# Equipment Catalog Flexo



# Index

# **Quality Control Solutions**

High precision products are essential to obtain reliable results and avoid unnecessary waste of printing material

- Table for color and quality control
- Plate mounter

# **Transport and Storage Solutions**

Safety devices for handling and maintenance are the first step for achieving production objectives

- Reel handling trolley (mail
- Trolley for sleeves
- Sleeve storage system
- Vertical storage system for Trolley for storage and ma

# **Washing Solutions**

Automatic and meticulous washing systems to guarantee excellence, enhancing performance and improving savings in time and material resources

- High pressure washing ur
- Ultrasonic washing unit for
- Laser washing unit for ani
- Plate washer

Appendix - Technical Specifications

Your printing machine is only the starting point

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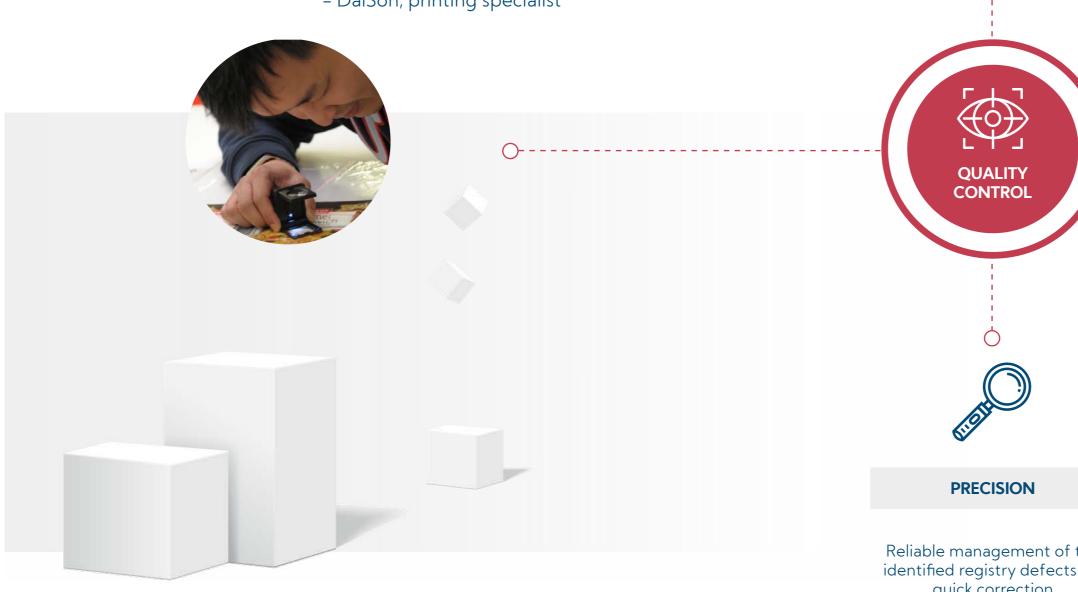




Reliable management of the identified registry defects for quick correction

Every detail counts in printing. Quality control devices are helpful in each step of the production, **because** nothing can be left to chance."

- DaiSon, printing specialist



# **Quality Control Solutions**



#### **SATISFACTION**

Guarantee of excellent quality that enhances the value of the client's product



#### **EFFICIENCY AND SUSTAINABILITY**

Immediate achievement of the desired results and significant reduction of defected batches





# Table for color and quality control



High-quality printing through expert check of print samples next to the production area

The light table is equipped with two normalized light sources at 5000°/6500° Kelvin (as per country standards) that allow the correct display of the color of the print, both in transparency and in reflection.

The side walls prevent interferences of external light when viewing the sample.

The presence of six drawers underneath the control area allows the filing of important original documents and other tools for printers.

### **BENEFITS**

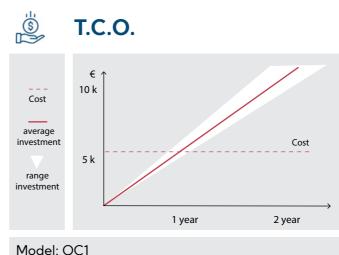
- Fast and highly reliable quality control
- Quality control in compliance with ISO standard
- Transportable from a machine to another



## **FEATURES**

#### Precision

- No shadows and light reflections
- · Low influence of external light
- Normalized Neon D50/D65 lights for correct spectral emission
- · Worktable dimensions for perfect fit of any size of printed support



