MeltBlown Plant WW 1600mm yoc 2025

Reference: RF001698

COMPLETE MELTBLOWN LINE

YOC 2025
FABRIC NET WIDTH 1600 mm
PRODUCTION CAPACITY Up to 150 Kg/h (gross)

Meltblown plant with one spinning die head, designed for the production of non wovenfabrics,manufactured from virgin PP, PBT .

This equipment is suitable for the production of meltblown nonwovens with a variety of colors and different properties using virgin chips as main material mixed with master batch, anti-oxygen, UV barrier.

The plant is suitable for producing both Filters (based on microfibres meltblown) and Absorbents for spills.

The line is very Compact, Low energy consumption and Easy Handling/Managing
ENTECH Spinning has developed NEW Technological Solutions applied to the spinning system able to guarantee Better Performances relating to the stability, distribution and total quality of the final products together with significant Increase of the Lifespan of the spinnerets, Decrease of energy consumption, Decrease of Maintenance activities.....

for full description please click the TAB below "DESCRIPTION"

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Technological solutions (Spinning section):
Benefits:

Cut of the total stainless steel mass
Better precision on temperature adjusting
Faster reaction of the system (lower hysteresis)
No degradation of the polymer
Easier handling of the components
Cut of cleaning (maintenance) costs

Cut of the installed electrical power
Cut of the energy cost
Cut of the Maintenance (saving of spare parts, working time => costs)

Advanced solutions on the distribution of the melt and the stretching air
Uniformity of the distribution of the filaments
Lower temperature process
Lower pressure process
Reduced stress and degradation of the polymer
Better performance and results (finial product)

Top quality stainless steel
No deformation
Thermal and Geometrical Stability
Long life

High precision working of the materials (metal)
No gaskets
Mechanical sealing
No melt leakage
Cut of the Maintenance (saving of spare parts, working time, costs)
Extended lifespan of the whole system between one maintenance stop to the next one. The same for the spinneret

All the listed benefits bring to the final Increase of the Total Efficiency, Easy Management of the Line/Production hence Cut of the Production Costs.

General data
As a preliminary information the following conditions shall be granted by the Buyer:

Temperature °C
Relative Humidity %
Spinning section
30 - 40
50 - 80
Web forming section
25 - 30
50 - 80
Finishing section
20 - 35
50 - 80

Installed power: 500 kW

Raw Material

PP Polymer or PBT Polymer (standard) in chips.
Additives, if any, in form of master-batch chips.

Gross Plant Capacity

weight range: 15-300 g/m2 (depending on the type of polymer and final product)
denier range: 1-15 µm, depending on the final products
final fabric net width: 1600 mm
nominal throughput (kg/h): up to 150 kg/h

Scope of Supply.

SECTION 01 POLYMER STORING AND CONVEYING

Item Q.ty Equipment/Description

1 set Storage bins for chips and Master batch
N° 1 Trolley storage bin, stainless steel construction, suitable to storage PP raw material, with following features:
available capacity for standard chips bulk density
moveable
lid equipped with closing handle

N° 1 Trolley storage bins, stainless steel construction, suitable to storage master batch material, with following features:
available capacity for standard chips bulk density
moveable
lid equipped with closing handle

1 set Pneumatic conveying system
For the chips transportation from the storage bins to the dosing systems above the extruder.
The blower, suitable for plastic material feeding with different bulk density.

1 Dosing station with additives system
To feed the polymer and the additives (master-batch form for coloring or other purposes) to the Extruders and each one consisting of:
no.1 storing hopper for main polymer.
no.1 storing hopper for additives
SECTION 02 EXTRUSION, MELT FILTRATION, SPINNING, FILAMENTS STRETCHING, WEB FORMING, CALENDERING CALIBRATION AND WINDING

Item Q.ty Equipment/Description

1 Extruder
To melt the polymer and master batch
Single screw extruder
The barrel is heated by electrical resistances
N° 7 Thermo-controlled zones
Set of temperature and pressure probes for the control
Capacity: up to 180 kg/h
A pressure probe installed after the filtering unit, automatically controls the screw speed according to the set up

1 Filtering unit
To filter the molten polymer and master batch.
N° 3 filtering positions
Automatic filter change without stopping the process

1 set Heated piping

To transfer the molten polymer and master batch from the Extruder to the Filtering unit and from this one, by a spinning pump, to the Spinning die head. It includes, stainless steel ducts, electrical heaters thermoregulated by PT100 probes.
Construction material: special stainless steel suitable for high resistance to the wear and the thermal stress
Dimensional Stability during the temperature change
No gaskets between the single components, only mechanical sealing
Insulation material: high density mineral wool

1 set Spinning pump with reduction gears
Installed before the die head, it ensures the right flow (capacity) and pressure of the molten polymer in the die head and spinneret. The pump is driven by a reduction gear, a driving shaft and a synchronous electric motor driven and controlled by inverter.

