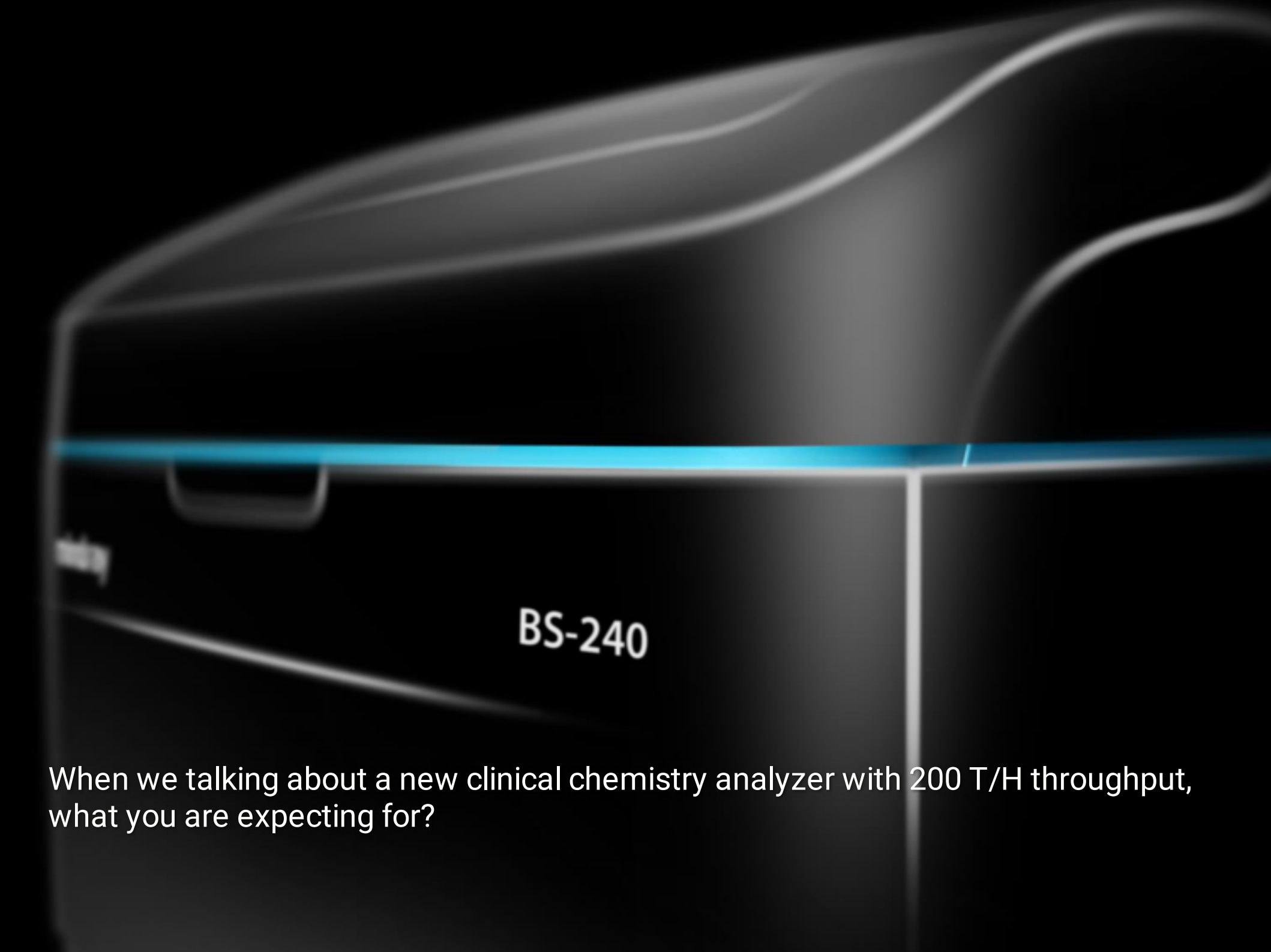




BS-240 and BS-230 Clinical Chemistry Analyzer

Harry Hu

mindray



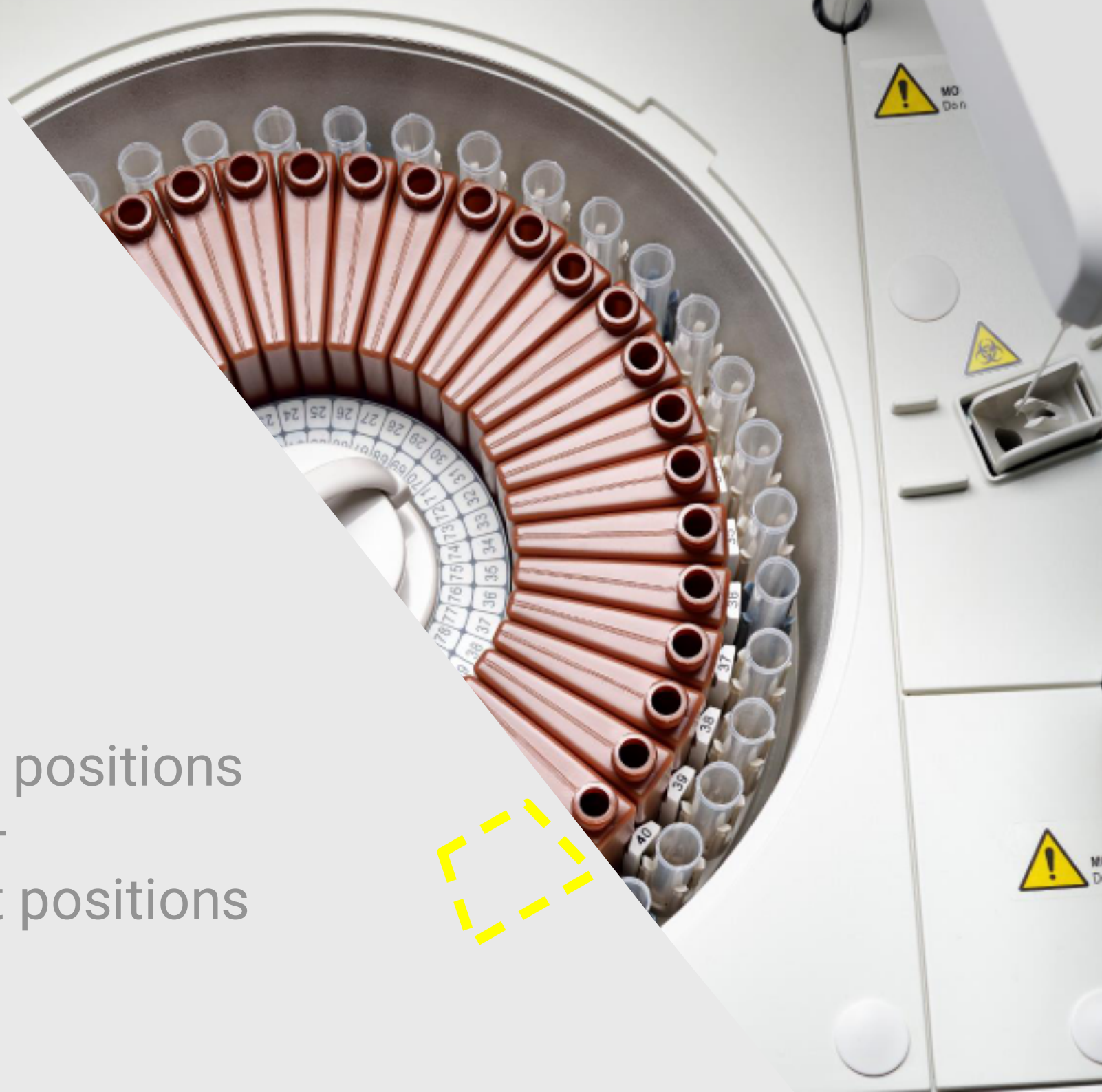
BS-240

When we talking about a new clinical chemistry analyzer with 200 T/H throughput, what you are expecting for?

Not enough sample or reagent
positions?



40 Sample positions
