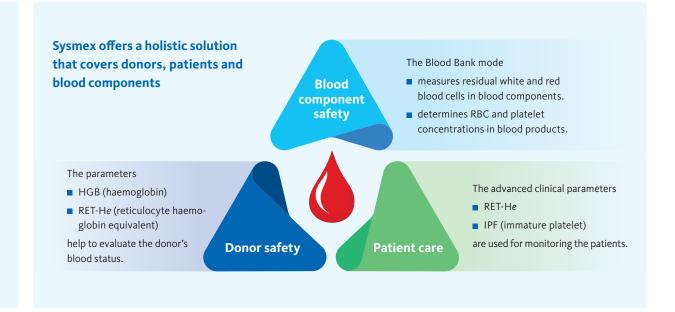# Perform the quality control of your blood products on one haematology analyser

Blood component safety is key in transfusion medicine and blood product manufacturing. Therefore, high standards during the whole process from donor qualification to quality monitoring of the products are required. Especially residual cell enumeration is important for process quality control. Until now, haematology analysers could not reach the lower limit of quantification required for this. But now, the new Blood Bank mode offers the potential to run such analyses with confidence.

Blood Bank

Fully automated analysis for standardised workflows

Single platform for multiple haematological parameters

Time-efficient routine analysis of red blood cell, platelet and plasma packs

Know more.
Decide with confidence.
Act faster.

Sysmex offers a holistic solution that covers donors, patients and blood components

Blood component safety

The Blood Bank mode
- measures residual white and red blood cells in blood components.
- determines RBC and platelet concentrations in blood products.

The parameters
- HGB (haemoglobin)
- RET-H*e* (reticulocyte haemoglobin equivalent)

help to evaluate the donor's blood status.

Donor safety

Patient care

The advanced clinical parameters
- RET-H*e*
- IPF (immature platelet)

are used for monitoring the patients.

Your benefits in daily routine

- Say good-bye to current methods which are often time-consuming, costly and dependent on the individual skills of the staff.
- No manual preparation needed, so simple to operate for everyone in the laboratory.
- Save precious time by analysing various parameters on one instrument.

- Accurately and reproducibly identify those blood components in which leucodepletion has failed.
- Consistent, standardised and automated assessment of the quality of your blood products to ensure patient safety.
- The Blood Bank mode is CE IVD compliant.

For further details please visit **www.sysmex-europe.com/bloodbank**

Blood components and measuring profiles

The Blood Bank mode offers the analysis of blood components with four different selectable profiles – two profiles for red blood cell concentrates and two profiles for platelet concentrates. Plasma packs can be measured in the profile for platelet concentrates and residual cells.

RBC pack + residual cells

rWBC
Residual white blood cells
RBC
Red blood cell count
HGB
Haemoglobin
HCT
Haematocrit

RBC pack
RBC, HGB, HCT

PLT pack + residual cells

rWBC
Residual white blood cells
rRBC*
Residual red blood cells
PLT
Platelet count

PLT pack
PLT

Platelet pack + residual cells (used for plasma pack analysis)

rWBC
Residual white blood cells
rRBC*
Residual red blood cells
PLT
Platelet count

Technological requirements

The XN-1000 and XN-2000 haematology analysers can now be equipped with the Blood Bank mode offering the potential to automate, simplify and rationalise the transfusion medicine and blood manufacturing workflow. The XN analyser has to be equipped with the RET and PLT-F applications and a Blood Bank mode licence.

Required applications

added value **RET**

added value **PLT-F**

Blood Bank

Improving your workflow

International guidelines require blood component safety and therefore residual cell enumeration is crucial.

Current methods for the enumeration of rWBC and rRBC are either manual methods such as visual inspection and chamber counting or semi-automated methods such as flow cytometry or fluorescent image analysis. All of these methods require manual sample preparation and skilled staff, and are therefore not standardised.

Workflow improvements with the Blood Bank mode:

- Methods are standardised for more consistent results
- Easy to operate for all lab staff
- Consolidated analysis of multiple haematologic parameters on one analyser
- No additional tube sampling
- Fully automated measurement in sampler mode

Further specifications

- Measurement mode — Manual mode and automated sampler mode

- Aspirated volume
  - RBC pack: 150 µL
  - PLT pack: 205 µL

The hourly throughput of one standalone XN-1000 analyser in Blood Bank mode varies depending on the profiles used.

Blood pack	Residual cell counts	Throughput	Time per single measurement
RBC pack	No	79 samples/h	Less than 1 minute
	Yes	33 samples/h	Less than 2 minutes
PLT pack	No	62 samples/h	Approx. 1 minute
	Yes	19 samples/h	Approx. 3 minutes

- Sample tube types — We recommend using the same EDTA tubes for the Blood Bank mode as used for whole blood analysis.

* research parameter

www.sysmex-europe.com/xn

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