

sediMAX conTRUST PRO

Automated urine sediment analyzer



A whole new way of seeing

Developed to supply high quality images of urine sediment particles, both in bright field and phase contrast microscopy

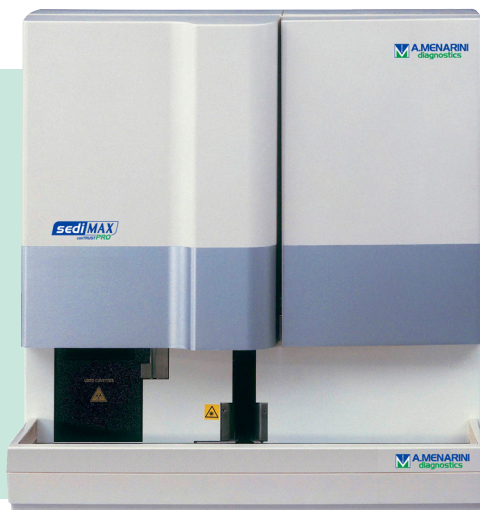
Getting the full picture
for better results

A system that grows with your needs

sediMAX conTRUST PRO is **the new A.Menarini Diagnostics urine sediment analyzer of the sediMAX series** which offers a fully automated approach for the preparation and evaluation of urine samples.

This new generation instrument combines **bright field (BF) and phase contrast (PC)** microscopy to capture high quality images in one optical system, leading to accurate results.

The built-in digital camera takes and saves both BF and PC images with a dual focusing technique. Fifteen different images are acquired for each sample using both methods and evaluated by a neural network.



Key features

- Fully automated process – walk-away operation
- No consumable reagents, only single-use cuvettes needed
- High throughput: 150 samples/hour
- Pediatric measurement mode with lower sample volume
- No carry-over and obstruction
- User-friendly software with easy operation
- Automated quality control analysis and maintenance procedures

sediMAX conTRUST PRO will provide high accuracy and reliability to improve the diagnostic efficiency of your laboratory

Sharpness down to the to the smallest detail

Improved recognition and accuracy. Compared to BF microscopy, PC technology provides improved detection of particles and their morphological details, with increased recognition rates.

More particles detected. The new instrument can identify:

- *Acanthocytes (RBC-Aca)*, representing the most reliable marker today for hematuria of glomerular origin (Figure 1, see next page) when they are $\geq 5\%$ of the total RBC count.
- *Ghost red blood cells (RBC-Ghost)*, which easily escape detection with BF microscopy due to their low hemoglobin content and low refractive index (Figure 2, see next page).

A flag appears in the RBC count if either of these two RBC subtypes is detected. The RBC-Aca flag can be enabled/disabled in the software settings according to the specific needs of the laboratory.

Similarly, the instrument can also detect mucus (MUC) and amorphous material (AMO).

Bacteria differentiation. The evaluation module al-

lows rapid differentiation of cocci-like and rod-like bacteria (BACc, BACr).

Brightness. Image brightness can be easily adjusted with a dedicated slider.

Zoom. This option allows to see sample particles at higher magnifications, suitable to pick up their morphological characteristics in greater detail.

Dual view. A new feature to analyze BF and PC images side-by-side simultaneously by means of high power field-like dynamic images, convenient for the analysis of the morphological details of the particles (Figure 3 below).

Quantitative results. These can be expressed either as number particles/ μL or number/high power field.

Manual microscopy mode (live view). The system can be used as a traditional microscope to “navigate” the sample, taking images of any view field before starting automatic recognition and particle counting.

Figure 3. A binucleated epithelial superficial transitional cell.

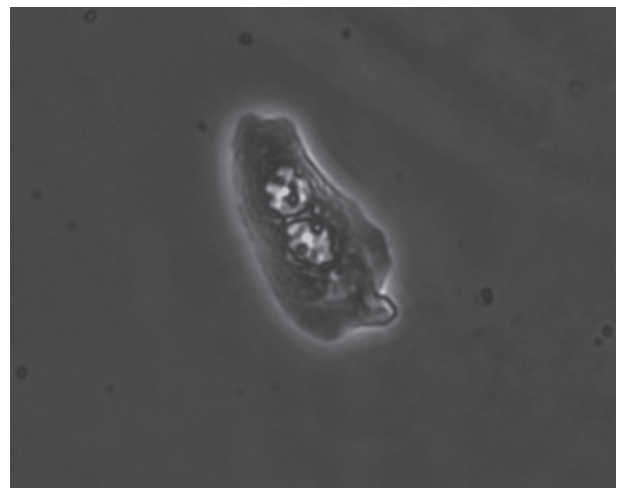
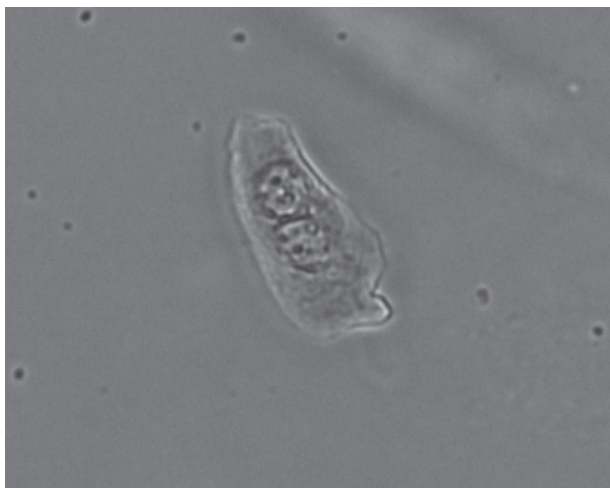


