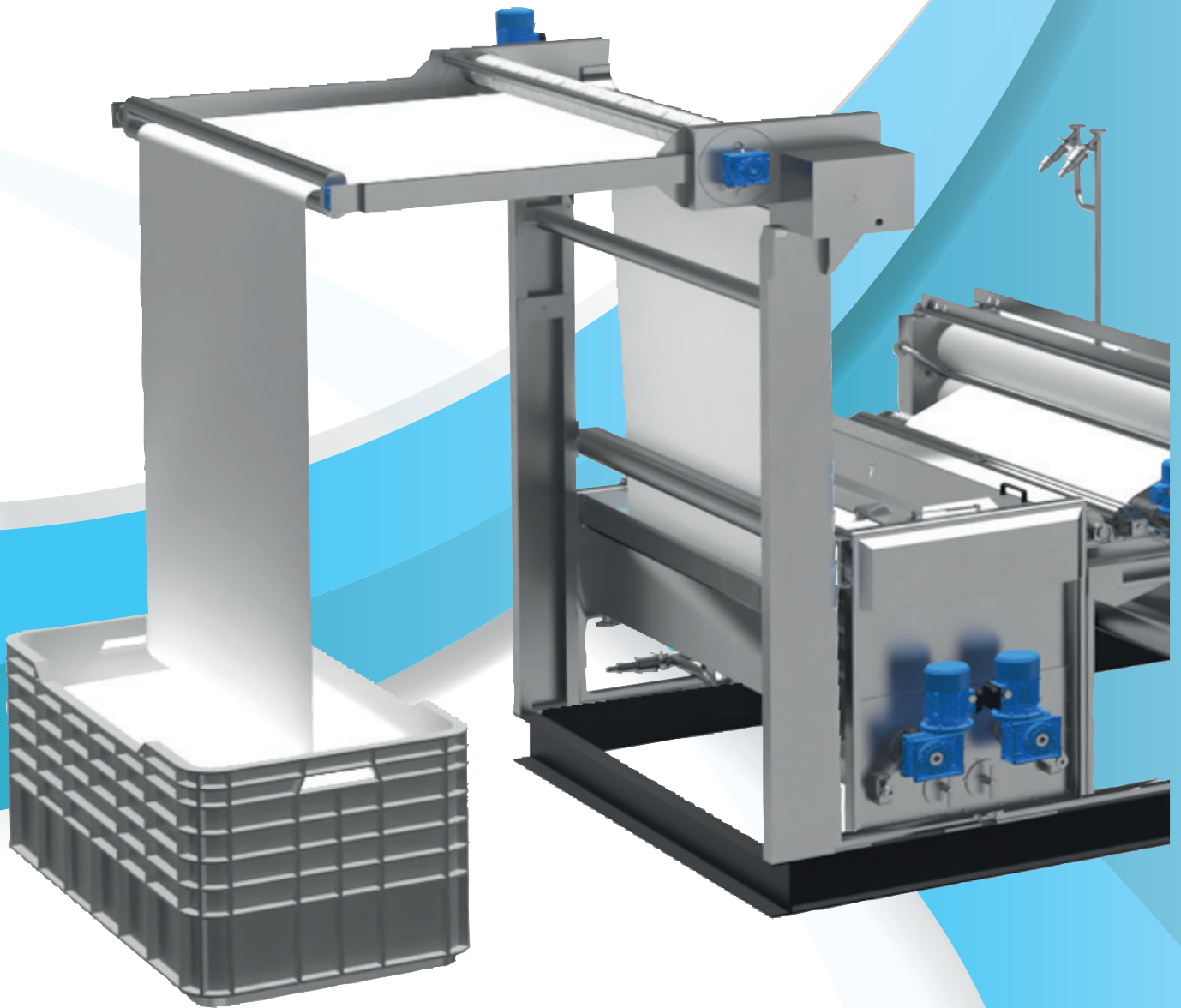


# MCS

DYEING & FINISHING MACHINERY



## STARWASH FS

OPEN-WIDTH TENSION-LESS SCOURING BOX



# OUR HISTORY



## 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,  
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.



# STARWASH FS

## OPEN-WIDTH TENSION-LESS BOX SCOURING

**STARWASH FS** (Fast Scouring) ha sido diseñado para purgar de manera continua la termofijación, para reducir la cantidad de aceite presente en los tejidos elastizados y poder prepararlos mejor para las siguientes fases de elaboración.

