

Automated Hematology System

# XN-9100™

Reshaping scalable  
automation



Together for a better  
healthcare journey

# Optimize your laboratory

As analyzers become increasingly sophisticated, the laboratory's contribution to the continuum of patient care is always evolving. Sysmex's innovative and progressive diagnostic solutions set us apart from every other IVD company on the market. With thoughtful innovation, Sysmex has created state-of-the-art software and instrumentation that helps improve lab operations and promotes better healthcare and patient management practices.



## NEXT GENERATION DIAGNOSTICS

Advanced clinical parameters:

- Leukopoietic indicators—Immature granulocytes with every differential
- Erythropoietic indicators—Nucleated RBC with every CBC, reticulocyte hemoglobin (RET-He) and immature reticulocyte fraction (IRF)
- Thrombopoietic indicators—Immature platelet fraction (IPF) and a fluorescent platelet count (PLT-F) designed for very low platelet counts

## HARMONIZED SUPPORT

- Workflow assessment and optimization
- Comprehensive continuing education
- *Insight*<sup>™</sup> IQAP
- BeyondCare<sup>SM</sup> Quality Monitor (BCQM) provides real-time peer group analytics and advanced troubleshooting assistance

## ADVANCED TOOLS AND TECHNOLOGIES

Productivity and efficiency enhancements that are supported by:

- Autovalidation
- Automatic workload balancing
- Rerun/reflex testing
- Reflexive slide preparation
- Automated tube archiver and tube sorter
- Integrated barcode terminal with QC and CELLCLEAN AUTO (cleaning solution) storage
- Caresphere<sup>™</sup> Workflow Solution (WS) with Sysmex Validation Solution

## PROCESS OPTIMIZATION

- Remarkably small footprint to optimize increasingly precious laboratory space
- Compatible with most total laboratory automation (TLA) vendors



# BeyondCare<sup>SM</sup>

BeyondCare from Sysmex changes the definition of service for today's advanced hematology laboratories. Missing a potential analyzer issue can compromise patient care, so BeyondCare is strategically focused on preventing problems

before they ever occur. Sysmex's innovative technology maximizes your system's performance, bringing new levels of insight, efficiency and agility to your lab. This includes comprehensive continuing education, continuous

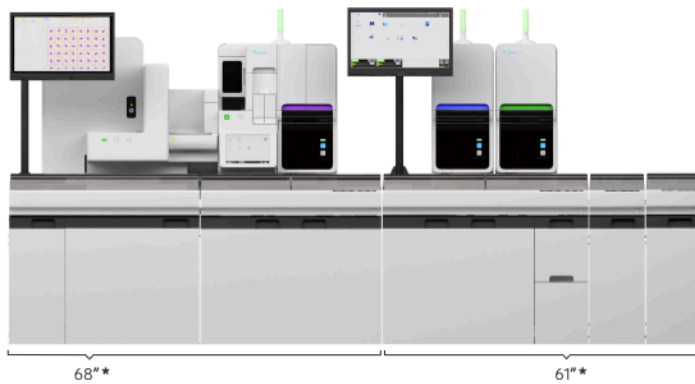
calibration verification and BeyondCare Quality Monitor with *Insight*<sup>TM</sup> IQAP. Make sure to ask your Sysmex representative about these programs for your XN-Series<sup>TM</sup> Analyzer.

## Full automation has changed forever

The XN-9100 is a scalable, modular automation system. It provides your choice of efficiencies to meet the needs of labs across any size, complexity and specialty. Decreased turnaround time and optimized labor utilization while maintaining high-quality patient results may be achieved through automatic workload balancing, hands-free rerun/reflex testing and fully automated reflexive slide preparation.

