

Aluminum

THE ALUMINUM ADVANTAGE

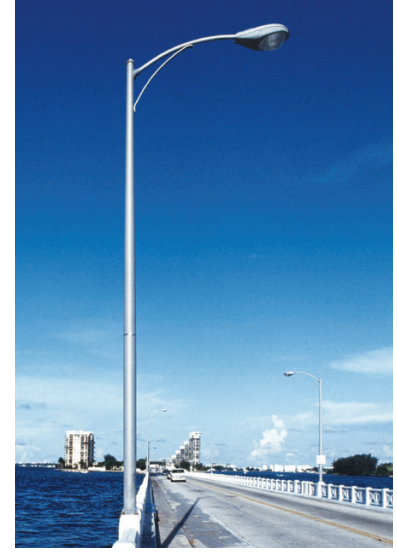




HAPCO ALUMINUM...Proven Performance

Hapco standard and decorative aluminum products are used in various applications in the Commercial, Utility, Municipality, and Department of Transportation markets. For over 60 years, Hapco has been considered a leader in the light pole industry and has products in every state of the US, Puerto Rico, and several international countries. Our history of proven performance, coupled with our exclusive Lifetime Warranty on aluminum pole assemblies, make Hapco the trusted industry source.

A partial listing of Hapco customers is provided below.



Proven Performance
Venetian Causeway, Miami, FL, Installed Circa 1951

Utility

Alabama Power
Alliant Energy
American Electric Power
Austin Energy
Baltimore Gas & Electric
Bristol Tennessee Essential Services
Bristol Virginia Utilities
Brownstown Electric
Chattanooga Power Board
Colorado Springs Utility
Consumers Energy
Dayton Power & Light
Detroit Edison
Dominion Power
Duke Energy
Electric Services
Entergy
Excel
First Energy
Harrisonburg Electric Commission
Huntsville Utilities
Indiana Power & Light
Indianapolis Power & Light
Jackson Electric Authority
Johnson City Power Board
Kentucky Utilities
Knoxville Utility Board
Louisville Gas & Electric
Mississippi Power Company
Nashville Electric Commission
National Grid
Niagara Mohawk
Northeast Utilities
Ocala Utilities Board
Orlando Utilities Commission
Pacific Gas & Electric
Progress Energy
PSE & G
Public Services of New Mexico
Puget Sound Energy
South Carolina Electric & Gas
Southern Company
Tampa Electric Company
Virginia Tech Electric

Light Fixture Manufacturers

Cooper
GE Lighting
Holophane
Hubbell
Lithonia

Department of Transportation

Alabama
Arizona
California
Colorado
Connecticut
Florida
Georgia
Hawaii
Illinois
Indiana
Kansas
Kentucky
Louisiana
Maine
Massachusetts
Michigan
Minnesota
Mississippi
Nevada
New Jersey
New Mexico
New York
North Carolina
Ohio
Oregon
Pennsylvania
Rhode Island
South Carolina
Tennessee
Texas
Virginia
Wisconsin

Municipalities

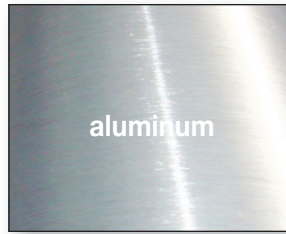
Albuquerque, New Mexico
Atlanta, Georgia
Austin, Texas
Baltimore, Maryland
Birmingham, Alabama
Champagne, Illinois
Charleston, South Carolina
Chattanooga, Tennessee
Chicago, Illinois
College Station, Texas
Colorado Springs, Colorado
Columbus, Ohio
Dayton, Ohio
Des Moines, Iowa
Eau Claire, Wisconsin
Fargo, North Dakota
Fort Wayne, Indiana
Grand Forks, North Dakota
Greenville, South Carolina
Gulfport, Mississippi
Huntsville, Alabama
Indianapolis, Indiana
Jacksonville, Florida
Kansas City, Kansas/Missouri
Knoxville, Tennessee
Las Cruces, New Mexico
Lexington, Kentucky
Louisville, Kentucky
Madison, Wisconsin
Milwaukee, Wisconsin
Minneapolis, Minnesota
Mobile, Alabama
Nashville, Tennessee
New York, New York
Ocala, Florida
Ogden, Utah
Orlando, Florida
Park City, Utah
Pensacola, Florida
Philadelphia, Pennsylvania
Savannah, Georgia
Seattle, Washington
Tacoma, Washington
Tampa, Florida
Numerous Co-Ops and
Metered Municipalities

Military Bases

Brookley AFB
Camp Lejeune
Elgin AFB
Fort Benning
Fort Bliss
Fort Bragg
Fort Campbell
Fort Carson
Fort Drum
Fort Gordon
Fort Huachuca
Fort Jackson
Fort Lee
Fort Riley
Fort Rucker
Fort Sill
Fort Stewart
Grand Forks AFB
Kings Bay Naval Base
MacDill AFB
White Sands Missile Base

Corrosion Resistant

Aluminum is naturally resistant to corrosion and may be left unpainted. On contact with air it forms a resistant layer of aluminum oxide that guards against corrosion. Hapco round poles are constructed of aluminum alloy 6063, a marine grade alloy also used in the manufacture of boat hulls. This alloy exhibits extremely high resistance to corrosion when compared to ferrous-based products. 6063 is highly weldable and Hapco heat treats the material to obtain a T6 temper, adding strength to the pole.



