

APPLICATION

The RS-2510S is rated at up to 60,000 products per hour, and works directly in line with most standard press deliveries or rotary trimmers to produce counted, compressed and compensated stacks of superior quality of inserts, or signatures with minimum manning.

FUNCTION

The product enters the stacker in shingled form. The divert is activated when there is a jam in the stacker, thus allowing the press to continue to run while the jam is cleared.

Once past the divert area, the product enters the stream aligner which ensures that the edges of the stream are perfectly uniform. The product subsequently passes through a squeeze roller which tightens the fold of the product. Precision counting of the product occurs as the next step in the process followed by forming a gap which breaks the stream into pre-selected batch quantities.

Machine: Compensating Counter Stacker**Model: RS-2510S**

The batch flows into the upper bin unit which uniformly aligns the stack. The batch quantity of products cannot exceed the height capacity of the upper bin unit. The batch is then dropped into the lower bin. To minimize the drop, the customized turntable is raised.

The turntable lowers the stack while compression pins for all four corners are extended above the stack. As the turntable raises, it then compresses the stack removing the air and firming the stack. (This is the key operation used in forming the excellent quality stacks). While the turntable is compressing the stack, it can also be rotated 180° to provide for a compensated stack. The batches are accumulated in the lower bin until the total stack count is reached. The gates of the lower bin are then opened and the pusher moves the stacks onto the delivery table.

ADVANTAGES

- Excellent quality stacks
- Lower skid heights and more products per skid
- Manpower reduction
- Low infeed height
- Low space requirement
- Very open for viewing product flow and ease of maintenance
- Large, satisfied customer base (newspaper mailrooms) with more efficient stuffing operation
- Reduced waste
- Minimal marking
- Mobile
- 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. Improved counting accuracy. 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.

CONFIDENTIAL

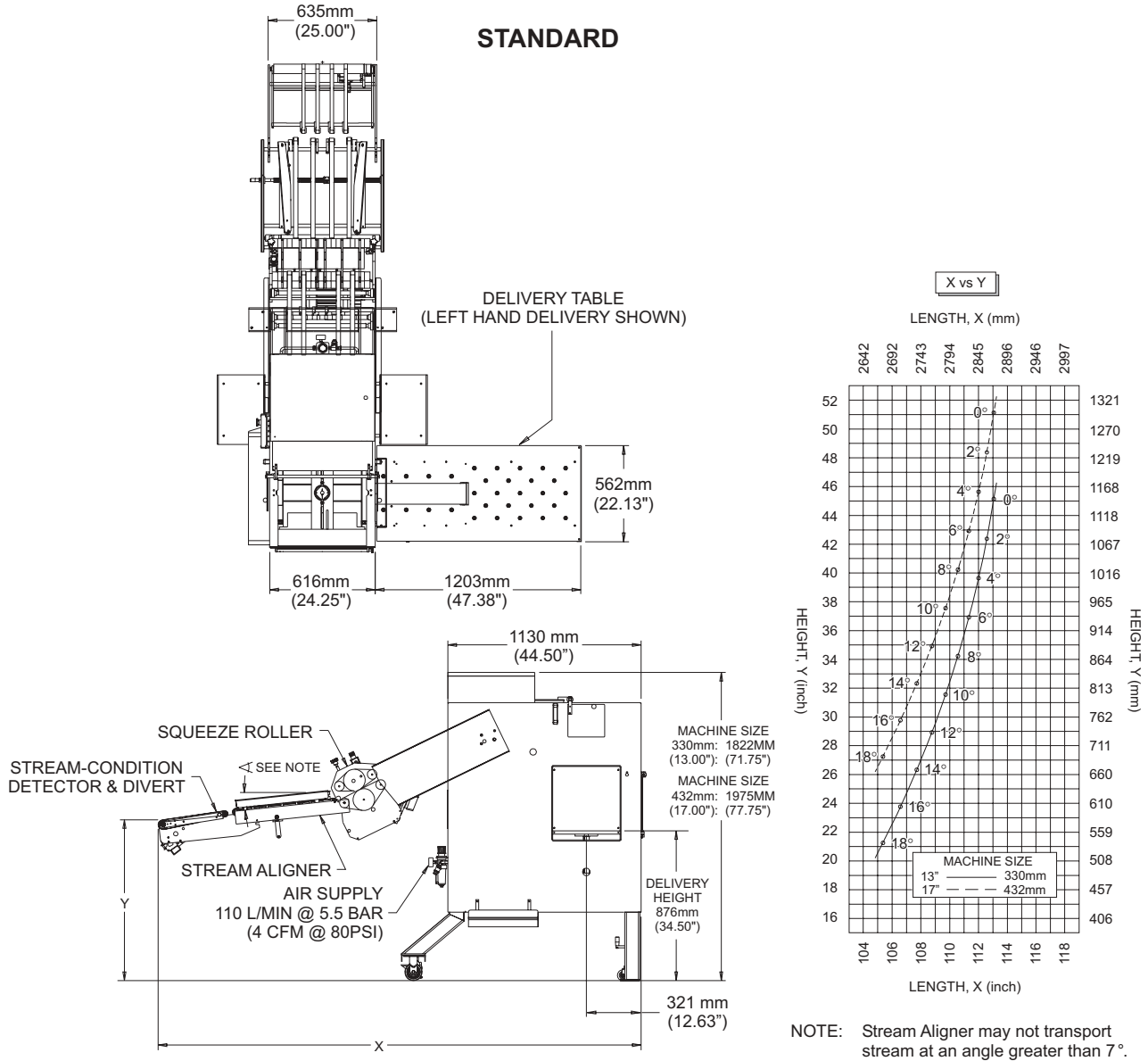
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Specifications

