



**TIME GROUP INC.**  
BEIJING TIME TECHNOLOGIES CO.,LTD.

## Catalog of welder



WeChat code

# TIME

## WELDING MACHINE

**TIME Welder**  
**Famous Brand of China**



ISO9001 Quality System Certificated

ISO14001 Environmental Management System Certificated

OHSAS18001 Occupational Health and Safety Management System Certificated

CHINA CCC Certificated

CHINA Energy Conservation Product Certificated

# Company Profile

BEIJING TIME TECHNOLOGIES CO.,LTD.

Beijing Time Technologies Co., Ltd was established in 2001. It was a new company initiated by TIME Group with cooperation with Tsinghua unisplendour, Lenovo Group, Daheng Group, Stone Group and other companies, mainly engaged in development, production and sale of the inverter welder, large welding equipments, welding machine for special purpose, CNC cutting machines and arc welding robots. On March 31, 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. On October 26, 2006, Beijing Time initiated Third Market financing for implementation of target placement, providing better opportunities and conditions for rapid development of the company.

TIME Group Inc. adheres to the key principle "Technology, Industry and export are the lifeblood of TIME Group Inc." the State Secretary. Through development for many years, the company has formed a set of strict management system for technological development, products manufacturing, quality control, financial operation, marketing and customer service. At present, our welding machines passed the national "3C" certification and named "Beijing Famous Brand" for four consecutive years. In 1995, we passed the ISO9001 quality system certification. In 2008, we passed Environmental Management System (ISO14001:2004) and Occupational Health and Safety Management System (OHSMS18001:2001) certification. Therefore TIME Group Inc. becomes the first corporation in welder manufacturing industry in China who had passed the certification of above management systems. Among the welder enterprises in China, TIME Group Inc. is the only one who established the mobile postdoctoral center. There are more than 40 sale and service subsidiaries, sales and service network all over the country.

TIME Group Inc. started development, production and sales of IGBT inverter welder in 1993. Now all our produces are IGBT inverter welders. Adhere to the product development objective of "Domestic first-class, advanced in the world, seeking the first instead of the only" and along the development route of constantly digital, green, automation and innovative, TIME Group Inc. provides high-quality perfect welders to the society. Currently the IGBT inverter welders of TIME Group Inc. ranks for the first of domestic total sales. TIME Group Inc. has become the largest inverter welder R&D, manufacturing and sales enterprises for many years. There are over ten series and more than 70 kinds of welding machines. In 2003, TIME Group Inc. adopted digital DSP technology in the field of domestic welders, occupying the commanding heights of domestic welding technology. In October 2007, we formed the Jinan Times New ERA Technology Co., Ltd, which is now a wholly owned subsidiary of TIME Group Inc., mainly engaged in the development, production and sales of large welding equipment, special welders, CNC cutting machine. The large welding equipment of TIME Group Inc. has been widely used in wind power, boilers, pressure vessels and other industries. In 2013, our third generation TD series digital welders were pushed to the market by batch, occupying the commanding heights of the domestic digital welders.

In 2009, we invested several hundred million RMB in Jinan Hi-tech Development Zone for hundreds of acres of land for construction of the world's most advanced welder manufacturing base with annual output of 300,000 units. The base was officially put into production in 2013. After continuous exploration and research, the TIME welding robots went debut in 2010 Essen Welding Show, which got the market and user's attention at once. With years of experience in manufacturing of welders and auxiliary machinery, the reliability, integration capabilities of our robots and spare parts supply can be effectively guaranteed. TIME welder robots are perfect combination of sophisticated welding skills and efficient automation. In the same year, we promoted the development of civil welder market, introducing a full line of light and durable small welders, which reinforces TIME brand position in the field of civilian welder, broadening the application of TIME products.

Under the quality policy of "outstanding high-tech products, high quality, customer satisfaction," our welders provide a guarantee in electricity, water, shipbuilding, metallurgy, chemical industry, bridges, oil and gas, installation and many other construction industry, and were widely used in the "Three Gorges Project", "South-to-north Water Transfer Project", "Olympic Venue Construction" and other key projects. Benefiting from high technology and competition compared with similar foreign products, our welder have been exported to over 40 countries such as Russia, Netherlands, Australia, Thailand, Malaysia, Brazil, South Africa, Israel, India and so on since 2003.





# Overview

Technology, Industry and export are the lifeblood of TIME Group Inc.



Self Design Cooperation Creativity

# Qualification





# TIME milestone

of development



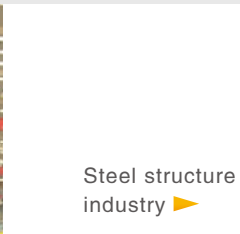
- 2017 ● Double pulse gas shielded Welding machine enter the key industries in batches.
- 2015 ● Intelligent plant initially completed.
- 2013 ● TD series digital welders batch into the market.  
TIME welding industrial park with annual output of 300,000 units built and put into use
- 2010 ● TIME welding robots debut in 2010 Essen Welding Show which got the market and user's attention.
- 2008 ● Passed Environmental Management System (ISO14001: 2004) and Occupational Health and Safety Management System (OHSMS18001: 2001) certification
- 2007 ● TIME welding laboratory established to provide users comprehensive welding technology. Jinan Times New ERA Technology Co., Ltd established.
- 2006 ● Beijing Time Technologies Co., Ltd. listed on the Shenzhen Stock Exchange and the successful implementation of target placement
- 2002 ● TIME large CNC cutting machines and automatic welding equipment launched. TIME welders with DSP digital control technology developed, enhancing technology of TIME welder
- 2001 ● TIME Group founded Beijing Time Technologies Co., Ltd which cooperated with several shareholders (Lenovo Group, Tsinghua unisplendour, Daheng Group, Stone Group, etc.)
- 1995 ● First company passed ISO9001 quality system certification in welding industry
- 1993 ● Started independent development, production and sales of IGBT inverter welder

# Our client

After development for over thirty years, TIME's equipments have been widely used in the boiler pressure vessel, nuclearelectricity, thermal power generation, water conservancy, shipbuilding, bridge, steel structure, wind power generation and other industries. We have clients all over the world, and TIME products play important roles in many giant projects.



▲ Engineering machinery



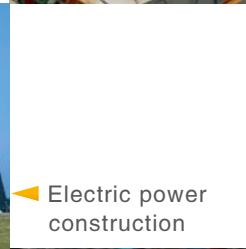
Steel structure industry ▶



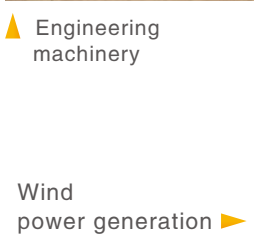
Oil and natural gas industry ▶



▶ Electric power construction



▶ Water conservancy and hydroelectricity industry



▶ Wind power generation



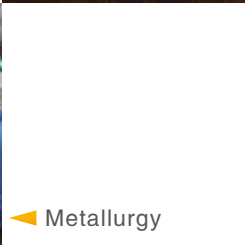
▶ Petrochemical industry



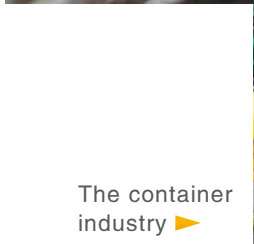
▶ Bridge engineering



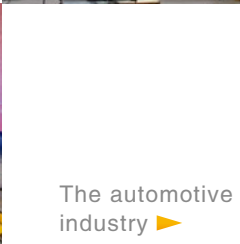
▶ Metallurgy



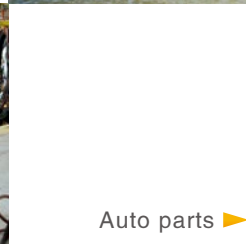
▶ Shipping industry



▶ The container industry



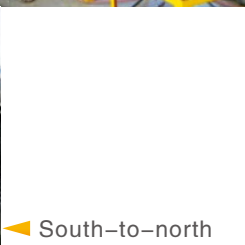
▶ The automotive industry



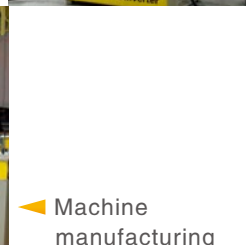
▶ Auto parts



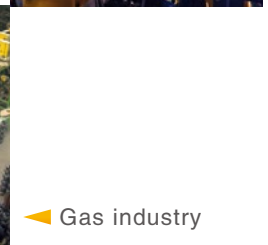
▶ South-to-north water diversion



▶ Machine manufacturing industry



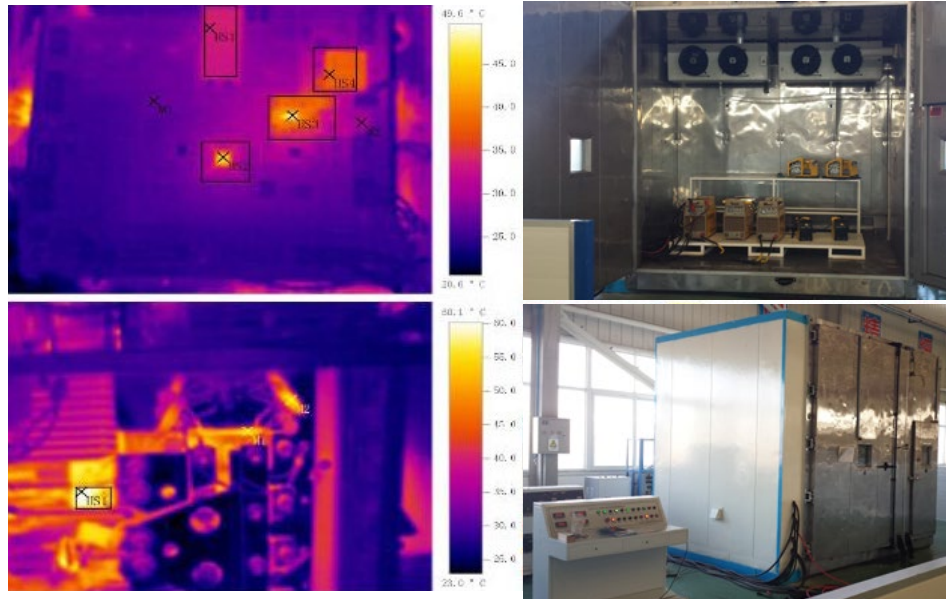
▶ Gas industry





# Quality testing

## High temperature test



## EMC Test



## Raining test



## Dust test



## Tension test

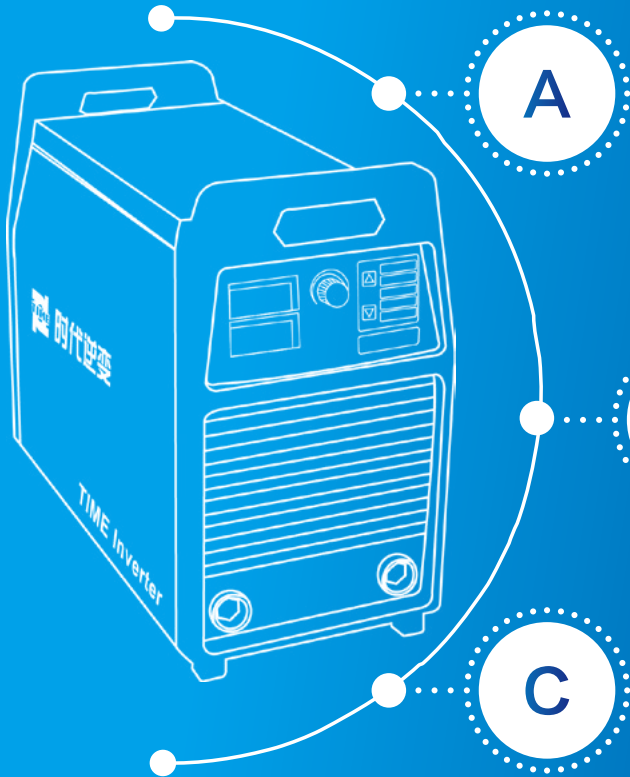


## Impact test





# PRODUCT CONTENTS



**A**

## Welding Power Source

Industrial Welding Machine	01
Commercial welding machine	26
TD-Series Whole Digital Welding Machine	31

**B**

## TIME Arc Welding Robot System

43

**C**

## Auto-Welding and CNC Cutting Equipment

47



Sheet of Available Metal Materials

Product Type	Carbon steel	Stainless steel	Aluminum and alloy	Magnesium and alloy	Copper and alloy	Cast iron
Manual DC Arc Welding Machine	★	★	★	★	★	★
DC TIG/MMA Welding Machine	★	★			★	★
AC/DC Pulse TIG/ MMA Square Wave Welding Machine	★	★	★	★	★	★
DC Pulse-TIG/ MMA Welding Machine	★	★			★	★
Semi-automatic Gas Shielded (CO <sub>2</sub> /MIG/MAG) Welding Machine	★	★	★		★	★
Semi-automatic Gas Shielded (CO <sub>2</sub> /PMIG/PMAG) Welding Machine	★	★	★	★	★	★
Air Plasma Arc Cutting Machine	★	★	★	★		
Automatic Submerged Arc Welding Machine	★	★	★		★	
Welding Equipment	★	★	★	★	★	★
Longitudinal Seam Welding Machine	★	★	★	★	★	★
CNC Cutting Machine	★	★	★	★		

The pictures in this book are only for reference. The objects will apply for ordering. Any modification to the specification, design and configuration will not be informed in advance.

# Unique Multi-Voltage Technology

- The welding machines made by TIME can be used in different countries with different input power.
- Almost welding machines are with input power: 3 phase 380V.
- The welding machines with input power 3 phase 220v, 3 phase 415v, 3 phase 440V even 3 phase 460 can be customized.

The welding machines with different input power are listed below to choose.

## 1.The welding machines with input power single phase 220V/240V

Model	Company type	Power input	Welding Mode	Details in page
TAZ2100A		single phase 240V	MMA	Page 27
TAZ2105A		single phase 240V	MMA	Page 27
WSM-200	PNE20-200P	single phase 220V	TIG Pulse/MMA	Page 10

## 2.The welding machines with input power 3 phase 220V

Model	Company type	Power input	Welding Mode	Details in page
ZX7-400	PE60-400	3 phase 220V	MMA	Page 3
ZX7-400	PE60-400E	3 phase 220V	MMA	Page 3
ZX7-400	PE60-400F	3 phase 220V	MMA	Page 3
WS-400	PNE60-400E	3 phase 220V	TIG	Page 7
NB-500	A160-500B/BT	3 phase 220V	MIG/MAG	Page 16
MZ-1000	A310-1000	3 phase 220V	SAW	Page 24

## 3.The welding machines with input power (Multi-voltage)

Model	Company type	Power input	Welding Mode	Details in page
TAZ1600A		single phase 220V/110V	MMA	Page 27
TAZ1605A		single phase 240V/120V	MMA	Page 27
TDN-5000K		3 phase 220V/440V	MIG/MAG	Page 37





# **TIME**

## **WELDING MACHINE**

## **Industrial Welding Machine**

### **Features:**

- Most mature competitive industrial inverter welding machine with 25 years experience in China
- Welding performance is recognized by the industry experts
- Soft switch technology, international energy-saving products with "energy star" title

### **Application:**

- For the user who is in the field of steel structure, coal, shipbuilding, machinery manufacturing etc. heavy industry
- Petrochemical, hydropower, thermal power and so on on-site construction industry
- Preferred brand for vocational colleges

***Specialized Industrial welder***



# TIME

## WELDING MACHINE

### Manual DC Arc Welding Machine

Suitable for Welding: carbon steel, stainless steel, cast iron, copper, titanium and other metals

Air carbon arc gouging

### Main features

IGBT inverter technology

Arc ignition with high success rate

Simple TIG

Wide range of power supply

Stable arc, molten pool is easy to control

Small splash, electrode non-stick

Arc force current adjustable to ensure the best performance

Arc current adjustable to ensure the best performance

Electrode rod with acid, basic, alkali, heat resistant steel and so on can be used.

