

---

**PRODUCTS & SERVICES**



## ABOUT BTU-TECH

**BTU-TECH**, based in Istanbul, Turkiye, was founded in 2020 to engineer, design, and manufacture machines and technologies for **technical textiles and composites**.

With a core team for analysis, quick prototyping, and serial production, BTU-TECH can perform **3D modelling, FEA, programming, and industrial automation**.

BTU-TECH's three founders have a combined **60 years of experience** in machinery, robotics, electronics, and industrial textiles.

## ABOUT BTU-TECH

### **BURÇİN PAK**

Co-founder & CEO

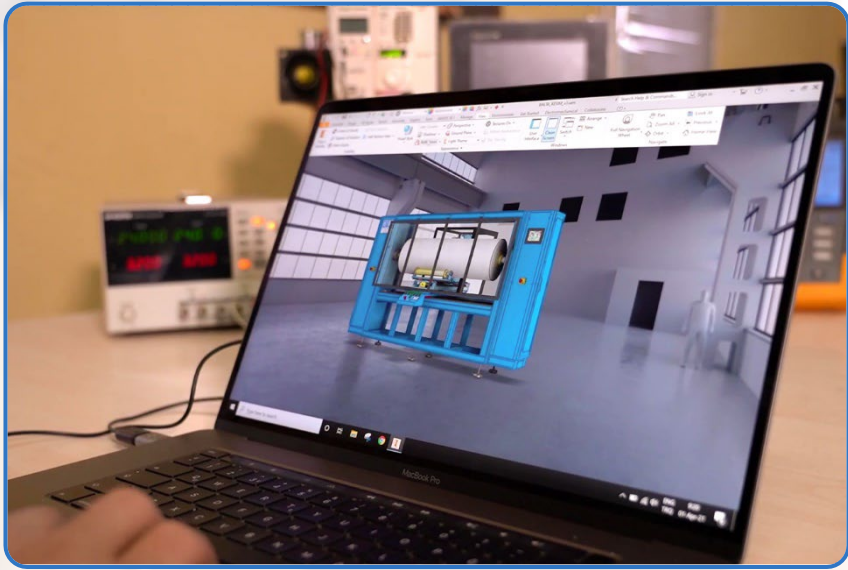
Mr. Burçin PAK had his BS & MS degrees at Istanbul Technical University Electronics Engineering.

After his PhD studies and experience in the defence industry, he moved to Silicon Valley for microchip design.

He later joined the family company for heavy-duty machinery & transport equipment.

He got many patents and awards for new technologies and R&D projects throughout the years.





BTU-TECH makes all designs in-house and organizes & manages subcontractors for production.

BTU-TECH uses a wide range of infrastructure and provides its customers with the best lead time and cost for their projects.

The BTU-TECH team tests and commissions all deliveries.





# PRODUCT RANGE



**ROLL HANDLING**



**PROCESS CONTROL**



**CUTTING SYSTEMS**



**UPGRADE SYSTEMS**



**COMPLETE LINES**



**COMPOSITE SOLUTIONS**



## ALL-IN-ONE WINDER

- High-Tech Winder for Industrial Size Rolls
- Runs in all Modes: Surface, Center, Combined
- Lay-On Roller
- Highly Precise Tension Control
- Edge Tracking
- Can Make up to 6 Ton Rolls

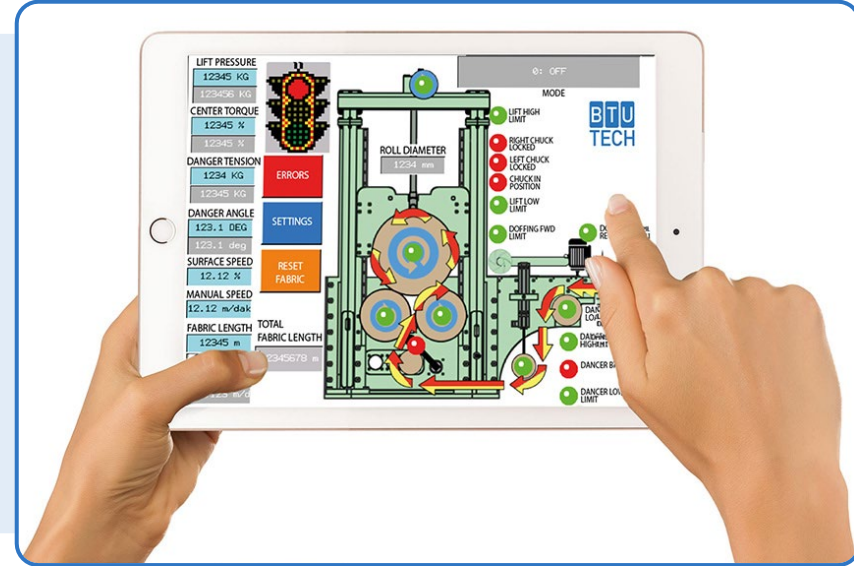
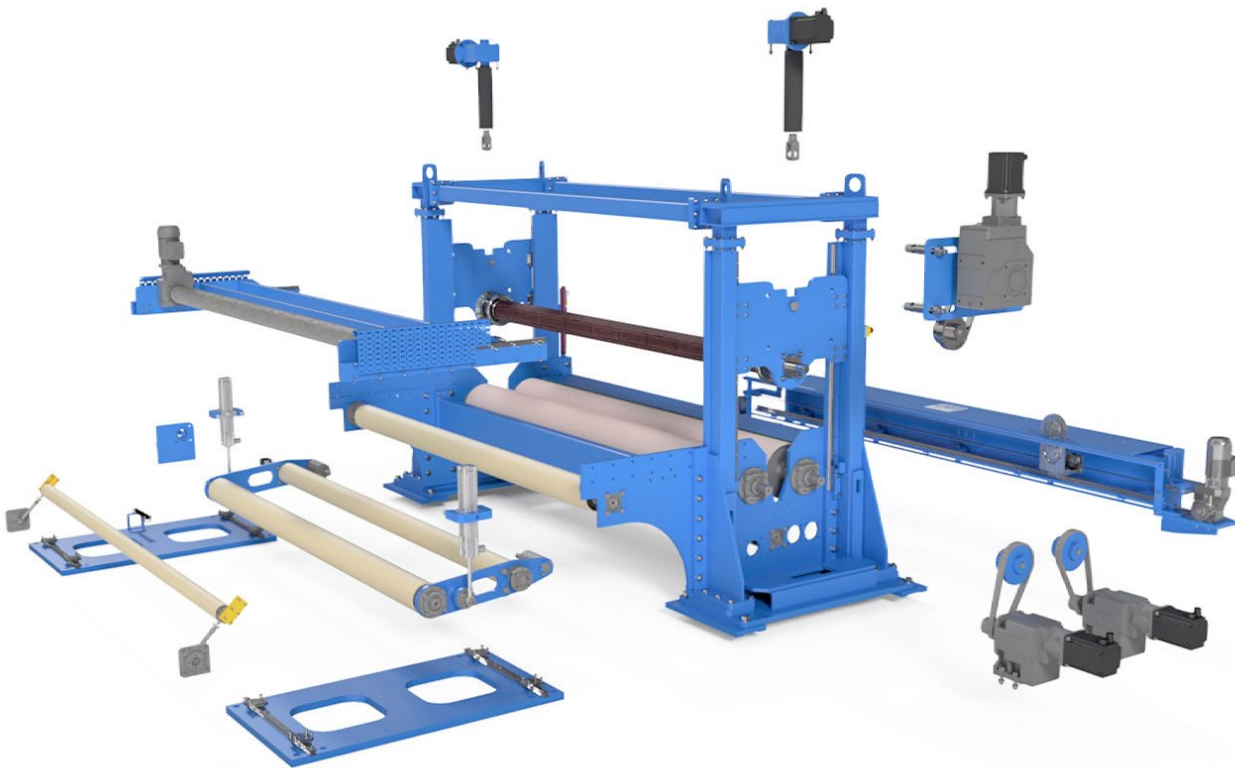


