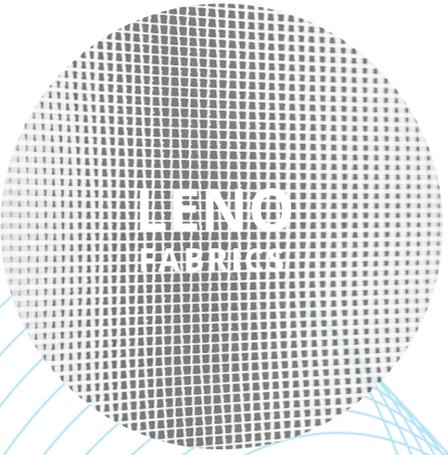


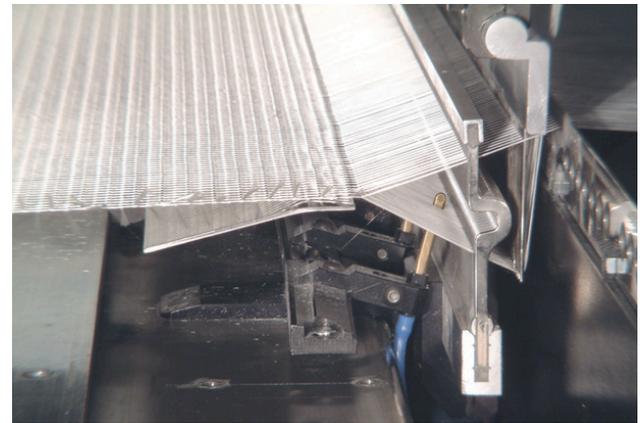
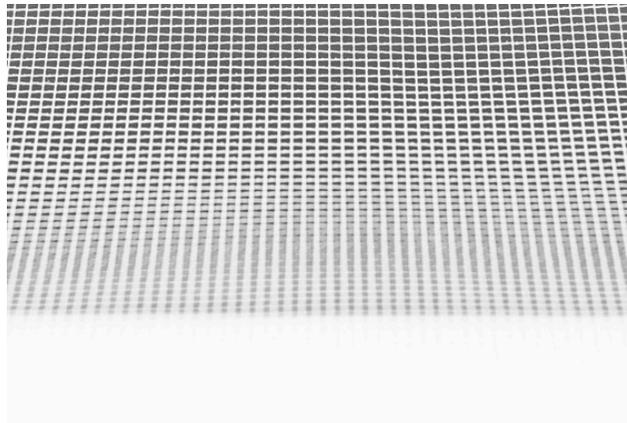
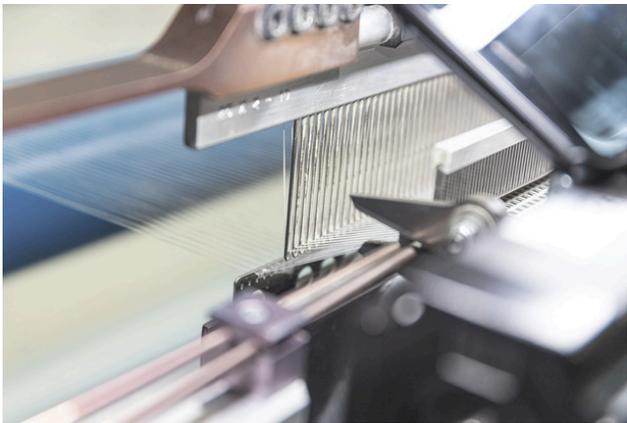
# CAMEL ADAPTIVE

