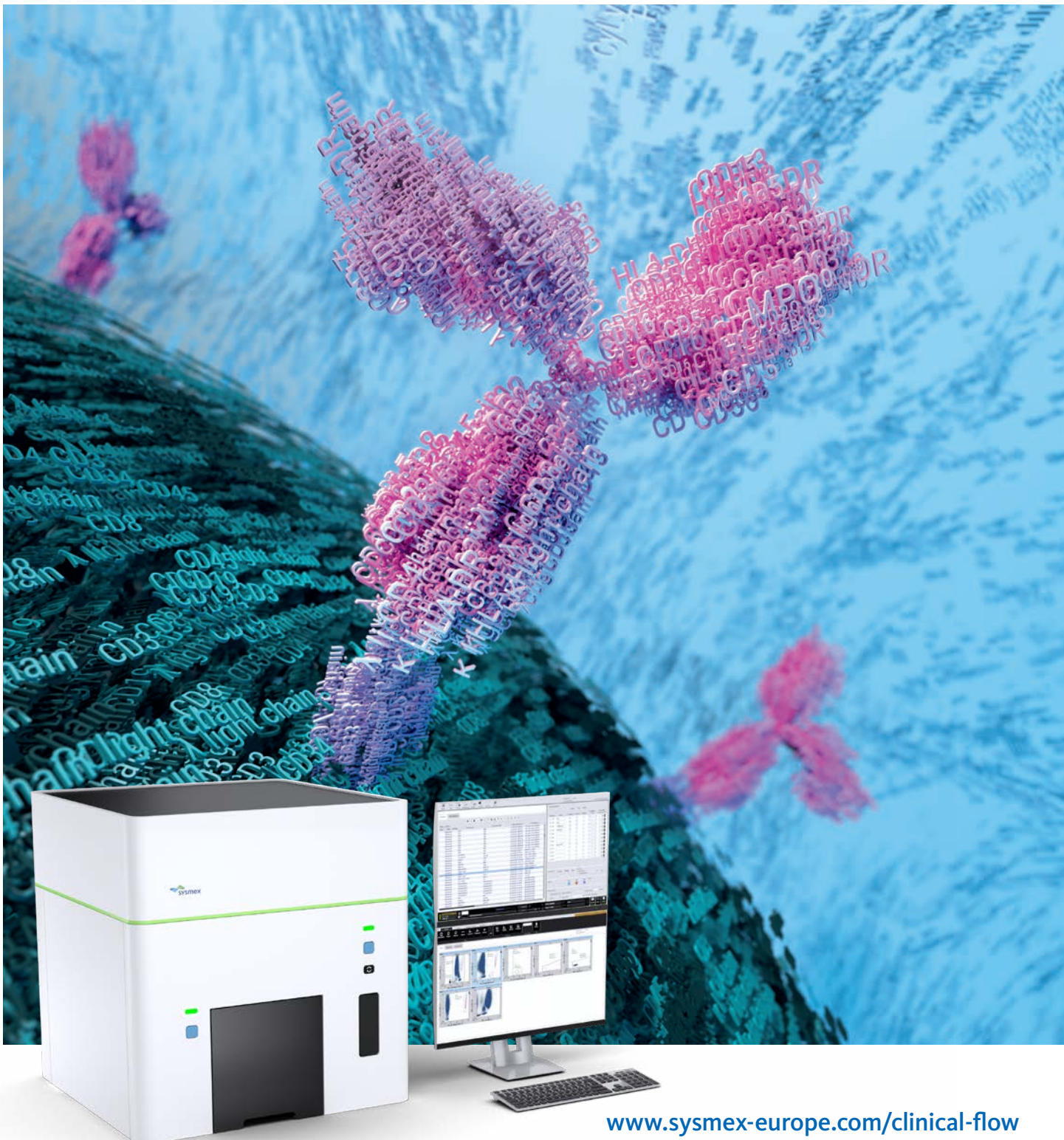


Increased efficiency and confidence for clinical laboratories

Flow Cytometer XF-1600



From vision to reality: our new solution for flow cytometry

Our flow cytometry solution helps you efficiently manage sample and data flow.



