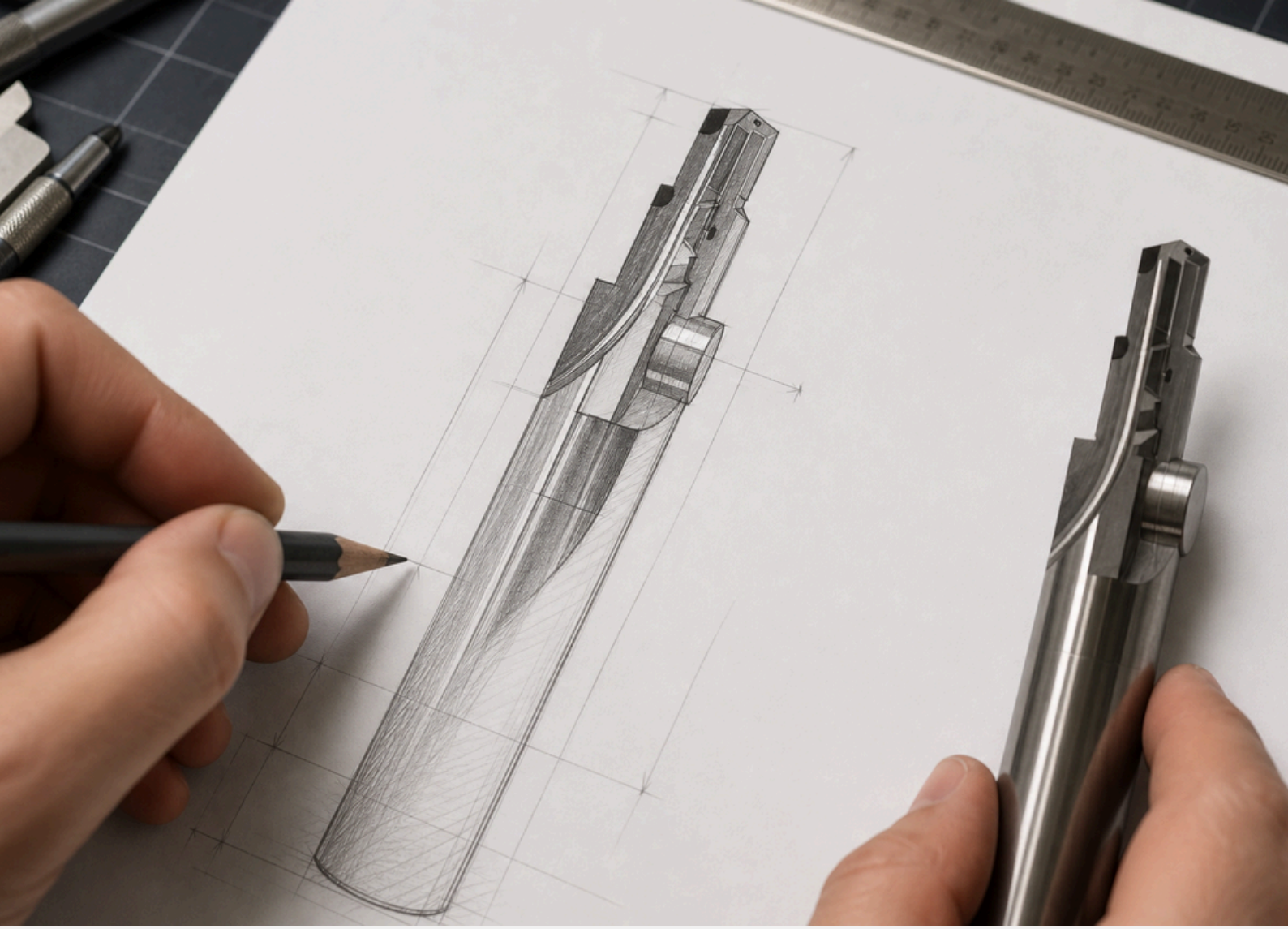
# RIGHT TIME . RIGHT TOOL . RIGHT USER



www.ehalcyonsg.com/iims



We listen first. Every tooling recommendation is based on understanding your specific machining challenges, materials, and production targets. Our team is trained to the highest level in cutting tool application engineering.

We bring expertise, not just products.

# TABLE OF CONTENTS


ABOUT US 02

OUR PRODUCTS 04

WHAT IS *IIMS* 07

USER INTERFACE 09

DOCKGRID FUNCTIONALITIES 11

APPLICABLE SCENARIOS 12

WEIGHING INVENTORY 14

DOCKGRID SPECIFICATIONS 15






# ABOUT US




Founded in 1993, Halcyon Technology PLC is a trusted manufacturer of high-performance cutting tools and precision components for the machining industry.

From a team of five people, Halcyon has grown into a regional operation with sales and service offices in seven countries. Headquartered in Thailand, we support customers across Singapore, Malaysia, Indonesia, Vietnam, the Philippines, and the United States.

We manufacture PCD, PCBN, SCD, and carbide cutting tools, along with precision components for leading machinery industries. Our solutions are built to improve machining performance, extend tool life, and help customers achieve greater production efficiency.

With strong technical expertise, responsive regional support, and a commitment to quality, Halcyon helps manufacturers achieve more reliable, efficient, and precise machining results.

# HALCYON



## Vision & Mission

Our vision is to be the leading and most trusted cutting tool manufacturer in Thailand and across the ASEAN region, setting the standard for precision, quality, and innovation. Our mission is to provide complete, one-stop cutting tool solutions—from precision tool design and quality control to responsive technical support and application troubleshooting—helping customers solve machining challenges quickly, improve production efficiency, and reduce manufacturing costs.