Digital display meter for current to accurate preset welding current before welding

Table of Welding machine model and the electrode diameter

Model	Electrode diameter (recommend)
ZX7-400	φ 3.2~ φ 5.0
ZX7-500	φ 5.0~ φ 6.0
ZX7-630	φ 5.0~ φ 6.0

Remote controller

Type of Remote controller	Welding machine suitable
H028	PE60-400、PE60-500

### Selection Tip

ZX7-400(PE60-400)	Over 200 m long welding cable can be used	ZX7-630(PE60-630S)	MMA and air carbon arc gouging
ZX7-400(PE60-400E)	Cellulose welding	ZX7-630(PE52-630)	Special for air carbon arc gouging
ZX7-400(PE60-400F)	Suitable to use with generator	6/4 × ZX7-400/500	Save space
ZX7-500(PE60-500S)	Over 200 m long welding cable can be used	ZX7-3 × 400/500	Suitable for narrow space
ZX7-500(PE50-500)	Metal case		





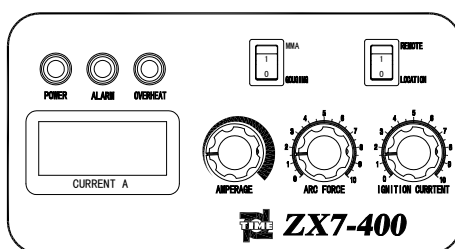
## Manual DC Arc Welding Machine



### Standard outfits



**ZX7-400(PE60-400/E/F)**



Accessories	Code	PE60-400	PE60-400E	PE60-400F
300A Electrode holder	7857030000	●	●	●
400A Earth clamp	7858040000	●	●	●
Fast plug red	7500070011	●	●	●
Fast plug black	7500070010	●	●	●

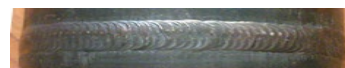
● stand for available



Carbon steel MMA current:105A



Carbon steel MMA current:115A



Carbon steel MMA current:100A

### Technical Specifications

Model	ZX7-400	ZX7-400	ZX7-400
Company type	PE60-400	PE60-400E	PE60-400F
Rated input voltage(V)	3 phase 380V ± (15-20)% 50-60Hz		
Rated input current (A)	26	26	26
Rated Input capacity (KW)	14.4	14.4	14.4
No-load voltage (V)	76 ± 5%	76 ± 5%	76 ± 5%
Output current adjusting range(A)	25 ~ 400	25 ~ 400	25 ~ 400
Arc force adjusting range(A)	0 ~ 200	0 ~ 200	0 ~ 200
Ignition current adjusting range(A)	0 ~ 200	0 ~ 200	0 ~ 200
Carbon rod	Φ 4.0-Φ 6.0	Φ 4.0-Φ 6.0	Φ 4.0-Φ 6.0
Duty cycle (40℃)	60%	60%	60%
Power factor(cos Φ)	≥ 85%	≥ 85%	≥ 85%
Efficiency ( η )	0.93	0.93	0.93
Insulation grade	F	F	F
Case protection grade	IP23S	IP23S	IP23S
Cooling	Wind	Wind	Wind
Dimensions (mm)	560 × 300 × 530	560 × 300 × 530	560 × 300 × 530
Net weight (kg)	33	33	33
Description	Plastic case; Wireless / wire remote controller is optional; Modular design; MMA / gouging(400A); PE60-400E : Cellulose welding; PE60-400F : Used with generator Input power : 3 phase 220V is optional		

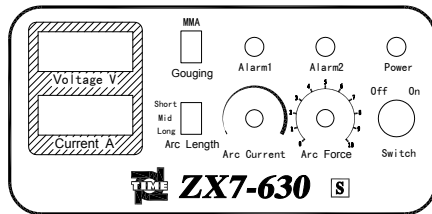
# Manual DC Arc Welding Machine



## Standard outfits



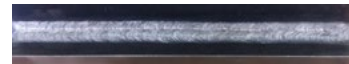
**ZX7-630(PE52-630)**



**ZX7-500(PE60-500S)**

Accessories	Code	PE50-500	PE60-500S	PE60-630S	PE52-630
300A Electrode holder	7857030000	●	●		
400A Earth clamp	7858040000	●	●		
Fast plug red	7500070011	●	●		
Fast plug black	7500070010	●	●		
500A Electrode holder	7857050000			●	●
500A Earth clamp	7858050000			●	●
Bending Terminal(KDZ 120B)	7530120010				●

● stand for available



Carbon steel MMA current:135A



Carbon steel MMA current:110A

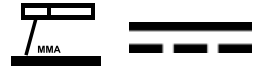
## Technical Specifications

Model	ZX7-500		ZX7-630	
Company type	PE50-500	PE60-500S	PE60-630S	PE52-630
Rated input voltage(V)	3 phase 380V ± 15% 50~60Hz		3 phase 380V ± 15% 50~60Hz	
Rated input current (A)	41	41	55.7	50
Rated Input capacity (KW)	23	23	34.6	33
No-load voltage (V)	68 ± 5%	76 ± 5%	76 ± 5%	83 ± 5%
Output current adjusting range(A)	30~500	30~500	50~630	50~630
Arc force adjusting range(A)	0~400	0~400	0~200	—
Ignition current adjusting range(A)	0~200	0~200	0~400	—
Carbon rod	Φ4.0 – Φ8.0		Φ4.0 – Φ14	Φ4 – Φ16
Duty cycle (40℃)	60%	35%	35%	100%
Power factor(cos Φ)	85%	85%	88%	85%
Efficiency (η)	0.93	0.93	0.93	
Insulation grade	F	F	F	
Case protection grade	IP21S	IP23S	IP23S	IP23
Cooling	Wind	Wind	Wind	
Dimensions (mm)	700 × 360 × 700	660 × 300 × 530	700 × 360 × 700	700 × 360 × 783
Net weight (kg)	53	50	57	75
Description	Metal case; Wired remote control is optional; Welding cable can be lengthened	Plastic case Wire remote controller is optional; Welding cable can be lengthened; Cellulose welding is optional	MMA/ air carbon arc gouging ; Air carbon arc gouging with high efficiency; Wheel is optional; Wire remote controller is optional	Air carbon arc gouging with high efficiency; Duty cycle 100%; MMA/GOUGING





## Container Type Welding Machine



### Main features

- 6 sets or 4 sets of ZX7-400/500, WS-400 install centralized in one container
- Excellent shape, cables are tidy
- Easy to arc striking. Arc is stable. Good welding seam
- Container with lock, it is convenient to manage
- The container's ventilation is good due to the persian blinds structure on its sides except the door and it is waterproof
- The covers can be opened with angle adjustable
- Welding cable leads from the bottom of the power so the power structure is simple and easy to connect
- The remote control socket is placed in one side of the container so it is tidy
- Suitable for shipyard and other field environment, installation convenient and easy to manage



6/4 × ZX7-400

### Technical Specifications

#### 400A Welding Machine

ITEM	Container with 4 sets of welding machine	Container with 6 sets of welding machine
Input voltage ( V )	3 phase 380V ± 15% 50~60Hz	3 phase 380V ± 15% 50~60Hz
Rated input power (KW)	56	87
Dimension (L* W * H) (mm)	1070 × 720 × 1640	1430 × 750 × 1640
Container body net weight (kg)	125	195
Total weight (kg)	281	429

#### 500A Welding Machine

ITEM	Container with 4 sets of welding machine	Container with 6 sets of welding machine
Input voltage ( V )	3 phase 380V ± 15% 50~60Hz	3 phase 380V ± 15% 50~60Hz
Rated input power (KW)	92	130
Dimension (L* W * H) (mm)	1070 × 750 × 1980	1430 × 750 × 1980
Container body net weight (kg)	150	220
Total weight (kg)	360	530

### Triple welding machine



ZX7-3x400/500

Model	ZX7-3 × 400	ZX7-3 × 500
Input voltage (V)	3 phase 380V ± 15% 50 ~ 60Hz	
Rated output power (kw)	3 × 14.4	3 × 20
Rated no-load voltage (V)	75 ± 5%	75 ± 5%
No-load loss (W)	3 × 200	3 × 200
Output current adjustment range (A)	26 ~ 410	20 ~ 500
Rated duty cycle	60%	35%
Work cycle ( min )	10	10
Power factor	0.8	0.8
Efficiency	85%	85%
Insulation grade	F	F
Case protection grade	IP21S	IP21S
Dimensions ( mm )	796 × 327 × 1056	796 × 327 × 1056
Weight ( Kg)	120	120
Feature	It can be used as three independent arc welding power sources; Widely used in shipbuilding and port machinery industry	

# TIME

## WELDING MACHINE

### DC TIG/MMA Welding Machine

Suitable for welding various of metals except for Al, Mg and its alloys, Including: carbon steel, stainless steel, cast iron, copper, titanium and other metals

#### Main features

IGBT inverter technology

Wide range of power supply

Good product consistency

With a variety of TIG operation mode

High frequency arc ignition, welding penetration well

Performance stable, strong anti-interference ability

Thermal design is reasonable to protect the machine perfectly

Digital display meter for current to accurate preset welding current before welding

With MMA function (200A above model)

The welding cables can be lengthened to 50~100M/50mm<sup>2</sup>

#### Remote controller

Type of Remote controller	Welding machine suitable
H028	PNE60-400、PNE60-500
RC-6	PNE60-500、PNE61-315、PNE61-400、PNE61-500
RC-8A	PNE60-400
RC-9	PNE60-500、PNE61-400、PNE61-500

#### Selection Tip

WS-400(PNE60-400)

WS-400(PNE60-400E)

WS-400(PNE60-400F)

WS-400(PNE61-400)

WS-500(PNE61-500)

Over 200m length welding cable can be used in MMA

Cellulose welding

Suitable to use with generator

Whole digital welding machine

Whole digital welding machine





## DC TIG/MMA Welding Machine

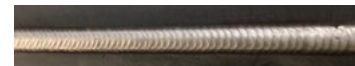
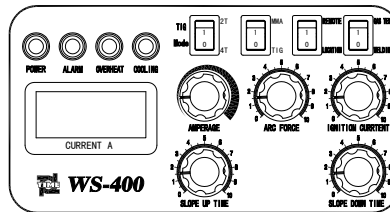


### Standard outfits

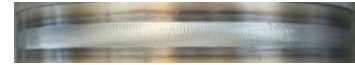
**WS-400**

Accessories	Code	PNE60-400	PNE60-400E	PNE60-400F
WP-26 TIG torch	7852002600	●	●	●
300A electrode holder	7857030000	●	●	●
400A earth clamp	7858040000	●	●	●
Fast plug red	7500070011	●	●	●
Fast plug black	7500070010	●	●	●

● stand for available



Stainless steel TIG current:140A ~ 150A



Stainless steel TIG current:190A ~ 210A



Stainless steel TIG current: 210A

### Technical Specifications

Model	WS-400	WS-400	WS-400
Company type	PNE60-400	PNE60-400E	PNE60-400F
Rated input voltage(V)	3 phase 380V ± 15% 50~60Hz	3 phase 380V ± 15% 50~60Hz or 3 phase 220V ± 15%	3 phase 380V ± 20% 50~60Hz
Rated Input capacity (KW)	14.4	14.4	14.4
No-load voltage (V)	76 ± 5%	76 ± 5%	76 ± 5%
Output current adjusting range(A)	15~400	15~400	15~400
Slope up time (s)	0~10	0~10	0~10
Slope down time (s)	0~10	0~10	0~10
Pre-flow time (s)	0.5	0.5	0.5
Post-flow time (s)	5,10,15,30 adjustable	5,10,15,30 adjustable	5,10,15,30 adjustable
Ignition time (s)	0.05, 0.1, 0.2, 0.5 adjustable	0.05, 0.1, 0.2, 0.5 adjustable	0.05, 0.1, 0.2, 0.5 adjustable
Duty cycle (40℃)	60%	60%	60%
Efficiency	85%	85%	85%
Power factor	0.93	0.93	0.93
Insulation grade	F	F	F
Case protection grade	IP21S	IP21S	IP21S
Cooling	Wind	Wind	Wind
Dimensions (mm)	560 × 300 × 530	560 × 300 × 530	560 × 300 × 530
Net weight (kg)	34 / 35 / 34	34 / 35 / 34	34 / 35 / 34
Description	Plastic case; Wireless/wire remote controller is optional; Modular design; Output current, high stability; Ignition success rate 100%, it is suitable for auto-welding. PNE60-400E: Cellulose welding PNE60-400F: Used with generator		

## DC TIG/MMA Welding Machine



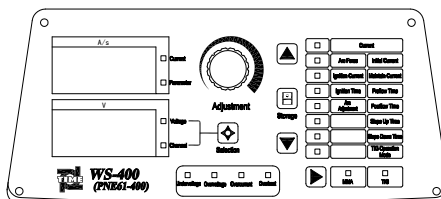
### Standard outfits



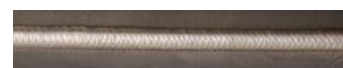
**WS-400/500**

Accessories	Code	PNE61-400	PNE61-500
WP-26 TIG torch	7852002600	●	●
300A Electrode holder	7857030000	●	
500A Electrode holder	7857050000		●
400A Earth clamp	7858040000	●	●
Fast plug (DKJ50-70) (red)	7500070011	●	
Fast plug (DKJ50-70) (black)	7500070010	●	
Fast plug (DKJ70-95) (red)	7500095011		●
Fast plug (DKJ70-95) (black)	7500095010		●

● stand for available



Stainless steel TIG current: 75A



Stainless steel TIG current: 140A



Stainless steel TIG current: 160A

### Technical Specifications

Model	WS-400	WS-500
Company type	PNE61-400	PNE61-500
Rated input voltage(V)	3 Phase 266~456V 50~60Hz	
Rated Input capacity (KW)	17	23.5
No-load voltage (V)	76 ± 5%	78 ± 5%
Output current adjusting range(A)	5~410	5~510
Slope up time (s)	0.1~99.9	
Slope down time (s)	0.1~99.9	
Pre-flow time (s)	0~13	
Post-flow time (s)	0.1~50	
Ignition time (s)	0.01~1s	
Duty cycle (40℃)	60%	
Efficiency ( $\eta$ )	85%	
Power factor(cos $\Phi$ )	0.93	
Insulation grade	F	
Case protection grade	IP23S	
Cooling	Wind	
Dimensions (mm)	560 × 300 × 530	660 × 300 × 530
Net weight (kg)	34	41
Description	DSP technology; Cellulose welding. RS-485 communication socket match RC-6,RC-7 remote controller; Realization of remote setting and supervision by TIME TWPM welding process management system Plastic case, excellent shape	



# TIME

## WELDING MACHINE

### DC TIG/MMA Pulse Welding Machine

Suitable for Welding various of metals except for Al, Mg and its alloys

Especially suitable for welding sheet metal or metal of strong thermal sensitivity, welding quality is excellent.

