



**DIFA**

air-jet weaving machine for drop stitch

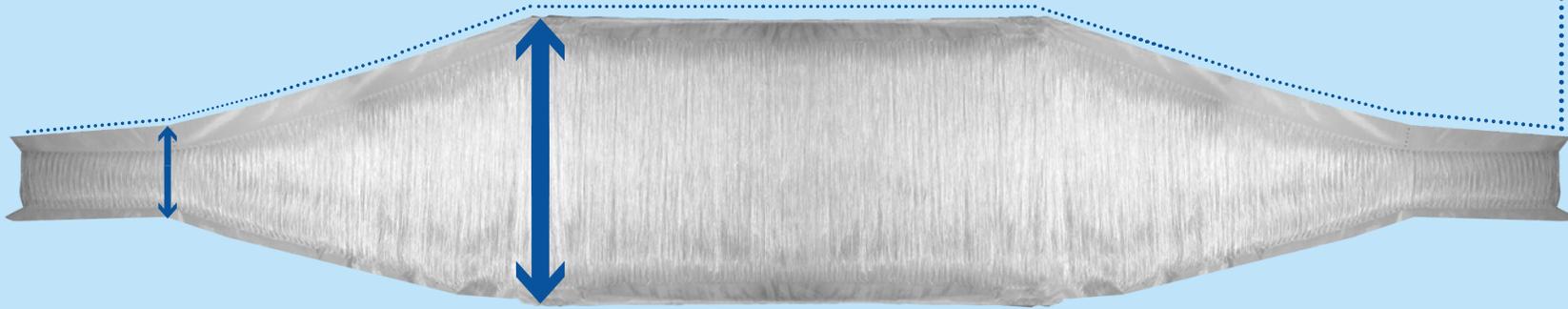


# DIFA

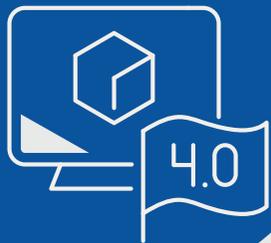
AIR-JET WEAVING MACHINE  
FOR DISTANCE FABRICS

- + VARIABLE DISTANCE
- + SPEED OF MACHINE SETTING
- + QUALITY & PRODUCTIVITY
- + FABRIC WALL DISTANCE
- + PILE YARN DENSITY
- + RAW YARN FINNENES

VARIABLE DISTANCE



INDUSTRY 4.0  
READY



# DIFA

AIR-JET WEAVING MACHINE  
FOR DISTANCE FABRICS

## MACHINE DRIVE, BEAT-UP AND SHEDDING MECHANISMS

- Individual drives of the mechanisms, with synchronous servomotors controlled in the electronic cam mode
- Cam beat-up mechanism with a profile slay made of C/E composite material
- Shedding mechanism with the Stäubli S3060 electronic rotary dobby
- (12 heald shafts 13")

## PNEUMATIC WEFT PICKING

- 2x ROJ Super Elf G2 weft feeders
- Automatic braking system (ABS) of weft
- Tandem nozzles (two color change)
- Main nozzles (two color change)
- Left (input) weft cutting, with diamond blades, with an electronically controlled step motor
- Profiled reed
- Relay nozzles
- Stretch nozzle
- Opto-electric weft stop motion
- Right (arrival) weft cutting, with diamond blades, with an electronically controlled step motor
- Automatic air pressure control of main and tandem nozzles
- Automatic timing of relay nozzles
- Automatic filling repair

## LET-OFF MOTION AND BACK RESTS

- 2x electronic let-off motion, 1x high-speed, electronically controlled unwinding system
- Bottom warp beam (binder warp thread system):  
warp beam face diameter max. 1000 mm
- Upper warp beam (ground warp thread system):  
warp beam face diameter max. 700 mm
- Fixed back rest system with three rotary rollers
- Overall width strain gauge sensing, independent for both warping systems

## TAKE-UP AND PACKAGING

- Electronic take-up motion, machine control system

## WARP STOP MOTION

- Optic laser warp stop motion LASERSTOP 4082, Protechna

## SELVEDGE MOTIONS

- Rotary Selvage Entangling Devices Propeller Leno, Gebr. Klöcker

## MACHINE CONTROL

- Machine drive control and distance fabric weaving technology system control, large and variable distances
- Drive control ACOPOS multi system and control system unit APC2100, central processing unit, B&R Automation
- Color LCD touch communication terminal in a size of 15.6"
- Weaving technology continuous monitoring and machine operational diagnostics
- External communication via VNC Client and Ethernet

## DISTANCE FABRIC FORMATION MECHANISM

- Electronically controlled inserting mechanism
- Electronically controlled distance mechanism

## PRODUCTION OUTPUT

- Automatic discontinuous process of distance fabric production
- Weaving mode: operational speed 600 rpm
- Distance mode: approx. 10 s

## WIDTH

- Minimum reed width 150 cm | Maximum reed width 230 cm
- Drop stitch width in the reed - Minimum 120 cm | Maximum 200 cm

## DISTANCE

- 10 - 50 cm constant
- 6 - 10 cm structurally dependent

## PROCESSED FIBRES

- PES, PAD: 150 up to 1500 den

## STRUCTURES

- $\overline{XX}$
- $\overline{III}$



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