CLICK FOR VIDEO @btutech



# ALL-IN-ONE WINDER

- Upgrade Options for the Optimum Initial Investment
- Variable Width between 50, 100, 130 and 150 inch.
- Roll Weight Monitoring
- Roll Diameter Measurement
- Operator Friendly User Interface



CLICK FOR VIDEO @btutech





## SHORT ROLL WINDER

- Splits Jumbo Rolls to Defined Smaller Rolls
- Fully Automatic System
- Precise Length Measurement
- Fast Unwinding-Rewinding
- Tension Control
- Edge Tracking



CLICK FOR VIDEO @btutech

# PRODUCTS

## ROLL HANDLING



# UNWINDER

- Unwinds with Constant Tension
- Center/Surface Unwinding Options
- Speed & Torque Control
- Loadcell / Dancer Tension Control
- Encoder Wheel / Ultrasonic Sensor Diameter Control
- Edge Tracking



CLICK FOR VIDEO @btutech





## ROLL FEEDER

- Feeds Rolls to CNC Cutters with Control
- Unwind Several Rolls of Different Diameters & Widths
- Speed & Tension Control
- User Friendly Interface



CLICK FOR VIDEO @btutech





## CONVEYOR FEEDER

- Conveyor Table to Work with CNC Cutters
- Transfers the Cut Fabrics for Non-Stop Cutting
- Speed and Tension Control



CLICK FOR VIDEO @btutech



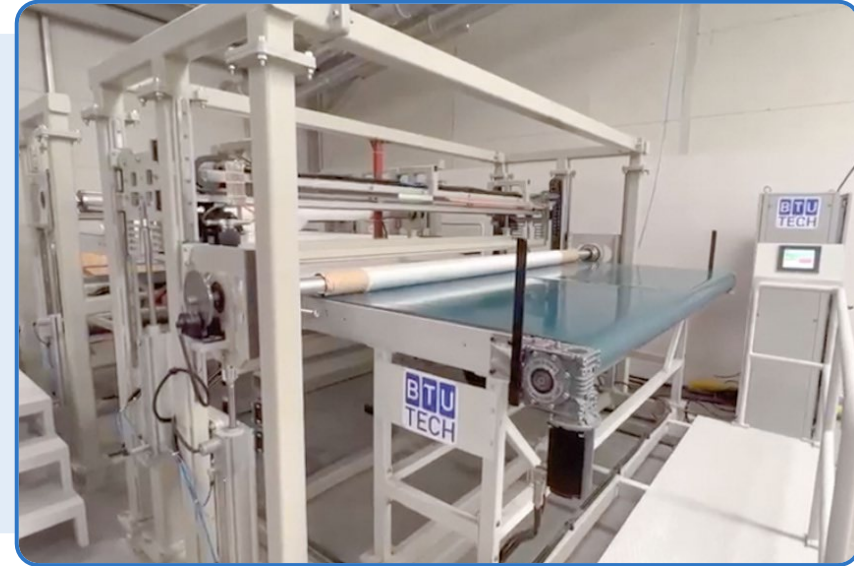
# PRODUCTS

## ROLL HANDLING



# MULTI-ROLL

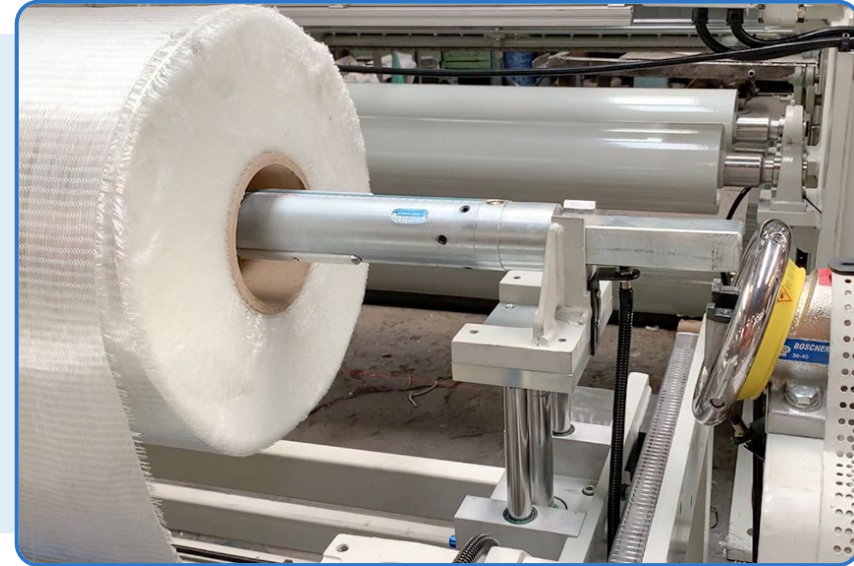
- Makes a Multi-Fabric Kit in a Single Roll
- Unwinds, Cuts, Rewinds
- Prepares Fabrics at Desired Lengths and Positions
- Reduces multi-operator process





## AIRSHAFT AUTO LOADER-UNLOADER

- Loads and Unloads Rolls on a Shaft to any Line
- Fully Automatic, No Manual Work with Safety Chucks
- Prevents Workplace Accidents, Saves Time







## MULTI-LAYER TAPE STITCHING LINE

- Unwinds Tapes
- Stitches them at Desired Positions
- Rewinds the Stitched Tapes into a Perfect Roll
- Edge Control
- Eliminates Manual Process of Feed, Align & Stitch

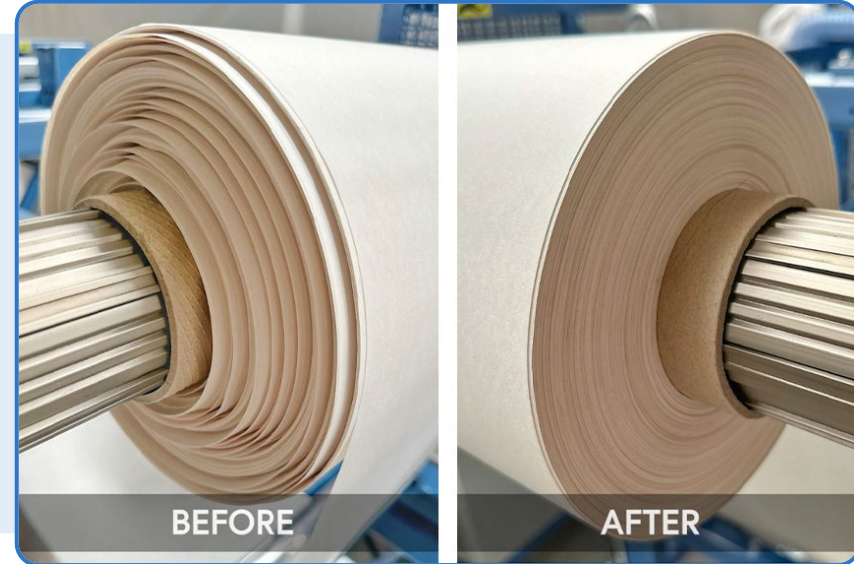






## PAPER REWINDER

- Rewinds Used Carrier Paper Roll into a Reusable Roll
- Converts a “Consumable” to a New Material
- Precise Tension Control for a Delicate Substrate
- Edge Control
- Brushing & Dust Suction for Cleaning



