

BTU
TECH



**MULTIAXIAL RETROFIT
SYSTEM**

DESCRIPTION

LIBA Maschinenfabrik GmbH (Germany), now part of the Karl Mayer Group, had produced hundreds of MAX3-type multiaxial machines in the first decade of the 2000s.

As a pioneering technology and machine design, MAX3 lines served its owners to make glass, carbon and aramid reinforcement fabrics for composite industries.

As a result of wear & tear and lack of availability of certain electronic and electrical components, the machine owners have had more problems throughout the years in running the lines efficiently.



BTU-TECH has started and completed almost 1,5 years of R&D and developed a "Retrofit System" to run the LIBA MAX3 multiaxial lines.

With the "BTU-TECH Retrofit System", all electronics, electric panels, cables, sensors, flex and fixed cable trays, servo motors, drives, controllers, HMI panel are ripped off the line and replaced with BTU-TECH components and software. In addition to MAX3 lines, BTU-TECH Multiaxial Retrofit System is also applicable to MAX4 lines.

FEATURES



Virtual Master Automation System: enables to turn on-off machine functions independently for test, service and functionality.

EBC Beams Anti-Breaking System: makes sure that stitch yarns on the beams are not broken during an emergency stop, failure or power loss.



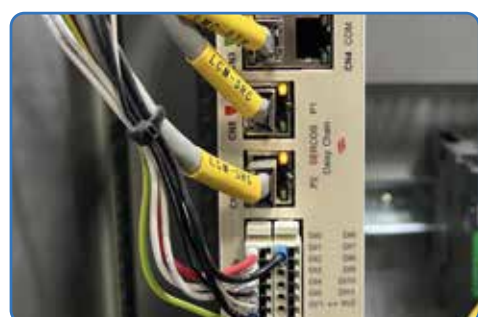
Weft-Carrier Auto Position Calibration System: with every press of the start button, the weft carriers are automatically synchronized within 1-2 seconds without the need for a long manual sync process.

Weft-Carrier Crash Detection System: makes sure that the weft carrier operating positions are safe for the defined weft angle so that the carriers do not crash into each other.



Simple Weft Carrier Position Setting System: After maintenance or a motor replacement, motor position re-calibration is easily done either manually (a new and easy method) or with a hand terminal as usual.

Windows PC Free Automation System: The motion controller performs real-time weft curve calculations. There is less than 10 seconds of booting and calibration time.



Data Transfer via all Possible Industrial Protocols: All parameters can be transferred digitally to integrate into the client's data management system.

0-360 Degrees Programmable Weft Angle, Independent of Machine Width: The weft curve calculator ensures that all weft angles other than 0-30-45-60-90 are possible.



Universal Voltage & Frequency: 380-480VAC, 110-240VAC, 50-60Hz supported out of the box.

Smart Laser Barrier System: Detects where the operators are around the machine and stops or continues operation accordingly.



BTU-TECH Add-Ons For Multiaxial Machines

BTU-TECH All-In-One Winder: A sophisticated modular winder that can batch perfect jumbo rolls in any winding mode.



BTU-TECH Hook Pin Break Detection System: Sensors to detect broken hook pins in the transport chain.

BTU-TECH Glass Chopper: A safe and robust chopper that can produce a homogenous CSM layer in addition to the 0-45-90-45 oriented fiber layers.



BTU-TECH Online Slitting: to cut online tapes, comes in as individual components or as a complete system including upper & lower blades, blade shafts, blade rail, drive, frame and platform.

BTU-TECH Take-Up System: that does not require any speed reference from the multiaxial software and can set the tension with very finite increments.



ABOUT BTU

BTU-TECH was founded in 2020 as a start-up company for engineering, design and manufacturing of machines and technologies for variety of industries, such as textile and composites.

As the main shareholder and CEO of the company, Burçin Pak received investment for the company. In addition to his 20+ years in microelectronics, communication and machinery which includes many patents and awards for the developed technologies, together with its investors, the company has a total of 60 years of experience, covering industries such as heavy duty machinery & transport equipments, robotics, microelectronics, IOT, industrial textiles.

The company has a talented core team for analysis, engineering, design, quick prototyping and serial production. The inhouse capabilities and skills are 3D modelling, FEA, programming and industrial automation.

Based in Istanbul, Turkey, BTU-TECH is aiming to serve customers globally both by direct contact and via technical partners.

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www.btu-tech.com

BTU Makine ve Teknoloji Sanayi Ticaret A.S.

Kaya Sultan Sk. H. Bagdatlioglu Is Mrkz. No:81 A

34742 Kozyatagi, Kadikoy / Istanbul / TURKIYE

P: +90 216 410 40 10

E: info@btu-tech.com



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