

Beyond-X Series Foreign Fiber Separator



Product Introduction

The foreign fiber separators are designed according to the characteristics of full opening of raw cotton and fast cotton flow in the blowing carding process of cotton textile mills. This equipment is only used as a part of the cotton passage of the blowing carding unit, and no change is made to the blowing process. The equipment occupies a small area and is easy to install.



Features

Multi-spectral Camera Array: Accurate Identification with Zero Omissions

Equipped with the largest number of multi-spectral cameras in the field of contamination elimination, the system features a proprietary AI algorithm co-developed by D-Tsing and Tsinghua University. The detection rate remains steadily above 90%, and even tiny impurities with strong concealment can be accurately captured, eliminating the risk of missed detection at the source.



Laval Nozzle Waste Rejection Mechanism: Powerful Spraying for Higher Efficiency

Innovatively adopting the Laval nozzle precision waste rejection mechanism derived from rocket engine technology, it forms a controllable jet airflow through optimized design of special flow channels. The single spray volume is only 2.3g, which not only efficiently removes impurities but also minimizes the loss of high-quality fibers, significantly improving the enterprise's raw material utilization rate.



AI Edge Computing Cluster: Super Computing Power for Rock-solid Stability

Built with a high-performance AI edge computing cluster, it is equipped with top-tier NVIDIA chips with computing power equivalent to TESLA Autopilot HW4.0. Adopting a local independent computing mode, it delivers faster operation response and superior operational stability.

50,000-hour Long-life Ultra-bright Light Source: Long-lasting Durability and Low Maintenance.



Parameters

Item	Beyond-X1	Beyond-X3	Beyond-X3+	Beyond-X5+
Pipeline width	1200mm	1200mm	1600mm	1600mm
Power	1.5kW	1.5kW	2.1kW	2.1kW
Voltage	380V	380V	380V	380V
Max. output	1000kg/h	1000kg/h	1000kg/h	1000kg/h
Multi-spectral Cameras	6	12	16	20
AI computing power	201 TOPS	402 TOPS	536 TOPS	670 TOPS
Illumination	Customized High-Uniformity Hybrid Array Light Source			
Light source lifespan	50000h	50000h	50000h	50000h
No. of valves	24	24	32	32
Dimensions	1800×2336×3922(mm)	1800×2336×3922(mm)	2200×2336×3922(mm)	2200×2336×3922(mm)
Area	1800×910(mm)	1800×910(mm)	2200×910(mm)	2200×910(mm)
Weight	1.1t	1.1t	1.5t	1.5t

Note: The configuration and parameters of electrical equipment which change rapidly are only for reference, and the contract shall prevail.

Foreign Fiber Images

