VASINI STRUMENTI S.r.l.
MEDICAL DIVISION

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For over 30 years, Vasini Strumenti S.r.l. has been designing, manufacturing and selling devices for blood transfusion centres.

MIXER FOR BLOOD BAGS COLLECTION MOD. EASYMIX25

MAIN FEATURES

1. Colour LCD touch screen display 5" (dim:108mm x 65mm), easy to read from any angle, with the possibility of brightness adjustment. It allows you to guide the user throughout the withdrawal procedure through simple and intuitive messages. Real-time display of: SET, VOLUME, WEIGHT/COLLECTED VOLUME, INSTANTANEOUS FLOW AND GRAPHIC TREND, REAL DURATION, EXPECTED DURATION, REMAINING TIME, ACTIVE ALARMS, DEVICE STATUS, DATE, TIME, BATTERY CHARGING STATUS, TECHNICAL PARAMETERS.
2. Easy-to-clean display protection membrane.
3. Mixing system, consisting of large mixing plate (can also hold bags with filter), removable (for easy cleaning), with 5-second mixing cycle. Wide-ranging tilting system (40°) ensuring optimal mixing of blood with anticoagulant.
4. Automatic and manual tube clamping system, suitable for any type of tube, with tube presence/absence sensor for greater safety during collection.
5. Load cell volume transducer. Weighing accuracy +/- 1 ml.
6. Automatic conversion from grams to milliliters (1ml of blood = 1.06g). Automatic tare weight of collection bag.
7. Electronic setting of the volume to be collected (from 200 to 999 ml), with possibility of variation even during donation.
8. Possibility of quick recall of 10 preset volume SETS.
9. Real-time display of: SET VOLUME, WEIGHT/VOLUME COLLECTED, INSTANTANEOUS FLOW AND GRAPHIC TREND, DURATION, EXPECTED DURATION, REMAINING TIME, DATE, TIME, ACTIVE ALARMS, DEVICE STATUS, BATTERY CHARGE STATUS, TECHNICAL PARAMETERS.
10. Audible and visual **'COLLECTION DURATION'** pre-warning, which can be set, to monitor the duration of the collection.

11. Automatic stop of flow when preset volume is reached or maximum time is exceeded with simultaneous acoustic and visual alarm. END CYCLE button for emergency stop with simultaneous acoustic and visual alarm
12. N°1 USB port for barcode reader connection.
13. N°1 USB host port for memory stick connection for data download, or update FW. (4 Gigabyte flash drive is enough to save thousands of donations).
14. Operation with external mains power or with internal rechargeable battery with high autonomy. It guarantees correct operation and data storage even in the absence of external power supply. Continuous display of battery charge status indicator. Recharge time to guarantee operation: 4 hours.
15. Automatic management of the expiry of the periodic calibration of the load cell, with acoustic and visual alarms.
16. Calibration with LAT traceability test report issue
17. Capacity to store up to thousands sampling cycles.
18. **Bi-directional** communication with LIS (Laboratory Information System), through wireless transceiver (with integrated RF module. Accessory not included).
19. User access protection with 4 different password levels for greater data security: OPERATOR MENU, ADMINISTRATOR MENU, MAINTENANCE MENU, CALIBRATION MENU.
20. Changing passwords possible only by the administrator.
21. Possibility of customizing the sequence of code readings required during the collection cycle.
22. Ability to define the desired sampling procedure and insert any customized checks.
23. Possibility of activating the international procedures foreseen by the ISBT guideline.
24. Equipped with RFID tag reader/writer, passive HF tag at 13.56 MHz ISO 15693 anti-collision, ISBT compliant (Accessory not included).
25. Interface ability with all types of management information systems in use at blood transfusion centers, through data exchange via Text File (CSV), Shared Database, (e.g. Oracle tables) or Web Services
26. Alarms managed:
    - ABSENT FLOW ALARM
    - LOW FLOW ALARM
    - HIGH FLOW ALARM
    - ALARM MAXIMUM TIME EXCEEDED
    - ALARM DURATION 12 MIN.
    - ALARM DURATION 15 MIN.
    - ALARM BALANCE CALIBRATION
    - ALARM LOW BATTERY
    - ALARM DONATION INTERRUPTED
    - ALARM AUTOZERO FAILED
    - ALARM MEMORY FULL
    - ALARM SET VOLUME EXCEEDED
    - BROKEN BALANCE CLOCK ALARM
    - OVERHEATED BATTERY ALARM
27. Possibility, via 1D and 2D barcode reader, to acquire
    - INITIAL AND FINAL OPERATOR CODE
    - DONOR CODE
    - DONOR CODE (CDM)
    - BAG LOT
    - BAG REF.
    - EXPIRY DATE
    - BAG CODES (1...5)
    - TUBE CODES (1...10)
    - ARM CODE
    - DONATION RESULT
   - OPTIONAL CODES (E.G. UID CODES OF RFID TAGS)

