

KEY SERVICES:



HANDHELD RFID



IOT PLATFORM



## Case study-Smartdrum

Marlin Industries implements pioneering RFID technology using GS1 EPC global tags to monitor and track cable drums in the supply chain.

Marlin Industries is the UK's leading supplier of cable packaging and associated management services. The company has implemented Radio Frequency Identification (RFID) technology using GS1 EPC global tags to monitor and track cable drums in the supply chain. Marlin Industries worked with Coriel, a GS1 Solution Provider, to deploy an RFID solution to improve supply chain efficiency and reduce its impact on the environment.

### Background

Marlin Industries manufactures, refurbishes and manages packaging used within the energy, data and communication industries. Cable drums are usually made of timber and carry cables that come in a wide range of prices and sizes. Typically, cable drums are very difficult to track. They are often stored and used across many locations, sometimes in remote areas and in harsh conditions. The company often manages or rents out cable drums to third parties which makes tracking them even more challenging.

### The Problem: Manual stock control process and poor data quality

Before the solution was implemented, Marlin Industries found it a challenge to monitor the location of their drums and monitor stock levels. The previous system was heavily dependent on manual data entry and paper based processes. Cable drums are typically identified by engraving a serial number into the drum or attaching a label. Reading the hand engraved numbers was difficult because the quality of the inscription was variable. Labels often became damaged or even lost when they were exposed to harsh environments. The information on the drum was interpreted by an operator, recorded on a form and then entered into a stock

control system manually.

These processes created data inaccuracies, inefficiencies and meant that information about the drums and their contents was not recorded in real time. Coriel calculated that around 20% of the serial numbers in Marlin Industries' stock control system contained errors making it difficult to manage their stock.

Coriel's project team worked closely with Marlin Industries to understand their requirements and what they wanted to achieve with the RFID solution. A trial of the GS1 EPC global RFID tags was carried out before the solution was fully implemented to ensure that the tags on the cable drums could be read effectively.

### The solution: Tracking cable drums using RFID technology

Using the information and insights gathered from their client based research, Coriel developed SMARTDrum™. The solution is a secure electronic tracking system that is designed specifically for the cable drum industry. SMARTDrum™ integrates a tailored system architecture, software developed by Coriel and RFID hardware that is compliant with GS1 EPCglobal standards. The solution uses low cost EPCglobal Gen2 compliant RFID tags, robust handheld readers and web based software to track cable drums and their contents. The tags are embedded in the cable



drum and can carry information, such as the drum's unique serialised number (GS1 Global Returnable Asset Identifier), which can be read by handheld readers. The RFID tags can be embedded in the drum during the manufacturing process or retrofitted into an existing drum.

Using an EPC global Gen2 RFID tag in place of an engraved inscription or a label means information about the drums can be read with 100% data accuracy. The tag can also carry useful additional information such as the quantity of cable left on the drum and supply chain transaction details. Any data about the drum can be recorded accurately in real time.

## Significant Benefits:

### Accurate information in real time

The location and contents of an RFID tagged cable drum can be recorded and sent in real time to the system, which provides a greater visibility of drums and stock throughout the supply chain. Due to the elimination of manual data entry processes, Marlin's data quality has improved significantly resulting in more accurate stock records.

### Greater efficiency

The greater visibility of drums and their contents leads to higher repeat usage, which brings financial and environmental benefits. The company has streamlined the dispatch process eliminating paper-based manual processes. The RFID solution not only tracks the drum but also provides production control, dispatch advice and goods receipt information.

### Lower costs

Cable drums typically carry products which are very costly to the owner if they go missing both in terms of the value of the product and the ability to complete the installation. With the RFID solution, Marlin is able to track and monitor its drums more effectively. It has also managed to reduce its administrative costs by automating its stock control process. As the solution is rolled out throughout the business, Marlin will also be able to take advantage of economies of scale. The cost for each RFID tag is considerably lower when they are bought in large quantities.

### Conclusion

RFID is increasingly proving its value across many industries and Coriel's experience with Marlin Industries shows what can be achieved by embracing it. The solution has transformed the way data about cable drums can be managed and used. Coriel's SMARTDrum™ solution is enabling companies to integrate their RFID systems more effectively by complying with GS1 EPC global standards which are global and interoperable.

"We are very satisfied with the solution which has already started to achieve significant benefits for our business, including greater operating efficiency, better stock control and improved customer service."

*John Droog, Managing Director, Marlin Industries*



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