\* Technical details follow pag. 32

## **Quality Control Solutions**

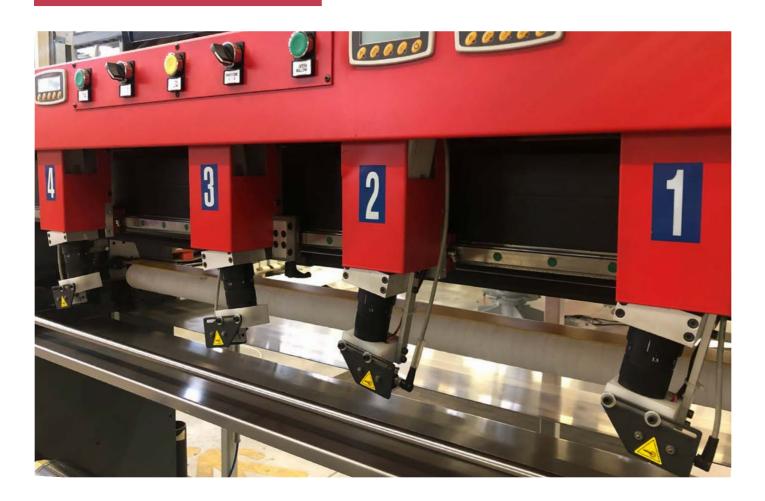
• Easy access to samples, documents and tools thanks to the chest of drawers

#### **Assumptions:** without vs with

- Distance from table to machine: reduce approx. 2 min per check
- Hourly rate: 30€/h
- Save flawed printing material: 2 reels/yr.



# **Plate mounter**



# Smart and effortless focus for correct positioning of plates

Manual or automatic device for direct mounting of flexographic plates on cylinders and sleeves thanks to the integration of computer-controlled cameras.

The plate mounters allow to reach high productivity and flexibility: the cameras, combined with the software and the proof system, enlarge the marks for point-to-point registration, decreasing the margin of error.

The complete selection of plate mounters is available for all printing ranges and repeats.



#### BENEFITS

- Fast set-up times
- Reduced printing downtime
- Extreme precision
- Repeatability of assembly and stability



## **FEATURES**

#### Precision

- Software interface for greater flexibility
- Self-adaptive system with self-learning mode for perfect focus
- No plate positioning constraints
- air bubbles
- High resolution monitor for perfect visibility and easy register control
- in the desired position
- · Digital moving cameras with centesimal resolution

#### T.C.O. € ⁄ Automated mode cost 150k Cost average 100k Manual mode cost nvestment range 50 1 year 2 year

#### Model: QC2, QC3, CQ4, CQ5, CQ6

\* Technical details follow pag. 33

## **Quality Control Solutions**

• No operator intervention thanks to automation and intelligent adaptation

· Pneumatically controlled gluing roller to achieve firm assembly without tension or

• Support table equipped with control photocell for automatic locking of the table

Assumptions : without vs. manual and automated Plate change: 108/day Hourly rate: 30€/h

- Time savings: 10 min/change
- Reel cost: 700€ •

# **Transport and Storage Solutions**

**G** From my experience, transport and storage are crucial for efficient job changes. The correct preservation of extractable components is essential for printing quality."

- Dennis, printing expert





Smart, safe and expandable storage over time, with consequent enhancement of underused space









Increased safety of personnel involved in the operations of extraction, storage and insertion of sleeves and doctor blades



#### PRESERVATION

Improved life-cycle of removable components thanks to the protective surfaces against scratches and ovalization





# **Reel handling trolley**



Reels transportation for faster and safer handling operations

The trolley is designed to facilitate operators in the frequent handling and lifting operations of the reels, improving safety within the working environment. Its use will reduce set-up time during the production phase. Hndling and lifting can be manual and/or electric, depending on the chosen model.

The reel-holder cradle is designed to hold even the largest and heaviest reels and it can be equipped either with a tilting or lateral translation system, as per customer's request.

## **BENEFITS**

- Easy to use
- Efficiency and safety in mechanical lifting and transport operations
- · Versatility in handling and lifting the bulkiest reels
- Safe operations
- · Customizable, as per customer's request



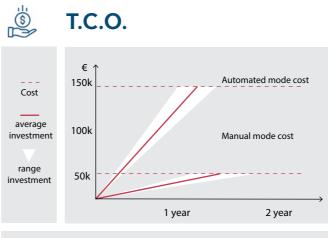
## **FEATURES**

#### **Easy handling**

- · Safe and reliable during delicate handling operations
- Ergonomic and easy control

#### Operativity

- Fast and automatic, for quick and safe set-up
- Shorten downtime and job change



Model: TS1, TS2

\* Technical details follow pag. 34

Assumptions : common transpallet vs. manual and automated

- Time saving: 3000€/yr.
- Reduction of possible injuries: 2000€/yr. •



# **Trolley for sleeves**



Ergonomic handling and transport for protection of the sleeves

The sleeve trolley is a solid construction for handling, temporary storage and transport of plate sleeves and anilox. Its pivoting wheels for manual handling allow safe, easy and quick movement in the production area to facilitate operators.

