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Datacolor[®] AutoLab

Automated Recipe Dispensing System



Datacolor 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 Laboratory Dispenser Series gives you the speed, precision and flexibility to provide accurate and repeatable recipes.



Fast, accurate and maintenance-free

Traditional tubed laboratory dispenser systems generally dispense recipes faster than tubeless dispensers. However, they require a substantial amount of time to maintain and to keep clean, subsequently leading to increased downtime. Some tubeless systems may take longer to dispense each individual recipe, but they require very little maintenance and are more precise.

The Datacolor AUTOLAB TF range of gravimetric dispensers provide the best of both worlds: speed, accuracy and maintenance-free performance.

Datacolor AUTOLAB TF systems are tube-free, eliminating the possibility of sedimentation and therefore any need to clean the system. They use dedicated individual injectors to transfer solution from each dye bottle, removing any possibility of cross contamination.

- All products are physically weighed during dispense, ensuring total control and traceability
- Simple but effective design injector, easy to maintain and low cost
- Uses dyepot holding trays, with 6 dyepots in each tray, to optimize dispense throughput
- Dyepot trays can be prepared in advance, saving operator and operation time
- Dispenses water and chemicals simultaneously, accelerating dispense speeds even further
- Conveyors used to further automate the process (up to 60 recipes can be dispensed without the need for any human intervention)



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Higher Lab Productivity

Due to its low maintenance requirements and high level of automation, while the Datacolor AUTOLAB TF dispenser is automatically performing its many tasks of preparing recipes, your employees can be more productive carrying out other tasks in the lab.

Datacolor AUTOLAB TF also offers other benefits of considerable importance that make it the best possible choice for most textile labs:

- Dispenses a wide range of viscosities of products
- Employs a fast, high precision and reliable servo motor-driven robotic arm mechanism for exceptionally rapid dispense and system reliability
- · Provides excellent repeatability due to its design
- Eliminates human error, by removing human decision making and intervention
- Delivers high throughput in the lab

Faster Startup, Less Downtime

With Datacolor AUTOLAB TF, there are no dispense tubes, valves, or valve wires to maintain or clean. Because there is also no need to calibrate injectors, startup is accelerated, and downtime and longterm maintenance are minimized. And Datacolor AUTOLAB TF lab dispensers are easy to operate. Datacolor's simple and highly effective control method uses PLC control and Windows® based software, ensuring reliable operation and minimal maintenance.

Stable, Accurate and Consistent Solutions

In addition to the AUTOLAB TF range of dispensers, Datacolor also provides a range of automated solution preparation systems, AUTOLAB SPS, to ensure that dye solutions used in the lab and on the dispenser are prepared accurately and consistently. These products feature:

- · Hot water tank, 15 liter capacity with automatic refill
- · Automatic water heater with programmable temperature controller
- · Cold water tank, 5 liter capacity with automatic refill
- 2 large cold water dispense valves
- 1 large hot water dispense valve
- 1 small cold water dispense valve
- Additional manual controls for all dispense valves
- Precise electronic balance with 0.01g or 0.001g readability (SPS/SPS-X)
- Separate 6-position mixer station for mixing of solutions during preparation

Because Color Matters

Datacolor AUTOLAB TF and AUTOLAB SPS can grow as your needs grow. They can run stand alone or be optimized to operate as an integrated part of the Datacolor solution for controlling all aspects of color management. This helps companies innovate faster, ensure consistent color quality, reduce the cost of production, and accelerate their speed to market. Because color matters, leading businesses worldwide choose Datacolor's innovative technology and solutions to consistently achieve the right color.



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AUTOLAB TF Gravimetric Tube-free Dispensers							
Features Comparison	AUTOLAB TF-40	AUTOLAB TF-80	AUTOLAB TF-88	AUTOLAB TF-120	AUTOLAB TF-128	AUTOLAB TF-160	AUTOLAB TF-168
No. of dispense bottles	40	80	88	120	128	160	168
No. of dyestuff bottles	40	80	80	120	120	160	160
No. of auxiliary bottles (including water)	1 (Water)	1 (Water)	7+ (Water)	1 (Water)	7+ (Water)	1 (Water)	7+ (Water)
Number of water valves	3	6	2	6	2	6	2
Size of solution bottles	1L	1L	1L	1L	1L	1L	1L
Size of auxilary refill bottle	-	-	4L	-	4L	-	4L
Capacity of injector	60ml	60ml	60ml	60ml	60ml	60ml	60ml
No. of dedicated injectors	40	80	80	120	120	160	160
No. of agitation positions (programmable)	40	80	87	120	127	160	167
No. of scales	1	2	1	2	1	2	1
Maximum No. of recipes in one batch	6	12	30	12	42	12	54
Accuracy of gravimetric dispense	± 0.02 g	± 0.02 g	± 0.02 g	± 0.02 g	± 0.02 g	± 0.02 g	± 0.02 g
Dispense range (kg)	0-4.0	0-4.0	0-4.0	0-4.0	0-4.0	0-4.0	0-4.0
Dispense speed (6 recipes: 3 dyes, 180 cc tot)	6 min	6 min	6 min	6 min	6 min	6 min	6 min

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Features Comparison	AUTOLAB TF-40	AUTOLAB TF-80	AUTOLAB TF-88	AUTOLAB TF-120	AUTOLAB TF-128	AUTOLAB TF-160	AUTOLAB TF-168
Power Voltage	220-240 V						
Power Frequency	50/60/ Hz						
Power Wattage	1.4 KW	1.4 KW	1.4 KW	1.6 KW	2.0 KW	2.2 KW	2.2 KW
Unpacked dimensions (W*D*H) mm	1824 * 1423 * 2007	2350 * 1423 * 2007	2397 * 1725 * 2007	2876 * 1423 * 2007	2923 * 1725 * 2007	3402 * 1423 * 2007	3449 * 1725 * 2007
Unpacked weight (kg)	600	1050	1090	1210	1250	1330	1450
Packed dimensions (W*D*H)mm	2390 * 2000 * 2260	3170 * 2000 * 2260	3170 * 2150 * 2260	3670 * 2150 * 2260	3670 * 2150 * 2260	4230 * 2150 * 2260	4230 * 2150 * 2260
Packed weight (kg)	900	1470	1510	1670	1710	1840	1960

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	

Operating Requirements:

General 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

<u>Power</u>

• 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

- CPU level: Intel Core i5 2.0 Ghz or faster; Do not use Celeron CPU.
- x64 Processor: AMD Opteron, AMD Athlon 64, Intel Xeon with Intel EM64T support, Intel Pentium IV with EM64T support
- HD hard disk level: 256GB (7200rpm) or SSD.
- RAM memory level: 4096 MB DDR3 or higher.
- 232_COM Port: One or more.
- Screen: 17 inches or more, resolution 1024*768 (24-bit or more) or more

The Operating system requirements are one of the following:

- Windows 10
- Windows Server 2012
- Windows 8 RTM
- Windows Vista SP2
- Windows Server 2008 SP2
- Windows 7 SP1
- Windows Server 2008 R2 SP1

