

MCS

DYEING & FINISHING MACHINERY



JIGGER 98

LOW TEMPERATURE OPEN WIDTH DYEING MACHINE



OUR HISTORY

DYEING & FINISHING MACHINERY

MCS

MCS & TERMO INNOVATION ZONE

BLUE
AREA

COMMISSION ECO-DYEHOUSE

EUROPIZZI

AUTOMATION & SOFTWARE

Termo
elettronica



mcsgroup.it
Bergamo - Italy

member of
ACIAIT
ITALIAN TEXTILE MACHINERY

MCS spa, since 1963, develops, manufactures and installs discontinuous dyeing machines and washing & preparation lines

2023 ITMA - Milan

MCS exhibits:

- Multiwash-M,
- Comby Jigger-C4,
- Chronoflow,
- Softflow-18

2019 ITMA - Barcellona

MCS exhibits:

- Lavaprint Next,
- Dynamica Sprint,
- Mini Jigger 98,

MCS presents:

- C4 Comby Jigger 143;
- Softflow 18-HT.

2017

MCS presents:

- Mini Jigger 98.

2015 ITMA - Milan

MCS exhibits:

- Multiwash,
- Dynamica Sprint,
- Starwash FS,
- Termopowder XP,
- Texmanager XP,
- Termochem XP.

2014 ITMA - Shanghai

MCS exhibits:

- Starwash Fast Scouring.

2013

MCS celebrate their 50 th anniversary

2011 ITMA - Barcellona

MCS exhibits:

- Dynamica,
- Star Wash,
- Comby Jigger,
- Supervisor Texmanager.

2009

MCS presents:

- Italica.

2008

MCS Re-design of all high and low temperature Jigger models.

2007 ITMA - Munich

MCS exhibits:

- Universal Dyeing,
- First Vento,
- Tumbler Mistral,
- VDA.

2005 IKME - Milan

MCS exhibits:

- Universal Dyeng, VDA.

2003 ITMA - Birmingham

MCS exhibits:

- Multiflow Superior,
- Ecoturbo Beam Dyeing Machine.

2000

MCS acquires 100% of Termoelettronica ownership.

1999 ITMA - Paris

MCS exhibits:

- Multiflow,
- Softflow 100 Evolution,
- Comby jigger electronic.

1995 ITMA - Milan

MCS exhibits:

- Softflow,
- Long Horn,
- Pumex

1991 ITMA - Hannover

MCS exhibits:

- Tornado Tumbler,
- Maxi & Mid jiggers,
- Lavaprint.

1987 ITMA - Paris

MCS exhibits: Pandora.

1983 ITMA - Milan

MCS exhibits:

- Tubular mercerizer MT26,
- Softflow-82 LT/HT,
- Flow/jet OF83,
- Comby Jigger HT,
- WR rope washing machine.

1980

Europea activity begins, group dyeing and resining company.

1979 ITMA - Hannover

MCS exhibits:

- Jet HT,
- Overflow MO/80 LT,
- MRS65.

1974

MCS begins the design and development of the open width lines.

1971 ITMA - Paris

MCS exhibits:

MCS exhibits the first low temperature jet model.

1968

Europizzi begins its activity

1967

MCS manufactures the first low temperature rope dyeing machine.

1964

MCS begins its activity.

1963

Gino Chiappini, Angelo Cagnazzo, founding MCS. Gino Chiappini is the Chairman of the Board.



OPEN-WIDTH DYEING MACHINE

Glass 500, Glass 850, Mid e Maxi Jigger 98 son cuatro Jiggers de baja temperatura adecuados para pequeños y grandes lotes de producción.

La tecnología de teñido de agotamiento con máquinas de tipo Jigger ha evolucionado mucho a lo largo de estas décadas.

MCS desde hace más de 50 años es líder en la fabricación de productos de este tipo tanto a alta como a baja temperatura.

La GAMA JIGGER MCS incluye: Maxi, Mid, Glass850, Glass500 para los Jiggers atmosféricos; Comby y Compact 143 °C para el Jigger de alta temperatura, y los mismos Comby y Compact 110°C para los modelos especiales, donde MCS es único en el mercado

De los primeros modelos a motores hidráulicos, se ha llegado a modelos con controles de las tensiones sobre el tiro del tejido gracias a motores electrónicos cada vez más performantes y eficientes.

Y recientemente, con los nuevos modelos de 4 cilindros, MCS siempre se pone un paso adelante en la investigación y producción de estas máquinas.