The trolleys can be coupled one to another and pulled by a forklift.

# $\bigcirc$

## BENEFITS

- Horizontal orientation of the support of the sleeves
- $\cdot$  Better management of the production space next to the machine
- Reduced time for moving and job change

# FEATURES

#### Organization

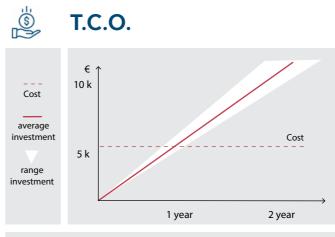
- $\cdot$  Safe and effective storage operations
- Time saving in the handling of the sleeves in the production area

#### Handling

- Easy and safe transport thanks to the handle and the system of wheels
- Ergonomic design for easy transport

#### Maintenance

 Increased life cycle of the sleeves th scratches



#### Model: TS3 (customizable)

\* Technical details follow pag. 35

## **Transport and Storage Solutions**

• Horizontal orientation of the support bars to facilitate the extraction and insertion

on space next to the machine hange

ns eeves in the production area

e handle and the system of wheels

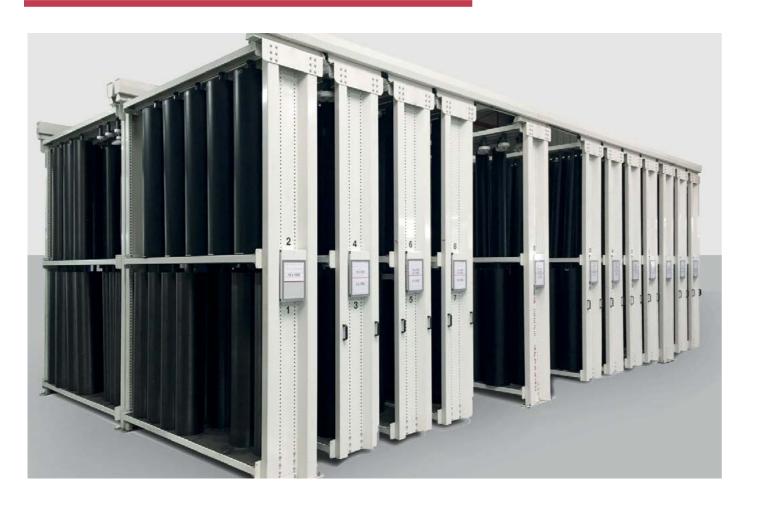
· Increased life cycle of the sleeves thanks to the protection against accidental

Assumptions : without vs. with

- Reduce approx 10 min per transport
- Hourly rate: 30€/h
- Preserve 2 sleeves/yr.



# Sleeve storage system



Modular and extensible structure adaptable to machine capacity

The vertical and modular storage system prevents plates, carrier and anilox from being left on the ground in the area close to the machine.

The flexible configuration makes it easily adaptable to the needs of the production layout of the customer's plant: in fact, the system can be implemented with the addition of modules for future capacity extensions.

# **BENEFITS**

- Multi-level and adjustable storage for different lengths
- · Safety warehouse handling operations
- Recovery of underused spaces thanks to the better management of the production space
- Protection from ovalization, accidental contacts and falls



#### Organization

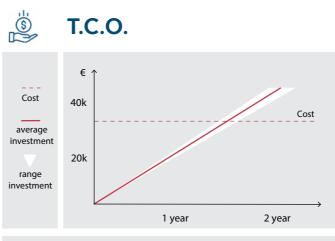
- Modular and extensible

#### Solidity

- request
- Presence of dedicated spaces, depending on the size of the sleeves
- Shell structure with suspended frames for quick access to sleeves

#### Maintenance

ovalization



Model: TS4 (customizable)

\* Technical details follow pag. 36

## **Transport and Storage Solutions**

• Storage of up to 200 sleeves in multiple rows and levels based on their diameter

· Durable structure in painted anti-torsion steel, customizable as per customer's

· Long lasting sleeves thanks to the protection against accidental scratches and

**Assumptions**: without vs. with

- Reduce approx 10 min/day organization
- Hourly rate: 30€/h
- Preserve 20 sleeves/yr.



# Vertical storage for anilox sleeves



# Shell storage trolley for secure preservation

Vertical depository for the storage of up to 9 anilox sleeves. The shell protects the components from bumps, dirt and external agents.

The small device on wheels with breaks allows the operator to work autonomously, without taking advantage of lifting systems.

