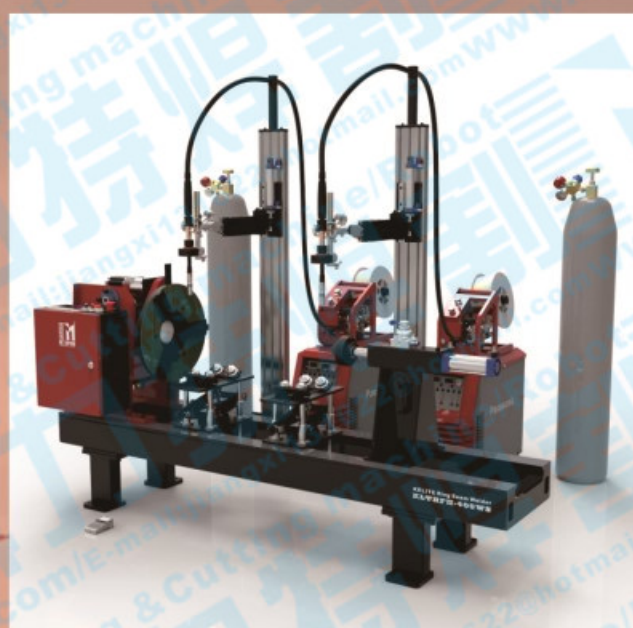
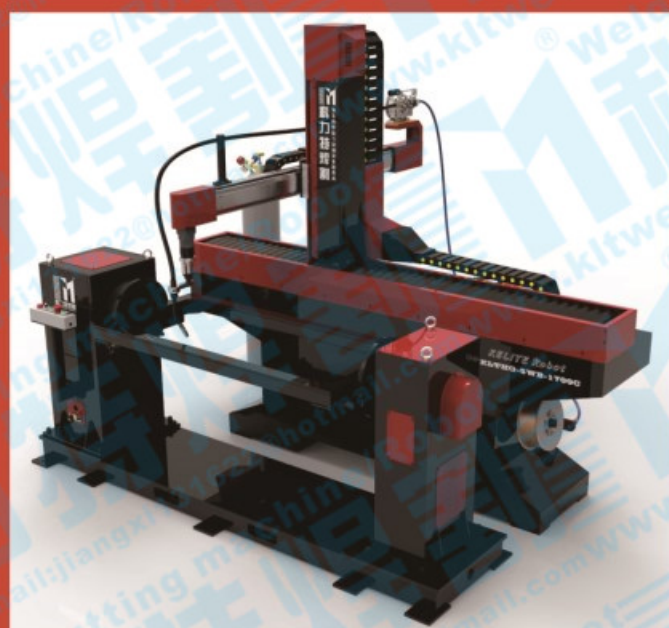




中国 盐城 · 科力特焊割

KELITE WELD TECH(CHINA)

专业的数控焊接机器人研发设计、生产销售、售后服务提供商。
Professional CNC welding robot/Machine R & D, production, sales and after-sales service providers.



Automated Welding Machine

Product catalogue

选型手册

盐城市科力特焊割设备有限公司

KELITE WELD TECH (CHINA) LIMITED
Yancheng City Kelite Welding Equipment Co., Ltd.

中国 · 江苏
CHINA · JIANGSU

2019-04

公司简介

Company Introduction

盐城市科力特焊接设备有限公司的主要业务是开发、生产和销售全自动焊接设备。作为焊接自动化解决方案提供商，公司主要产品包括成套焊接设备、焊接机器人机器人焊接夹具、集成外轴数控工作站非标焊接自动化设备、龙门数控火焰等离子切割机、平面刨、光学等。铝纤维、光纤管材切割机、太阳能、储气罐、储气罐、天然气、燃料箱等压力容器焊接生产线、H型钢焊接生产线及辅助设备（焊接操作机、滚轮架、定位器），在工程中得到广泛应用。环机械、石油化工、轨道交通、矿山机械、造船、航天和军事等高端装备制造等领域是国民经济的重要产业。

Yancheng City Kelite welding equipment limited company's main business is the development, production and sales of automatic welding equipment. As the welding automation solution provider, the company's main products include integrated sets of welding equipment, welding robot robot welding fixture, integrated external axis NC workstation non-standard welding automation equipment, Longmen CNC flame plasma cutting machine, plane plane, optical fiber, optical fiber pipe cutting machine, solar energy, gas tank, gas tank, natural gas, fuel tank and other pressure vessel welding production line, H type steel welding production line and auxiliary equipment (welding operation machine, roller frame, positioner), and is widely used in engineering machinery, petroleum chemical industry, rail transportation, mining machinery, shipbuilding, aerospace and military and other high-end equipment manufacturing and other fields important industries of the national economy.

传承浑厚底蕴，结合现代企业模式，以诚信、创新、业绩、和谐、安全为企业核心，是科力特公司发展的动力源泉，科力特焊割将以服务客户、奉献社会为信念，为推动中国焊割自动化作出应有贡献！

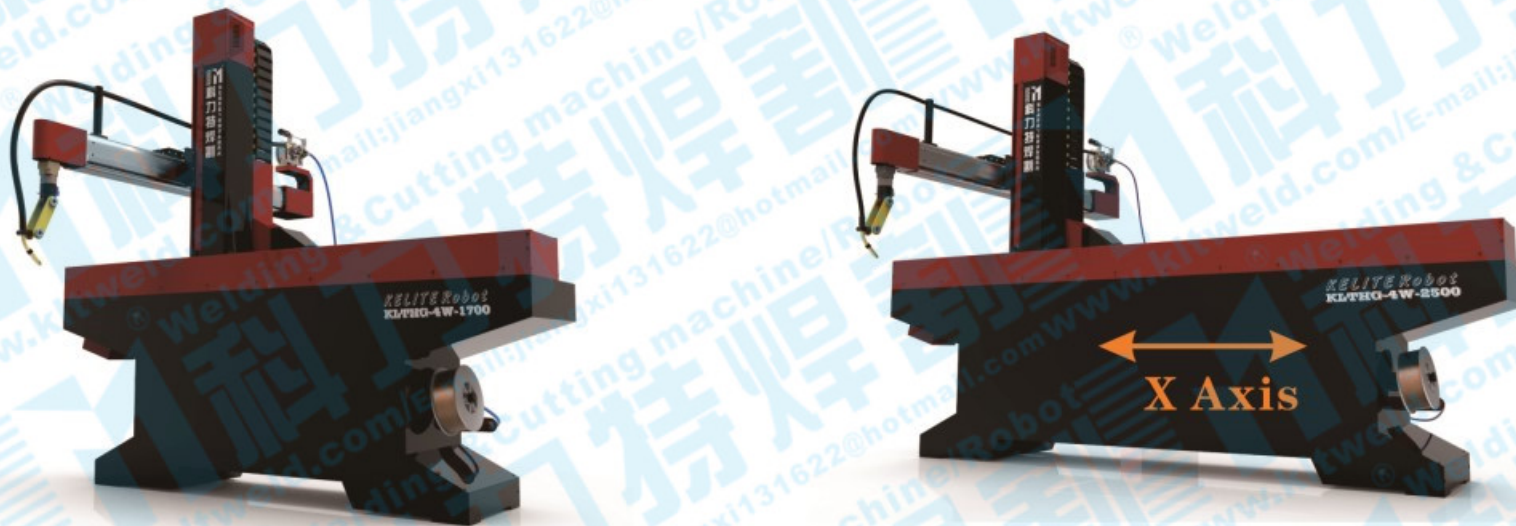


公司业绩 Company Achievements



如何分类? (型号详解) How to classify? (Detailed model number)

一、数控四轴焊接机器人 (CNC 4 Axis Welding Robot)



型号(Model) : KLTHG-4W-(1700/2500/3000/4000)(A/B/C)

- 1) KLTHG: Our company name (Kelite Weld)
KLTHG: 指我公司的简称 (科力特焊割)
- 2) 4W: Cnc 4 Axis Linkage
4W: 指数控4轴联动
- 3) 1700/2500/3000/4000: X-Axis Effective Length: 1700mm or 2500mm or 3000mm or 4000mm
1700/2500/3000/4000: 指X轴有效长度分别是1700mm或2500mm或3000mm或4000mm
- 4) A/B/C
A: Panasonic Welding Power
B: OTC Welding Power
C: Other Brand



Panasonic-KR II 350/500
(CO2/MAG)



Panasonic-FR II 350/500
(CO2/MAG/MIG)



Panasonic-YD350/500GL5
(CO2/MAG/MIG)



OTC-XD350/500S II
(CO2/MAG)



OTC-CPVE400/500
(CO2/MAG/MIG)



OTC-EP400/500
(CO2/MAG/MIG)

备注: 由于我公司产品型号很多, 我公司后期如有新型号, 会以新的报价单解释说明。

Remarks: Due to the large number of models of our company, if there are new models in the later stages of our company, we will explain the new quotation.

二、数控四轴焊接机器人简介(Introduction to CNC 4-axis welding robot)

KLTHG-4W-1700/2500/3000/4000数控四轴焊接机是一种数字式，类似6轴联动机器人，可实现四轴同时联动，并有效实现各类平面二维和空间三维弧焊专用数控焊接设备。主机采用四轴垂直坐标系统焊接。X，Y和Z是直线轴，R轴是旋转轴。

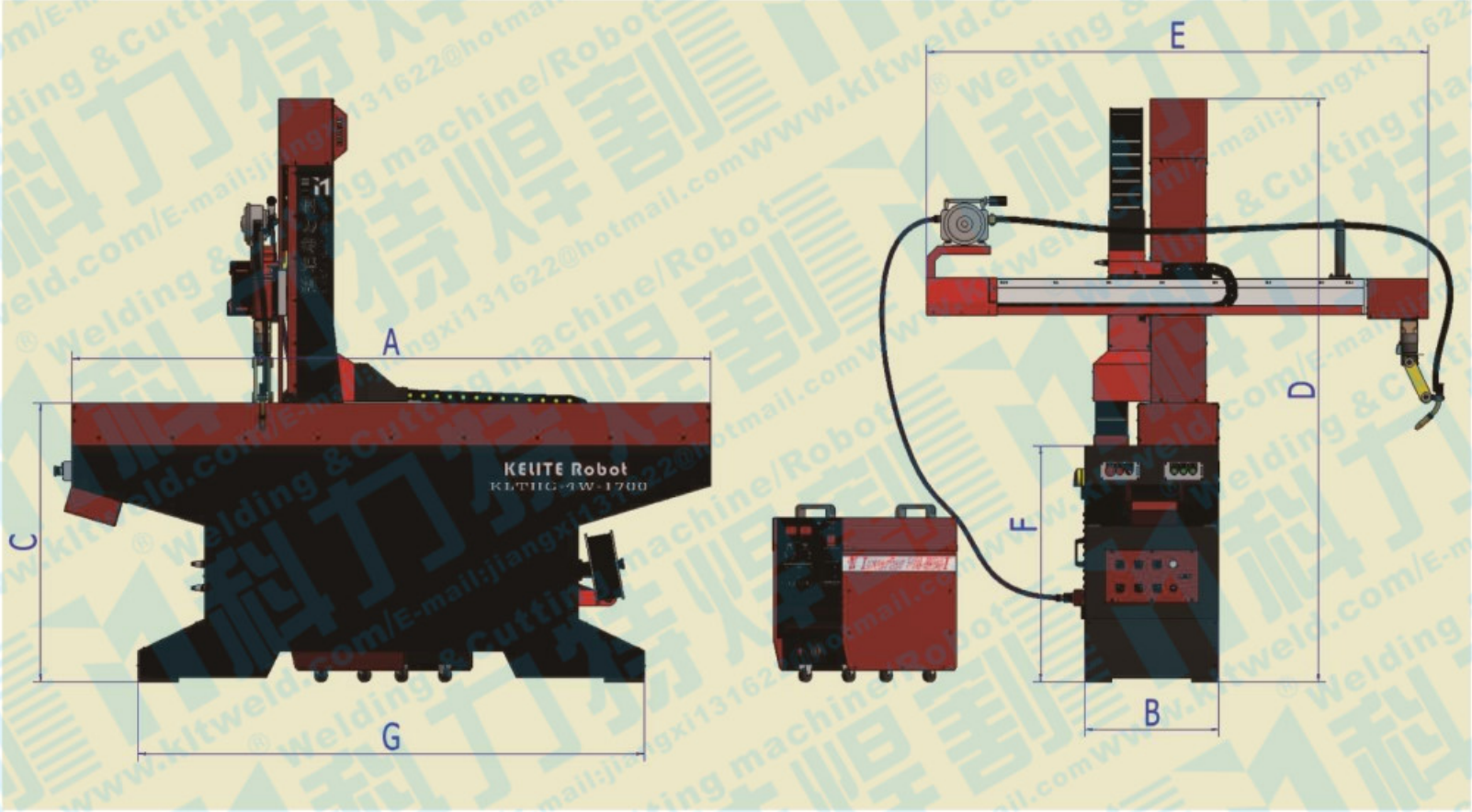
KLTHG-4W-1700/2500/3000/4000 CNC 4 axis welding machine is a digital, similar to the 6 axis joint robot, can achieve four axis simultaneous linkage, and efficient implementation of various types of plane 2D and space 3D arc welding special CNC welding equipment. The main machine is welded by four axis vertical coordinate system. X, Y and Z are linear axes, and the R axis is the rotating shaft.

- 1.在示教模式下，只要用手移动轨迹并将其移入每个移动点，就可以自动记录焊接轨迹。大大节省编程时间，简单的学习
- 2.控制系统专用运动控制芯片技术可实现4轴或5轴联动，具有PLC可实现复杂动作要求的顺序，高速稳定性。
- 3.执行部分采用交流伺服电机，实现高精度，高速运转，高稳定性。
- 4.传动部分采用台湾TBI精密滚珠丝杠，提高重复定位精度和使用寿命，指导使用银色直线导轨，精度和使用寿命，降低机器噪音，线材重复定位精度在0.1mm以内。
- 5.安装方式采用落地式，大大提高了机器的灵活性。
- 6.机器操作简单，稳定性高。它可以由普通工人操作，无需专业焊工。
- 7.焊接机械手的价格仅为关节机械手的20%，大大降低了使用成本，是真正的机械手。

1. In the teaching mode, the welding track can be recorded automatically as long as the track is moved by hand and taken into each moving point. Greatly save programming time, simple learning
2. Control system specific motion control chip technology can achieve 4 or 5 axis linkage, with PLC can achieve complex sequence of action requirements, high speed stability.
3. The executive part adopts AC servo motor to realize high precision, high speed operation and high stability.
4. The transmission part uses the Taiwan TBI precision ball screw to improve the repetitive positioning accuracy and service life, guide the use of silver linear guide, accuracy and service life and reduce the noise of the machine, wire rod repeat positioning accuracy within 0.1mm.
5. The installation method adopts floor mounted type, greatly improving the flexibility of the machine.
6. The machine is simple to operate and has high stability. It can be operated by ordinary workers without professional welders.
7. The price of the welding manipulator is only 20% of the joint manipulator and greatly reduces the use cost, and is the real manipulator.

主要技术参数 (Main Technical Parameters)					
型号Model		KLTHG-4W-1700	KLTHG-4W-2500	KLTHG-4W-3000	KLTHG-4W-4000
X轴有效行程	X Axis Effective Stroke	1700mm	2500mm	3000mm	4000mm
Y轴有效行程	Y Axis Effective Stroke	800mm/1000mm/1100mm			
Z轴有效行程	Z Axis Effective Stroke	500mm			
R轴有效行程	R Axis Effective Stroke	0-400degree			
最高运行速度	Maximum operating speed	700mm/s;42m/min			
重复定位精度	Repeatability	±0.1mm			
编程模式	Programming mode	Teach Mode and Manual Mode			
X/Y/Z/R轴电机	X/Y/Z/R shaft motor type	Absolute value servo motor			
输入输出	Input and output ports	24Inputs,16Outputs			
输入电压	Input voltage	220V 50HZ			
重量	weight	655 Kg	880 Kg	1400 Kg	1520 Kg

三、数控四轴焊接机器人组成 (CNC 4 Axiswelding robot composition)

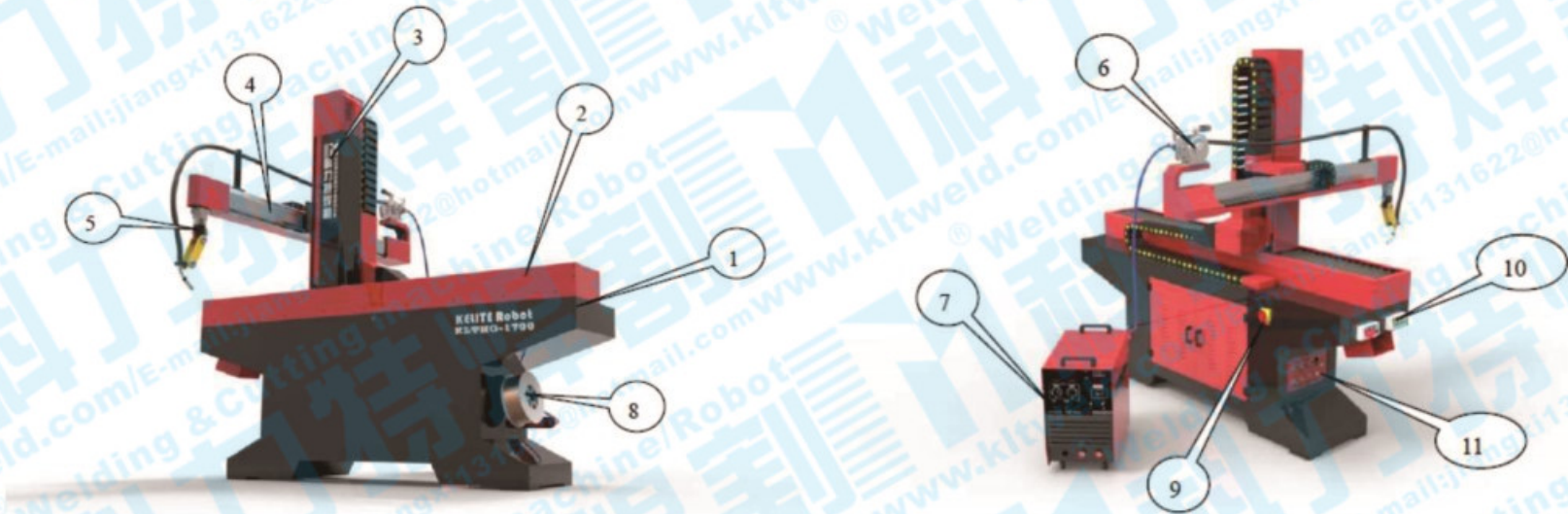


数控焊接机器人外观尺寸(mm) CNC welding robot appearance size(mm)

型号	A	B	C	D	E	F	G
KLTHG-4W-1700	2405mm	504mm	1048mm	2195mm	1888mm	888mm	1905mm
KLTHG-4W-2500	3205mm	504mm	1048mm	2195mm	1888mm	888mm	2705mm
KLTHG-4W-3000	4504mm	600mm	1126mm	2224mm	1888mm	966mm	4000mm
KLTHG-4W-4000	5504mm	600mm	1126mm	2224mm	1888mm	966mm	5000mm

数控四轴焊接机器人由焊接主机，控制系统，焊接电源等组成。每个系统通过电缆连接形成一个有机整体，便于设备的安装和维护。

The equipment consists of welding main machine, control system, welding power supply and so on. Each system is connected by cable to form an organic whole, which is convenient for the installation and maintenance of equipment.

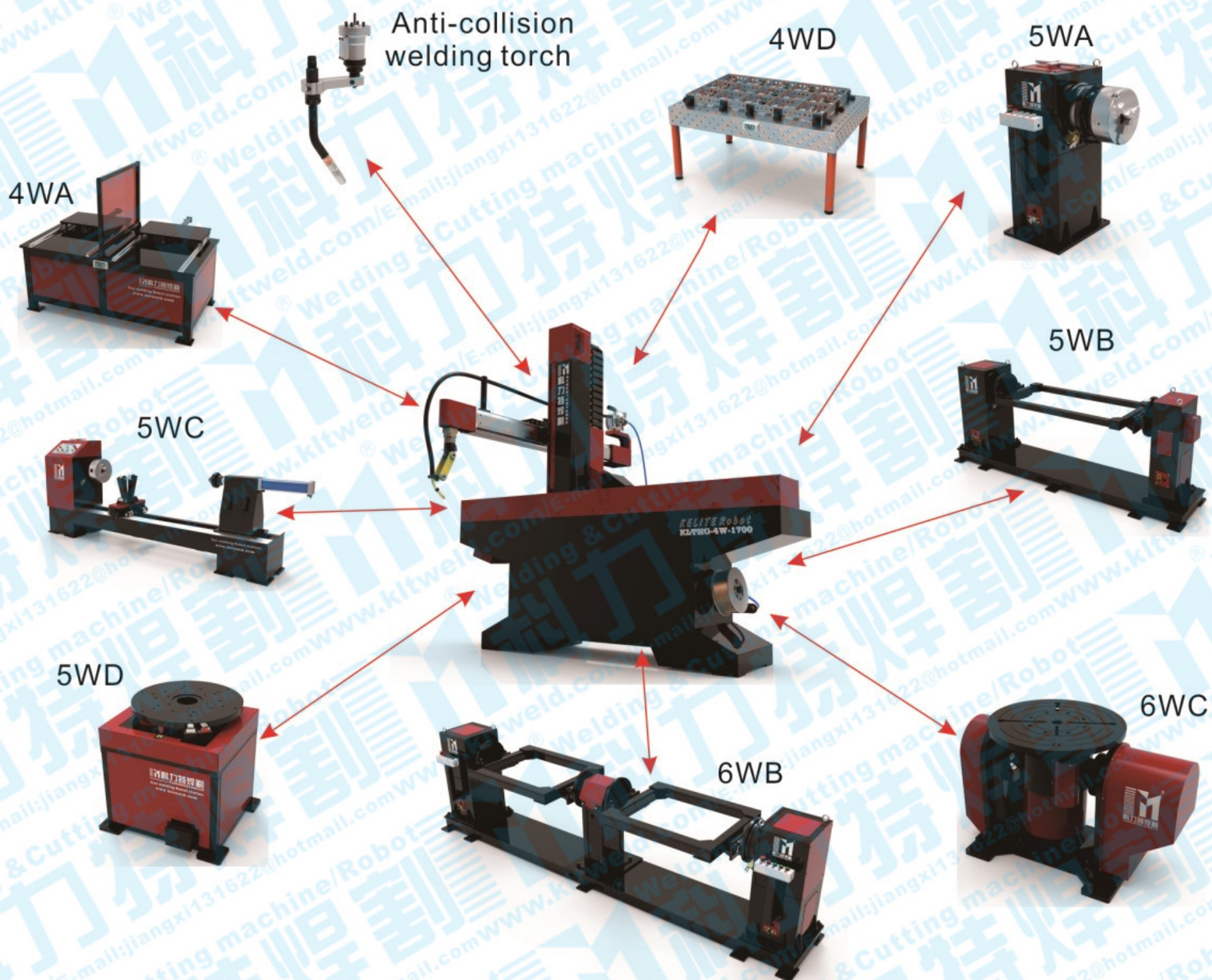


- 1, 床身2, X轴走行滑台3, Z轴升降滑台4, Y轴线性模块5, R轴旋转轴6, 送丝机组
7, 焊接电源8, 送丝盘 9 , 电源开关10, 控制按钮11, 外部控制信号端口
1、Bed base 2、X axis walking slipway 3、Z axis lifting slide table 4、Y axis linear module
5、R axis rotation axis 6、Wire feeder assembly 7、Welding power 8、Wire feed plate
9、Power switch 10、Control button 11、External control signal port

四、数控四轴焊接机器人-可选配部件(CNC four-axis welding robot optional components)

KLTHG-4W-1700/2500/3000/4000可以与外部平台、外部轴变位器、防撞焊枪、模拟量模块等配合使用，可以实现双工位/5轴/6轴自动化焊接机器人工作站，提高焊接生产量的效率和质量。

KLTHG-4W-1700/2500/3000/4000 can be used with external platforms, external shaft positioners, anti-collision welding guns, analog modules, etc., and can realize double-station/5-axis/6-axis automatic welding robot workstations. Welding production efficiency and quality.



Other optional accessories		
焊机模拟量模块	Welder analog module	0-10V

- 1、焊机模拟量模块是指可以通过CNC控制器直接设定焊接电源的电流和电压，添加这种模块，可以实现一段或多段焊缝获取不同的电压和电流。
- 2、设定方法：在控制器中只需要设定电流和电压的百分比。
- 3、如果没有这个模块，只能手动去调整焊接电源中的旋钮，来设定电流电压。在自动焊接中，每段焊缝的电流和电压几乎是一样。

1. The welder analog module means that the current and voltage of the welding power supply can be directly set by the CNC controller. Adding this kind of module can realize one or more welding seams to obtain different voltages and currents.
2. Setting method: Only the percentage of current and voltage need to be set in the controller.
3. if there is no such module, you can only manually adjust the knob in the welding power supply to set the current and voltage. In automatic welding, the current and voltage of each weld are almost the same.

1,简介 Introduction

1)KLTHFH-400A/B/W/WS 数控环缝焊接机床是一台实现环缝自动焊接设备。可配有TIG氩弧焊机（填丝或不填丝）、熔化极气体保护焊机（CO2/MAG/MIG）、等离子等焊接电源组成一套环缝自动焊接系统；

1) KLTHFH-400A/B/W/WS CNC ring seam welding machine is a kind of automatic welding equipment for ring seam. It can be equipped with a TIG argon arc welding machine (filled or unfilled), a gas shielded gas welding machine (CO2/MAG/MIG), plasma and other welding power sources to form a ring seam automatic welding system;

2)由床身、旋转变位机、移动机构、气动尾座、焊枪气动提升机构、焊枪调节装置和CNC自动焊接控制器组成；

2) Consisting of bed body, rotary positioner, moving mechanism, pneumatic tailstock, welding gun pneumatic lifting mechanism, welding gun adjusting device and CNC automatic welding controller;

3) 该产品采用的是组合式结构，搭配和装拆方便，机动性好。因此，配以合适的焊接电源就可以适用于各类环形焊缝的自动焊接；

3) The product adopts a combined structure, which is convenient for assembly and disassembly, and has good maneuverability. Therefore, with the appropriate welding power supply, it can be applied to the automatic welding of all kinds of ring welds;

4) 该设备主要用于不同材质、不同尺寸和形状工件的高质量的环缝焊接；

4) The equipment is mainly used for high quality circumferential seam welding of workpieces of different materials, different sizes and shapes;

5)类似工件如储气筒、消防筒、传动轴、减震器、消声器、管子法兰等环缝焊接。卧式双环缝焊机上安装两个焊枪，并可同时进行焊接。

4) Similar workpieces such as air reservoirs, fire tubes, drive shafts, shock absorbers, mufflers, pipe flanges, etc. Two welding torches are mounted on the horizontal double-ring seam welder and can be welded at the same time.

