Medonic M-series M32
Innovation built on total quality

FOR TODAY'S HEMATOLOGY LABS

Full CBC from one drop of blood
Maintenance-free shear valve
Unique walk-away Autoloader

Boule

Make way for Medonic!

Packed with innovation. Uncompromising accuracy. Outstanding quality. Medonic M-series M32 analyzers occupy pride-of-place in the very best hematology labs. There's room for one on your bench-top.

Sampling to full CBC in about one minute

Three Medonic M-series M32 analyzers include MPA micro-pipette adapter sampling. Based on a simple finger prick sample taken directly from the patient, this unique feature transforms Medonic into what is probably the fastest blood cell counter in the world today.

Simply make a finger prick, draw blood into the special 20 µl micro-capillary tube, slide it into the adaptor and insert in the analyzer. In about one minute later, you see the full blood status on the touch-sensitive display. There's no preparation required, no pre-dilution, no vacuum tubes and no needles.

Since making a finger prick is largely painless, MPA is the ideal way to take and analyze blood samples from children. For blood banks, it's the perfect tool for making fast, pre-donation blood testing. It also saves the vein for donation.

Medonic M-Series M32 analyzers deliver a full CBC from just 20 µL of blood. Perfect for children and blood banks!

Accurate results start with precise collection

In hematology analysis, no one can afford to compromise on quality components or accurate results. We certainly don't. Every Medonic M32 analyzer comes equipped with a high-precision shear-valve. No other sampling technique collects blood as precisely as a shear valve. It's a critical part of the measurement that you'll see rejected in the accuracy of every result you report.

Furthermore, not only is the Medonic shear valve extremely precise, it's also completely maintenance-free. As well as accurate results, you enjoy significantly reduced mainten -ance costs. The three-year warranty we give on this component further emphasizes the trust we put in its quality and reliability.

Maintenance-free Medonic M-Series M32 shear valve secures accurate results and lowers maintenance costs.

Perfect walk-away analyzer

Much as you'll enjoy working with your Medonic M32 analyzer, there will be times when you need to leave it to analyze a whole batch of samples by itself.

For these occasions, the M32S with Autoloader is the ideal instrument to have on your bench. As the top-of-the-range model in the M32-series, it's the perfect walk-away analyzer and ideal for many small to medium-sized hospitals. Just pre-load up to 2 x 20 samples and let it do the work!

M-Series M32S with Autoloader is ideal for small to medium-sized hospitals needing walk-away analysis functionality.

Pleasure-to-use graphic interface

The user interface is undoubtedly the most visible and best appreciated feature of the Medonic M32-series. Simple-to-use and easy-on-the-eye, its large 7-inch touch-sensitive display features a 800 × 480 pixel WVGA color screen with a landscape view.

Different set-up views, each optimized for different user situations, facilitate routine use. The most common include a sample view showing 'classical' graphs and all parameters. A second sample view features the much-used reference-bar display that makes clear indication if results are outside of their expected range.

Modern user-interface. Its clean, uncluttered design promotes efficient operation and accurate assessment of results.

Connect and communicate like never before

Better connectivity and improved communication protocols now let laboratories exchange both patient results and quality control data with interested parties. Medonic M-series M32 instruments are fully-equipped to meet new ways of communicating.

For example, they now feature a host of connection possibilities for printers, keyboards, barcode readers, USBs, etc. This better connectivity includes HL7 industrial standard protocol, now available together with the previous XML protocol. LIS connection is via a LAN port. Furthermore, this improved connectivity is very easy to use, as the front-panel USB port demonstrates.

Medonic M-Series M32 analyzer users enjoy improved data communication thanks to a broad selection of connectivity options.

Intuitive software speeds and simplifies

Powerful software keeps Medonic M-series M32 instruments in the front line of automated hematology analysis, simplifying work processes and giving users better control of sample results and patient records. ID field-length has been increased to 50 characters and patient memory extended to 50,000 records, for example. The menu system is both simple-to-understand and easy-to-navigate.