## **BENEFITS**

- Safe of storage and handling operations
- Organized storage and component safety
- · Effective organization of the work environment
- Protection from scratches, ovalization and falls

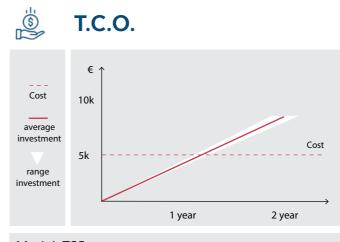
# **FEATURES**

#### Organization

Space optimization

#### Handling

- Small sized and durable structure
- Vertical storage to avoid ovalization
- Easily movable thanks to the presence of wheels



Model: TS5

\* Technical details follow pag. 37

## **Transport and Storage Solutions**

**Assumptions**: without vs. with

- Reduce approx 10 min/day organization
- Hourly rate: 30€/h
- Preserve 2 sleeves/yr.



# Trolley for storage and maintenance of doctor blades



Movable temporary holder to ensure correct maintenance of doctor blades

The storage trolley is a sturdy construction equipped with pivoting wheels for the easy deposit and transport of the doctor blades. The light aluminum structure is provided with wheels, a cutter for the doctor blades, a support for the side seals and one for the cleaning liquid; it is also complete with removable doctor blade trays to facilitate handling.

A LED lighting system allows operators to illuminate the workstation to carry out maintenance operations in greater safety, checking the state of wear at the end of the work.

## **BENEFITS**

- Safe storage of doctor blades
- $\cdot$  Time savings in handling operations

## **FEATURES**

#### Organization

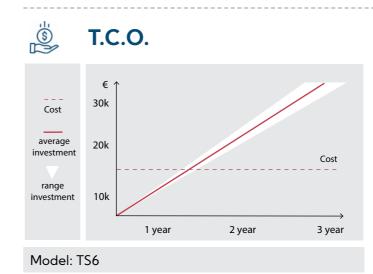
- Effective storage and maintenance operations
- Removable drawers for doctor blades
- Shelf for objects

#### Handling

· Easy and safe handling in the production environment

#### Maintenance

- Check of the wear status thanks to the integrated LED lighting system



\* Technical details follow pag. 38

#### • Prevention from possible damage due to incorrect storage of the doctor blades

· Long lasting doctor blades thanks to the presence of dedicated compartments

**Assumptions**: without vs. with

- Reduce approx 10 min/day organization
- Hourly rate: 30€/h
- Preserve 2 sleeves/yr.



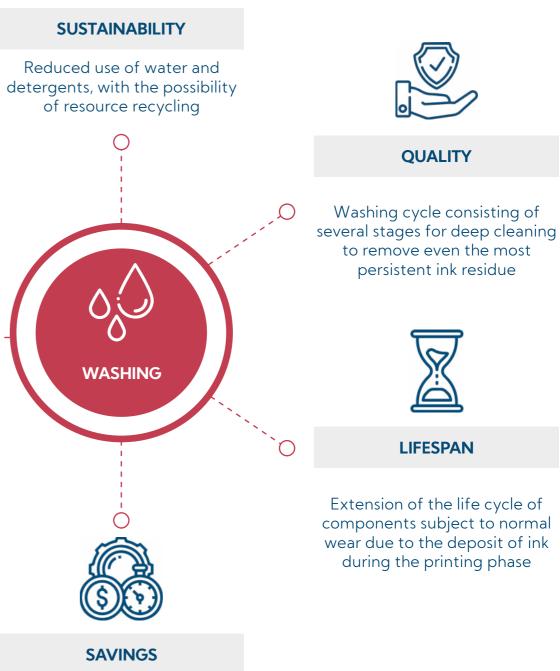
" Dirty anilox, sleeves and plates can compromise the print results. **A proper** washing system is the first step for time saving and resource optimization."

- Luca, printing supervisor





of resource recycling



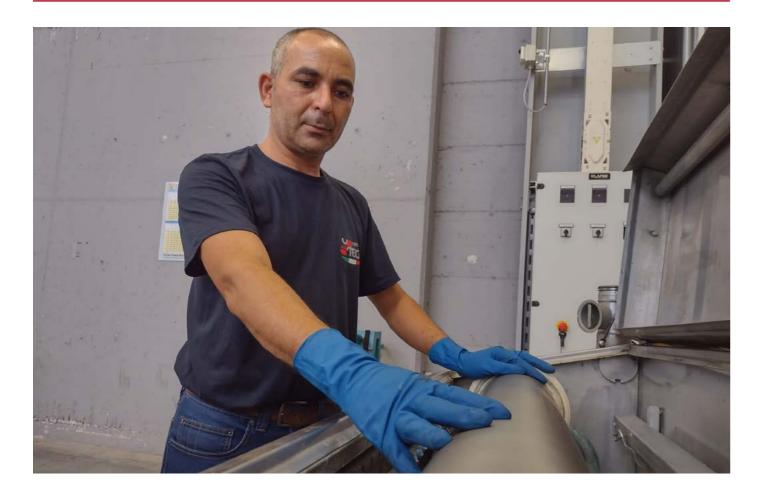
Saving time and resource compared to manual washing, with a consequent reduction in production downtime

# Washing Solutions





# High pressure washing unit for anilox



Cleaning system with high pressure and solvents working in synergy to ensure lifespan of components

The solvent washing system effectively removes any residual ink on the anilox and cylinders, leaving them clean and ready for reuse or storage. The robust ecological machine is designed to preserve the anilox from external agents.

