



北京时代科技股份有限公司
BEIJING TIME TECHNOLOGIES CO.,LTD.



时代焊机微信二维码

TIME

WELDING & CUTTING

时代焊割 专家选择

TIME WELDING EXPERT CHOICE



本企业通过ISO9001质量体系认证
ISO9001 Quality System Certificated

ISO14001环境管理体系认证
ISO14001 Environmental Management System Certificated

OHSAS18001职业健康安全管理体系认证
OHSAS18001 Occupational Health and Safety Management System Certificated

全部产品通过国家CCC强制性认证
CHINA CCC Certificated

中国节能产品认证
China Energy Conservation Product Certificated

企业简介

Company Profile

北京时代科技股份有限公司成立于 2001 年初。它是由时代集团公司发起并联合清华紫光、联想集团、大恒集团、四通集团等公司共同创建的一个全新的股份公司,主要从事逆变焊机、大型焊接成套设备、专用焊机及数控切割机的开发、生产与销售。2006 年 3 月 31 日北京时代科技股份有限公司在深交所代办股份转让系统挂牌上市,成为中国焊机制造业的第一家上市公司。2006 年 10 月 26 日“北京时代”开“三板市场”融资先河,定向募集成功,为公司的迅速发展提供了更好的机会和条件。

时代公司坚持“科技立司、产业立司、出口立司”的立司原则。经过多年的发展公司已经形成了一套严密的技术开发、产品制造、质量控制、资金运作、市场策划、客户服务的管理体系。目前,时代公司生产的电焊机均通过国家“3C”认证并连续四年被评为“北京名牌产品”。1995 年时代公司通过了 ISO9001 质量体系认证。2008 年公司获得环境管理体系 (ISO14001: 2004) 和职业健康安全管理体系 (OHSMS18001: 2001) 的认证。由此时代公司成为中国焊机制造业首家通过上述管理体系认证的企业。在中国的焊机企业当中,时代公司是建有博士后流动站的企业。时代公司在中国建有 40 余家销售服务型子公司,销售及售后服务网络遍及全国。

时代公司从 1993 年开始从事 IGBT 逆变焊机的开发、生产、销售。公司现在生产的全部是 IGBT 逆变焊机。本着“国内一流、世界先进、不求唯一、但求第一”的产品开发目标,沿着数字化、绿色化、自动化并不断创新的开发路线,时代公司为社会提供优质服务、完美的焊机产品。公司的焊机产品现已形成十余个系列 70 多种产品型号,2003 年时代公司在国内焊机领域率先采用了数字化 DSP 技术,占据了国内焊机技术的制高点。2007 年 10 月公司组建济南时代新纪元科技有限公司。该公司目前是时代公司的全资子公司,主要从事大型焊接成套设备、专用焊机、数控切割机的开发、生产与销售。时代的各类大型成套焊接设备在风电、锅炉、压力容器等众多行业得到了广泛应用。

2009 年公司斥资数亿元在济南市经济开发区征地数百亩,建设全世界最先进的年产 30 万台焊机的制造基地。该基地将于 2012 年正式投入生产。经过不断探索和研究,时代焊接机器人产品在 2010 年的埃森焊接展上正式亮相,产品一经推出即得到了市场和用户的关注。凭借多年的焊机制造经验和辅助机械制造水平,时代机器人的可靠性、集成化能力、配件供应都能得到有效地保证。时代焊接机器人是精良的焊接技艺和高效的自动化技巧的完美组合。同年公司大力推动民用焊机市场的开发,推出了全系列轻便、耐用的小型焊机,这巩固了时代品牌在民用焊机领域的地位,拓宽了时代产品的应用领域。

在“杰出的高技术产品、令人放心的质量、让您满意的服务”的质量方针的指引下,时代焊机为电力、水利、造船、冶金、化工、桥梁、石油天然气、安装及其他众多行业提供了优质的施工保障,并在“三峡工程”、“南水北调”、“奥运场馆建设”等重点工程中得到了广泛应用。由于产品技术水平高,与国外同类产品具有较强的竞争力,从 2003 年开始,时代焊机批量出口至俄罗斯、荷兰、澳大利亚、泰国、马来西亚、巴西、南非、以色列、印度等 40 多个国家。



公司总部
Headquarters

BEIJING TIME TECHNOLOGIES CO.,LTD.

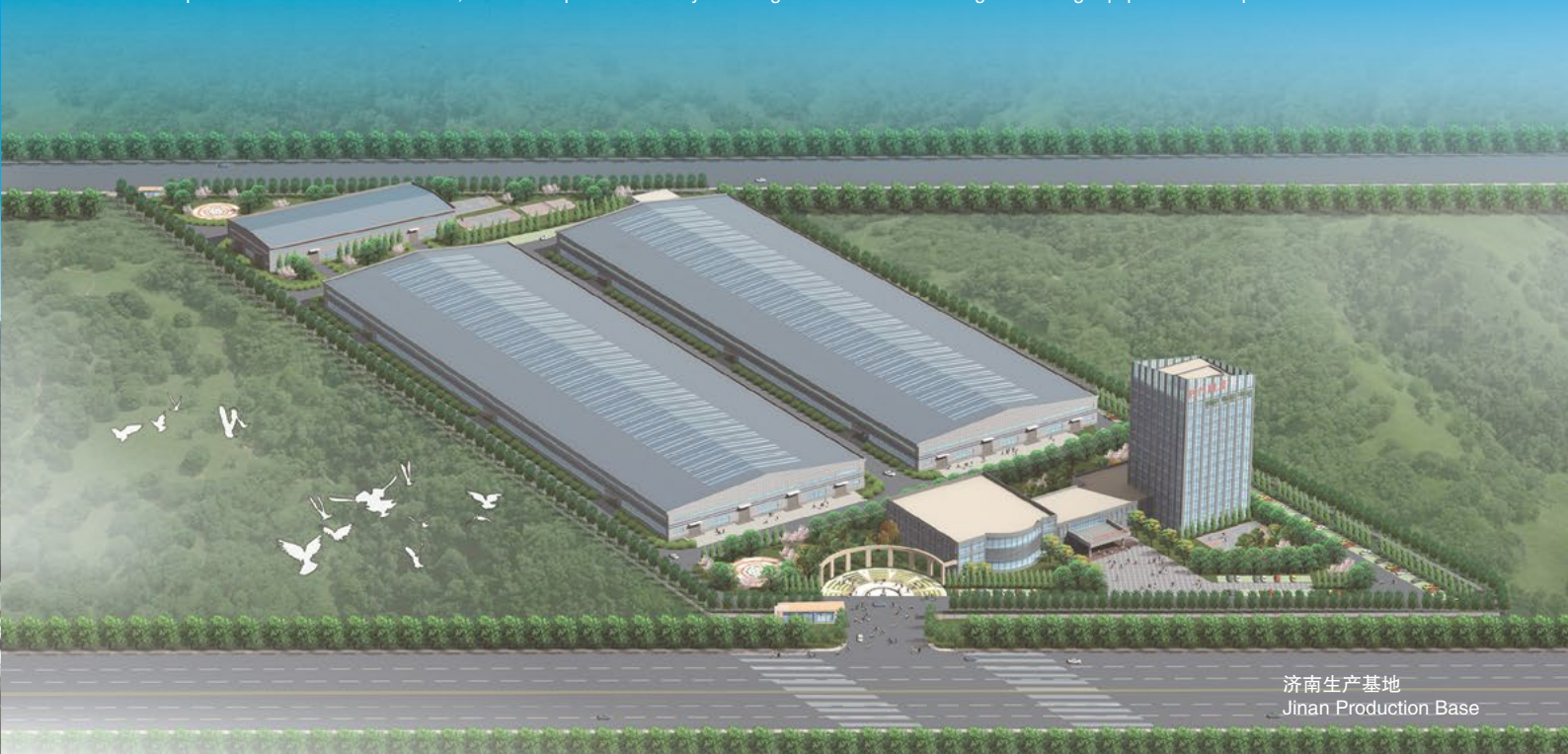
TIME Group Inc. was established in 1984, which is the largest metal material cutting, welding and NDT instruments manufacturer in China. In 2001, TIME Group took the initiative and founded Beijing Time Technologies Co.,Ltd along with Tsinghua unisplendour, Lenovo Group, Daheng Group, Stone Group etc, mainly engaging in development, production and sale of the inverter welder, large welding set up equipments, welding machine for special purpose and CNC cutting machine. On March 31th 2006, Beijing Time Technologies Co.,Ltd was listed on the Shenzhen Stock Exchange through agency share transfer system, which is the first listed company among the welder manufacturing industry in China.

TIME Group Inc. adheres to the key principle "Technology, industry and export are the lifeblood of TIME Group Inc." . Through development for many years, a set of strict management system for technological development, products manufacturing, quality control, capital operation, market planning and customers service in the Company. In 1995, TIME Group Inc. passed ISO 9001 quality system certificate. In 2008, the Company acquired the certificates on the environmental management system (ISO 14001:2004) and Occupation Health Safety Management System (OHSMS 18001: 2001). Therefrom TIME Group Inc. becomes the first corporation in welder manufacturing industry in China who had passed the certificates of above management systems. The technical development center of TIME Group Inc. is the national level technique center. Among the welder enterprises in China, TIME Group Inc. is the first one who sets up the mobile postdoctoral center. There are more than 40 sale and service subsidiaries, the sale and after service network are all over the country.

