

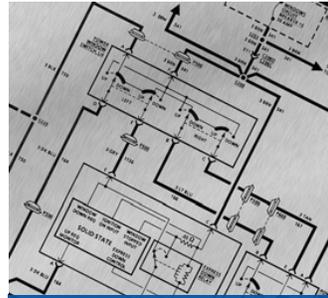


metalphoto®

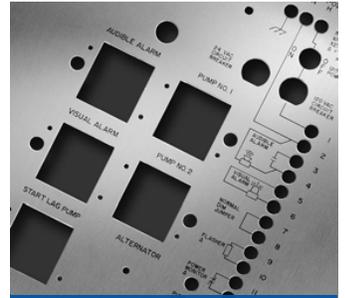
# RENEWABLE ENERGY



Nameplates /  
Barcode Labels



Service Diagrams /  
Schematics

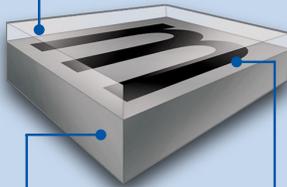


Machine  
Control Panels

## THE TECHNOLOGY:

### ANODIZED LAYER

The glass-clear, sapphire-hard anodized layer resists chemicals, paint, abrasion and dirt.



**ALUMINUM LAYER**  
The rigid aluminum base won't peel, crack or delaminate.

The image is absorbed into the pores.

## EXCEPTIONALLY DURABLE. WIDELY SPECIFIED. PHOTOGRAPHIC RESOLUTION.

For over 50 years, industrial and military engineers have specified Metalphoto photosensitive anodized aluminum for durable nameplates, barcode labels, service schematics and control panels installed in harsh operating environments. Metalphoto's proprietary technology permanently seals a UV-stable image inside of anodized aluminum, offering the **confidence of unparalleled durability, image resolution and barcode readability.**

Because of its ability to withstand a range of challenging environmental conditions, Metalphoto is recommended for rating plates, inspection barcodes, maintenance schematics and other exposed identification on solar, wind and hydroelectric energy systems. Metalphoto meets an array of energy specifications, including OSHA 1910.145, National Electric Code (NEC) Article 690, ANSI Z535.4 and ISO 3864. Designed for permanency, Metalphoto will not fade or need to be replaced. If replacement is desired, Metalphoto is 100% recyclable.

## PRODUCT BENEFITS

### EXCEPTIONALLY DURABLE:

- + UV-stable image is permanently sealed within the anodized aluminum.
- + Virtually impervious to chemicals, heat, abrasion, salt spray and sunlight.
- + Certified for 20 year plus outdoor application.
- + Earned more top scores than any other IUID barcode label material tested by the U.S. Navy (NSWC, Corona Division, IUID Center; August 2011).

### WIDELY SPECIFIED:

- + Meets a wide array of commercial, government and military specifications.
- + Notable certifications include: MIL-STD-130N, STANAG 2290, GGP-455B(3) Type I, MIL-DTL-15024F, MIL-P-19834B and A-A-50271 (several others listed on metalphoto.com)

### PHOTOGRAPHIC RESOLUTION:

- + Photographic image affords extreme detail and contrast at any size.
- + Anti-counterfeit security printing is available.



UV STABLE



ABRASION  
RESISTANT



TEMPERATURE  
RESISTANT



FLUID  
RESISTANT



RECYCLABLE

metalphoto®  
CERTIFIED CONVERTER  
2017-2018



ISO / AS 9100  
Registered



The Print Source, Inc.

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PERFORMANCE CHARACTERISTICS

Because of its ability to perform across a range of challenging environments, Metalphoto meets an array of government, industrial and military specifications. Visit [www.metalphoto.com](http://www.metalphoto.com) for a list of specifications for which Metalphoto is qualified.

CHARACTERISTIC	RESULT
Abrasion Resistance	No pronounced image loss, degradation or reduced readability after 7,000 cycles on an abrading wheel.
Acid Corrosion	No deterioration or image degradation after 24 hours in 3% nitric acid.
Heat Resistance	No legibility loss or degradation when subjected to 1,000°F.
Salt Spray Corrosion	No deleterious effect after a 720-hr salt spray (fog) test. 2,6 "Very Good" corrosion resistance after 113 days seawater exposure.
Accelerated Light and Weather Resistance	No pronounced deterioration of legibility after 400-hr carbon arc weatherometer exposure. (≈ 20+ year outdoor life)
Accelerated Oxygen Aging	No discoloration or fading after 96-hr/300 psi/ 70°C oxygen bomb aging
Stain Resistance	No black fading when plates are exposed to tincture of iodine.
Cleaning Resistance	No deleterious effects when tested with alkaline cleaners (MILC-87937 or equivalent) for aircraft surfaces.
Low Temperature Resistance	No deleterious effect or image fade after 1 hour at -50°F. No impairment of legibility upon exposure to -67°F.
Organic Solvent Resistance	No softening, staining or noticeable fade after 24-hr exposure to: JP-4 fuel, Gasoline, Mineral Spirits, Methyl Ethyl Ketone, Turpentine, Turbine & Jet Fuel, Kerosene, Xylo, Acetone, Toluol, Heptane, Trichlorethylene, MIL-H-5606 Hydraulic Fluid and MIL-L-7808 Jet Engine Oil.
Fungus Resistance	Visual reading of "0" per ASTM-G21.
Thermal Shock	No deterioration after 3 cycles between -65°C and 125°C
Moisture Resistance	No deterioration after 10 humidity cycles per MIL-STD-202, method 106.

TECHNICAL SPECIFICATIONS

**MATERIAL:** Anodized Aluminum Sheets

**THICKNESS:** .003", .005", .008", .012", .020", .032"

**FINISHES:**



**MATTE**  
non-reflective  
with dull finish



**SATIN**  
semi-gloss medium  
reflective material



**GLOSS**  
highly reflective,  
mirror-like

