

HY600 Melt-blown Non-woven Fabric Making Machine

—350kg/day~400kg/day

I .Overview

Melt-blown non-woven fabric is a one-step polymer production process with short process in non-woven fabric production. The machines have many obvious advantages such as high filtration efficiency, low resistance, flexibility, and the network can self-bond and bond. The production line is widely used, it mainly used in the medium-efficiency and sub-efficient filtration, including air filtration, acid-broken liquid filtration, and food hygienic filtration, production of industrial dust masks, etc., in addition, it can also be used in production of medical and sanitary products, industrial precision cloths, thermal insulation materials, oil-absorbing materials, battery separators, imitation leather base cloth, etc. In many ways, its performance is better than similar products of traditional textiles. With the continuous development of post-processing technology, the application fields of melt-blown non-woven fabrics will be more extensive.

II .Characteristics:

The machine developed by Shenzhen HYPET Co., Ltd. uses the most advanced technology, a professional extruder with a large diameter and a large length-to-diameter ratio. Through die flow analysis, the flow path of the hanger head is balanced to ensure a balanced flow of pressure everywhere. The plate is made of special alloy stainless steel with special heat treatment to ensure no deformation. It is made by the most advanced technology of Taiwan linear motor drilling. The high-power air heater has high control accuracy, the network negative pressure forming control system has stable suction, and is qualified. The PP1500 meltblown special materials and electret masterbatch, combined with experienced process operation technology, can ensure that the products are qualified, reach the filtration accuracy of 90+, and strive to reach 95+.

The specific features are as follows:

- 65/30 extruder to ensure sufficient head pressure and output.
- Hydraulically controlled screen changer to prevent slag jams.
- 30cc melt metering pump to ensure stable and balanced pressure of spinneret flow.

- Using special hanger type and gas pressure spinning die, the melt is evenly distributed.
- The air pressure of the air nozzle is stable, the airflow on both sides is symmetrical, and the airflow in the width direction is uniform.
- Easy adjustment of air gap width.
- A specially designed hot air flow heating device has good heating efficiency and excellent heat exchange efficiency, with low energy consumption.
- The receiving distance is adjustable, and the receiving form (flat net receiving and roller receiving) can be easily replaced.
- The standing wave treatment makes the melt-blown cloth have a good filtering effect.
- Online slitting and cutting winder.



III. Condition of use

1. Circumstances condition

SN	Condition	Specification	Description
1	Natural circumstance condition	Working place	Indoor use, dust-free workshop
		Power source	No dangerous area
		Humidity	55%~85% no condensation
		Temperature	0~40 °C
2	Electricity source	Maximum installed capacity	kW
		Voltage/frequency	380V/50Hz/3 P
3	Cooling water	Temperature	≤15 °C
		Water pressure	≥0.3MPa
		Water volume	~15 m ³ /h
4	Air condition	Compressed air pressure	≥0.6MPa
		Compressed air flow	~0.9 m ³ /min, For equipment only

2. Production line use conditions

SN	Specification	Description	Remark
1	Raw material	MFI1200~1500 PP Meltblown special materials + other electret masterbatch etc.	
2	Suitable products	Meltblown filter materials, mask filter materials, etc.	
3	Max output	350~400kg/day, Adjust according to the actual product	
4	Maximum mechanical speed	1-50 meter/min	
5	Product weight	8~150 g/m ²	
6	Product width	600mm	
7	Fiber fineness	1~5 um	
8	Coiling diameter	550mm	

IV. Equipment List

NO.	Machine name	QTY	Specifications	Remark
1	Vacuum suction and dryer feeding system (full-automatic proportioning and feeding available)	1 set		
2	HYSJ65/33 PP Special single screw extruder	1 set	Motor power 18.5kw	
3	Automatic screen changing device	1 set	hydraulic control	Detected by pressure sensor and send signal
4	Melt pump	1 set	30CC	
5	600mm hanger-type melt-blowing head with spinneret, aperture 0.2-0.25mm, aspect ratio 12	1 set		
6	Air heater and its hot air system (this power is large enough, the design temperature is 400 degrees, and the temperature control accuracy is +/- 1 ° C)	1 set	Heating power 70kw	
7	Roots blower piping system	1 set	30kw Frequency Control	
8	Net forming machine and front, back adjustment system	1 set		
9	Suction fan and its piping system	1 set		
10	Electrostatic electret system	1 set		
11	Online slitting and automatic winder, with 4 slitting blades	1 set		
12	Electronic control system	1 set		
13	Equipment for cleaning die of melt-blown non-woven fabric spinneret	1 set		
14	Tools and spare parts	1 set		

