

# PRODUCT CATALOG



ALFA  
DIAGNOSTIK

PROFESSIONAL | DIVERSIFIED | INNOVATIVE

# TABLE OF CONTENT

IMPROVE

ENERGIUM

PRE ANALYTICAL SOFTWARE

MEDICON & PHEONIX

NUVE

JOAN LAB

ABEYANCE

BPR MEDICAL

RAPID TEST KIT

RANDOX (EQA , IQC)



HUMAN HEALTH  
WE CARE

IMPROVE

## Evacuated blood collection tube

IMPROVACUTER®  
Gel & Clot Activator Tube



TYPE : GEL AND CLOT ACTIVATOR

MATERIAL: PET

SIZE: 13mm x 75mm , 13mm x 100mm

VOLUME : 3.5ml , 5ml

COLOR: Yellow

PACKAGING: 100/1000

IMPROVACUTER®  
Clot Activator Tube



TYPE : CLOT ACTIVATOR

MATERIAL: PET

SIZE: 13mm x 75mm

VOLUME : 3ml, 4ml

COLOR: RED

PACKAGING: 100/1000

IMPROVACUTER®  
Lithium Heparin Tube



TYPE : LITHIUM HEPARIN

MATERIAL: PET

SIZE: 13mm x 75mm

VOLUME : 3ml , 4ml

COLOR: GREEN

PACKAGING: 100/1000

IMPROVACUTER®  
Glucose Tube



TYPE : SODIUM FLUORIDE / GLUCOSE

MATERIAL: PET

SIZE: 13mm x 75mm

VOLUME : 2ml , 3ml

COLOR: GREY

PACKAGING: 100/1000



HUMAN HEALTH  
WE CARE

IMPROVE

## Evacuated blood collection tube

IMPROVE<sup>®</sup> IMPROVACUTER<sup>®</sup>  
No Additive Tube



TYPE : CLOT ACTIVATOR

MATERIAL: PET

SIZE: 13mm x 75mm

VOLUME : 3ml, 4ml

COLOR: RED

PACKAGING: 100/1000

IMPROVE<sup>®</sup> IMPROVACUTER<sup>®</sup>  
EDTA.K2 Tube



TYPE : EDTA.K2

MATERIAL: PET

SIZE: 13mm x 75mm, 13mm x 100mm

VOLUME : 2ml, 3ml, 6ml, 8ml

COLOR: LAVENDER

PACKAGING: 100/1000

IMPROVE<sup>®</sup> IMPROVACUTER<sup>®</sup>  
Citrate Tube



TYPE : SODIUM CITRATE

MATERIAL: PET

SIZE: 13mm x 75mm

VOLUME : 1.8ml, 2.7ml

COLOR: BLUE

PACKAGING: 100/1000

IMPROVE<sup>®</sup> IMPROVACUTER<sup>®</sup>  
ESR Tube



TYPE : ESR

MATERIAL: PET

SIZE: 13mm x 75mm, 9mm x 120mm

VOLUME : 1.28ml , 1.6ml

COLOR: BLACK

PACKAGING: 100/1000

## Pediatric Blood Collection Tube



TYPE	COLOR	VOLUME	PACKAGING
GEL AND CLOT ACTIVATOR	YELLOW	0.5ml	50/1000
CLOT ACTIVATOR	RED	0.5ml	50/1000
GEL LITHIUM HEPARIN	GREEN	0.5ml	50/1000
EDTA.K2	LAVENDER	0.5ml	50/1000
SODIUM FLOURIDE/ GLUCOSE	GREY	0.5ml	50/1000

## Microbiology Transport System



TYPE	PACKAGING
PLAIN , PACKED INDIVIDUALLY	50/500
PLAIN , PACKED IN BULK	100/2000
AMIES WITHOUT CHARCOAL	50/500
AMIES WITH CHARCOAL	50/500
STUART	50/500
CARY-BLAIR	50/500



HUMAN HEALTH  
WE CARE

IMPROVE

## Blood Collection System

IMPROSAFE®  
Blood Collection Set (with Pre-Attach Holder)



TYPE : SAFETY BLOOD COLLECTION SYSTEM WITH PRE-ATTACH HOLDER

NEEDLE GAUGE: 21G , 23G, 25G

NEEDLE LENGTH x TUBE LENGTH : 3/4 x 7" , 3/4 x 12"

WING COLOR : 21G (GREEN) , 23G (BLUE), 25G (ORANGE)

PACKAGING: 50/500

IMPROSAFE®  
Blood Collection Set



TYPE : SAFETY BLOOD COLLECTION SYSTEM

NEEDLE GAUGE: 21G , 23G, 25G

NEEDLE LENGTH x TUBE LENGTH : 3/4 x 7" , 3/4 x 12"

WING COLOR : 21G (GREEN) , 23G (BLUE), 25G (ORANGE)

PACKAGING: 100/2000

IMPROVACUTER®  
Multi-Sample Needles (Flashback)



TYPE : MULTI SAMPLE NEEDLE (FLASHBACK)

NEEDLE GAUGE: 18G, 20G, 21G , 22G, 23G

NEEDLE LENGTH : 1" , 1.5"

SHEILD COLOR : 18G ( PINK ) , 20G (YELLOW) , 21G (GREEN) , 22G (BLACK), 23G (BLUE)

PACKAGING: 100/5000

IMPROVACUTER®  
Multi-Sample Needles



TYPE : MULTI SAMPLE NEEDLE

NEEDLE GAUGE: 18G, 20G, 21G , 22G, 23G

NEEDLE LENGTH : 1" , 1.5"

SHEILD COLOR : 18G ( PINK ) , 20G (YELLOW) , 21G (GREEN) , 22G (BLACK), 23G (BLUE)