PS-10
Automated sample preparation system

Directly transfer all tubes in a rotor from the PS-10 to the wash centrifuge to the XF-1600, with automatic barcode recognition.



Sysmex CyFlow™
CE IVD antibody reagents

Get into the flow

Specialised flow cytometry laboratories today are facing several challenges: an increasing number and complexity of tests, high requirements for documentation, and limited availability of skilled staff.

For more than 50 years, Sysmex has helped clinical laboratories improve their productivity and diagnostic quality by adding innovative testing and automation in areas such as haematology, haemostasis and urinalysis.

Applying our expertise in workflow consultancy with an on-site analysis of the current processes in your flow cytometry laboratory, we can work out the most suitable solution to simplify and standardise your work, adding automation where it makes sense, while maintaining flexibility where needed.

This helps your laboratory 'get into the flow', with

- ✓ a new level of workflow efficiency
- ✓ standardisation with flexibility
- ✓ quality assurance support
- ✓ proven brand reliability
- ✓ integrated digital solutions

while giving you – in the end – confidence in the results.

VenturiOne®

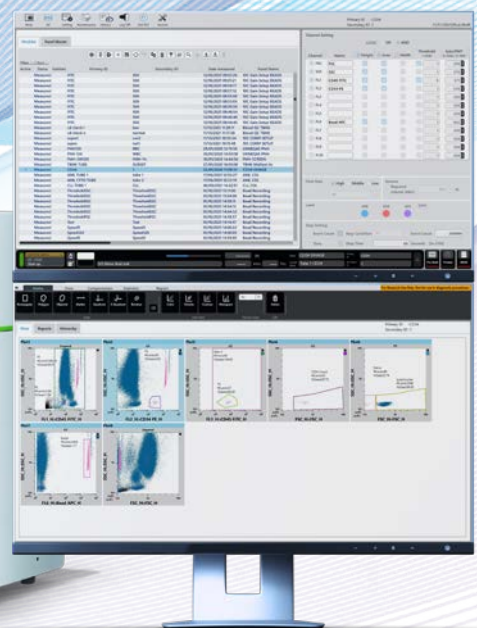
Software solution for analysis and reporting



XF-1600
Flow cytometer



Rotolavit II-S
Cell washing
centrifuge





Introducing the Flow Cytometer XF-1600

Sysmex, a trusted provider of automated workflow solutions in the disciplines of haematology, urinalysis and haemostasis, now offers clinical laboratories a robust, high-performance flow cytometry system for highly efficient and reliable data collection for immunophenotyping.

The XF-1600 integrates a multi-laser optical layout with a fluidics design proven in Sysmex's XN-Series haematology analysers for reliable performance, complemented by an easy-to-use graphical interface.

As part of our integrated flow cytometry solution, the XF-1600 helps laboratories simplify their processes and increase workflow efficiency with confidence in their results.

Increased efficiency

- Intuitive software – for quick and easy navigation
- Supportive documentation and traceability to ease quality management
- Flexible sample handling options
- Seamlessly integrates with automated sample preparation for increased workflow efficiency

Confidence in the results

- Rapid data acquisition without loss of sensitivity
- Intra-instrument standardisation
- Reliable performance and excellent service Sysmex is known for



Reliable performance – confidence in the results

The XF-1600 uses the proven and trusted fluidics design from our XN-Series haematology analysers. This provides an extremely stable sample flow, which allows rapid data acquisition at high flow rates without loss of sensitivity.

Like Sysmex's other diagnostic devices and solutions, the XF-1600 flow cytometer demonstrates a reliability essential for a clinical laboratory which cannot afford to have down-time, and is backed by the exceptional service laboratories expect from a global leader in diagnostic laboratory solutions.