Las Glass 500, Glass 850, Mid e Maxi Jigger 98 están completamente diseñadas y fabricadas en MCS.

Cada novo modelo é testado e exibido, em INNOVATIVE BLUE AREA integrada na tinturaria do Grupo MCS.

Glass 500, Glass 850, Mid e Maxi Jigger 98 are four low temperature Jiggers suitable for small and large production batches.

The dyeing technology with Jigger machines has evolved a lot during these decades.

MCS has been a leader in the manufacture of both high and low temperature products for over 50 years.

The JIGGER MCS RANGE includes: Maxi, Mid, Glass850, Glass500 for atmospheric Jiggers; Comby and Compact 143°C for high temperature Jigger, and the same Comby and Compact 110 °C for special models, where MCS is unique on the market.

From the first models to hydraulic motors, it is joined to models with tension controls on the pull of the fabric thanks to electronic motors increasingly performing and efficient.

And recently, with the new 4-cylinder models, MCS is always a step ahead in the research and production of these machines.

Glass 500, Glass 850, Mid & Maxi Jigger are entirely engineered and built in MCS.

Each new model is tested and exhibited, in INNOVATIVE BLUE AREA integrated in the MCS Group dyeing plant.

LA STORIA DELLE MACCHINE IN APERTO MCS

1970 MCS produce el primer SILURO para EUROPIZZI

1983 ITMA Milán: MCS expone el primer modelo de Comby Jigger-HT hidráulico

1991 ITMA Hannover: MCS presenta los primeros modelos de Maxi y Mid Jigger-LT hidráulicos

1999 ITMA Pargi: MCS presenta el primer modelo Comby Jigger-HT electrónico

2003 ITMA Birmingham: MCS expone Siluro Ecoturbo

2008: MCS reingeniería todos los Jigger al catálogo

2019 ITMA Barcelona: MCS expone el primer modelo de Mini Jigger-LT electrónico y presenta el concept del Double Jigger-H C4-143.

2023 ITMA Milán: MCS expone el primer Double Jigger C4-143.

HISTORY OF MCS OPEN-WIDTH MACHINES

1970 MCS produced the first Siluro for Europizzi

1983 ITMA - Milan: MCS exhibits the first hydraulic Comby Jigger-HT model

1991 ITMA - Hannover: MCS exhibits the first hydraulic Maxi and Mid Jigger-LT models

1999 ITMA - Paris: MCS exhibits the first electronic Comby Jigger-HT model

2003 ITMA - Birmingham: MCS exhibits Siluro Ecoturbo

2008: MCS re-engineering all the Jiggers in the catalog.

2019 ITMA Barcelona: MCS exhibits the first electronic Mini Jigger-LT model and the concept of the Comby Jigger C4.

2023 ITMA Milano: MCS exhibits the first model of the Comby Jigger HT-C4.

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.

Mini-2 & Small-2 Jigger



| | HIGH TEMPERATURE 143°C | | | LOW TEMPERATURE 98°C | | | | SPECIAL VERSIONS 110°C | |
|-------------------------------|------------------------|--------------|----------------|----------------------|-------------|-----------------|-----------------|------------------------|----------------|
| | DOUBLE C4 143 | COMBY 143 | COMPACT 143 | MAXI 98 | MID 98 | GLASS-850 98 | GLASS-500 98 | COMBY 110 | COMPACT 110 |
| Maximum Winding Diameter (mm) | 2x750 | 1.100 | 650 | 1.400 | 1.100 | 850 | 500 | 1.300 | 650 |
| Roller Width Range (mm) | 1.800-4.000 | 1.800-4.000 | 1.800-4.000 | 1.800-4.000 | 1.800-4.000 | 1.800-2.400 | 1.800-2.400 | 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 | 1.600-2.200 | 1.600-2.200 | 1.600-3.800 | 1.600-3.800 |
| Loading (m)* | 2.890 | 2.890 | 950 | 4.800 | 2.890 | 1.600 | 500 | 4.150 | 950 |
| Installed Power (Kw)** | 31 | 48 | 22 | 47 | 47 | 21 | 21 | 48 | 21 |

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

(**) Mentioned installed power is indicative and relative to machines up to 2600 mm roller width

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

MAIN FEATURES

Glass-500: 500 mm diámetro máximo de bobinado

Glass-850: 850 mm diámetro máximo de bobinado

Medio Jigger: 1.100 mm diámetro máximo de bobinado

Maxi Jigger: 1.400 mm diámetro máximo de bobinado

Relación de baño mínimo 1 + factor de absorción de tejido

Velocidad constante durante todo el ciclo y con un valor pre-seleccionable de 15 a 150 m/min (*)