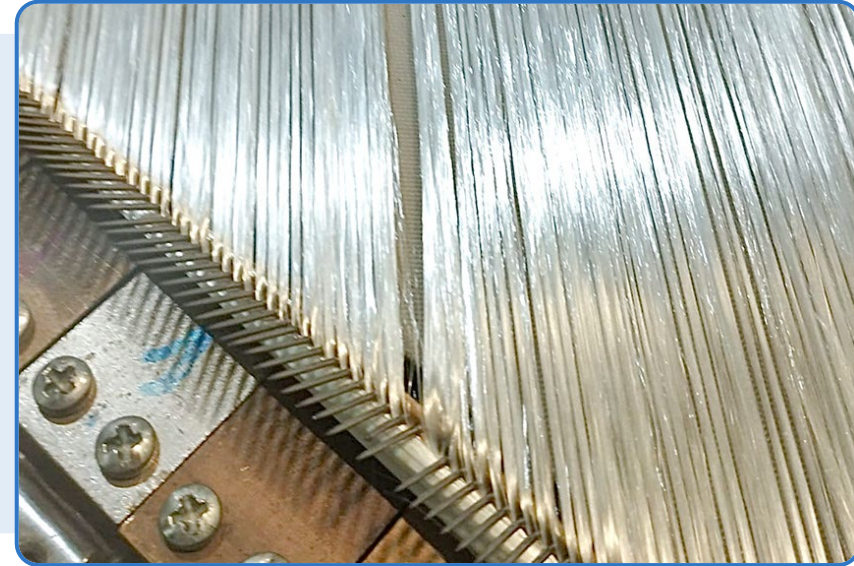
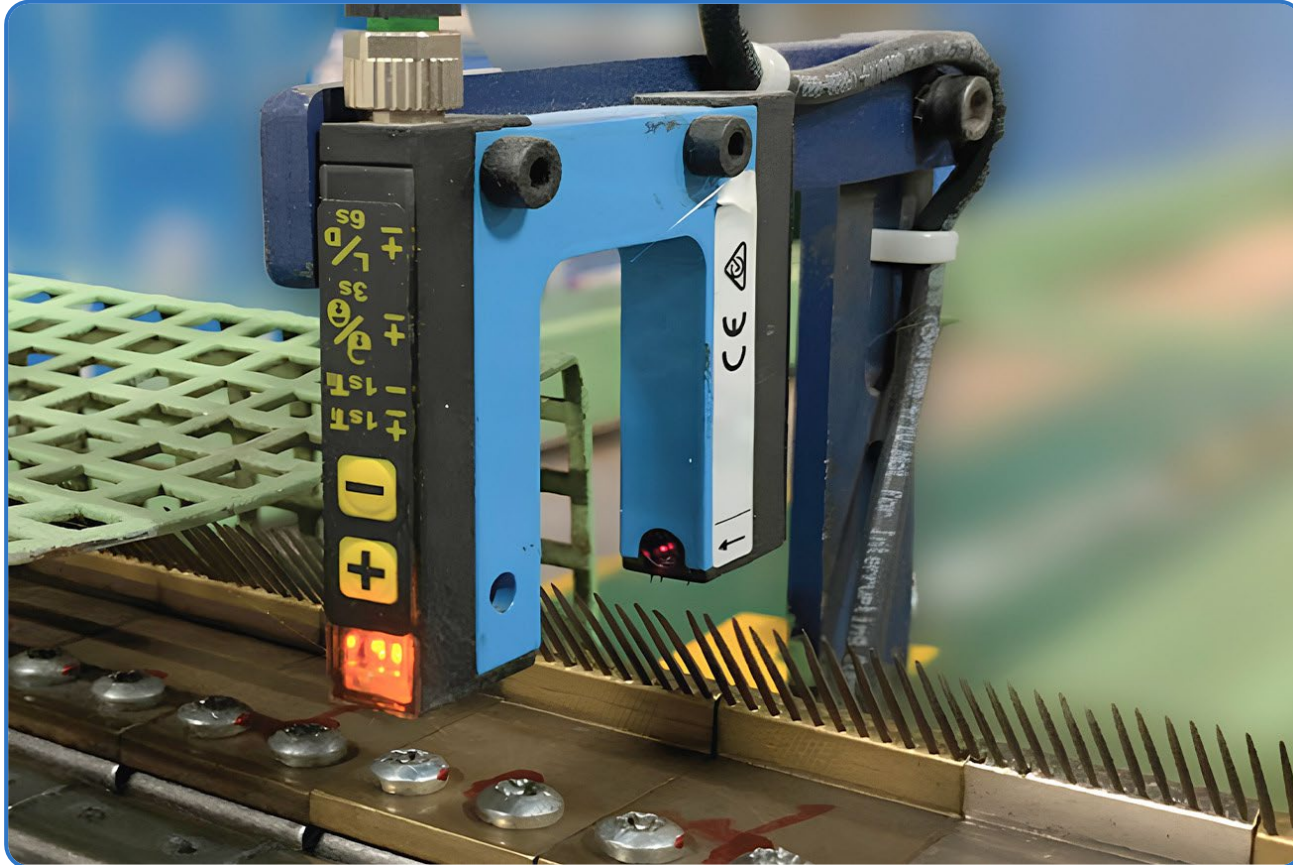
CLICK FOR VIDEO @btutech





# HOOK PIN BREAK SENSOR

- Detects and Alarms Hook Pins' Breaks
- Easily Integrated to Multiaxial Machines
- Prevents Fabric Defects due to Pin Breaks
- Easy Break & Spacing Definition over the HMI