The washing cycle includes two phases: the first with heated detergent and the second with high pressure heated water jet.

The combined washing cycle ensures meticulous cleaning of the individual cells from any residual ink, avoiding any possible deposit and increasing the anilox life.

## BENEFITS

- · Long life cycle of medium to large components
- Short washing times
- · Savings of water resources guaranteed by automatic processes · Compliance with safety regulations in force
- Short machine downtime due to job change



#### Cleaning

- · Action of heating and filtering of the detergent for flawless result · Further in-depth filtering operation to eliminate residual foam
- Compressed air-drying function

#### **Sustainability**

- · Closed circuit filtering action to increase water savings and reduce pollution
- Exclusively pneumatic functioning
- Combinable with a solvent reclaimer to minimize solvent consumption

#### Efficiency

- Multiple washing phases allow thorough cleaning, avoiding the deposit and the drying of ink in the cells
- Washing phases can be monitored and adjusted from the automatic control panel



Model: WS1, WS2

\* Technical details follow pag. 49

## Washing Solutions

#### **Assumptions**: manual wash vs. high pressure system

- Save lifespan: 2 anilox
- Time saving: 9 min/wash
- Hourly rate: 30€/h
- Resources reduction 10%



# Ultrasonic washing unit for anilox



Sustainable-tech cleaning system to improve the quality of washing processes

The machine cleans the anilox sleeves with ultrasounds and biodegradable detergent. It is equipped with an automatic rotating cylinder system and heating function, inclusive of a recirculation pump and a cartridge filter.

A programmable system manages the washing phases, and shows to the operator all the collected data and recomends periodic maintenance.

The presence of piezoelectric transducers provides uniform propagation of ultrasonic waves into the washing liquid for perfect cleaning.

## **BENEFITS**

- · Cleaning efficiency: one washing cycle guarantees complete cleaning
- the resulting print quality
- Maximum process stability
- Shorter cleaning cycles and lower consumption of chemicals and energy
- Compliance with safety regulations in force
- · Low environmental impact and sustainability

## **FEATURES**

#### Cleaning

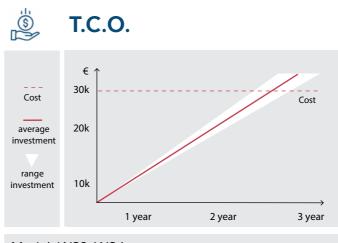
- Ultrasonic transductors for efficient anilox cell cleaning
- Stainless steel tank with circulating pump, filter and discharged valve
- Touchscreen microprocessor for monitoring the working cycle
- Heating elements controlled by a thermostat equipped with safety switch
- Detergent sensensor for automatic stop in case of insufficient supply

#### **Sustainability**

control to maximize energy savings

#### Flexibility

Completely customizable working program



Model: WS3, WS4

\* Technical details follow pag. 40

## Washing Solutions

· Critical to efficient ink transfer, coverage, density and conformity of the color, and

• Standby mode can be directly enabled on the instrument or by external remote

**Assumptions**: manual wash vs. ultrasonic system

- Save lifespan: 3 anilox
- Time saving: 20 min/wash
- Hourly rate: 30€/h
- Resources reduction 30%



# Laser washing unit for anilox



# Laser washing device to regenerate any stained anilox

The laser cleaning removes deeply all the ink, paint, primer and glue residues from the anilox cylinders and sleeves thanks laser technology.

The system works exclusively on the engraved part of the cylinder, without damaging the side bands and edges.

The cleaning process takes place quickly, quietly and without any need for operator control, guaranteeing maximum effectiveness.