Tensión constante en el tejido durante todo el ciclo, y con valor pre-seleccionable de 10 a 100 kg (*)

Accionamiento completamente electrónico gracias a motores de tipo brushless

Calefacción hasta 98°C y refrigeración indirecta del baño con intercambiador externo de alta eficiencia

Circuito igualitario del tinte con bomba de recirculación

Dispositivo automatico para el centrado de la tela

Carga y descarga del tejido sincronizado por motor electrónico auxiliar a velocidad y tensión constantes

Dispositivo automático para evitar el desequilibrio del rollo de la máquina parada

Lavado forzado con batería de pulverizadores tipo HEW (*)

MST (machine side tank): tanque de preparación de baño con control y gestión de nivel mediante sonda neumática para reducir los tiempos muertos en las fases de llenado de baño. (*)

MQD (máquina quick drain): descarga rápida vía bomba de circulación principal. (*)

Filtro externo de gran superficie filtrante

Panel operador TERMOELETTRONICA. También es posible utilizar cualquier micro disponible en el mercado.

Software de doble control: uso en modo automático o semiautomático según las necesidades.

Tanque productos adicionales: 2^a tanque productos completos con mezclador, sonda neumática, bobina de calentamiento y recirculación de la máquina para facilitar las funciones de mezcla y derretimiento producidos. (opcional)

Medidor de pH: medidor de pH con sonda de alta temperatura, instrumento de lectura instalado en el panel. (opcional)

Medidor de caudal de vapor: conectado al microprocesador máquina de registro de consumo de vapor del ciclo. (opcional)

Medidor de consumo eléctrico: conectado al microprocesador de la máquina para registrar el consumo eléctrico del ciclo. (opcional)

Acondicionador de aire en el cuadro eléctrico de adecuada potencia frigorífica con alimentación trifásica. (opcional)

(*) Solo disponible en los modelos Mid y Maxi Jigger

GLASS-500: 500 mm Maximum winding diameter

GLASS-850: 850 mm Maximum winding diameter

MID Jigger: 1.100 mm Maximum winding diameter

MAXI Jigger: 1.400 mm Maximum winding diameter

Minimum liquor ratio 1 + fabric absorption

Constant fabric speed for complete cycle, which can be pre-established from 15 to 150 m/min (*)

Constant tension on fabric which can be pre-established from 10 to 100 kg (*)

Electronic drive with brushless motors

Heating to 98°C and cooling with high efficiency and cooling with high 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

High efficiency washing (HEW) with sprayers battery (*)

MST (machine side tank) is for liquor preparation; liquor is controlled and managed by a pneumatic probe in order to reduce down times by liquor fillings. (*)

MQD, (machine quick drain) machine quick drain, by main circulation pump. (*)

External pressurized filter

Operation panel Termoelettronica: upon customer's request it is always possible to install different brands of controllers.

Software dual control: automatic or semi-automatic mode depending needs.

Second add tank: second side-tank for products, complete with mixer, pneumatic probe, heating coil, liquor recycling to make product dissolving and mixing much easier.

pH-meter: composed of high temperature probe and reading instrument installed in the panel. (optional)

Steam flow meter: steam flow meter with system connected to the processor microprocessor for steam cycle. (optional)

Electrical consumption meter: connected to the microprocessor for recording electrical consumption of the cycle. (optional)

Conditioner: air conditioner with adequate cooling power with 3-phase power supply. (optional)

