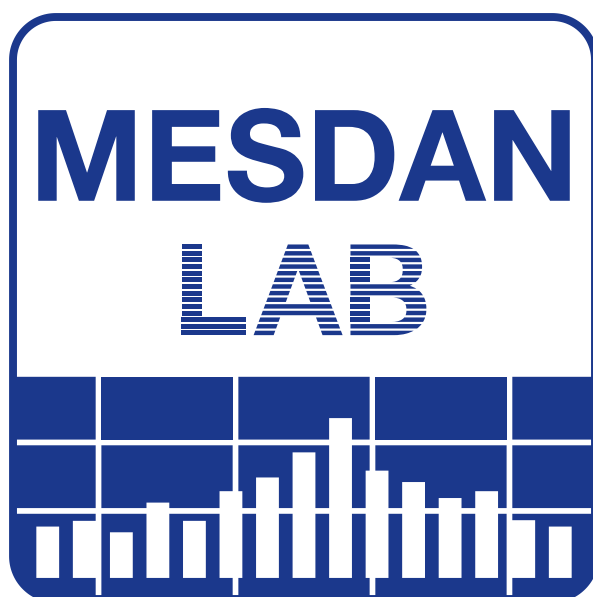


DYEING & FINISHING TESTING EQUIPMENT

 **MESDAN** DYELAB
SYSTEMS



 **MESDAN**



HISTORY

In **1952** Sir Daniele Messa established MESDAN® company in Salò - a manufacturing workshop specialized in the production of textile hand knotters. In the **1960's** the company became a qualified mechanical industry under the creative impulse of Sir Daniele Messa's son, Mr Pietro. During those years MESDAN® was also very busy in developing reliable mechanical knotters suitable to meet the needs of the new automatic winding machines. In the **1970's** MESDAN® became a consolidated industrial reality of international prestige, and in **1975** changed its corporate structure into a S.p.A. corporate form (joint-stock company).

Meanwhile MESDAN® became the leading supplier of knotters to manufacturers of automatic winding machines all over the world.

The **1980's** are characterized by the 'knot free' yarn joining technology (the so called "splicing" technology), and Mr Renato Zanca (who succeeded to Mr Pietro Messa as Managing Director) led the company to the realisation of an innovative range of splicing solutions, soon internationally recognised, thanks to the "JOINTAIR" and "AQUASPLICER" trademarks.

Mr Zanca also decided to diversify the company activity by entering the business of textile laboratory equipment, to meet the growing demand for Testing and Quality control, and in the **1990's** established the new Division - Mesdan Lab - specialised in testing solutions for quality control on textiles and started the production and marketing of a wide range of equipment. In **2012** MESDAN® celebrated its 60th anniversary and presented the new Mesdan Dyelab line, a series of equipment for the dyeing and finishing quality assessment. At the same time, Mesdan Yarn Joining Division launched the MOISTAIR, a splicer based on a unique yarn joining technique, which soon became a worldwide success. In **2013** MESDAN® became part of the "Savio" group of companies. In **2019**, following its ISO 17025 audit and a series of important developments and achievements in the field of Laboratory testing, MESDAN® obtained the status of a Calibration Laboratory (LAT), the highest recognition for an equipment manufacturer. In **2021** the all SAVIO group was acquired by Vandewiele, Belgium, a world leader in Mechatronics solutions (combination of mechanical and electronics engineering) to serve textile and electronics customers around the world.

MESDAN® Italy has reached a leading position in the field of yarn joining technology in seventy years of research & development. Nowadays the 100% "knotless" plied yarn concept leads inevitably to Mesdan splicers, which are considered as a point of reference, thanks to their vanguard technology, workmanship quality, performance reliability and consistency. At present the company consists of two different business units: "Mesdan Yarn Joining Solutions", and "Mesdan Lab" laboratory equipment line.

Mesdan Yarn Joining Solutions line includes the complete range of Mesdan splicers - characterized by their registered trademarks: JOINTAIR, AQUASPLICER, HOT JOINTAIR, and MOISTAIR - which are designed in the automatic version (for automatic winders) and in the semi-automatic version for trackmounted installations (where the use of automatic splicing solutions is not possible).

Mesdan Lab equipment line, with its Quality Control Testing Equipment for Textiles, offers a wide range of laboratory instruments suitable for testing fibers, yarns, fabrics and garments, of traditional and technical textiles. With over two decades track in the field of testing, Mesdan Lab can be considered today one of the leading international manufacturers of laboratory instruments.

OPTIMISE YOUR QUALITY, FROM FIBRES TO FABRICS

Mesdan Lab is a division of MESDAN® S.p.A. renowned designer of yarn joining solutions.

MESDAN® entered the textile laboratory business in the early nineties, to meet its customers' growing demand for quality control equipment. Since then MESDAN® has designed a complete range of equipment for the analysis of textile materials (fibres, yarns, traditional and technical fabrics, nonwoven, leather, etc.), in compliance with the International Standards.

Mesdan Lab instruments today stand out for their industrial design and sound quality that guarantee accurate performances in the long run. The **Mesdan Lab** line is produced with particular attention to the environment, in conformity with the safety Standards integrating operator-friendly solutions.

In 2004 MESDAN® obtained from Det Norske Veritas (DNV) two certifications: the UNI EN ISO 14001 Environmental Management System and the UNI EN ISO 9001 Quality Management System with validity for design, manufacture and calibration of textile laboratory instruments. In 2019 Mesdan Lab Service was also accredited to "ISO 17025 calibration laboratory" by "Accredia - ILAC".

In the most recent years, MESDAN® has heavily invested in research for the design of equipment for the fiber analysis; in 2019 it launched the CONTEST line, a set of sophisticated automatic instruments, for the classification of the cotton fiber properties, and for the analysis of the stickiness behaviour (sugar content). With the same aim of always offering equipment that incorporates only the latest technology available, in the 2020's, **Mesdan Lab** has dedicated its R&D resources to the complete revision of the dynamometer family, the flagship of its LAB product proposal.

Introduction

This brochure is referred only to Mesdan Lab **Dyeing & Finishing** laboratory equipment. Another Mesdan Lab brochure is available for fibre, yarn and fabric testing (**physical testing & colour fastness**).

