ENERGIUM

Phlebotomy Tube Preparation System

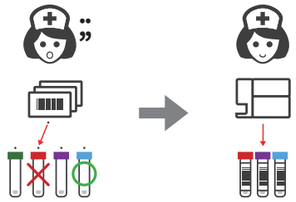
henm Series



www.energium.com

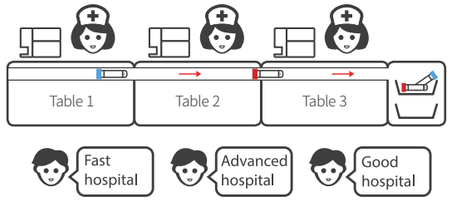
Prevent medical Accidents

Tasks that were done manually can be automated. This prevents medical malpractics due to human error, such as switched specimens or tubes.



Cuts down waiting time

Phlebotomy process becomes simple.
This cuts down the waiting time for customers (patients).



Improve operation efficiency

Clinical pathologists can concentrate on blood collection process. Improve the efficiency of blood collection room.



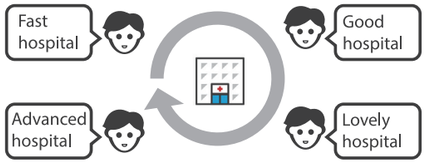
Improved convenience

The phlebotomist has a more convenient and efficient environment. Thus the phlebotomist is freed from other trivial work.



Improved image

The hospital can present an image as a modern hospital. The fast and convenient medical service will leave customers (patients) with the positive image of visiting a modern hospital.

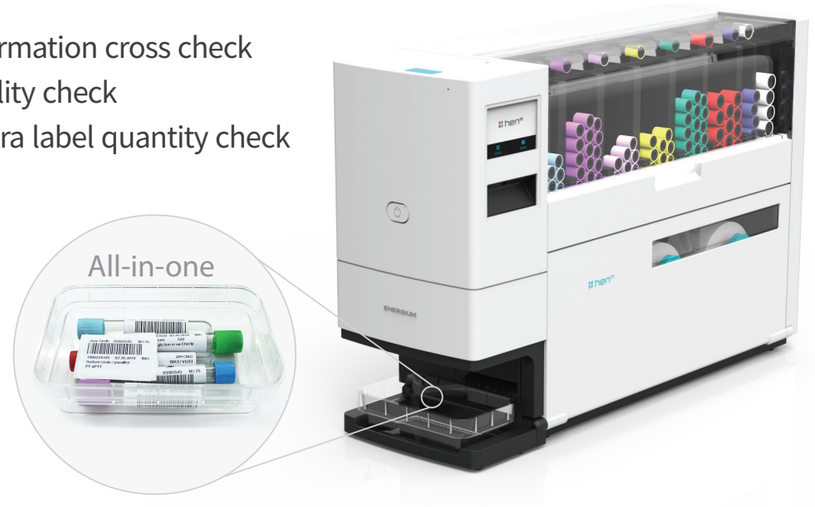


Phlebotomy Tube Preparation System

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).

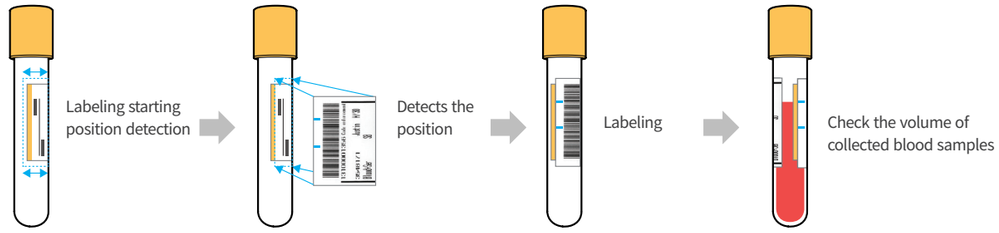


- Barcode information cross check
- Barcode quality check
- Tube and extra label quantity check



Label attachment position detection system

Label attachment position detection system is function that detects the position of the original label before labeling, the clear window is ensured, allowing phlebotomists to check the volume of collected blood samples.