(*) Available Mid e Maxi Jigger models

Mid & Maxi Jigger

DYEING REPORT

MAXI JIGGER 98



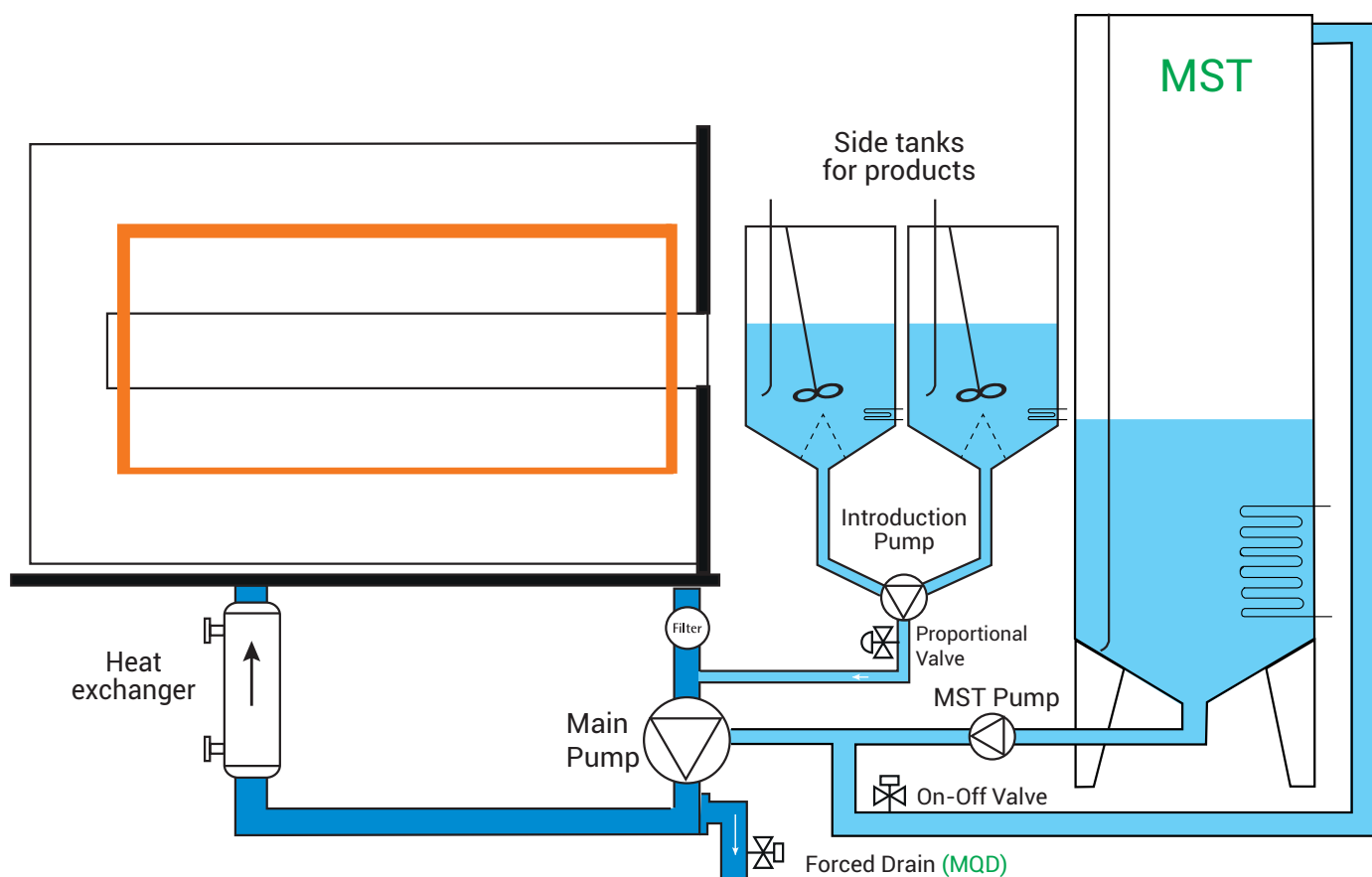
Bleaching - Reactive Dyeing - Wash Off



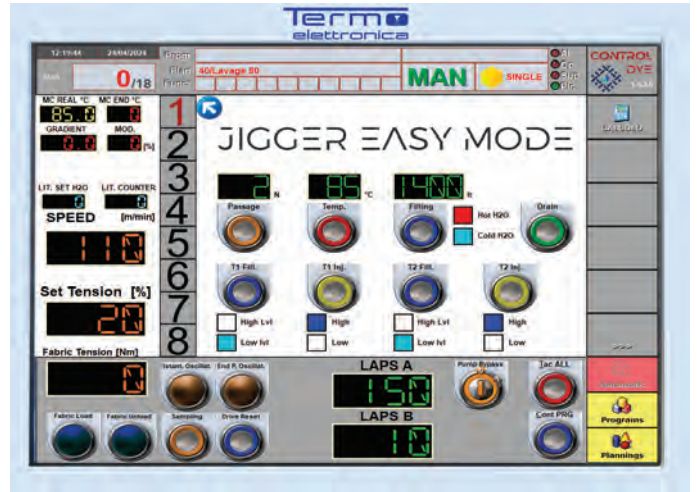
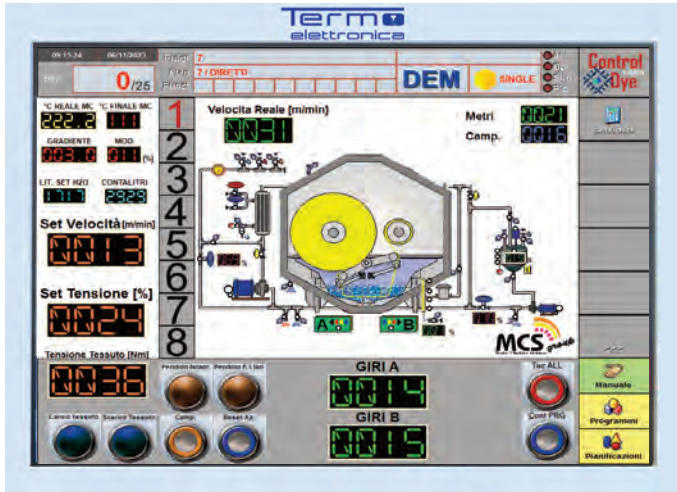
Time

