

Application

The RS-10S 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 inserters 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

Individual, side-by-side, or stacks of products are delivered from an upstream system, preferably with the spine leading, and is conveyed by the positive control belt system on the inclined infeed. The products, or stacks of products are accurately counted just prior to entering the upper bin.

Products accumulate in the 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 bin rotate and release the products down into the basket on the turntable.

If compensation is desired, the turntable will rotate 180° while products continue to accumulate in the upper bin unit. These operations are repeated until the total number of products 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 (127mm/5.00") of products into the upper bin unit, improving stack integrity
- Upper bin unit product jogger
- Stack ejector (pusher), adjustable in speed
- Pneumatically actuated gates on the turntable basket (optional)

Advantages

- Excellent quality stacks
- Manpower reduction
- Low space requirement
- Very open for viewing product flow and ease of maintenance
- Large, satisfied customer base
- Minimal marking in
- Mobile
- Accurate product counts
- Low maintenance
- Time proven design
- Operator interface panel and high speed industry standard 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

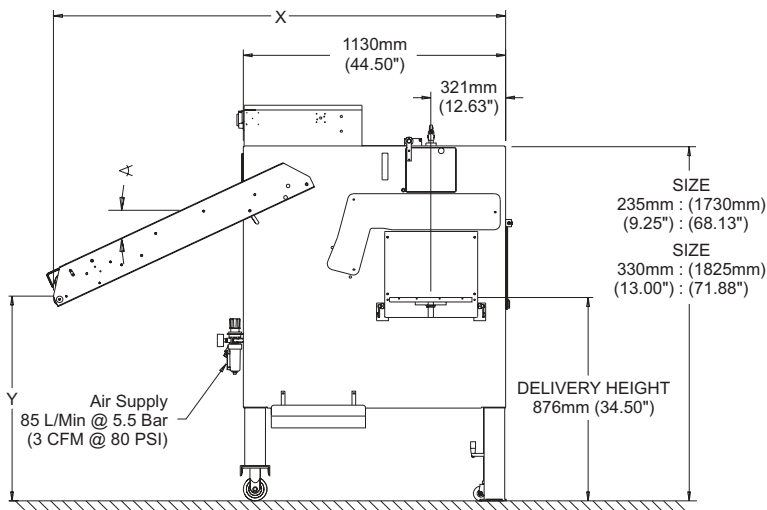
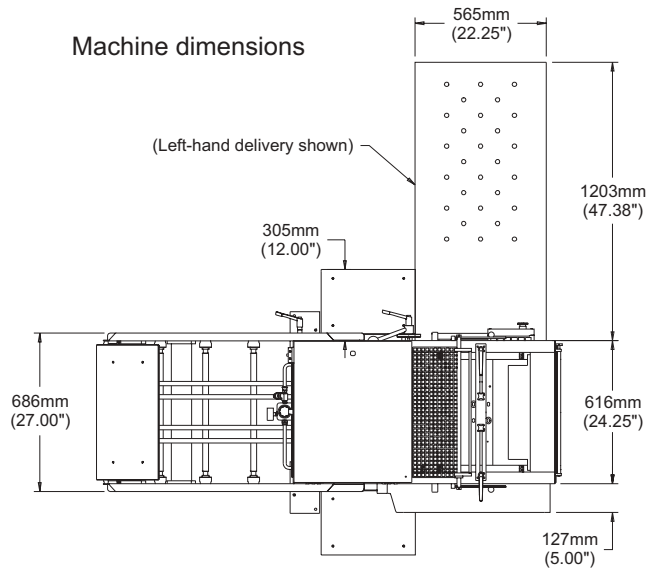
RIMA ENTERPRISES does not warrant operating capabilities of equipment. The equipment described herein is powered to cycle mechanically as indicated. However, it must be understood that actual operating capabilities vary under different conditions for which RIMA ENTERPRISES can assume no responsibility. 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.

