

SIGNODE **MD-3000-VRB** Fully automatic, vertical strapping machine

Taking reliability and durability to a new dimension

Construction, operation and service

The MD-3000-VRB is designed for the vertical strapping of pallet loads with polypropylene or polyester strapping of 9, 11 or 13 mm width. The strapping head, mounted at the side of the machine, can travel up to 500 mm towards the pack to accommodate packs of different widths. The side of the pack is detected by a sensor that guarantees an optimum approach speed to prevent the strapping head from damaging the load.

Options

Non standard chute dimensions
Under carriage for maximum bayonet length of 1000-1400 mm
Under carriage for maximum bayonet length of 1400-1800 mm
Additional spare strap dispenser
Photocell for "low strap" detection and machine status beacon
Foot switch for manual operation (MD-2000-VRB) only
Special colour on request

Machine Design

The MD-3000-VRB is available in a wide range of chute sizes with aluminium construction.
The height of the strap chutes varies between 1400 mm and 2400 mm, in 200 mm increments.
Bayonets are available in lengths of 100 mm to 1800 mm in 200 mm increments.
Bayonet lengths exceeding 2400 mm are available for special order only.

Strapping Materials

Signode Dylastic® Polypropylene		Signode Tenax® Polyester	
714 series	11 mm	1616 series	9 mm
716 series	11 mm	1716 series	11 mm
718 series	11 mm	1718 series	11 mm
816 series	13 mm	1818 series	13 mm
818 series	13 mm	1822 series	13 mm

Worldwide Service Back-up

As a global product, consumables, service and parts back-up is available from Signode distributions and partners, worldwide.

The strap chute and bayonet are manufactured from extruded aluminium profile to ensure positive transfer through the machine . The MD-3000-VRB carries CE safety certification to guarantee the highest level of user protection. The electrical power circuit is designed to shut down immediately when the safety chain is broken, i.e. doors opened or other emergency stop facilities activated.

Technical Data

Strapping Head	MD with patented new technology
Sealing method	SwingWeld - vibration seal
Strap Tension	Adjustable from 100 to 2000 Newtons
Cycle Start	Initiated by means of photo cells
Power Supply	400 volts, 3 Ph, 50 Hz or 440 volts, 3 Ph, 60 Hz
Power Consumption	2.15kW without conveyor
Control voltage	24 volts DC
Control	Siemens S7 PLC
Max chute size	1800 x 2400 mm (width x height)
Min load height	500 mm including pallet
Machine weight	approx, 420KG
Machine finish	Machine finish
Machine panels	RAL 6000 green
Strap chute	Aluminium
Frame and control panel	RAL 7021
Max head stroke	500 mm

MD-3000-VR

The MD-3000-VRB machine series is complemented by the VR machine model with retractable, side mounted MD head for applications where pack size or positioning may vary, but bayonets are not required.



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The company has a policy of continuous product development and reserves the right to alter specifications at any time without prior notice.

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SIGNODE **MD-3000-VRB**

Fully automatic vertical strapping machine
with patented SingWELD sealing technology

for 9, 11 and 13 mm polypropylene or polyester strap



The new standard for reliability and durability

Adjustable Strap Tension – outstanding accuracy and repeatable strap tension from 100 to 2000 Newton.

Greater Machine Availability – automatic strap loading system and quick-change coil ensures a rapid coil changeover and minimum downtime.

Strap Rewind and Ejection System – automatically ejects strap when coil is empty.

Electrically Powered Bayonet – low profile bayonet design enables low pallets to be strapped with ease.

Maximum Safety – full CE certification plus numerous safety features for total operator protection.

High Productivity – fast cycle time, maximum production efficiency.

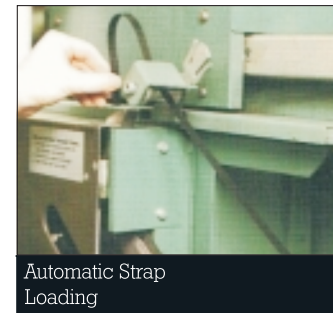


SIGNODE **MD-3000-VRB**

Fully automatic vertical strapping machine

new levels of reliability and machine availability

With its flexibility and ease of integration into existing conveyor systems, the MD-3000-VRB is ideally suited to a wide range of packaging applications. The MD-3000-VRB has been especially developed for the vertical strapping of pallet loads. It can be used with polypropylene or polyester strapping in 9, 11 or 13 mm widths – offering the flexibility to strap everything from cartons and wooden crates to timber bundles and metal products. It features adjustable strap tension from 100 to 2000 Newtons, with high repeat accuracy. The MD-3000-VRB incorporates Signode's clutch free technology and multi motor concept to offer the highest levels of reliability currently available in the packaging industry.



