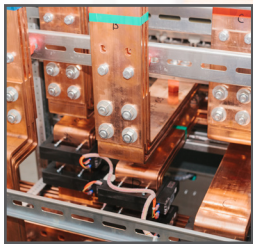


# MOLEX BUSBAR SOLUTIONS

*Power solutions made simple.*



**molex**

# BUSBARS > POWER SOLUTIONS MADE SIMPLE



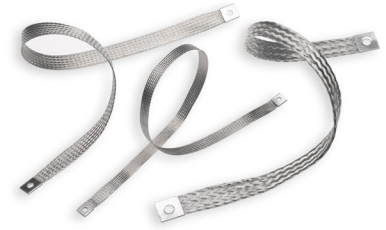
**Busbars are the backbone of power distribution. Molex applies its decades of Busbar experience to partner with customers, providing feedback on their designs, recommending solutions, prototyping and more. By working so closely with customers, we strive for the following goals.**

- To enhance the performance of our customers' end products with reliable busbar solutions.
- To streamline manufacturing processes and offer cost savings through suggested design improvements.
- To shorten our customers' product development by providing front end design support.
- To provide consumption flexibility with a global manufacturing footprint.

# Manufacturing Capabilities

## Flexible Grounding Jumpers

- Custom lengths
- Flat braid
- Custom ends
- Stocking packages are available through distribution



## Flexible Busbars

- Round and flat braid versions
- Insulated and uninsulated versions
- Stacked braid versions
- Flex/rigid combined solutions
- Molex connector solutions



## Rigid Busbars

### Capabilities

- Swaging of rod
- Edge bend and complex forming
- Tin, Nickel and Silver plating
- Powder coat insulation
- Brazing and welding

### Value Add

- Molex connector solutions
- PEM insertion and attachment
- Kitting



## Laminated Busbars

Alternating layers of conductors and insulation

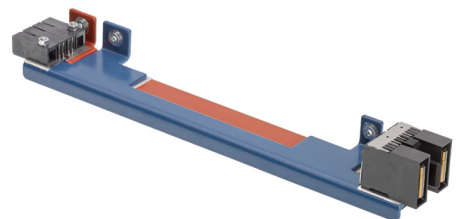
*Mylar, Nomex, Rigid Plastic, FR4*

Space Savings

Ease of assembly in customer applications

### Features

- Molex connector solutions
- Improved heat dissipation
- Low characteristic impedance
- Powder coat solutions
- Tin, Nickel and Silver plating





# Coeur CST High-Current

## Interconnect System

Moving power from point A to B is crucial in today's electrically run world. Customers are looking for innovative ways to connect busbars that offer different methods of attachment to busbars, multiple form factors, and solutions to tolerance concerns. Molex has developed the Coeur CST Interconnect System. This system has form factors of 3.4mm, 6.00mm, and 8.00mm to cover a wide range of amperage needs ranging from 30.0A up to 200A and offers press-fit, weld, and screw attach methods to the busbar for options depending on busbar thickness or space constraints. The system also offers a unique float feature providing up to 1.0mm of float to mitigate pin to socket axial misalignment when mating busbar-to-busbar or busbar-to-PCB. The Coeur CST High-Current Connector can be used in all your busbar design solutions.

## Capable of 30.0 to above 200.0A current rating

Offers a scalable design to meet a wide range of high-current applications

## Multiple contact beams

Provide optimized electrical performance

## Unique socket float feature provides an industry leading 1.0mm of float off the center position

No added deflection on contacts

Low mating forces

## Attach methods to busbar PCBs and wire include press-fit, SMT, screw, crimp and weld

Provides design flexibility for a range of high-current applications

## One common contact design in all CST sockets regardless of form factor sizes

Provides a low profile height solution across entire current range

## Wire to Busbar solutions

Touch-safe available

10 AWG thru I/O AWG crimp range

Positive latching

Vertical male headers screw attached to busbar

600V rating in configuration

## Applications

### Data Center Solutions

- Circuit Breakers
- Data Storage
- Instrumentation
- PDU
- Servers
- UPS/battery storage

### Industrial

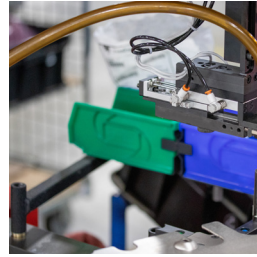
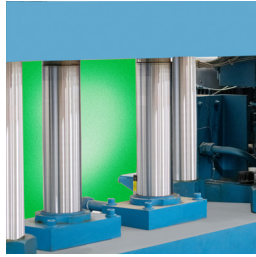
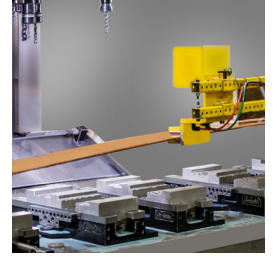
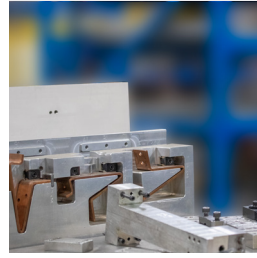
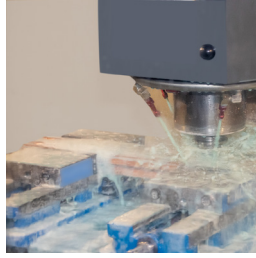
- Power Supplies

### Telecommunications/Networking

- Servers
- Storage
- Switches



# Production Capabilities



## Busbar Machine Process Definitions

### Waterjet

High-pressure water mixed with an abrasive to cut hard materials into complex shapes. Best for low-volume and prototype jobs.

### CNC Mills

Computerized program that operates a rotating cylindrical cutting tool that can move in multiple axes to achieve the desired shape. Can be linked with CAD models to program the cut path.

### Turret-style punching

Automated metal sheet fabrication using a rotation of many tools to cut complex shapes up to 0.25" thick.

### Semi-Automatic production of bar stock material

Cutting, forming, and edge bending of bar stock. Saves on material by not nesting on a sheet and producing scrap.

### Stamping and forming operations

Coil and strip processing in custom die sets to achieve high-speed production with extreme accuracy.

### Lamination

Use of heat and pressure to insulate one or multiple busbars in an adhesive-lined dielectric. Offers improved thermal and electrical performance and improves ease of assembly when mounting in the system.

### Hi-Pot

Hi-Pot test is a nondestructive test that verifies the adequacy of the busbar insulation. The standard test voltage is 2X (operating voltage) +1000V.

### Brazing

Two or more metal items are joined together by melting and flowing a filler metal into the joint. Used in higher temperature applications than soldering.

### PEM insertion and assembly operations

Press-fit insertion of self-clinching threaded and unthreaded studs and nuts.

### Solder dip

Components are dipped in a molten solder bath and bond together upon cooling.

### Heat shrink value add

Use of heat to shrink and secure electrical insulation to a conductor.

### Wire braid assembly

Flexible power distribution component that eliminates problems caused by vibration in a system.

Get customized insights at: [molex.com](https://www.molex.com)