

AOTAI

CATALOGUE

Complete Solutions For
Welding & Cutting

2017-2019

WE DELIVER

**SMART
STABLE
POWERFUL ARC**



INTRODUCTION

Aotai Electric Co., LTD is a leading manufacturer of welding and cutting equipments in China. Aotai offers nearly 100 welding machine models in 13 series. Its line of welding machine products includes Inverter MMA, Inverter TIG, Inverter MIG, Inverter SAW, Water Cooling Machine, Inverter Air Plasma Cutter as well as a variety of accessories. Uncompromising in its high standards, Aotai is making every effort to provide its customers with highly functional and adaptable products that are easy to install and maintain. Despite the white hot competitions in Chinese market, Aotai's inverter welding machine series have remained the best selling welding machine since 2005.

Aotai was founded by several professors and their graduate students from Shandong University in 1993. Since it was founded, Aotai is dedicated to pursue innovative technologies that bring breakthrough in its field. In 2002 it was named one of the National Torch Plan Hi-Tech Enterprise, which is an award for hi-tech companies with excellence in R&D achievements. Aotai also received a National Science and Technology Advancement silver award in 2004. Aotai has a team of passionate and experienced R&D engineers. Most of them possess advanced degrees and rich experiences. The managements are also specialists and experts with an average of over 24 years experience. These individuals are the ones who developed the core intellectual property of the company. This is the technical foundation of the expertise that makes Aotai a national leader. To meet the growing demands of Chinese market, Aotai built 28,000 square feet manufacturing facilities in 1999 and a 1,700,000 square feet factory in 2005. In 2006, Aotai also built a 50,000 square feet office building to accommodate the growing R&D activities. In 2013, the third 1,000,000 square feet manufacturing facilities was set up. These extensions have greatly boosted the production capability to over 200,000 units a year.

With successes in domestic market, Aotai started to explore the global market opportunities in 2006. Since Global Sales Division was founded, over fifty thousands units have already been shipped to over 128 countries and areas. In order to provide fast on site technical service and quick delivery for our global distributors, Aotai plan to set up service centers and warehouses globally. In 2015, Aotai India and Aotai Russia were founded. We are continuing this effort to boost global sales, and we welcome all interested parties around the world to contact us for our product information and collaboration opportunities.



OUR FACILITIES

A-Headquarter: 2006, Jinan (50, 000 square feet)

B- Factory I: 1999, Jining (28, 000 square feet)

C- Factory II: 2005, Zichuan (1, 700, 000 square feet)

D- Factory III: 2013, Jinan (1, 000, 000 square feet)



COMPANY HISTORY

1993

- Aotai was founded by several professors and their graduate students from Shandong University.
- Aotai launched inverter MMA/TIG welders.
- Aotai became major welding machine supplier in Shandong Province.



1997

- PWM Soft Switch Power Transform Technology was successfully developed and applied into MIG /MAG-400 welder series.

2002

- Aotai was named one of the National Torch Plan Hi-Tech Enterprises, which is an award for hi-tech companies with excellence in R&D achievements.

1996

- Aotai inverter welders gained reward of National Innovative Products.
- The market expanded from Shandong to other territories, the industrial applications cover power plant construction, petroleum, petrochemical, and metallurgy industries, etc.



1999

- Aotai built 28,000 square feet manufacturing facility in Jining, Shandong province.



2004

- Aotai received a National Science and Technology Advancement silver award.

2007

- Aotai continues effort to boost global sales, new Global Sales Division was established in the headquarter, Jinan, Shandong.
- Domestic branches are cover more than 30 provinces and international sales distributor is set up in more than 32 countries.
- The production capability has reached over 50,000 units a year.

2009

- Robotic Welding Division was set up in Zichuan factory.
- Aotai welding power source is widely used in many first class brands production.
- Aotai is named "Shandong Modern Welding Technology Research Lab" by government.

2006

- The sales quantity of inverter welders kept staying No. 1 in domestic market.
- Aotai started to explore the global market opportunities. More than 5000 units were sold abroad.
- Aotai built a 50,000 square feet office building to accommodate the growing R&D activities.

