



HAIFEI INTELLIGENT EQUIPMENT CO. LTD

SPECIFICATION

HFTD-500 Medium-Frequency Diffusion Welder

1. Equipment Composition, Purpose, and Operating Conditions

1.1 Equipment composition:

A four-column hydraulic cylinder welding workbench, a Haifei welding machine control system, and related electrical components.

1.2 Equipment Purpose:

Copper flexible busbar diffusion welding.

1.3 Working Conditions:

Ambient temperature: 1–45°C; Humidity: 35–90%; Relevant cooling water, electricity, and gas systems provided.

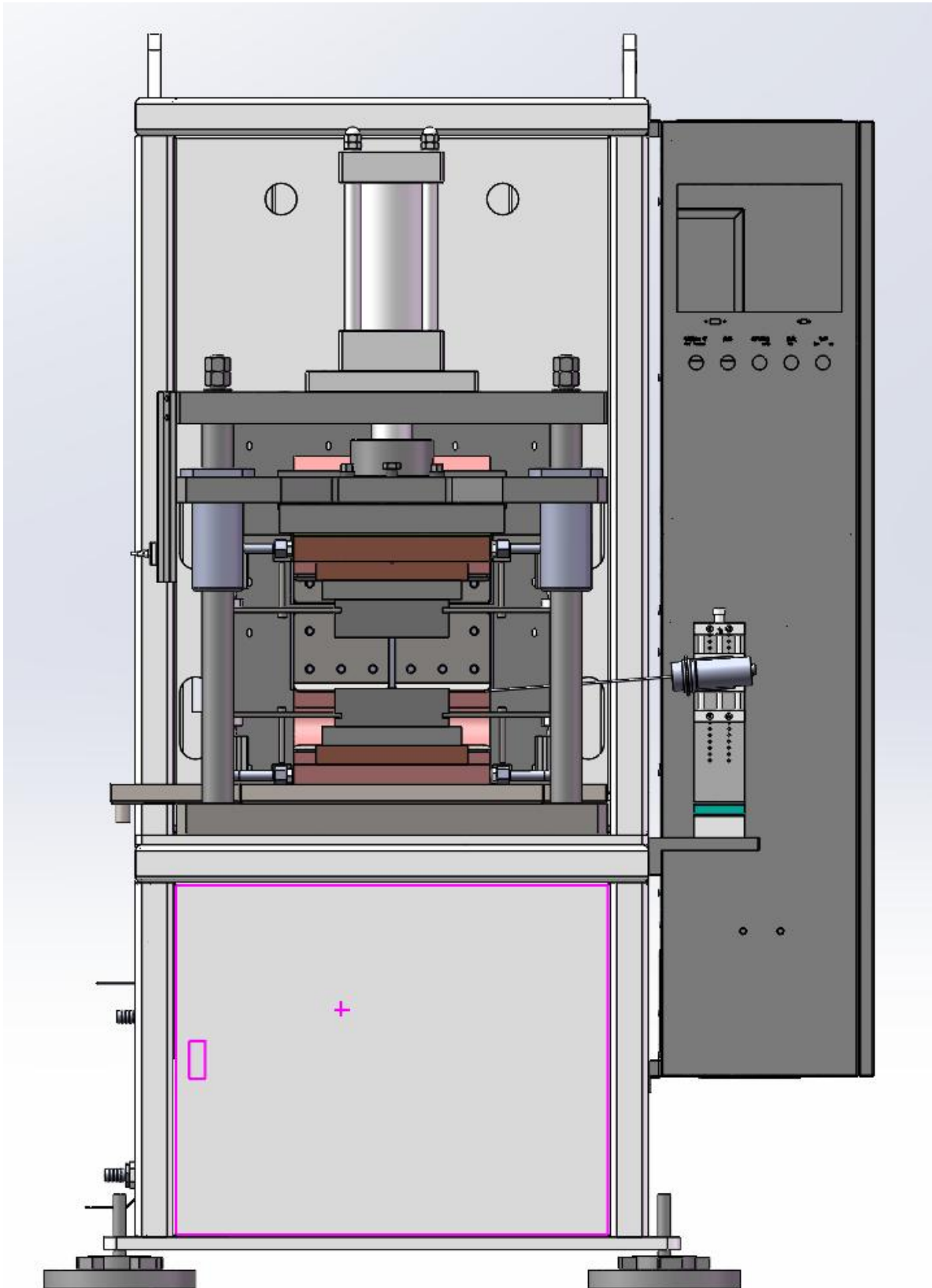
2. Main Technical Parameters of the Equipment (Parameter Table)

Item	Model
structural style	4-Pillar Hydraulic Cylinder Welding Workbench
control method	Frequency conversion inverter; Control system for Haifei copper welding machine
Temperature measurement range	Temperature range: 300–1200°C; repeatability accuracy: $\pm 0.5\%$ TH; temperature can be set and displayed on the touchscreen.
Work environment temperature range	5–45°C
Pressure application method	Maximum output pressure: 20 T; starting pressure: 0.5 T
Workbench activity range	150 mm; repeatability accuracy of press head positioning: ± 0.05 mm
Electrode installation area	240mm*240mm
Effective welding area	200mm*200mm (the smaller the area, the faster the welding speed); (Customizable)