Machine: Compensating Counter Stacker

Model: RS-2510S

FLOOR PLAN — Standard



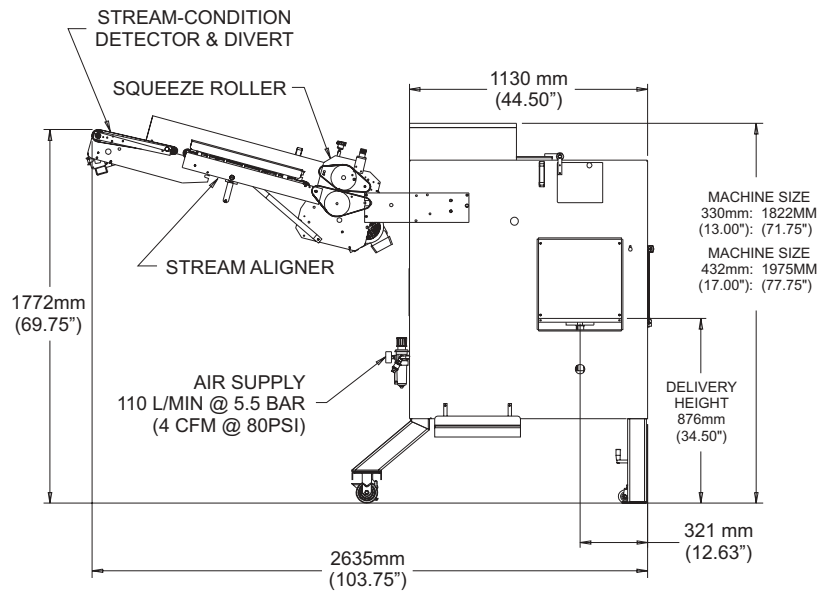
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FLOOR PLAN — High Infeed

