

member of



ENG/POR

# MCS

DYEING & FINISHING MACHINERY



# CHRONOFLOW

HT ROPE DYEING MACHINE



THINK BEFORE YOU PRINT

# OUR HISTORY



DYEING & FINISHING MACHINERY



MCS & TERMO INNOVATION ZONE



COMMISSION ECO-DYEHOUSE



AUTOMATION & SOFTWARE



[mcsgroup.it](http://mcsgroup.it)  
Bergamo - Italy



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 owner-ship.

## 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.



# CHRONOFLOW

## HT ROPE DYEING MACHINE

**Chronoflow** é uma máquina de tingimento em corda de alta temperatura (max 144°C).

Com este projeto, nos concentramos em reduzir os tempos de ciclo, confiabilidade extrema, facilita a manutenção e economia de energia.

É uma máquina de armazenamento circular, adequada para tecidos de malha e planos com pesos variáveis.

Para artigos de pesos leves especiais é possível trabalhar em acordes duplos ou múltiplos.

O corpo da máquina pode conter de um a seis tanques, com capacidade de carga variável dependendo do modelo e da versão escolhida.

Considerando uma malha de fibra celulósica com um peso de 250 g/lin.m, as capacidades de enchimento são as indicadas na tabela na p. 6.

Todas as peças internas da máquina em contato com o tecido são construídas usando aço inoxidável certificado AISI 316/ AISI 316 L.

O Chronoflow é totalmente projetado e construído em MCS.

Cada novo modelo é probado e exposto, na INNOVATIVE BLUE ÁREA integrada na tinturaria do grupo MCS.

**Chronoflow** is a high temperature rope dyeing machine (max 144°C).

With this project we focused on reduction on cycle times, extreme reliability, ease of maintenance and energy savings. It is a circular deposit machine, suitable for both knitted and orthogonal fabrics with variable weights.

For particularly light weight items, it is possible to work in double or multiple rope.

The machine body contains from one to six trough, with variable charge capacity depending on the model and the chosen version.

Considering a knitted cellulosic fiber with a weight of 250 g/lin.m, the charge capacities are those indicated in the table on page 6.

All the internal parts of the machine in contact with the fabric are built using certified stainless steel AISI 316/AISI 316 L.