Pictures and information about the instruments are merely indicative. Mesdan S.p.A. reserves the right to modify these specifications at any time, without notice.

YARN AND FABRIC DYEING/FINISHING

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High quality benchtop spectrophotometer, designed for precise measurement of colour on textile samples.

Spectro Lab II can be used both in horizontal and in vertical position, and it is supplied complete with **QC Quality Control software** - for colour QUALITY CONTROL.

User-friendly, the instrument is suitable for the objective colour measurement, as well as for the comparison and assessment of the tested colour compared to a “reference colour”, according to the international Standards.

The **QC Quality Control software** allows also the measurement of Whiteness (L^*) and Yellowness ($+b^*$) - important parameters to define the colour of cotton fibers - according to CIE $L^*a^*b^*$ scale.

Technical features:

Measurement area: 8 mm, target window: 14 mm.

Light Source: tungsten lamp.

Short-Term Repeatability: 0.05 ΔE^*ab on white ceramic.

Spectral range: from 400 to 700 nm with 10 nm interval.

Measurement geometry: $d/8^\circ$, DRS spectral engine, SPIN / SPEX

Measurement time: 2 seconds.

USB interface for PC connection (PC available as optional, on demand)

Photometric range: 0-200% reflectance

Optional:

- Recipe Textile Formulation software (**Code 3393A.12**), innovative and advanced Colour Matching software to define and correct colours for the automatic preparation of final dyeing recipes.

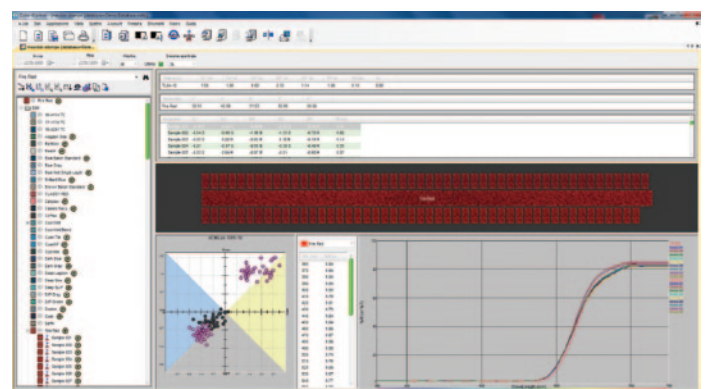
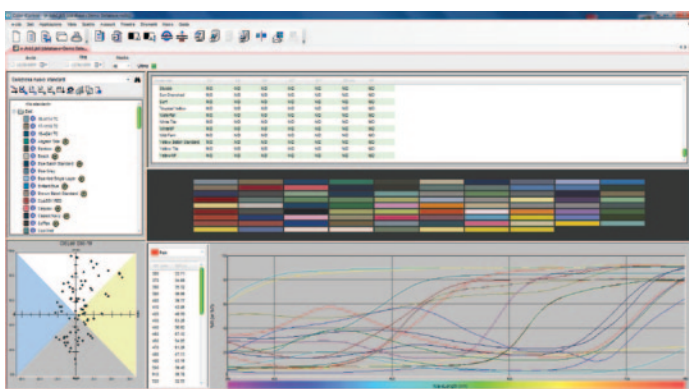
- Control Lab

NOTE: the addition of colours and recipes has to be performed by the Customer directly.

Power supply: AC adapter, 90-130 Vac or 100-240 Vac, 50/60 Hz, 15 W max

Weight: 5,2 kg

Dimensions: (L) 264 x (W) 190 x (H) 220 mm



Colormatic

323G

Laboratory equipment suitable for:

- automatic weighing and **preparation of stock solutions**;
- automatic dosing system for the preparation of **colour final recipes**.

Its specific and user-friendly software enables the automatic and precise preparation of stock solutions (in less than 30 seconds).

Thanks to the built-in automatic dosing system, a colour final recipe can be prepared in about 1,5 minutes.

Gravimetric method for the automatic weighing of dyestuffs to prepare precise and accurate stock solutions and color recipes by means of an electronic balance with accuracy 0,001 grams.

Dosing selection with warm and cold water.

Mechanical stirrer for stock solutions.

Pneumatic device for dosing system positioning according to the height of the beaker.

Program for automatic identification of the glass containers used, and possibility to save the expiry date of the stock solutions.

PC - with monitor and specific software - is included.

Instrument made of stainless steel.

Power supply: 230 Vac, 50 Hz, single-phase

Weight: 127 kg

Dimensions: (L) 1100 x (W) 720 x (H) 1000 mm



Spectro Wind

171C

Yarn sample winder, ideal for colour gauging and sampling for spectrophotometer analysis.

Particularly suitable for winding dyed yarns onto a single small sample cardboard - better if having a central hole - to be used for analysis performed by means of a spectrophotometer.

Micrometric highly accurate regulation of the yarn coils.

Fully automatic forward and reverse winding movement, pre-selectable through the built-in PLC programmer.

Standard winding width: 45 mm (other winding width are available on demand).

Power supply: 115 Vac or 230 Vac, 50/60 Hz, single-phase

Weight: 19 kg

Dimensions: (L) 360 x (W) 500 x (H) 500 mm



Soft 6" Wind Lab

3374E

Soft Manual Winder with 6" traverse for cylindrical bobbins - single head.

Ideal for dyeing laboratories, in particular with Lodo dyeing machines.

Model suitable for the preparation of small samples of 6" cylindrical bobbins to be dyed.

Digital meter counter available as optional (to be defined at order).

Power supply: 230 Vac, 50/60 Hz

Weight: 70 kg

Dimensions: (L) 550 x (W) 750 x (H) 1400 mm



Campiocolor 85/A

323V

Laboratory equipment, with two separate dyeing baths, with 5 positions each, suitable to dye - universally - at atmospheric pressure (+98°C max.) flocks, yarn skeins, or fabrics.

Ideal for dyeing with reactive, direct, and acid colours.

Available stainless steel beakers with 100-200-300-400-500 and 600 cc capacity.

The instrument can be equipped - on demand - with dyeing positions having different capacities, at the same time, e.g.: 5 beakers of 500 cc capacity and 5 beakers of 200 cc capacity.

Complete with PLC programmer with 50 selectable programs.

Indirect automatic cooling with water, by means of an electrovalve.

Special vertical and rotating movement of the samples.

