

A case profile of packaging solutions from Alloyd

Nalge Company increases productivity and product security, and reduces cost with complete Alloyd medical tray packaging system

Problem: Since most customers buy medical filtration equipment and supplies based on price, Rochester, N.Y.-based Nalge Company, a subsidiary of Sybron Corporation and the world's leading supplier of plastic labware, needed a cost-effective packaging system for its 25mm syringe filter that would ensure sterility and product integrity, and could operate at high volume. The 25mm filters had been packaged in polyethylene bags, and were difficult to remove without contamination, due to their size. The duct is also nearly symmetrical and customers had iculty in determining which side to attach to the inge.

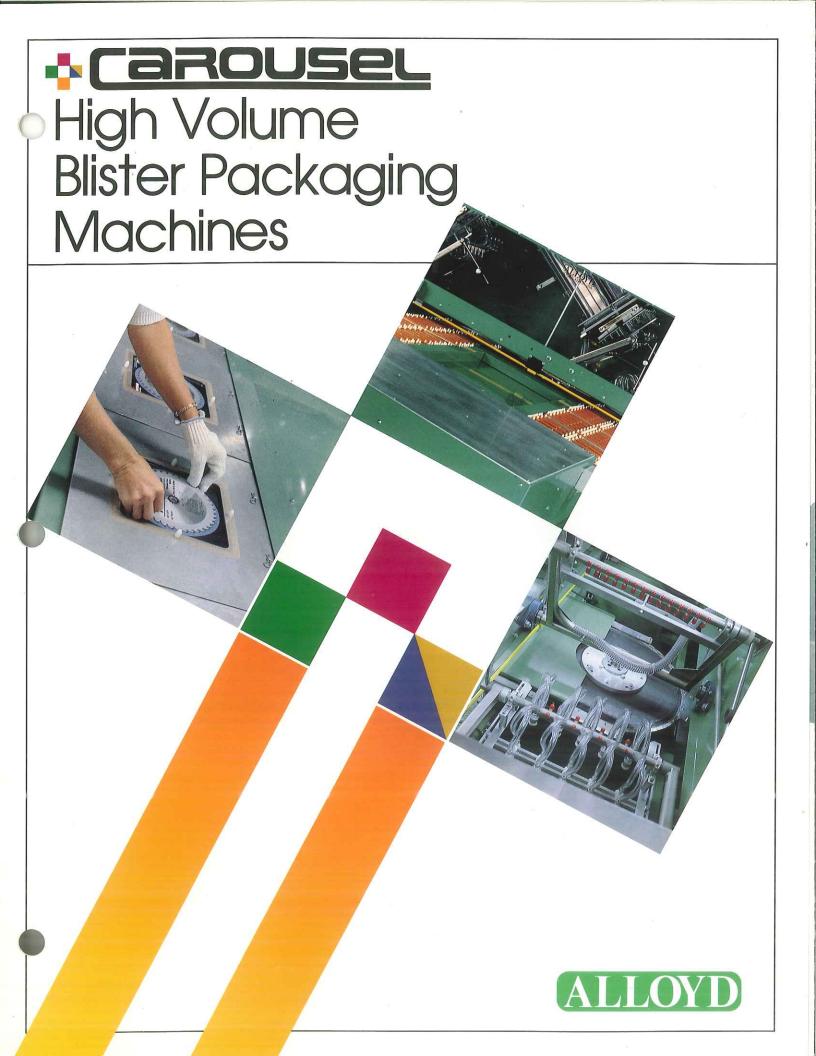
Solution: To ensure a safe and secure package, Nalge turned to DeKalb, ILbased Alloyd Company, Inc., a leading producer of thermoformed packages and heat-seal machinery, to provide an efficient, reliable medical tray packaging machine to improve the safety of the package, provide greater user convenience, and ensure high volume production.

