DIAPATH

DONATELLO™ SERIES 2

Automatic floor closed cycle processor for histological specimens

CE IVD

Automatic tissue processor Donatello™ Series 2 cod. SDSDN9000

Manufacturer: Diapath S.p.A.

Made in Italy

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GENERAL FEATURES

Functions:

- Automatic tissue processor, with vacuum/pressure system and controlled paraffin/reagent heating functions;
- Stainless steel processing chamber with a capacity of 8 liters and 405 maximum samples, with integrated aspiration system;
- **Reagents pre-heating technology** to process small biopsies in a very short time;
- **MultiSense technology:** during the initial setup of the machine, the software gives the possibility to choose from different parameter setups to best fit the laboratory routine workflow (Green, Low routine, High routine, Open);
- Possibility to set the end of processing time;
- **Reagent tanks identification:** RFID tagging system to recognize reagent tanks, avoiding operator's mistakes during reagent changing procedure;
- **Processed samples tracking:** thanks to an external barcode reader, it's possible to track and to integrate all the information from the barcode printed on the cassette. The software will store all the data to be available, for example, for statistics purposes;
- **Selfcheck:** security initial auto-diagnostic procedure to prevent machine failures during the real run;
- **Safe reagent:** in case of power failure, a safe reagent will be loaded into the retort to protect samples (only if an UPS system is present);
- Improved reagent management system with the possibility to set reagent limits by number of processed cassettes or by number of runs;
- Colored LED on every tank position, to guide the operator during reagent substitution steps;
- User-friendly interface that shows to the operator the level of reagent exhaustion using three different colors of the tank (green: reagent ready; orange: reagent at 75% of exhaustion limit; red: reagent that need substitution);
- Automatic reagents mapping, for the correct positioning of the processing steps during protocol creation: the software will provide only reagents that can fit that specific position;
- **Four reagent level sensors** in the processing chamber, with an emergency level sensor to avoid excess of reagent in full load runs;
- **Exhausted paraffin unload** in a reagent tank, avoiding any possibility of paraffin leaking;
- Automatic wax cleaning procedure;
- Integrated replaceable activated charcoal filter;
- 15" color touch-screen;
- Multiuser icon-based software;
- No limits to the number of protocols stored (depending on PC free storage memory);
- **Reverse protocol** to recover bad processed tissues;
- Exportable Log files for processings, alarms, users, reagent substitution with the possibility to set searching filters;
- Possibility to save and export database on an external USB stick;
- Remote alarming and remote control software (optional);

Capacity and productivity:

- Stainless steel basket with a total capacity of 405 standard cassettes, in three layers of 135 each
- 3 paraffin reservoirs (4L of melted paraffin each)
- 12 reagent tank positions (4,1L or 5L tanks):
  - 9 processing reagent positions
  - 1 paraffin exhausted unloading tank
  - 2 washing reagents
- Adjustable temperature range:
  - Processing and washing reagent: ambient to 65°C
  - Paraffin: from 55°C to 80°C

Remote support (optional)

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The remote assistance software could be available for real-time remote intervention on the machine (*).

(*) An available Internet connection needs to be available in the Laboratory.

Installation:

- Floor model instrument (minimum floor capacity 200 Kg/sq.m.)
- Leveled base with adjustable feet
- Clearance (WxDxH): 800x950x1560 cm

USING FEATURES

Selfcheck

Preventive and diagnostic hardware check on the sensitive parts of the instrument. This check can be automatic or the user can manually start it before the beginning of the run:

- Deep check of the sensitive parts of the instrument
- Patency test on every reagent line (processing, paraffin, washing)
- In the case of any malfunction, the software will warn the operator before the start of the run, to avoid error during sample processing, saving the specimen from bad processing results.

