



*Components Marketing
& Sales Operation*



**Lamp Components
& Materials**

***Whatever you need
for lamp making...
including our
experience!***

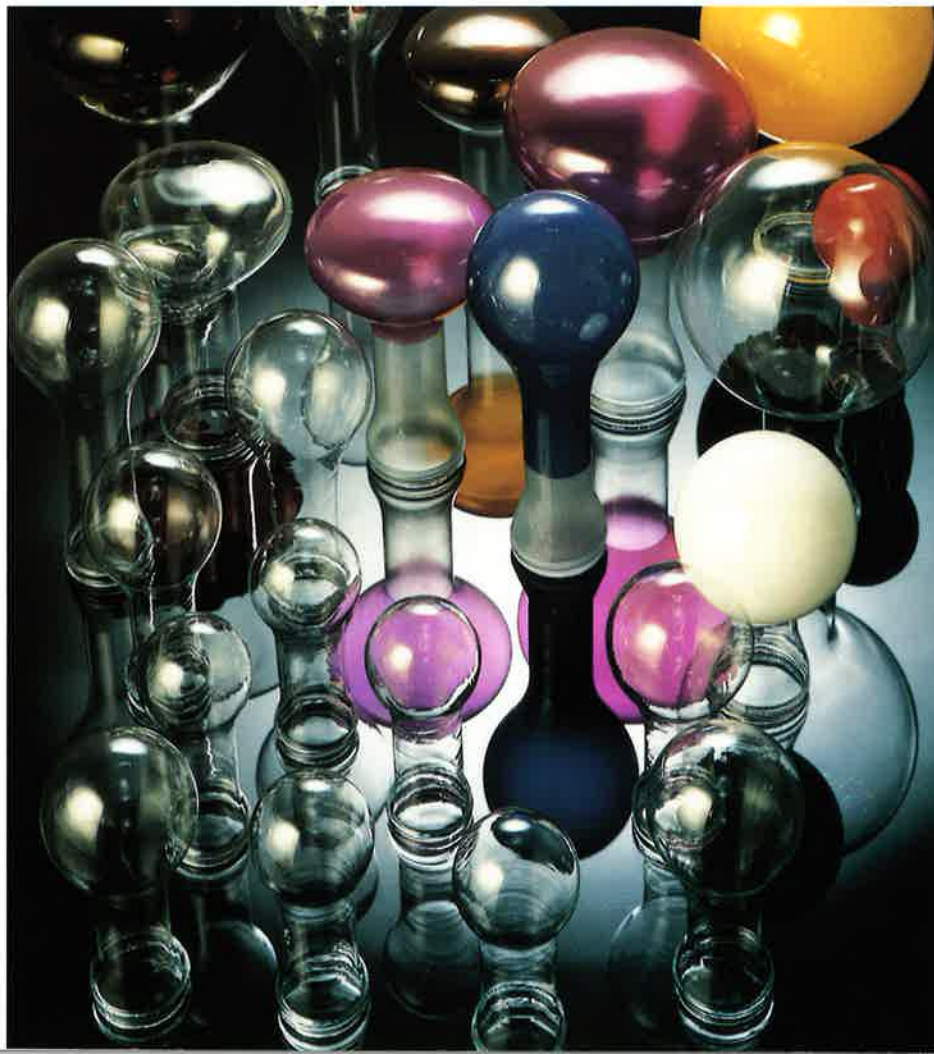
Lamp makers around the world depend on GE to provide the special materials, parts and assemblies that go into many of their lighting products.

GE offers a wide and varied selection of these components. But we're much more than just a supplier.

As one of the world's leading lamp makers, we can contribute engineering and manufacturing knowledge based on many years of experience in producing high

Incandescent lamps in both the medium and larger mogul sizes represent the largest market for the products we supply to lamp manufacturers. In this category, we include lamps between 19mm and 159mm in diameter.

Incandescent



A wide variety of ribbon bulb blanks are furnished to other lamp makers by General Electric Company.

Glass exhaust and flare tubing is available in diameters from 2.16mm to 9.1mm.

Medium screw and mogul screw lamp bases are available regular and skirted.

quality lamp materials and components. In addition, highly qualified engineering personnel are available at GE to provide the technical assistance you need for these products.

We work closely with you to determine the materials, components and modifications most appropriate for your application, and assist in adapting our products to your manufacturing operations.

And, of course, there's our quality tradition. Every product GE

makes meets stringent quality standards, whether it's destined for our plant or yours.

