (.25") smaller on the "B" dimension and 4mm .16" smaller on the "A" dimension to provide adequate clearance.

Each stacker includes three turntables customized to the customer's specifications at no charge. If a customer does not initially require all three turntables, they can be specified to be supplied at a future date. When a customer is ready, (have the serial number of the machine at hand) a phone call to RIMA ENTERPRISES Parts Department will suffice. As all tables are custom made, allow 2-3 weeks for manufacturing.

MUST SELECT ONE RS-3310S COUNTER/STACKER

RS-3310S Counter/Stacker equipped as follows: 235mm (9.25") stack height with 127mm (5.00") upper bin capacity, dual eject system (left, right or alternating), caster-mounted, programmable controller, AC driven, air-operated gates.

RS-3313S Counter/Stacker equipped as follows: 330mm (13.00") stack height with 127mm (5.00") upper bin capacity, dual eject system (left, right or alternating), caster-mounted, programmable controller, AC driven, air-operated gates, table pick-up. Three turntables are provided (sizes to be specified by customer).

MUST SELECT ONE

INPUT POWER

RS-3300-001	208 V, 3~, GND, 50/60 Hz
RS-3300-002	480 V, 3~, GND, 60 Hz
RS-3300-003	200 V, 3~, N, PE, 50/60 Hz
RS-3300-004	380 V, 3~, N, PE, 50/60 Hz
RS-3300-005	416 V, 3~, N, PE, 50 Hz
RS-3300-006	600 V, 3~, GND, 60 Hz
RS-3300-007	400 V, 3~, N, PE, 50/60 Hz
RS-3300-008	115 V, 1~, GND, 60 Hz
RS-3300-009	240 V, 3~, GND, 60 Hz
RS-3300-020	220 V, 3~, GND, 60 Hz

NOTICE

Control Voltage for all input power choices is 24 volt.

STANDARD SPECIFICATIONS

MUST SELECT ONE

NAMEPLATE LANGUAGE

RS-3300-010	English
RS-3300-011	French
RS-3300-012	German
RS-3300-013	Italian
RS-3300-014	Spanish
RS-3300-015	Dutch
RS-3300-016	Portuguese
RS-3300-017-01	Danish
RS-3300-017-02	Swedish
RS-3300-017-03	Finnish
RS-3300-017-04	Greek

MUST SELECT ONE

SCALES

RS-3300-028	Inch
RS-3300-029	mm

MUST SELECT ONE

DELIVERY DIRECTION

RS-3300-050	Delivery to the Left. (Must be specified if only one delivery table is supplied).
RS-3300-051	Delivery to the Right. (Must be specified if only one delivery table is supplied).
RS-3300-053	Straight Out Delivery. Machine cannot be converted to left or right delivery. Also, see under RS-3300-060. Size restrictions apply. Minimum "A" dimension 152mm (6.00"); "B" dimension 127mm (5.00"). "Maximum "A" dimension 320mm (12.63"); "B" dimension 320mm (12.63)". See page 4 for product orientation.

STANDARD SPECIFICATIONS

MAY SELECT ANY

OPTIONAL FEATURES

RS-3300-030	Interface. Connection to standard 3 KN H.T., 4th/5th KN H.T., “Macey” style trimmers and standard mail table (w/o BC-500). Includes stacker power cord with cam loc plug. Also see RS-3300-034.
RS-3300-031	Interface: Connector-Standard Mail Control—RS-33 Townsort
RS-3300-031-A	Shift register input mail control — refer to S-75-524
RS-3300-032	Interface. Connection to standard Mueller trimmers. Includes Stacker power cord only (without plug or receptacle).
RS-3300-034	Cam Loc Receptacle. Required if RS-3300-030 is ordered and up-stream equipment does not have this interface.
RS-3300-037	Interface to Stahl ST-90/100/300. Includes electrical components, cable and connectors for connection with Stahl ST-90 stitcher.
RS-3300-039	Interface: Kolbus (Basic)—S-74-885, S-75-529
RS-3300-040	4/5 Knife Kit (Two-Up Option). Includes center divider. Allows precise stack separation.
RS-3300-041	Turntable. (Size to be specified by customer). This option is only used with the RS-3313S, 330mm (13.00”) machine or if Option RS-3300-087 is chosen for the RS-3310S machine.
RS-3300-042	Side Jogger. Results in better stack quality, especially when operating with thin products.
RS-3300-042-01	Side Jogger — manual adjust (pneumatic vibrators). Results in better stack quality.
RS-3300-042-02	Side Jogger—motorized adjust. Pneumatic vibrators with motorized adjustment — adjustable through Operator Interface. Results in better stack quality.
RS-3300-044-01	Book orientation—servo. Servo motor driven. Enables book backbone to be oriented before ejection. This option increases cycle time.
RS-3300-044-02	Book orientation—servo 180°. Servo motor driven. Enables book backbone to be oriented 180° before ejection. This option increases cycle time.
RS-3300-046	7" Divert Gate assembly: Maximum speed — 7000 books per hour, Maximum book thickness — 50mm. Divert up/down is controlled by an external source.
RS-3300-053	Straight-out delivery — used with 90° turn on pneumatic or servo turntable.