HIGH INFEED



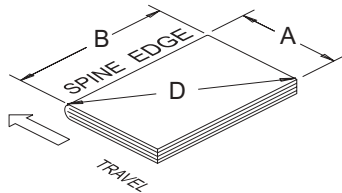
Specifications

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Standard Specifications

Product size	Minimum		Maximum	
	"A" Dimension - Std	133mm (5.25")		321mm (12.63")
"B" Dimension - Std Option	152mm (6.00") 152mm (6.00")		470mm (18.50") 498mm (19.63")	
"D" Dimension	Limited by "A" & "B"		520mm (20.50")	
Thickness	4 Page 57g/m ² 35lbs		96 Page 57 g/m ² 35lbs	
Operating Speed	60,000 Products Per Hour (Product Permitting)			
Stack Height (Maximum)		Size 330mm (13.00")	Size 431mm (17.00")	
	Upper Bin	127mm (5.00")	177mm (7.00")	
	Total Stack	330mm (13.00")	431mm (17.00")	
Infeed Height (See Floor Plan)	Minimum	549mm (21.50")	699mm (27.50")	
	Maximum	1146mm (45.13")	1299mm (51.14")	
Infeed Stream Lap	Minimum	30mm (1.25")		
	Maximum	102mm (4.00")		
Delivery Conveyor Height	876mm (34.50")			
Product Orientation	Spine Leading (Preferred)			
	Spine On Side (Acceptable)			
	Spine Trailing (Acceptable)			
Input Power	3 KVA (See Voltage Selection Specifications)			
Air Requirement	110 L/min @ 5.5 bar (4 cfm @ 80 psi)			
Weight	900 kg (2000 lb)			



STANDARD SPECIFICATIONS

Capacity: The capacity of the RS-2510S is directly related to the time requirements for its primary functions. Use the ejection cycle time chart and the capacity/speed to determine maximum press speed.

RS-2510S EJECTION CYCLE TIME

Ejection Time Time(Sec) 2510S	TABLE DIAMETER			One side eject: Short stroke with belt assist del. @ 610mm (24.00")/sec. stacked speed	Full Stroke	Alternating Delivery
	380mm(15.00") *394mm(15.50")	457mm(18.00") *470mm(18.50")	533mm(21.00") *546mm(21.50")			
1.2				X		
1.2	X	X	X			X
1.4		X		X		
1.6			X	X		
2.0					X	

* Product Maximum Diagonal Dimension

ADDITIONAL TIME REQUIREMENTS:

1. Add 0.2 seconds for 432mm (17.00") stack height.
2. For every 51mm (2.00") less than full stack height, add 0.1 seconds.
3. Compression before eject is a minimum of 1.8 seconds.

EXAMPLE:

- A. For an RS-2517S with "One side eject; short stroke with belt assisted delivery; and a 457mm (18.00") diameter table", the ejection time for a full stack is:

$$1.4 \text{ sec} + 0.2 \text{ sec} = 1.6 \text{ sec}$$

- B. If the actual stack height is 305mm (12.00"):

$$1.6 \text{ sec} + [(432\text{mm} - 305\text{mm}) / 51\text{mm} \times 0.1 \text{ sec}] = 1.6 \text{ sec} + 0.25 \text{ sec}$$

$$1.6 \text{ sec} + [(17.00" - 12.00") / 2.00" \times 0.1 \text{ sec}] = 1.6 \text{ sec} + 0.25 \text{ sec}$$