Bleaching - Reactive Dyeing - Wash Off MST+MQD cycle

-20% RUN TIME WITH MST+MQD



DUAL CONTROL



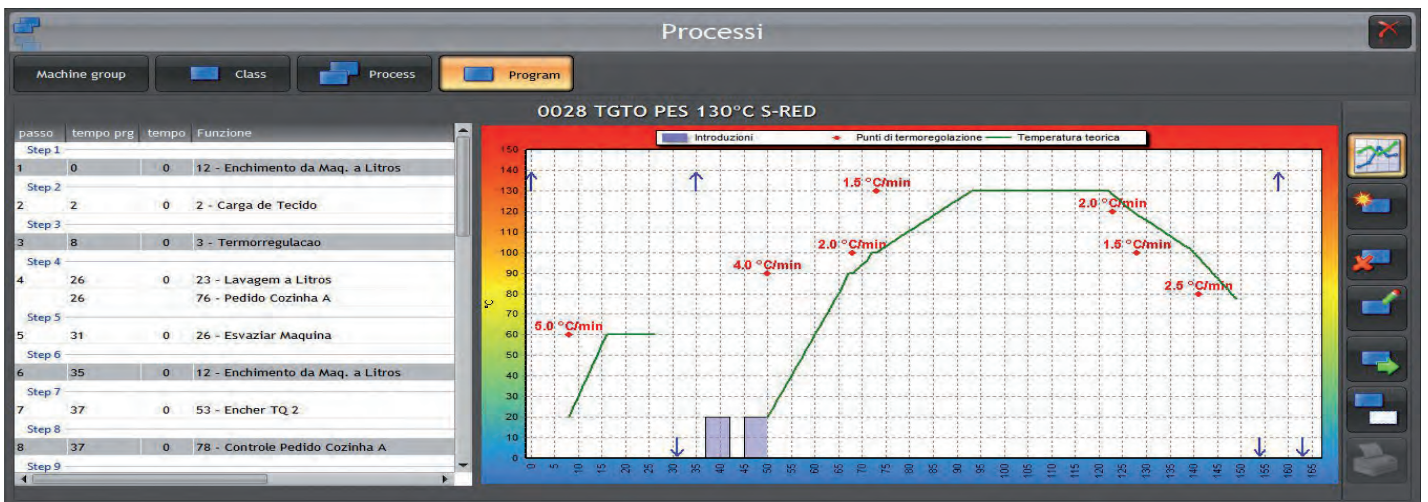
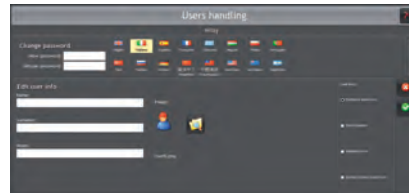
Pantalla táctil 15" touch screen desarrollado en windows para implementar de forma avanzada todas las funciones de diagnóstico, monitoreo y automatización de las máquinas de teñido. A petición se puede utilizar cualquier micro disponible en el mercado.

Operatiron Panel touch screen 15" developed in Windows room to improve all diagnostic functions, monitoring and automation of dyeing machines. Upon Customer's request it is always possible to install different brands of controllers.

TEXMANAGER 4.0

Software de gestión de producción integrada que incluye:
 Gestión de personal
 Optimización de los recursos humanos
 Gestión de maquinaria
 Gerencia departamentos de producción
 Gestione almacén

Integrated production management software including:
 Personnel Management
 Optimization of human resources
 Management of machinery
 Software for integrated Production Management
 Management of production departments
 Warehouse management



FEEL THE POWER OF WATER

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