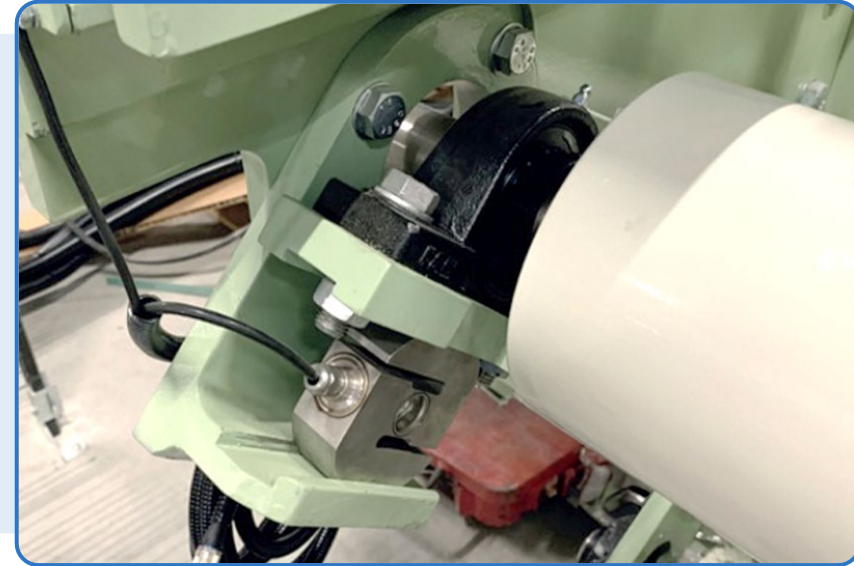
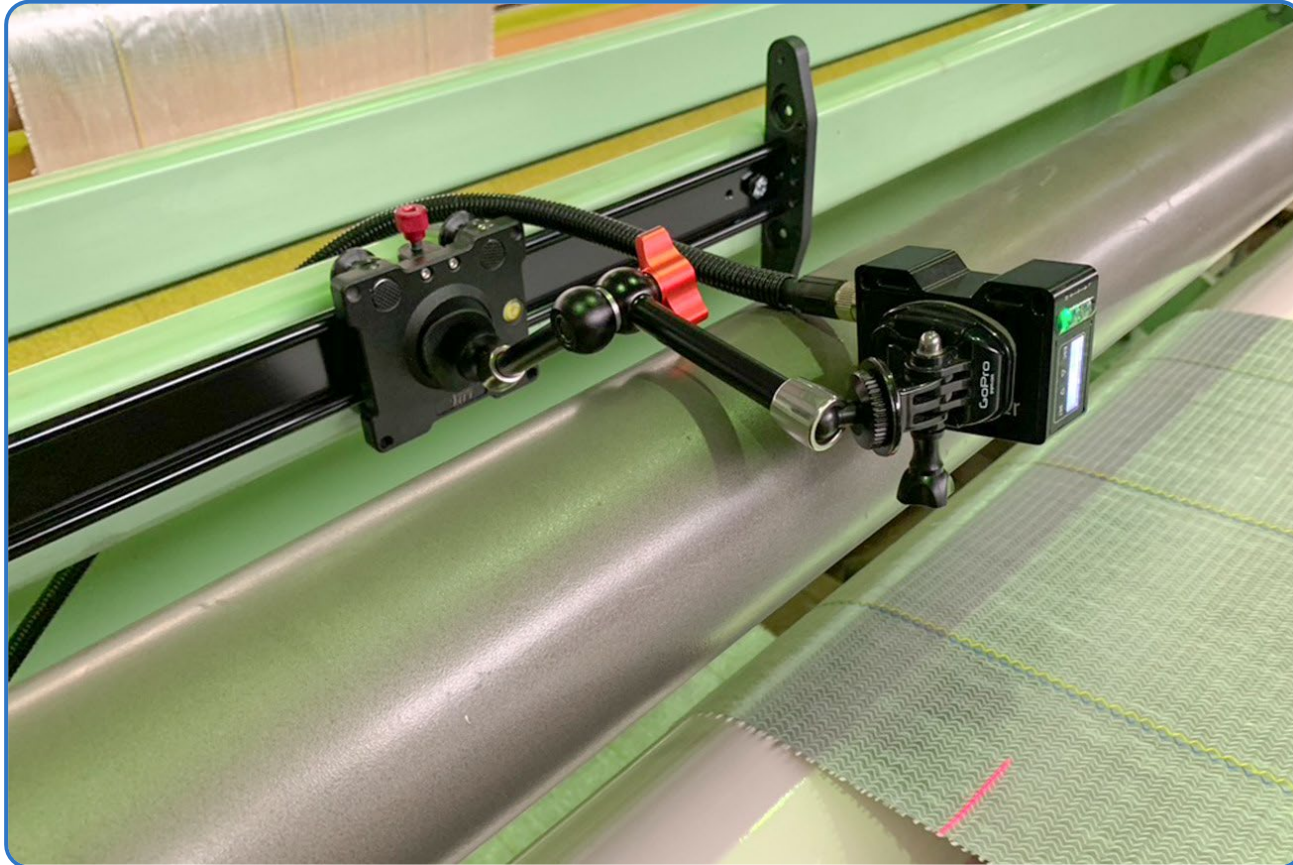






## SENSORS

- Sensors Applicable to Production Processes
- Edge Tracking
- Tension, Speed, Length Sensor for Fabrics
- Roll Diameter Sensor
- Dancer Position Sensor
- Roll Weight / Nip Pressure Monitoring Sensor

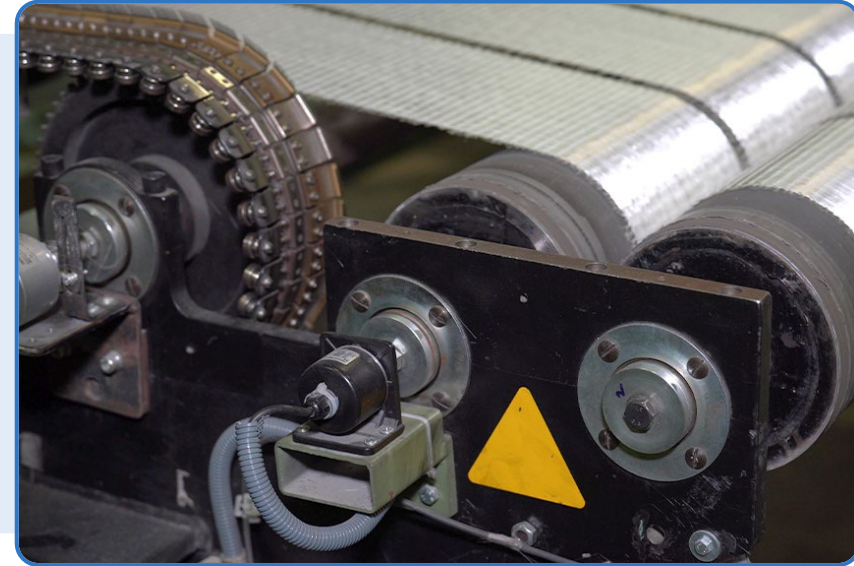






## TAKE-UP SYSTEM

- Pulls the Fabric from Knitting with Constant Tension
- Can Set the Tension with very Fine Increments
- Speed & Tension Control



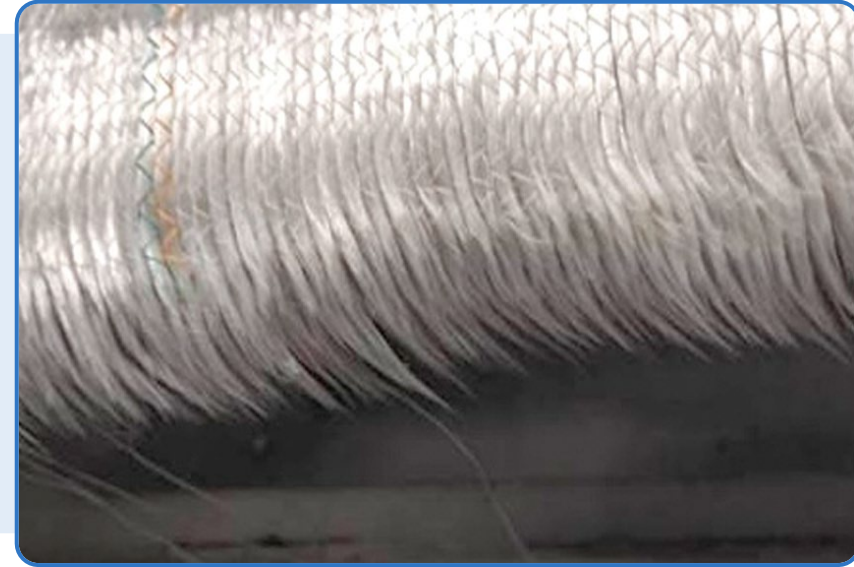
CLICK FOR VIDEO @btutech





## CHAMFER CUTTER

- Cuts Fabric Edge from Original down to Zero
- Blade RPM & Cutting Speed Control
- Chamfer Length Adjustable