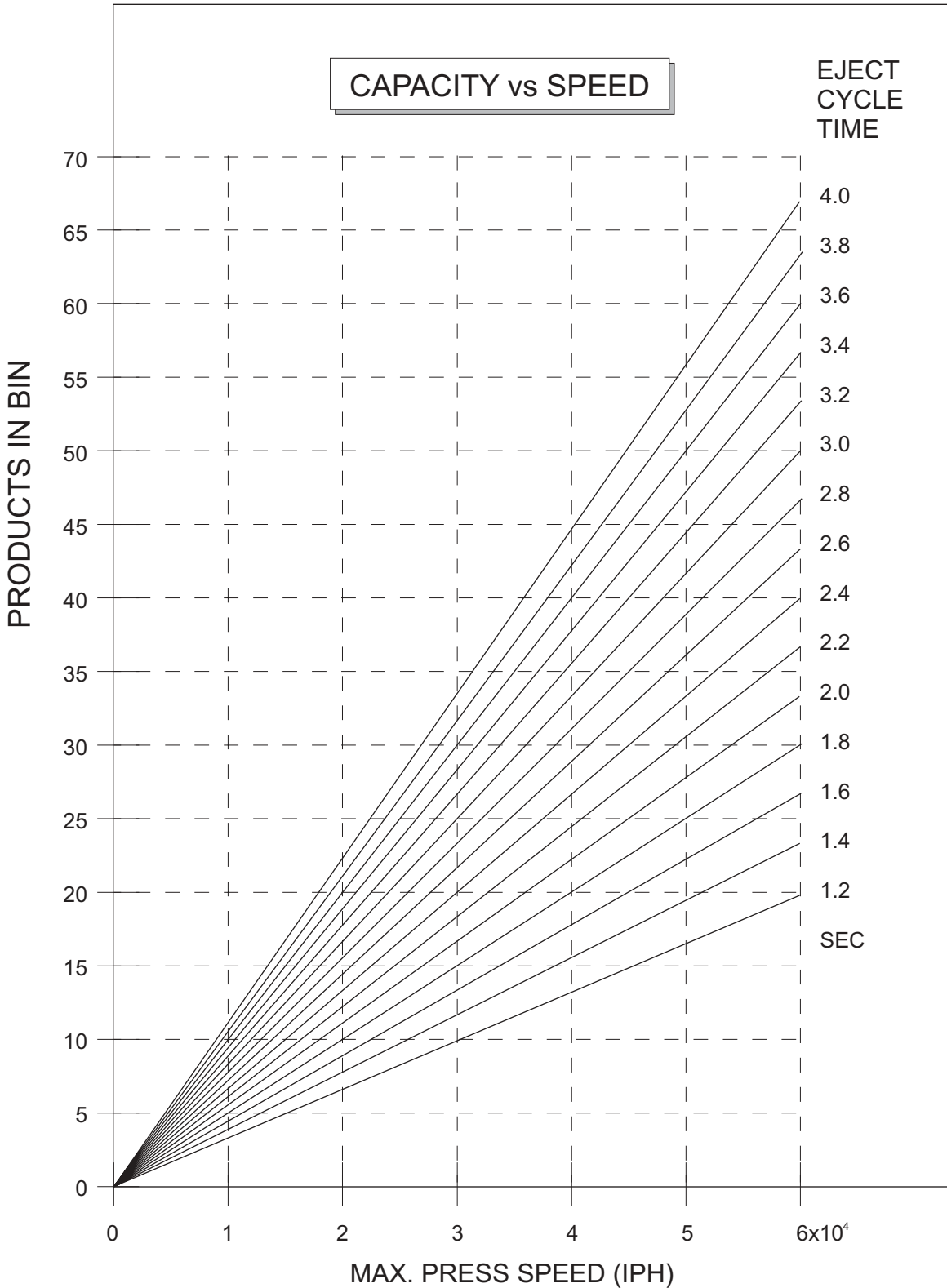
- C. If the operator also wishes to compress the last drop before ejection, the ejection cycle time will be:

$$1.8 \text{ sec (min)} + 1.85 \text{ sec} = 3.65 \text{ sec (min)}$$

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TURNTABLES

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.




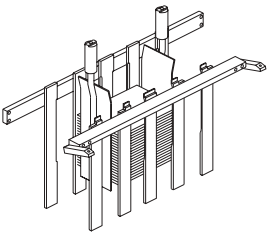
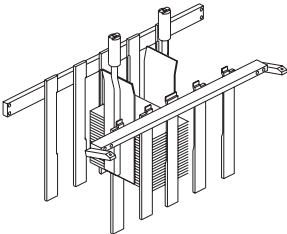
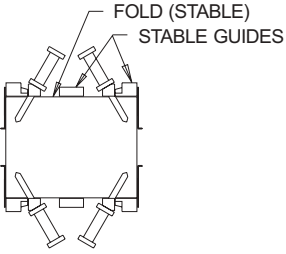
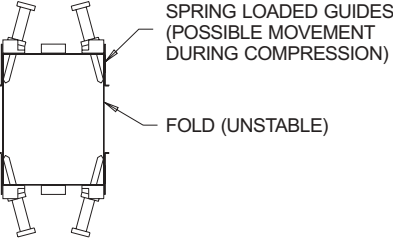
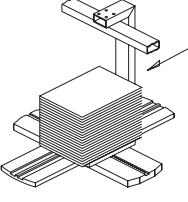
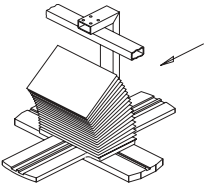
The custom turntables should be sized to the most commonly run products. Other product sizes can effectively be run on a custom turntable, if they are within 76mm (3.00") larger for the "B" dimension for the table, and not more than 10mm (.38") larger for the "A" dimension. Products smaller than the 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.