+
40 Reagent positions





Getting tired with Cuvettes loading?

Too much water consumption?

Facing a carryover problem?



Redefined Washing station

4 stages 8 steps washing station

Water consumption: $\leq 4\text{L/H}$

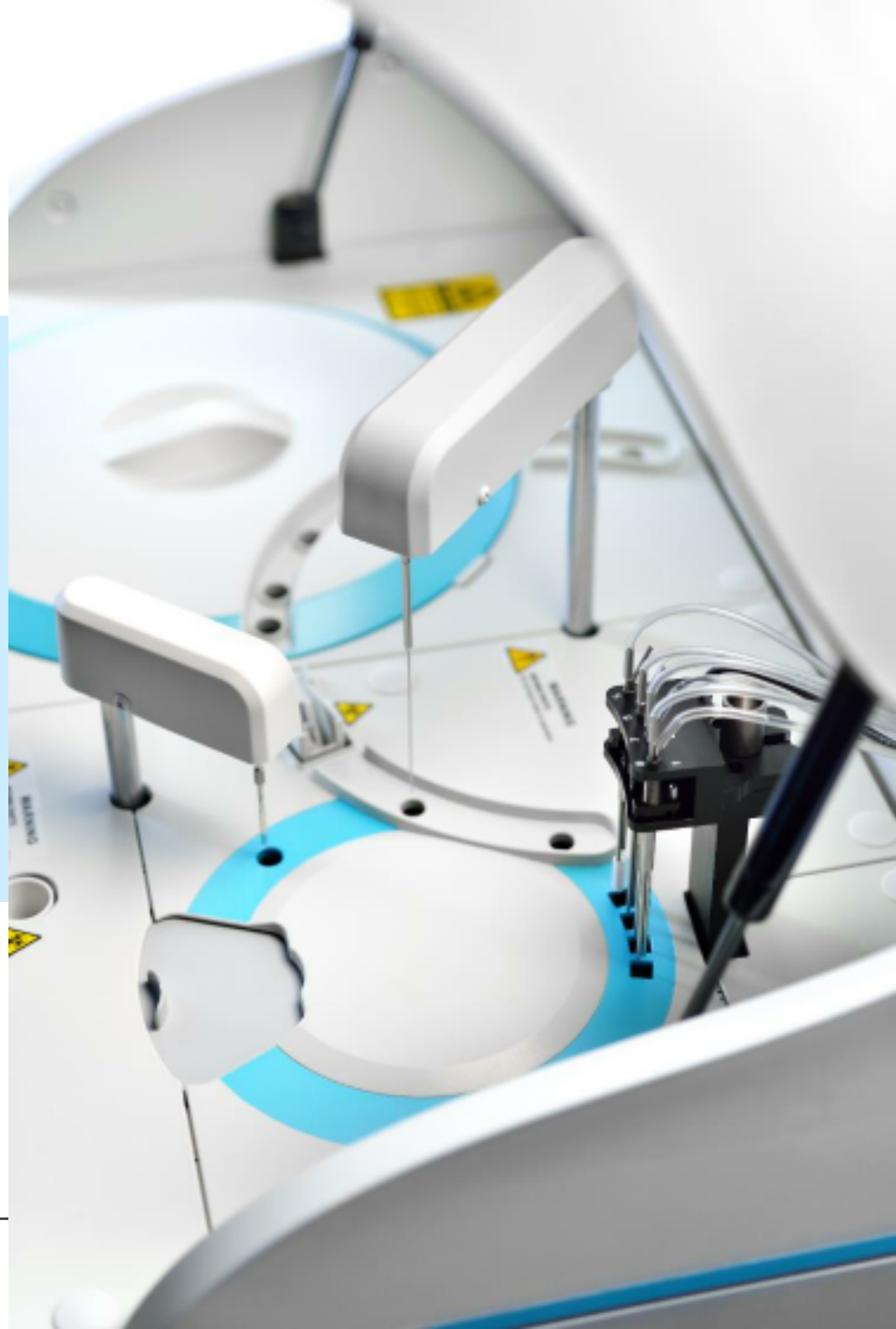
Carryover $< 1\text{ppm}$

How to reduce lab cost?



