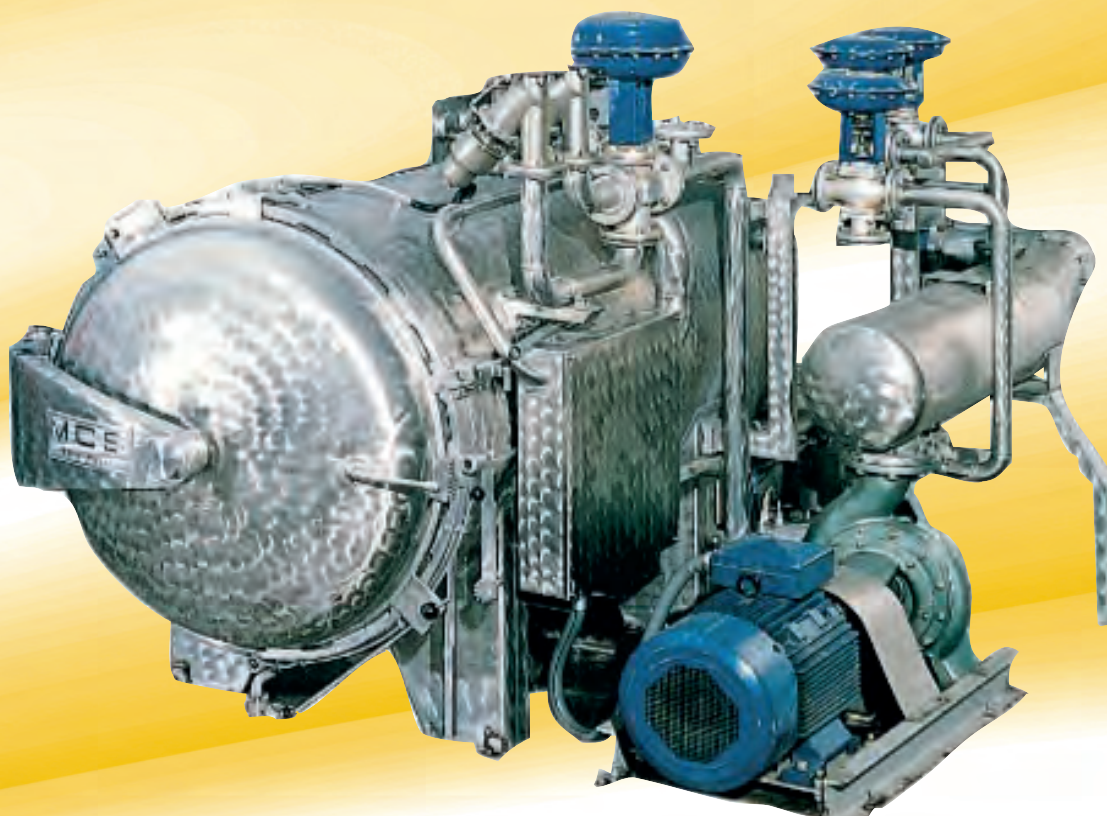


MCS

DYEING & FINISHING MACHINERY

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



SILURO

BEAM DYEING MACHINE

OUR HISTORY



1963

Luigi Chiappini, Angelo Cagnazzo e Roberto Sopegno fundam a MCS. Luigi Chiappini como presidente.

Luigi Chiappini, Angelo Cagnazzo e Roberto Sopegno founding MCS. Luigi Chiappini is the Chairman of the Board.

1964

MCS inicia as atividades para produção de acessórios para máquinas de tingir.

MCS begins its activity with the production of accessories for dyeing machines.

1967

MCS produz a primeira máquina de tingir em corda para baixa temperatura.

MCS manufactures the first low temperature rope dyeing machine.

1968

Início das atividades da Europizzi tinturaria, estamperia, produção de produtos auxiliares, do grupo MCS. *Europizzi begins its activity, dyeing, printing, producer of auxiliary products within MCS group.*

1971 ITMA - Paris

MCS exhibe do primeiro modelo de jet para baixa temperatura.

MCS exhibits the first low temperature jet model.

1974

MCS i inicia os estudos de engenharia para linhas em aberto.

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

1979 ITMA - Hannover

MCS exhibe: Jet HT, overflow MO/80 BT y MRS65.