2, KLTHFH-400A/B 旋转变位机介绍 Rotary Positioner Introduction

2.1 KLTHFH-400A/B 变位机主要配置 positioner Main configuration

该自动焊接机器采用步进或伺服电机驱动；系统主要功能：自动、手动、程序、参数、IO 等。

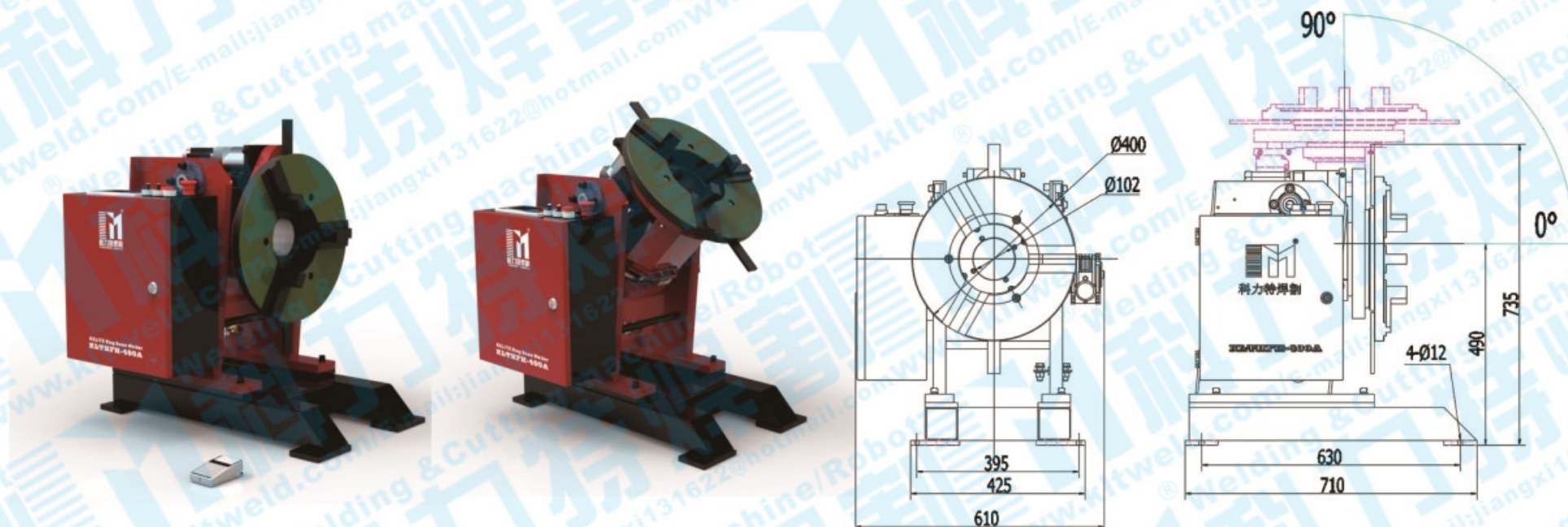
The automatic welding machine is driven by stepper or servo motor; the main functions of the system: automatic, manual, program, parameter, IO, etc.



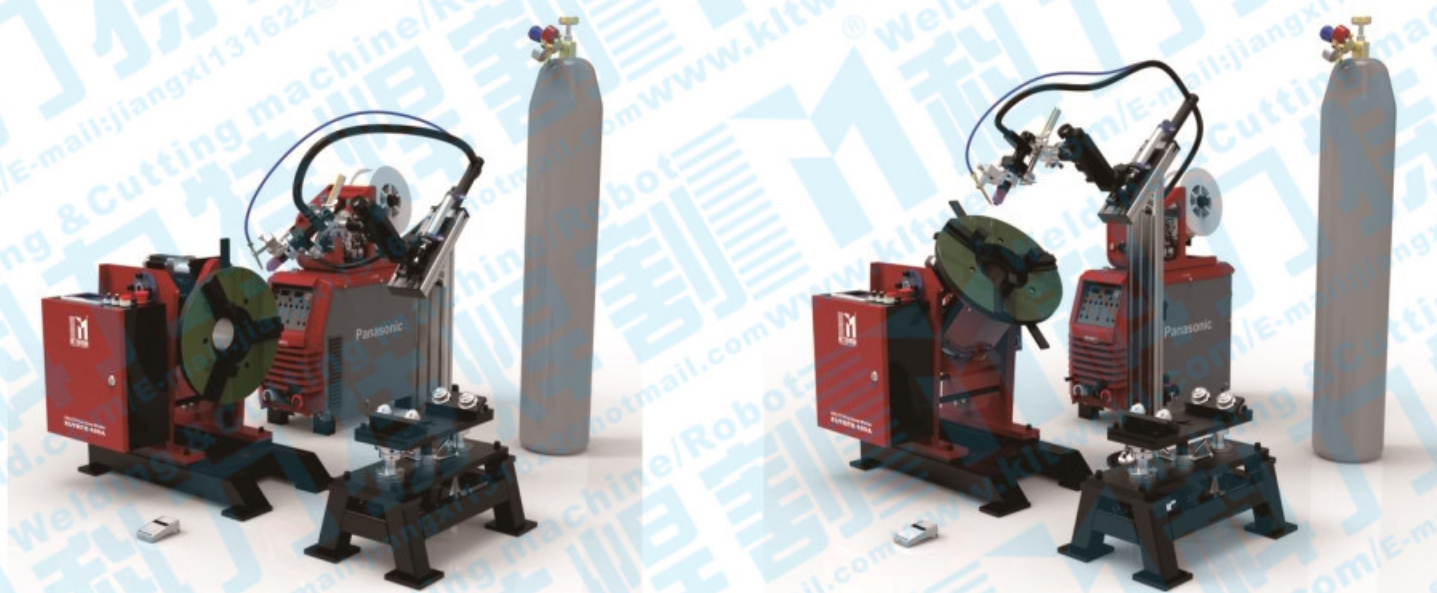
KLTHFH-400A (CO2/MAG/MIG)

Remarks: Due to the large number of models of our company, if there are new models in the later stages of our company, we will explain the new quotation.

2.2 KLTHFH-400A 变位机参数 Positioner parameters



型号/Model	KLTHFH-400A
输入电压/Input power	AC220V 50/60HZ
负载/Load	90°≤1000kg; 0°≤500kg,add support bracket ≤ 1000kg
卡盘直径/Chuck diameter	Φ400 mm
通孔直径/Through hole diameter	Φ102 mm
中心高 /Center height	490 mm
翻转角度/Flip angle	0° - 90°
功能/Feature	手动/自动/编程；Manual/Auto/program
电机驱动/Motor	步进或伺服 Stepper motor or servo motor
控制器/Controller	Cnc 2 Axis controller
外形尺寸/Dimensions	710 * 610 * 735 mm
重量/weight	160 kg

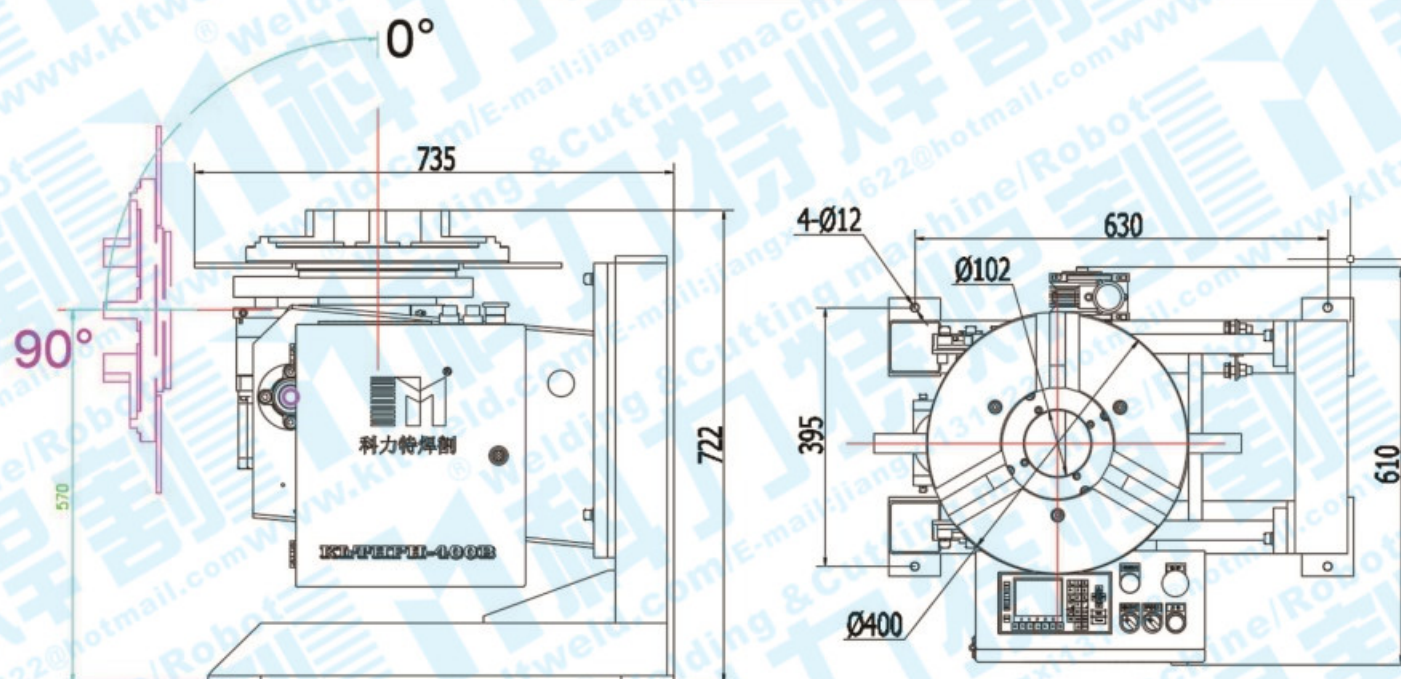


KLTHFH-400A (TIG/Plasma)

数控环缝焊接机床

CNC Ring Seam Welding Machine

2.3 KLTHFH-400B 变位机参数 Positioner parameters



型号/Model	KLTHFH-400B
输入电压/Input power	AC220V 50/60HZ
负载/Load	0°≤1000kg; 90°≤500kg,add support bracket ≤ 1000kg
卡盘直径/Chuck diameter	Φ400 mm
通孔直径/Through hole diameter	Φ102 mm
中心高 /Center height	570 mm
翻转角度/Flip angle	0° - 90°
功能/Feature	手动/自动/编程；Manual/Auto/program
电机驱动/Motor	步进或伺服 Stepper motor or servo motor
控制器/Controller	Cnc 2 Axis controller
外形尺寸/Dimensions	735 * 610 * 725 mm
重量/weight	180 kg

Remarks: Due to the large number of models of our company, if there are new models in the later stages of our company, we will explain the new quotation.

2.4 应用案例 Applications



KLTHFH-400B (CO2/MAG/MIG)

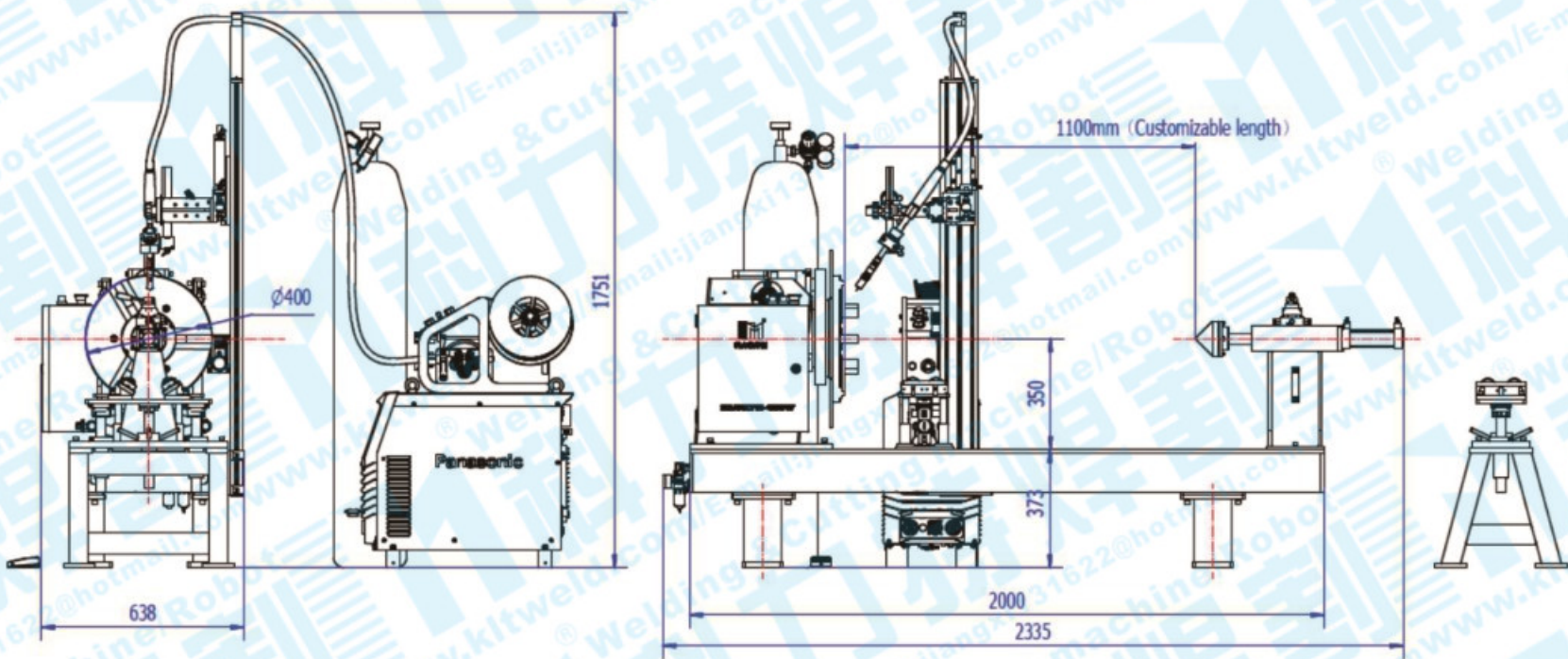
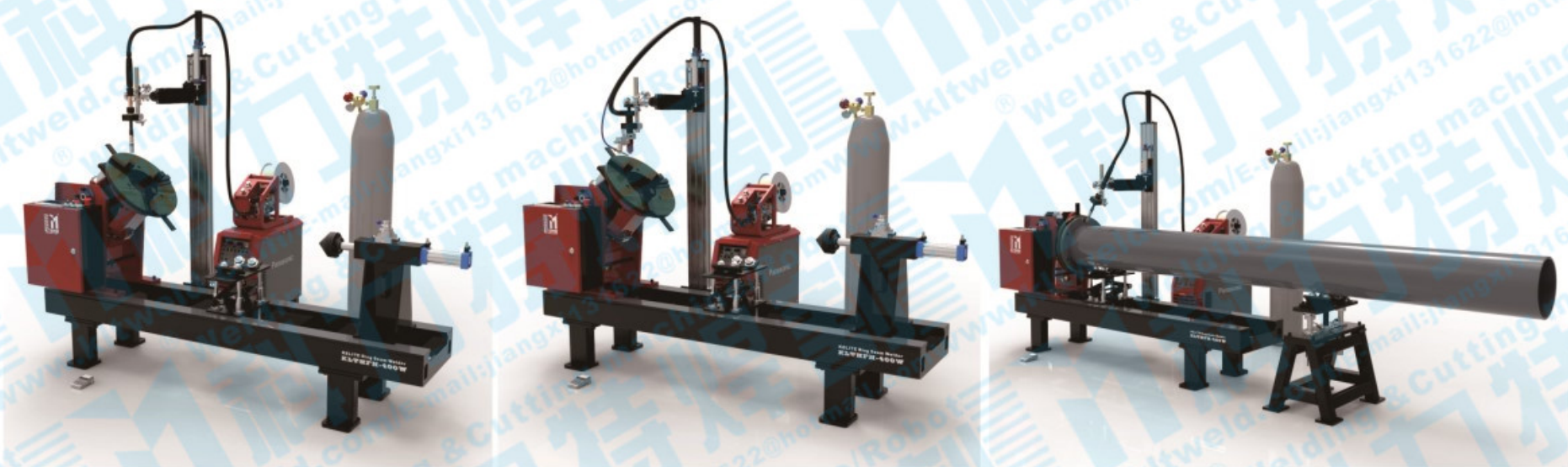


KLTHFH-400B (TIG/Plasma)

2.5 焊接产品展示 Welding product display



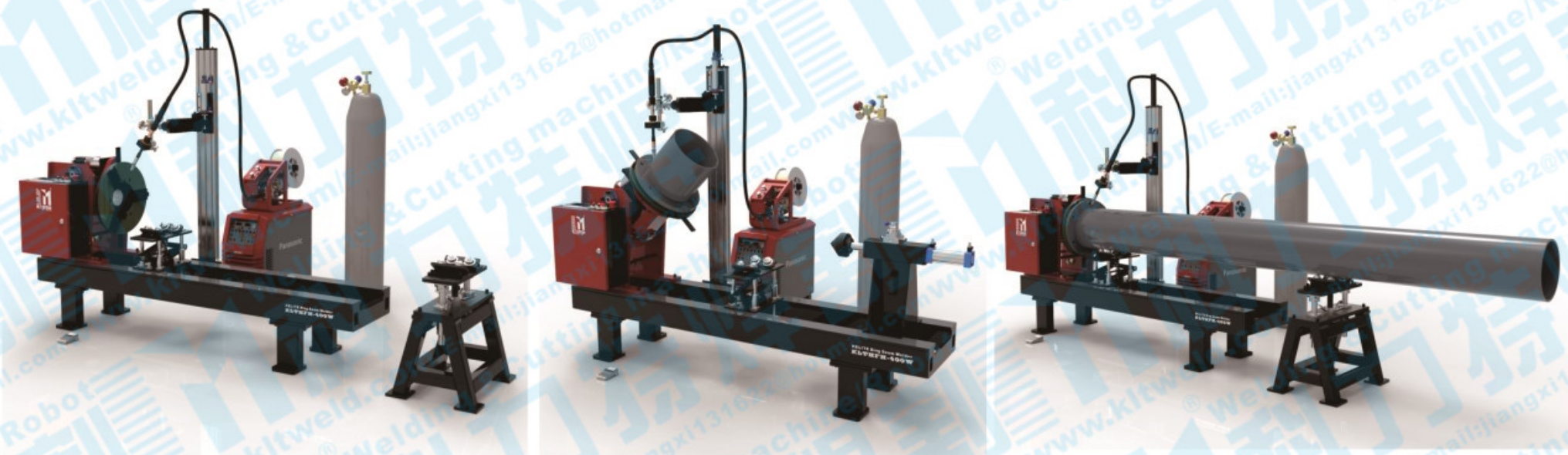
3, KLTHFH-400W 数控单枪环缝焊机CNC Single Gun Ring Seam Welder



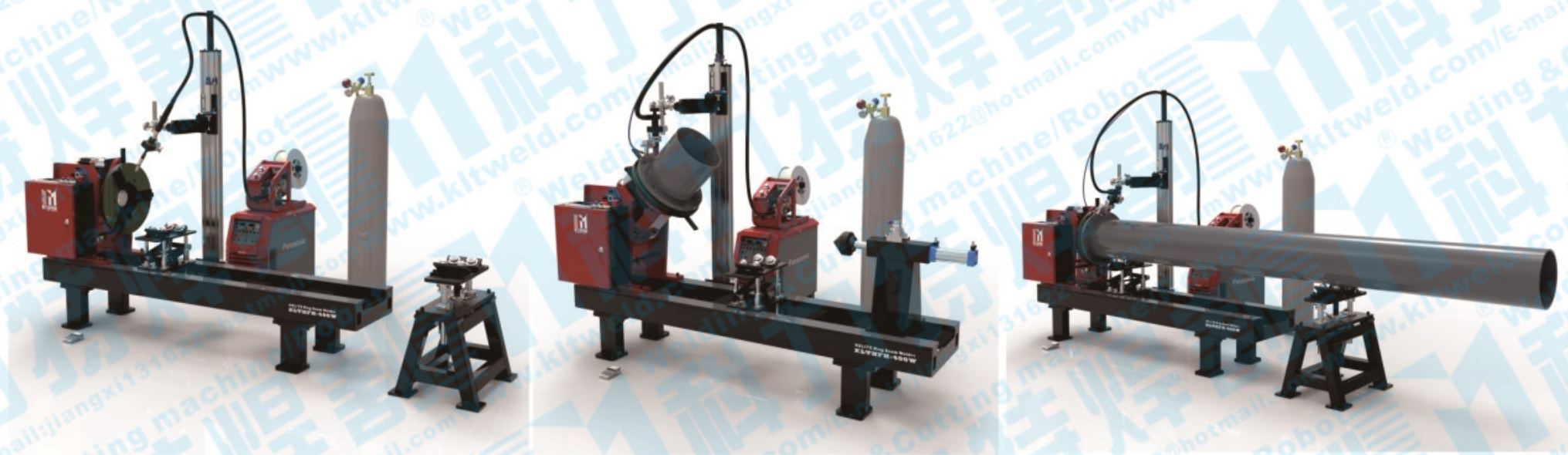
型号/Model	KLTHFH-400W
输入电压/Input power	AC220V 50/60HZ
负载/Load	90°≤1000kg; 0°≤500kg,add support bracket ≤ 1000kg
卡盘直径/Chuck diameter	Φ400 mm
通孔直径/Through hole diameter	Φ102 mm
中心高 /Center height	350 mm; 723mmfromtheground
变位机翻转角度/Positioner Flip angle	0° - 90°
功能/Feature	手动/自动/编程；Manual/Auto/program
电机驱动/Motor	步进或伺服 Stepper motor or servo motor
控制器/Controller	Cnc 2 Axis controller
外形尺寸/Dimensions	2340 * 640 * 1760mm
重量/weight	380 kg(不包括焊接电源/not include welding power)

Remarks: Due to the large number of models of our company, if there are new models in the later stages of our company, we will explain the new quotation.

2.4 应用案例 Applications



KLTHFH-400W (CO2/MAG/MIG)

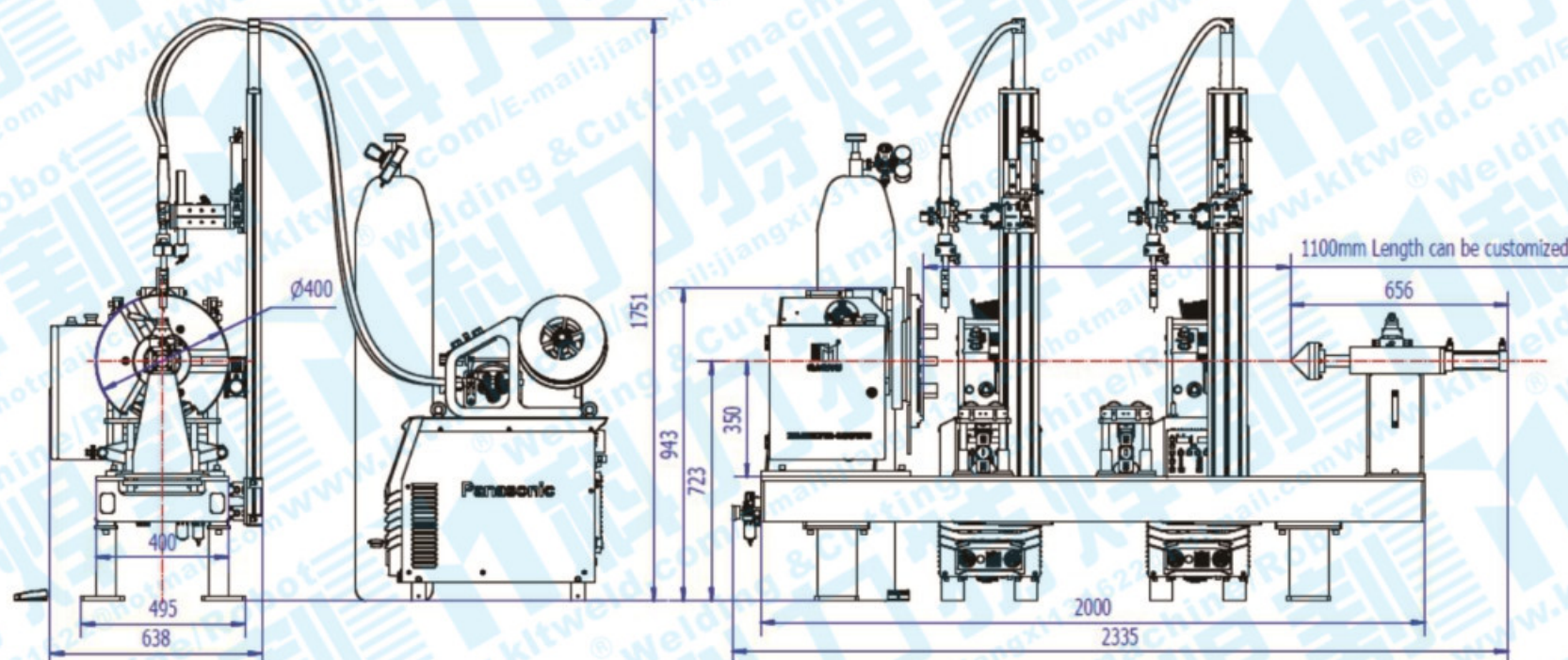
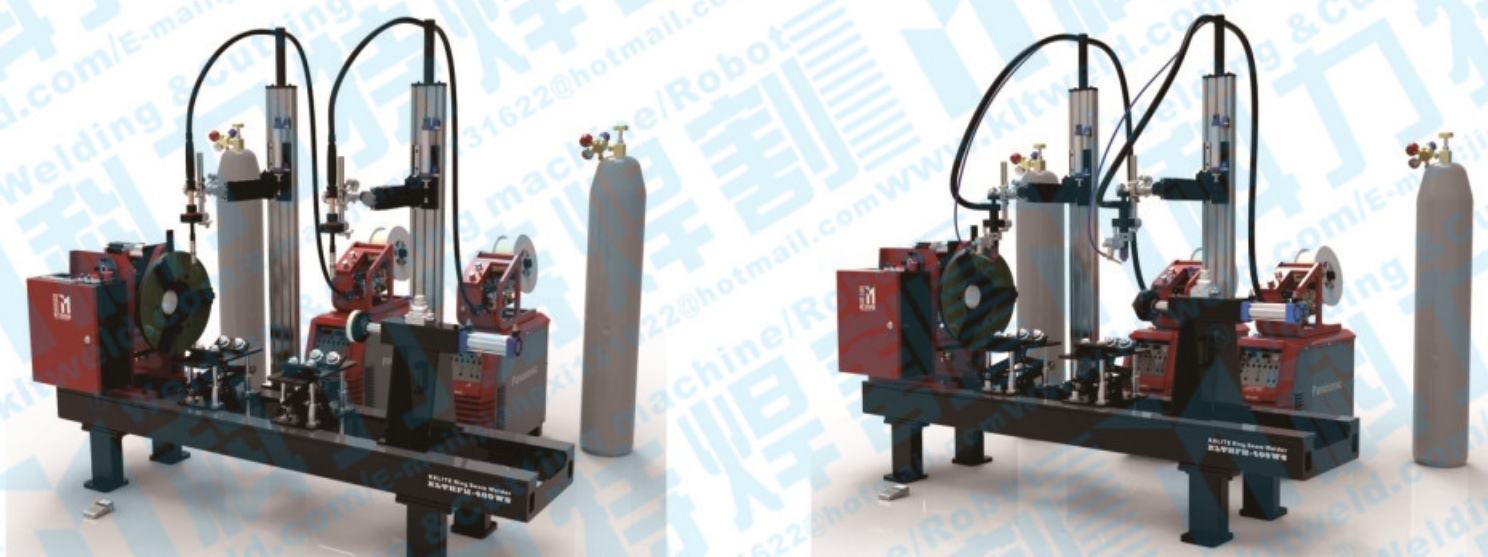


KLTHFH-400W (TIG/Plasma)

2.5 焊接产品展示 Welding product display



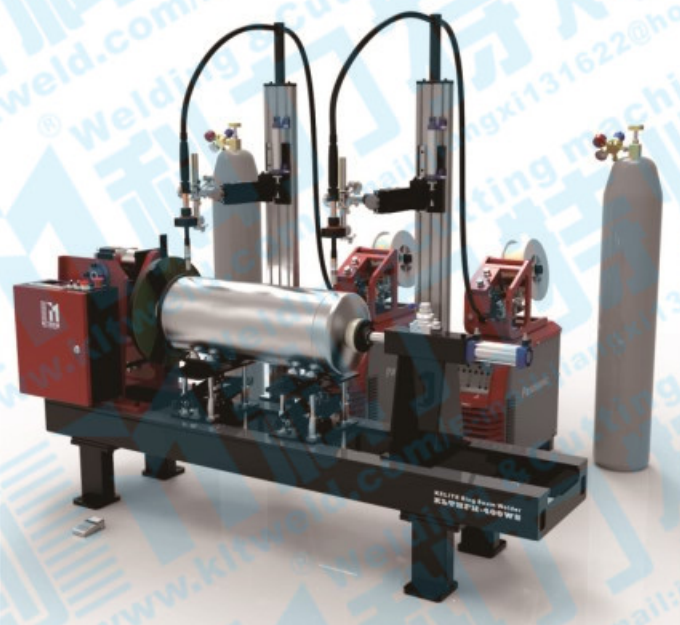
3, KLTHFH-400WS 数控双枪环缝焊机CNC Double Gun Ring Seam



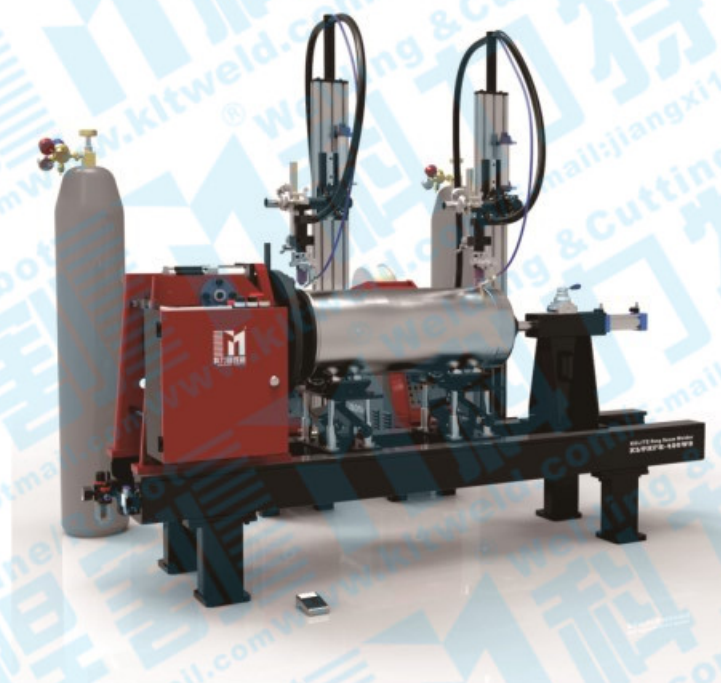
型号/Model	KLTHFH-400WS
输入电压/Input power	AC220V 50/60HZ
负载/Load	90°≤1000kg; 0°≤500kg,add support bracket ≤ 1000kg
卡盘直径/Chuck diameter	Φ400 mm
通孔直径/Through hole diameter	Φ102 mm
中心高 /Center height	350 mm; 723mmfromtheground
变位机翻转角度/Positioner Flip angle	0° - 90°
功能/Feature	手动/自动/编程；Manual/Auto/program
电机驱动/Motor	步进或伺服 Stepper motor or servo motor
控制器/Controller	Cnc 2 Axis controller
外形尺寸/Dimensions	2340 * 640 * 1760mm
重量/weight	400 kg(不包括焊接电源/not include welding power)

Remarks: Due to the large number of models of our company, if there are new models in the later stages of our company, we will explain the new quotation.