100μl

Minimum Reaction Volume



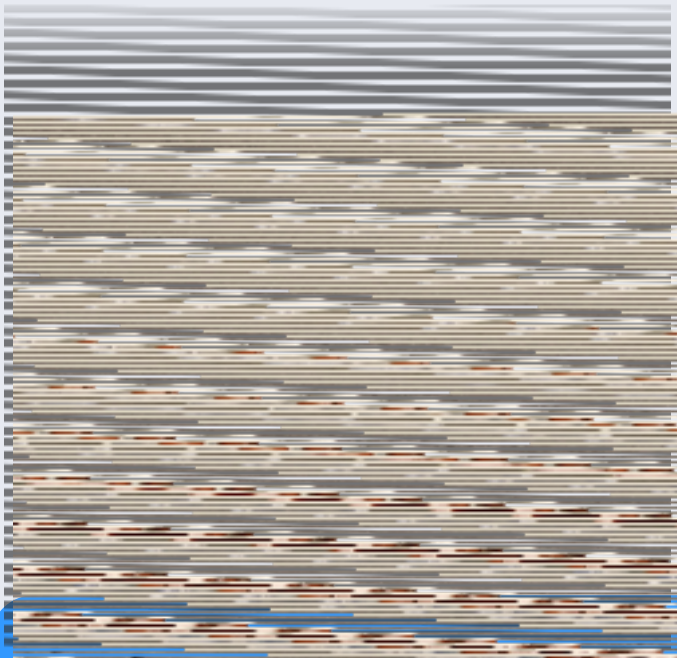
100 µl minimum reaction volume means?

HbA1C MALB TP G6PD FER ALB Glu-H RBP
ALT RF LDH CysC IgA LP(a) ALP TC LIP ADA Glu-G
CO2 ApoB IgG CHE Fe CREA-S α-AMY Mg UREA α-HBDH
β2-mG TBA HDL-C LDL-C ASO ACE P PA IgM C4 D-Bil
CREA-J IgE HS-CRP AST CK CRP TG TRF D-Bil
UA γ-GT C3 CK-MB FUN 5'-NT Ca

All Mindray items

Reagent consumption < BS-120/200/200E

Less Reagent Cost



Less reaction volume

- ✓ 100ul minimum reaction volume
- ✓ 30% less than BS-200/200E

Less Consumables



Reusable Cuvette

- ✓ 5 cuvette in one segment
- ✓ 40 cuvette in one batch

A man with dark, curly hair and a goatee, wearing a light blue lab coat over a striped shirt and tie, is seated at a desk in a laboratory. He is wearing white gloves and using a computer mouse. A computer monitor is visible on the desk to his right. The background is a blurred laboratory setting with various equipment and greenery visible through a window.

Spent too much on
application training?

mindray

One software platform

<2000
T/H



BS-2000M

<600
T/H



BS-800



BS-800M



BS-600



BS-480

<200
T/H



BS-230



BS-240

Low End

Medium

High End

mindray

The screenshot shows the 'Reagent Set' dialog box. The 'Reagent Set' dropdown is set to 'ALI'. The 'Large Mode' checkbox is checked. The 'Exp. Date' is set to '1/24/2000'. The 'Lot No.', 'Batch No.', and 'User Code' fields are empty. The 'K2' section shows 'Position' set to '1', 'Batch Type' set to '1', and 'Exp. Date' set to '2/10/2000'. The 'OK' and 'Cancel' buttons are at the bottom.

The screenshot displays a software application interface. At the top, a large blue banner contains the word "software" in white. Below the banner is a table with 10 columns: Pos, Class, No, Class Left, Rel Type, Time Left, Days Left, Loc No, Cell Status, and Time Left. The table contains 15 rows of data. To the left of the table is a vertical sidebar with icons for various functions: Search, Add, Print, Report, and a question mark. Below the table is a horizontal row of buttons labeled F1 through F9. The bottom right corner shows a page number "27".

Pos	Class	No	Class Left	Rel Type	Time Left	Days Left	Loc No	Cell Status	Time Left
20	ENR1	20		R1	20	7d	1000	Excluded	2d
20				R2	41	22d	1000		
21	ACK	109		R1	109	7d	1000	Excluded	2d
30				R2	113	7d	1000		
25	EUR	108		R1	118	5d	1005	Excluded	1d
2000	VAL1	102		R1	7d	27d		Cancelled	
40	EUR	109		R1	109	2d	1012	Excluded	20d
0				R2	600	5h	1015		
4	EUR	102		R1	105	11d	1010	Pending	2d
1				R2	718	11d	1012		
40	AcadA	31		R1	21	21d	1000	Excluded	41d
0				R2	707	6d	1000		
40	AcadB	108		R1	108	21d	1012	Excluded	40h
0				R2	310	11d	1015		

Navigation buttons: F1, F2, F3, F4, F5, F6, F7, F8, F9.