#### Main features

IGBT inverter technology

Wide range of power supply

Good product consistency

Pulse frequency is adjustable

With variety of TIG operation mode

High frequency arc ignition, welding penetration well

Performance stable, strong anti-interference ability

Thermal design is reasonable to protect the machine perfectly

Digital display meter for current to accurate preset welding current before welding

With MMA function (200A above model)

Two TIG mode: DC TIG or Pulse TIG

The welding cables can be lengthened to 50~100M/50mm<sup>2</sup>

#### Remote controller

Type of Remote controller	Welding machine suitable
RC-6	PNE61-400P
RC-9	PNE61-400P

#### Selection Tip

WSM-200(PNE20-200P)

Compact, portable

WSM-200(PNE30-200P)

Compact, portable, Power input: 3 phase 380V

WSM-315(PNE61-315P)

Whole digital Pulse TIG welding machine

WSM-400(PNE61-400P)

Whole digital Pulse TIG welding machine

## DC TIG/MMA Pulse Welding Machine



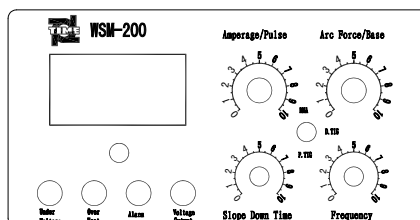
### Standard outfits



WSM-200

Accessories	Code	PNE20-200P	PNE30-200P
WP-17 TIG torch	7852017035	●	●
300A Electrode holder	7857030000	●	●
400A Earth clamp	7858040000	●	●
Fast plug (K6B) red	7500006010	●	●
Fast plug (K6B) black	7500006011	●	●

● stand for available



Stainless steel Pulse TIG  
Base current:12A Peak current:25A



Stainless steel Pulse TIG  
Base current:50A Peak current:100A

### Technical Specifications

Model	WSM-200	WSM-200
Company type	PNE20-200P	PNE30-200P
Rated input voltage(V)	Single phase 220v 50~60Hz	3 phase 380V 50~60Hz
Rated Input capacity (KW)	6.6	3.6
No-load voltage (V)	57 ± 5%	54
Output current adjusting range(A)	5~200 ( TIG )	5~200 ( TIG )
Pulse frequency (Hz)	0.5~15	0.5~15
Thrust current range(A)	0~100A/ms	0~100A/ms
Slope up time (s)	0.1~99.9	0.1~99.9
Slope down time (s)	0.1~99.9	0.1~99.9
Spot time (s)	0.01~9.99	0.01~9.99
Pre-flow time (s)	0~13	0~13
Post-flow time (s)	0.1~50	0.1~50
Pulse ratio range	0.1%~99.9%	0.1%~99.9%
Duty cycle (40℃)	35%	35%
Power factor	0.93	0.93
Efficiency	85%	85%
Insulation grade	F	F
Case protection grade	IP21S	IP21S
Cooling	Wind	Wind
Dimensions (mm)	455 × 214 × 340	455 × 214 × 340
Net weight (kg)	11	11
Description	Widely used in the field of maintenance; Pointer type current meter	





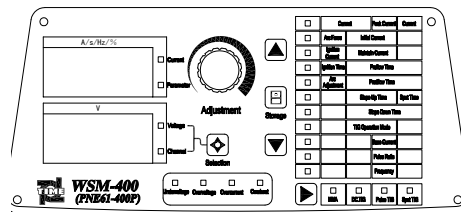
## DC TIG/MMA Pulse Welding Machine



### Standard outfits



**WSM-315/400**



Accessories	Code	PNE61-315P	PNE61-400P
WP-26 TIG torch	7852002600	●	●
300A Electrode holder	7857030000	●	●
400A Earth clamp	7858040000	●	●
Fast plug (black)	7500070010	●	●
Fast plug (red)	7500070011	●	●

● stand for available



Stainless steel Pulse TIG  
Base current: 50A Peak current: 220A



Stainless steel Pulse TIG  
Base current: 15A Peak current: 30A



Stainless steel Pulse TIG  
Base current: 200A Peak current: 240A

### Technical Specifications

Model	WSM-315	WSM-400
Company type	PNE61-315P	PNE61-400P
Rated input voltage(V)	3 phase 266~456V 50~60Hz	
Rated Input capacity (KW)	17	
No-load voltage (V)	60 ± 5%	76 ± 5%
Output current adjusting range(A)	5~315	5~410
Pulse frequency (Hz)	0.1~500	
Thrust current range(MMA)	0~1500A/ms	
Slope up time (s)	0.1~99.9	
Slope down time (s)	0.1~99.9	
Spot time (s)	0.01~9.99	
Pre-flow time (s)	0~13	
Post-flow time (s)	0.1~50	
Pulse ratio range	0.1%~99%	
Duty cycle (40℃)	60%	
Power factor	0.93	
Efficiency	85%	
Insulation grade	F	
Case protection grade	IP21S	
Cooling	Wind	
Dimensions (mm)	560 × 300 × 530	
Net weight (kg)	34	
Description	DSP digital welding machine; RS-485 communication socket match RC-6,RC-7 remote controller; Plastic case, excellent shape	

# TIME

## WELDING MACHINE

### AC/DC Pulse TIG/MMA Square Wave Welding Machine

AC Square Wave TIG / Pulse TIG / DC TIG / MMA;

Suitable for welding of Al, Mg and its alloys, carbon steel, stainless steel, cast iron, copper, titanium and other metal

#### Main features

IGBT inverter technology

Microcomputer control technology

Welding parameter automatically stores

Five operating mode for AC Square wave TIG welding

Parameters in panel are set by coordinate-type touch key and the single knob for adjustment

Eight operating mode both for DC TIG, DC pulse TIG

AC Square Wave TIG / Pulse TIG / DC TIG / Spot TIG/MMA in this machine

Mainly be used for welding of aluminum, magnesium aluminum alloy and its alloys in the field of aviation, aerospace, air separation equipment, radiator, aluminum pipe, bicycle, pressure vessel, furniture industry and so on

#### Selection Tip

WSE-315(PNE30-315ADP)	suitable to welding 0.5mm~18mm thickness aluminum alloy plate, double-sided butt welding function, duty cycle 60%
WSE-315(PNE32-315ADP)	suitable to welding 0.5mm~20mm thickness aluminum alloy plate, double-sided butt welding function, duty cycle 100%
WSE-500(PNE30-500ADP)	suitable to welding 0.5mm~25mm thickness aluminum alloy plate, double-sided butt welding function, foot switch is optional
WSE-500(PNE31-500ADP)	suitable to welding aluminum alloy plate with thickness below 25mm, double-sided butt welding function, foot switch is optionalDuty cycle 100%
WSE-630(PNE30-630ADP)	suitable to welding aluminum alloy plate with thickness below 35mm





## AC/DC Pulse TIG/MMA Square Wave Welding Machine



## Standard outfits



WSE-315/500/630



Accessories	Code	WSE-315	WSE-500	WSE-630
WP-18 TIG torch	7851018043	●		
WP-12 TIG torch	7851012041		●	●
400A Earth clamp	7858040000	●		
500A Earth clamp	7858050000		●	
630A Earth clamp	7858063000			●
Fast plug (DKJ70)	7500070011/10	●		
Fast plug (DKJ95)	7500095011/10		●	
Bending terminal KDE120B	7530120011			●
Cable\YH35mm <sup>2</sup> (4 meter)	7710000350	●		
Cable\YH50mm <sup>2</sup> (4 meter)	7710000500		●	
Cable\YH95mm <sup>2</sup> (4 meter)	7710000950		●	●

● stand for available



Aluminum alloy  
AC/DC square wave welding  
Current: 120A ~ 130A



Aluminum-magnesium alloy  
AC/DC square wave welding  
current: 155A

## Technical Specifications

Model	WSE-315	WSE-500	WSE-630
Company type	PNE30/32-315ADP	PNE30/31-500ADP	PNE30-630ADP
Rated input voltage(V)	3 phase 380V ± (15~20)% 50~60Hz		
Rated Input capacity (KW)	12.1	17.6	25.2
No-load voltage (V)	66 ± 5%	76 ± 6%	83 ± 6%
Output current adjusting range(A)	12 ~ 315	12 ~ 510	20 ~ 630
Pulse frequency (Hz)	0.5 ~ 200		
Pulse ratio range	10% ~ 90%		
Slope up time (s)	0 ~ 10		
Slope down time (s)	0 ~ 10		
Spot time (s)	0.2 ~ 5	0.2 ~ 5	0.2 ~ 5
Pre-flow time (s)	0.1 ~ 1.5		
Post-flow time (s)	1 ~ 15		
Surge current range(MMA)	0.01 ~ 0.5		
AC frequency (Hz)	20 ~ 100	20 ~ 70	
AC balance	10% ~ 50%		
Duty cycle (40℃)	60% / 100%	60% / 100%	60%
Efficiency	≥85%		
Power factor	0.93		
Insulation grade	F		
Case protection grade	IP21S		
Cooling	Wind		
Dimensions (mm)	700 × 360 × 780		
Net weight (kg)	63	68/72	72
Description	Current output with Quasi sinusoidal waveform; Welding cable can be lengthened to 60 meters (automatically alarm when the cable wings on welding mode); Double welding function is optional; Foot switch is optional; Current displays effective value in AC TIG mode; Interface for the alarm function of water shortage		

# TIME

## WELDING MACHINE

### Semi-Automatic Gas Shielded (CO<sub>2</sub>/MIG/MAG) Welding Machine

It adopts waveform control technology for CO<sub>2</sub>/MIG/MAG function  
Suitable for welding: carbon steel, stainless steel, Al,Mg and its alloy with solid/flux cored wire

#### Main features

IGBT inverter technology  
Wide range of power supply  
Welding operation mode is divided into 2 step and 4 step  
Digital display of welding voltage, welding current  
Wire feeding slowly to improve the success rate of arc ignition at welding start  
Wire feeding mechanism is two driven wheels so wire feeding is stable  
Arc ignition easy, arc crater function  
Microcomputer control, performance is stable and reliable  
It adopts waveform control to make welding process stable and little splash  
Real-time waveform control for whole welding process to make the dynamic performance excellent  
The welding voltage, wire feed speed and wire diameter and other functions can be preset

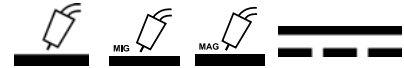
#### Selection Tip

NB-250(A160-250)	Suitable for welding thin sheet	NB-500(A160-500A)	Duty cycle 100%
NB-350(A160-350S)	Wire feeder is single driven	NB-500(A160-500B)	MMA/MIG/MAG
NB-350(A160-350T)	Available spot welding function	NB-500(A160-500BT)	MMA/MIG/MAG/Simple TIG
NB-350(A160-350)	Wire feeder is double driven	NB-500(A160-500F)	Digital display meter wire feeder
NB-400(A160-400)	Wire feeder is double driven	NB-630(A160-630A)	Duty cycle 100%
NB-400(A160-400B)	MMA/ MIG/MAG	NB-630(A160-630B)	MAG/MMA/carbon arc gouging
NB-500(A160-500S)	Wire feeder is double driven, suitable for welding wire $\Phi 1.2$		
NB-500(A160-500T)	Available spot welding function		
NB-500(A160-500)	Wire feeder is double driven, mainly used for welding wire $\Phi 1.2$ and $\Phi 1.6$		





## Semi-Automatic Gas Shielded Welding Machine



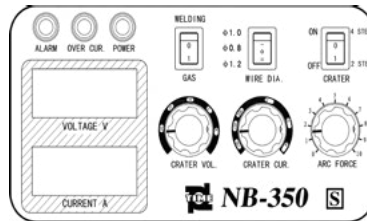
### Standard outfits

Accessories	Code	A160-250	A160-350 / 350S/350T	A160-400 / 400B
Welding torch MB15KD	7852050032	●		
Welding torch MB36KD	7852050032		●	●
35mm <sup>2</sup> Earth cable 4 meter	7710000350	●		
50mm <sup>2</sup> Earth cable 4 meter	7710000500		●	●
400A Earth clamp	7858040000	●	●	●
Fast plug ( DKJ35-50) (red)	7500050021	●		
Fast plug ( DKJ35-50) (black)	7500050020	●		
Fast plug ( DKJ50-70) (red)	7500070011		●	●
Fast plug ( DKJ50-70) (black)	7500070010		●	●
Plug for flow meter	7356000001	●	●	●

● stand for available



**NB-250/350/400**



Carbon steel MIG all-position  
Current: 120A ~ 140A Voltage: 19V ~ 21V



Carbon steel MIG horizontal position  
Current: 130A ~ 140A Voltage: 19V ~ 21V

### Technical Specifications

Model	NB-250	NB-350	NB-400
Company type	A160-250	A160-350/350S/350T	A160-400 / 400B
Rated input voltage(V)	3 phase 380V ± 10% 50~60Hz		
Rated input current(A)	12.5	22	27
Rated input power(KW)	8.3	14.5	18
Voltage adjusting range(V)	15~30	15~40	15~40
No-load voltage(V)	46 ± 5%	66 ± 5%	66 ± 5%
Current adjusting range(A)	20~250	20~350	20~400
Wire feeding speed range (m/min)	2~15	2~25	2~25
Suitable welding wire dia.(mm)	Φ0.8/Φ1.0(Carbon steel)	Φ0.8/Φ1.0/Φ1.2(steel)	Φ0.8/Φ1.0Φ/1.2(Carbon steel)
Welding wire type	Solid/flux-core		
Duty cycle ( 40℃ )	100%	35% / 60%	60%
Efficiency	85%		
Power factor	0.93		
Insulation grade	F		
Case protection grade	IP23		IP23S
Cooling	Wind		
Dimensions (mm)	500 × 300 × 530	560 × 300 × 530	560 × 300 × 530
Weight of power source (kg)	40		41
Weight of wire-feeder (kg)	9		
Description	<p>Inching function for wire feeding; Welding cable can be lengthened to 30M;The comprehensive cable is 35mm<sup>2</sup> wire; wire feeder is double driven</p> <p>Strong adaptability of dry extension of electrode change; The comprehensive cable is 50mm<sup>2</sup> wire; Plastic case, humanized design  A160-350s: Wire feeder single driven and duty cycle 35%  A160-350:Wire feeder double driven and duty cycle 60%  A160-350T:Available spot welding function  A160-400:Wire feeder double driven  A160-400B:Wire feeder double driven and MMA function</p>		

## Semi-Automatic Gas Shielded Welding Machine



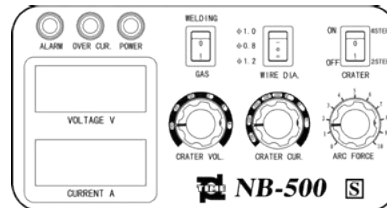
### Standard outfits

Accessories	Code	A160-500S/500T	A160-500	A160-500A	A160-500B/A160-500BT A160-500F
Welding torch MB40KD	7852050032	●	●	●	●
60mm <sup>2</sup> Earth cable 4 meter	7710000600	●	●	●	●
500A Earth clamp	7858050000	●	●	●	●
Bendig Terminal ( KDZ95B )	7532950000	●	●	●	●
Plug for flow meter	7356000001	●	●	●	●

● stand for available



NB-500

Carbon steel MIG vertical position  
Current: 125A Voltage: 18.5VStainless steel MIG flux-cored wire  
Current: 180A ~ 210A Voltage: 24V ~ 27V