Los aceites a eliminar son, principalmente, las siliconas procedentes de los elastómeros y los minerales utilizados como lubricantes en la tejeduría. Estos aceites, quemando a las altas temperaturas de la termofijación, se eliminan de manera irregular y crean zonas de absorción diferentes dentro del tejido.

Reducir y uniformar estos aceites en la superficie del tejido se convierte, por lo tanto, en una operación fundamental, a realizar antes del tratamiento térmico. Un tejido que ya ha sido termofijado y purgado de manera discontinua en una máquina de tintura tendrá características cualitativas inferiores, además de un coste de elaboración más alto.

**Starwash FS** está completamente diseñado y construido MCS. Cada nuevo modelo esta probado y expuesto, en nuestro departamento de investigación y desarrollo "Blue Área" integrado en la tintorería del grupo MCS

**STARWASH FAST SCOUR** has been designed for scouring in continuous with heatsetting, in order to reduce the quantity of oil present in elastic fabrics and to prepare the fabrics to subsequent processings.

Oils to be eliminated are mainly silicones coming from elastomers and minerals used as lubricants in weaving. Such oils, burning at high temperatures during heatsetting, are eliminated unevenly and create areas with different absorptions inside the fabric itself.

Reduce and make these oils even on the surface of the fabrics becomes a fundamental operation to be carried out before heat-setting. Heat-set fabrics, scoured in a discontinuous machine will have inferior qualities, as well as more expensive processing costs.

**Starwash FS** is entirely engineered and built in MCS.

*Each new model is tested and exhibited, in our R&D department "Blue Area" integrated into the MCS group's dye-house MCS.*

### HISTORIA DE LAS LÍNEAS EN CONTINUO MCS

- 1974 MCS inicia el diseño y desarrollo de las líneas de lavado
- 1983 ITMA - Milano: expone la primera gama para el lavado de cuerda WR
- 1991 ITMA - Hannover: MCS expone la primera gama de lavados combinados LAVAPRINT
- 2011 ITMA - Barcellona: MCS expone la gama de lavado de tambor STARWASH
- 2015 ITMA - Milano: MCS expone la primera gama de lavados de cuerda compactos MULTIWASH y STARWASH FAST SCOUR
- 2019 ITMA - Barcellona: MCS presenta STARWASH-EVO
- 2023 ITMA - Milano: MCS expone la primera gama de lavados de cuerda y modulares y reconvertibles MULTIWASH-M

### HISTORY OF CONTINUOUS LINES MCS

- 1974: MCS begins the design and development of the open-width lines.
- 1983 ITMA - Milan: MCS exhibits the first rope waching range WR
- 1991 ITMA - Hannover: MCS exhibits the first combined washing range LAVAPRINT
- 2011 ITMA - Barcelona: MCS exhibits the drum washing range STARWASH
- 2015 ITMA - Milan: MCS exhibits the first compact washing range MULTIWASH and STARWASH FAST SCOUR
- 2019 ITMA - Barcelona: MCS exhibits the STARWASH-EVO
- 2023 ITMA - Milan: MCS exhibits the first modular washing range MULTIWASH-M

# STARWASH FS

## OPEN-WIDTH TENSION-LESS SCOURING BOX

**STARWASH FAST SCOUR** es la caja de purga innovadora de MCS, ideal para fibras sintéticas y naturales, también con un contenido elastomérico elevado. Modular y compacto, permite procesar tejidos tanto de punto como a plano, gracias al sistema patentado **OVERFLOW & BUBBLE SYSTEM**.

**STARWASH FAST SCOUR** is the innovative scouring box by MCS, ideal for synthetic and natural fibers with high percentage of Lycra. Modular and compact, it allows to process knitted and woven articles as well thanks to patented **OVERFLOW & BUBBLE SYSTEM**.