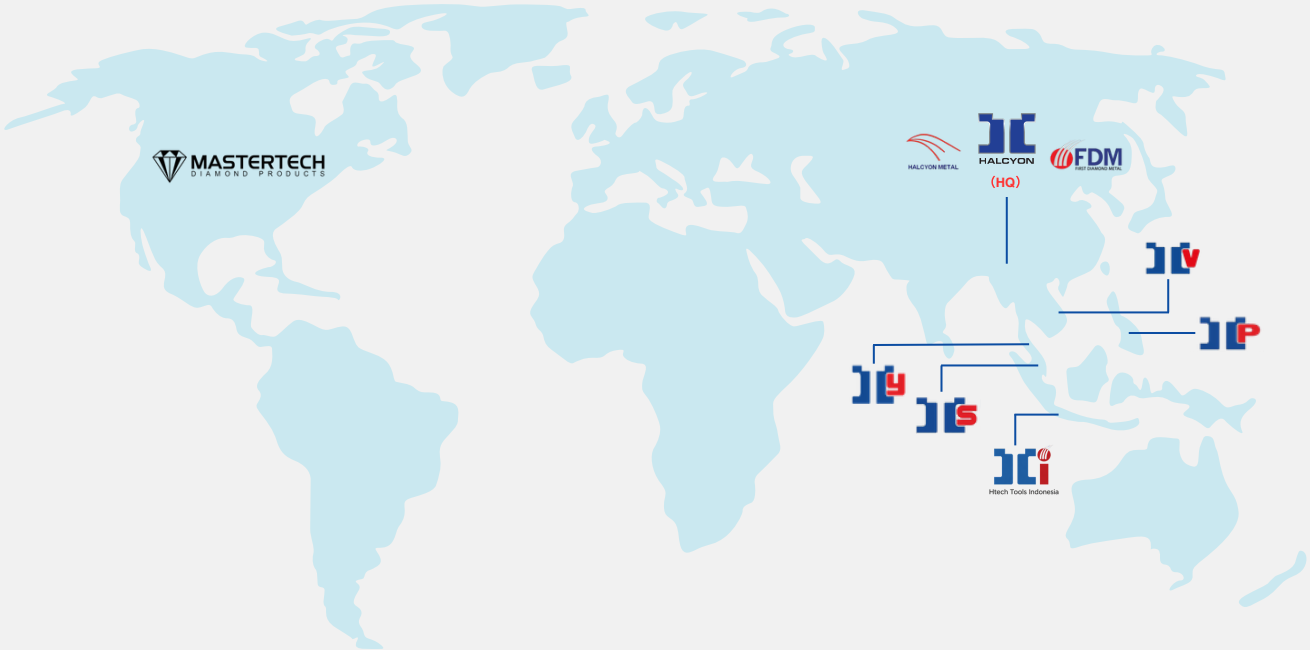
Manufacturing office
**3 locations**

Global offices
**7 Countries**

Experience
**30 Years**

## Halcyon on the map





# Our Products



## PCD Drill

Polycrystaline diamond (PCD) drill is a high-performance cutting tool. Their cutting edges are made with synthetic diamond, making them ideal for machining non-ferrous materials such as aluminum alloys, copper, brass, glass, wood, ceramics, plastics, fiberglass composites, carbon fiber composites (CFRP), as well as many metal matrix composites (MMC).



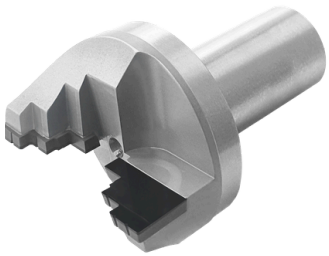
## PCD End Mill

Tungsten carbide end mill is an industry standard cutting tool type. It is suitable for cutting (milling) ferrous materials such as steel, stainless steel, and cast iron. Halcyon specializes in designing and manufacturing special carbide end mills customized to perform best for your application. Internal coolant holes and surface coatings are available.



## Carbide Reamer

Tungsten carbide reamer is an industry standard cutting tool type. It is suitable for cutting (reaming) ferrous materials such as steel, stainless steel, and cast iron. Halcyon specializes in designing and manufacturing special carbide reamer customized to perform best for your application. Internal coolant holes and coatings are available.



## Form Tools

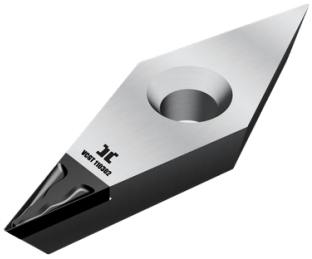
Halcyon's PCD hollow tools function as a plunge form tool, enabling multiple machining features to be produced in a single operation. Originally developed for hard disk drive (HDD) applications, these tools have proven effective in improving the efficiency of machining HDD base-plate hubs. A customised PCD hollow tool combines complex geometries to machine multiple features at once.

# Our Products




## PCD Face Mill

A face mill typically involves multiple inserts in a holder or body with adjustable pockets. The face mill body can be made with aluminum to reduce the weight and vibration during cutting. A face mill can be designed to include both finishing and roughing PCD inserts depending on the application. Smaller face mill diameters can be made with steel or carbide body with brazed PCD tips.



## PCD Insert

Polycrystalline diamond (PCD) inserts are high-performance cutting tools with synthetic-diamond cutting edges. Their exceptional wear resistance makes them an industry-standard choice for machining non-ferrous materials, such as aluminum alloys, copper, brass, glass, wood, ceramics, plastics, fiberglass composites, and carbon fiber composites (CFRP).