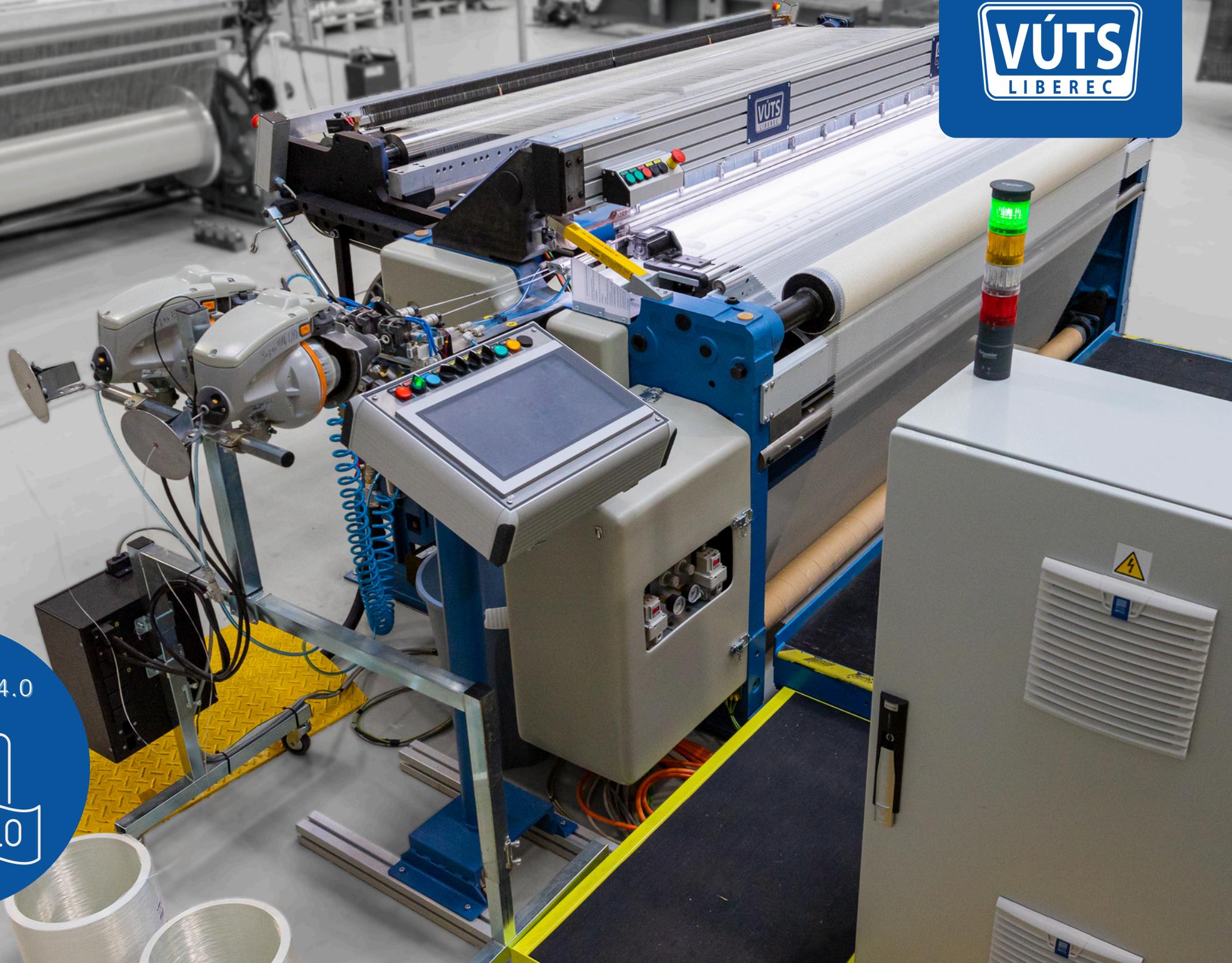
air-jet weaving machine for leno fabrics



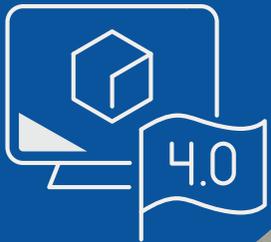


- + high weaving productivity
- + high quality of product
- + reduced energy consumption
- + adaptive machine drive
- + control system **INDUSTRY 4.0 READY**