# ELIMINATION OILS TO PROTECT THE ENVIRONMENT





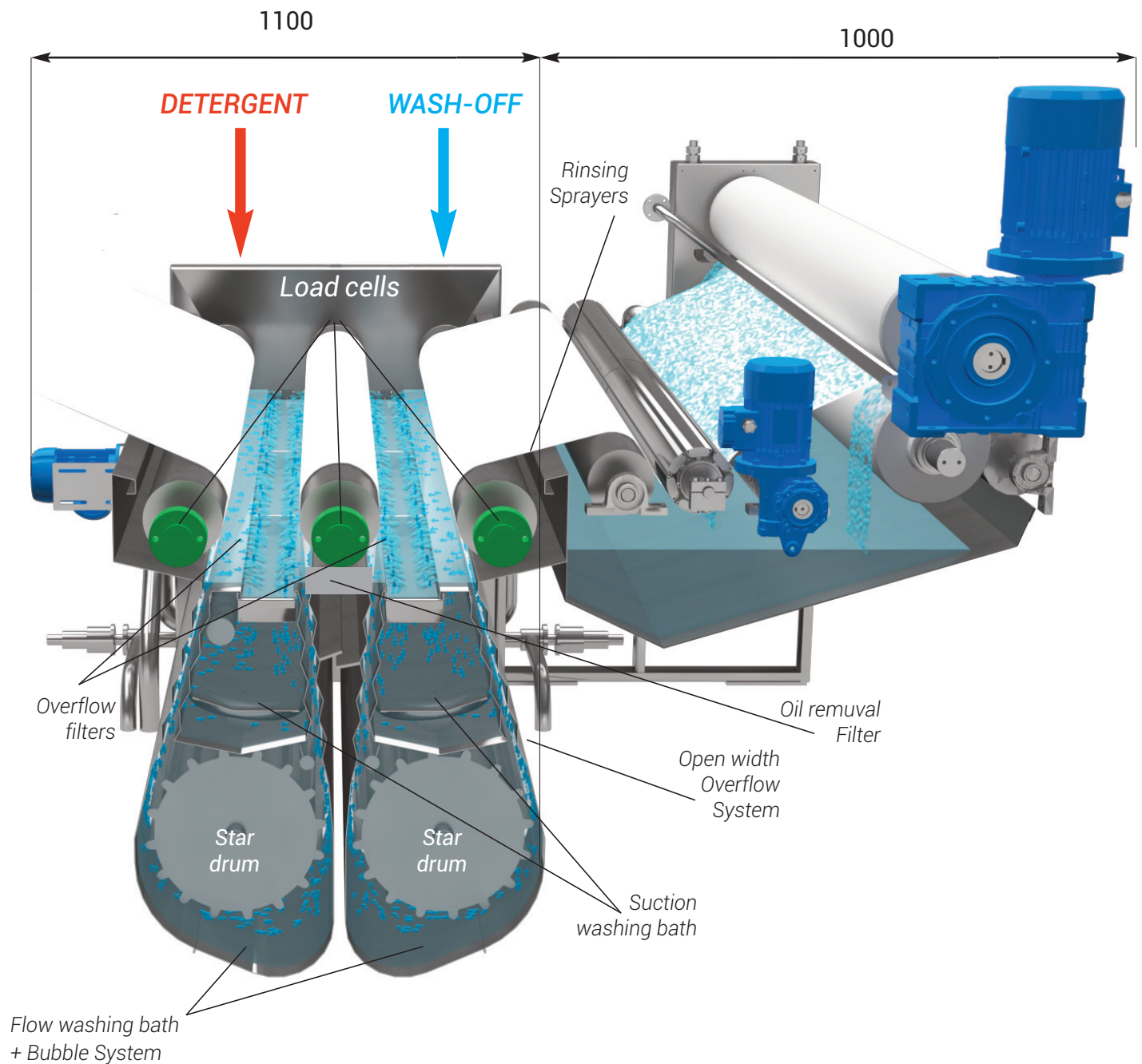
# TECHNICAL DATA

El transporte del tejido se realiza a través de dos tambores motorizados internos con grandes dimensiones, tres cilindros de transmisión sobre los cuales se montan celdas de carga y un foulard exprimidor.

La recirculación interna del baño forzado de lavado y la presencia de pulverizadores, permiten, al mismo tiempo, un gran impacto de lavado, una gran delicadeza en las fibras más sensibles y la eliminación completa de los detergentes usados en el proceso de purga. Los aceites residuales se eliminan gracias a un filtro especial.