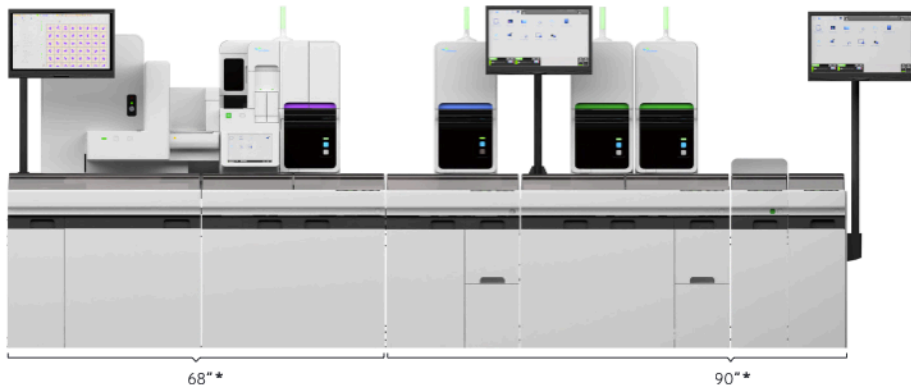
Your XN-9100 can be customized with various analytical and workflow modules to increase efficiency and reduce hands-on time, making it the perfect system to meet all of your needs in today's challenging healthcare environment.

Whether you need a common configuration as shown below or you need a custom system with full Lavender Top Management™, Sysmex has the hematology system to meet your requirements.



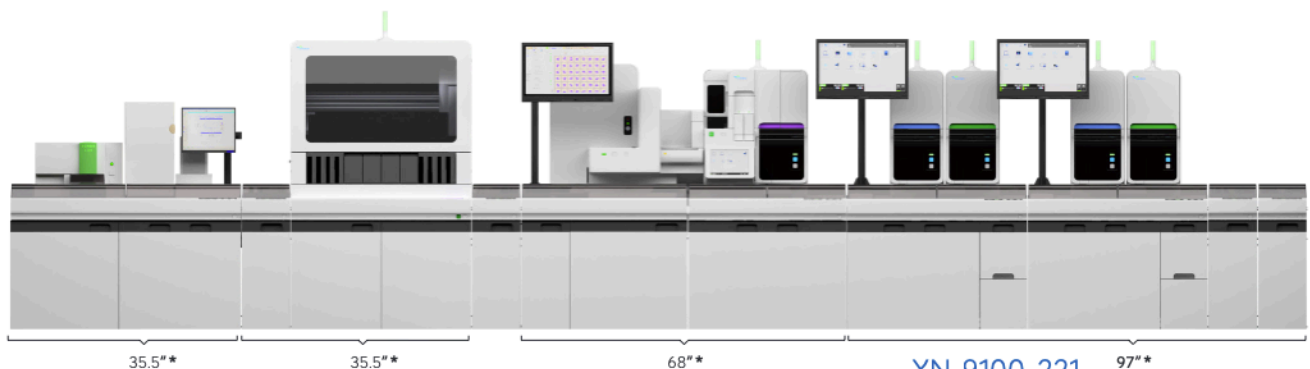
### XN-9100-111

XN-10, XN-20, SP-50  
Optional: DI-60



### XN-9100-211

Two XN-10, XN-20, SP-50  
Optional: DI-60



### XN-9100-221

Two XN-10, Two XN-20, SP-50  
Optional: DI-60, TS-10, HbA1c



# Sysmex Caresphere Workflow Solution (WS)

Designed by Labs.  
Developed by Sysmex.

Today's laboratories rely on information technology to help organize clinical data for making quick and accurate decisions. Caresphere WS is a HITRUST CSF®-certified, HIPAA<sup>‡</sup>-compliant application hosted by Amazon Web Services. Customization and standardization of rules and settings allows for flexibility in sample processing and resulting across a network of laboratories increasing overall adoption and laboratory success. Sysmex supports the entire implementation process from the initial build to go-live, and continues support with unlimited virtual training and technical assistance for the life of the product.

The Caresphere WS subscription includes real-time monitoring, security updates, unlimited access to education and a reliable pricing model that offers

dependable performance and peace of mind to your laboratory.