3.1 应用案例 Applications



KLTHFH-400W (CO2/MAG/MIG)



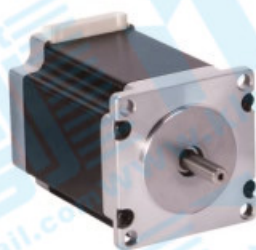
KLTHFH-400W (TIG/Plasma)

3.2 焊接产品展示 Welding product display



3, KLTHFH-400 数控环缝焊机部件CNC Ring Seam Welder parts

3. 1步进驱动装置/Stepper drive and motor



YKD2405M/YKD2408M是基于全新一代32位DSP技术的高性能数字式步进驱动器，驱动电压DC20-50V/DC20-80V，采用单电源供电。适配电流4.0A以下，外径42mm、57mm、86mm的各种型号的两相混合式步进电机。

该驱动器在内部采用类似伺服的控制原理，独特的电路设计，优越的软件算法处理，即使在低细分条件下也可以使电机低速运行平稳，几乎没有振动和噪音；平滑、精确的电流控制技术大大减小了电机发热；外置16档等角度恒力矩细分，最高200细分；光电隔离差分信号输入，抗干扰能力强；具有过压、欠压、过流等出错保护功能；在点胶机、激光雕刻等中、低速应用领域，其平稳性、振动、噪声性优势明显，可大大提高设备性能。

YKD2405M/YKD2408M is a high-performance digital stepping driver based on a new generation of 32-bit DSP technology. The driving voltage is DC20-50V/DC20-80V, which is powered by a single power supply. It is a two-phase hybrid stepping motor with various currents of 4.0A or less and outer diameters of 42mm, 57mm and 86mm.

The driver adopts servo-like control principle internally, unique circuit design and superior software algorithm processing, which can make the motor run smoothly at low speed even under low subdivision conditions, with almost no vibration and noise; smooth and precise current control technology Greatly reduce the motor heating; external 16-speed constant torque subdivision, the highest 200 subdivision; photoelectric isolation differential signal input, strong anti-interference ability; with overvoltage, undervoltage, overcurrent and other error protection; at the point Medium and low speed applications such as glue machine and laser engraving have obvious advantages in stability, vibration and noise. Greatly improve equipment performance.

型号	步距角 (°)	电机总长度 (L)	保持转矩 (N.m)	额定电流 (A)	相电阻 (Ω)	相电感 (mH)	转子惯量 (g.cm ²)	电机重量 (kg)	电机线数
YK57HB56-03A	1.8	56	0.90	3.0	0.75	1.1	300	0.68	6
YK57HB76-03A	1.8	76	1.35	3.0	1.0	1.6	480	1.03	6
YK57HB56-04A	1.8	56	1.20	3.0	0.74	2.4	280	0.7	4
YK57HB76-04A	1.8	76	2.0	5.0	0.40	1.7	480	1.06	4
YK57HB80-04A	1.8	81	2.2	5.0	0.43	1.8	520	1.15	4
YK57HB100-04A	1.8	101	3.0	5.0	0.48	2.2	720	1.6	4

※ 以上仅为代表性产品，可按要求另行制作。

型号	步距角 (°)	电机总长度 (L)	保持转矩 (N.m)	额定电流 (A)	相电阻 (Ω)	相电感 (mH)	转子惯量 (g.cm ²)	电机重量 (kg)	电机线数
YK86HB65-04A	1.8	65	3.2	4.0	0.65	3.9	1000	1.7	8
YK86HB80-04A	1.8	80	4.5	6.0	0.4	3.5	1400	2.3	8
YK86HB118-06A	1.8	118	8.5	6.0	0.6	6.5	2700	3.8	8
YK86HB156-06A	1.8	156	12.0	6.2	0.7	9.0	4000	5.3	8

※ 以上仅为代表性产品，可按要求另行制作。

3. 2数控环缝焊机控制器/CNC ring seam welder controller



主要功能

- 1)自动：实际运行、空运行、单步运行、终止程序
- 2)手动：高速、点动、程序零、手动输出
- 3)程序：编辑、新建、保存
- 4)参数：控制、速度、厂值、用户、密码
- 5)IO：系统、手动、实入、设入、输出
- 6)外部手动：外接大按钮控制电机正反转，启动、暂停、报警、急停等
- 7)指令：23 条指令，包括PLC 可用的6 条指令
- 8)USB：可用USB 线对系统进行供电，方便开机画面及程序的传输
- 9)隔离IO 口：带有与系统隔离的输入输出口，输出口能力最大可到1A

The main function

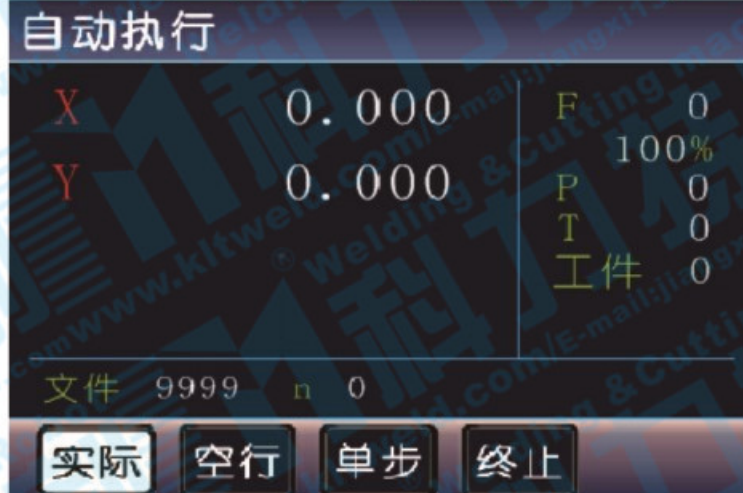
- 1) Automatic: actual operation, dry run, single step operation, termination procedure
- 2) Manual: high speed, jog, program zero, manual output
- 3) Program: Edit, New, Save
- 4) Parameters: control, speed, factory value, user, password

Remarks: Due to the large number of models of our company, if there are new models in the later stages of our company, we will explain the new quotation.

- 5) IO: system, manual, real-in, set-in, output
- 6) External manual: external large button controls the motor to reverse, start, pause, alarm, emergency stop, etc.
- 7) Instruction: 23 instructions, including 6 instructions available to the PLC
- 8) USB: The system can be powered by USB cable to facilitate the transmission of the boot screen and program.
- 9) Isolation IO port: with input and output ports isolated from the system, the output port capacity can be up to 1A

控制系统组成:

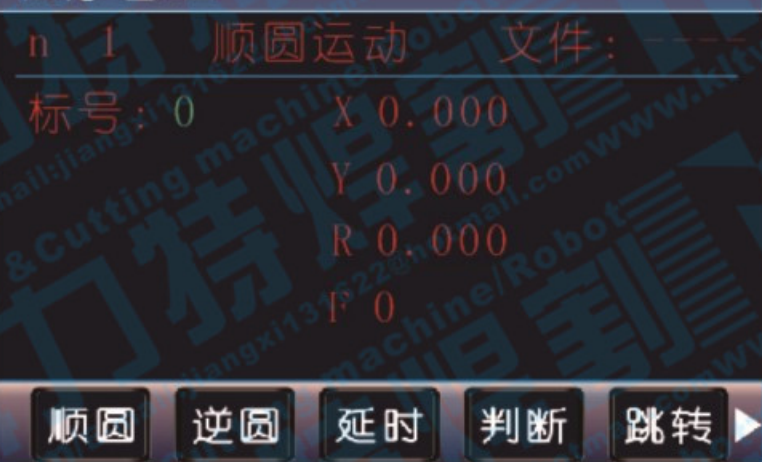
- 3.5 寸彩色液晶屏, 分辨率320*240
- 触点按键阵列 (38 键)
- 专用运动控制芯片, 4 轴差分脉冲输出 (信号输出为: 方向+ 方向- 脉冲+ 脉冲-)
- 输入/ 输出 (16 路光电隔离24V 输入, 8 路光电隔离24V 输出, 单通道额定500mA)
- 485 接口, 可与PLC 混合编程
- 24V 双电源隔离供电, 分为系统供电与IO 供电
- 编码器接口, 可做专机
- USB 接口, 系统供电, 上位机软件或图片下载使用
- 最大程序行480 行
- 可与外部IO 扩展板相连



Control system composition:

- 3.5 inch color LCD screen with resolution of 320*240
- Contact button array (38 keys)
- Dedicated motion control chip, 4-axis differential pulse output (signal output: direction + direction - pulse + pulse -)
- Input/output (16 channels of optically isolated 24V input, 8 channels of optically isolated 24V output, single channel rated 500mA)
- 485 interface, can be mixed with PLC programming
- 24V dual power supply isolation, divided into system power supply and IO power supply
- Encoder interface, can be used as a special plane
- USB interface, system power supply, PC software or picture download
- Maximum program line 480 lines
- Can be connected to an external IO expansion board

程序管理



技术指标

最小数据单位: 0.001mm
 最大数据尺寸: $\pm 99999.999\text{mm}$
 快速运动限速: 9000mm/min (当脉冲当量为0.001mm 时)
 最高加工速度限速: 9000mm/min (当脉冲当量为0.001mm 时)
 最高脉冲输出频率: 150KHz
 控制轴数: 2轴
 联动轴数: X, Y直线插补/圆弧插补
 电子齿轮: 分子: 1—99999, 分母: 1—99999
 系统主要功能: 自动、手动、程序、参数、IO 等

Technical indicators

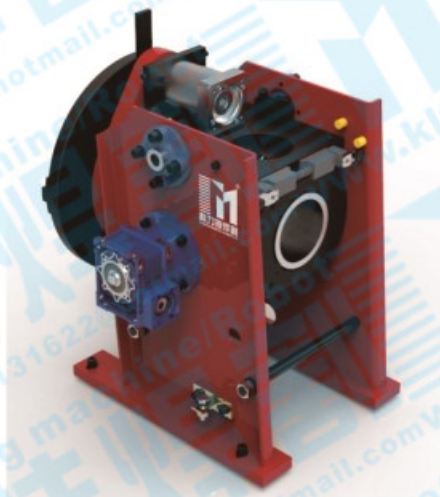
Minimum data unit: 0.001mm
 Maximum data size: $\pm 99999.999\text{mm}$
 Fast motion speed limit: 9000mm/min (when the pulse equivalent is 0.001mm)
 Maximum processing speed limit: 9000mm/min (when the pulse equivalent is 0.001mm)
 The highest pulse output frequency: 150KHz
 Number of control axes: 2 axes
 Number of linkage axes: X, Y linear interpolation / circular interpolation
 Electronic gear: Molecular: 1-99999, denominator: 1-99999
 Main functions of the system: automatic, manual, program, parameter, IO, etc.



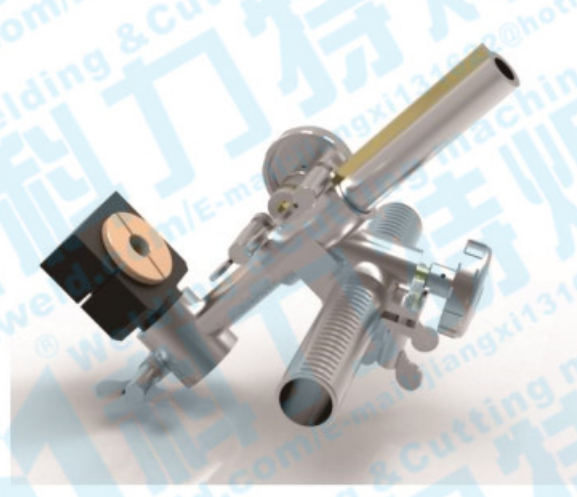
4, KLTHFH-400 数控环缝焊机选用部件 CNC Ring Seam Welder Optional parts



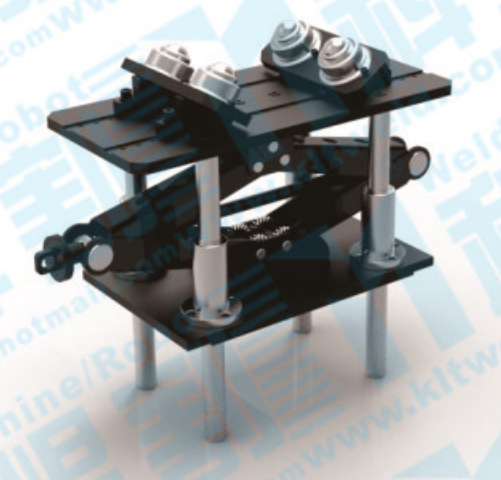
动力头（包含电机）
Power head (with motor)



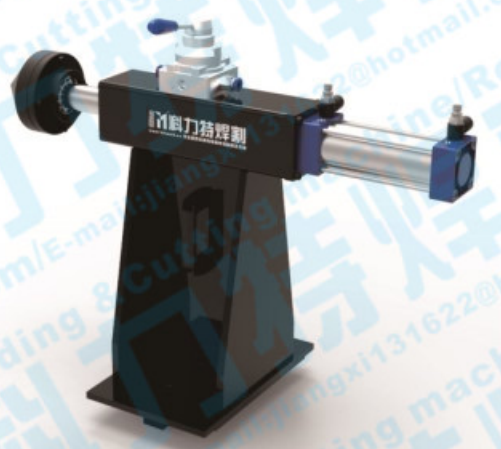
动力头（没有电机）
Power head (without motor)



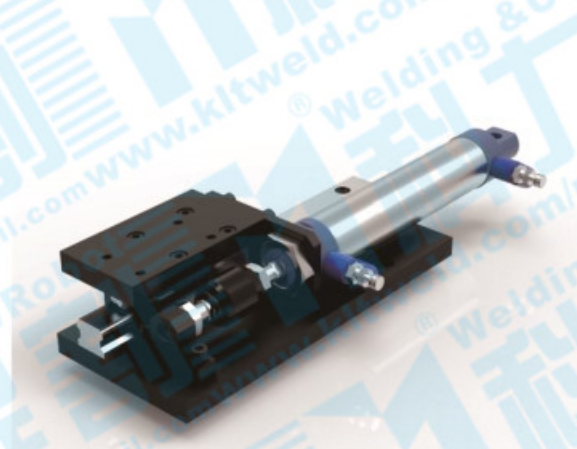
焊枪调枪架
Welding gun adjustment frame



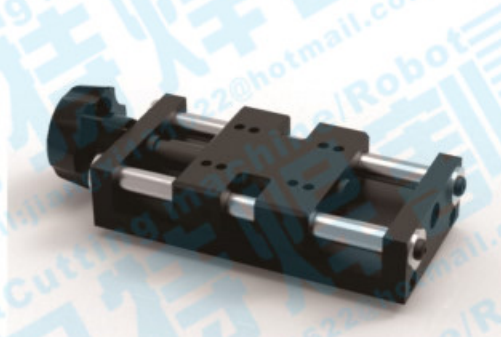
手动支撑托架
Manual support bracket



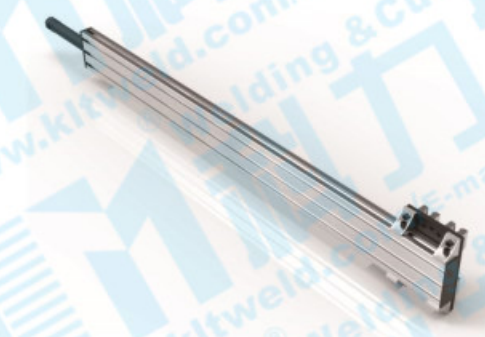
气动顶紧尾座
Pneumatic top tailstock



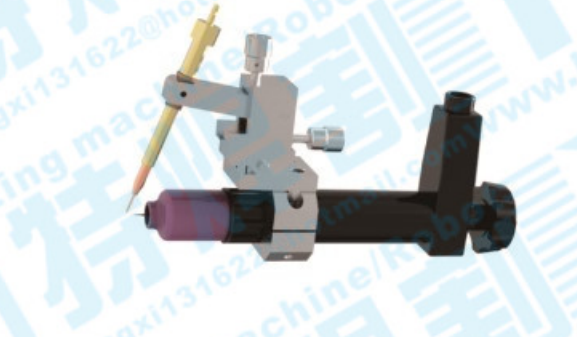
焊枪气动滑台
Welding torch pneumatic slide



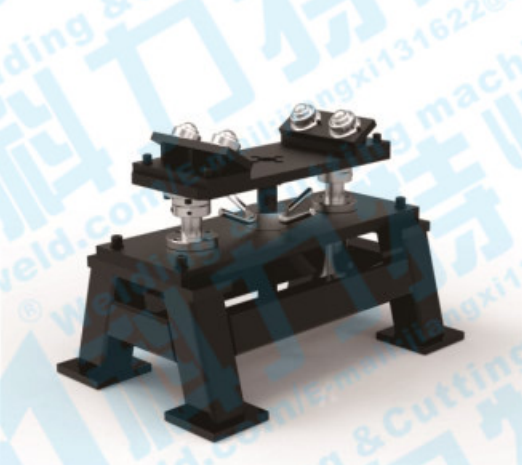
焊枪手动滑台
Welding torch manual slide



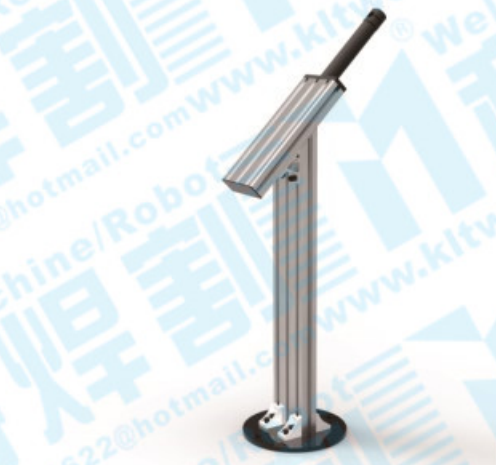
环缝焊机焊枪立柱
Ring seam welder column



TIG 填丝机构
TIG wire filling device



变位机支撑托架
Positioner support bracket



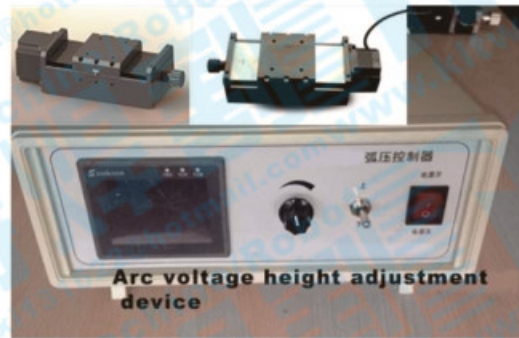
变位机焊枪立柱
Positioner welding gun column



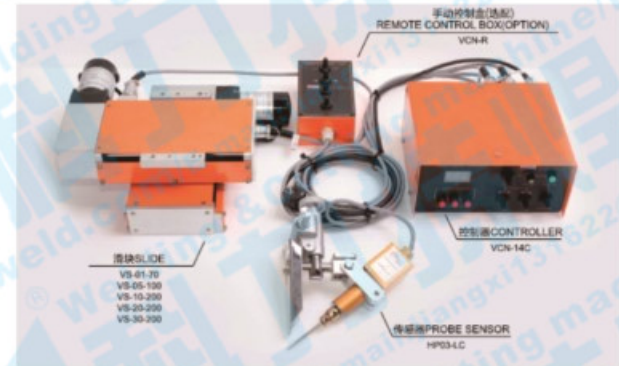
环缝焊机支撑托架
Ring seam welder support bracket



焊枪摆动器
Welding torch swing system



TIG 弧压调高器
TIG arc voltage height adjustment system



接触式焊缝跟踪系统
Contact Weld Tracking System

5, KLTHFH-400A/B/W/WS

数控环缝焊机焊接电源 CNC Ring Seam Welder Welding power source



Panasonic-KR II 350/500
(CO2/MAG)



Panasonic-FR II 350/500
(CO2/MAG/Pluse MIG)



Panasonic-YD350/500GL5
(CO2/Pluse MAG/Pluse MIG)



OTC-XD350/500S II
(CO2/MAG)



OTC-CPVE400/500
(CO2/MAG/Pluse MIG)



OTC-EP400/500
(CO2/Pluse MAG/Pluse MIG)



NBC-350/500P
(CO2/Pluse MAG/Double Pluse MIG)



Panasonic-YC-400TX
(DC Pluse TIG)



Integrated TIG/Plasma
welding system
(DC Pluse TIG or Plasma)

1,数控环缝焊接机床简介(Introduction to CNC Ring Seam Welding Machine)

KLTHFH 数控环缝自动焊接机床是一台实现环缝自动焊接设备。可配用TIG 焊接电源（填丝或不填丝）、CO2/MAG/MIG焊接电源、等离子焊接电源等组成一套环缝自动焊接系统。

KLTHFH CNC ring seam automatic welding machine is a kind of automatic welding equipment for ring seam. It can be equipped with a TIG welding power source (filled or unfilled), CO2/MAG/MIG welding power supply, plasma welding power supply, etc.



该机器是主要由机器床身、旋转主轴箱、横梁、气动尾座、焊枪气动提升机构、焊枪调节机构和CNC自动焊接控制器组成。其他可选配装置有焊枪摆动装置、TIG弧压调高装置（TIG弧长跟踪）、多层多道焊接装置、接触式焊缝跟踪装置等。

The machine is mainly composed of a machine bed, a rotating spindle box, a beam, a pneumatic tailstock, a welding torch pneumatic lifting mechanism, a welding gun adjusting mechanism and a CNC automatic welding controller. Other optional devices include welding gun swinging device, TIG arc voltage heightening device (TIG arc length tracking), multi-layer multi-channel welding device, and contact welding seam tracking device.

该机床采用的是组合式结构，搭配和装拆方便。因此，该机床配以合适的焊接电源就可以适用于各类环形焊缝的自动焊接。

该设备主要用于不同材质、不同尺寸和形状工件的高质量的环缝焊接。焊接接头有不同的形状，包括对接焊接、搭接焊接、锁底焊接等接头形式，类似工件如储气筒、消防筒、传动轴、减震器、消声器、管道法兰、工程油缸、水箱、油箱等自动环缝焊接。

我们的数控环缝焊接机器可以根据客户的需要安装两个以上的焊枪，并同时进行焊接。

The machine adopts a combined structure, which is convenient for assembly and disassembly. Therefore, the machine can be used for automatic welding of all kinds of ring welds with a suitable welding power source.

This equipment is mainly used for high quality circumferential seam welding of workpieces of different materials, sizes and shapes. Welded joints have different shapes, including butt welds, lap welds, lock bottom welds, etc., similar to workpieces such as gas cylinders, fire hoses, drive shafts, shock absorbers, mufflers, pipe flanges, engineering cylinders, water tanks, fuel tanks. Such as automatic loop seam welding.

Our CNC ring seam welding machines can be installed with more than two welding torches according to the customer's needs and welded at the same time.



Remarks: Due to the large number of models of our company, if there are new models in the later stages of our company, we will explain the new quotation.

2, 数控环缝焊接机床如何分类 (How to classify CNC ring seam welding machine)

KLTHFH-1000/1500/2000/2500/3000(A/B/C/D)(M/T)

- 1) **KLT**: Our Company Name (KELITE WELD)
- 2) **HFH**: 数控环缝焊机 CNC Ring Seam Welding Machine
- 3) **1000/2000/3000**: 焊接有效长度 Welding Effective Length: 1000mm or 2000mm etc.
- 4) **A**: 标准型 Standard type
B: 标准型+摆动装置 Standard type+Welding gun swinging device
C: 标准型+摆动装置+弧压调高 (弧长跟踪)
Standard type+Welding gun swinging device+Arc voltage height adjustment device (arc length tracking system) or Multi-layer multi-channel welding device
D: 标准型+接触式焊缝跟踪系统 Standard type+Contact Weld Tracking System
- 5) **M**: 气体保护焊电源 CO₂/MAG/MIG Welding Power
T: 氩弧焊/等离子焊接电源 TIG/Plasma Welding Power



KLTHFH-1000AM



KLTHFH-1000AT



KLTHFH-1000BM



KLTHFH-1000BT



KLTHFH-1000CM



KLTHFH-1000CT



KLTHFH-1000DM

我们可以根据客户的需求定制非标数控环缝焊接机床及夹具。机器的颜色可选，可以OEM定制。

We can customize non-standard CNC ring seam welding machines and fixtures according to customer needs. The color of the machine is optional and can be customized by OEM.