Key features

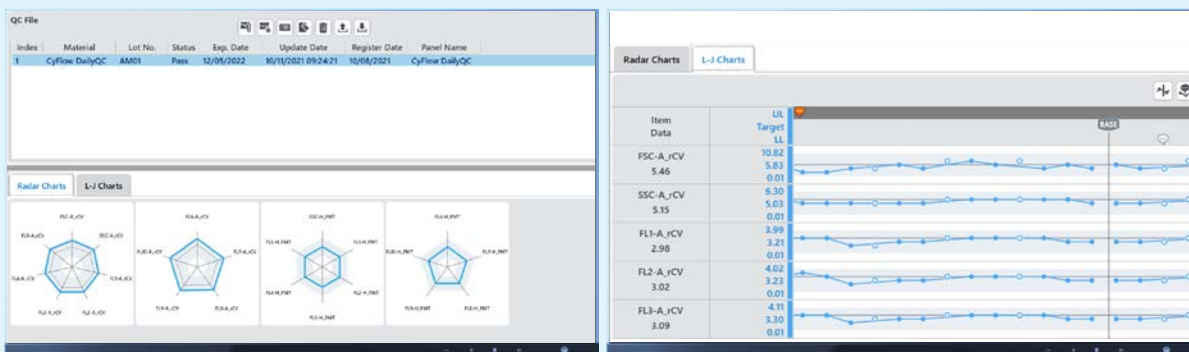
- Automated background check during priming guarantees the XF-1600 is free from contamination before running precious samples.
- Users can observe the instrument status at all times using the 'Quick view' on the main screen.
- Intake-and-exhaust sample mixing integrated in the autoloader ensures consistent results from the first to the last tube in the rotor.
- 37 measurable parameters simultaneously record pulse-area, -height, -width and -time data from 12 detection channels.
- Linear, log and 'Logicle' plots are available for data acquisition.

Intra-instrument standardisation

Laboratories requiring instrument-to-instrument standardisation have the ability with the XF-1600 to clone panel settings from one analyser to another, ensuring that analyses performed on different instruments, even on different sites, are comparable.

Quality data starts with reliable QC

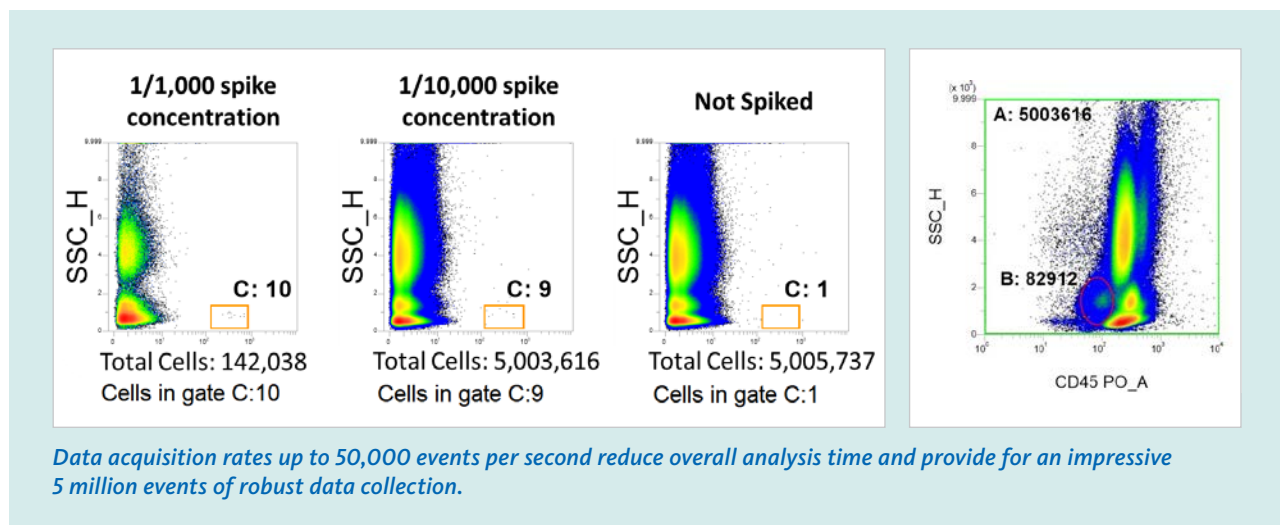
The XF-1600 uses a complete array of quality control products and is equipped to perform quality control and monitoring of instrument performance. With easy-to-read radar plots and Levey-Jennings charts, this helps assure quality data for your flow cytometry laboratory.



