

# Unattended Self-service Blood Distribution Refrigerator



HXC-629ZZ

### **Scope of Application:**

Suitable for blood station, hematology department in hospitals etc., providing blood storage environment at 2-6°C, convenient for users to take out blood bags at any time

## **Innovative Design**

- Self-service blood distribution
- Inventory management
- Energy conservation and low noise
- Authority management

Qingdao Haier Biomedical Co.,Ltd.

No.280 Feng Yuan Road, High-tech Zone Qingdao, 266109, P.R. China E-mail: inquiry@haierbiomedical.com Website: www.haiermedical.com













### Self-Service Blood Distribution



### Self-service blood distribution for blood transfusion departments

After blood cross matching is completed for the blood bags, specified blood collection permissions will be allocated to the different blood using departments to achieve self-help blood distribution; self-help blood collection at night can save labor cost and improve efficiency.

### **Product Advantages**





## Electronic Checking and Bar Code Management

- Blood bag warehouse-in and warehouse-out management can be achieved by scanning the blood donation codes and the product codes on the bags
- The system can take the specified blood bags for the work staff accurately after identifying the operators and checking the blood bags to be error-free



### Real-time Control to Avoid Freezing Temperature

Double temperature control composed of 6 high precision sensors and mechanical thermostat against low temperature makes control more accurate and maintains the refrigerator temperature constant at  $4\pm1^{\circ}\text{C}$ 



#### **Ergonomic Design**

- Smart dual screen setting realizes simple and intuitive LCD screen display and better user-machine interactions
- Upon checking of the warehouse-out blood bag's information, self-help printing of Blood Collection Sheet for Clinical Blood Transfusion and Blood Distribution Record Sheet is available





### User-machine Interaction, Making Management Visual

- The intelligent blood management system can display the blood donation codes, product codes, blood types, blood quantities, expiry dates and other information of the stored blood bags in real time, realizing one-key query of the stock blood information
- It can clearly show the storage location of the blood bag with the closest expiry date and follow the first-in-first-out management practices



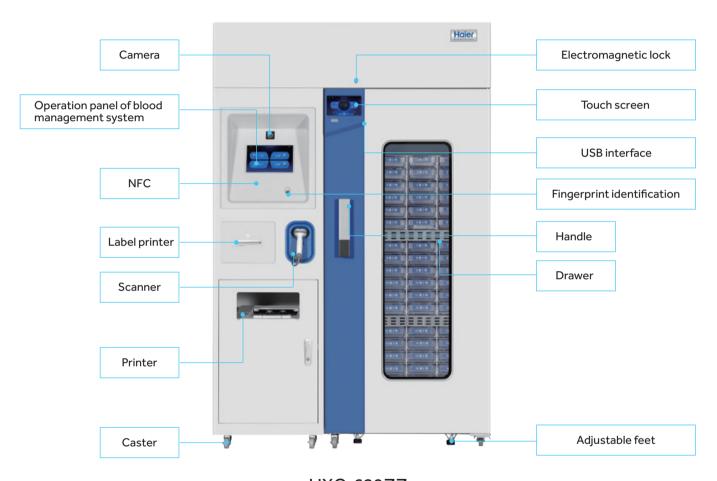
#### Safe and Reliable, Making Blood Collection Process Traceable

- Equipped with fingerprint module and NFC card punching module, providing dual permission modes to open the electromagnetic lock
- Each drawer is equipped with an independent electronic lock to ensure that only the unique and correct blood bag can be taken out in each blood collection operation
- The camera module can take photos of the operators automatically and transmit them to the platform to achieve operation information traceability



A drawer corresponds to a lock

## Product Parts Diagram

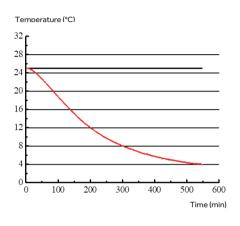


HXC-629ZZ

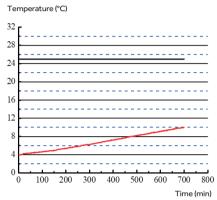
### **Product Performance**



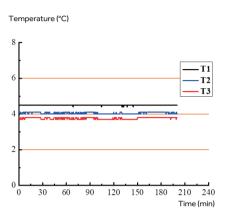
#### Cool down curve (fully loaded)



Warm up curve (fully loaded)

