

### **Automated Urinalysis Solution**

# UN-3000<sup>TM</sup>



### **Brief Product Description**

The UN-3000 is a complete, fully automated urinalysis solution that integrates the Siemens CLINITEK Novus® Automated Urine Chemistry Analyzer, the UF-5000™ Fully Automated Particle Analyzer and the UD-10™ Fully Automated Urine Particle Digital Imaging Device. The UN-3000 offers urine chemistry testing, accurate and precise fluorescent flow cytometry urine particle counting and reflexive confirmatory urine particle digital imaging in an efficient solution with walkaway capacity.

## Principles and Technology

#### UF-5000:

Measurement in two separate channels:

- Surface Channel (SF ch) analysis of urine particles that do not contain nucleic acid material such as RBCs, casts and crystals.
- Core Channel (CR ch) analysis of urine particles that contain nucleic acid material such as WBCs, epithelial cells and bacteria.

Fluorescent flow cytometry with blue semi-conductor laser and hydrodynamic focusing.

Depolarized side scatter (DSS) detector for improved detection and differentiation of crystals and RBCs.

#### Siemens CLINITEK Novus:

- Dry-pad urine chemistry with color change measured by reflectance photometry.
- Specific gravity measured by refractive index method.
- Clarity measured by transmitted and scattered light.
- Automatic color correction for darkly-colored samples.
- Automated checks include humidity exposure, low sample level, waste bottle full, rinse bottle
  empty, card waste drawer full, low test count remaining.

#### UD-10:

- Stage scanning method utilizing charged-couple device (CDD) camera and objective lense to locate and capture urine particle images.
- Automatic focus adjustment.
- Gentle sedimentation in imaging cell helps preserve fragile urine elements.
- Urine particles are classified in up to eight different classes based on size, and presented to the operator for identification.

#### **Parameters**

#### UF-5000:

Reportable: white blood cells (WBC), red blood cells (RBC), epithelial cells (EC), casts, and bacteria

Flagged: crystals (X'TAL), yeast like cells (YLC), pathologic casts (Path CASTS), sperm, mucus

#### Siemens CLINITEK Novus:

Color, clarity, glucose, bilirubin, ketones, urobilinogen, pH, specific gravity, blood, leukocyte esterase, nitrite, protein

#### UD-10:

Max. 8 particle classes

40 whole field images per sample (normal mode)

**Throughput** UD-10: Siemens CLINITEK Novus:

Up to 105/hour Varies based on test order mix and

lab-defined settings.

Sample Volume UN-3000:

Minimum sample volume - 3.0mL Aspirated sample volume - 1.3mL

Analytical Measuring Range (AMR)

UF-5000: CAST: 1.41 – 21.83/μL WBC: 1.8 – 5,548.3/μL BACT: 4.5 – 9,821.5/μL

RBC: 2.0 – 10,558.9/μL EC: 1.4 – 201.7/μL

**Quality Control Materials** and Monitoring

UF-5000 and UD-10:

UF CONTROL<sup>™</sup> (2 levels)

 BeyondCare<sup>SM</sup> Quality Monitor for Urinalysis (BCQM) simplified and consolidated platform for quality control monitoring

 Comprehensive QC files including current and new lot feature

 50 QC files with 300 plots per file on the Urinalysis Data Manager™ (UDM) Siemens CLINITEK Novus:

Chek-Stix® Liquid QC Kit

(Not available in Canada)

Calibrators UF-5000:

UF CALIBRATOR™

Calibration/calibration verification performed every six months.

Siemens CLINITEK Novus:

CLINITEK Novus Calibrator®

Calibration must be performed when a new CLINITEK Novus reagent cassette lot number is loaded or a new cassette from the same lot is loaded more than 24 hours after the most recent calibration for that lot. System completes calibration using factory entered baseline adjustment for each test pad to ensure optimal performance.

**Dimensions and Weight** 

UN-3000 (Benchtop)

Approx. 76"(W) X 35.5" (D) X 34.5" (H); 547 lbs.

Sysmex Corporation

1-5-1-Wakinohama-Kaigandori Chuo-ku, Kobe 651-0073, Japan · Phone +81 78 265-0521 · www.sysmex.co.jp

Sysmex America, Inc.

577 Aptakisic Road, Lincolnshire, IL 60069, U.S.A. · Phone +1800 379-7639 · www.sysmex.com/us

Sysmex Canada, Inc.

5700 Explorer Drive Suite 200, Mississauga, ON L4W0C6 Canada · Phone +1 905 366-7900 · www.sysmex.ca

Sysmex Latin America and the Caribbean

Rua Joaquim Nabuco 615 - Bairro Cidade Jardim, São José dos Pinhais Paraná – Brasil – CEP 83040-210 · Phone +55 41 2104-1314 · www.sysmex.com.br