

CAMEL ADAPTIVE

AIR-JET WEAVING MACHINE FOR LENO FABRIC



TECHNICAL SPECIFICATION

FRAME CONSTRUCTION

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

MACHINE DRIVE

- Individual synchronous servomotors, adaptively controlled in electronic cam modes.

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.
- Composite profiled slay with rectilinear motion and energy recuperation.
- Profiled weaving reed in width range 170 cm up to 220 cm.

SHEDDING MECHANISM AND NEEDLEBAR

- Special shedding system needle-eye, type: VÚTS.
- 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.
- Composite shaft with eyes.
- Recuperation items made of C/E composite's springs.
- Synchronous servomotor direct, controlled in electronic cam mode, for horizontal pendulum reciprocating motion of needlebar.
- Needlebar installed on steel recuperated springs.

WEFT PICKING

- 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 nozzles – automatic air pressure control.
- Main nozzles – automatic air pressure control.
- Electronic weft cutting L, with diamond blades.
- Profiled weaving reed.
- Relay nozzles – Automatic timing system of individual sections.
- Stretch nozzle.
- Opto-electric weft stop motion.
- Electronic weft cutting R, with diamond blades, or passive weft cutting R.
- Automatic filling repair.

WARP LET-OFF MOTION

- Electronic warp stop motions
- Diameter of warp beam flanges max. 1 000 mm.

BACK REST

- Stationary two-rollers back rest, with rotary beams.
- Warp tension compensation of shed changing by dynamic compensator.
- Whole-width strain gauge sensing (6 sensors) of warp ends tension.

WARP STOP MOTION

- Double-row, electrical.

CLOTH TAKE-UP MOTION

- Electronic cloth take-up motion.

LARGE-SIZE BATCH WINDER (NVS WINDER)

- External electronically controlled tangential large batch winder.
- Large-size batch winder is not part of air-jet weaving machine CAM EL Adaptive.
- Large-size batch winder is additional device.

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, resolution 1 366x768 pixels.
- Continuous weaving technology monitoring and production diagnostic of the machine.
- External communication via VNC Klient and Ethernet with INDUSTRY 4.0 READY.

YARNS RANGE

- 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 material: 80 m³/hour up to 100 m³/hour.
- Power input of weaving machine according to producing revolutions: up to 4 kW.

SPACE DEMANDS

- Basic dimensions: width x depth x height = 4 000 x 1 450 x 1 500 mm.
- Without switchboard and large-size batch winder.
- Weight: 3 250 kg

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