# **BENEFITS**

- Customized and fully automated cleaning process
- Homogeneous results across the entire roller table
- Eco-friendly
- · Compliance with safety regulations
- Regenerating claening process

## **FEATURES**

#### Cleaning

- Anilox data monitoring and optimization of the cleaning planning
- Suitable for Industry 4.0

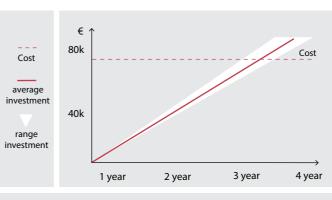
#### Sustainability

• No need of detergents, chemical solvents or bicarbonate

#### Flexibility

- program

## T.C.O.



Model: WS5, WS6, WS7, WS8

\* Technical details follow pag. 41

• High performance aspirator for laser systems with activated carbon filter · Auto focus laser beam for equal intensity and energy in cleaning operation

• Flexible pulsed fiber laser source for auto-customized performance and cleaning

• No need of specific maintenance (only suction filter replacement is required)

**Assumptions**: manual wash vs. laser system

- Save lifespan: 10 anilox
- Time saving: 60 min/wash
- Hourly rate: 30€/h
- Resources reduction 80%



# **Plate washer**



Quick washing and drying solution for rapid reuse and flawless finished product

The machine precisely cleans plates of different thickness, offering the possibility of simultaneous washing cycles.

The device ensures solvent reduction and water use compared to manual operations.

The machine carries out all the cleaning phases in complete autonomy. The plate is introduced through conveyor rollers and cleaned by alternating and oscillating brushes. The rinsing and the drying phases close the cycle removing any ink residue and drying the plate to ensure rapid use.

### **BENEFITS**

- Short washing times
- · Saving of water resources and automation of the process
- Reduction of set-up times
- Minimization of machine downtime due to job change
- Increased life cycle
- Flawless cleaning of different thickness and sizes

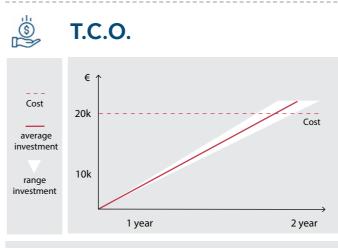


# **FEATURES**

#### Cleaning

- · Gentle washing and cleaning of the plate by oscillating soft brushes
- Heating and filtering system for extra cleaning action
- All parameters are adjustable through digital control panel
- · Inlet table and outlet receiving basket
- · Cleaning liquids are re-circulated and drained back to the tank for re-use
- · Removal of residues of all types of ink

#### Sustainability



Model: WS9, WS10, WS11, WS12

\* Technical details follow pag. 42

## Washing Solutions

· Closed circuit filtering unit of rinsing water for less pollution and water saving

#### Assumptions : manual wash vs. platewasher Save lifespan: 5 plates/yr. Time saving: 9 min/wash

- Hourly rate: 30€/h
- Resources reduction 30% .

# Table for color and quality control

Model: QC1



## SPECIFICATIONS

Power supply	230Vac 50 Hz (power ~ 600 W) *	
Upper Neon characteristics	5 Neon tubes of 58 W each D50 Certified (5000 °K) + dimmer  **	
Lower Led characteristics	7 Led bars Non-certified (5000 °K) + dimmer **	
Illuminance area	1500 x 900 mm ***	
Hour meter	Included (only for upper ceiling light)	
Number of draws	6 (Internal dimensions 1520 x 945 x 68 mm)	
Working Temperature	From 5 °C to 40 °C (humidity from 20 to 80% non-con- densing)	
Mechanical dimensions	~ 1660 x 2360 x 1150 mm (LxHxP)	
Weight	~ 230-350 Kg	

\* = Installation in environment without danger of explosion\*\* = Also available with D65 light

- \*\*\* = Also available with opal backlight and dimmer (optional)
- $\cdot$  Option later shields
- $\cdot$  Wheels included

• The characteristics of the table can be subject to change at any time with no forewarning

# **Plate mounter**

Model: QC2, QC3, CQ4, CQ5, CQ6

#### 

	Motorized	Electronic	Semi automatic	Automatic	Full automatic and robotic
HD digital cameras (no. 2)	x	x			
USB 3.0 digital cameras		optional	x	x	x
Motorized cameras with linear rack and touchless system	x	x	x	x	x
Encoders on cameras (digital ruler)		x	x	x	x
Motorized mandrel rotation, with pedal command	x	x	x	x	x
Encoder on mandrel rotation		x	x	x	x
Sensor for automatic height positioning of the madrel, according to the printing repeat		optional	x	x	x
Pressure roller with "notched engraved surface"	optional	optional	x	x	x
Mounting table in back position	x	x	x	x	x
Mounting table (front table)	optional	optional	x	x	x
Automatic plate sticking system			x	x	x
Automatic mounting system				x	x
Automatic plate loading					x

# Reel handling trolley (manual/electric)

Model: TS1, TS2

# 

## **SPECIFICATIONS**

Transport and lifting	Manual	Electric
Capacity	From 500 to 800 Kg	From 500 to 1360 Kg
Diameter	From 80 up to 1000 mm	From 80 up to 1020 mm

- · The reel-holder cradle is customizable, as per customer's request
- The characteristics of the reel handling trolley can be subject • to change at any time with no forewarning

