

TAILORED WARP BEAM FRAMES FOR RIBBON WEAVING



Greater system efficiency and higher fabric quality

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OVERVIEW

In the past, an electronic warp feed for ribbon weaving was rather difficult to implement, mainly due to the associated costs. Today, new manufacturing processes and methods enable cheaper solutions.

An electronic feed of the warp threads not only has a positive influence on product quality, it also reduces machine load and warp breaks.

With the electronic feed of the warp threads, warp beams with a larger flange diameter can be used, whereby the efficiency of the weaving machine can be increased.

ACCORDING TO YOUR NEEDS

We design and manufacture warp feeding systems according to your needs. Years of experience and expertise in this area as well as the cooperation with innovative partners speak for us.



Courtesy of INOBELT GmbH

INDUSTRY 4.0 AND THE INTERNET OF THINGS (IOT)

Industry 4.0 and the Internet of Things (IoT) are challenges that we face now and in the future.

We realize solutions that precisely and quickly synchronize the thread tension of different warp beams and link them together in an intelligent system combination.

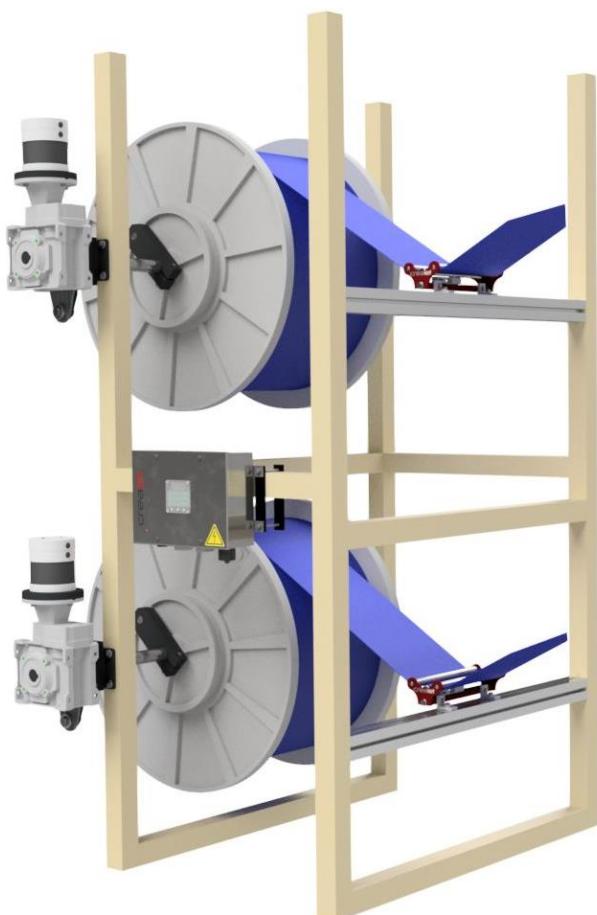


"Linked Motion Control" Warp Feed System

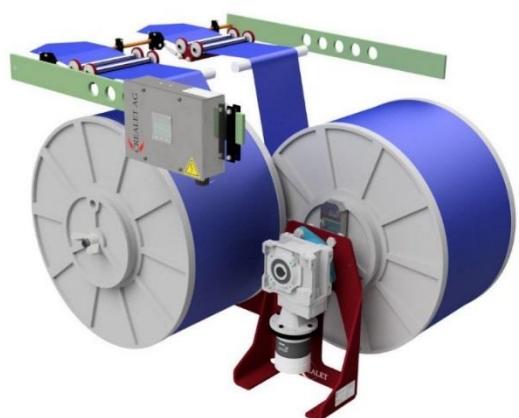
WARP THREAD FEEDING SYSTEMS

For weaving from sectional warp beams or creels, we develop and manufacture warp feeding units for the Narrow Weaving Industry. We offer creels and warp beam frames according to your needs and wishes.

CONVERSIONS AND CUSTOMIZED SOLUTIONS



Conversion of existing warp feeding



Customized solution for small warp beams



Customized solution for weaving from creel

Conversions

The purpose of a warp let-off system is to keep the warp yarns under a defined tension during weaving. If an existing system does not meet this requirement, a conversion can be the solution.

Customized Solutions

Sometimes very individual and customized solutions are required to optimize the warp feeding process. We develop for you such solutions.

COMPONENTS FOR WARP LET-OFF CONTROL

The optimum configuration of a warp let-off systems depends on the use of suitable drive components like warp tension measuring and tension control unit.

LT-CONTROLLER

Warp tension control



Let-off control

The new warp let-off controller is designed to control the warp tension on smaller warp beams used on ribbon looms. The controller is available for one or two axes. CANopen and EtherCAT are available to ensure fast and secure data communication.

Application of the warp let-off control

In narrow weaving, the demands on a controlled warp tension are becoming increasingly important. The manufacturing process of textiles, used in safety-critical environments, as automotive and medical applications, must be safe and traceable. On the one hand, these devices can be operated completely autonomously by the loom or, on the other hand, they can be integrated into a network. The device specific data, parameters, functions, programs (start, stop, set-up mode, warp tension, tension display and error behavior) can be exchanged via CANopen.

LOAD-CELL

CANopen

The CANopen protocol is a standardized protocol for the CAN bus and is mainly used for networking devices within complex systems.

EtherCAT

Short cycle times and very accurate synchronization are its features. Continuous data communication with CANopen is possible based on uniform profiles.

Warp tension control by load cell



Warp tension measuring by load cell. No springs have to be adjusted. Tension value visible on a display.