

## Eddie Vending System

Comprehensive Tool Management and Implementation Solution for the Wire and Cable Industry

Presented by: Esteves Group

### Introduction

In the wire and cable industry, maintaining a well-organized, secure, and easily accessible inventory of dies, extrusion tooling, and other consumables is essential for maximizing productivity and ensuring product quality. Traditional tool rooms, however, are often plagued by inefficiencies and disorganization, making it difficult to manage complex inventories. This leads to frequent production delays, misplaced tools, and increased training times for personnel. Although automated vending systems present an ideal solution, many manufacturers are hesitant to adopt these systems due to perceived complexities and potential disruptions during implementation.

To address these challenges, Esteves Group developed the **Eddie Vending System**, a comprehensive tool management solution specifically designed for the wire and cable industry. With Esteves Group's fully managed implementation process, manufacturers can transition smoothly to a more efficient, automated system without disruption. Moreover, Esteves Group's unique approach to inventory stocking and labeling ensures that every product is accurately tracked, securely stored, and easily accessible when needed.



## Current Challenges in Traditional Tool Room Management

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Wire and cable manufacturers face a range of challenges when managing traditional tool rooms. These challenges impact operational efficiency, increase costs, and reduce overall productivity:

- 1. Complex Tool Organization and Storage Management:** Tool rooms in wire and cable manufacturing often store a wide variety of products, including (multiwire) drawing dies, bunching/stranding dies, extrusion tips and dies, shape dies, and consumables like inspection tools and maintenance supplies. Each product has specific dimensions, tolerances, and usage requirements. This complexity leads to:
  - **Time-Consuming Searches:** Personnel spend a significant amount of time searching for the right tools for a job, especially in disorganized or cluttered tool rooms.
  - **Inconsistent Tool Placement:** Tool rooms can become cluttered, making it difficult to maintain an organized layout. Over time, as new tools are added, the space becomes even more disorganized.
  - **Frequent Reorganization Needs:** Introducing new products often requires rethinking the entire storage setup, which disrupts regular operations and increases the workload for tooling managers.
  - **Risk of Incorrect Tool Combinations:** Multi-component operations, such as multiwire drawing, bunching, and extrusion, require precise tool sets to ensure product quality. Manual selection can result in incorrect combinations being gathered, leading to production issues and wasted materials.
- 2. Accessibility and Security Concerns:** In a traditional tool room setup, it can be challenging to control who has access to which tools. Unauthorized access can lead to:
  - **Tool Misplacement or Loss:** Without strict access control, tools may be misplaced or taken by unauthorized personnel.
  - **Difficulty in Maintaining Accountability:** When tools are lost, the lack of accountability makes it hard to identify the source of the issue, leading to unresolved problems and higher replacement costs.
- 3. Inventory Tracking and Maintenance Challenges:** Accurate inventory management is crucial for ensuring that tools are available when needed and are in proper working condition. However, manual tracking is prone to errors and inefficiencies:
  - **Manual Inventory Audits:** Conducting regular inventory audits is time-consuming and often inaccurate, leading to discrepancies between actual stock and recorded levels.
  - **Tool Maintenance Scheduling Issues:** Without automated tracking (and reordering), it's challenging to ensure that tools are replaced according to their usage cycles, which can result in unexpected tool failures, and machinery downtime.
  - **Stockout Risks:** Delays in reordering critical tools can halt production, causing costly downtime and disrupting schedules.
- 4. High Training Overheads:** Training new personnel to understand a traditional tool room's layout and management processes can be time-intensive. As the tool room evolves, these changes must be communicated and retrained, which can lead to:
  - **Extended Learning Curves:** New employees take longer to become proficient in managing and accessing the required tooling.
  - **Higher Risk of Errors:** Incomplete training or miscommunication can lead to errors in tool selection, improper usage, or mishandling, affecting product quality and increasing costs.

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## Challenges of Implementing a Vending Machine Solution

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Despite the clear benefits of automated tool management, manufacturers often perceive the implementation process as daunting. Concerns about disruptions, technical integration, and training needs can overshadow the potential advantages of vending systems.

1. **Complex Product Selection and Initial Setup:** Deciding which products to stock, configuring the system, and integrating the solution into existing workflows can be complex. Manufacturers may not have the time or expertise to effectively plan and execute the setup of a vending solution.
2. **Disruption to Daily Operations:** Manufacturers fear that introducing a new system will cause disruptions to their ongoing operations. Concerns include downtime during installation, the need to reconfigure tool room layouts, and the potential for workflow interruptions.
3. **Technical Integration and Customization Needs:** Vending systems often need to be customized to meet specific operational requirements, such as managing multi-component tool sets, configuring automated reordering, and setting up real-time monitoring. Implementing these features requires technical expertise and time, which can be challenging for manufacturers to allocate.
4. **Training and Change Management:** Adopting a new tool management system requires training all personnel, from shop floor operators to managers. Concerns about the time and resources needed for effective training can deter companies from pursuing a vending solution.

