



# XS-1000i™ Automated Hematology Analyzer

*Small Footprint. Big Difference.*



# Small But Powerful: The XS-1000i

Even with these challenges, the need for hematology testing has remained steady or continues to grow. Laboratories are searching for hematology analyzers that can improve productivity and efficiency while providing enhanced clinical information. Designed to be reliable and efficient, the Sysmex XS-1000i offers laboratories an automated hematology system that can truly meet and exceed their expectations. The XS-1000i streamlines your workflow by providing testing for up to 60 samples per hour, enabling rapid turnaround time.

*XS-1000i without Auto Sampler*



## Today's Laboratory Challenges

Laboratories have continued to face a number of challenges for several years. These include clinical, operational and financial issues such as:

- Demand for clinically relevant information
- Medical technologist labor shortage
- Increased workload
- Need for faster turnaround time
- Requirement for high reliability
- Limited laboratory budgets

## Proven Technology

The proven technologies – Fluorescent Flow Cytometry, Hydrodynamic Focusing and Non-cyanide Hemoglobin – of the XE and XT-Series have been incorporated into the XS-1000i Automated Hematology Analyzer.

## Leading-edge hematology diagnostics requiring only four feet of counter space:

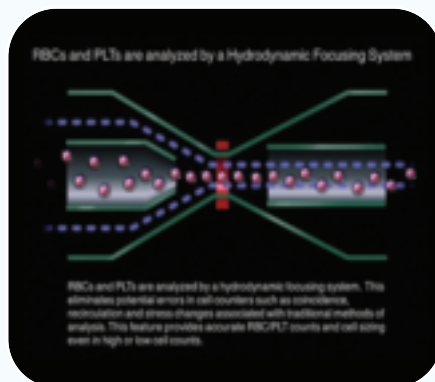
- Effective diagnostic capabilities utilizing fluorescent flow cytometry
- CBC with 5-part differential
- Simplicity in operation for streamlined workflow
- Standardization across Sysmex platforms
- Proven reliability as a member of the X-Series of products

# Improved Clinically Relevant Results with XS-Series Technology

## Rapid Results

The XS-1000i provides rapid, reliable test results from just 20µL of sample for assistance in patient diagnosis and therapeutic monitoring. It utilizes the same diagnostic power and accuracy as the X-Series of high volume analyzers with comparable results.

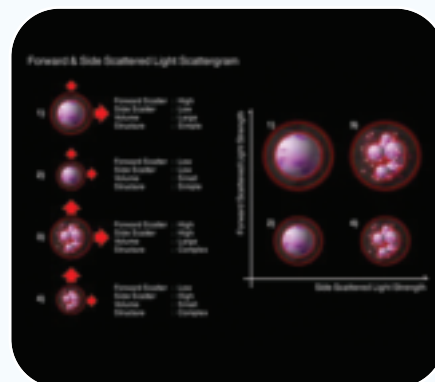
Now you can spend less time managing equipment and sample handling and more time on the critical analytical work in your laboratory.



*RBC and PLT Counting*

## Hydrodynamic Focusing (DC Detection)

Fluorescent technology and hydrodynamic focusing enable the analyzers to consistently classify normal WBC (white blood cell), RBC (red blood cell), and PLT (platelet) populations from abnormal populations, thereby decreasing the number of manual interventions.



*A.C.A.S. WBC Differential Counting*

## WBC DIFF Detection

### Fluorescent Flow Cytometry Yields Optimized Productivity

The Sysmex XS-1000i Automated Hematology System utilizes the power of fluorescent flow cytometry (FFC) and hydrodynamic focusing (FFC) and hydrodynamic focusing technologies. Using a unique, stable, avalanche photodiode with a laser bench, Sysmex fluorescent flow cytometry provides the sensitivity needed for measuring and differentiating cell types in whole blood.

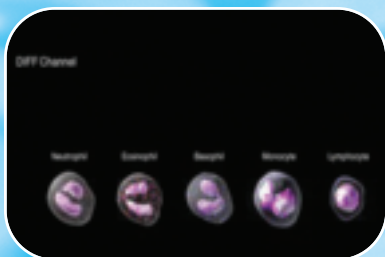


*Laser Technology*

# Advanced Parameters In One Comprehensive System



Non-cyanide Hemoglobin



Adaptive Cluster Analysis System (ACAS)

## RBCs and PLTs

RBCs and PLTs are counted in a dedicated channel using Impedance or Direct Current (DC) detection method combined with hydrodynamic focusing technology. Challenges to cell counting such as coincidence or recirculation are circumvented and automatic discriminators separate the two cell populations.