CLICK FOR VIDEO @btutech



## CROSS CUTTER

- Cuts the Fabric Transversally
- Simple & Effective Design
- Single Drive for Linear Speed & Rotational Blade Speed
- Adjustable Pressure & Distance between Blades



CLICK FOR VIDEO @btutech



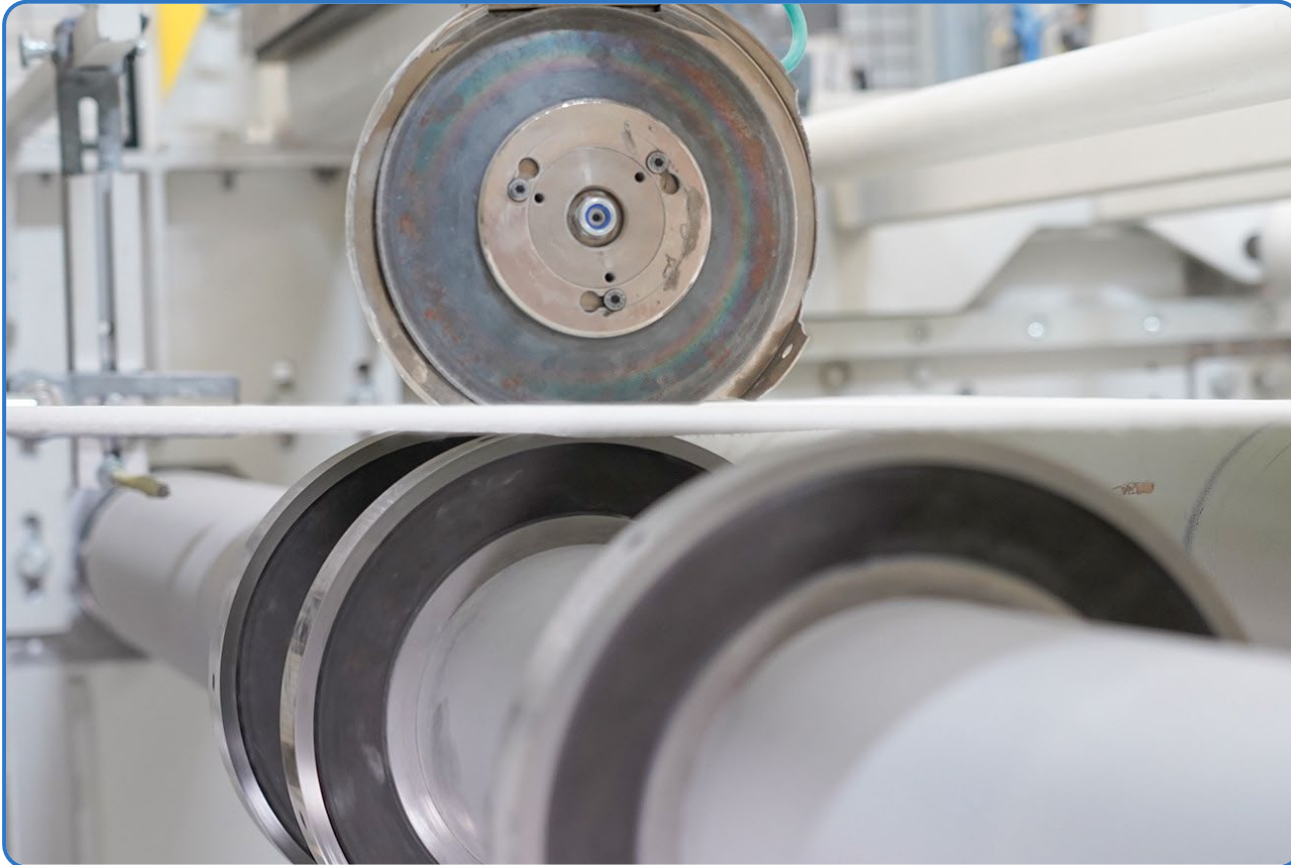
# PRODUCTS

## CUTTING SYSTEMS



# ONLINE SLITTING

- Cuts Tapes on the Production Line
- Consists of Blades, Shaft, Blade Rail & Drive
- Optional Operator Platform for Easy Access
- Edge Tracking
- Speed Controlled Shaft
- Fabric Switches

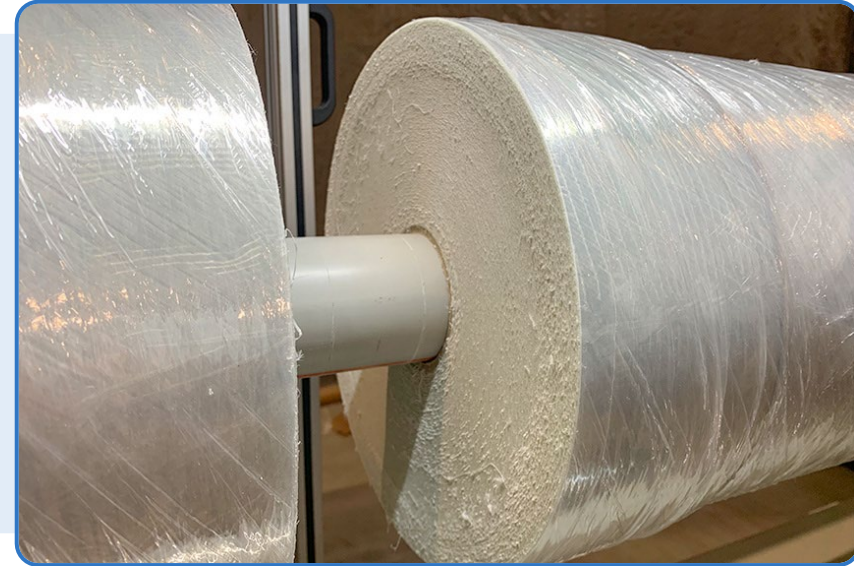


CLICK FOR VIDEO @btutech



## ROLL SLITTER

- Fully Automatic Roll Slitter for Tapes
- Encoder Servo Control for Precise Metering System
- Adjustable Shaft & Blade Speed & Travel Distance
- Automatic Film Covering
- Blade Sharpening & Cooling Feature