Automatic water inlet system, in order to maintain the proper level of dye bath to be heated.

A special model equipped with round glass lid - to check the dye bath exhaust - is available on demand.

Power supply: 400 Vac, 50 Hz, three-phase + N

Weight: 130 kg

Dimensions: (L) 960 x (W) 600 x (H) 870 mm





Auto-Chroma IR “click-valve”* Infra-red dyeing machine.

For the first time ever a Lab Infra-red dyeing machine that works on fill it & shut it principle.

Main features:

Programmed temperature control for raise, hold, and cooling.
Automatic dosing control of auxiliary products.
Ideal to dye pieces of fabrics, yarns, fibres and blends.

Suitable for all types of dyes, and dyeing methods.

This fully automatic chemical dosing and temperature & time control is achieved by a specially designed round dye pot. Each pot has 2 special automatic dosing reservoirs with “click-valve”(patented).

The temperature range for heating and cooling is ambient to +135°C, rate of heating from +0,1 up to +2°C/min.

Cooling by means of water heat exchanger and air circulation fan above 500 m³/hour.

The automatic dosing eliminates the stop&start operations, e.g. stops to add dye, stop to add alkali, and so on.

The instrument is equipped with an elegant colour “touch screen”.

The machine is supplied with several dyeing programs designed by experts (e.g. Pes, Cot, Cot/Pes, Wool, etc.).

A special (patented) 300 cc round pot is available, and can be used for any liquor ratio covering the following volumes: 100 - 150 - 200 - 250 and 300 cc.

The maximum number of pots on a standard machine is 12.

The saved programs can be easily recalled again for the next occasions of dyeing, so even a small change to a standard program is saved, e.g. if an additional auxiliary is added for turquoise shades, that program is saved in the machine and can be recalled when lab trials of turquoise colours is undertaken.

The essential innovative advantages of this dyeing machine are:

- Easy of use
- Touch screen control panel
- Save and recall memory system

Low liquor ratio dyeing is possible

Auto-Chroma IR excludes the negative effect called “temperature dips and hot spots” which influences dyeing results among samples of the same type

Time factor: important dyeing time reduction due to the automatic dosing of dyestuffs alkali and auxiliaries

Dye accuracy factor: due to micro-metric step by step dosing and the fact that the machine does not need to be stopped (unlike other IR machines with manual/syringe dosing)

Reproducibility factor: due to the special (patented) pot design the sample absorbs the colour in an absolute perfect manner

Ergonomic factor: definitively the most silent IR machine nowadays available

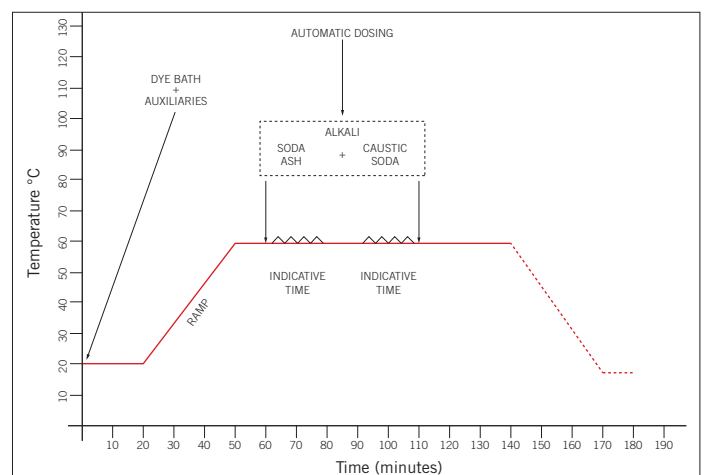
Auto-Chroma IR is built entirely out of the best quality stainless steel, practically indestructible.

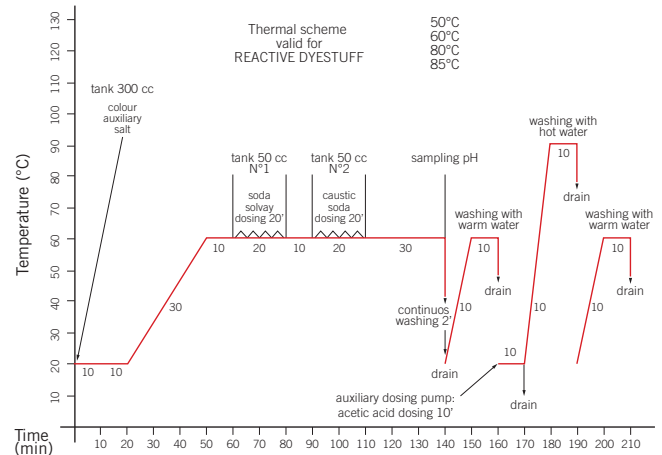
Power supply: 400 Vac, 50 Hz, three-phase + N

Weight: 240 kg

Dimensions: (L) 1500 x (W) 880 x (H) 850 mm

A typical isotherm cotton dyeing program (Reactive Dye at +60°C)





Fully automatic dyeing machine, from pre-treatment to washing off - Load unload principle (similar to bulk).

It can dye yarn skeins and fabrics made of any dyeable fibres and their blends.

All Parameters are fully programmable, including Auto Dosing. Equipped with about 50 selectable different dyeing programs, each with graphic display.

Basic model endowed with 3 automatic dosing tanks. To obtain a fully automatic version, 2 additional dosing pumps can be added to each dyeing unit.

Up to 6 dyeing positions, either H.T. (+135°C) or atmospheric (+98°C), or combined.

Each dyeing position is independent.

Also available models with different bath capacity (300 cc, 600 cc, 1600 cc, 6000 cc).

On demand, the instrument can be equipped with dyeing positions having different bath capacity.

Suitable to create processes and plan batches online like for bulk machines.

Thanks to the fully automation and to the very high precision, Giotto Dyeing Machine can obtain the same results reached by the production machineries on the laboratory samples dyed according to the same processes and recipes.