Radar and Levey-Jennings plots

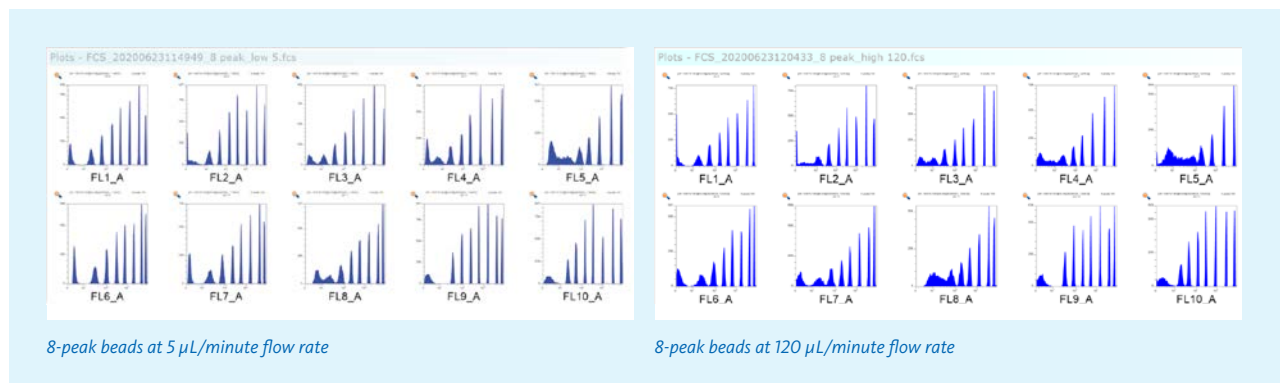
Powerful rare event analysis with excellent data resolution

The XF-1600 provides an extremely stable sample flow, which allows rapid data acquisition at high flow rates – for example, in the case of rare event analysis – without loss of sensitivity. Low background noise levels ensure that rare event analysis data is not only sensitive, but also reliable.



Five adjustable sample rates – from 5 $\mu\text{L}/\text{min}$ to 120 $\mu\text{L}/\text{min}$ – provide flexibility for all sample types, titre levels and cell concentrations. At high speed, up to 50,000 events per second, the overall sample acquisition time is reduced, while maintaining the sensitivity required for rare event analysis, where up to 5 million events can be acquired per sample. Analysis of even more events can be easily achieved by merging data files.

8-peak bead resolution is identical across all flow rates



Simplifying processes for a new level of workflow efficiency

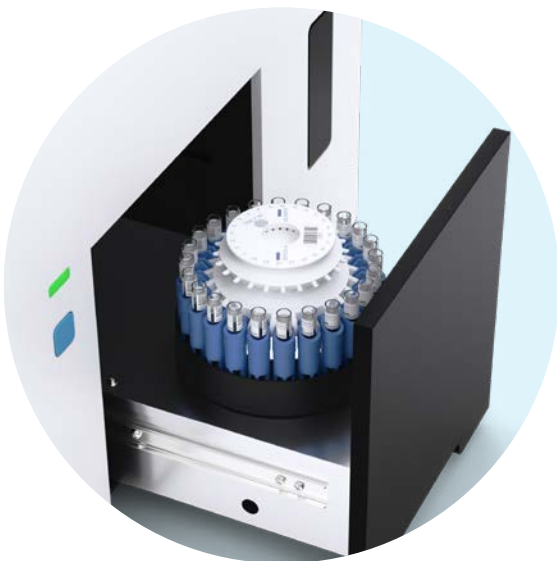
As part of an integrated solution to cover the steps from sample receipt through to report generation, the XF-1600, together with the PS-10 sample preparation system and the Rotolavit II-S cell wash centrifuge, which all use the common rotor, helps to simplify the analysis process and increase workflow efficiency:

- Bar-coded, multi-tube rotors allow efficient transfer of up to 24 tubes at a time.
- Automated worklist transfer for each rotor improves efficiency and prevents errors during manual entry.
- Its intuitive user interface makes learning and using the XF-1600 easy and efficient.
- Easily accessible digital audit trail – not only of actions on the XF-1600, but also on the PS-10 – helps you to be compliant with accreditation regulations.

A flexible approach to sample handling

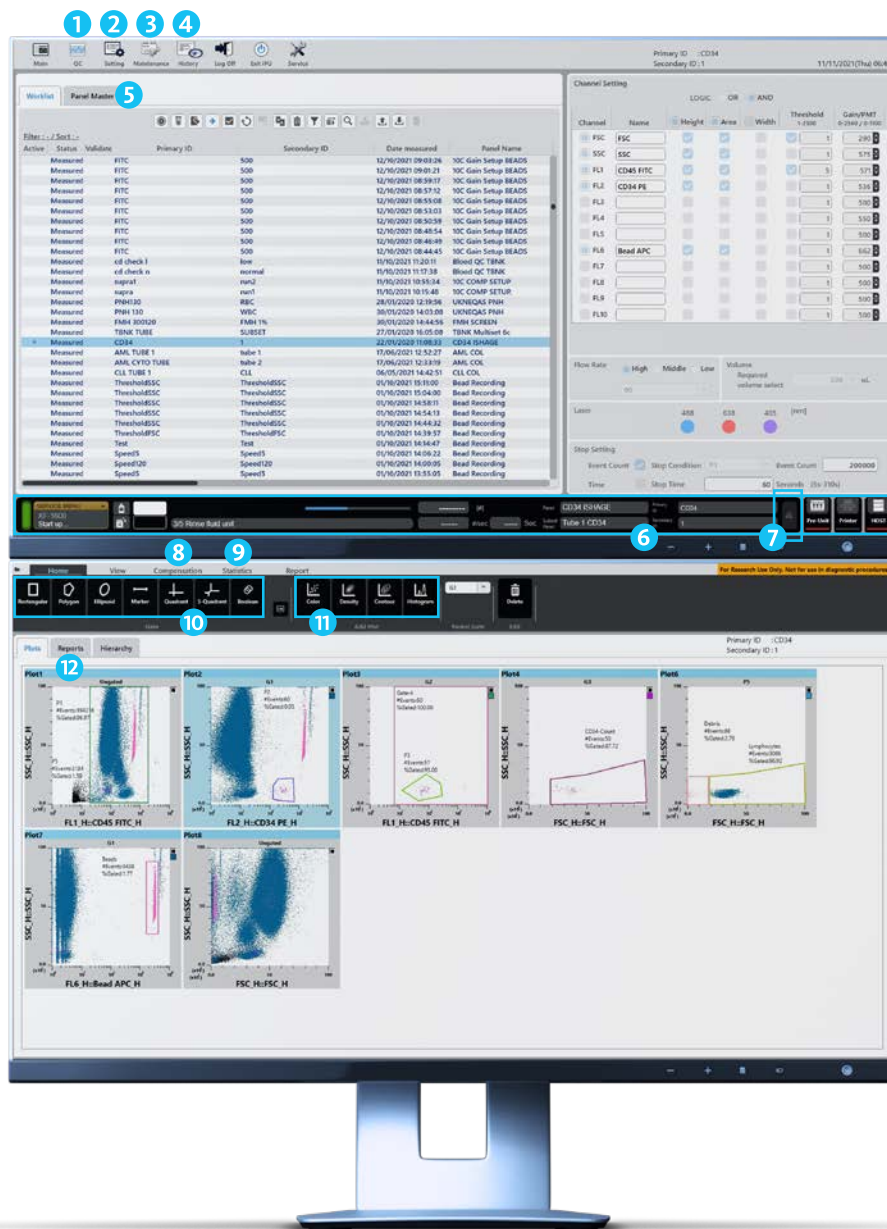
A flexible sample tube handling approach allows use of either a single tube in manual mode, or an automated mode. In automated mode, samples are loaded on a 12- or 24-tube rotor, providing walk-away acquisition. A user-definable sample mixing option for automated acquisition ensures homogeneity across all tubes in the rotor.