## PCD Boring Bar

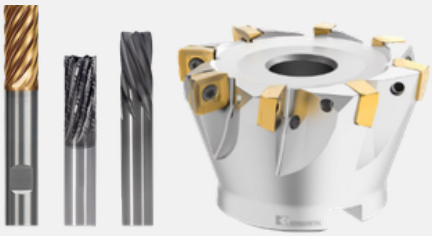
Polycrystalline diamond (PCD) boring bars are high-performance tools with synthetic-diamond cutting edges for cutting ID's of non-ferrous materials such as aluminum alloys, copper, brass, glass, wood, green ceramics, plastics, fiberglass composites, and carbon fiber composites (CFRP). Halcyon designs and manufactures customised PCD boring bars, with chip-breaker designs available





# **Standard** Cutting Tools

Halcyon is a distributor for standard cutting tools from many leading global brands.



KENNAMETAL




JJTOOLS



AHNO 阿诺
Cutting Tool Technology



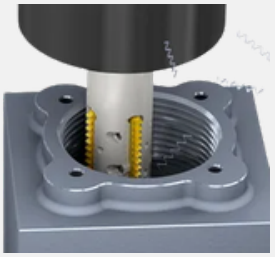
SOFTOOL



WIDIA



Chai Tools



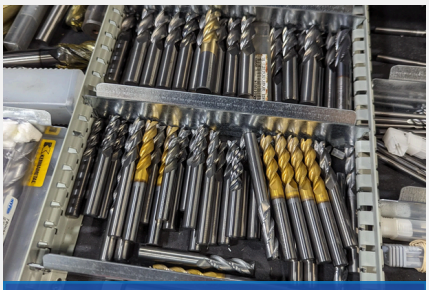
vargus
NEUMO Ehrenberg Group

# What is IIMS

Unlike conventional tool cabinets that focus only on storage and dispensing, ***IIMS*** (Intelligent Inventory Management System) was developed with one clear objective — to improve operational efficiency while reducing overall tool costs for our customers.

The **Dock**Grid **Series** delivers a software-driven ecosystem that tracks every tool transaction in real time — from stock-in and withdrawals to returns and usage history. Automated reporting simplifies stock take while maintaining full inventory visibility. With support for returning partially used tools back into inventory, *IIMS* helps maximise tool life, reduce wastage, and lower new tool consumption.

## Common Issues



### INVENTORY VISIBILITY

- No real-time visibility of how many tools are in use, idle, or available with remaining life.
- Overstocking occurs "Just in case", while usable tools sit unused.



### MANUAL RECORDING

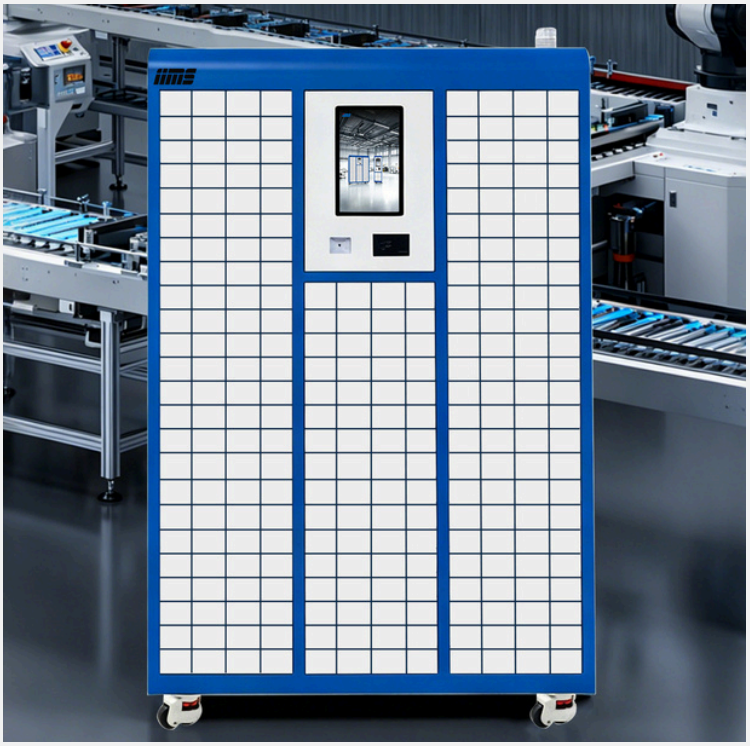
- Paper or Excel-based tracking.
- Time-consuming physical stock counts.
- Human error → miscounts, missed items, or double counting.
- Data lag → discrepancies are discovered too late to act on.




### NO ACCOUNTABILITY

- Tools are freely taken from cabinets or drawers without proper tracking.
- Operators may take new tools instead of partially used ones for convenience or speed.

## Core Advantages




### 24/7 operational flexibility

- Automated item location guidance
- Fast retrieval time
- No dependency on storekeeper availability

### Cost control

- Prevents over-issuance and premature disposal of tools.
- Reduces overall tooling spend through controlled access and data visibility

### Tool life optimization

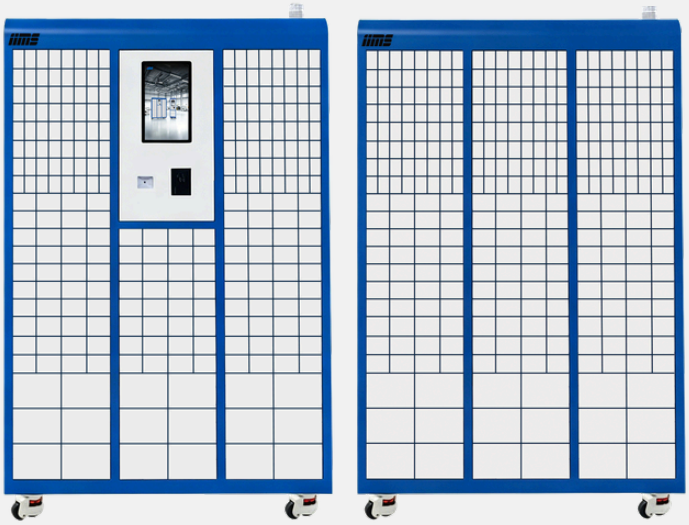
- Prioritize regrind/retip items before issuing
- Enforce tool life policy
- Reduce new tool consumption
- Track usage per machine / per operator

# Introducing “Dock”



## “Dock” = Control Point

Just as a ship dock is where cargo is loaded, unloaded, inspected, and directed – in our system, **Dock**Grid is where tools, inventory, and data flow in and out of your operation—with every movement visible, recorded, and fully controlled.