Close System

One key
parameter
import

Reagent test
managing

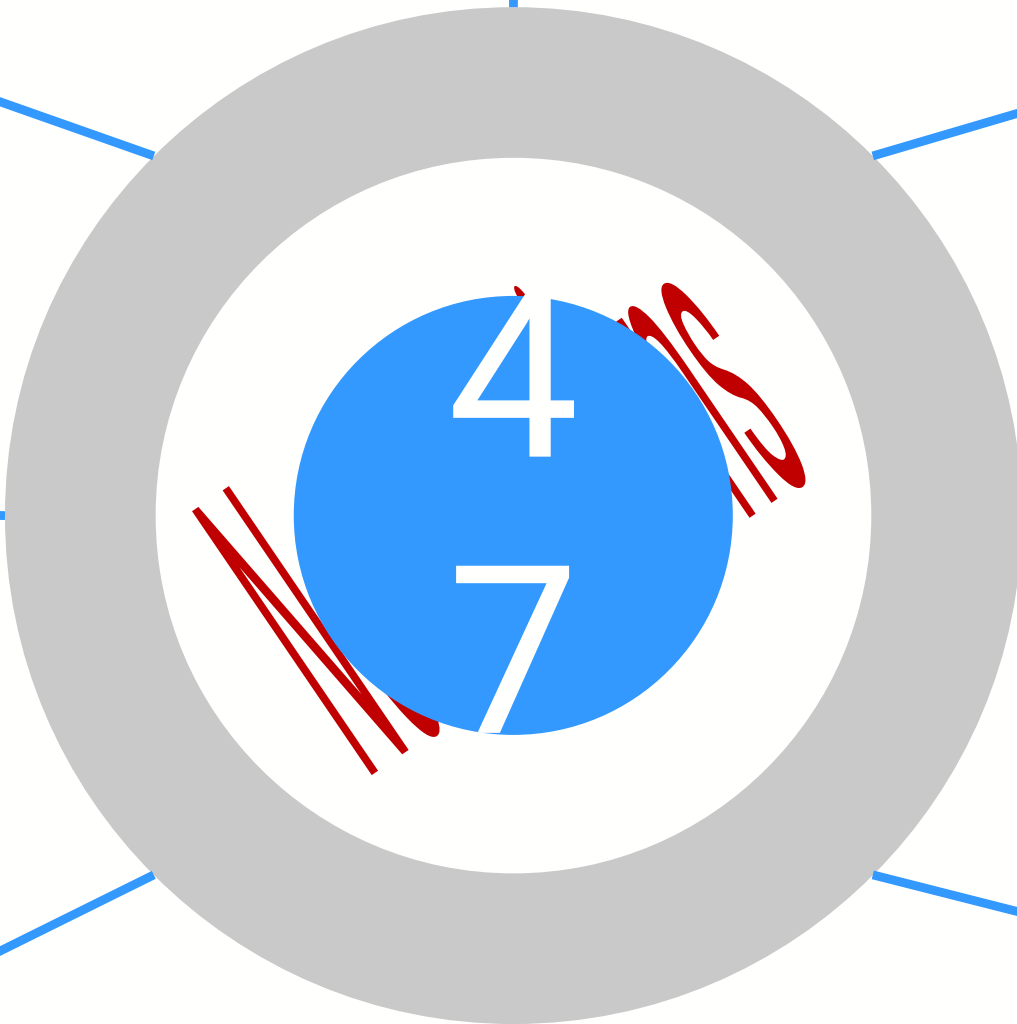
Step by step
maintenance guide

Sample Info. auto
download from LIS

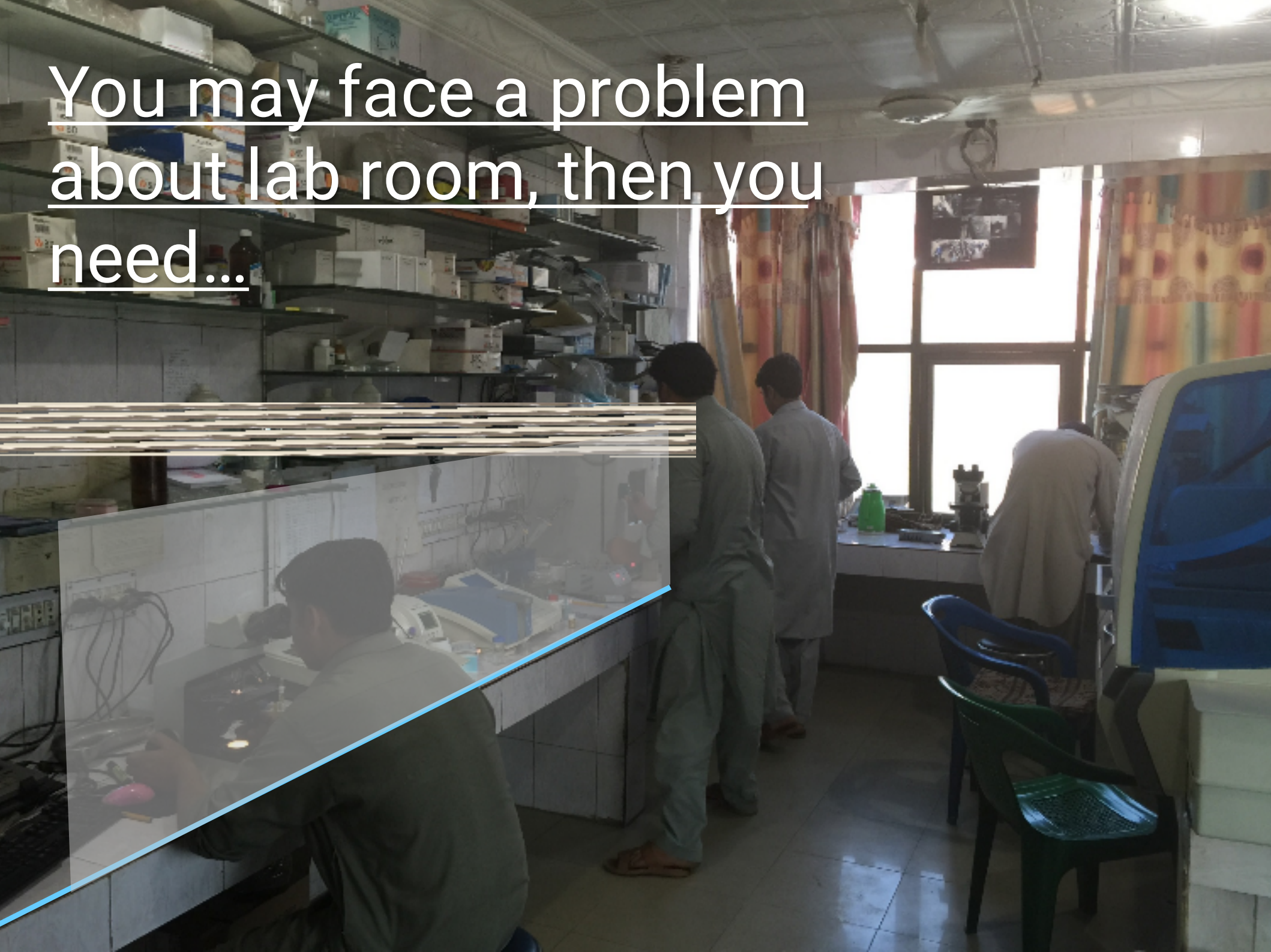
Twin Test

Auto QC