PACKAGING: 100/4000



HUMAN HEALTH  
WE CARE

IMPROVE

## Blood Collection System

IMPROVACUTER®  
Holder



GENERAL HOLDER

IMPROVACUTER®  
Safety Holder



SAFETY HOLDER

ITEM : IMPROVACUTER HOLDER

TYPE: GENERAL HOLDER    PACK: 40/1000

TYPE : SAFETY HOLDER    PACK: 20/1000

IMPROMINI®  
Safety Lancets



TYPE : IMPROMINI SAFETY LANCET

NEEDLE GAUGE: 30G, 28G, 26G, 23G, 21G, 18G

PUNCTURE DEPTH : 1.8mm, 2.2mm, 1.8mm

PACKAGING: 100/1000

IMPROMINI®  
Safety Heel Lancets



TYPE : IMPROMINI SAFETY HEEL LANCET

DEPTH : 0.85mm, 1.0mm, 1.14mm

WIDTH : 1.75mm, 2.5mm, 1.14mm

COLOR : ORANGE, YELLOW, PINK

PACKAGING: 50/200





HUMAN HEALTH  
WE CARE

## Blood Collection System

IMPROVE

IMPROVACUTER®  
Tourniquets



TYPE : TOURNIQUETS

DESCRIPTION: FOR ADULT AND KID

COLOR : BLUE, LIGHT BLUE

PACKAGING: 50/500

IMPROVACUTER®  
Disposable Tourniquets



TYPE : DISPOSABLE TOURNIQUETS

DESCRIPTION: LATEX FREE

PACKAGING: 50/2000



## PRE ANALYTICAL SOLUTION

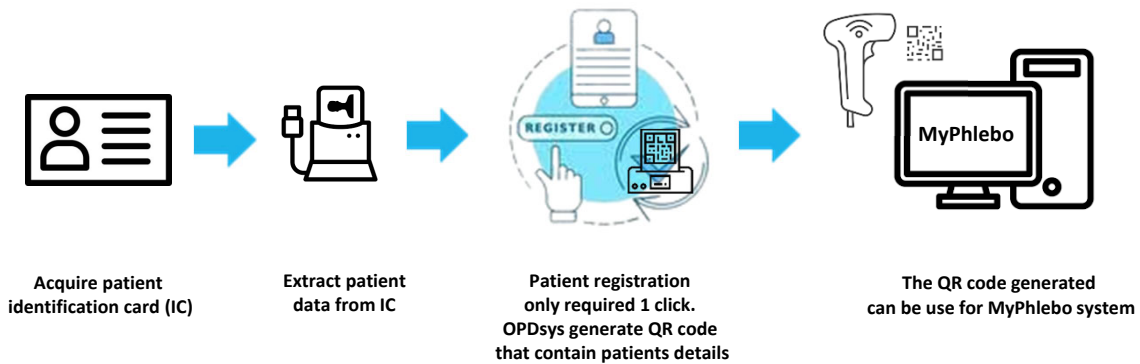
### OPDsys© System

OPDsys is a Pre Analytical Solution software focusing on the patient registration part to reduce and eliminate the error that caused by manual registration.

OPDsys is designed for patient safety by ensuring the accuracy of patient's information during registration. Patient's information will be captured from MyKad and converted into a QR code. The generated QR code is encrypted to ensure the integrity of patient information. Hence, the generated QR code only can be scanned by the MyPhlebo system for the blood collection process.



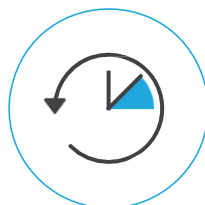
### OPDsys Workflow



### OPDsys Benefits



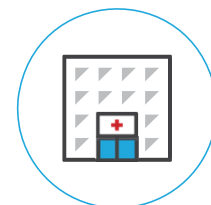
Prevent Identification Errors



Cut Wait Time



Improved Convenience



Enhanced Image



## PRE ANALYTICAL SOLUTION

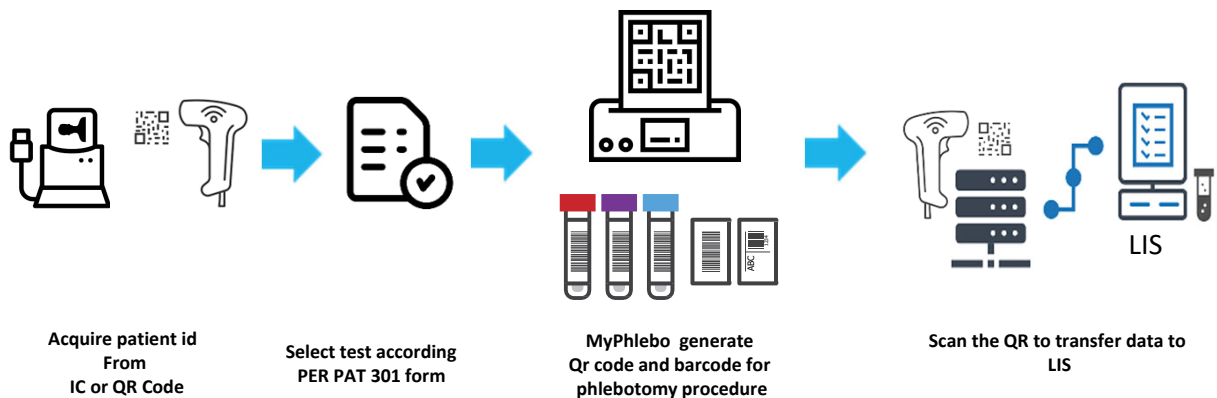
### MyPhlebo© System



MyPhlebo Software is state-of-the-art software for Pre-Analytical Management System focusing on the medical error that have been identified mainly contributing to the error in the pre-analytical section due to manual processing of sample container preparation and lab registration for diagnostic process. Reported cases such as patient identification error, labelling error (switched barcode/patient label), mislabeling of the test tube, sample collection error and mishandling of samples.

MyPhlebo Software provide the solution by integrating the 3 major component in laboratory processes and pre-analytical processes such as phlebotomy registration/patient registration, tube labeling and LIS Check-in registration through All-in-One solution using a QR Code system.

### MyPhlebo Workflow



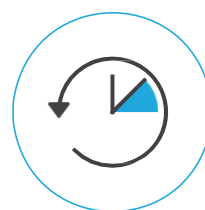
### MyPhlebo Benefits



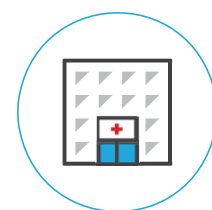
Prevent Identification Errors



Fast and Accurate Data Entry



Cut Patient Waiting Time



Enhanced Image

## PRE ANALYTICAL SOLUTION

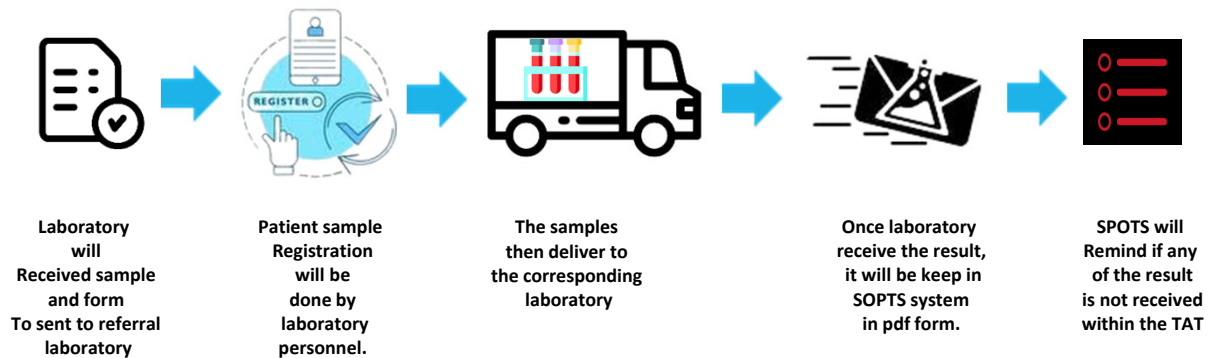
### Spots© System

Sample outsourcing is a common procedure for every diagnostic laboratory, not all laboratory tests are done in-house, some are sent out for diagnosis. It is estimated that 15%-20% of the total workload will be sent out. Normally, samples that are sent out will be recorded manually in the log book that has been prepared. Because it is recorded manually, the potential for delays in receiving the results back is high and lost track.

