

COMPONENTS AND ASSEMBLIES



STAMPED & DEEP DRAWN PARTS



VACUUM TUBE BASES



WELDED LEAD ASSEMBLIES



DEEP DRAWN RHENIUM PARTS

CAPABILITIES

Goodburn Metals is the European agent for Electronic Manufacturing corp, inc. Based in Newark, New Jersey, EMC is a leader in the manufacture of components from refractory metals such as Tungsten, Molybdenum, Rhenium and Tantalum. They are experts in processes such as grinding, turning, milling, stamping, pressing and deep drawing for applications such as sintering trays, crucibles and boats, filaments, electrodes and contact caps, nozzles, agitators and stirrers, etc.

In addition to manufacturing the components, we can also carry out assembly operations such as staking, brazing, welding, etc, enabling us to supply a fully finished, quality tested part to your production line.

APPLICATIONS

IRIDIUM : Principally used as a hardening agent for platinum, iridium is also used to make crucibles and devices requiring high temperatures. It is also used for electrical contacts and is slowly finding it way into medical devices that are implanted into the body.

MOLYBDENUM : Elliptically shaped etched Molybdenum foil is used for hermetic sealing of quartz lamps. Etched Molybdenum foil is used as it's coefficient of expansion is the closest to quartz. The elliptical shape produces an air and gas tight lead into the lamp envelope, thus preventing filament degradation during lamp operation.

50/50 MOLY-RHENIUM : This alloy offers the strength of Molybdenum with the ductility and weldability of Rhenium. It offers significant advantages in thin foil applications for high temperature, delicate parts, especially those that must be welded. Note that, although this alloy is nominally 48% rhenium, it is customarily referred to 50/50 Moly/Rhenium.

PLATINUM : Used for wire, vessels and filaments for laboratory use, thermocouple elements, electrical contacts, corrosion-resistant apparatus, as a catalyst in fuel cells and catalytic converters for cars and in cathodic protection systems for large ships and marine equipment.

RHENIUM : Is an additive to Tungsten and Molybdenum based alloys to increase ductility at higher temperatures. Used in pure form for filaments for mass spectrometers and ion gauges. As an electrical contact material, it has good wear resistance and withstands arc corrosion. Thermocouples made of Re-W are used for measuring temperatures up to 2200°C.

RHENIUM TUNGSTEN : Rhenium is alloyed with Tungsten at 3%, 5% and 25% rhenium content to greatly improve tungsten's ductility after exposure to elevated temperatures. These materials are available in wire, ribbon and strip forms and are used extensively for winding filaments for vacuum tubes.

TANTALUM : has gained wide acceptance for use in electronic components, chemical equipment, missile technology, and nuclear reactors. It is also used as a component of ion implanters in the manufacture of semiconductors. It is also used for radiation shielding; for fabrication of corrosion resistant process equipment including reaction vessels, columns, bayonet heaters, shell and tube heat exchangers, diaphragms and orifices; in vacuum tubes to absorb products of out-gassing and in vacuum furnaces where very high temperatures must be attained.

TUNGSTEN : Is used in applications such as heated cathodes or heater coils in CRTs, X-ray tubes, electron tubes, klystrons, and Magnetrons for microwave ovens; Electrodes for inert gas welding, as well as High Intensity Discharge (HID) lamps; Disks for the substrates of high power semiconductor rectifying devices; Electrical contacts; High temperature furnace parts such as tungsten heating coils, reflectors and structural material; Tungsten-copper heat sinks.