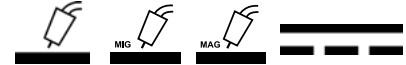
### Technical Specifications

Model	NB-500		
Company type	A160-500S/500T	A160-500 / A	A160-500B/BT/F
Rated input voltage(V)	3 phase 380V ± 10% 50~60Hz		
Rated input current(A)	34		
Rated input power(KW)	25	23	23
Voltage adjusting range(V)	15~45		
No-load voltage(V)	64 ± 5%	76 ± 5%	73 ± 5%
Current adjusting range(A)	30~500	30~500	30~500
Wire feeding speed range (m/min)	2~22	2~25	2~22
Suitable welding wire dia.(mm)	Φ 0.8/Φ 1.0/Φ 1.2 ( Carbon steel )	Φ 1.0/Φ 1.2/Φ 1.6 ( Carbon steel )	Φ 1.0/Φ 1.2/Φ 1.6 ( Carbon steel )
Welding wire type	Solid/flux-core		
Duty cycle ( 40℃ )	60% (25℃)	60% / 100%	60%
Efficiency	85%		
Power factor	0.93		
Insulation grade	F		
Case protection grade	IP23S		
Cooling	Wind		
Dimensions (mm)	660 × 300 × 530		
Weight of power source (kg)	45	49	49
Weight of wire-feeder (kg)	9		
Description	<p>The comprehensive cable is 60mm<sup>2</sup> wire Welding cable can be lengthened to 50 meter; wire feeder is double driven; Strong adaptability of wire extension change; A160-500T:Available spot welding function</p> <p>Wire feeding inching function; The comprehensive cable is 60mm<sup>2</sup> wire; Wire feeder is double driven; Welding cable can be lengthened to 50 meter ; A160-500B:MMA function and its arc force current and ignition current is adjustable;Strong adaptability of wire extension change;Power input :3 phase 220v is optional; A160-500BT:MMA/MIG/MAG/Simple TIG A160-500F: Digital display meter wire feeder</p>		





## Semi-Automatic Gas Shielded Welding Machine



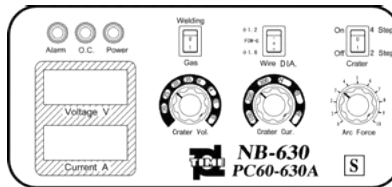
## Standard outfits

Accessories	Code	A160-630A	A160-630B
Welding torch MB40KD	7852050032	●	●
70mm <sup>2</sup> Earth cable 4 meter	7710000700	●	●
500A Earth clamp	7858063000	●	●
Bendig termi ( KDZ120B )	7530120010	●	●
Plug for flow meter	7356000001	●	●

● stand for available



NB-630

Carbon steel MIG horizontal position  
Current: 140A ~ 160A Voltage: 21.5V ~ 23VStainless steel MIG flux-cored wire  
Current: 270A Voltage: 27.7V

## Technical Specifications

Model	NB-630	NB-630
Company type	A160-630A	A160-630B
Rated input voltage(V)	3 phase 380V $\pm$ ( 15~20 ) % 50 ~ 60Hz	3 phase 380V $\pm$ ( 15~20 ) % 50 ~ 60Hz
Rated input power(KW)	40	40
No-load voltage(V)	73 $\pm$ 5%	73 $\pm$ 5%
Duty cycle ( 40°C )	100%	100%
Current adjusting range(A)	100~630	100~630
Voltage adjusting range(V)	15~50	15~50
Suitable welding wire dia.(mm)	$\Phi$ 1.0/ $\Phi$ 1.2/ $\Phi$ 1.6 (Carbon steel) solid wire	$\Phi$ 1.0/ $\Phi$ 1.2/ $\Phi$ 1.6 (Carbon steel) solid wire
Efficiency	85%	85%
Power factor	0.93	0.93
Insulation grade	F	F
Case protection grade	IP23	IP23
Cooling	Wind	Wind
Dimensions (mm)	700 $\times$ 360 $\times$ 783	700 $\times$ 360 $\times$ 783
Weight of power source (kg)	82	82
Description	The comprehensive cable is 70mm <sup>2</sup> wire; Wire feeder is double driven; Wire feeding inching function; Welding cable can be lengthened to 50 meter; Wind cooling or water cooling	Gas shielded/manual/carbon arc air gouging multi-function welding machine; The comprehensive cable is 70mm <sup>2</sup> wire; Wire feeder is double driven; Wire feeding inching function; Welding cable can be lengthened to 50 meter; Wind cooling or water cooling

## Semi-Automatic Gas Shielded Welding Machine



### I Wire feeder FP60-100FE(optional)

Voltage for wire feeding	DC24V
Rated current	3A
Wire feeding speed	1.5-20 m / min
Dia. of wire	Φ 0.8- Φ 1.6mm Solid/flux-cored
Load capacity of wire	20kg Φ300 × Φ50 × 105mm
Dimensions	635 × 250 × 390mm
Weight	15kg



**FP60-100FE**

### II Wire feeder SB-10F-1(optional)

Voltage for wire feeding	DC24V DC18.3V
Rated current	3A
Wire feeding speed	1.5-18 m / min
Dia. of wire	Φ 0.8- Φ 1.6mm Solid/flux-cored
Load capacity of wire	20kg Φ300 × Φ50 × 103mm
Dimensions	635 × 250 × 390mm
Weight	15kg



**SB-10F-1**

### III Light CO<sub>2</sub>/MIG/MAG wire feeder tractor

Input voltage of the travel mechanism (V)	DC 110V (SERVO MOTOR)
Input current of the travel mechanism (A)	0.4
Input voltage of the wire feeding mechanism (V)	DC18.3/DC24 ( Printed motor )
Input current of the wire feeding mechanism (A)	5/5.5
Wire feeding mothod	Continuous
Welding speed range (m/min)	0.2-2.2
Wire feeding speed range (m/min)	1.5~15/1.5~20
Suitable for rated welding current (A)	500
Application of wire diameter (mm)	1.0/1.2/1.6/2.0
Welding wire type	Solid/flux-cored wire
Welding torch swing angle.	± 90°
Deflection angle of torch	± 45°
Distance adjustable for Torch	50 × 60 (longitudinal * transverse) (not including coarse adjustment)
Wire spools capacity (kg)	20
Dimension (L × W × H)(mm)	480 × 480 × 680
Weight(Kg)	32



**FD60-500NB**





## Mobile Cartridge Welding Fume Extractors

### Main features

- Adopt barrel type filter with high filtration efficiency (up to 99.9%), filter area is large (15m<sup>2</sup>), filter replacement cycle longer and the replacement cost lower
- Small volume, it is with four foot wheels so as to move easily
- With flexible arm which can rotate 360° so as to absorb dust from the source
- Suitable for MIG/MAG welding, SAW welding, TIG welding, MMA and so on
- Energy saving, low power, strong suction, low noise

**TA-001****TA-002****TA-003**

### Technical Specifications

Model	TA-001	TA-002	TA-003
Air flow rate	1200m <sup>3</sup> / hour	1200m <sup>3</sup> / hour	1200m <sup>3</sup> / hour
Filtration efficiency	>99.9% (welding fume)	>99.9% (welding fume)	>99.9% (welding fume)
Motor power	0.75kw	0.75kw	0.75kw
Filter	easy to clean and replace	easy to clean and replace	easy to clean and replace
Dimension ( mm )	610 × 520 × 1020	550 × 1030 × 560	1000 × 580 × 560
Power supply	220V 50Hz	220V 50Hz	220V 50Hz
Description	Filter replacement cycle is long and it is about 2-3 years to replace according to 8 workhours a day.	Filter replacement cycle is long and it is about 4 years to replace according to 8 workhours a day. Cleaning valve connects to the compression air to clean conveniently.	Filter replacement cycle is long and it is about 2-3 years to replace according to 8 workhours a day. Cleaning valve connects to the compression air to clean conveniently.

# TIME

## WELDING MACHINE

### Air Plasma Cutting Machine

Suitable for cutting carbon steel, stainless steel, copper, aluminum and other metals

# LGK

### Main features

- 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

### Selection Tip

TDL 600/800/1000/1000H/1200/1200H

LGK-200(PG10-200)

LGK-200(PG20-200)

LGK-400(PG20-400)

Intelligent digital plasma cutting machine

High frequency arc striking, suitable for cutting sheet (Thickness below 50mm)

Precision plasma cutting machine

Precision plasma cutting machine



## Air Plasma Cutting Machine



### Standard outfits



**TDL 600/800/1000/1200**

Accessories	Code	TDL 600	TDL 800	TDL 1000/1000H	TDL 1200/1200H
SC120 cutting gun ( 6m )	7854SC1200				●
P-80-LF cutting gun ( 5m )	78520P8050	●	●	●	
16mm <sup>2</sup> cable (4 m)	7710000160	●	●		
25mm <sup>2</sup> cable (4 m)	7710000250			●	●
Φ8 oxygen tube (3 m)	7813000080	●	●	●	●
400A Earth clamp	7858040000	●	●	●	●
Fast plug ( DKJ16-1) (black)	750DKJ1010	●	●	●	●
Filter pressure reducing valve AFR2000-0.5\8BA	7358200000	●	●	●	●

● stand for available



Carbon steel  
Cutting current: 120A



### Technical Specifications

Model	TDL 600	TDL 800	TDL 1000/1000H	TDL 1200/1200H
Rated input voltage	Three-phase AC 380V ± 15% 50/60Hz			
Rated input current ( A)	9.8A	13.4A	22.4A	29.4A
Rated input powerb ( kw )	6.5	9	13.8	17.7
Rated output capacity (X=60%)	60A/104V	80A/112V	100A/120V	120A/128V
Rated no-load voltage (V)	307 ± 5%		307 ± 5%	
Rated no-load current (A)	< 1			
Energy efficiency grade	Grade 2			
Power factor (COS ϕ )	0.89	0.89	0.90	0.91
Efficiency ( η )	90%	90%	90%	90%
Rated duty cycle(40°C)	60%	60%	60% / 100%	60% / 100%
insulation grade	F			
Case Protection Class	IP23S			
Output current (A)	20 ~ 60	25 ~ 80	30 ~ 100	30 ~ 120
Arc striking current (A)	Non high frequency			
Maximum cutting through thickness (mm)	35	40	45	50
Quality cutting(mm)(Carbon steel)	20	25	30	35
Quality cutting (mm)(Stainless steel)	15	20	25	30
Piercing cutting thickness (mm)	10	12	15	20
Dimension (L × W × G)(mm)	592 × 290 × 503		650 × 326 × 567	
Net weight (kg)	33		46	



## Air Plasma Cutting Machine



### Standard outfits

Accessories	Code	PG10-200	PG20-200	PG20-400
SC120 cutting gun ( 6m )	7854SC1200	●	●	●
25mm <sup>2</sup> cable (3 m)	7710000250	●	●	●
Φ8 oxygen tube (3 m)	7813000080	●	●	●
500A Earth clamp	7858050000	●	●	●
Fast plug (black)	750DKJ5010	●	●	●

● stand for available



**LGK-200**



Carbon steel  
Cutting current: 260A

### Technical Specifications

Model	LGK-200	LGK-200	LGK-400
Company Type	PG10-200	PG20-200	PG20-400
input voltage	3 phase 380V ± 10% 50~60Hz	3 phase 380V ± 10%	3 phase 380V ± 10%
Rated input power(KW)	37.5	37.5	75
No-load voltage (V)	280	280	280
Current adjustment range(A)	40 ~ 200	40~200	40~400
Rated output voltage (V)	150	150	150
Rated duty cycle ( 40℃ )	100%	100%	100%
Efficiency	85%		
Power factor	0.93		
Maximum cutting through thickness (mm)	64	64	100
Quality cutting thickness ( mm )	50	50	80
insulation grade	F		
Case Protection Class	IP21		
Cooling	Wind		
Dimension ( L × W × G)(mm)	1130 × 670 × 905	1130 × 670 × 905	( 1130 × 670 × 905 ) × 2
weight (kg)	480	480	960
Gas flow (L/min)	40 ~ 200	40 ~ 200	40 ~ 200
Description	Water-cooled cutting gun: handheld / used for CNC machine;Applicable for cutting plate  Gas Controller uses touch screen,Expert database integrated ; Multi gas control technology to cut the stainless steel without Oxygen so as to save money.		

# TIME

## WELDING MACHINE

### Automatic Submerged Arc Welding Machine

Suitable for welding carbon steel, stainless steel and other metal  
Suitable for surfacing, MIG (thick wire), carbon arc gouging

#### Main features

IGBT inverter technology

Welding current, welding voltage and the velocity of trolley can be preset and displayed digitally.

The tractor's mechanical adjustment is convenient. The tractor moves stable to adapt a variety of working conditions

Arc ignition/arc withdraw adopt automatic 'retracting' control

MMA and air carbon arc gouging

Welding thickness is not less than 3mm

Variety of tractor is optional.

Model of tractor

FD10/11/12/13-200TS	tractor for flat position welding and fillet welding in the flat position	FD13-150T	tractor for fillet welding
FD10/11/12/13-200TZ	tractor for flat position welding	FD11/12-200TU	tractor for surfacing
FD10/11/12/13-200TQ	Light duty tractor	FD21/22-200T	tractor with digital control
FD10/11/12-200TH	heavy duty tractor		

#### Selection Tip

MZ-630 (A310-630)

MZ-630 (A320-630)

MZ-1000 (A310-1000)

MZ-1250 (A310-1250)

Suitable for welding sheet (Thickness more than 3mm)

Fine wire submerged arc welding machine

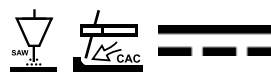
Suitable for welding plate (Thickness more than 5mm)

Suitable for welding plate (Thickness more than 5mm)

Z type machine can also be used for carbon arc gouging if the user outfits the wire feeding system by self

A311-1000 / A311-1250 is digital submerged arc welding machine

## Automatic Submerged Arc Welding Machine



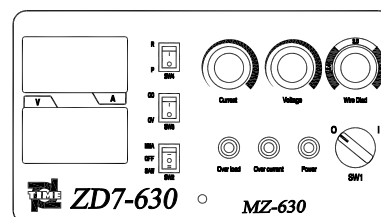
### Standard outfits

Accessories	Code	A310-630	A320-630	A310-1000	A310-1250
Cable\YH95mm <sup>2</sup> (5 meter) 1 PC	24H0820050	●	●		
Cable\YH70mm <sup>2</sup> (5 meter) 2 PC	24H1020050			●	●
Cable\YH95mm <sup>2</sup> (15 meter) 1 PC	24H0820150	●	●		
Cable\YH70mm <sup>2</sup> (15 meter) 2 PC	24H1020150			●	●
Control cable 15 meter	24H082A150	●	●	●	●
Tractor 1 set		●	●	●	●
Power cable (3 meter)	24H1150030	●	●		
Power cable (3 meter)	24H082B030			●	●
Guide rail 0.98M (2 pieces)	7880600000	●	●	●	●

● stand for available



MZ-630/800/1000/1250



Aluminum alloy Thick wire MIG  
Current: 400A ~ 450A  
Voltage: 31V ~ 32V

### Technical Specifications

Model	MZ-630	MZ-630	MZ-1000	MZ-1250
Company type	A310-630	A320-630	A310-1000/A311-1000	A310-1250/A311-1250
Input voltage	3 phase 380V ± (15%~20%) 50~60Hz			
Rated input current(A)	50	50	80	100
Rated input power(kw)	33	40	52	65
Voltage adjusting range(V)	20~50	15~55	20~50	20~50
Current adjusting range(A)	120~630	100~630	150~1000	150~1250
Duty cycle(40℃)	100%	100%	100%	60% / 100%
Welding tractor travel speed range(m/h)	6~72			
Wire feeding rate range(m/min)	1~6.5	1~9	0.5~2.5	0.5~2.5
Suitable welding wire dia.(mm)	φ 1.6~ φ 2.4	φ 1.6~ φ 3.2	φ 3.2~ φ 5.0	φ 3.2~ φ 5.0
Efficiency	92%			
Power factor	0.92			
Insulation grade	F			
Case protection grade	IP23			
Cooling mode	Wind			
Dimensions of power source (mm)	810 × 345 × 1022	700 × 360 × 790	810 × 345 × 1022	810 × 345 × 1022
Net weight of power source (kg)	90	82	98	98
Dimensions of welding tractor (mm)	1038 × 480 × 628			
Net weight of welding tractor (kg)	51			
Description	Suitable for sheet welding	Excellent constant pressure characteristics; Excellent fine wire welding performance	Z Type machine: PS10-1000Z It can be used for SAW welding and surfacing and carbon arc gouging if the user outfits the wire feeding system by self A310-1000 : Power input 3 phase 220V is optional	Z Type machine: PS10-1000Z It can be used for SAW welding and surfacing and carbon arc gouging if the user outfits the wire feeding system by self



## Automatic submerged arc welding tractor



**FD13-150T**

### FD13-150T submerged arc welding fillet tractor

- Welding gun with special hose, the welding seam of straight and larger curvature radius can be done by the gun through the spring of the gun.
- Welding speed range: 15m/h ~ 98m/h.
- Wire feeding speed range: 0.9m/min ~ 6.3m/min.
- Wire diameter range:  $\Phi 1.6 \sim \Phi 2.5$
- Four wheel drive for tractor to move smoothly.
- Press the wire elastic so as to ensure wire feeding stable.
- Guide rod is optional to realize the profiling welding.
- Mainly used in crane industry, container truck, steel structure industry etc.