Improved software simplifies work processes and gives users better control of sample results and patient records.

PLT extended count

Medonic M-series M32 provide a PLT extended count feature for more accurate PLT results in the critical low PLT range. In case of patient sample with severe thrombocy -topenia detected the analyzer will activate PLT extended count, counting three times as many platelets as in normal count mode, to be able to give a more accurate PLT result. PLT results analyzed with extended count will be marked with an asterisk (*).

Part of our Total Quality Concept

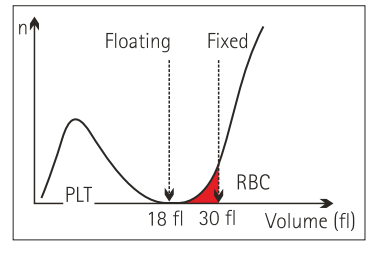
Medonic M-series M32 hematology analyzers are part of a Total Quality Concept that comprises instruments, reagents, quality control materials and service an unbroken chain of know-how in quality hematology measurements.

Innovative-Software and Reagents - High Degree of Accuracy

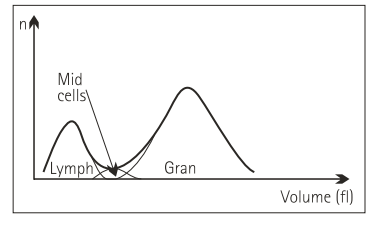
True Floating discriminator between RBC and Platelet floats to find the minima in size distribution curve to place itself at the minima thereby-

I). Eliminating the problem of false elevation in Platelet values for microcytotic sample.

II). Give accurate Platelet count even in critical samples of Patients suffering from Dengue, Malaria etc or undergoing Chemotherapy



M-Series utilises mathematical differential where the curves are analyzed within the software and three separate curves are built through a curve fitting method. This technique is superior to the use of fixed discriminator where false elevated Lymphocyte population reported due to collapsing Granulocyte population in some pathological conditions.



The lyser used in M-Series is in diluted form thereby preventing Crystallizations of the molecules in the tubing. This reduces the necessity of frequent cleaning of the instrument. Thus the instrument operates with two reagents only.

Four models available
One is just right for you

7-inch touch-sensitive display with landscape-view WVGA color screen.

Interface design promotes smooth operation and accurate assessment of results.

Powerful software with simple-to-understand, easy-to-navigate menus.

Built-in tube mixer

Micro piptte adapter (MPA)

Soft lighting plus new ergonomic design simplify sample handling.

Many smart, innovative functions reside inside the cool blue design.

USB port is evidence of much improved connectivity and communication.

Model Characteristics	M32B	M32M	M32C	M32S
Built-in tube mixer		•		•
Micro pipette adapter (MPA)		•	•	•
Maintenance-free shear valve	•	•	•	•
Pre-dilution mode	•	•	•	•
Cap-piercing device			•	•
Autoloader				•