**Chronoflow** is entirely engineered and built in MCS.

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

### HISTÓRIA DAS MÁQUINAS DE TINGIMENTO EM CORDA MCS

1967 ITMA - Paris: MCS expõe o primeiro modelo de jato de baixa temperatura

1979 ITMA - Hannover: MCS expõe JET-HT e OVERFLOW MO/80 LT

1983 ITMA - Milão: MCS expõe SOFTFLOW 82 HT e FLO-JET OF83 HT

1987 ITMA - Paris: MCS expõe PANDORA HT

1995 ITMA - Milão: MCS expõe SOFTFLOW 100 HT, LONG HORN HT.

1999 ITMA - Paris: MCS expõe MULTIFLOW HT, SOFTFLOW 100 SUPERIOR HT

2000: MCS apresenta la EUROFLOW LONG

2003 ITMA - Birmingham: MCS expõe MULTIFLOW SUPERIOR.

2007 ITMA - Monaco: MCS expõe FIRST HT

2011 ITMA - Barcelona: MCS expõe DYNAMICA HT

2015 ITMA - Milão: MCS expõe DYNAMICA SPRINT HT

2019 ITMA - Barcelona: MCS apresenta SOFTFLOW 18 HT, espõe DYNAMICA SPRINT HT

2020: MCS projeta EUROFLOW SPORT

2023: ITMA Milão: MCS expõe CHRONOFLOW e SOFTFLOW 18 HT

### ROPE DYEING MACHINE HISTORY

1967 ITMA - Paris: MCS exhibits: the first low temperature jet model.

1979 ITMA - Hannover: MCS exhibits JET-HT and OVERFLOW MO/80 LT

1983 ITMA - Milan: MCS exhibits SOFTFLOW 82 HT and FLO-JET OF83 HT

1987 ITMA - Paris: MCS exhibits PANDORA HT

1995 ITMA - Milan: MCS exhibits: SOFTFLOW 100 HT, LONG HORN HT.

1999 ITMA - Paris: MCS exhibits: MULTIFLOW HT, SOFTFLOW 100 SUPERIOR HT

2000 : MCS presents the EUROFLOW LONG

2003 ITMA - Birmingham: MCS exhibits: MULTIFLOW SUPERIOR.

2007 ITMA - Monaco: MCS exhibits FIRST HT

2011 ITMA - Barcelona: MCS exhibits DYNAMICA HT

2015 ITMA - Milan: MCS exhibits DYNAMICA SPRINT HT

2019 ITMA - Barcelona: MCS presents SOFTFLOW 18 HT, exhibits DYNAMICA SPRINT HT

2020 : MCS design the EUROFLOW SPORT

2023 ITMA Milan: MCS exhibits CHRONOFLOW and SOFTFLOW 18 HT

# CHRONOFLOW

## HT ROPE DYEING MACHINE

The image in figure is to be considered full optional



## Equipamento padrão

Bomba de circulação principal, centrífuga de alto desempenho com sistema de sucção múltipla.

Sistema de controlo da pressão do injetor e circulação do banho pelo programador dedicado.

Injetor intercambiável fixo, disponível em vários tamanhos adequados para cada necessidade de tingimento.

Painel do operador com tela sensível ao toque 15" modelo CTRL-DYE 15" da TERMOELETTRONICA (outros painéis do operador mediante solicitação).

Tanque do produto, com sonda de nível pneumática, bobina de aquecimento, misturador e filtro cônico.

Lavagem em ESPIRAL de alta eficiência.

Filtro de auto-limpeza estática SCSF na entrega da bomba.

Sistema de exaustão pela bomba principal MQD.

Introdução do produto MINI FUSION com sistema de dosagem.

Dobrador interno (uno por cesta) para melhor disposição e circulação do tecido.

Molinelo externo aumentado e deslizamento reduzido.

Trocador de calor principal eficientado para tempos reduzidos de aquecimento e resfriamento.

Painel elétrico e dutos de fiação completamente em aço inoxidável.

## Standard equipment

Main circulation pump, high-performance centrifuge with multi-suction system;

Nozzle pressure and liquor circulation control system through dedicated programmer;

Interchangeable fixed nozzle, available in different sizes suitable for every dyeing requirement;

Touch-screen 15" operator panel model CTRL-DYE by TERMOELETTRONICA (other operator panels on request);

Products tank, with pneumatic level probe, heating coil, mixer and conical filter;

High efficiency SPIRAL WASHING for wall washing;

Static self-cleaning filter SCSF on pump delivery

Discharge system by main pump MQD;

Introduction of MINI FUSION products with dose pre-dilution system;

Internal plaiters (one per tank) for better arrangement and circulation of the fabric;

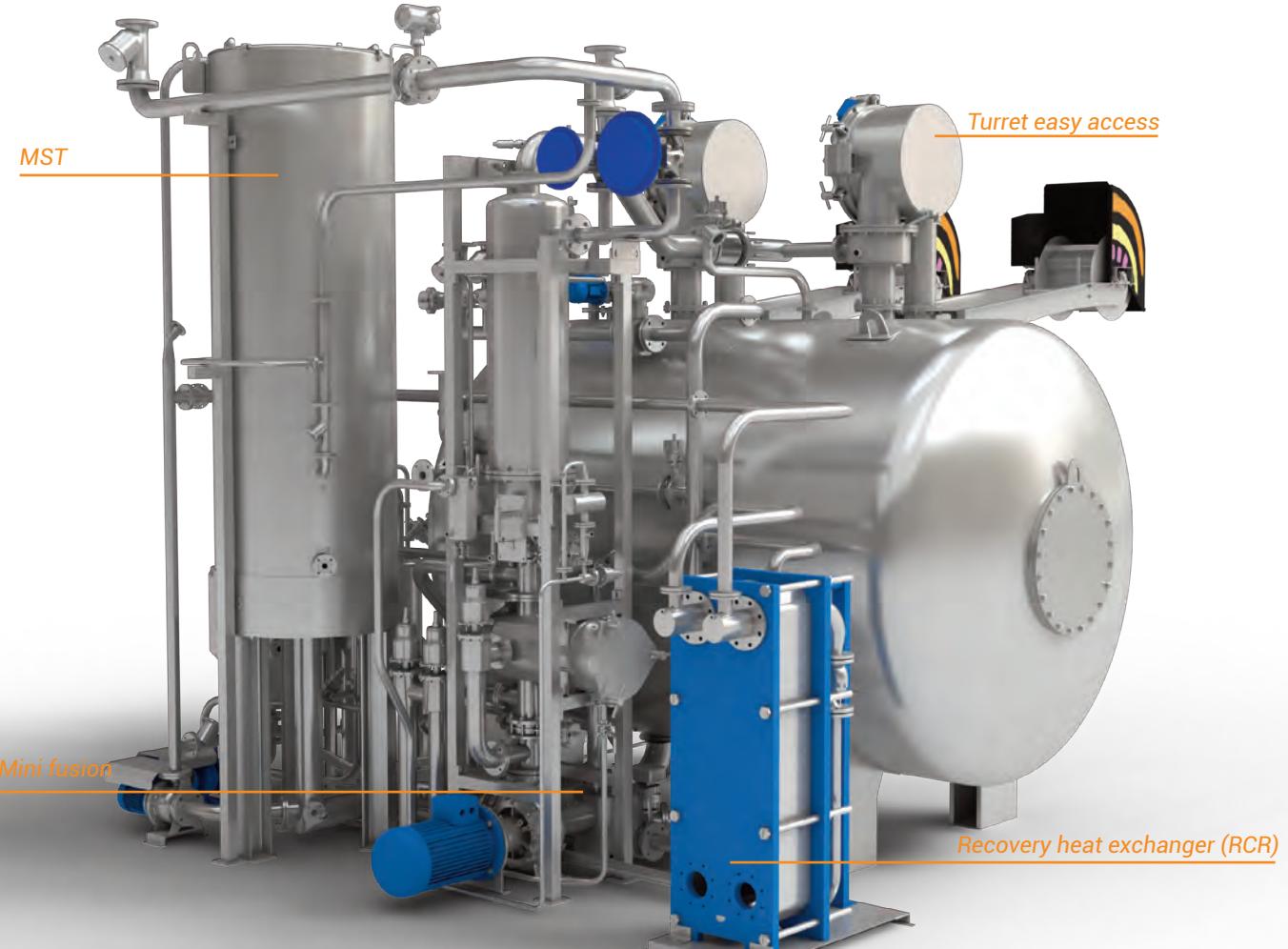
Increased external reel with reduced slippage;

