

# Biancalani

TEXTILE MACHINERY

english

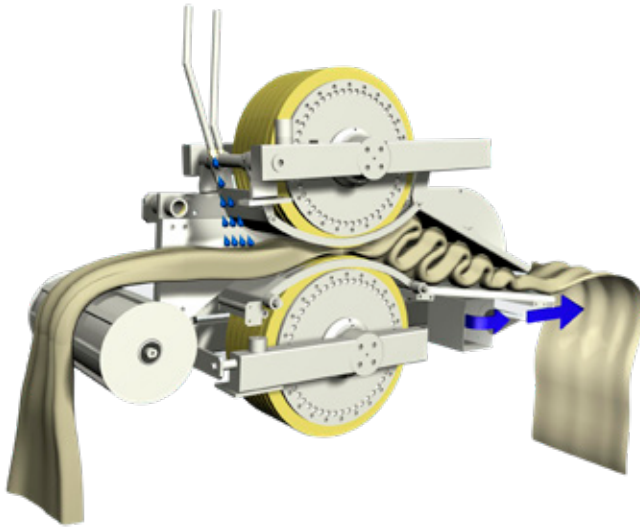


FULL  
AND  
FULFILL

# IDRA

# IDRA TOTHEFULLEST

Combined modular washing and milling machine with independent channels.



## When experience meets technology

The IDRA is one of a kind machine, designed to overcome typical milling problems in woollen fabrics, such as overall variable lengths and the natural, uneven reaction of the fabric to the treatment itself. In the different IDRA channels it is possible to load fabrics of varying composition, length and weight because the parameters used in each individual channel do not influence those of the others; in fact the greatest innovation in the IDRA is that each channel is completely independent, so each will complete its pre-programmed cycle automatically, while the others will continue to operate until their own milling cycle reaches its conclusion.

## Safety and optimisation

An air-jet system at the exit point of the milling box for the continuous movement of fabric allows - when needed - users to avoid bag-sewing the fabric ensuring the total absence of creases.

Furthermore, thanks to the independent control of the pressure in the milling box and the auto-measuring system of the fabric, it is possible to monitor the shrinkage percentage in real time and automatically stop the machine when the desired percentage level has been reached, with the sewing point automatically positioned in front of the operator, in order to reduce unloading times to a minimum.

## Special rubber coating and anti-slip traction

The independent milling cylinders, covered with a layer of grooved synthetic rubber, contain grids that guide the fabric inside the milling box, making sure that lighter fabrics don't get trapped in the crevices that divide the cylinder from the hinge. Moreover, the milling box is tilted downwards towards a base that is covered with a layer of anti-friction material to aid the flow of the fabric.

Additionally, the traction functions more smoothly thanks to both the independent nature of each cylinder and the inverter that modifies the individually applied power for each channel, thus avoiding micro slippages that are typical of the more traditional machines.



# DEPENDABLE IDRA

## Flexibility and ease of maintenance

It is possible to set specific milling cycles for every type of fabric loaded, allowing the user to obtain a superior qualitative result in respect to traditional milling machines: within the same colour range it is possible to carry out, for each of the four channels, independent processes in terms of composition, length and weight of the wool, while autonomously managing the milling percentage and cycles. The systems also allows for maintenance intervention in individual channels, ensuring production continuity in the others.

## Applications and processes

The IDRA can be used for washing, milling, felting and compacting woven or knitted fabric, pure wool or blend, in weights ranging from 100 to 1200 grammes per linear metre, carded and combed wool, pure or blend, from men's and women's clothing, to automotive, home textile, and special purpose materials such as billiards table cloth.

## EFFICIENT TECHNICAL SOLUTIONS

### Independent Motorised Cylinders

Each squeezing cylinder is, in itself, an electrical motor that is controlled by an inverter. The forced air introduced by the cold temperature inside the cylinders allows the motor to withstand the temperatures that increase during the milling process, while both in gear and at a standstill.

### Automatic stoppage when objective reached

Milling time has been reduced by 30% in comparison to traditional milling machines, thanks to the automatic shrinkage percentage control, that results in process termination as soon as the pre-set value has been reached, and with the sewing point automatically positioned in front of the operator through the application of markers on the fabric.