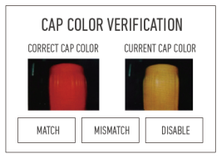
Control LCD
Displays operational status, Inlet tube information

Inlet
When replacing two single inlets with dual inlets, Up to 14 inlets can be used



Barcode Scanner
Verify patient information

CCM (Color Camera Module)
Recognize tube cap color to prevent human error

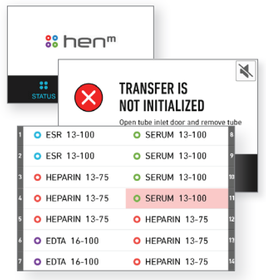


LCD screen notification when tube cap color mismatch

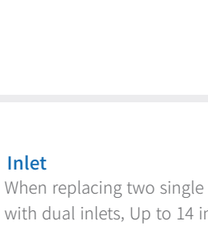
LSM (Label Sticking Module)
Apply labels to tubes and dispense them into a tray via outlet.



Receipt Printer
Receipts are printed with instruction to direct patients to subsequent location.



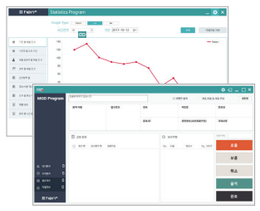
Control LCD
Displays operational status, inlet tube information, alarm, and or errors.



Label Printer
Print necessary labels to be applied to tubes.



Tray
Tubes, extra labels with patient information are dispensed into a tray with in the outlet.



Software
A program for easy and convenient checking and recording (information update) of phlebotomy information.



Inlet
Up to 140 tubes can be used, and inlet replacement is possible according to user's convenience.

HENm Product operational process

The pathologist can use HENm to carry out blood collection work more efficiently.

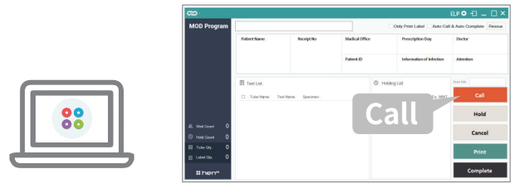
STEP1 Phlebotomy reception

Receive patient information registered in hospital information system when receiving patients for blood collection.



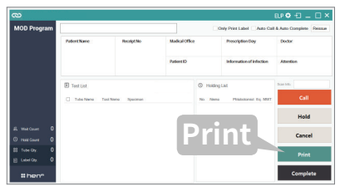
STEP2 Call

Click ‘Call’ button to call the patient via MOD program in HENm PC.



STEP3 Supply of essential phlebotomy apparatus

Click the 'Output' button on the MOD program screen of the HENm PC and check if the collection essentials are printed correctly.

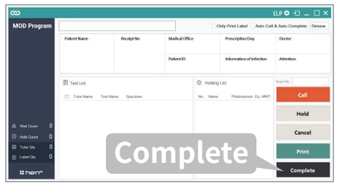




STEP4 Phlebotomy

Collect blood samples using the blood collection essentials, and click "Complete" button in the MOD program.





henm mobile

HENm mobile is a mobile model of HENm, where the blood collection staff can move and conduct the blood collection tasks.

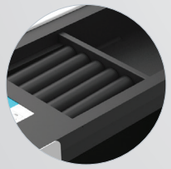


HENm can be converted into **HENm mobile** and vice versa



Max 13 hours used

It can be used up to 13 hours when fully charged.



Roller Mixer

Prevents blood clotting by evenly mixing the blood within the blood collection tube.



Polyurethane wheels

Five polyurethane wheels reduce noise during movement and moves smoothly.



HENm mobile

Moveable phlebotomy assistant model. used in hospital rooms for patient care.



HENm

Based on patient information from HIS, automatically provide the user with the blood collection essentials.



Power supply cable

Convenient to store the power cable.



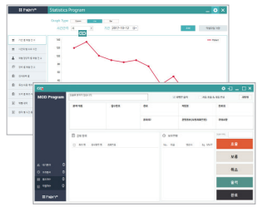
LCD

Set the operation time of the Roller mixer, or check the remaining battery power.



Storage

Provide large storage space for necessary tools for the blood collection tasks.



Software

A program for easy and convenient checking and recording (information update) of phlebotomy information.



