

☑ Fully Digital-control Industrial & Heavy-duty Welding Equipment

MEGMEET Welding Technology

Powering the Future

www.megmeet-welding.com



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Company Profile

Pioneering
Collaboration
Openness
Innovation

Established in 2003, MEGMEET Electrical Co. Ltd. (Stock Code: 002851.sz) is a China National High-tech Enterprise focusing on power electronics and industrial control technology and engaging in the R&D, manufacturing, sales and services of hardware, software and system solutions in the field of electrical and industrial automation. Headquartered in Shenzhen, China, the company has operations in over 40 countries and employs 5,200+ employees. We are committed to improving energy efficiency with the purpose of empowering the world to increase productivity while reducing environmental impact, and thus changing the life of human beings and the environment for the better.



Paid-in Capital



Employees



R&D Engineers

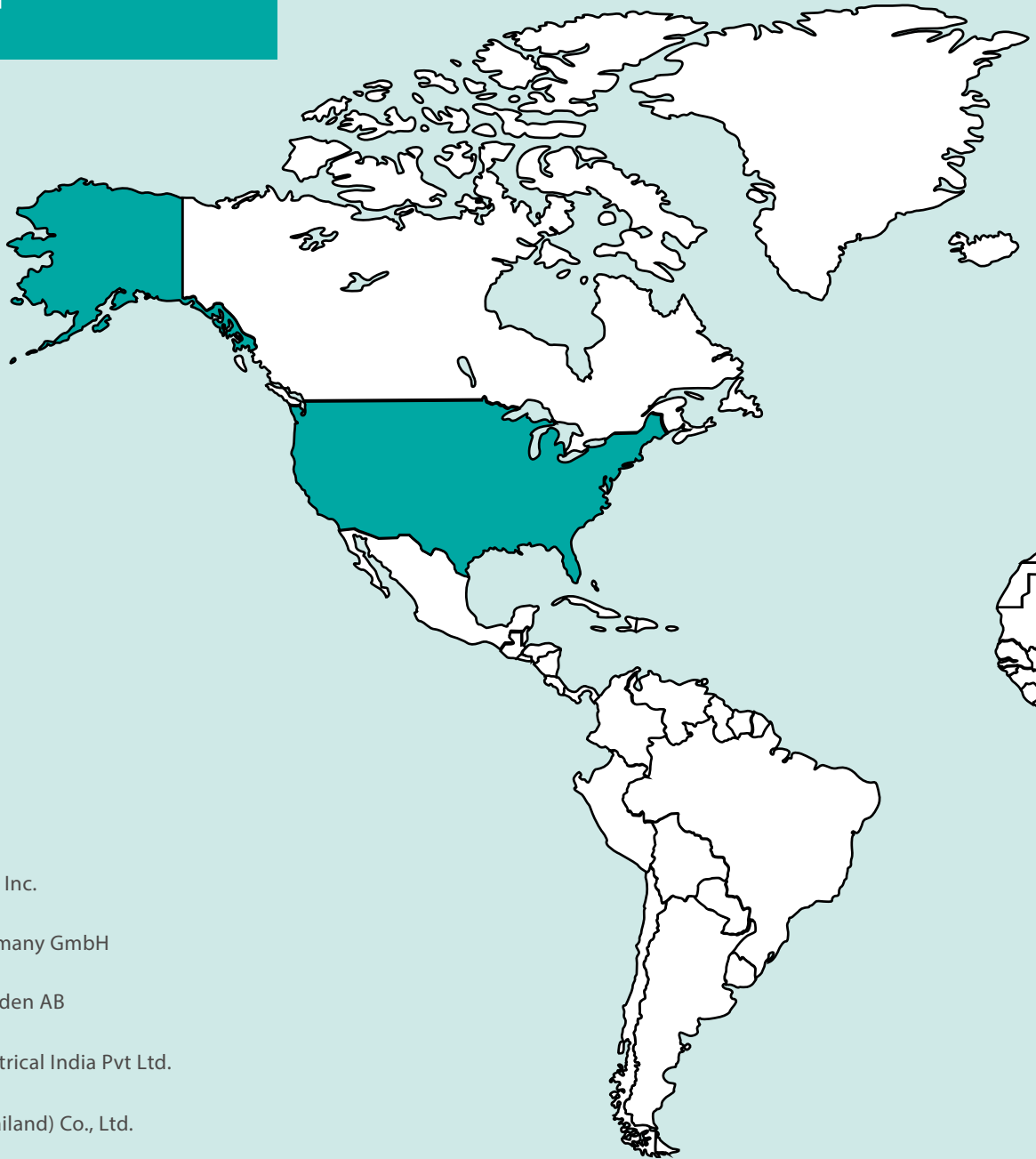


MEGMEET operates in the business segments of industrial automation, electrical vehicles & rail transit, smart home appliances and high-end intelligent manufacturing. We serve various industries, including but not limited to healthcare, telecommunication, IT, electricity, transportation, photovoltaics, oil exploration, police equipment, industrial welding, industrial microwave, inverter air-conditioning, inverter microwave, commercial display screens and smart sanitary ware etc. Our products are sold in over 40 countries around the globe, including countries of high technology criteria like the U.S.A., Germany, Japan, Sweden, South Korea, etc.

