# Product Fact Sheet





Sysmex Corporation

#### Summary

The XR-3000 combines a double-unit XR-Series flagship analyser with the slide preparation unit SP-50. The three modules are seamlessly interconnected by a single sampler, creating a fully integrated workstation that processes your blood samples fully automatically and provides you with stained blood smears of consistently high quality – the prerequisite for meaningful cell microscopy results. With customisable rule set up, the XR-3000 automatically produces peripheral blood smears for samples that require one – meaning you focus on what matters.

The XR-3000 is particularly well suited to labs with a steady, medium workload and a relatively high smear rate. Depending on the workload of your smears, you can choose the SP-50 configuration that best suits your needs: the standard version SP-50 or the high-throughput version SP-50.

Taking automation one step further, integrate the optional digital imaging analyser DI-60, including digital cell morphology review, into your all-in-one haematology workstation XR-3000.

#### Workflow automation

- Rerun & Reflex ensures the reproducible quality of results within the shortest turnaround times: samples for which the analyses must be repeated or extended no longer need to be selected and reloaded manually. The reflex sampler automatically feeds them into the best-suited analysis module for extended measurements. This means the integral intelligent reflex functionality allows a streamlined workflow and a significant increase in walk-away time. The two analysis modules process rack samples simultaneously, so they can distribute the work, including reflex measurements, between them in an ideal way without manual intervention.
- The XR-3000 has a single point of sample entry and a single point of sample exit. Reflex testing for additional analytical applications occurs before samples pass the SP-50 module. Subsequently, samples needing a smear are sent to the SP-50 module. Staining results are optimised using a variety of Sysmex and RAL Diagnostics reagents specifically adapted to and manufactured for the SP-50. Like extended measurements, smears are only performed if they offer additional value for diagnostic support.
- When including the optional digital imaging analyser DI-60, the transition of blood smears from the SP-50 to the DI-60 is seamless. The DI-60 eliminates the need for manual intervention in microscopy analysis and provides the opportunity to create powerful digital morphology networks to enhance the efficiency of consultation and expertise-sharing within the same laboratory or between multiple laboratories.



#### **Diagnostic support**

- The XR analysis modules are very flexible in terms of analytical applications. Sophisticated analytical capabilities are available as standard, such as nucleated red blood cells (NRBC) included in every complete blood count and Immature granulocytes (IG) with every WBC differential.
- Results for advanced clinical parameters are either included in every differential or optionally available within a few minutes, saving precious time and decreasing manual work.
- Besides reticulocyte analysis including RET-He, the optional RET channel application enables measuring platelets by fluorescence flow cytometry, which resolves many interferences that may occur with impedance measurement of platelets.
- The optional PLT-F channel application offers an automated reflex method with a dedicated platelet channel for samples with either very low impedance platelet (PLT-I) counts or measurement interferences. PLT-F resolves most PLT-I interferences since the fluorescence marker specifically labels platelets. This channel also offers measurement of immature platelets IPF% and IPF#.
- In the [WPC] configuration, XR-3000 includes the WPC channel application in one analyser for the analysis of white precursor and pathological blood cells. By detecting white pathological and precursor cells, the WPC channel in combination with the WDF channel helps you separate suspect malignant and suspect atypical cells, which supports the assessment of reactive conditions.
- The optional body fluid analysis application allows quick and automated analysis of various body fluids within minutes, without any time-consuming preparation of the sample or the XR-3000 analyser.

### Available configurations for XR-3000

Configuration	XR-10	XR-20	SP-50*
XR-3000	2	0	1
XR-3000	1	1	1

\* SP-50. Please refer to specification for throughput requirement.

#### Main components of XR-3000

Item code	Description	Qty
XR-10	XR-10 analysis module	Max 2
XR-20	XR-20 analysis module	Max 1
SP-50	SP-50 slide maker/stainer	1
SA-31	Sampler for XR-3000	1
DI-60/CF-70	Digital imaging analyser	Optional
WG-31	Wagon combination for XR-3000	Optional
IPU	Information Processing Unit	1