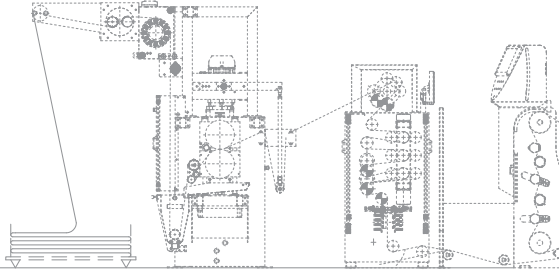
*Fabric runs thanks to two big-size driven drums , three transmission rollers on which load-cells are installed, and then a squeezer.*

*Inner circulation of forced liquor and sprayers guarantee a remarkable washing impact and, at the same time, an extremely delicate action on more sensitive fibres and complete removal of detergents used during scouring process. Removed oils are eliminated by means of a special filter.*

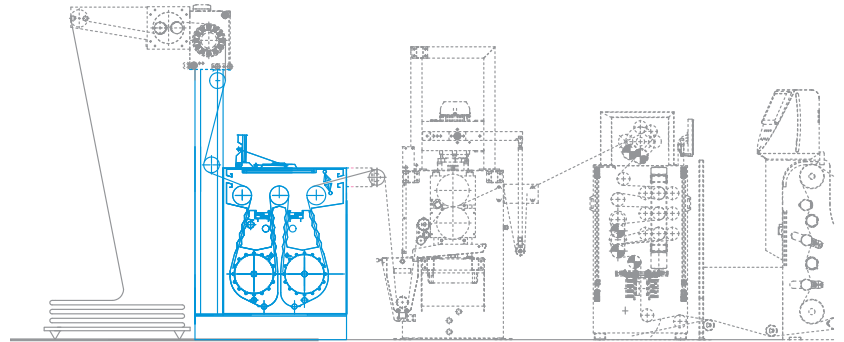


# LAYOUT EXAMPLES

## SOLUTION 1

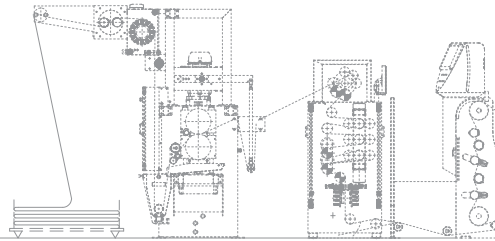


Original Customer Configuration

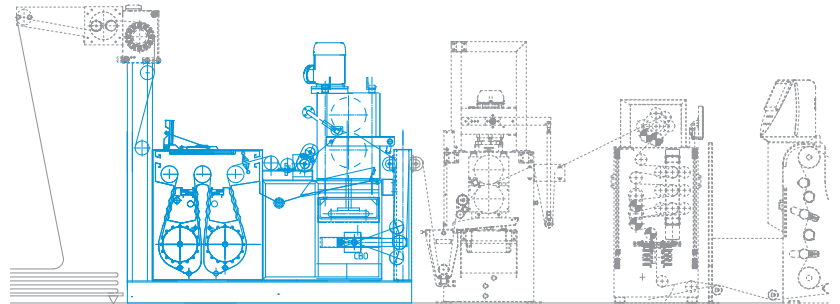


MCS Suggest: Only Starwash FS

## SOLUTION 2

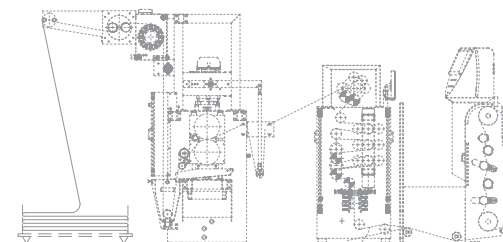


Original Customer Configuration

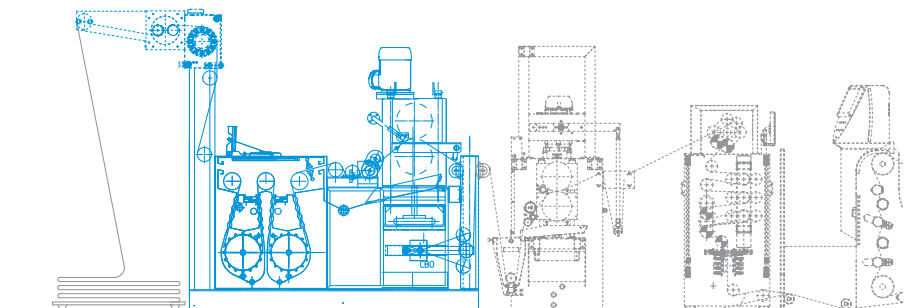


MCS Suggest: Starwash FS + Expanders + 10 tons squeezer

## SOLUTION 3



Original Customer Configuration

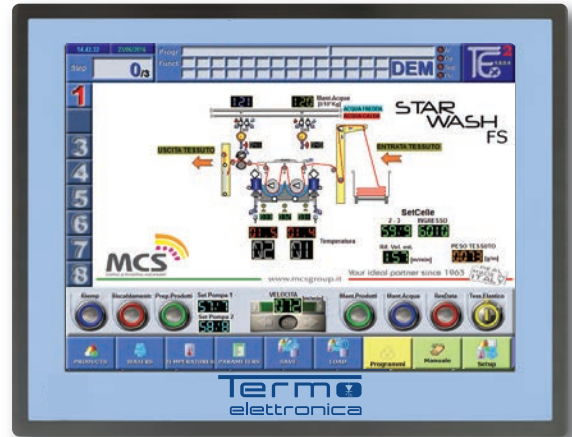


MCS Suggest: Fabric width dogal inlet + Starwash FS + Expanders + 10 tons squeezer

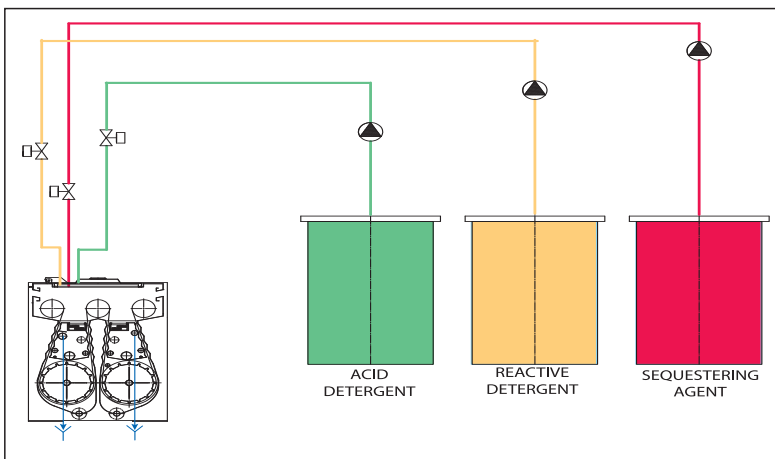
## CTRL-WASH operation panel

CTRL-WASH next gen Windows 10 IOT con pantalla táctil capacitiva y nuevo software de control TECOP que presenta una interfaz gráfica totalmente rediseñada con sinóptico dinámico en gráficos vectoriales.