3,我们使用的焊接电源(We use welding power supply)

为了客户产品的自动化解决方案，我们提倡客户使用质量可靠及稳定的焊接电源，下面使我们推荐的品牌及型号。

For the automation solutions of our customers' products, we encourage our customers to use reliable and stable welding power sources. Below we recommend the brands and models.



Panasonic-KR II 350/500
(CO2/MAG)



Panasonic-FR II 350/500
(CO2/MAG/MIG)



Panasonic-YD350/500GL5
(CO2/MAG/MIG)



OTC-XD350/500S II
(CO2/MAG)



OTC-CPVE400/500
(CO2/MAG/MIG)



OTC-EP400/500
(CO2/MAG/MIG)



NBC-350/500P
(CO2/Pluse MAG/Double Pluse MIG)



Panasonic-YC-400TX
(DC TIG)



Integrated TIG/Plasma
welding system
(DC TIG or Plasma)

以上为我们正常使用焊接电源型号，均在客户工厂实践有宝贵的实践经验，产品的质量、稳定性得到了长时间的验证。

如果想知道更多的细节，请访问我们的网站查阅：www.kltweld.net

如果客户使用自己的焊接电源，客户可根据的需求安装。

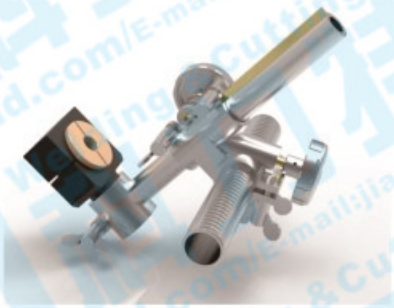
The above is the normal use of welding power supply models, all of which have valuable practical experience in the customer's factory practice. The quality and stability of the products have been verified for a long time.

If you want to know more details, please visit our website: www.kltweld.net

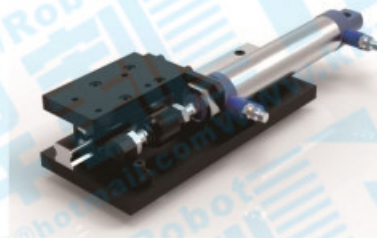
If the customer uses their own welding power source, the customer can install it according to the requirements.

Remarks: Due to the large number of models of our company, if there are new models in the later stages of our company, we will explain the new quotation.

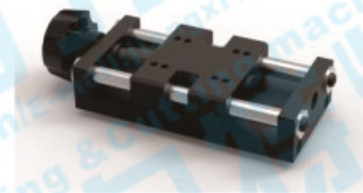
4, 数控环缝焊接机床选用部件 (CNC Ring Seam Welder Optional parts)



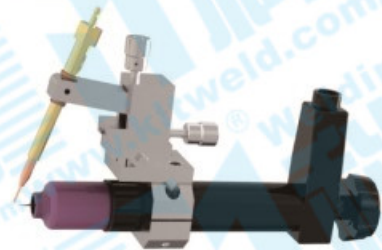
焊枪调枪架
Welding gun adjustment frame



焊枪气动滑台
Welding torch pneumatic slide



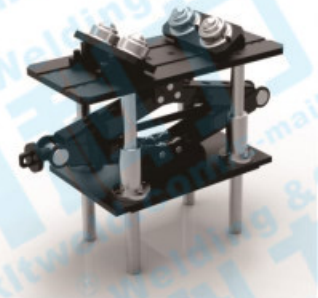
焊枪手动滑台
Welding torch manual slide



TIG 填丝机构
TIG wire filling device



环缝焊机支撑托架
Ring seam welder support bracket



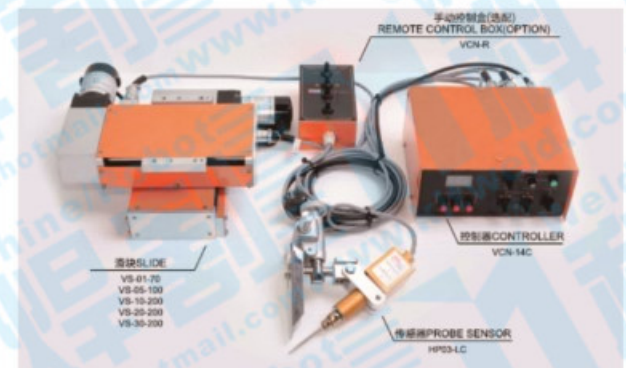
手动支撑托架
Manual support bracket



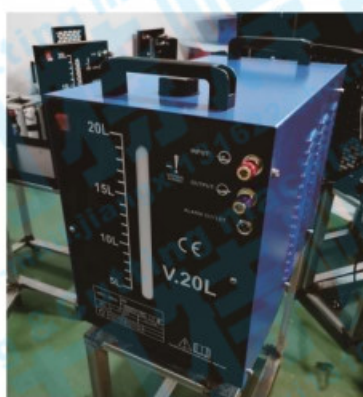
焊枪摆动器
Welding torch swing system



TIG 弧压调高器
TIG arc voltage height adjustment system



接触式焊缝跟踪系统
Contact Weld Tracking System



水冷却焊接系统
Water cooling welding system



导电咀
Conductive tip



焊枪保护套
Welding torch cover



水冷却CO2/MAG/MIG焊枪
Water cooled CO2/MAG/MIG welding torch



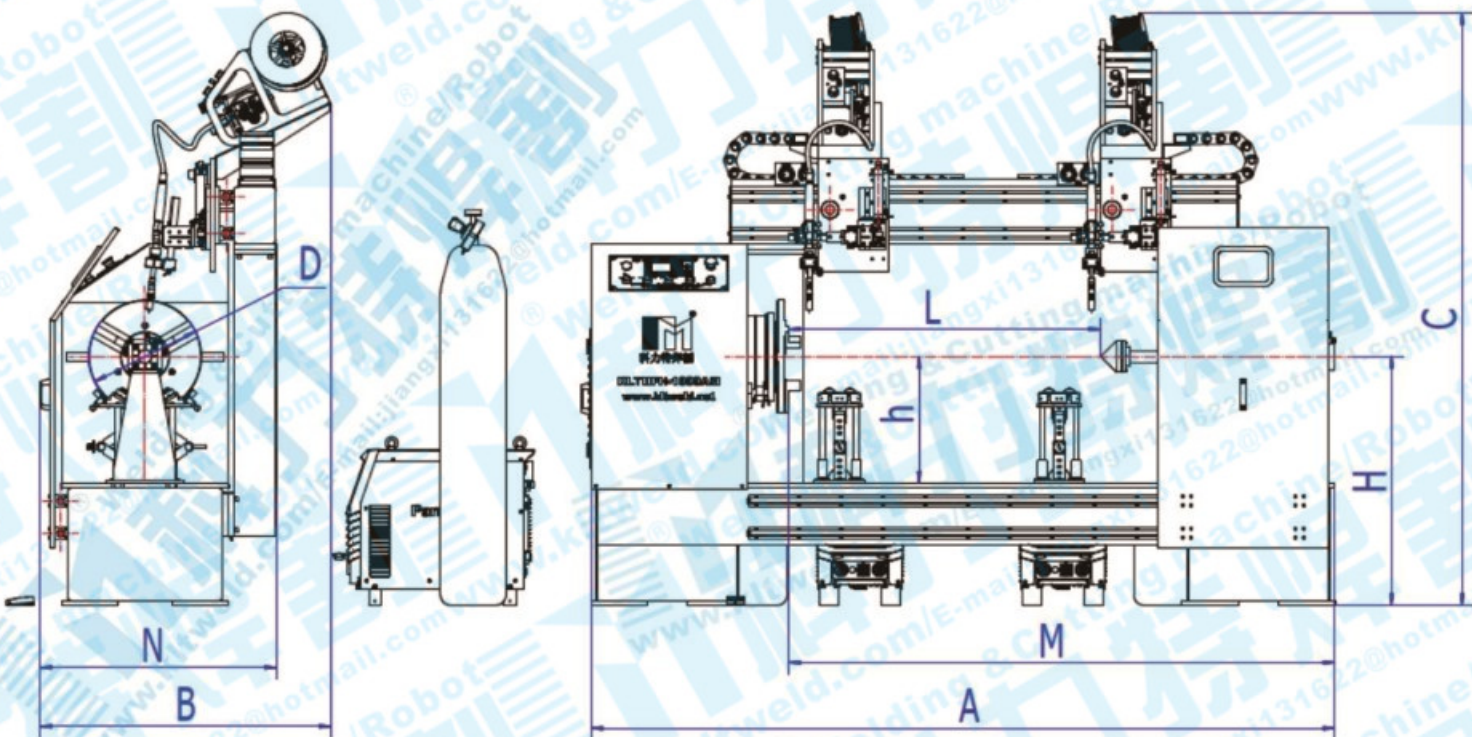
WP-27水冷却TIG焊枪
WP-27 Water cooled welding torch



焊接材料
Welding materials

如果想知道更多的细节，请访问我们的网站查阅：www.kltweld.net
If you want to know more details, please visit our website: www.kltweld.net

1, KLTHFH-____A(M/T) 标准型环缝焊机
(Standard ring seam welding machine)



名称(Item)	HFH-1000A	HFH-1500A	HFH-2000A	HFH-2500A	HFH-3000A
A	2640mm	3140mm	3640mm	4140mm	4640mm
B	1035mm				
C	2105mm				
D	标准(standard): $\Phi 400\text{mm}$; 可选配 $\Phi 500$, $\Phi 600$, $\Phi 750$ 手动卡盘 Optional $\Phi 500$, $\Phi 600$, $\Phi 750$ manual chuck				
h	450mm 可以定制 Can be customized				
L	1100mm	1600mm	2100mm	2600mm	3100mm
H	885mm				
M	1940mm	2440mm	2940mm	3440mm	3910mm
N	840mm				

KLTHFH-____A(M/T) 外观尺寸(Dimensions)

Remarks: Due to the large number of models of our company, if there are new models in the later stages of our company, we will explain the new quotation.

2, 技术参数(Technical Parameters)

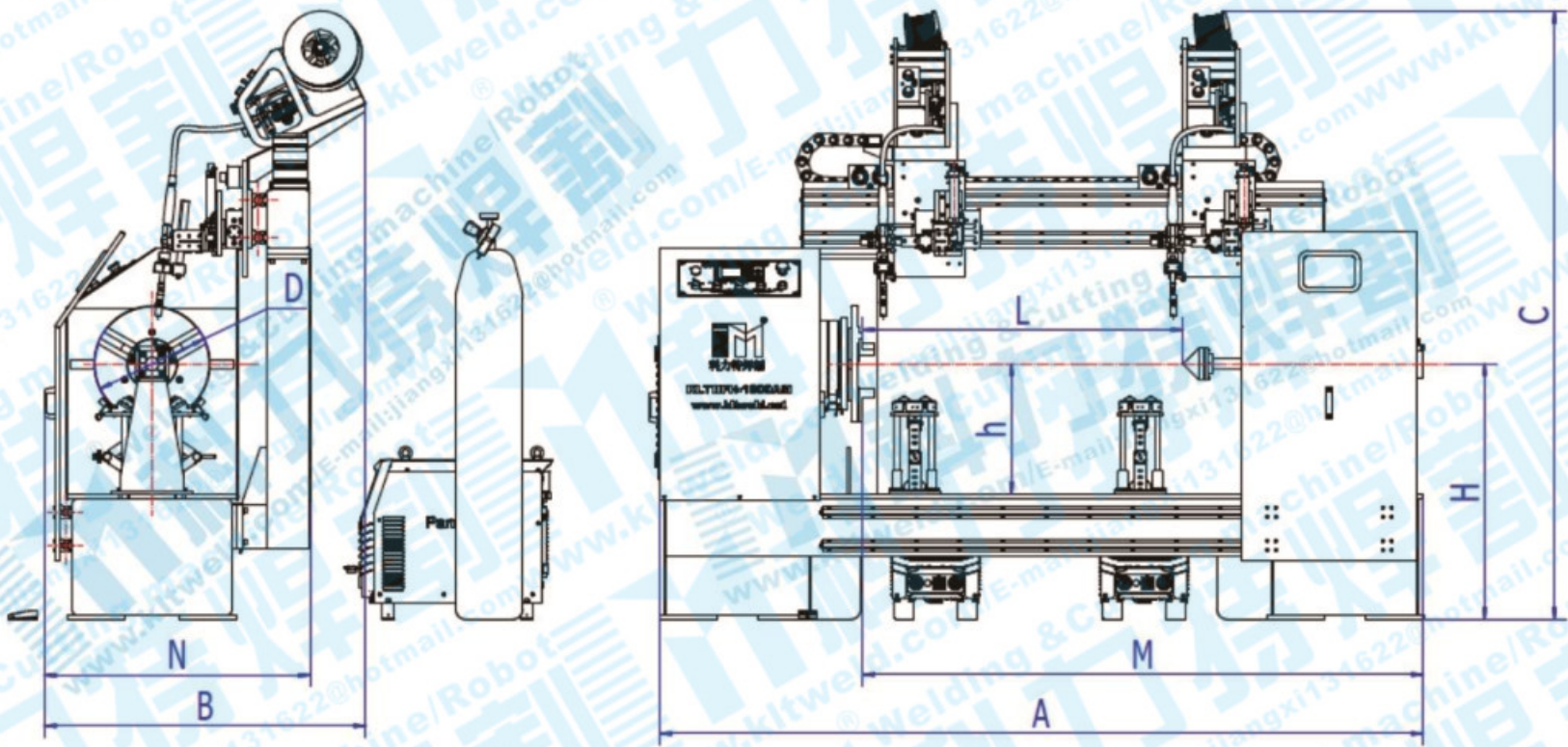
名称(Item)	HFH-1000A	HFH-1500A	HFH-2000A	HFH-2500A	HFH-3000A
输入电源 Input Power	AC 220V 50HZ; Can be customized				
负载 Load	500kg-3000kg (取决于电机和减速机型号) Depending on the motor and reducer model				
额定负载率 Rated load rate	100%				
产品直径范围 Product diameter range	Φ20mm -Φ450mm				
主轴箱转速 Headstock speed	0.05r/min-3 r/min				
主轴电机驱动 Spindle motor drive	标配: 步进电机, 蜗轮蜗杆减速机; 可选配伺服电机, 精密 RV 减速机 Standard: stepper motor, worm gear reducer; optional servo motor, precision RV reducer				
横梁小车移动 Beam trolley moving	标配: 手动, 可选配加装电动行走 Standard: Manual, optional with electric walking				
功能 Function	手动/自动/编程 Manual / automatic / programming				
控制器 Controller	标配: 数控多轴控制器 ; 可选配 PLC+触摸屏 Standard: CNC multi-axis controller; optional PLC + touch screen				
气动落枪行程 Welding torch pneumatic downstroke	100mm				
气动尾座行程 Tailstock pneumatic telescopic stroke	150mm				
适用焊接电源 Suitable for welding power supply	CO2/MAG/MIG/TIG/Plasma				
气压调节范围 Air pressure adjustment range	0.1-0.6Mpa				
重量 Weight	920 kg	1000kg	1100kg	1220kg	1340kg



如果想知道更多的细节, 请访问我们的网站查阅: www.kltweld.net

If you want to know more details, please visit our website: www.kltweld.net

1, KLTHFH-____B(M/T) 标准型+摆动装置 环缝焊机
(Standard type+Welding gun swinging device)



名称(Item)	HFH-1000B	HFH-1500B	HFH-2000B	HFH-2500B	HFH-3000B
A	2640mm	3140mm	3640mm	4140mm	4640mm
B	1115mm				
C	2105mm				
D	标准(standard): $\Phi 400\text{mm}$; 可选配 $\Phi 500$, $\Phi 600$, $\Phi 750$ 手动卡盘 Optional $\Phi 500$, $\Phi 600$, $\Phi 750$ manual chuck				
h	450mm 可以定制 Can be customized				
L	1100mm	1600mm	2100mm	2600mm	3100mm
H	885mm				
M	1940mm	2440mm	2940mm	3440mm	3910mm
N	920mm				

KLTHFH-____B(M/T) 外观尺寸(Dimensions)

Remarks: Due to the large number of models of our company, if there are new models in the later stages of our company, we will explain the new quotation.

2,技术参数(Technical Parameters)

名称(Item)	HFH-1000B	HFH-1500B	HFH-2000B	HFH-2500B	HFH-3000B
输入电源 Input Power	AC 220V 50HZ; Can be customized				
负载 Load	500kg-3000kg (取决于电机和减速机型号) Depending on the motor and reducer model				
额定负载率 Rated load rate	100%				
产品直径范围 Product diameter range	Φ20mm -Φ450mm				
主轴箱转速 Headstock speed	0.05r/min-3 r/min				
主轴电机驱动 Spindle motor drive	标配: 步进电机, 蜗轮蜗杆减速机; 可选配伺服电机, 精密 RV 减速机 Standard: stepper motor, worm gear reducer; optional servo motor, precision RV reducer				
横梁小车移动 Beam trolley moving	标配: 手动, 可选配加装电动行走 Standard: Manual, optional with electric walking				
功能 Function	手动/自动/编程 Manual / automatic / programming				
控制器 Controller	标配: 数控多轴控制器; 可选配 PLC+触摸屏 Standard: CNC multi-axis controller; optional PLC + touch screen				
焊缝摆动宽度 Weld swing width	0.1-60mm				
摆动速度范围 Swing speed range	0.1 ~ 80 mm/s				
摆动延迟时间 Swing delay time	左延时时间: 0-9.9s; 右延时时间: 0-9.9s Left delay time: 0-9.9s; right delay time: 0-9.9s				
气动落枪行程 Welding torch pneumatic downstroke	100mm				
气动尾座行程 Tailstock pneumatic telescopic stroke	150mm				
适用焊接电源 Suitable for welding power supply	CO2/MAG/MIG/TIG/Plasma				
气压调节范围 Air pressure adjustment range	0.1-0.6Mpa				
重量 Weight	935 kg	1015kg	1115kg	1235kg	1355kg

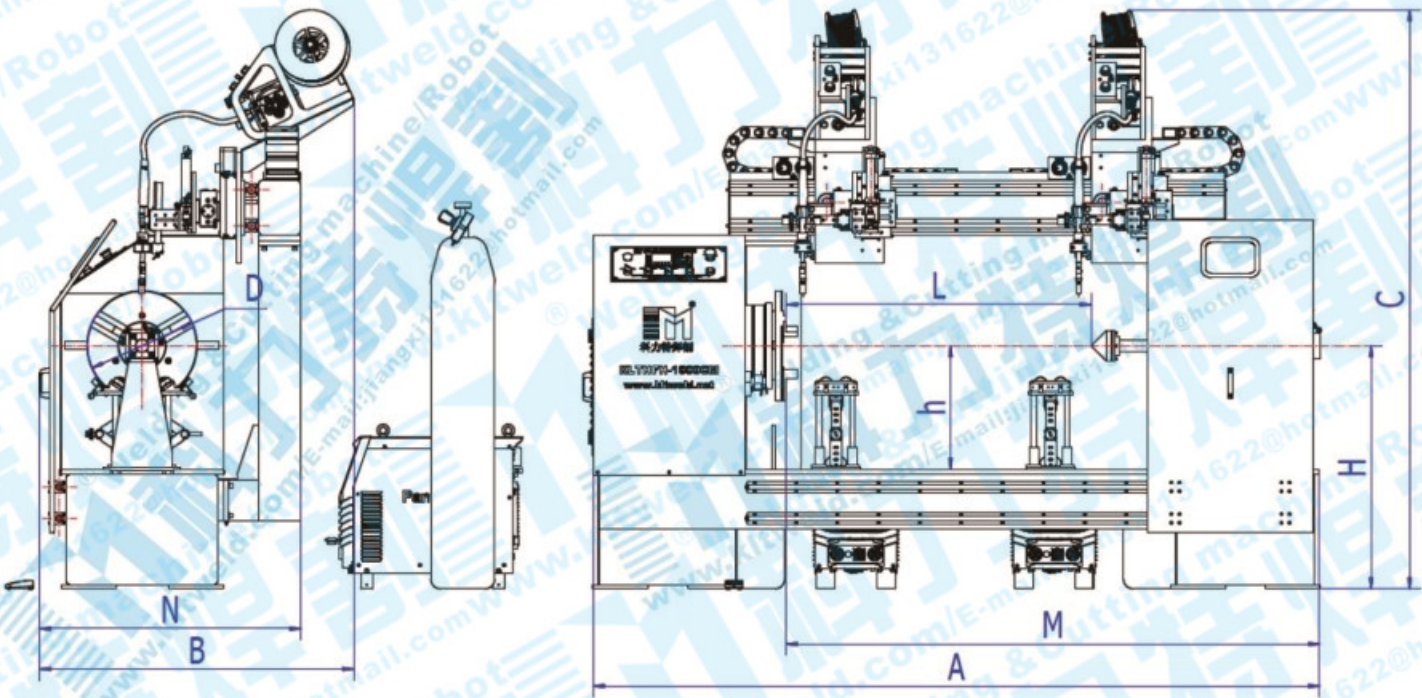
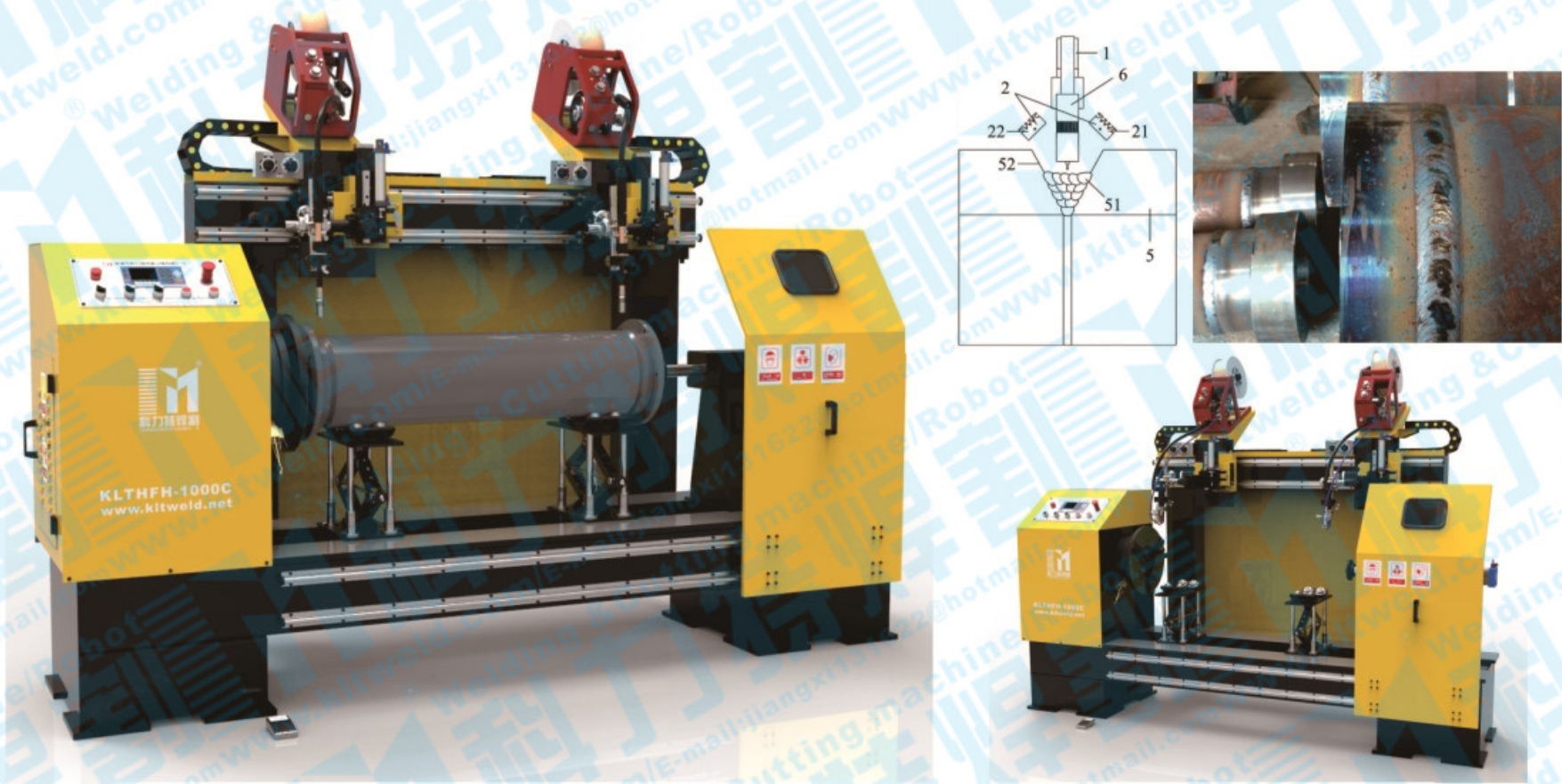
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If you want to know more details, please visit our website: www.kltweld.net

数控环缝焊接机床

CNC Ring Seam Welding Machine

1, KLTHFH-____C(M/T1) 标准型+摆动装置+多层多道焊接装置
KLTHFH-____C(M/T1) standard type + swinging device + multi-layer multi-channel welding device



名称(Item)	HFH-1000C	HFH-1500C	HFH-2000C	HFH-2500C	HFH-3000C
A	2640mm	3140mm	3640mm	4140mm	4640mm
B	1150mm				
C	2105mm				
D	标准(standard): $\Phi 400\text{mm}$; 可选配 $\Phi 500$, $\Phi 600$, $\Phi 750$ 手动卡盘 Optional $\Phi 500$, $\Phi 600$, $\Phi 750$ manual chuck				
h	450mm 可以定制 Can be customized				
L	1100mm	1600mm	2100mm	2600mm	3100mm
H	885mm				
M	1940mm	2440mm	2940mm	3440mm	3910mm
N	950mm				

KLTHFH-____C(M/T1) 外观尺寸(Dimensions)

Remarks: Due to the large number of models of our company, if there are new models in the later stages of our company, we will explain the new quotation.