On these pages, we have pictured and listed the parts and materials that are most in demand by the lighting industry. But the list is by no means complete. If you have a special requirement, please give us a call.

Products available include:

- Arbors
- Base Etching Fluids
- Brazing Powders
- Dumet Wire
- Exhaust Tubing
- Flare Tubing
- Formed Metal Parts

- Glass Molded Flares
- Hard Glass Bulbs
- Glass Rod
- Medium and Mogul Bases
- Leads—One, Two, Three and Four Part
- Molybdenum Wire & Support Parts
- Molybdenum Mandrels
- Monogram Inks

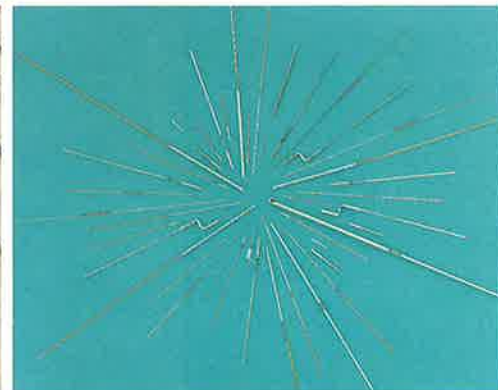
- Ribbon Bulbs
- Soldering Fluxes
- Sphere Paints
- Tungsten Filaments
- Tungsten Wire & Wire Parts
- Vacuum Metallizing Wire
- Vacuum Metallizing Coils



GE supplies a variety of wire products to the lamp industry. The red wire is Dumet, used for lime glass sealing applications. Also shown are nickel plated Dumet and several sizes of tungsten wire, the latter used for making lamp filaments.



Tungsten filaments are supplied standard or manufactured to your specification. Molybdenum support wire is available either in standard shapes or formed to specifications.



Our product line includes one-part straight leads as well as welded two, three and four-part straight lead wires or with hooked or formed inner sections.

Fluorescent

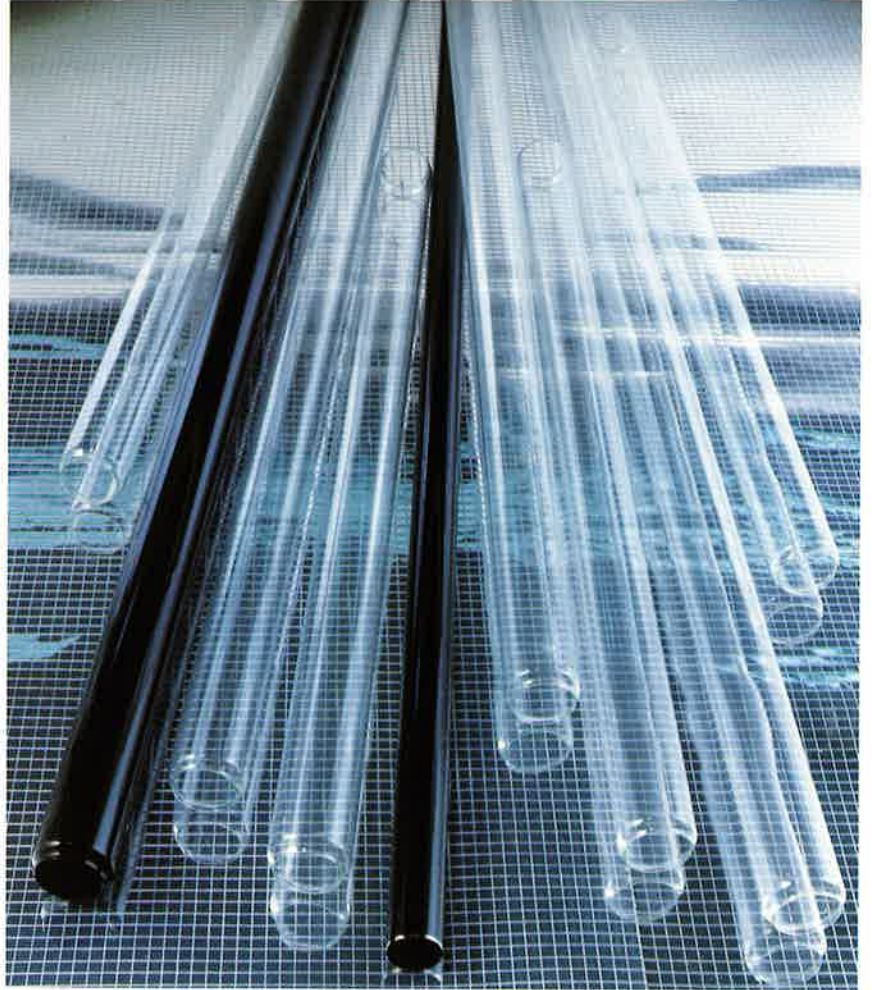
For manufacturers of fluorescent lighting, GE supplies formed end tubing up to 2.4 meters in length as well as popular sizes of germicidal and blacklight tubing.

