



Officina Meccanica

**PIETRO RAMELLA & C. s.a.s**

Carding sets and carding machines producers since 1947

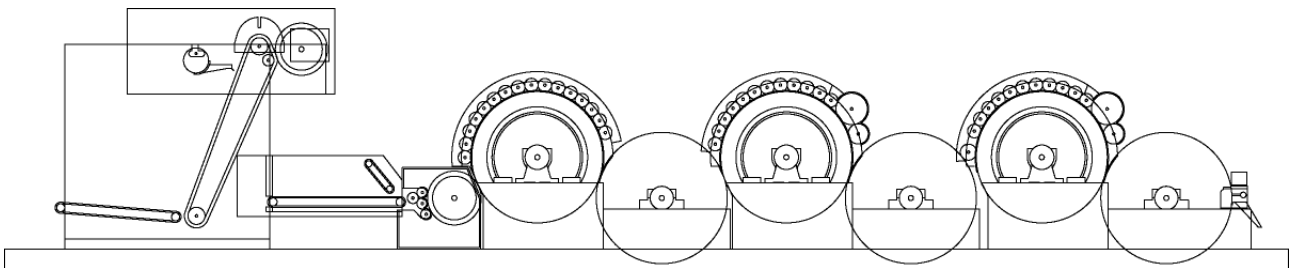
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## MODEL G300 w.w. 2000 mm



### Technical description and machine composition :

- Automatic hopper feeder
- Inlet unit
- Breast
- First unit
- Second unit and fly-comb

## MACHINE PURPOSE

Garnett is suitable to prepare spinning and weaving waste except 100% vegetable fibres like cotton or flax. It is especially suitable to process twisted yarns of wool, synthetic fibres, silk, etc and can be used to open angora fibres before being processed by a carding machine.

The material maximum length can be 40-50 mm, otherwise the fibre must be cut before the process.

The product obtained with the garnett machine can be used in many ways : felt, mattress, cloth wadding, blanket quilting, re-used blend to produce carded yarns, etc.

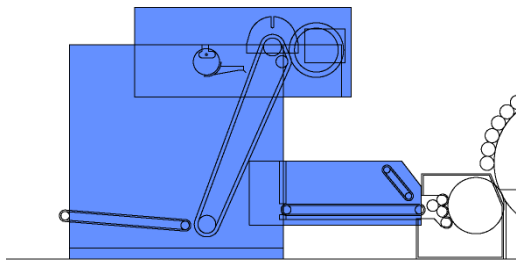
## CAPACITY PER HOUR

Indicative Garnett production capacity (Kg / hr) for the best quality.

FINE WOOL	30-40
AVERAGE FINE WOOL	50-60
ORDINARY WOOL	70-90
SYNTHETIC-WOOL BLEND	60-80
ACRYLIC	40-50
MOHAIR AND WOOL	90-110
ANGORA	20-30
CUTTING OF SYNTHETIC RAGS	70-80

Capacity production depend on fibre characteristics and can be increased up to 50% but the product quality will decrease.

## AUTOMATIC HOPPER FEEDER



High precision hopper feeder, with frame in steel sheet.

The automatic hopper feeder is provided with 4 tables:

- the pinned table with outer mantle in PVC and slats of evaporated beech-wood with pins of tempered steel.
- the feeding, the mixing and press-mixture tables are also externally covered with PVC and reinforced with evaporated beech-wood slats.

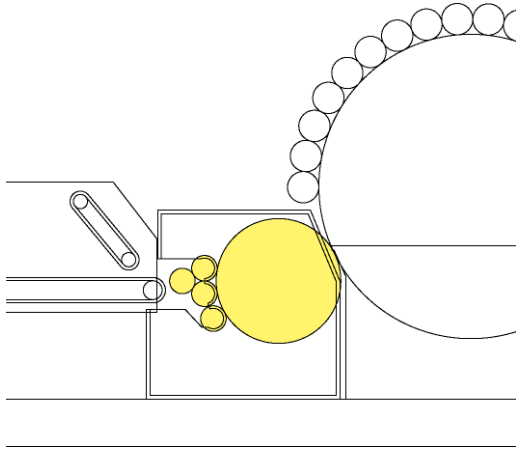
The pinned table unload is done by a rotatory comb with teeth in PVC. It is studied to discharge completely the pinned table without leaving remaining material on it.

The combs (dosing and unloading) are driven by a single gear-motor.

All these devices are deliberately studied and are guaranteed by a long application in the carding field.

All driving parts are assembled on first class ball bearings and the reduction cases with cog-wheels are in oil bath and hermetically closed.