SPOTS system is develop to assist laboratory personnel in handling outsource sample by keep transaction record of specimens that are send to outsource laboratory, keep track on specimen collections, packaging record, receiving and storing result analysis. SPOTS system also have feature that can inform user if the result is not received within the allocated time.



### SPOTS Workflow



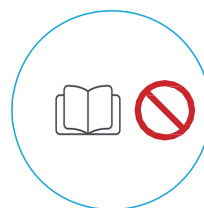
### SPOTS Benefits



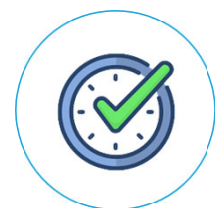
Prevent  
Identification  
Errors



Fast and  
Accurate Data  
Entry



No manual  
data keeping



Result can be  
deliver  
according to the  
TAT

## Automated Pre-Analytical Traceability Solution

## HENd

HENd is a small labeler that automatically attaches the sample information printed label to the tube and provides the patient information printed label. The software's user interface makes blood collection tasks more convenient, such as calling patients, verifying patients, checking sample information, and checking statistics.

**No need to put it in order!**

There is no need to sort the tube in advance, just insert the tube and HENd will automatically recognize it and label the tube with the appropriate sample information and patient information label.

Up to 5 tubes can be placed on the inlet.

- Convenient tube insertion
- Automatic tube detection
- Various tubes compatible
- Small labeler
- Fast tube ejection speed



Prevent  
medical accidents



Cut down  
waiting time



Cost  
reduction



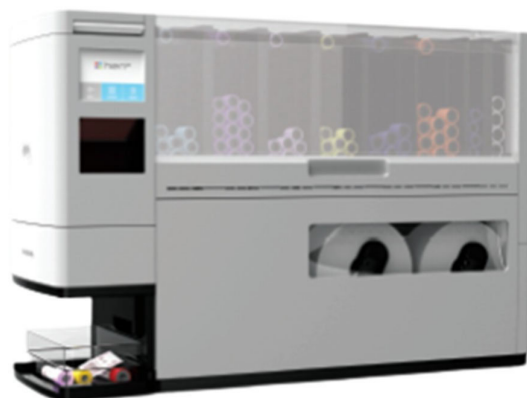
Improve  
operation efficiency



## Automated Pre-Analytical Traceability Solution



HENm automatically provides medical technicians with essential items required for a phlebotomy (tubes with specimen labels attached, specimen labels and patient identification labels) based on the phlebotomy information recorded in the HIS (Hospital Information System).



## Benefits



Prevent  
demographic  
error



Cut patient waiting  
time  
Cut sample  
processing time



Save reduction



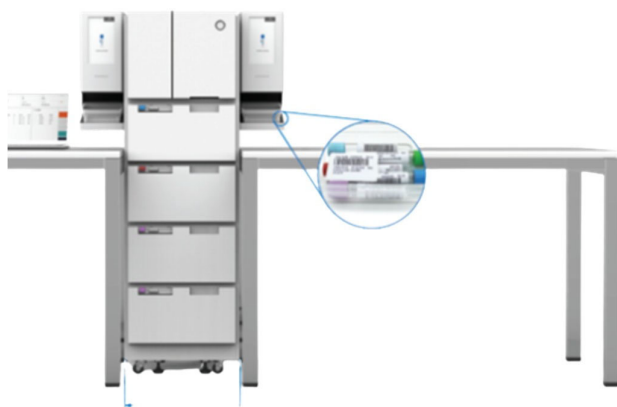
Improve staff  
work quality



Improve  
institution  
image

## Automated Pre-Analytical Traceability Solution

## GNT9 Series



The TDU (Tray Dispensing Unit) allows GNT9 BA to be used as a standalone or shared unit between stations. Automatically provides with sample label attached, extra label and patient identification label required for blood collection and eject the TRAY in either directions.

**BA(Barcode Applicator)**

Attaches a label to a tube, and transfers the labeled tube to TTT.

When loading tubes, the inlets that are not in operation can be opened to load tubes without stopping the machine.

**•Automatic labeling system**

The top label printer prints the patient information label and automatically attaches it to the tube.

**•Easy tube supply**

It accommodates large volumes of tubes into the Inlet easily and quickly without the need to align the tubes.

\*Up to 100 tubes can be supplied per Inlet.

**•Expandable module**

BA modules can be expanded to suit the environment of the blood collection room



# medicon

## System Reagent for Beckman Coulter Au Series

MEDICON reagent compatibles with all Beckman Coulter AU series analysers and being use worldwide for more than 20 years. MEDICON is design for both as replacement product to the original BECKMAN COULTER reagents and as compliments , since we also offer "special test" parameter that not currently offer by BECMAN COULTER.



### QA-QC

MEDICON is certified by ISO13485 that ensure high quality and lot-to-lot stability. All raw material are tested upon reception, according to European Pharmacopeia, USP or supplier specifications.

Each lot is released after completion of performance testing., Microbiological control and Shelf-life/OBS testing. Validation protocol at end-of-shelf life ensure performance claim. All test are done according to CSLI Protocol

### MEDICON AU SERIES REAGENT

- Liquid , ready to use
- 2-reagent system
- High stability on-board
- Extensive test parameter

### MEDICON CALIBRATION & CONTROL

- Liquid and freeze dries
- Covering the whole tests menu
- High stability after opening
- Convenient packaging sizes





## GENERAL CHEMISTRY

5 - NUCLEOTIDASE

AMYLASE

ACID PHOSPHATE

ADENOSINE DEAMINASE

ALBUMIN

ALDOLASE

ALKALINE PHOSPHATE

ALT/SGPT

AMMONIA

AST/SGOT

BILIRUBIN DIRECT

BILIRUBIN TOTAL

CALCIUM

CHOLESTROL

CHOLINESTRASE

CK

CK-MB

CREATININE

CREATININE, ENZ

ETHANOL

G-6-PDH

G-GT

HDL-CHOLESTROL

IRON

LACTATE

LDH L-P

LDH P-L

LDL- CHOLESTROL

LYSOZYME

MAGNESIUM

PHOSPHATE

PHOSPHOLIPIDS

TOTAL ANTIOXIDANTS

TOTAL PROTEIN

TRIGLYCERIDES

UIBC

UREA

URIC ACID





## SPECIFIC PROTEIN

A1– ANTITRYPSIN

A1– MICROGLOBULIN

A2– MICROGLOBULIN

A –FETOPROTEIN

ANTITHROMBIN III

APO A1

APO B

ASO

B2– MICROGLOBULIN

C3

C4

CERULOPLASMIN

CRP

CRP LATEX

CYSTATIN—C

D –DIMER

FERRITIN

FIBRINOGEN

HAPTOGLOBIN

HbA1c

IgA

IgE

IgM

IgG

X LIGHT CHAIN

λ LIGHT CHAINS

Lp (a)

MICROALBUMIN

PLASMINOGEN

PREALBUMIN

RF

RBP

SERUM AMYLOID a

sTfR

TAC

TRANSFERRIN

Phoenix Diagnostics is a premier alternative manufacturer of consumables for Blood Gas, Electrolyte, Co Oximetry and Chemistry analyzers world wide. Over thirty years of experience within the in vitro diagnostics industry has enabled our staff to engineer a technologically sophisticated product line of replacement reagents, calibrators, quality controls, and electrodes with extensive instrument coverage and analyte breadth.