Main Tank, for recipe dosing Smaller Tanks, for auxiliaries dosing



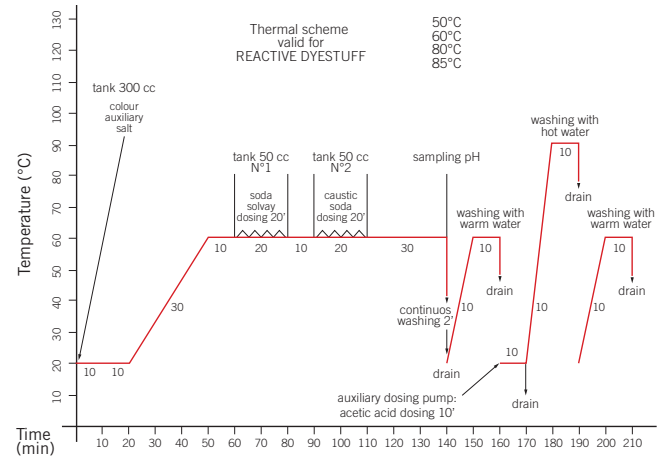
Picture showing the 3 automatic dosing tanks.

Liquor ratio from 1:7 up to 1:40 (depending on GSM of fabric to be dyed).

Continuous programmable Reduction clearance possible (for PES and its blends), allows for continuous dyeing of PES Blends.

Excellent repeatability within one bath and reproducibility among baths - delta (<0,4 CMC 2:1) and RFT (> 95%).

Power supply: 400 Vac, 50 Hz, three-phase + N



Laboratory dyeing machine with 3 INDEPENDENT DYEING UNITS, suitable for both atmospheric dyeing (up to +98°C) and high temperature dyeing (up to +135°C), ideal for dyeing of small yarn cones, bulk fibres, fabrics wrapped on beams, and yarn skeins.

Available in different configurations (from manual to fully automatic version).

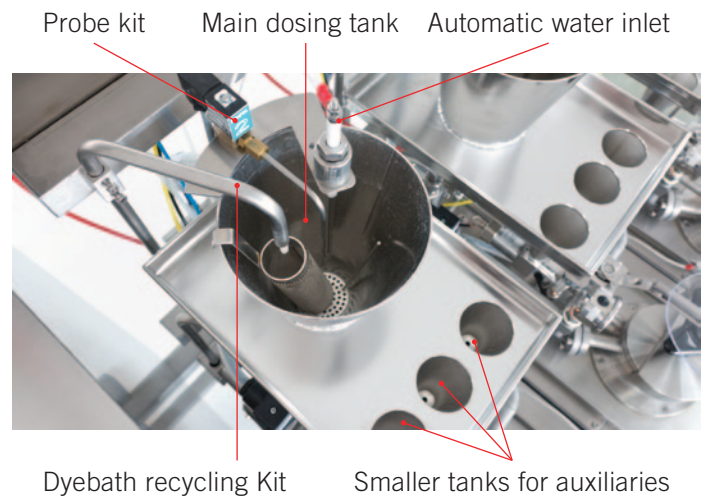
The dyeing process is achieved by dyeing static samples with a circulating dye bath flow, from inside-outside and vice versa, thanks to the reversible circulation pump supplied with the main instrument.

Lodo HT main characteristic is its modular design, the possibility to increase its AUTOMATION level and dyeing REPEATABILITY to the top level, in order to reach the highest possible Right First Time (RFT). For this scope, some unique technological solutions have been developed, all available on demand as optional accessories.

Each single dyeing unit of Lodo HT can be equipped with an AUTOMATIC DOSING SYSTEM consisting of 1 main tank (in which the dye bath is poured) and 3 additional smaller tanks, for auxiliary products.

Besides quality, when the time factor and dyeing quantity are involved, the addition of other accessories (such as the EXTRA PUMP D-4 and D-5 DOSING KITS) will ensure a COMPLETE AUTOMATION and guarantee the highest dosing ACCURACY (exclusion of human error) and the highest possible RFT.

Power supply: 400 Vac, 50 Hz, three-phase + N



Technical features:

- Up to 6 independent dyeing positions are available on demand.
- Models with 1000 cc bath capacity is available on demand (to be defined at the time of the tender).
- Programmable built-in PLC microprocessor with touch screen display.
- Automatic dosing of dyeing recipe, alkali and auxiliary products.
- Automatic continuous washing.
- Automatic drain of the dyeing bath.
- Reversible circulation pump.
- Automatic indirect water cooling system.
- Automatic soaping.

Giotto HT 9000

323T6.216

Dyeing laboratory equipment, ideal for a combined use with DYE SCANNER or with LAB KNITTER, to determine the dyeing affinity.

Giotto HT 9000 is ideal to check, after dyeing, the presence of any faults inside the fabrics.

HT (+135°C) instrument, therefore also suitable for dyeing of polyester fabrics and yarns.

Fully automatic equipment to wash, dye, rinse, and - if necessary - to soap fabric and knitted fabric samples.

Thanks to its automatic dosing system, alkali and auxiliary products can be precisely dosed. Ideal also for dyeing with reactive dyestuffs.

Giotto HT 9000 is also suitable for the final "stripping" on dyed polyester fabrics.

Suitable for samples with a max. dry weight of 300 g.

Rotative (exhaust) dyeing method.

Power supply: 400 Vac, 50 Hz, three-phase + N

Weight: 181 kg

Dimensions: (L) 900 x (W) 930 x (H) 1050 mm



Cone Dyeing Lab

323P1

Laboratory unit for dyeing of yarn cones of textile natural and synthetic fibres or blends.

Equipped with n. 1 glass container (inner diameter 180 mm) usable height: 250 mm.

With special sample holders it is also possible to dye raw fibres, hanks, and/or fabric wrapped onto the sample holder.

Temperature regulation (max. +98°C) controlled by microprocessor programmer, with maximum memory capacity of 20 programs, with 30 steps each.

Circulation pump with flow going from outside inwards and vice-versa.

Electrical valve for bath inlet. Manual valve for bath drain.

Indirect heating by means of an electric resistance.

Indirect automatic cooling with water by means of an electro-valve.

Continuous washing in automatic.

Unit made of stainless steel.

Additional automatic dosing kit for alkali and auxiliary products is available as optional.

Static dyeing method.

Power supply: 400 Vac, 50 Hz, three-phase + N

Weight: 90 kg

Dimensions: (L) 800 x (W) 650 x (H) 1350 mm





Hydro Spin

336G

Laboratory instrument designed for package hydroextraction of excess water, equipped with programmable system for sample residual humidity % setting.