2005

- New 1,700,000 square feet factory was constructed in Zichuan, Shandong.
- The inverter welding machine series became the best selling welding machine in China.



2013

- The new factory was established in Jinan, these extensions have greatly boosted the production capability to over 200,000 units a year.



2011

- The Solar Inverter Division was set up, which means Aotai enters the solar inverter industry officially after 3 years research development.
- The distributors are expanded to 65 plus countries.

QUALITY CONTROL



PCB Production



ISO14001
ISO9001:2008

EXTENSIVE AFTER-SALE SERVICE

Besides the high quality machines, we also offer you professional after-sale service. These service programs include:

1. Life time technical support. Our experienced customer support team will help you solve technical problems. We guarantee to respond to your inquiry within 24 hours, whether it comes from phone, mail or fax.
2. We provide detail English operating manual and maintenance manual for each model of equipment. These manuals include lots of pictures to show the detail procedures for trouble shooting and spare parts replacement. Operating DVD will be provided upon request. All documents and spare parts are carefully designed and easy for user to follow.
3. We provide comprehensive training for our international distributors and clients. The training is held twice per year.
4. We provide life time spare parts mail service to our international clients.



Aotai Electric Co., LTD.

3.5 Test for Fan (M) and Capacitor (C6)

Multimeter Operating Mode	Meter Probe (Red)	Meter Probe (Black)	Correct Value	Remark
Resistance	Fan Cable (Red)	Fan Cable (Blue)	200-2K Ω	Switch off Fuse and Circuit Breaker
	Fan Cable (Blue)	Fan Cable (Yellow)		

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3.6 a. Test for IGBT (M1) (Digital Multimeter) I

Multimeter Operating Mode	Meter Probe (Red)	Meter Probe (Black)	Correct Value	Remark
Resistance	IGBT-Terminal 4	IGBT-Terminal 5	Over Limit	Remove control cable and release static electricity first. Do not touch control cable terminal 4, 5, 6, 7 when taking the measurement.
Diode	IGBT-Terminal 1	IGBT-Terminal 3	0.33-0.37V	

27

As a leading welding machine manufacturer, Aotai is dedicated to quality control by ensuring quality in every step of the manufacturing process.

Our quality assurance management includes:

1. A set of detailed procedures that covers all manufacturing processes;
2. Monitoring processes to ensure their effectiveness;
3. Keeping adequate records;
4. Checking output for defects, with appropriate corrective action wherever necessary;
5. Regular review of individual processes and the quality system itself for effectiveness;
6. Facilitating continuous improvement

Quality product and strict standards help Aotai save costs, educate employees and create better products that meet customer expectations.

Our critical quality control routines include:

1. Inspecting Incoming Supplies

We pick the suppliers very carefully and build long-term cooperation with those suppliers that provide quality products. Before accepting parts from our suppliers, we run the components through specific quality control tests to ensure that they are durable and reliable.

2. Monitoring Manufacturing Processes

Along with the inspection of raw material, a specific QA committee designs detailed documentation regarding every process. These documents are used to train new as well as current employees, to make sure that each employee is familiar with the manufacturing procedure before actually performing the task in the plant. This significantly reduced the operational mistakes that are the main causes of slow production rate and excessive mal-functioning products. Furthermore, trainees have the ability to review each step of their specific task even if the equipment is not up and running.

AQA Committee reviews these manufacturing process documents once each year. During the review, efficiencies and deficiencies can be identified for all operations, and improvements can be made that increase the efficiency and quality of each process. By the end of each key process, experienced QA inspectors will follow the specified inspection procedure to plan, monitor, and document all required tests for the parts.

3. Inspecting Finished Products

Aotai also have safe, manageable and efficient quality assurance procedures for their finished product. The inspection of the final product verifies if the product has all the proper components and meets established specifications. This is one of the most important quality checks for our company. These final inspections include:

- System specification checks and adjustments
- Documentation on load testing and test weld
- Sign-offs by qualified personnel

When testing on the units is completed, all procedures, inspection logs of the completed tests, along with the results of each test are recorded in an organized system. The logs that contain the final quality checks are the final checkpoint that ensures the quality of every product before it is cased.

