

Chemistry Reagents

Hepatic Panel
Alanine Aminotransferase (ALT)
Aspartate Aminotransferase (AST)
Alkaline Phosphatase (ALP)
γ-Glutamyl Transferase (γ-GT)
Direct Bilirubin (D-Bil) DSA Method
Direct Bilirubin (D-Bil) VOX Method
Total Bilirubin (T-Bil) DSA Method
Total Bilirubin (T-Bil) VOX Method
Total Protein (TP)
Albumin (ALB)
Total Bile Acids (TBA)
Prealbumin (PA)
Cholinesterase (CHE)
α-L-fucosidase (AFU)

Renal Panel
Urea (UREA)
Creatinine (CREA) Modified Jaffé Method
Creatinine (CREA) Sarcosine Oxidase Method
Uric Acid (UA)
Carbon Dioxide (CO ₂)
Microalbumin (MALB)
β ₂ -Microglobulin (β ₂ -MG)
Cystatin C (CysC)
Retinol Binding Protein (RBP)
Total Protein In Urine & CSF (TPUC)

Cardiac Panel
Creatine Kinase (CK)
Creatine Kinase-MB (CK-MB)
Lactate Dehydrogenase (LDH)
α-Hydroxybutyrate Dehydrogenase (α-HBDH)
Full Range C-reaction Protein(FR-CRP)
Myoglobin (MYO)
D-Dimer (D-Dimer)

Diabetes Panel
Glucose (Glu) GOD-POD Method
Glucose (Glu) HK Method
Hemoglobin A1c (HbA1c)
Fructosamine (FUN)
β-Hydroxybutyrate (β-HB)

Inorganic & Anemia
Iron (Fe)
Ferritin (FER)
Transferrin (TRF)
Calcium (Ca)
Magnesium (Mg)
Phosphate Inorganic (P)
Unsaturated Iron Binding Capacity (UIBC)
Glucose-6-phosphate Dehydrogenase (G6PD)

Lipid Panel
Total Cholesterol (TC)
Triglycerides (TG)
HDL-Cholesterol (HDL-C)
LDL-Cholesterol (LDL-C)
Apolipoprotein A1 (ApoA1)
Apolipoprotein B (ApoB)
Lipoprotein(a) (Lp(a))

Immune Panel
Immunoglobulin A (IgA)
Immunoglobulin G (IgG)
Immunoglobulin M (IgM)
Immunoglobulin E (IgE)
Complement C3 (C3)
Complement C4 (C4)

Rheumatism Panel
C-reactive Protein (CRP)
Rheumatoid Factor (RF)
Antibodies Against Streptolysin O (ASO)

Pancreatitis Panel
α-Amylase (α-AMY)
Lipase (LIP)

Lung Panel
Adenosine Deaminase (ADA)
Angiotensin Converting Enzyme (ACE)

Technical Specifications

System Function:
Throughput: 800 photometric tests per hour for standalone unit and single analytical unit of modular system, up to 1200 tests per hour with ISE
 From 800 to 2400 tests per hour for modular system with different configurations
On-board tests: 68 photometric tests + 3 ISEs + 3 serum indices

Sample Handling:
Sample tray: 140 positions, including 25 cooled positions for calibrators and controls
 300 samples by 30 racks
SDM: 300 samples by 30 racks
Sample volume: 1.5~35 μL, step at 0.1 μL
Sample probe: Liquid level detection, clot detection and collision protection

Reagent Handling:
Reagent tray: 120 positions in coaxial disk for R1, R2, R3 and R4
Reagent volume: 15~300 μL, step at 0.5 μL
Reagent probe: Liquid level detection, bubble detection and collision protection

Built-in Bar Code Reader (optional):
 Sample and reagent bar code readers support Codabar, ITF (Interleaved Two of Five), Code128, Code39, UPEC/EAN and Code93;
 Capable to connect with LIS in the bi-directional mode

Reaction System:
Reaction volume: 100~360 μL
Reaction temperature: 37°C with 0.1°C fluctuation
Reaction cuvettes: 165 glass cuvettes with 8-step auto wash

Optical System:
Light source: Tungsten-halogen lamp
Photometer: Grating photometer
Wavelength: 340nm, 380nm, 412nm, 450nm, 505nm, 546nm, 570nm, 605nm, 660nm, 700nm, 740nm, 800nm
Absorbance range: 0~3.4Abs (10mm conversion)

