

ELF Filaments

Pioneer in Metallizing coils, Tungsten lamp Filaments & Drawn wires

Company Profile and Product Catalogue

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USA Office

ELF Filament Industries Pvt.Ltd. has been exporting Vacuum Metallizing Coils and other tungsten products to many Companies, out of which some global players are Philips, Thomson, Panasonic, Osram Groups in the American Continent. The sales operations in U.S.A., CANADA, MEXICO and BRAZIL are looked after by Mr. Frank Adams from Mentor Ohio.

Mr. Frank Adams is an authority in the field of tungsten molybdenum metals and has been associated with this field in a career spanning over 5 decades. He retired as Program Manager for Tungsten & Molybdenum products from GE Ohio U.S.A. after graceful service of over 3 decades.

Mr. Frank Adams has been associated with ELF Filaments for more than a decade

About Mr Frank Adams

Graduated from the university OF Wisconsin with a Bachelor of Science degree in Metallurgical Engineering

* Started General Electric Career in 1942

Product Engineer for Colombium and Tantalum metal products.

Process Engineering Supervisor for Tungsten (W) and Molybdenum (Mo) wire.

Developed new or improved processing methods. Supervisor of fabrication section which fabricated W or Mo sheet, wire and powder metallurgy components for GE lamp or external customer applications.

Senior quality Liason Engineer for W wire used by GE plants and external customer.

Senior Application Engineer for W, Mo, Dumet and Cumet wire products.

Assisted customers throughout the U.S., Europe and Asia in revolving process and quality problems when using GE wire products.

Program manager for Tungsten and Molybdenum plants. Required implementation of program related to improving process efficiency or product quality.

Managed a program to redesign the process and the equipment for Tungsten wire to achieve a 40% increase in labour efficiency.

*Retired April 1993 -Currently a consultant to General Electric.



India Office

Head Office & Factory Address:

E.L.F. Filament Industries Pvt. Ltd.
Plot No. 11,12 & 18,
Electronic Co-operative Estate Ltd.
Satara Road, Pune, 411 009 , Pune,India
Tel: 91 20 24227182 91 20 24221094
Fax: 91 20 24227794
Email: sales@elffilaments.com

U.S.A Office

Mr. Frank Adams

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Liason Office for North India

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Metallizing Coils



Our Strength

E.L.F. FILAMENTS is a Pioneer in the field of Tungsten & Molybdenum Metallizing Coils of different shapes, sizes and cores.

E.L.F. FILAMENTS manufactures coils to suit different intricate sizes and shapes of reflectors used in Lighting, Automotive, Color Picture Tube (CPT) & Cathode Ray Tube (CRT) manufacturing industries.

We are equipped with the state of art annealing facility with reducing atmosphere furnaces upto 1900° C.

Types of Drawn Wires

- a) Vertical Metallizing coils
- b) Horizontal Vapourizing coils
- c) Helical Flashing coils
- d) Overwrap Tungsten coils

Specifications :

Diameter : 0.5 to 2.0 mm

Length : upto 500 mm

Tolerance : 0.2 mm

Finish : Black / Clean

For customized requirments email to sales@elffilaments.com

Installed Capacity

- a) Metallizing coils : 21.6 Tons per year (1.8 Tons per month)

Applications :

- 1) Evaporator Heaters - CPT, CRT Aluminizing
- 2) Tungsten Heater Coils - Automobile Head Lamp Reflector
- 3) Vapourising Coils - Reflector Lamps & other coated lamps
- 4) Tungsten Coils - Compact Disc Aluminizing
- 5) Vacuum Metallizing Coils - General Metallizing, such as toys, trophies, and decorative parts

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Black Wire for Redrawing



Our Strength

E.L.F. FILAMENTS is a Pioneer in Tungsten & Molybdenum wire redrawing

Our wire drawing section is equipped with following facilities :-

- 1) In-house design center
- 2) State of art R & D Facility
- 3) Heavy size wire drawing machines
- 4) Single and multi draw machines
- 5) Microprocessor based tensile strength testing machines
- 6) High accuracy torsion weighing balances
- 7) Shadow Graphers
- 8) 2000° C Inert atmosphere annealing furnaces

Installed Capacity

- 1) Heavy Size 21.8 Tons per year
- 2) Fine Size 2.0 Tons per year

Specifications :

Wire Diameter :- 0.015mm to 2.5mm

Material :- Tungsten / molybdenum

Camber :- upto 15mm

Packing :- Plastic spooled self contained coils

Applications :

