

THEN AIRFLOW - AIRJETWIN

Aerodynamic High Temperature Dyeing Machine







AIRJETWIN Aerodynamic High Temperature Dyeing Machine

AIRJETWIN HIGH TEMPERATURE AIRFLOW DYEING MACHINE, OUR LATEST GENERATION OF DYEING EQUIPMENT, IS LAUNCHED TO FULFILL THE VARIOUS STRINGENT REQUIREMENTS OF DYEING PROCESS. THROUGH FINITE ELEMENT ANALYSIS (FEA), THE AIRFLOW AND WATER FLOW SITUATION IS WELL-ANALYZED FOR DESIGN OPTIMIZATION. IN ADDITION, BY COMBINING THE ADVANTAGES OF THEN'S AND FONG'S PRODUCTS, THE ENTIRE PERFORMANCE IS FURTHER ENHANCED THROUGH A HOLISTIC DESIGN APPROACH.

ADVANTAGES

1 Single-Blower for Multi-Tube Design

By utilizing single blower with frequency inverter and optimizing pipe network design, the air volumetric flow rate of each tube is evenly distributed.

2 Integrating Nozzle System

By adjusting various combinations of multiple spraying nozzle and sprayers as follows, the desirable dyeing performance of a large variety of fabrics can be achieved.

- Back Spraying Mode
- Front Spraying Mode
- Front Overflow Mode
- Front and Back Spraying Mode
- Front Overflow and Back Spraying Mode
- Front Overflow and Front Spraying Mode
- Complete Overflow and Spraying Mode
- Overflow and Spraying Off Mode

3 XY Internal Plaiter

Fabric is plaited to and from inside the dyeing vessel to achieve an organized fabric stacking pattern inside the storage chamber. It enables smooth fabric lifting, higher fabric lifting speed and reduction of fabric entanglement in the chamber.

4 Overhead Cleaning System

Effective cleaning is provided through purging to rinse the kier head, thus ensuring no residue color is left.

FEATURES

1 Effective Unloading Design

Our patented unloading device is made of stainless steel and is coated with high gripping material to prevent lifting slippage, and thus achieving an effective unloading operation.



2 Other Main Features

Variable Loading Storage Chamber

To cater for the different operating characteristics from light fabric to heavy fabric, the shape of the load-variable storage chamber can be adjusted accordingly to allow the fabrics run smoothly.

Vessel Base Self-Cleaning and Filtering Device

- Effective liquid collecting design helps to improve dyeing circulation result.
- Automatic self-cleaning and filtering the lint during draining ensure that no lint is trapped and remained in the filter.

3 IIR - Integrated Intelligent Rinsing

Our patented IIR uses an optical device with a unique control software to monitor the "color index" of the water discharge in real-time. When the "color index" reaches the preset value, the program will automatically stop rinsing in order to reduce excess rinsing water consumption, energy consumption and discharge. The function can be operated in conjunction with the inhouse sewage distribution system so as to realize the separation of clean and wastewater discharge, and thus making the drainage system more organized.



IIR Online Data





High Precision Device

4 FC68 - Program Controller

FC68 is the latest version of program controller from CHTC Fong's and it provides various control panel interfaces such as machine's flow diagram, I/O module online signal and etc. Users can regulate the operational combinations, monitor the real-time functional parameters, and also access reports about details on the machine operation and overall consumption. Thus FC68 enables a more comprehensive review on the utilizing dyeing technique.



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Process Flow Diagram

Online Control

STANDARD STRUCTURE



- 7 Vessel Base Self-Cleaning and Filtering Device
- 8 FC68 Program Controller

4 XY Internal Plaiter

PRODUCT SPECIFICATION

Series		Blower Power (kW)	Max. Capacity (kg)	Dimension (mm)		
				L	w	н
AIRJETWIN Medium Batch	AIRJETWIN-30	7.5	30	3600	4200	3400
	AIRJETWIN-60	11	60	4000	4500	3600
AIRJETWIN 250 kg Series	AIRJETWIN-250	22	250	4850	5800	4250
	AIRJETWIN-500	45	500	5850	6000	4250
	AIRJETWIN-750	75	750	7300	6300	4250
	AIRJETWIN-1000	90	1000	8450	6450	4250
	AIRJETWIN-1500	132	1500	10900	6550	4250
AIRJETWIN 300 kg Series	AIRJETWIN-300	22	300	5000	5800	4250
	AIRJETWIN-600	45	600	6150	6000	4250
	AIRJETWIN-900	75	900	7750	6300	4250
	AIRJETWIN-1200	90	1200	9050	6450	4250
	AIRJETWIN-1800	132	1800	11800	6550	4250





Design Temperature: 140 °C Design pressure: 3 bar. All major parts wetted by dyeing liquid and subject to pressure loading is fabricated with high quality corrosion resistant stainless steel, grade 316Ti/316L/316/1.4571/1.4404/1.4401.

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