Phoenix Cat. No.	OEM Cat. No.	Description	Model(s)	Phoenix Pkg	OEM Pkg
<b>Calibrators, Standards, &amp; Reagents</b>					
21-101	AUH1011	ISE Buffer	All Olympus AU Series	4x2000mL	4x2000mL
21-102	AUH1012	ISE Mid-Standard	All Olympus AU Series	4x2000mL	4x2000mL
21-103	AUH1013	ISE Reference	All Olympus AU Series	4x1000mL	4x1000mL
21-104	AUH1014	ISE Low Standard	All Olympus AU Series	4x100mL	4x100mL
21-105	AUH1015	ISE High Standard	All Olympus AU Series	4x100mL	4x100mL
21-106	AUH1016	Low/High Urine Standard	AU600, AU800, AU1000	4x100mL	4x100mL
21-107	AUH1017	Internal Reference Fill Solution	All Olympus AU Series	2x25mL	2x25mL
21-108	AUH1018	Na/K Selectivity Option	All Olympus AU Series	2x25mL	2x25mL
21-109	AUH1019	Cleaning Solution	All Olympus AU Series	4x100mL	4x100mL
21-110	OSR0001	Wash Solution	All Olympus AU Series	6x2000mL	6x2000mL
<b>Specialty Calibrators &amp; Controls</b>					
E-900	MU9195	K Electrode	All Olympus AU Series	Each	Each
E-910	MU9197	Ref Electrode	All Olympus AU Series	Each	Each
E-920	MU9196	Cl Electrode	All Olympus AU Series	Each	Each
E-930	MU9194	Na Electrode	All Olympus AU Series	Each	Each
<b>Electrodes &amp; Accessories</b>					
PH7000	-----	Multi-Analyte Chemistry Calibrator (1 Level)	All Popular Chemistry Analyzers	10x1mL	-----
PH7001	-----	Multi-Analyte Chemistry Calibrator (2 Levels)	All Popular Chemistry Analyzers	2x5x1mL	-----
6001	-----	Total & Direct Bilirubin Control (Normal)	All Popular Chemistry Analyzers	10x1mL	-----
6002	-----	Total & Direct Bilirubin Calibrator	All Popular Chemistry Analyzers	10x1mL	-----



Laboratory and Sterilization Equipment

NUVE

## EC 160 CO<sub>2</sub> INCUBATOR POWERED BY N-Smart™



- Chamber Volume : 160 liters
- Temperature range: Ambient Temperature +7°C to 50°C
- Temperature variation / fluctuation:  $\pm 0,3^{\circ}\text{C}$  /  $\pm 0,1^{\circ}\text{C}$  at 37°C
- Programmable temperature alarm range:  $\pm 0,5^{\circ}\text{C}$  to 5°C
- Air jacketed heating system
- RaPIDcell™ fast temperature recovery without overshoot
- CO<sub>2</sub> Range: 0 to 20 % CO<sub>2</sub>
- CO<sub>2</sub> Variation / Fluctuation:  $\pm 0,3\%$  /  $\pm 0,1\%$
- Programmable CO<sub>2</sub> alarm range:  $\pm 0,5\%$  to 5 %

## DF 290/490/590 ULTRA LOW TEMPERATURE FREEZERS

### FR 290/490/590 DEEP FREEZERS POWERED BY N-Smart™

- DF Series: -86°C / FR Series : -41°C
- Three different sizes: 261, 461, 560 liters
- DirectFREEZE™ : Faster and homogenous freezing through the coils located inside the shelves
- Powerful and reliable N-Smart™ microprocessor control system
- Maximum information with highly visible 4,3" colourful LCD display
- Massive data storage with internal memory that stores the records up to ten years with one hour intervals as digitally and graphically





## Laboratory and Sterilization Equipment

NUVE



### NF 024 MICROLITRE CENTRIFUGE

- Maximum capacity: 12x1,5/2 ml
- Maximum speed: 15.000 rpm
- Maximum RCF: 15.596xg
- Programmable microprocessor control system
- Large back-lit LCD display for speed, time and RCF (xg)
- 30 seconds - 999 minutes timer with hold position
- ABS plastic body and lid reinforced by metal enclosure

### NF 048

### MICROLITRE AND HAEMATOCRIT CENTRIFUGE

	Angle Rotor	Haematocrit Rotor
Maximum capacity :	24x1 5/2 ml	24xcapillary tubes
Maximum speed :	14.000 rpm	12.000 rpm
Maximum RCF :	18.188xg	14.811xg



- Easy programming with one button, just turn and push
- Highly visible dual bright LED display for time and speed / RCF(xg)
- 1 - 99 minutes timer with hold position

### NF 200 BENCH TOP CENTRIFUGE POWERED BY N-Prime™



- Maximum capacity : 12x15 ml
- Maximum speed : 5.000 rpm
- Maximum RCF : 2.822xg
- N-Prime™ programmable microprocessor control system
- Easy programming with one button, just turn and push



Laboratory and Sterilization Equipment

NUVE



## NF400-NF400R ,NF800 – NF800R ,NF1200 – NF1200R, BENCH TOP CENTRIFUGES POWERED BY N-Prime™

- N-Prime™ programmable microprocessor control system
- Easy programming with one button, just turn and push
- 10 program memories
- Highly visible bright LED displays for programmable parameters

### NF 800 – NF 800R

	Swing-out Rotors		Angle Rotors		
Maximum capacity:	4x200 ml	2x3 M. Plate	6x50 ml	30x15 ml	24x1,5/2 ml
Maximum speed:	4.100 rpm	4.100 rpm	9.000 rpm	4.100 rpm	14.000 rpm
Maximum RCF:	3.045xg	2.349xg	9.418xg	3.007xg	18.405xg

### NF 1200 – NF 1200R

	Swing-out Rotors		Angle Rotors			
Maximum capacity:	4x280 ml	2x3M. Plate	6x100 ml	10x10 ml	30x1,5/2 ml	24x1,5/2 ml
Maximum speed:	4.100 rpm	4.100 rpm	9.000 rpm	12.000 rpm	13.500 rpm	14.000 rpm
Maximum RCF:	3.082xg	2.349xg	8.965xg	14.167xg	20.170xg	18.405xg



## Laboratory and Sterilization Equipment



### NB 5/9/20 UNSTIRRED WATER BATHS POWERED BY N-Prime™

- Three different useful volumes : 4, 7 and 15 liters
  - Temperature range: Ambient temperature + 5°C / 99,9°C
- 
- Designed for many general and special applications in microbiology, research and industrial laboratories
  - Excellent temperature control of liquid by N-Prime™ programmable PID