2, 技术参数(Technical Parameters)

名称(Item)	HFH-1000C	HFH-1500C	HFH-2000C	HFH-2500C	HFH-3000C
输入电源 Input Power	AC 220V 50HZ; Can be customized				
负载 Load	500kg-3000kg (取决于电机和减速机型号) Depending on the motor and reducer model				
额定负载率 Rated load rate	100%				
产品直径范围 Product diameter range	Φ20mm -Φ450mm				
主轴箱转速 Headstock speed	0.05r/min-3 r/min				
主轴电机驱动 Spindle motor drive	标配：步进电机，蜗轮蜗杆减速机；可选配伺服电机，精密 RV 减速机 Standard: stepper motor, worm gear reducer; optional servo motor, precision RV reducer				
横梁小车移动 Beam trolley moving	标配：手动,可选配加装电动行走 Standard: Manual, optional with electric walking				
功能 Function	手动/自动/编程 Manual / automatic / programming				
控制器 Controller	标配：数控多轴控制器；可选配 PLC+触摸屏 Standard: CNC multi-axis controller; optional PLC + touch screen				
坡口最大深度 Maximum depth of the groove	0.1-60mm				
最大多层焊接设置 Maximum multi-layer welding setup	10th				
焊缝摆动宽度 Weld swing width	0.1-60mm				
摆动速度范围 Swing speed range	0.1 ~ 80 mm/s				
摆动延迟时间 Swing delay time	左延时时间：0-9.9s;右延时时间：0-9.9s Left delay time: 0-9.9s; right delay time: 0-9.9s				
气动落枪行程 Welding torch pneumatic downstroke	100mm				
气动尾座行程 Tailstock pneumatic telescopic stroke	150mm				
适用焊接电源 Suitable for welding power supply	CO2/MAG/MIG/TIG/Plasma				
气压调节范围 Air pressure adjustment range	0.1-0.6Mpa				
重量 Weight	950 kg	1030kg	1130kg	1250kg	1370kg

如果想知道更多的细节，请访问我们的网站查阅：www.kltweld.net

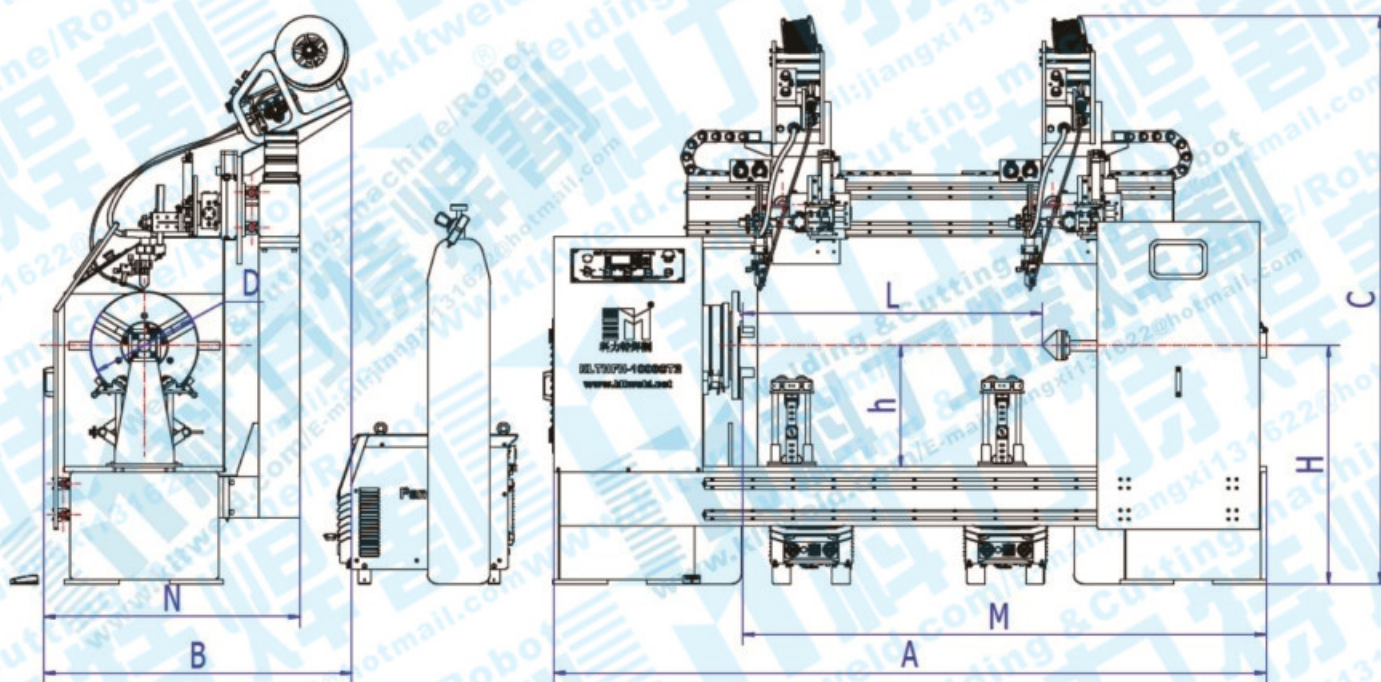
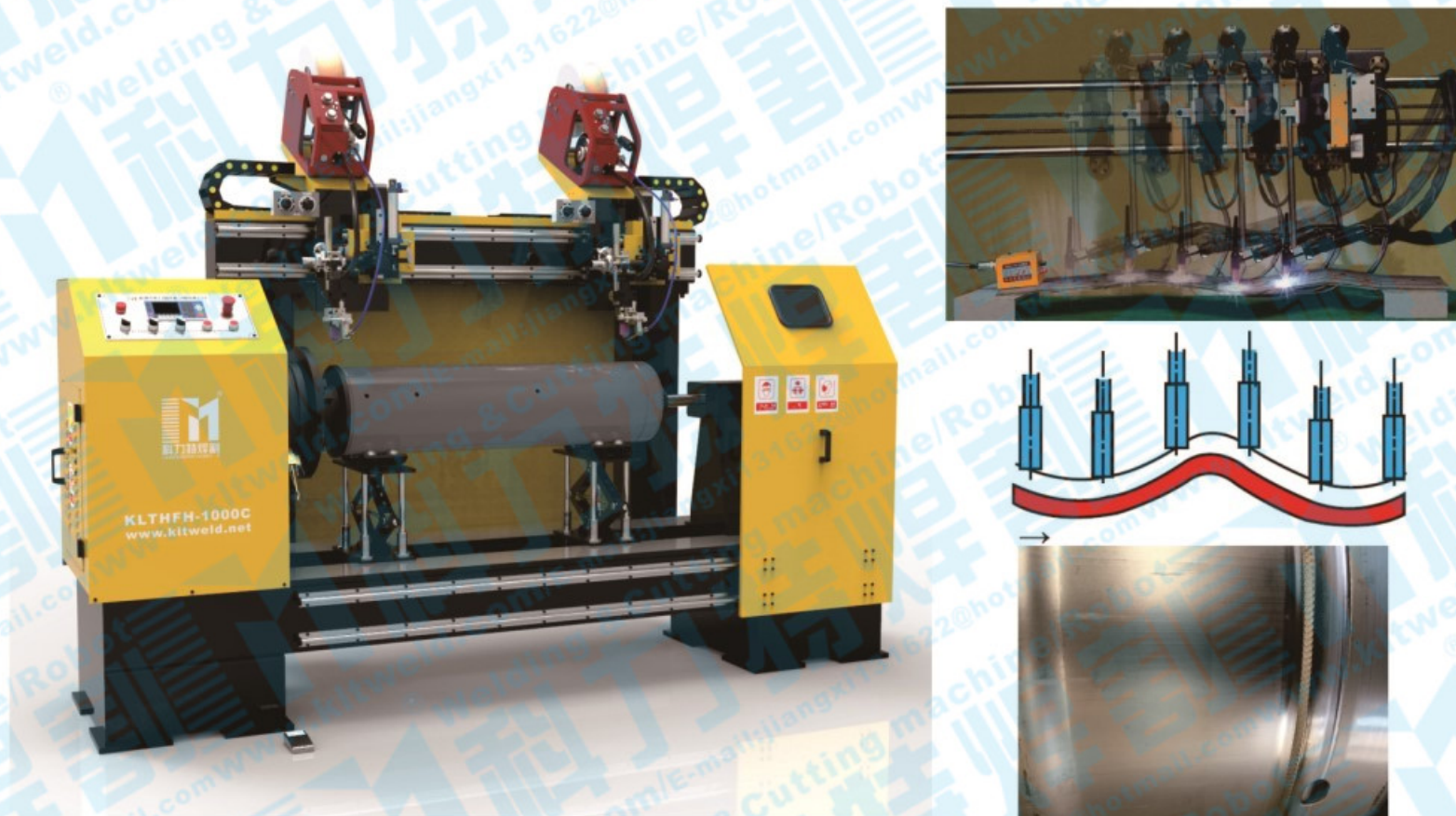
If you want to know more details, please visit our website: www.kltweld.net 盐城市科力特焊割设备有限公司
Yancheng City Kelite welding equipment Co., Ltd.

数控环缝焊接机床

CNC Ring Seam Welding Machine

1, KLTHFH-____CT2 标准型+摆动装置+弧长跟踪装置

KLTHFH-____CT2 Standard type + swinging device + Arc voltage height adjustment device (arc length tracking system)



名称(Item)	HFH-1000C	HFH-1500C	HFH-2000C	HFH-2500C	HFH-3000C
A	2640mm	3140mm	3640mm	4140mm	4640mm
B	1150mm				
C	2105mm				
D	标准(standard): $\phi 400\text{mm}$; 可选配 $\phi 500$, $\phi 600$, $\phi 750$ 手动卡盘 Optional $\phi 500$, $\phi 600$, $\phi 750$ manual chuck				
h	450mm 可以定制 Can be customized				
L	1100mm	1600mm	2100mm	2600mm	3100mm
H	885mm				
M	1940mm	2440mm	2940mm	3440mm	3910mm
N	950mm				

KLTHFH-____C(T2) 外观尺寸(Dimensions)

Remarks: Due to the large number of models of our company, if there are new models in the later stages of our company, we will explain the new quotation.

2, 技术参数(Technical Parameters)

名称(Item)	HFH-1000C	HFH-1500C	HFH-2000C	HFH-2500C	HFH-3000C
输入电源 Input Power	AC 220V 50HZ; Can be customized				
负载 Load	500kg-3000kg (取决于电机和减速机型号) Depending on the motor and reducer model				
额定负载率 Rated load rate	100%				
产品直径范围 Product diameter range	Φ20mm -Φ450mm				
主轴箱转速 Headstock speed	0.05r/min-3 r/min				
主轴电机驱动 Spindle motor drive	标配：步进电机，蜗轮蜗杆减速机；可选配伺服电机，精密 RV 减速机 Standard: stepper motor, worm gear reducer; optional servo motor, precision RV reducer				
横梁小车移动 Beam trolley moving	标配：手动,可选配加装电动行走 Standard: Manual, optional with electric walking				
功能 Function	手动/自动/编程 Manual / automatic / programming				
控制器 Controller	标配：数控多轴控制器；可选配 PLC+触摸屏 Standard: CNC multi-axis controller; optional PLC + touch screen				
弧压调整范围 Arc pressure adjustment range	5V-45V				
弧长跟踪驱动方式 Arc length tracking drive	PWM 脉冲宽度调整方式 Pulse width adjustment method				
焊缝摆动宽度 Weld swing width	0.1-60mm				
摆动速度范围 Swing speed range	0.1 ~ 80 mm/s				
摆动延迟时间 Swing delay time	左延时时间：0-9.9s;右延时时间：0-9.9s Left delay time: 0-9.9s; right delay time: 0-9.9s				
气动落枪行程 Welding torch pneumatic downstroke	100mm				
气动尾座行程 Tailstock pneumatic telescopic stroke	150mm				
适用焊接电源 Suitable for welding power supply	DC Pulse/AC/DC Pulse TIG/Plasma				
气压调节范围 Air pressure adjustment range	0.1-0.6Mpa				
重量 Weight	950 kg	1030kg	1130kg	1250kg	1370kg

如果想知道更多的细节，请访问我们的网站查阅：www.kltweld.net

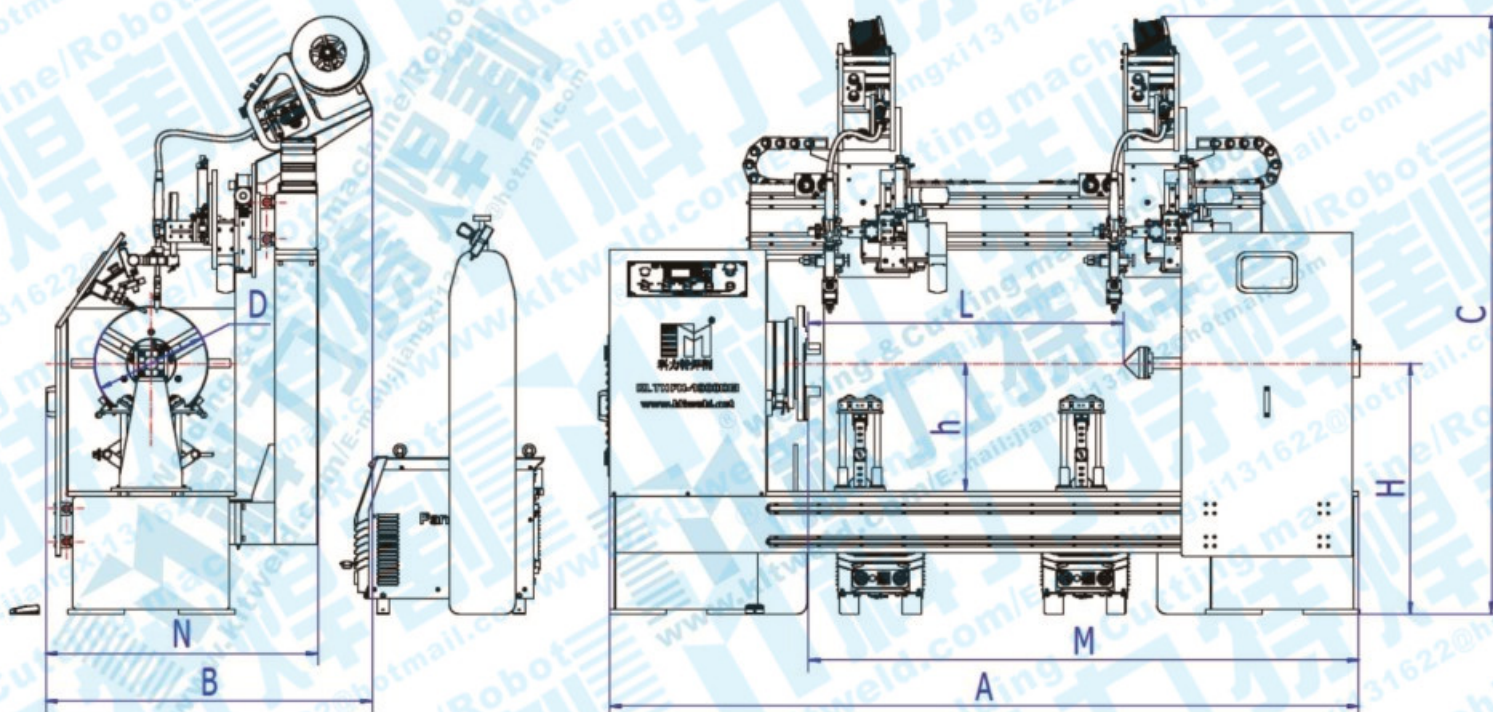
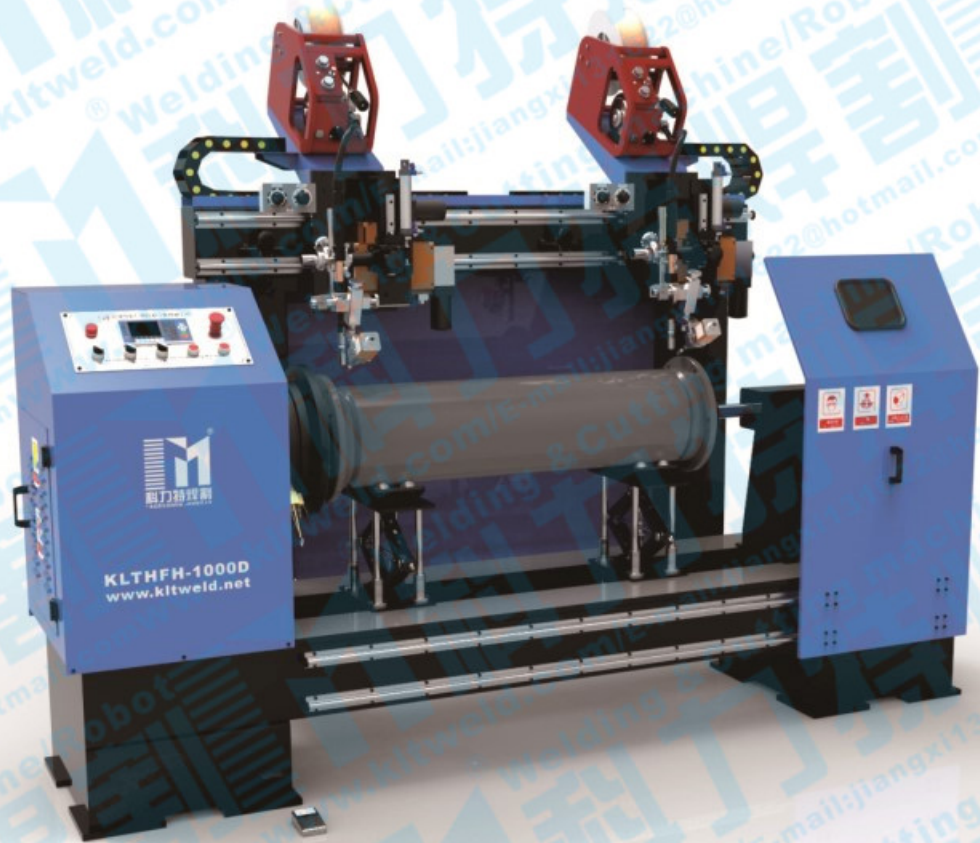
If you want to know more details, please visit our website: www.kltweld.net

数控环缝焊接机床

CNC Ring Seam Welding Machine

1, KLTHFH-___DM 标准型+接触式焊缝跟踪装置

KLTHFH-___DM Standard type+Contact Weld Tracking System



名称(Item)	HFH-1000D	HFH-1500D	HFH-2000D	HFH-2500D	HFH-3000D
A	2640mm	3140mm	3640mm	4140mm	4640mm
B	1160mm				
C	2105mm				
D	标准(standard): $\phi 400\text{mm}$; 可选配 $\phi 500$, $\phi 600$, $\phi 750$ 手动卡盘 Optional $\phi 500$, $\phi 600$, $\phi 750$ manual chuck				
h	450mm 可以定制 Can be customized				
L	1100mm	1600mm	2100mm	2600mm	3100mm
H	885mm				
M	1940mm	2440mm	2940mm	3440mm	3910mm
N	960mm				

KLTHFH-___DM 外观尺寸(Dimensions)

Remarks: Due to the large number of models of our company, if there are new models in the later stages of our company, we will explain the new quotation.

2, 技术参数(Technical Parameters)

名称(Item)	HFH-1000D	HFH-1500D	HFH-2000D	HFH-2500D	HFH-3000D
输入电源 Input Power	AC 220V 50HZ; Can be customized				
负载 Load	500kg-3000kg (取决于电机和减速机型号) Depending on the motor and reducer model				
额定负载率 Rated load rate	100%				
产品直径范围 Product diameter range	Φ20mm -Φ450mm				
主轴箱转速 Headstock speed	0.05r/min-3 r/min				
主轴电机驱动 Spindle motor drive	标配: 步进电机, 蜗轮蜗杆减速机; 可选配伺服电机, 精密 RV 减速机 Standard: stepper motor, worm gear reducer; optional servo motor, precision RV reducer				
横梁小车移动 Beam trolley moving	标配: 手动, 可选配加装电动行走 Standard: Manual, optional with electric walking				
功能 Function	手动/自动/编程 Manual / automatic / programming				
控制器 Controller	标配: 数控多轴控制器; 可选配 PLC+触摸屏 Standard: CNC multi-axis controller; optional PLC + touch screen				
跟踪范围 Tracking range	X 左 右和 Y 上下 每 100mm X left /right and Y up /down Each 100mm				
跟踪速度 Tracking speed	250 mm/min				
精度 Accuracy	±0.25 mm				
跟踪装置电机 Tracking device motor	高精度直流电机 High precision DC motor				
跟踪装置控制功能 Tracking device control function	手动/自动 Manual / Auto				
气动落枪行程 Welding torch pneumatic downstroke	100mm				
气动尾座行程 Tailstock pneumatic telescopic stroke	150mm				
适用焊接电源 Suitable for welding power supply	CO2/MAG/MIG				
气压调节范围 Air pressure adjustment range	0.1-0.6Mpa				
重量 Weight	950 kg	1030kg	1130kg	1250kg	1370kg

如果想知道更多的细节, 请访问我们的网站查阅: www.kltweld.net

If you want to know more details, please visit our website: www.kltweld.net

1, KLT(TJ) 焊枪手动滑台

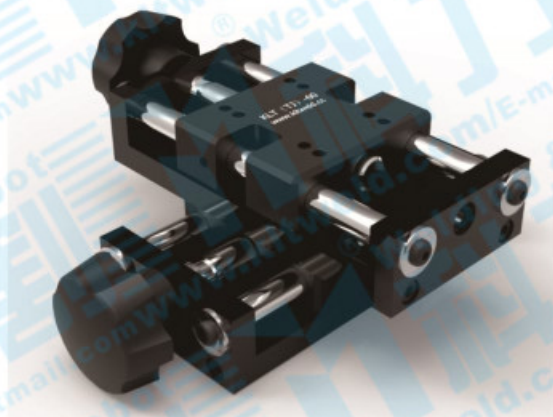
KLT(TJ) Welding torch manual slide



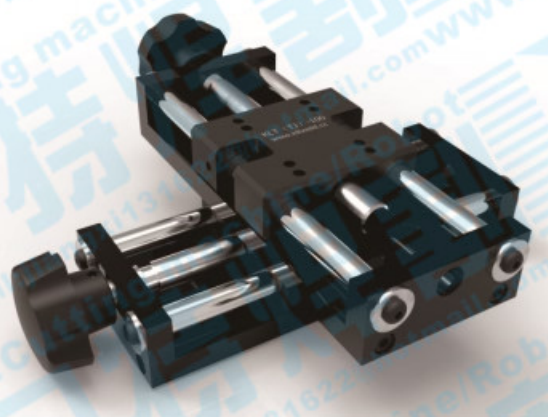
KLT(TJ)-60



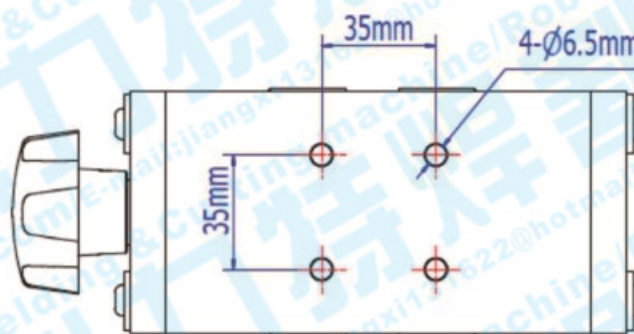
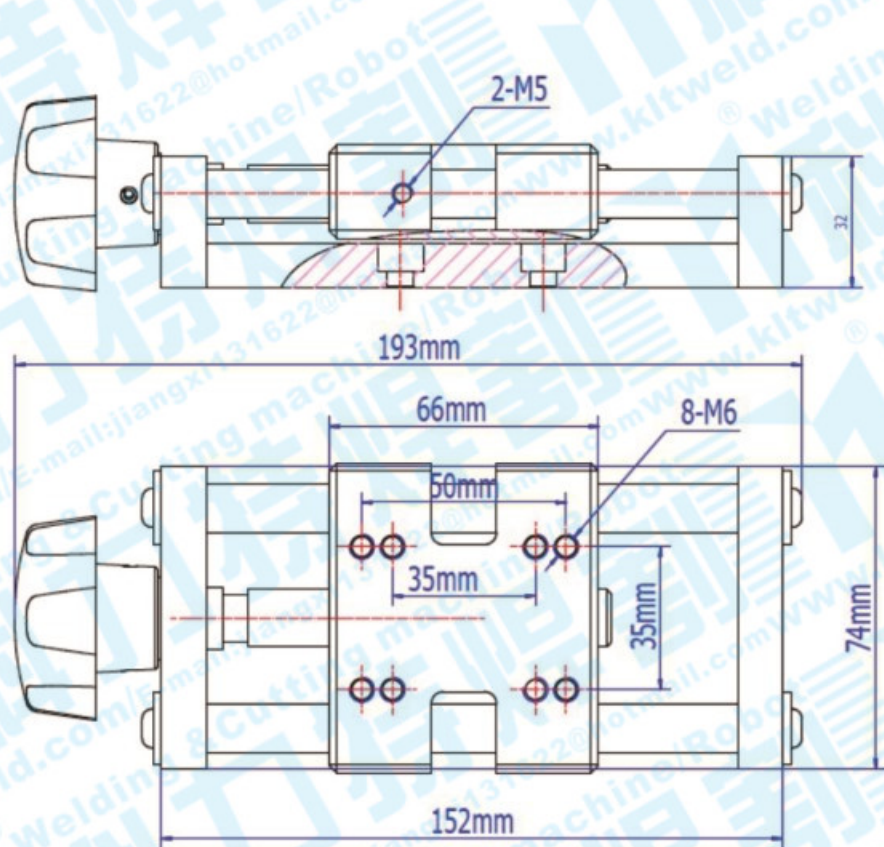
KLT(TJ)-100



KLT(TJ)-60
两轴/2Axis



KLT(TJ)-100
两轴/2Axis



KLT(TJ)-60

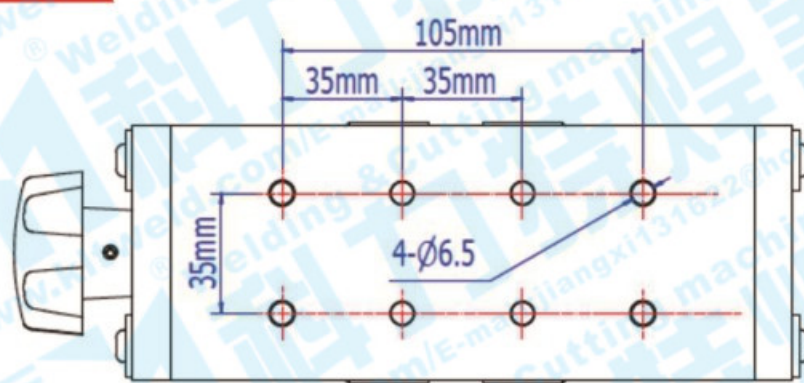
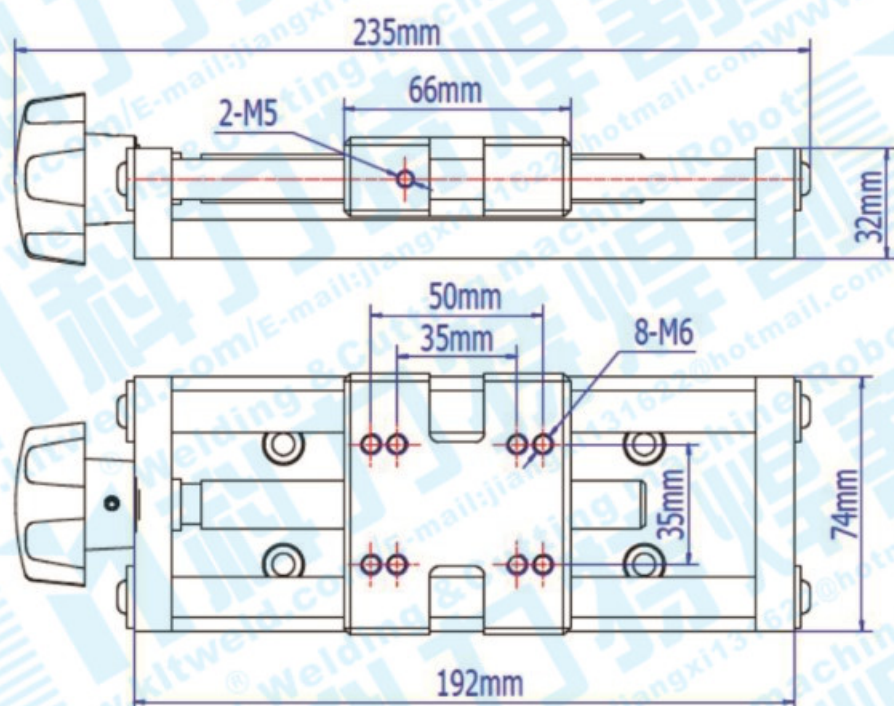
- 1,有效行程Travel: 60mm
- 2,移动方式The way of action: 手动转动Manual rotation



