

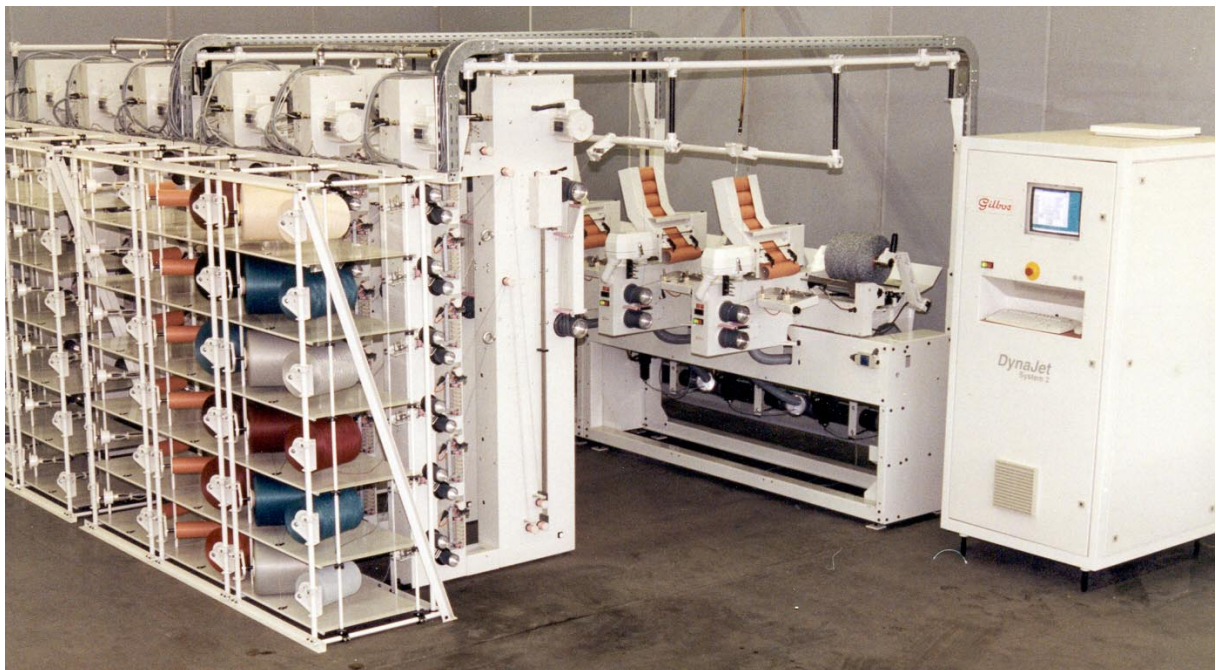
Dynajet System2



Dynajet System2

The Dynajet System2 consists of three main sections :

- the air boxes and winding section
- the control box
- the creel for yarn supply



Basic machine data :

- 6, 9 or 12 spindles per machine
- central control box with PLC and PC
- full individual and independant working of each spindle or groups of spindles
- standard equipped with automatic doffing per spindle

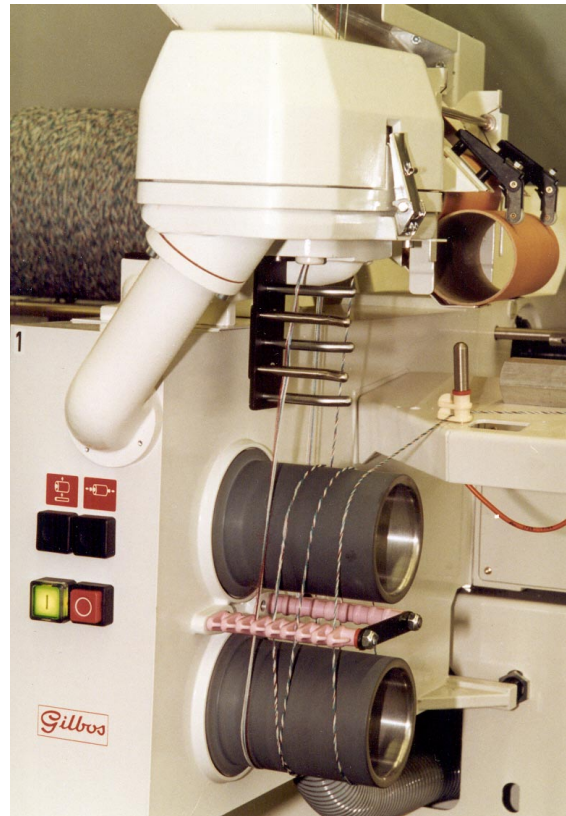
Gilbos

The Winding Unit :

