HDFRS
Press-Riveting System

HDFRS- Servo Press-riveting equipment, high precision control

Press-riveting is an efficient fastening technique used for joining metal sheets. It permanently fixes fasteners (such as press-rivet nuts, press-rivets etc.) onto the metal sheet through a cold extrusion process. Here are some key features and advantages of press riveting:

Working principle

- Press-riveting is the process of applying pressure to sheets and fasteners through riveting molds, causing plastic deformation on the sheets or fasteners, to enable them being embed with each other, so as to fix the fasteners into the sheet.

Advantages

- Suitable for various thicknesses of metal sheets, reducing the use of loose nuts and washers, and improving production efficiency.
- Easy and safe setting, saving costs and assembly time, solving the assembly problem of lightweight materials.
- High resistance to thrust and high removal force, avoiding panel damage or protrusion, widely used in industries such as aerospace, electric vehicles, electronics, medical devices, etc.

Limitation

- Cost is comparatively higher, which may limit the application of this technology. For materials with different hardness and ductility, as well as sheets of different thicknesses and corrosive environments, more time is needed to develop corresponding molds and test them.

Common applications

- Press-riveting automation can significantly improve production efficiency, reduce production costs, and minimize the use of personnel. Therefore it is widely used in the automotive industry, household appliance industry, and other occasions that require press-riveting assembly.


HDFRS- Servo Press-riveting equipment

Equipment Type

- Press-riveting machine is a new type of riveting equipment, developed based on the principle of cold rolling. It mainly relies on pressure to complete assembly, and common power types include pneumatic, hydraulic, and electric.

Brand and Product

- HDFRS-Press-riveting equipment provides a complete range of riveting and joining solutions (including press-riveting nuts, rivets, etc.), with features such as servo high-precision intelligent control and high positioning accuracy.

