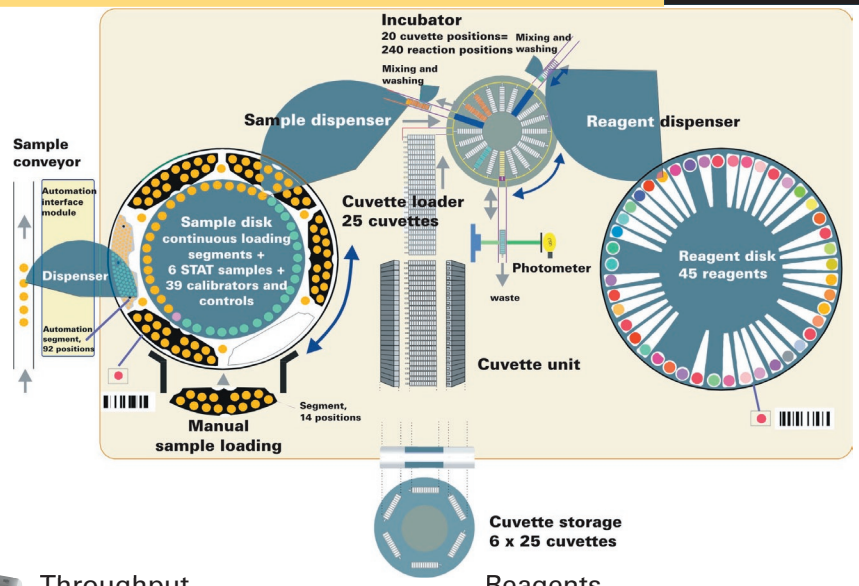
Technical Specifications
PRIOR TO CHANGE

Arena 60

Arena 60 is a fully open, random access photometric analyzer e.g., for wine, food & beverage and enzyme applications. Programmable tests can be 200.



Throughput

Up to 600 tests/hour*. Time to first result is typically 3 to 12 minutes.

*Workload dependent, simulated with the test flow incl. reagent dispensing 220µl with 20µl extra, incubation time 300 sec, Blank, sample dispensing 2µl with 20µl water, incubation time 300 sec, end point assay with side wavelength, every cuvette position used.

Samples

Continuous access to samples without interrupting test processing. Automation interface to a sample track system.
MAX ON-BOARD CAPACITY:
84 routine samples and 6 additional positions for urgent (STAT) samples, 6 segments with 14 positions per segment. Integrated barcode reader and cup/ tube recognition.
SAMPLE CUPS AND TUBES:
0.5 ml, 2.0 ml and 4.0 ml cups, 5 ml and 7 ml tubes, 10 ml tubes with tailored segments.
SAMPLE VOLUMES:
Possible range 1-120 µl.

Reagents

Continuous access to reagents without interrupting test processing. Ability to automatic indentification by integrated barcode reader. Real time reagent status clearly displayed. Up to four reagent additions / test possible.
ON-BOARD STORAGE:
45 positions in the refrigerated reagent compartment.
REAGENT VIALS: 10, 20 and 60 ml reagent vials can be used.
REAGENT VOLUMES: 2-250 µl; typically 120 - 200 µl.

Cuvettes

Discrete disposable 12-cell cuvette. Continuous access to cuvettes without interrupting test processing.
ON-BOARD CAPACITY:
2100 measurement cells, 175 multicell cuvettes with 12 reaction cells, typically up to 4 hours walk-away time.

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Calibration
Linear, bias, non-linear or log-log calibration. Method-dependent use of individual calibrators or automatically diluted series from a stock calibrator. Automatic repeat for bias correction available.
ON-BOARD CAPACITY:
20 positions in the cooled area of the sample disk, also possible to load them into segments.

Quality Control
Real time QC program with multiple, user-definable Westgard rules. Programmable control interval.
QC chart printouts, daily and cumulative reports.
ON-BOARD CAPACITY:
19 positions in the cooled area of the sample disk, also possible to load them into segments.

Sample and Reagent Dispensing
Externally and internally rinsed single probe dispensers equipped with level sensing. Separate dispensers for samples and reagents. Dispensing with precision syringes driven by stepping motors.
MIXING: Mixing in the cuvette by externally rinsed mixer.
REACTION END VOLUME:
100-250 µl.
SAMPLE CARRY OVER: <1%.
REPRODUCIBILITY:
CV less than 2% for sample volumes ≥2 µl and for reagent volumes >5 µl.

Dilutions
Automatic sample pre-dilution. Automatic postdilution with both high and low secondary dilution ratios. Ability to add the value of manual pre-dilution for the result calculation.
AUTOMATIC DILUTION RATIOS:
up to 1+120.
MANUAL DILUTION RATIOS:
up to 1+999.

Photometric measurement
Single channel interference filter photometer with beam splitting reference.
SPECTRAL RANGE: 340-880 nm.
INTERFERENCE FILTERS: 340, 380, 405, 420, 492, 510, 520, 540, 575, 600, 620, 660, 700 nm. Others available upon request.
MEASUREMENT TEMPERATURES:
30 - 50 ºC, preset to 30, 37, 50 ºC, no cooling.
MEASUREMENT PRINCIPLES:
Colorimetric, turbidimetric.
MEASUREMENT MODES:
Kinetic, end-point.
KINETIC MEASUREMENT:
30 sec to 60 min, max 12 points.
LIGHT SOURCE: Halogen lamp with linear absorbance range of 0-2.5 A, resolution of 0.001 and reproducibility of SD ≤0.005 A at 2 A.

Data Management
Windows® XP workstation with graphical user interface.
Data input online, via touch screen or keyboard. Different language versions available.
SAMPLE BARCODES IN USE:
Code 128, Code 39, USS Codabar, Interleaved 2 of 5.
LIS INTERFACE: ASTM 1394-91 or KONE Online.
HARDWARE INTERFACE:
RS-232 or TCP/IP
RESULT REPORTS: Collated by sample, manual entry of off-line results allowing for fully collated result reports, results calculated from both measured and off-line results. Automatic or 'on request' printouts, automatic STAT reporting. Abnormal values and repeats flagged automatically. Possibility for Excel type of reporting for further calculations.
DATA STORAGE: Long term storage of samples with demographics including test and QC results and calibrations.

Dimensions and Weight
Width 170 cm + arm max 80 cm, depth 82 cm, height 120 cm, weight 375 kg.

Power Requirements
100-240 V ±10%, 50-60 Hz ±5%, 900 W + workstation PC and monitor. Power failure security (battery back-up facility).

Distilled Water Consumption
Typically <2 l/h.
On-board storage with no external connections required.

Environmental Conditions for 37°C Measurements
Operating temperature range of 15-32 °C; humidity 40-85% (non condensing).

Regulatory
CONFORMITY WITH:
73/23/EEC Low Voltage Directive
89/336/EEC EMC Directive CE

Ordering codes
984182 Arena 60

984000 Multicell Cuvettes (40x25 pcs)
981455 Reagent vials, 60 ml (12 pcs)
981456 Reagent bottles, 20 ml (16 pcs)
984050 Reagent bottles, 10 ml (5 pcs)
989221 Sample cups, 2 ml (1000 pcs)
989220 Sample cups, 0.5 ml (1000 pcs)
984030 Washing Solution

NOTE: The information and technical specifications are subject to change without notice.

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