Efficient main heat exchanger for reduction of heating and cooling times;

Electrical panel and wiring ducts completely in stainless steel.

# -30% RUN-TIME

## CHRONOFLOW



The image in figure is to be considered full optional

## Opcional baixo pedido

Tanque de preparação de banho **MST** com sistema de controle/ gerenciamento de nível, bobina de aquecimento e bomba de recirculação.

**Tanque dedicado de sal e ácalis**, com sonda de nível pneumática, bobina de aquecimento, misturador e cortador específico para rápida dissolução.

**SINGLE LYE**: bomba pneumática adicional dosadora alkali. Possibilidade de dosear os produtos presentes no depósito em duas fases distintas que podem ser programadas separadamente.

**Molinelo com abertura lateral de fácil acesso** para substituição e manutenção do injetor.

**RCR: Recuperação de calor** dedicado a reduzir o consumo de vapor.

Controles de pH, condutividade, turbidez e consumo de energia.

**Molinelo inteligente** de descarga por cada corda

Sistema separador da corda dupla ou múltipla

## Optional at request

**MST** bath preparation tank with level control/management system, heating coil and recirculation pump;

**Dedicated salt and alkali tank**, with pneumatic level probe, heating coil, mixer and specific cutter for rapid dissolution;

**SINGLE LYE**: Additional pneumatic product dosing pump for alkali. Ideal for dosing chemicals, available in the side tanks, in two distinct phases that can be programmed separately.

**Turret unit with easy access side opening** for nozzle replacement and maintenance;

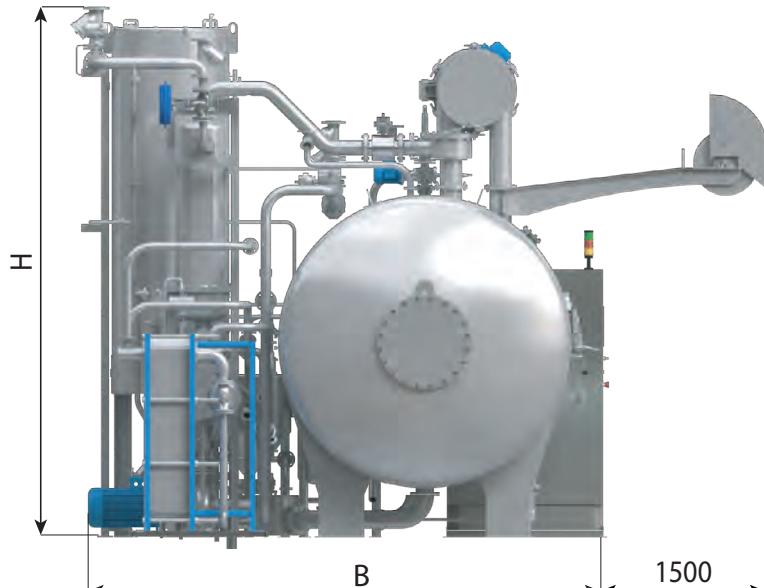
**RCR: Heat recovery heat exchanger** dedicated to the reduction of steam consumption

