



Working Clothes Collection Machine

ZL-R511 is a smart working clothes collection machine developed independently by ZHILAI MED, specifically designed for hospital environments. It aims to enhance the management of working clothes and provide staff with a convenient and effective service for returning their working clothes.

Key Features of Working Clothes Collection Machine

- 01 Equipped with an automated mechanism, this door opens and closes automatically, enabling users to return soiled working clothes without contact.
- 02 The cabinet is outfitted with an RFID reader and antenna, enabling it to conduct comprehensive inventory checks.
- 03 Supports Authenticated Collection mode and Sensor-enabled Collection mode, allowing for flexible switching based on specific requirements.

Specification of Working Clothes Collection Machine

Model	ZL-R511
Dimension	1000mm×820mm×1950mm(W*D*H)
Capacity	≥100 pcs
Display	7 inches
Camera	Binocular camera
Card reader	IC or ID reader
Code scanner	Barcode, QR code
Metal detection	Support metal detection
Deposit door	There are 2 return ports.
	Touch-free door automatically opens and closes, equipped with anti-pinch safety and door status detection.
Height of deposit door	Deposit door is 1.58m above the ground.
Deposit efficiency	Deposit to inventory check process does not exceed 10 seconds.
Cabinet door	Electromagnetic lock, easily operated and featuring door status detection.
Trolley	Each trolley has two bags to help distribute the weight of dirty laundry.
OS	Android7.1.2
Processor	Rk3288
Connectivity	Data port, WIFI, 4G
Material	Sheet metal treated with electrophoresis exhibits superior anti-aging, anti-salt spray, and anti-mold antibacterial properties, suitable for complex temperature and humidity conditions, as well as acidic or alkaline environments.
Performance	
RFID	Built-in RFID reader and antenna, capable of total cabinet inventory check
Frequency range	902 ~ 928MHz
Gain	-15dBi
Reading rate	≥40 tags/second
Antenna polarization method	Circular polarization
Impedance	50Ω
Environment	
Working temperature	0℃ ~ +40℃
Storage temperature	-20℃ ~ +60℃
Working Humidity	< 95% (+25℃)
Key Features	
User authentication	Facial recognition, IC/ID card, QR code, user name/password
Collection mode	Authenticated Collection mode: Upon successful user verification, the deposit door automatically opens, enabling users to deposit their soiled working clothes into the cabinet. After the door closes, the machine promptly conducts an inventory check to identify the types and quantities of the working clothes deposited.
	Sensor-enabled Collection mode: The delivery door automatically opens upon detecting a user's motion to deposit items. Once the user places the soiled working clothes inside and the door closes, the machine immediately performs an inventory check, accurately identifying the types and quantities of the item deposited.
Packing and transfer	Upon successful verification of user identity, the cabinet door automatically opens, allowing operation staff to pack and transfer the collected items. After the door closes, the machine automatically logs the operator's details, the time of service, and the types and quantities of the working clothes cleared.
Metal detection	If the collection machine detects metal items in the working clothes, it will refuse to open the door and remind the staff to take out the metal before return.

Application Scenarios of Working Clothes Collection Machine



Automated Dispensing



Smart Receiving



Smart Storage



Medical Consumables Distribution

Successful Cases of Working Clothes Collection Machine



Eastern Air Force Hospital



Anhui Medical University
First Affiliated Hospital