Reflex function



You may face a problem
about lab room, then you
need...



-37%

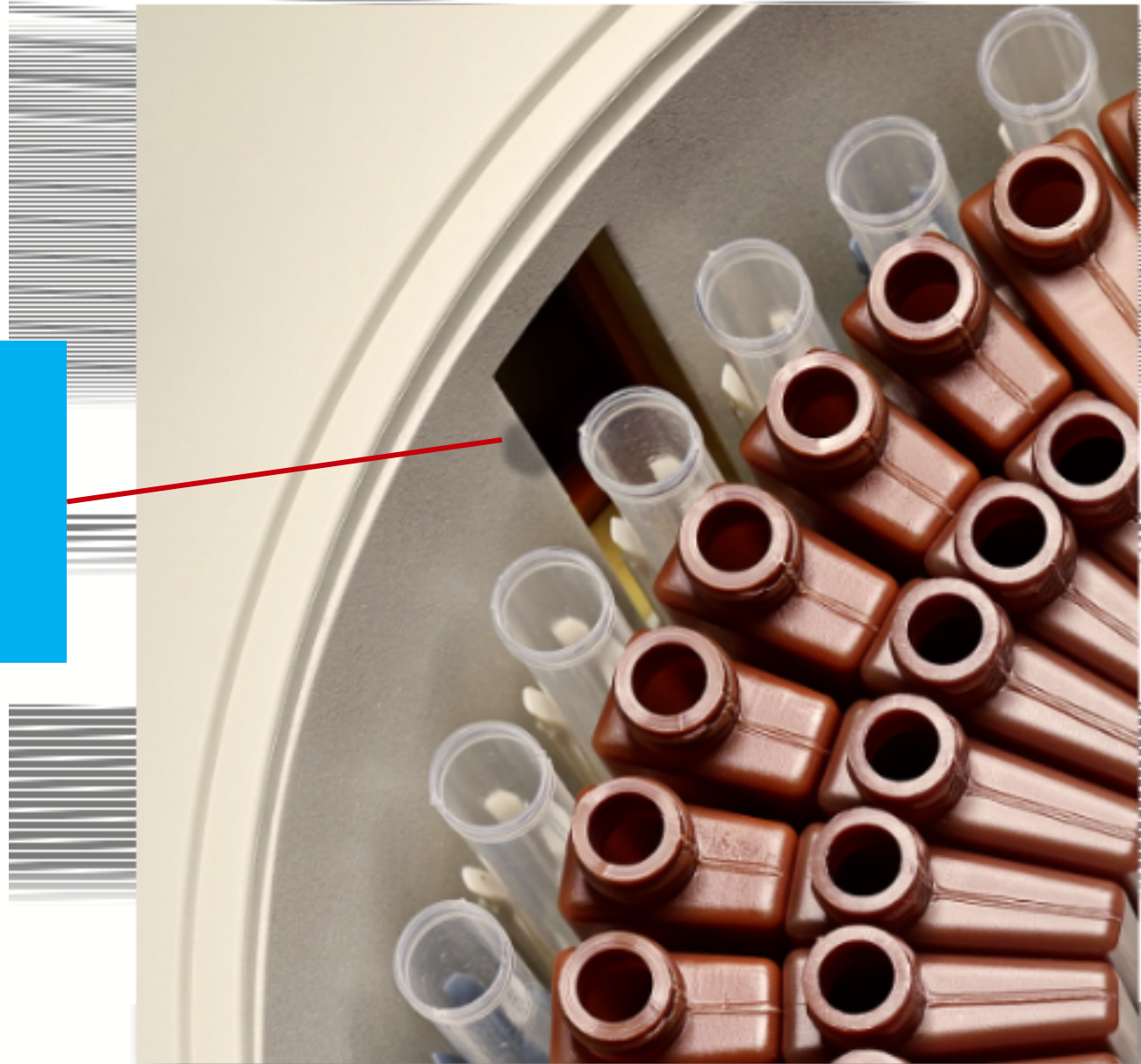
Smaller than BS-200E



mindray

Compact Size with practical functions

Internal Barcode
reader (Optional)