MAY SELECT ANY**OPTIONAL FEATURE (Cont.)**

RS-3300-054	Pneumatic pusher, two-piece — Allows left, right, or straight-out delivery. Includes 90° turn before pushout, RS-3300-060 . Infeed height restrictions apply.
RS-3300-056	Servo pusher (two piece). Allows left, right or straight-out delivery. Servo motor driven — faster, quieter operation. Reduced cycle times. Precise speed and pushout distance control.
RS-3300-057	Servo pusher—Straight-out. Precise pushout distance and speeds adjustable through the Operator Interface. Allows decreased cycle time.
RS-3300-058	Infeed top-belt take-up. Book thickness 80mm (3.10") max. Standard book thickness is 64mm (2.50") max. This option increases the book thickness to 80mm (3.10") max.
RS-3300-059	Servo Turntable Drive. Product orientation can be adjusted through the Operator Interface. This option will allow for optimum turntable position whether the product enters stacker with the last fold leading or to the side. When using the 90° turntable push 1.0 second will be added to the pusher cycle time. See "Servo Driven Turntable Operational Description."
RS-3300-060	90° Turn Before Pushout. In conjunction with straight-out delivery option, the 90° turn option will let you run maximum product size (cycle time restrictions apply). Add 1.5 seconds to pusher cycle.
RS-3300-072	Tachometer following option (external speed reference).
RS-3300-074	Interface: Kolbus Option 1—in addition to RS-3300-039
RS-3300-075	Interface: Kolbus Option 2—in addition to RS-3300-039
RS-3300-076	Servo Pusher — Hi Speed (RS-10 style, belt driven) Precise speed and pushout distance control through Operator Interface.
RS-3300-080	Paint. Special color (other than Rima standard color).
RS-3300-085	Bin Gate. Helps to keep the books straight before dropping into the bin unit. This option is recommended for large books.
RS-3300-086	Leg Extensions. Matches delivery height of stacker to the infeed of the V.T. trimmer. Stacker is raised by 165mm (6.50"). Infeed height is also raised by same amount.
RS-3300-087	Table Pick-Up Option. This is an option for the RS-3310 machine only. If this option is specified, see also under RS-3300-041. (It comes as part of the basic equipment on the RS-3313S machine).
RS-3300-120	Minimum size product ("B" DIM) 127mm (5.00")

MAY SELECT ANY**OPTIONAL FEATURE (Cont.)**

RS-3300-140	Hand-held Programming Unit. For use by supervisory or maintenance personnel to monitor equipment, make minor programming changes, or to transfer programs from one stacker to another. Also, see RS-3300-250.
RS-3300-150	Operator/Maintenance/Parts Manual. One is included with each stacker.
RS-3300-226-01	Operator Interface—external right mount
RS-3300-226-02	Operator Interface—external left mount
RS-3300-226-03	Operator Interface—external back mount
RS-3300-250	Software and cable for communication between the Mitsubishi PLC and an IBM compatible computer (includes manual) used for editing, documenting, and troubleshooting the PLC Program.
RS-3300-260	Software and cable for communication between the Operator Interface Panel and an IBM compatible computer used for editing the Operator Interface Program.
RS-3300-275	Interface (Blocking Unit)
RS-3300-302	RS-33 Straight-out ("A" maximum 16")
RS-3300-360	Vent Assembly Control Box. Fan and filter option for main electric control box. Recommended in climates with elevated temperatures and humidity.

Motorized Turntable Basket Adjustment

RS-3300-041-201—Motorized turntable basket adjustment allows the turntable basket to be adjusted for different product sizes in the "A" and "B" dimensions while the stacker is in operation. The turntable basket size is adjusted through the operator interface panel by entering the product size or increment / decrement keys for smaller adjustments. Applies to all bindery stackers without stack compression or table pick. Affected models: RS-10S, RS-12S and RS-3310S.

SPARE PARTS

Spare parts kits are defined for various models. Due to revisions and improvements in the basic stacker, spare parts are subject to change without notice.

Spare parts kits for most models are defined as Level I, Level II and Level III. Level I is a minimal kit,

RS-3300-400	Spares for RS-3310S - Level I
RS-3300-401	Spares for RS-3310S - Level II
RS-3300-402	Spares for RS-3310S - Level III
RS-3300-403	Spares for RS-3313S - Level I
RS-3300-404	Spares for RS-3313S - Level II
RS-3300-405	Spares for RS-3313S - Level III

REVISIONS

Jan '94		First issue	
Apr '96	B	<p>Page 1: Drawing revised and items renumbered.</p> <p>Page 3: Angles added to X vs Y chart.</p> <p>Page 4: Infeed height (maximum) metric conversion correction. Input Power: changed to 1.5 KVA.</p> <p>Page 5: Table has been rewritten.</p> <p>Page 9: RS-3300-037 added.</p>	jl
Nov '97	C	<p>Page 4: Option Thickness added to table.</p> <p>Page 9: RS-3300-058 added.</p>	jl
Jan '98	D	<p>Date revised (Header)</p> <p>Page 5: Operating Capacity Table revised. Text added and new drawings.</p>	jl
Jan '01	E	Page 10: Added Motorized Turntable Basket Adjustment section	jl
Jul '01	F	<p>Page 1: Drawing revised</p> <p>Page 3: Drawing revised</p> <p>Page 4: Table revised: added Servo Power, 3KVA</p> <p>Page 7: Changed d.c. to AC</p> <p>Page 7: Input Power: changed format</p> <p>Page 10: Added Optional Features: RS-3300-031, RS-3300-031-A, RS-3300-039 RS-3300-057, RS-3300-059, RS-3300-074 RS-3300-075, RS-3300-076, RS-3300-041-201 RS-3300-226-01, RS-3300-226-02, RS-3300-226-03</p>	sa
Sep '01		<p>Page 9: Added Optional Features: RS-3300-039, RS-3300-031, RS-3300-031-A RS-3300-054, RS-3300-042-01, RS-3300-015, RS-3300-016</p> <p>Page 12: RS-3300-201</p>	
Jan '02	G	Page 8: Added Nameplate languages: RS-3300-017-01 — Danish, RS-3300-017-02 — Swedish, RS-3300-017-03 — Finnish, RS-3300-017-04 — Greek	sa

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