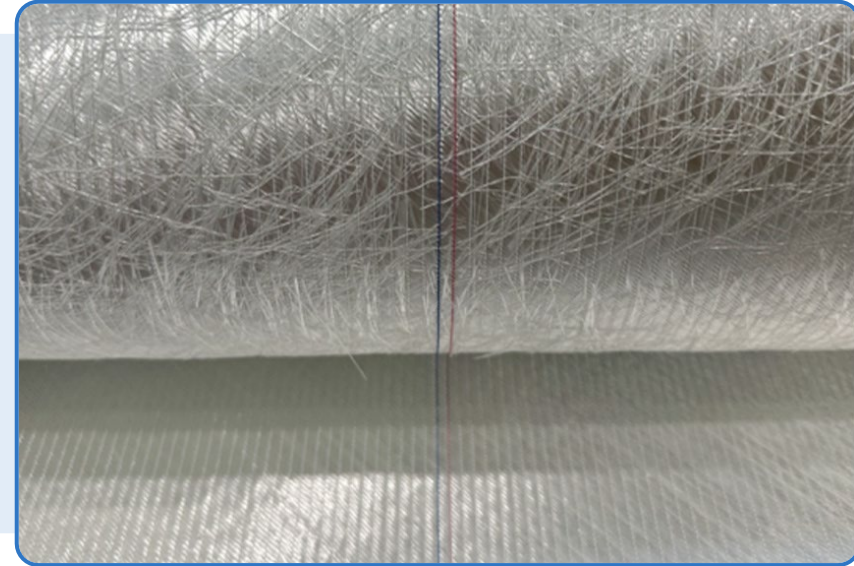
CLICK FOR VIDEO @btutech





## ROVING CHOPPER

- Glass Roving Chopper for CSM & SMC Production
- Hard-Chromium Knife Roll for Effective Cutting
- Sensors to Detect Roving Wrap Around
- Oscillating Feeding Bar & Picker Roll for Homogeneity
- Anti-Static System
- Blower Cleaning System



CLICK FOR VIDEO @btutech





# PAPER TUBE CORE CUTTER

- Cutting Cores for Different Width Needs
- Simple & Cost-Effective Design
- Shaftless Design
- Can Cut Core Tube of Any Width



CLICK FOR VIDEO @btutech





## MULTIAXIAL RETROFIT

- Converts old LIBA Max3 & Max4 Machines to New
- All Electronics, Cables, Drives, Motors, Software replaced
- Creates a New Machine with Accessible Spare Parts



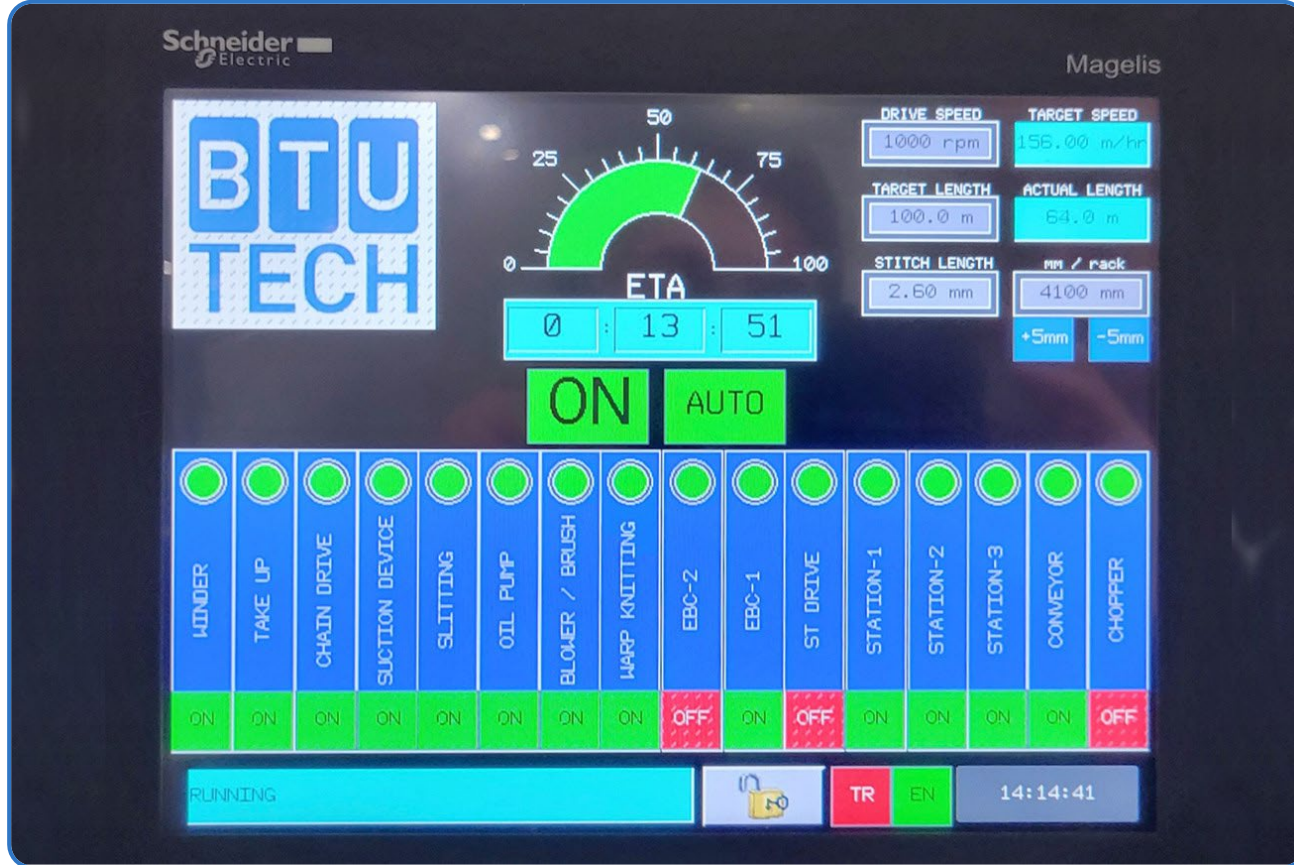
CLICK FOR VIDEO @btutech





## MULTIAXIAL RETROFIT

- Virtual Master Automation System
- EBC Beams Anti-Braking System
- Weft Carrier Auto-Position Calibration System
- Weft Carrier Crash Detection System
- Simple Weft Carrier Position Setting system
- Windows PC Free Automation System
- Data Transfer via All Industrial Protocols
- Smart Laser Barrier System



CLICK FOR VIDEO @btutech

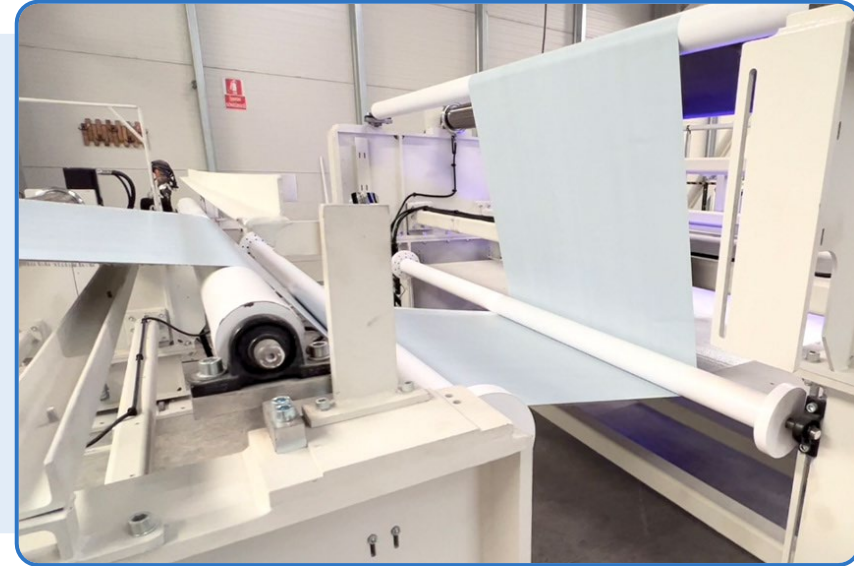


# PRODUCTS COMPLETE LINE



## COATING LINE

- Controlled Roll Unwinding a Fabric Roll
- Adhesive Application
- Curing Process on Demand
- Feeding of Carrier Layer
- Winding into a Proper Roll