INDUSTRY 4.0  
READY



# CAMEL ADAPTIVE

AIR-JET WEAVING MACHINE  
FOR LENO FABRICS

## FRAME CONSTRUCTION

- Left side and right side (casts made of grey cast iron)
- Central steel H profile connecting sides
- Steel tubes reinforcement
- Left and right warp stand (casts made of grey cast iron)
- Breast beam construction made of linked steel profiles
- Steel back rest limbs connected by steel L profile
- Upper extension made of steel brackets and aluminium profiles

## MACHINE DRIVE

- Individual synchronous servomotors, adaptively controlled in electronic cam modes
- Adaptive control of the irregularity of running (patented)

## BEAT-UP MECHANISM

- Special beat-up mechanism with minimized lifting
- Two synchronous servomotors direct drive with crank rotor, controlled in electronic cam mode
- Parallel transforming crank mechanisms
- C/E Composite profiled slay with rectilinear motion and energy recuperation (patented)
- Special profiled weaving reed in width range 170 up to 220 cm

## SHEDDING MECHANISM AND NEEDLEBAR

- Special shedding system needle-eye, type: VÚTS (patented)
- Warp density range 10x2/10 cm up to 40x2/10 cm
- Synchronous servomotor direct drive with continuous shaft, controlled in electronic cam mode, for vertical motion of shaft
- Parallel transforming crank mechanisms
- Shaft with eyes made of aluminium profile
- Recuperation items made of C/E composite's springs
- Synchronous servomotor direct, controlled in electronic cam mode, for horizontal pendulum reciprocating motion of needlebar with adjustable stroke up to 5 mm
- Needlebar installed on steel recuperated springs

## WEFT PICKING

- Two independent pick systems
- Weft picking modes: single, mix and two color change
- ROJ Super Elf G2 HD 3mm feeders, with CAN Bus communication
- Automatic braking system (ABS) of weft
- Tandem and main nozzles with automatic air pressure control
- Left (input) weft cutting, with diamond blades, with an electronically controlled step motor
- Special profiled weaving reed
- Relay nozzles with automatic timing system
- Stretch nozzle
- Opto-electric weft stop motion
- Right (arrival) weft cutting, with diamond blades, with an electronically controlled step motor or passive weft cutting
- Automatic filling repair

## WARP LET-OFF MOTION

- Electronic let-off motion with machine control system
- Diameter of warp beam flanges max. 1 000 mm

## BACK REST

- Two-rollers back rest, with rotary rollers
- Warp tension compensation of shed changing by dynamic compensator
- Overall width strain gauge sensing (6 sensors) of warp ends tension

## WARP STOP MOTION

- Double-row, electrical with droppers EOI type

## TAKE-UP AND PACKAGING

- Electronic take-up motion with machine control system
- Packaging solved by external device type large size badge winder

## CONTROL SYSTEM

- Machine drives control and LENO fabrics weaving technology
- B&R Automation ACOPOS multi control systems
- VÚTS, a.s. Liberec control software
- LCD control touch screen terminal – 15.6 inch
- Continuous weaving technology monitoring and production diagnostic of the machine on the OPCUA server platform
- External communication via VNC Klient and Ethernet with INDUSTRY 4.0 READY

## PROCESS FIBRES

- Glass fibers 34 tex – 450 tex
- PAD, PES, PP, Basalt, etc

## REVOLUTIONS RANGE

- Working frequencies 380 RPM up to 750 RPM
- Running uniformity of control adaptive system 30 % up to 80 %

## ENERGY CONSUMPTIONS

- Air consumption according to weft: 80 up to 100 m<sup>3</sup>/hour
- Power input of weaving machine according to producing revolutions: up to 2,9 kW

## REED WIDTH

- Minimum reed width 170 cm | Maximum reed width 220 cm

## MACHINE SPACE DEMANDS

- Width: 4 570 mm
- Depth: 1 900 mm
- Height: 1 670 mm
- Weight: 3 410 kg  
(Without control box and large-size batch winder)



VÚTS, a.s.  
Svárovská 619  
Liberec XI- Růžodol  
460 01 Liberec  
Czech Republic



www.vuts.cz