

HC2M

Automatic strapping- and banderoling machine

Horizontal strapping and banderoling



Customer benefits

Characteristics	Customer benefits
Strap and foil is applied at one time	<ul style="list-style-type: none"> • Fast application / High throughput • No residue of labels on the product (creates) • Transport securing on top of product with labelling • Only few space needed (one machine)
The strap and foil is applied around the product by the movement of the package	<ul style="list-style-type: none"> • High availability • Flexible positioning of strap for changing heights • The foil height is fix but adjustable by tool
No strap arch	<ul style="list-style-type: none"> • Strap dimensions selected to suit application • Very thin and narrow straps can be used to save consumable materials
Simple strap sealing head Simple foil sealing unit	<ul style="list-style-type: none"> • Few moving parts • Low servicing and maintenance costs
Two strap coils for the strapping line Two foil coils for the foil line	<ul style="list-style-type: none"> • Double run length between coil changes • High uptime

HC2M Technical data

Machine

Strapping cycle time	Per strapping approx. 15 s (product transport time excluded)
Strap tension	0 - 400 N (on strapped package)
Foil tension	0 - 100 N (no transport securing!)
Strap tension way	unlimited, flexible
Vertical speed of beam	Standard 100 mm/s Optional 300 / 400 mm/s
Min. strapping height* (motorized)	From 1700 mm above floor but max. 280 mm from product top
Max. strapping height* (motorized)	Up to 2600 mm (other dimensions on request)
Min. foil height low edge*	From 911 mm above floor
Area of the foil* (fixed)	911 mm up to 1511 mm
Dimensions	See page 4 (see layout for general dimensions)
Dispenser	Separate strap dispenser with two coils; flexible location
Foil dispenser	Foil dispenser fixed on the frame, one coil per side

(* for machine height 3600 mm and with optional feet)

Strap-end pre signal	Strap-end detection by photocell to keep non-stop production
Foil end pre signal	Foil end pre signal with proximity switch each coil
Colours	Frame: Blue, RAL 5007 Beam: Daffodil yellow, RAL 1007 Remaining parts: Black, RAL 9011 Control desk: Grey, RAL 7035
Optional colours	At customer's request only RAL codes
Electrical supply	400 VAC, 50 Hz, 3Ph+PE Voltage tolerance +/- 5% Rated power ≥ 2.4 kW
Control voltage	24 VDC
Pneumatics	6 bar / 95 psi Approx. 85 L/Cycle (DH1500) Connection 1/2"
Machine weight	900 up to 1100 kg

Conveyor

The conveyor system is not part of the machine

Maximum conveyor height Max. 650 mm from the floor

Control System

Free standing control desk

The human machine interface consisting of

- Main switch
- Emergency stop
- Reset button
- Analog amperemeter for welding temperature

Operating panel KTP600 Basic color PN

- All functions selectable via HMI
- Simple and easy-to-understand structure of the menu
- Available in various languages

PLC somatic S7-1214C (Optional AllenBradley) Interface, Single exchange

All signals for exchange must be potential-free

The strapping machine is able to receive the following signals*

- Emergency stop
- Safety guard interlock switch 1+2
- Conveyor stopped
- Strap cycle start
- Product 90% infeed (optional)

The strapping machine sends the following signals*

- Emergency stop
 - Conveyor enable
 - Strapping cycle completed
 - Malfunction indicator
 - Package in position (optional)
 - Automatic
- (* Standard signal exchange, others optional)

Strap

Polypropylene (PP)

- Width 5 - 16 mm / Thickness 0.35 - 0.8 mm

Polyester (PET)

- Width 5 - 13 mm / Thickness 0.35 - 0.7 mm

Core size (strap)

Changeable inside diameters
 Ø 200 / 200 / Ø 630 mm
 Ø 280 / 200 / Ø 630 mm
 Ø 400 / 150 / Ø 630 mm
 (inside diameter / width / outside diameter)

Foil

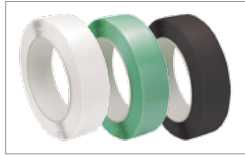
Low density version of Polyethylene (PELD)

- Width 150 - 300 mm / Thickness 40 - 250 µm
- Optionally width up to 400 mm

Core size (foil)

Ø 60 to Ø 90 mm / max. 400 mm / max. Ø 460 mm
 (inside diameter / width / outside diameter)

Features



Cost savings

Use of smaller strap dimensions

Dimensions and quality of the strap can be used selected for the product and not the machine, with cost savings on consumable materials



Clean products

Medium to keep labels

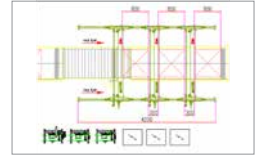
Labels can be applied on the foil, later easy removable, prevents residue of labels on the product (creats) or foil with printing can be applied



Low running cost

Very low maintenance costs

Simple sealing and welding head with only a few moving parts and easy maintenance



Easy integration

Inline strapping and foil applying

Machine can be easily integrated into existing conveyor line, no space is needed for the arch

Options

Strap tension unit

Using pneumatic cylinder ensures even strapping and is recommended for small package dimensions and PET applications



Beam protection

Photoelectric cell on the package entry side ensures that no packages come into contact with the beam



Strap lifter

Lifts the strap in case a layer of pallet has not to be strapped, mostly if Endsealer is placed before palletizer (layer strapping)



Fast movement of beam

Vertical movement of the beam 300 mm/s or 400 mm/s with frequency controller Siemens (Standard 100 mm/s)



PET-Kit

Air stream through sealing head to keep smoke / dust out of head. Double strap clamp for higher tension.

Recommended for PET



Stainless steel control desk

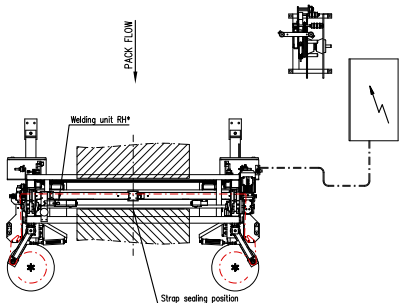
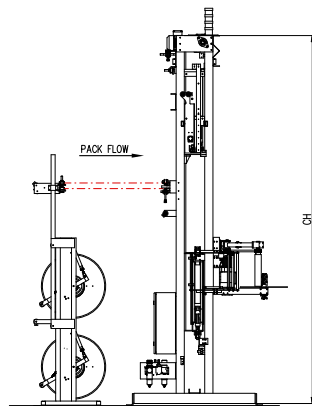
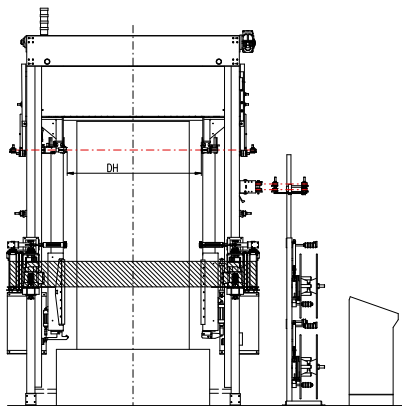
Stainless steel electrical desk with stainless steel socket incl. bottom plate



Automatic beam height

If changing product heights beam position automatic adjusting in height by Signalexchange and with pulse counter

Layout



Machines for pack/pallet sizes: DH = distance between heads
CH = column height

		CH		
Typ	Layout	DH	3'600	4'000
HC2M	1811.023.001	1'100	■	■
HC2M	1811.023.002	1'300	■	■
HC2M	1811.023.003	1'500	■	■



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