## “Dock” = Integration Hub

Docks connect ships to land. **Dock**Grid connects hardware with software, suppliers with customers, and data with decisions.

“Dock represents our core belief: every device, every customer, every supplier connects through a unified hub — securely, efficiently, and intelligently.”

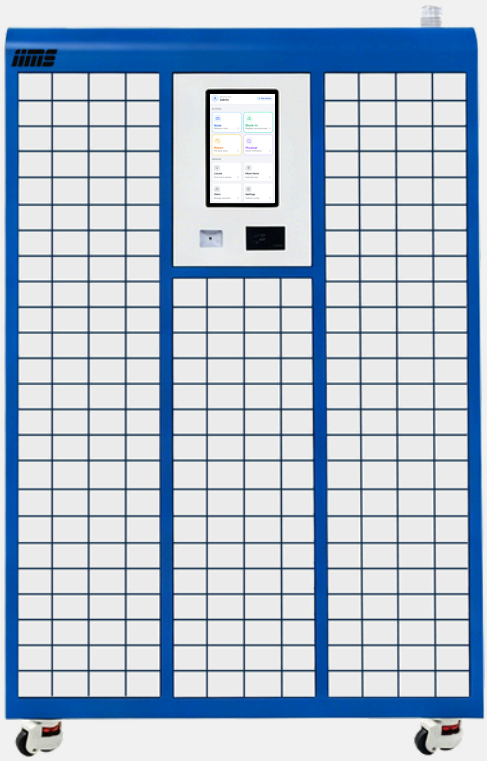
## **Dock**Flow - The Brain of ***IIMS***

Our intelligent control center for the entire ***IIMS*** network

- Reduce costs with real-time tool-usage tracking and supplier-demand forecasting
- Integrate seamlessly with ERP and MES platforms through APIs
- Deploy modularly across any facility, all managed through one intelligent hub
- Minimise downtime through predictive inventory planning.



**“Dock smarter . Move faster . Spend less”**

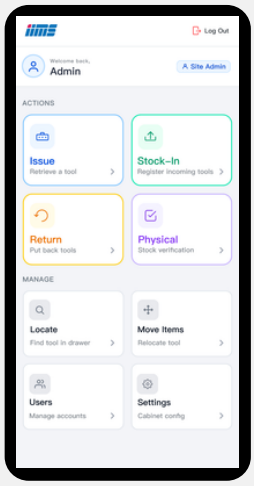


# ***Smart** tooling, made **simple***

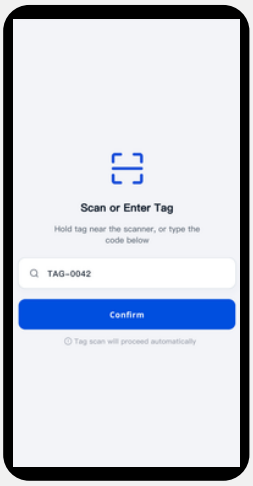
***IIMS** makes finding and retrieving the right tool fast and effortless. Our user friendly interface removes the complexity of tool management, so every operator can use it confidently.*

---

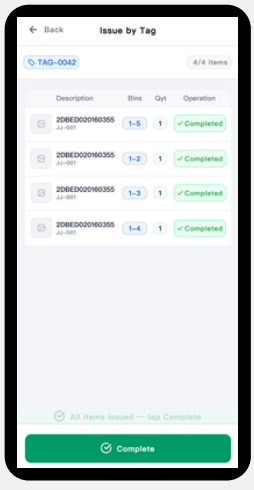
## *Intuitive User Interface - No vending machine experience required*




**We made it easier to understand**

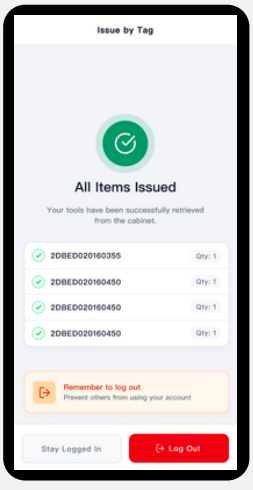



**Scan to Retrieve**




**Push to Confirm**






**Instant Confirmation**

# Tooling Transactions, Simplified

## Register incoming tools

The Stock In function ensures every incoming tool is accurately added to inventory with the correct classification. Users can scan a pre-created tag to stock in assigned tools, record zero-cost sample tools as Free items, register their own tools under On Burn, or manage consignment stock as On Hand items.

| STOCK IN | |
|---|---|
| By Tag | On Burn (CUSTOMER ASSET) |
| Free | On Hand (CONSIGNMENT) |

| ISSUE | | |
|---|---|---|
| Workpiece Quality Issues | For Inspection | Tool Damaged |
| By Tag | | |
| Setup Model | Normal Usage | Others |