Handle

Optimized height design provides convenient movement for phlebotomists.



PC Rests

Easily attach and detach the PC to the mount.

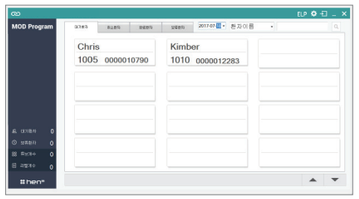
HENm mobile Product operational process

Use HENm mobile to visit the patient's room.

STEP1 Receiving patient check

In the MOD program of HENm PC, check the list of patients for blood collection.

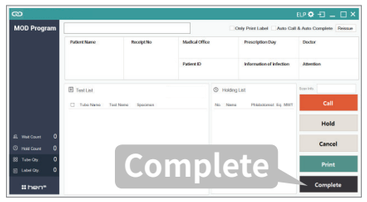




STEP2 Phlebotomy

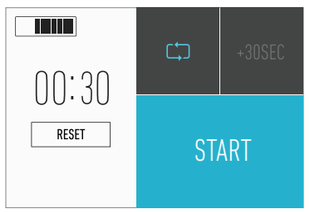
Move to the patient's hospital room, and then collect blood samples using the blood collection essentials, and click "Complete" button in the MOD program.





STEP3 Use Roller mixer

Place the tube that has been collected on the roller mixer, set the speed and time, and operate the roller mixer.





<Roller mixer LCD screen>



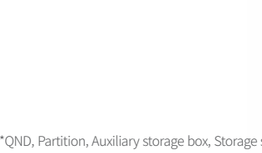
hen^m Table

HENm Table is HENm's dedicated table which improves the efficiency and convenience of blood collection by clinical pathologists. After the blood collection is completed using HENm, the tube containing the specimen is transferred to the designated collection site.

* Up to 6 HENm tables can be connected.

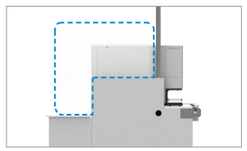
QND

Displays the standby state of the blood sampler and the order of collection.



Partition - Expendable

Patients and phlebotomists can collect blood from separate tables from other tables.



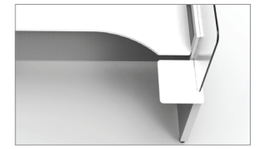
Auxiliary storage box

This is a storage box that can store tubes and blood collecting tools needed by phlebotomist.



Storage shelf

An auxiliary storage shelf that can store the patient's items during the blood collection.



Tube storage box

Collects the transferred tubes through the conveyor.

*QND, Partition, Auxiliary storage box, Storage shelf, and Tube storage box are optional.

HENm Series Dimensions

▪ HENm (HENm mobile)

Model Name	HENm (HENm mobile)
Production Volume (Hourly Tube Production)	1,440 Tubes
Tube Discharge Speed	2.5sec (per 1 Tube)
Tube Loading Capacity	Max 140ea 13x75mm, 13x100mm (Single Inlet) : 20ea 16x100mm (Single Inlet) : 18ea 13x100mm (Dual Inlet) : 16ea
Inlet Quantity	7~14 Inlet (when replacing two single inlets with dual inlets, Up to 14 inlets can be used.)
Tube Supply Method	Direct tube supply
Compatible Tube Types	Diameter : 12~16mm, Length : 75~125mm Manufacturer : BD, GREINER, SARSTEDT, IMPROVE, VACUTEST KIMA, SOYA GREENTEC, INSEPACK, etc. (Please consult with ENERGIUM regarding tube compatibility prior to use.)
Printing Resolution	203dpi
Label Printing Method	Thermal printing
Barcode Scanner	2D (PDF417, QR Code, Data Matrix), 1D (Code128, UCC/EAN-128, UPC-E)
Compatible Label Sizes	Width : 50mm, Length : 28~35mm, Label Quantity : 2000 label (per 1 label roll)
Compatible Receipt Label Roll Size	Width : 57mm, Length : 70mm (Less than)
Product Dimension	HENm : 599(W) x 400(H) x 199(D) mm / HENm mobile : 450(W) x 1,000(H) x 845(D) mm
Product Weight	HENm : 20kgf / HENm mobile : 55kgf
Power	AC 100-240 V~, 50/60Hz, 2.2 A
Battery *	Li-FePo4, 12.8V 7.5Ah x 2
Continuous Labeling Quantity *	4,000 Tubes
Standby Time *	13 hours
Roller Mixer *	Max 4 tubes (Time control available)
Roller mixer Rotation Speed *	24 rpm
Interface	USB A,B Port 5V 200mA, RS232 (optional), TCP/IP
Others	- Label attachment position detection system - Reprint function - Barcode scanner verification - Tube cap collar recognition
Certificates	KC, CE, RoHs, FCC