MCS exhibits: Jet HT, Overflow MO/80 LT, MRS65.

1980

Início das atividades da **Europea**, tinturaria, resinação, do grupo MCS.

Europea activity begins, group dyeing and resining company.

1983 ITMA - Milan

MCS exhibe: mercerizadeira tubular MT26, soft flow SF82 BT/HT, flow/jet OF83 y Combyjigger

HT, linha de lavagem em corda WR.

MCS exhibits: tubular mercerizer MT26, Soft Flow SF82 LT/HT, Flow/jet OF83, Comby Jigger HT, rope washing machine model VVR.

1987 ITMA - Paris

MCS exhibe Pandora.

MCS introduced Pandora.

1991 ITMA - Hannover,

MCS exhibe: Tumbler Tornado, Maxi & Mid Jigger, Lavaprint.

MCS exhibits: Tornado Tumbler, Maxi & Mid Jiggers, Lavaprint.

1995 ITMA - Milan

MCS exhibe: Soft Flow, Long Horn, Lixadora Pumex.

MCS exhibits: Soft Flow, Long Horn, fabric wet sueding machine Pumex.

1999 ITMA - Paris

MCS exhibe: Multiflow, Soft Flow Evolution SF100, Combi Jigger eletrônico.

MCS exhibits: Multiflow, Soft Flow Evolution SF100, Comby electronic Jigger.



MCS SpA está no comando de um grupo mecano-textil que iniciou suas atividades no fim dos anos 60.

MCS SpA is the leader of a group of companies in the textile machinery industry, starting their activity at the beginning of the '60s.

ISSO INCLUI:

- **TERMOELETRONICA** que produz instalações para automação industrial (dosagens automáticos) e sistemas de controle.
- **EUROPIZZI**, tinturaria, estamperia, enobrecimentos, acabamentos e produção de auxiliares químicos para indústria têxtil e outras. A produção diária pode alcançar 30 toneladas de malha e 50.000 metros de tecidos urdidos.

No catalogo MCS-Termoelettronica constam:

- Máquinas de tingir em corda para alta e baixa temperatura
- Máquinas de tingir em aberto (Jigger e autoclaves) para alta e baixa temperatura
- Sistemas de controle processo
- Linhas de preparação e lavagem em corda
- Linhas em aberto para mercerização, alvejamento e lavagem de tecidos em malha e ortogonais
- Instalações para dosagens auxiliares químicos
- Instalações para dosagens pós para tinturaria-estamperia
- Instalações para dosagem sal
- Sistemas SW de automação

MCS GROUP INCLUDES:

- Termoelettronica manufacturer of industrial automation systems (automatic dosing) and control systems.
- Europizzi, dye-house, printing-house, finishing and producer of chemical auxiliaries for the textile industry and other application fields. Daily production at Europizzi is 30 tons of knits and 50.000 metres of woven fabrics.

The catalogue of MCS-Termoelettronica machines includes:

- Rope dyeing machines at high and atmospheric temperature
- Open-width dyeing machines (jiggers and beam dyers) at high and atmospheric temperature
- Systems for process control
- Preparation and washing ranges in rope form
- Open-width ranges for mercerising, bleaching and washing of knitted and woven fabrics
- Dosing systems for chemical auxiliaries
- Dosing systems of powders for dye-house and printing-house
- Dosing systems for salt
- SW systems for automation

2000

MCS adquire 100% de participação na Termoelettronica.

MCS acquires 100% of Termoelettronica ownership.

2003 ITMA - Birmingham

MCS exhibe: Multiflow Superior, Ecoturbo Beam Dyeing Machine.

MCS exhibits: Multiflow Superior, Ecoturbo Beam Dyeing Machine.

2005 IKME - Milan

Prototipo da Universal Dyeing e da VDA.

Prototypes of Universal Dyeing and of the VDA.

2007 ITMA - Munich

MCS exhibe: Universal Dyeing, First Vento, Tumbler Mistral, sistemas de controle de processo Coltex e VDA.

MCS exhibits: Universal Dyeing, First Vento, Tumbler Mistral, process control systems Coltex and VDA.

2008

Reengenharia de todos os modelos de Jigger

para alta e baixa temperatura.

Redesigning of all high and low temperature Jigger models.

