



# MCS

DYEING & FINISHING MACHINERY

*Your ideal partner since 1963,  
which means reliability, research and innovation.*

## JIGGER HT

OPEN WIDTH DYEING MACHINE

# JIGGER

## HT & LT OPEN WIDTH DYEING MACHINE

MCS **JIGGER** son máquinas muy versátiles que permiten ciclos de procesamiento reducidos con valores de consumo muy bajos. Máquina ideal para cualquier tela de punto, MCS Jigger puede funcionar a baja tensión (menos de 10 KG) con telas de diferentes grosores. Los modelos de alta temperatura (CJ143, CPJ143), jiggers de baja temperatura (MJ98, MDJ98) y los especiales (CJ110, CPJ110) cumplen con todos los posibles requisitos del mercado tanto en lo referido a las capacidades como al uso final de las telas.

Todos los modelos están disponibles con una anchura de rodillo de 1800 a 4000 mm.

Todos los modelos se han fabricado siguiendo los estándares MCS más elevados, en especial las piezas en contacto con el baño y aquellas bajo presión, hechas de acero AISI 316 L.

La calidad  
MCS

MCS  
Quality

*MCS **JIGGERS** are very versatile machines allowing reduced processing cycles at very low consumption values. Ideal machine for any woven fabric, MCS Jigger can work at low tension (down to 10 KG) with fibres of different thickness. The High Temperature models (CJ143, CPJ143), low temperature jiggers (MJ98, MDJ98) and special ones (CJ110, CPJ110) satisfy all possible requests of the market as far as capacities and final use of the fabrics.*

*All models are available with roller width from 1800 to 4000 mm.*

*All models are built following the highest standards MCS, especially the parts in contact with the bath and those under pressure, are made of steel AISI 316 L.*



ITMA 1983

ITMA – Milan.  
MCS exhibits tubular mercerizer MT26,  
Soft Flow SF82 LTIHT,  
FlowJet OF83,  
Comby jigger HT,  
WR rope washing range.



Comby Jigger HT

# BRUSHLESS SYSTEM

Dicho sistema permite controlar la **velocidad y tiro del tejido** sin la ayuda de sistemas delicados utilizados en el pasado como las celdas de carga o los codificadores externos.

De esta manera mejora con el tiempo la **fiabilidad** de la máquina y la estabilidad de sus prestaciones garantizando, sobre todo, una facilidad de uso y mantenimiento para el operador.

Además, con el uso de esta motorización es posible recuperar parte de la energía generada por el cilindro arrastrado que trabaja en el freno para alimentar al cilindro de arrastre.

Gracias a esta recuperación se obtiene un **ahorro significativo** con respecto a los jigger tradicionales donde dicha corriente generada era dispersada por una resistencia de frenado.

*This system enables **fabric speed and pull** to be managed without the aid of sensitive systems used in the past such as load cells or external encoders.*

*Thus, the machine becomes much **more reliable** and its performance stability is much improved over time, along with easier use and maintenance for the operator.*

*Moreover, the use of this motor drive makes it possible to recover part of the energy generated by the driven roller which works in braking mode in order to feed the drive roller.*

*Due to this recovery a significant saving is **obtained** compared to traditional Jiggers where this generated current was dispersed by a braking resistance.*

|                               | HIGH TEMPERATURE 143°C |             | LOW TEMPERATURE 98°C |             |             |             | SPECIAL VERSIONS 110°C |             |
|-------------------------------|------------------------|-------------|----------------------|-------------|-------------|-------------|------------------------|-------------|
|                               | COMBY 143              | COMPACT 143 | MAXI 98              | MID 98      | SMALL 98    | MINI 98     | COMBY 110              | COMPACT 110 |
| Maximum Winding Diameter (mm) | 1.100                  | 650         | 1.400                | 1.100       | 850         | 650         | 1.300                  | 650         |
| Roller Width Range (mm)       | 1.800-4.000            | 1.800-4.000 | 1.800-4.000          | 1.800-4.000 | 1.800-4000  | 1.800-4.000 | 1.800-4.000            | 1.800-4.000 |
| Fabric Width Range (mm)       | 1.600-3.800            | 1.600-3.800 | 1.600-3.800          | 1.600-3.800 | 1.600-3.800 | 1.600-3.800 | 1.600-3.800            | 1.600-3.800 |
| Loading (m)*                  | 3.450                  | 1.200       | 4.700                | 3.460       | 1.600       | 1.200       | 3.450                  | 1.200       |
| Installed Power (Kw)**        | 40                     | 24          | 43                   | 40          | 21          | 21          | 43                     | 24          |