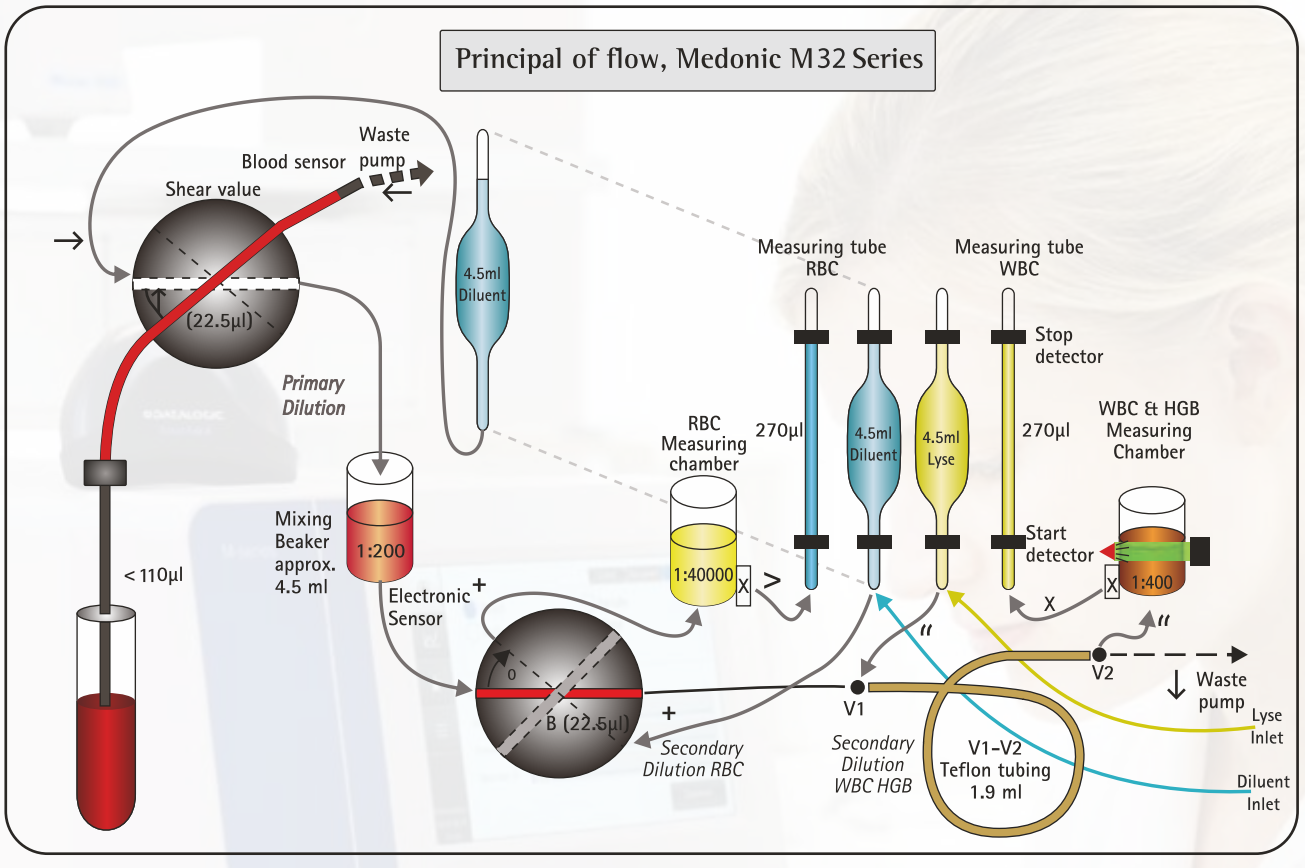
Medonic M32B – even the basic model includes shear-valve technology.

Medonic M32M – five-sample mixer is ideal for doctors' offices and small labs.

Medonic M32C – closed-tube sampling minimizes risks from contaminated blood.

Medonic M32S – Autoloader for up to 2 x 20 samples. Just load and walk away.

The basic principle of the diluting and counting process in M32 Series



Sampling of blood (whole or diluted) taken for dilution is measured through the Unique combination of **Shear Valve and Blood Detector** thereby eliminating the dependency on the PUMP or the environmental conditions as faced by instruments having direct sampling through **Pump & Time (rate) dependent aspiration mechanism** frequently seen in the Three Part differential Segment.

The shear valve is a Closed Type one and thus the same is maintenance-free.

The Metering tube measures the absolute volume passed through the orifice while counting is registered by the instrument thereby preventing possible error during partial clog or changing atmospheric pressure which practically occurs frequently in many systems which depends on the calculative volume using the rate of flow through the orifice.