### FD10/11/12-200TS welding tractor

- Welding speed range: 15m/h ~ 98m/h.
- Wire feed speed range: 0.9m/min ~ 2m/min.
- Wire diameter range : 2.4 ~4.0mm (FD10);  
3 ~5.0mm (FD11);  
3 ~6.0mm (FD12);
- Four wheel drive for tractor to improve the stability of walking.
- Column hinge is optional to realize the column tilted about to meet the requirements of fillet welding in the downhand position.
- Welding head can be adjusted by six degree freedom conveniently.
- Tapered wire feeding gear makes that wire feeding is stable and reliable and effectively reduce the load of the motor.
- Press the wire elastic so as to ensure wire feeding stable.
- The wire disc is open or closed.
- The length of the beam has a variety of options.
- Contract tip: straight type(standard), roller type.
- Clip type, narrow gap type.
- Rail: heavy rail (standard outfits), light rail.



**FD10/11/12-200TS**

### FD10/11/12-200TQ light submerged arc welding tractor



**FD10/11/12-200TQ**

Compact size. It is used to weld the cylinder ring which diameter is larger than 800mm and the cylinder longitudinal seam which diameter greater than 600mm. Combined cone wire feeding gear makes wire feeding stability and reliability and improve the service life of the wire feed wheel for the welding of inner longitudinal seam and inner ring seam of cylinder type workpiece.

# **TIME**

## **WELDING MACHINE**

## **Commercial welding machine**

### **Features:**

- IGBT inverter technology
- The maximum output current reaches the calibration value
- Duty cycle is tested at an ambient temperature of 40 °C

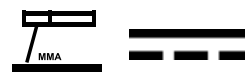
### **Application:**

- For users in production, installation and maintenance in the field of hardware and light industry
- Meet the reliability requirements of industrial machine
- Low no-load voltage technology, safe to use

***Portable and Practical high  
quality welding machine***



## Manual DC Arc Welding Machine



### Standard outfits

Accessories	Code	TAZ1600A	TAZ1605A	TAZ2100A	TAZ2105A
Fast plug red	7509000160	●	●	●	●
Fast plug black	7509000160	●	●	●	●

● stand for available

**TAZ 1600A/2100A****TAZ 1605A/2105A**

Carbon steel MMA current: 150A

### Technical Specifications

Model	TAZ1600A	TAZ1605A	TAZ2100A	TAZ2105A
Rated input voltage(V)	AC120V / 240V $\pm$ 15% 50~60Hz		AC240V $\pm$ 15% 50~60Hz	
Rated input current (A)	10.6 / 15.2	20.7 / 27.8	19.4	43.4
No-load voltage (V)	91	91	85	85
Output current adjusting range(A)	20 ~ 65 / 20 ~ 160	20 ~ 65 / 20 ~ 160	25 ~ 210	25 ~ 210
Duty cycle (40℃)	20% / 30%	20% / 30%	20%	20%
Efficiency	85%	85%	85%	85%
Insulation grade	H	H	H	H
Case protection grade	IP23S	IP21S	IP23S	IP21S
Cooling	Wind	Wind	Wind	Wind
Dimensions (mm)	325 × 180 × 280	336 × 180 × 265	325 × 180 × 280	336 × 180 × 265
Net weight (kg)	5	6.6	5	6.6
Description	Dual power input adaptive ETL approval	Metal shell ETL approval	ETL approval	Metal shell ETL approval



## Manual DC Arc Welding Machine



### Standard outfits

Accessories	Code	ZX7-160S	ZX7-250S	ZX7-400S
Fast plug black (2 pcs)	7509000160	●		
Fast plug black (2 pcs)	7503550010		●	●

●stand for available



**ZX7-160S**



**ZX7-250S**



**ZX7-400S**



Carbon steel MMA current: 150A

### Technical Specifications

Model	ZX7-160S	ZX7-250S	ZX7-400S
Rated input voltage(V)	Single-phase 220V 50 ~ 60Hz	Single-phase 220V 50 ~ 60Hz	Three-phase 380V 50 ~ 60Hz
Rated input current (A)	18.3	42.5	22.2
No-load voltage (V)	56	60	65
Output current adjusting range(A)	20 ~ 160	30 ~ 250	40 ~ 400
Duty cycle (40℃)	35%	60%	60%
Efficiency	85%	85%	85%
Insulation grade	F	F	F
Case protection grade	IP21	IP21	IP21
Cooling	Wind	Wind	Wind
Dimensions (mm)	355 × 150 × 265	417 × 165 × 290	535 × 270 × 470
Net weight (kg)	4.5	9.2	20



## DC TIG/MMA Welding Machine



### Standard outfits



**WS-200S**



Accessories	Code	WS-200S
Fast plug black (2 pcs)	7509000160	●
WP-26 TIG torch	785Z026031	●
25mm <sup>2</sup> Earth wire (2m)	7710000250	●
300A Earth clamp	7858030000	●

● stand for available



Carbon steel TIG current: 130A

### Technical Specifications

Model	WS-200S						
Rated input voltage(V)	Single-phase 220V 50 ~ 60Hz	Output current adjusting range(A)	TIG:10 ~ 200 MMA:10 ~ 160	Insulation grade	F	Dimensions (mm)	380 × 155 × 290
Rated input current (A)	15.6	Duty cycle (40°C)	35%	Case protection grade	IP21	Net weight (kg)	6.5
No-load voltage (V)	56	Efficiency	85%	Cooling	Wind		

## Semi-Automatic Gas Shielded Welding Machine



### Standard outfits



**NB-250S**



Accessories	Code	NB-250S
Fast plug black (2 pcs)	7503550010	●

● stand for available



Carbon steel MIG  
Current: 180A Voltage: 21V

### Technical Specifications

Model	NB-250S						
Rated input voltage(V)	Single-phase 220V 50 ~ 60Hz	Output current adjusting range(A)	MIG:40 ~ 250 MMA:40 ~ 200	Insulation grade	F	Dimensions (mm)	870 × 430 × 685
Rated input current (A)	37.6	Duty cycle (40°C)	60%	Case protection grade	IP21	Net weight (kg)	34
No-load voltage (V)	56	Efficiency	85%	Cooling	Wind		

## Semi-Automatic Gas Shielded Welding Machine



### Standard outfits

Accessories	Code	A150-200Y	A150-250Y
Welding torch MB15KD	7852050032	●	●
35mm <sup>2</sup> Earth cable 4 meter	7710000350	●	●
400A Earth clamp	7858040000	●	●
Fast plug ( DKJ35-50) (red)	7500050021	●	●
Fast plug ( DKJ35-50) (black)	7500050020	●	●
Plug for flow meter	7356000001	●	●

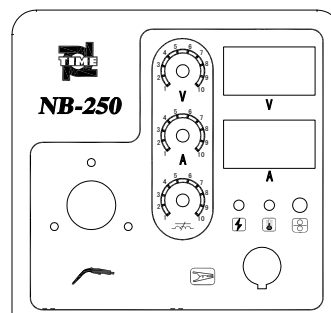
● stand for available



**NB-200(A150-200Y)**



**NB-250(A150-250Y)**



Carbon steel MIG  
Current: 180A Voltage: 21V

### Technical Specifications

Model	NB-200	NB-250
Company type	A150-200Y	A150-250Y
Rated input voltage	single phase 220V ± 15% 50~60Hz	Three phase 380V ± 15% 50~60Hz
Rated input current ( A )	29	14
Rated input power ( KW )	4.3	6.6
Voltage adjusting range ( V )	15 ~ 26	15 ~ 29
No-load voltage ( V )	50	50
Current adjusting range ( A )	50 ~ 200	50 ~ 250
Wire feed rate range ( m/min )	15 ~ 16	18 ~ 20
Suitable welding wire Dia. ( mm )	Φ 0.8/Φ 1.0 ( steel )	Φ 0.8/Φ 1.0 ( steel )
Suitable welding wire type	solid	solid
Duty cycle	60%	60%
Efficiency ( η )	90%	90%
Power factor ( cos Φ )	0.93	0.93
Insulation grade	F	F
Case protection grade	IP21S	IP21S
Dmensions ( mm )	500 × 273 × 500	500 × 273 × 500
Power source net weight ( Kg )	24	27
Description	The wire feeder is built-in.	The wire feeder is built-in.



# TIME

## WELDING MACHINE

### Digital intelligent Welding Machine

#### Features:

- Three-core whole-digital control technology (man-machine interface, motor control, process control)
- Excellent process performance, user experience improved
- Universal data transfer interface, easy to expand peripheral functions and upgrade program by USB interface
- Digital management of welding site information

#### Application:

- Best choice for the welding workshop of large industrial customers
- Essential equipment for intelligent welding plant
- For automatic welding equipment and arc welding robot products

***Intelligent welder***

***Perfect experience***

# TIME

## WELDING MACHINE

### TD-Series Whole Digital Welding Machine

Suitable for welding various of metals except for Al, Mg and its alloys

#### Main features

Intelligent power source (New model) by whole digital microprocessor control bases on the digital platform of DSP (hardware main control circuit) and ARM (digital communication panel). It adopts modular design concept and with characteristics of digital, intelligent, automation, network and green to provide a new experience for the user. The welder can be upgraded conveniently and add new functions by software without the hardware change.

Power input : 3 phase 220V is optional for all TD-Series welding machines.

- JOB mode
- Fault self-diagnosis
- Extensible ports for automatic welding
- Group control
- Trolley optional

#### Selection Tip

TDW 4000/5000

TDW 3000MB/4000M/5000M/6000M

TDN 3500 5000 6000

TDN 3500B/Y 5000B/Y 6000B/Y

TDN 5000M/5000MB

TDN 3501M/5001M

Welding Process Management(TWPM)

Intelligent digital TIG welding machine

Intelligent digital pulse TIG welding machine

Intelligent digital MIG/MAG welding machine

Intelligent digital MIG/MAG welding machine

Intelligent digital pulse MIG/MAG welding machine

Intelligent digital pulse MIG/MAG welding machine

Welding management software system



## TDW DC TIG/MMA Welding Machine

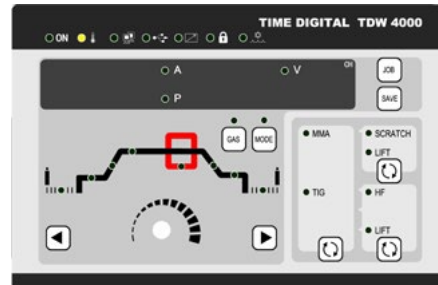


### Main features

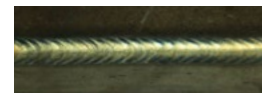
- MMA, TIG, Pulse TIG
- 5A arc ignition and welding stably
- HF ignition and Lift arc ignition
- Dual-core digital control
- 11 kinds of welding operation mode
- Remote control



**TDW 4000**



Welding current:  
I peak = 220A  
I base = 50A



Welding current: I = 130A

### Technical Specifications

Model		DC TIG/MMA	TDW 4000	TDW 5000	
		DC Pulse–TIG/MMA	TDW 4000M	TDW 5000M	TDW 6000M
Rated input voltage (UI) (V)			Three–phase AC		
Rated input current (I1eff)(A)			22.0	34.9	43.5
Rated input power (kw)			17	23.5	33
Rated output capacity(X=60%)	MMA	400A/36V	500A/40V	630A/44V	
	TIG	400A/26V	500A/30V	630A/34V	
Rated no–load voltage (U0)(V)			76 ± 5%		
Rated no–load current (I0)(A)			< 1		
Energy efficiency rating			Grade 2		
Cycle			10		
Power factor (COS ϕ )			≥ 0.85		
Efficiency ( η )			≥ 85%		
insulation grade			F		
Case protection Class			IP23S		
Rated duty cycle			60%		
MMA	Arc striking current (A)	0 ~ 400	0 ~ 500	0 ~ 630	
	Thrust force (A/ms)		0 ~ 150		
	Welding current (A)	10 ~ 400	10 ~ 500	50 ~ 630	
	Arc striking time (s)		0.1 ~ 2		
TIG	Welding current (A)	5 ~ 400	5 ~ 500	20 ~ 630	
	Initial current (A)	5 ~ 400	5 ~ 500	20 ~ 630	
	Maintain current (A)	5 ~ 400	5 ~ 500	20 ~ 630	
	Secondary current (A)	5 ~ 400	5 ~ 500	20 ~ 630	
	Slope up time (s)		0 ~ 10		
	Slope down time (s)		0 ~ 10		
	Pre–flow time (s)		0 ~ 10		
	Post–flow time (s)		0 ~ 25		
	TIG spot welding time		0.1 ~ 25		
	Spot welding current (A)	5 ~ 400	5 ~ 500	20 ~ 630	
	Peak current (A)	5 ~ 400	5 ~ 500	20 ~ 630	
	Base current (A)	5 ~ 400	5 ~ 500	20 ~ 630	
	Pulse Frequency (Hz)		0.1 ~ 500		
	Pulse duty cycle		0.1 ~ 99%		
Dimensions (L × W × H)(mm)		610 × 290 × 503	650 × 320 × 567	650 × 340 × 614	
Net weight (kg)		33	47	58	



## TDW pulse TIG welding machine



### Main Features

- Digital setting for precise control, current is adjusted in units of 1A, 12 welding parameters can be accurately set to achieve high quality welding
- TIG welding 5A arc ignition, stable welding, arc concentration reached the international advanced level
- MMA, DC TIG, pulse TIG, TIG spot welding for multi-purpose
- MMA welding can be set as low no-load output for easy TIG welding
- Two kinds of arc-ignition methods: HF and Lift for TIG
- With line energy monitoring related functions, USB interface is reserved to export data
- Optional 10 welding methods, the welding sequence can be adjusted according to user needs to adapt to welder operating habits and process requirements
- Suitable for the industries of nuclear power, chemical construction, thermal power
- Small size, light weight, easy to carry