(\*) The loading capacity is calculated based on a fabric thickness value aprox 0.3 m

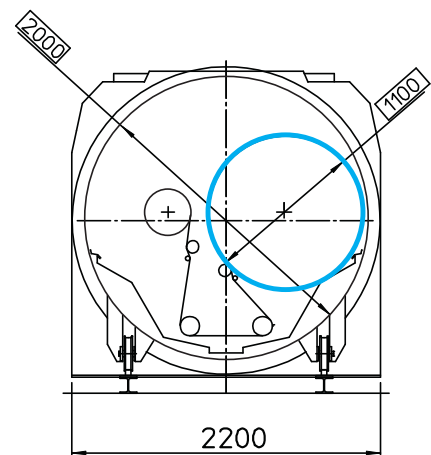
(\*\*) Mentioned installed power is indicative and relative to machines upto 2600 mm Roller width

Technical data may be changed by MCS to improve of the offered products.



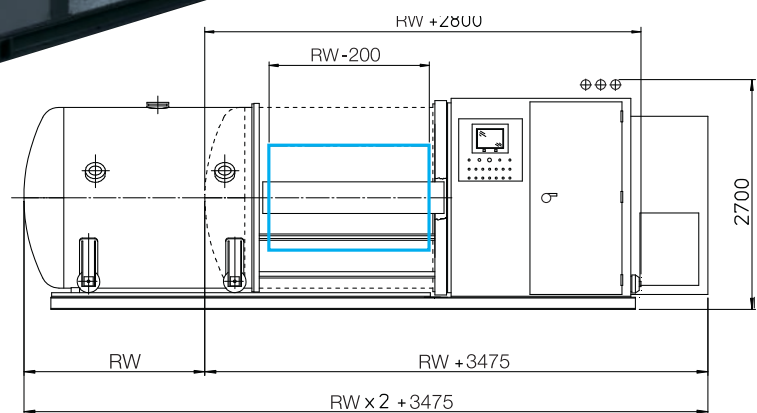
**REAL  
MADE IN  
ITALY**

# COMBY JIGGER 143 | HT



\*Disponibile anche nella versione super brushless con  $\varnothing$  massimo di avvolgimento di 1200 mm

Available in special version SUPER BRUSHLESS with maximum rolling width 1200 mm.