Technological innovation has been at the core of MEGMEET since its inception and has fueled the growth of the company. MEGMEET has been investing heavily in R&D with yearly spending equivalent to over 10% of its annual sales revenue. The company employs 1000+ R&D engineers, creates comprehensive and well-equipped software and hardware platforms to develop, test and manufacture products. By the end of 2020, MEGMEET has 597 patent grants. The company has established a global R&D network with locations in Sweden, Germany, and in the Chinese cities of Shenzhen, Xi' an, Wuhan, Changsha, Zhuzhou and Taizhou. Manufacturing facilities are located domestically in the cities of Zhuzhou, Taizhou, Zibo, Heyuan and abroad in India and Thailand.

In an effort to provide better products and services to our customers, MEGMEET has restructured its welding division and transformed it into a subsidiary named MEGMEET Welding Technology Co. Ltd., With integrated multidisciplinary knowledge and technologies, MEGMEET redefines the standards for reliability and stability of inverter welding equipment to provide our customers with more efficient, more reliable, more energy-saving and smarter welding machines. MEGMEET has built a reputation as a trustworthy supplier with its quality products and services and has become one of the preferred brands of industrial welding equipment in the market.

Global Footprints



MEGMEET USA Inc.



MEGMEET Germany GmbH



MEGMEET Sweden AB



MEGMEET Electrical India Pvt Ltd.



MEGMEET (Thailand) Co., Ltd.



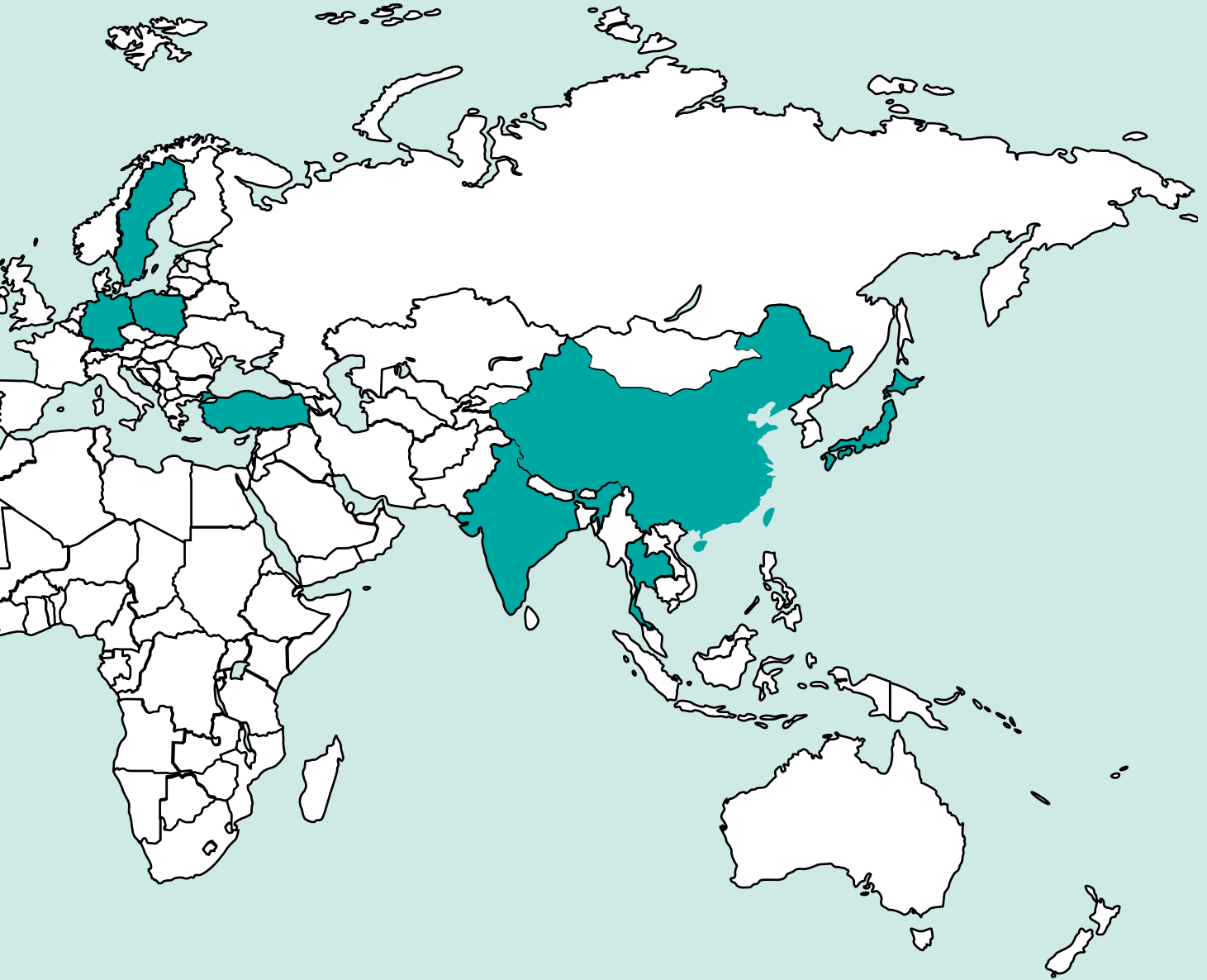
MEGMEET Turkey



MEGMEET Poland



MEGMEET Japan



Core Business

MEGMEET

“ MEGMEET's powerful multidisciplinary platform integrated with technology and engineering enables us to serve our global customers with industry expertise, quality products and optimal solutions. ”