4. Responding to Customer Feedback

Aotai takes every customer's feedback very seriously. We record all customers' comments and complaints. These valuable information help us discover any recurring problem in the manufacturing process and improve our products.



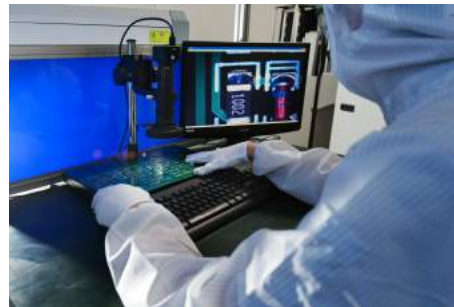
Incoming Material Inspection



Steel Fabrication for Case Production



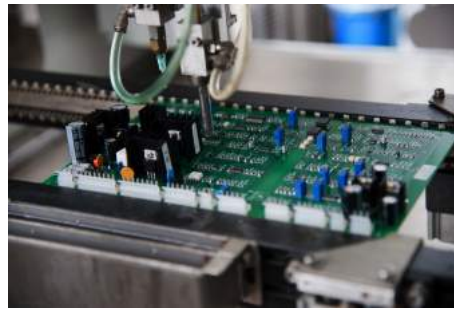
Painting Workshop



PCB Optical Scanning Inspection



Assembly Line



Extra Coating for PCB Protection



Simulation Station



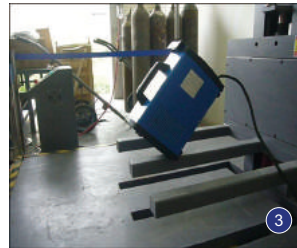
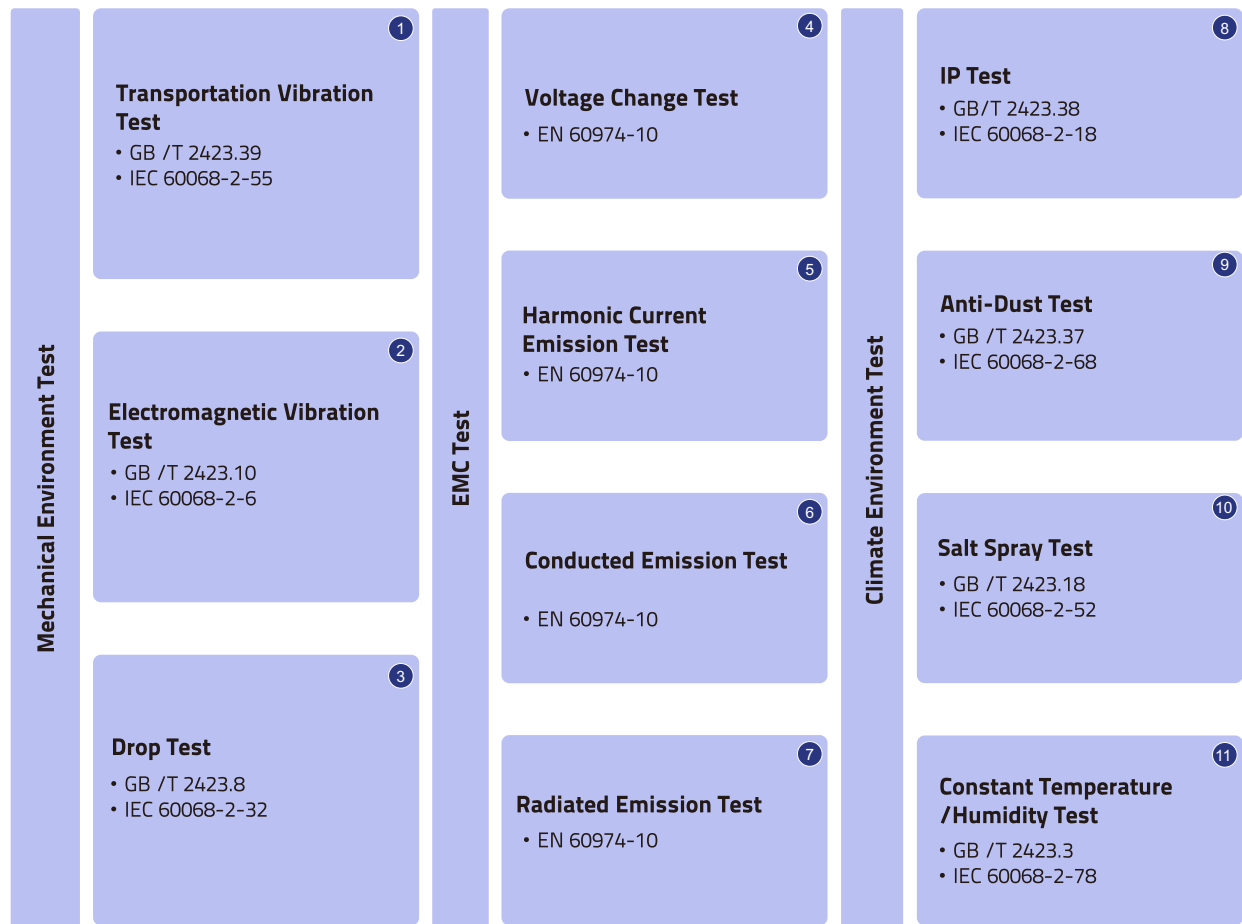
Full Loading Test