Two in one functions, with independent control:

Hydro extractor

Dryer

HYDRO SPIN can contain either a big production bobbin (of max. 1,5 kg), or up to 6 smaller cones of 100-200 g each (if the optional Cone Holder - **Code 336G.2** - is purchased).

Very quick and precise, equipped with automatic stop (according to the preset residual humidity %).

Power supply: 400 Vac, 50 Hz, three-phase + N

Weight: 118 kg

Dimensions: (L) 920 x (W) 650 x (H) 1400 mm



Dryer Lab

336C

Rapid dryer for fabric samples and yarn skeins. Drying cycle with first step 1 minute long with cold air, hot air step with adjustable duration, 1 minute final step with cold air to cool down samples and sample holder area. Possibility of drying with warm air or cold air.

Upper grid in stainless steel (500 x 500 mm)

A smaller model of Dryer Lab is also available, with upper grid in stainless steel (200 x 500 mm), **Code 336F**.

Reference standards: DIN 51221/1, BS EN 10002/2

Power supply: 400 Vac, 50 Hz, three-phase + N

Weight: 80 kg

Dimensions: (L) 700 x (W) 720 x (H) 950 mm



example of sample positioning



Hydro Extractor

336D

Laboratory water extractor for fast and gently drying of textile samples. Basket high rotation generating a centrifugal force, in order to remove the superficial and inside water from textile samples - like yarn skeins and fabrics.

Stainless steel casing and inner drum for improved robustness.

Maximum capacity: 8 kg

Power supply: 400 Vac, 50 Hz, three-phase

Weight: 67 kg

Dimensions: Ø 660 x (H) 850 mm

Fabric Colour 323S5

Atmospheric sample dyeing machine

Laboratory instrument for atmospheric dyeing (+98°C), suitable for dyeing and washing of tubular fabrics, knitted cloths, and other kinds of orthogonal fabrics (included samples of carpets and fitted carpets).

Dimensions of rotating drum: Ø 450 x 500 mm., with dyeing bath of 60 litres.

Equipped with programmable microprocessor (up to 50 programs can be saved).

Depending on the type of sample, it is possible to dye or wash a quantity of fabrics of about 2,5 kg.

Temperature control and regulation of dyeing bath (max +98°C).

Optional: automatic loading of dyeing recipe, auxiliary products, and final bath drain.

On request, other models with different dyeing capacity are available:

20 litres (Code 323D)

38 litres (Code 323S2)

240 litres (Code 323S7)

Power supply: 400 Vac, 50 Hz, three-phase + N

Weight: 240 kg

Dimensions: (L) 1800 x (W) 1030 x (H) 1380 mm



Padder Lab 3399

3399

HORIZONTAL Padder Lab. Laboratory equipment for the foulard dyeing of fabric samples. Fabrics are cold dyed, squeezed on rollers and then rolled up for the storage. It's also possible to dye small A4-size fabric samples.

Roller length: 300 mm.

Adjustable speed from 0 to 12,5 m/min, by means of a potentiometer.

On request, the VERTICAL Padder Lab is available, ideal for the preparation of fabric auxiliary products in the process of printing and finishing.

Power supply: 400 Vac, 50 Hz, three-phase + N

Weight: 130 kg

Dimensions: (L) 1000 x (W) 600 x (H) 730 mm



Jigger Lab 3112

3112

Laboratory equipment for dyeing fabric samples of natural and synthetic fibres or blends. During dyeing the fabric passes flat in a basin with repetitive cycles.

The dyeing bath can be heated up to +95°C. The fabric can be around 2 meters long.

Roller length: 600 mm.

Dyeing tank max capacity: 5 litres.

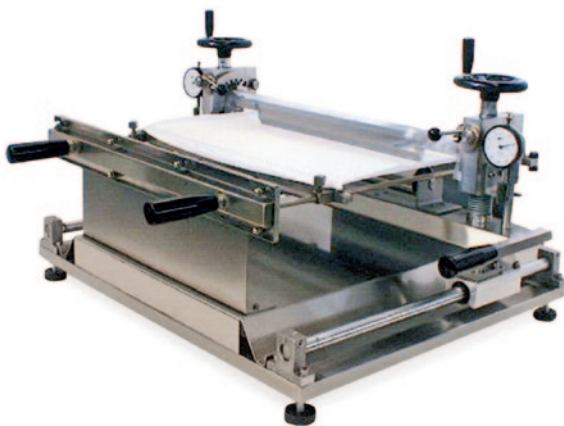
Adjustable temperature (max +95°C) by means of a microprocessor with display, with a memory capacity of 20 programs.

Power supply: 400 Vac, 50 Hz, three-phase + N

Weight: 150 kg

Dimensions: (L) 1600 x (W) 670 x (H) 800 mm





Coating Lab

3114

Laboratory equipment for spreading and coating of auxiliary and finishing substances.

Suitable for the finishing - at ambient temperature - of all type of fabrics and flat materials.

The sample holder rack (450 x 450 mm) is interchangeable with other Mesdan-Lab equipment: Fabric Lab Dryer 2 (Code 3106), Stenter Lab Dryer (Code 3106A), Fabric Vapour Lab (Code 3107 and 3107A), to make the downstream heat treatments easier.

Weight: 40 kg

Dimensions: (L) 650 x (W) 550 x (H) 400 mm



Fabric Lab Dryer 2

3106

Hand operated instrument to dry, fix and vulcanise fabric samples after dyeing or impregnation.

The instrument is also suitable for thermo-fixing fabric samples before washing, to check their shrinkage.

Equipped with 2 sample holder frames (dimensions: 450x450 mm). Adjustable temperature from +50°C to +230°C.

Complete with timer.

On request, model at 1 position sample is available (Code 3106B)

Power supply: 230 Vac, 50 Hz, single-phase

Weight: 156 kg

Dimensions: (L) 1060 x (W) 960 x (H) 750 mm



Stenter Lab Dryer

3106A

Small miniature RAMEUSE, suitable to dry dyed fabric samples, but especially to hot fix the fabrics.

High quality model, with separated heating and drying phases on the two fabric faces.

Forced air ventilation device to automatically control and preset the temperature up to +220°C.

Possibility to adjust the warm air flow from the blowers (separately for lower and upper blower).