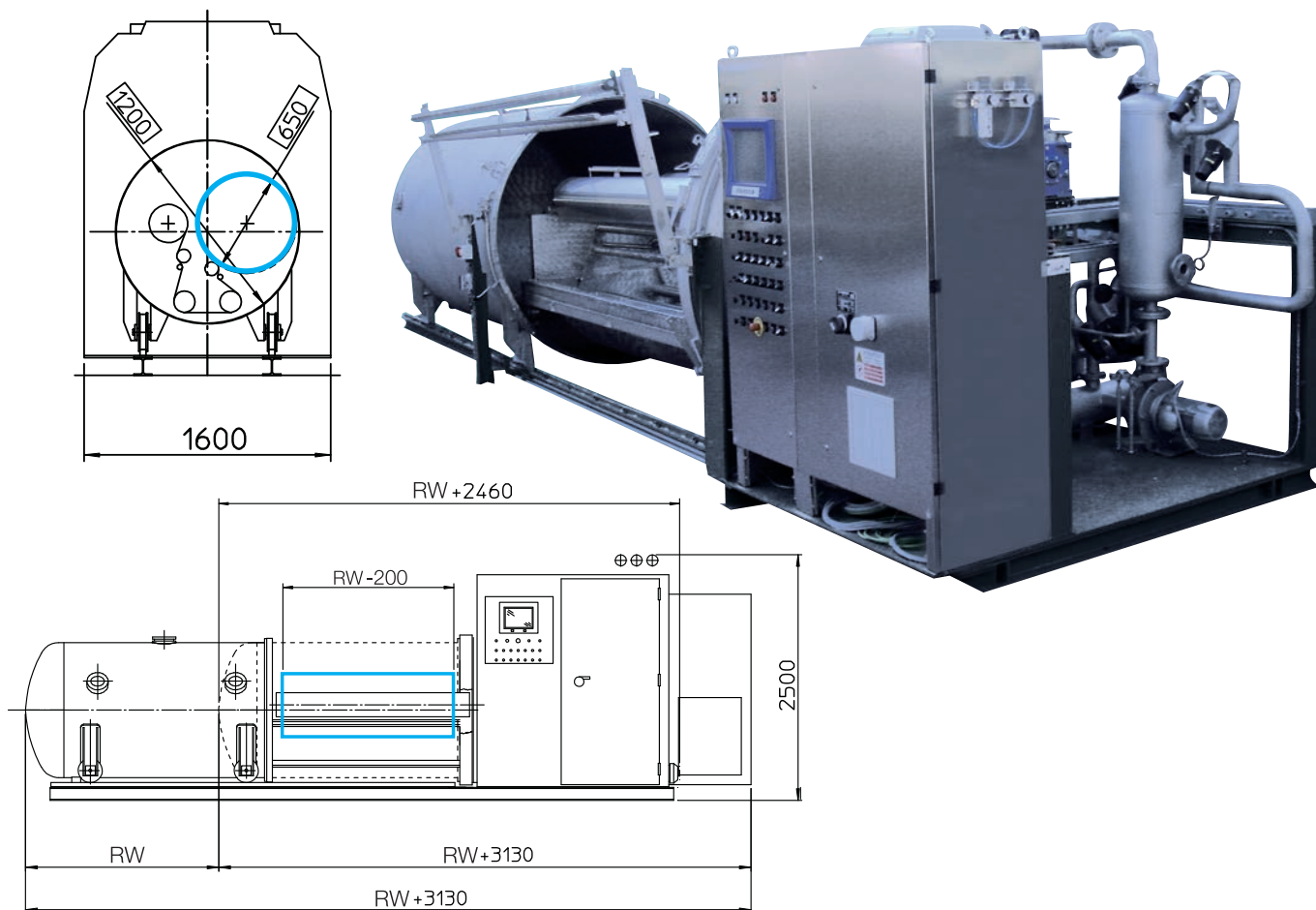
## CARACTERÍSTICAS TÉCNICAS

- **Diámetro máximo de bobinado: 1.100 mm**
- Circulación del baño en contracorriente forzada
- Velocidad constante en todo el ciclo y con valor preseleccionable de 15 a 150 m/min
- Tensión constante sobre el tejido en todo el ciclo, y con valor preseleccionable de 10 a 100 kg
- Accionamiento completamente electrónico gracias a motores de tipo brushless
- Relación mínima baño 1:2
- Calentamiento hasta 143°C y enfriamiento del baño, indirecto, con intercambiador externo, con alta eficiencia
- Circuito igualador de la tintura con bomba de recirculación
- Dispositivo de centrado del tejido motorizado
- Carga y descarga del tejido sincronizada mediante motor electrónico (brushless) auxiliar a velocidad y tensión constantes
- Dispositivo automático para evitar el desequilibrio del rollo con la máquina parada
- Dispositivo de lavado forzado con batería de inyectores tipo HEW
- Filtro externo con una elevada superficie filtrante