Alloyd worked closely with Nalge to provide a medical tray packaging system for the 25mm syringe filter which included its 2-station medical heat-seal machine and trays. With Alloyd's custom-designed medical tray, the syringe filter rests in place vertically, allowing the customer to simply pull back the lid and expose the filter. By holding the bottom of the tray, the user can easily attach the filter to the syringe without touching it. Also, by switching from polyethylene bags to medical tray packaging from Alloyd, Nalge was able to offer its customers assurance that the correct filter end would always be in position for proper application. In addition, the trays allowed customers to visually inspect the filters for any defects without removing them from the package.



Nalge's new packages for syringe filters.

Results: Nalge has more than doubled its production rate by replacing polyethylene bag packages with an Alloyd medical tray system. The success in packaging the 25mm syringe filters has prompted the company to introduce its new 50mm syringe filter in Alloyd medical trays using the same Alloyd 2-station machine to package both the 50mm filter and 25mm filter. Alloyd also custom-designed a tray for the larger filter that offers the same benefits as the 25mm filter package. End-users can now effectively apply the filter without risk of contamination.



Something Different in Blister Packaging Machines: Production Flexibility



It's no secret. Every blister packaging line is different. Capacities. Product and package configuration. Loading criteria. Feeding requirements. Production needs. Because different applications have called for different machines... until now.

Alloyd has a "different" idea. Design one basic high volume blister packaging machine that can be adapted to a variety of applications... a machine able to "flex" with changing production requirements... a machine that customers can – in a sense – design themselves.

The Carousel Rotary Blister Packaging Machine is the one machine that's different *because* no two blister packaging lines are the same.

Alloyd: Customerdriven from the word "GO"

Alloyd sales service starts you right. From the initial evaluation of your application, to establishing machine specifications, to analyzing thermoform blister requirements, to tooling design and execution, to service. Alloyd support begins long before the sale and continues long after. It's all part of the best package deals in the business.

Alloyd sets the pace in blister packaging, heat sealing equipment and effective response to customers' needs. Customers asked for a new flexible, high production machine that could provide more loading area that could meet the demands of higher volumes and more complex packages like clamshell blisters and multiple product/multiple-up packages. And that's how the Carousel was born. Carousel demonstrates that a different approach – not different machines – is the answer.

Alloyd Tooling Gives You The Productive Edge

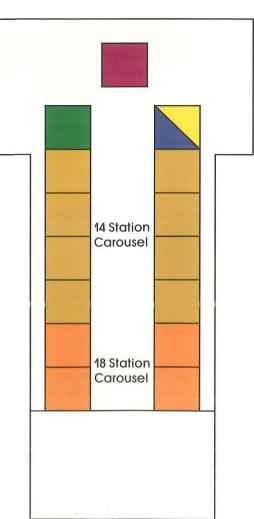
The Carousel demands the best heat seal tooling. Designed right. Built right. Solid aluminum heat seal tooling that can make the difference between a good seal and a great seal. It's all part of Alloya's total package.

How does Alloyd assure you of the highest integrity blister sealing? Simple. Alloyd toolmakers make all Alloyd tooling in house... to their own designs.

Alloyd tooling delivers a unique combination of efficiency and quality. Stationary locating pins deliver positive card/blister, blister/blister alignment. Special seal pads make sure every seal is perfect on every package.



Specifications	14s/18s Carousel				
Seal Area	6" x 9"	12" x 16"			
Automatic Feeders	2	2			
Open Loading Trays (Total)	8/12	8/12			
np Control	O-800°	O-800°			
Electrical Req Volt Phase HZ Amp	230 1 60 20	23O 3 6O 25			
Speed/Cycles per Minute	10-20	10-20			
Compressed Air CFM PSI	13 100	55 100			
Air Cylinder Bore Size	4" (2)	8" (2)			
Machine Dimensio Height Width Depth Loading Area (Ea. side)	54" 58" 58" 104"/128" 43"/67"	60" 86" 173"/213" 74"/114"			
Shipping Weight	1300#	2500#			
Nesting Tray Size	10" x 113/4"	16" x 193/4"			
cuum System (celf Contained)	1∕2 H.P.	One H.P.			
Maximum Blister Depth	21/4"	31/2"			