Equipped with fabric sample holder frame (450x450 mm) with pins (automatic extraction) and with an adjustable slider.

Control panel with timer, to set test duration.

Power supply: 400 Vac, 50 Hz, three-phase + N

Weight: 350 kg

Dimensions: (L) 1130 x (W) 1345 x (H) 770 mm

Pad Steam Lab

3398

Ideal for the printing houses, which desire to reproduce in laboratory the dyeing results obtained in production.

Fabrics are cold wet, squeezed by rollers, steamed, washed, and then wound up for storage.

It is possible to work with self-produced saturated vapour (up to +100°C), or with high temperature heated vapour (up to +170°C) coming from an external source.

Roller length: 300 mm.

Adjustable speed from 0,2 to 5 m/min, by means of a potentiometer.

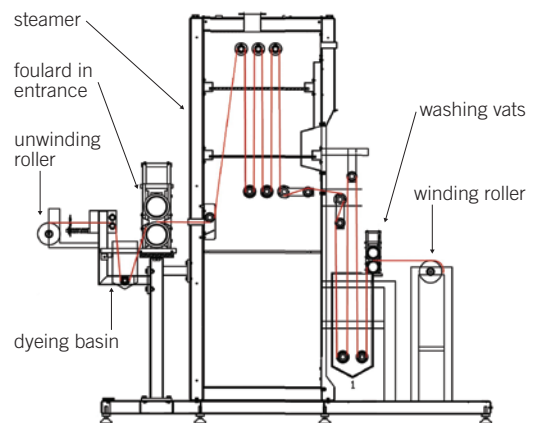
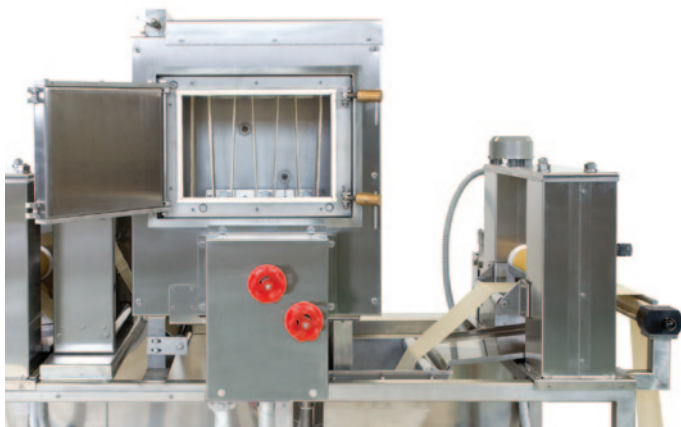
Equipped with 1 dyeing basin (1,5 litres max capacity), 1 washing tank with squeezer (additional washing tanks are available on demand), device for fabric winding and unwinding.

Steaming duration: from 35 seconds up to 6 minutes.

Power supply: 400 Vac, 50 Hz, three-phase + N

Weight: 440 kg

Dimensions: (L) 1210 x (W) 1870 x (H) 1630 mm



Sectional drawing of Pad Steam Lab (Code 3398).

Fabric Vapour Lab

3107

Instrument to fix and vulcanise fabric samples before printing. The steaming cycle takes place in saturated steam at +99,9°C (heating through electric resistances), both with direct and indirect exposure.

Equipped with sample fastening frame, (dimensions: 450 x 450 mm), and timer.

A model with main vapour to be supplied by an external steam source is also available, **Code 3107A**.

Power supply: 400 V, 50 Hz, three-phase

Weight: 120 kg

Dimensions: (L) 1100 x (W) 900 x (H) 500 mm





Soap Wash

323Q

Instrument suitable for soaping and washing of dyed fabric samples. Ideal for laboratories and production lines.
 2-position model (also 4-position model available on demand).
 Automatic water inlet of soaping bath
 Automatic continuous washing
 Temperature regulation (+98°C max.)
 Soaping cycles setting (2 cycles, one for light and one for dark colours)
 Automatic drain of soaping bath
 With Soap Wash a complete process of soaping and washing can be performed in about 2 minutes.
 Equipped with 2 stainless steel sample holders.
 Completely made of stainless steel.

Power supply: 230 Vac, 50 Hz, single-phase
 Weight: 120 kg
 Dimensions: (L) 500 x (W) 750 x (H) 1400 mm

Light Lab

173B

Light chamber for sampling.

With the following 4 light sources:

- Daylight lamp D65 6500 K
- Fluorescent lamp 4000 K
- UV ultra violet lamp
- F Incandescent tungsten lamp

Complete with hour counter device.

Optional: 45° fixed angle table, **Code 173B.76**

Reference standards: BS 950-1, DIN 6173

Power supply: 230 V, 50/60 Hz, single-phase

Weight: 30 kg

Viewing area: (L) 675 x (W) 395 x (H) 370 mm

Overall dimensions: (L) 715 x (W) 415 x (H) 600 mm

Verivide Light Box

173

Colour Assessment Cabinets (CAC), available with 120 and 150 cm viewing area width, and 4 or 5 different light sources, to be chosen from the following ones:

- D65 "Daylight" - 6500 K
- TL 840/P15 Fluorescent - 4000 K
- UV Ultraviolet
- "F" Tungsten filament - 2800 K
- "A" Tungsten Halogen - 2856 K (as an alternative to "F" type)
- CWF Cool White - 4000 K
- TL 830 Fluorescent - 3000 K
- "H" Tungsten Halogen - 2300 K (ASTM D1729-74)

Reference standards: ISO 3664, BS 950-1, DIN 6173, M&S, ASTM.

Available models:

Viewing area dimensions / n. of light sources:

| | | |
|-------------------------------------|-------------|-------------|
| (L) 1240 x (W) 590 x (H) 545 mm / 4 | Code | 173G |
| (L) 1240 x (W) 590 x (H) 545 mm / 5 | Code | 173H |
| (L) 1530 x (W) 590 x (H) 545 mm / 4 | Code | 173R |
| (L) 1530 x (W) 590 x (H) 545 mm / 5 | Code | 173P |

Power supply: 115 Vac, 60 Hz, single-phase, or 230 Vac, 50 Hz, single-phase



Double Lab Knitter

294F

High precision laboratory knitting machine for the production of tubular knitted fabric for checking dyeing uniformity and assessment of dye affinity. Therefore each cylinder is fed by ONE SINGLE yarn at a time.

