

## Automated Digital Cell Morphology System

# DI-60™



### Brief Product Description

The Sysmex DI-60 Automated Digital Cell Morphology System provides complete automation of your manual WBC differential process by connecting to your XN-Series™ Automated Hematology System. With the DI-60, you can integrate CBC analysis, slide preparation, slide staining and digital imaging of cells in a complete workcell. Now you can free highly-skilled medical technologists to spend more time on difficult cases that require careful analysis and assessment. Automated Cell Image Analysis provides a more standardized differential result and extensive network connectivity to enhance the level of service your laboratory provides clinicians and patients.

### Principles and Technology

The analyzer automatically moves a prepared hematology slide under the microscope. Utilizing Artificial Neural Network technology, the monolayer is located in the smear and scanned in a battlement pattern. While doing this, the analyzer locates WBCs and RBCs and stores high-quality images of each located cell. The analyzer pre-classifies each located WBC and performs pre-characterization of red blood cell morphology for operator review.

### Parameters

#### WBC Classification

The CellaVision Peripheral Blood Application automatically pre-classifies WBCs into these classes:

- Band neutrophils
- Segmented neutrophils
- Basophils
- Eosinophils
- Lymphocytes
- Monocytes
- Promyelocytes
- Myelocytes
- Metamyelocytes
- Blast cells
- Lymphocyte variant forms
- Plasma cells

The CellaVision Peripheral Blood Application also automatically pre-classifies non-WBCs into these classes:

- Nucleated RBC
- Giant thrombocytes
- Thrombocyte aggregations
- Smudge cells
- Artefacts
- Not Classed
- Other

The operator can manually re-classify cells and other objects to any of the above mentioned classes and also to any of the 15 user-defined cell classes.

#### RBC Morphology

The CellaVision Peripheral Blood Application pre-characterizes the RBC morphology by shape, color and size and suggests preliminary grading for these morphological characteristics:

- Polychromatic cells
- Hypochromatic cells
- Anisocytosis
- Microcytes
- Macrocytes
- Poikilocytosis

**Parameters**

The operator can change the suggested grading for the above mentioned characteristics and can also manually specify grading for these morphological characteristics:

- Target cells
- Schistocytes
- Helmet cells
- Sickle cells
- Spherocytes
- Elliptocytes
- Ovalocytes
- Teardrop cells
- Stomatocytes
- Acanthocytes
- Echinocytes
- Howell-Jolly bodies
- Pappenheimer bodies
- Basophilic stippling
- Parasites
- Up to 10 user-defined characteristics

**Platelet Estimation**

When performing a platelet estimation, the analyzer captures an overview image of the RBC monolayer. The operator can count the number of platelets or estimate the platelet concentration in the overview image.

**Additional Features Including Feathered Edge**

- Pre-selected 100x high power fields and calculation table for manual platelet slide estimates.
- Add pre-coded or free-text comments to any slide, cell category or individual cell image.
- Archive or export cell images for educational use or to track an individual patient's cell morphology results throughout treatment.
- Feathered edge view to assess samples for acceptable cell distribution, platelet clumps or WBC clustering at edges or smear. View images in the Feathered Edge tab at 10x or zoom in for a closer look.

**Throughput**

Peripheral Blood - Up to 40 slides/hour\*

NOTE: Processing time may vary depending on test configuration, smear quality, WBC concentration and number of non-WBCs.

**Load Capacity**

Automatic Loading from SP-Series™; Manual loading optional

**Quality Control**

One freshly stained slide from a blood sample with a WBC count within the normal range to perform a daily cell location test.

**Dimensions and Weight**

22.7" (W) X 19.3" (D) X 28" (H); 186 LBS

**Supported Optional Software**

- CellaVision Advanced RBC Application
- CellaVision Body Fluid Application
- CellaVision Proficiency Software (Web-Based)
- CellaVision Remote Review Software
- CellaVision Server Software

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