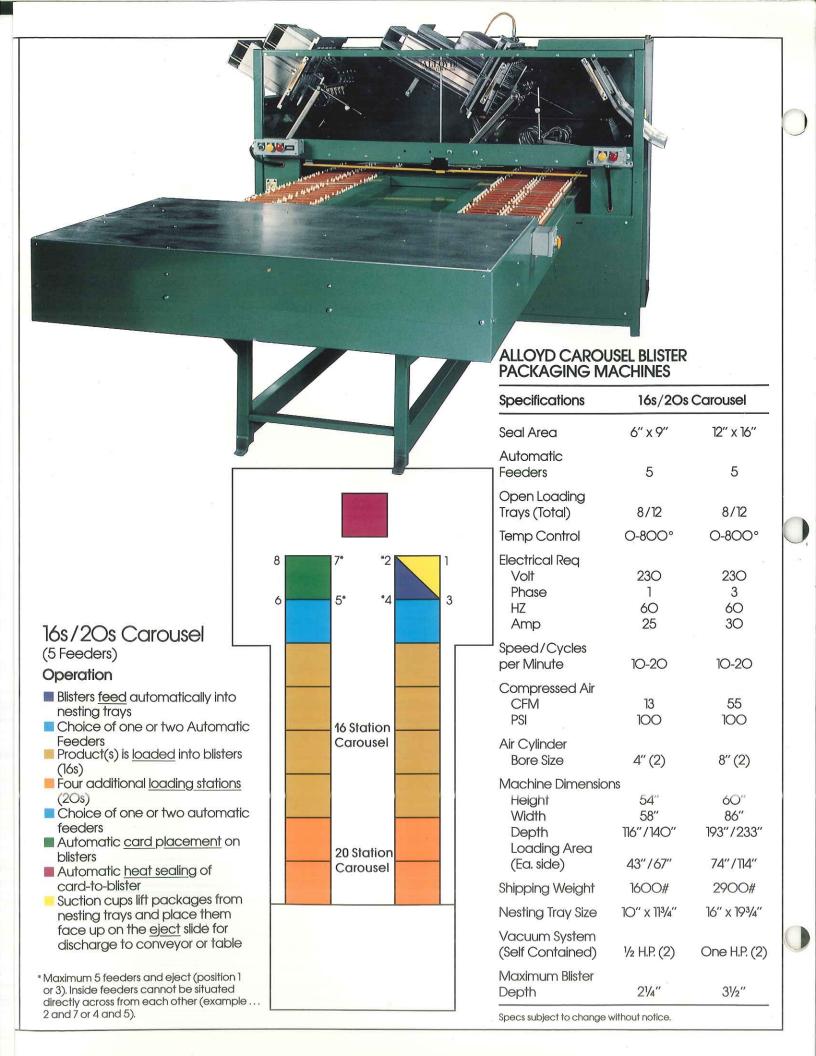


14s/18s Carousel (2 Feeders)

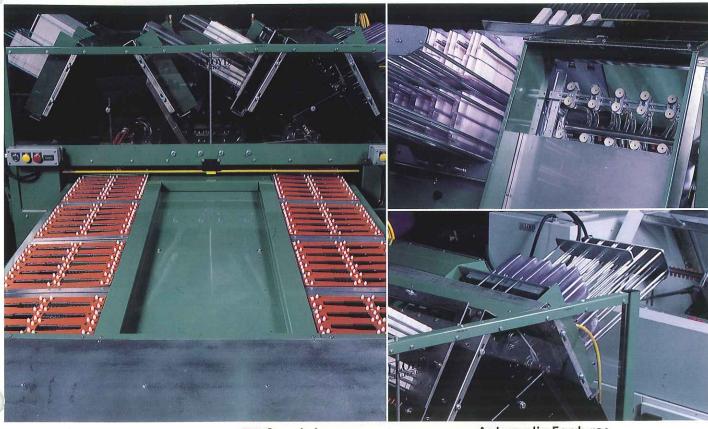
Operation

- Blisters <u>feed</u> automatically into nesting trays
- Product(s) is <u>loaded</u> into blisters (14s)
- Four additional <u>loading stations</u> (18s)
- Automatic <u>card placement</u> on blisters
- Automatic <u>heat sealing</u> of card-to-blister
 - Suction cups lift packages from nesting trays and place them face up on the <u>eject</u> slide for discharge to conveyor or table

Specs subject to change without notice.



