# Datacolor® Autolab

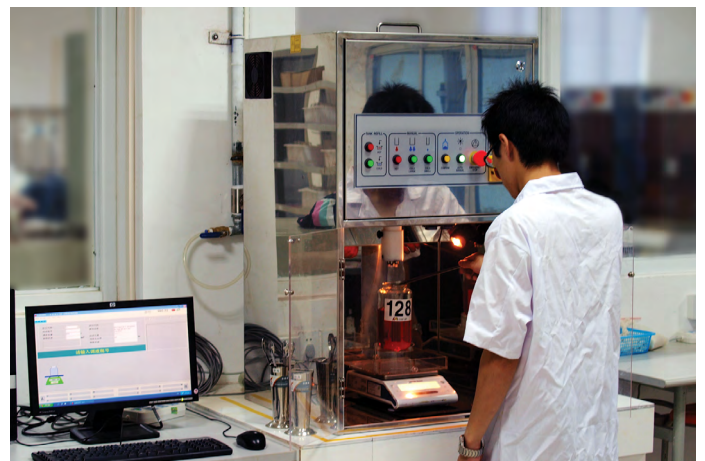## Fast and accurate color lab dispensing



## Automate your recipe creation with Datacolor Autolab Dispensing System

Designed for the color lab where speed, accuracy, and repeatability are the primary focus, the Datacolor Autolab® TF automated dispensing system dispenses a wide range of solutions for textile exhaust and continuous dyeing, textile printing, floor covering, pigment industries and more.

Datacolor Autolab® TF dispenses dye recipes quickly, providing optimized lab productivity and eliminating costly re-dyes resulting from operator errors.

The companion solution preparation system – Autolab® SPS ensures that dye solutions used in the lab and the dispenser are prepared accurately and consistently.

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## Higher lab productivity

Automated, rapid dispense of a wide range of viscosities of products eliminates human error and increases throughput. Calibation-free injectors dispense water and chemicals into more than one dye pot simultaneously, further enhancing productivity. Thanks to its low noise emittance, the Autolab fits perfectly into a quiet lab environment.

## Accurate and repeatable results

The dispensing system uses dedicated individual injectors to transfer the solution from each dye bottle, removing any possibility of cross contamination. The design and constant solution agitation provide a high level of repeatable results. Automated gravimetric dispensing provides full traceability for each solution dispensed.

## Safe operations, low in maintenance

The Autolab TF dispensing system is tube-free, eliminating the possibility of sedimentation and the need to clean the system, resulting in accelerated start-up and minimum downtime. Its design ensures safe operation mode.

## Stable and consistent solutions

Autolab SPS solution preparation system ensures that dye solutions used in the lab and on the dispenser are prepared accurately and consistently, ensuring fast throughput and removing human error.

# Datacolor Autolab: What you get

Autolab TF includes a complete dispenser system, solution bottles, dispense injectors, dispense scale, dyepot trays, Autolab dispense software, installation and user manuals, installation hardware kit, and ready spare parts kit.

**Autolab TF key features:**

| Autolab TF Hardware | Autolab TF Software |
|---|---|
| • Full Gravimetric Dispensing System<br><br>• Safe operations with minimum maintenance needed<br><br>• Models available in 40, 80, 120, or 160 solution bottles<br><br>• Models 88, 128, and 168 offer a tray feeding conveyor system for continuous dispensing and 7 self-refilling chemical auxiliary bottles<br><br>• Individual Dispense Injectors for each solution<br><br>• Average dispense time for (6 recipes : 3 dyes, 180 cc total volume) is 6 minutes.<br><br>• Accuracy of dispense (gravimetric) ± +/- 0.02 gr.<br><br>• Dispense range (kg) 0-4.0Kg<br><br>• Higher dispense weights available with specialized scale<br><br>• Dispense controlled by robotic X-Y-Z axis mechanism<br><br>• Precise electronic scales with 0.01 gr. readability<br><br>• Dyepots trays for dispensing recipes (holding up to 6 dyepots)<br><br>• Auto-Dilution Feature to make lower concentration of same dyestuffs<br><br>• Dispense accuracy of 0.02 grams<br><br>• Automatic solution bottle agitation, with speed, interval and direction control<br><br>• PC/PLC controlled<br><br>• Complete suite of Windows based Dispenser Manager software | • User friendly Windows based software<br><br>• Graphical data information display, easy to read and understand<br><br>• User-definable fields<br><br>• Stock solution management (including life time and stock levels)<br><br>• Full Recipe Management (including multiple recipe dispense trials, blend recipe handling, master recipe storage and completion function)<br><br>• Job queuing, including emergency recipe priority dispense function<br><br>• Capability of automatic pre-programmed advanced start dispense function<br><br>• Full batch tracking, providing total traceability of results<br><br>• Full function hardware diagnostics – easy to diagnose and locate any potential problems<br><br>• Real-time status display – the current status and operating conditions of the system is displayed on screen at all times<br><br>• Integration with DCIMatch™, Datamatch™, and ITMProcess™ for automatic transfer of recipes to lab dispenser<br><br>• Multi-format data import/export capabilities<br><br>• Software available in different languages |