## Simplify rule testing with Sysmex VS

Sysmex VS is an application that provides effortless rule testing and reporting in cooperation with Caresphere WS. Sysmex VS provides:

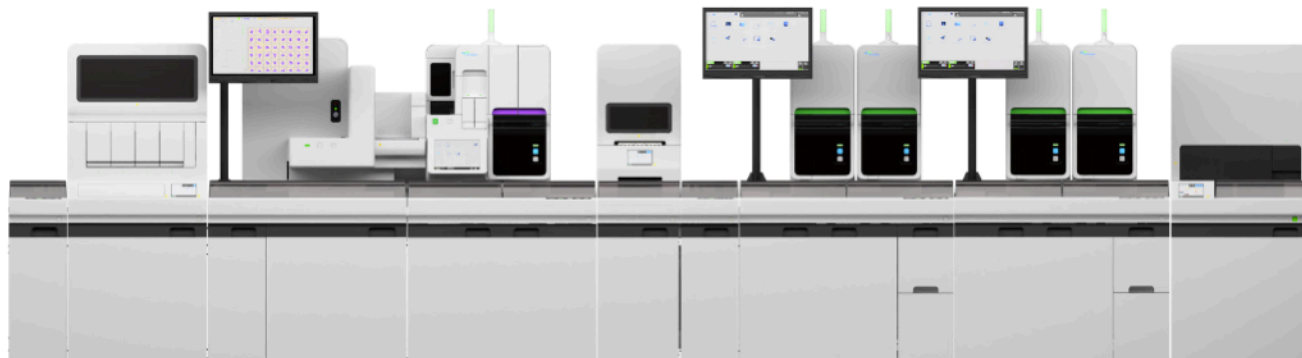
- Easy and simple testing and reporting to assist with regulatory compliance
- Up to 78% time savings compared to manual validation compared to ongoing laboratory compliance\*

<sup>‡</sup>Health Insurance Portability and Accountability Act

\*Internal Sysmex Validation Solution Time Study April 2020

# Our specifications speak volumes...

## XN-9100-401



### Components:

- All XN-9100 components, including four XN analyzers
- BT-50™ Barcode Terminal
- SP-50™ Automated Hematology Slide Preparation Unit
- RU-20™ Concentrated Reagent Delivery System

- TS-01™ Automated Tube Sorter
- DI-60™ Automated Digital Cell Morphology System
- TA-01™ Automated Tube Archiver
- Caresphere WS

### Throughput:

- Up to 400 CBCs / hour
- Up to 75 smears / hour

## XN-9100-301



### Components:

- All XN-9100 components, including three XN analyzers
- SP-50 Automated Hematology Slide Preparation Unit
- RU-20 Concentrated Reagent Delivery System

### Throughput:

- Up to 300 CBCs / hour
- Up to 75 smears / hour

## XN-9100-201



### Components:

- All XN-9100 components, including two XN analyzers
- SP-50 Automated Hematology Slide Preparation Unit
- RU-20 Concentrated Reagent Delivery System

### Throughput:

- Up to 200 CBCs / hour
- Up to 75 smears / hour

### Standard components with every system

- Sample/rack management modules
- Any combination of XN-10 and XN-20 analyzer (cell counter) modules
- Body fluid mode
- PLT-F (fluorescent platelet) discrete testing channel
- Reticulocyte channel
- RU-20 concentrated reagent delivery system
- Network printer
- Status alert lights

### Optional components:

- SP-50 Automated Hematology Slide Preparation Unit
- DI-60 Automated Digital Cell Morphology System
- BT-50 Barcode Terminal
- TA-01 Automated Tube Archiver
- TS-01 Automated Tube Sorter
- TS-10™/TS-10H Integrated Tube Sorter and Archiver
- Caresphere WS
- Turn unit
- Bio-Rad or Tosoh Hemoglobin A1c analyzers
- Total lab automation (TLA) connectivity