Consider Carousel... Consider Your Options



Loading Stations

Select the number of loading stations that best fit *your* needs. Feed from either or both sides of the machine. Or, bring a product loader right up to the machine.

Multiple loading stations allow you to fill multi-item packages with greater efficiency. With a Carousel, you can handle single blister/single card, double card/single blister, or double card/double blister jobs. Plus you can order the RF Sealing option to handle plastic-to-plastic sealing on clamshell blisters.

Automatic Feeders

Carousel machines permit you to specify the number of automatic feeders you need – up to five on the 16s model. Feed blisters or graphic cards... even coupons or promotional material. This machine gives you all the feeding options you need to satisfy any requirement.

Seal Area

Carousel design flexibility makes the seal area choice yours. Choose from a 6" x 9", or a large 12" x 16" area based on your product and your needs.

Production Capacities

With Alloyd's new feeding system, positive placement of blisters and cards allows multiple rows of packages on nesting trays. Smaller packages can be setup to run in tandem allowing production rates of over 50,000 packages per 8-hour shift. For the first time, the package not the machine determines production capacity. The Carousel can seal the packages as fast as you can load.

RF Sealing

For the power of plastic to plastic sealing, you can order any Carousel machine with an integral RF (radio frequency) sealing system. It's ideal for your large clamshell blisters.

Automatic Features

- Blister feed
- Additional feeders (16s/2Os)
- Card feed
- Heat seal
- Eject

Product Loading

Choose 8 or 12 open loading stations

- Operators load product only
- Automatic Feeders can be brought up to the machine
- Ample loading stations to handle those difficult multiple item packages

Optional Seal Area Size

- 6" x 9"
- 12" x 16"
- Matched tooling for improved quality, reliable sealing

Production Rates

- 10-20 cycles per minute
- 6" x 9" seal area 16,000 to 24,000 packages per shift
- 12" x 16" seal area 25,000 to 40,000 packages per shift
- Single cycle provided for difficult operations

Carousel RF Sealing: The Power

RF Sealing: The Power of Plastic-to-Plastic Sealing Plus Automatic Operation



Now you can make the Carousel more than a blister packaging machine. Add the power of plastic-to-plastic sealing with an integral RF (radio frequency) sealing unit for more flexibility than you thought possible with a sealing machine. Plastic-to-plastic sealing delivers the tightest, most pilfer-proof package you can use. And when you use it on a clamshell bliser, it delivers 360° visibility for the hottest idea in packaging in years. As with all Alloyd machines, the RF Sealing tooling is made by Alloyd.



ALLOYD

The best package deals in the business

Alloyd Co., Inc. 1401 Pleasant Street DeKalb, IL 60115 (815) 756-8451 FAX: (815) 756-5187 Western Plant: 13191 Jurupa Street Fontana, CA 92335 (714) 360-0456 Southeastern Plant: 207 West Lanford Street Spartanburg, SC 29303 (803) 582-1000

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19855 Quiroz Court City of Industry, CA 91789 (714) 595-2271

207 West Lanford Street Spartanburg, SC 29303 (803) 582-1000 The keys to thermoforming quality are DESIGN, MATERIALS and FORM TOOLING. And the DEDICATION the thermoformer brings to blending these elements into a quality product.

From simple blisters to exotic clam shells to complex medical device trays, Alloyd thermoforming is better every step of the way.

We start with the thinking and planning that are the key elements of any successful package design.

For package production, we specify the best materials for the job. Our form tooling delivers efficient production, package quality and cost effective use of materials.