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## Esteves Group's Managed Implementation Approach

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To address these challenges, Esteves Group offers a fully managed implementation service, ensuring a smooth and seamless transition to the Eddie Vending System. Esteves takes care of every aspect of the process, from product selection to training and ongoing support, making it easy for customers to adopt the system without disruption.

1. **Comprehensive Product Analysis and System Configuration:** For existing customers, Esteves Group already understands the tooling requirements and can set up the vending machine to stock the exact products needed. For new customers, Esteves conducts a thorough analysis to identify the best product mix and configure the system to meet their unique needs.
2. **Simplified Stocking with QR Code Integration:** When Esteves supplies products for the vending machine, each item is shipped with a pre-attached QR code label. This label contains detailed product information and ensures that stocking is as simple as scanning the code. The vending machine then automatically assigns the product to the correct bin, eliminating the risk of misplacement and ensuring 100% accurate product placement.
3. **Complete System Setup and Configuration:** Esteves Group handles the physical setup of the vending machine, as well as the software configuration, ensuring that all security settings, product categories, and reordering thresholds are optimized for the customer's operations.
4. **Seamless Integration into Existing Workflows:** Esteves works closely with the customer to minimize any disruptions to existing workflows. The system can be set up to operate alongside traditional tool room processes during the transition period, ensuring a smooth integration.

# Eddie Vending System

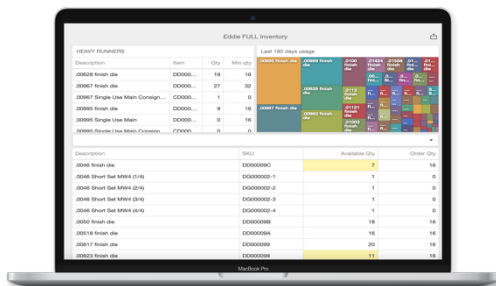
By Carsten van der Putten, October 8, 2024



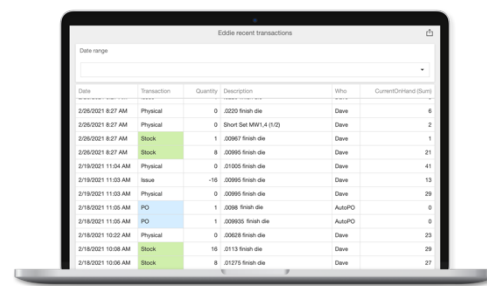
5. **Comprehensive Training for All Personnel:** Esteves provides training for all relevant personnel, covering everything from basic usage to advanced features like tool set management and custom dashboards. This ensures that everyone is comfortable using the system from day one, reducing the risk of errors and minimizing the learning curve.
6. **Ongoing Support and Optimization:** After implementation, Esteves continues to provide support and regular system optimizations, ensuring that the vending machine remains an effective part of the customer's operations. Any new products or configuration changes can be easily managed without disrupting the system.
7. **Flexible Subscription-Based Pricing:** The Eddie Vending System is offered on a monthly subscription basis, ranging from \$350-550 per month, depending on the yearly volume and share of wallet. This flexible pricing structure allows manufacturers to scale the solution according to their needs without a large upfront investment.

## Benefits of Esteves Group's Approach:

1. **Eliminates the Risk of Misplacement:** Esteves Group's use of QR code labels on all supplied products ensures that every item is stocked in the correct bin, completely eliminating the possibility of misplacement and ensuring optimal organization.
2. **Simplifies Stocking and Inventory Management:** With QR code scanning and automated bin assignment, stocking new items is fast and error-free. This saves time and reduces the burden on personnel.
3. **Ensures Accurate and Efficient Reordering:** Real-time inventory tracking and customizable reordering options ensure that critical tools are always available, minimizing production delays.
4. **Improves Security and Accountability:** The system's detailed interaction tracking and customizable access controls ensure that only authorized personnel can access specific tools, enhancing security and traceability.
5. **Reduces Implementation Complexity:** Esteves Group's managed implementation service handles all the complexities of setting up and configuring the system, making it easy for customers to transition to a more efficient tool management solution.



Current inventory dashboard



Recent transactions dashboard

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## Eddie Vending System: Solution Overview

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The Eddie Vending System is a comprehensive industrial vending solution designed to tackle these challenges head-on. It combines automated dispensing, real-time monitoring, and a centralized management platform to streamline the tooling management process.