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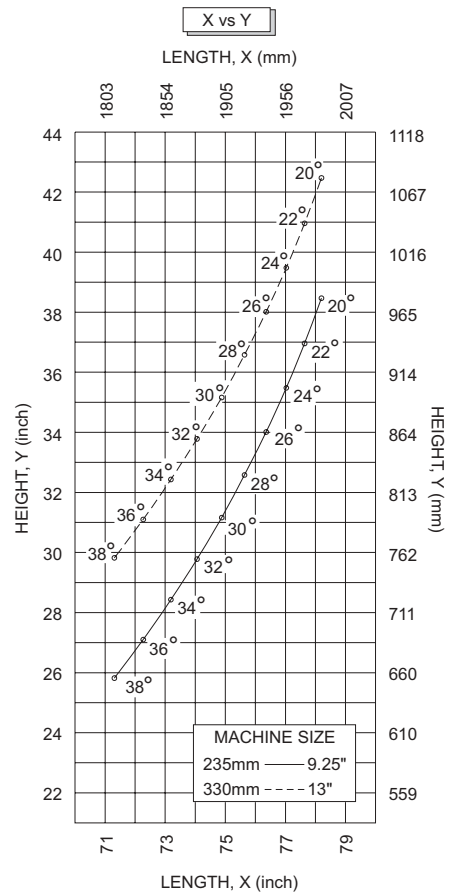
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Floor Plan

Dimensions and infeed angles of the RS-10S are shown below.



Infeed angle

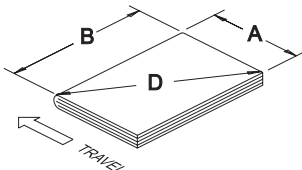


Specifications

Machine: Compensating Counter Stacker

Model: RS-10S

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	1mm (0.04")	32mm (1.25")

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	660mm (26.00")	750mm (29.50")
	Maximum	990mm (39.00")	1079mm (42.50")

Delivery Table Height	876mm (34.50")
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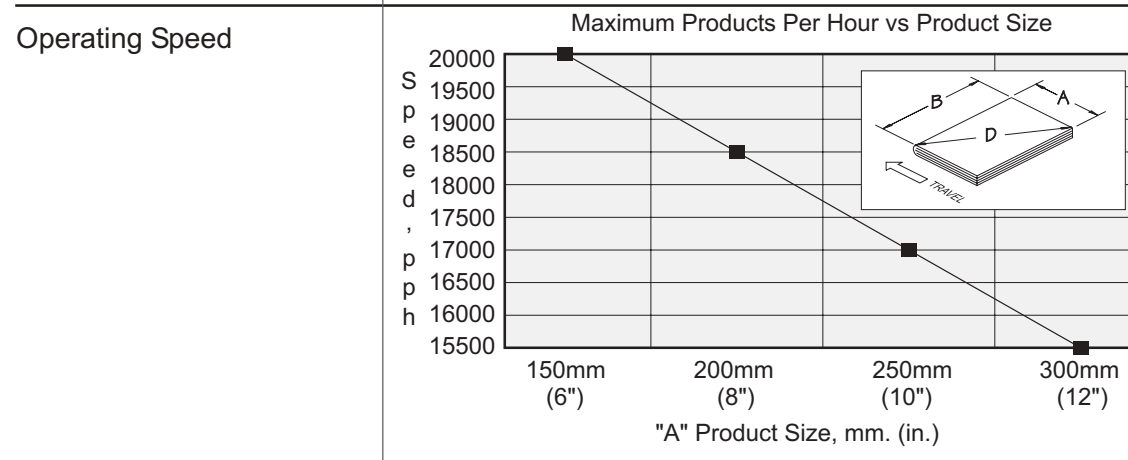
Product Orientation	Spine Leading (Preferred)
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Input Power (Standard)	1.5 KVA (See Voltage Selection Specifications)
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Input Power (Servo)	3.0 KVA
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Air Requirement	85 L/min @ 5.5 bar (3cfm @80 psi)
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Weight	500 kg (1,100lb)
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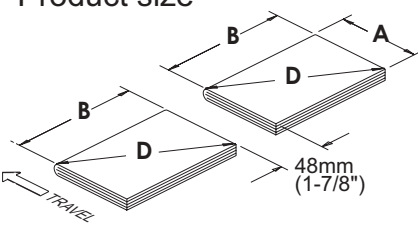
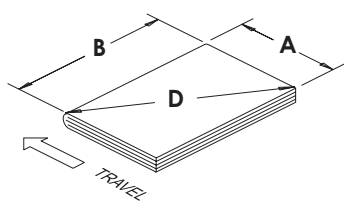
Stack Cycle Rate (Max)		Books/Stack vs. Cycling Speed (Max)	
Stack/minute	Compensation	4 Books	9,000 pph
38	none	5 Books	11,000 pph
19	one	6 Books	13,500 pph
12	two	7 Books	15,750 pph
		8 Books	18,500 pph