All Alloyd products are made onpremises, so you get single source control of every aspect of your packaging project.

But all of this expertise wouldn't mean much if we didn't have the capacity to get you what you need, where and when you need it. Alloyd's one of the largest thermoformers in the United States producing consumer packaging.

See your Alloyd representative. There's one in a major city near you.



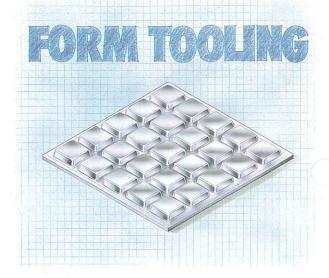






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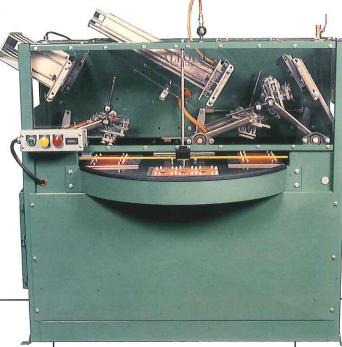


Alloyd Four Station Blister

Alloya's four-station is a fully automatic, rotary motion heat sealing machine that can produce up to 24,000 packages per shift. A ruggedly built Camco drive system assures uncannily accurate indexing and smooth operation.

Ideal as production machine for moderate packaging needs. Or as an add-onto your present line for higher production needs. Compact... fits into a 5-foot square area. Priced to meet your budget needs without compromising package quality.

Packaging Machine



Medical models also available.

Companion Machine



Model 4S-CBE

Model Single Station 6 x 9 Machine

- Ideal for short runs, rush orders and repackaging.
- Eliminates breaking into production runs.
- Tooling interchangeable with 4S-CBE machine.

Operation

- Blisters <u>feed</u> automatically into nestina travs.
- Product is loaded into blisters.
- Machine automatically places cards face down on blisters.
- The card is automatically <u>heat</u> sealed to the blister.
- Suction cups lift the packages from the nesting trays and place them face up on the eject slide for movement to take-off conveyor or table.

Features

Automatic Features

- **■** Blister Feed
- Card Feed
- Heat Seal
- Eject

Product Loading

- One open loading station
- Operator loads product only

Big 6 x 9 Seal Area

- Increased production over manual machines
- Matched tooling for improved quality
- Heat applied through card to blister flanges only
- Analog Temperature Control

Quick, easy tooling changeover

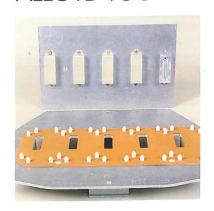
Production Rates

- 10-20 cycles per minute
- 16,000 to 24,000 packages per shift.
 Single cycle provided for difficult applications



The best package deals in the business

ALLOYD TOOLING COMPLETES THE PACKAGE.



Alloyd offers the most comprehensive line of high quality tooling in the industry. Form tooling. Heat seal tooling. Solid aluminum tooling that delivers the deadon accuracy and long life you have to have. More important, we make all our own, under the strictest quality control. Need tooling design? Alloyd has it. Design that puts the best layout down on the aluminum. Design that makes your production more efficient and your package quality better than vou've ever sold before.

Alloyd tooling is designed for high production and precision packaging. From stationary locating pins that positively align cards to blisters; to seal pads that insure perfect seals every time. From matched tooling that only hits the flange area, to easy tooling change-overs for maximum efficiency. For the best packaging and the most productive packaging you need the right machines and the right tooling. You get both from Alloyd... for the best

package deals in the business.

