



Connectors

From small voltage connectors to high amperage industrial connectors, we make your connector

Luvata established its first cold-forming operation in 1960. From simple part geometry to extremely complex parts available today, Luvata cold-formed connectors deliver performance, quality and reliability.

Industries served:

- E-mobility, electric vehicles (EVs) and charging stations
- Oil and Gas
- Power distribution
- Renewable energy

Cold-forming advantages:

- Improved quality and product performance
- Cost savings with reduced process scrap
- Complex geometries with interior and exterior features
- Reduced processing times averaging one second per piece
- Reduced development costs and times
- Tooling cost savings

Applications:

- Vacuum interrupters
- EV main drive connectors, battery connectors, terminal connectors, fuses and cell module connectors
- Charging infrastructure connectors including crimp style solid copper connectors, slotted connectors and pins for charging cables
- High amperage industrial connectors, DIN and flat blade



About Luvata

Luvata is a world leader in metal solutions manufacturing and related engineering services to industries such as renewable energy, automotive, healthcare, and power generation and distribution. The company's continued success is attributed to its longevity, technological excellence and strategy of building partnerships beyond metals. Employing approximately 1,400 staff in 6 countries, Luvata works in partnership with customers such as ABB, CERN, Siemens and Toyota. Luvata is a group company of Mitsubishi Materials Corporation.

Product differentiation

Cold-forming expertise

Luvata's advanced cold-forming equipment and proprietary tooling designs are combined with our vertical integration of high-purity copper alloys. The proprietary tooling is internally designed by Luvata involving over a hundred components used in the most advanced cold-forming equipment available in the marketplace today.

This combination of tooling and cold-forming expertise offers Luvata customers many choices in delivering the exact product for the exact application, along with consistent quality, performance and reliability from the first connector to the last.

One of the biggest advantages of cold forming versus machining is that the typical Luvata customer experience has been 70% reduction in scrap.

Advantages of oxygen-free copper

Oxygen-free copper has a higher conductivity over tellurium (C14500) and sulphur copper (C14700), allowing for higher current carrying capability over these alloys without overheating.

Metallurgical expertise

While oxygen-free copper offers low resistance and high conductivity, Luvata also offers connectors in other materials.

If you are looking for nickel tin, nickel, silver or gold over molded terminal connectors or crimp style solid copper connectors for battery swapping or quick connect systems, we can help you. Barrel or rack plating is available for all parts.

Offering high amperage industrial connectors ranging from 50 Amp - 1000 Amp, and small voltage connectors, socket bodies and pins found in renewable energy, Luvata puts its metallurgical and cold-forming expertise into every connector.

Material options

| UNS Alloy No. | Description | Conductivity (%IACS) |
|-----------------|--------------------------------|----------------------|
| C10200 | Oxygen-free copper | 100% |
| C10500 & C10700 | Silver-bearing copper | 100% |
| C15000 | Zirconium age hardenable alloy | 94% |
| C15725 & C15760 | Dispersion strengthened copper | 78% |
| C18150 & C18200 | Chromium age hardenable alloy | 84% |
| C26000 | Brass | 28% |
| C36000 & C38000 | Leaded brass | 26% |
| C69300 | Ecobrass lead-free brass | 8% |



Connector cold-forming process



Threaded connectors



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