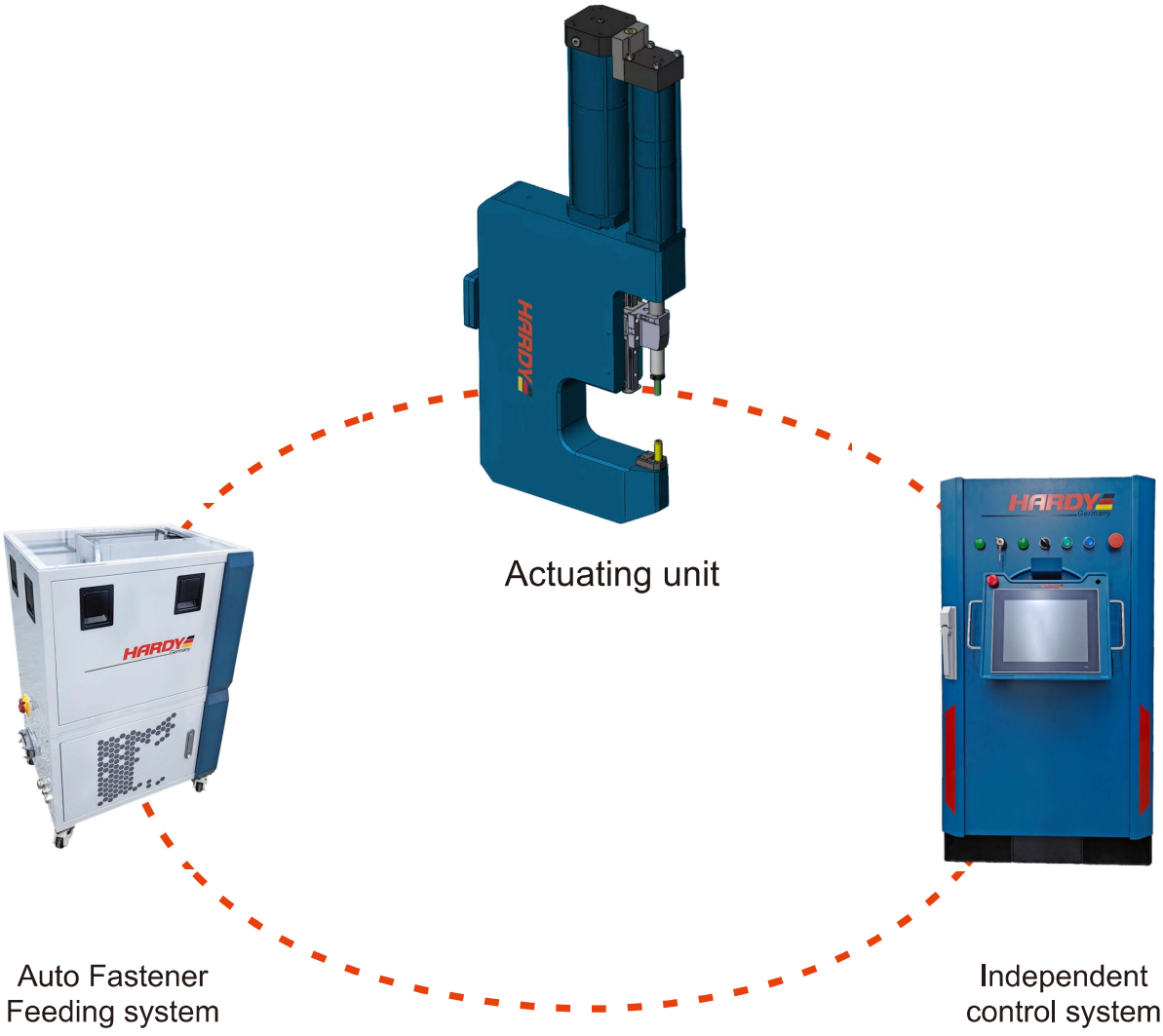
HDFRS equipment: Fixed and mobile Type

- Our press-riveting machine series delivers versatile solutions, including direct fastener feeding to the press-in point

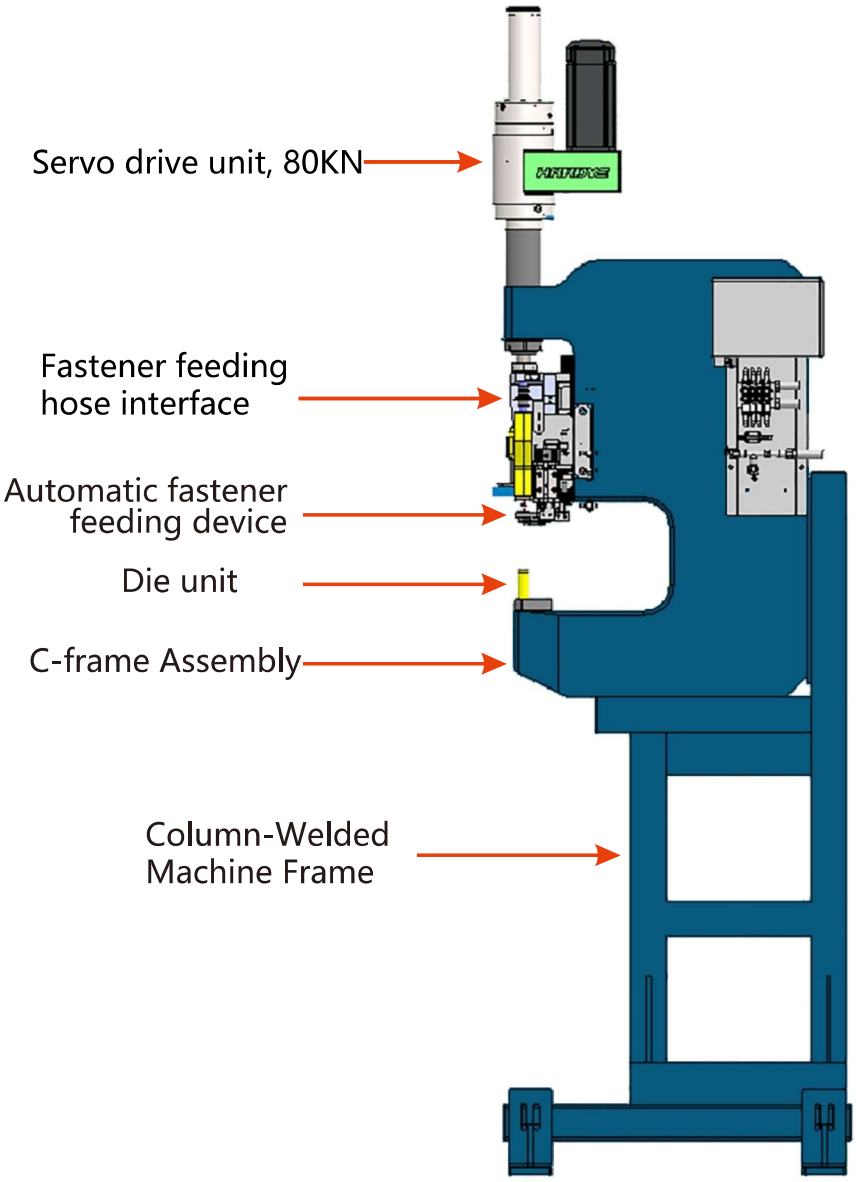
Technology and Services

- Provide application analysis/inspection, 3D modeling, sample production, on-site training, and a complete set of engineering technical support. In summary, press-riveting, with its efficient, safe, and reliable joining method, has a more cost-effective advantage in the field of modern fastening technology that requires fast, high-precision, intelligent, and automated assembly.