## TECHNICAL CHARACTERISTICS

- **Maximum winding diameter: 1.100 mm**
- *Forced circulation of the bathroom counter*
- *Constant fabric speed for complete cycle, wich can be pre-established from 15 to 150 m/min*
- *Constant tension on fabric wich can be pre-established from 10 to 100 kg*
- *Electronic drive wive by brushless motors*
- *Minimum liquor ratio aprox 1:2*
- *Heating to 143°C and cooling with high efficiency and cooling with hi efficiency external heat-exchanger*
- *Recycling of dyeliquor*
- *Driven device for fabric centering*
- *Synchronized loading and unloading of fabric, with an auxiliary brushless motor*
- *Automatic device to avoid unbalancing of the roll, when machine is not running*
- *Device for high efficiency washing with sprayers battery, HEW model*
- *External pressurized filter*

# COMPACT JIGGER 143 | HT



## CARACTERÍSTICAS TÉCNICAS

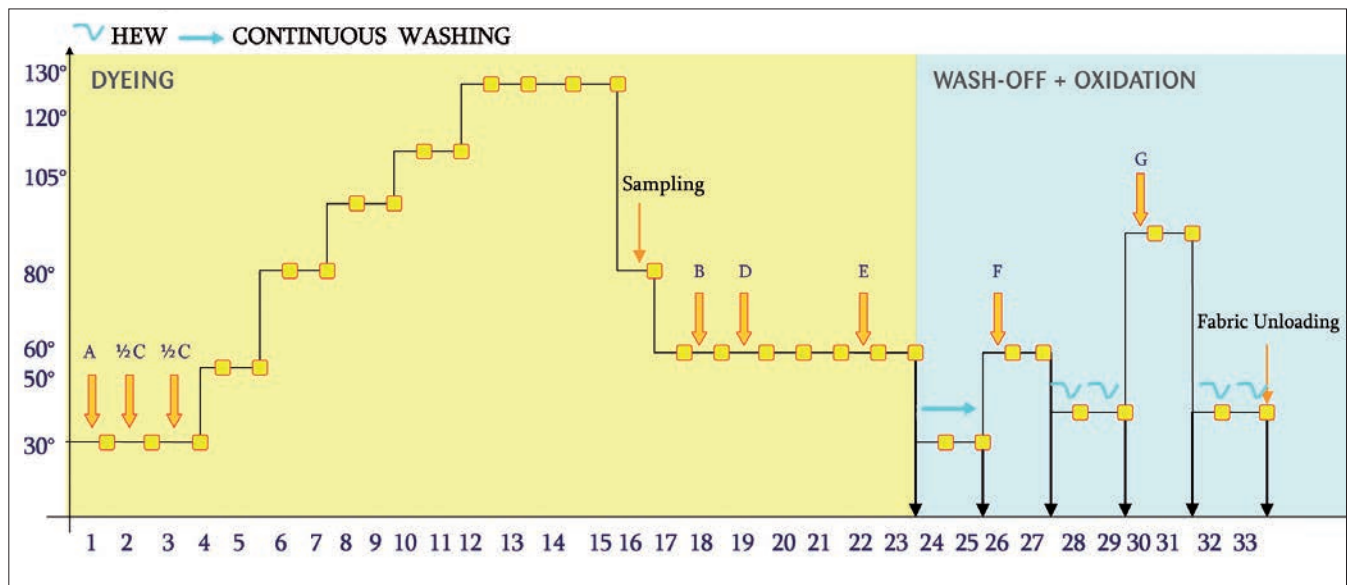
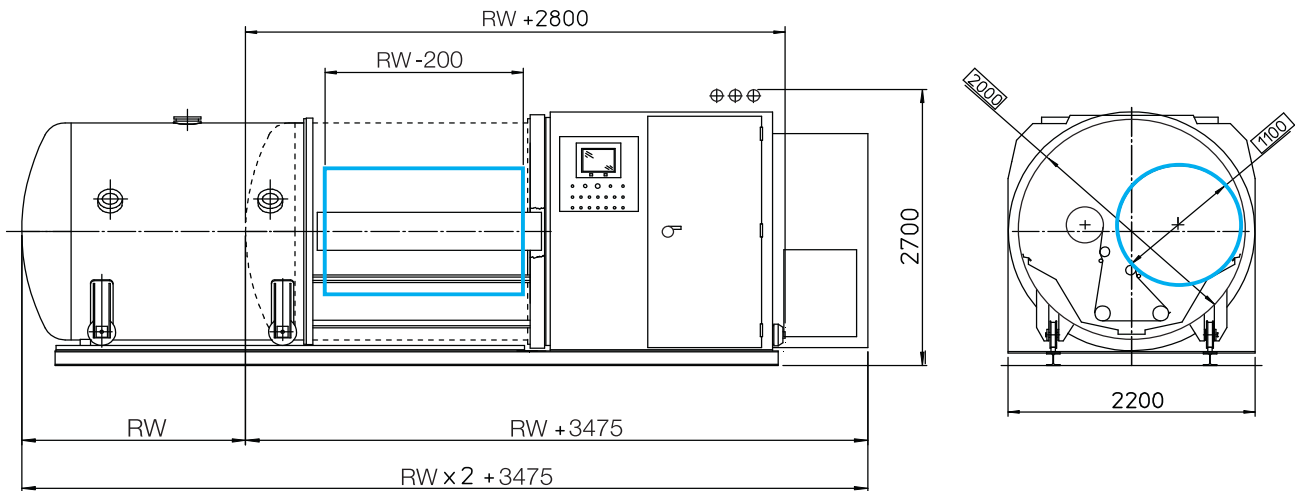
- **Diámetro máximo de bobinado: 650 mm**
- Velocidad constante en todo el ciclo y con valor preseleccionable de 15 a 150 m/min.
- Tensión constante sobre el tejido en todo el ciclo, y con valor preseleccionable de 10 a 100 kg
- Accionamiento completamente electrónico gracias a motores de tipo brushless
- Relación mínima baño 1:2
- Calentamiento hasta 143°C y enfriamiento del baño, indirecto, con intercambiador externo, con alta eficiencia
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# DYEING REPORT