ALLOYD FOUR STATION BLISTER PACKAGING MACHINE

BLISTER PACKAGING IVIACHINE							
Specifications	Alloyd 4S-CBE						
Seal Area	6" x 9"						
Temp Control	O-800°						
Electrical Req. Volt Phase Hz Amp	23Ov 1 6O 2O						
Speed Cycles per Minute	10-20						
Compressed Air CFM PSI	6 100						
Air Cylinder- Bore Size	4"						
Machine Dimensions Height Width Depth	57" 57" 44"						
Shipping Weight	1065#						
Nesting Tray Size	10" x 12"						
Vacuum System	1/2 HP Self contained						
Maximum Blister Depth	3"						

Specs Subject to Change without Notice

ALLOYD OFFERS A FULL LINE OF HEAT SEAL SYSTEMS TO MEET EVERY PRODUCTION NEED.



Model 6S-1016





Model 8S-1616

Carousel



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	EIGHT STATION	STRAIGHTLINE				
Specifications	Alloyd 8S-1616	13 S/L 1428				
Seal Area	16" x 16"	14" x 28"				
Automatic Feeders	2/4	2/4				
Open Loading Trays	3	7				
Temp Range	0-800° F	0-800° F				
Electrical Req Volt Phase Hz Amp	230/460 3 60 40/20	230/460 3 60 40/20				
Speed/Cycles per Minute	10-20	10-20				
Compressed Air CFM (at 20 cpm) CFM (at 15 cpm) PSI Required	55 42 100	55 42 100				
Air Cylinder Bore Size	8" (2)	8" (2)				
Machine Dimensions Height Width Depth (Length)	70" 112" 100"	69" 50" 19' 3"				
Shipping Weight	4400 lbs.	5000 lbs.				
Nesting Tray Size	18" x 18"	14 ⁷ /8" x 30"				
Vacuum System (Self Contained)	2 hp	2 hp				
Maximum Blister Depth	3 1/2"	3 1/2"				

Spus subject to change without notice



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BLISTER PACKAGING MACHINES & SYSTEMS

COMMERCIAL MACHINE SPECIFICATIONS

1 & 2-STATION BLISTER PACKAGING MACHINES					FOUR STATION SIX STATION			ALLOYD CAROUSEL BLISTER PACKAGING MACHINES					
Specifications	1SC 6x9	1SC 1216	2SC 1216	2SC1428	Specifications	4S-CBE	4S-CBE 1216	6S-CBE	Specifications	14s/18s	Carousel	16s/20s (Carousel
Seal Area	6" x 9"	12" x 16"	12" x 16"	14" x 28"	Seal Area	6" x 9"	12" x 16"	10" x 16"	Seal Area	6" x 9"	12" x 16"	6" x 9"	12" x 16"
Temp Range	50-750°F	50-750°F	0-800°F	0-800°F	Automatic Feeders	2	2	2	Automatic Feeders	2	2	5	5
Seal Dwell Range	1-10 Sec.	1-10 Sec.	0-15 Sec.	0-15 Sec.	Open Loading Trays	1	1	3	Open Loading Trays (Total)	8/12	8/12	8/12	8/12
Dwell Timer	Analog	Analog	Digital	Digital	Temp Range	0-800° F	0-800° F	0-800° F	Temp Range	0-800°F	0-800°F	0-800°F	0-800°F
Electrical Req Volt Phase Hz Amp	110 1 60 10	230 1 60 20	230 1 60 20	230 3 60 30	Electrical Req Volt Phase Hz Amp	230 1 60 20	230 3 60 25	230 3 60 25	Electrical Req Volt Phase Hz Amp	230 1 60 20	230 3 60 25	230 1 60 25	230 3 60 30
Air Cylinder Bore	4"	6"	5"	(2) 6"	Speed/Cycles per Minute	10-20	10-20	10-20	Speed/Cycles per Minute	10-20	10-20	10-20	10-20
Stroke Compressed Air CFM (at 4 cpm)	2"	2"	4" 2.75	4" 8.0	Compressed Air CFM (at 20 cpm) CFM (at 15 cpm) PSI Required	6 4 100	18 14 100	12 9 100	Compressed Air CFM (at 20 cpm) CFM (at 15 cpm) PSI Required	13 10 100	55 42 100	13 10 100	55 42 100
CFM (at 2 cpm)	0.5	1.0	100	100	Air Cylinder Bore Size	4"	8"	6"	Air Cylinder Bore Size	4" (2)	8" (2)	4" (2)	8" (2)
PSI Required Machine Dimensions Height Width Depth	33" 30" 22"	33" 30" 22"	60" 30" 70"	60" 43" 70"	Machine Dimensions Height Width Depth	57" 57" 44"	61" 86 ¹ /2" 70" 2000 lbs.	68" 98" 75"	Machine Dimensions Height Width Depth Loading Area	54" 58" 104"/128"	60" 86" 173"/213" 74"/114"	54" 58" 116"/140" 43"/67"	60" 86" 193"/233" 74"/114"
Shipping Weight	230 lbs.	300 lbs.	500 lbs.	700 lbs.	Shipping Weight	1065 lbs.		2100 lbs.	(Ea. side)	43"/67"		1600 lbs.	2900 lbs.
Maximum Blister					Nesting Tray Size	10" x 12"	16" x 20"	15" x 17"	Shipping Weight Nesting Tray Size	1300 lbs. 10"x11 ³ /4"	2500 lbs. 16"x19 ³ /4"	1000 lbs.	2900 lbs. 16"x19 ³ /4"
Depth	3 1/4"	3 1/4"	4 1/4"	4 1/4"	Vacuum System (Self Contained)	¹ /2 hp	1 hp	1 hp	Vacuum System (Self Contained)	10 X119/4	1 hp	¹ /2 hp (2)	1 hp (2)
7					Maximum Blister Depth	2 1/4"	3 1/4"	3 1/4"	Maximum Blister	2 1/4"	3 ¹ /2"	2 ¹ /4"	3 ¹ /2"