Tungsten wire

- 1) Filaments for automotive lamps
- 2) Filaments for halogen lamps Lighting Industry
- 3) Filaments for decoration lamps
- 4) Vacuum Metallizing Coils / Tungsten Evaporation Sources
- 5) For high temperature furnaces
- 6) Electron tubes
- 7) Mercury switches
- 8) Electrode for spot welding

Molybdenum wire

- 1) Support Wire
- 2) Mandrels
- 3) Moly spray wire
- 4) Moly end plugs
- 5) High temperature furnaces
- 6) Welding Technology
- 7) Mercury switches

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Cleaned Wire



Our Strength

ELF Filaments offers cleaned wires in both Tungsten & Molybdenum.

We have modern electropolishing and cleaning machines for treatment of all sizes of tungsten and molybdenum wires. Cleaning ensures no visible evidence of drawing lubricant residues, oxides or any other foreign matter such as dirt, oil etc.

We can offer variable finish for tungsten and molybdenum wires ranging from mat-grey to bright shining. This difference however is not related to cleanliness.

We also offer clean, annealed and straightened (CAST) wires.

Installed Capacity

Wire below 0.2 mm - 100 Kg. Per month

Wire above 0.2 mm to 2 mm - 1.8 Tons per month

Specifications :

Wire Diameter : 0.015 to 2.5 mm

Material : Tungsten / Molybdenum

Finish : Mat-grey, bright shining

For customized requirements email to sales@elffilaments.com

Applications :

- 1) Filaments for automotive and decorative lamps
- 2) Support wire
- 3) Mandrels
- 4) End plugs for mercury switches
- 5) Vacuum metallizing coils

Other ELF Filament Products

- 1) Metallizing coils
- 2) Drawn Wires
 - a) Black wire for redrawing
 - b) Cleaned Wire
 - c) Tungsten Gold Plated Wire
 - d) Tungsten Wire Cut Pieces
- 3) Tungsten Lamp Filaments
 - a) Automotive Lamp Filaments
 - b) Miniature and Decoration Lamp Filaments
- 4) Evaporants

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Tungsten Gold Plated Wire



Our Strength

E.L.F. FILAMENTS offers Gold Plated Tungsten Wires for special purpose applications.

Gold plating improves corrosion and oxidation resistance of the base wire.

We offer gold plating for wires from 60 microns to 800 micron diameter. The plating thickness varies from 1 micron to 3 microns.

Other ELF Filament Products

- 1) Metallizing coils
- 2) Drawn Wires
 - a) Black wire for redrawing
 - b) Cleaned Wire
 - c) Tungsten Gold Plated Wire
 - d) Tungsten Wire Cut Pieces
- 3) Tungsten Lamp Filaments
 - a) Automotive Lamp Filaments
 - b) Miniature and Decoration Lamp Filaments
- 4) Evaporants

Installed Capacity

For gold plated wire : 500k meters per month

Specifications :

Wire Diameter : 0.06 mm to 0.8 mm

Plating Thickness : 1 to 3 microns

For customized requirements email to sales@elffilaments.com

Applications :

- 1) Toner Wire used in Copying machines
- 2) Dust collector
- 3) Air cleaner
- 4) Ion generator

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Tungsten Wire Cut Pieces



Our Strength

E.L.F. FILAMENTS offers tungsten rods and cut pieces of various sizes to suit many applications.

Tungsten cut pieces are available from 0.5 mm to 2 mm diameter (+ - 2% tolerance) with a burr free surface.

Installed Capacity

Cut pieces in various sizes as per the requirements
100 Kgs. Per month

Other ELF Filament Products

- 1) Metallizing coils
- 2) Drawn Wires
 - a) Black wire for redrawing
 - b) Cleaned Wire
 - c) Tungsten Gold Plated Wire
 - d) Tungsten Wire Cut Pieces
- 3) Tungsten Lamp Filaments
 - a) Automotive Lamp Filaments
 - b) Miniature and Decoration Lamp Filaments
- 4) Evaporants

Specifications :

Diameter : 0.5 to 2.0 mm

Length : upto 500 mm

Tolerance : + - 0.2 mm

Finish : Black / Clean

For customized requirements email to sales@elffilaments.com

Applications :

- 1) Used as current leads to be sealed into hard glass.
- 2) Used in mercury switches
- 3) General purpose

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Tungsten Lamp Filaments



Our Strength

E.L.F. FILAMENTS is one of the largest manufacturers of tungsten filaments in India.