TIME Group Inc. engaged in the production of IGBT inverter welder from 1993. There are over ten series and more than 70 kinds of welding machines, and it has been the largest welding equipments manufacturing enterprise in China for many years. After combination with the powerful enterprises as TIME Group Inc. and Jinan Shijin Group, it started to engage into the development, production and sale of the professional production line of large welding complete set up equipments, special-purpose welding equipment, CNC cutting machine, steel structure and wind electric power generation etc. By now, there are fifteen series and over one hundred of models. The welding equipments from TIME Group Inc. have been widely used in the wind electric power generation, boiler, pressure vessel, machine manufacturing and steel structure etc. Under the guideline of quality policy "High-tech product, Assuring quality and satisfactory service" , TIME welding equipments have won the acceptance of many users and consent of experts.

In year 2009, TIME group invested hundreds of millions capital to build a most advanced manufacture base with yearly production capacity of 300,000 PCS of welding Machines in Jinan high-Tech Development Zone. The manufacture base will be put into operation in year 2012. TIME group showed TIME Robot at Essen show in 2010. By many years experience in field of welding machine manufacture and auxiliary Mechanical manufacture. TIME Robot is perfect combination of high welding performance and efficient Automation-skill. At the same time, TIME group vigorously promotes civil welding market by portable welding machines to broaden the application of TIME products.

Playing numerous advantages in the talents, capital, production and sale & service network etc, taking to provide the high quality products for user as its mission, TIME Group Inc. will always make great effort to be the largest welding equipments enterprise in China.



TIME course

焊接产业发展历程 of development



- 2017** ● 双脉冲气保焊机批量进入关键行业应用
Double pulse gas shielded Welding machine enter the key industries in batches.
- 2015** ● 初步完成智能化工厂建设
Intelligent plant initially completed.
- 2013** ● 新一代TD系列全数字系列焊机批量投向市场。年产30万台焊机的时代焊接工业园建成并投入使用
New series of whole digital welding machine has been put into the market. TIME welding-industry park with yearly production capacity of 300,000pcs operated in 2013.
- 2010** ● 时代焊接机器人产品在2010年的埃森焊接展上正式亮相，产品一经推出即得到了市场和用户的关注
Time Robot Showed at Essen Show 2010
- 2008** ● 获得环境管理体系（ISO14001：2004）和职业健康安全管理体系（OHSMS18001：2001）的认证。济南时代焊接工业园项目正式启动
Passed the certificates of environment management system (ISO 14001: 2004) and Occupation Health Safety Management System (OHSMS 18001: 2001). Jinan Time welding industry park started.
- 2007** ● 时代公司焊接工艺实验室正式建立，具备为用户提供全面焊接技术方案的能力。公司组建济南时代新纪元科技有限公司专业从事大型自动焊割设备的开发、生产、制造
Time welding process laboratory was founded, which can provide users with full welding technologies plan. The company set up Jinan Time New Century Science & Technologic Co.,Ltd, mainly engaging into the development, production, manufactory of large automatic welding and cutting equipment.
- 2006** ● 北京时代科技股份有限公司在深交所上市，并成功实现定向募集
Beijing Time Technologies Co.,Ltd was listed on the Shenzhen Stock Exchange and successful with directional collection.
- 2002** ● 时代公司将大型数控切割机 and 自动焊接中心设备投放市场。时代DSP全数字控制技术的焊机问世，时代焊机的技术含量得到了再次提升
TIME launched large CNC cutting machine and automatic welding center equipment into the market. The welder with Time DSP full digital control technologies increased the technologies of the Time welder.
- 2001** ● 时代集团公司联合几家股东（联想集团、清华紫光、大恒集团、四通集团等）共同发起成立了北京时代科技股份有限公司
TIME Group took the initiative and founded Beijing Time Technologies Co.,Ltd combining with Tsinghua unisplendour, Lenovo Group, Daheng Group, Stone Group etc.
- 1995** ● 时代公司在电焊机行业中首家通过ISO9001质量体系认证
TIME became the first one passing ISO9001 quality system certificate, among China manufacturers of welding machine.
- 1993** ● 时代公司开始从事IGBT逆变焊机的自主开发、生产和销售
TIME started development, production and sales of IGBT inverter welder.

Overview 企业掠影

自我设计
Self Design

协同工作
Cooperation

创造卓越
Creativity



科技立司 / 产业立司 / 出口立司
Technology, industry, export are the lifeblood of TIME Group Inc.

Our client

产品应用领域

经过三十余年的发展，时代产品已广泛应用于锅炉压力容器、核电、火电、水利、造船、冶金、桥梁、石油化工、钢构、风电及其它众多行业。时代产品的用户遍及祖国大江南北及世界各地，在各项重点工程建设中发挥重要作用。

After development for over twenty years, TIME's products have been widely used in the boiler pressure vessel, nuclear electricity, thermal power generation, water conservancy, shipbuilding, bridge, petrochemical industry, steel structure, wind electric power generation and other industries. TIME's products extend all over the country and world, which plays important action in kinds of major projects.



钢结构行业
Steel structure industry



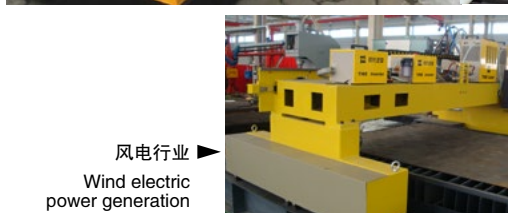
石油天然气行业
Oil and natural gas industry



工程机械
Engineering machinery



水利水电行业
Water conservancy and hydroelectricity industry



风电行业
Wind electric power generation



石化行业
Petrochemical industry



桥梁工程行业
Bridge engineering



空分行业
Air separation industry



船舶行业
Shipping industry



车辆行业
Vehicle industry



锅炉压力容器行业
Boiler pressure vessel industry



海洋石油
Offshore oil



南水北调
South-to-north water diversion



机械制造行业
Machine manufacturing industry



燃气行业
Gas industry



时代焊割
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TDC 系列数控切割机

TDC series CNC cutting machine

TDC I 简易型数控切割机 TDC I Basic CNC cutting machine

- 纵向导轨采用 23Kg 级重轨，表面经磨削处理，具有很高的机械精度和耐磨性。驱动齿条、齿轮由专业厂家定制，表面渗碳淬火，精度高
- 横向、纵向导轨两端均装有机械、电气安全装置，可靠性高
- 横向、纵向传动采用进口品牌，高精度、大转矩、低背隙、免维护行星齿轮减速机
- 伺服驱动采用松下伺服驱动系统，具有位置检测功能，运动精度高
- 气路系统分为气体控制盘和气路分配系统，专业厂家生产。配有自动点火装置、回火防止器，安全稳定
- 高效双边驱动，动态性能好，龙门式箱式横梁、承载力好，适合宽跨距工作
- 横向导轨采用直线导轨，精度高、导向好；纵向杠杆式夹紧装置，定位精度高
- 可满足大厚度钢板切割，碳钢可达 300mm
- 搭载大功率等离子切割，满足不同金属材料切割
- 根据用户需要，增加其它特殊功能



- The longitude rail is 23kg class heavy rail.
- There are mechanical and electrical safety devices on both sides of the cross and vertical rails, so that the security is high.
- The longitude and latitude transmission planetary gear reducer.
- Servo driven with Panasonic servo drive system with position detection function, exercise high precision.
- The gas path system is divided into the gas control panel and gas path distribution system, which is made by professional manufacturers. It is equipped with automatic ignition system, back fire arrester, safe and reliable.
- Double driven with high efficiency, well dynamic performance, gantry frame structure beam, large load bearing, suitable for wide span.
- Latitude track is linear rail, the precision of which is high and the guidance is well.
- It is suitable for cutting the steel plate of large thickness, and the thickness of the carbon steel can be up to 300mm.
- Carrying with the high power plasma cutting machine.
- Other special functions can be added according to the demand of users.

主要技术参数 Technical parameters

型 号 Model	TDC I	TDC I	TDC I	TDC I
轨距 (mm) Track width (mm)	4000	4500	5000	5500
工作宽度 (mm) Working width (mm)	3300	3800	4300	4800
机器宽度 (mm) Overall width (mm)	4700	5200	5700	6200
数控系统 CNC system	EDGE connect 或 Time I / II EDGE connect or Time I / II			
割炬升降高度 (mm) Torch lifting stroke (mm)	200	200	200	200
空程速度 (mm/min) Idle stroke speed (mm/min)	0 ~ 10000	0 ~ 10000	0 ~ 10000	0 ~ 10000
切割速度 (mm/min) Cutting speed (mm/min)	0 ~ 6000	0 ~ 6000	0 ~ 6000	0 ~ 6000
火焰切割厚度 (mm) Flame cutting thickness (mm)	6 ~ 160	6 ~ 160	6 ~ 160	6 ~ 160
燃气种类 Fuel gas	乙炔 / 丙烷 Ethyne, Propane	乙炔 / 丙烷 Ethyne, Propane	乙炔 / 丙烷 Ethyne, Propane	乙炔 / 丙烷 Ethyne, Propane
地基种类 Base	工字梁 / 水泥 I beam, cement	工字梁 / 水泥 I beam, cement	工字梁 / 水泥 I beam, cement	工字梁 / 水泥 I beam, cement
纵向拖链 Longitude chain	下拖链 Down chain	下拖链 Down chain	下拖链 Down chain	下拖链 Down chain

