



Round Metal Tags

PHOTO ANODIZED PRODUCT LINE

Metalcraft's Round Metal Tags are ideal identification solution for small parts tracking. The Round Metal Tag 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 barcodes.

Black copy, logos and barcodes are photographically reproduced for maximum clarity and detail and then sealed within the anodic layer of the aluminum - ensuring accurate and reliable reads for years to come. Optional second colors are digitally inkjet printed.

Material and Design Specifications

- 0.003" (0.077 mm) thick matte anodized aluminum is standard
- Various circle diameters are available
- 0.002" (0.051 mm) pressure-sensitive acrylic adhesive is standard
- Optional adhesive thicknesses range from 0.0008" (0.02 mm) to 0.005" (0.13 mm)
- Pressure-sensitive adhesive orders are shipped with a roller, cleaner and application instructions. Roller is recommended when applying nameplates

Installation Instructions

1. Clean the surface using Isopropyl alcohol, alcohol pad or equivalent solvent to ensure surface is free from dirt, dust, oil and misc. debris that may affect adhesion.
2. Handle the tag by edges, peel release liner from back ensuring not to touch the adhesive.
3. Place the tag in desired tagging location and firmly apply even pressure to the tag for 5 seconds.
4. Do not disturb the newly mounted tag for at least 72 hours to ensure proper adhesive sealing.

Key Features

- Small size makes round metal tag unobtrusive
- Photographically reproduced black copy, logos and barcodes ensure accurate and reliable reads
- Anodizing process protects black copy, logos and barcodes from chemicals, abrasion, and high temperatures.
- Optional intensification process increases heat resistance and improves the image resistance for other environmental conditions
- DataMatrix symbology on round metal tag utilizes only one-tenth the space of traditional barcodes
- High redundancy in DataMatrix symbology means barcode will still read if as much as 60% of the image is destroyed

Applications

- Asset Tracking
- Inventory Control
- Identification

Environmental Specifications

- Minimum Application Temperature -20 °F (-28.9 °C) or +50 °F (10 °F) - adhesive dependent
- Temperature Range: -65 °F to +500 °F (-53.9 to 260 °C) - adhesive dependent
- UV Resistance: Up to 20 years
- Chemical Resistance: Excellent resistance to solvents and oils, combustible and flammable chemicals and a wide variety of cleaners

Test Results

These tests were conducted for a limited period in strict laboratory conditions. To achieve maximum satisfaction, we highly recommend any customer considering use of this product test the tags in the environment in which they will be used.

Chemical Resistance: Round Metal Tags immersed in ambient room temperature conditions with inspection at time intervals noted below.

Characteristics	Test Conditions	Effect
Water/Humidity		NE
Salt Spray	5% at 95 °F, 700 hours	NE
Ammonium Hydroxide	2 hours at 1% and 5%	SD, AO
Ethyl alcohol		NE
Ethyl acetate	24 hours	NE
Ferric chloride	10%, 16 hours	NE
Heptane	72 hours	NE
Hydrocarbon fluid		NE
JP-4 Fuel		NE
Kerosene		NE
Methyl Ethyl Ketone		NE
Nitric acid	1%, 40 hours	NE
Phosphoric acid	1% 40 hours	NE
Skydrol		NE
Sodium hydroxide		AO
Sulfuric acid	10%, 24 hours	NE
Turbine and jet fuel (MIL-L 5161C)	(MIL-L 5161C)	NE
Tetra Sodium Pyrophosphate	1%, 40 hours	NE
Trisodium Phosphate		NE

Key: NE = No Effect, SD - Slight Dulling of Image, AO - Affects Overall Readability

Destructive Test Data		
Image Intensified	Weatherometer, 20 years equivalent	Reduced overall readability after these thresholds

Abrasion Test Data		
Image Intensified	Plates brushed for 7000 cycles with stiff nylon wheel (CS-17) at a 1000 gram (35.3 oz.) load	Reduced overall readability after these thresholds

Temperature Test Data		
Image Intensified	265 hours at 500 °F, 90 hours at 600 °F, 60 hours at 700 °F; reduced readability after these thresholds	Reduced overall readability after these thresholds