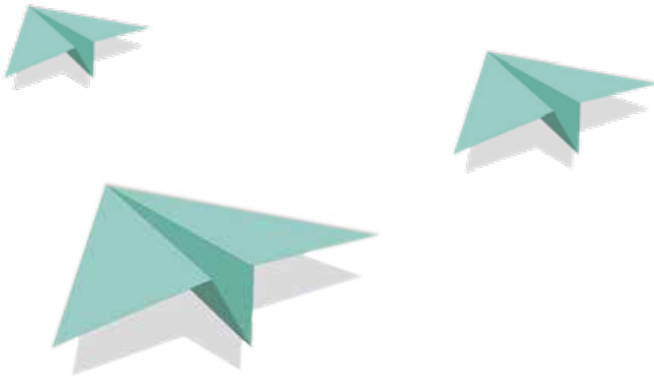
Innovation for the Future

Smart Manufacturing

- Industrial & Digital-control Welding Equipment
- ◎ Industrial Microwave System
- ◎ Electric Submersible Oil Pumping System
- ◎ Optical Fiber Flexible Bend Sensor

Industrial Power Supply

- ◎ Power Supply for ICT
- ◎ Electric Power Supply
- ◎ Power Supply for Medical Devices
- ◎ Power Supply for Industrial Microwave
- ◎ Customized Power Supply for Industries



Power Supply for Smart Home Appliances

- ◎ Visual Display
- ◎ HVAC
- ◎ Kitchen Appliances
- ◎ Smart Sanitary Ware

Industrial Automation

- ◎ Inverter
- ◎ Servo
- ◎ PLC
- ◎ Controller for Injection Molding Machine & CNC
- ◎ Frame Power Supply
- ◎ Integrated Driver for Elevator

EV & Railway

- ◎ Drive and Control Modules for EV
- ◎ Charging Station Modules
- ◎ Drive, Control & AC Modules for Railway



Research and Development

MEGMEET'S relentless pursuit of innovation is best reflected in our R&D efforts. The company invests more than 10% of its sales revenue in R&D each year and has developed innovative cutting-edge technologies, leading laboratories and a team of industry experts around the world. Equipped with unique insights into industry outlook and a deep understanding of customers' needs, MEGMEET is in a position to address customers' needs with competitive products in a fast and accurate way.

Efficient & Stable R&D Team

1000+

R&D Engineers

300+

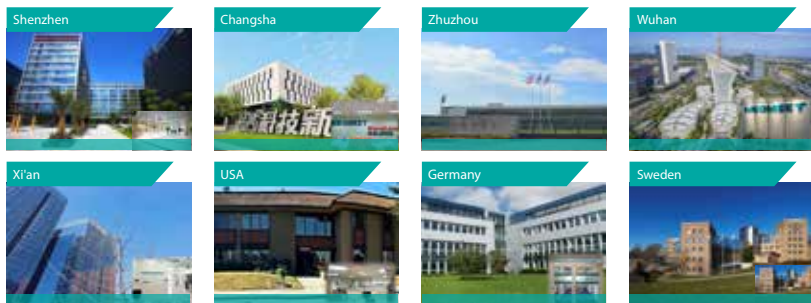
Technological Innovations led by staff holding Master and PhD Degrees

9

R&D Centers

R&D Centers & Institutes

- ◎ Shenzhen R&D Center ◎ Zhuzhou R&D Center ◎ Changsha Institute ◎ Wuhan Institute
- ◎ Xi'an Institute ◎ Hangzhou R&D Center ◎ Taizhou R&D Center ◎ Germany Institute
- ◎ Sweden Institute

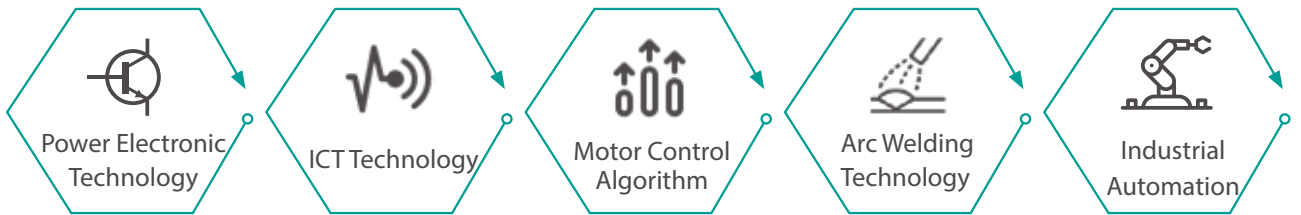


R&D investment equivalent to 10% of our sales revenue





Leading Technological Platform



Professional Testing Laboratories



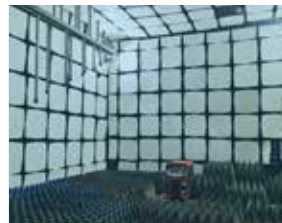
- ⊙ Environmental Testing Laboratory
- ⊙ IPX1-9K Laboratory
- ⊙ 15P Enthalpy Difference Laboratory



- ⊙ Design Verification Laboratory
- ⊙ Power Test Laboratory for EV
- ⊙ Lightning & Surge Testing Laboratory



- ⊙ Electromagnetic Interference Laboratory
- ⊙ Aging Chamber
- ⊙ Salt Spray Testing Laboratory



- ⊙ Power Grid Simulation Laboratory
- ⊙ Temperature & Humidity Laboratory
- ⊙ Vibration Test Laboratory

