

Automatic busbar riveting connection



AI Overview

Automatic busbar riveting machines provide fast, precise, and secure connections for busbar assemblies, replacing manual riveting, welding, or bolting.

Overview An automatic busbar riveting machine is designed to fasten busbars using rivets, creating strong and reliable joints in power distribution systems and electrical panels. These machines automate the insertion and deformation of rivets, reducing manual labor while ensuring consistent quality and high production efficiency. They are widely used in switchgear cabinets, busbar trunking systems, and other electrical equipment manufacturing.

Types of Riveting Machines

- Pneumatic Riveting Machines:** Use compressed air to drive rivets, suitable for medium-duty applications.
- Hydraulic Riveting Machines:** Employ hydraulic pressure for heavy-duty or thicker busbar connections.
- Self-Piercing Riveting (SPR) Machines:** Rivets penetrate the metal layers without pre-drilled holes, forming a strong joint through plastic deformation of the sheet metal. This method is especially useful for lightweight or multi-layer busbar assemblies.

Working Principle Automatic riveting machines typically include:

- Feeding System:** Automatically supplies rivets to the machine.
- Rivet Setting Tool:** Inserts and deforms the rivet to create a secure joint.
- Control System:** Adjusts parameters such as force, speed, and pressure for precise automation. In self-piercing systems, the rivet is pressed into the metal layers, spreading into the die to form a stable connection without drilling, deburring, or additional surface treatment. This reduces production steps and avoids defects caused by manual handling.

Advantages

- High Efficiency:** Automates the entire riveting process, reducing cycle time and labor costs.
- Consistent Quality:** Ensures uniform rivet placement and joint strength, minimizing errors from manual work.
- Strong Connections:** Riveted joints can match or exceed the strength of welded or glued connections.
- Material Preservation:** Prevents deformation and surface damage, optimizing product appearance.
- Environmental and Cost Bene...**

Article Content

Automatic Busbar Assembly Line for Busway System

Automatic Busbar Assembly Line for Busway System Production The automatic assembly machine can realize automatic assembly of busbar. It reduces

Semi-Automatic riveting system for compact busbar

This semi automatic riveting machine is used for compact busbar profile riveting. More detail, please visit our website:

How an Automatic Busbar Assembly Line Streamlines Manufacturing

An automatic busbar assembly line changes how you make things. It gives you better efficiency and reliability. You spend less money on workers. Safety gets better. Space is used in a

Self Piercing Busbar Rivet System Machine for

Product Description Busbar riveting machine for busway system production / Compact self-piercing riveting system Self-piercing riveting machine, also called

Self Piercing Busbar Riveting Machine For Automobile

Self-piercing riveting (SPR) technology is a leading way to solve today's lightweight automobile connection, which is widely used in automobile manufacturing, bridge

Busbar systems

RiLine busbar systems for individual switchgear and controlgear up to 2100 A. Complete solutions for AC or DC applications. 3-pole, tool-free mounting, short

Automatic Busbar Assembly Line for Compact Busduct

Automatic Busbar Assembly Line for Compact Busduct Riveting Or Bolting ... the

Copper Busbar Jointing Methods: Bolted, Clamped,

Learn efficient copper busbar jointing techniques: bolted, clamped, riveted, soldered, and welded. Understand joint resistance and best practices.

Joining by Forming of Busbars for Electrical Applications

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

Optimization of riveting quality in copper busbars for e ...

The riveting process for copper busbars is investigated and optimized in this study using a three-dimensional smooth particle Galerkin (SPG) and finite element (FE) analysis. The SPG-FE

Injection Lap Riveting of Aluminum Busbars—A Thermo-Electro ...

This paper presents a new mechanical joining process to assemble aluminum busbars in energy distribution systems.

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

Automatic Busbar Assembly Machine for Busbar Fabrication Clamp Riveting ...

Automatic busbar assembly line The automatic busbar assembly line is specially designed for busbar assembly and riveting procedures. Main working procedures: 1. pre-assembly: bending the copper or

A Comprehensive Guide to Jointing Busbars: Which

This process, called “jointing,” may be needed to create a longer busbar from shorter, more manageable pieces; or to create a T-shaped tap-off connection

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)

Exploring wire-arc additive manufactured rivets for joining hybrid ...

This paper presents a joining by plastic deformation process for fabricating hybrid electrical busbars made from copper and aluminum sheets. The process comprises the innovative

Advanced Automatic Busbar Assembly Machine with Riveting

Advanced Automatic Busbar Assembly Machine with Riveting Technology, Find Details and Price about Automatic Riveting Machine Busbar Assembly Machine from Advanced Automatic Busbar Assembly

(PDF) Injection Lap Riveting of Aluminum Busbars—A

This paper presents a new mechanical joining process to assemble aluminum busbars in energy distribution systems. The process is based on the

An Injection Lap Riveting Tool System | Springer Nature Link

This article is focused on the utilization of a joining by plastic deformation process known as double-sided injection lap riveting to fabricate aluminum busbar connections for energy

Self Pierce Busbar Industrial Rivet Punching Machine

This riveting machine system is used for high volume busduct production. This self-pierce rivet setting system offers a reliable, robust, and cost-effective method of

Automatic Busbar Riveting Assembly Line for Compact

Automatic Busbar Riveting Assembly Line for Compact Busduct System, Find Details and Price about Busbar Assembly Line and Busbar Production Line from

Optimization of riveting quality in copper busbars for e ...

The connection between busbars and electrical modules often adopts the form of self-clinching nut-bolt connections . Research on riveting quality has primarily focused on experimental investigations,

What Is The Purpose of An Automatic Busbar Riveting Machine?

Q: How does an automatic busbar riveting machine work? A: The machine feeds rivets automatically, positions materials, and inserts rivets precisely to create secure connections,

Semi-Automatic Busbar Assembly Line for Busway System

Busbar semi-automatic reversal assembly line / Busbar Production equipment for busway system Specification: 1. Suitable for straight compact busbar 630A~2500A, single layer, length 1.5~6m 2. A

Semi-Automatic Compact Busbar Trunking System

1. Suitable for straight compact busbar 630A~2500A, single layer, length 1.5~6m 2. Automatic end alignment, clamping and moving controlled by PLC 3. Manual

Double-Flush Riveting for Hybrid Busbar Assembly

This paper explores a novel double-flush riveting process for assembling hybrid busbars made from aluminum and copper sheets. The process involves drilling and forging countersunk holes with

Fully Automatic Busbar Assembly Line | Busbar Equipment | Kiande

KIANDE automatic busbar assembly line features automatic positioning, automatic conveyance, and automatic riveting, ensuring that every product is assembled to consistent standards. It eliminates

High-Precision Automatic Riveting Machine for Busbars and

Busbar riveting machine for busway system production With the development of the industrial technology, Kiande developed the riveting machines to realize the connection instead of original

Contact Us

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