Units of servo Press-riveting equipment, automatic fastener blowing type



Detailed description of servo Press-riveting equipment, automatic fastener blowing type



Feature:

- Multiple configurations (stationary/mobile);
- High precision positioning;
- Servo drive ensures data acquisition and
- analysis; Compatible with rivet nuts/studs

Main applications:

- Automotive body press-fastening
- Sheet metal component press-assembly

Automatic Blow-Feed Servo Press-riveting System - Technical Specifications

Vibrating conveyor bowl

Storage magazine (5,000 rivets capacity)

Fastener feed hose, Cable outlet

	Descripton	Parameters
Press force	Main power	CNC servo press drive
	Max. pressure	80KN
C-frame assembly	Throat depth	Final dimensions subject to final assembly drawing.
	Opening height	
	Die height	
Cycle time	Cycle time including automatic fastender feeding	5-7sec
Power	Total power	5.0 KW
Feed system	Vibratory bowl feeder	1 Set

Independent control system

Features:

- Standardize "embedded PC" control
- The standard HMI for parameter setting,data curve viewing,and Error alarm reminde
- Simple and intuitive interface,password protected access levels
- The riveting process is automatically monitored to ensure the quality of riveting
- Data acquisition allows important data to be uploaded to the factory MES to ensure product quality
- Multiple communication protocols such as EtherNet/ IP, ProfiNet, equipmentNet,CC-Link etc.

HARDY Auto Fastener Feeding System

Features:

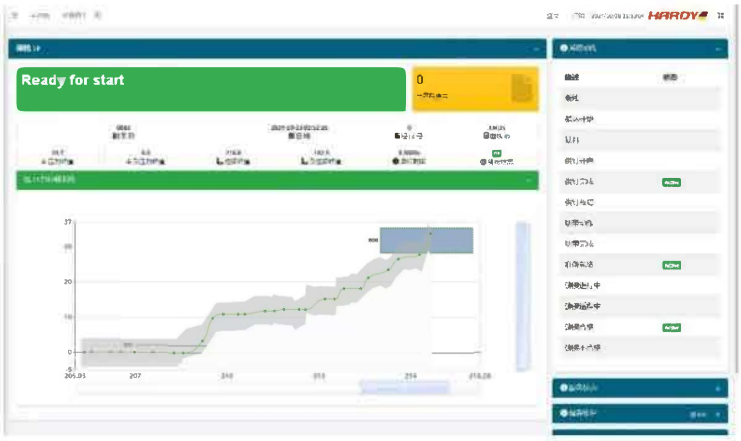
- Simplified design, greatly improve the stability of feeding
- Fastener feeding time <1S, to meet the CT requirements of all assembly industries
- The channel is independently customized to fully meet the adaptability of the fasteners
- Modular components for easy maintenance.

Feed hose

Features:

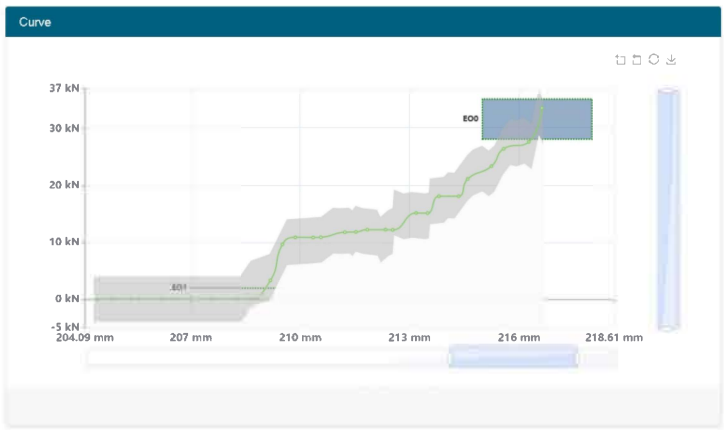
- Multiple specifications
- Remote Transmission

Software



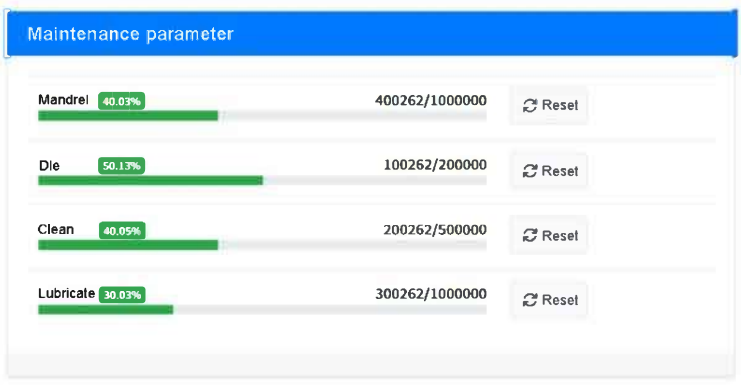
Main interface:

- Functional, concise and straightforward
- Alert of the status of each posture during device operation
- Real-time feedback on the operation of the device
- It can be operated by touch or keyboard and mouse



Data Acquisition and Analysis:

- Process data acquisition and graphical analysis



Maintenance:

- Preset maintenance prompts and record usage data