



ROLL SLITTER

DESCRIPTION

Textile lines produce fabric with predefined widths such as 50", 100" or 130". However, either because of the lack of an online cutting system or due to unestimatable demand of various widths of fabrics (tapes), the manufacturer needs to slit the finished rolls to meet the demand. This is where the roll slitters become critical equipments for the industry.

There are two types of roll slitters in the market:

- Surface Rolling Type
- Center Rolling Type

In surface rolling type, the roll is placed on two rollers which are motor driven. This has the advantage of working with heavy rolls because the rollers support the fabric roll.

In center rolling, the roll is placed on a shaft and the shaft is rotated. Since the weight of the roll is not supported underneath, the shaft may bend with huge loads.

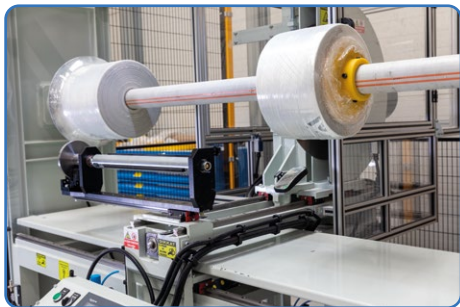
However, it is difficult to handle (lift and place on the slitter) heavy rolls without a shaft. So, both systems have their pros and cons.

BTU-TECH offers a center rolling type "**roll slitter**"



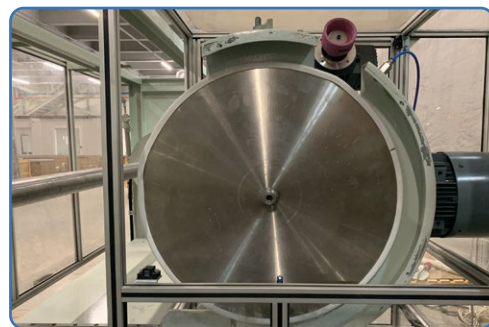
FEATURES

The BTU-TECH "Roll Slitter" design features are as follows:



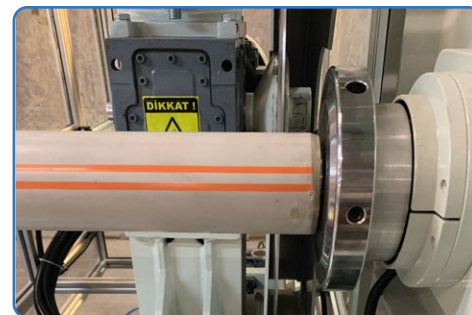
Metering System: Extremely precise metering is achieved with an absolute encoder servo control that never requires position correction with loss of power supply.

Blades for Different Fabrics: Different blades are offered for each product type (such as glass and carbon fabrics).



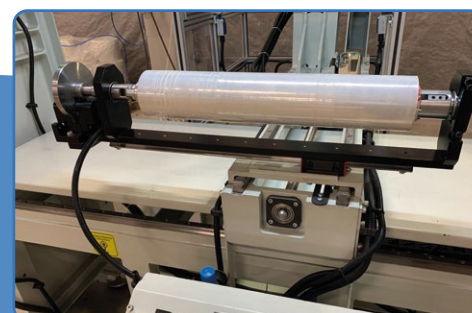
Fully Automatic Operation: Roll slitter is fully enclosed with glass barriers and operation is fully automatic.

Blade Teach-In: Cutting travel distance is adjusted according to the blade diameter.

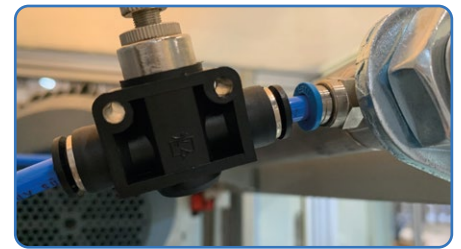


PVC Shaft Guard: For additional protection, steel shaft is covered with a PVC pipe which makes sure that the blade does not get in contact with the shaft.

Automatic Film Covering: Before the cutting operation, entire roll must be covered with plastic film. An automatic film covering mechanism, with programmable number of film layers, handles this task.