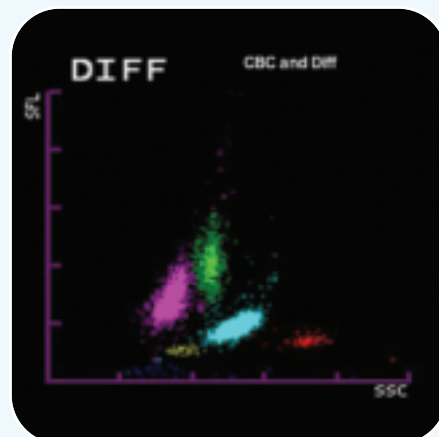
Even with samples at extremely low or unusually high concentrations, the Sysmex system analyzes RBCs and PLTs with uncompromised precision and accuracy.

## High Quality Hemoglobin (HGB) Analysis

The XS-1000i utilizes the non-cyanide reagent, Sodium Laurel Sulfate Hemoglobin (SLS). The end product is a colored compound that is measured spectrophotometrically. Since hemoglobin determinations are performed from a dilution and in its own separate chamber, there is no interference from high WBC counts, lipemia or abnormal proteins.

## Direct Hematocrit (HCT) Measurement

The cumulative pulse heights of all the RBC counts yield the HCT. This is based on the principle that the pulse height (voltage change) produced by cells passing through the aperture is proportional to cell volume.



WBC Differential Scattergram

## WBC a Clear Differentiation

The combination of side scatter (cell complexity), forward scatter (size) of nucleated cells provides a concise and precise image of each detected peripheral blood cell.

This 3-dimensional blood cell analysis provides unique accuracy and precision. Fluorescence labeling of peripheral blood cells is a milestone for the routine leukocyte differential.

Fluorescent technology enables the XS-1000i to reliably differentiate normal WBC populations from abnormal WBC populations. The sensitivity of the unique application of fluorescent flow cytometry gives the lab a high level of confidence in reporting accurate WBC differentials, even on critical patient samples when the WBC count is low.

# Big Benefits For Small Labs

## Reliable Performance

- > 1000 XS-1000i analyzers installed in North America
- SNCS, remote monitoring, to provide maximum uptime
- Technical support available 24-hours / day
- Ranked by independent third party as highest vendor for reliability for 11 consecutive years\*

\*2010 IMV ServiceTrak

## Reportable, Diagnostic Information from a Single Sample Analysis

- Fluorescent flow cytometry for WBC count and differential
- 5-part whole blood WBC and differential (NEUT + LYMPH + MONO + EO + BASO)
- Hydrodynamic focused flow cell counting for RBC and PLT
- Low sample volume requirements; minimum 20µL whole blood

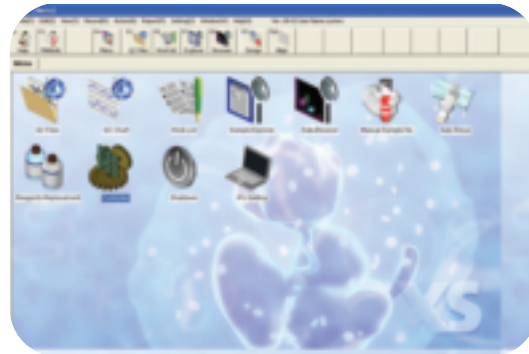
## Streamlined Workflow

- True walk-away analytical process with closed tube auto sampling
- Push button, walk-away daily maintenance
- Standardization with other Sysmex solutions for multi-hospital sites
- Can be used in conjunction with Sysmex WAM™ Decision Support Software for the Clinical Laboratory

## Easy-to-use

- Intuitive software menus
- Barcoded reagent management
- Comprehensive quality control information
- On-board help key for rapid troubleshooting