Production Capacity

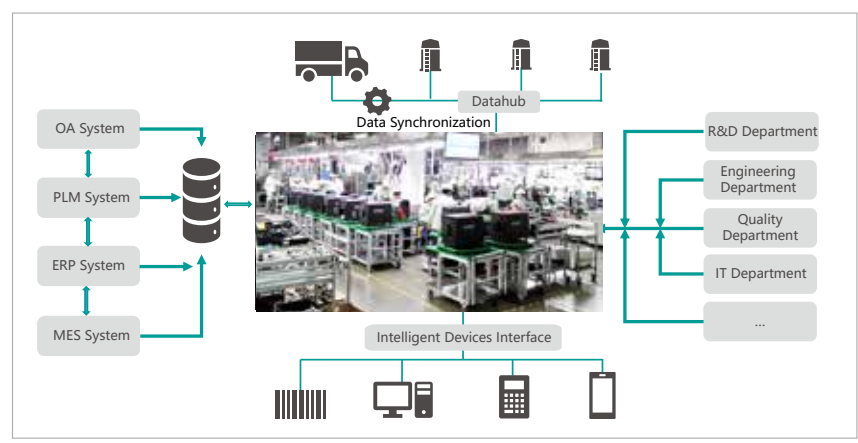


Production capacity up to USD 1.5 Billion

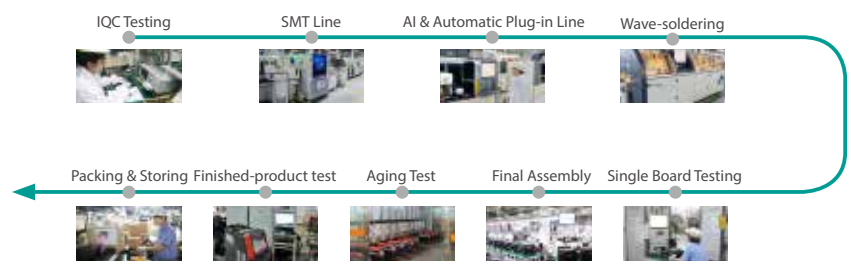


Factory Digitalization

MEGMEET owns several production facilities around the world, among which the Zhuzhou Industrial Park is the global manufacturing center for the company's electronic products. Manufacturing digitalization has been implemented in Zhuzhou Industrial Park to provide life cycle management for all products.



Manufacturing Process





Manufacturing Facilities

Manufacturing facilities have been established in different countries to improve customer responsiveness.





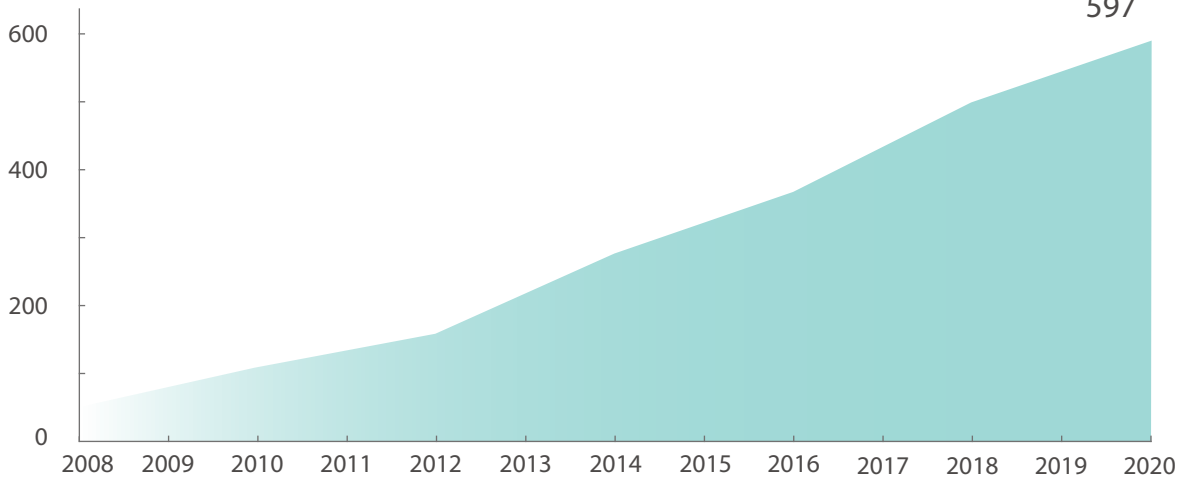
Honors & Awards

- ◎ China National High-tech Enterprise
- ◎ Guangdong Smart Power Engineering Technology Center
- ◎ Shenzhen Municipal R&D Center (Technology)
- ◎ MEGMEET-Texas Instrument Joint Laboratories
- ◎ Shenzhen Narrow-gap Welding Technology Laboratory
- ◎ First Asian "CRAW Certification and Testing Center" designated by AWS
- ◎ Guangdong Pilot Enterprises for Industrialization & Informatization Management System
- ◎ Shenzhen Intellectual Property Advantageous Enterprises
- ◎ MEGMEET-Onsemi Joint Laboratories
- ◎ Shenzhen Nanshan Top-100 taxpayers
- ◎ Shenzhen Nanshan High-level Innovative Talents Training Center

“ MEGMEET is committed to continuously meeting and exceeding customers' expectations, to steadily increasing investment in R&D, and to consistently innovating to stay ahead of its competition. ”



Number of Patents



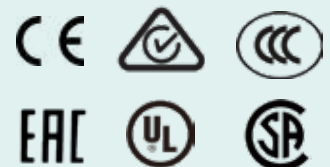
International Management Standard Certification

- ◎ ISO9001(Quality certification)
- ◎ ISO14001(Environment certification)
- ◎ ISO13485(Medical certification)
- ◎ IATF16949(Certification for automobile industry)
- ◎ TL9000(Certification for communication industry)