## Retrieve a tool

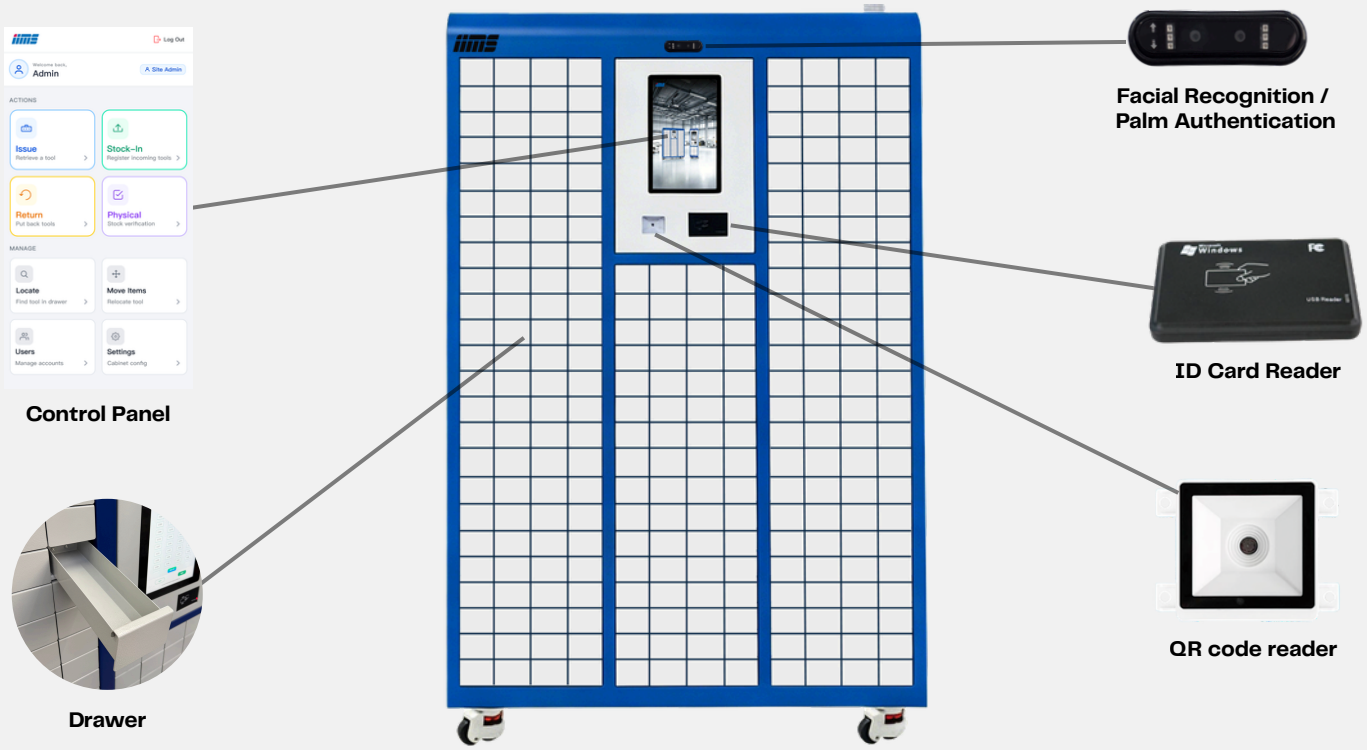
The Issue function records why tools are retrieved from the tool cabinet, ensuring accountability and accurate transaction-history reporting. Users can select from predefined reasons or choose ‘Others’ to enter a more specific reason when needed.

## Place tools back

The Return function enables users to place tools with remaining usable life back into the cabinet, making them available for future use and reducing unnecessary tool waste. It also provides a controlled process for returning items that were issued by mistake, while scrap or damaged tools can be recorded and stored separately for tracking, review, and proper disposal.

| RETURN | | |
|---|---|---|
| Remaining Tool Life | | From Inspection |
| For Regrind/ Retip | For Scrap | Wrong Item Issued |

# DockGrid Functionalities




## Security

## Smart Security, Seamless Access

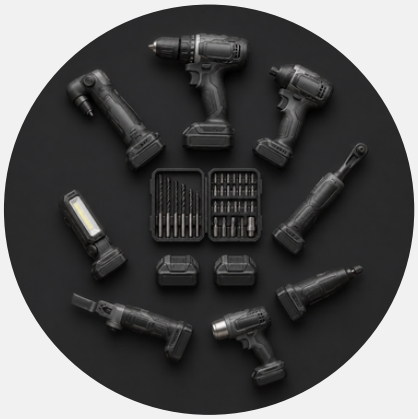
Advanced facial and palm recognition technology for fast, secure and contactless authentication.






# Applicable Scenarios

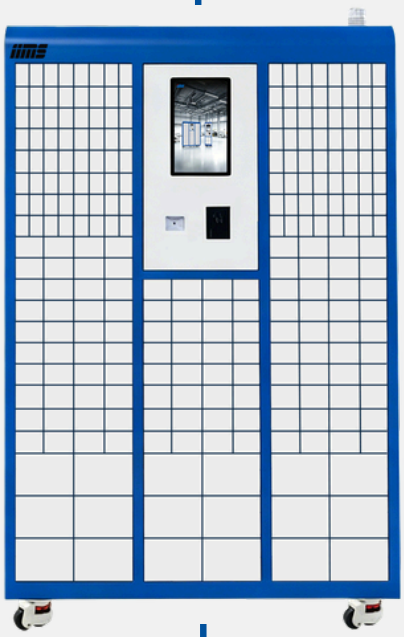




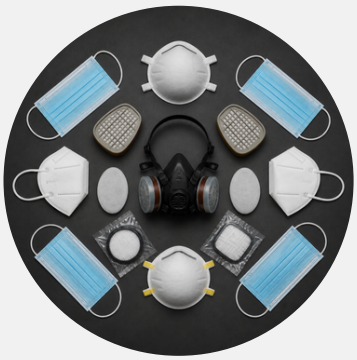
Storage of Hand tools, small parts and stationaries