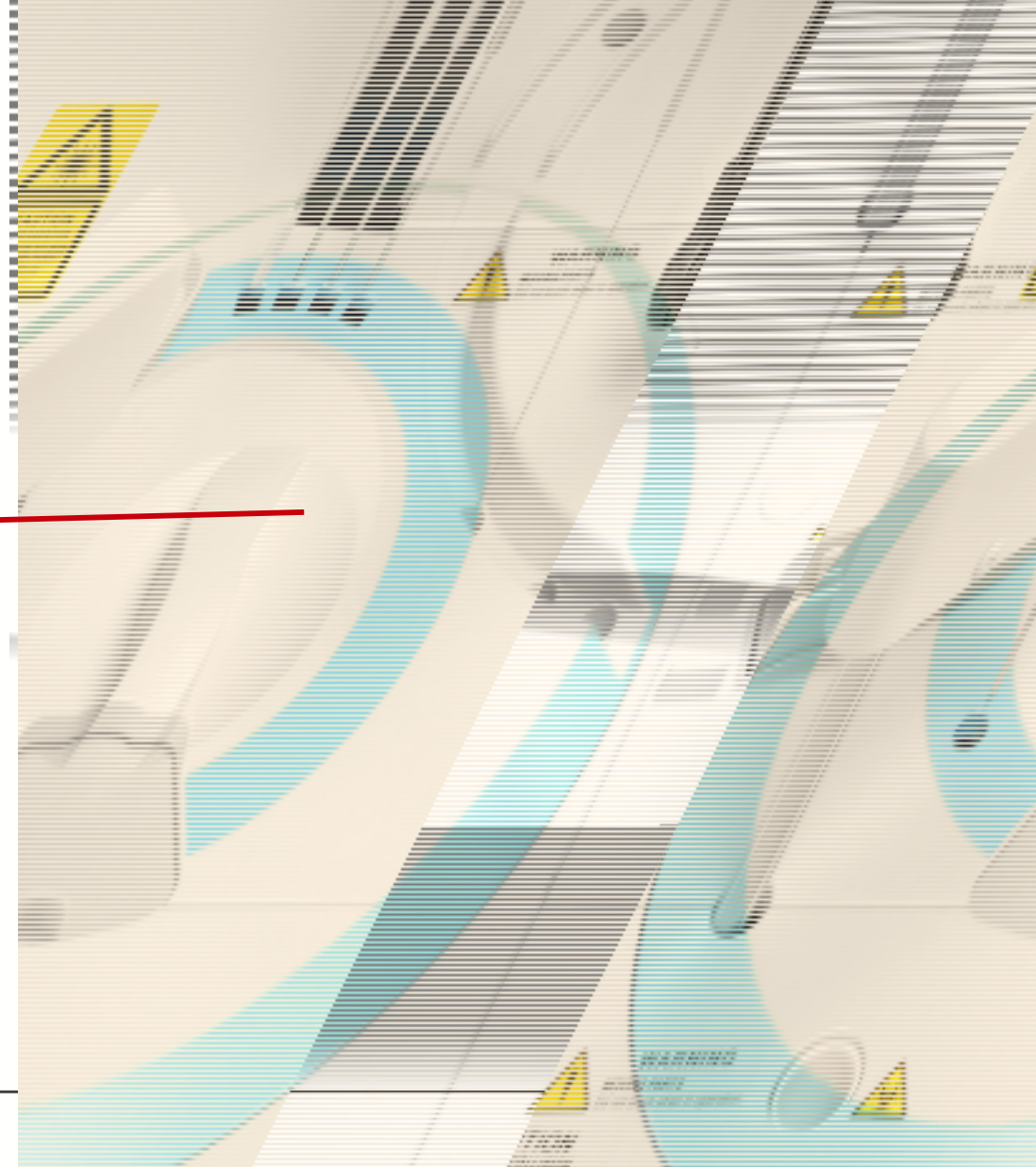
Compact Size with practical functions

Waterfall probe
clean (like
BS-2000M)
Carryover<0.05%

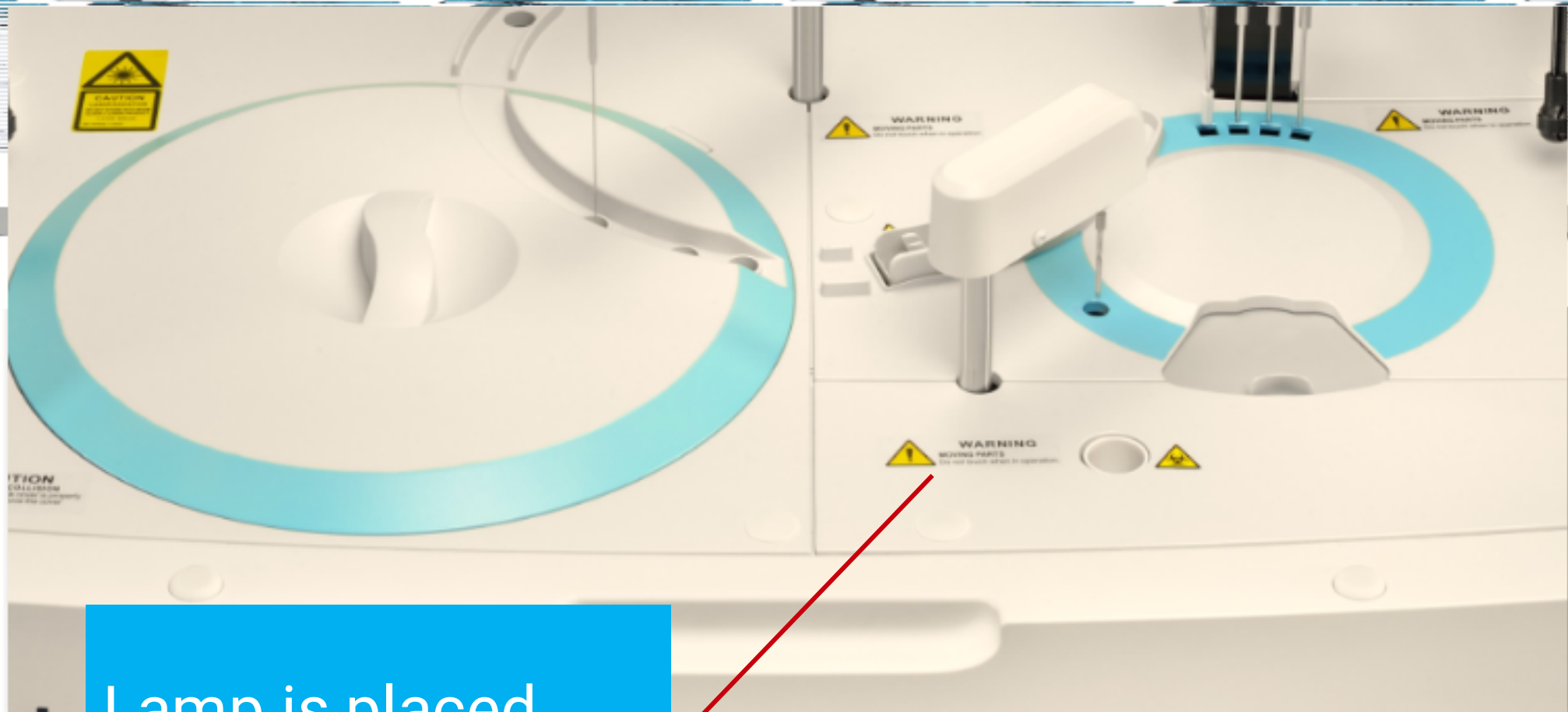


Compact Size with practical functions

ISE reagent package
loaded at right side
(more convenience)



Compact Size with practical functions



Lamp is placed
close to operator

One More Thing...

HPLC Method

Turbidimetry Method

Enzymatic Method



PROS

- Variant identification
- Gold Standard

- Applied on chemistry analyzer
- Less cost and quick test

