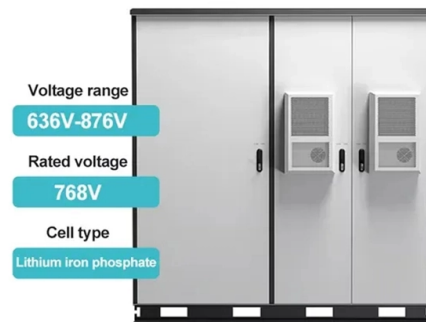


Crosslinking process for tubular busbars



Overview

The process requires first to machine a dovetail ring hole and a countersunk hole in the lower and upper sheets, respectively, and then to inject a semi tubular rivet by compression through the lined-up holes to create a mechanical interlocking that can fix the two sheets in. The process requires first to machine a dovetail ring hole and a countersunk hole in the lower and upper sheets, respectively, and then to inject a semi tubular rivet by compression through the lined-up holes to create a mechanical interlocking that can fix the two sheets in. Joining by forming process without auxiliary elements that generates high contact pressures along the overlapping area. The assembly process can be carried out in progressive tool systems comprising a sequence of lancing, bending and forging operations. In this process, a tubular connector is inserted into the terminal and busbar holes and deformed to create a force- and form-fit joint. er applications that are commonplace in EVs. 400 The fastened unit cells with a loose.



Article Content

Aug 05, 2025

Busbars for e-mobility: State-of-the-Art Review and a New ...

The growing interest of automakers in the use of hybrid busbars stimulated the authors to develop a new injection lap riveting process to produce overlap joints by plastic deformation of a

Feb 05, 2026

Copper Busbar Jointing Methods

Efficient joints in copper busbar conductors can be made very simply by bolting, clamping, riveting, soldering or welding. Bolting and clamping are

Feb 19, 2026

A novel joining technology for hybrid busbars in electric vehicle ...

In this paper, a joining by forming technique is suggested to join aluminium and copper sheets, aimed at potential hybrid busbar manufacturing.

Aug 25, 2025

Busbar Systems Explained: Key Terminology & Practical

Select insulated busbars and use materials such as epoxy resin and polyvinyl chloride (PVC) to improve insulation performance. In an environment

Nov 09, 2025

Busbars for e-mobility: State-of-the-Art Review and a New ...

The effectiveness of the new process is compared against fastening by measuring the electric resistivities in both types of hybrid busbar joints. Finite element analysis gives support to the

Dec 12, 2025

Busbar Fabrication: Techniques for Efficient Assembly

This article delves into the intricate processes behind busbar fabrication, detailing the techniques and tools necessary for efficient assembly.

Aug 04, 2025

Joining by Forming of Busbars for Electric Power Distribution

Fabrication of unit cells with 150 mm length, 50 mm width and 50 mm overlapped length that are representative of the four different processes that were utilized to fabricate the hybrid busbar lap joints

Feb 27, 2026

A new joining by forming process for busbar-prismatic cell ...

A new joining by forming process for busbar-prismatic cell interconnections in electric vehicle batteries

Oct 28, 2025

High Power Multi-layer Molded Busbars: Design Considerations and ...

Figure 2 - Complex Molded BusBar Design Examples Checklist Questions to Guide Design Process Today's designers need to take a holistic approach to busbars by treating them as an integral factor

Nov 30, 2025

A new joining by forming process for busbar-prismatic cell ...

In this new joining process, the connection between the prismatic cell terminal and the busbar is made through a tubular connector by applying plastic deformation to achieve both force-fit and form-fit joints.

Jan 17, 2026

Agrawal-28New

To achieve a good insulation the busbars may be epoxy or polyester insulated using vacuum or other effective process. Epoxy has a dielectric strength of about 35–40 kV/mm, whereas polyester, a heat

Dec 04, 2025

Flexible Busbar Solution for High Current Density Applications

Abstract— As power demand usage at datacenters and other facilities like nuclear power plants, battery energy storage systems, telecommunications and industrial facilities increases exponentially, the use

Sep 15, 2025

Copper for Busbars

Busbars are used within electrical installations for distributing power from a supply point to a number of output circuits. They may be used in a variety of configurations ranging from vertical risers, carrying

Mar 30, 2026

(PDF) A new joining by forming process for busbar

The paper introduces a new joining process, termed tube fit joining, designed for prismatic cell terminal-to-busbar connections in electric vehicle

Jul 31, 2025

A Beginner's Guide to Busbar Fabrication and Assembly

A busbar machine is a specialized equipment used in electrical systems for efficient fabrication, including punching, bending, and shearing, to

May 02, 2026

Manufacturing hybrid busbars through joining by forming

This paper focus on the production of hybrid busbars made from copper and aluminium by means of a joining by forming process that was recently developed by the authors.

Feb 19, 2026

Guide To Busbar Systems And IEC 61439 Standards

Busbars are not only easy to install (certainly compared to cabling), they also play a major role in the design and safe operation of a switchgear and controlgear assembly. The recent

Jun 10, 2026

Types of Busbars & Schemes – Explained with Applications

Understand Types of Busbars and how they make complex power distributions simpler in electrical power distribution,.

Jul 16, 2025

Tube fit joining: a novel technique for busbar-to-prismatic cell ...

This paper presents Tube-Fit Joining, a novel process for connecting prismatic cell terminals to busbars in EV batteries. It involves inserting a tubular connector into the terminal and busbar holes, followed

Feb 06, 2026

Joining by Forming of Busbars for Electrical Applications

The process requires first to machine a dovetail ring hole and a countersunk hole in the lower and upper sheets, respectively, and then to inject a semi tubular rivet by compression through the lined-up

Mar 10, 2026

Busbars: Essential Components in Electrical Systems

Explore the essential role of busbars in electrical systems. Learn about traditional and laminated busbars and their benefits.

Apr 01, 2026

Busbars and Connectors in HV and EHV installations

Busbars for Outdoors Installations In HV and EHV installations and in outdoors MV installations bare busbars and connectors are used and the conductors may be

Jan 07, 2026

Optimizing Busbars for Advanced Applications

Using 3D simulations, process designers can determine the feasibility of creating certain bends in a busbar, taking into consideration factors such as the number of bends, the angles that can be used,

Dec 17, 2025

Electric performance of hybrid busbar joints under service and high ...

This paper is focused on the electric performance of hybrid busbars joints fabricated by three different processes (conventional bolting, friction stir spot welding and injection lap riveting)

Mar 26, 2026

Design Guide for bus bars

The earlier we are involved in your design process, the more cost-effective your solution is likely to be. Early involvement enables us to optimize both ease of

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.elagage-lorrain.fr>

Email: sales@elagage-lorrain.fr

Phone: +33 6 47 82 19 35

Address: 15 Rue de la République, 69002 Lyon, France

This document is for informational purposes only. Specifications subject to change without notice.