## INLET UNIT



composed of :

N. 3	Taker-in rollers	∅	100 mm
N. 1	Cleaner roller	∅	100 mm
N. 1	Opener roller	∅	520 mm

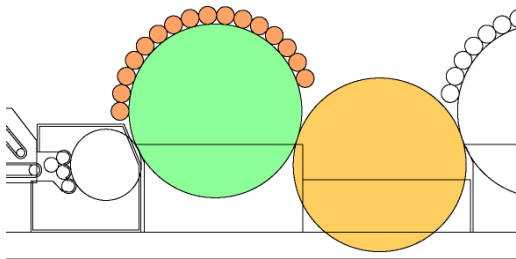
All rollers are wired with saw tooth clothings.

The opener roller is provided with a knife that prevents any foreign body to get into process and damaging card clothing.

The opener roller is provided with a first class safety device that stops the machine in case foreign bodies get into the processing.

The inlet unit is driven by an independent AC motor and the speed can be easily changed from the main electrical board

## BREAST



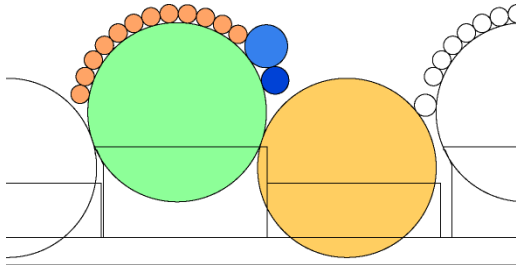
composed of :

N. 1	Drum	∅	1280 mm
N. 16	Carding rollers	∅	123 mm
N. 1	Conveyor roller	∅	1280 mm

The carding rollers are produced in steel and they are clothed with rigid card clothing saw tooth type. This unit is clothed with rough card clothing to give a first opening to the material.

The breast opens the fibre entering in process in tangled way and prepares it to the following passage.  
The conveyor roller connects the breast to the first unit.

## FIRST UNIT

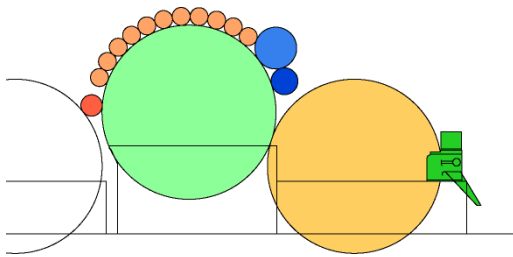


composed of :

N. 1	Drum	∅ 1280 mm
N. 12	Carding rollers	∅ 123 mm
N. 1	Fancy roller	∅ 302 mm
N. 1	Under fancy roller	∅ 190 mm
N. 1	Conveyor roller	∅ 1280 mm

The material is discharged by a conveyor roller that connects the first to the second unit.

## SECOND UNIT AND FLY-COMB



composed of :

N. 1	Drum	∅ 1280 mm
N. 10	Carding rollers	∅ 123 mm
N. 1	Fancy roller	∅ 302 mm
N. 1	Under fancy roller	∅ 190 mm
N. 1	Doffer roller	∅ 1280 mm

Second unit is similar to the first one, it has 10 carding groups and it's wired with thinner clothing.  
According to the material to be processed it's possible to add a third unit with 10 carding rollers.  
The fly comb moves at high speed and avoid the possibility of web breakage.

## TECHNICAL DETAILS

Garnett is equipped by 8 main AC motors. These motors drive independently:

- Pinned and mixing tables.
- Dosing and unloading combs.
- Inlet unit, feeding and press-mixture tables.
- Opener roller, drums, cleaner rollers, conveyor rollers, fancy roller and under fancy roller.
- First unit worker rollers.
- Second unit worker rollers.
- Third unit worker rollers.
- Third unit doffer roller.

Motor speed can be easily changed from the main electrical panel.

The Garnett machine is completely clothed with rigid card clothing.

All rotary parts are assembled on first-class ball bearing.

Main cylinders and doffers are made in steel sheet heat treated into an electric furnace.

## ELECTRIC PANEL

The panel is provided with user-friendly devices to control the motors speed and the total production.

An electrical stabilizer provides the right power supply to all electrical parts.

The panel is also provided with an acoustic alarm that rings in case of :

- signal of the doffer roller photoelectric cell
- signal of the inlet unit safety device.

## FRAME

The frame is fully manufactured in our factory in steel sheet and it is heat treated in special electric furnace. It is made of double steel sheet with internal strengthening that completely eliminates the vibrations.

Crescents are manufactured in a single piece of cast iron, they are turned externally for the right fitting with covers.

## PROTECTION SYSTEMS AND QUALITY CERTIFICATION

Covers are produced in sheet iron with aluminium borders and they are provided with electric lifting device and electric lock.

The lock device doesn't allow to lift the covers while the machine is running. This will be deactivated only when the machine is completely stopped and if all protection doors are closed.

Both sides of the machine are completely protected by security doors according to the current rules.

The machine is marked CE and follows UNI EN ISO 9002 rules.