TDC II 型数控切割机 TDC II type CNC cutting machine

- 纵向导轨采用 43Kg 级重轨，表面经磨削处理，具有很高的机械精度和耐磨性。驱动齿条、齿轮由专业厂家定制，表面渗碳淬火，精度高
- 横向、纵向导轨两端均装有机电、电气安全装置，可靠性高
- 横向、纵向传动采用进口品牌，高精度、大转矩、低背隙、免维护行星齿轮减速机
- 伺服驱动采用松下伺服驱动系统，具有位置检测功能，运动精度高
- 气路系统分为气体控制盘和气路分配系统，专业厂家生产。配有自动点火装置、回火防止器，安全稳定
- 高效双边驱动，动态性能好，龙门式箱式横梁、承载力好，适合宽跨距工作
- 横向导轨采用直线导轨，精度高、导向好；纵向杠杆式夹紧装置，定位精度高
- 可满足大厚度钢板切割，碳钢可达 300mm
- 搭载大功率等离子切割，满足不同金属材料切割
- 根据用户需要，增加其它特殊功能

- The longitude rail is 43kg class heavy rail.
- There are mechanical and electrical safety devices on both sides of the cross and vertical rails, so that the security is high.
- The longitude and latitude transmission planetary gear reducer.
- Servo driven with Panasonic servo drive system with position detection function, exercise high precision.
- The gas path system is divided into the gas control panel and gas path distribution system, which is made by professional manufacturers. It is equipped with automatic ignition system, back fire arrester, safe and reliable.
- Double driven with high efficiency, well dynamic performance, gantry frame structure beam, large load bearing, suitable for wide span.
- Latitude track is linear rail, the precision of which is high and the guidance is well.
- It is suitable for cutting the steel plate of large thickness, and the thickness of the carbon steel can be up to 300mm.
- Carrying with the high power plasma cutting machine.
- Other special functions can be added according to the demand of users.

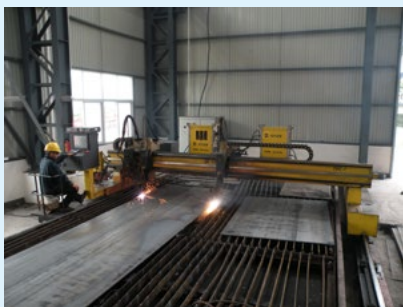


主要技术参数 Technical parameters

轨距 (mm) Track width (mm)	4000	4500	5000	5500	6000	6500	7000
工作宽度 (mm) Working width (mm)	3200	3700	4200	4700	5200	5700	6200
机器宽度 (mm) Overall width (mm)	4800	5300	5800	6300	6800	7300	7800
数控系统 CNC system	EDGE connect 或 Time I / II EDGE connect or Time I / II						
等离子电源 Plasma power	根据用户需求可选配 (详见本册第 3 部分介绍) According to the demand of the users (Please refer to part III of this book for details)						
割炬升降行程 (mm) Torch lifting distance (mm)	200、300 Optional from 200, 300						
空程速度 (mm/min) Idle speed (mm/min)	0 ~ 10000						
切割速度 (mm/min) Cutting speed (mm/min)	具体见等离子电源介绍 0 ~ 6000						
火焰切割厚度 (mm) Flame cutting thickness (mm)	6 ~ 160 / 6 ~ 300						
燃气种类 Fuel gas category	乙炔、天然气、丙烷 Ethyne、natural gas、propane						
地基种类 Base category	H 型钢或水泥地基，标准配置为 H 型钢地基 H-steel or cement base, standard configure is H-steel base						
纵向拖链 Longitude chain	上拖链或下拖链，标准配置为下拖链 Up chain or down chain, standard is down chain.						



数控火焰切割机
CNC flame cutting machine



数控等离子切割机
CNC plasma cutting machine



数控火焰等离子切割机
CNC flame plasma cutting machine



数控精细等离子切割机
CNC precision plasma cutting machine

TDC III 台式数控切割机

TDC III desktop CNC cutting machine

数控台式等离子切割机是一种将计算机控制、精密机械传动、热切割三种技术相结合的一种高效、高精度、高可靠性的切割设备。它以电脑编程代替了人工计算、人工切割或仿形半自动切割，能准确地切割出各种形状复杂的板材，无需用户准备地基。它采用一体式模块化设计，安装快捷，移动方便。本产品适用于造船、铁路、工程机械、钢结构、石油化工、压力容器等制造行业。

- 采用世界先进技术和加工工艺，结合多年设计制造经验，一体化设计、刚性好
- 横向、纵向导轨两端均装有机电、电气安全装置，可靠性高
- 横向、纵向传动采用进口品牌高精度、大转矩、低背隙、免维护行星齿轮减速机
- 伺服驱动采用松下伺服驱动系统，具有位置检测功能，运动精度高
- 纵向采用双边同步驱动系统及纵向导向直线导轨传动平稳，运动精度高
- 横向采用轻型结构设计，自重轻，运动性小
- 选配烟尘处理装置，整机结构紧凑
- 可选配多种等离子电源，满足用户各种切割需求

The desktop CNC cutting machine is a computer controlled, cutting equipment with high efficiency, high accuracy and high reliability.

- Advanced technology and processing techniques, the equipment is designed with the character of integrated modular needs, no preparation of base, integrated design, good rigidity
- There are mechanical and electrical safety devices on both sides of the latitude and longitude rails, so that the security is high.
- Longitude and latitude transmission selected brand high precision, high torque, low backlash, maintenance-free planetary gear reducer.
- Servo driven with Panasonic servo drive system with position detection function, exercise high precision.
- Latitude double synchronous driven system and vertical leading direct tract is stable, high motion precision.
- Can be equipped with the smoke and dust processing unit, compact overall structure.
- Matching multiple plasma power, for different metal cutting.



主要技术参数 Technical parameters

机 型 Model No.	1830	1840
切割宽度 (mm) Cutting width (mm)	1800	1800
机器宽度 (mm) Overall width (mm)	2400	2400
切割长度 (mm) Cutting length (mm)	3000	4000
机器长度 (mm) Overall length (mm)	4620	5620
数控系统 CNC system	EDGE connect 或 Time I / II EDGE connect or Time I / II	
切割厚度 Cutting thickness	参见相关等离子切割电源 Refer to plasma source power	
切割工作台 Cutting work table	普通或除尘工作台 (除尘系统另配) Normal or dust proof work table (not coved in standard type)	

TDC IV -A 型连杆式无限回转坡口切割机

TDC IV-A Unlimited rotary type CNC cutting machine

无限回转数控坡口切割机也称船用外板切割机。该切割机主要用于造船行业及其它重工业，能够切割出任意形状的坡口零件。该机架为龙门架结构，纵向驱动采用双边驱动，它是由精密减速机配置进口交流伺服电机，通过齿轮、齿条啮合实现机器的纵向移动。机关升降机构采用同步带和丝杠传动、双导柱导向方式，割炬升降平稳，有上、下机械限位的保护，保证切割质量和割炬的安全。回转头采用了空间连杆机构及无导电滑环、电刷设计，在实现无限回转的同时，保证了回转机构的稳定性、可靠性。割炬和与之平行的主动连杆同步摆动，即割炬绕切割中心点旋转，割炬作 $\pm 45^\circ$ 偏摆。可实现几何曲线的定坡口切割和变坡口切割。该产品安装双重防撞装置使得等离子割炬在工作中更加安全可靠。

该产品可实现的功能为：无限回转功能；坡口变化范围 $\pm 45^\circ$ ；能切割出截面为 V 型、X 型或 Y 型坡口；变角度坡口切割。

Unlimited rotary type CNC cutting machine is mainly used in the shipbuilding and other heavy industry, which can cut out any shape groove parts.

Product features: groove range $\pm 45^\circ$; V-type, X-type or Y-type groove; variable angle bevel cutting.



主要技术参数 Technical parameters

轨距 (mm) Track width (mm)	4000	4500	5000	5500	6000
工作宽度 (mm) Working width (mm)	3100	3600	4100	4600	5100
数控系统 CNC system	EDGE connect hypertherm Edge pro				
等离子电源 Plasma power source	海宝、凯尔贝精细等离子电源 Hypertherm kjellberg high precision plasma power source				
套料软件 Nesting software	澳大利亚 Fast cam 专用软件 Australia Fast cam software				

TDC IV -B 型关节式无限回转坡口切割机

TDC IV-B Fixed-Angle Bevel CNC Cutting Machine

该切割机是时代公司设计的一款数控坡口切割机，该切割机在切割过程中坡口角度固定不变，坡口方向可自动跟随零件轮廓变化。切割的坡口角度在切割前首先根据图纸设定好，在切割过程中坡口角度始终保持不变，但是数控系统可自动跟随所切割零件的轮廓变化自动实时调整割枪的方向，使得坡口角度方向始终垂直于零件轮廓的切线方向。

市场上现有的坡口切割机均对偏摆和旋转进行程序控制，用于实现切割过程中的坡口变化，因此其加工制造难度较大，成本和价格都比较高，不利于在行业内的大面积推广。本设备使用的坡口切割系统专门针对定角度坡口切割的应用场合设计，由于减少了割枪偏摆角度自动调整机构，因此机头的传动较少，精度易于保证，操作该设备与操作普通直口切割的方法一样，而编程套料与直口切割的套料也是一样的。目前这种配置的设备为国内首创。

- 割枪偏摆角度方式：电动 / 手动
- 机头升降行程：300mm
- 割枪偏摆角度 45° (-1° , $+0^{\circ}$)
- 割枪偏摆精度 $\pm 1^{\circ}$
- 中心焦点误差 $\pm 0.5^{\circ}$
- 正切割尺寸误差 $\pm 0.5\text{mm/m}$
- 坡口切割尺寸误差 $\pm 1\text{mm/m}$
- 产品符合 GB 5226.1-2002 及 IEC60204-1: 2000

TDC IV CNC cutting machine is designed by TIME with fixed bevel angle during cutting. Its groove direction changes automatically following the contour of the part. The bevel angle is preset manually in accordance with the drawings before cutting and remains during cutting. The CNC cutting system can adjust the direction of torch automatically in real-time following the contour of the part so that the bevel angle direction is always perpendicular to the tangential direction of the part contour. The bevel cutting machines on the market can control the deflection and rotation by program so as to change the bevel during cutting. So it is difficult to manufacture and its costs and prices are higher. It is unfavorable for promotion in the industry. The bevel cutting system used in TDC IV cutting machine is designed especially for fixed-angle bevel cutting application without automatic torch angle adjustment mechanism. Its cutting head drives less so as to keep its accuracy. The machine can be operated in the same way as common cutting machines, and the nesting program is the same as common cutting machines. At present TDC IV cutting machine with above configuration is domestic initiative.