ISE Module (Optional):
Principle: Indirect K⁺, Na⁺ and Cl⁻, with 22 μL sample aspiration

Control and Calibration:
Calibration mode: Linear (one-point, two-point and multi-point), Logit-Log 4P, Logit-Log 5P, Spline, Exponential, Polynomial, Parabola
Control rules: Westgard multi-rule, Twin plot

Operation Unit:
Operation system: Windows® XP Professional/Home SP2 or above, Windows® 7, Windows® 8, Windows® 10

Scalability:
 Upgradable to SAL 6000 modular system, a seamless integration of clinical chemistry module and chemiluminescence immunoassay module

BS-800M Clinical Chemistry Solution



BS-800 Modular System

Clinical Chemistry Solution

Total Solution for Clinical Chemistry

BS-800 Modular System combines innovation and high performance into an integrated solution. With a scalable platform, an ever more complete line of clinical chemistry reagents, as well as calibrators and controls, our new solution is tailor-made to customers' needs. Our innovative technologies also ensure the solution is accurate, convenient and cost-efficient.

Modular System

BS-800

Throughput: 800T/H, 1200T/H with ISE

Sample capacity: 140

Reagent capacity: 68



BS-800M

Throughput: 800T/H, 1200T/H with ISE

Sample capacity: 440

Reagent capacity: 68



Throughput: 1600T/H, 2400T/H with ISE

Sample capacity: 580

Reagent capacity: 136



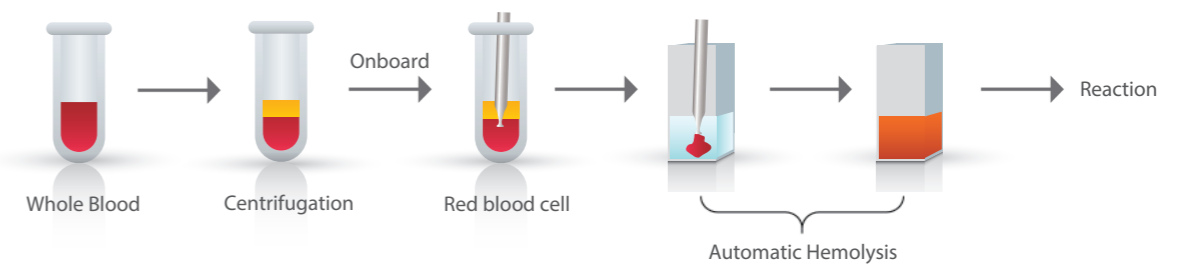
Upgradable to SAL 6000

One integrated workstation for both clinical chemistry and chemiluminescence immunoassay



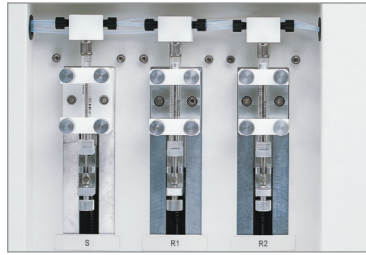
HbA1c Smart-sampling Technology

BS-800 modular system utilizes HbA1c smart-sampling technology, which allows onboard hemolysis for whole blood samples, thus achieving shorter turnaround time (TAT) and eliminating any biohazardous risks or any errors by manual operation.



Mindray HbA1c assays of enzymatic method, with application of specified protease and Fructosyl Peptide Oxidase (FPOX), has a good correlation with HPLC method. The enzymatic method is proven to have high precision, specificity and better performance to avoid interference from hemoglobin variants, and it is traceable to IFCC/NGSP reference methods.

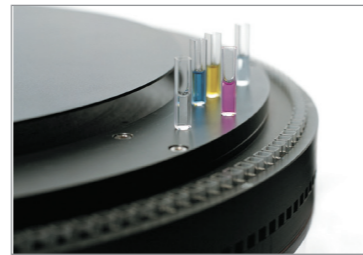
Accurate



- **High pipetting precision**
15~300 μL reagent with step at 0.5 μL , 1.5~35 μL sample with a step at 0.1 μL .



- **Coolant circulation reagent refrigeration**
Ensure a stable refrigeration temperature at 2~8°C in the reagent disk.