As a pioneer in tungsten filaments it has set a bench mark in quality for others to follow

Types of Filaments

- 1) Automotive Lamp Filaments
- 2) Miniature and Decoration Lamp Filaments

Other ELF Filament Products

- 1) Metallizing coils
- 2) Drawn Wires
 - a) Black wire for redrawing
 - b) Cleaned Wire
 - c) Tungsten Gold Plated Wire
 - d) Tungsten Wire Cut Pieces
- 3) Tungsten Lamp Filaments
 - a) Automotive Lamp Filaments
 - b) Miniature and Decoration Lamp Filaments
- 4) Evaporants

Installed Capacity

45 Million pieces per month

Specifications :

Filament Type : Automotive / Miniature & Decoration Lamp Filaments

Mandrel type : Brass / Molybdenum

For customized requirements email to sales@elffilaments.com

Applications

Automotive Lamp Filaments

- 1) Head lamps
- 2) Tail lamps
- 3) Indicators
- 4) Parking lamps
- 5) Dash board lamps
- 6) Roof lamps

Miniature and Decorative Lamp Filaments

- 1) Decorative lamps
- 2) Torch lamps
- 3) Panel & Indicator Lamps
- 4) Special purpose lamps

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Automotive Lamp Filaments



Our Strength

E.L.F. FILAMENTS is the largest manufacturer of Miniature & Decorative lamp filaments manufacturing over 40 million pieces

Installed Capacity

5 Million pieces per month

Applications :

- 1) Head lamps
- 2) Tail lamps
- 3) Indicators
- 4) Parking lamps
- 5) Dash board lamps
- 6) Roof lamps
- 7) Marine lamps

Specifications :

Diameter : 0.2 mm to 2.0 mm

Sheet thickness : 0.3 mm to 1.5 mm

Finish : Electrolytic cleaned

For customized requirements email to sales@elffilaments.com

Other ELF Filament Products

- 1) Metallizing coils
- 2) Drawn Wires
 - a) Black wire for redrawing
 - b) Cleaned Wire
 - c) Tungsten Gold Plated Wire
 - d) Tungsten Wire Cut Pieces
- 3) Tungsten Lamp Filaments
 - a) Automotive Lamp Filaments
 - b) Miniature and Decoration Lamp Filaments
- 4) Evaporants

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Miniature and Decoration Lamp Filaments



Our Strength

E.L.F. FILAMENTS is the largest manufacturer of Miniature & Decorative lamp filaments manufacturing over 40 million pieces per month.

Our vast range of miniature and decorative lamp filaments are suited for virtually every lamp in the industry.

Our in-house design and R & D facility coupled with state of art machinery has helped E.L.F. attain a leadership position in this market segment.

Installed Capacity

40 Million pieces per month

Applications :

- 1) Decorative lamps
- 2) Torch lamps
- 3) Panel & Indicator Lamps
- 4) Special purpose lamps

Specifications :

Voltage :2.5v to 24v

Wattage :upto 10w

Total Length :Up to 25mm

Mandrel type :brass/molybdenum

Other ELF Filament Products

- 1) Metallizing coils
- 2) Drawn Wires
 - a) Black wire for redrawing
 - b) Cleaned Wire
 - c) Tungsten Gold Plated Wire
 - d) Tungsten Wire Cut Pieces
- 3) Tungsten Lamp Filaments
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Evaporants



Our Strength

ELF Filaments is a pioneer in manufacturing of custom made Pellets or Evaporants which are used to metallize on any surface with the help of tungsten metallizing coils under vacuum.

Types of Materials

- 1) Aluminium
- 2) Nickel
- 3) Silver
- 4) Copper

Installed Capacity

- a) Different types of presses starting from 500 kg. To 2 ton
- b) Different types of press tools to manufacture pellets/evaporants of different sizes and shapes.
- c) Equipped with sophisticated instruments and equipments

Specifications :

Diameter : 0.2 mm to 2.0 mm

Sheet thickness : 0.3 mm to 1.5 mm

Finish : Electrolytic cleaned

For customized requirements email to sales@elffilaments.com

Applicaions :

- 1) Reflector lamps
- 2) Automobile Reflectors
- 3) Color Picture Tubes
- 4) Mirrors
- 5) Toys, Trophies
- 6) General Metallizing

Other ELF Filament Products

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