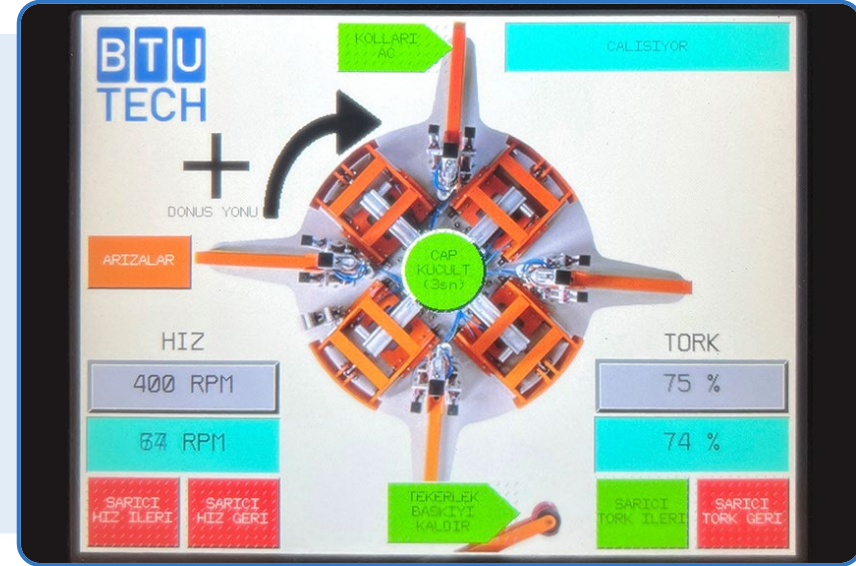






## PULTRUSION PROFILE COILER-UNCOILER

- ToWind Profiles with a Specific Tension & Diameter
- Same Equipment to be Used also for Uncoiling
- Programmable Inner Diameter
- Mechanical Brakes in case of Loss of Air or Power
- Wheel Encoder to Measure Coil Length & Speed
- Operatable in Both Fixed Torque& Fixed Speed Modes

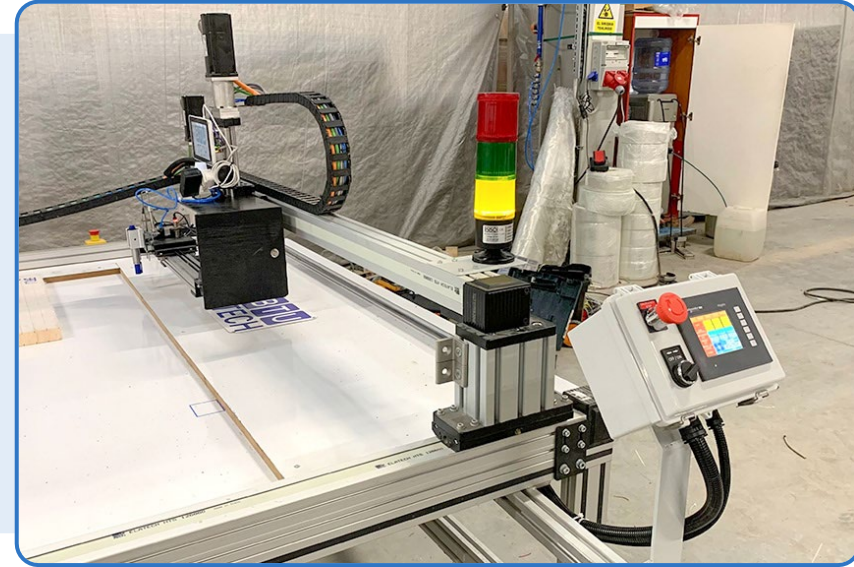
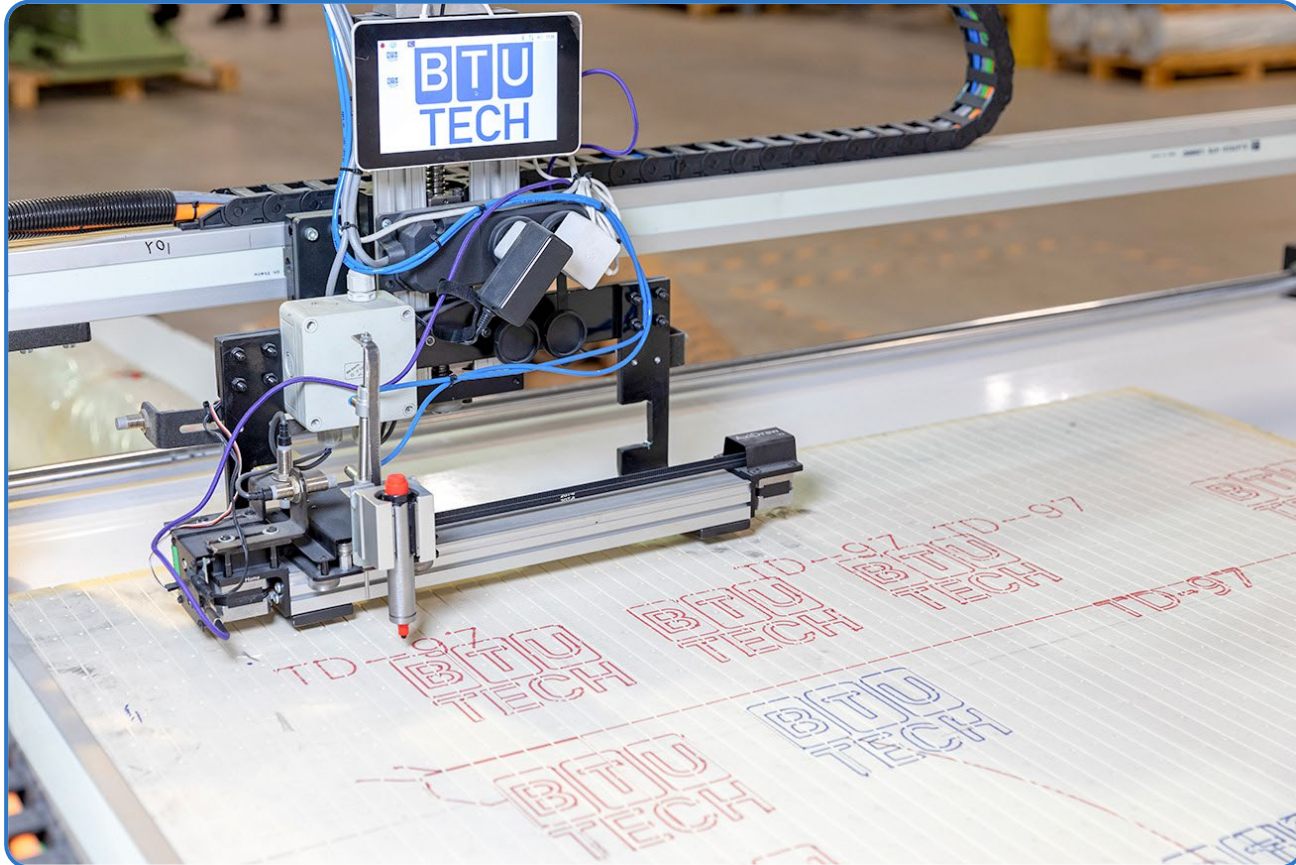