Specs subject to change without notice

Specs subjection to change without notice. Medical models also available.

Specs subject to change without notice

-Station er Packaging

Two Station Medical

eal areas available

soing exhaust filter

□ 25M-1428

air cylinder.

Alloyd's Two-Station Blister Packaging Machines meet packaging needs that range from start-ups, short-runs, rush orders or re-packaging, to the efficient packaging of difficult-to-seal items like medical multi-tray packages.

The production-based, free standing two-station shuttle offers



Operation

- ☐ Operator places blister in nesting tray.
- Operator loads product—
 places card and moves shuttle
 under sealer.
- The rest is automatic. Packages are sealed at predetermined temperature and dwell time setting.
- Operator moves shuttle tray back to START position and removes sealed packages.



significant production rates and a high level of operator safety. Two sizes are available in both medical and commercial models.

Two-station features include fixed seal area guards that require no adjustment and an adjustable anvil that accomodates different tooling heights.

A roller bearing tray slide system enhances operating efficiency. Tray positioning detents under the seal press assure seal registration accuracy.

The large Two-Station model with a 14" x 28" seal area has been designed for "multiple-up" sealing or for packages requiring a large seal area.



2SC CONTROL PANEL

Features

- Two seal areas available: 12" x 16"
- 14" x 28"
 Digital temperature and seal dwell timer.
- Easy operation, minimal operator training required.
- Quick and easy tooling changeovers.
- Production rates:
 With 15-30 second cycles,
 production rates range from
 3,000 to 8,000 packages per

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ALLOYD INTEGRATED BLISTER PACKAGING SYSTEMS



Alloyd's capability is best demonstrated in fully integrated Alloyd systems. Designed for the highest production, these systems are engineered, built and installed on a turnkey basis by Alloyd.

Systems combine high capacity Alloyd heat seal machines – like the Six Station, Eight Station or Carousel – with a wide choice of peripherals, custom designed to meet specific customer needs.

Peripherals can include special package handling jigs, collators, gatherers, cartoners...any component that will help meet production and packaging objectives.

Dedicated PLCs (Programmable Logic Controllers) bring the power of microprocessor-based technology to the blister packaging market. The PLCs monitor machine performance through the entry of pre-selected parameters, perform quality checks and machine diagnostics. PLCs also communicate with system operators on system performance.