COMBY JIGGER 143



| FABRIC FEATURES CBJ-143     |                        |
|-----------------------------|------------------------|
| Article                     | Woven Fabric           |
| Composition                 | 67% PES 33% CO         |
| Colour                      | Yellow / Blue          |
| Weight [gr/m]               | 427                    |
| Weight [gr/m <sup>2</sup> ] | 276                    |
| Width [cm]                  | 155                    |
| Lot [Kg]                    | 502                    |
| Lot [m]                     | 1215                   |
| Preparation                 | Pre Setting            |
| Finishing                   | Stenter                |
| Remarks                     |                        |
| DYESTUFF                    |                        |
| C                           | Disperse Dye - VAT Dye |

| MACHINE REGULATION CBJ-143     |      |
|--------------------------------|------|
| Delivery regulation circ. pump | 3/4  |
| Cylinder speed [m/1']          | 110  |
| Tension [Kg]                   | 28   |
| Thickness [mm/10]              | 33   |
| Passage time [1']              | 11   |
| Liquor ratio [l/Kg]            | 2    |
| First filling [l]              | 1030 |
| Next fillings [l]              | 515  |

| RESULTS CBJ-143            |        |
|----------------------------|--------|
| Water consum. [l]          | 14100  |
| Water per kg fabric [l/kg] | 27,3   |
| Steam consum. [Kgs]        | 537    |
| Steam fabric [Kgs/Kg]      | 1,04   |
| Energy kg fabric [Kw/Kg]   | 0,4    |
| Real time [1']             | 504    |
| Program N.                 | 00-389 |

| AUXILIARES  |                   |
|---|-------------------|
| A Aux. x dyeing                                   | F Oxidation Agent |
| B 2/3 NaOH + 2/3 NaHSO <sub>3</sub> + disperse ag | G Detergent       |
| D 1/3 NaOH + 1/3 NaHSO <sub>3</sub> + disperse ag |                   |
| E NaOH + NaHSO <sub>3</sub>                       |                   |

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