Fluorescent bases, including pinless, single-pin, bi-pin, recessed double-contact and Circline are also available in various sizes.

Our complete line of phosphors, intermediate chemicals and other specialty lamp chemicals enables manufacturers to control coloration of fluorescent lighting with a high degree of precision.

Available fluorescent lamp components and materials include:

- Anode Wire
- Circline Discs
- Collars
- Exhaust Tubing
- Flare Tubing
- Formed End Tubing
- Germicidal & Blacklight Tubing
- Heat Reflectors
- High Purity Chemicals
- Lamp Bases
- Lead Wires
- Molybdenum Mandrels
- Molybdenum Wire & Wire Parts
- Monogram Inks
- Phosphors
- Tungsten Cathodes
- Tungsten Wire & Wire Parts
- Shields
- Soldering Fluxes
- Sphere Paints



Clear, germicidal and blacklight fluorescent tubing is available from GE.



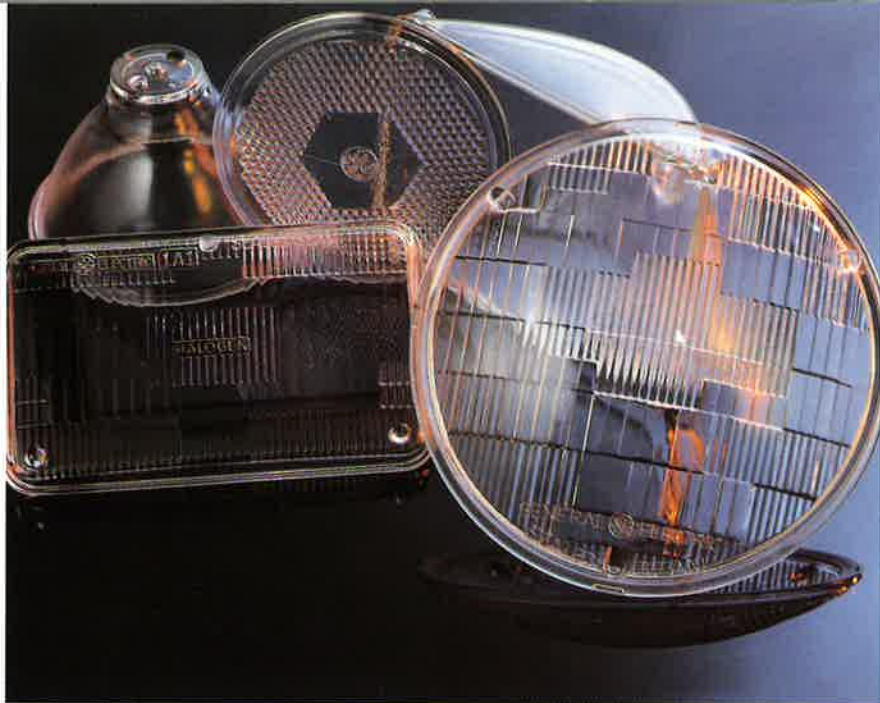
Bases and metal parts.

Fluorescent cathodes



Lamp phosphors.





Lenses and reflectors for sealed beam and other types of reflector lamps are made of pressed glass.

Skirted medium screw bases with a choice of domestic or international threads are available for PAR lamps.



Reflector & Sealed Beam

Pressed glass reflectors and lenses in a size range of 88.9mm to 203.2mm in diameter are supplied to makers of automotive headlamp and other types of reflector lamps.