Figure 1. Acanthocytes (RBC-Aca).

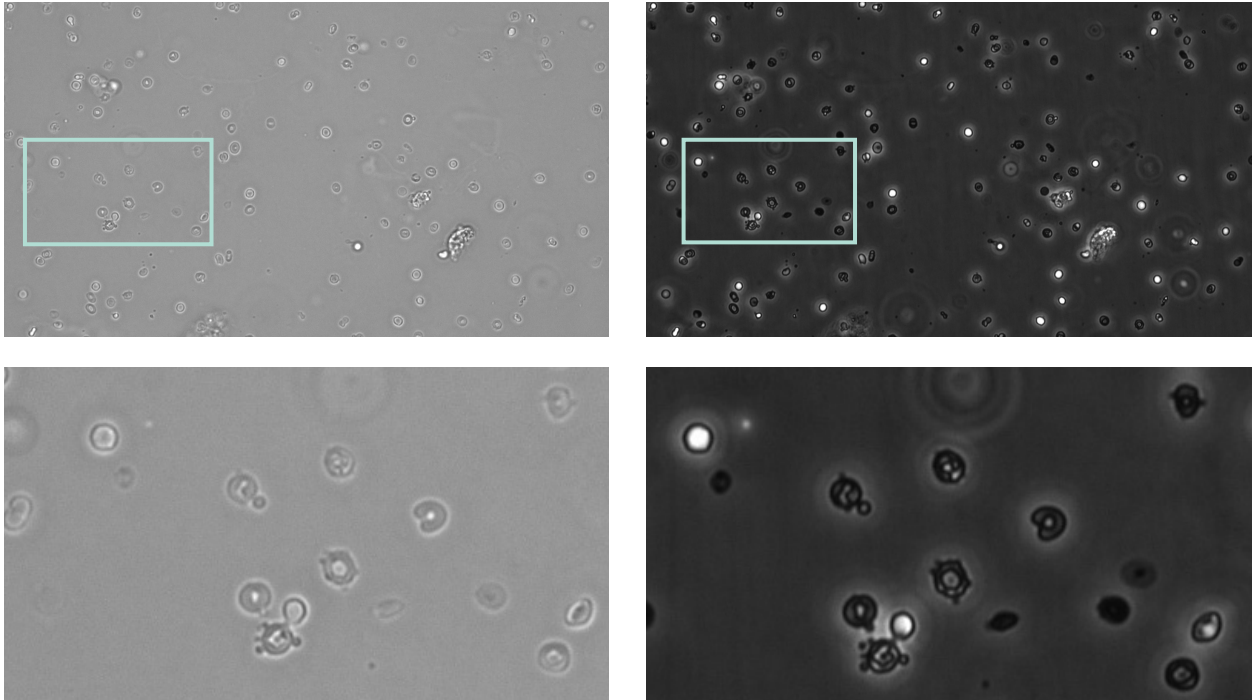
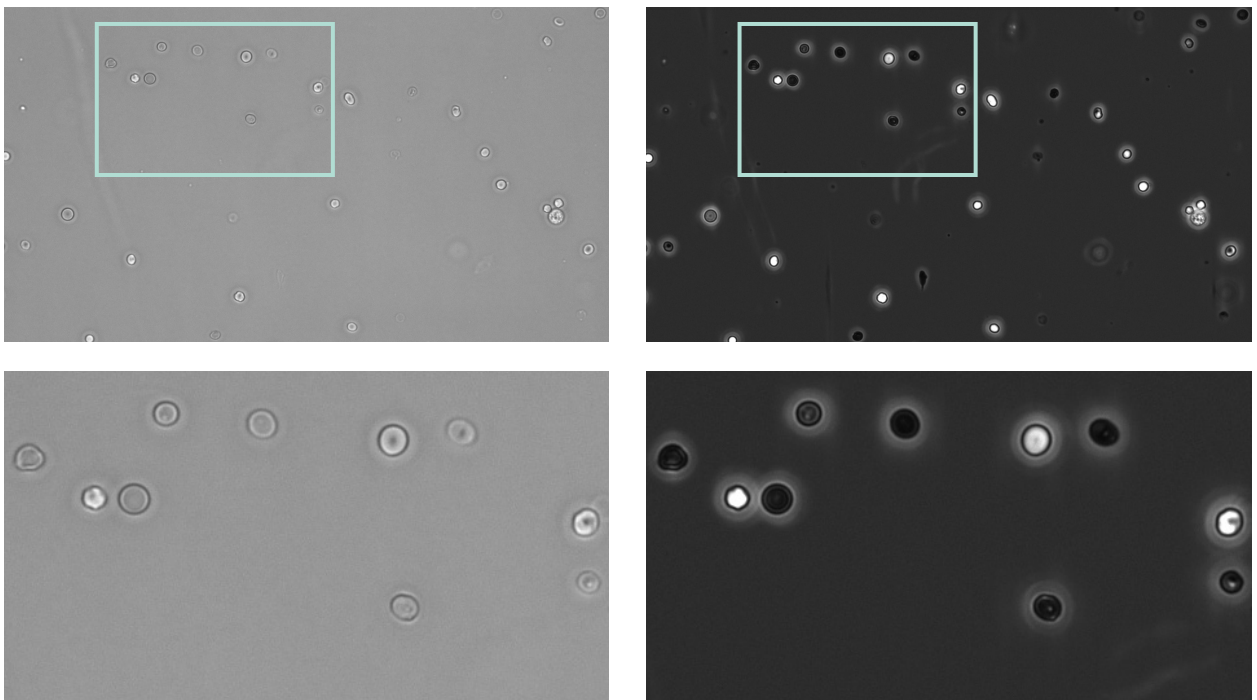