Innovative software

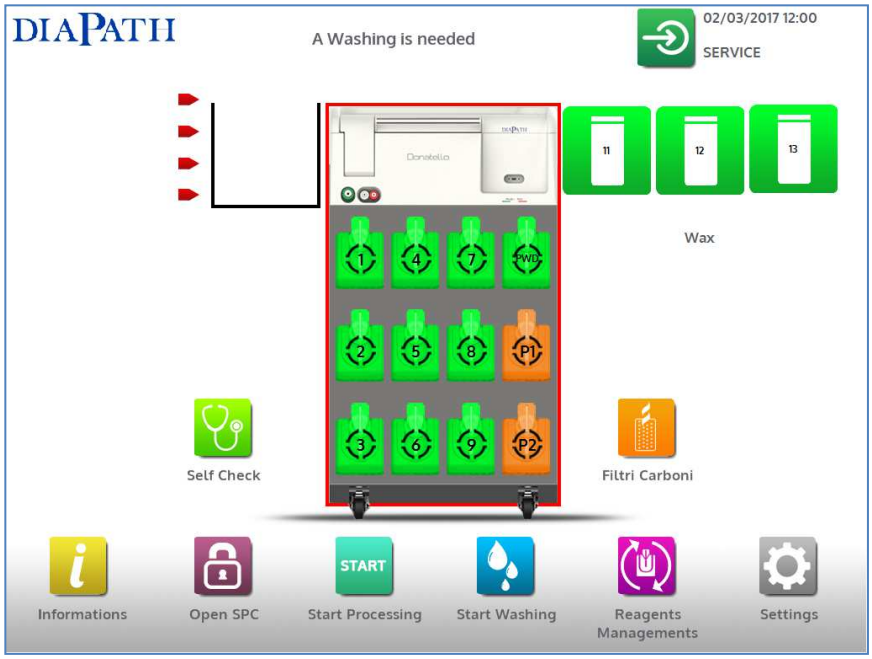
Completely new user-friendly and icon-based software, for the total control of the machine:

- The software guides the user through all the routine procedures, included reagent substitution (where it works in combination with the blinking LED guiding system);
- Reagent exhaustion status always available in the main window thanks to different color tank icons:
  - Green: reagent ready
  - Red: reagent that needs to be substitute
  - Gray: reagent not installed
  - Orange: reagent at 75% exhaustion limit
  - Clock symbol: wax not yet melted

SelfCheck

Samples tracking

Log and statistics



Reagent tanks identification

RFID tagging system for the reagent tank identification

- Software and LED guided reagent substitution procedure, improved with an error proof RFID identification tagging system
- Avoiding reagents mismatching errors and using of non idoneous reagents
- Tracking of reagent type, reagent expiring date, reagent batch number and operator

Fast processing

Protocol option for activating a reagent pre-heating procedure before their effective use in the processing chamber.

- Possibility to have in the chamber a pre-heated reagent (maximum 65°C)
- This procedure permits to process small biopsies (1 mm thickness max.) in 1 hour (effective reagent incubation time)
- User can activate this feature during the protocol creation step

Processing chamber

Stainless steel processing chamber, resistent to solvent and heating:

- Chamber total volume: 8 liters
- Stainless steel three layers basket, 405 samples (135 per layer)
- Four level sensors; the fourth is an emergency level sensor, to avoid excessive filling of the processing chamber;
- For every protocol steps, operator can adjust incubation time, Pressure/Vacuum cycle, temperature, mixing of the reagent.

Activated Charcoal filters

Filtering system with activated charcoal, specific for removing hydrocarbon compounds (like xylene or substitutes). The instrument has an aspiring point even above the reagent chamber. A condensation trap is installed before the filters module to improve filters lifetime and effectiveness.

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1. Stainless steel processing chamber (total capacity 8L and 405 standard cassettes)
2. 15” color touchscreen
3. 3 paraffin reservoirs, total capacity 4L
4. Processing chamber locking system
5. USB port, for database and log exporting
6. Plugs for manual reagent load/unload
7. Tinted glass main door to access to the reagent module
8. Reagent tanks
9. Wheels for instrument transport

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TECHNICAL FEATURES

Total cassettes capacity:	405 standard cassettes
Total processing chamber volume:	8L
Baskets description:	3 layers stainless steel basket, 135 cassettes per layer
Processing chamber level sensors:	4 optical sensors
Maximum number of protocol:	No limit (except for the PC storage memory)
Max. time per step:	24 hours 59 minutes
Max. delay time:	14 days, 23 hours, 59 minutes
End of run time:	Adjustable by the user
Initial protocol step:	Adjustable by the user at the beginning of every run
Reagent positions:	12 (4,1L or 5L tanks)
Paraffin reservoirs:	3 (4L each)
Paraffin melting time:	8 hours (depending on paraffin type)
Paraffin cleaning cycle:	Automatic or manual
Reagents heating temperature range:	Ambient to 65°C
Paraffin heating temperature range:	55°C to 80°C
Reagent mixing:	Adjustable by the user (5 min. till 30 min. rate)
Pressure/Vacuum:	4 different option (ambient, only vacuum, only pressure, pressure/vacuum cycle)
Filters:	Specific activated charcoal filters
Voltage:	230V, 50Hz

Size and weight:

Size (WxDxH):	700x750x1370 mm
Clearance (WxDxH):	800x950x1560 mm
Weight:	250 Kg