**TDW 3000MB**



Stainless steel Pulse TIG  
Base current: 50A Peak current: 100A



Stainless steel Pulse TIG  
Base current: 12A Peak current: 25A

### Technical Specifications

Model		TDW 3000MB			
Rated input voltage (V)		3 phase 380V ± 15% 50 ~ 60Hz	TIG	Welding current (A)	5 ~ 300
Rated input current (A)		11		Initial current (A)	5 ~ 300
Rated output capacity	MMA 30%	300A / 32V		Maintain current (A)	5 ~ 300
	TIG 35%	300A / 22V		Secondary current (A)	5 ~ 300
Rated no-load voltage (V)		76 ± 5%		Slope up time (s)	0 ~ 10
Low no-load voltage (V)		24 ± 5%		Slope down time (s)	0 ~ 10
Rated no-load current (A)		< 1		Pre-flow time (s)	0 ~ 10
Energy efficiency rating		Grade 2		Post-flow time (s)	0 ~ 25
Power factor		0.85		TIG spot time (s)	0.1 ~ 25
Efficiency		90%		Spot welding current (A)	5 ~ 300
Duty cycle ( 40℃ ) MMA		30%		Peak current (A)	5 ~ 300
Duty cycle ( 40℃ ) TIG		35%		Base current (A)	5 ~ 300
Insulation grade		F		Pulse frequency (Hz)	0.1 ~ 500
Case protection grade		IP23S		Pulse duty cycle	0.1 ~ 99%
Dimensions (mm)		560 × 249 × 423			
Net weight (kg)		24			
MMA	Ignition current (A)	0 ~ 300			
	Arc force(A/ms)	0 ~ 150			
	Welding current (A)	10 ~ 300			
	Arc ignition time (s)	0.1 ~ 2			
	Arc length adjustment (V)	35 ~ 80			

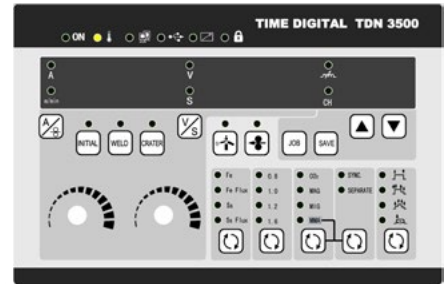


## TDN Gas Shielded Welding Machine



### Main features

- MMA, MIG/MAG, Single TIG
- Three-cores digital control
- Welding process expert database
- Digital waveform control algorithm to reduce welding splash
- Detail parameter setting to customize welding process
- Wireless Remote control by mobile phone APP

**TDN 3500**

(optional)

Carbon steel I=135A  
V=19.5V

### Technical Specifications

Model	TDN 3500	TDN 5000	TDN 6000
Input voltage	Three-phase AC 380V $\pm$ 15% 50/60Hz		
Rated input current (A)	23.5	42.0	53.3
Rated input power (kW)	14	23.5	35
No-load voltage (V)	76 $\pm$ 5%		
No-load current (A)	0.7~0.9		
No-load consumption (W)	300	300	350
Voltage adjustment range (V)	10~40	10~45	10~50
Current output range (A)	30~350	30~500	30~630
Spot Welding Time	0 ~ 10.0		
Pre-flow time	0 ~ 10.0		
Post-flow time	0 ~ 10.0		
Type of wire	Solid/flux core carbon steel and stainless steel		
Wire diameter	$\Phi$ 0.8/ $\Phi$ 1.0/ $\Phi$ 1.2	$\Phi$ 1.0/ $\Phi$ 1.2/ $\Phi$ 1.4/ $\Phi$ 1.6	$\Phi$ 1.0/ $\Phi$ 1.2/ $\Phi$ 1.4/ $\Phi$ 1.6
Gas type	CO <sub>2</sub> : 100%; Ar(80%)+ CO <sub>2</sub> (20%); Ar(98%)+ CO <sub>2</sub> (2%)		
Duty cycle	60% ( 350A, 31.5V ) 100% ( 270A, 27.5V )	60% ( 500A, 39V ) 100% ( 390A, 33.5V )	60% ( 630A, 44V ) 100% ( 500A, 39V )
Energy efficiency	Grade 2		
Case protection Class	IP23		
Insulation grade	F		
Cooling method	Thermostat air cooling		
Dimension (mm)	603 $\times$ 290 $\times$ 503	660 $\times$ 326 $\times$ 567	598 $\times$ 336 $\times$ 613
Weight (Kg)	35	48	60
Weight of wire feeder (Kg)	9	9	9
Remark	TDN 5000K: Input Power 3phase 220V/440V is optional		

## TDN B/Y Gas Shielded Welding Machine

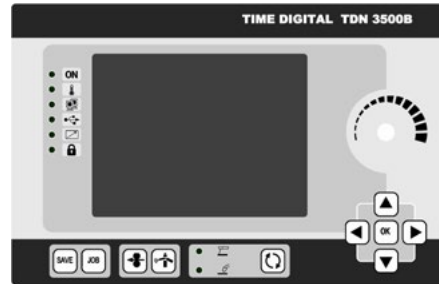


### Main features

- MMA, MIG/MAG, Single TIG
- Three-cores digital control
- Welding process expert database
- Digital waveform control algorithm to reduce welding splash
- Detail parameter setting to customize welding process
- Wireless Remote control by mobile phone APP



**TDN 3500Y**



Carbon steel I=135A  
V=19.5V

### Technical Specifications

Model	TDN 3500(B、Y)*	TDN 5000(B、Y)*	TDN 6000(B、Y)*
Input voltage	Three-phase AC 380V ± 15% 50/60Hz		
Rated input current (A)	23.5	42.0	53.3
Rated input power (kW)	14	23.5	35
No-load voltage (V)	76 ± 5%		
No-load current (A)	0.7~0.9		
No-load consumption (W)	300	300	350
Voltage adjustment range (V)	10~40	10~45	10~50
Current output range (A)	30~350	30~500	30~630
Spot Welding Time	0 ~ 10.0		
Pre-flow time	0 ~ 10.0		
Post-flow time	0 ~ 10.0		
Type of wire	Solid/flux core carbon steel and stainless steel		
Wire diameter	Φ 0.8/Φ 1.0/Φ 1.2	Φ 1.0/Φ 1.2/Φ 1.4/Φ 1.6	Φ 1.0/Φ 1.2/Φ 1.4/Φ 1.6
Gas type	CO <sub>2</sub> : 100%; Ar(80%)+ CO <sub>2</sub> (20%); Ar(98%)+ CO <sub>2</sub> (2%)		
Duty cycle	60% ( 350A, 31.5V ) 100% ( 270A, 27.5V )	60% ( 500A, 39V ) 100% ( 390A, 33.5V )	60% ( 630A, 44V ) 100% ( 500A, 39V )
Energy efficiency	Grade-2		
Case Protection Class	IP23		
Insulation grade	F		
Cooling method	Thermostat air cooling		
Dimension (mm)	603 × 290 × 503	660 × 326 × 567	598 × 336 × 613
Weight of power source (Kg)	35	48	60
Weight of wire feeder (Kg)	11	11	11
Weight of water cooler (Kg)	21	21	21
Weight of trolley(Kg)	15	15	15

Note: B TYPE for LED Y TYPE for integrated machine including water cooler and trolley.





## TDN Pulse MIG/MAG Welding Machine

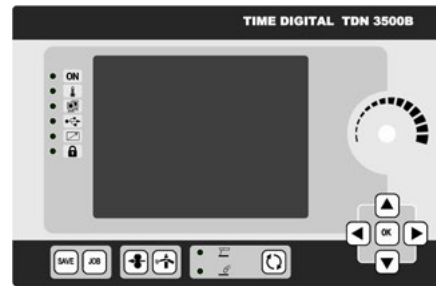


### Main features

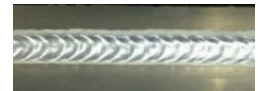
- MMA, Single TIG, MIG/MAG, Pulse MIG/MAG
- Three-cores digital control
- Welding process expert database
- Digital arc length control algorithm to ensure welding stability
- MODBUS or DEVICENET digital communication interface
- LCD operator panel wire feeder optional



**TDN 5000M**



Stainless steel I =140A V=21.5V



Aluminum I=160A V=23.8V



**TFN 6002F** (optional)

- LCD Display Control
- For Euro-welding torch
- Closed wire spool
- Data exchange quickly and reliable
- Communication with power source through CAN Bus

### Technical Specifications

Model	TDN 5000M
Input voltage	Three-phase AC 380V $\pm 15\%$ 50/60Hz
Rated input current(A)	42.0
Rated input power (kW)	23.5
No-load voltage (V)	76 $\pm 5\%$
No-load current (A)	0.7~0.9
No-load consumption(W)	300
Voltage adjustment range (V)	10~45
Current output range (A)	30~500
Current output range for MMA(A)	30~500
Type of wire	Solid wire
Wire diameter	$\Phi 1.0/\Phi 1.2/\Phi 1.6$

Material of wire	carbon steel/stainless steel/ Aluminum magnesium alloy
Welding mode	MMA, Pulse-MIG/MAG
Duty cycle	60% ( 500A/39V )
Efficiency ( $\eta$ )	80%~85%
Power factor	$\lambda = 0.7 \sim 0.9$
Case Protection Class	IP21
insulation grade	F
Cooling mothod	Thermostat air cooling
Dimension of power source (mm)	660 $\times$ 326 $\times$ 567
Dimension of wire feeder (mm)	670 $\times$ 240 $\times$ 405
Weight of power source (Kg)	48
Weight of wire feeder (Kg)	11

## TDN Double pulse MIG/MAG welding machine



### Main features

- Advanced whole digital DSP control technology. The machine can be updated by software according to the user's requirements and monitor the welding process through the computer
- The precise wire feeding control is used to realize the pulsating wire feeding with the wire feeding speed around the reference value, thereby generating the alternating double pulse current
- The alternating of the double pulse current can effectively stir the molten pool to avoid the generation of welding pores and at the same time make the welding seam naturally form beautiful fish scales
- The double-pulse peak energy melts the base metal and the welding wire and the base energy cooling molten pool to effectively avoid the base material burn-through and improve the welding seam of the arc
- The pulsation frequency, pulsation amplitude, peak ratio, peak arc length correction and base arc length correction constitute all the adjustment parameters of the double pulse to adapt a wider range of process applications
- It can be equipped with various automatic welding machines through configure the arc welding robot data connection port to realize automatic welding
- MAG/MIG pulse welding; MMA; DC TIG (contact arc ignition)
- Welding expert system for various materials is stored in the welder for welding structural steel, carbon steel, stainless steel, duplex steel, nickel-based alloy, aluminum, aluminum alloy and other special materials and expert database can be customized according to user selection
- The welding gun has a double cycle cooling system to cool the contact tip and nozzle, The duty cycle of welding gun is 100%
- Whole protection function: constant voltage (CV), constant current (CC), undervoltage, overvoltage, under current, over-current protection function to ensure the machine stability and reliability.



**TDN 5000MB**



Stainless steel Pulse MIG  
Current: 190A Voltage: 23.8V



Aluminum-magnesium alloy Pulse MIG  
Current: 180A Voltage: 23.2V



### Technical Specifications

Model	TDN 5000MB
Input voltage (V)	3 Phase 380V $\pm$ 15% 50~60Hz
Rated input current (A)	42.0
Rated input power (kw)	23.5
No-load voltage (V)	76 $\pm$ 5
No-load current (A)	0.7 ~ 0.9
No-load loss (W)	300
Voltage adjustment range (V)	10 ~ 45
Current output range (A)	30 ~ 500
MMA welding current range (A)	30 ~ 500
Wire type	Solid wire
Wire diameter (mm)	$\Phi$ 1.0/ $\Phi$ 1.2/ $\Phi$ 1.6

Wire material	Carbon steel / stainless steel / aluminum magnesium alloy
Welding method	Manual electrode arc welding; double pulse MAG/MIG
Duty cycle ( 40℃ )	60% ( 500A/39V )
Efficiency	80% ~ 85% ( rated conditions )
Power factor	$\lambda = 0.7 \sim 0.9$
Case protection grade	IP21
Insulation grade	F
Cooling method	Thermal control wind cooling
Dimensions of power source ( L x W x H )	660 x 326 x 567mm ( Weight : 48Kg )
Dimensions of wire feeder ( L x W x H )	670 x 240 x 405mm ( Weight : 11Kg )
Dimensions of water-cooler ( L x W x H )	675 x 320 x 252mm ( Weight : 21Kg )

## TDN Pulse MIG/MAG Welding Machine



### Main features

- DSP digital processor inverter technology
- Professional welding expert process database
- Upgraded via software
- Welding parameters can be adjusted through the JOB interface
- Function: MAG/MIG, pulse MAG/MIG, MMA, easy TIG
- Mode of operation: 2 steps / 4 steps / initial 4 steps / spot welding
- Digital display: wire feed speed, current, voltage, welding materials, etc
- For welding: carbon steel, stainless steel, aluminum magnesium and its alloys, other special materials
- Overcurrent protection, overvoltage protection, overheat protection and other functions



**TDN 3501M / 5001M**



Aluminum-magnesium alloy Pulse MIG  
Current: 120A ~ 140A Voltage: 18V ~ 20.5V



Aluminum-magnesium alloy Pulse MIG  
Current: 190A ~ 210A Voltage: 21V ~ 23V



### Technical Specifications

Model	TDN 3501M	TDN 5001M
Input voltage	3 Phase AC380V $\pm 15\%$ , 50Hz/60Hz	
Rated input current I1 (A)	30	47
Rated input power P1 (kW)	14.6	24.5
No-load voltage U0 (V)	76 $\pm 5$	76 $\pm 5$
No-load current IO (A)	0.7~0.9	0.7~0.9
No-load consumption PL (W)	300	300
Voltage adjustable range U2 (V)	10~40	10~45
Current output range I2 (A)	30~350	30~500
Current adjustable range(MMA) (A)	30~350	30~500
* Suitable welding wire type	Solid/Flux-cored welding wire	
* Suitable welding wire dia.(mm)	$\Phi 0.8/\Phi 1.0/\Phi 1.2/\Phi 1.6$	
* Suitable welding wire material	Carbon Steel / stainless steel / Al / AL, Mg alloy / AL, Si alloy / Cu, Si alloy	
Welding methods	Pulsed MIG / Pulsed MAG / MAG / CO2 / MMA ( Lift TIG )	
Duty cycle (X)	60% (350A/34V)	60% (500A/40V)
Efficiency ( $\eta$ )	80%~90% (Rated output conditions)	
Power factor ( $\lambda$ )	0.7~ 0.9	
Case protection grade	IP21S	
Insulation grade (Y)	F	
Cooling method	Thermal control wind cooling	
Power source dimensions (L $\times$ W $\times$ H) (mm)	603 $\times$ 290 $\times$ 503	660 $\times$ 326 $\times$ 567
Weight of power source (kg)	35	48