- Applied on chemistry analyzer
- Less cost and quick test
- No interference from hemoglobin variants
- No contamination from latex particles

CONS

- Need special equipment
- High cost
- Slow speed, the more accurate, the more slow
- Easily interfered by hemoglobin variants

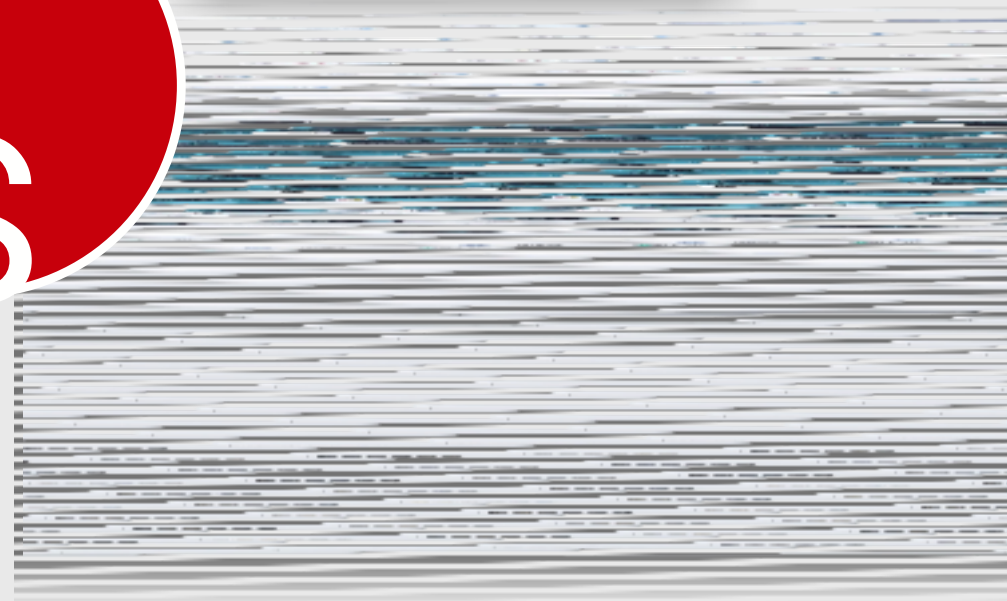
- Latex particles easily contaminates testing system
- Easily interfered by Hb variant
- Easily interfered by hemolysis, chyle and jaundice

Pretreatment





Specialist HbA1c
Analyzer



Why BS-240 is the best choice for HbA1c testing?