### BM 30 CIRCULATED WATER BATH POWERED BY N-Prime™

- Tank volume: 30 litres
- Temperature range: Ambient Temperature +5°C / 99,9°C
- Designed for many general and special applications in microbiology, research and industrial laboratories
- Excellent temperature control of liquid for uniform and stable temperatures
- Powerful internal circulation pump not occupying the tank space
- N-Prime™ programmable PID microprocessor control system
- User friendly control panel including large bright LED displays for temperature and time





Laboratory and Sterilization Equipment

NUVE

## ND 4/12 WATER DISTILLERS

Capacity:

ND 4: 4 lt/hr, ND 12: 12 lt/hr

- Distilled water storage tank capacity:

ND 4: 8 liters, ND 8: 16 liters, ND 12: 24 liters

- New design with distilled water storage tank
- Fully automatic system with microprocessor control system
- Stainless steel boiler and condenser
- Stainless steel heaters
- Energy saving design by the distillation of heated cooling water
- Heaters protected against running without water
- Warning leds for: High water level, insufficient water, heater failure, half full storage tank, full storage tank
- Siliphos cartridge filter to decrease calcification on the heaters
- Suitable for bench top use and wall mounting







## Laboratory and Sterilization Equipment

MD 72/120 /294

MEDICAL REFRIGERATORS

POWERED BY N-Smart™

- Advanced technology to store drugs, vaccines, pharmaceutical and medical products
- Powerful and reliable N-Smart™ microprocessor control system
- Maximum information with highly visible 4,3" colourful LCD display
- Massive data storage with internal memory that stores the records up to ten years with one hour intervals as digitally and graphically
- 2 pcs. USB port for data storage and PC
- Ethernet port for remote access through internet
- Possibility of sending e-mails in case of any failure
- Optional NuveCloser™ software to access the operating parameters, failure history, memory and other technical parameters



Capacity:

MD 72: 200 liters

MD 120: 306 litres

MD 294: 630 liters



## Laboratory and Sterilization Equipment

KN 72/120/294

BLOOD BANK

REFRIGERATORS

POWERED BY N-Smart™

- Advanced technology to store drugs, vaccines, pharmaceutical and medical products
- Powerful and reliable N-Smart™ microprocessor control system
- Maximum information with highly visible 4,3" colourful LCD display
- Massive data storage with internal memory that stores the records up to ten years with one hour intervals as digitally and graphically
- 2 pcs. USB port for data storage and PC
- Ethernet port for remote access through internet
- Possibility of sending e-mails in case of any failure
- Optional NuveCloser™ software to access the operating



### Capacity:

KN 72 : 200 liters, 72 blood bags

KN 120 : 306 liters, 120 blood bags

KN 294 : 630 liters, 294 blood bags





## Laboratory and Sterilization Equipment

KN 72/120/294

BLOOD BANK

REFRIGERATORS

POWERED BY N-Smart™

- Advanced technology to store drugs, vaccines, pharmaceutical and medical products
- Powerful and reliable N-Smart™ microprocessor control system
- Maximum information with highly visible 4,3" colourful LCD display
- Massive data storage with internal memory that stores the records up to ten years with one hour intervals as digitally and graphically
- 2 pcs. USB port for data storage and PC
- Ethernet port for remote access through internet
- Possibility of sending e-mails in case of any failure
- Optional NuveCloser™ software to access the operating



### Capacity:

KN 72 : 200 liters, 72 blood bags

KN 120 : 306 liters, 120 blood bags

KN 294 : 630 liters, 294 blood bags





## General Laboratory Equipment

### Micropipette Single Channel Half Autoclavable



#### MAIN FEATURES

Light weight, ergonomic design. Digital display clearly reads volume setting. Wide measurement rang, 0.1ul to 10000ul. With new material, it can be fully autoclavable. Ceramic piston, high corrosion resistance. PTFE sealing ring, more convenient to use.

M Series Variable Volume Micropipette Technical Data						
Model	Volume Range	Testing Volume (μl)	Inaccuracy	Imprecision	Increment (μl)	Tips Volume
M2.5	0.1-2.5ul	1.25	±3.00%	±0.30%	0.05	10
M10	0.5-10ul	5	±1.50%	±1.50%	0.1	10
M20	2-20ul	10	±1.20%	±1.20%	0.5	200
M50	5-50ul	25	±0.90%	±0.30%	0.5	200
M100	10-100ul	50	±1.00%	±0.15%	1	200
M200	20-200ul	100	±0.70%	±0.15%	1	200
M1000	100-1000ul	500	±0.80%	±0.20%	5	1000
M5000	1000-5000ul	2500	±0.60%	±0.15%	50	5000
M10000	2000-10000ul	5ml	±1.20%	±0.20%	0.1ml	10ml



## General Laboratory Equipment

### Micropipette Single Channel Autoclavable



### MAIN FEATURES

Light weight, ergonomic design. Digital display clearly reads volume setting. Wide measurement range, 0.1ul to 10000ul. With new material, it can be fully autoclavable. Ceramic piston, high corrosion resistance. PTFE sealing ring, more convenient to use.

P Series Micropipette Autoclavable Technical Data						
Model	Volume Range	Testing Volume (μl)	Inaccuracy	Imprecision	Increment (μl)	Tip volume
		10	±1.00%	±1.00%		
P10	0.5 - 10ul	5	±1.50%	±1.50%	0.1ul	20ul
		1	±2.50%	±2.50%		
		20	±0.90%	±0.40%		
P20	2 - 20ul	10	±1.20%	±1.00%	0.5ul	200ul
		2	±3.00%	±2.00%		
		50	±0.60%	±0.30%		
P50	5 - 50ul	25	±0.90%	±0.60%	0.5ul	200ul
		5	±2.00%	±2.00%		
		100	±0.60%	±0.15%		
P100	10 - 100ul	50	±0.90%	±0.40%	1ul	200ul
		10	±2.00%	±0.10%		
		200	±0.60%	±0.15%		
P200	20 - 200ul	100	±0.80%	±0.30%	1ul	200ul
		20	±3.00%	±1.00%		
		1000	±0.60%	±0.20%		
P1000	100 - 1000ul	500	±0.70%	±0.25%	5ul	1000ul
		100	±1.50%	±0.70%		
		5000	±0.50%	±0.15%		
P5000	1000 - 5000ul	2500	±0.60%	±0.30%	50ul	5000ul
		1000	±0.70%	±0.30%		
		10ml	±0.60%	±0.20%		
P10000	2000 - 10000ul	5ml	±1.20%	±0.30%	0.1ml	10ml
		2ml	±1.50%	±0.40%		

## General Laboratory Equipment

### Water Bath



### MAIN FEATURES

Anti-dry technology.

Concave surface to avoid liquid. No interface, no welding seam, stainless steel material. Sizes of holes can be customized. Bi-integral A/D converter.