PRODUCT FEED CONSIDERATIONS

Products should enter the stacker with the last folded edges leading to ensure stack quality and trouble-free operation of the stacker. The following are recommended:

 <p>Preferred</p>	 <p>Acceptable</p>	 <p>(Not recommended)</p>
 <p>More support in the bin- Good stack quality</p>	 <p>Less support in the bin- Poor stack quality</p>	
 <p>FOLD (STABLE) STABLE GUIDES</p> <p>Good compression in table basket</p>	 <p>SPRING LOADED GUIDES (POSSIBLE MOVEMENT DURING COMPRESSION)</p> <p>FOLD (UNSTABLE)</p> <p>Poor compression in table basket</p>	
 <p>Stable</p>	 <p>Unstable</p>	

SPECIFICATION NUMBERS

MUST SELECT ONE **RS-2510S COUNTER/STACKER**

RS-2510S Pneumatic single eject (left or right); 127mm (5.00") upper bin capacity; 330mm (13.00") high stack capacity. *SEE NOTE.*

RS-2517S Pneumatic single eject (left or right); 178mm (7.00") upper bin capacity; 432mm (17.00") high stack capacity. The RS-2517S is more suited for thick product and is not recommended for product 12 pages (tab) or less. *SEE NOTE.*

RS-2510SN RS-2510SN 330mm (13.00") is the RS-2510S equipped with special infeed belts that reduce the transfer of ink from the product to the belt then back to the product common on cold set presses. The "SN" model also incorporates a completely redesigned gapper assembly, which is better suited for the thicker products (up to 128 pages). *SEE NOTE.*

RS-2517SN RS-2517SN 432mm (17.00") is the RS-2517S equipped with special infeed belts that reduce the transfer of ink from the product to the belt then back to the product common on cold set presses. The "SN" model also incorporates a completely redesigned gapper assembly, which is better suited for the thicker products (up to 128 pages). *SEE NOTE.*

NOTE: All Models RS-2510S, RS-2510SN, RS-2517S and RS-2517SN include the following:

Divert gate, stream aligner, squeeze rollers, stream separator, mechanical/proximity counting head, side joggers in upper bin, flipper fingers, integrated turntable and stack compression, air operated gates, tachometer drive generator, operator interface panel, programmable logic controller, AC main drive, associated drives, and pneumatic and electrical controls. Three turntables are included per stacker; size must be defined on the order form.

SPECIFICATION NUMBERS

MUST SELECT ONE INPUT POWER

RS-2500-001	208 V, 3~, GND, 50/60 Hz
RS-2500-002	480 V, 3~,GND, 60 Hz
RS-2500-003	200 V, 3~, N, PE, 50/60 Hz
RS-2500-004	380 V, 3~,N, PE, 50/60 Hz
RS-2500-005	416 V, 3~,N, PE, 50/60 Hz
RS-2500-007	400 V, 3~, N, PE, 50/60 Hz
RS-2500-009	240 V, 3~,GND, 60 Hz
RS-2500-020	220 V, 3~, GND, 60 Hz

MUST SELECT ONE NAMEPLATE LANGUAGE

RS-2500-010	English
RS-2500-011	French
RS-2500-012	German
RS-2500-013	Italian
RS-2500-014	Spanish
RS-2500-015	Dutch
RS-2500-016	Portuguese
RS-2500-017-01	Danish
RS-2500-017-02	Swedish
RS-2500-017-03	Finnish
RS-2500-017-04	Greek

MUST SELECT ONE SCALE

RS-2500-028	Inch
RS-2500-029	mm

Specifications

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MUST SELECT ONE DELIVERY DIRECTION

RS-2500-050	Delivery to the left.
RS-2500-051	Delivery to the right
RS-2500-053	Straight out delivery.