Specifications

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Twin Pusher Option

Product size	Double Product	Minimum	Maximum
	"A" Dimension	102mm (4.00")	320mm (12.63")
	"B" Dimension	102mm (4.00")	216mm (8.50")
	"D" Dimension	Limited by "A" & "B"	No Restrictions
Product size	Single Product	Minimum	Maximum
	"A" Dimension	102mm (4.00")	320mm (12.63")
	"B" Dimension	152mm (6.00")	470mm (18.50")
	"D" Dimension	Limited by "A" & "B"	445mm (17.50")

The RS-10S with the "twin pusher" option can accept books in two different configurations:

1. **Double Product:** In this setup, the stacker will give townsort control to the right and left independent of each other.

Note: In "double product" set up, compensation is not possible, also note size restrictions. Change-over from "double product" to "single product" delivery or vice versa requires a five- to ten- minute change-over time.

2. **Single Product:** The stacker delivers to the left or right in "townsort control" or with "preset counts".

Note: Change from left to right or vice versa requires a five- to ten- minute change over time.

SPECIFICATION NUMBERS

MUST SELECT ONE

Counter/Stacker

RS-1012S	Counter/Stacker equipped as follows: 235mm (9.25") stack height with 127mm (5.00") upper bin capacity, single eject system (left or right), caster-mounted, programmable controller, AC drive.
RS-1013S	Counter/Stacker equipped as follows: 330mm (13.00") stack height with 127mm (5.00") upper bin capacity, single eject system (left or right), caster-mounted, programmable controller, AC drive.
RS-1015S	Counter/Stacker (Front Delivery) equipped as follows: 235mm (9.25") stack height with 127mm (5.00") upper bin capacity, single eject system (straight-out only), caster-mounted, programmable controller, AC drive. 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"). <i>(See page 4 for product orientation)</i>
RS-1016S	Counter/Stacker (Front Delivery) equipped as follows: 330mm (13.00") stack height with 127mm (5.00") upper bin capacity, single eject system (straight-out only), caster-mounted, programmable controller, AC drive. 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"). <i>(See page 4 for product orientation)</i>
RS-1020S	Counter/Stacker (Twin Pusher) equipped as follows: 235mm (9.25") stack height with 127mm (5.00") upper bin capacity, twin pusher (center to left and right simultaneously), left or right delivery, caster-mounted, programmable controller, AC drive, twin two-up option. <i>(See page 5 for limitations)</i>

MUST SELECT ONE

Input Power

RS-1000-001	208 V, 3~, GND, 50/60 Hz
RS-1000-002	480 V, 3~, GND, 60 Hz
RS-1000-003	200 V, 3~, N, PE, 50/60 Hz
RS-1000-004	380 V, 3~, N, PE, 50/60 Hz
RS-1000-005	416 V, 3~, N, PE, 50/60 Hz
RS-1000-006	600 V, 3~, GND, 60 Hz
RS-1000-007	400 V, 3~, N, PE, 50/60 Hz
RS-1000-008	115 V, 1~, GND, 60 Hz
RS-1000-009	240 V, 3~, GND, 60 Hz
RS-1000-020	220 V, 3~, GND, 60 Hz

Specifications

Machine: Compensating Counter Stacker

Model: RS-10S

MUST SELECT ONE

Nameplate Language

RS-1000-010	English
RS-1000-011	French
RS-1000-012	German
RS-1000-013	Italian
RS-1000-014	Spanish
RS-1000-015	Dutch
RS-1000-016	Portuguese
RS-1000-017-01	Danish
RS-1000-017-02	Swedish
RS-1000-017-03	Finnish
RS-1000-017-04	Greek

MUST SELECT ONE

Scales

RS-1000-028	Inch
RS-1000-029	mm

MUST SELECT ONE**Delivery Direction**

RS-1000-050

Delivery to the left. RS-1012S or RS-1013S only.

RS-1000-051

Delivery to the right. RS-1012S or RS-1013S only.

SPECIFICATION NUMBERS**MAY SELECT ANY****Optional Features**

RS-1000-030

Stacker power cord with Cam-Loc plug.

RS-1000-031

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-1000-034.

RS-1000-031-24

Interface: Special 24VDC Townsort control.

RS-1000-031-A

Shift register input mail control. Refer to S-75-524.

RS-1000-032

Stacker power cord only (without plug or receptacle).