* HENm mobile only

▪ HENm Table

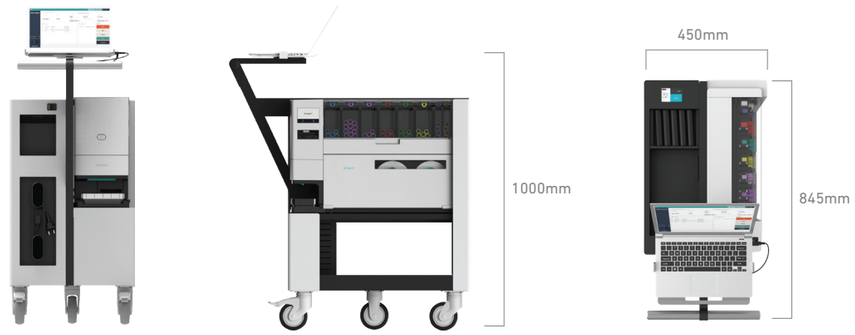
Model Name	HENm Table
Main function	Tube transfer conveyor
Compatible Tube Types	Diameter : 12~20mm, Length : 75~120mm Manufacturer : BD, GREINER, SARSTEDT, IMPROVE, VACUTEST KIMA, SOYA GREENTEC, etc.
Optional	QND, Partition, Storage shelf, Tube storage box, Auxiliary storage box
Product Dimension	Basic Type : 1,300(W) x 903(H) x 720(D) mm (options excluded) Tube storage box : 330(W) x 720(H) x 562(D) mm Auxiliary storage box : 225(W) x 547(H) x 524(D) mm
Product Weight	80kgf
Power	DC 24V , 2.5A
Certification	KC, CE, RoHs

Above specifications are subject to change without notice.

▪ HENm

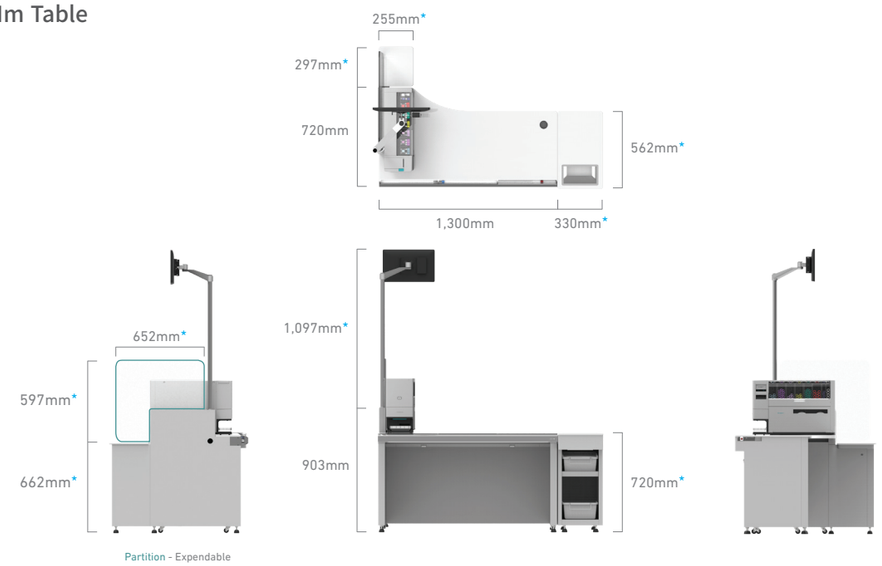


▪ HENm mobile



▪ HENm Table

* Option size



henm Series

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