



## Reagents constitute a critical part of your hematology system

An automated hematology system comprises both the analyzer as well as its dedicated reagents. At Boule Diagnostics, reagents are designed and developed in conjunction with the analyzer to provide optimized performance and enhanced serviceability of the complete system. Reagents and analyzer measurement technology, including the analysis algorithms, are fine tuned to each other to produce the most accurate patient results. Formulations, dilutions, mixing, and reaction kinetics are all carefully matched and optimized to work together.

### Method design

The diluent reagent shall provide an isotonic environment for the cells, and the sample dilution ratio is critical for an accurate cell count. The lytic reaction shall be harsh enough to hemolyze the red blood cells to release hemoglobin for determination of its concentration, yet sufficiently gentle to shrink the white blood cells in a controlled manner to allow accurate differentiation of these cells into their subgroups. The diluent and lyse reagents work together to control the lytic reaction for an optimized differentiation of the white blood cells and accurate quantification of the hemoglobin.

The reagent formulation also needs to be compatible with the analyzer materials to prevent damage of the components. The cleaner is designed to keep the system working at peak performance and reduces the need for additional maintenance or service calls.



*To ensure analytical quality and performance of your Boule hematology system, use the designated reagents that are entered by scanning the RFID card on the container.*

## Quality assurance

The controls and calibrators are designed specifically for the system to ensure correct calibration and quality control measures. Like the reagents, the control and calibrator cell populations are matched to the system measurement technologies and analysis algorithms.

## Secure system performance

Boule's cell count processes have been tested and optimized for decades for robust and reliable analysis results. Our hematology systems are thoroughly validated, and test results provide operators with knowledge of system performance to support in clinical decision making.

Knowledge, not only of system performance but also of its limitations, is especially important at extreme conditions, as Boule hematology systems are used in health screening to identify pathological samples that might need further investigation.

To ensure analytical quality and performance, it is therefore recommended to only use consumables that are specifically designed for the intended analyzer. To facilitate proper use of Boule hematology systems, reagents are entered by simply scanning the RFID card on the reagent container. At the same time, the analyzer stores key reagent information such as lot number, open and expiry dates, and remaining volume, all for operator convenience.



**Contact us today for more details of Boule hematology analyzers and RFID-locked reagents.**

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