2009

Lançamento e comercialização máquina de tingir em corda horizontal "Italica".

Presentation and sale of orizzontal rope dyeing machine model "Italica".

2011 ITMA - Barcellona

MCS exhibe: Dynamica, Star Wash, Comby Jigger, Supervisor Texmanager.

MCS exhibits: Dynamica, Star Wash, Comby Jigger, Supervisor Texmanager.

2013

MCS comemora 50 anos de atividade dando partida a sua maior linha de preparação em tecido aberto construída até hoje (Purga-Lavação-Alvejamento) e fazendo o lançamento do Smartflow.

MCS celebrate their 50th anniversary by starting the biggest open-width preparation line in their history (scouring-bleaching-washing) and by introducing the new HT round dyeing machine, Smartflow.

2014 ITMA - Shanghai

MCS exhibe a evolução da gama de lavagem Starwash FS, ideal para la purga.

MCS exhibits evolution of Starwash washing range, ideal for scouring and after print washing.

2015 ITMA - Milan

MCS exhibe: Multiwash, Dynamica Sprint, Starwash FS.

Termoelettronica

exhibits: Termpowder XP, Texmanager XP, Termochem XP.

MCS exhibits: Multiwash, Dynamica Sprint, Starwash FS.

Termoelettronica exhibits: Termpowder XP, Texmanager XP, Termochem XP.

2019

MCS exhibe: Lavaprint Next (Starwash + Multiwash), Dynamica Sprint, Mini Jigger 98

MCS apresenta: C4 Comby Jigger 143; Soffflow 18-HT.

Termoelettronica espone: Termochem XP, Texmanager.

MCS exhibits: Lavaprint Next (Starwash + Multiwash), Dynamica Sprint, Mini Jigger 98

MCS introduces: C4 Comby Jigger 143; Soffflow 18-HT.

Termoelettronica exhibits: Termochem XP, Texmanager.

SILURO

HT BEAM DYEING MACHINE

A máquina de tingimento de abertura larga com jacto a alta temperatura é de comum e vasta utilização no sector têxtil. A MCS oferece uma máquina actual e fiável numa vasta gama de modelos de acordo com diferentes exigências tecnológicas e de produção.

SILURO permite tingir artigos em tecido sintético, de 100% Poliéster e 100% Poliamida, de malhas rectilíneas com cachemira de Seda Artificial/Poliamida; ou 100% Poliamida e também artigos de Algodão/Poliéster; rendas de Poliamida 100%; malhas elásticas de Poliamida/Licra, etc.

The beam dyer for open width dyeing at high temperature is widely used in the textile industry. MCS can offer an up-dated and reliable machine in a wide range of models according to different technologic and production needs.

A big variety of articles can be dyed in **SILURO** machine synthetic fabrics 100% PES and 100% PA, warp-knits such as cashmere AC/PA or 100% PA, COT/PES articles, 100% PA lace, PA/LYCRA elastic knits, etc.

TECNICAL DATA

- Relação mínima da solução líquida 1:5
- Jacto simples ou duplo de diâmetros diferentes
- Reservatório de expansão aberto (ou fechado pressurizado)
- Aquecimento por jacto, óleo diatérmico ou água aquecida, através de um permutador de calor externo.
- Controlo automático da pressão da bomba interior/exterior
- Regulação totalmente automática com PC industrial PCx-TEX, da Termoelectronica
- Preparado para cozinha de tingimento computadorizada
- Sistema de dosagem de álcali
- Sistema de purga rápida da solução líquida, modelo MQD
- 2º reservatório auxiliar de produtos, com sondas pneumáticas de nível e misturador

- Minimum liquor ratio 1:5
- Single and/or double beams of different diameter
- Expansion tank, open or pressurised
- Heating by steam, diathermic oil or overheated water, through an external heat-exchanger
- Pump pressure with automatic control inside/outside
- Micro touch-screen by Termoelectronica model PCx-TEX
- Pre-arrangement for computerised dyestuff-kitchen
- Product dosing system.
- Drain by main pump, mod. MQD
- 2nd side tank for products, with pneumatic level probes and mixer