## Product specifications

Feature	Description	
Diagnostic parameters		
• CBC+DIFF	<ul> <li>WBC, WBC-N, WBC-D, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, PLT-I, RDW-SD, RDW-CV, MicroR, MacroR, PDW, MPV, P-LCR, PCT, NRBC#, NRBC%, NEUT#, LYMPH#, MONO#, EO#, BASO#, NEUT%, LYMPH%, MONO%, EO%, BASO%, IG#, IG%, AS-LYMPH#*, AS-LYMPH%*, RE-LYMPH#*, RE-LYMPH%*, NEUT-GI*, NEUT-RI*</li> </ul>	
• RET	<ul> <li>PLT-O*, RET#*, RET%*, IRF*, LFR*, MFR*, HFR*, RET-He*, RBC-He*, DELTA-He*, HYPO-He*, HYPER-He*</li> </ul>	
• PLT-F	• PLT-F*, IPF#*, IPF%*	
• BF	• WBC-BF*, RBC-BF*, MN#*, MN%*, PMN#*, PMN%*, TC-BF#*	
Research parameters		
• CBC+DIFF	• TNC, TNC-N, BA-N#, BA-N%, TNC-D, NEUT#&, NEUT%&, LYMPH#&, LYMPH%&, HFLC#, HFLC%, AS-LYMPH%L*, RE-LYMPH%L*, BA-D#, BA-D%, NE-SSC, NE-SFL, NE-FSC, LY-X, LY-Y, LY-Z, MO-X, MO-Y, MO-Z, NE-WX, NE-WY, NE-WZ, LY-WX, LY-WY, LY-WZ, MO-WX, MO-WY, MO-WZ	
• RET	• RBC-O*, RET-Y*, RET-RBC-Y*, IRF-Y*, FRC#*, FRC%*, RPI*, RET-UPP*, RET-TNC*, HGB-O*, MCHC-O*, Delta-HGB*	
• PLT-F	• H-IPF*, PLT-F2*	
• BF	• HF-BF#*, HF-BF%*, NE-BF#*, NE-BF%*, LY-BF#*, LY-BF%*, MO-BF#*, MO-BF%*, EO-BF#*, EO-BF%*, RBC-BF2*	
• WPC	• WPC-P*, TNC-P*	
Technologies	<ul> <li>Fluorescence flow cytometry Hydrodynamic focussed impedance measurement</li> <li>SLS Haemoglobin method</li> <li>Wedge smear technology</li> </ul>	
Profiles / Throughput • CBC • CBC+DIFF • CBC+DIFF+RET • CBC+RET • Body fluid analysis • SP-50	<ul> <li>Up to 220 samples/hour</li> <li>Up to 220 samples/hour</li> <li>Up to 166 samples/hour</li> <li>Up to 166 samples/hour</li> <li>Up to 40 samples/hour (BF mode only and only 1 XR module considered)</li> <li>Up to 30 slides/hour (standard mode)</li> <li>Up to 75 slides per hour (with speed up license)</li> </ul>	
Sampler unit loading capacity	10 racks (100 samples)	
STAT function	Approx. 1 min (in manual mode)	
Reagent management	<ul> <li>Full traceability</li> <li>Uniquely barcoded reagents</li> <li>Reagent replacement history</li> </ul>	
Data storage • Analysis registration function • Samples (incl. graphics) • Patient information • Wards registered • Doctor names registered • Selective test orders • Quality control files • Reagent replacement history • Maintenance history	<ul> <li>2,000 records</li> <li>100,000 results (including histograms and scattergrams)</li> <li>10,000 records</li> <li>200 wards</li> <li>200 names</li> <li>12 discrete profiles (depending on the configuration)</li> <li>99 files</li> <li>300 plots x 94 files (L-J control)</li> <li>300 plots x 5 files (XbarM control)</li> <li>5,000 records</li> <li>5,000 records</li> </ul>	
<b>QC functions</b> • Xbar and or L-J • Xbar M	<ul> <li>300 plots x 94 files (L-J control)</li> <li>300 plots x 5 files (XbarM control)</li> </ul>	

\* The availability of these parameters depends on your system configuration.

### **Technical specifications**

Feature	Description	
Interface	LP, DP, GP, Host computer via LAN	
Operating temperature	• 15 to 30 °C	
Operating humidity	• 20 to 85 %	
<b>Power supply</b> • Main unit • Sampler • Pneumatic unit	<ul> <li>AC 100 to 240 V (50/60 Hz)</li> <li>AC 100 to 240 V (50/60 Hz)</li> <li>AC 100 to 117 V (50/60 Hz)</li> <li>AC 220 to 240 V (50/60 Hz)</li> </ul>	
Power consumption • Main unit • Sampler • Pneumatic unit	<ul> <li>270 VA or less</li> <li>110 VA (SA-21) / 130 VA(SA-31) or less</li> <li>50 Hz: 230 VA or less (100-117 V), 220 VA or less (220-240 V)</li> <li>60 Hz: 280 VA or less (100-117 V), 250 VA or less (220-240 V)</li> </ul>	
Noise level*	66 dBA or less	
<b>Dimension</b> XR-3000 Pneumatic unit Wagon WG-31	• 2000 x 1083 x 921 mm (WxDxH) • 280 x 355 x 400 mm (WxDxH) • 981 x 1155 x 708 mm (WxDxH)	
<b>Weight</b> XR-3000 Pneumatic unit Wagon WG-31	• Approx. 320 kg • Approx. 17 kg • Approx. 110 kg	

\* Excludes sounds during rinse cup discharge, shifting/discharge of sample racks, and clamping/release of sample tubes, and alarm sounds.

**Disclaimer:** This product fact sheet does not contain the complete information of the product as described in the 'Instructions for Use', and neither is it intended to replace the 'Instruction for Use'. The required information in the 'Instruction for Use' must be observed at all times.

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