**Features comparison per model**

| AUTOLAB™ TF-40 | AUTOLAB™ TF-80 | AUTOLAB™ TF-88 | AUTOLAB™ TF-120 | AUTOLAB™ TF-128 | AUTOLAB™ TF-160 | AUTOLAB™ TF-168 |
|---|---|---|---|---|---|---|
| 40 solution bottles | 80 solution bottles | 80 solution bottles | 120 solution bottles | 120 solution bottles | 160 solutions bottles | 160 solutions bottles |
| 40 injectors | 80 injectors | 80 injectors | 120 injectors | 120 injectors | 160 injectors | 160 injectors |
| No dedicated chemical bottles (need to use standard injector bottle positions) | No dedicated chemical bottles (need to use standard injector bottle positions) | 7 chemicals with 5-litre auto-refill | No dedicated chemical bottles (need to use standard injector bottle positions) | 7 chemicals with 5-litre auto-refill | No dedicated chemical bottles (need to use standard injector bottle positions) | 7 chemicals with 5-litre auto-refill |
| | | In-feed/out-feed auto load conveyor | | In-feed/out-feed auto load conveyor | | In-feed/out-feed auto load conveyor |
| Single dispense scale | Uses 2 dispense scales | Single dispense scale | Uses 2 dispense scales | Single dispense scale | Uses 2 dispense scales | Single dispense scale |
| Simultaneous volumetric dispense of water into 3 dyepots at same time | Simultaneous volumetric dispense of water into 3 dyepots at same time | Simultaneous dispense of water into 2 dyepots at same time | Simultaneous volumetric dispense of water into 3 dyepots at same time | Simultaneous dispense of water into 2 dyepots at same time | Simultaneous volumetric dispense of water into 3 dyepots at same time | Simultaneous dispense of water into 2 dyepots at same time |
| Auto loading/ unloading of dyepot tray | Auto loading/ unloading of dyepot trays | Separate area for gravimetric dispense of dye solutions and volumetric area for dispensing of water/ chemicals | Auto loading/ unloading of dyepot trays | Separate area for gravimetric dispense of dye solutions and volumetric area for dispensing of water/ chemicals | Auto loading/ unloading of dyepot trays | Separate area for gravimetric dispense of dye solutions and volumetric area for dispensing of water/ chemicals |
| Dispenses 6 recipes at a time (1 tray) | Dispenses 12 recipes at a time (2 trays) | Dispense up to 30 recipes at a time (5 trays) | Dispenses 12 recipes at a time (2 trays) | Dispense up to 42 recipes at a time (7 trays) | Dispenses 12 recipes at a time (2 trays) | Dispense up to 54 recipes at a time (9 trays) |

Autolab SPS includes a complete solution maker system, solution bottles, dispense bottles, dispense scale, 6 position mixing station, Autolab SPS software, installation and user manuals, installation hardware kit, and ready spare parts kit.

## Autolab SPS key features

| Autolab SPS Hardware | Autolab SPS Software |
|---|---|
| • Hot water tank, 15L capacity with automatic refill<br>• Automatic water heater with programmable temperature controller<br>• Cold water tank, 5L capacity with automatic refill<br>• Additional manual controls for all dispense valves<br>• Mettler precise electronic balance<br>• Separate 6-position mixer station for mixing of solutions during preparation | • User friendly Windows based software<br>• True Multi-Tasking Capabilities<br>• Dyestuff and Auxiliary Data Management<br>• User Configurable Solution Making Parameters<br>• Management of Stored Multi-Step Processes<br>• Dye Solution Management and Stock Control Reporting<br>• Semi-Automatic and Interactive Solution Making<br>• Direct Water Dispensing, Accurately Controlled<br>• Solution Maker Hardware Diagnostic Programs |

| Autolab SPS Feature Comparison | Autolab SPS | Autolab SPS-X |
|---|---|---|
| Number of large cold water valves | 2 | 2 |
| Number of small cold water valves | 1 | 1 |
| Number of hot water valves | 1 | 1 |
| Moving dispense head | Manual | Manual |
| Number of make solution mixing positions | 6 | 6 |
| Hot water tank capacity | 15 L | 15 L |
| Cold water tank capacity | 5L | 5L |
| Readability of scale | ± 0.01 g | ± 0.001 g |
| Speed of water dispense (1 litre) | 30 sec | 30 sec |
| Accuracy of water dispense | ± 0.1 g | ± 0.1 g |
| Dispense range 0-4000g | 0-4000g | 0-4000g |
| Power Voltage | 220 V | 220 V |
| Power Frequency | 50/60 Hz | 50/60 Hz |

# Technical system requirements

Preferred/ advised environment

- Room temperature should be stable within the limits of 18 to 26 °C
- Humidity should be within the range 40% to 80% RH
- The unit should be installed in a relatively dust-free area, out of direct line of any air-conditioning airflow
- System should be installed in a vibration free environment

Power

- 220 V, +/- 10 %, 50/60 Hz. Single phase, 3 wire (live, earth and neutral)

Water Supply

- Mains Water – 1 to 2 kg/cm² (13-26 psi)
- Gravity Drain

Air Supply

- A clean and dry air supply is required, no lubrication, 4.5-6.0 kg/ cm² (60-80 psi). (TF ONLY)

PC Requirements for AutoLab TF & SPS systems

- 2.0 (GHz) or faster x86- or x64-bit processor
- 4GB RAM
- High Resolution Color Monitor
- Network Card
- DVD drive
- Windows Operating System (Min. Win 7 PRO)
- (1) RS232 com port required for PC for TF dispenser.
- If fabric weigh scale is required to connect to TF dispenser PC, then the TF PC requires (2) RS232 COM ports.
- If both SPS and TF are connected to the PC, then it requires (3) RS232 com ports.
- PCs should also include network card/connectors and necessary cabling etc., to allow PCs to be networked together.

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**Addendum:** Important safety note before operating or using the Datacolor Autolab Dispensing System: It is strongly recommended that all personnel refrain from carrying smartphones, smart devices, or magnetic items in close proximity to the Autolab Dispensing System. In rare instances, we have observed that these devices may cause interference, potentially compromising the dispenser's intended operation and posing a safety risk.