Three-phase Verification

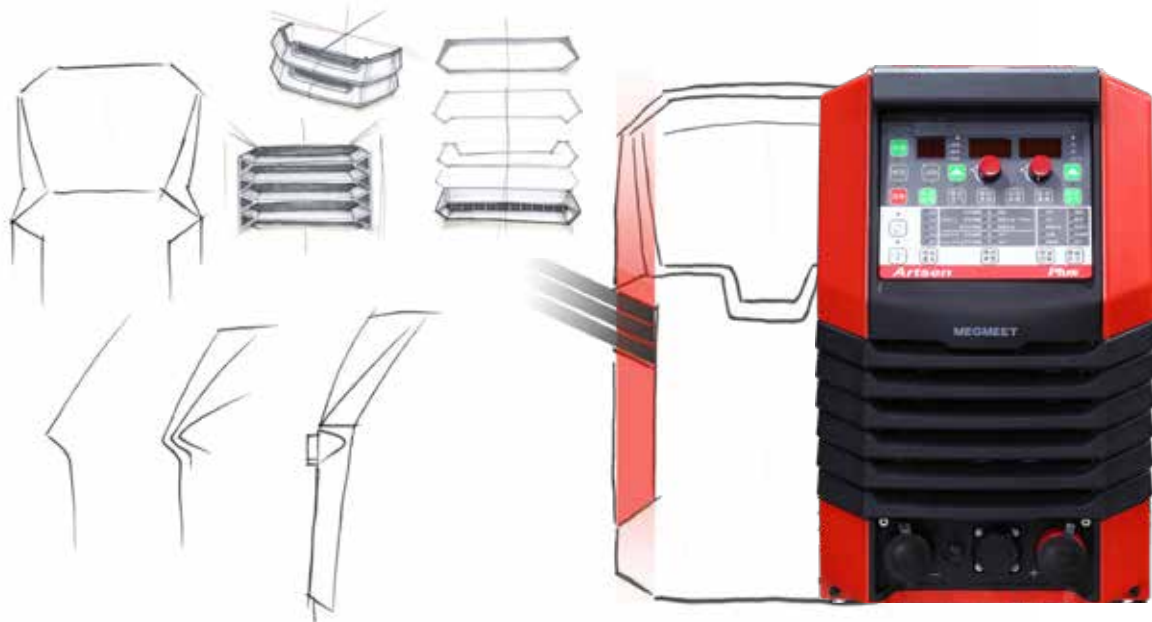
- ◎ Verification of sourcing items
- ◎ Validation in product development
- ◎ Testing of materials in mass production

Product Certification for Different Markets



Business Philosophy

We strive to become a trusted and preferred partner to our customers by delivering highly reliable welding products and solutions.



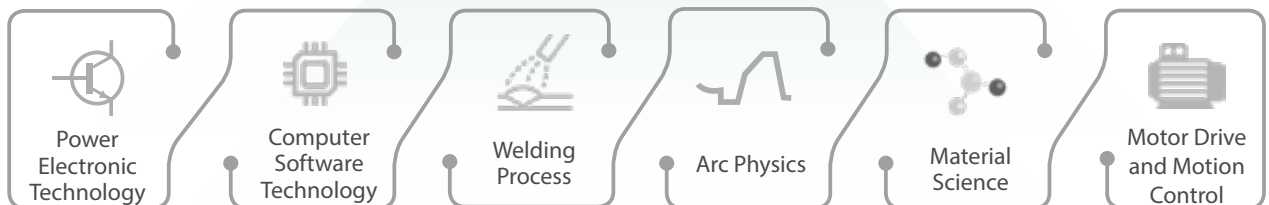


High-performance Digital-control Welding Equipment

Industry-tailored applications

Welding expert database

Welding process modeling



MEGMEET's cross-border integration of multidisciplinary and engineering technologies



Application in Professional Welding & Key Industries



Automotive & Railway

- CRRC
- BYD Auto
- Wuling Faurecia
- Yutong
- CIMC
- Fuwa
- SAIC
- JBM (India)
- DIT Holding
- NANFU Aluminum
- Q J MOTOR
- Loncin
- Sheng Run Automobile
- Sunhunk
- Hong Tai
- Yate Auto



Construction & Mining Machinery

- SANY
- XCMG
- ZOOMLION
- Sunward
- LIUGONG
- ZMJ
- CRCHI (CRRC)
- NFLG
- Schwing Stetter
- SD-Gold
- MESDA



Ship-building & Marine Engineering

- CSSC
- CNOOC
- CIMC Raffles
- DAMEN
- ZPMC
- COSCO
- Yangzijiang
- New Times Shipbuilding
- New Dayang Shipbuilding (SUMEC)
- Xiang Yu
- CSE (Chiwan Sembaowang Engineering)



Heavy Steel Construction

- CSCEC
- Hong Lu Steel Structure
- BSB (Broad Sustainable Building)
- Bo Rui Heavy Traffic Equipment
- Fu Huang
- Jing Gong
- Hang Xiao Steel Structure
- Dong Fang Steel Structure



Shipping Container & others

- CIMC
- FUWA
- OCCL
- Midea
- TBEA
- State Grid Corporation of China
- CXIC
- Hangyang
- JZNEE
- Zhongwang
- CHINALCO (CSCEC)
- China Southern Power Grid
- BTW Electric
-

Product market performance

Leading in MIG / MAG equipment for robotic welding for 6 consecutive years in China with market share of

30%.