The Mod.EO51P-TC-RF-ID-N mixer is certainly among the most advanced blood sampling mixers available on the market. Thanks to its technology, which uses latest-generation reprogrammable micro-processors, it is able to receive, firmware updates that modify its operation, to meet the most diverse requirements of the various customers and to keep up-to-date with current regulations.

Data acquisition is via barcode reader, RFID TAG reader, or touch screen.

By means of wireless communication, the mixer is able to communicate in Mono and Bidirectional mode with the hospital management program. This device has been designed to simplify operations by the operator as much as possible. In order to guarantee complete traceability of donation data, as required by current regulations, the computerized mixer system uses the Supervisor program which is installed on a dedicated PC (PC Client) connected to the company network. It acts as a concentrator for data interchange between mixers and the hospital management system.

BIDIRECTIONAL CONNECTION SCHEMA
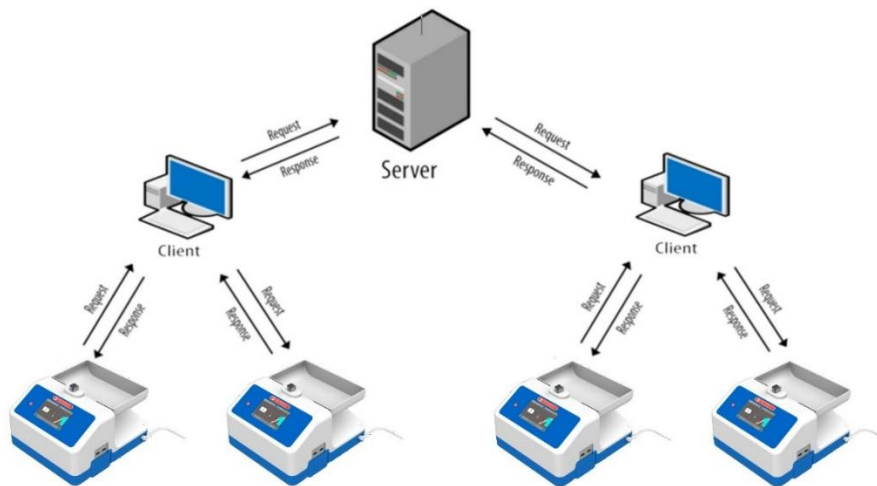
It allows real-time monitoring (up to 25 mixers simultaneously) of
- Connection state;
- Operative state;
- Volume set (ml);
- Volume real (graphical fill bar and value on display) ;
- Collection Duration;
- Donor code;
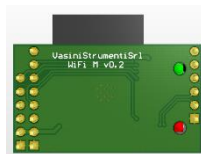- Active alarm;(low flux, hi flux, battery low etc..)
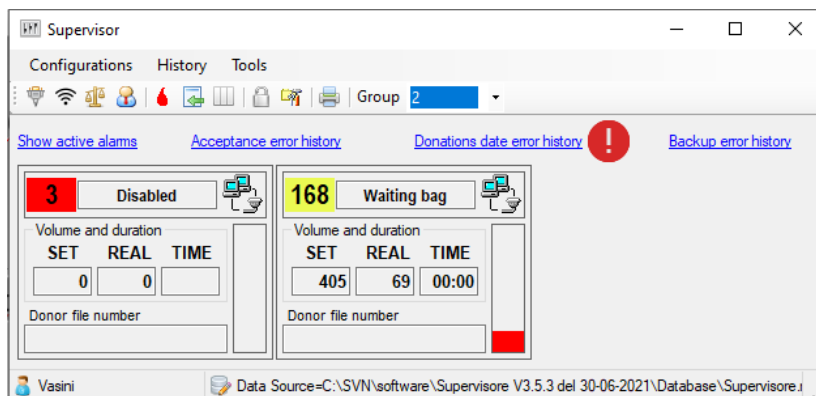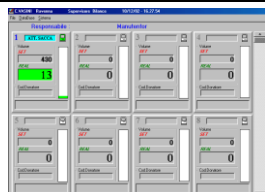
The device guarantees complete traceability of the donation with **BIDIRECTIONAL** interfacing to the management systems of the blood transfusion centres, cross-checking in real time: donor code, CDM code, codes of all collection bags and tubes. On mixers, the collection cycle in BIDIRETIONAL mode is completely automated, as they receive an **INPUT DATA PACKAGE** from the management system and return an **OUTPUT DATA PACKAGE** containing the following codes:

INPUT DATA PACKET SENT TO THE MIXER	OUTPUT DATA PACKET SENT TO MANAGEMENT SYSTEM
DONATION CODE (**CDM**)	MIXER ID
DONATION PROGRAM CODE	DEVICE NAME
VOLUME SET	PROTOCOL VERSION
DONOR CODE	START COLLECTION DATE AND TIME
DONOR SURNAME	STOP COLLECTION DATE AND TIME
DONOR NAME	COLLECTION DURATION
DONOR BIRTH	VOLUME SET (ml)
CODE BAG N.1	VOLUME COLLECTED (ml)
CODE BAG N.2	MEAN FLOW (ml/min)
CODE BAG N.3	TARE (ml)
CODE BAG N.4	INITIAL OPERATOR CODE
CODE BAG N.5	BAG LOT
CODE TUBE N.1	DONOR CODE
TUBE N.1 DESCRIPTION	DONATION CODE (**CDM**)
CODE TUBE N.2	BAG KIT TYPE (TRIPLE, QUADRUPLE,ECC...)
TUBE N.2 DESCRIPTION	CODE BAG N.1
CODE TUBE N.3	CODE BAG N.2
TUBE N.3 DESCRIPTION	CODE BAG N.3
CODE TUBE N.4	CODE BAG N.4
TUBE N.4 DESCRIPTION	CODE BAG N.5
CODE TUBE N.5	TUBES QUANTITY
TUBE N.5 DESCRIPTION	CODE TUBE N.1
CODE TUBE N.6	CODE TUBE N.2
TUBE N.6 DESCRIPTION	CODE TUBE N.3
CODE TUBE N.7	CODE TUBE N.4
TUBE N.7 DESCRIPTION	CODE TUBE N.5
CODE TUBE N.8	CODE TUBE N.6
TUBE N.8 DESCRIPTION	CODE TUBE N.7
CODE TUBE N.9	CODE TUBE N.8
TUBE N.9 DESCRIPTION	CODE TUBE N.9
CODE TUBE N.10	CODE TUBE N.10
TUBE N.10 DESCRIPTION	BAG EXPIRATION DATE
ID. OF COLLECTION POINT	ARM CODE (RIGHT - LEFT)
INSERT DATE	RESULT CODE (EX: OK , OUT OF VEIN , ECC..)
	FINAL OPERATOR CODE
	BAGS REFERENCE
	ALLARMS (EX: NO FLUX, HI FLUX, LOW FLUX, DONATION INTERRUPTED, MAXIMUM TIME REACHED, 12 MINUTES REACHED, 15 MINUTES REACHED, TARATOR NEEDED, LOW BATTERY, AUTO-ZERO PROBLEM, MEMORY FULL, INTERNAL CLOCK PROBLEM, SET VOLUME EXEEDED)
	RFID UID TAG 1
	RFID UID TAG 2
	RFID UID TAG 3
	RFID UID TAG 4
	RFID UID TAG 5
	SUPERVISOR USER CODE

Thanks to the reception of the INPUT data packet, the device is able to compare, in real time, with the data entered by the operator using a barcode or RFID reader, and interrupt operations in the event of a mismatch of codes. Thanks to the possibility of setting customized code control rules, even in the case of ONE-WAY communication, the correctness and completeness of the data collected is guaranteed. In case of an OFF-LINE system, it is possible to download data from the mixer with a USB stick.