Water Bath Technical Data					
Temp Variation (C)	Model	Chamber Capacity	Power	Temp. Distinguish Ability (°C)	Chamber Size
Room Temp. to 99.9C	WB-100-1	3 L	300 W	0.1 C	16x16x13 cm
	WB-100-1F				
	WB-100-2	6 L	600 W	0.1 C	30x15x14 cm
	WB-1002F				
	WB-100-4	12 L	800 W	0.1 C	30x30x14 cm
	WB-100-4F				
	WB-100-6	17 L	1200 W	0.1 C	45x30x13 cm
	WB-100-6F				

## General Laboratory Equipment

### Roller Mixer



### MAIN FEATURES

Rocking and rolling motions for complete mixing  
Digital Display for speed and time control  
Speed range of 20-80rpm Six rollers , roller length 28CM,suitable for tubes diameter 6-34MM.  
Digital setting for speed and time.

Model	RM-6Pro
Motor Type	Brushless Motor
Type	Rotating Shaking
Control Mode	Digital Display with Key
Speed Range	40-80 RPM
Timing Range	1min ~ 23H, 59min
Voltage	100-240V, 50/60Hz
Power	25W
Allowed Ambient Humidity Temp.	5 ~ 40°C 80%RH
Dimension (mm)	440 x 255 x 105

## General Laboratory Equipment

### OrbitalShaker



### MAIN FEATURES

Speed: 40-200rpm for all models

Digital panel with speed and time control

Large working pan size with max load 5KG

Continuous operation and timed operation range 1min-23h59min DC brushless motor, safe, long life and free of maintenance. Operating silent and stable .

Model	OS-20	OS-20Pro	OS-40Pro	LS-40Pro
Motor Type	DC Motor	Brushless Motor		
Plate Size (mm)	268x268	250x250	320x320	
Turn	Circular			Linear & Reciprocating
Operation Mode	20 mm			
Max Load	2kg		5kg	
Speed Range	40-200 RPM			
Timing Range	1min ~ 19H, 59min	1min ~ 23H, 59min		
Display	LED Display			
Power	20W	30W	45W	
Voltage	100-240V, 50/60Hz			
Size (mm)	294 x 348 x 123	260 x 355 x 135	330 x 435 x 140	





## Abeyance Cryo Solutions | Preserving Potential



Abeyance produces innovative cryo solutions for life science research and therapy. Increase capacity, improve ergonomics and stay connected with simple, secure cryo storage designed for samples by users.

	A220	A440	A700	A1000
2 ml Vial Capacity				
5-2 Slim Racks	22,000   220   44	44,000   440   88	70,000   700   140	100,000   1,000   200
13-2 Square Racks	15,600   156   12	41,600   416   32	67,600   676   52	98,800   988   76
(Vials   Boxes   Racks)				
Outer Diameter - in (mm)	34.0 (864)	45.0 (1143)	55.0 (1397)	65.0 (1651)
Overall Height - in (mm)	58.0 (1473)	59.0 (1499)	63.0 (1600)	64.0 (1625)
Usable Height - in (mm)	30.0 (762)	30.0 (762)	30.0 (762)	30.0 (762)
Step Height - in (mm)	9.5 (241)	10.5 (267)	10.0 (254) x 2	10.5 (267) x 2
Liftover Height - in (mm)	39.5 (1003)	39.5 (1003)	34.0 (864)	34.0 (864)
LN2 Capacity	65 L	150 L	270 L	390 L
Hold Time (< Tg)	> 10 Days	> 15 Days	> 25 Days	> 25 Days
Warranty	3 Year Parts and Craftsmanship   7 Year Vacuum Insulation			
Safety / Regulatory	Conforms to UL STD 61010-1   CSA STD C22.2 # 61010-1   LVD (2014/35/EU)			



MEDICAL GAS CONTROL

Medical Equipment

Demand Valve Delivery System.



BPR MEDICAL



The Ultraflow™ Demand Valve is intended for the self-administration of Medical Oxygen or Entonox® (O<sub>2</sub>/N<sub>2</sub>O gas mixtures). Each Ultraflow™ Demand Valve benefits from a precision engineered and exceptionally hard ruby valve seat. This unique design eliminates wear and ensures a leak free seal, eliminating the recurrent cost of routine maintenance.

### Benefits

- Reduced patient effort. Improved patient comfort
- Prevents expired breath entering the headset
- Prevent cross contamination
- The use of halogen free polymers significantly reduces the risk of patient exposure to toxic or explosive elements, should the regulator be exposed to high temperatures
- Minimal ongoing maintenance cost




SPECIFICATION	MEDICAL OXYGEN DEMAND VALVE	ENTONOX® DEMAND VALVE
Ordering Number	14786	14787
		
Description	Demand Valve Medical Oxygen With BS5682 Connector & 3.0m Hose	Demand Valve Medical Analgesic With BS5682 Connector & 3.0m Hose
Gas Compatibility	Oxygen	Entonox® (50% N <sub>2</sub> O/50% O <sub>2</sub> mixtures)
Hose Length	3 meters	
Inspiratory Resistance	<1.5 kPa (0.22 psi) at 200 l/min <0.25 kPa (0.036 psi) at 10 l/min	
Input Pressure Range	310 - 600 kPa	
Supply Flow	>120 l/min	
Demand Valve Peak Flow	>200 l/min	
Service Interval	5 years	
Intended Life	10 years	
Warranty	5 years	
Applied standards	<p>EN ISO 5356-1:2004 - Anaesthetic and respiratory equipment. Conical connectors. Cones and sockets</p> <p>EN ISO 5359 :2008 Low-pressure hose assemblies for use with medical gases (partially replaced by BS EN 15908:2010 Anaesthetic and respiratory equipment. Non-interchangeable screw-threaded (NIST) low-pressure connectors for medical gases)</p> <p>EN ISO 15001:2010 - Anaesthetic and respiratory equipment - Compatibility with oxygen BS4272-2 - Anaesthetic and analgesic machines.</p> <p>Specification for intermittent (demand) flow analgesic machines for use with 50/50% (V/V) nitrous oxide and oxygen EN14971 - Medical devices- Application of risk management EN980 - Graphical symbols for use in the labeling of medical devices EN 1041 - Information supplied by the manufacturer with medical devices</p>	
Regulatory	<p>FDA: Class II</p> <p>CE: Medical Device Directive 93/42/EEC- Active Medical Device - Class IIa</p> <p>Medical Device Act 2012 (Malaysia) : Class B</p>	
Manufacturer	BPR Medical, UK	



The Exhalation Valve is a patented single patient use accessory for use with Ultraflow Demand Valves. Each exhalation valve incorporates an ultralow resistance one-way valve and a viral filter, directing exhaled gas away from the Ultraflow handset either to atmosphere or to an AGSS. The unique design prevents cross-contamination of handsets between patients whilst providing unparalleled flow performance.