(厂家直销,大量现货)焊/割枪微调机构,手动拖板,滑台



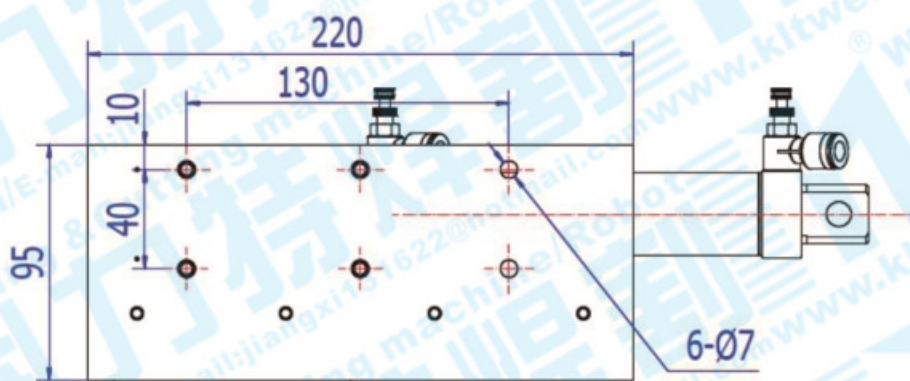
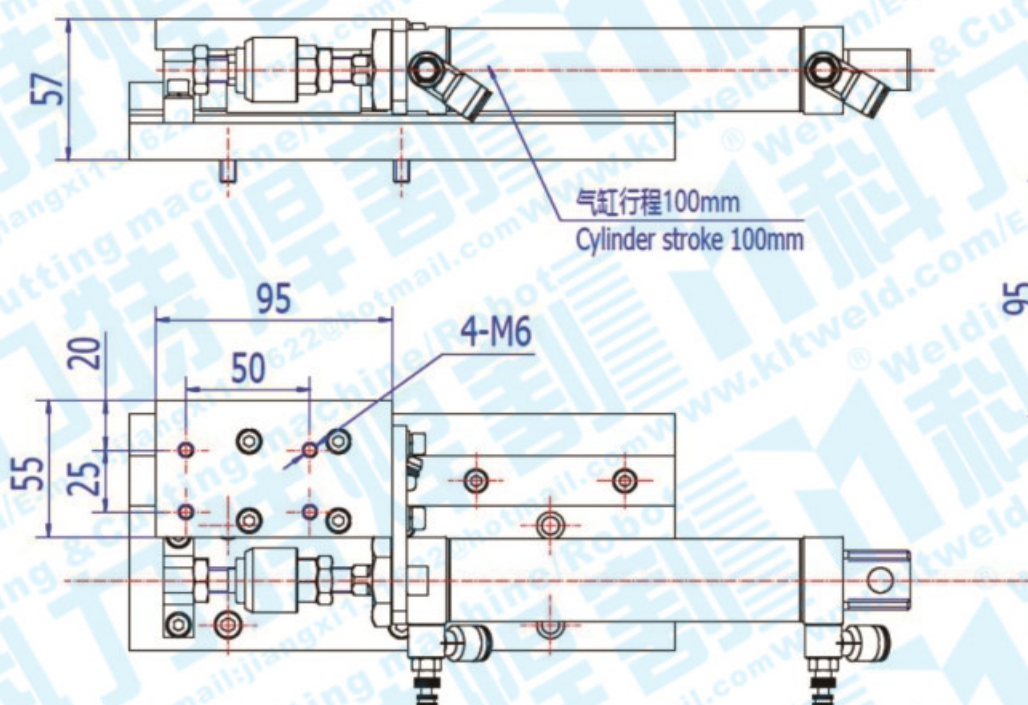
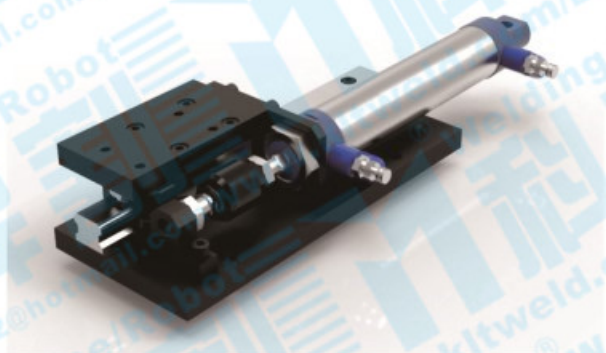
Remarks: Due to the large number of models of our company, if there are new models in the later stages of our company, we will explain the new quotation.



KLT(TJ)-100

- 1.有效行程Travel: 100 mm
- 2.移动方式The way of action: 手动转动Manual rotation

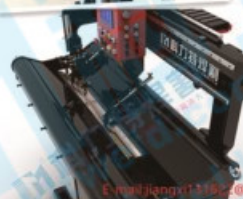
2, KLT(QTJ) 焊枪气动滑台



焊枪微动机构(60和100行程)



http://hjb-12.com 淘宝店
https://kltweld.1688.com 阿里巴巴



焊枪/割枪三维微动机构



5.5, 机器特点:

5.5, Machine features

设备本体有以下几个部分:

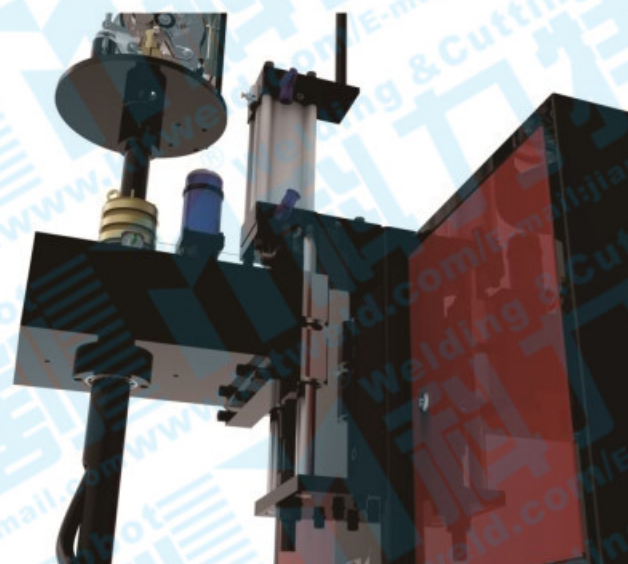
The device body has the following parts;

5.1 底座和床身: 承重机构, 承受整机重量。

5.1 base and bed: bearing body, to bear the weight of the whole machine.

5.2 油缸支架: 用于支撑油缸一端。

5.2 Cylinder Bracket: Used to support one end of the cylinder.



5.3 焊接驱动机构:

5.3 Welding Drive Mechanism:

5.3.1 焊枪自动气动提升机构: 由底板、导轨和提枪气缸组成。用于焊枪上下运动及焊枪复位等; 其上下枪速可通过提枪气缸调节阀调整; 焊枪旋转速度可通过速度调节旋钮设定; 焊枪上下运动行程, 通过手动螺杆定位长度调节。

5.3.1 Automatic pneumatic lifting mechanism of the welding torch: It is composed of a bottom plate, a guide rail and a lifting cylinder. It can be used for up and down movement of the welding torch and resetting of the welding torch; the gun speed can be adjusted by raising and lowering the cylinder adjusting valve; the rotating speed of the welding torch can be set by the speed adjusting knob; the torch moves up and down, and the length of the welding torch is adjusted by the manual screw positioning.

5.3.2 转枪机构: 由转枪轴和齿轮驱动机构组成。直流电机驱动, 本专机采用工件不动, 焊枪旋转的方式焊接。

5.3.2 Turning gun mechanism: It consists of a rotating gun shaft and a gear drive mechanism. DC motor drive, this machine uses the workpiece does not move, welding torch rotation welding.

5.3.3 上下枪微调机构 (仿型机构): 由弹簧、滚轮旋转轨迹进行上下枪运动, 配合转枪运动以完成焊枪的相贯线轨迹焊接。

5.3.3 up and down the gun fine-tuning mechanism (imitation mechanism): from the spring, the roller track up and down gun movement, with the gun movement to complete the welding torch's intersecting line track welding.

5.4 气动系统: 该设备有机头气缸。配套的气动元件和电磁阀安装在设备后面。设备工作时, 请确保气压在 0.5Mpa 以上。

5.4 Pneumatic system: The device has an organic head cylinder. Supporting pneumatic components and solenoid valves are installed behind the equipment. When the equipment is working, make sure the air pressure is above 0.5Mpa.

5.5 电控系统细分如下：

5.5 The electronic control system is subdivided as follows:

5.5.1 电源部分：控制电源：单相AC220V 50HZ；焊机电源：AC 3 × 380V

5.5.1 Power Supply Part: Control Power Supply: Single Phase AC220V 50HZ; Welder Power Supply: AC 3 × 380V

5.5.2 控制箱：控制箱正面上部为按钮面板。操作均在此面板上进行。电气安装板：电气安装板上主要有PLC、中间继电器、直流电机驱动器等电器元件组成，通过电缆和电线与控制面板上的控制按钮连接和通信，从而实现该机控制功能。

5.5.2 Control Box: The upper part of the control box is a button panel. All operations are performed on this panel. Electrical installation board: The electrical installation board is mainly composed of electrical components such as PLC, intermediate relay, and DC motor driver. It connects and communicates with the control buttons on the control panel through cables and wires to realize the control function of the machine.

5.5 焊接电源：根据客户需求配置，具体情况请参阅该种焊接电源的说明书。

5.5 Welding Power Supply: Configured according to customer requirements. For details, please refer to the manual of the welding power source.

三、技术参数 (Technical Parameters)

技术参数	Parameter	KLTHG-LHF400 (A/B/C/D)
焊接方式	Welding process	CO ₂ /MAG/MIG/TIG
输入电源	Input power	Single phase 220V, 50HZ
额定负载	specified load	100% continuous
额定功率	rated power	0.65 KW
气压调节范围	Pressure adjustment range	0.1-0.6 Mpa
焊接速度	Welding speed	2-8 mm/s
焊缝宽度	Weld width	5-10 mm
焊缝高度	Weld height	2-5 mm
电器元件品牌	Electrical component brand	Schneider
	PLC	LG
外形尺寸	Dimensions	1050mm × 1000mm × 2560mm
重量	weight	560Kg

一、立式环缝自动焊机 (Vertical ring seam automatic welding machine)

KLTHG-LHF-400(A/B/C/D)是本公司自行设计、制造开发的产品,用于油缸进/出油口的环缝焊接。该机器采用焊枪以360° 旋转,工件静止不动的结构形式。实现进/出油口与筒体/缸体垂直相交 (含相贯线) 环缝的焊接。

KLTHG-LHF-400(A/B/C/D)It is a product that our company designs, manufactures and develops. It is used for the circumferential seam welding of oil tank inlet/outlet ports.

The machine uses a 360° rotation of the welding torch and the workpiece is stationary. The welding of the circular seams(including intersecting lines) at the vertical intersection of the inlet/outlet port and the cylinder/cylinder is realized.



型号(Model) : KLTHG-LHF400(A/B/C/D)

1) KLTHG:指我公司的简称 (科力特焊割)

KLTHG:Our company name(Kelite Weld)

2) LHF:指立式环缝焊机

LHF: Vertical ring seam automatic welding machine

3) 400: 指下油缸最大直径为400mm

400: Lower cylinder diameter up to 400mm

4) A/B/C/D:指机器的结构类型和焊接工艺

A/B/C/D:Refers to the machine's structural type and welding process



备注: 由于我公司产品型号很多, 我公司后期如有新型号, 会以新的报价单解释说明。

Remarks: Due to the large number of models of our company, if there are new models in the later stages of our company, we will explain the new quotation.

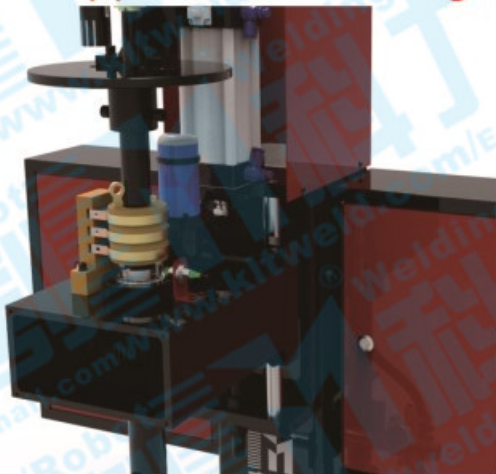
二、立式环缝自动焊机简介(Introduction to Vertical ring seam automatic welding machine)

1.可以焊接材质包括：45#、27SiMn、35#、20#、不锈钢等等；

1. Weldable materials include: 45#, 27SiMn, 35#, 20#, stainless steel, etc.;

2.该设备主要适用于油缸与圆油嘴座焊接等，设备以电机为主驱动机构，控制系统采用可编程控制器（PLC）控制，以继电器控制为辅助，从而实现了焊接的自动化控制。焊接电流电压的大小可以直接在操作面板上设定。整机质量可靠，外表美观，自动化程度高。

2. The equipment is mainly applicable to the welding of oil cylinders and round oil nozzle seats. The equipment is mainly driven by motors. The control system adopts programmable controller (PLC) control and relay control as auxiliary, thus realizing automatic control of welding. Welding current voltage can be set directly on the operation panel. The whole machine is of reliable quality, beautiful appearance and high degree of automation.



3.该设备具有自动提升、自动复位、自动引弧等功能，具有自动化程度高，一键操作，运行稳定可靠。装夹采用V型顶针定位机构，便于工件装卸。

3. The equipment has the functions of automatic lifting, automatic reset, automatic arc striking, etc. It has a high degree of automation, a key operation, and stable and reliable operation.

V-type thimble positioning mechanism is used for clamping to facilitate loading and unloading of workpieces.

4.针对于相贯线焊缝，设备配备了机械仿型机构。在焊接筒体上的进/出油口时需要根据接头和筒体之间曲面高低尺寸差进行仿形跟踪，这样才能焊接相贯线曲线。焊接油缸接口时，配备2只升降V型架用于支承油缸缸体，V型架下有滚轮，可手动移动，方便换位。工装下面配有可调节的升降平台。

4. For the intersecting line welds, the equipment is equipped with a mechanical copying mechanism.

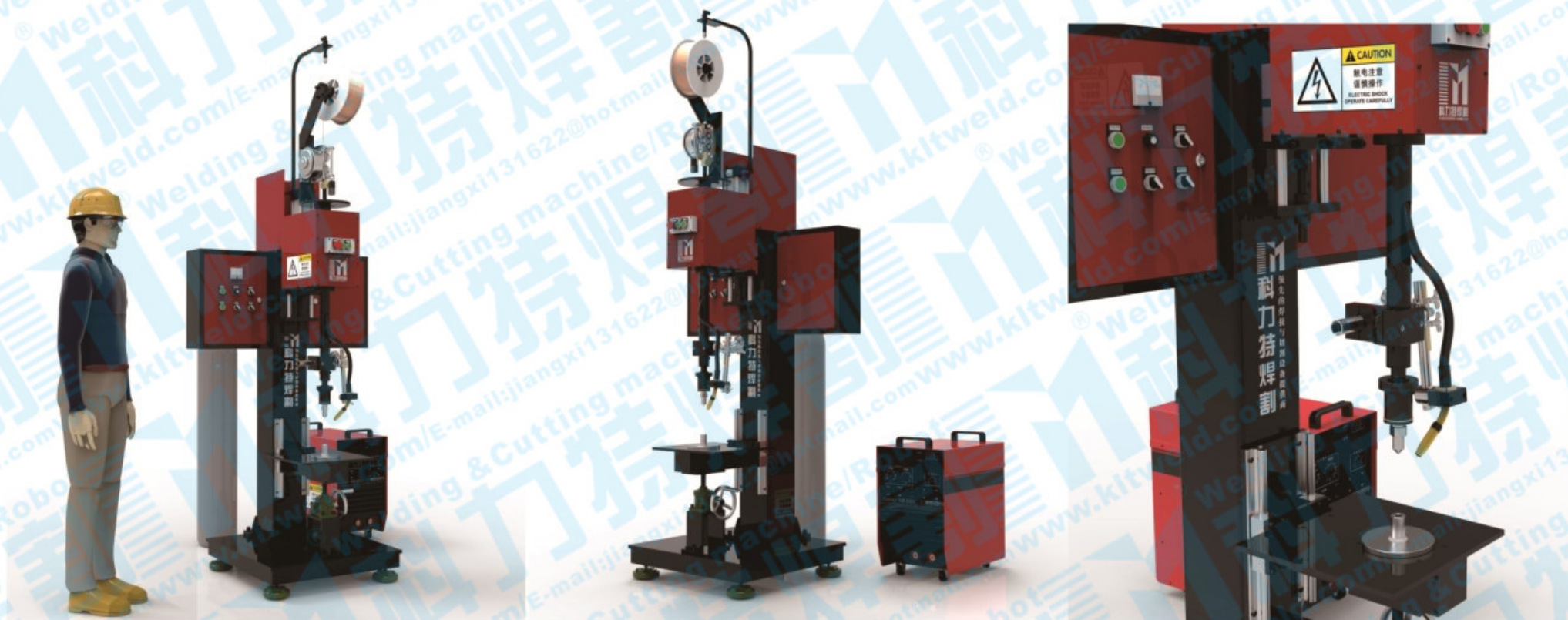
When welding the inlet/outlet port on the cylinder body, it is necessary to follow the contour height difference between the surface of the joint and the cylinder so as to weld the intersecting line curve.

Welding cylinder interface, equipped with two lifting V-shaped frame for supporting the cylinder block, under the V-frame roller, can be manually moved to facilitate the transposition. Under the fixture is equipped with an adjustable lifting platform.



立式环缝自动焊机

Vertical ring seam automatic welding machine



型号 (MODEL) :KLTHG-LHF400A

∴ 该机的焊接工艺只能是CO₂,MAG,MIG,只能用于平面焊缝，不能焊接相贯线焊缝。

∴ The welding process of this machine can only be CO₂, MAG, MIG, can only be used for flat welds, and can not weld intersecting welds.

∴ 我们推荐焊接电源

∴ We recommend welding power supply



Panasonic-KR II 350/500
(CO₂/MAG)



Panasonic-FR II 350/500
(CO₂/MAG/MIG)



Panasonic-YD350/500GL5
(CO₂/MAG/MIG)



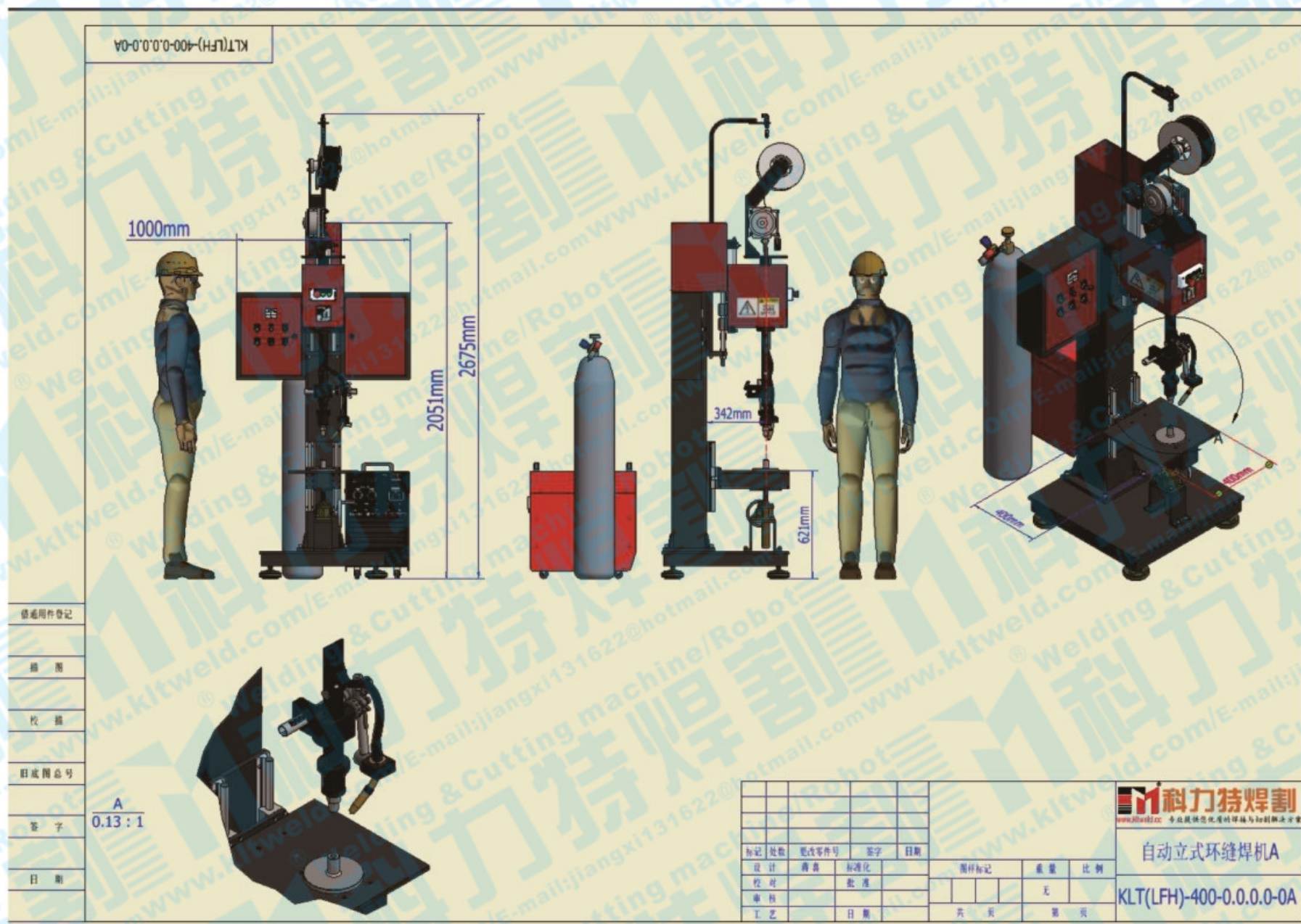
OTC-XD350/500S II
(CO₂/MAG)



OTC-CPVE400/500
(CO₂/MAG/MIG)



OTC-EP400/500
(CO₂/MAG/MIG)



外形尺寸Dimensions

应用实例 (Applications)



立式环缝自动焊机

Vertical ring seam automatic welding machine



型号 (MODEL) : KLTHG-LHF400B

∴ 该机的焊接工艺只能是TIG,用于圆形平面角焊缝。

∴ The welding process of this machine can only be TIG for round flat fillet welds.

∴ 我们推荐焊接电源

∴ We recommend welding power supply



Panasonic-YC-400TX
(DC TIG)



OTC-Welbee Inverter T500P
(DC TIG)



INVERTEC® CC400-TP
(DC TIG)



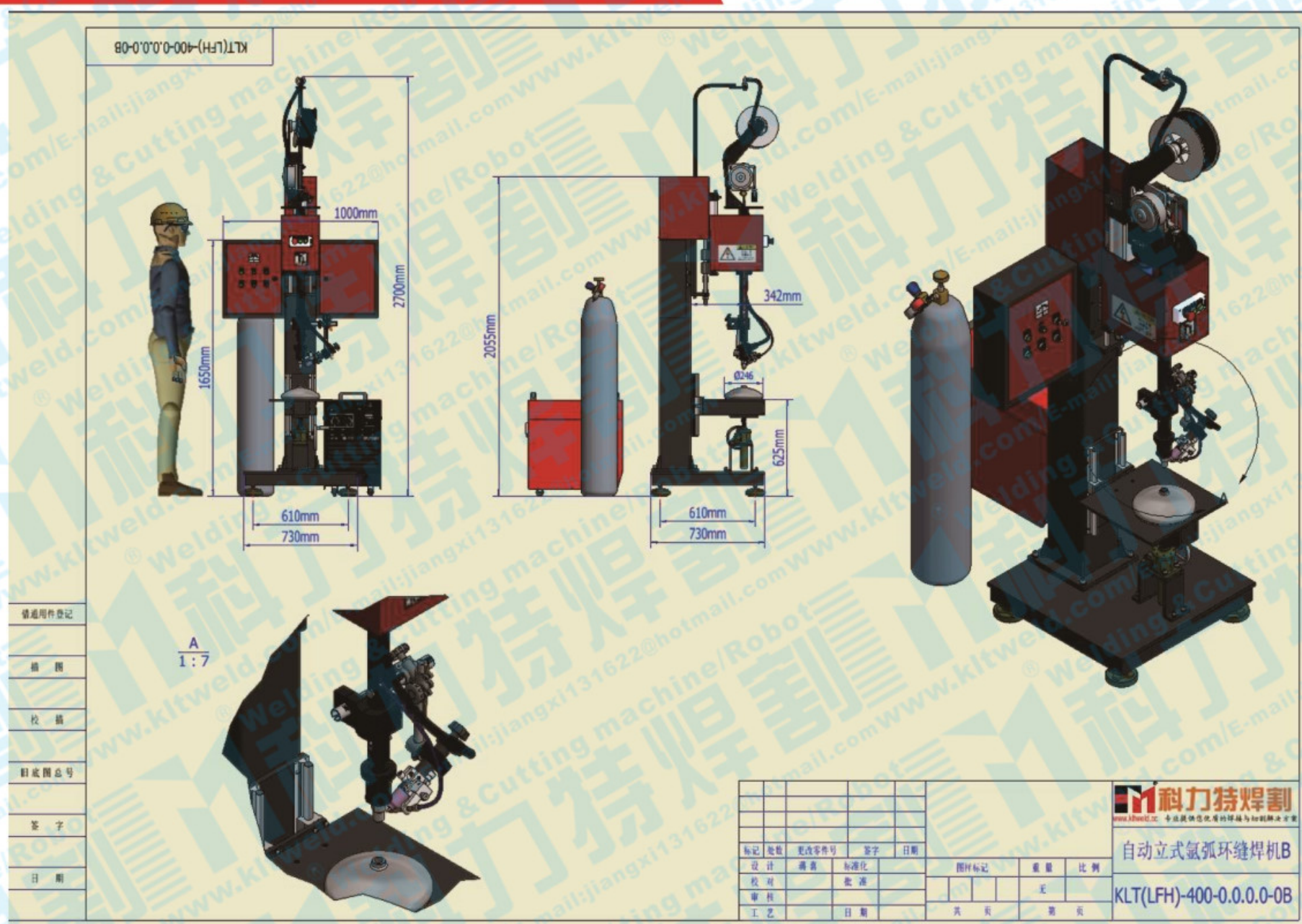
Kemppi-MLS 3003ACDC
(AC/DC TIG)



SAF-FRO PRESTOTIG
310 AC/DC (AC/DC TIG)



ESAB-Origo Tig 4300iw AC/DC
TA24 AC/DC (AC/DC TIG)



外形尺寸Dimensions

应用实例 (Applications)



立式环缝自动焊机

Vertical ring seam automatic welding machine



型号 (MODEL) : KLTHG-LHF400C

∴ 该机的焊接工艺只能是CO₂,MAG,MIG,用于平面焊缝和相贯线焊缝。

∴ The welding process of this machine can only be CO₂, MAG, MIG, and can be used for flat welds and intersecting wire welds.