- **Direct solid-heating system**
Fast heating of reaction disk while the temperature is kept at 37°C with 0.1°C fluctuation.



- **Effective mixing unit**
Independent reagent and sample mixing units; three-head mixing bars speed up process performance. The two-step washing significantly reduces potential contamination.



- **Intelligent clot detection**
Can detect and differentiate between a clot, partial clot, and bubbles ensure precise sample aspiration.

Preventive



- **Collision protection**
Vertical, horizontal sample and reagent probes collision protection.



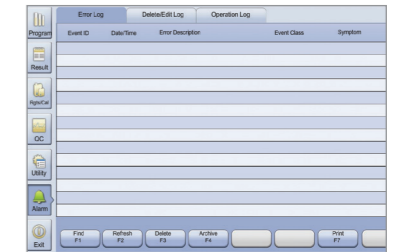
- **Waterproof design**
In the event of liquid splash, the liquid is redirected away from all electronic components with the specially designed cover.



- **Maintenance guide**
Easy to follow maintenance procedures, with embedded troubleshooting guides. Users may resolve issues quicker.



- **Covered system**
The pipetting system is covered to ensure safety. The sample disk is flexible to be partially covered only allowing convenient access during sample loading.



- **Warning log**
Extensive log lists alerts operator and service personnel to maintain the system.



Innovative

- **Coaxial reagent disk**

Unique coaxial reagent disks design making reagent replacement time saving and convenient. The semi-opened cover ensures operator safety during operation.



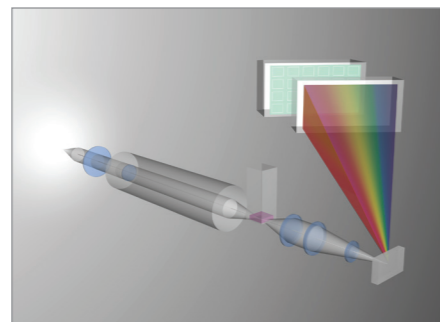
- **Reagent bubble detection**

System provides sufficient reagent aspiration through liquid level and reagent bubble detection technology.



- **Dot light source**

The dual focus of forward lighting is possible via the dual-diaphragm and dual-lens technology which creates a high intensity focused light. Thus, lowering the minimum reaction volume and enhancing the measuring accuracy.



- **Water quality monitor**

The system employs resistance principle. It provides premium DI Water quality for assay analysis and reduces potential contamination.



Cost-efficient

- **Large capacity**

Total sample capacity is 440 (140 positions on the sample tray and 300 positions on the Sample Delivery Module). The Sample Delivery Module automatically delivers samples to the analytical unit. The large sample capacity coupled with 165 washable permanent cuvettes allows the operator hours of walk-away time.



- **Low reagent consumption**

100 μ L minimum reaction volume reduces reagent cost. Uniquely designed reagent bottles maximize reagent usage and reduce residual volume.



- **One key STAT**

Dedicated One-Key STAT test button, STAT sample position, and STAT sample rack provide prompt response to the highest priority samples.



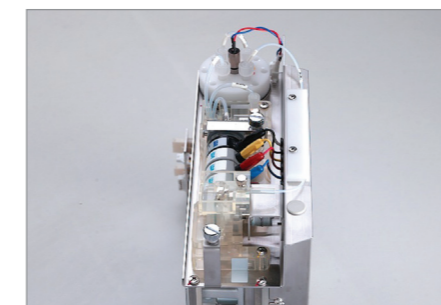
- **Continuous reagent loading and unloading**

Two separate buttons independently control each reagent carousel; it ensures safe and continuous reagent replacement during testing.