## Save Time and Become More Productive with the XS-1000i

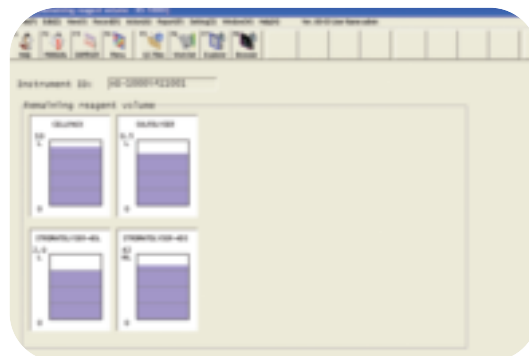


Enhanced productivity with easy-to-use Windows® XP Operating System

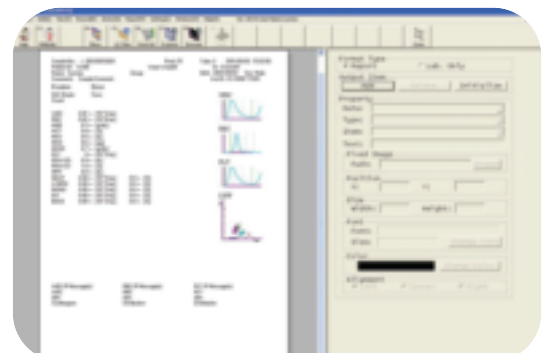
*The XS-1000i improves workflow by providing diagnostic alerts including a message on the screen identifying when patient samples are identified as Negative or Positive.*



*Operation is streamlined with reagent monitoring information displayed for the operator and operational alerts when reagents run low.*



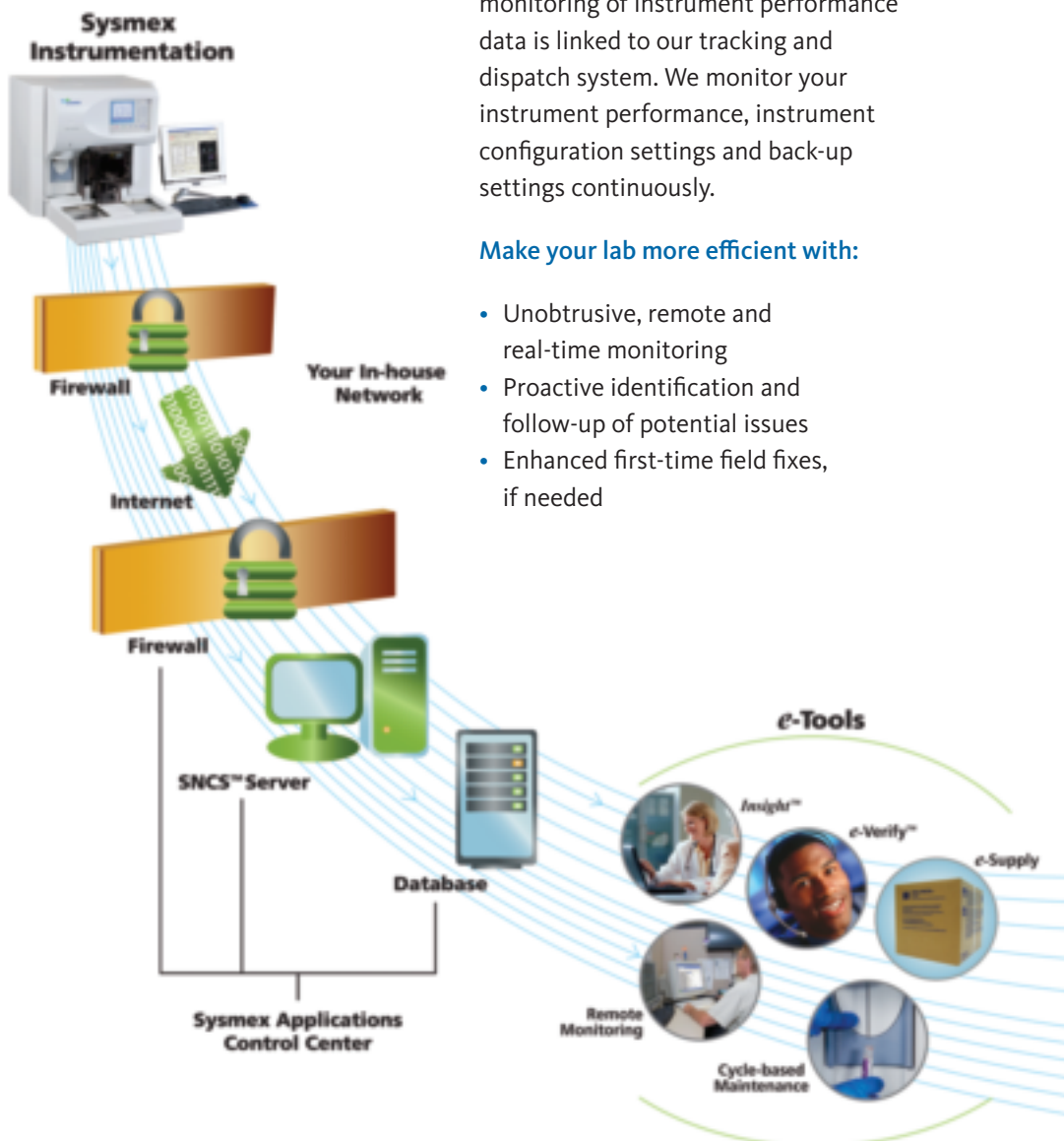
*The XS-1000i provides customized reporting formats so you can produce comprehensive physician reports that are easy-to-read with numeric and visual depictions.*