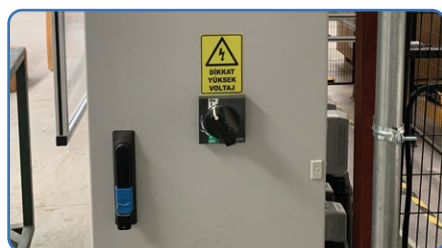


Blade Cooling: Pressurized air cooling system for blade and blade sharpening system.



Blade Sharpening: Automatic blade sharpening system with adjustable pressure, sharpening angle, sharpener speed and cooling system. Can be activated during cutting operation, before each cut or manually anytime.

Blade Motor Brake: It is not easy to change a blade without fixing it in place. Thus, blade motor uses a brake system. Also emergency stop operation activates the blade brake.



Carbon Ready: IP protection level and electrical enclosures enable carbon fabric operation.

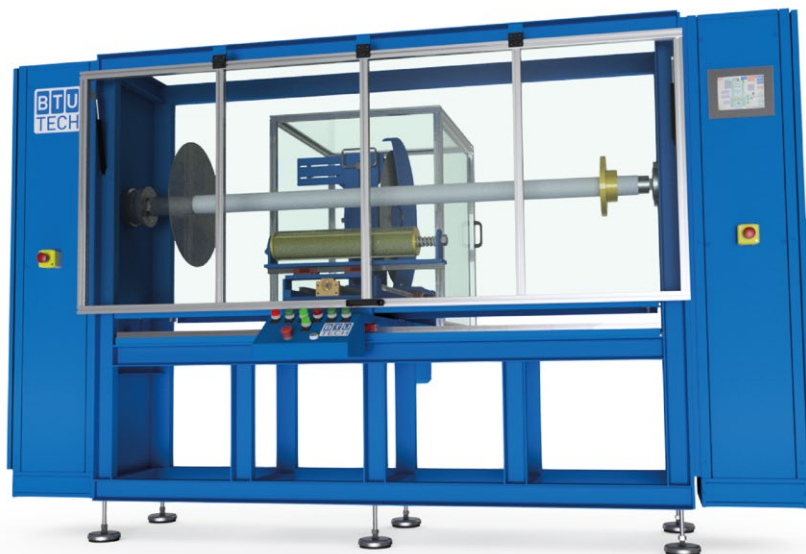
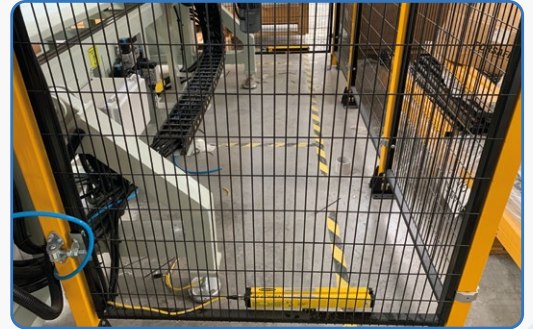
HMI: All settings and operation can be controlled from the operator touch panel.



Mobile Control Panel: An operation panel with control buttons and joystick is attached to the travelling blade mechanism for manual operations.

ROLL SLITTER SPECIFICATIONS

Roll Diameter	500mm max.
Roll Width	1600mm max.
Slitting Accuracy	0.5mm
Slitting Width	2cm min.
Automatic Stretching	50mm paper tube core with 50cm width and 120mm diameter
Blade Metering Method	Absolute encoder servo motor
Blade Cutting Travel	VFD controlled encoder feedback AC motor
Blade Cutting	VFD controlled AC motor with brake
Shaft Rotation	VFD controlled AC motor
Blade Sharpening	VFD controlled AC motor and pneumatic pressure control
Blade Cooling	Pressurized air with valve control
System Pressure Min.	4bar
System Pressure Max.	10 bar
Power	20kW
Supply	50-60Hz, 380-480V, 3 Phase
Electric Panel Protection Level	IP54
Motor Protection	IP54
Total Weight	1000 kg
Dimensions (WxHxL)	2000mm x 2600mm x 4600mm
Certifications	CE



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.

BTU TECH

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