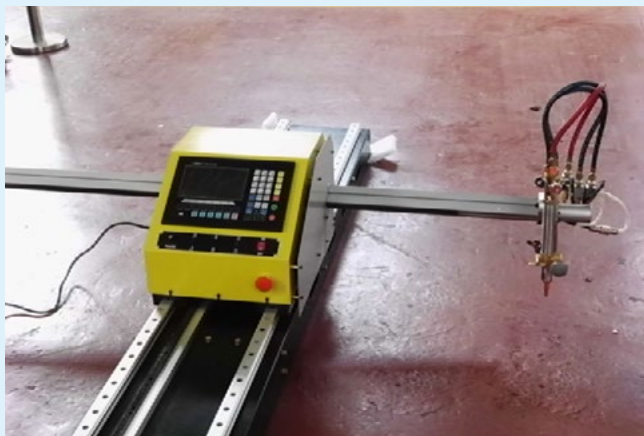
- Cutting Gun Yaw Angle Mode: Electric/Manual
- Head lifting distance: 300mm
- Torch deflection angle: 45° (-1° , $+0^{\circ}$)
- Torch deflection precision: $\pm 1^{\circ}$
- Central focus error: $\pm 0.5^{\circ}$
- Straight cutting error: $\pm 0.5\text{mm/m}$
- Bevel cutting error: $\pm 1\text{mm/m}$
- This machine comply with GB 5226.1-2002 and IEC60204-1: 2000



TDC V 悬臂式数控切割机 TDC V cantilever cutting machine

TDCV 型数控切割机是北京时代科技股份有限公司针对中国国情开发生产的新一代高性能便携式火焰 / 等离子切割系统。本机其数控功能与龙门式大型数控切割机一样，能切割任意复杂平面图形，适应于火焰切割和等离子切割。该产品方便灵活，随意搬移，不占固定场地。

TDCV CNC cutting machine is new portable flame/plasma cutting system. It can be used to cut complex plane figure by flame/plasma.



基本配置 Basic outfits

项目 Item	数量规格 Specification			备注 Remarks
数控主机机型 CNC machine	TDCV-1500 × 3000			机器型号 Model
横臂有效切割长度 (mm) Boom Working length	1500	1500	2100	臂长 = 有效 + 500mm Boom Working length=length+500mm
导轨有效切割长度 (mm) Trade Working length	3000	3000	2300	轨长 = 有效 + 500mm Trade Working length=length+500mm
火焰单割炬 (把) Flame torch	全铝合金 Aluminum alloy	钢制导轨 Steel rail	钢制导轨 Steel rail	切割厚度 6-100mm cutting thickness 6-100mm
逆变等离子 LGK-120 Inverter plasma machine LGK-120	只建议配火焰 only for flame	火焰等离子均可 flame/plasma	火焰等离子均可 flame/plasma	质量切割 ≤ 18mm Quality cutting ≤ 18mm
数控割炬升降体 Torch lifting	1			升降行程 150mm Lifting journey 150mm
数控系统 CNC system	1			交大系统 Jiaoda system
编程套料软件 (套) Nesting software	1			利用 AUTCAD 编程和套料 Program and nesting by AUTCAD
切割方式 Cutting type				氧燃气或等离子 Oxygen-acetylene or plasma

主要技术参数 Technical parameter

工作环境温度 Working environment temperature	0℃ -60℃
相对湿度 Relative humidity	20%-95%
周边环境 Environment	通风, 5 米内无冲击 Wind, no impact within five meter
电源电压 Power voltage	220V ± 5%
电源频率 Frequency	50Hz
输入功率 Input power	<350W
接地类型 Grounding type	集中直接式 Dircetly
气体压力 Gas pressure	A、0.5-1.0Mpa; B、0.5-1.0Mpa; C、0.25Mpa

TDC – XY 数控圆管相贯线切割机

TDC – XY intersecting line CNC cutting machine

- 采用焊接式平台，重型导轨提高整体承重量，人性化结构设计人机交换更加方便合理，运行稳定提高寿命。机头升降行程：200mm
- 自主研发管材优化数控系统，AutoCAD 版工程设计图可直接生成标准 G 代码，. 三维仿真操作，节点展开，超长管件分拆，管件优化等，超大的 EGES DXF SAT 和 STL 等软件兼容性，终身免费升级可根据用户工艺需求进行修改。
- 研华工业电脑可直接在机器上进行编程。采用菜单式选择输入切割参数，如外径、壁厚、坡口角度、偏离、补偿数据等。通过时代专业切管应用程序作无缝连接。
- 本机床管壁不能切割变位坡口，只能切割端头弯头虾米节开孔的加工要求。（简易型产品）
- 直径 40–300mm 长度 6000mm 管壁 10mm 以内。（简易型产品）
- 对管径 ≤ 300mm 的管件切割推荐选型 TDC–XY3–B 简易型相贯线切割机。（简易型产品）
- Adopt welding platform, heavy rail and improve the overall bearing weight, humane design human-computer exchange more convenient and reasonable, stable operation and increased life expectancy.
- Independent research and development to optimize CNC pipe systems, AutoCAD version of the engineering design can generate standard G code directly, three-dimensional simulation of the operation, node expansion, long split pipe, fittings optimization, oversized EGES DXF SAT and STL software compatibility and upgrade free for lifetime, can be modified according to user needs. Longitude and latitude transmission selected brand high precision, high torque, low backlash, maintenance-free planetary gear reducer.
- Taiwan Advantech industrial computer can be programmed directly on the machine. Using menu type programming to select input cutting parameter, such as diameter, wall thickness, bevel angle deviation compensation data. By TIME professional pipe cutting applications for a seamless connection. Latitude double synchronous driven system and vertical leading direct tract is stable, high motion precision.
- The machine wall deflection does not cut bevel, the curve can only cut the hole end section bend shrimp processing requirements. (simple type)
- cutting range diameter 40–300mm length 6000mm small diameter, within 10mm. (simple type)



主要技术参数 Technical parameters

型号	Model	圆管相贯线切割机 TDC-XY Round pipe CNC cutting machine	
切割范围	Cutting range	6m(长度可定制)	6m (length can be customized)
机器尺寸	Machine size	7800mm*1800mm*1650mm	
切割方式	Cutting method	火焰 / 等离子 Flame / plasma	
切割厚度	Cutting thickness	火焰：6-60mm 等离子：视电源而定	Flame : 6-60mm Plasma : According to the cutting machine
火焰切割速度	Flame cutting speed	20-700mm/min	
控制系统	Control system	研华工业电脑	Advantech industrial computer
等离子切割速度	Plasma cutting speed	500-3500mm/min	
等离子割枪防撞保护系统	Plasma torch crash protection system	有 Yes	
驱动方式	Driving method	伺服	servo
软件	software	TIME PIPE 应用软件 TIME PIPE software	
工作环境		Working condition	
压缩气体工作压力	Working pressure of compressed gas	7mpa 以上	Above 7mpa
等离子需要气体流量	Required gas flow of plasma	4500L/H	
工作环境	Working environment	通风，无震荡	Ventilation, no concussion
电源功率	Power	5KW(不含等离子电源功率)	5KW(not include plasma source power)
燃气种类	Types of gas	丙烷 / 乙炔	Acetylene Propane

TDC-XF 异形管材切割机 TDC-XF all profiles & pipes CNC Cutting Machine

- AUTOCAD 空间编程系统，配置 TIME 应用插件，建模简单一目了然，可实现矩形、锥形、多棱、椭圆管等特殊异形管件的切割工艺需求。
- 自主研发管材优化数控系统具有超大的 EGES DXF SAT 和 STL 等软件兼容性。
- 时代用户可以享受免费的特种切割工艺的开发及终身的技术服务。
- AUTOCAD space programming system configuration TIME application plug-ins, modeling simple glance, enabling the cutting process requirements rectangular, tapered, polygonal, oval-shaped pipe, and other special fittings.
- Independent research and development to optimize CNC pipe systems with large EGES DXF SAT and STL software compatibility.
- TIME users can enjoy free special cutting technology development and lifelong technical services.

