

超高速自動分包計數集積
バンディングライン

TOYO

MODEL MS45

HIGH SPEED AUTOMATIC POUCH FORMING, FILLING,
SEALING, COUNTING, COLLATING AND BANDING LINE



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超高速自動分包計数集積 バンディングライン MODEL MS45

HIGH SPEED AUTOMATIC POUCH FORMING, FILLING, SEALING, COUNTING, COLLATING AND BANDING LINE

本ラインはMS45型(超高速)機で分包された製品をシート状に整列し、コンベヤー上に送り込み任意の形態にスリットし、吸着装置にて計数、集積、搬送バケット上に移行し、バンディング機で結束する一連の分包・計数、集積バンディングラインです。

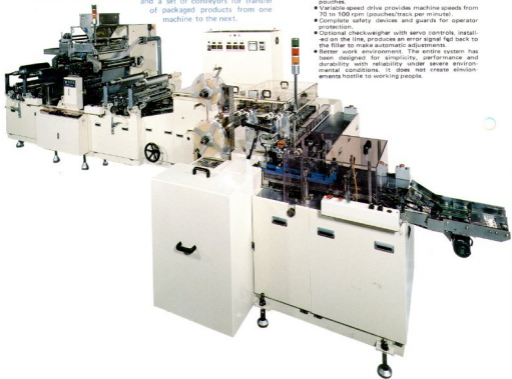
This automatic pouch packaging system has been developed to meet even more severe productivity and packaging requirements. Intended to produce multi-track pouches with four side seal for dry products in bulk, this high speed automatic packaging line comprises Model MS45 fill-seal machine that delivers a nine-pouch strip for each cycle, a slitter that cuts it off into three units with three pouches for each, for example, Model MG32 accumulator that counts and stacks them with a suction device to make multiple collated units, Model B4 tape banding machine that performs bundling with plastic tape, and a set of conveyors for transfer of packaged products from one machine to the next.

(特長)

- 光電管装置 / 両面印刷機種合わせができます。
- フィルム自動継ぎ装置 / オートスプライザー(表・裏共)
- 側面官通装置 / 70-100rpm/分(実速機)
- 安全装置 / オペレーター監視の安全設計(カバー閉鎖)
- 計量装置 / オンラインとしてオートチェッカーを絡込み、計量誤差をフィードバックし自動調節を行います。
- 作業環境 / シンプルな構造で耐久性に優れ、作業環境を悪化させず包装効率の向上に貢献します。

■ FEATURES

- Photoelectric registration mark controller for accurate positioning of a preprinted design on each package.
- Automatic film splicers for top and bottom pieces of packaging material used to make four-side seal pouches.
- Variable speed drive provides machine speeds from 70 to 100 rpm (pouches/track per minute).
- Complete safety devices and guards for operator protection.
- Optional checkweigher with servo controls, installed on the line, produces an error signal fed back to the filler to make automatic adjustments.
- Better work environment. The entire system has been designed for simplicity, performance and durability with reliability under severe environmental conditions. It does not create environments hostile to working people.



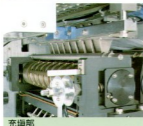


自動計量調節装置

計量方法はアジャスト式ポリリューム方式で、遠隔操作により充填量の増減が可能です。計量角度は1往復2ショット方式です。

AUTOMATIC MEASURING DEVICE with Remote Weight Control System

Model M545 fill-seal machine employs a dual volumetric filler that can be adjusted remotely from a control panel to obtain a required fill weight for each container. Consecutive two shots of fill occur for each double stroke of a reciprocating wobble box. A checkweigher is optionally available.



充填部

ポケット成形用上下動シュートは、高速度として開発した回転式カム機構を採用しております。

PRODUCT FILLING CHUTES

Product falls by gravity from the bottom of a supply hopper into a fixed chute where it settles. As a shutter is opened at a proper point of timing, the product is released for filling via a vertically oscillating funnel-like chute between the two webs which are brought together by the two electrically heated die rolls. The oscillating mechanism uses a set of rotary cams designed for high-speed operation.



オート・スプライザー

フィルム掛けリール装置は、表、裏側各々2ヶ所設置し、フィルムが完了すれば子備りル装置のフィルムに自動的に接続されます。

AUTOMATIC FILM SPLICERS

The film roll stands are installed on either side of the form-fill-seal unit, each stand holding two sets of rolls with a spare roll, one for top stock and the other for bottom stock or piece of material. The two pieces of material when used up may be automatically joined together with new stock rolls.