∴ 我们推荐焊接电源

∴ We recommend welding power supply



Panasonic-KR II 350/500
(CO₂/MAG)



Panasonic-FR II 350/500
(CO₂/MAG/MIG)



Panasonic-YD350/500GL5
(CO₂/MAG/MIG)



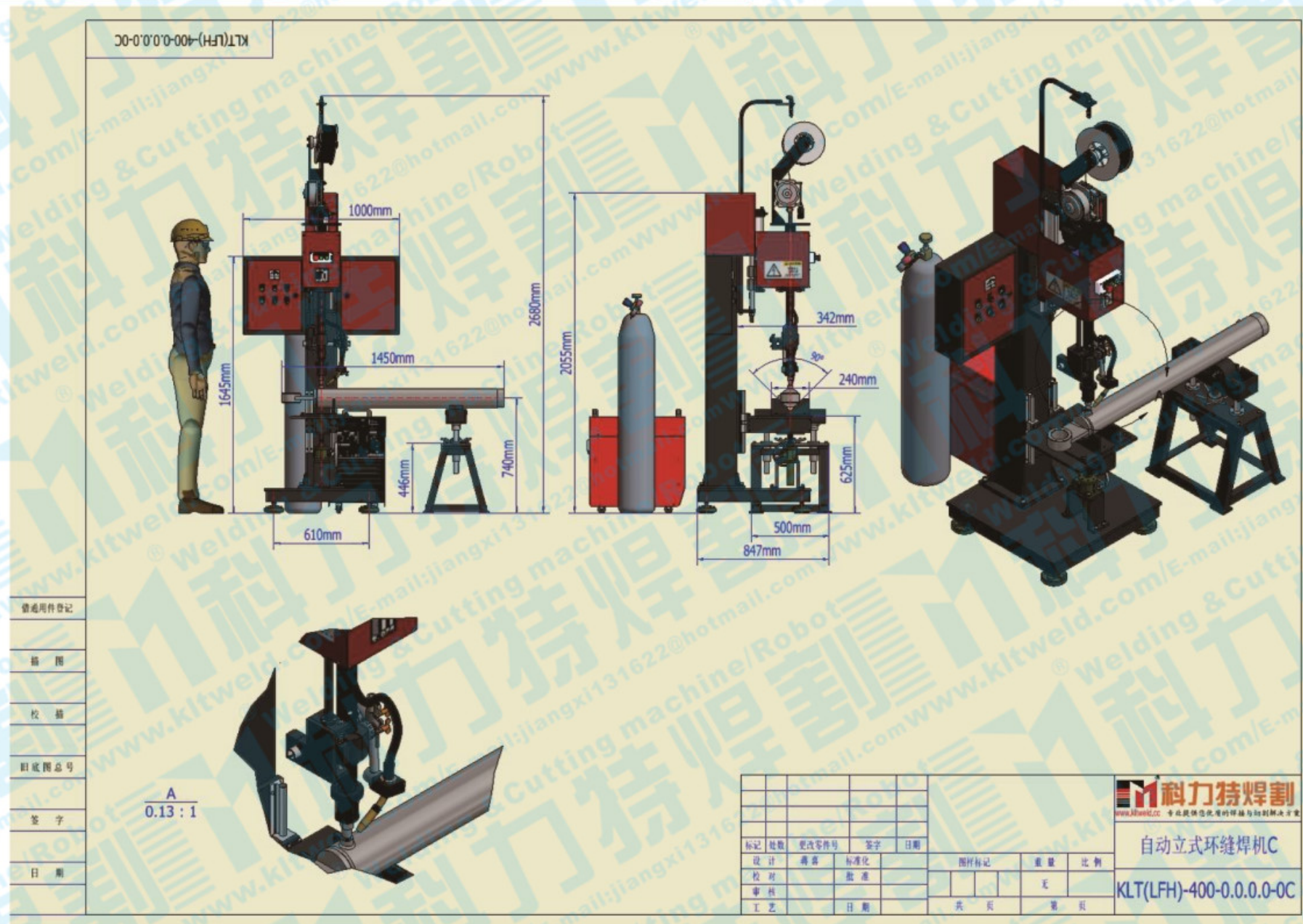
OTC-XD350/500S II
(CO₂/MAG)



OTC-CPVE400/500
(CO₂/MAG/MIG)



OTC-EP400/500
(CO₂/MAG/MIG)



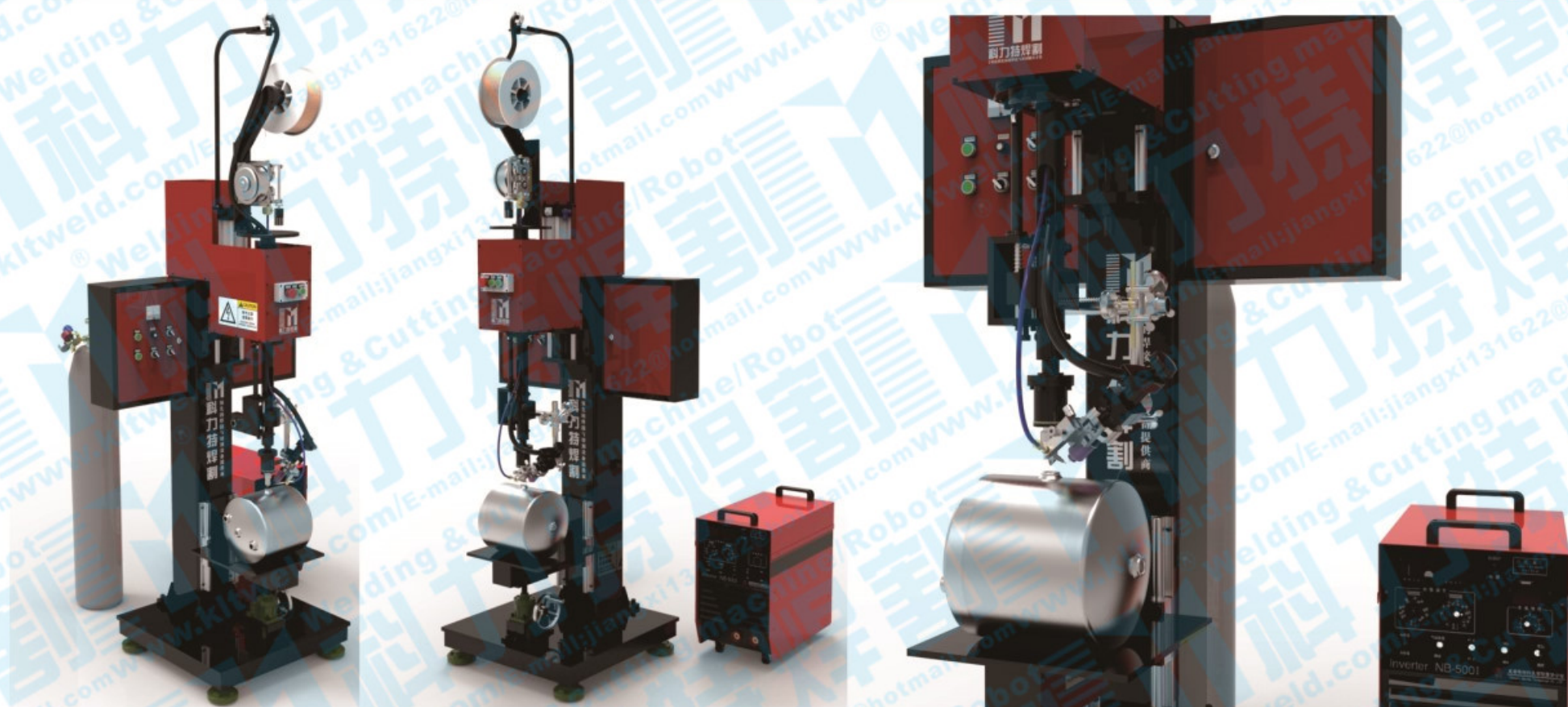
外形尺寸Dimensions

应用实例 (Applications)



立式环缝自动焊机

Vertical ring seam automatic welding machine



型号 (MODEL) : KLTHG-LHF400D

∴ 该机的焊接工艺只能是TIG,用于圆形平面角焊缝。

∴ The welding process of this machine can only be TIG for round flat fillet welds.

∴ 我们推荐焊接电源

∴ We recommend welding power supply



Panasonic-YC-400TX
(DC TIG)



OTC-Welbee Inverter T500P
(DC TIG)



INVERTEC® CC400-TP
(DC TIG)



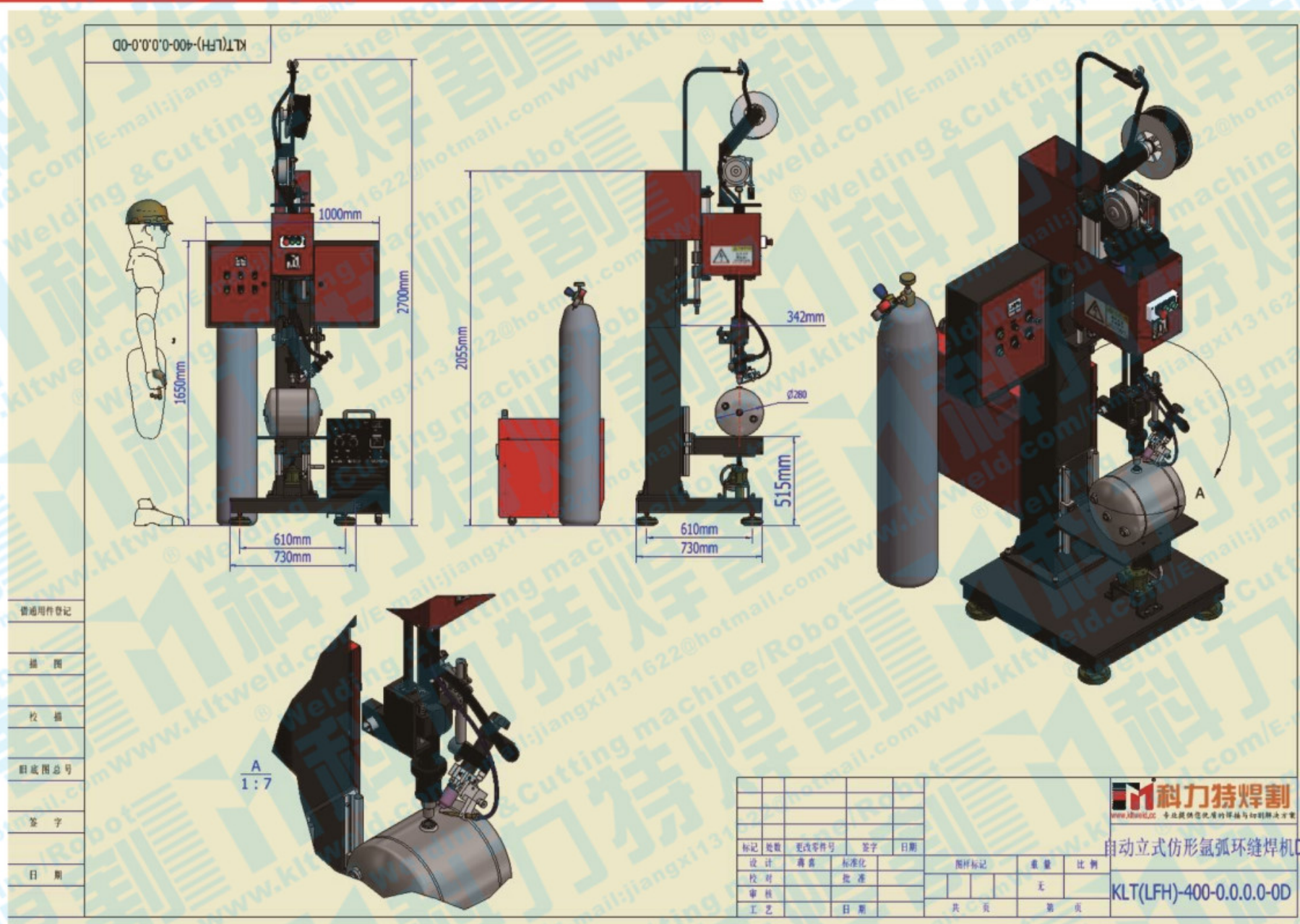
Kemppi-MLS 3003ACDC
(AC/DC TIG)



SAF-FRO PRESTOTIG
310 AC/DC (AC/DC TIG)

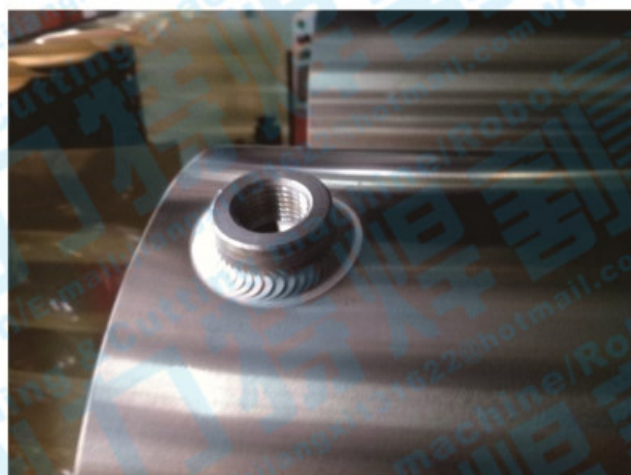
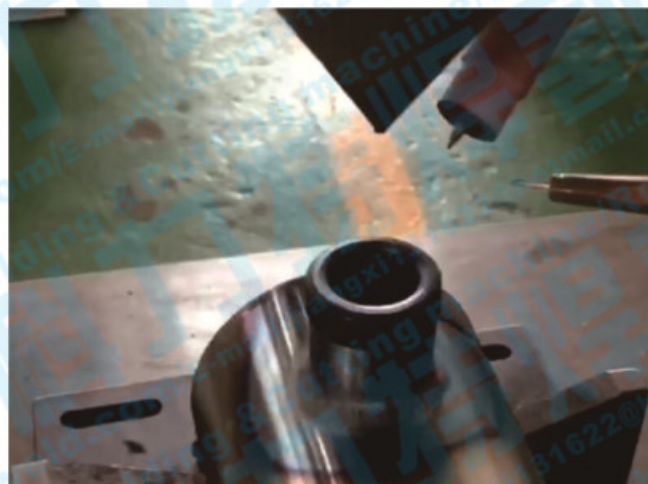
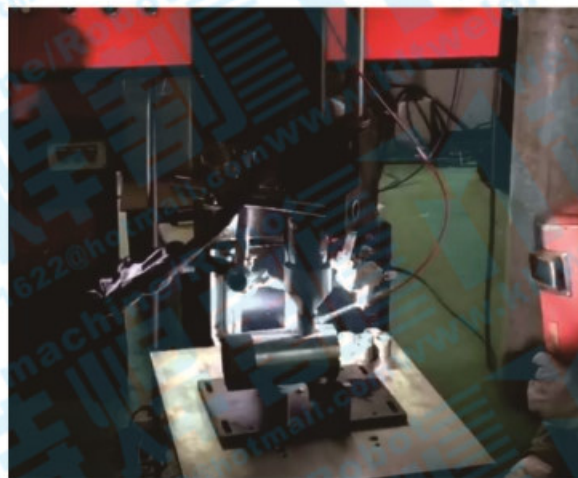


ESAB-Origo Tig 4300iw AC/DC
TA24 AC/DC (AC/DC TIG)



外形尺寸Dimensions

应用实例 (Applications)

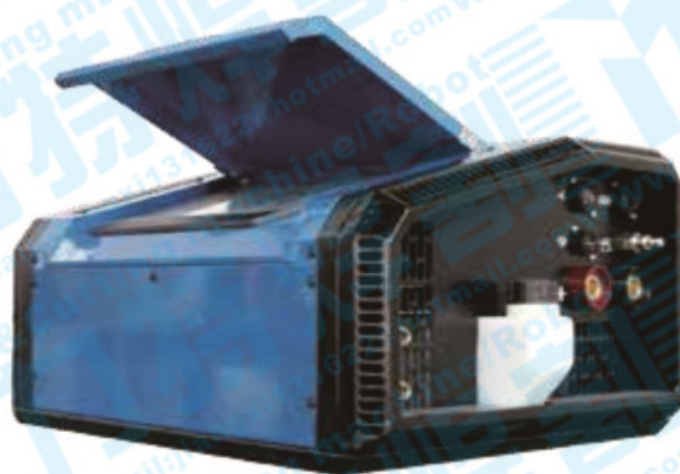


KLTW200 Welding Power System

KLTW200程控焊接电源由控制系统、逆变焊接机、冷却水箱构成。设备具有数字化、易操作、可靠性等特点。
KLTW200 program-controlled welding power supply consists of control system, inverter welding machine and cooling water tank. The device is digital, easy to operate, and reliable.

- 1,设备采用PLC控制平台，对各种输出及采集信号进行高分辨率显示及精确控制；
1, The equipment adopts PLC control platform to perform high-resolution display and precise control on various output and acquisition signals;
- 2,进口DC200A逆变焊机部件，可靠的电气部件，确保焊接的稳定性；
2, Import DC200A inverter welding machine components, reliable electrical components to ensure the stability of welding;
- 3,10寸触摸屏，系统内包含专业焊接参数，操作变得更方便；
3,10 inch touch screen, the system contains professional welding parameters, the operation becomes more convenient;
- 4,中英文界面，只需有基本焊工基础即可操作使用；
4,Chinese and English interface, only need to have a basic welder basis to operate;
- 5,220V单相供电，内部模块由开关电源供电；确保在户外电网20%波动范围内，保证焊缝完美；
5,220V single-phase power supply, the internal module is powered by the switching power supply; ensure that the weld is perfect within 20% fluctuation range of the outdoor power grid;
- 6,一键打印及自动打印功能；
6, One-button printing and automatic printing functions;
- 7,参数密码保护功能；
7, Parameter password protection;
- 8,故障自动诊断功能，显示英文或中文提示；
8,Automatic fault diagnosis function, displaying English or Chinese prompts;
- 9,模块化设计，便于维护与保养；
9, Modular design for easy maintenance and maintenance;

电源类型/Power type	逆变/Inverter	暂载率/Duty cycle rate (20 ° C)	150A 60%,120A 100%
焊接电流/Welding current	200A	输入电压/Input Voltage	220V±10% 50HZ
空载电压/Floating voltage	90V	焊枪冷却/Torch cooling	内置循环水冷/Built-in circulating water
功率/Power	5.8KVA	控制功能/Control Function	气体/电流/旋转/水泵控制 Gas/current/rotation/water pump
显示/Display	工业触摸屏/Industrial touch screen	可分区间/Separable interval	1-100
可存储程序/Storeable Program	100	重量/Weight	23KG
绝缘等级/Insulation grade	F	制造标准/Manufacturing Standards	GB 15579.1 2004
防护等级/Protection Level	IP21S	外形尺寸/Dimensions(mm)	580X410X270 (mm)



KLTW200 Welding Power System

产品名称/Product Name	内置制冷水箱/Built-in cooling water tank
输入电压/Input voltage	220V±10% 50HZ
冷却功率/Cooling Power	800W
最大流速/Maximum flow rate	5 L/Min
最大扬程/Maximum lift	40 M
水箱容积/Water tank volume	5 L

应用实例 (Applications)

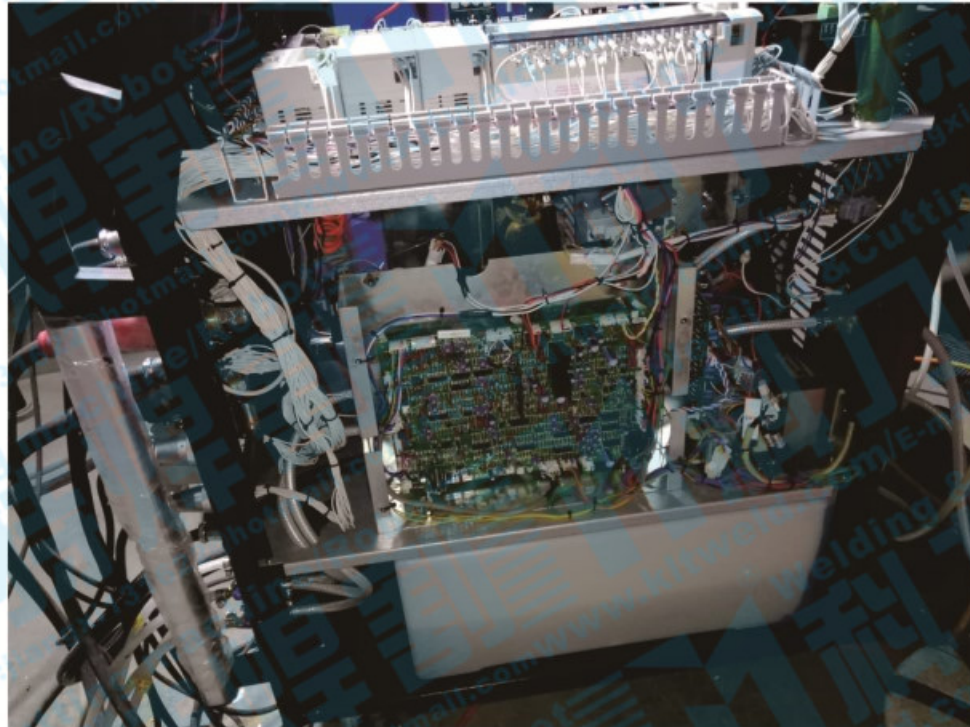


KLTW400 Welding Power System

KLTW400程控焊接电源由控制系统、逆变焊接机、冷却水箱构成。设备具有数字化、易操作、可靠性等特点。
KLTW400 program-controlled welding power supply consists of control system, inverter welding machine and cooling water tank. The device is digital, easy to operate, and reliable.

- 1,设备采用PLC控制平台，对各种输出及采集信号进行高分辨率显示及精确控制；
1, The equipment adopts PLC control platform to perform high-resolution display and precise control on various output and acquisition signals;
- 2,进口DC400A逆变焊机部件，可靠的电气部件，确保焊接的稳定性；
2, Import DC400A inverter welding machine components, reliable electrical components to ensure the stability of welding;
- 3,7 寸触摸屏，系统内包含专业焊接参数，操作变得更方便；
3,7 inch touch screen, the system contains professional welding parameters, the operation becomes more convenient;
- 4,中英文界面，只需有基本焊工基础即可操作使用；
4,Chinese and English interface, only need to have a basic welder basis to operate;
- 5,实时显示焊接电压、焊接电流、焊接行程、送丝速度，实现自动衰减；
5,Real-time display of welding voltage, welding current, welding stroke, wire feeding speed, to achieve automatic attenuation;
- 6,故障自动诊断功能，显示英文或中文提示；
6,Automatic fault diagnosis function, displaying English or Chinese prompts;
- 7,模块化设计，便于维护与保养；
7, Modular design for easy maintenance and maintenance;

电源类型/Power type	逆变/Inverter	暂载率/Duty cycle rate (20 ° C)	400A 60%
焊接电流/Welding current	5-400A	输入电压/Input Voltage	3×380V±10% 50/60HZ
空载电压/Floating voltage	73V	焊枪冷却/Torch cooling	内置循环水冷/Built-in circulating water
功率/Power	13.9KVA	控制功能/Control Function	旋转运动/送丝运动/保护气控制/弧长控制 /摆动控制 Rotary control / wire feed control / protective gas control / arc length control / swing control
显示/Display	工业触摸屏/Industrial touch screen	可分区间/Separable interval	1-100
可存储程序/Storeable Program	70	重量/Weight	96KG
绝缘等级/Insulation grade	F	制造标准/Manufacturing Standards	GB 15579.1 2004
防护等级/Protection Level	IP21S	外形尺寸/Dimensions(mm)	625X335X560 (mm)



KLTW400 Welding Power System

应用实例 (Applications)



KLT-PPCS 密封管-管焊枪

Sealing Pipe-Pipe Welding Torch(KLT-PPCS)

该系列的焊枪，适用于管径 $\phi 6-\phi 114.3$ 全位置管管焊接。
This series of welding torch is suitable for pipe diameter welding of pipe diameter $\phi 6\sim\phi 114.3$.

