

ROVING	<b>CHOPPER</b>	SPECIFIC	CATIONS
KOVINO	CHOI I LI	JI LUII IC	AHUNJ

Working Width50", 100", 108" or 130"MaterialMultiend chop glass rovingsChopped Strand Length50.8 mm (2") or 101.6mm (4")

Number of StrandUp to 130 pcsRovingsUp to 4800 texDistance Between Rovings27 mm

Knife Roll Hard chromium plated

Blades Standard steel band with 8 mm height
Carbon Brushes To discharge static electricity for all rolls

**Contact Roll** 290 mm PU coating, regrindable down to 270 mm

Pressure Roll Hard chromium plated

**Roving Wrap-Around Sensors**Below mm accuracy position sensors

Roving Feeding Bar Roving guidance device with oscillating motion

Piker RollAchieves better strands distribution with programmable speedBlowerFor continous cleaning of the rolls by using compressed air

Static Electricity Elimination System For neutralisation of static electricity of the rovings

**Speed Signal** Incremental encoder, analog (0-10V or 4-20mA), digital speed data.

PneumaticsFESTOElectronics & DrivesSchneiderMotorsWatt Drive (WEG)

**HMI** 7.5" Touchpanel with multiple language interface

 Voltage
 380-480 V/A

 Frequency
 50-60 Hz

 Power
 15 KW

 Air
 4-10 bar

 Protection Class
 IP54 min

 Certifications
 CE





# **DESCRIPTION & FEATURES**



For SMC operations or chopped strand mat combined multiaxial or woven fabric production, a roving cutter machine is necessary. This machine is supposed to work in synchrony with the main line whether it is an SMC line or a knitting line.

BTU-TECH developed a robust, reliable, safe and operator friendly roving chopper machine for this purpose.



The BTU-TECH glass chopper design features are as follows:

#### **Knife Roll**

A hard-chromium plated roll with spiral grooves ensuring only one roving is cut at a time to reduce roving-blade pressure. The knife roll is driven by a frequency inverter controlled motor and its rotational speed is automatically adjusted by the set number of rovings, tex, fabric width and desired areal weight from the touch panel.



Special PU-coated 290mm roll that can be regrinded down to 270mm. Driven by 2 pneumatic cylinders with programmable contact-knife rolls pressure that defines blade-roving cutting pressure.



A hard-chromium plated roll presses the rovings to the contact roll for feeding. The pressure is adjustable. To detect roving wrap around, the cylinders pushing/pulling the roving pressure roll, have linear position sensors that have below milimeter accuracy.



An oscillating bar which has an adjustable frequency, guides the rovings to the pressure roll ensuring the homogenity of the CSM and that each cutting takes place on a different spot on the contact roll.



To achieve a better CSM distribution, a piker roll with adjustable rotational speed and speed curve is implemented.



A special system with ions spreading bar for rovings and carbon brushes for rotating parts are used to discharge static electricity.

#### **Blowers:**

Pressurized air blowers with adjustable speed are used to keep the knives and the contact rolls clean.

#### HMI:

All settings and operations can be controlled from the operator touch panel.





## **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.



www.btu-tech.com

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