This Orifice-Metering tube combination :

*Eliminates the requirement of frequent calibration | *Produces results with highest degree of precision and accuracy

SRV technology and absolute volumetric measurement ensure precision and accuracy for all parameters over a wide concentration range - without the need for calibration

Technical specifications Medonic M32 Series

Measuring principle for RBC,WBC,PLT	Electro Impedance, with individual Cell Analysis
Measuring principle for HGB	Photometric, Cyanide free method, 535 nm ± 5 nm
Programmable WBC Discriminator	Yes
Sampling system	Closed Shear Valve (SRV), Maintenace Free
Parameters reported (22)	WBC, LYM, MID, GRAN, LYM%, MID%, GRAN%, RBC, MCV, HCT, PLT, MPV, HGB, MCH, MCHC, RDW%, RDW, PCT, PDW%, PDW, P-LCR, P-LCC
Size distributions	Printed for RBC, PLT and WBC diff. (also for Prediluted samples)
Aspirated blood volume (Open tube)	≤ 110 µL (uses 22.5 µL for analysis)
Aspirated blood volume (Cap Piercer)	≤ 250 µL (uses 22.5 µL for analysis)
Aspirated blood volume (Autoloader)	≤ 300 µL (uses 22.5 µL for analysis)
Blood volume in Micro Pipette Adapter (MPA)	= 20 µL
Pre-diluted mode	1:200 to 1:300 using min. 20 µL
Display	7 inch WVGA true color(24-bit) touch screen
Keyboard	Virtual incorporated keyboard (option to attach External keyboard)
Number of Sample per hour (Open tube) Number of Sample per hour (Cap Piercer)	≥ 60 Samples ≥ 45 Samples
Number of Sample per hour (Autoloader)	≥ 43 Samples
Time to result (Open tube inlet)	≤ 50 Seconds
Printer	External
Control sample memory capacity	> 1000 control samples
Sample memory capacity	50,000 samples
QC capabilities	Mean, SD.CV, Levey- Jennings plots and X-B plots
No of reagents used	2
HGB correction on high WBC counts	Yes
System Information Indicators on parameter abnormalities	Yes
Floating discriminator RBC/PLT	Yes (position printed)
Mathematical 3-part diff. WBC calculation / Curve fitting	Yes
Automatic HGB blank on each sample	Yes
Extended PLT Count (for low value sample < 50,000 count)	Yes, three times
PLT Conc. Mode (Blood Bank application to measure PLT count in PLT. Concentrate)	Yes
Auto dispensing facility of diluent for predilute function	Yes

Performance Data

Parameter	Precision (CV %)	Carry Over	Linearity Range	Display / Measuring Range
RBC	≤ 0.8 %	≤ 1 %	0.30 - 7.00 x 10^{12}/L	0.00 - 14.0 x 10^{12}/L
MCV	≤ 0.5 %	N/A	N/A	15.0 - 250.0 fL
HGB	≤ 0.6 %	≤ 1 %	2.0 - 24.0 g/dL	0.0 - 35.0 g/dL
PLT	≤ 2.9 %	≤ 1 %	10 - 1800 x 10^{9}/L	0 - 5000 x 10^{9}/L
PLT Conc. Mode	N/A	N/A	10 - 5000 x 10^{9}/L	0 - 5000 x 10^{9}/L
WBC	≤ 1.6 %	≤ 0.5 %	0.20 - 130.0 x 10^{9}/L	0.00 - 150.0 x 10^{9}/L

Built-in test adjustment programs	Yes
Interface Ports	1 USB device/4 USB host/1 LAN port (for LIS with HL7 & XML protocol compliance)
Main Voltage	100 - 240 V AC
External Power Adpater	24 V DC
Main Voltage tolerances	±15%
Power consumption Max, Frequency	100 VA (Operating), 50 VA (standby), 50/60 Hz
Operating Temperature	64 - 90 ° F (18 - 32°C)
Humidity (non -condensing)	10% - 90%
Dimensions (HWD)	395 x 295 x 475 mm (M32B/M32M/M32C) 395 x 340 x 475 mm (M32S)
Instrument weight	≤ 18 kg (M32B/M32M/M32C)
Instrument weight (Autoloader)	≤ 22 kg (M32S)

CE

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