RFID Smart Labels for Reusable Container Management

Industry Need
Throughout many industries goods are moved from numerous points within the supply chain in what has been intended to be a “returnable/reusable” container. While the expectation is that these containers will be returned and accurately accounted for, the reality can be quite different. Many organizations use barcode labels or other paper based processes in an attempt to track containers and their returns. Those methods are dependent on the workforce to actively and consistently scan the barcodes or follow the paper return trail. Additionally, the repeated phases that reusable containers are exposed to such as handling, transportation, and cleaning can all have adverse effects on the tracking system elements. All this can result in missed scans, missing labels, or misplaced paperwork which in turn leads to unreliable or incomplete data. Furthermore the need to replace “lost” reusable containers can be costly, resulting in hundreds of thousands if not millions of dollars. It’s clear that without an effective tracking system able to control the movement of containers both outgoing and incoming, any expected ROI is greatly diminished or eliminated.

Reference Links
Global Guideline for Reusable Containers
http://www.prweb.com/releases/AIAG/09/prweb4591874.htm
Returnable Plastic Container in Food Warehouse

Intermec Solution
Intermec solves the challenge of deploying a robust and flexible tracking system.

Working with customers in the automotive as well as food manufacturing industries, Intermec extensively tested both label adhesion and durability as well as RF and total system performance. Valuable field data was obtained which resulted in the confirmation of a successfully co-engineered total solution of printers, media, and interrogation hardware. With Intermec antennas, IF61 readers, PM43 printers, and RFID Smart Labels, effective end-to-end container management systems can be easily implemented in a variety of industries resulting in a quick, reliable ROI.

For RFID labels to be effectively deployed in container management and tracking, they must provide robust adhesion to containers molded from HDPE, LDPE, and other common materials. Intermec Media’s extensive library of label construction and adhesive components provide a core competency in designing smart labels specifically for harsh and demanding environments. This can include handling near wash down areas, stacking in staging areas, and continuous warehouse traffic 24/7.

The end result: On-demand flexible RFID labels for application on reusable containers that provide asset visibility to effectively track and account for containers throughout the supply chain regardless of the environment.
Printed Texts:

### Media Solutions for RFID Tote Labeling

<table>
<thead>
<tr>
<th>Material</th>
<th>Durability</th>
<th>Temp. Range</th>
<th>Industrial Printers</th>
<th>Desktop Printers</th>
<th>Leading Stock Ribbons</th>
</tr>
</thead>
<tbody>
<tr>
<td>INdible HP INtegrated RFID Label</td>
<td>Best; superior abrasion, moisture, and chemical resistance.</td>
<td>50F minimum application, -40 to 185F operating temperature</td>
<td>4x2&quot; (LR00245)</td>
<td>Custom</td>
<td>TMX3000 series: 4.1x18,000&quot; (13634118, C5)</td>
</tr>
</tbody>
</table>

#### Printer Recommendation

**PM43 RFID Printer**

**Profile**

**Ready** – Fastest to deploy. Seamlessly fits any environment.
- Large color multi-lingual tamper proof touch-screen or icon user interface
- No touch configuration capabilities
- Only CCX & WiFi certified fixed printers with standard IPv6 implementation

**Reliable** – Maximize uptime. Built from 40 years of printing innovations. 3rd generation platform.
- Precision Print for consistent bar code printing with pin point accuracy
- Multilingual Web page loaded on every printer ensures easy device monitoring
- Strong metal structure with metal door that can be locked for media protection

**Perform** – Increase productivity and process efficiencies.
- Fastest throughput in its class
- Powerful programmable capability with ability to directly connect peripherals
- Most connectivity options in the market

#### Reader Recommendation

**IF61 Profile**

**The Intermec Advantage**

Through the use of Intermec’s total system solution that includes RFID printers and durable print on demand Smart Labels, container management and replacement costs are greatly reduced resulting in a positive impact to the bottom line.

Intermec RFID printers and INtegrated RFID Labels are optimized to deliver superior performance when used together. Our rigorous testing and co-engineering ensures consistently high print quality, proven label and tag performance in demanding real-world environments, and maximum print head service life for minimal downtime.

Intermec printers and media are complemented by the industry’s only complete line of integrated solutions and services, including rugged mobile computers, advanced scanning technology, RFID systems, and RFIDeploySM Services. Intermec products and services are used by customers worldwide to improve the productivity, quality and responsiveness of warehouse business operations.

#### Printhead Replacement Program

Intermec will provide no cost replacement printheads, as failures occur due to normal wear and tear, to those customers who use Intermec Media Products exclusively with their Intermec direct thermal and thermal transfer fixed printers. For full details, click [here](#).

#### For more information

Contact Intermec for more information on RFID solutions tailored to your application or industry needs.