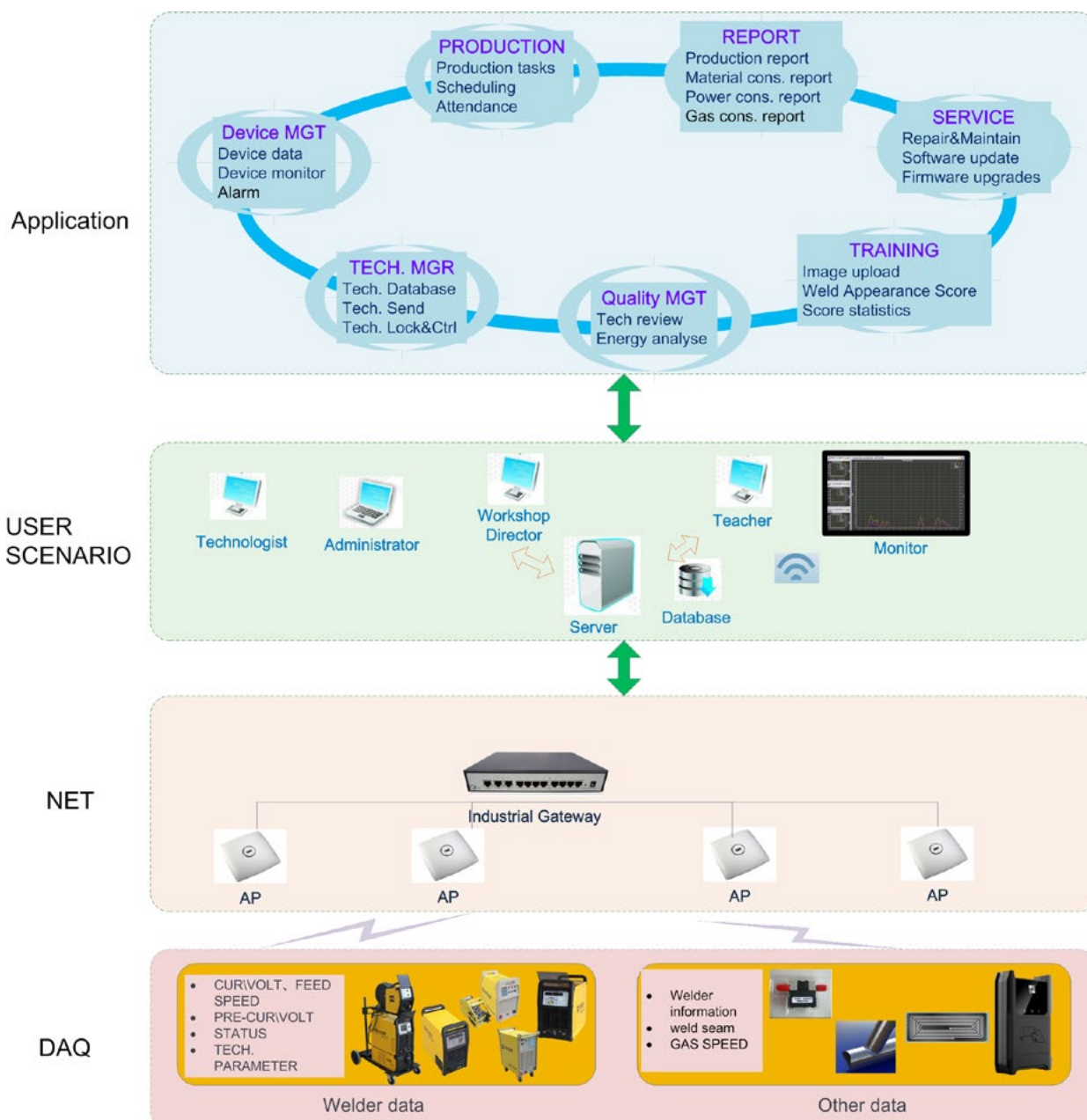
## TWPM welding production management system



### Features

Industrial equipment digital and information network is no longer a new topic. Network has come in the industry. The digital, network and intelligent TIME welding machine is no longer a mere production machine, but part of digital welding site, to provide a new management tool for welding production manager, manager of welding processes, welding equipment managers via acquisition, statistics and analysis of data during welding.

TWPM (TIME Welding Production Management) is based on TIME welding machines, which combines information technology and production management technology, to provide an effective means for production management, quality management, cost management, equipment management for production manager, providing an effective solution for digital management of welding site.



## TWPM welding production management system



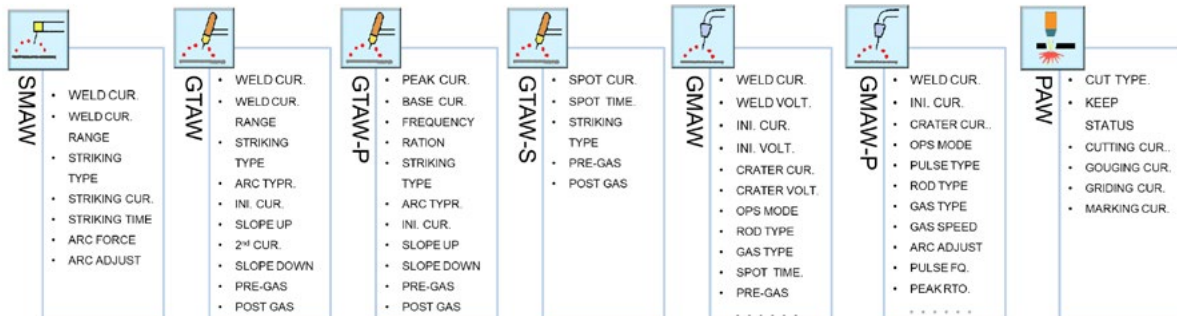
### Technical characteristics

- Fully own independent intellectual property rights:  
TWPM software, TWPM\_WEB software, welder remote upgrade software, etc.
- Welding status at a glance:  
real-time view of all equipment working status, fault status, real-time process parameters and remote monitoring and management.



### Professional welding process management:

Process parameters of MMA, DC TIG welding, pulse TIG, TIG spot welding, MIG/MAG welding, pulse MIG/MAG welding, submerged arc welding, plasma cutting can be set. Equipment process fine-tuning range can be controlled by the lock function of panel to prevent the welder from using excessive current. It can realize the operation of issuing multi-channel process parameters and batch processing.



## ● TWPM welding production management system

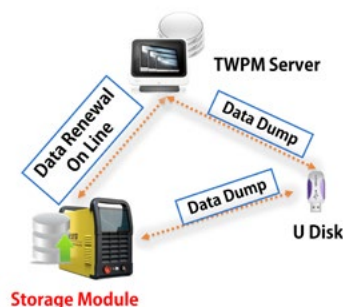


### ● Welding training information management:

For the first time, the welding training is incorporated into the information management system, providing functions such as welding training course management, student attendance management, welding training examination management, standardized weld appearance rating management, and student achievement statistics.

### ● Offline data storage management:

After the welding machine is offline, the welding machine can store up to 1000 hours of offline data. The offline data can be imported into the TWPM system through network or USB disk to ensure complete and reliable welding process data.



### ● Non-digital welding machine centralized control management:

Non-digital welding machine can collect real-time current and voltage parameter data by installing TIME data exchange controller then connect it into the TWPM system for management.



## Adapter type

type	TIME MODEL	Other Brand Model
MMA	PE61-400	Rated current less than 630A
TIG	TDW 4000、TDW 5000、TDW 6000、PNE61-400、PNE61-500	
Pulse TIG	TDW 4000M、TDW 5000M、TDW 6000M、 TDW 4000MB、TDW 5000MB、TDW 6000MB、 TDW 4000MC、TDW 5000MC、TDW 6000MC、PNE61-400P	
MIG/MAG	TDN 3500、TDN5000、TDN 5001、TDN 6000、 TDN 3500B、TDN 5000B、TDN 6000B、 TDN 3500C、TDN 5000C、TDN 6000C、 A160-350W、A160-500W、	
Pulse MIG/MAG	TDN 3501MB、TDN5000MB、TDN 5001MB	
SAW	A311-1000	Rated current less than 1250A
PAC	TDL 600、TDL 800、TDL 1000、TDL 1200、	Rated current less than 200A



# TIME

## WELDING MACHINE

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## TIME Arc Welding Robot System

Through continuous exploration and research, TIME arc welding robot system provides the users a comprehensive and professional arc welding robot solutions which rely on TIME company strong ability of design, research, manufacturing and services

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### Six Characteristics of TIME Industrial Robots

- The core components with independent intellectual property rights completely-----TIME robot controller adopts the cost-effective IPC platform and Intime real-time System to achieve trajectory teaching and reproduction. It is with interfaces of high-speed industrial Ethernet, RS485 and other field bus and clear advantages in the function expansion, servo selection, sensor matching and upgrade and so on.
- TIME industrial robots, TIME positioner and digital welding machine builds up an eight-axis robot system whose closed-loop control cycle is 200us to achieve complex welding.
- The robot main body is calibrated by the Dynalog robot performance test and evaluation system and the robot calibration system from US, which improves the accuracy and trajectory precision of the robot.
- TIME company has strong ability of precision machining, heat treatment, casting, materials fatigue testing on manufacturing and testing to ensure that TIME industrial robots with high quality, high precision and high reliability.
- TIME company has more than 20 years of welding equipment manufacturing and welding technology accumulation which combines with the perfect technology of TIME industrial robots to form the unique technical advantages of TIME arc welding robot system.
- TIME company has the core technology of industrial robots to meet the user's personalized custom needs of the robot control system, mechanical body, welding and cutting, the system integration and so on.

### Equipped welder

The TIME arc welding Robot system outfits with TIME welding power source mainly. Some international-renowned brand of welding power source can be outfits with TIME robots according to user needs.

## TIME Arc Welding Robot System

### TIME R3-660 Welding Robot System



Item		Technical parameters
Degrees of freedom		6
Maximum load capacity		3Kg
Repeat positioning accuracy		±0.05mm
Maximum motion radius		700mm
Drive mode		AC servo motor
Installation		On ground, Pendant or hoisting
Protection grade		IP54
Environmental conditions	Ambient temperature	0-45℃
	Relative humidity	20-80RH non-condensing
	Vibration	≤0.49g
	Others	Keep away from flammable or corrosive liquids
Power capacity		1.5KVA
Weight		30Kg

### TIME R6-1400 Welding Robot System



Item		Technical parameters
Degrees of freedom		6
Maximum load capacity		6Kg
Repeat positioning accuracy		± 0.08mm
Maximum motion radius		1420mm
Drive mode		AC servo motor
Installation		On ground, Pendant or hoisting
Protection grade		IP54
Environmental conditions	Ambient temperature	0 ~ 45℃
	Relative humidity	20 ~ 80RH non-condensing
	Vibration	≤0.49g
	Others	Keep away from flammable or corrosive liquids
Power capacity		1.5KVA
Weight		160Kg

### TIME R20-1700 Welding Robot System

Item		Technical parameters
Degrees of freedom		6
Maximum load capacity		20Kg
Repeat positioning accuracy		± 0.08mm
Maximum motion radius		1710mm
Drive mode		AC servo motor
Installation		On ground, Pendant or hoisting
Protection grade		IP54
Environmental conditions	Ambient temperature	0-45℃
	Relative humidity	20 ~ 80RH non-condensing
	Vibration	≤0.49g
	Others	Keep away from flammable or corrosive liquids
Power capacity		2KVA
Weight		280Kg





## TIME R80-2100 Welding Robot System



Item		Technical parameters
Degrees of freedom		6
Maximum load capacity		80Kg
Repeat positioning accuracy		± 0.1mm
Maximum motion radius		2100mm
Drive mode		AC servo motor
Installation		On ground
Protection grade		IP67
Environmental conditions	Ambient temperature	0 ~ 45℃
	Relative humidity	20 ~ 80RH non-condensing
	Vibration	≤ 0.49g
	Others	Keep away from flammable or corrosive liquids
Power capacity		5KVA
Weight		750Kg

## TIME R220-2650 Welding Robot System



Item		Technical parameters
Degrees of freedom		6
Maximum load capacity		220Kg
Repeat positioning accuracy		± 0.2mm
Maximum motion radius		2650mm
Drive mode		AC servo motor
Installation		On ground
Protection grade		IP54
Environmental conditions	Ambient temperature	0 ~ 45℃
	Relative humidity	20 ~ 80RH non-condensing
	Vibration	≤ 0.49g
	Others	Keep away from flammable or corrosive liquids
Power capacity		220/380V, 50~60HZ
Weight		1350Kg

## TIME robot teach pendant



- 1、7 inch VGA color LCD touch screen
- 2、Local high-speed I / O interface to support PS2, USB, RS232 protocol
- 3、Teach pendant is light due to ABS engineering plastic case
- 4、Independent real-time 3D simulation software easily to simulate teach security monitoring: position, speed, acceleration, error, communication, parameter etc. to ensure the operation of the system safety

Item	Technical parameters
Display size	7-inch TFT color LED
Display pixels	800 × 600
Display color	32 bit true color
3-bit enable switch	hand hold enable switch
Power	DC24V
Protection grade	IP65
Case material	ABS
Function buttons	Emergency stop, teaching, pause, mode selection, 49 operation keys
Dimensions	393 × 226 × 82mm
Operating environment	0℃ ~ 40℃



## Data exchange controller

For different interface protocols, TIME specially designed data exchange controllers, including the following types of controllers, and the models, features and welders are as shown in the table below:



**Data exchange controller**

Model	Functions (Interface type and protocol)	Model of supporting welders
TFW 6000KA	IO interfaces RS485 port (ModBus protocol)	TDW 4000/5000/6000 TDW 4000M/5000M/6000M
TFN 6000KA	IO interfaces RS485 port (ModBus protocol)	TDN 3500/5000/6000 TDN 3500B/5000B/6000B TDN 3501M/5001M
Built-in controller (With welding robot)	CAN interface (DeviceNet protocol)	
Built-in controller	IO interface (analog signal)	TDL 600/800/1000/1200
TFL 2000KA	IO interfaces RS485 port (ModBus protocol)	

## Application





# TIME

## WELDING MACHINE

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## Auto-Welding and CNC Cutting Equipment

This series of products is auxiliary welding equipment which outfits with welding power source for all position welding processing of large workpieces.

The series of products are widely used in the industrial field of wind power, steel structure, pressure vessels, boilers, piping, vessels, surfacing and so on.

### Main features

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Many kinds of metal material can be cut and weld

Humanized design, safety protection facilities

Convenient operation, accurate control, high degree of automation

Welding quality stable, accurate positioning, high reliability

Smooth transmission, low noise, welding and cutting high precision

The product structure designs reasonable, integration and good rigidity

Large capacity, action is accurate, wide range of speed regulation, high production efficiency

Whole solutions can be realized from the sheet cutting to the product welding

The equipments can be customized according to user's requirement

### Selection Tip

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TZ Series Manipulator

Automatic welding manipulator can realize the automatic welding

TR1 Series Rotator

Self aligning welding rotator for group workpiece welding.

TR2 Series Rotator

Adjustable welding rotator for group workpiece welding.

TB1 Series Positioner

Welding positioner can adjust the welding position easily

ZF Series Welding machine

Longitudinal seam automatic welding machine can achieve the straight seam welding with high quality and low deformation

TDC II TDC III TDCIV TDCV  
CNC cutting machine

Automatic CNC cutting machine is good tool for the metal sheet cutting in the field of industry

## TZ Series Automatic Welding Manipulator (Column and Boom)

### Main features

- Multiform building block system
- A whole profile for main body
- Fitting cable with plastic pulling
- Built-in weight balance
- Hoist and lower parts reliable and safety
- Machine tool rail design
- According to the different configuration, this series of products can be divided into five types:  
TZ: fixed without rotation  
TZ1: fixed and manual rotation  
TZ2: fixed and electric rotation  
TZ3: Fixed and electric moving  
TZ4: electric rotation and electric moving



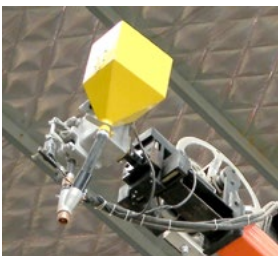
### Technical Specifications

Specification	2x2	3x3	4x4	5X5	6X6	7X7	8X8
Vertical movement distance of boom (m)	2	3	4	5	6	7	8
Horizontal movement distance of boom (m)	2 ~ 4	2.5 ~ 5	3 ~ 7	3 ~ 8	4 ~ 8	4 ~ 8	4 ~ 8
Rotating angle of column(° )	± 180 <sup>0</sup>						
Vertical speed of the boom(mm/min)	850		1150				
Horizontal speed of the boom(mm/min)	140 ~ 1400						
Rotating speed of column(r/min)	0.2						
The total equally distributed load of the boom	100	200	300	400	500	500	500
Rail type/Center distance of the rail (optional)	P43/2000						

Note: If the parameters and appearance of the equipment change, please refer to the actual product.

