

Advanced Immunoassay Testing

### **TOSOH BIOSCIENCE**





### Soar Through Your Immunoassay Testing Challenges

Throughput of 200 results per hour

Load up to 960 tests (48 trays)

Automatic inventory management of reagents and supplies

Additional substrate bottle prevents depletion

Automated daily maintenance and record keeping

Random access and continuous loading

Dual sampling arms

User defined programming

True auto dilution from 2 to 1000

Unit Dose Test Cup reagent system





# AIA-2000 Operation: Simple and Intuitive

- Touch screen monitor allows easy instrument operation.
- Simple icons and color codes guide the operator.
- User friendly software runs on Windows Vista platform.
- Automated daily maintenance.
- Automated pre-treatment.
- Automated dilution.
- Reflex testing.
- Customizable pop-up reminders for reagent inventory and calibration curve stability.

#### Freedom to Walk Away

- 960 test cups give a walk away time of approx. 5 hours.
- 576 tips give a walk away time of approx. 3 hours.
- 2 substrate bottles give a walk away time of approx. 4 hours.
- 16 positions for secondary reagents.
- 20 sample racks (200 specimens) can be loaded at one time.
- Ask about Line Automation Model.



960 Test Cups



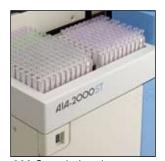
Touch Sreen Monitor



Secondary Reagents



576 Pipette Tips



200 Sample Loader



4 Wash Probes





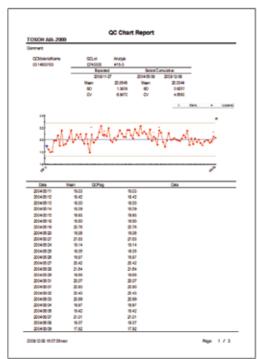
#### Time is of the Essence

- Throughput of 200 tests per hour.
- First result in approx. 18 minutes.
- Minimal maintenance: Daily maintenance takes approx 5 minutes.
- Multiple robotic arms and 3 incubators, handle the various sample processing steps quicker to speed up overall sample processing.
- Continuous processing allows specimens, tips and reagents to be added without interrupting work in progress.
- Multiple STAT processing available.

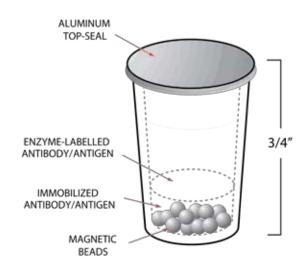


# Time Tested Reliable Reagents: Tosoh Unit Dose Test Cup

- Dry reagent format requires no pre-mixing, no premeasuring, no on board refrigeration and no waste.
- Calibration stability of up to 90 days for most assays.
- Reagents have one year shelf life from date of manufacture.
- Bar-coded for automated scheduling and inventory management.
- Extensive test menu includes thyroid, cardiac markers, tumor markers, reproductive hormones, anemia markers, and metabollic assays.
- Common to all Tosoh AIA Platforms



QC Result Print-out



**Reagent Diagram** 

#### Report with Confidence

- Sophisticated calibration and control monitoring.
- Customizable flags.
- Graphical depiction of results.
- All AIA instruments provide consistent results between testing platforms.
- Tosoh's technical team of experts ensures accurate result reporting.



#### **Main Specifications**

Assay principal Fluorometric enzyme immunoassay (FEIA)
Processing method Automated continuous random access
Processing capacity Max. 200 tests/h. (ST reagents)

In vitro diagnostic reagent AIA-PACK Series
Sample volumes 10 to 125 uL
Sample clot detection Pressure detection

Measuring conditions Reaction temperature: 37 degrees Celsius

Antigen-antibody reaction time: 10 min., 20min. or 40 min.

(depending on assay specification)

Specimen dilution factors 2 per assay specification selectable in the 2 to 1000 range
Specimen pretreatment Automatic pretreatment (10 min. at 37 degrees Celsius)
Detection method Fluorescent measurement (top-to-top system)

Precision control Multirule (Levey-Jenning's charts)

**Reagent Sorter** 

Reagent set count Max. 48 trays (equivalent to 48 analytes or 960 tests)

Can be added or changed at any time by key request

**Tip Sorter** 

Tip Dedicated tips
Tip set count 576 (96/rack, in 6 racks)

Can be added or changed at any time by key request

Sample Loader

Specimen set count 200 specimens, (add / change as required)

STAT: Using the Priority rack

Sample containers Test tubes :13x75, 13x100, 16x75, 16x100 mm

(Diameter x Length)

Can be used in combination with dedicated sample cups CODE39, CODE128, ITF, NW-7, JAN compatible (compliant with ASTM14466-92 and CLA guideline compliant barcodes)

Min. element width: 0.191mm (0.254mm or over recommended)

**Reagent Carousel** 

Specimen barcodes

Reagent set count Holds a max. of 16 reagent types

Can be added or changed at any time by key request

**External Input/Output** RS-232C (ASTM) or Ethernet (HL7 V2.4)

Power Supply/Power Consumption AC 100 - 240 V, 50/60 Hz

700 VA (excluding controller PC and printer (option))

Over voltage category II

**External Dimensions/Weight** (excluding controller PC and monitor)

AIA-2000 ST 1500(W) x 907(D) x 1260(H) mm / 400 kg 59.1(W) x 35.7(D) x 49.6(H) inches / 881.8 lb

AIA-2000 LA 1500(W) x 1197(D) x 1260(H) mm / 400 kg 59.1(W) x 47.1(D) x 49.6(H) inches / 881.8 lb

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**Operating Environment** 

Temperature 15 to 30 degrees Celsius

Humidity 40% to 80% R.H. (with no condensation)

Pollution degree 2

Dust Average office level Altitude Up to 2000 m

**Conformity Standard** 

EMC standard IEC61326-1: 2005 / EN61326-1: 2006,

IEC61326-2-6: 2005 / EN61326-2-6: 2006

CISPR class and group categories Class A, Group 1

FCC Part 15, Sub Part B, Class A
Barcode Reader Class 1: IEC60825-1: 2001

### **Tosoh AIA Test Menu**

10 minute incubation unless otherwise noted.

 $\begin{array}{lll} \textbf{Tumor Markers} & \textbf{Reproductive} \\ \textbf{AFP} & \beta\text{-HCG} \\ \textbf{CEA} & \textbf{E2} \\ \textbf{CA 125} & \textbf{FSH} \\ \textbf{27.29} & \textbf{LH II} \\ \textbf{CA 19-9} & \textbf{Prolactin} \\ \textbf{PSA} & \textbf{Progesterone} \\ \textbf{Testosterone} \\ \end{array}$ 

**Thyroid** 

TSH Cardiac Markers

TT3 CKMB

T4 Troponin I 2nd Gen

Myoglobin

FT3 FT4

T-Uptake TSH 3rd Gen\* TPO Ab\* Tg Ab\*

Anemia

Ferritin Vitamin B12\*

Folate\*

Other

Metabolic

Cortisol

HGH

**iPTH** 

Insulin

C-Peptide

β-2 Microglobulin

lgE II PAP

\* Available in 40 minute format only



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