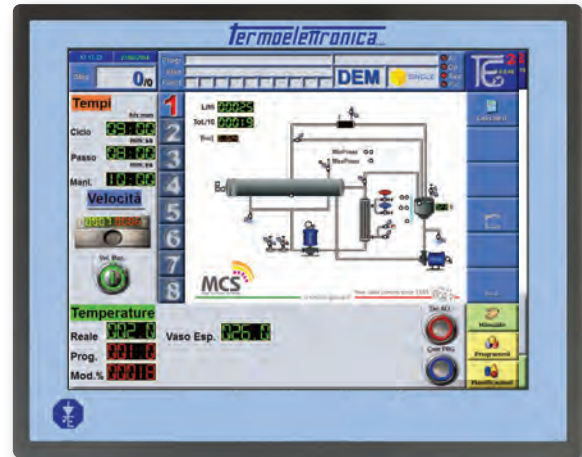
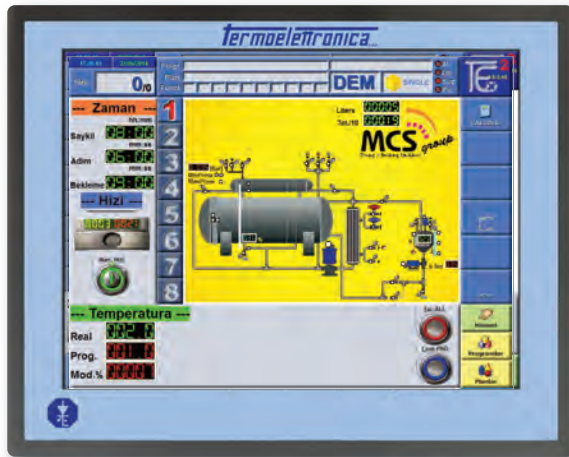


Add Tanks



Big production machines

STANDARD AUTOMATION



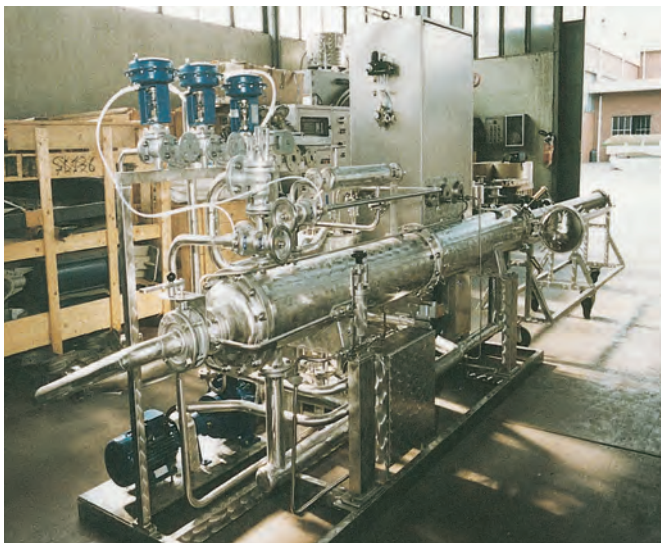
PCx: PC industrial desenvolvido em ambiente Windows para melhorar todas as funções de diagnóstico, monitorização e automatização das máquinas de tingimento. Com ecrã táctil, especificamente concebido para utilização industrial, de acesso fácil e rápido às funções.

A pedido do Cliente é sempre possível instalar controladores de marcas diferentes.

PCx: industrial PC developed in Windows room to improve all diagnostic functions, monitoring and automation of dyeing machines. With Touch-Screen, 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.