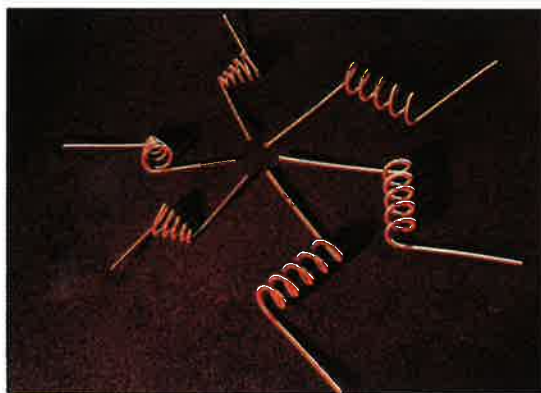
Specific parts available for these lamps include:

- Blown Glass Reflector Bulbs
- Brazing Pellets/Powder
- Cut One Piece Straights

- Eyelets
- Exhaust Tubing
- Ferrules
- Glass for Bridges
- Welded Lead Wires
- Lugs
- Molybdenum Mandrels
- Molybdenum Wire & Wire Parts
- Monogram Inks
- Pressed Glass Lenses
- Pressed Glass Reflectors
- Shields
- Skirted & Unskirted Lamp Bases
- Soldering Fluxes
- Sphere Paints
- Stained Glass Lenses
- Tungsten Filaments
- Tungsten and Molybdenum Straights
- Tungsten Wire & Wire Parts
- Vacuum Metallizing Coils
- Vacuum Metallizing Wire



GE makes a wide variety of metal parts for automotive lighting applications.



Vacuum metallizing coils specifically designed for lamp applications are available in standard shapes or formed to customer specifications.

High Intensity Discharge

GE makes a variety of parts and materials for high performance mercury lamps, metal halide lamps and high pressure sodium lamps.

- Aluminosilicate Glass
- Butt Welds
- Dumet Wire & Wire Parts
- Flare & Exhaust Tubing
- Formed Wire & Metal Parts
- Fused Quartz Arc Tubing
- Fused Quartz Lamp Envelopes
- Halide Gas Fill Mixes
- Hard Glass Blown Bulbs
- High Temperature Bases
- Lucalox® Ceramic Tubing, Bushings and Discs
- Medium and Mogul Screw Bases
- Molybdenum Wire and Wire Parts
- Monogram Inks
- Phosphors
- Plastic High Temperature Insulator Parts
- Platinum-Clad Molybdenum Wire and Ribbon
- Thoriated Tungsten Shanks
- Tungsten Shanks
- Tungsten Wire and Wire Parts
- Soldering Fluxes



Some of the parts supplied by the Components Marketing & Sales Operation for high intensity discharge lighting products.

Projection, Photoflash & Display

Lamps used in these applications provide very precise lighting characteristics. That's why many makers depend on GE for the majority of their parts. They include pressed glass reflectors with a variety of reflective patterns, and a number of specialty chemicals, lead wire configurations and metal parts. They include:

- Base Cements
- Brazing Pellets
- Butt Welds
- Exhaust Tubing
- Flare Tubing
- Fused Quartz Rod
- Fused Quartz Tubing
- Glass for Bridges
- Halogen Lamp Filament Wire
- Hard Glass Blown Bulbs
- Ink Thinners
- Lacquers
- Lamp Bases Including High Temperature Bases
- Molybdenum Foil Leads
- Molybdenum Mandrel Ribbon
- Molybdenum Reflectors
- Molybdenum Space Leads
- Molybdenum Mandrels
- Molybdenum Wire & Wire Parts
- Monogram Inks
- Nickel-Plated Dumet
- Pressed Glass Reflectors
- Platinum-Clad Molybdenum Wire & Ribbon
- Ribbon Bulbs
- Ribbon T Bulbs
- Shellac Sprays
- Silicon Suspension Sprays
- Soldering Fluxes
- Soft Glass Blown Bulbs
- Stem Tubing
- Tungsten Wire & Wire Parts
- Tungsten Filaments
- Tungsten Reflectors
- Vacuum Metallizing Coils



The patterns on these reflectors provide the specific lighting characteristics needed for many display and advertising applications.



Projection lamps are another special variety of lighting that requires precise, high quality parts and materials.



Bases, ribbon blown bulbs, flare and exhaust tubing for miniature and subminiature lamps.

Miniature & Subminiature

Illumination for dials, indicators and signals require an endless variety of miniature and sub-miniature lamps.

Subminiature lamps are usually classed as those between 1.5 and 21 volts, and in bulb diameters less than 4.8mm. Miniature lamps are in the same voltage class, but up to 19mm diameter. Glass halogen lamps, while applicable to a wide variety of lamp categories, are also grouped under miniature lamps. Another product in this category are gas-filled miniature glow lamps.