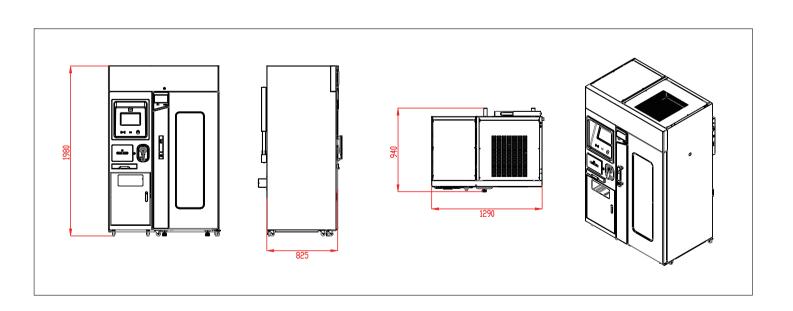


#### Stable operating curve (fully loaded)



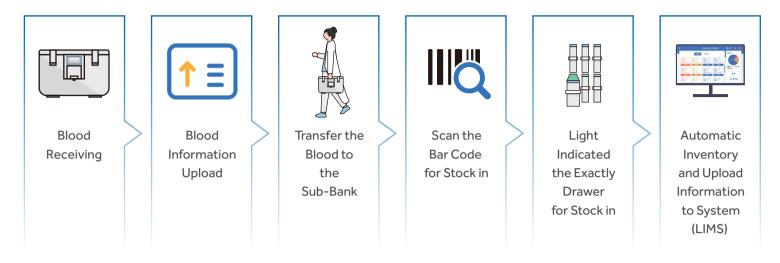
### **Product Dimension Drawings**



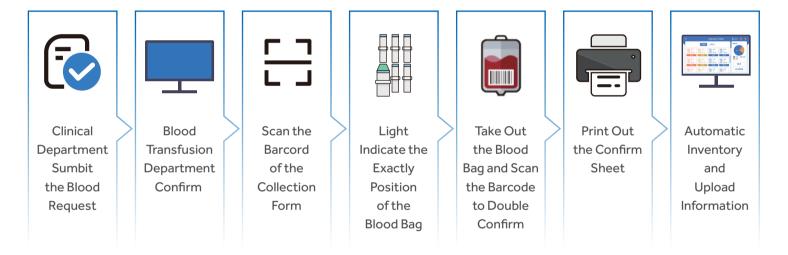


### **Unattended Self-service Blood Distribution Refrigerator**

### Stock-in Work Flow



### **Stock-out Work Flow**



The following improvements were experienced by individual hospitals after implementing the Unattended Self-service Blood Distribution Refrigerator& Haier Blood Management System

- Blood collection time reduced from 20 minutes to 2 minutes
- Blood waste rate reduced to 0
- 85% reduction in blood bank staff time
- 80% reduction in clinical staff time

### **Unattended Self-service Blood Distribution Refrigerator**

|   | How does the Haier Intelligent Blood Management system interact with Haier refrigerator and with Hosptial system (LIMS) |
|---|---|
|   | Self-service blood distribution: self-service operation through the blood collection form                               |
|   | Realize real-time management of Stock-in and Stock-out blood;   |
|   | Quick and accurate positioning management of target blood;  |
|   | Multiple protection: Security management, electromagnetic lock, camera, NFC authorization card                          |
| 7 | Real-time monitoring and management of refrigerator temperature   |



- The refrigerator is placed on the front line of blood use, and can be used on demand (need to apply in advance).
- Emergency blood support (Type O blood and other emergency blood guarantee at the first time).



- Only the blood that has been applied for can be taken each time, and all the others are locked to ensure safety.
- Real-time monitoring of the entire refrigerator and blood collection environment.



- The refrigerator is linked to the blood transfusion department in real time, and the blood crossmatching process and blood handover can all be realized through intelligent equipment;
- Unattended design, can realize 7×24h self-service management.

## **Unattended Self-service Blood Distribution Refrigerator**

## Specifications (

|                | Model                                     |     | HXC-629ZZ          |
|----------------|---|-----|--------------------|
|                | Туре                                      |     | Drawer-Type        |
|                | Climate Class                             |     | N                  |
| Technical      | Cooling Type                              |     | Forced air cooling |
| Data           | Defrost Mode                              |     | Auto               |
|                | Refrigerant                               |     | R600a              |
|                | Sound Level (dB(A))                       |     | 41                 |
| Danfamaanaa    | Temperature Range (°C)                    |     | 4±1                |
| Performance    | Ambient Temperature (°C)                  |     | 16-32              |
| Control        | Controller                                |     | Microprocessor     |
| Control        | Display                                   |     | LCD                |
|                | Power Supply (V/Hz)                       |     | 220-240/50         |
| Electrical     | Power (W)                                 |     | 300                |
| Data           | Electrical Current (A)                    |     | 1.9                |
|                | Capacity (L/Cu.Ft)                        |     | 629/22.2           |
|                | Blood Storage Capacity (450ml blood bags) |     | 72                 |
|                | Net/Gross Weight (approx)                 | kg  | 305/350            |
|                |   | lbs | 671/770            |
|                | Interior Dimensions (W*D*H)               | mm  | 645*680*1455       |
| Dimensions     |   | in  | 25.2*26.5*56.7     |
| Difficitsions  | Exterior Dimensions (W*D*H)               | mm  | 1290*940*1980      |
|                |   | in  | 50.3*36.7*77.2     |
|                | Packing Dimensions (W*D*H)                | mm  | 1454*1058*2131     |
|                |   | in  | 55.9*40.6*81.5     |
|                | Container Load (20'/40'/40'H)             |     | 8/16/16            |
|                | High/Low Temperature                      |     | Υ                  |
|                | Power Failure                             |     | Y                  |
|                | Sensor Error                              |     | Y                  |
| Functions      | Low Battery                               |     | Y                  |
| T directoris   | Door Ajar                                 |     | Y                  |
|                | Dirty Condensor                           |     | Υ                  |
|                | Remote Alarm                              |     | Y                  |
|                | Caster                                    |     | 6                  |
|                | Foot                                      |     | 2                  |
|                | Porthole                                  |     | Y                  |
| Accessories    | Shelves/Drawers                           |     | 0/72               |
| / (CCC330) IC3 | USB Interface                             |     | Y                  |
|                | RS485                                     |     | Y                  |
|                | Temperature Recorder                      |     | N                  |
| Others         | Certification                             |     | CE                 |

 $<sup>\</sup>hbox{$^*$Haier Biomedical reserves the right to change products and specifications without prior notice.}$