PPE



Others

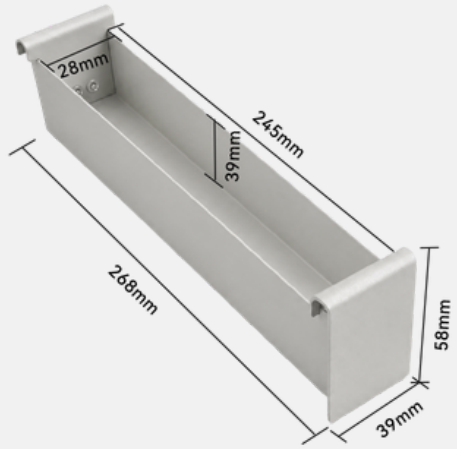



Storage of cutters (Drills, Endmills, Inserts, Holders, Drills)

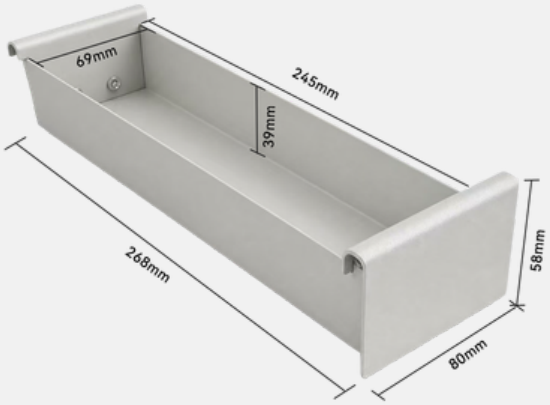




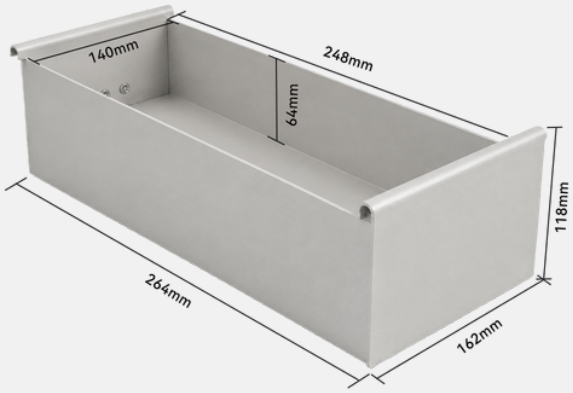
## D1 - Extra small

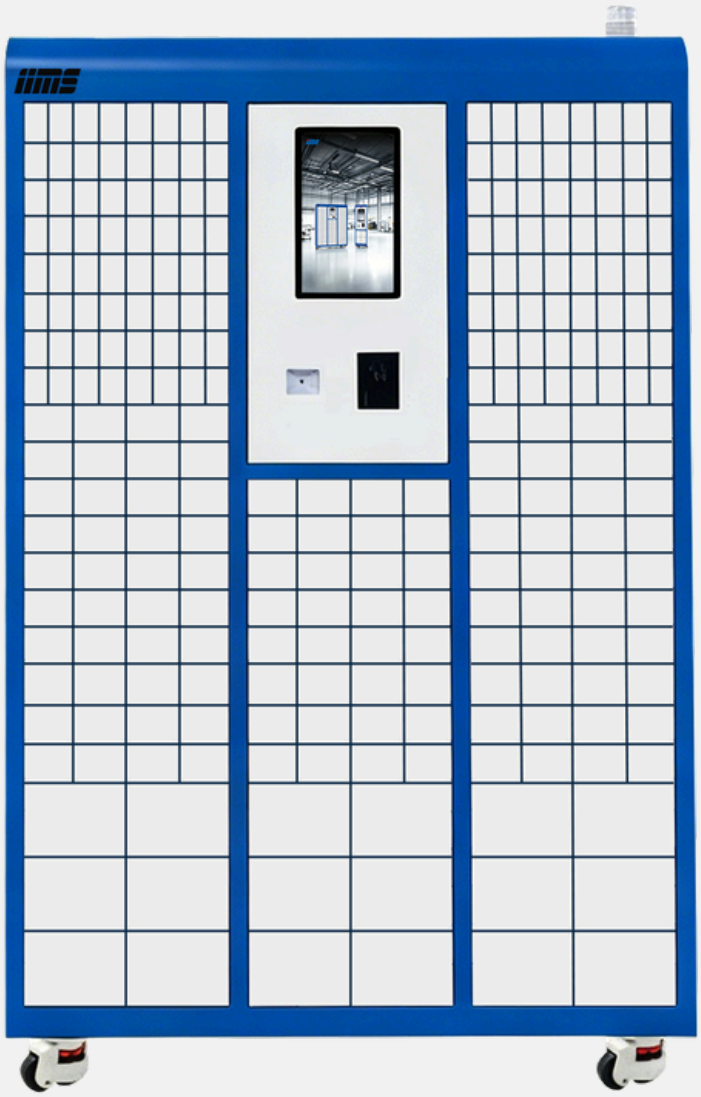



## D2 - Small




## D3 - Medium



# Drawer Specifications

| Type | External Dimensions (mm) (W) x (H) x (D) | Internal Dimensions (mm) (W) x (H) x (D) | Max Load (kg) |
|---|---|---|---|
| D1 | 39 x 58 x 268 | 28 x 39 x 245 | 3 |
| D2 | 80 x 58 x 268 | 69 x 39 x 245 | 6 |
| D3 | 162 x 118 x 264 | 140 x 64 x 248 | 12 |

# Weighing Inventory

**Scrap**

**Weight**

**Data**



**Managed**

**Verified**

**Recorded**



## Every tool accounted for. Automatically.

Built-in weighing scales turn loose-item storage into a controlled, traceable inventory system. Instead of relying on manual counting, ***IIMS*** measures the remaining stock by weight—giving operators and managers a clear view of what has been taken, what is left, and when replenishment is needed.