- 10" traverse, cylindrical (up to diameter 105 mm)
- Yarn guiding by swivelling arm with positive yarn guide.
- Package rotation by driven contact roll, at constant winding speed.
- Standard random winding.
- Production of packages up to 400 mm. (450 mm optional)
- Very effective mechanical Anti-Patterning System by changing constantly the number of strokes of the swivelling arm, at constant winding speed.
- Individual Drive per spindle by motor with frequency inverter, at winding speeds between 250 and 1.200 m/min., depending on the yarn and entangling parameters.
- Gradual start up after each winding stop. The ramp of speed increase is programmable.
- Electronic broken end detector.
- Anti Wrap detector on the driving roll.
- Special designed yarn cutter to ensure perfect cutting of all yarns, singles or twisted, up to Nm 0,2.
- Length Measurement by counting the number of revolutions of the driving roll.
- Mechanical Diameter Stop Motion.



- Vibration suppresser to avoid cobwebbing at the sides or ovalisation of the package.



- Push Buttons per spindle for manual intervention : start, stop, manual start of doffing cycle, opening of spindle heads.
- All the moving mechanical parts, which are not in contact with the yarn, are built in dust free casted housings.
- Electronic programmable winding angle is available (option).
- Automatic doffing standard with inswinging magazine per spindle holding 5 tubes (see options).
- Parallel winding, programmable in length at the beginning of each package for tag-ending purposes. These windings are positioned just underneath the normal winding layers on the right side of the package and can easily be pulled out.

The Jet Box :

Different stylings through air-entanglement can be achieved on the Dynajet System2, each of them according to the wishes of the end user. Per kind of styling a variety of jets can be proposed, depending on a number of air-entanglement factors, such as yarn count per end, final yarn count, requested styling, available air-pressure, and others. Basically it is essential to run preliminary trials in order to determine the correct data for the specific air-entanglement process. In this leaflet only general executions of Jet Boxes can be described.

The Feeder Roll Jet Box

Type SO – Standard Overfeed

- For entanglement of coarse final counts (2000 to 30.000 dtex)
- Driven double feeder rolls with double yarn guiding : before and after the entangling.
- Jet box on top of the feeder box.
- Working speeds up to 1.200 m/min. possible, depending on the parameters.
- Compressed air pressure generally up to 8 bar.

The Open Roll Jet Box

The Open Roll jet box basically consists of :

- One driven open roll with free running guiding rolls, for uniform yarn supply to the air jet.
- A jet box with air jet, connected to an electronic air valve.
- A second driven open roll with guiding rolls on the output side of the jet box.
- A dancerarm, securing a constant winding tension. This feature also improves the consistency of the entanglement tensions.

Type IM – Intermingling

- For intermingling or air-entangling of BCF carpet yarns.
- Generally for final counts up to 10.000 dtex (not absolutely limited).
- Controllable distance between nips in the yarn.
- Working speeds up to 1.200 m/min.
- Compressed air pressure generally up to 8 bar.

Type AM – Air Mixing

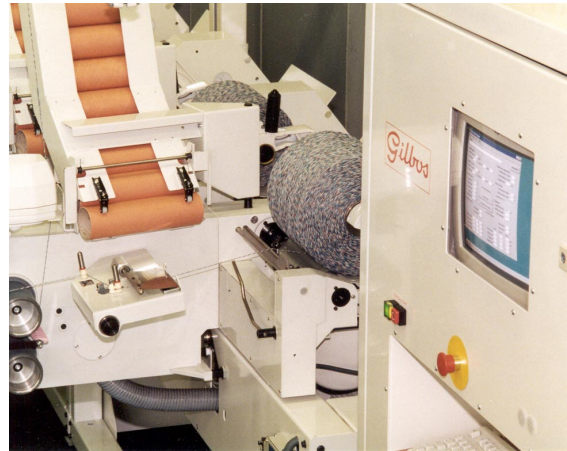
- For mixing BCF and/or CF filament yarns without hard points.
- Water addition possible to reduce friction between the filaments.
- Mostly under high pressure, up to 13 bar.
- Working speed between 250 and 500 m/min., depending on parameters.



Why PC ?

The PC brings a number of parameter setting facilities to the operator, a combination of which will result in the requested air entangled product. Parameters that can be set by the operator are :

- winding speed of the spindle
- air pressure
- number of ends to be supplied from the creel
- length of yarn per package produced
- depending on the creel execution, the tension per individual end
- setting of safety parameters out of which the machine must shut off automatically
- storage of formerly tested combination of parameters under a personalized name
- full description on the PC of the mechanical settings to make a specific air entangled product, such as position of the packages in the creel, type of jet
- control of preset parameters
- control of efficiency of working of the machine or the shift
- control of stops, and the reason why



The control box

- Houses all the electronics that are mechanically not necessary on the spindles
- Only connected to the machine by wirings, to prevent transmission of vibrations
- All control functions are programmable, either at operator level, supervisor level, maintenance or manufacturers level.
- Combined working of PC with PLC for machine function and private creation of entanglement parameters combinations.