Equipped with two cylinders (3", 3/4" diameter), selectable number of needles and fineness (see the indicative chart below).

Endowed with fabric fineness regulation mechanism.

Automatic oiling device.

Ergonomic control panel complete with:

electronic yarn length count meter;

potentiometer for variable speed regulation;

Led indicators monitoring machine functions.

Optional:

- Electronic tensioner Code 2940.100
- Foot switch Code 294F.80
- 36-position automatic feeder

Two cylinders fitted in the machine. Other cylinders are available on demand.

Power supply: 230 Vac, 50/60 Hz, single-phase, or 230 Vac, 50/60 Hz, three-phase, or 400 Vac, 50/60 Hz, three-phase + N, 1,1 kW

Weight: 180 kg

Dimensions: (L) 600 x (W) 850 x (H) 1750 mm

Available cylinders:

| Code ** | nr of needles for filaments | Needle gauge | Indicative count range* | |
|-----------|-----------------------------|--------------|-------------------------|---------------|
| | | | for filaments | for spun yarn |
| 294F 1320 | 320 | 75 | Dtex 10-100 | Ne 80-120 |
| 294F 1260 | 260 | 70 | Dtex 30-150 | Ne 60-80 |
| 294F 1240 | 240 | 48 | Dtex 70-300 | Ne 40-60 |
| 294F 1220 | 220 | 48 | Dtex 100-400 | Ne 20-40 |
| 294F 1140 | 140 | 36 | Dtex 200-1000 | Ne 12-20 |
| 294F 1112 | 112 | 24 | Dtex 400-2000 | Ne 8-12 |

* Cylinder capacity should be confirmed by yarn testing, as cylinder selection is affected by yarn count, composition and friction.

** Cylinders with different capacity are available on request.

Wash & Dry Lab

3397D

Laboratory table, suitable for all operations and for all needs you could have in chemical and physical laboratory tests, to be performed using chemicals, dyestuffs, wet and moist samples, etc.

Unit built in stainless steel. Easy to clean. Model equipped with, sink with tap, cabinet with sliding doors, manual padder (Code 3399D, available also as stand alone unit) and warm/cold air sample dryer.

Power supply: 400 Vac, 50 Hz, three-phase + N

Net weight: 102 kg

Dimensions: (L) 1300 x (W) 700 x (H) 1180 mm



Certificates and Calibrations

In 2004 MESDAN® S.p.A. obtained from Det Norske Veritas (DNV) the certification about Quality and Environmental Management System, in conformity with UNI EN ISO 9001 and UNI EN ISO 14001, with validity for design, manufacture and calibration of textile laboratory instruments.

Since then, MESDAN® S.p.A. has successfully undergone through the periodical audits of the Certifying Body and complete re-assessment of certification of its Quality Systems.



MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: CERT-14215-2004-AQ-MIL-SINCERT Initial certification date: 07 May 2004 Valid: 24 April 2022 – 23 April 2025

This is to certify that the management system of
MESDAN S.p.A. - Sede Legale e Operativa
Via Masserino, 6 - 25080 Puegnago del Garda (BS) - Italy
and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Quality Management System standard:
ISO 9001:2015

This certificate is valid for the following scope:
**Design, manufacture and servicing of knotters and jointair devices for yarn joining.
Design, manufacture and calibration of textile laboratory instruments
(IAF: 18)**



MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: CERT-975-2004-AE-MIL-SINCERT Initial certification date: 09 July 2004 Valid: 01 June 2022 – 31 May 2025

This is to certify that the management system of
MESDAN S.p.A.
Via Masserino, 6 - 25080 Puegnano del Garda (BS) - Italy
and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Environmental Management System standard:
ISO 14001:2015

This certificate is valid for the following scope:
**Design and manufacture of knotters, Jointair devices for yarns and measuring and testing equipment for textile laboratories through the processes of shearing, laser cutting, vibro-finishing, heat treatments, degreasing, finishing, machining, assembly and testing
(IAF 18)**

Evaluated according to the requirements of Technical Regulations RT-09

Place and date:
Vimercate (MB), 04 March 2022



For the issuing office:
DNV - Business Assurance
Via Energy Park, 14, -20871 Vimercate (MB) - Italy

Claudia Baroncini
Claudia Baroncini
Management Representative

Lack of fulfillment of conditions as set out in the Certification Agreement may render this Certificate invalid.
ACCREDITED UNIT: DNV Business Assurance Italy S.r.l., Via Energy Park, 14 - 20871 Vimercate (MB) - Italy - TEL: +39 88 99 905. www.dnv.it

Place and date:
Vimercate (MB), 01 April 2022



For the issuing office:
DNV - Business Assurance
Via Energy Park, 14, -20871 Vimercate (MB) - Italy

Claudia Baroncini
Claudia Baroncini
Management Representative

Lack of fulfillment of conditions as set out in the Certification Agreement may render this Certificate invalid.
ACCREDITED UNIT: DNV Business Assurance Italy S.r.l., Via Energy Park, 14 - 20871 Vimercate (MB) - Italy - TEL: +39 88 99 905. www.dnv.it

Mesdan Lab can issue:

- Calibration Reports, complying with **UNI EN ISO 9001** (in some countries contractual calibration service for complete laboratories is available on demand).
- Calibration Certificate, complying with **ISO 17025** (Accredia - ILAC).

MESDAN® S.p.A. closely supports its international clientele in more than 70 countries by means of a capillary network of sales and service stations, which can provide qualified technical assistance.

MESDAN® affiliations



CERTIFICATO DI ACCREDITAMENTO Accreditation Certificate

ACCREDITAMENTO N. **279T REV. 00**
ACCREDITATION N.