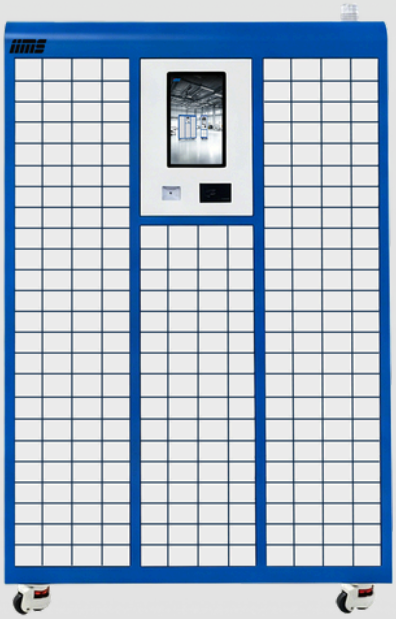
## Built for accountability

Loose consumables are often difficult to control. Items may be taken without being recorded, quantities are estimated, and stock checks become time-consuming. The weighing drawer closes this gap. By linking access to the operator and recording the transaction, ***IIMS*** makes each withdrawal visible and traceable.



## DockGrid 256

Main Cabinet



**Configurations**: up to 256 drawers
**Weight Capacity**: 400 kg
**Dimensions**: W1150 x H1710 x D500 mm
**Drawer type(s)**: D2 (256)
**Display Size**: 13.3"
**Power**: 100-240 VAC. 50/60Hz, 3.1A/1.7A

## DockGrid 128

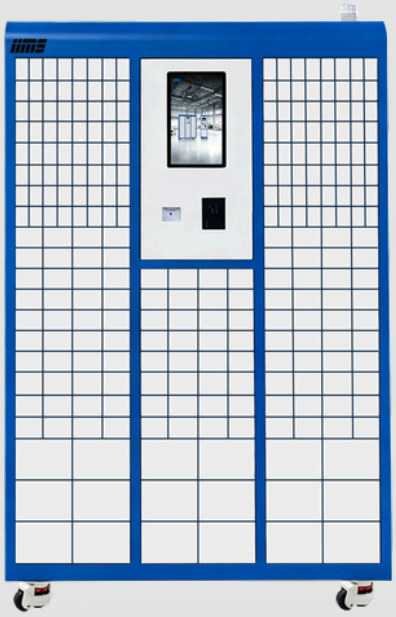
Main Cabinet



**Configurations**: up to 128 drawers
**Weight Capacity**: 150 kg
**Dimensions**: W1316 x H624 x D500 mm
**Drawer type(s)**: D1 (64), D2 (64)
**Display Size**: 13.3"
**Power**: 100-240 VAC. 50/60Hz, 3.1A/1.7A

## DockGrid 258

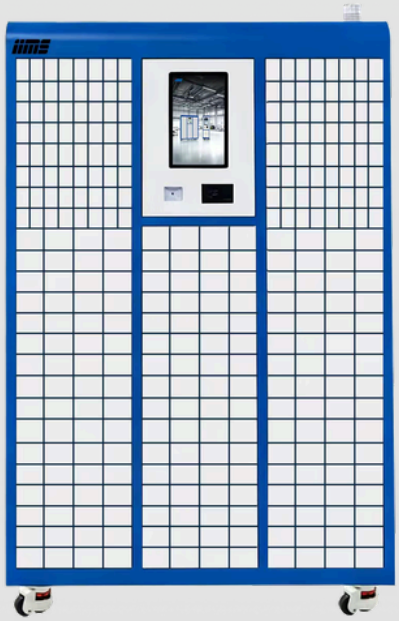
Main Cabinet



**Configurations**: up to 258 drawers
**Weight Capacity**: 400 kg
**Dimensions**: W1150 x H1710 x D500 mm
**Drawer type(s)**: D1 (128), D2 (112), D3 (18)
**Display Size**: 13.3"
**Power**: 100-240 VAC. 50/60Hz, 3.1A/1.7A
**Weighing scale:** Only D3 drawers supported

## DockGrid 320

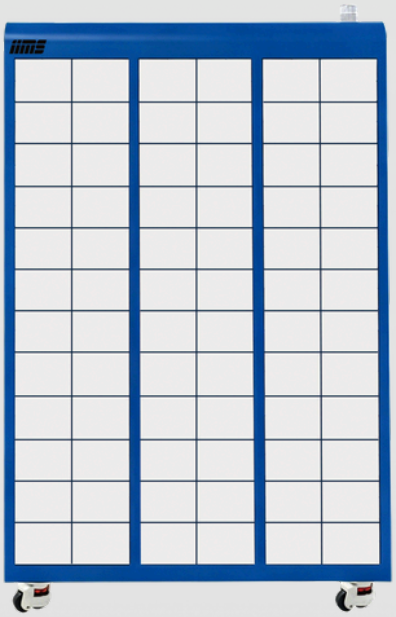
Main Cabinet



**Configurations**: up to 320 drawers
**Weight Capacity**: 400 kg
**Dimensions**: W1246 x H1795 x D500 mm
**Drawer type(s)**: D1 (128), D2 (192)
**Display Size**: 13.3"
**Power**: 100-240 VAC. 50/60Hz, 3.1A/1.7A

