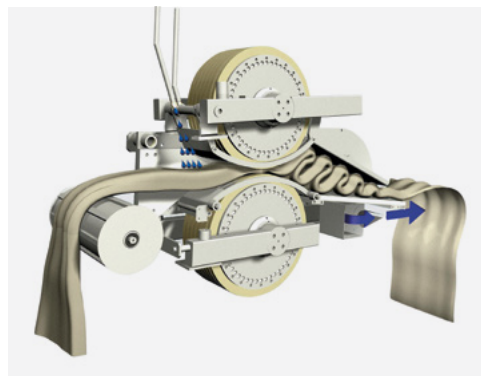


IDRA

# Flexible Approach

Wool milling and scouring





## WASHING AND MILLING MACHINE WITH INDEPENDENT CHANNELS

IDRA is the state of the art solution for flexible combined washing and milling of any type of woollen fabric. Born from the tradition of quality and the expertise of Biancalani, IDRA overcomes the typical milling hurdles in woollen fabrics, such as overall variable lengths and the natural, uneven reaction of the fabric to the treatment itself. Each milling channel can be loaded with a different type of fabric, and by monitoring in real-time the shrinkage level, it will automatically stop when its milling cycle is completed.

## SAFETY AND OPTIMISATION

For each cylinder, the air-jet which repositions the fabric, the grooved covering in synthetic rubber which guides the fabric into the milling boxes, and the automatic optimization of the individually applied power which prevents from micro slippages, ensure efficiency and complete safety of the process.

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, allow for excellent personalisation of treatments and perfect repeatability over time.

## FLEXIBILITY AND EASE OF MAINTENANCE

Users can set specific milling cycles for every type of fabric loaded, and obtain a superior qualitative result: within the same colour range, the automatic process will optimize different lengths of fabric in varying composition and weight. The systems also allows for maintenance intervention in individual channels, ensuring production continuity in the others.

## APPLICATIONS AND PROCESSES

IDRA can be used to obtain perfect washing and milling results on any kind of woollen and wool-blended fabric, in weights ranging from 100 to 1200 grams per linear metre, woven and knitted, carded and combed, for a really wide range of applications, from men's and women's apparel, to automotive, home textile, and special-purpose materials (billiards table cloth, tennis balls...).



## TECHNICAL SPECIFICATIONS

	IDRA 2	IDRA 4
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 tanks for chemical products	2 x 300 L	2 x 600 L
Maximum water capacity of the vat	1200 L	2500 L
Maximum water temperature	60°C	
Installed electrical power	54 kW	84 kW
Average absorbed electrical power	38 kW	53 kW
Dimensions (W x L x H from ground)	2500 x 5080 x 2880 mm	3750 x 5340 x 3360 mm
Depth of foundation	500 mm	
Weight	6200 kg	9500 kg

## EFFICIENT TECHNICAL SOLUTIONS

### INDEPENDENT MOTORISED CYLINDERS

Each squeezing cylinder is, in itself, an electrical motor controlled by an inverter. The forced air introduced 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 control, which automatically terminates the process, positioning the sewing point in front of the operator.

### AIR-JET FABRIC REPOSITIONING

A special air-jet device, originally patented by Biancalani and successfully implemented over the years, enables the fabric to open up, change position, and relax completely at the exit point of the milling box. This device avoids the formation of creases or permanent strains in the fabric and eases the processing of open-form fabric when needed, while helping the milling action by lightly compressing the fabric.

### DIRECT AND INDIRECT WATER HEATING WITH BATH RECIRCULATION

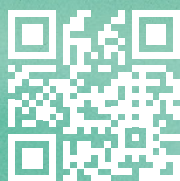
A steam exchanger unit with modulating valve controlled by PLC ensures to quickly reach and always maintain the right temperature, while a centrifugal pump and a filtering unit provide a fast recirculation of the bath.

Furthermore, a steam distributor located on the internal basin can heat the water which drips there from the fabric before it is returned into the vat, thus maintaining the desired temperature.

### PROGRAMMING AND REMOTE MAINTENANCE

IDRA is completely inverter-driven for highest energy efficiency, and fully controlled by a PLC interfaced with a touch-screen display, simple and immediate.

An in-line self-diagnostic system allows for constant monitoring of the working status of the machine and for the immediate identification of any intervention zone.



FIND OUT MORE  
[BIANCALANI.COM](https://biancalani.com)

**Biancalani**  
TEXTILE MACHINERY

BIANCALANI srl · Via Menichetti 28, 59100 PRATO ITALY · [contacts@biancalani.com](mailto:contacts@biancalani.com)  
The data shown in this catalogue can be changed at any time without prior notice  
due to product modification and improvement · 05/2023



CONFINDUSTRIA TOSCANA NORD  
Lucca Pistoia Prato

**ACIAIT**  
ITALIAN TEXTILE MACHINERY