

# BUS BAR DESIGN AND FABRICATION

## HOW TO BUILD THE BEST QUALITY BUS BAR at a lower price

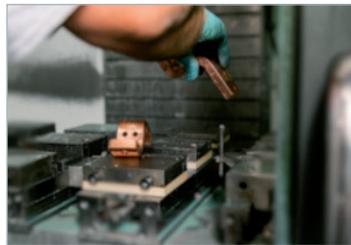
### SOURCING

As one of the largest electrical components manufacturers in North America, Storm Power Components sources more than seven million pounds of copper and aluminum every year. This advance sourcing eliminates inventory overhead from your production costs.



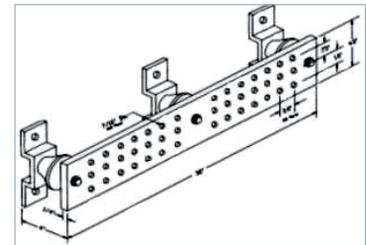
### FINISHING

Most fabricators cannot offer in-house plating and bus bar insulation like Storm. Having these capabilities under one roof reduces transport, waste, pollution, and time. We don't finish 75 different types of metal--we finish COPPER and ALUMINUM.



### FABRICATION

Storm Power's precision machining means we can affordably manufacture a single prototype part or the mass-produced parts you need. We do it all, and we specialize in flexibility and responsiveness.

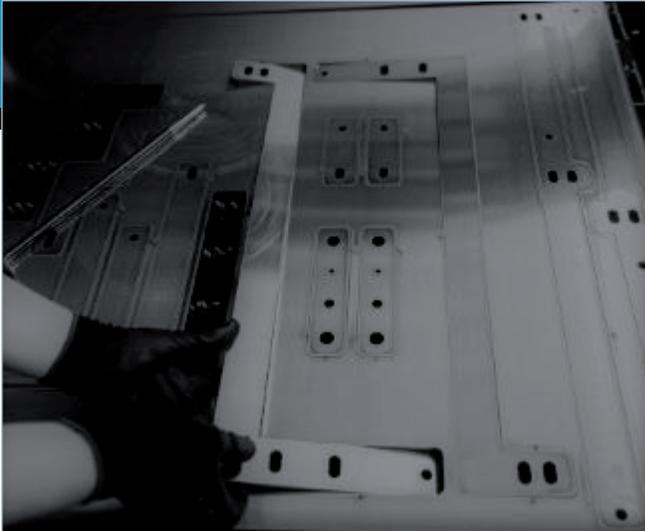


### DESIGN/ENGINEERING SUPPORT

Storm manufactures OEM's designs to precise specification. We can also provide critical input that leads to greater design for manufacturing flexibility because our engineers have built bus systems for high-current draw applications for a generation.



# BUS BAR DESIGN... (CONT)



## VALUE ENGINEERING

is another key to cost savings. Through our value engineering methods, we employ a systematic process designed to improve the ratio of function to cost.

Value is then increased by:

- Improving the function, or
- Reducing the cost.

## COPPER & ALUMINUM BUS BAR SPECIFICATIONS & BUS BAR TYPES

### METAL ALLOYS

**C11000** - Electrolytic Tough Pitch Copper

**6101** - Electrical Grade Aluminum

### STRUCTURAL DIFFERENCES

- When using aluminum bus bar, the **WIDTH** must be **INCREASED** by 27%. *Example:* To achieve the same temperature rise, a 1/4" x 5" aluminum bus bar will equal a 1/4" x 4" copper bus bar.
- When using aluminum bus bar, the **THICKNESS** must **INCREASE** by 50%. *Example:* To achieve the same temperature rise, a 3/8" x 4" aluminum bus bar will equal a 1/4" x 4" copper bus bar.

### Fabrication Process Paths We Utilize:

Forming & Bending - Conventional, offset, & side

Stamping - Coil line process & in-house die fabrication, ink

Cold Cutting & Shearing - High and low volume sawing/shear

Machine Punching - CNC, automated, & single stroke turret

Precision CNC Machining - Turning & milling with multi-axis

Precision Machining - Turning & milling with Swiss-style screw

Press/Fused Welding and Brazing

CNC Water Jet

Fiber Laser

### BUS BAR TYPES

- Capacitor Bus Bar
- IGBT Bus Bar
- Backplane Bus Bar
- Armature Bus Bar
- Drive Bus Bar
- Power Distribution Bus Bar
- Router Bus Bar
- Multilayer Bus Bar
- Laminated Bus Bar
- Rack Mounted Bus Bar
- Circuit Breaker Bus Bar

## IN-HOUSE PLATING OPTIONS

- Medium phosphorus electroless nickel
- Full immersion electroplating
- Strike plate



Bright Tin

Matte Tin

Various Tin/Lead Alloys

100% Lead

Silver

Nickel



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