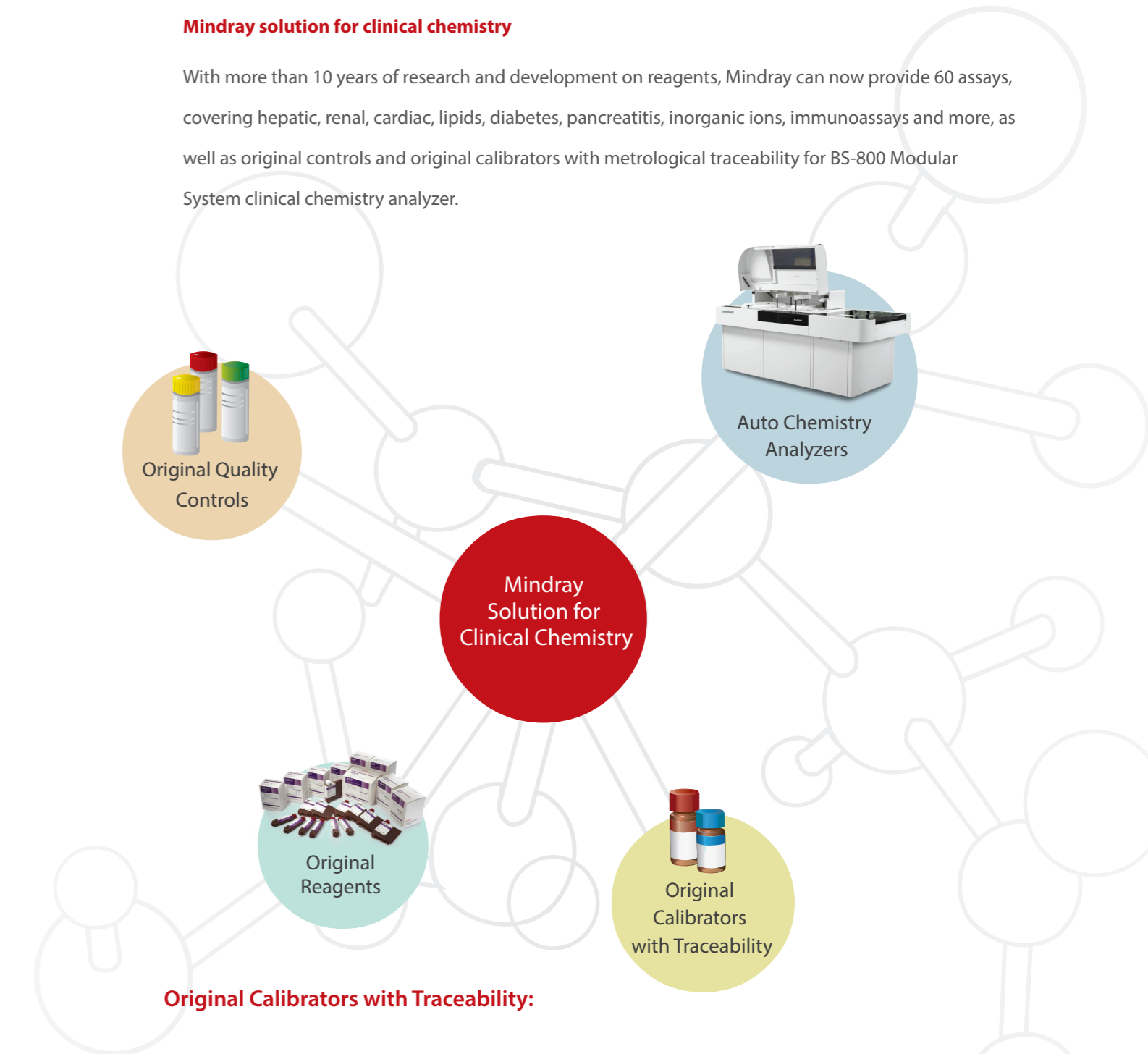
- **Indirect ISE**

Low sample volume, high ISE analysis throughput, and cost-effective electrodes.



Mindray solution for clinical chemistry

With more than 10 years of research and development on reagents, Mindray can now provide 60 assays, covering hepatic, renal, cardiac, lipids, diabetes, pancreatitis, inorganic ions, immunoassays and more, as well as original controls and original calibrators with metrological traceability for BS-800 Modular System clinical chemistry analyzer.



Original Calibrators with Traceability:

Reference Method (Certified by 'Joint Committee for Traceability in Laboratory Medicine' (JCTLM))

- International Federation of Clinical Chemistry and Laboratory Medicine (IFCC)
- National Institute of Standards and Technology (NIST)
- Centers for Disease Control and Prevention (CDC, USA)
- American Association for Clinical Chemistry (AACC)

Reference Material

- Institute for Reference Materials and Measurements (IRMM) standards
- National Institute of Standards and Technology (NIST) standards
- World Health Organization (WHO) standards
- Japan Committee for Clinical Laboratory (JCCLS) standards