- **Convenience** : No need for pretreatment
- **Trustable**: New generation method which avoid variant interference
- **Low cost**:
 1. Low cost for equipment
 2. Low cost for reagent and consumables
 3. Not only HbA1c, other high value items could be tested on BS-240 as well to share the cost
- **A appropriate way to step into central labs**

1

Whole Blood Testing

2

Flexible sample/reagent
positions

3

100µl minimum reaction
volume

4

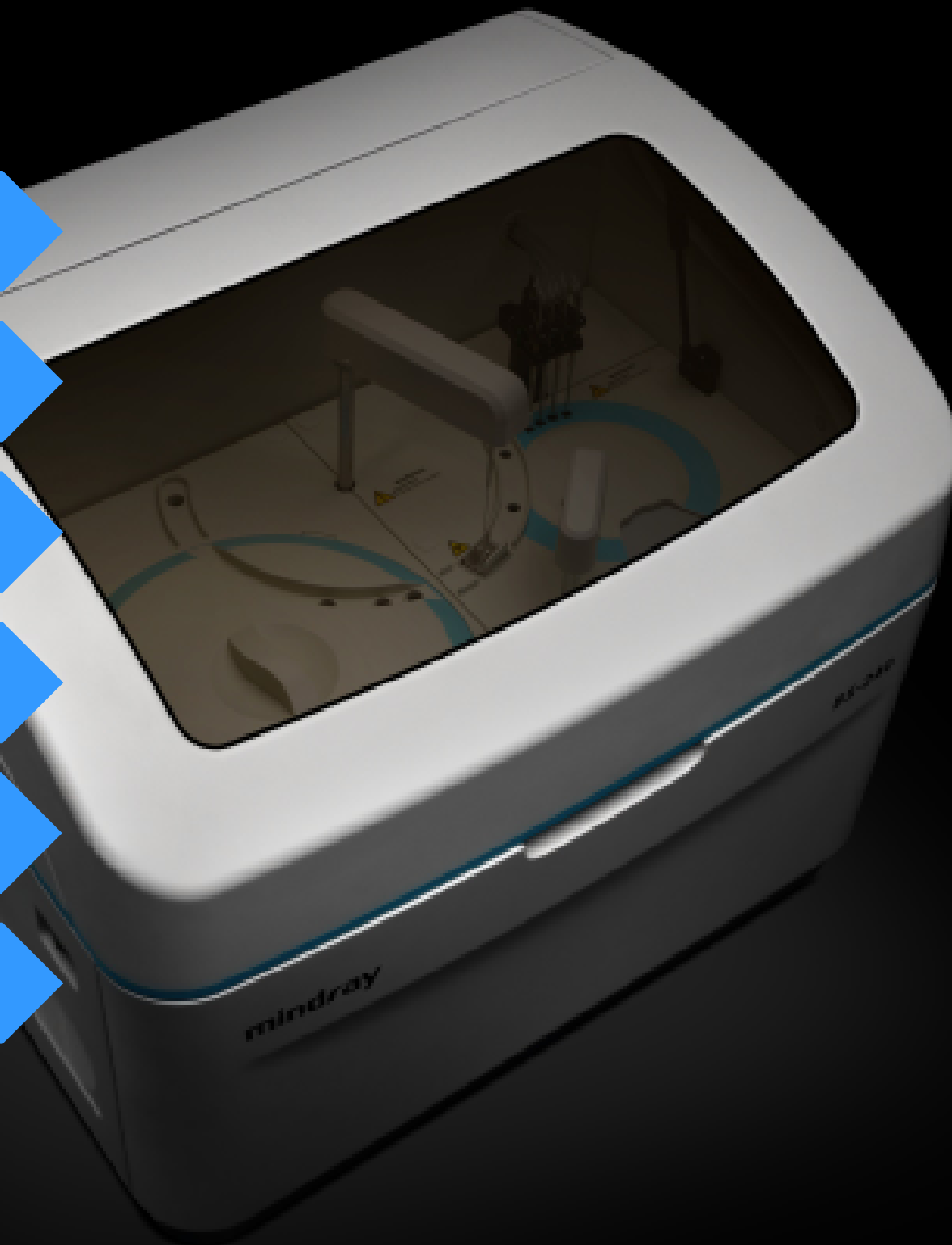
Compact size

5

Auto-washing function

6

New software platform with
more functions





	BS-230	BS-240
Washing Station	N	Y
Reusable Cuvette	N (disposable)	Y
Probe	Different	
Whole Blood Testing function	N	Y
Throughput	Same	
Dimension	Same	
Software	Same	

	BS-240	BS-200E	BS-230	BS-200	BS-120	CS-T240	Chemray 240	LWC 200E	8021A
Throughput	200/400	200/330	200/400	200/330	100/250	240 tests	240	225	200
ISE	Y	Y	Y	Y	Y	N	N	Y	N
Sample Position	Up to 80(40)	40	Up to 80(40)	40	Up to 35	67 positions shared by samples and reagents	40	60	45
Reagent Position	Up to 80(80)	40	Up to 80(80)	40	Up to 34		40	60	60
Reaction Cuvette	40 reusable cuvettes	80 reusable cuvettes	40 disposable cuvettes	80 disposable cuvettes	40 disposable cuvettes	120 reusable cuvettes	81 reusable cuvettes	81 reusable cuvettes	120 reusable cuvettes
Sample Volume	2μL ~45μL, 0.1μL	2-45ul, step by 0.1ul	2μL ~45μL, 0.1μL	2-45ul, step by 0.1ul	3-45ul, step by 0.5ul	3~35ul, step by 0.1ul	3-45ul, step by 0.5ul	2~30uL, step by 0.1ul	2~100ul, 0.1ul
Reagent Volume	10μL ~250μL, 0.5μL	10-350ul, step by 1ul	10μL ~250μL, 0.5μL	10-450 l, step by 1ul	180-450ul, step by 1ul	10~350ul, step by 1ul	30-450 l, step by 1ul	20~300ul, step by 1ul	10~500uL, 0.5uL
Mini-Reaction Volume	100μL~360μL	150-360 ul	100μL~360μL	150-500ul	180-500ul	150ul	180-500 ul	150ul	180uL
Wavelength	8	12	8	8	8	12	8	8	10
Whole Blood	Y	N	N	N	N	N	N	N	N

Launching

Launch Time(with CE, FSC, etc.):

31st March

First Show for BS-240:

24th January, Arab Health, Dubai

Thank You