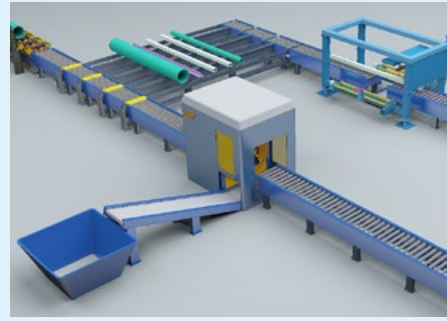


主要技术参数 Technical parameters

型号 Model	异形管材切割机 TDC-XF all profiles & pipes CNC cutting machine
切割范围 Cutting range	6m(长度可定制) 6m (length can be customized)
机器尺寸 Machine size	7200mm*1350mm*2000mm
切割方式 Cutting method	火焰 / 等离子 Flame / plasma
切割厚度 Cutting thickness	火焰: 6-60mm 等离子: 标配 2-14mm
火焰切割速度 Flame cutting speed	20-700mm/min
控制系统 Control system	研华工业电脑 Advantech industrial computer
等离子最大穿孔厚度 Plasma max.hole thickness	14mm
等离子最大边缘切割厚度 Plasma max.edge cutting thickness	18mm
等离子切割速度 Plasma cutting speed	500-3500mm/min
等离子割枪防撞保护系统 Plasma torch anti-collision protection system	有 Yes
驱动方式 Driving method	伺服 servo
软件 software	TIME PIPE 应用软件 TIME PIPE software
工作环境 Working condition	
压缩气体工作压力 Working pressure of compressed gas	7mpa 以上 Above 7mpa
等离子需要气体流量 Required gas flow of plasma	4500L/H
工作环境 Working environment	通风，无震荡 Ventilation, no concussion
电源功率 Power	5KW(不含等离子电源功率) 5KW(not include plasma source power)
燃气种类 Types of gas	丙烷 / 乙炔 Acetylene Propane

TDC-XQ 管材全能自动切割线 TDC-XQ All-Round CNC Cutting Machine

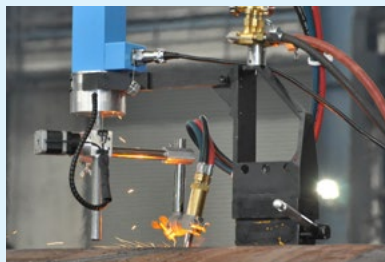
- 全能自动生产线切割组一站式工作流程，可实现管材自动上料，自动进给、自动切割、自动输送作业。
- 采用 TIME 套料编程系统作为主要的编程工具，该软件以 AUTOCAD 为基本的编程平台，操作简单，图形直观，功能丰富，可以大大地提高作业效率。
- 高端三维空间柔性机械手切割应用，实现坡口切割功能，管材与割炬采用伺服定位对中功能。
- all-around production line cutting group stop workflow, enabling automatic tube feeding, automatic feed, automatic cutting, automatic transmission operation.
- Using TIME Nesting programming system as a major programming tool, the software programming platform AUTOCAD basic, simple, graphical and intuitive, feature-rich, it can greatly improve operational efficiency.
- High-end three-dimensional flexible robotic cutting applications, to achieve bevel cutting function, the pipe and the torch using the servo positioning function.



主要技术参数 Technical parameters

型号 Model	TDC-XQ 全自动切割线	TDC-XQ All-Round automatic cutting line
切割机组的总长度 The total length of the cutting unit		26000mm
上料输送滚轮 Feeding roller		12000mm
出料输出滚轮 Discharge roller		11000mm
存货台架 Inventory bench		12000mm
有效切割工件长度 Effective cutting length of the workpiece		12000mm
切割管壁厚度 Wall cutting thickness		4—60 mm
坡口角度 Bevel angle		$\leq \pm 45^\circ$
移动速度 Moving speed		6000 mm/min
切割管壁厚度 Cutting wall thickness		4—60 mm
等离子割枪防撞保护系统 Plasma torch crash protection systems		有 Yes
切割方式 Cutting method	火焰、等离子可选配	Flame, plasma optional
软件 Software	TIME PIPE 应用软件	TIME PIPE application software
工作环境 Working condition		
压缩气体工作压力 Working pressure compressed gas	7mpa 以上	Above 7mpa
等离子需要气体流量 Plasma gas flow rate required		4500L/H
工作环境 Working Environment	通风，无震荡	Ventilation, no shock
电源功率 Power	5KW(不含等离子电源功率)	5KW(not include plasma power)
燃气种类 Gas	丙烷 / 乙炔	Propane / acetylene

TDC M 便携式数控马鞍孔切割机 TDC M saddle hole CNC cutting machine



主要技术参数 Technical parameters

型号 Model	功能 Function	孔径 (mm) Hole dia (mm)	升降轴行程 (mm) Lift axle stroke (mm)	总质量 (kg) Total weight (kg)	坡口角度 Bevel angle
TDCMZ-300	正交不偏心管孔切割 Orthogonal not eccentric hole cutting	50~300	0~150	22	$\pm 45^\circ$
TDCMZ-600	正交不偏心管孔切割 Orthogonal not eccentric hole cutting	50~600	0~180	30	$\pm 45^\circ$
TDCMZ-1200	正交不偏心管孔切割 Orthogonal not eccentric hole cutting	50~1200	0~180	40	$\pm 45^\circ$
TDCMF-600	封头孔切割 Head hole cutting	50~600	0~300	50	$\pm 45^\circ$
TDCMZF-600	正交管孔切割 / 封头孔切割 Orthogonal hole cutting / Head hole cutting	50~600	0~300	52	$\pm 45^\circ$

数控系统 CNC system

TIME 数控系统 TIME CNC system

TIME-I 数控系统是北京时代科技股份有限公司针对热切割行业专门开发的一款图形化数控系统，具有系统稳定，功能强大，操作简单，升级维护方便等有点。TIME-II 数控系统是时代公司针对火焰 / 等离子数控切割机开发的运动控制器，它采用工业级计算机作为硬件平台，系统软件是在 WindowsXP 下开发的，在工件切割过程中具有很高的稳定性和操作简便性。在切割工艺功能上融入了大量宝贵的现场经验，功能完备且操作简便。

- 支持 EIA 代码 (G 代码) 及 FastCAM、FreeNest、SmartNest、IBE 等各类套料软件。
- 图形比例、旋转、镜像；图形可矩阵排列、交互排列、叠式排列
- 工件原始尺寸和带割缝尺寸同时进行显示，直观方便
- 图形钢板校正，任意钢板边可做为校正边
- 可自诊断系统所有 IO 状态和按键状态，方便检查和排除故障
- 前置 U 盘接口，方便程序传输
- 氧燃气、等离子、喷粉、演示模式
- 支持边缘切割，对较厚的钢板可减少预热时间
- 运动中可实时加速、减速
- 根据钢板厚度，在转角处可自动限速，有效防止过烧



TIME I CNC system is designed for thermal cutting industries. It is stable, powerful, operation simply and easy for maintenance and upgrading.
TIME II CNC system is designed for flame and plasma. It is easy to operate and high stability with a lot of experience in the cutting field.

- Support EIA code (G code), FastCAM, FreeNest, SmartNest, IBE and other nesting software
- Graphic can be zoomed, rotation, mirrored and matrix arrangement, interactive arrangement, stacked arrangement
- Workpiece original size and seam size intuitive display simultaneously
- Graphic calibration, any edge of steel plate can be used as reference for calibration
- Self-diagnostic system of the state of all IO ports and keys, inspection easily and troubleshooting
- USB in front panel, easy to transfer program
- Oxygen gas, Plasma, Dusting, Demo mode
- Edge Cutting of thick steel plate to reduce warm-up time
- Real-time acceleration/deceleration during cutting
- Automatic speed limit at the corner according to plate thickness so as to prevent over-burning effectively

主要技术参数 Technical parameters

型号 Model	TIME-I	TIME-II
显示器 Monitor	17 寸液晶显示器 17"LED	17 寸液晶显示器 17"LED
处理器 Processor	工业级 ARM9 芯片 Industrial Arm9 chip	台湾研祥 EVOC 工业级主板 Taiwan Evoc industrial Board
内存 Memory	64M	1G
程序空间 Program space	256M	500G 硬盘 / 500G Disk
外部接口 External interface	USB, 至少支持 16G B 优盘 USB at least 16G	VGA、USB、COM、键盘等 VGA、USB、COM、keyboard etc
键盘 Key board	电子 PCB 贴膜键盘 PCB film key board	电子 PCB 贴膜键盘 PCB film keyboard
机箱 Case	全金属结构，完全屏蔽 Full metal structure,complete shielding	全金属结构，完全屏蔽 Full metal structure,complete shielding
系统电源 Power supply	DC24V 直流电源输入	AC220V,50HZ
工作环境 Wook environment	温度 -10~50℃相对湿度 5%~95% Temperature-10~50℃ relative humidity 5%~95%	温度 -10~50℃相对湿度 5%~95% Temperature-10~50℃ relative humidity 5%~95%

EDGE Connect 海宝数控系统 EDGE Connect Hypertherm CNC system

EDGE Connect 是海宝下一代行业领先的自动化控制系统。海宝致力于研发和销售能够帮助用户改进切割业务的产品。EDGE Connect 独创性的将海宝嵌入的专家工艺与切割机生产商的定制功能融为一体。切割机生产商可利用海宝嵌入的切割专家工艺，打造差异化更突出的解决方案。

- 海宝的 Phoenix 10 CNC 控制器软件
- Microsoft Windows 10 嵌入式操作系统
- 内置软 PLC（可编程逻辑控制器）和基于软件的操作工控制台，支持独创的切割机功能
- EtherCAT 机器接口，用于轻松连接设备，实现高质量的运动
- 简单易用，使用荣获专利的 CutPro 向导，即使是新操作工，也可在短时间内学会切割生产级质量的零件。
- 基于软件的屏显式操作工控制台（Soft OpCon），方便设置和操作切割站点及手动运动。
- 一键访问支持文件，包括多种语言版本的切割优化技巧、易损件更换说明和诊断工具。
- 可在零件程序中创建和控制自定义切割表
- 在切割过程中直接通过屏幕实时监控关键的工艺和性能参数
- 稳定可靠，高速数字式 EtherCAT 机器接口，一根网线即可实现全部通信
- 可通过互联网快速实现 CNC 控制器、等离子切割系统和切割机的诊断与维修，无需进行现场服务。
- 配置灵活，软硬件针对多种工艺进行设计



EDGE Connect is the next generation of Hypertherm's industry leading automated control systems. This new platform is commitment to develop, build, and sell products that improve your cutting operation. EDGE Connect uniquely combines Hypertherm's embedded expertise with OEM customization. Cutting machine OEMs can create greater differentiation leveraging Hypertherm's embedded cutting expertise foundation.