# CORE-KIT & PANEL PRINTER

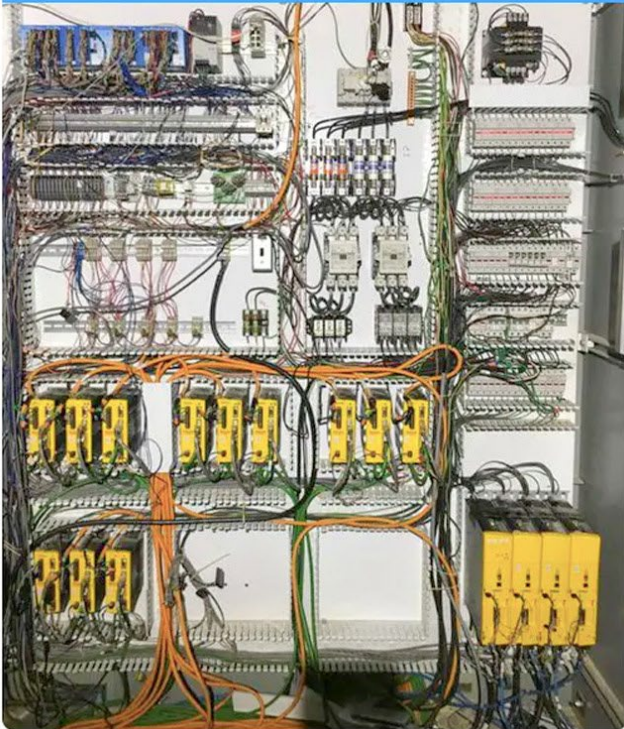
- Simple Design for Labeling Core-Kits or any Panel
- No Need for Expensive Inkjet Heads
- Use of Simple Boardmarker Pens



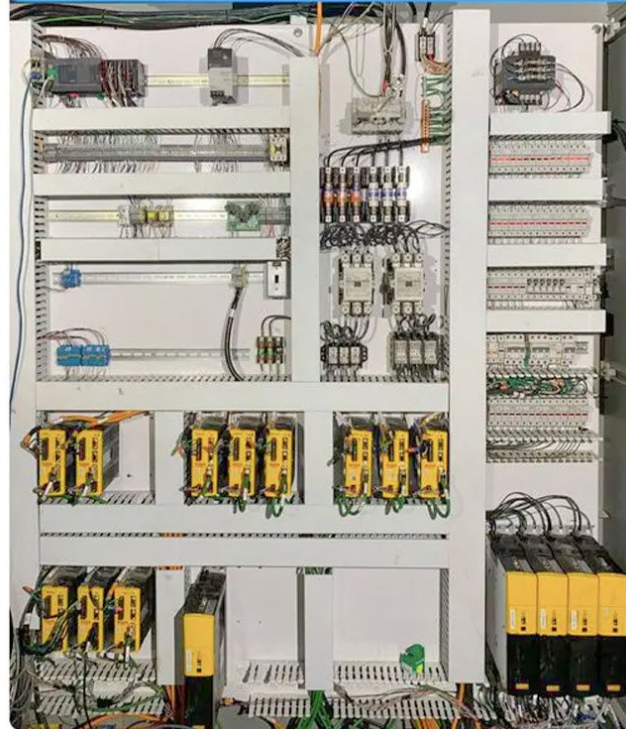


- BTU-TECH provides upgrade services for its customers' existing lines.
- Upgrades include a new software automation and/or hardware upgrades for complete change or re-organization of electric panels, new technologies adaptation and mechanical parts.

## BEFORE

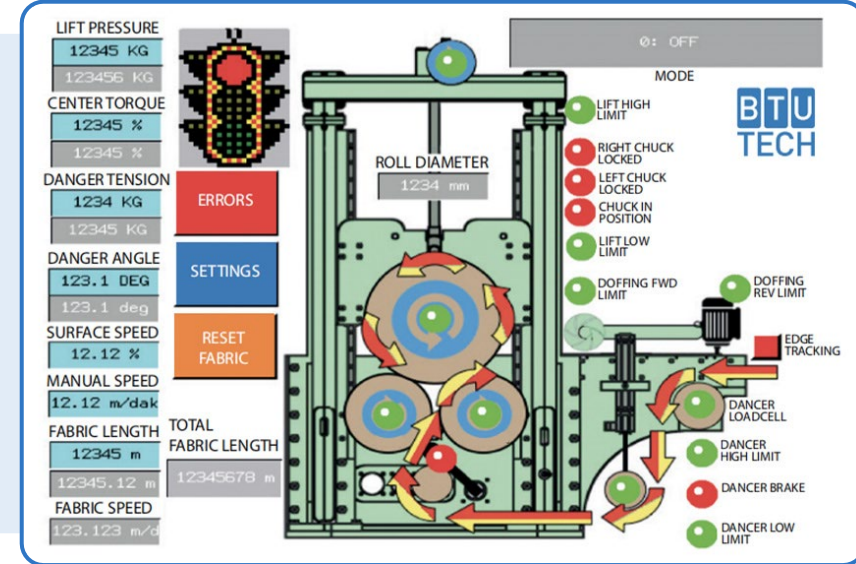


## AFTER





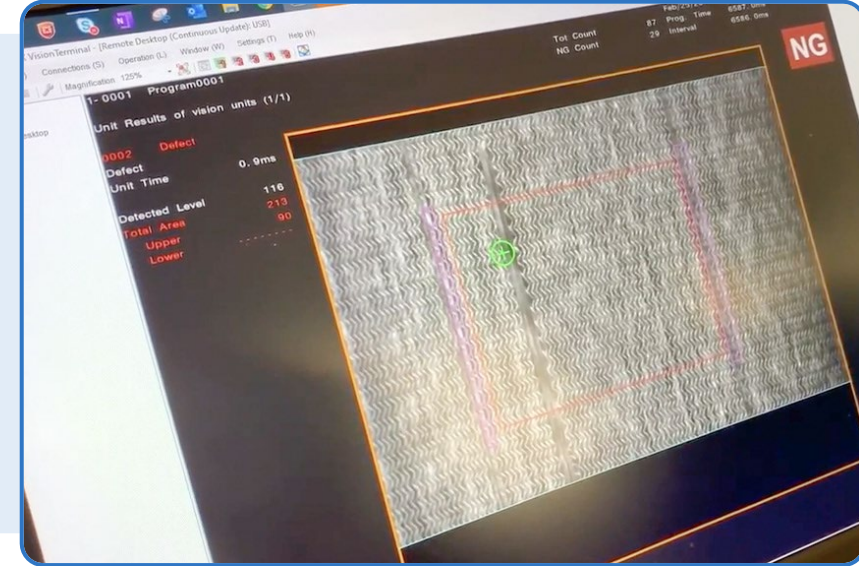
- BTU-TECH provides upgrade services for its customers' existing lines.
- Upgrades include a new software automation and/or hardware upgrades for complete change or re-organization of electric panels, new technologies adaptation and mechanical parts.





# R&D IN PROGRESS

- Weft Yarn Break Sensor
- Camera System for QC
- 0-degree Yarn Break Sensor
- Yarn tensioning system





# THANK YOU

We appreciate your interest in our product range and services.

Follow us for news about our new products and services.



FOLLOW US