CTRL-WASH next gen windows 10 IOT with capacitive touch screen and new automation software TECOP bringing a completely new graphical interface, dynamic synoptic and vectorial graphics.



## CONT-DOSING Dosing of pure products and water control in a washing line



El sistema CONT-DOSING es un sistema gestionado por un PC en comunicación con un PLC; puede controlar hasta 8 bombas dosificadoras y controlar hasta 8 entradas de agua. Las bombas dosificadoras usadas son de émbolo neumático de doble efecto: la frecuencia de control se calcula de manera que se eviten los cambios bruscos y la concentración del baño.

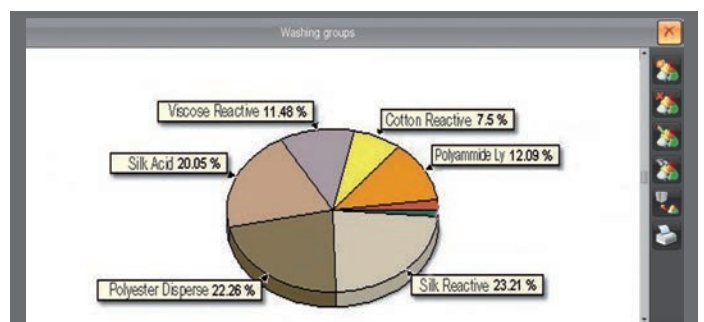
The CONT-DOSING system is a system managed by a PC communicating with a PLC which can control up to 8 dosing pumps and 8 water inlets.

Installed dosing pumps are with pneumatic piston at double effect. Pump control frequency values are calculated so as to avoid sudden changes in the concentration of the bath.

## TEX-LINE 4.0 Software integrated for washing lines

- Gestión de parametros de la línea
- Gestión de la planificación
- Control de datos en tiempo real de la máquina
- Base de datos de artículos

- Parametrization Handling
- Batches Handling
- Real time machines supervising
- Fabrics database



# FEEL THE POWER OF WATER

DYEING & FINISHING MACHINERY



**MCS**

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