Single tube processing can be performed on a variety of tube sizes with selectable aspiration volumes to ensure minimal sample waste and protection against accidental sample loss. For urgent samples that require expedited analysis, there is an additional *STAT function*, allowing the user to interrupt the ongoing acquisition of samples.



Intuitive XF-1600 software – it's all just one click away

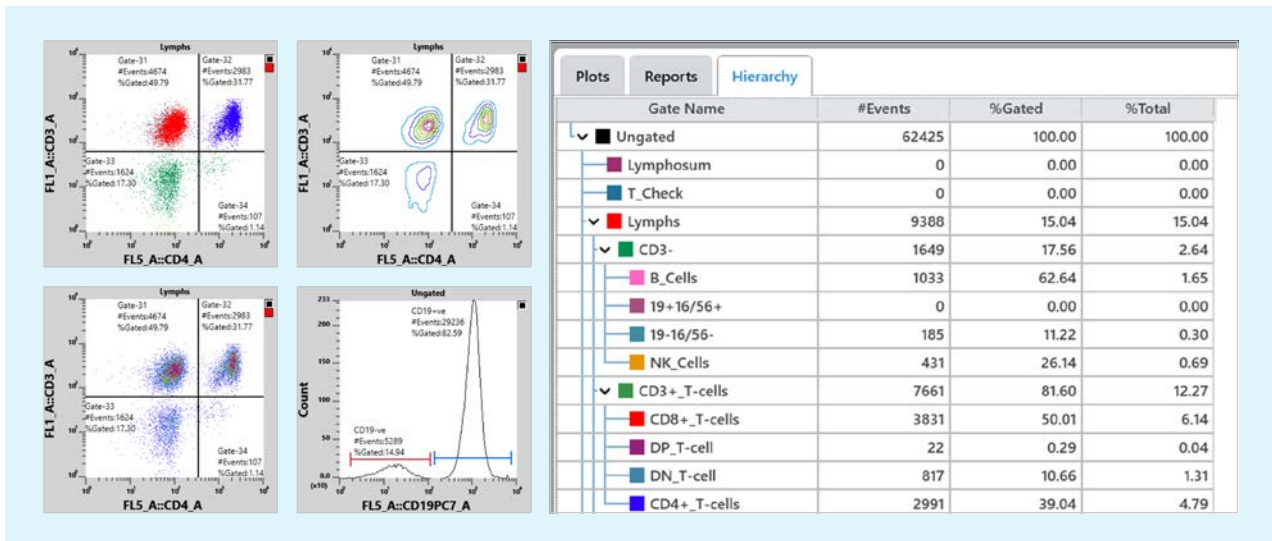
Following the Sysmex Silent Design® concept that usability is an essential part of a product's performance, Sysmex's intuitive user interface makes the XF-1600 easy to use for all laboratory staff. Users can access all the major functions in just one click from the main screen.