The following limitations apply for straight-out delivery:

- 1) "B" dimension limited to 321mm (12.63") maximum.
- 2) Minimum infeed height: 330mm (13.00") machine 763mm (30.00") .
432mm (17.00") machine 914mm (36.00").
- 3) Stacker cannot be converted to left or right delivery.

NOTE: See RS-2500-060

RS-2500-054	Pusher system (two-piece) left or right and/or straight-out. Includes 90° turn before pushout RS-2500-060. (Infeed height restrictions apply).
RS-2500-056	Dual eject pusher option. Left, right or alternating selectable via operator interface panel. Provides ability to send stacks out of both sides in an alternating fashion. Can also be used for stacks in either all left or all right. Maximum diagonal of product is 470mm (18.50") when alternating (with center mounted pusher).

DELIVERY TABLES

See RS-16 Specifications

DELIVERY CONVEYORS

See RS-26 Specifications

SPECIFICATION NUMBERS

MAY SELECT ANY

OPTIONAL FEATURES

RS-001	Odd Count Software. Requires IBM-compatible computer and Windows operating system. Software supports data input in advance for up to 1000 stacks with changing number of signatures per stack, including a display which shows the number of copies of a completed stack. Also see RS-003 and RS-2500-270.
RS-003	Computer Hardware for Odd Count Software RS-001. Minimum requirement: PC 486/33 MHz, 120 MB hard drive, 3-1/2" floppy disk drive, 4MB RAM, 2 serial/1 parallel port, 1 free 8-bit slot (for OCS module card), VGA monitor, Windows Version 3.0 or up and DOS Version 5.0 or up. Also see RS-001 and RS-2500-270.
RS-2500-172-30	Infeed Extension 762mm (30.00").
RS-2500-172-24	Infeed Extension 610mm (24.00"). Minimum infeed height is 178mm (7.00") lower than standard at its lowest point. <i>NOTE: Stream Aligner angle is at its maximum.</i>
RS-2500-041	Additional Turntable. (Size to be specified by customer)
RS-2500-060	90° turn before pushout. In conjunction with straight-out delivery option RS-2500-053, this option will allow full product size range. Cycle time is increased with this option (adds 1.6 seconds to pusher cycle time).
RS-2500-070	Tachometer Generator. Additional unit for permanent mounting on second press delivery. Facilitates setup when stacker is frequently moved to various press deliveries.
RS-2500-071	Tachometer generator assembly. (Stream divert mounted)
RS-2500-080	Paint. Special color (other than RIMA standard color).
RS-2500-120	Modification to reduce the minimum product "B" dimension to 127mm (5.00") for the 330mm (13.00") stacker, or 140mm (5.50") for the 432mm (17.00") stacker. Not recommended unless necessary, as the gate brackets are reduced in size. Not recommended for RS-2517S.
RS-2500-121	Oversize "B" 498mm (19.63") maximum, no diagonal restriction. <i>NOTE: When used with RS-2500-053 Straight-Out Option, the minimum infeed height is 775mm (30.50") on the 330mm (13.00") stacker and 914mm (36.00") on the 431mm (17.00") stacker.</i>
RS-2500-125	Center Compression Pins. Provides for two additional compression pins for a total of six, one at each corner and one on each side in the center. Aids in compressing stack when product is large ("B" dimension) and bulky.
RS-2500-049	Compression Plate Assembly. Provides less marking on sensitive stock than compression pins.

SPECIFICATION NUMBERS

MAY SELECT ANY OPTIONAL FEATURES (Cont.)