1
Spinning Die Head
The molten polymer flows into the spinning die head and then through the spinneret.
The spinning body is heated up by electrical heaters, properly insulated against heat dispersion and thermoregulated by PT100 probes. The die head is divided in thermic zones and the temperature is maintained constant by a fine control and regulation system.
The innovative technology allows to reduce the total weight of the spinning system, granting a precise distribution of the polymer and a decrease of the energy consumption.
Construction material: special stainless steel suitable for high resistance to the wear and the thermal stress
Dimensional Stability during the temperature change
No gaskets between the single components only mechanical sealing
Insulation material: high density mineral wool
02.06
1 set
Spinnerets, counter-spinneret
Complete set composed of:
N° 2 M spinneret
N° 2 M counter spinneret

One set is installed on the dies, one set is spare, ready for the change (stand-by).
The innovative technology allows to reduce the total weight, granting a precise distribution of the polymer,

high precision spinning with a decrease of the energy consumption.
Construction material: special stainless steel suitable for high resistance to the wear and the thermal stress
Dimensional Stability during the temperature change
No gaskets between the single components only mechanical sealing
Insulation material: high density mineral wool

1 Heating system for stretching filaments for Meltblown
The filaments are afterwards heated down by hot air flow with adjustable temperature and pressure.
The blowing air flow is generated by a heating group.
N° 1 group of valves for the fine calibration of the pressure
N° 1 air heater for heating up the calibrated air

02.08
1
Web forming conveyor belt
The web forming conveyor belt is made of a woven plastic antistatic tape that moves on a group of cylinders, motor-driven.
The cylinders are supported by steel frame. The belt is kept under negative pressure by high pressure fans in order to keep the web on the belt. Composed of:
Calibrated Suction sections;
High pressure fan
Automatic belt centering system
Working width: 1800 mm

02.09
1
Electrect system
For the electrostatic charging of the meltblown web with high voltage
Working width: 1800 mm
Bias voltage: 30KVdc

02.10
2
Unwinder frame
For the possibility to overlap and couple a different nonwoven fabric or support to the meltblown web
Working width: 1700 mm
No motorization

02.11
1
Ultrasonic Calender
For the calendering/bonding of the meltblown fabric

- Working width: 1800 mm

02.12
1
Cutting system + Final winder
Specifically designed for non-stop winding of the fabric, composed of:
Automatic roll change with cross cutting
N° 7 longitudinal cutters
3” cardboard tubes winding shaft
Working width: 1800 mm
Max diameter of the roll: 800 mm
SECTION 03 AUXILIARY EQUIPMENT

1 Air compressor (for filaments blowing) To provide moisture-free air
Discharge pressure: up to 6 bar
Modulating function mode
Automatic control

1 set Spinning section steel structure – mezzanine
To hold the equipment from 02.01 to 02.07
Made of welded steel profiles complete with stairs, platforms, handrails, etc.
SECTION 04 PROCESS CONTROL ELECTRIC SYSTEM

Item Q.ty Equipment/Description
1 set Process electrical cabinets
For the complete control of the line and including:
No. 1 Set of electric cabinets, either on board of the respective machines or in separate groups of cabinets containing all the controlling devices (main panel switch, frequency-controlled drives; relays, switches, contactors etc.) needed for the drive and control of all the quoted equipment of Seller’s supply.
Set of cables from the electrical cabinets of the machines to the machines (max distance: 10 m)
No. 1 set of operator’s desks located on/near the respective individual
machines for the plant operation and provided with:
Touch screen panel;
PLC;
Emergency push buttons, selectors aut/man operation etc;

To be PURCHASED BY THE CUSTOMER:

The cables for the connection from the low voltage distribution cabinets to the electrical process cabinets of

the machines.
Anything not expressly indicated in the offer.
SECTION 05 PIPING

Item Q.ty Equipment/Description

1 set Piping for exhaust air (Web forming)
Connecting the Web forming conveyor belt to the exhausting fan (close to the web forming belt – max length 10 m).
Complete of galvanized steel pipes and curves, joints, fittings etc.

1 set Piping for pneumatic conveying
For moving the chips from the Storage bins until the Dosing systems Complete of stainless steel pipes, large radius curves, flanges, fittings, deviators valves, suction valves etc. (max length 20 m).
To be PURCHASED BY THE CUSTOMER:
Any pipe or duct not expressly indicated.



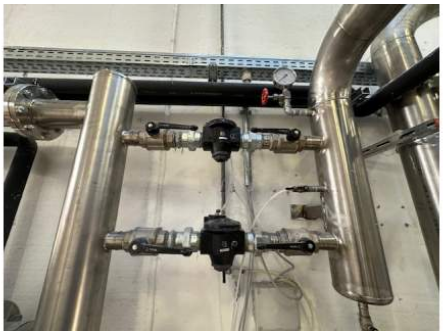
Permanent Magnet
Screw Air Compressor




Parker


Parker Hiross
SERIAL N° 400130330001









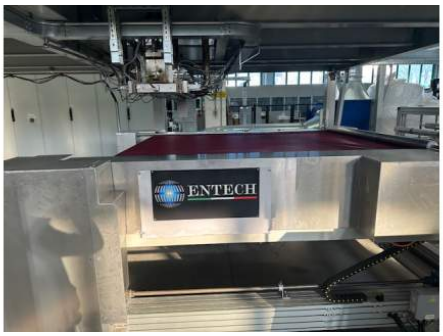








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