### Air-jet fabric repositioning

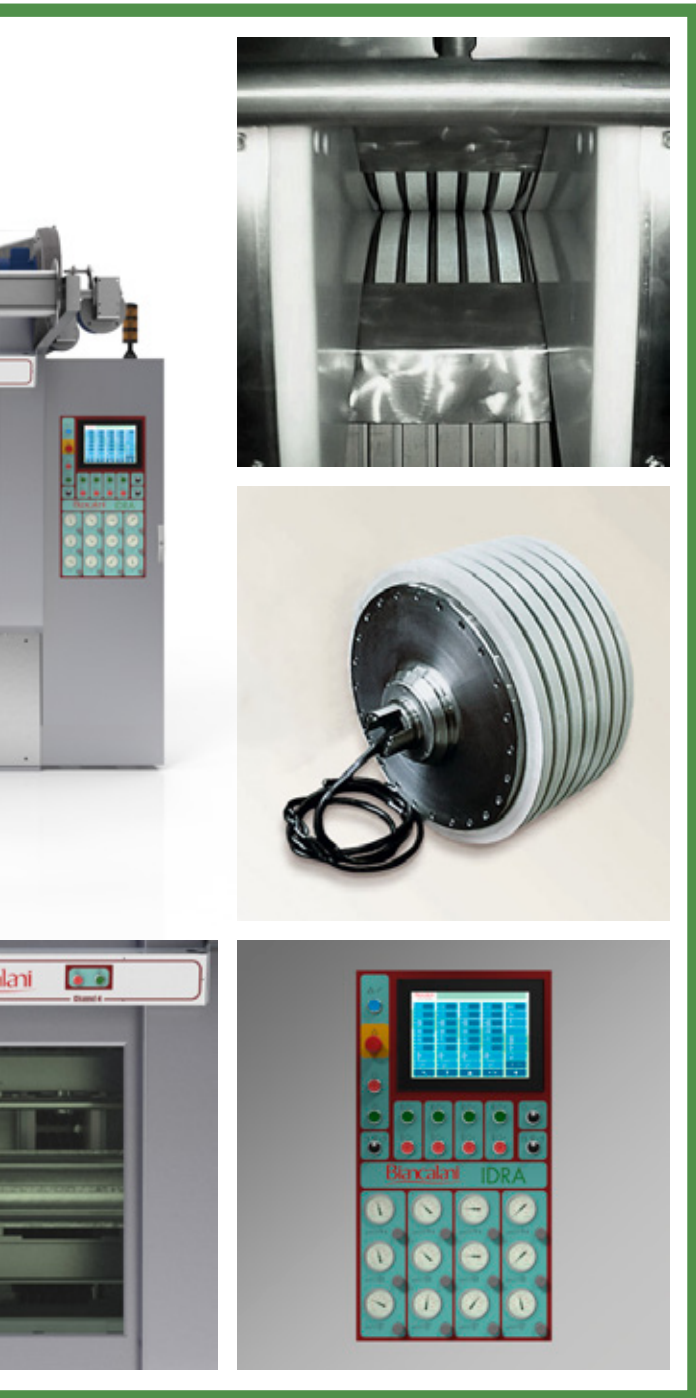
The machine is equipped with an air-jet device at the exit point of the milling box which enables the fabric to open up, change position, and to relax completely before undergoing the stress of milling once again. This device makes it possible to avoid the formation of creases and permanent strains in the fabric: its specific positioning aids the milling action by lightly compressing the fabric.

### Water Heating System

Upon client request, it is possible to install a water-steam mixing system with an automatic thermostat regulatory device that allows the user to add hot water to the bath almost immediately. A steam distributor located on the internal basin, in certain conditions, allows for the water in the bath to be kept hot by heating the water that drips from the fabric into the basin itself, and from here, again in the main bath.

### Programming and Remote Maintenance

The IDRA is completely managed through the PLC and interfaced with a touch-screen display, simple and immediate. The programming of the pressure levels and the lightening of the upper cylinder, as well as the independent regulation of the adapter pressure of each individual milling box, allows for excellent personalisation of treatments and perfect repeatability over time. The use of the Inverter guarantees the highest possible energy efficiency of the motor. An online help system allows for constant monitoring of the working status of the machine and for the immediate identification of any eventual intervention zone.







## Technical Specifications

Number of channels	2	4
Loading capacity	150 kg/channel	
Treatment speed	30-600 m/min	
Distance between fabric guide wings	50-170 mm	
Capacity of tank for chemical products	300 l/cad.	
Maximum water capacity of the vat	1200 l	2500 l
Maximum water temperature	60° C	
Installed electrical power	53 kW	81 kW
Average absorbed electrical power	44 kW	50 kW
Dimensions (W x L x H)	2550x2900x4150 mm	3750x3000x4150 mm
Depth of foundation	500 mm	
Weight	6000 Kg	9500 Kg

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