Calibration and Debugging Procedure



Barcode Tracking System



Item	AMP (%)	AMP (%)	AMP (%)	AMP (%)
1	10.84%	100.00%	0.00%	0.00%
2	10.84%	0.10%	0.00%	0.00%
3	10.84%	0.24%	0.00%	0.00%
4	10.84%	0.00%	0.00%	0.00%
5	1.00%	11.00%	0.00%	0.00%
6	0.84%	0.00%	0.00%	0.00%
7	10.84%	0.00%	0.00%	0.00%
8	0.84%	0.00%	0.00%	0.00%
9	10.84%	0.00%	0.00%	0.00%
10	0.84%	0.00%	0.00%	0.00%
11	10.84%	0.00%	0.00%	0.00%
12	0.84%	0.00%	0.00%	0.00%
13	10.84%	0.00%	0.00%	0.00%
14	0.84%	0.00%	0.00%	0.00%
15	10.84%	0.00%	0.00%	0.00%
16	0.84%	0.00%	0.00%	0.00%
17	10.84%	0.00%	0.00%	0.00%
18	0.84%	0.00%	0.00%	0.00%
19	10.84%	0.00%	0.00%	0.00%
20	0.84%	0.00%	0.00%	0.00%
21	10.84%	0.00%	0.00%	0.00%
22	0.84%	0.00%	0.00%	0.00%
23	10.84%	0.00%	0.00%	0.00%
24	0.84%	0.00%	0.00%	0.00%



Alternate Heat and Humidity Test

- GB /T 2423.4
- IEC 60068-2-30

12

Low Temperature Test

- GB /T 2423.1
- IEC 60068-2-1

13

High Temperature Test

- GB /T 2423.2
- IEC 60068-2-2

14

Life Test

Static Life Test

- Test welding machine load reliability
- Welding machine rated max. power output
- 30*24 hours continuous operation

15

Arc Start Test

- Test welding machine start arc reliability
- Welding machine rated max. power output
- 500,000 times uninterrupted arc start

16

Welding Aging Test

- Test welding machine dynamic reliability
- Welding machine rated max. power output
- 24 hours continuous operation

17

High Frequency Interference Test

- Test welding machine anti-interference stability
- 7*24 hours continuous interference