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Single-time welding area	200mm*200mm (the smaller the area, the faster the welding speed)
Range of welding materials	Copper-copper welding, copper-nickel welding, hard copper-soft copper welding
Welding material thickness range	0.03-5mm
Thickness range of the welded product	0.5-25mm
Welding Control Function	1、 Output frequency: 15–400 Hz; 2、 It can program up to 64 welding specifications; 3、 Programmable output I/O port: Features three programmable output stages for better compatibility with PLCs, robots, and other devices. Weld point counting function.
defensive function	System shutdown due to abnormal water flow alarm, abnormal current alarm, or abnormal pressure alarm.
Data Storage Function	The database stores production data (such as pressure, temperature, and time), which is readable, traceable, and compatible with the MES system.
authority management	The software implements a hierarchical management system. Administrators can define and store product welding parameters (such as pressure, temperature, and time), while employees can only access these parameters.
contour size of the unit	1519 mm × 1218 mm × 2094 mm (length × width × height)

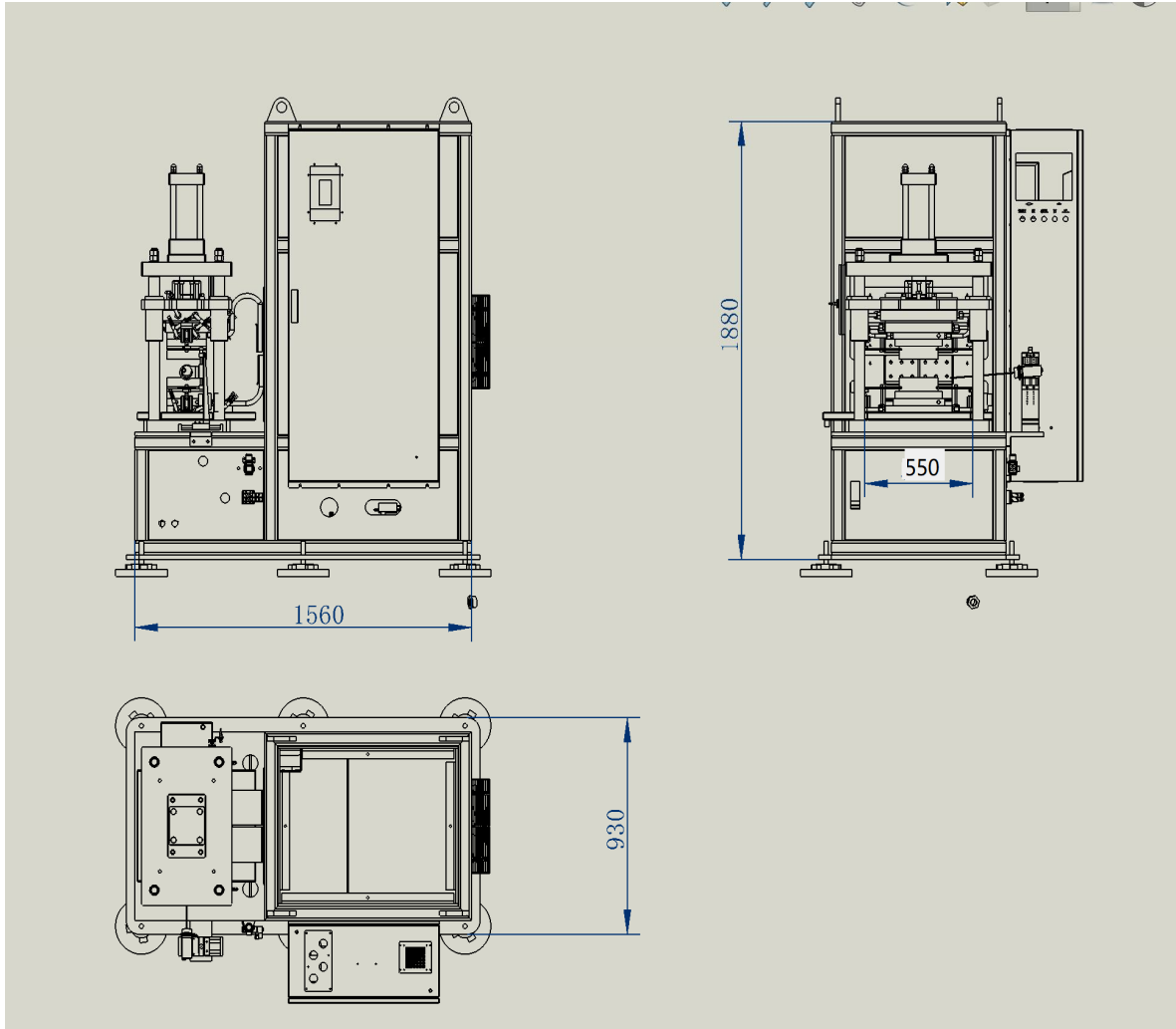
3. Device layout (for reference only; actual layout applies)





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4. Brands of Major Component Configurations

S.N	Description	Brand/Model	Country of origin
1	Electromagnetic valve, two-in-one unit	SMC/AIRTAC	Japan/China
2	Hydraulic cylinder 20T	Haifei Customization	China
3	touch screen	Fanyi/7 inches	China
4	Water Flow Switch	Anchao/CATO	China
5	Specialized welded main cylinder	Haifei	Haifei
6	Medium-frequency welding transformer	Haifei/500 kVA (temporary load rate: 100%; welding current: 60 kA)	Haifei
7	IGBT module	Fuji/2800A	Japan/China
8	Welding Controller	Haifei/HF2800	Haifei
9	low-voltage apparatus	OMRON/SCHNEIDER/Gar nor	Japan/France/Swi zerland
10	PLC	HuiChuan/XinJie	China