- Hypertherm's Phoenix® version 10 CNC software
- Microsoft Windows 10 embedded operating system
- Internal Programmable Logic Controller (PLC) and software-based operator's console that enable unique cutting machine features
- EtherCAT machine interface for easy connectivity and superior motion
- Easy to use, Using the patented CutPro® Wizard, even new operators can be ready to cut production parts in less than five minutes
- On-screen Software Operator's Console (Soft OpCon) for easy setup and operation of cutting station and manual motion
- One touch access to supporting documentation including cutting optimization tips, consumable change instructions and diagnostic tools in multiple languages
- Custom cut charts can be created and controlled in the part program or made available to the CutPro Wizard
- Enable on-screen real time monitoring of key process performance parameters while cutting
- Reliable, High-speed digital EtherCAT machine interface and communications with single wire connectivity
- CNC, plasma system and cutting machine diagnosis and repair can be done over the internet reducing the need for on-site visits.
- Flexible configurations: Hardware and software designed for a broad range of processes.

主要技术参数 Technical parameters

显示器 Monitor	19 英寸触摸屏 19' touch screen
操作系统 Operating system	Microsoft Windows10®(嵌入式) / Microsoft Windows 10 (built in)
处理器 Processor	Intel Celeron 赛扬 J1900，四核 / Intel Celeron J1900，Quad core
内存 Internal memory	4G
硬盘 Hard disk	固态 SATA 驱动器，大于或等于 120GB / Solid-state SATA driver, 120G or more
外部接口 Ports	USB 2.0、10/100M 网络接口 USB 2.0、10/100M network card
RFI/EMI 屏蔽 RFI/EM shielding	完全隔离，接地 /Full shielding, grounding
支持轴数 Available axis	标准两轴，可扩展 5 轴 /Standard 2 axes ,5 axes available
体积 Volume	133.8mm × 130.8mm × 43.1mm
重量 Weight	1.2Kg
工作环境 Working environment	-10℃至 -40℃，最大相对湿度 95%，防护等级 IP2X，海拔高度不大于 2000m，污染程度 2 级 -10℃ -40℃， Maximum relative humidity 95%，Protection level IP2X, altitude not more than 2000m, pollution level two
电源 Power	220V ± 10%
支持触摸屏可选项 Optional touch screen	无

可选配切割电源 Optional cutting power source

空气等离子切割机 LGK 系列 Air plasma cutting machine LGK series

- 逆变技术
- 高效节能
- 切割电流连续可调
- 具有延时断气功能
- 适用于大型数控切割机使用
- 切口整齐、光滑无需打磨
- 引弧成功率，性能稳定
- 采用数字式控制器对等离子切割电流、气体参数进行精确控制，实现全切割过程的最优工艺
- 采用进口水冷割炬，可大大降低切割过程中的易损件损耗，减少使用成本



- Inverter technology
- High efficiency and energy saving
- Cutting current can be adjusted continuously
- Post gas function
- Suitable for large CNC cutting machine
- Neat incision, smooth without polishing
- High successful rate of arc ignition, performance stable
- The digital controller is used to control the plasma cutting current and gas parameters accurately so as to realize the optimal process during the whole cutting
- Fitted with imported water-cooled cutting torch to reduce the consumable parts loss and use cost greatly



主要技术参数 Technical parameters

PG10-200

通用型号 Model	LGK-200	LGK-200	LGK-400
公司型号 Company Type	PG10-200	PG20-200	PG20-400
输入电压 Input voltage	3 相 380V ± 10% 50-60Hz 3 phase 380V ± 10% 50-60Hz	3 相 380V ± 10% 3 phase 380V ± 10% 50-60Hz	3 相 380V ± 10% 3 phase 380V ± 10% 50-60Hz
额定输入功率 (KW) Rated input power(KW)	37.5	37.5	75
空载电压 (V) No-load voltage (V)	280	280	280
电流调节范围 (A) Current adjustment range (A)	40 ~ 200	40-200	40-400
额定输出电压 (V) Rated output voltage (V)	150	150	150
额定负载持续率 (40℃) Rated output voltage	100%	100%	100%
效 率 Efficiency		85%	
功率因数 Power factor		0.93	
最大切断厚度 (mm) Maximum cutting through thickness (mm)	64	64	100
最大切割厚度 (mm) Quality cutting thickness (mm)	50	50	80
绝缘等级 Insulation grade		F	
外壳防护等级 Case Protection Class		IP21	
冷却方式 Cooling		风冷 Wind	
外形尺寸 (mm) Dimension (L × W × G)(mm)	1130 × 670 × 905	1130 × 670 × 905	(1130 × 670 × 905) × 2
重 量 (Kg) Weight (kg)	480	480	960
推荐压缩机排气量 (L/min) Gas flow (L/min)	40 ~ 200	40 ~ 200	40 ~ 200
特点 Features	高频引弧方式； 水冷式手持 / 机用割炬； 适用于中厚板数控切割 HF arc ignition Water-cooled torch(handheld/ machine) Applicate for cutting plate		
	控制器采用触摸屏作为人机界面，内部集成了专家数据库； 多气体控制技术可实现不锈钢无氧化切割，节省了后续加工处理的费用。 Gas Controller uses touch screen,Expert database integrated ; Multi gas control technology to cut the stainless steel without Oxygen so as to save money.		

空气等离子切割机 TDL 系列 Air plasma cutting machine TDL series

- 全数字化控制，电流稳定，集中度高，切口质量好，可切断厚度比同等功率传统切割机提高 20%
 - 加长 30m 割枪引弧成功率大于 99%
 - 具有网格切割功能，方便切割，不用频繁起弧
 - 具有切割前划线功能，适合精密切割，避免浪费母材
 - 具有等离子弧气刨功能，创缝平滑，干净，避免因碳弧气刨而产生焊缝夹碳现象
 - 非高频引弧方式，无高频干扰
- Digital control make the machine with steady current, high concentration and high cutting quality. The max cutting through thickness of workpieces is 20% more than traditional familiar cutting machine
 - The success rate of are ignition by lengthened 30m cutting torch is greater than 99%
 - Mesh cutting function makes cutting easily and not to arc ignite frequently
 - Lining before cutting is for precision cutting to avoid waste of the base metal
 - Plasma gouging function to make cutting smooth and clean and avoid carbon carrying in seam caused by carbon arc gouging
 - Non-high frequency arc striking, no high-frequency interference



TDL 1200

主要技术参数 Technical parameters

型号 Model	TDL 600	TDL 1200
额定输入电压 (U _i) (V) Rated input voltage (U _i) (V)	380V ± 15% 50/60Hz 三相交流 380V ± 15% 50/60Hz Three-phase AC	
额定输入电流 (I _{1off}) (A) Rated input current (I _{1off}) (A)	9.8A	29.4A
额定输出容量 (X=60%) Rated output capacity (X=60%)	60A/104V	120A/128V
额定空载电压 (U ₀) (V) Rated no-load voltage (U ₀) (V)	307 ± 5%	320 ± 5%
额定空载电流 (I ₀) (A) Rated no-load current (I ₀) (A)	< 1	
能效等级 Energy efficiency grade	2 级 Grade 2	
功率因数 (COS φ) Power factor (COS φ)	0.89	0.91
效率 (η) Efficiency (η)	90%	90%
额定负载持续率 Rated duty cycle	60%	
绝缘等级 Insulation grade	F	
外壳防护等级 Case protection class	IP23S	
输出电流范围 (I ₂) (A) Output current (I ₂) (A)	20 ~ 60	30 ~ 120
引弧电流 (A) Ignition current (A)	25A	30A
引弧方式 Ignition method	非高频 Non-HF	
最大切断厚度 (mm) Maximum cutting thickness (mm)	35	50
质量切割 (mm) (碳钢) Quality cutting thickness (mm) (Carbon steel)	20	35
质量切割 (mm) (不锈钢) Quality cutting thickness (mm) (Stainless steel)	15	30
穿孔切割 (mm) Piercing cutting thickness (mm)	10	20
外形尺寸 (L × W × G)(mm) Dimensions (L × W × H)(mm)	592 × 290 × 503	650 × 326 × 567
净重 (kg) Net weight (kg)	33	46