# Peak Performance

## e-Tools: Assuring Quality and Optimizing Performance

SNCS™, Sysmex Network Communications System, is proprietary software which enables fast, secure communication from your analyzer to Sysmex servers using a high-speed, outbound internet connection. This powerful tool is the instrument data link feeding a variety of innovative tools and services.



## Insight™

*Insight* is a web-based Interlaboratory Quality Assessment Program (IQAP) that allows on-demand quality control reporting with access anytime, anywhere. Meet requirements to document peer comparison data for your analyzer while eliminating manual steps.

## Remote Monitoring

Continuous collection and monitoring of instrument performance data is linked to our tracking and dispatch system. We monitor your instrument performance, instrument configuration settings and back-up settings continuously.

## Make your lab more efficient with:

- Unobtrusive, remote and real-time monitoring
- Proactive identification and follow-up of potential issues
- Enhanced first-time field fixes, if needed

## e-Supply - Reagent Inventory Management

The e-Supply program offers online reagent monitoring that simplifies both ordering and inventory processes. This innovative program helps you:

- Track reagent usage and inventory
- Maintain appropriate inventory levels
- Reduce your shipping cost

# Sysmex XS-1000i Specifications

## Principles & Technologies

Fluorescent Flow Cytometry:  
WBC-Diff  
Direct Current – Sheath Flow:  
RBC, HCT, PLT  
Non-cyanide, Sodium Lauryl Sulfate (SLS):  
HGB

## 21 Whole Blood Reportable Parameters

WBC, RBC, HGB, HCT, MCV, MCH, MCHC,  
PLT, NEUT%, LYMPH%, MONO%, EO%,  
BASO%, NEUT#, LYMPH#, MONO#, EO#,  
BASO#, RDW-SD, RDW-CV, MPV

## Linearity

WBC: 0 – 400.00 x 10<sup>3</sup>/μL  
RBC: 0 – 8.00 x 10<sup>6</sup>/μL  
HGB: 0 – 25.00 g/dL  
HCT: 0 – 60%  
PLT: 0 – 5,000 x 10<sup>3</sup>/μL

## Throughput

Single Sample Mode: 60 samples/hour  
Auto Sampler Mode: 53 samples/hour

## Sample Volumes

Closed mode: 20μL  
Capillary mode; Pre-dilute: 67μL (1:7 dilution)

## Data Storage (IPU: Information Processing Unit)

10,000 samples including histograms

## Quality Control (Total QC Management)

Common Quality Control material to  
XE and XT-Series  
Comprehensive QC files including  
“current” and “new” lot feature  
Levey-Jennings Control Charts  
X-barM file  
Online Quality Assurance Program

## Interfaces

ASTM  
Sysmex WAM™ (HL7 & ASTM)

## Dimensions/Weight w x h x d [in] / [lbs]

Main Unit:  
12.6" x 15.9" x 16.3" / 52.8 lbs.  
With Auto Sampler:  
16.7" x 15.9" x 24.2" / 74.8 lbs.

## Models

XS-1000i  
XS-1000i with Auto Sampler (XS-AL)

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