Selection List

Product Series	Page No.	Applicable Metal / Consumables					Welding Process				Featured Welding Process					
		Steel / Solid Wire	SUS	Aluminum Alloy	AlSi CuSi (1.2mm)	Metal-cored	MAG / CO2	FCAW	Pulse MIG / MAG	MMA	Tranquil Fusion	Thunder Fusion	Leaping Fusion	DP Fusion	LSA	QPT [3]
Artsen II CM 500 / 400 / 350	25	●					●	●		●						
Artsen II PM 500 / 400 F	25	●			○		●	●	●	●						
Artsen II PM 500 / 400 N	25	●	●		○		●	●	●	●						
Artsen II PM 500 / 400 AS	25	●	●	●	○		●	●	● ^[1]	●						
Artsen II PM 500 / 400 AD	25	●	●	●	○		●	●	●	●						
Artsen Plus 500 / 400 / 350 D	33	●	●				●	●			●		○		○	
Artsen Plus 500 / 400 / 350 P	33	●	●				●	●	●		●	●	○		○	
Artsen Plus 500 / 400 / 350 Q	33	●	●	●			●	●	●		●	●	○		○	
Artsen Pro 500 H / 500 / 400 D	43	●	●				●	●								●
Artsen Pro 500 H / 500 / 400 P	43	●	●				●	●	●			●				●
Artsen Pro 500 H / 500 / 400 Q	43	●	●	●			●	●	●			●				●
Dex DM 3000 / DM3000 S	49	●	●				●			●						●
Dex PM3000 / PM3000 S	49	●	●	●			●		●	●						●
Dex PM3000 Q / PM3000 QS	49	●	●	●		●	●		●	●						● ●
Artsen CM500 C	55	●					●	●		●						
Ehave CM500 H / 500 / 400 / 350	59	●					●	●		●						

[1] : Double pulse MIG/MAG for aluminum alloy is not available with Artsen II PM500/400 AS;

[2] : Intermediate wire-feeder and push-pull torch are only applicable with Euro connector.

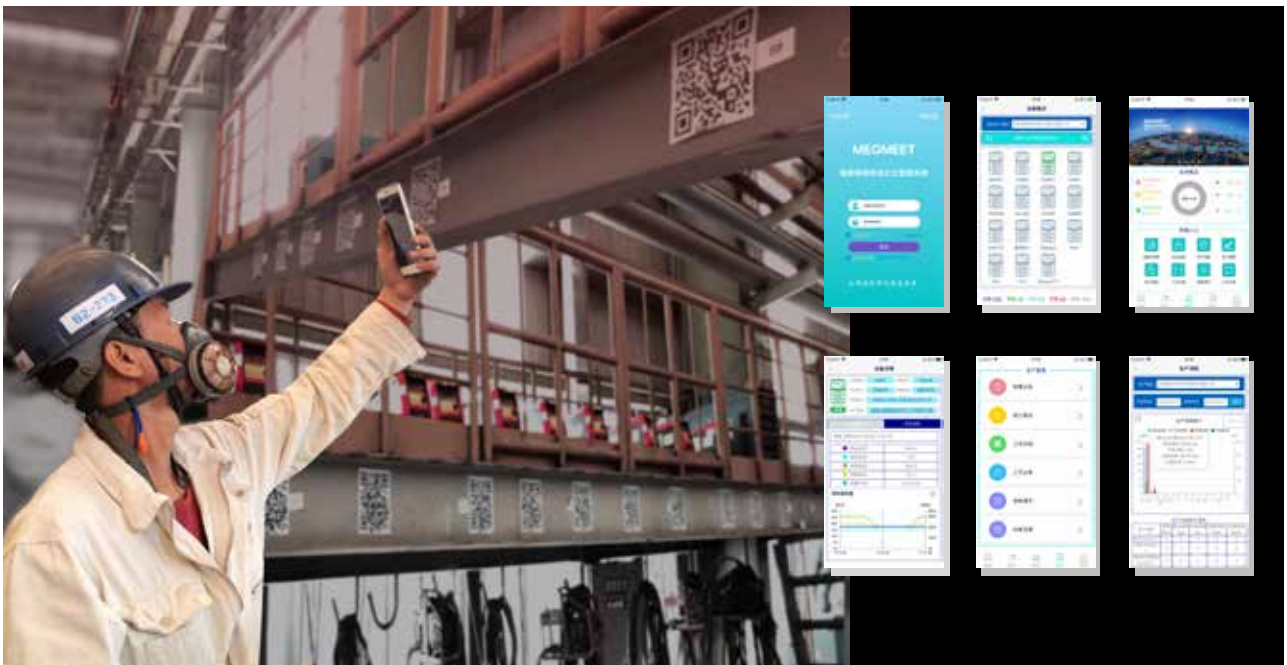
[3] : QPT: Quick Pulse Technology. Welding speed of pulse MIG/MAG reaches 2 times of the standard pulse MIG/MAG. It lowers the sensitivity to shield gas for stainless steel welding.