RS-1000-033

Interface - Connection to standard McCain trimmers. Consists of special infeed extension. When used with infeed divert gate option, RS-1000-043 maximum "B" dimension is 356mm (14.00").

RS-1000-034

Cam Loc Receptacle. Required if RS-1000-030 or RS-1000-031 is ordered and upstream equipment does not have this interface.

RS-1000-035

Infeed Extension Omega II saddlebinder.

RS-1000-037

Interface to Stahl ST-90. Includes electrical components, cable and connectors for connection with Stahl ST-90 stitcher.

RS-1000-040

4/5 Knife Kit (Two-Up Option). Includes center divider. Allows precise stack separation.

RS-1000-041

Air-Operated Gates. Especially useful when operating with low bundle heights.

RS-1000-042

Side Jogger. Results in better stack quality, especially when operating with thin products.

RS-1000-043

Infeed Divert Gate. Simple divert device which drops books on floor, unless some takeaway system is provided (110V).

RS-1000-044

Book Orientation Device (pneumatic). Enables book backbone to be oriented before ejection. This option increases cycle time. Adds approximately .8 seconds to pusher cycle time. Can be selected On or Off as needed.

RS-1000-044-01

Book orientation—servo. Servo motor driven. Enables book backbone to be oriented before ejection. This option increases cycle time.

RS-1000-044-02

Book orientation—servo 180°. Servo motor driven. Enables book backbone to be oriented 180° before ejection. This option increases cycle time.

SPECIFICATION NUMBERS

MAY SELECT ANY

Optional Features

RS-1000-045	Interface - (Dual townsort) twin connection to standard MCN-100 mail control. Includes stacker power cord with cam loc plug. Also includes the logic umbilical cord with amphenol plug for the MCN-100 mail control system. Also see under RS-1000-034. <i>(See page 5 for limitations)</i> <i>NOTE: RS-1000-045 can be used with RS-1020S twin pusher stacker only.</i>
RS-1000-047	Infeed divert gate 24V (RS-10). Divert up/down is controlled by an external source.
RS-1000-046	Split Infeed Divert Gate (twin divert) <i>(See page 5 for limitations)</i> <i>NOTE: RS-1000-046 can be used with RS-1020S twin pusher stacker only.</i>
RS-1000-050	Delivery to the left.
RS-1000-051	Delivery to the right.
RS-1000-052	Straight-Out Delivery (28.00"). Used for pushing stack into downstream equipment (RS-1015 and RS-1016 only). Limits infeed height.
RS-1000-053	For RS-1015S or RS-1016S only. 711mm (28.00") extended pusher delivery. Useful when pushing stack into down-stream equipment. (Increases cycle time).
RS-1000-054	Pneumatic pusher, two-piece — Allows left, right, or straight-out delivery. Includes 90° turn before pushout, RS-1000-060 . Infeed height restrictions apply.
RS-1000-056	Dual eject pusher — Left, right or alternating operator interface panel select. RS-1012S and RS-1013 stackers only.
RS-1000-057	Servo pusher — Straight-out. Precise push-out distance and speeds adjustable through the Operator Interface. Allows decreased cycle time.
RS-1000-059	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. Recommended use: RS-1000-058 servo turntable.
RS-1000-076	Servo pusher — left, right or alternating delivery (RS-10 style, belt driven). Precise speed and pushout distance control through Operator Interface.
RS-1000-058	Servo turntable drive. Allows faster compensation — servo motor driven. Product orientation adjustable through Operator Interface—up to a 270° turn.
RS-1000-060	90° Turn Before Pushout. In conjunction with straight-out delivery option, the 90° turn option removes the product size limitations imposed by the RS-1000-052 option, but applies a cycle time restriction. Add 1.5 seconds to pusher cycle.

SPECIFICATION NUMBERS

MAY SELECT ANY

Optional Features (Cont.)