## Reportable parameters by channel

- XN-CBC  
CBC
 WBC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT (PLT-I), NRBC%, NRBC#, RDW-SD, RDW-CV, MPV
- XN-DIFF  
DIFF
 NEUT%, LYMPH%, MONO%, EO%, BASO%, IG%, NEUT#, LYMPH#, MONO#, EO#, BASO#, IG#
- WPC  
WPC
 Provides improved differentiation of blast cell and abnormal lymphocyte flagging; no reportable parameters. Available with XN-20 analyzers
- XN-BF  
BF
 WBC-BF, RBC-BF, MN%, MN#, PMN%, PMN#, TC-BF# (Body Fluids, B License)
- PLT-F  
PLT
 PLT (PLT-F), IPF (Platelets, P License)
- RET  
RET
 RET%, RET#, IRF, RET-He (Reticulocytes, R License)

### Throughput

- Up to 100 CBCs / hour / analyzer module

### Sample transport workflow

**Standard:** Right side load and unload

**Optional:** Left side load and unload

Right side load and left side unload

### Quality control

- BeyondCare<sup>SM</sup> Quality Monitor uses real-time peer group analytics to provide advanced QC monitoring, troubleshooting assistance and continuous calibration verification.
- **XN CHECK<sup>TM</sup>**
  - One material for QC of all Whole Blood Parameters
  - Complete tri-level QC product for all CBC, Diff, PLT and Reticulocyte parameters
- **XN CHECK<sup>TM</sup> BF**
  - One material for QC of all Body Fluid parameters
  - Complete bi-level QC product for TNC, WBC, RBC, and reportable 2-part Diff parameters

### IPU decision rules environment:

- Pre-loaded template within the XN-Series IPU (PC)
- Customer editable/adjustable
- Easily enabled/disabled

\* Recommended minimum workload is 55 samples per day when using the 2x4L packaging, 200+ samples per day when using the 20L packaging.

### Streamlined reagent management

- **Smaller, lighter reagent containers:**
  - Color-coding from container to software reagent screen increases operator ease and convenience
  - Designed to fit perfectly within the XN-Series system wagons
- **RFID (Radio Frequency ID) tags**
- **RU-20 Concentrated Reagent Delivery System\*:**
  - Dilutes concentrated diluent (CELLPACK<sup>TM</sup> DST) to create ready-to-use CELLPACK DCL .
  - Fewer reagent changes provide greater instrument availability and improved workflow.

### Concentrated reagent/diluter (RU-20)



# A consultative approach to maximize efficiency and flexibility

Our Lab Solution Consultants provide a comprehensive analysis and recommendation to meet your labs' current needs, and help you prepare for growth beyond today.



## Analyzer Module

The XN-10 and XN-20 CBC modules are designed to provide accurate CBC results with comprehensive flagging and rerun/reflex rules for reliable whole blood screening. The XN-10 analyzer offers CBC, automated differential, fluorescent platelet, reticulocyte, and body fluid testing. The XN-20 analyzer offers an additional white cell precursor (WPC) channel that provides improved differential of abnormal WBC populations when indicated. The XN-9100 line can include any combination of XN-10 and XN-20 units. The XN-Series CBC analyzer modules and track components may be added to increase testing capacity (additional throughput of up to 100 CBCs / analyzer / hour).



## Reagent Preparation

The RU-20 Concentrated Reagent Delivery System will reconstitute Cellpack DST to produce the ideal diluent for your system. A single RU-20 will supply up to three XN units with prepared diluent.



## Slidemaker/stainer

Peripheral blood smear preparation is streamlined with the SP-50 Automated Hematology Slide Preparation Unit. The SP-50 can prepare and stain up to 75 slides / hour, providing a fully automated slidemaking/staining workflow.