Communication with Robot & Automation						SMARC IoT	Featured Functions				
EtherNetIP	EtherCAT	ProfiNet	Analog & Automation	DeviceNet	CANOpen		Constant Penetration	Up/Down Torch	Intermediate Wire-feed [2]	Push-Pull Torch	Digital Meter on Wire-feeder
○	○	○	○	○	○	○		○	○	●	●
○	○	○	○	○	○	○	●	○	○	●	●
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SMARC™

Informatization and IoT Solution for Smart Welding Manufacturing



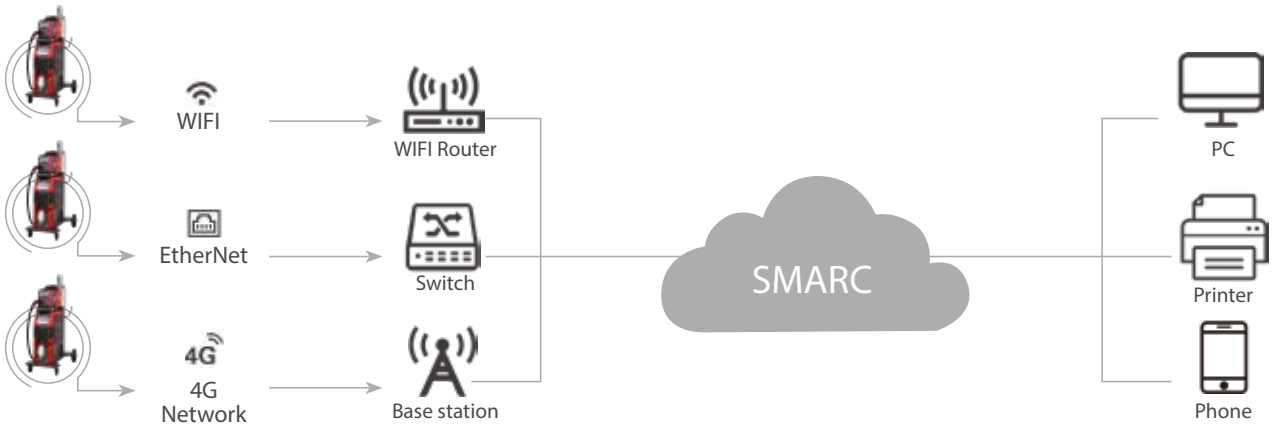
SMARC

Informatization and IoT Solution for Smart Welding Manufacturing

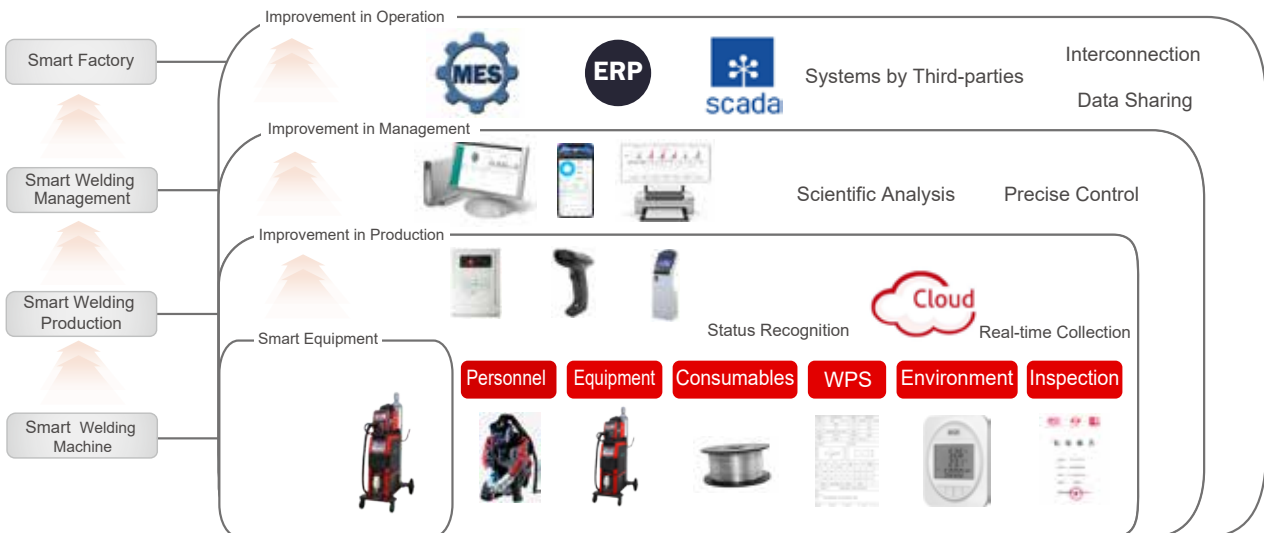
Supporting Smart Manufacturing for the Industries.