**Controls for pH, conductivity, turbidity and energy consumption.**

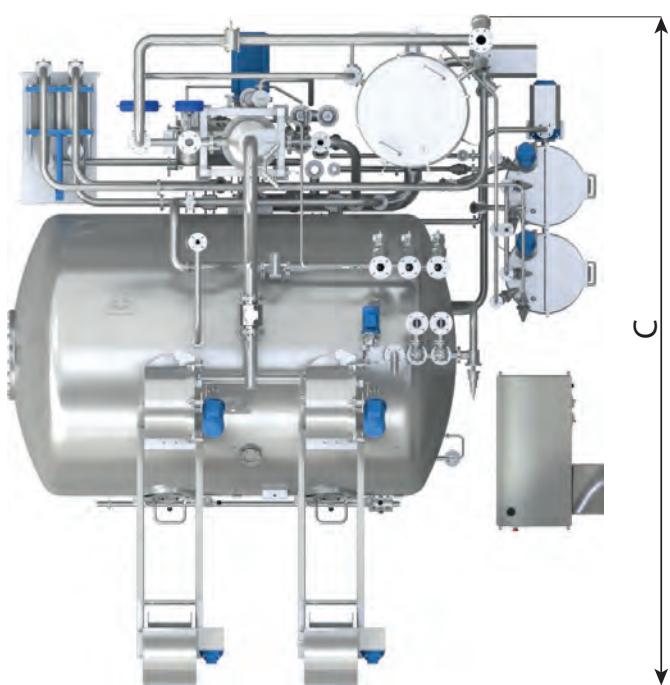
**Single external smart reels**

**Double or multiple rope separator system**

# MODELS DATA



## NOMINAL CAPACITY GUARANTEED



	Loading [Kg]	Ropes [n]	A [mm]	A+RCR [mm]	B [mm]	C [mm]	H [mm]
CRF-1J	200	1	3.100	3.850	3.500	5.000	3.970
CRF-2J	400	2	4.250	4.600	4.100	5.600	3.700
CRF-3J	600	3	5.300	5.500	4.200	5.700	3.800
CRF-4J	800	4	6.450	6.450	4.200	5.700	3.970
CRF-6J	1.000	6	8.500	8.500	4.500	6.000	4.150
	Loading [Kg]	Ropes [n]	A [mm]	A+RCR [mm]	B [mm]	C [mm]	H [mm]
CRF-1XJ	250	1	3.300	3.850	3.500	5.000	3.970
CRF-2XJ	500	2	4.700	4.600	4.100	5.600	3.700
CRF-3XJ	750	3	6.000	5.500	4.200	5.700	3.970
CRF-4XJ	1.000	4	7.300	6.450	4.500	6.000	3.970
CRF-6XJ	1.500	6	10.000	8.500	4.500	6.000	4.150
	Loading [Kg]	Ropes [n]	A [mm]	A+RCR [mm]	B [mm]	C [mm]	H [mm]
CRF-1XXJ	300	1	3.500	4.200	3.500	5.000	3.970
CRF-2XXJ	600	2	5.100	5.100	4.100	5.600	3.700
CRF-3XXJ	900	3	6.600	6.600	4.200	5.700	3.970
CRF-4XXJ	1.200	4	8.200	8.200	4.500	6.000	3.970
CRF-6XXJ	1.800	6	11.300	11.300	4.500	6.000	4.150
	Loading [Kg]	Ropes [n]	A [mm]	A+RCR [mm]	B [mm]	C [mm]	H [mm]
CFR-SJ	300	1	2.900	3.750	3.500	5.000	3.970