# **Trolley for sleeves**

Model: TS3 (customizable)



## **SPECIFICATIONS**

Max capacity	30 Kg for sle
Number of sleeves	6, 9, 12 as pe
Max dimensions	Depending c

- Thetrolley is customizable, as per customer's request
- The characteristics of the trolley can be subject to change at any time with no forewarning

eve

er customer request

on the version

# Sleeve storage system

Model: TS4 (customizable)

#### **SPECIFICATIONS**

	Basic Frame	Additional modules
Lenght	From 0,8 to 5,2 m	From 2,4 to 4,5 m
Number of racks	From 1 to 6	From 2 to 5
Height	3,4 m	3,4 m
Width	2,6 m	2,6 m
Number of draws	6 (Internal dimensions 1520 x 945 x 68 mm)	
Working Temperature	From 5 to 40 °C (Humidity from 20 to 80% non-con- densing)	
Mechanical dimensions	~ 1660 x 2360 x 1150 mm (LxHxP)	
Weight	~ 230-350 Kg	

# Vertical storage system for anilox sleeves

Model: TS5

#### **SPECIFICATIONS**

Widht	980 mm
Height	2320 mm
Weight	350 Kg
Sleeve measures (capacity)	Lenght: 1780

- Max capacity: 9 sleeves
- with no forewarning

- No. 2 shelves for each rack
- Max load for each shelf: 400 Kg •
- Max sleeve size (height) with two shelves each rack: 1.340 mm •
- The sleeve storage is customizable, as per customer's request •
- The characteristics of the storage can be subject to change at any time with no • forewarning

0 mm

• The characteristics of the storage system can be subject to change at any time

# Trolley for storage and maintenance of doctor blades

#### Model: TS6

#### **SPECIFICATIONS**

No. drawers	5 removable drawers, each for 2 doctor blades
Measure of cutter	Integrated aluminum cutter with centimeter scale up to 180 cm

Max capacity: 10 doctor blades •

The characteristics of the storage system can be subject to change at any time • with no forewarning

# High pressure washing unit for anilox Model: WS1, WS2



Overall dimensions	2600 x 660 x
Max Anilox lenght	From 1400 to with pins inclu
Max anilox diameter	300 mm
Detergent recycler	40
Water recycler	60
Max detergent tem- perature	80° C
Max water temperature	60° C
Air compression pres- sure	6/8 bar
Max cleaning water pressure	140 bar
Absorption – Power Supply	7KW – 380V

• The characteristics of the washing system can be subject to change at any time with no forewarning

) x 1350 mm

to 1800 mm sleeves (from 1800 to 2200 mm ncluded)

# Ultrasonic washing unit for anilox

Model: WS3, WS4



#### **SPECIFICATIONS**

Dimensions (LxWxH)	From 2700 x 750 x 1150 mm to 3200 x 950 x 1150 mm	
Max. printing width	From 1500 to 1600 mm	
Max. diameter	From 210 to 320 mm	
Power	From 3,6 to 4 kW	

• Upon request: flange kit for sleeves, independent filtration system, spraying bar for rinsing, storage tank for rinse water, weekly programmer

Dimensions (LxWxH)	From 1400 x 800 x 800 mm to 2600 x 800 x 800 mm		
Max. printing width	/		
Max. diameter	/		
Power	/		

- Upon request: customized support grid, trolley with slide-in grid, weekly pro-• grammer, separate filtration system
- The characteristics of the washing system can be subject to change at any time • with no forewarning

# Laser washing unit for anilox Model: WS5, WS6, WS7, WS8

#### **SPECIFICATIONS**

	Model 1000-3000	Model Smart
Max. anilox length	From 1000 to 3000 mm	
Min. anilox length	From 150 to 500 mm	
Max. anilox diameter	From 250 to 500 mm	
Min. anilox diameter	From 80 to 100 mm	
Pin max. length	From 100 to 500 mm	
Max. anilox weight	From 50 to 1000 kg	
Min. anilox weight	From 3 to 50 kg	
Laser Power	From 20 to 70 Watt	70 Watt
Laser Power	From 40 to 120 Watt	120 Watt
Extractor	Included	Integrated
Field of use	Narrow-Web - Mid-Web, Wide-Web, Cardboard, Coat- ing, Tissue	Mid-Web, Wide-Web, Cardboard, Coating, Tissue

• The characteristics of the washing system can be subject to change at any time with no forewarning