## Cell Image Analysis Module

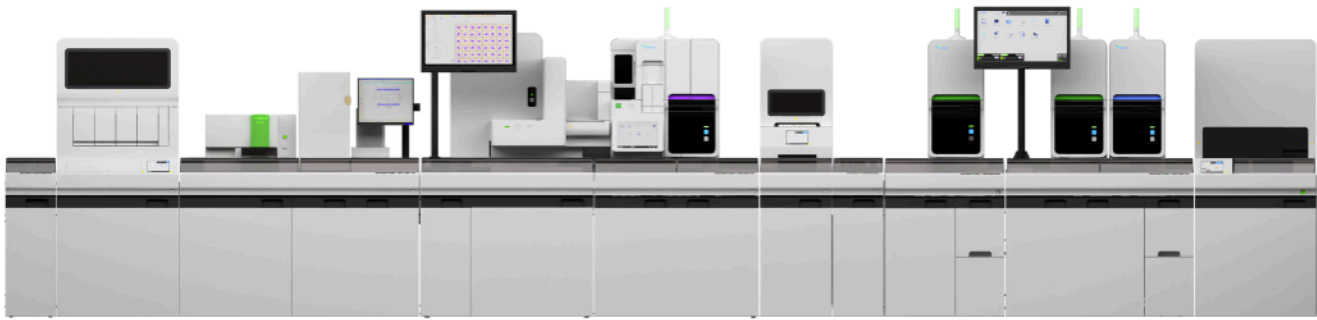
The DI-60 Automated Digital Cell Morphology System is designed to automate and standardize the smear review process. This module includes the DI-60, PC and wagon that is ready to integrate with either a XN-9100 automation line or a slidemaker/stainer. The analyzer can be interfaced directly to the laboratory information system (LIS) or to Caresphere WS.



## Barcode Terminal/Start Yard:

The BT-50 Barcode Terminal with start yard gets your samples off to a great start. Incorporating efficient sample identification and tube handling with automated QC analysis and daily maintenance scheduling, this module optimizes your laboratory's workflow.





### Tube Sorting

The TS-01 Automated Tube Sorter and TS-10/TS-10H Integrated Tube Sorter and Archiver are designed to meet the needs of laboratories desiring a hands-free pre-and post-analytical Lavender Top Management solution. The Sysmex Laboratory Solutions Consultant (LSC) provides recommendations for the best configurations and workflow. Optional Caresphere WS software can also be part of this solution, driving integrated sample processing, routing and tracking (on and off the system).



### Bio-Rad Variant II Turbo

The HbA1c Analyzer option for Lavender Top Management (XN-9100 with the tube sorter and Caresphere WS) consists of a Bio-Rad VARIANT II TURBO™ Link instrument and automation track components. This requires a tube sorter and Caresphere WS. Turbo Link analyzer available directly from Bio-Rad.



### Tosoh HbA1c Analyzer

HbA1c Analyzer option for Lavender Top Management consists of a Tosoh HbA1c instrument and automation track components. Instrument purchased directly from Tosoh.



### Tube Archiving

The TA-01 Automated Tube Archiver and TS-10/TS-10H Integrated Tube Sorter and Archiver store up to 1000 of your completed lavender top tubes and allows for easy retrieval when additional testing is needed. Caresphere WS can be added to drive workflow efficiency.



### Conveyor Extension

Expandable Conveyor Extension allows an XN-9100 line to go around fixed objects. It is also used to bridge the rack flow when using the DI-60 module.



### Turn Unit

The Turn Unit option is designed for improved flexibility, allowing advanced automation in smaller spaces.





Sysmex truly understands the complex challenges hematologists are facing and will face in the future—and we will always be creating the means to solve them. Our Sysmex XN-9100 Automated Hematology System is a giant step forward with automation that maximizes your laboratory's capacity and productivity.

We work hard to ensure that Sysmex customers enjoy the greatest possible return on their investment. From implementation and training to ongoing maintenance and support, every step of our process has been engineered to reduce your operating costs, increase laboratory efficiencies and contribute to healthier lives.

To learn more about how we can help your laboratory move to the next level with Sysmex XN-9100 Automated Hematology System, visit [sysmex.com/us](http://sysmex.com/us) or call us at (800) 379-7639.

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