

纖細的犛牛絨紗線及其織物 Development of Fine Worsted Yak Yarns and Fabrics

生產100%纖細犛牛絨紗線及織物的新型生產系統 New spinning method and system for 100% fine worsted yak yarns and fabrics

專利申請編號及國家: PAT-R-0115-WO-PCT(PCT), 201710085192.4(中國)

特色與優點

- 新型的紗線生產系統能夠生產具有強韌度高、低毛羽和條幹均勻的纖細100%純犛牛絨紗線。
- 犛牛絨製成的針織物手感柔軟，在透氣性和保暖性能上優於羊毛和羊絨。

應用

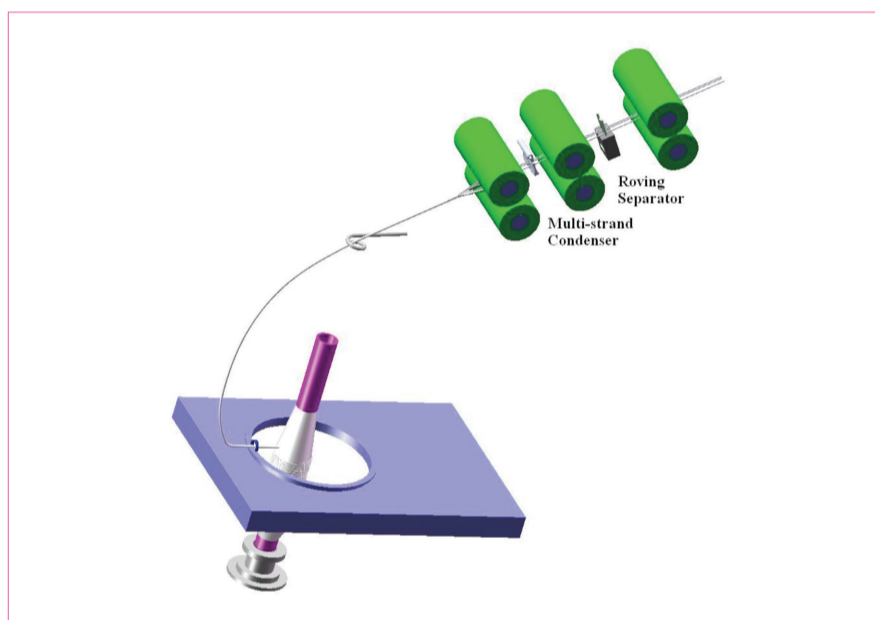
- 新系統可用來生產各類高品質的纖細紗線，適用於不同原料(如犛牛絨、棉和羊毛等)以及不同系統(如短纖和長纖系統)
- 犛牛絨針織物手感柔軟，保暖能力理想，透氣度高，可以製成多種針織產品，如毛衫、手套和帽子等。

獎項

- 第45屆瑞士日內瓦國際發明展 — 金獎 (2017年3月)

犛牛主要生長在高海拔的青藏高原和喜馬拉雅山脈。犛牛絨纖維強韌度高、透氣和保暖。但它的纖維短，長度不一，抱合力小，難以成紗，尤其是較細的紗線。有見及此，理大研發了新型的紗線生產系統，所生產的100%纖細犛牛絨紗線強度高，表面光滑，條幹均勻。以犛牛絨製成的針織物手感柔軟，在透氣和保暖性能上均優於羊毛和羊絨。

這套新型紗線生產系統不僅能帶動犛牛絨進入高檔紡織品市場，提高其附加值，更有助提高中國西藏和其它偏遠地區牧民的生活水平。



新型紗線生產系統的示意圖
Schematic view of the new yarn spinning system



新型紗線生產系統
The new yarn spinning system

PAT-R-0115-WO-PCT(PCT), 201710085192.4(China)

Special Features and Advantages

- The new spinning method and system are developed to produce 100% fine yak yarns of higher strength, lower hairiness and improved evenness.
- Knitted fabrics made from yak fibers have soft hand feel and exhibit better air-permeability and warmth retention property than cashmere and wool.

Applications

- New yarn spinning method can be applied in the production of high quality fine yarns of different materials (e.g. yak fibers, cotton, wool) with different systems (e.g. short-staple, long-staple systems).
- Yak fabrics can be made into various products like sweaters, gloves and hats with better hand feel and excellent breathability and heat retention capability.

Awards

- Gold Medal – 45th International Exhibition of Inventions of Geneva, Switzerland (Mar 2017)

Most yaks live on the Himalayas and the Tibetan Plateau. The fibers of their hair are strong, breathable and warm. However, due to the short fiber-length, large variation in length and low fiber-cohesion, it is difficult to turn yak fibers into usable yarns, particularly fine yarns. Therefore, we have developed a new spinning method and a new system for producing 100% fine and high quality yak yarns and fabrics. The spun yak yarns are strong, smooth and regular. Knitted fabrics made from these yarns have soft hand feel and exhibit better air-permeability and heat retention property than cashmere and wool.

Yak garments made by this technology have achieved better quality with increased added-value. Moreover, this technology helps improve the living standard of herders on the Tibetan Plateau and some other remote communities that engage in yak breeding.

Principal Investigator

Dr Bingang XU

Institute of Textiles and Clothing

Contact Details

Institute for Entrepreneurship

Tel: (852) 3400 2929 Fax: (852) 2333 2410 Email: pdadmin@polyu.edu.hk

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THE HONG KONG 香港紡織及成衣研發中心
RESEARCH INSTITUTE OF TEXTILES AND APPAREL



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