- ### Key functions
- 1 QC module
 - 2 Analyser and IPU settings
 - 3 Maintenance
 - 4 History (file logs)
 - 5 Panel setup
 - 6 Instrument status controls
 - 7 Help
 - 8 Compensation
 - 9 Statistics
 - 10 Regions and gating
 - 11 Plot types
 - 12 Reports

Exceptional ease of use

- The intuitive graphical interface allows efficient everyday working.
- The flexible and easy-to-use ‘Panel Master’ allows efficient panel setup and quick access to daughter tube panel information and settings.
- A wide variety of axes and plot types are easily accessible – right there where you need them: histograms, contour plots, colour plots and density plots
- Easily accessible hierarchy information and statistics



Supportive documentation and traceability

The ‘History’ function allows the user to access different logs: audit log, reagent replacement log, maintenance log and error log. Each of these can be downloaded to external storage devices or hospital networks to offer a full overview and record of your instrument and user operations – and support you in your daily requirements for quality management processes.



Date	Logon Name	Reagent	Lot No.	Serial No.	Exp. Date	Exp. date after opening
01/06/2021 14:29:26	systemx	CyFlow SH&EATM	A9999	000015	11/01/2024	800Day
08/06/2021 08:05:58	systemx	CyFlow SH&EATM	A9999	000019	21/01/2024	800Day
01/07/2021 02:11:55	systemx	CyFlow SH&EATM	A9999	000014	11/01/2024	800Day
28/04/2021 09:26:32	systemx	CyFlow SH&EATM	A9999	000008	31/01/2024	800Day
07/04/2021 08:57:31	systemx	CyFlow SH&EATM	A9999	000013	11/01/2024	800Day

Date	Logon Name	Maintenance	Maintenance Property	Comments
29/07/2021 14:39:33	systemx	Shutdown	Daily	
29/07/2021 14:03:02	systemx	Remove Flowcell Air B	As needed	
28/07/2021 13:46:39	systemx	Shutdown	Daily	
28/07/2021 12:30:04	systemx	Cleaning	As needed	
28/07/2021 10:06:12	systemx	Rinse Flowcell	As needed	

Date	Logon Name	Operation Name	Details	Comments
07/02/2022 11:12:36	systemx	Logon		
07/02/2022 09:38:36	systemx	Logoff		
07/02/2022 09:21:51	systemx	Logon		
04/02/2022 13:12:07	systemx	Not Validated	Primary ID:20220204.	
04/02/2022 13:10:11	systemx	Output FCS File	Primary ID:20220204.	
04/02/2022 13:10:10	systemx	Validate	Primary ID:20220204.	
04/02/2022 12:44:16	systemx	Workitem Manual Mo	Primary ID:20220204.	
04/02/2022 12:36:26	systemx	Not Validated	Primary ID:20220204.	
04/02/2022 12:35:43	systemx	Output FCS File	Primary ID:20220204.	
04/02/2022 12:35:43	systemx	Validate	Primary ID:20220204.	

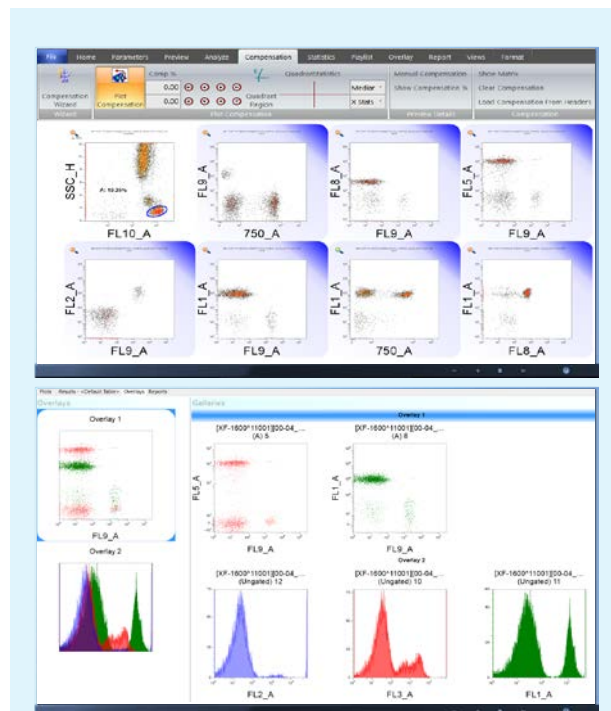
Powerful offline analysis software

Streamline your workflow and enhance your data with the optional VenturiOne® offline analysis software*. High-speed processing of up to 400 data files saves valuable time, while unique and robust data previews make plot creation simple and quick, putting powerful analytics in your hands.