1,适用于不锈钢、钛合金等材质的薄壁管管焊接;
1, Thin-wall pipe welding for stainless steel, titanium alloy, etc.;

2,主要应用于医药管道、食品、生物工程、电子、仪器仪表、管道安装等行业;
2, Mainly used in medical pipelines, food, bioengineering, electronics, instrumentation, pipeline installation and other industries;

3,封闭式焊接，焊接保护效果好，表面成形美观紧凑，适合操作空间小的现场安装，可达性好;
3,Closed welding, good welding protection effect, beautiful and compact surface forming, suitable for on-site installation with small operating space, good accessibility;

4,旋转无缠绕结构，枪体水冷却，焊枪轻便且暂载率高;
4,Rotating without winding structure, gun body water cooling, welding torch is light and the duty ratio is high;

5,定位方式为夹块定位，定位准确;
5,Positioning method is clamp positioning, accurate positioning;

6,手柄上配备操作按钮，符合人体学设计；与KLTW200程控焊接电源配套使用，可精密实现TIG全位置焊接，达到理想的焊接效果；
6,Equipped with operation buttons on the handle, it is ergonomically designed; it can be used with KLTW200 program-controlled welding power supply to accurately realize TIG all-position welding to achieve the desired welding effect.;

产品型号/ProductType	适用范围/Scope of application
KLT-PPCS18	$\Phi 6\text{mm}-\Phi 12.7\text{mm}$
KLT-PPCS40	$\Phi 6\text{mm}-\Phi 38.1\text{mm}$
KLT-PPCS80	$\Phi 12.7\text{mm}-\Phi 76.2\text{mm}$
KLT-PPCS118	$\Phi 25.4\text{mm}-\Phi 114.3\text{mm}$



KLT-PPCS18



KLT-PPCS40



KLT-PPCS80



KLT-PPCS118

产品型号/Product type	KLT-PPCS18	KLT-PPCS40	KLT-PPCS80	KLT-PPCS118
焊接材质/Welding material	碳钢, 不锈钢, 钛合金/Carbon steel, stainless steel, titanium alloy			
旋转速度/spinning speed	0.19-3.877rpm	0.26-5.2 rpm	0.194-3.877 rpm	0.095-1.9 rpm
管材壁厚/Pipe wall thickness	≤ 2mm	≤ 3mm		
焊接直径/Welding diameter	Φ6mm-Φ12.7mm	Φ6mm-Φ38.1mm	Φ12.7mm-Φ76.2mm	Φ25.4mm-Φ114.3mm
焊接保护气体/Welding protective gas	氩气/Argon			
焊枪冷却方式/Torch cooling method	水冷/Water cooling			
冷却水流量/Cooling water flow	≥450 ml/min			
重量/Weight	5KG	3.5KG	4KG	5KG
外形尺寸/Dimensions	380×100×41.5mm	380×100×41.5mm	438×155×44mm	503×195×54mm
主配焊接电源/Welding power	KLTW-200			

应用实例 (Applications)

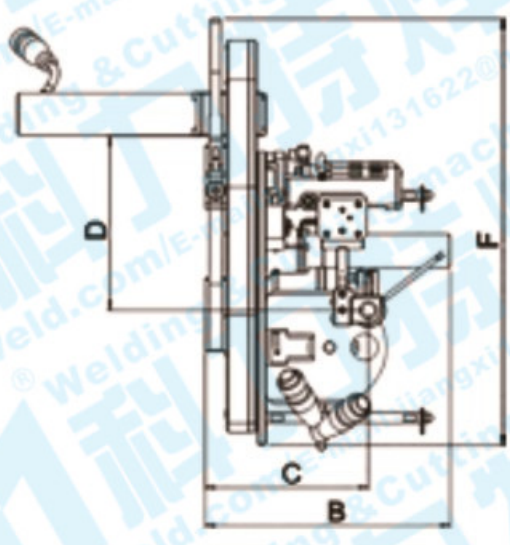
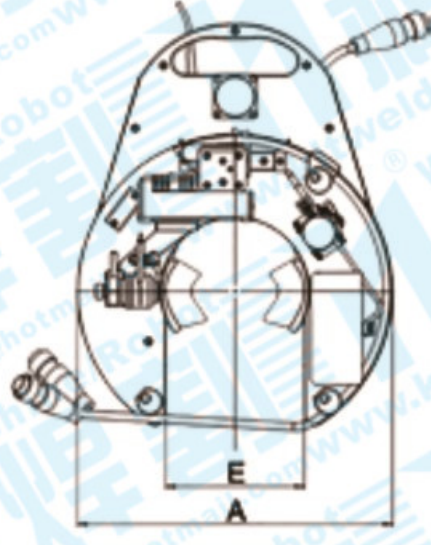
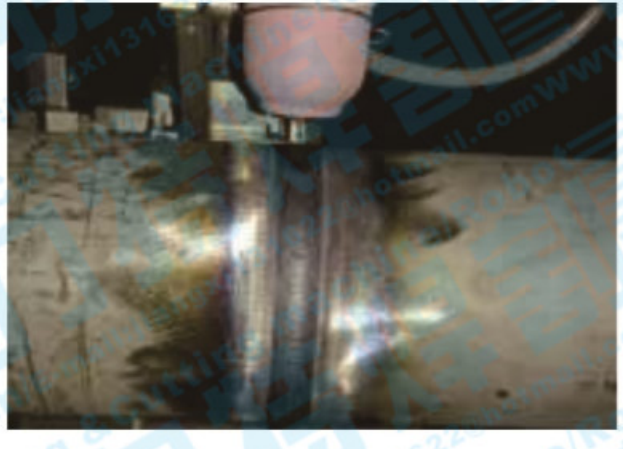
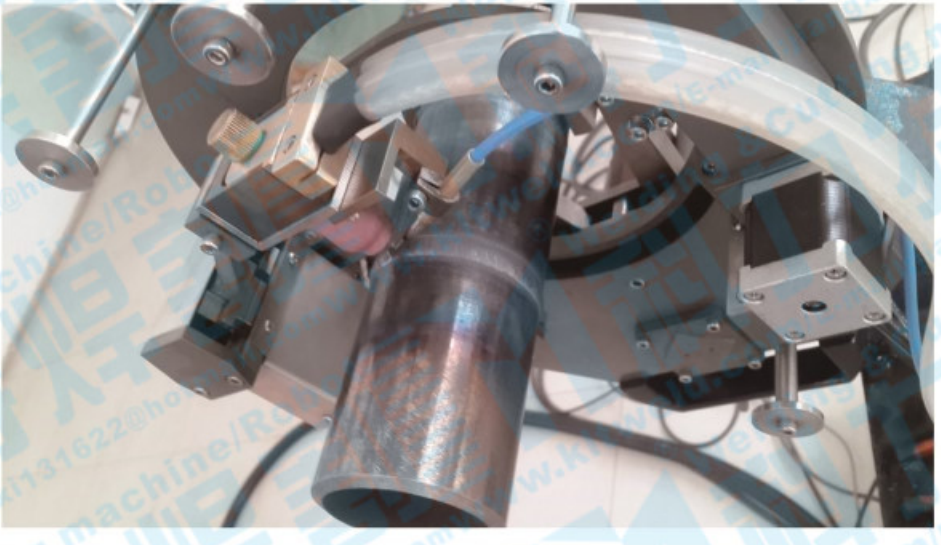
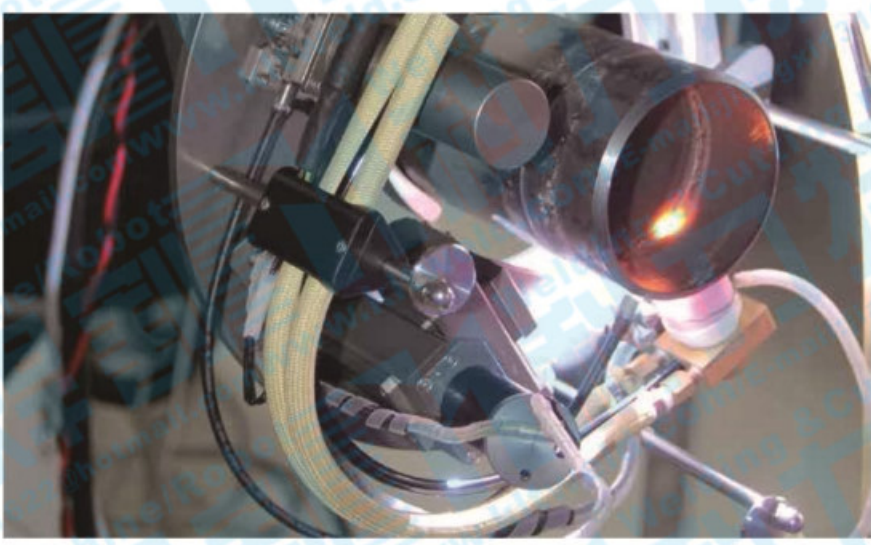


KLT-PPOS 敞开式管-管焊枪

All-position open tube-tube welding gun(KLT-PPOS)

该系列焊枪是为中厚壁管-管、管弯头、管三通TIG 焊接设计的专用焊枪，适用于3~20mm厚壁管的全位置 焊接。可焊接碳钢、不锈钢、双相钢等材质。可选择采用填丝或自熔两种方式。自带一体式送丝机可实现无缠绕送丝，并具有自动弧长横摆功能。它可与KLTW400程控焊接电源配套使用,可精密实现TIG全位置焊接,达到理想的焊接效果，重现性高。

This series of welding torches is a special welding torch designed for medium and thick wall pipe-pipe, pipe elbow and pipe tee TIG welding. It is suitable for all-position welding of 3~20mm thick-walled pipe. Can be welded with carbon steel, stainless steel, duplex steel and other materials. You can choose between wire filling or self-melting. The self-contained wire feeder can realize unwound wire feeding and has an automatic arc length yaw function. It can be used with KLTW400 program-controlled welding power supply, which can accurately realize TIG all-position welding, achieve ideal welding effect and high reproducibility.



产品型号/Product type	KLT-PPOS1	KLT-PPOS3	KLT-PPOS5	KLT-PPOS7
焊接材质/Welding material	碳钢, 不锈钢, 钛合金/Carbon steel, stainless steel, titanium alloy			
焊枪旋转半径/Torch radius	≥95mm	≥135mm	≥210mm	≥210mm
焊枪倾斜角度/Welding gun tilt angle	0-45°	0-45°	0-45°	0-45°
旋转速度/spinning speed	0.3-6rpm	0.3-6 rpm	0.3-6 rpm	0.3-6 rpm
钨针直径/Tungsten needle diameter	Φ2.4mm、Φ3.2mm			
管材壁厚/Pipe wall thickness	1.0mm-4.0mm	1.0mm-6.0mm	1.5mm-8.0mm	1.5mm-8.0mm
焊接外径/Welding Outer diameter	Φ15mm-Φ63.5mm	Φ17mm-Φ89mm	Φ32mm-Φ119mm	Φ45mm-Φ159mm
送丝速度/Wire feed speed	80-1800mm/min,速度可调/Speed adjustable			
焊丝盘直径、焊丝直径/Wire spool diameter, wire diameter	焊丝盘/Wire spool=Φ100mm, 焊丝直径/Wire diameter=Φ0.8mm, Φ1.2mm、can choose.			
弧长调节范围/Arc length adjustment range	0-90mm			
焊枪摆动距离/Welding gun swing distance	1-25mm			
焊接保护气体/Welding protective gas	氩气/Argon			
焊枪冷却方式/Torch cooling method	水冷/Water cooling			
冷却水流量/Cooling water flow	≥300 ml/min			
主配焊接电源/Welding power	KLTW-400			

应用实例 (Applications)

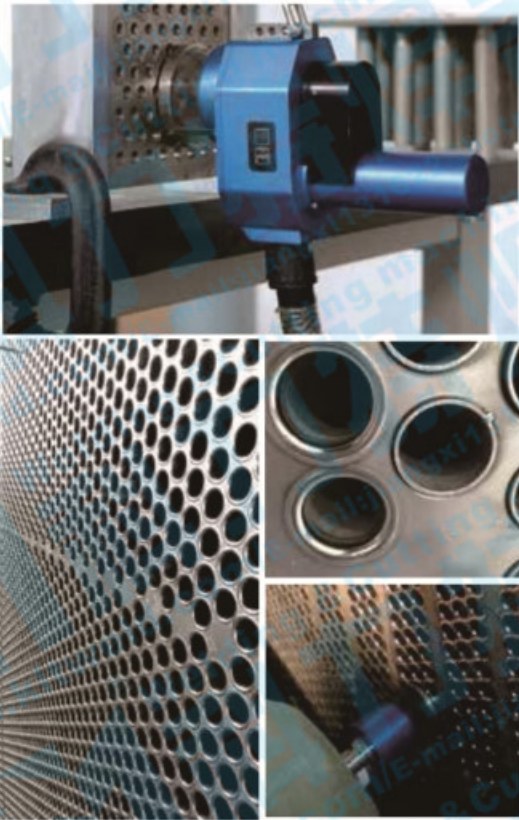


KLT-PPCT40 密封管-板焊枪

Sealing Pipe-Plate welding gun(KLT-PPCT40)

该焊枪是专为管-板全自动TIG焊接设计的，适用于一般管板形式的自动化焊接。可焊接碳钢、不锈钢等各种管板接头型式，主要是管平头、不填丝，可实现全位置TIG管板焊接，达到理想的焊接效果，重现性高。可与KLTW200、KLTW400程控焊接电源配套使用，主要应用于化工、食品、医药、各种换热器、电厂、军工和核电等行业。

The torch is designed for tube-to-plate fully automatic TIG welding and is suitable for automated welding in the form of general tube sheets. It can weld various types of tube-and-tube joints such as carbon steel and stainless steel, mainly flat tube head and non-filling wire, which can realize full-position TIG tube plate welding, achieving ideal welding effect and high reproducibility. It can be used with KLTW200 and KLTW400 program-controlled welding power sources, mainly used in chemical, food, pharmaceutical, various heat exchangers, power plants, military and nuclear power industries.



- 性能特点：
- 适用于电站、冷凝器不锈钢、钛合金管板焊接；
 - 不送丝自熔，体积小，重量轻，方便操作；
 - 胀芯式定位，焊枪倾附工件设计，定位准确，安全可靠，方便快捷；
 - 封闭式焊接，确保获得优质的焊缝；
 - 无缠绕，水电气设计，增强型水冷系统，暂截率高，持续工作时间长。

Performance characteristics:

- Applicable to welding of power station, condenser stainless steel and titanium alloy tube sheet;
 - No wire self-melting, small size, light weight, easy to operate;
 - Expanded core positioning, the torch is attached to the workpiece design, accurate positioning, safe and reliable, convenient and fast;
 - Closed welding to ensure high quality welds;
 - No winding, water and electricity design, enhanced water cooling system, high temporary intercept rate and long working time.
- sources, mainly used in chemical, food, pharmaceutical, various heat exchangers, power plants, military and nuclear power industries.

产品型号/Product type	KLT-PPCT40
焊接材质/Welding material	碳钢, 不锈钢, 钛合金/Carbon steel, stainless steel, titanium alloy
钨针直径/Tungsten needle diameter	Φ2.4mm
焊枪倾斜角度/Welding gun tilt angle	0°、7°可换（标配7°）/0°, 7° interchangeable (standard 7°)
旋转速度/spinning speed	0.6-12 rpm
管板形式/Tube sheet form	管平头/Pipe flat head
焊接直径/Welding diameter	Φ16 - Φ38 (5/8" - 1 1/2")
冷却水流量/Cooling water flow	≥300 ml/min
重量/Weight	3.65KG
外形尺寸/Dimensions	320×85×160mm



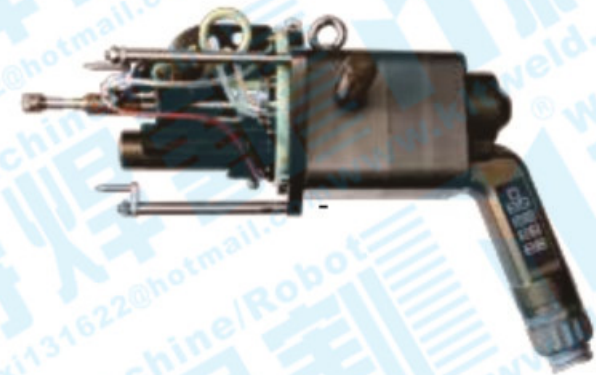
锅炉管-板
Boiler tube-board



换热器管-板
Heat exchanger tube-board

该款管板焊接机头为全位置TIG焊接设计的专用焊头，适用于8-80mm管外径的全位置管板焊接。

- 可焊碳钢、不锈钢、钛合金等合金材质；管板接头形式可为管平头和管伸出。
- 主要应用于化工、食品、换热器、空调、船舶、锅炉、能源、军工和核电等行业。
- 旋转无缠绕结构，芯轴实现水、电、气自动分配，焊枪轻便化且暂载率高，300A时暂载率达60%。
- 定位方式可为气动弹性夹头定位或操作架定位，对大管径或小管径管板焊都非常适用。
- 自带一体式送丝机可实现无缠绕送丝，送丝机构具有校直功能，焊丝能够准确进入熔池。
- 具有手动及自动弧长功能。
- 手柄上配备操作按钮，符合人体学设计。与GTW400程控焊接电源配套使用，可精密实现TIG全位置焊接，达到理想的焊接效果，重现性高。



This tube sheet welding head is a special welding head designed for all-position TIG welding. It is suitable for all-position tube sheet welding of 8-80mm tube outer diameter.

- Can be welded carbon steel, stainless steel, titanium alloy and other alloy materials; tube plate joint form can be the pipe flat head and tube extension.
- Mainly used in industries such as chemicals, food, heat exchangers, air conditioners, ships, boilers, energy, military and nuclear power.
- Rolling without winding structure, the mandrel realizes automatic distribution of water, electricity and gas. The welding torch is light and the duty ratio is high. The duty ratio is up to 60% at 300A.
- The positioning method can be pneumatic chuck positioning or operation frame positioning, which is very suitable for large pipe diameter or small pipe diameter pipe welding.
- The self-contained wire feeder can realize the winding-free wire feeding. The wire feeding mechanism has the function of straightening, and the welding wire can enter the molten pool accurately.
- With manual and automatic arc length function.
- The handle is equipped with an operation button, which is ergonomically designed. Used in conjunction with the GTW400 program-controlled welding power supply, it can precisely achieve TIG all-position welding, achieving ideal welding results and high reproducibility.

KLT-PPOT80 全位置管-板焊枪

All position Pipe-plate welding gun (KLT-PPOT80)

产品型号/Product type	KLT-PPOT80	主配电源/Main power supply	KLTW400
管-板组对形式/Tube-plate pair form	管伸出、管平头/Tube extension, tube flat	焊枪倾斜角度/Welding gun tilt angle	0-30°
弧长调节间距/Arc length adjustment spacing	20mm	特别系数C/Special coefficient C	43
机头代码(R)/Head code (R)	25	焊接保护气体/Welding protective gas	氩气/Argon
焊丝直径/Wire diameter	0.8/1.0	可焊管子直径/Weldable pipe diameter	Φ16-Φ80mm
额定电流300A (负载率)/Rated current 300A (load ratio)	70%	冷却方式/cooling method	水冷/Water cooling
焊枪旋转速度/Torch rotation speed	0.37-7.39 rpm	冷却水流量/Cooling water flow	≥450 ml/min
最大焊接电流/Maximum welding current	350A	重量/Weight	13KG
最大送丝速度/Maximum wire feed speed	2200mm/min	外形尺寸/Dimensions	545×292×509 mm

应用实例 (Applications)



该操作龙门架是专门为管-管焊枪，管-板焊枪在使用过程中操作而设计的机械机构，主要是通过操作可以控制焊枪的位置，通过三轴快速移动并一键式气动锁紧，配合定位器能够快速准确的找到管子的中心，并平稳的进行焊接， 主要与KLT-PPCS、KLT-PPOS、KLT-PPCT焊枪（定位器结构）配套使用。适合焊接小型管板结构形势。

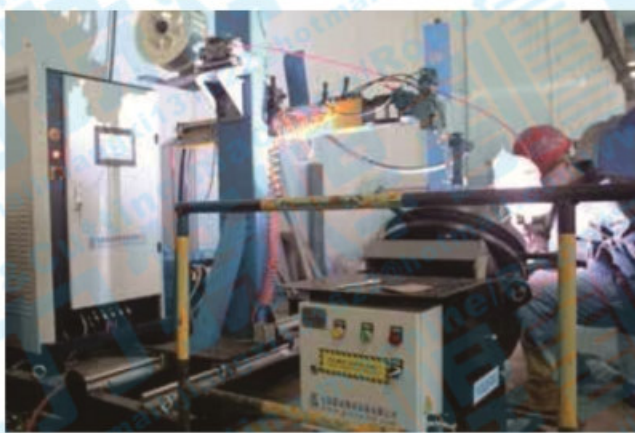
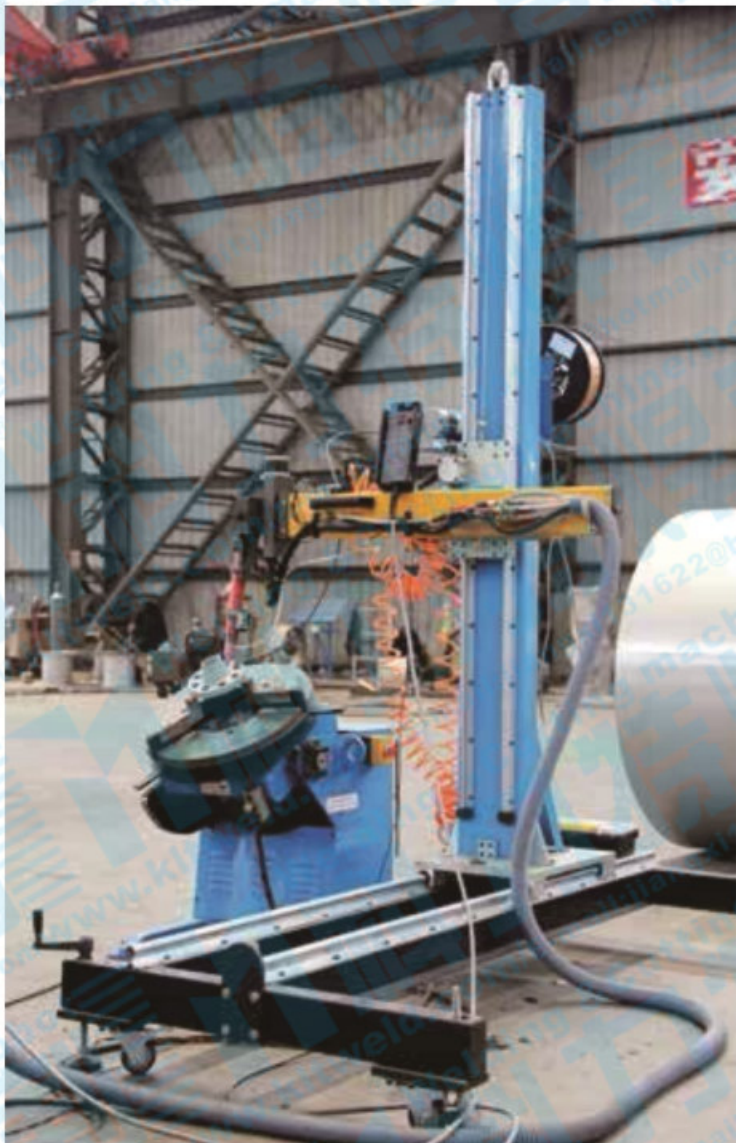
The operation gantry is a mechanical mechanism specially designed for the operation of the tube-tube welding gun and the tube-plate welding torch during use. The operation mechanism can control the position of the welding torch, and the three-axis rapid movement and one-button pneumatic locking are adopted. With the positioner, the center of the pipe can be quickly and accurately found and welded smoothly, mainly used with KLT-PPCS, KLT-PPOS, KLT-PPCT welding torch (positioner structure). Suitable for welding small tube sheet structure situation.

产品特点:

- 该龙门架与本公司生产的全位置程控焊接电源组成完整的管/板自动焊接系统，可精密实现全位置TIG管/板焊接，达到理想的焊接效果，焊接结果重现性高；
- 各轴采用直线导轨，运动平稳可靠；
- 底盘配有2个固定脚轮，2个万向脚轮，整体可自由移动；
- 应用范围：锅炉、化工、热交换、空调、核电、医药 行业。

Features:

- The gantry frame and the full-position programmable welding power supply produced by the company form a complete pipe/plate automatic welding system, which can accurately realize the full-position TIG pipe/plate welding to achieve the ideal welding effect and high reproducibility of welding results;
- The linear guides are used for each axis, and the movement is stable and reliable;
- The chassis is equipped with 2 fixed casters and 2 universal casters, which can move freely as a whole;
- Application range: boiler, chemical, heat exchange, air conditioning, nuclear power, pharmaceutical industry.



管距离地面的最小距离（可焊接）/Minimum distance of the pipe from the ground (weldable)	600mm
水平移动距离/Horizontal moving distance	1500mm
上下移动的距离/Distance moving up and down	1800mm
前后的移动距离/Moving distance before and after	450mm
重量/Weight	230kg
外形尺寸/Dimensions	2080×1010×1850 mm

1, Longitudinal seam welder



How to classify? (Detailed model number)

KLTHG-ZF(500/1000/2000/3000)(A/B)

- 1) KLTHG: Our company name (Kelite Weld)
- 2) ZF: Longitudinal seam welder
- 3) 500/1000/2000/3000: X-Axis Effective Length: 500mm or 1000mm or 2000mm or 3000mm
- 4) A/B/C
 - A: TIG Welding Power
 - B: MIG Welding Power



Panasonic-YC-400TX
(DC TIG)



Panasonic-YD350/500GL5
(CO2/MAG/MIG)



INVERTEC® CC400-TP
(DC TIG)



Longitudinal seam welder intelligent controller



2, Introduction to Longitudinal seam welder

This series of equipment is suitable for high quality welding of carbon steel, alloy steel, stainless steel, aluminum and aluminum alloy, nickel and nickel alloy, copper and copper alloy, titanium alloy, etc., and can choose TIG (filled or unfilled), MIG /MAG, PAW, SAW and other welding methods. The equipment can be widely used in aviation, aerospace vehicles, thin-walled pressure vessels, auto parts, medical machinery, household appliances, food machinery and other manufacturing industries where longitudinal seams are required.

Remarks: Due to the large number of models of our company, if there are new models in the later stages of our company, we will explain the new quotation.

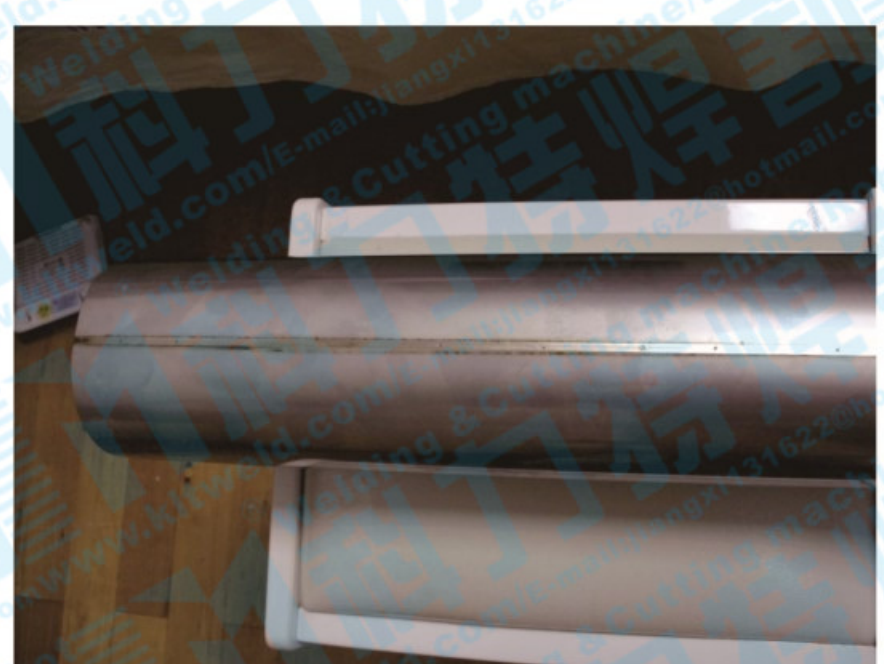
3,Optional

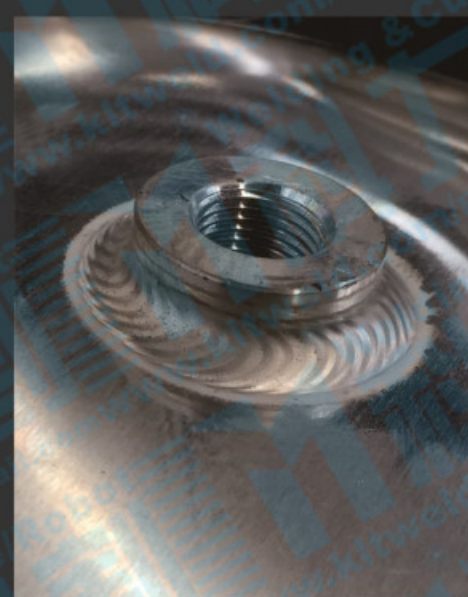
- Welding method: plasma welding (PAW), argon arc welding (TIG/TAW) or gas metal arc welding (MIG/MAG/CO2)
- Filling form: no wire self-melting or automatic filling (for PAW and TIG/G-TAW)
- Feeding method: stainless steel roller platform or universal ball platform (optional)
- Welding gun adjustment: manual carriage, electric carriage or automatic tracking;
- Control mode: automatic control or digital control.

4,Performance characteristics

- It adopts the key clamping method and the back protection of the copper pad. The heat dissipation effect during welding is small, the workpiece deformation is small, and the welding quality is high;
- Applicable to the thickness welding of thin plate cylinder or sheet longitudinal seam in the range of 1-16mm;
- Suitable for welding process methods such as TIG, MIG/MAG/CO2, PAW;
- Can be welded with carbon steel, stainless steel, titanium alloy, aluminum alloy and other materials;
- Adopt a stable industrial control platform to ensure stable operation of the welding system for a long time;
- Depending on the structure of the workpiece, the standard series of tooling can be selected or customized.

Model	ZF 500	ZF 1000	ZF1500	ZF 2000	ZF 2500	ZF 3000
Effective maximum length (mm)	500	1000	1500	2000	2500	3000
Weldable sheet thickness (mm)	0.3-3	0.5-4	0.5-5	1-6	1.5-7	1.5-8
Diameterrange(mm)	80-350	110-750	150-750	200-750	250-750	300-750
Walking speed (mm/min)	60-1200					
Features	Welding swing,arc length tracking.					
Motor	Delta servo motor					
Controller	Delta PLC+Delta touch screen					





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