海宝等离子电源 Hypertherm plasma power source



POWERMAX125



MAXPRO200



XPR300

主要技术参数 Technical parameters

类型 Type	型号 Model	最大穿孔切割厚度/mm max Punch cutting thickness			最大切断厚度/mm maximum cutting thickness			品质切割厚度/mm quality of cutting thickness			输入功率 input power (KW)
		碳钢 Carbon steel	不锈钢 Stainless steel	铝 Aluminum	碳钢 Carbon steel	不锈钢 Stainless steel	铝 Aluminum	碳钢 Carbon steel	不锈钢 Stainless steel	铝 Aluminum	
空气等离子 Air plasma	Powermax45	10	10	10	25	19	19	6	6	6	5.95
	Powermax65	12	12	12	25	20	20	8	8	8	9
	Powermax85	16	16	16	30	25	25	10	10	10	12.2
	Powermax105	22	22	22	38	32	32	12	12	12	16.8
	Powermax125	25	22	22	44	36	36	16	16	16	21.9
长寿命氧气等离子 Long life of oxygen plasma	MAXPro200	32	25	25	75	75	75	25	20	20	37.4
高性能等离子 High performance plasma	XPR170	40/35	22	25	60	38	38	—	—	—	35.7
	XPR300	50/45	38	38	80	75	50	—	—	—	63
	HPR400XD	50	45	45	80	80	80	38	38	38	80
	HPR800XD	50	75	75	80	160	160	38	75	75	160

凯尔贝等离子电源 Kjellberg Plasma Power source



精细等离子 FineFocus
High Precision Plasma FineFocus



类激光等离子 HiFocus
Similar laser plasma HiFocus

主要技术参数 Technical parameters

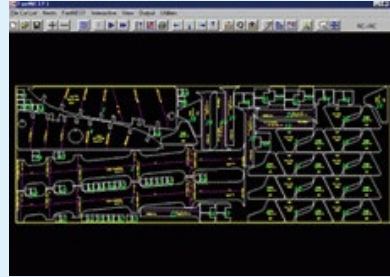
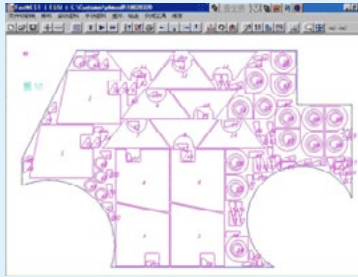
项目 Specifications	分类 Category	类激光等离子 HiFocus / Similar laser plasma HiFocus					
		SF 130	HF 160i	HF 280i	HF 360i	HF 440i	HF 660i
最大切割 (mm) maximum cutting thickness		40	50	70	80	120	160
质量切割 (mm) Quality of cutting thickness		1-32	38	50	60	80	120
穿孔厚度 (mm) Punch cutting		25	30	40	50	50	80
切割电流 (A) Cutting current		35-130	10-160	10-280	10-360	10-440	10-600
功率 (KVA) Power		28	33	67	87	127	87+93
割炬冷却方式 Torch cooling mode		水冷式 Water cooled	水冷式 Water cooled	水冷式 Water cooled	水冷式 Water cooled	水冷式 Water cooled	水冷式 Water cooled
电源重量 (Kg) Weight		266	196	505	517	589	517+510
电源外形尺寸 (mm) overall size		1030 × 570 × 1260	960 × 540 × 1050	1030 × 680 × 1450	1030 × 680 × 1450	1030 × 680 × 1450	2 × 1030 × 680 × 1450

套料软件 Nesting software

FastCAM 全自动套料软件 Fast CAM full automatic nesting software

FastCAM 套料软件的主要功能：CAD 画图、CAD 清除压缩提取打散等优化功能、连续桥断开桥等桥接功能；自动手动交互式套料、共边切割、连续切割、余料套料、自动排紧、镜像配对等套料功能；自动编程、割缝补偿、预穿孔中心穿孔等切割工艺；NC 程序校验与模拟、钢材与加工成本统计报表、NC 与 DXF/CAM/NC 文件转换等。实现数控切割机“全时切割、自动切割、高效切割、高质切割、高套料率切割”！

Functions of FastCAM nesting software: CAD drawing, CAD optimization (clear, compression, extraction, explosion), continuous bridge cutting/breaking cutting functions; Auto/Manual interactive nesting, common-line cutting, chain cutting, nesting of remaining materials, automatic layout, mirror matching and other nesting functions; automatic programming, cutting compensation, Pre punched hole/centre; NC program verification and simulation, statistics of steel material and processing cost, NC and DXF/CAM/NC file conversion. It makes the CNC cutting machine “Full-time, automatic, efficient, high quality and high nesting rate cutting”.



主要功能 Significant function

1. FastCAM 绘图模块 —— 专门为数控切割而开发，可以简便快速地绘制适合套料编程和切割的零件图形。

- AutoCAD 优化功能：DXF/DWG 文件读入，进行 CAD 清除压缩，清除多余实体和重叠实体，压缩拟合大量小线段实体，优化 DXF/DWG 文件。主要作用是弥补国产数控系统功能的不足，解决重复切割，切圆不圆，切割不闭合，切割机抖动等质量问题，主要用于熟练使用 AutoCAD 软件画图的用户
- DXF/DWG 图形提取打散和排序功能：用于 AutoCAD 软件与 FastCAM 软件的自动高效连接，批量导入 DXF/DWG 零件图，对熟练使用 AutoCAD 软件画图的用户非常有用
- 切割工艺批处理功能：割缝自动补偿功能，圆角自动过渡功能，外尖角外圆角编程功能
- 高效切割功能：专门为等离子和激光切割开发的任意桥接连割功能，为共边连割开发的矩阵与连割套料功能
- 简单便捷的 CAD 画图功能：主要用于不会 AutoCAD 画图的用户和希望学习掌握更简单快捷画图方法的用户

FastCAM drawing module – specifically developed for CNC cutting. It can draw the parts' graphics quickly and easily which is suitable for nesting programming and cutting

- AutoCAD optimization: read DXF/DWG file, CAD clear, compression, remove excess and overlapping objects, compression fitting of a large number of small segment objects, optimization of DXF/DWG Files. Mainly effect is to make up for the lack of domestic CNC system of the following problems: repeated cutting, cutting circle not round or cutting not closed, cutting machine jitter and so on; it is mainly used by users who are familiar with AutoCAD drawing applications.
- DXF/DWG graphics extraction, scattering and sorting: Automatic and efficient connection between AutoCAD software and FastCAM software, batch loading of DXF/DWG drawings, it is helpful for users who are familiar with AutoCAD software
- Cutting process batching functions: cutting seam compensation automatic, automatic fillet, outer corners/bullnose programming
- Efficient cutting: any bridge cutting/chain cutting specifically developed for plasma and laser cutting, matrix and chain cutting nesting for common-line/chain cutting
- Simple and convenient CAD drawing: mainly for users who are not familiar with AutoCAD and want to master a simple and quick method of drawing.

2. FastNEST 套料模块 —— 专业的优化套料引擎，具有自动、手动、矩阵、自动排紧，以及自动手动交互式套料等多种优化套料方式和方法

- 多种格式文件套料，包括 DXF/DWG/CAM/NC 文件
- 单一或批量读入或导入文件，进行快速自动套料
- 设置零件按行排、列排和矩阵方式自动套料
- 剩余板材的编辑和管理，以及对剩余板材或是不规则板材进行套料
- 单板和多板自动连续套料
- 手动交互式套料，零件可任意移动、旋转、翻转
- 全自动共边套料功能：专门为火焰、等离子、激光和水刀切割开发的全自动共边套料切割功能
- 等离子桥接连割功能：专门为等离子、激光和水刀切割提供的任意桥接连割功能

FastNEST Nesting Module – It is a professional optimized nesting with automatic, manual, matrix, automatic layout, Auto/Manual interactive nesting and others optimizing nesting

Multi nesting files including DXF/DWG/CAM/NC
Single or batch read or load of files for fast automatic nesting
Setting of automatic nesting of parts by rows, lines and matrix
Edit and manage the remaining sheet and nesting of remaining or irregular sheets
Automatic continuous nesting of single and multi template
Manually interactive nesting: the parts can be moved, rotated, flipped freely
Automatic common-line nesting: designed for flame, plasma, laser and waterjet cutting
Plasma bridge cutting: specifically for plasma, laser and waterjet cutting

部件配置 Parts configuration

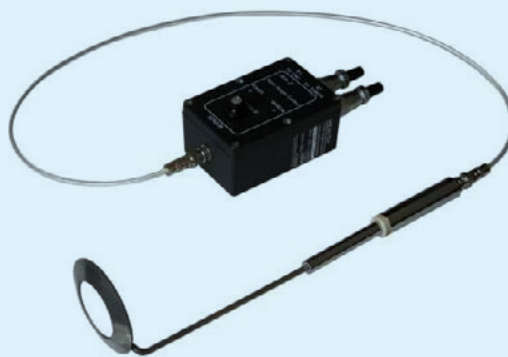
THC-I 电容式调高器 THC-I Capacity Height Controller

电容式调高器是一个闭环控制系统，它包括位置信号检测、信号变换处理、逻辑控制、电机驱动四个部分，适用于数控切割系统的火焰切割割炬需要进行自动高度控制的设备。

高度信号检测装置采用电容式传感探头，探头环与机床绝缘，安装于割嘴的下方，通过同轴电缆连接到割嘴旁边的金属探头，用于感应割嘴与钢板的高度，通过调高器内部电路处理变换后输出相应的电信号，送到逻辑控制电路，再输出控制信号到电机驱动电路，驱动电机正反向运转。电机的驱动采用脉宽调制驱动（PWM）方式。

The Capacity Height Controller is a closed loop control system, which consists four parts: the location of signal detection, signal transform processing, and logic control, motor-driven. It is applied in the equipment which need Automatic torch height control, such as flame cutting torch for CNC cutting system.