IV. Main specification

1. Vacuum suction and dryer feeding system	
Vacuum suction specifications	300kg/h
Feeding height	4 meter
Dryer volume	50L
This kind of configuration can be used with the mixer easily and reliably	
2. HYSJ65/33 PP Special single screw extruder	
Screw diameter	65mm
Aspect ratio	33:1
Barrel screw material	38CrMoAl, Nitride steel
Screw hardness	>HV750
Barrel hardness	>HV930
Barrel heating area	5 areas
Total heating power	20kw
Motor	Inverter motor
Controller	ABB frequency converter
Gearbox	High-efficiency reducer with hard-tooth grinding
Gearbox specifications	173 horizontal
Box material	QT200-300
Thrust bearings	Domestic high-quality bearings
Cooling system	Independent cooling method of external circulation
Rotating speed	10-60rpm
Barrel periphery	With thermal protective cover stainless steel
Cooling fan	Taiwan powerful cooling fan
3. Screen changing device	
Structural form	Plate type
Screen change driver	Manual and automatic
Heating type	Built-in heating tube
Temperature and pressure sensors	With dual display
4. Melt pump	
Control method	A pressure sensor is arranged in front of the melt pump, which is used to control the speed of the extruder in a closed loop, so as to control the output of the extruder to achieve a stable effect, and the pressure sensor behind the metering pump shows the output pressure.
Specification	30 cc
Motor	Famous brand, inverter motor
Controller	International brand, ABB
Motor power	2.2kw
5. 600mm hanger-type melt-blowing head with spinneret	
Phantom discharge size	630mm
Mold material	D2316
Heating area	7 areas

Heating power	12kw
Spinneret material	Special alloy
Spindle hole diameter	0.2-0.25mm
Tuyere adjustment	The size of the tuyere can be adjusted with an accuracy of microns
The spinneret transforms the solution into a fine flow through small pores, and the ultrafine fibers can be formed by high temperature and high speed air flow drawing, and the melt-blown non-woven fabric is formed by the irregular arrangement of the fibers.	
6. Air heater and its hot air system	
Heating power	70kw
Heating size	φ377x2770
Number of heating tubes	16 PCs
Liner and shell	304 stainless steel
Material of pipeline	Stainless steel
7. Roots blower piping system	
Blower power	30kw
Control method	ABB frequency controller
Pressure	80kpa
Rotating speed	1150rpm
Instructions: The air volume sent by the Roots blower passes through the air heater to reach the set temperature, and finally sent to the mold air duct.	
8. Net forming machine and front, back adjustment system	
Line speed	0-25m/min
Mesh belt width	800mm
Net curtain material	High temperature resistant polyurethane, red color
Spinneret adjustment distance	80-300mm
Driving power	1.5kw
9. Suction fan and its piping system	
Suction fan power	30kw
Suction air volume	
Wind pressure	5kpa
10. Electrostatic electret system	
Input voltage	220v/50hz
Maximum output voltage	60kv
Processing width	700mm
11. Online slitting and automatic winder	
Winder control	Manual and automatic
Winding motor power	1.5kw
Line speed	0-25 m/min
Number of slitting knives	4 PCs
Air shaft	Paper tube core size 3 inches
12. Electronic control system	
Temperature Controller	RKC
Frequency converter	ABB

Low-voltage electrical appliances	Siemens / Chint / Famous Brand
13. Equipment for cleaning die of melt-blown non-woven fabric spinneret	
Function	Clean the mold to prevent clogging
14. Tools and spare parts	
Heating ring	1 PCs
Thermocouple	5 PCs
Screw removal tool	1 set
Contactator	2 sets
Slitting blade	2 PCs

V. Commercial terms (FOB)

No.	Item name	Qty	Unit price/usd	Total price/usd
1	HY600 Melt-blown Non-woven Fabric Making Machine	1 set	120,000	120,000
Say Total US dollar ONE HUNDRED TWENTY THOUSAND ONLY				

Payment terms:

50% prepaid, after the commissioning is passed, the final payment should be paid before delivery.

Delivery period:

15 days after receipt of advance payment.