Tecnologia MCS



Sample machine

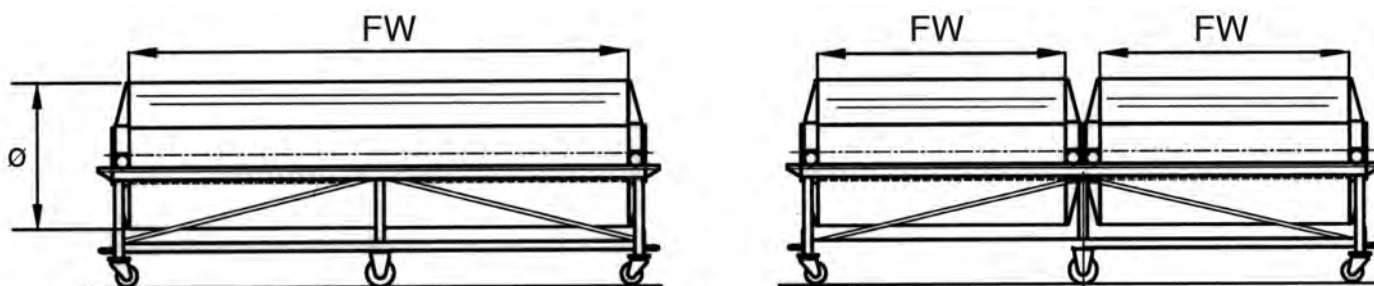
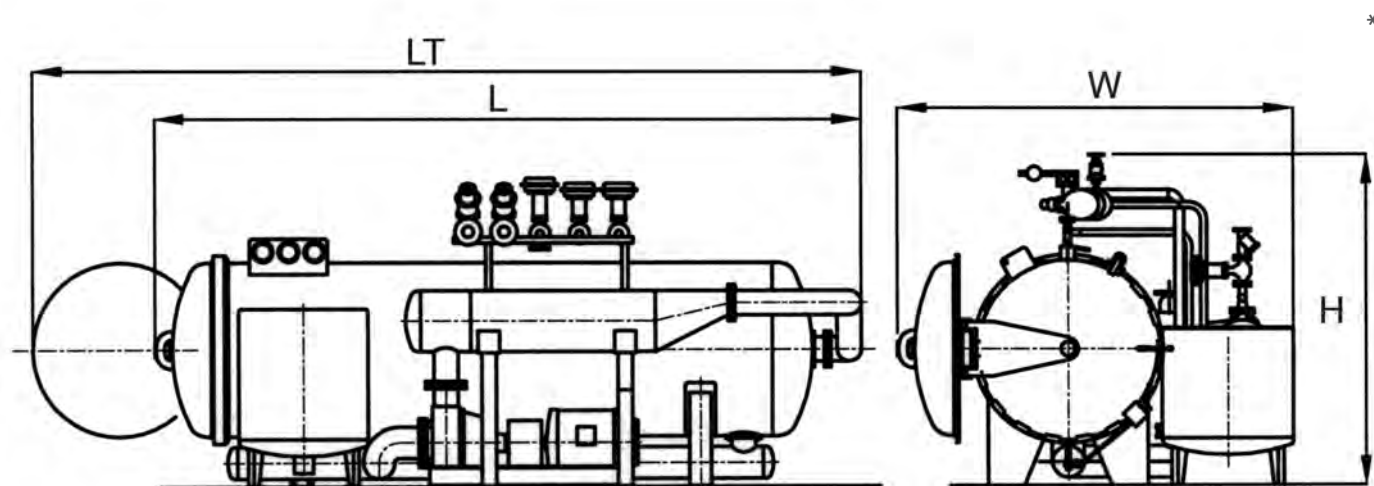


