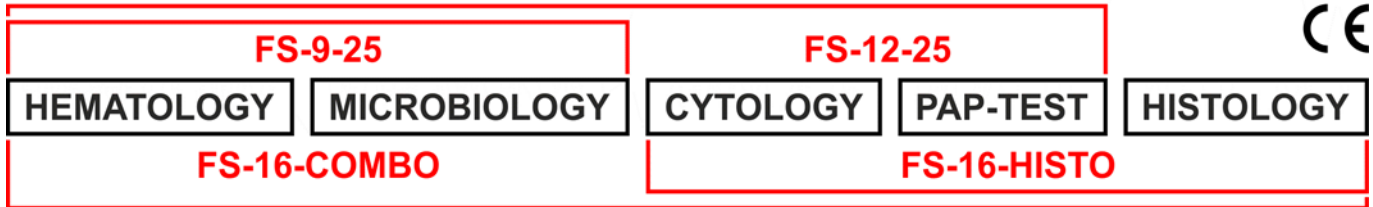




# NEW FAMILY OF AUTOMATED SLIDE STAINERS



Automated slide stainers FS-9-25, FS-12-25, FS-16-COMBO, FS-16-HISTO provide staining of biological micro-preparations with the most popular techniques in hematology, microbiology, cytology (including Papanicolaou staining), and histology (H&E and special stains) with productivity sufficient for the majority of healthcare facilities. The devices have an economical, compact, unified design with efficient mechanics and software that provides ease of use and wide technological capabilities.

The principle of the staining process is a sequential programmed movement of racks with slides from station to station where technological operations are carried out. The working chamber is covered with a transparent lid and has compulsory ventilation, which ensures safety in handling toxic reagents.

The slide stainers are equipped with the following types of stations:

- one station with a flow-through trough (tap water);
- one station for drying slides with warm airflow (there is no drying station only in FS-16-HISTO);
- combined stations – either for placement of troughs with liquid reagents or for placement of racks with slides, which makes it possible to create an optimum configuration of a device for each staining technique and even for each laboratory.

The mechanics of devices is unique in simplicity and reliability. The racks with slides rotate not only in a horizontal plane but also up and down. The rising of a rack from the reagent is accompanied by inclining and vibration, which facilitates the draining of excessive liquid from slides and the rack. Thus, the transfer of reagents between troughs is extremely low. The manipulator's mechanism is designed in such a way that a rack gets firmly fixed in its grab, making it possible to carry out high-speed movements (during dipping, shaking, transfer from station to station, etc.).





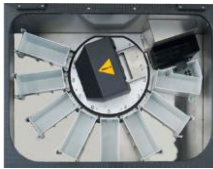

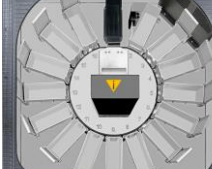

Control and programming are performed with a color touch-screen display. Programming functions include not only the consequence and duration of technological operations but also their parameters and modes. A technological operation can be performed in a number of ways: immersion into the reagent, immersion with a programmed period of activation, repeated dipping of slides into the reagent (can accelerate the speed of procession)., The slides processing is significantly accelerated due to the modes with activation. For reagents with different viscosities, different times are set for holding the rack over the trough to drain excess liquid. Programming the interval for the launching of new racks into the process makes it possible to configure programs with parallel procession of several racks. To multiply performance, there is an opportunity to install several troughs with the reagent that is used for the most time-consuming operation.

There is an opportunity to develop technological programs not only directly in the device but also with the help of an external computer and the original "SFE" software. This allows to compose, edit, save technological programs, print program protocols, choose the optimal interval between the start of the rack processing, perform a number of other functions, the most important of which is updating the device's microprocessor firmware. In this case, the loading of technological programs is carried out by writing to a micro SD card.

## WHY IS FASTAINER FAST ?

- Easy & quick installation due to compact size and lightweight
- Ready to work in several seconds after switching on
- User-friendly, easy, and fast programming
- High-speed movements due to firm fixing of the rack in the manipulator grab
- Acceleration of physical & chemical processes due to activation and dipping modes
- Little time for draining, as the racks are inclined on rising with vibration
- Parallel procession of two or three racks

## Overview of FASTAINERS technical characteristics

	FS-9-25	FS-12-25	FS-16- COMBO	FS-16-HISTO
General view				
Working chamber				
Overall number of stations	9	12	16	16
Number of combined stations	7	10	14	15
Number of flow-through stations	1	1	1	1
Number of drying stations	1	1	1	0
Blotter	-	+	-	-
Number of slides in a rack	25 (10*,20**)			
Volume of reagent in a trough, ml	210 (100)			
Control and monitoring	4.3" color TFT display (resistive touch screen) ***			
Max. number of staining programs	32			
Max. number of program steps	30			
Free choice for each technological program	<ul style="list-style-type: none"> <li>● Launch interval for processing of racks with slides ("interval");</li> <li>● Configuration (arrangement of troughs with reagent and "parking" stations for slide racks);</li> <li>● Number of troughs with the reagent for longest procession.</li> </ul>			
Free choice for each step	<ul style="list-style-type: none"> <li>● reagent; ● station; ● time (0 s – 59 min 59 s); ● activation period (1 - 99 s);</li> <li>● draining time (0 - 99 sec); ● number of dipping (1 - 99).</li> </ul>			
Primary application	Haematology, microbiology, parasitology	Cytology (Pap-test) + Haematology, microbiology, parasitology	Histology (H & E, etc.) Cytology (Pap-test) + Haematology, microbiology, parasitology	Histology (H & E, etc.) Cytology (Pap-test) + Haematology, microbiology, parasitology
Performance, slides per hour	up to 150 for Pappenheim staining (MGG) technique	up to 100 for Pap-test	up to 100 for H & E, up to 150 for Pap-test	up to 150 for H & E, up to 150 for Pap-test
Dimensions, mm	530 × 460 × 330	530 × 580 × 330	610 × 580 × 330	610 × 580 × 330
Weight, kg	18	22	25	25
Power supply	230 V / 50 Hz / 300 VA	230 V / 50 Hz / 300 VA	230 V / 50 Hz / 300 VA	230 / 50 Hz / 300 VA

\* There are optional troughs and racks with ten slides capacity.

\*\* There are special accessories – rack-insert with 20 slides capacity, rack holder, and transport boxes for safe and convenient handling and transportation of micro-preparations (applicable for cervical screening).

\*\*\* SFE software gives the opportunity to develop and optimize new technological programs with a personal computer.



**MLT LLC: QUALITY, SIMPLICITY, AFFORDABILITY**

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