チェッカーおよびバイパス装置

分包品を一枚づつ重量チェックし、不良品はバイパス装置により糸外排出します。

CHECK AND BY-PASSING DEVICE

This device is to check the weight of each pouch, and to eject any faulty pouches, out of the line with a by-passing device.



計数・集積装置

反射式光電センサーによる装置です。

COUNTER AND ACCUMULATOR

Reflective type photoelectric sensors are used not only to detect the presence or absence of the multi-pouch units but also count the number of units to be stacked by vacuum. The collations are then gently passed onto an intermittant motion chain conveyor with a set of special flights for transfer to the subsequent tape banding machine.



バンド結束装置

ラミネートフィルムを使用し、製品の中心部を熱接着により結束する装置です。

TAPE BANDING MACHINE

The machine uses a laminated plastic film in tape form that is heat-sealed end-to-end over the central area of the pre-collated units for bundling.

■使用フィルム

アルミ箔、セロハン紙、プラスチックフィルム、ヒートロンペーパー、その他ダイロールにてヒートシール可能なすべての材料。

■仕様

能力	1列100部/分×9列式=900部/分
包装寸法	(巾)45×(長さ)360
計量範囲	0.5g～1.5g(角調節による計量範囲は3倍迄可能)
消費電力 (W,VA(電圧))	駆動モーター 200V 3相 750W 1台
	ヒーター 200V単相 2,000W 2本
	集塵機 200V 3相 750W 1台
	真空ポンプ 200V 3相 750W 1台
(日製関係)	駆動モーター 200V単相 400W 1台
	ヒーター 200V単相 250W 3本

■PACKAGING MATERIALS

Aluminium foils, cellophane, plastic films and heston paper.

■SPECIFICATIONS

Productive Capacity	100 rpm × 9 tracks = 900 pouches/min
Package Dimensions	45 mm wide × 60 mm long
Fill Weight Range	0.5 gr to 1.5 gr. (adjustable up to three times the target weight)
Electric Power Required	
MODEL MS, MG UNITS	
Drive Motor	200V, 3-phase 750W 1 set
Electric Heater	200V, single-phase 2,000W 2 sets
Dust Collector	200V, 3-phase 750W 1 set
Vacuum Pump Motor	200V, 3-phase 750W 1 set
MODEL B UNIT	
Drive Motor	200V, single-phase 400W 1 set
Electric Heater	200V, single-phase 250W 3 sets

■機械寸法

形式	MS型(分包)	MG型(巻庫)	B型(バンディング)
全高	2,200mm	1,200mm	1,600mm
全巾	3,150mm	3,200mm	2,200mm
奥行	1,510mm	1,155mm	2,860mm
重量	約2,000kg	約1,200kg	約1,000kg

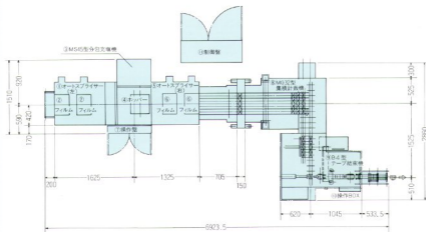
■ OVERALL MACHINE DIMENSIONS & WEIGHT

MODEL	Unit	MS UNIT	MG UNIT	B UNIT
Overall Height	mm	2,200	1,200	1,600
Overall Width	mm	3,150	3,200	2,200
Overall Depth	mm	1,510	1,155	2,860
Net Weight (approx.)	kg	2,000	1,200	1,000

■レイアウト図

DIMENSIONAL DRAWING AND LAYOUT DIAGRAM

単位mm
(in millimeter)



- ① AUTOMATIC FILM WEB SLICER, RH
- ② FILM ROLL
- ③ MS45 HIGH SPEED AUTOMATIC POUCH FORM-FILL-SEAL UNIT
- ④ SUPPLY HOPPER
- ⑤ AUTOMATIC FILM WEB SLICER, LH
- ⑥ FILM ROLL
- ⑦ CONTROL PANEL
- ⑧ MG32 ACCUMULATOR
- ⑨ B4 TYPE BANDING MACHINE
- ⑩ CONTROL BOX
- ⑪ CONTROL PANEL

●改良の為に仕様、寸法は予告なく変更することがあります。 ●The information given herein are subject to change without notice.



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