### Benefits

- Cutting edge medical filtration media, incorporating a high efficiency electrostatic viral filter that prevents exhaled breath entering the handset
- Prevent cross contamination
- Unique ultra-low resistance one-way valve
- Exhalation Valve is sealed securely to the handset with two snap fit clips, which when lifted, release the exhalation valve quickly and simply for disposal

SPECIFICATION	EXHALATION VALVE & MOUTH PIECE
Ordering Number	14790
	
Description	Exhalation Valve & Mouth Piece, Single Use Per patient
Gas Compatibility	Medical Oxygen or Entonox® (O2/N2O mixtures)
Peak Flow	>250 liter per minute
Filtration	High efficiency electrostatic viral filtration media
Intended Life	30 days after first use by the same patient
Shelf Life	5 years
Inlet Connection	Proprietary interface
Delivery Connection	22 mm male conical to ENISO5356-1:2004
Regulatory	ECR source code 17169 GMDN Code 17169 MDD class IIa Medical Device Act 2012 (Malaysia) : Class B
Packaging	100pcs (single wrap) per box
Manufacturer	BPR Medical, UK

## RAPID TEST KIT

## RAPID TEST KIT



Catalog No.	Product Name	Format	Test/Kit
PR-DEN-1	ProDetect™ Dengue NS1 Ag Rapid Test*	Cassette	25
PR-DEN-2	ProDetect™ Dengue IgG/IgM Rapid Test*	Cassette	25
PR-DEN-3-1	ProDetect™ Dengue Duo NS1 Ag & IgG/IgM Rapid Test*	Cassette	10
PR-DEN-3-2	ProDetect™ Dengue Duo NS1 Ag & IgG/IgM Rapid Test*	Cassette	25
PR-ZIKA	ProDetect™ Zika Rapid Test*	Cassette	25
PR-GAST-1	ProDetect™ Rotavirus Rapid Test*	Cassette	25
PR-GAST-2	ProDetect™ Adenovirus Rapid Test*	Cassette	25
PR-FLU	ProDetect™ Flu A & B Rapid Test*	Cassette	25
PR-TYPH	ProDetect™ Typhoid/Paratyphoid Rapid Test*	Cassette	25
PHA5021S-4	ProDetect™ hCG Pregnancy Rapid Test (Strip 25mIU/mL)*	Strip	100
PHA5021S-5	ProDetect™ hCG Pregnancy Rapid Test (Strip 25mIU/mL)*	Strip	100
PHA5021C	ProDetect™ hCG Pregnancy Rapid Test (Cassette 25mIU/mL)*	Cassette	40
PIA5025C	ProDetect™ Fecal Occult Blood (FOB) Rapid Test*	Cassette	30

### General Clinical Chemistry Programme *With target scoring*



**RQ9112 (5 ml)**  
10 Parameters only  
Samples every 2 weeks, 2 x 6 monthly cycles, 12 month subscription, reference method values

**RQ9112/S (5 ml)**  
17 Parameters only

**RQ9113 (5 ml)**  
Full 52 Parameters

ACE (Angiotensin Converting Enzyme)  
Acid Phosphatase (Prostatic)  
Acid Phosphatase (Total)  
Albumin  
Alkaline Phosphatase  
ALT (ALAT)  
Amylase (Pancreatic)  
Amylase (Total)  
AST (ASAT)  
Bicarbonate  
Bile Acids  
Bilirubin (Direct)  
Bilirubin (Total)

Calcium  
Calcium (Ionised)  
Chloride  
Cholesterol  
Cholinesterase  
CK, Total (CPK)  
Copper  
Creatinine  
D-3-Hydroxybutyrate  
Fructosamine  
yGT  
GLDH  
Glucose

HBDH  
HDL-Cholesterol  
Iron  
Lactate  
LD (LDH)  
Lipase  
Lithium  
Magnesium  
NEFA  
Osmolality  
Phosphate (Inorganic)  
Potassium  
Protein (Total)

PSA  
Sodium  
TIBC  
T<sub>3</sub> (Free)  
T<sub>3</sub> (Total)  
T<sub>4</sub> (Free)  
T<sub>4</sub> (Total)  
Triglycerides  
TSH  
UIBC  
Urea  
Uric Acid  
Zinc

### Glycated Haemoglobin Programme (HbA1c) *With target scoring*



**RQ9129 (0.5ml)**  
2 Parameters  
Samples every month, 1 x 12 month cycle, 12 month subscription

HbA1c

Total Haemoglobin

### Haematology Programme *With target scoring*



**RQ9118 (2ml)**  
11 Parameters  
Samples every 2 weeks, 2 x 6 monthly cycles, 12 month subscription

Haematocrit (HCT)  
Haemoglobin (Hb)  
Mean Cell Haemoglobin (MCH)

Mean Cell Haemoglobin Concentration (MCHC)  
Mean Cell Volume (MCV)  
Mean Platelet Volume (MPV)

Platelets (PLT)  
Plateletcrit (PCT)  
Red Blood Cell Count (RBC)

Red Cell Distribution Width (RDW)  
Total White Blood Cell Count (WBC)

### Human Urine Programme *With target scoring*



**RQ9115 (10 ml)**  
25 Parameters  
Samples every 2 weeks, 2 x 6 monthly cycles, 12 month subscription

ACR  
Albumin/Microalbumin  
Amylase  
Calcium  
Chloride  
Copper  
Cortisol

Creatinine  
Dopamine  
Epinephrine  
Glucose  
Metanephrine  
Norepinephrine

Normetanephine  
Magnesium  
Osmolality  
Oxalate  
Phosphate (Inorganic)  
Potassium

Protein (Total)  
Sodium  
Urea  
Uric Acid  
VMA  
5-HIAA

### ESR Programme+



**RQ9163 (4.5 ml)**  
1 Parameter  
2 samples per quarterly distribution, 1 x 12 month cycle, 12 months subscription

ESR (Erythrocyte Sedimentation Rate)

### Immunoassay Programme *With target scoring*

RQ9125/a (5 ml) 4 Parameters only (choose from 55) Samples every two weeks, 2 x 6 monthly cycles, 12 month subscription (RQ9125/a, RQ9125/b, RQ9125/c) Samples every month, 1 x 12 month cycle, 12 month subscription (RQ9130)	RQ9125/b (5 ml) 13 Parameters only (choose from 55) Samples every two weeks, 2 x 6 monthly cycles, 12 month subscription (RQ9125/a, RQ9125/b, RQ9125/c) Samples every month, 1 x 12 month cycle, 12 month subscription (RQ9130)	RQ9125/c (5 ml) Full 55 Parameters Samples every two weeks, 2 x 6 monthly cycles, 12 month subscription (RQ9125/a, RQ9125/b, RQ9125/c) Samples every month, 1 x 12 month cycle, 12 month subscription (RQ9130)	RQ9130 (5 ml) Full 55 Parameters Samples every two weeks, 2 x 6 monthly cycles, 12 month subscription (RQ9125/a, RQ9125/b, RQ9125/c) Samples every month, 1 x 12 month cycle, 12 month subscription (RQ9130)
ACTH AFP Aldosterone Amikacin Androstenedione -2-Microglobulin CA125 CA15-3 CA19-9 Carbamazepine CEA Cortisol C-Peptide DHEA-Sulphate	DHEA Unconjugated Digoxin Estriol Total* Ethosuximide* Ferritin Folate FSH Gentamicin GH hCG IgE Insulin LH Oestradiol	17-OH-Progesterone Paracetamol Phenobarbital Phenytoin Primidone* Progesterone Prolactin PSA (Free) PSA (Total) PTH Salicylate SHBG T <sub>3</sub> (Free) T <sub>3</sub> (Total)	T <sub>4</sub> (Free) T <sub>4</sub> (Total) Testosterone (Free)* Testosterone (Total) Theophylline Thyroglobulin Tobramycin* TSH Valproic Acid Vancomycin Vitamin B12 I-25-(OH) <sub>2</sub> -Vitamin D* 25-OH-Vitamin D