# **Plate washer**

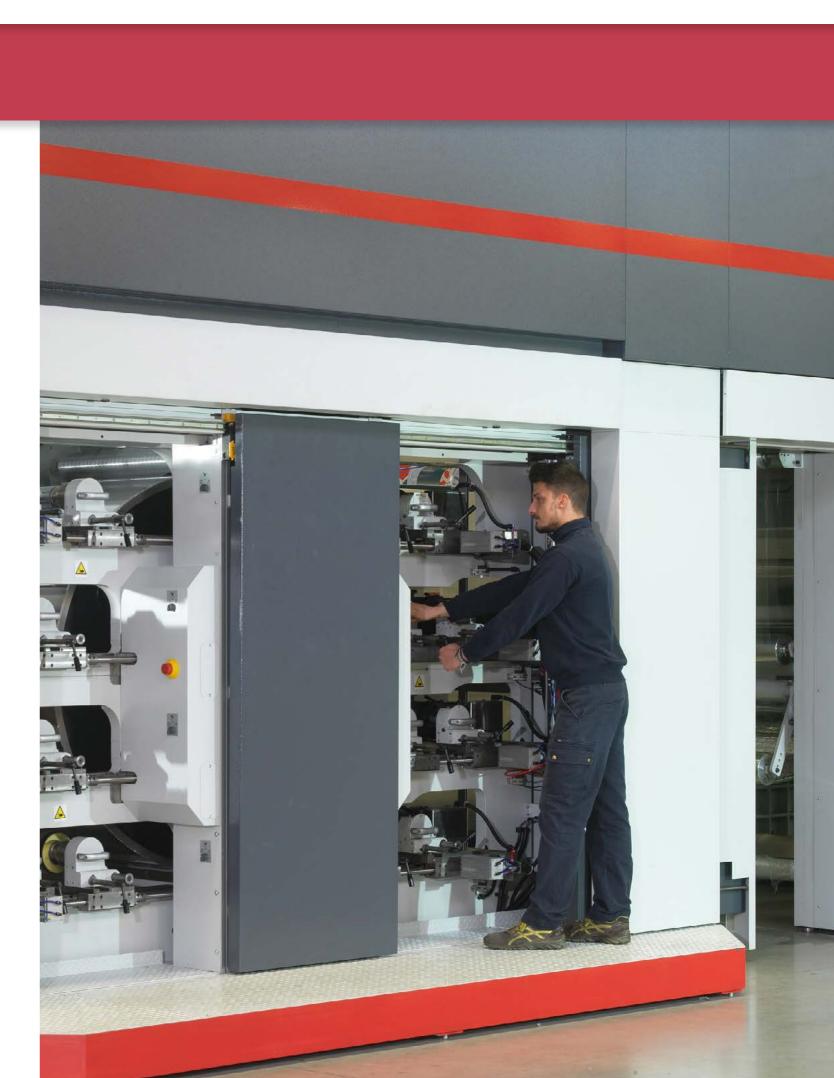
Model: WS9, WS10, WS11, WS12

# 

## **SPECIFICATIONS**

Useful width	From 450 mm to 1200 mm	
Min. lenght	145 mm	
Dimensions (WxL)	From 1100 x 810 mm to 1850 x 950 mm	
Inlet table (L)	From 500 to 700 mm	
Out. basket (L)	380 mm	
Electrical data	From 220 V 3,5 kW 16 A to 380 V 6,2 kW 16,5 A	
Net weight	From 310 to 480 Kg ~ 230 to 350 Kg	

• The characteristics of the washing system can be subject to change at any time with no forewarning



# **Contact us**

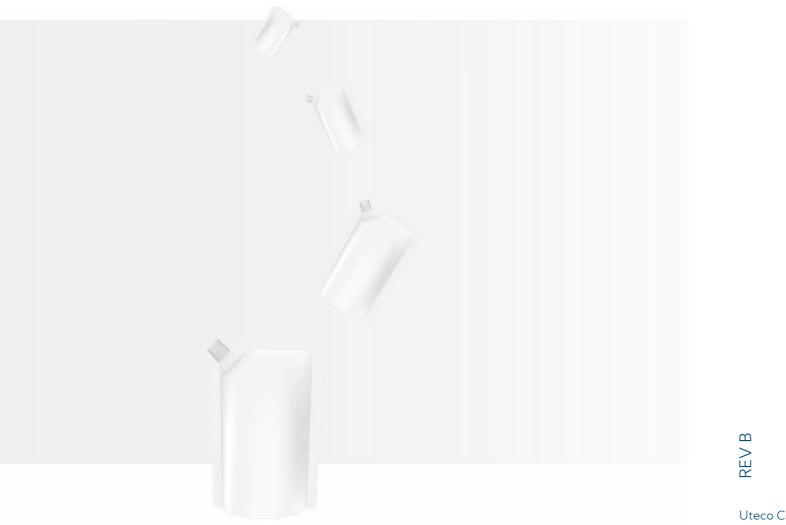
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