RS-1000-080	Paint: Special color (other than RIMA's light gray)
RS-1000-087	Table pick-up option: turntable rises to meet product, decreases the drop distance into the basket assembly.
RS-1000-120	("B" DIM) 127mm (5.00") RS-1012S/RS-1013S
RS-1000-140	Hand-Held Programming Unit. For use by supervisory or maintenance personnel to monitor equipment, make minor program changes, or to transfer programs from one stacker to another. Also see RS-1000-250.
RS-1000-150	Operator/Maintenance/Parts manual. One is included with each stacker.
RS-1000-201	Split infeed divert gate (used with RS-1020 only)
RS-1000-250	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-1000-226-01	Operator Interface—external right mount
RS-1000-226-02	Operator Interface—external left mount
RS-1000-226-03	Operator Interface—external back mount
RS-1000-302-2	RS-10 "A" MIN .89mm (3.50")
RS-1000-306	Turntable (stack compression). Provides stack compression in the basket assembly. Improves stack quality.
RS-1000-341	Turntable
RS-1000-360	Vent Assembly Control Box. Fan and filter option for main electric control box. Recommended in climates with elevated temperatures and humidity.

Motorized Product Size Adjustments

RS-1000-041-201— 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 pickup. Affected models: RS-10S, RS-12S and RS-3310S.

RS-1000-085-01— Bin Unit (motorized adjust). Allows the bin unit to be adjusted for different product sizes in the "A" dimension while the machine is in operation. Adjustable through the Operator Interface.

RS-1000-042-02 — Side Jogger (motorized adjust). Pneumatic vibrators with motorized spindle adjustment. Adjustable through Operator Interface.

RS-1000-085-05 — Up-Stream communication for Size Adjustment. Interface between machine and up-stream location. Allows adjustment of the turntable, bin unit and side jogger from a remote location while the machine is in operation.

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 for some models are defined as Level I, Level II and Level III. Level I is a minimal kit, while Level III is a comprehensive set. Every stacker is equipped with the very basic spare parts required for operation.

RS-1000-400	Spare Parts for RS-1012S/1013S - Level I
RS-1000-401	Spare Parts for RS-1012S/1013S - Level II
RS-1000-402	Spare Parts for RS-1012S/1013S - Level III

NOTICE

Delivery table is no longer supplied with machine and, therefore, must be ordered separately. See specification sheets for details on delivery tables (RS-16) and conveyors (RS-26).

Revisions

Jan '94		First issue	
Apr '96	B	<p>Page 8: RS-1000-037 added.</p> <p>Page 9: RS-1000-046; -052; -060 revised</p> <p>Page 9: RS-1000-260 deleted.</p> <p>Page 3: Dimension change on infeed arm of stacker.</p> <p>Page 9: RS-1000-080 moved from page 10.</p> <p>Page 5: Product Size diagrams revised.</p>	jl
Jan '98	C	Date revised (Header)	jl
Feb '98	D	<p>Page 3: Graph revised.</p> <p>Page 4: Infeed Height dimensions (Minimum and Maximum) revised.</p>	jl
Jan. '01	E	Page 9: Added Motorized Turntable Basket Adjustment section	jl
Jun '01	F	<p>Date revised (Header)</p> <p>Page 3: Updated Floorplan</p> <p>Page 4: Added "Servo Input Power" to "Standard Specifications" table.</p> <p>Page 6: Changed DC to AC, (all)</p> <p>Page 7: Updated "Input Power" format</p> <p>Added: RS-1000-015, Nameplate Language—Dutch</p> <p>Added: RS-1000-016, Nameplate Language—Portuguese</p>	sa
Aug '01		<p>Page 8: Added: RS-1000-030, RS-1000-031, RS-1000-031-A, RS-1000-034</p> <p>Added: RS-1000-042, RS-1000-043, RS-1000-047</p> <p>Added: RS-1000-042-02, RS-1000-044-01, RS-1000-044-02</p> <p>Added: RS-1000-044-01, RS-1000-044-02</p> <p>Added: 110V to RS-1000-043 text,</p> <p>Page 9: Added: RS-1000-050, RS-1000-051, RS-1000-054, RS-1000-056</p> <p>Added: RS-1000-057, RS-1000-058, RS-1000-059, RS-1000-087</p> <p>Added: RS-1000-120, RS-1000-302-2, RS-1000-360</p> <p>Page 10: Added: RS-1000-306, RS-1000-341</p> <p>Added: RS-1000-226-01, RS-1000-226-02,RS-1000-226-03</p>	
Sep '01		Page 9: Removed: "Must be used with RS-1000-62 (90° turn) or RS-1000-058 servo turntable." from option RS-1000-056	
Jan '02	G	Page 8: Added Nameplate languages: RS-1000-017-01 — Danish, RS-1000-017-02 — Swedish, RS-1000-017-03 — Finnish, RS-1000-017-04 — Greek	sa

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