HW-ZS + HW-ZR

Technical data

<table>
<thead>
<tr>
<th>Maximum dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>$L_1 = 280$ mm</td>
</tr>
<tr>
<td>$370$ mm option</td>
</tr>
<tr>
<td>$L = 300$ mm</td>
</tr>
<tr>
<td>$400$ mm option</td>
</tr>
<tr>
<td>$D = 300$ mm</td>
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<td>No. of threads: max. 200</td>
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Warping speed ($\varnothing$ dependent)
HW-ZR + HW-ZS max. 400 m/min

Connected load

- Rated output: 2.0 kW
- Mains connection: 3 x 230 V, 400 V+N+PE / 50 Hz
- Compressed air: 6 bar, Consumption approx. 10 l/min

Dimensions

- Width: 1450 mm
- Depth: 800 mm
- Height: 1700 mm

for natural and man-made selvedge thread yarns, as well as for tapes on warp bobbins

Fascination of Ribbons and Narrow Fabrics
Innovation in Machinery
**Concept**

This new generation of semi-automatic warping machines is equipped with the latest control and operating technology. The machine is of modular design, which allows a choice between two machine types:

- HW-ZR for wide warps only (laying using a motor with eccentric)
- HW-ZS for wide and tape warps (laying using a stepper motor)

**Advantages**

- Extremely flexible range of applications (HW-ZS)
- Simple operation and resetting with programmable and retrievable parameters (HW-ZS)
- Precise length measurement – Microprocessor control with 250 memory units (HW-ZS)
- Perfect warps through precise yarn guidance

**Standard accessories**

- Spindel-free, warp bobbin pick-up
- Length measurement device
- Constant thread speed and electronically regulated ramp function
- Laying drive for 50 - 280 mm with stepper motor for tapes and wide warps (HW-ZS)
- Cross-winding via a motor with eccentric for wide warps only (HW-ZR)
- Pneumatic thrust bearing with centering and pressure plate
- Automatic stop of the winding axis upon reaching the required meterage or in the case of thread breakage (at the creel transition point)
- Feed and cross-laying reed
- Expanding reed (HW-ZR)

**Optional extras**

- Antistatic devices
- Warping creel for overhead running
- Roll-off creel with permanent- and stop brake for lurex and fancy threads, wires and normal yarns
- Enlarged outer bobbin diameter, D = 400 mm
- Enlarged bobbin width, L = 400 mm
- Storage and transport wagon for simple handling of the warp bobbins

**HW-ZS**

The HW-ZS model can be used for tape warping or wide warps. The switch from one operational mode to another only takes a few minutes.

In the case of tape warping, laying takes place using a highly dynamic stepper motor, which ensures a precise selvedge. The warping and laying parameters are controlled by microprocessor and can be adjusted by the operating personnel. The parameters can be stored both as a recipe or under program names.

The maximum laying height during tape warping is 280 mm. Thread guidance takes place using a U-shaped thread guide.

**HW-ZR**

This model is intended exclusively for wide warps. An electronic metre counter is foreseen instead of microprocessor control. Thread guidance takes place via a straight or V-shaped reed. The straight reed can be rotated, in order to adjust the yarn sheet on the bobbin discs.

Lateral laying using a motor with eccentric (max. laying height +/- 5mm) ensures a smooth tree surface.
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