Industry Need
The metal manufacturing industry has a number of unique challenges in tracking products. With significant inventories of high value items, accurately identifying products (often by multiple factors such as dimensions, grade, processing and finishing conditions) is critical. However, harsh processing and storage environments place significant stresses on labeling and tagging media, undermining the integrity of product identification. Without functional product marking, companies cannot realize the compelling accuracy and efficiency improvements that auto-ID technologies offer.

Operating and service conditions in this industry create a number of significant challenges for conventional labeling and tagging. For metals retaining high temperatures after casting or processing, products need to be marked with labels or tags as early as possible in the cooling process to minimize opportunity for misidentification, but the heat can melt many common materials. Highly textured surfaces on cast items present a difficult adhesion surface for common labels, making these products hard to mark. Rough handling of bundled items can smudge ID tags beyond recognition or tear them away completely. Long term outdoor storage can erode or degrade labels, tags, or handwritten ID, rendering them difficult or impossible to decipher. Adding to the difficulty, high value products such as coils, bar stock, billets, or ingots may require a cleanly removable adhesive to eliminate contamination of end user processes, labor-intensive cleaning processes, or scrapping the labeled segment.

Intermec Solution
There is a wide range of applications in the metal manufacturing industry, with tailored Intermec media product solutions for each.

• For short term outdoor tracking, Duratran S labels endure exposure to oils and common treatments, and will survive for 6 months or more of outdoor storage.
• For longer term traceability, Duratran Pro labels readily survive chemical exposure and one year or more of outdoor exposure. For high value items, removable adhesive options offer removability without residue on common surfaces. To further simplify labeling tasks for workers wearing bulky gloves, Intermec Duratran Pro labels can be run in peel/self-strip mode.
• For rugged bundle tagging, Duratran Pro tags provide maximum tear strength without requiring reinforcement. For more cost-sensitive applications, Duratran Synthetic tags offer a more economical price point while maintaining good durability. Both products readily endure a year or more of all-season outdoor exposure.
• For high temperature labeling, INdelible labels offer high heat resistance (tested to 450F), and maintain extreme abrasion resistance and long term outdoor durability (7 years or more).
• For challenging surfaces such as rusty, dirty or rough cast metals, INdelible HP labels develop a strong bond for reliable identification, even in long term outdoor storage.
• For high temperature tagging, INdelible Matte tags offer high heat resistance (tested to 480F) for reliable traceability.
Printer Recommendation

PM43 Industrial Printer ([Profile](#)) is built to protect the customer’s investment. It offers industrial reliability with drop in deployment capabilities and advanced connectivity to maximize uptime.

**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.**
- Strong metal structure with metal door that can be locked for media protection
- Precision Print for consistent bar code printing with pin point accuracy
- Multilingual Web page loaded on every printer ensures easy device monitoring

**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

PX4i Industrial High Performance Printer ([Profile](#)) delivers outstanding performance for high volume mission critical applications.

**Smart – Powerful smart-printing capabilities enable error-proof labeling and can simplify processes; All-in-one printer language abilities for drop-in simplicity**

**Strong – Superior throughput, designed to excel in demanding environments**

**Secure – Industry leading, advanced and secure network connectivity options**

The Intermec Advantage

In harsh metal manufacturing environments, rugged tracking hardware and supplies are essential for maximum up-time and reliable traceability. Intermec printers and media 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 reduced downtime.

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

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**Media Solutions for Metal Products Tracking**

<table>
<thead>
<tr>
<th>Application</th>
<th>Material</th>
<th>Durability</th>
<th>Service Temp. Range</th>
<th>Leading Stock Label Configurations</th>
<th>Leading Stock Ribbons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durable labeling</td>
<td>Duratran S labels</td>
<td>Good; 6 months outdoor</td>
<td>25F minimum application, -75 to 200F service</td>
<td>4x2 (E25742); 4x6 (E25743)</td>
<td>TMX1000 series: 4.17x18.000” (11034118); TMX2000 series: 4.09x18.024” (12234118)</td>
</tr>
<tr>
<td>Durable labeling</td>
<td>Duratran Pro labels</td>
<td>Better; 1 year + outdoor, self-strip compatible</td>
<td>45F minimum application, -65 to 200F service</td>
<td>3x1 (E02202); 3x5 (E02203); 4x2.5 (E02204); 4x6 (E03444); 4x6 removable (E09186)</td>
<td>TMX1000 series: 3x18.000” (112331018); 4.17x18.000” (11034118); TMX2000 series: 4.09x18.024” (32534118)</td>
</tr>
<tr>
<td>Durable tagging</td>
<td>Duratran Synthetic tags</td>
<td>Good; 1 year + outdoor</td>
<td>-60 to 200F service</td>
<td>4x6 with attachment hole (E23895)</td>
<td>TMX1000 series: 4.17x18.000” (11034118); TMX2000 series: 4.09x18.024” (32534118)</td>
</tr>
<tr>
<td>Durable tagging</td>
<td>Duratran Pro tags</td>
<td>Better; 1 year + outdoor</td>
<td>-70 to 180F service</td>
<td>4x6 with attachment hole (E12982)</td>
<td>TMX1000 series: 4.17x18.000” (11034118); TMX2000 series: 4.09x18.024” (32534118)</td>
</tr>
<tr>
<td>Extremely durable, high temperature labeling</td>
<td>Indelible labels</td>
<td>Best; 7 years + outdoor. Superior scratch, smudge, and chemical resistance.</td>
<td>50F minimum application, -40 to 302F service; evaluate up to 480F</td>
<td>3x1 (E23068); 3x2 (E23069); 4x1(E25732); 4x2 (E23222); 4x6 (E25733)</td>
<td>TMX3000 series: 3.27x12000” (13033132); 4.1x18.000” (13634118)</td>
</tr>
<tr>
<td>Extremely durable, high temperature, textured surface, labeling</td>
<td>Indelible HP labels</td>
<td>Best; 7 years + outdoor. Superior scratch, smudge, and chemical resistance.</td>
<td>50F minimum application, -40 to 302F service; evaluate up to 480F</td>
<td>3x1 (E27277)</td>
<td>TMX3000 series: 3.27x12000” (13033132); 4.1x18.000” (13634118)</td>
</tr>
<tr>
<td>High temperature tagging</td>
<td>Indelible Matte tags</td>
<td>Best; 1 year + outdoor. Superior scratch, smudge, and chemical resistance.</td>
<td>-40 to 302F service; evaluate up to 480F</td>
<td>Custom</td>
<td>TMX3000 series: 3.27x12000” (13033132); 4.1x18.000” (13634118)</td>
</tr>
</tbody>
</table>
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 improved traceability via on-demand rugged labeling and tagging in your metal products manufacturing enterprise.