Lightweight

Aluminum is lightweight, allowing for easier installation than steel which provides savings in both labor and equipment. In fact, aluminum is approximately one-third the weight of steel, making it much easier to handle and less expensive to ship. Aluminum has a high strength-to-weight ratio. Pound for pound, it is stronger than steel.



Durable

Aluminum light poles have been in use for over 60 years, and many of the original installations are still in service without structural problems or noticeable difference in appearance. The fact that aluminum is maintenance-free allows it to be a tremendous value when the overall cost of pole ownership is considered.

Flexible Design

Aluminum is used in breakaway designs, offering greater breakaway safety.

Hapco is an industry leader in breakaway provisions and design, offering the following Federal Highway Administration (FHWA) accepted breakaway devices:

- **Anchor Base** – Saves installation and hardware costs and improves aesthetics. *Anchor bases cannot be used with steel.*
- **Couplings** - Widely used.
- **X-Base** (*unique to Hapco*) – Saves installation and hardware costs and improves aesthetics. *X-Bases cannot be used with steel.*
- **Transformer Base “T-Base”** – Industry standard and widely used.
- **Direct Buried Poles** (*unique to Hapco*) – Direct buried poles can provide significant savings, eliminating the need for the foundation, base, and hardware. Aluminum poles are used in direct buried applications throughout the country, having over 60 years of successful installations. *Cannot be offered with steel.*
- **Decorative Bases** – Hapco currently offers more FHWA accepted Decorative products than any other manufacturer, including several direct buried applications (*unique to Hapco*). Savings result from the elimination of couplings and skirts and foundations on direct buried poles, and result in dramatically improved aesthetics.

Easy to Clean, Including Graffiti

Satin finished poles can be treated with solvents or sanded to remove unwanted paint without compromising the corrosive resistance or the finish.



Valuable

Aluminum offers significantly higher scrap value than steel, allowing a return on investment in the event of a knock down. The scrap value of aluminum is more than ten times that of steel.

The “Green” Choice

Aluminum provides an environmentally responsible choice of material and approach within the burgeoning green movement. It is the most abundant mineral in the earth’s crust, and unlike the galvanization process of steel which emits zinc chloride and ammonium chloride into the atmosphere, has a low impact on the environment. Aluminum is 100% recyclable and can be recycled without losing any of its superior characteristics or integrity, making it appealing from both environmental and economic criteria. Simply put, Aluminum never has to be thrown away, has an incredibly long life cycle, and allows specifiers to aggressively pursue a design that will be based upon sustainable principles.



Lead Times

Hapco can provide industry-leading lead times on aluminum poles. One of Hapco’s main suppliers of extrusions is located within 20 miles, allowing for quick delivery of material. Our state-of-the-art machinery and manufacturing principles dedicated to efficiency allow Hapco to be the industry leader in lead times. All aspects of manufacture (*tapering, welding, drilling, heat treating, fluting, powder coating*) are done in house (*with the exception of castings and anodizing*) eliminating the need for outsourcing. The result is tremendous time and cost savings. Quicker lead times can ease stocking requirements as well as ensure faster replacement of knockdowns.

Durable Powder Coating

Hapco uses Super Durable Thermoset Powder Coating as the standard for all powder coated poles. Super Durable is designed specifically for architectural applications where color and gloss retention is critical. The American Architectural Manufacturers Association (AAMA) provides classifications for powder coating.

These specifications have been widely recognized as the standards for powder coating.

AAMA classifies Super Durable Powder as AAMA 2604. Super Durable Powder is formulated with advanced polyester resin technology that utilizes higher performance pigments, providing superior gloss and color retention over the powder coating that many manufacturers use as their standard (AAMA 2603).

Powder Coating is compliant with environmental regulations without the release of Volatile Organic Compounds (VOC’s), as opposed to liquid paints which must contain solvents. Liquid paints release VOC’s into the atmosphere, contributing to pollution. Additionally, there is no hazardous waste from the powder coating process.

AASHTO Approved

With the in-house Design Engineering team, Hapco will assist in the design of poles. Maximizing project funds is essential. For this reason, it is important to utilize materials properly. Selecting the precise pole for a project may result in significant savings. The Hapco engineering team can design and manufacture poles to AASHTO specifications or applicable local building codes.

All Hapco poles are designed to American Association of State Highway & Transportation Officials (AASHTO) standards. Not all manufacturers design to AASHTO, which is conservative by nature. Hapco also meets applicable material ASTM standards. All welders are American Welding Society (AWS) certified.



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Proudly Supporting Our Industry...

American Welding Society
AWS D1.2 Committee

American Association of State Highway
and Transportation Officials
AASHTO NCHRP

National Electrical Manufacturers Society
NEMA ANSI C136
Accredited Standards Committee