Key features

- High speed processing of large data files with batch analysis processing
- Unique gate-organising tabs
- Versatile colour compensation features
- Hyperlog sliders enhance data visualization
- Autogating with population tracking
- Flexible reporting options with statistical region calculations

*VenturiOne software is for Research Use Only.



Data is for representative purposes only. Complex tests must be validated by laboratories.

Ask your sales representative for more information about VenturiOne offline analysis software or visit www.sysmex-europe.com/clinical-flow



VenturiOne with fully customisable report capabilities

Specifications

Principles and technology

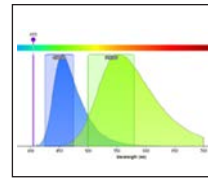
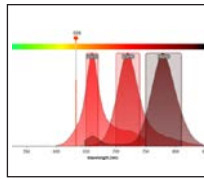
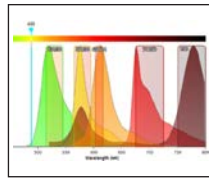
3 spatially separated lasers: 405 nm, 488 nm, and 638 nm
operating system (OS): Windows® 10 professional (64bit)
FCS format 3.0

Fluorescence detectors

10 fluorescence channels

Laser	Channel	Filter
488 nm	FL1	530/30
	FL2	580/30
	FL3	610/14
	FL4	700/50
	FL5	750 LP

Laser	Channel	Filter
628 nm	FL6	660/20
	FL7	720/40
	FL8	780/60
405 nm	FL9	450/50
	FL10	540/80



Parameters

37 measurable parameters simultaneously record pulse-area, -height, -width and -time data from 12 detection channels

Sample tube capacity

standard single tube loading port and rotor-based autoloader with optional sample mixing capabilities
12 or 24 tubes per rotor

Sample flow rate

15 µL per minute
30 µL per minute and 60 µL per minute
90 µL per minute and 120 µL per minute

Sample acquisition rate

up to 50,000 events per second and 5 million events per data file

Sensitivity: MESF

FITC < 100
PE < 50
APC < 100

Particle resolution

minimum 0.5 µm and up to 50 µm on scatter (FSC and SSC)

Carryover

< 0.1%

Features

sample tube rotors are compatible with the Sample Preparation System PS-10 and the Rotolavit II-S automated cell washer
choice of languages in the user interface: English, French, German, Italian, Portuguese, Spanish

Dimensions/weight

W × H × D [mm/kg]

approx. 700 × 740 × 630 / approx. 100

XF-1600, PS-10 and Rotolavit II-S: compliant with CE IVD.
VenturiOne software is for Research Use Only.

CyFlow™ is a trade mark of Sysmex Partec GmbH.
VenturiOne® is a registered trade mark of Applied Cytometry.

Distributor EMEA: Sysmex Europe SE · www.sysmex-europe.com
Manufacturer XF-1600 and PS-10: Sysmex Corporation · www.sysmex.co.jp
Manufacturer antibodies: Sysmex Partec GmbH · www.sysmex-partec.com
Manufacturer Rotolavit II-S: Hettich AG · www.hettich.ch
Manufacturer VenturiOne®: Applied Cytometry · www.appliedcytometry.com

You will find your local Sysmex representative's address under www.sysmex-europe.com/contacts

The products listed may not be available for sale in all countries. Please contact your Sysmex representative for availability.