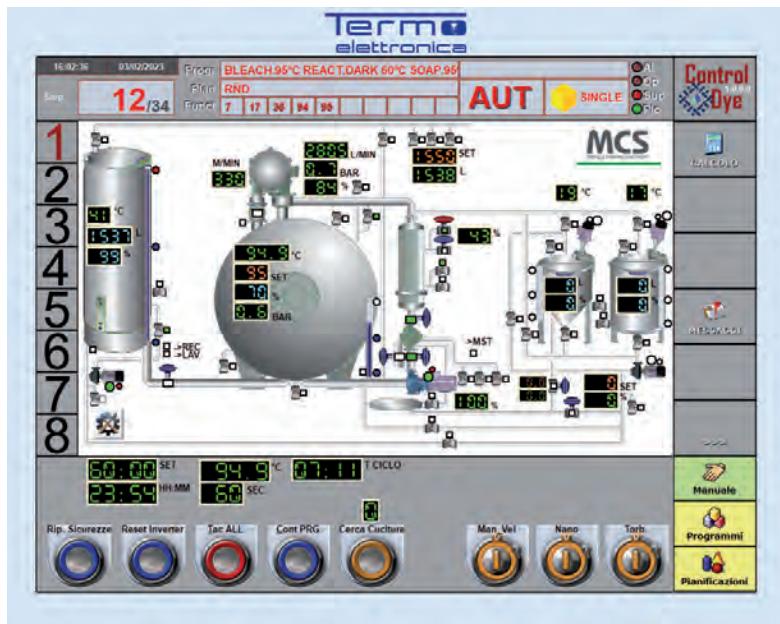
Loading capacity mentioned in this table may slightly vary depending on the type of article considered.

MCS reserve the right to change technical data and specifications without prior notice.

WE REMAIN AVAILABLE FOR ANY TECHNICAL INFORMATION

# CHRONO-AUTOMATION

## CTRL-DYE



Painel de operador desenvolvido no windows para implementar de forma avançada todas as funções de diagnóstico, monitoramento e automação das máquinas de tingimento.

Pantalla toque 15", projetado especificamente para uso industrial: cada função é mais fácil e imediatamente acessível.

A pedido, você pode usar qualquer micro disponível no mercado.

Operation Panel developed in Windows room to improve all diagnostic functions, monitoring and automation of dyeing machines.

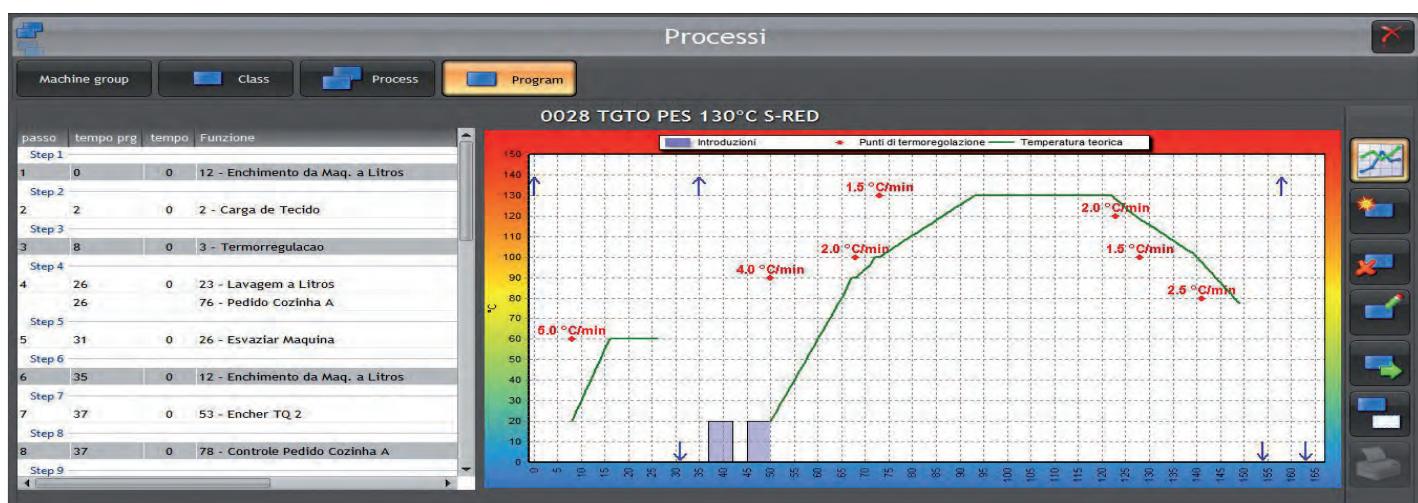
With Touch-Screen 15", purposely designed for industrial use, the access to functions is easy and immediate.

Upon Customer's request it is always possible to install different brands of controllers.

## TEXMANAGER 4.0

Software de gestão de produção integrada que inclui:  
 Gestão do pessoal  
 Optimização dos recursos humanos  
 Gestão de máquinas  
 Gestão de departamentos de produção  
 Gestão de armazéns

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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