TECNICAL DATA	
PRODUCT CODE	**EASYMIX25**
POWER SUPPLY	Provided stabilized power adapter **Input:** 100-240 Vac, 47-63Hz - 0,9-0,3A **Output:** 24Vdc 1,25 A Max
BATTERY	Rechargeable Type NiMh 2200mA (12h of operation) or 4400mA (24h of operation) with high autonomy and no memory effect
AVERAGE BATTERY LIFE	3 years
OPTIMAL CHARGING TIME	5 h
DISPLAY	Colour LCD touch screen display 5" (size:108mm x 65mm)
WORKING TEMPERATURE	From + 10°C to + 40 °C
SWINGING PLATE SPEED	14 RPM
FLAT TILTING AMPLITUDE	From +20° to -20° (total swing of 40°)
TUBE CLAMP	Automatic 2 positions (open, closed) with integrated tube presence sensor
WEIGHT TRANSDUCER	Load cell with maximum load capacity of 6 Kg
ACCURACY	± 1 ml
VOLUME SETS	from 200ml to 999 ml
BAGS TARE	Automatic
PERIODIC CALIBRATION	YES. Programmable and executed by qualified personnel.
MANAGED ALLARMS	No flow, Low flow, High flow, Maximum duration exceeded, Duration 12 min, Duration 15 min, Balance calibration needed, Low battery, Donation interrupted, Auto zero failed, Memory Full, Set volume exceeded, Balance clock broken, Battery overheated.
ALARM SUSPENSION	From keyboard
LANGUAGES	English, Italian, Spanish, German, French
DIMENSIONS	mm 290x320x220 h
COSTRUCTION MATERIALS	ABS, Stainless steel, Alluminium
NET WEIGHT	Kg 3,8
MAXIMUM NOISE LEVEL	42 dB
DEVICE CLASS	**CLASS I**
ELECTRICAL SAFETY CLASS	Class I
APPLIED PARTS CLASS PROTECTION	Type B
CND CODE**:**	
RDM CODE**:**	

OPTIONAL ACCESSORIES		
CODE	**DESCRIPTION**	**PICTURE**
TOUCHTD1100	BARCODE READER 1D	
SCANNER 1470G	BARCODE READER 1D and 2D	
KITRFID-01	RFID Tag Reader/Writer ISO15693	
ELT0000266	Ricetrasmettitore radio 2,5GHz "WiFi_MODULE_V0.2" per connessioni wireless	
USB/RF-01	2.5GHz radio transceiver 'WiFi_MODULE_V0.2' for wireless connections	
COM0000170	Supervisor software for connecting mixers to the PC via cable and/or radio.	
NO CODE	USB flash drive for downloading data or updating firmware	
EO1HDPE	Mixer carrying case made of high-density polyethylene (HDPE) ideal for frequent transport. It can be used as a support for the mixer during the work cycle.	

PESPLT 1KG	1 kg Class M1 weigher kit with plastic container Complete with Lat reference calibration certificate (according to OIML R111) Suitable for balance calibrations and quality control.	
CAR02-1	Mixer trolley, equipped with: no. 1 variable-height shelf, no. 1 fixed shelf, no. 4 swivel castors with brakes	
CARAVE04-2	Variable-height electric mixer trolley, Mixer trolley, equipped with: no. 1 electric variable-height shelf (system to safeguard operators' posture) and no. 1 fixed shelf, no. 4 swivel castors with brake.	

KITPALOLAM	Status indicator with 360° visible RGB LED light (Applicable to various trolley models)	

COMPLYNG WITH THE DIRECTIVES MDR 2017/745

The Company reserves the right to make changes and improvements at any time and without prior notice.
Designed and made in Italy.

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