Before you make a decision on your next blister packaging system, you should talk to your Alloyd representative. Alloyd Integrated Systems are the productive answer in high volume blister packaging.

loyd <-Station ackaging achine

Model 6S-1016

y equipment removed for photography

panion Machine



repackaging.

al for short runs, rush orders inates breaking into producling interchangeable with O16 machines.

Alloyd's six-station is a fully auto-matic, rotary motion heat sealing machine that can produce up to 35,000 packages per shift. A ruggedly built Camco drive system assures uncannily accurate indexing and smooth operation.

Choose from three automatic elect system options: Packages are lifted from the nesting tray: either: 1) Placed face up on rails; or 2) Placed face up on an eject slide; or 3) Lifted and transferred to a take-off conveyor or

Ideal for single product applica-tions, the 6S-1016 delivers high production without compromising packaging quality or seal integrity



Medical models also available

Operation

- Blisters feed automatically into nesting trays.
- Product is loaded into
- Machine automatically places cards face down on blisters.
- The card is automatically heat sealed to the blister.
- Suction cups lift the packages from the nesting trays and eject the packages to take-off conveyor or table.



Features

- **Automatic Features**
- Blister Feed
- Heat Seal
- Eject (three options available)
- Product Loading
- Three open loading stations Operator loads product
- Large 10 x 16 Seal Area
- Increased Production
- · Matched tooling for improved quality · Heat applied through
- card to blister flanges only Digital Temperature Control

Quick, easy tooling

Production Rates

 10-20 cycles per minute. 16,000 to 35,000 packages per shift. Single cycle provided for difficult applications

ALLOYD

The best package deals in the business

'd Station Blister Packaging Machine

The Alloyd One-Station Blister Packaging Machine is a versatile, dependable, easy to operate unit that's ideal for many packaging applications: for low volume operators who do not want to compromise on packaging quality; for start-up operations where users do not want to break into long runs on high volume machines; and for cost efficient repackaging.



Tray in for sealing

Operator places blister in

Operator loads product-

places card and moves shuttle

The rest is automatic. Packages

are sealed at predetermined

temperature and dwell time

Operator moves shuttle tray

back to START position and

Operation

nesting tray.

under sealer

removes sealed

Features

- · Seal areas available: 12" x 16"
- · Temperature and seal dwell timer.
- Easy operation, minimal operator training required.

The production-based, tabletop.

one-station shuttle can be easily

maximum versatility. And it offers

significant production rates and a

Machine features include LEXAN

panels and seal area guard door

with safety switch and steel ball

press assures seal registration

Operator training on the One-Station blister packaging machine

accuracy.

is quick and easy.

Model 1SC-1216

bearing tray slide system. Positive tray positioning under the seal

high level of operator safety.

moved from location to location for

- Quick and easy tooling changeovers.
- Adjustable height feet
- Production rates 3,000 to 6,000 packages per shift (with 15-30 second cycle



Tray out for loading

for photography purposes)

(Seal area guard door removed

1SC heat seal area Options

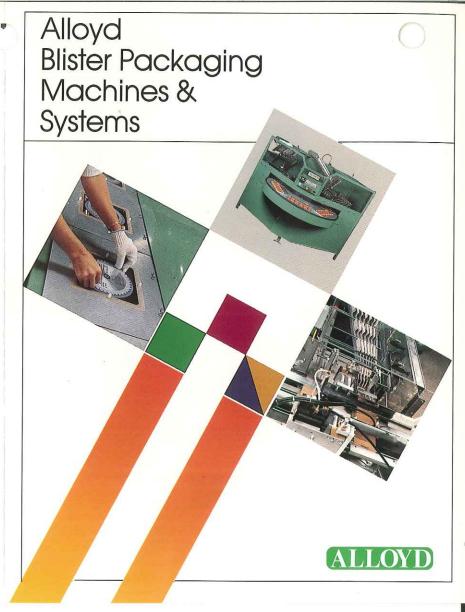
· Heavy duty support table with



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