Key Features:

- **Automated Inventory Control:** Real-time tracking of all tools and consumables in the vending machine. This ensures immediate access to the required items, minimizing production downtime.
- **Customizable Tool Sets:** The Eddie Vending System allows for the creation of custom tool sets, such as multiwire drawing sets, bunching/stranding die sets, shape die sets, and extrusion tip and die combinations. This ensures that the correct tooling combinations are always used.
- **Customizable Dashboards:** A web-based interface provides dashboards that can be tailored to match each customer's data tracking needs, offering insights into tool usage patterns, inventory levels, and reorder status.
- **Automated and Manual Reordering Options:** Customers can choose between fully automated reordering, notification-based alerts, or manual control. Minimum and maximum quantity settings can be customized per product, with the option for Esteves Group's assistance in configuration.
- **User Accountability:** Logs every item withdrawal and return, ensuring accountability and traceability for every tool used.
- **Centralized Management:** Offers a cloud-based interface for managers to track inventory levels, generate usage reports, and manage tool availability across multiple locations.
- **Upcoming Multi-Platform App:** A new app, currently in development, will provide seamless access to the system from any device. The app, which will be free for all existing and future customers, aims to simplify interaction with the system and reduce training times.

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## Addressing the Tool Room Challenges with the Eddie Vending System

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1. **Simplified Tool Organization and Retrieval:** The Eddie Vending System categorizes each tool by its specific attributes, making it easy to locate and access the exact tool needed for any production run. The intuitive interface and advanced categorization eliminate the need for manual searches, reducing downtime significantly.
2. **Improved Workflow Efficiency with Tool Sets:** By enabling the creation and storage of complete tool sets, the Eddie Vending System simplifies multi-component operations. For example:
  - **Multiwire Drawing Sets:** The system can issue entire sets of drawing dies required for multiwire operations, reducing the risk of errors and ensuring that all components are compatible.
  - **Extrusion Tooling Combinations:** Complete sets of extrusion tips and dies can be retrieved together, preventing mismatches and ensuring consistent production quality.
  - **Short Die Sets for Quick Operations:** Short sets can be pre-configured and dispensed quickly, minimizing setup times for smaller production runs.

3. **Minimized Risk of Incorrect Tool Selection:** The system's tool set management capabilities ensure that only compatible tools are issued together, preventing the gathering of incorrect tooling combinations. This reduces the risk of production defects and wasted materials, enhancing overall product quality.
4. **Reduced Training Time for New Personnel:** The Eddie Vending System's intuitive interface and comprehensive tool categorization reduce the learning curve for new employees. The upcoming mobile app will further simplify tool management, enabling new personnel to quickly adapt to the system and become productive members of the team.

## New Capabilities with the Multi-Platform App

Esteves Group is developing an app for all major platforms to enhance the Eddie Vending System's usability. This app will provide a user-friendly interface with faster response times and deeper integration into the existing infrastructure. Some of the key benefits include:

- **Real-Time Inventory Management from Anywhere:** Users can check inventory levels, track usage, and even request restocks remotely, enhancing operational flexibility.
- **Simplified Reordering and Notifications:** Automated notifications ensure that managers are informed of critical stock levels, and reordering can be triggered directly from the app.
- **Training Reduction for New Employees:** The app's intuitive design minimizes the need for extensive training, allowing new employees to get up to speed quickly.
- **Free Availability for All Eddie Vending System Customers:** The app will be made available for free to both existing and future customers, underscoring Esteves Group's commitment to continuous improvement and customer support.

## Case Study: Workflow Improvement with Eddie Vending System

A large-scale wire manufacturer implemented the Eddie Vending System at their primary production facility to address recurring tool availability issues and improve inventory management.

### Challenges Prior to Implementation:

- Frequent delays due to missing tools.
- High training times for new personnel.
- Lack of visibility into tool usage patterns.

### Results After Implementation:

- **60% Reduction in Tool Search Time:** Automated dispensing reduced the time spent searching for tools by more than half.
- **Error Rates Reduced by 60%:** Automated tool set management eliminated mismatches, improving production consistency and product quality.
- **Inventory Holding Costs Lowered by 25%:** Automated reordering prevented overstocking and reduced excess inventory.
- **20% Improvement in Production Efficiency:** Reduced downtime and tool-related delays led to smoother production runs and increased output.

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## Conclusion

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The Eddie Vending System is more than just an automated storage solution—it is a comprehensive tool management platform designed to optimize tool room operations and provide manufacturers with the security, visibility, and control they need. By offering a fully managed implementation service, Esteves Group makes it easy for customers to benefit from enhanced efficiency, reduced errors, and minimized training time.

With its ability to create and manage custom tool sets, provide real-time inventory tracking, and eliminate misplacement risks through QR code labeling, the Eddie Vending System is a powerful solution for wire and cable manufacturers looking to improve efficiency and streamline their operations.

With the upcoming multi-platform app, Esteves Group is taking the Eddie Vending System to the next level, ensuring that customers have the most advanced and user-friendly tool management solution available. The Eddie Vending System is more than just a vending machine; it is a strategic investment in operational excellence for wire and cable manufacturers worldwide.

For more information on how Esteves Group can simplify your tool management, visit [Esteves Group](#) or contact your local Esteves Group representative.