Features of the creel

Creels are designed in accordance with customer's individual requirements.

- number of ends
- diameter of full supply packages
- positioning versus the machine
- standard per end:
 - balloon breaker with guiding eye
 - mechanical yarn tensioner
 - electronic yarn detector
 - reversing rolls on the creel and on the machine
- two package holders for top-to-tail connection, each one to be loaded from the rearside of the creel
 - separating plates between two ends
- TC for full tension control

Technical Data :

Up to 12 spindles per machine, with 3 spindles per section.

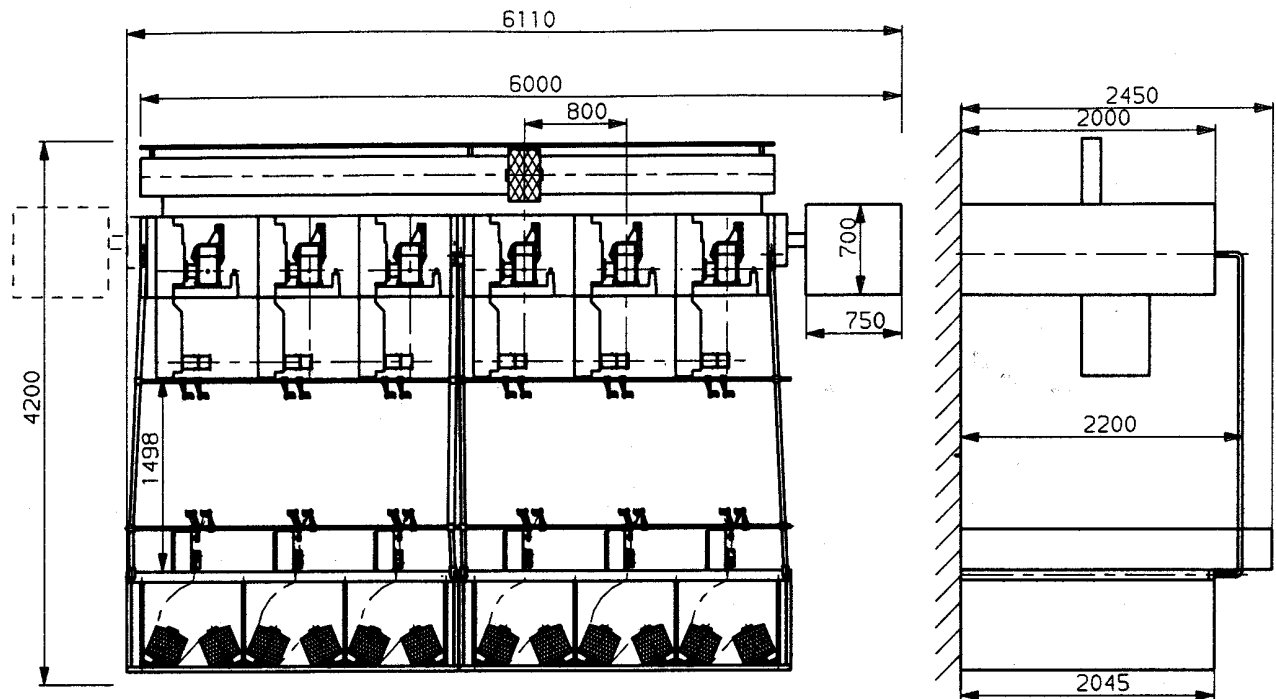
Winding speed up to 1.200 m/min., depending on the winding angle and type of package.

Angle of winding adjustable between 12 and 22°.

Maximum package diameter up to 400 mm (450 mm optional).

Motor per spindle :	0,75 kW – 1500 rpm
Electric supply :	3 x 400 V + N or 3 x 230 V – 50/60 Hz
	Transformer is needed for other supplies
PLC :	Mitsubishi
Compressed air :	6 bars pressure for machine functions
Air pressure for entangling :	depending on the entangling parameters
Conveyor belt motor :	0,18 kW
Dimensions	
6 spindles :	6110 x 4200 mm
9 spindles :	8790 x 4200 mm
12 spindles :	11470 x 4200 mm

Main colour of machine : White RAL 9002



All technical details, descriptions, illustrations, dimensions and other particulars in this pamphlet are given in good faith, and can be subject to change without notice

Gilbos