## DockGrid 72

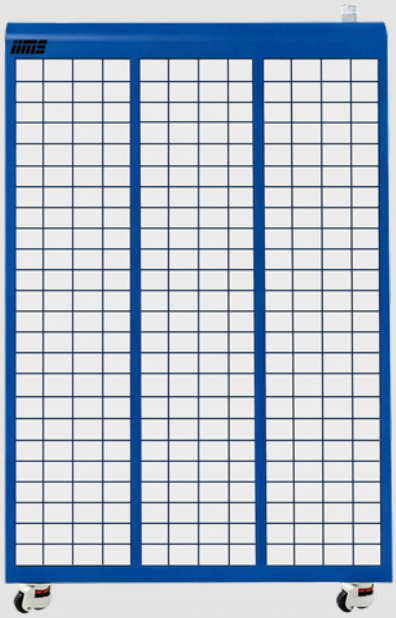
Auxilary Cabinet



**Configurations**: up to 72 drawers
**Weight Capacity**: 400 kg
**Dimensions**: W1150 x H1710 x D500 mm
**Drawer type(s)**: D3 (72)
**Power**: 100-240 VAC. 50/60Hz, 3.1A/1.7A
**Weighing scale:** All drawers supported

## DockGrid 288

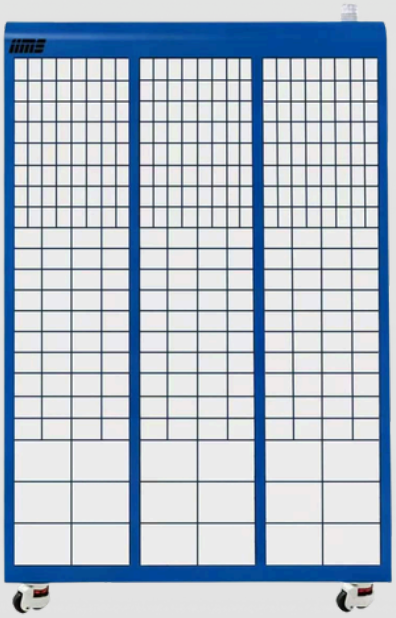
Auxilary Cabinet



**Configurations**: up to 288 drawers
**Weight Capacity**: 400 kg
**Dimensions**: W1150 x H1710 x D500 mm
**Drawer type(s)**: D2 (288)
**Power**: 100-240 VAC. 50/60Hz, 3.1A/1.7A

## DockGrid 330

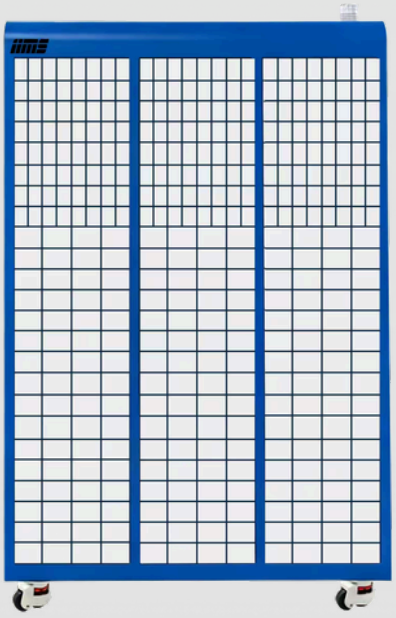
Auxilary Cabinet



**Configurations**: up to 330 drawers
**Weight Capacity**: 400 kg
**Dimensions**: W1150 x H1710 x D500 mm
**Drawer type(s)**: D1 (192), D2 (120), D3 (18)
**Power**: 100-240 VAC. 50/60Hz, 3.1A/1.7A
**Weighing scale:** Only D3 drawers supported

## DockGrid 384

Auxilary Cabinet



**Configurations**: up to 384 drawers
**Weight Capacity**: 400 kg
**Dimensions**: W1246 x H1795 x D500 mm
**Drawer type(s)**: D1 (192), D2 (192)
**Power**: 100-240 VAC. 50/60Hz, 3.1A/1.7A

# Summary



## Semi-Customizable

- Choose from a range of cabinet configurations to match the size, quantity, and value of the items being managed.
- Store and manage new, used, reconditioned, and scrap tools.
- Configurable usage reasons, capturing the purpose behind each tool movement.
- Link up to eight ***IIMS*** **Dock**Grid machines - expand progressively as inventory volume, factory footprint, or user demand grows.




## Software & Integration

- On-site support, installation, and hands-on training available for your team.
- User-level access control and transaction accountability.
- Multi-brand inventory management.
- Robust software interface with API integration capability for seamless ERP connectivity and data exchange.
  *coming soon*




## After-sales service support

- Onsite/remote software support
- Hardware Support
- Spare part availability
- 12-hour turnaround period
- Replenishment services under consignment

# Experiencial Showroom






Visit our showroom to experience ***IIMS*** firsthand. Explore the full range of features, see how the system works in a real operating environment, and interact directly with the tool cabinets.

Our team will walk you through the user experience—from dispensing and stock management to access control, reporting, and system integration—so you can better understand how our solution can improve tool availability, accountability, and inventory efficiency in your facility.

Get a genuine feel for the build quality, functionality, and ease of use before making your decision.

*Showroom visits are strictly by appointment only. Walk-ins cannot be accommodated.*

HALCYON

**Halcyon Technology Public Company Limited**

41 Moo 14 Bangchan Industrial Estate Soi 6, Serithai Road, Minburi, Bangkok 10510 (Thailand)

E-mail: sales@halcyon.co.th