18



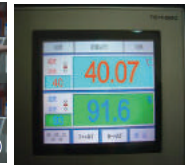
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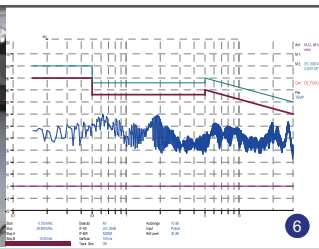
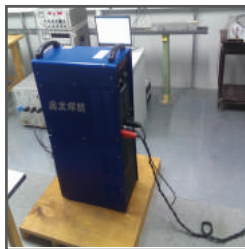
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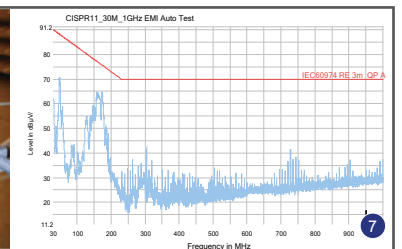
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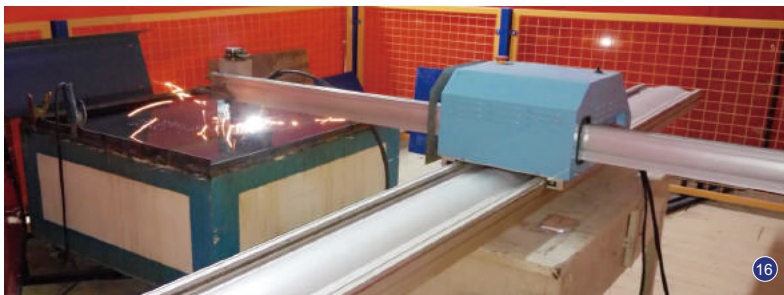
13



6



7



15



16



17

18

Products Index



01

MMA

MMA Summary	13
Highlights	14
Accessories	14
ARC400II /DuraARC210II	15
ARC400-3T /6T ARC500-3T /6T	16
ARC-630 /1000 /1250	17
AARC-315 /400 /500	18
ARC-315 /400 /500	19
ARC-300E /400E /500E	20
DuraARC-160 /180 /200 /250	21

02

TIG

TIG Summary	23
Highlights	24
Accessories	26
ATIG-PAC-315III /500III	28
ATIG-PAC-315 /500 /630	30
ATIG-P-315 /400 /500	31
ATIG-315 /400 /500 /1000	32
TIG-315 /400 /400II /500 /630 /1000 /1250	33
ATIG500F	34
TIG-P-160 /200	35
ATIG-PAC-160 /210	36
ATIG-P-160 /200	37

03

MIG

MIG Summary	39
Highlights	40
Accessories	41
AMIG-PM-350 /500	42
AMIG-P-350 /350Y /500	43
AMIG350LST	44
AMIG-350 /500 /630	45
ProMIG-350M /500M	46
AMIG-350 /500 /630M	47
MIG-250 /250C /350 /500 /500A /630	48
MIG-M-350 /350C /400 /500 /630	49
AMIG-250E /350E /500E	50
AMIG200M	51

04

SAW

SAW Summary	53
Highlights	54
Accessories	54
ASAW1000-AC /DC	55
ASAW-II-630 /1000 /1250 /1500	56
SAW-I-1000 /1250 /1500	57
TANDEM1000 /1250	58
Strip Cladding	59

05

PLASMA CUTTER

Plasma Cutter Summary	61
Highlights	62
Accessories	62
ACUT-60 /100 /120	63
ACUT120a	64
ACUT200	65
ACUT-100E /120E	66
CUT40i	67

06

AUTOMATION

Automation Summary	69
Accessories	70
HCJ-2L /3M /4M /3H /4H /5H /6H /7H	71
HGK-5 /10 /20 /30 /40 /50 /60 /80 /100	72
HGZ-5 /10 /20 /30 /40 /50 /60 /80 /100	73
HB-C-01 /05 /1 /3 /5 /10 /20 /30 /50 /100	75
HT-1 /3 /5 /10 /30 /50 /100	76
Gantry Type CNC	77
Table Type CNC	78
Portable Type CNC	79
Orbital Welding System	80

07

ROBOTICS

Robotics Summary	85
Power Source	86
Standard Robot Workstation	90
Positioner Series	92
Railway Series	94
Robot Work Station Complete Equipment	95

08

WMMS

WMMS	97
WMMS-G	99
WMMS-C	101

09

APPLICATION

Pipeline	102
Shipyard	112
Steel Fabrication	116