A high degree of signal detection device uses capacitive sensing probe, the probe ring and the machine insulation, installed in the cut below the mouth, cutting through the coaxial cable connected to the mouth next to the metal probe, for sensing the height of cutting nozzle and the plate, through the increase transformation of inner circuit processing the corresponding output electrical signal sent to the logic control circuit, and then output control signals to the motor drive circuit, drive forward and reverse motor operation. The motor driving method is PWM.



PTHC-II 等离子弧压调高器 PTHC-II plasma arc-volt height control

等离子弧压调高器是利用切割时的弧压跟随割炬与工件的高度变化而变化，以实现割炬高度的自动控制。有如下特点：

等离子弧压调高器以高性能微处理器为核心；采用高压隔离放大器；PWM 控制输出。

多种分压比适配输入

给定弧压和实际弧压综合显示

参数设置界面，数码显示

根据要求选择相应的弧压精度。弧压控制精度的调节范围可在 $\pm 1V \sim \pm 5V$ (变比 50:1 或 100:1)



Plasma arc-volt height control a high degree automation of the torch height, using the change of the arc height following the change of the torch and the work piece height while cutting. The characters are following:

High-performance microprocessor is the core of plasma arc-volt height control; it adopts high-pressure Isolation Amplifier; PWM control output.

Partial pressure ratio fit a variety of input;

For a given arc voltage and the actual arc voltage integrated display;

Upon request, select the appropriate arc voltage accuracy.

Arc voltage control accuracy of the adjustment range can be $\pm 1V \sim \pm 5V$ (50:1 or 100:1)

TTL200 火焰直线三割炬

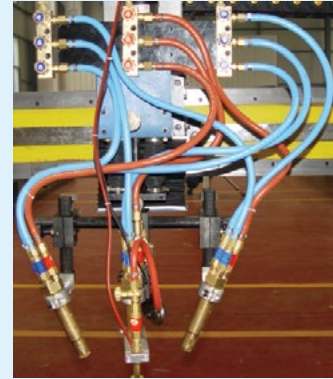
TTL 200 three straight cutting torch flame system

火焰直线三割炬系统主要用于完成平行于纵向导轨方向的任意形状的直线坡口切割，如 V、X、Y、K 型坡口。切割完之后的坡口表面的质量好，角度精确。

火焰直线三割炬采用机械式滚轮高度定位，保证在切割过程中割炬的高度与钢板的高度恒定，使坡口切割面平滑。

Three straight cutting torch flame system is mainly used in straight line of arbitrary shape groove cutting, which is paralleled to the longitudinal track, such as V, X, Y, K-type groove. The quality of the bevel surface after cutting is well, the angle is accurate.

Positioning by mechanical roller, three torch flame straight cutting ensure that the height of torch and steel plate is constant in the process of cutting, making groove cutting surface smooth and process good.



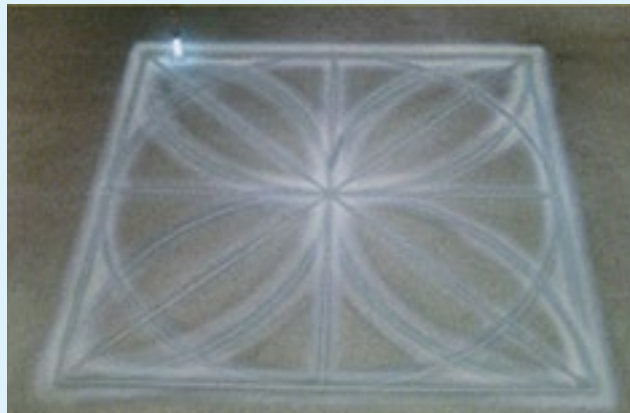
TPM-I 火焰喷粉划线装置 TPM-1 power marking device

喷粉划线枪是数控切割机的一个重要功能部件，其作用是在钢板表面标记工艺线、图形和工件号。其工作原理是将高目锌粉通过高温火焰熔化后喷于钢板表面，形成均匀清晰的锌粉线条，这些线条具有一定的耐蚀性和耐磨性。

喷粉划线工作最高速度可达 30m/min，线条宽度 0.6 ~ 1.2mm，涂层厚度 0.05 ~ 0.20mm。

The role of a crossed gun powder is mark production line graphics, and the work piece number on the surface of the steel plate. Its working principle is to sprayed melting zinc on steel surface to form uniform zinc clear lines through high temperature flame; these lines have the function of corrosion resistance and wear resistance.

The highest working speed of dusting is 30m/min, line width 0.6 ~ 1.2mm, coating thickness 0.05 ~ 0.20mm.



TIHS-I 初始定位装置及 TAC-I 防碰撞装置

THIS-I initial positioning device and TAC-I anti-collision device

初始定位装置的功能是保证等离子割炬在引弧切割时，割炬与钢板之间的距离保持在一定高度的装置，不同的等离子及切割板厚，初始定位的高度是不同的。

防碰撞装置的功能是等离子割炬保护装置，防止在切割过程中割炬的碰撞损坏，有报警和自动复位功能。

The initial positioning device can guarantee that when the plasma cutting torch is arc striking cutting, the space between the cutting torch and steel plate remains a fixed height, the heights of initial position are different for different plasma and cutting plate thickness.

The anti-collision device can protect the plasma cutting torch. It can prevent the cutting torch damage during cutting as collision; it can send alarm and automatic reset.

Service 销售服务网络

Sales & Services Network

时代公司在中国建有 40 多家销售维修服务机构，为您提供一流的产品质量以及一流的服务。完善的售前、售中和售后为您倍添保障。

There are more than 40 sales service organizations of TIME in China, to provide top-ranking products quality and top-ranking service. Complete before-sales, in-sales and after-sales service guarantee your benefits.



时代焊机在中国的销售服务网络

Sales service network of Time welder in China



客户服务中心本着“以诚为本、顾客至上”的服务理念，和“一切为了客户满意”的服务宗旨，采取人工与自动相结合的受理应答方式，通过电话、传真、E-Mail、走访、信函等多种方式受理客户业务咨询、投诉申告、业务受理、等多样化的服务需求。

信任来自承诺。客户服务中心坚持以 100% 受理、100% 处理、100% 回复、100% 满意的服务准则提高客服工作整体质量及用户满意度。通过建立客服专员服务，设置专项服务内容，为时代的经销商、加盟商、代理商、普通消费者提供高效优质的服务。“首问责任制”的实施，确保客户拨打 400 660 9391 提出服务请求后，客户的问题在约定期限内得到答复，实现承诺性服务和一站式服务。

客户服务中心免费为客户提供全面、专业的维修技术培训，不仅定期为全国用户开办产品维修技术培训班，同时可根据要求提供上门技术培训。

According to the service idea “Sincerity-based customer first” and the service tenet “All for customer satisfaction”, with manual and automatic reply method, we will accept service consultation, complain, business and other services from customers through telephone, fax, E-mail, visit and letters.

Trust comes from promises. The customer's service center will insist on the service rules that 100% acceptance, 100% handling, 100% reply and 100% satisfaction to increase the working quality and satisfaction of customers. Through customer service commissioner, setting special services, provide well service for dealer, agents, and common consumers. “first question duty system” can make sure after customer bring forward the service requirements through calling 400 660 9391, it will be replied within time limit, to realize the promises and one station service.

The customer service center can provide full and professional maintenance training free for customers. It will set maintenance training for customers regularly, and can also provide technical training according to the request.

Activities 企业活动



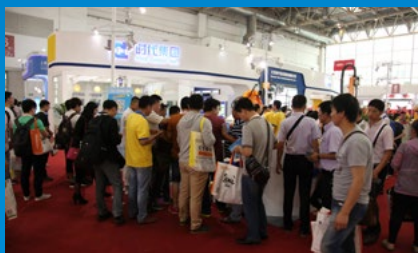
公司领导参观巴顿焊接研究所



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公司参加德国埃森国际焊接展



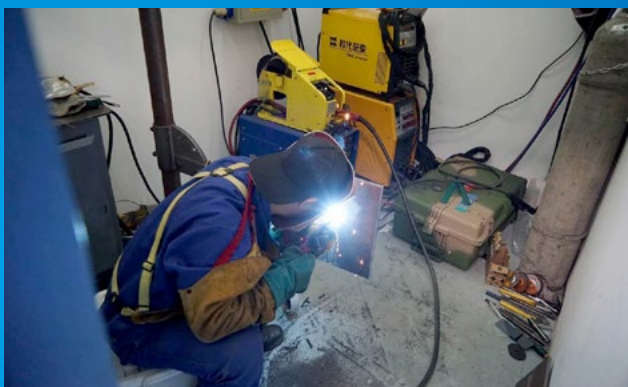
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公司组织的用户会



21世纪中国焊接技术研讨会



时代之夜



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杰出的高技术产品
令人放心的质量
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