## FD10-200 submerged arc welding head (electric trailing bar)

### Main features



- Single wire ( dia.  $\Phi 3 \sim \Phi 6 \text{mm}$  )
- Casting parts, beautiful appearance, light weight
- Advanced PWM to control the speed of the wire feeding

### Technical Specifications

#### Type of trailing bar

Model	Up/down stroke	Left/right stroke
ST1-E/M	100mm	100mm
ST2-E/M	200mm	200mm
ST3-E/M	300mm	300mm

#### Type of SAW welding head

ITEM	Model	welding workpiece
welding head	FD10-200	Cylinder diameter $\geq 700 \text{mm}$
Mini welding head	FD10-200C	Cylinder diameter $\geq 400 \text{mm}$



## TR1 Series Self Aligning Welding Rotator

### Main features

- The roller angle automatic regulates according to the workpiece size, without manual adjustment
- The drive adopts gear transmission to realize the four wheel drive
- Steel plastic composite roller, high capacity, strong drive ability
- Inverter for stepless speed regulation, adjustment range wide, starting torque large, high precision
- The operation of control box is simple and reliable and it can connect to the control system of manipulator by the linkage interface in electrical box to realize linkage operation
- Drive mode: Cycloidal reducer drive or the worm reducer drive



### Technical Specifications

Model				TR1-5T	TR1-10T	TR1-20T	TR1-30T	TR1-40T	TR1-50T	TR1-60T	TR1-80T	TR1-100T	TR1-150T	TR1-200T
Load capacity (t)				5	10	20	30	40	50	60	80	100	150	200
Roller group	Two	Steel	Diameter (mm)	—	—	—	340	340	390	390	490	490	540	—
			Width (mm)	—	—	—	30	30	40	40	60	60	100	—
	One	Rubber	Diameter (mm)	250	250	300	350	350	400	400	500	500	550	600
			Width (mm)	120	120	140	120	120	120	120	120	120	120	120
Diameter of work piece	Min. (mm)			350	350	600	600	600	750	800	900	900	1000	2000
	Max. (mm)			2500	2500	4000	4500	4500	5000	5000	5500	5500	6300	7000
Roller speed (mm/min)				100-1000										
Motor power				1 × 0.25	2 × 0.25	2 × 0.37	2 × 0.37	2 × 0.55	2 × 0.75	2 × 0.75	2 × 1.1	2 × 1.5	2 × 2.2	2 × 5.5
Speed regulating mode				Stepless speed regulation										
Overall size	Length (mm)		M	1220	1220	1740	1980	1980	2240	2240	2540	2540	3050	4610
			S	1220	1220	1740	1980	1980	2240	2240	2540	2540	3050	3720
	Width (mm)		M	850	885	920	1080	1100	1180	1280	1640	1640	1910	1720
			S	310	310	400	480	480	540	540	620	620	760	1150
	Height (mm)			685	685	890	1070	1070	1050	1050	1280	1280	1610	1665

Note: If parameters and appearance change, please take actual goods as final. “—” depends upon customers’ request.

Model	TR1(XZ)-5T	TR1(XZ)-10T	TR1(XZ)-20T	TR1(XZ)-30T	TR1(XZ)-40T	TR1(XZ)-50T	TR1(XZ)-60T	TR1(XZ)-80T	TR1(XZ)-100T
Motor power (kw)	2X0.37	2X0.37	2X0.55	2X0.75	2X0.75	2X1.5	2X1.5	2X2.2	2X2.2
Moving Speed (mm/min)	800 ~ 8000								

Note: Parameters above are for moving Rotators

## TR2 Series Adjustable Welding Rotator

### Main features

- The distance of roller center is adjustable through the reserved screw-hole to adapt to the change of the diameter of workpiece
- All rubber roller or steel plastic composite roller, high capacity, strong drive ability
- Inverter for stepless speed regulation, adjustment range wide, starting torque large, high precision
- The operation of control box is simple and reliable and it can connect to the control system of manipulator by the linkage interface in electrical box to realize linkage operation
- Drive mode: Cycloidal reducer drive or the worm reducer drive



### Technical Specifications

Model no.				TR2-5T	TR2-10T	TR2-20T	TR2-30T	TR2-40T	TR2-50T	TR2-60T	TR2-80T	TR2-100T	TR2-150T	TR2-200T	TR2-300T	TR2-400T	TR2-600T
Load capacity (t)				5	10	20	30	40	50	60	80	100	150	200	300	400	600
Roller group	two	Steel	Diameter(mm)	—	—	—	340	340	390	440	510	510	620	700	700	800	800
			Width(mm)	—	—	—	30	30	40	50	240	240	240	250	300	300	350
	One	Rubber	Diameter(mm)	250	250	300	350	350	400	450	—	—	—	—	—	—	—
			Width(mm)	120	120	140	120	120	120	120	—	—	—	—	—	—	—
Diameter of work piece	Min(mm)			250	300	350	600	600	850	850	850	1000	1000	1000	1000	1000	1000
	Max(mm)			1800	3000	3600	4200	4200	5000	5000	5000	5500	6000	6500	6500	6500	7000
Roller speed (mm/min)				100-1000													
Motor power(kw)				1 × 0.25	2 × 0.25	2 × 0.37	2 × 0.55	2 × 0.55	2 × 0.75	2 × 0.75	2 × 1.1	2 × 1.5	2 × 2.2	2 × 5.5	2 × 5.5	2 × 7.5	2 × 11
Speed regulating mode				Stepless speed regulation													
Overall size	Length (mm)		M	1200	1710	1870	2310	2310	2700	2700	3070	3070	3570	5200	5330	5380	6690
			S	1200	1710	1870	2310	2310	2700	2700	3070	3070	3570	4710	4980	4770	5390
	Width (mm)		M	680	680	770	850	850	1030	1120	1420	1440	1650	1110	1080	1450	1510
			S	270	270	320	400	400	500	500	570	570	600	720	1080	1110	1110
	Height (mm)			460	460	530	610	610	680	720	820	820	1000	1065	1300	1420	1690

Note: If parameters and appearance change, please take actual goods as final. “-” depends upon customers’ request.

Model	TR2(XZ)-5T	TR2(XZ)-10T	TR2(XZ)-20T	TR2(XZ)-30T	TR2(XZ)-40T	TR2(XZ)-50T	TR2(XZ)-60T	TR2(XZ)-80T	TR2(XZ)-100T
Motor power (kw)	2X0.37	2X0.37	2X0.55	2X0.75	2X0.75	2X1.5	2X1.5	2X2.2	2X2.2
Moving Speed (mm/min)	800 ~ 8000								

Note: Parameters above are for moving Rotators

## TB Series Welding Positioner

### Main features

- Special auxiliary equipment for welding, it makes the work-piece in the best position for welding by the rotation of positioner's worktable.
- The worktable makes by steel through fine processed, positioning lines are equally marked on the table, and several of T type grooves are available for installation of all kinds of orientating and tightening device
- The operation of control box is simple and reliable and it can connect to the control system of manipulator by the linkage interface in electrical box to realize linkage operation
- Worm wheel-worm decelerating device is adopted on the turnover process to obtain a constant turnover speed with the angle range of 120°. It has the advantages of large turnover torque, self-lock and orientation reliable
- The rotary table adopts imported frequency converter to realize stepless speed regulation, speed regulation range is wide and operation stable
- The machine adopts seat type structure with high stability for the whole equipment so it doesn't general be fixed in the ground and easy to move
- The machine adopts seat type structure with high stability for the whole equipment so it doesn't general be fixed in the ground and easy to move
- Suitable for welding various of shaft, disk, cylinder type of workpiece



### Technical Specifications

Model	TB1-6	TB1-12	TB1-20	TB1-30	TB1-40	TB1-50	TB1-80	TB1-100	TB1-150	TB1-200	TB1-250	TB1-500
load capacity(kg)	600	1200	2000	3000	4000	5000	8000	10000	15000	20000	25000	50000
Rotating speed r/min	0.1-1	0.09-0.9	0.09-0.9	0.06-0.6	0.06-0.6	0.05-0.5	0.05-0.5	0.05-0.5	0.02-0.2	0.04-0.4	0.04-0.4	0.02-0.4
Turning speed r/min	0.73	0.35	0.36	0.27	0.24	0.24	0.25	0.24	0.15	0.15	0.15	0.15
Turning angle (°)	0-120	0-120	0-120	0-120	0-120	0-120	0-120	0-120	0-90	45-90	45-90	45-90
Diameter of work table (mm)	800	1100	1200	1300	1400	1600	1800	2000	2200	2500	3000	5000
Height of work table (mm)	830	1100	1200	1490	1500	1520	1800	2030	2300	2400	2400	3225
Allowable work piece off-center (mm)	Max load eccentricity	150	200	200	200	200	200	200	200	200	200	200
		Max load	200	250	300	300	300	350	400	500	500	500
Rotating motor power (kw)	0.37	1.5	1.1	1.5	1.5	2.2	3	4	4	2 × 2.2	23	2 × 7.5
Turning motor power (kw)	0.37	0.75	1.5	2.2	2.2	3	4	5.5	7.5	2 × 3	2 × 5.5	2 × 11

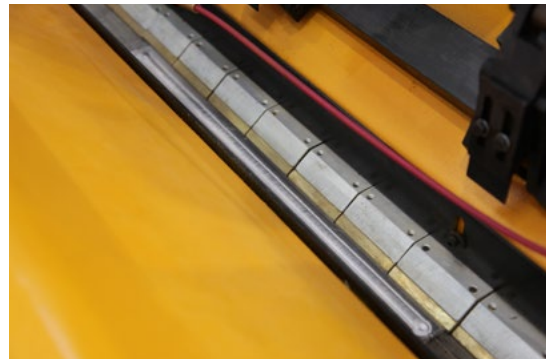
Note: If the parameters and appearance of the equipment change, please refer to the actual product.



## Longitudinal Seam Automatic Welding Machine

### Main features

- Work-piece clamp adopts the keys pressed type mechanism to provide uniform and stable work holding and cooling effect
- Applied in high quality, low-distortion and linear seam welding
- PLC control, DC motor drive, stepless speed regulation and a linear oscillator is optional
- The welding seam can be 100% welding with back protection bushing and the line groove for different welding groove and one side welding double side formation
- Work-piece thickness: 0.4~8mm, welding speed is 0.2 ~ 2.2m/min
- Longitudinal seam automatic welding system can be integrated with:  
GTAW; PAW; GMAW; FCAW  
SAW; YAG and so on



### Technical Specifications

Model	Welding length (mm)	Min. diameter (mm)	Max. diameter (mm)	Workpiece thickness (mm)	Welding speed (m/min)
ZF-500	525	φ 75	φ 730	1~8	0.2~1.6
ZF-1000	1125	φ 115	φ 730		
ZF-1500	1650	φ 150	φ 730		
ZF-2000	2025	φ 180	φ 850		
ZF-2500	2550	φ 200	φ 850		
ZF-3000	3075	φ 270	φ 850		

The minimum diameter can be changed upon customer's request.

The maximum diameter can use standard accessory to increase height.



## CNC Cutting Machine

### TDC II CNC Cutting Machine

#### Main features

- Gantry structure with both side drive
- Good rigidity, small inertia, track width: 4~7m
- Used for fuel cutting also widely in plasma cutting
- The longitudinal and transverse direction guides by high precision linear.
- There are mechanical and electrical safety devices on both sides of the cross and vertical rails, so that the security is high.
- Servo driven by Panasonic servo drive system, with position detecting function, high precision



#### Technical Specifications

Track width (mm)	4000	4500	5000	5500	6000	6500	7000
Working width (mm)	3200	3700	4200	4700	5200	5700	6200
Overall width (mm)	4800	5300	5800	6300	6800	7300	7800
CNC system	Time I / II MicroEDGE Pro						
Plasma power	According to the demand of the users						
Torch lifting distance(mm)	200、300 available						
Idle speed (mm/min)	0-10000						
Cutting speed (mm/min)	0-6000						
Flame cutting thickness (mm)	6-160 / 6-300						
Fuel gas category	Ethyne or natural gas, propane						
Base category	H-steel or cement base, standard configuration is H-steel base						
Longitude chain	Up chain or down chain, standard is down chain.						

### TDC III Desktop CNC Cutting Machine

#### Main features

- Integrated design, good rigidity. Installation convenient, small space.
- The longitudinal and transverse direction guides by high precision linear.
- There are mechanical and electrical safety devices on both sides of the cross and vertical rails, so that the security is high.
- Using different of plasma power source to meet different user's requirements of cutting
- Fume treatment device is optional with compact structure
- Servo driven by Panasonic servo drive system, with position detecting function, high precision
- Latitude with bilateral synchronous drive system, transmission smooth



Model	1830	1840
Cutting width (mm )	1800	1800
Overall width (mm )	2400	2400
Cutting length (mm)	3000	4000
Overall length (mm )	4620	5620
CNC system	Mirco EDGE Pro or Time I / II	
Cutting thickness	Refer to plasma supply power	
Cutting work table	Normal or dust proof work table ( not covered in standard type )	

## CNC Cutting Machine

### TDC IV-A Unlimited rotary type CNC Cutting Machine

#### Main features

Groove CNC cutting machine is also called ship plate cutting machine. It is mainly used in shipbuilding industry and other heavy industry to cut the groove parts with arbitrary shape.



### TDC IV-B Fixed-Angle Bevel CNC Cutting Machine

#### Main features

TDC IV-B Fixed-angle Bevel 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.

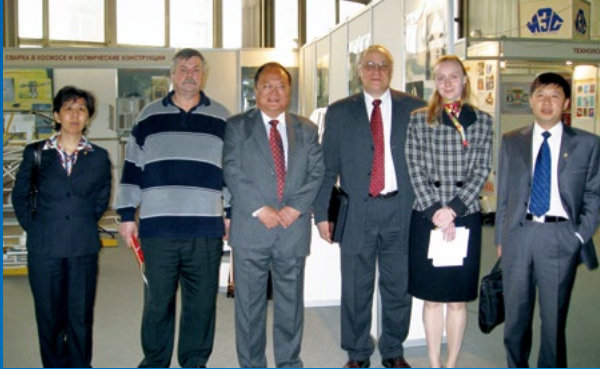


#### Technical Specifications

Track width (mm)	4000	4500	5000	5500	6000
Working width (mm)	3100	3600	4100	4600	5100
CNC system	Hypertherm Edge pro				
Plasma power	Hypertherm、KjellbergHigh Precision Plasma FineFocus				
Nesting software	Australia Fast CAM full automatic nesting software				



# Activities



Visited Paton Electric Welding



Visited TWI



Beijing Essen Exhibition



Brazil Industrial Exhibition



Essen Show in Germany



TIME evening party



TIME Welding robot show in exhibition



Automation Welding in Malaysia



SAW in Indonesia

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