

72. Title: A dynamic yarn pull-out testing device

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Keywords: Dynamic yarn pull-out force, Dynamic coefficient of friction, Bulletproof fabrics

Domain: Textiles (Machinery)

Summary: Bulletproof clothing for Military and defence personnel is made by using high performance fabrics. The strength of such high-performance fabrics is required to be determined. A yarn pull-out testing device is developed for such bulletproof clothing which measures a yarn pull-out force of the high-performance fabric. The device is suitable for determining strength and performance of fabric against sudden impact.

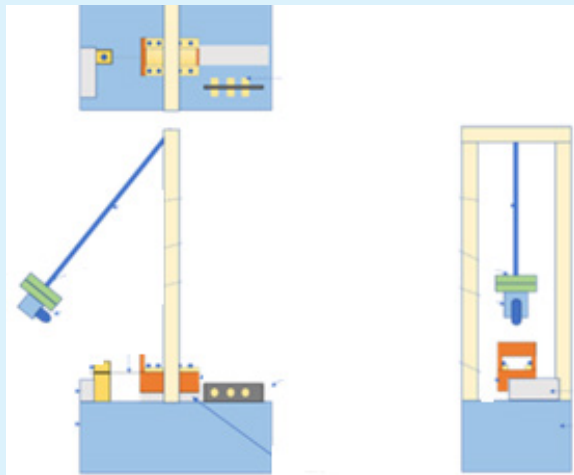


Diagram: Schematic of a yarn pull-out testing device

Advantages:

- » Simple and easy arrangement for determining strength of a fabric
- » Enhances a yarn pull-out velocity by improving impact energy

Applications: Bulletproof clothing, High-performance yarn

Scale of Development: Functional Prototype Developed and performance evaluated.

Technology Readiness Level: 6

IP status: Indian Patent Application 202011042269