



TOSOH

# AIA-2000

FULLY AUTOMATED ENZYME IMMUNOASSAY ANALYZER



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Advanced Immunoassay Testing

**TOSOH BIOSCIENCE**



TOSOH



## 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

## 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.



*960 Test Cups*



*Touch Sreen Monitor*



*Secondary Reagents*



*576 Pipette Tips*



*200 Sample Loader*



*4 Wash Probes*

## 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.





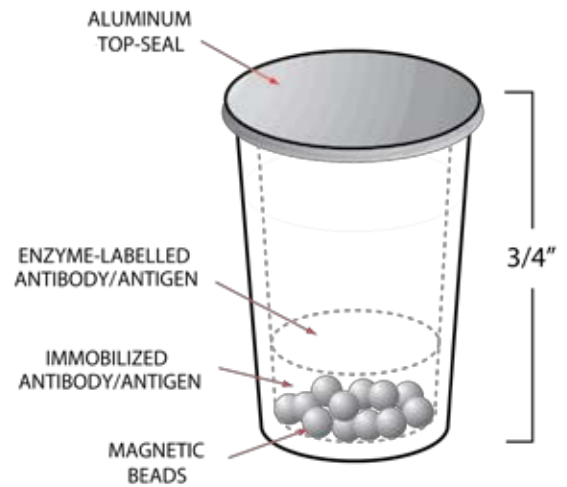
## Time is of the Essence

- 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

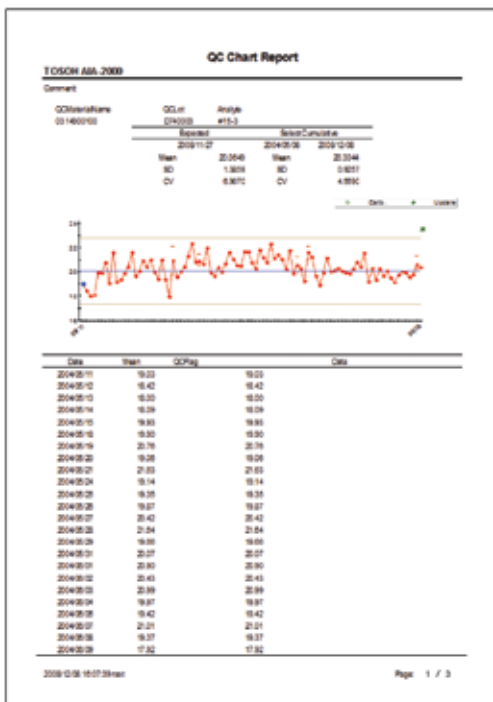
- Dry reagent format requires no pre-mixing, no pre-measuring, no on board refrigeration and no waste.
- Calibration stability of up to 90 days for most assays.
- Reagents have one year shelf life from date of manufacture.
- Bar-coded for automated scheduling and inventory management.
- Extensive test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



**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.



*QC Result Print-out*



## 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 $\mu$ L
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
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## 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)
Specimen barcodes	

## Reagent Carousel

Reagent set count	Holds a max. of 16 reagent types Can be added or changed at any time by key request RS-232C (ASTM) or Ethernet (HL7 V2.4)
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## External Input/Output

### 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

## 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.

## Tumor Markers

AFP  
CEA  
CA 125  
27.29  
CA 19-9  
PSA

## Reproductive

$\beta$ -HCG  
E2  
FSH  
LH II  
Prolactin  
Progesterone  
Testosterone

## Thyroid

TSH  
TT3  
T4  
FT3  
FT4  
T-Uptake  
TSH 3rd Gen\*  
TPO Ab\*  
Tg Ab\*

## Cardiac Markers

CKMB  
Troponin I 2nd Gen  
Myoglobin

## Metabolic

Cortisol  
C-Peptide  
HGH  
Insulin  
iPTH

## Anemia

Ferritin  
Vitamin B12\*  
Folate\*

## Other

$\beta$ -2 Microglobulin  
IgE II  
PAP

\* Available in 40 minute format only



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