Figure 2. Ghost red blood cells (RBC-Ghost).



Technical specifications



Sample preparation	Automatic, on-board
Sample volume	2 mL; pediatric mode: 1 ml (regular tubes) or 0.8 ml (pediatric tubes*)
Analysis volume	0.2 mL (200 µL)
Throughput	Up to 150 samples/hour
Load capacity	100 sample tubes (10 samples x 10 racks)
Sample tube specifications	h 100-105 mm, d 16-17.5 mm
Barcode reader	On-board
sediMAX cuvette pack	50 cuvettes in 12 towers (600 cuvettes in total)
Cuvette carousel capacity	600 cuvettes (50 x 12 towers)
Rack and cuvette identification	RFID based
Centrifuge	On-board. 260 × g (2000 RPM) for 10 seconds per sample
Automated microscopy analysis	15 high power fields (HPF) equivalent
Final result	Particle concentration (HPF or /µL) & identified category
Detected particles	Red Blood Cells (RBC); Acanthocytes (RBC-Aca) Flag; Ghost Red Blood Cells (RBC-Ghost) Flag; White Blood Cells (WBC); White Blood Cells Clumps (WBCC); Hyaline Casts (HYA); Pathological Casts (PAT); Squamous Epithelial Cells (EPI); Non-Squamous Epithelial Cells (NEC); Bacteria Cocci (BACc); Bacteria Rods (BACr); Yeast (YEA); Crystals (CRY): Calcium-oxalate monohydrate (CaOxm), Calcium-oxalate dihydrate (CaOxd), Uric acid (URI), Triple phosphate (TRI); Mucus (MUC); Sperm (SPRM); Amorphous material (AMO). Urinary Tract Infection (UTI) Flag
Memory	10000 sample results and images
Wash solution	Distilled water (5 L bottle), hypochlorite/ bleach solution
Waste bin capacity	500 cuvettes
Size	600 x 530 x 640 mm (W x D x H)
Weight	60 kg

*Biosigma, code U9030, Conical tubes 6.5 ml

List of products and codes

49156	sediMAX conTRUST PRO
52255	sediMAX RFID cuvettes (1x600)
45463	sediMAX bridge
37036	KOVA Liqua-Trol liquid controls

sediMAX conTRUST PRO + UC-MAX

sediMAX conTRUST PRO is a stand-alone system, which can be connected to UC-MAX, the new A.Menarini Diagnostics urine chemistry analyzer. The combination forms a **complete urine laboratory system**, providing a comprehensive urinalysis report including both chemical and microscopic sediment results for increased analytical accuracy in routine settings.





sediMAX
conTRUST PRO

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