RS-2500-190	Gapper Assembly for Stream Divert. Improves divert operation by positively gapping the stream before diverting.
RS-2500-130	High Infeed Option. (See floor plan for details)
RS-2500-140	Hand-Held Programming Unit (communicates with PLC). 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-2500-250.
RS-2500-150	Operator/Maintenance/Parts manual. One is included with each stacker.
RS-2500-160	"S" Conveyor Option for high press delivery. This option allows the use of a standard RIMA counter/stacker in line with high press deliveries. It does not add length in the horizontal plane. This self-contained (cart-mounted) unit easily interfaces with the stacker. The conveyor is designed to accept a maximum product width of 419mm (16.50"), 32 pages.
RS-2500-170	Low Infeed Option. RS-2510SN minimum infeed height 330mm (13.00"). RS-2517SN minimum infeed height 444mm (17.50"). <i>NOTE: The low infeed option is possible by the addition of an Infeed Conveyor. With this option, the overall length increases approximately 1220mm (48.00").</i>
RS-2500-275	Interface (Blocking Unit).
RS-2500-210	Non-marking belt option.
RS-2500-310	Oversize product "A" dimension.
RS-2500-031	Interface - Mail control (Townsort) - Connection to standard BC-310 mail control. Includes stacker power cord with cam loc plug. Also includes the logic umbilical cord with amphenol plug for the BC-310/510 mail control system. Also see under RS-2500-034.
RS-2500-031-A	Shift register input mail control. Refer to S-75-524.
RS-2500-078	Single signature count option
RS-2500-250	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.

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MAY SELECT ANY OPTIONAL FEATURES (Cont.)

RS-2500-260	Software and cable for communication between the Operator Interface Panel and an IBM compatible computer used for editing the Operator Interface Program.
RS-2500-270	Interface (RS-2800 Odd Count System)
RS-2500-309	Counter — Laser and mechanical.
RS-2500-304	Counter — Infrared laser beam (type Denex LC). Laser counter instead of mechanical counter.
RS-2500-308	Counter — Infrared (type QTMS). QTMS counter instead of mechanical counter.
RS-2500-360	Vent Assembly — Control Box. Fan and filter option for main electric control box. Recommended in climates with elevated temperatures and humidity.

SPARE PARTS

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

Spare kits are defined as Level I, Level II, and Level III. Every stacker is shipped with a very basic spare parts kit required for normal operation. Level I provides the minimal spare parts, while Level III provides a comprehensive set.

RS-2500-200	Spares for RS-2510S, RS-2517S - Level I
RS-2500-201	Spares for RS-2510S, RS-2517S - Level II
RS-2500-203	Spares for RS-2510S - Level III
RS-2500-204	Spares for RS-2517S - Level III

Specifications

Machine: Compensating Counter Stacker

Model: RS-2510S

REVISIONS

REV Date	REV	Revision Description	By:
May '93		First issue	
Oct '95	B	Pg 6: Infeed Height Size 17.00" Minimum. From 38" to 28" Pg 9: Low Infeed. 26 to 36 range changed.	jl
Apr '96	C	Pg 6: Infeed Stream Lap (Minimum) metric size changed Product Size: "B" and "D" dimensions changed Pg 7: Ejection Table: 21.00", metric conversion correction Example A: metric conversion correction Pg 4,5: High infeed modified, angle vs "Y" height change Pg 14: Note added to RS-2500-121, Added: RS-2500-160, -304, -308, Deleted RS-2500-260	jl
Jan '98	D	Date revised (Header)	jl
Jun '98	E	Pg 6: Infeed height: both maximum and minimum revised Pg 5: graph: standard infeed updated Pg 14: RS-2670-024 revised to read RS-2500-172-24	jl
Nov '01	F	Revised format, Date revised (footer) Pg 4,5: Revised Floor Plan Pg 3: Added Confidentiality Statement Pg 13: Revised Input Power Format Added RS-2500-016 Pg 10: Revise Dwg, Product Feed Considerations Pg 14: Added RS-2500-172-30, RS-2500-172-024 Added RS-2500-049 Pg 15: Added RS-2500-058, RS-2500-068, RS-2500-091 Added RS-2500-090, RS-2500-275 Added RS-2510-031, RS-2500-031-A Pg 16: Added RS-2500-210, RS-2500-310 Added RS-2500-054, RS-2500-057 Added RS-2500-076, RS-2500-078	sa
Dec '01			
Jan '02	G	Pg 15: Removed: RS-2500-057, RS-2500-076 Removed: RS-2500-058 Added Nameplate languages: RS-2500-017-01 — Danish, RS-2500-017-02 — Swedish, RS-2500-017-03 — Finnish, RS-2500-017-04 — Greek	sa
Mar '02	H	Pg 16: Added: RS-2500-260, RS-2500-270	sa

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