### Lipid Programme *With target scoring*

RQ9126/a (3 ml) 3 Parameters only (choose from 7) Samples every 2 weeks, 2 x 6 monthly cycles, 12 month subscription	RQ9126/b (3 ml) Full 7 Parameters Samples every 2 weeks, 2 x 6 monthly cycles, 12 month subscription	RQ9126/c (3 ml) Full 7 Parameters Samples every 2 weeks, 2 x 6 monthly cycles, 12 month subscription	RQ9126/d (3 ml) Full 7 Parameters Samples every 2 weeks, 2 x 6 monthly cycles, 12 month subscription
Apolipoprotein A1 Apolipoprotein B	Cholesterol (Total) HDL-Cholesterol	LDL-Cholesterol Lipoprotein (a)	Triglycerides



## THIRD PARTY CONTROLS CLINICAL CHEMISTRY

Clinical Chemistry Product Range		
Product Description	Size	Cat. No.
Precision Chemistry Premium Plus Level 2	20 x 5 ml	UNI557
Precision Chemistry Premium Plus Level 3	20 x 5 ml	UEI558
Liquid Chemistry Premium Level 2	12 x 5 ml	LUN5048
Liquid Chemistry Premium Level 3	12 x 5 ml	LUE5049
Liquid Chemistry Premium Plus Level 1	12 x 5 ml	LUL5069
Liquid Chemistry Premium Plus Level 2	12 x 5 ml	LUN5070
Liquid Chemistry Premium Plus Level 3	12 x 5 ml	LUE5071
Liquid Chemistry Premium Plus Level 1	12 x 10 ml	LUL5093
Liquid Chemistry Premium Plus Level 2	12 x 10 ml	LUN5094
Liquid Chemistry Premium Plus Level 3	12 x 10 ml	LUE5095
Assayed Chemistry Premium Plus Level 2	20 x 5 ml	HN1530
Assayed Chemistry Premium Plus Level 3	20 x 5 ml	HE1532
Assayed Chemistry Premium Plus Level 2 & 3	2 x 5 x 5 ml	HS2611
Chemistry Premium Level 2	12 x 5 ml	HN5067
Chemistry Premium Level 3	12 x 5 ml	HE5068
Liquid Assayed Chemistry Premium Level 2	12 x 5 ml	LAN4216
Liquid Assayed Chemistry Premium Level 3	12 x 5 ml	LAE4217
Liquid Assayed Chemistry Premium Plus Level 1	12 x 5 ml	LAL4213
Liquid Assayed Chemistry Premium Plus Level 2	12 x 5 ml	LAN4214
Liquid Assayed Chemistry Premium Plus Level 3	12 x 5 ml	LAE4215
Bovine Chemistry Assayed Level 1	20 x 5 ml	AL1027
Bovine Chemistry Assayed Level 2	20 x 5 ml	AN1026
Bovine Chemistry Assayed Level 3	20 x 5 ml	AE1032
Bovine Chemistry Precision Level 1	20 x 5 ml	SL1084
Bovine Chemistry Precision Level 2	20 x 5 ml	SN1085
Bovine Chemistry Precision Level 3	20 x 5 ml	SE1086
Clinical Chemistry Calibration Serum Level 2	20 x 5 ml	CAL2350
Clinical Chemistry Calibration Serum Level 3	20 x 5 ml	CAL2351
Ammonia Ethanol Control Level 1	6 x 2 ml	EA1366
Ammonia Ethanol Control Level 2	6 x 2 ml	EA1367
Ammonia Ethanol Control Level 3	6 x 2 ml	EA1368
Aldolase Calibrator	3 x 1 ml	AD5000
Aldolase Control Level 2	3 x 1 ml	AD5001
Aldolase Control Level 3	3 x 1 ml	AD5002
Bilirubin Elevated Serum	10 x 3 ml	BE454
Liquid Bilirubin Control Level 1	3 x 3 ml	BR10172
Liquid Bilirubin Control Level 2	3 x 3 ml	BR10173
Glycerol Control	3 x 5 ml	GY1369
Multi Calibrator	3 x 2 ml	MC1382
Multi Control Level 1	5 x 2 ml	MC1379
Multi Control Level 2	5 x 2 ml	MC1380
Multi Control Level 3	5 x 2 ml	MC1381
Glutamine Control Level 1	5 x 5 ml	GM1376
Glutamine Control Level 2	5 x 5 ml	GM1377
Glutamine Control Level 3	5 x 5 ml	GM1378
Glutamine Calibrator	3 x 5 ml	GM1375
TxB Cardio Control Level 1	3 x 3 ml	TXB5125
TxB Cardio Control Level 2	3 x 3 ml	TXB5126
TxB Cardio Control Level 3	3 x 3 ml	TXB5127
TxB Cardio Calibrator Series	6 x 3 ml	TXB3132
TxB Cardio Sample Diluent	3 x 100 ml	TXB2814



Liquid ready-to-use



Liquid frozen



Lyophilised for enhanced stability



Assayed target values provided



100% human matrix

## COAGULATION AND HAEMATOLOGY

Coagulation and Haematology Product Range		
Product Description	Size	Cat. No.
Coagulation Control Level 1	12 x 1 ml	CG5021
Coagulation Control Level 2	12 x 1 ml	CG5022
Coagulation Control Level 3	12 x 1 ml	CG5023
Coagulation Calibrator	10 x 1 ml	CG5037
Haematology Control	3 x 2 x 4.5 ml	HM5162

## DIABETES AND WHOLE BLOOD

Diabetes and Whole Blood Product Range		
Product Description	Size	Cat. No.
HbA1c Control Set Level 1 and 2	2 x 2 x 0.5 ml	HA5072
HbA1c Calibrator Series	5 x 2 ml, 1 x 8 ml	HA3444
Liquid HbA1c Control Set Level 1 and 2	2 x 2 x 0.5 ml	HA10155
G-6PDH Control Deficient	6 x 0.5 ml	PD2617
G-6PDH Control Normal	6 x 0.5 ml	PD2618
Fructosamine Control Level 1	3 x 1 ml	FR2994
Fructosamine Control Level 3	3 x 1 ml	FR2996
Fructosamine Calibrator	3 x 1 ml	FR2993
Haemoglobin F and A2 Control	2 x 2 x 0.2 ml	HA5083
Adiponectin Control Level 2	3 x 1 ml	AO2801
Adiponectin Control Level 3	3 x 1 ml	AO2802
Adiponectin Calibrator	4 x 1 ml	AO2800



Liquid ready-to-use



Liquid frozen



Lyophilised for enhanced stability



Assayed target values provided



100% human matrix