Metalcraft's Foil 2D Dot is an ideal identification solution for small parts tracking.

The Foil 2D Dot excels in extreme conditions where abrasion and high temperatures may be an issue. The 2D DataMatrix ECC200 barcode symbology allows you to identify and track property as well as record calibration and maintenance information in one-tenth the space of traditional bar codes.

Features	Small size makes round metal tag unobtrusive Photo anodized aluminum resists abrasion, solvents, sun, salt, air and high temperatures DataMatrix symbology on round metal tag utilizes only one-tenth the space of traditional bar codes High redundancy in DataMatrix symbology means bar code will still read if as much as 60% of the image is destroyed
Product Print Options	Data Matrix . QR Code
Product Functionality	Abrasion Resistance . Chemical Resistance . Heat Resistance . UV/Outdoor Durability
Popular Applications	Audio / Visual . Inventory . Hospitals
Category	Medical . Military . Asset Tracking . Tool Tracking . Unique Item Identification (UID) . Metal Barcode Nameplates

What are some common applications for round metal tags?

Round metal tags can be used in a variety of applications, including:

- Asset Tracking: Aluminum round metal tags can be used to label and track assets such as equipment, machinery, and tools. These tags can be engraved or stamped with unique identifiers such as serial numbers or barcodes for easy identification and tracking.
- Inventory Control: Round metal tags can also be used to control inventory

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3360 9th St SW Mason City, IA 50401
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by marking items with identifying information such as part numbers or descriptions. This helps to keep track of inventory levels and reduce the risk of stockouts or overstocking.

- Identification: Aluminum round metal tags can be used for identification purposes, such as for pets, livestock, or even for people in some settings. These tags can be customized with names, phone numbers, or other identifying information for easy identification in case of loss or emergency.

Specifications Data

Material	**.003" thick matte anodized aluminum**
Serialization	All alphanumeric DataMatrix codes are photo imaged with a human-readable equivalent. Guaranteed no skips in sequence. Standard symbology is 2D DataMatrix ECC200, which includes the full set of ASCII characters. DataMatrix is a highly redundant bar code and is still readable if up to 60% of the bar code is destroyed.
Label Copy	The label copy may include bar code and human-readable equivalent.
Colors	Choose black copy with silver background or silver copy with black background.
Standard Adhesive	Pressure-sensitive acrylic adhesive
Sizes	.375" x .375"
Packaging	Shipped 100 per sheet. Cartons are clearly marked to indicate serial numbers of contents. Pressure-sensitive adhesive orders are shipped with application tool and instructions.
Shipment	10 business days

Chemical Testing

Chemical Test Data

Characteristics	Test conditions	Effect
Water/humidity		no effect
Salt spray	5% at 95°F, 700 hours	no effect
Ammonium hydroxide	2 hours at 1% and 5%	Slight dulling of image, affects overall readability
Ethyl alcohol		no effect
Ethyl acetate	24 hours	no effect
Ferric Chloride	10%, 16 hours	no effect
Heptane	72 hours	no effect
Hydrocarbon fluid		no effect
JP-4 Fuel		no effect
Kerosene		no effect
Methyl Ethyl Ketone		no effect
Nitric acid	1%, 40 hours	no effect
Phosphoric acid	1%, 40 hours	no effect
Skydrol		no effect
Sodium hydroxide		Affects overall readability
Sulfuric acid	10%, 24 hours	no effect
Turbine and jet fuel (MIL-L 5161C)	(MIL-L 5161C)	no effect
Tetra Sodium Pyrophosphate	1%, 40 hours	no effect
Trisodium Phosphate		no effect

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Destructive Testing

A label with an intensified image was tested in a weatherometer, 20 years equivalent; reduced overall readability after these thresholds

Destructive Test Data

Temperature Testing

A label with an intensified image was tested for 265 hours at 500°F, 90 hours at 600°F, 60 hours at 700°F; reduced overall readability after these thresholds

Temperature Test Data

Read Range Testing

Read Range Test Data

Barcode Readability Testing

Barcode Readability Test Data

Abrasion Testing

A plate with an intensified image was brushed for 7,000 cycles with stiff nylon wheel (C-17) at a 1,000 gm (16 ox.) load; reduced overall readability after these thresholds

Abrasion Test Data

Label Adhesion Testing

Label Adhesion Test Data

Pull Testing

Pull Test Data

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