Among the parts and materials which GE supplies to this market are:

- Aluminosilicate Glass
- Base Etching Fluids
- Bulb Blowing Tubing
- Candelabra Bayonet, Single & Double-Contact Bases
- Candelabra Screw Bases
- Dumet Wire
- Exhaust Tubing
- Filament Wire
- Flare Tubing
- Fused Quartz Tubing
- Lacquers
- Lead Wires and Assemblies
- Metal & Plastic Bi-Pin Bases
- Miniature Bayonet Bases
- Miniature Flanged Bases
- Miniature Screw Bases
- Molybdenum Mandrels
- Molybdenum Wire & Wire Parts
- Monogram Inks
- Nickel-Plated Dumet
- Plastic Wedge Base Sockets
- Ribbon Blown Bulbs
- Shellac Sprays
- Soldering Fluxes
- Telephone & Slide Bases
- Top Tubing
- Tungsten Filaments
- Tungsten Wire & Wire Parts

Other Types Of Lighting

Many of the parts and materials listed under the various categories of lamps are also used in other applications. For instance, infrared heating lamps, stage and studio lighting, tungsten halogen lamps, backlights and flood lights for signs, and decorative lighting of many types are also important users of GE parts and materials. Some of the parts we supply to these markets include:

- Aluminosilicate Glass
- Blown Glass Outer Jackets
- Candelabra Screw Bases
- Coded Bulb Blanks
- Dumet Wire
- EL Phosphors
- Exhaust Tubing
- Ferrules
- Flange Tubing
- Formed Metal Parts
- Fused Quartz Lamp Envelopes
- Fused Quartz Tubing
- Halide Gas Fill Mixes
- Hard Glass Bulbs
- Heat Discs
- High Temperature Bases
- Lead Wires
- Lugs
- Lumiline Lamp Tubing
- Lumiline Terminals
- Medium Screw Bases
- Miniature Screw Bases
- Mogul Screw Bases
- Molybdenum Foil Leads
- Molybdenum Formed Parts
- Molybdenum Ribbon
- Molybdenum Mandrels
- Molybdenum Wire & Wire Parts
- Monogram Inks
- Plastic Fluorescent Lamp Hoods, Brackets, Fixture Parts
- Pressed Glass Lenses
- Pressed Glass Reflectors
- Ribbon Blown Bulbs
- Soldering Fluxes
- Tungsten Filaments
- Tungsten Formed Parts
- Tungsten Ribbon
- Tungsten Straight Cut Pieces
- Tungsten Wire



We maintain high operating efficiency in our manufacturing plants with state-of-the-art equipment like this new automatic stamping press.



On our scanning electron microscope, the microstructures of such materials as tungsten, molybdenum and phosphors are studied at magnifications of up to 10,000 times.

In Step With A Quality Tradition

When you select GE as your supplier of lamp materials and parts, you benefit fully from our lamp components experience, in-depth engineering, and the

stringent quality control we demand for every part we make.

Production operations are geared to high speeds and large volumes, but we never compromise on quality.

Statistical process control is utilized to keep our products within specification...from the beginning of our operations to final inspection.

How to Order

For more information on the lamp parts and materials featured in this catalog, contact GE Components Marketing and Sales Operation, at the appropriate address shown below.

Because of the special characteristics of many of these products, production is closely controlled to assure the highest quality and optimum performance. Products are available in standard forms...specialized

products can be custom designed to meet your requirements. In fact, GE welcomes the opportunity to develop new applications or otherwise assist you in utilizing its lamp parts and materials.

Domestic

GE Components
Marketing & Sales
Operation
21800 Tungsten Road
Cleveland Ohio 44117
Phone: (216) 266-2451
Fax: (216) 266-3372

International

GE Components
Marketing & Sales
Operation
International Sales
21800 Tungsten Road
Cleveland, Ohio 44117
Telex: 256612
(GELCS UR)
Phone: (216) 266-3295
Fax: (216) 266-3372

GE Components Marketing & Sales Operation is the source for tungsten, molybdenum, glass, Lucalox® ceramic, phosphors, chemicals, Dumet and Cumet wire, EDM wire, leads, bases and other components used by the lamp, electronic, cemented carbide, and other industries. Technical and engineering assistance is available on all products. For more information contact:


Europe

GENERAL ELECTRIC
Components Marketing & Sales Oper.
21a High Street East, Uppingham
Leicestershire LE15 9PY, England

Telef: 0572-823748/9

Telex: 34362 (GELCOS)

Telefax: 0572-823836

 is a registered trademark of General Electric Company, U.S.A. General Electric Company, U.S.A., is not connected with General Electric Company p.l.c.



***Components Marketing
& Sales Operation***