Automatic Strap Loading

All Signode MD machines are equipped with a fully automatic, high-speed strap feed system to maximise machine availability.



Automatic Strap Rewind

This feature automatically winds back the strap during a long period of shut down, ensuring better efficiency when re-starting.



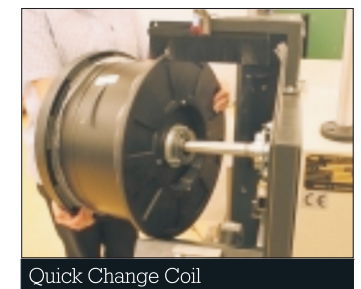
PLC Control for Total Flexibility

For optimum performance, high strapping speed and reliability, the MD-3000-VRB has full PLC Control. Siemens S7-200 is installed as standard.



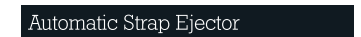
Accumulator Box

The accumulator box is used to temporarily store the strap between the dispenser and strapping head before it is fed through the chute system, thereby optimising the feeding performance.



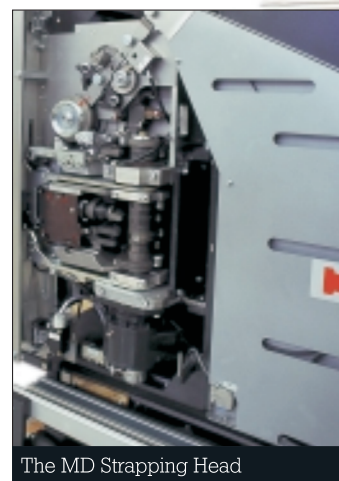
Quick Change Coil

The quick-change coil dispenser allows strap coils to be changed without delay.



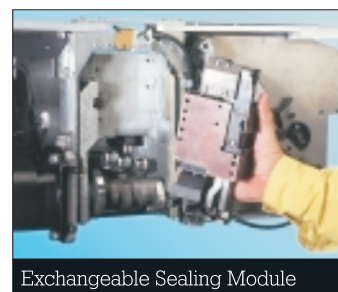
Automatic Strap Ejector

End of coils are automatically ejected from the strap chute.



The MD Strapping Head

The side-mounted design of the MD strapping head enables it to securely strap pallet loads of differing widths without any loss of tension. The pallet side is detected via a sensor and the MD head moves towards the pack at the optimum approach speed to prevent any damage to the pallet. The MD head requires only minimal maintenance and consumable parts.



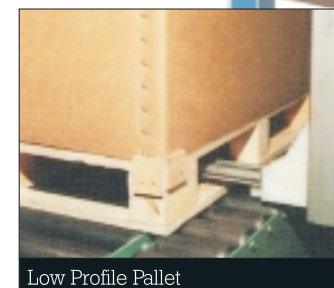
Exchangeable Sealing Module

The sealing module is exchangeable for maintenance purposes, allowing operation to continue when used in conjunction with a spare module.



High Strap Tension

To ensure high strap tension, the MD's patented tension winder system is electronically controlled and monitored.



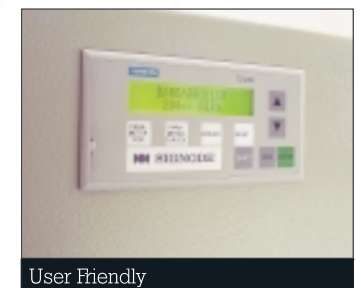
Low Profile Pallet

Strap is fed via a torque-motor driven bayonet through the pallet void.



High Strap Joint Strength

The innovative, patented SwingWELD vibration system guarantees a high joint strength and ensures pre-selected strap tension can be repeated with an accuracy of $\pm 3\%$ to ensure consistent pack presentation.



User Friendly

A series of clearly identified back lit push buttons and user symbols guide the operation through strap coil changeover and strap loading procedures.