MCS technology

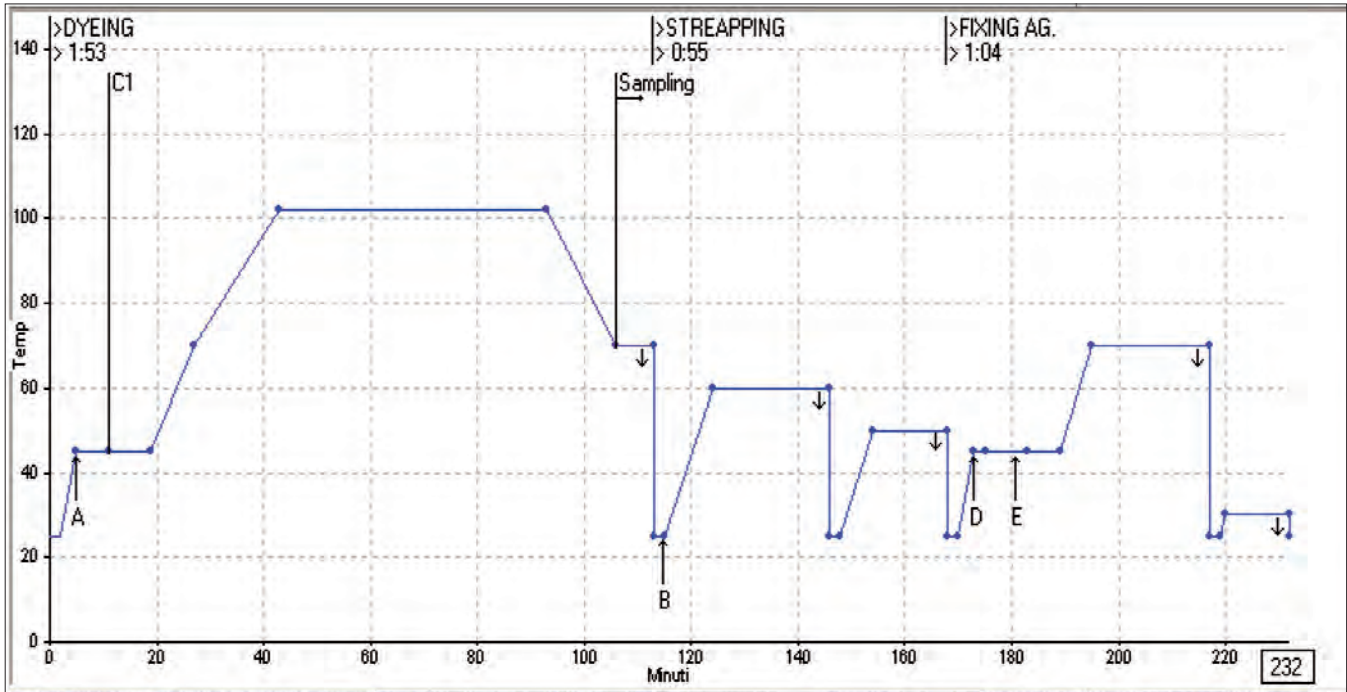
REAL
MADE IN
ITALY

MODELS DATA

Beam Dyer HT 143°	AT 08/273	AT 09/650	AT 10/856	AT 11/1027	AT 12/1200	AT 13/1400	AT 14/1600
<i>FW [mm]</i>	1600; 1800; 2000; 2200; 3200; 4200	1600; 1800; 2000; 2200; 3200; 4200	1600; 1800; 2000; 2200; 3200; 4200	1600; 1800; 2000; 2200; 3200; 4200	1600; 1800; 2000; 2200; 3200; 4200	1600; 1800; 2000; 2200; 3200; 4200	1600; 1800; 2000; 2200; 3200; 4200
<i>Beam Ø [mm]</i>	200	530	740	910	1080	1280	1490
<i>W [mm]</i>	1200	1900	2200	2400	2750	3000	3500
<i>H [mm]</i>	1800	2000	2000	2000	2500	2500	2850
<i>L [mm]</i>	3000	3350	3550	3650	3900	4000	4100
<i>LT [mm]</i>	3300	3750	4100	4500	4700	4900	5200



DYEING REPORT



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

FABRIC FEATURES AT14-4200 (Double Beam)	
Article	KNITTED FABRIC
Composition	80% PA 20% LY
Colour	BLACK
Weight [gr/m]	280
Weight [gr/m ²]	180
Width [cm]	155
Lot [Kg]	1020
Lot [m]	3640
Preparation	Pre Setting
Finishing	Stenter
Remarks	=

MACHINE REGULATION AT14-4200 (Double Beam)	
Delivery regul. circul. pump	1050
Internal pressure [bar]	4,2
External pressure [bar]	3,1
Thickness [mm]	34
Beam diametre [mm]	600
Liquor ratio [l/Kg]	6,2
First filling [l]	6400
Next. fillings [l]	5100

RESULTS	
Water consum. [l]	26800
Water per kg fabric [l/kg]	26,27
Steam consum. [Kgs]	2885
Steam fabric [Kgs/Kg]	2,82
Energy kg fabric [Kw/Kg]	0,105
Real time [1']	232
Program N.	00-362

DYESTUFF	
C	Acid Dyestuff

AUXILIARES	
A	Levelling agent + Buffer
B	Sodium Hydrosulfite + Soda ASH
D	Acetic Acid
E	Fixing Ag.

Please take note that technical data may be changed by MCS spa to improve the quality of the offered product.



FEEL THE POWER OF WATER

DYEING & FINISHING MACHINERY



MCS

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