EMESSO DA **DIPARTIMENTO LABORATORI DI TARATURA**
ISSUED BY

SI DICHIARA CHE **MESDAN LAB SERVICE**
WE DECLARE THAT

SEDE PRINCIPALE/HEADQUARTER
• Via Beretta, 20 25086 PUEGNAGO DEL GARDA (BS) - Italia

È CONFORME AI REQUISITI DELLA NORMA
UNI CEI EN ISO/IEC 17025:2005 - Requisiti generali per la competenza dei laboratori di prova e taratura
MEETS THE REQUIREMENTS OF THE STANDARD
EN ISO/IEC 17025:2005 - General requirements for the competence of testing and calibration laboratories

QUALE **Laboratorio di taratura (LAT)**


AS **Calibration laboratory (LAT)**

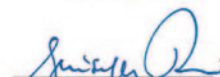
Data di 1ª emissione
1st issue date
07-03-2019

Data di Modifica
Modification date

Data di Scadenza
Expiry date
06-03-2023


Ing. Rosalba Mugno
Il Direttore di Dipartimento
The Department Director


Dott. Filippo Trifiletti
Il Direttore Generale
The General Director


Ing. Giuseppe Rossi
Il Presidente
The President

L'accreditamento attesta che il Laboratorio ha la competenza per operare quale Centro di taratura ACCREDIA per le grandezze, i campi e le incertezze di misura riportati nella tabella allegata al presente certificato di accreditamento. Il presente certificato non è da ritenersi valido se non accompagnato dalla tabella allegata e può essere sospeso o revocato in qualsiasi momento nel caso di inadempienza accertata da parte di ACCREDIA. La validità dell'accREDITAMENTO può essere verificata sul sito WEB (www.accredia.it) o richiesta direttamente al Dipartimento di competenza. Questo Laboratorio è accreditato in accordo alla norma internazionale UNI CEI EN ISO/IEC 17025:2005. L'accREDITAMENTO dimostra che il laboratorio possiede competenza tecnica per lo scopo definito e che opera secondo un sistema di gestione (si veda il comunicato congiunto ISO-ILAC-IAF dell'Aprile 2017).

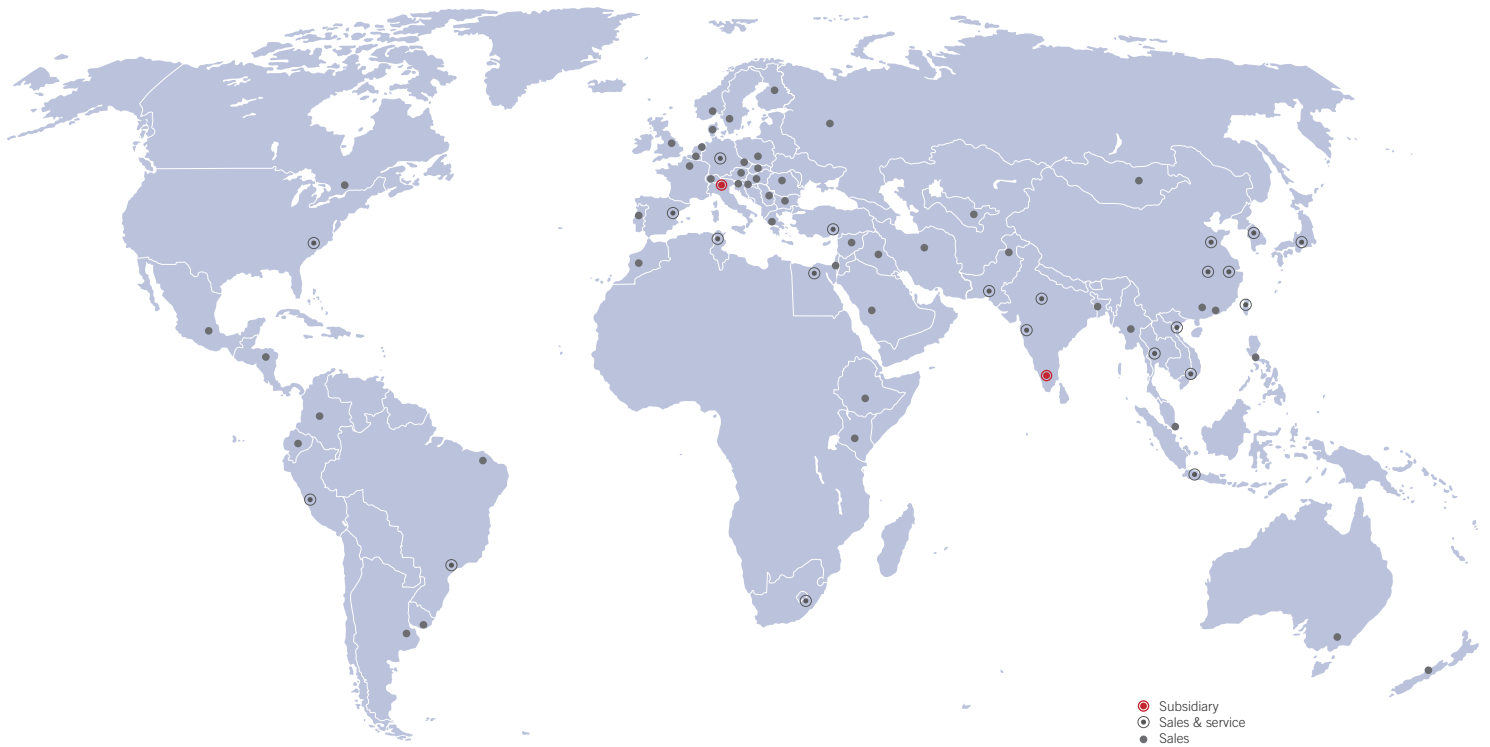
Accreditation attests that the Laboratory has the competence to operate as calibration Centre of ACCREDIA, for the physical quantities, the range and uncertainty of measurement reported in the table attached to the present accreditation certificate. The present certificate is valid only if associated to the annexed schedule, and can be suspend or withdrawn at any time in the event of non fulfillment as ascertained by ACCREDIA. The in force status of the accreditation may be checked in the WEB site (www.accredia.it) or on direct request to relevant Department. This laboratory is accredited in accordance with the recognised International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF Communiqué dated April 2017).

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ACCREDIA

Sede operativa: Strada delle Cacce, 91| 10135 Torino - Italy| Tel. +39 011 328461| Fax +039 011 3284630
Sede legale: Via Guglielmo Saliceto, 7/9| 00161 Roma - Italy| Tel. +39 06 8440991| Fax +39 06 8841199
info@accredia.it| www.accredia.it| Partita IVA - Codice Fiscale 10566361001





MESDAN®
headquarter



Mesdan Lab
new plant

