

# FB479五轴联动毛纺粗纱机

## FB479 Five-axis Linkage Woolen Roving Frame

本产品是我公司在FA479粗纱机技术的基础上，运用精确伺服控制等高新技术，实现粗纱机电子牵伸，自主研发的新一代高端电脑智能毛纺粗纱设备，适纺纤维长度64-160mm，采用五台伺服电机直接对锭翼、一二罗拉、三四罗拉、筒管、龙筋升降五个系统进行独立驱动，机械主传动系统采用圆弧齿形同步带传动，在主控制器的控制协调下实现五台电机的同步运行。

This product is a new generation of high-end computer intelligent wool-spinning roving equipment developed by our company on the basis of FA479 roving frame technology, using precise servo control and other high-tech technology to realize electronic drafting of roving frame. The length of spinning fiber is 64-160mm. Five servo motors are used to directly drive the five systems of spindle wing, one and two rollers, three and four rollers, bobbin and rib lifting independently, The main drive system of the machine is driven by arc toothed synchronous belt, and the synchronous operation of five motors is realized under the control and coordination of the main controller.

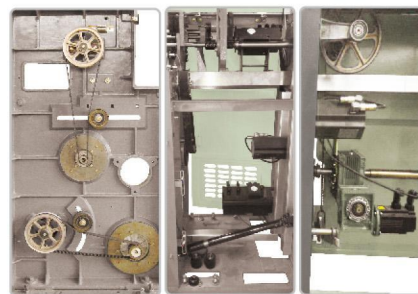
### 更先进、更简单、更人性化

More advanced much easier more human



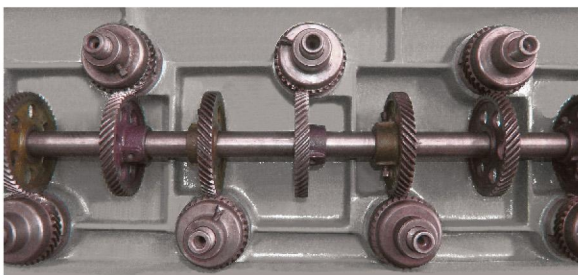
#### ■ 产品特点 / Product features

- 捻度等工艺要求通过人机界面输入参数即可完成便捷、高效。
  - 实现电子牵伸，可通过人机界面直接调整牵伸倍数。
  - 可以纺制大肚纱等特种纱线。
  - 具有断电保护装置和恒张力纺纱系统，能大大改善条干质量。
  - 具有工控系统数据库，可存储不同品种、不同支数的成熟纺纱工艺，工艺调整和更换品种方便快捷。
  - 优化设计车头传动及布局，车头布局简洁、散热好、方便安装维护。
  - 优化牵伸部分结构，能有效避免罗拉扭振产生的机械波。
  - 采用桥架分路式走线，电气安装方便、减少电气信号干扰。
  - 主传动采用同步带传动，传动平稳、噪声低、效率高。
  - 系统一键还原更能，当控制系统软件参数遭到破坏时，启动一键还原即可还原至初始状态。
- Twist and other process requirements can be completed conveniently and efficiently by inputting parameters through man-machine interface.
  - To realize electronic drafting, the drafting multiple can be directly adjusted through the man-machine interface.
  - It can be used to spin special yarns such as large belly yarn.
  - With power-off protection device and constant tension spinning system, it can greatly improve the evenness quality.
  - With the industrial control system database, it can store mature spinning processes of different varieties and different counts, and process adjustment and variety change are convenient and fast.
  - Optimize and design the front transmission and layout, which is simple, good heat dissipation and convenient for installation and maintenance.
  - Optimizing the structure of the draft part can effectively avoid the mechanical wave generated by the roller torsional vibration.
  - Bridge shunt wiring is adopted to facilitate electrical installation and reduce electrical signal interference.
  - The main drive adopts synchronous belt drive, which is stable, low noise and high efficiency.
  - The one-key restore of the system is more efficient. When the control system software parameters are broken, the one-key restore can be started to restore to the original state.



## ■ 主要参数及技术性能 / Main Tehnical Specification

项目 Item	规格 Specifications	项目 Item	规格 Specifications
锭距 (mm) Spindle gauge	220	传动形式 Transmission device	五伺服电机传动 Five servo motor drive
卷装尺寸 (mm) Package dimension	Φ150*395	卷绕/锭翼传动方式 Winding/Flyer transmission	齿轮传动(剃齿) Gear transmission
筒管尺寸 (mm) Bobbin dimension	Φ45*445	卷绕输入动力轴 Winding power shaft	万向轴 Universal shaft
适纺纤维长度 (mm) Spinning fiber length	64-160	差速机构 Differential device	无 None
适纺线密度(Tex) Density for yarn	200-2000 (0.5-5 Nm)	换向机构 Reversing device	软件 蜗轮减速箱 Software
锭翼形式 Flyer system	上锭杆悬挂式全封闭高速锭翼 Top spindle closed high-speed flyer	成纱角度调节 Yarn forming angle	软件控制, 任意可调 Software
牵伸形式 Drafting system	四罗拉双短皮圈牵伸 Four rollers Double short leather ring	自停装置 Stop motion	断纱、断条、飞纱红外光电自停 Broken yarn, broken strip and flying yarn infrared photoelectric automatic stop
牵伸倍数 Drafting multiple	电脑无级调节 Software	落纱三自动 Three auto doffing	软件 Software
捻度范围 (捻/米) Twist range(t/m)	电脑无级调节 Software	张力调节 Tension adjustment	软件 Software
捻度变换 Twist changing	软件 Software	防细节 Unevenness preventing	软件 Software
加压形式 Pressing form	弹簧摇架加压 Spring Weighting arm pressing	卷绕密度调节 Winding density adjustment	软件 Software
下罗拉直径 (mm) Bottom roller diameter	Φ38, Φ32, Φ38	喂入条筒直径 (mm) Can diameter	Φ400/Φ500/Φ600 (按客户要求选配导条架)
清洁方式 Cleaning device	绒带清洁加巡回式吸吹风装置 Velvet belt cleaning and itinerant air suction device	节能吸风装置 Energy saving suction device	标配 Standard configuration
		整机外形尺寸 (mm) Overall dimension	14960×3560/(4310)×2600mm (120锭) 16250×3560/(4310)×2600mm (132锭) 17570×3560/(4310)×2600mm (144锭)



锭翼、卷绕部分采用齿轮传动，齿轮均经过剃齿加工，传动平稳，运转速度高、噪声低，精确的齿轮传动，传递平稳，噪音小，提高纺纱质量。

The winding parts are gearing transmission. Gears are made by antimony process. Transmission stably, and high operation speed and low noise. Accurately gear transmission, stable running, low noise, resulted in the improvement of spinning quality.

