### HE1D
**Automatic strapping machine**  
*Horizontal Beam - (beam only to integrate)*

**Customer benefits**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Customer benefits</th>
</tr>
</thead>
</table>
| The strap is applied around the product by the movement of the package | • High availability  
• Accurate positioning of straps  
• High throughput |
| No strap arch | • Strap dimensions selected to suit application  
• Very thin and narrow straps can be used to save consumable materials  
• Different product sizes can be processed |
| Easy to integrate | • Not much space needed for integration  
• Beam can be built in new or existing packaging system  
• Possible to strap by the pack flow |
| Simple sealing head | • Few moving parts  
• Low servicing and maintenance costs |
| Two strap coils per strapping line | • Double run length between coil changes  
• High uptime |

*Developed and manufactured in Switzerland*
HE1D Technical data

**Machine**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strapping cycle time</td>
<td>per strapping approx. 6s (PP strap) 7s (PET strap)</td>
</tr>
<tr>
<td>Strap tension</td>
<td>0 - 400 N (on strapped package)</td>
</tr>
<tr>
<td>Tensioning stroke</td>
<td>Flexible, adapted to the product</td>
</tr>
<tr>
<td>Sealing method</td>
<td>Heat seal for PP strap optional for PET strap</td>
</tr>
<tr>
<td>Vertical distance support</td>
<td>300 mm Standard 400 mm Option</td>
</tr>
<tr>
<td>Maximum strapping position from package top</td>
<td>280 mm (see layout)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>See page 4 (see layout for general dimensions)</td>
</tr>
</tbody>
</table>

**Strap**

<table>
<thead>
<tr>
<th>Type</th>
<th>Width / Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polypropylene (PP)</td>
<td>5 - 16 mm / 0.35 - 0.8 mm</td>
</tr>
<tr>
<td>Polyester (PET)</td>
<td>5 - 13 mm / 0.35 - 0.7 mm</td>
</tr>
</tbody>
</table>

**Dispenser**

<table>
<thead>
<tr>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separate strap dispenser with two coils; flexible location</td>
</tr>
</tbody>
</table>

**Colours**

- 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**

<table>
<thead>
<tr>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>230 VAC, 50 Hz, 1Ph+N+PE Voltage tolerance +/- 5%</td>
</tr>
<tr>
<td>Rated power ≥ 0.5 kW</td>
</tr>
</tbody>
</table>

**Control voltage**

<table>
<thead>
<tr>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 VDC</td>
</tr>
</tbody>
</table>

**Pneumatics**

<table>
<thead>
<tr>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 bar / 95 psi Approx. 85 l/Cycle. (DH1500)</td>
</tr>
<tr>
<td>Connection ½&quot;</td>
</tr>
</tbody>
</table>

**Machine weight**

<table>
<thead>
<tr>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 up to 400 kg</td>
</tr>
</tbody>
</table>

**Conveyor**

The conveyor system is not part of the machine

**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 KTP 400 Basic color PN

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

PLC Simatic S7-1212C (Optional AllenBradley)

Interface, Signal 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

The strapping machine sends the following signals*

- Emergency stop
- Conveyor enable
- Strapping Cycle completed
- Malfunction indicator
- Automatic

(* Standard signal exchange, others optional)

**Core size**

Changeable inside diameters

<table>
<thead>
<tr>
<th>Inside diameter / Width / Outside diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 200 / Ø 630 mm</td>
</tr>
<tr>
<td>Ø 280 / Ø 630 mm</td>
</tr>
<tr>
<td>Ø 400 / 150 / Ø 630 mm</td>
</tr>
</tbody>
</table>
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.

Speed
High through-put
Strap is applied by the movement of the product and the sealing time is 6 seconds (DH1500).

Low running cost
Very low maintenance costs
Simple sealing head with only a few moving parts and low maintenance.

Easy integration
Inline strapping
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.

Strap end pre signal with photocell
Strap-end detection to keep non-stop production.

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

Strap lifter
Lifts the strap in case a layer of pallet has not to be strapped, mostly if Endsealer is placed before palletizer, stroke 300 mm (layer strapping).

Distance support 400
Vertical distance support with length 400 mm.
Layout

Machines for pack/pallet sizes:

<table>
<thead>
<tr>
<th>Typ</th>
<th>Layout</th>
<th>DH</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE1D</td>
<td>1811.021.051</td>
<td>900</td>
</tr>
<tr>
<td>HE1D</td>
<td>1811.021.052</td>
<td>1'100</td>
</tr>
<tr>
<td>HE1D</td>
<td>1811.021.053</td>
<td>1'300</td>
</tr>
<tr>
<td>HE1D</td>
<td>1811.021.054</td>
<td>1'500</td>
</tr>
<tr>
<td>HE1D</td>
<td>1811.021.055</td>
<td>1'700</td>
</tr>
<tr>
<td>HE1D</td>
<td>1811.021.056</td>
<td>1'900</td>
</tr>
<tr>
<td>HE1D</td>
<td>1811.021.057</td>
<td>2'100</td>
</tr>
</tbody>
</table>

DH = distance between heads

Layout specifications:

HE1D 1811.021.051

DH = distance between heads