Basic Framework



Smart Welding Manufacturing and Solutions

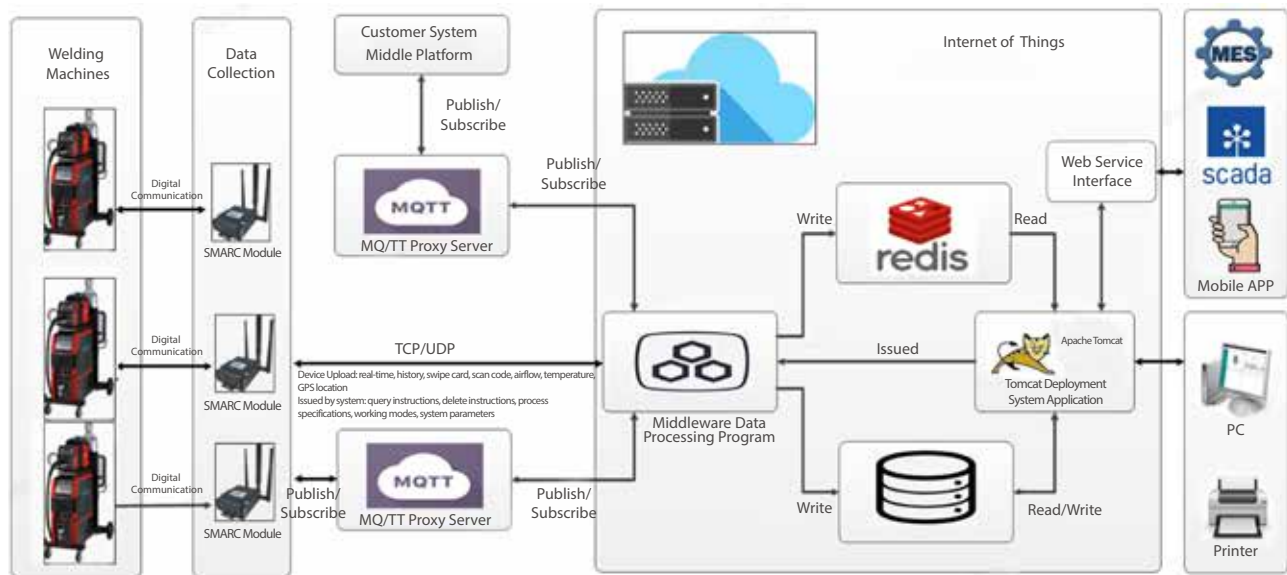




Informatization and IoT Solution for Smart Welding Manufacturing

Friendly Openness

MEGMEET SMARC System has an open data interface, which can be interconnected with MES, ERP and other systems, and supports welding machines of different brands to connect to the system to realize interconnection of all-thing.



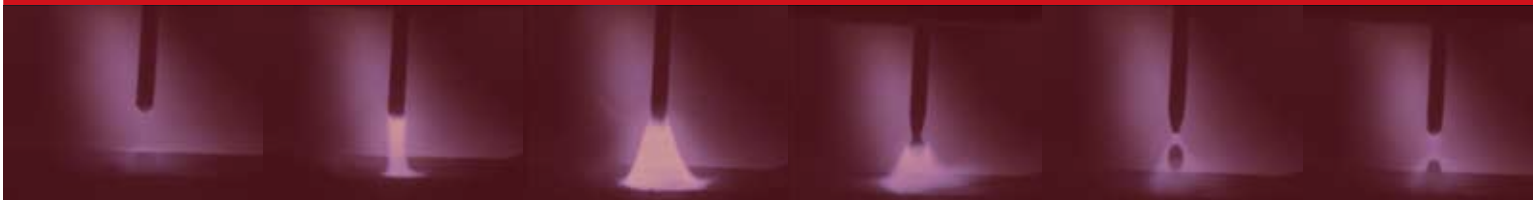
Data Security

In the information age, security of customer data has become more and more important. MEGMEET adopts a comprehensive encryption technology on the system side to ensure the security of customer information and MEGMEET can sign confidentiality agreements with customers.





Artsen II CM / PM Series





Artsen II CM/PM Series



Product Features

- Digital Microprocessor Controlled Inverter Technology.
- Synergic control of MIG/MAG/CO2 process, Pulse / Double Pulse MIG/MAG.
- Stable welding with stick-out length up to 30mm.
- Standard locking function for both front panel locking & parameters range locking.
- Standard Job saving features (up to 50 Job).
- Supporting SMARC for networking.
- Supporting Up/Down torch.
- Supporting Push-pull torch.
- MIG Brazing function as optional.
- Convenient for building multi-operator system.
- Proven record in heavy industries since 2014.
- High tolerance against input voltage fluctuation (25%+/-).
- Superior reliability with self-protecting design and error code display for easy maintenance.

Excellent Welding Performance

This series of products are equipped with a control process of "special energy controlled short-circuit transition", a droplet transfer control process of "pulse energy adjustment", and a synergic pulse energy control process based on varying wire feeding speeds, being suitable for carbon steel, stainless steel, and aluminum alloys and other high-quality welding, etc.



- Standard
- Optional with extra costs
- Not Applicable

Artsen II PM500 / 400 AD

- Synergic / Pulse / Double Pulse MAG for Carbon Steel and Stainless Steel

- Pulse & Double Pulse MIG for Aluminum and alloy

- DC CO₂/MAG
- Steel
- Aluminum / Aluminum Alloy
- Push-pull Welding Torch Interface
- Constant Penetration
- Mid-drive Wire Feeding Interface
- Standard Pulse
- Stainless Steel
- Aluminum Bronze
- Silicon Bronze

Artsen II PM500 / 400 AS

- Synergic / Pulse / Double Pulse MAG for Carbon Steel and Stainless Steel

- Single Pulse MIG for Aluminum and alloy

- DC CO₂/MAG
- Steel
- Aluminum / Aluminum Alloy
- Push-pull Welding Torch Interface
- Mid-drive Wire Feeding Interface
- Constant Penetration
- Standard Pulse
- Stainless Steel
- Aluminum Bronze
- Silicon Bronze

Artsen II PM500 / 400 F

- Synergic & Pulse MAG for Carbon Steel

- DC CO₂/MAG
- Steel
- Push-pull Welding Torch Interface
- Mid-drive Wire Feeding Interface
- Constant Penetration
- Standard Pulse
- Stainless Steel
- Aluminum Bronze
- Silicon Bronze
- Aluminum / Aluminum Alloy

Artsen II PM500 / 400 N

- Synergic / Pulse / Double Pulse MAG for Carbon Steel and Stainless Steel

- DC CO₂/MAG
- Steel
- Aluminum / Aluminum Alloy
- Push-pull Welding Torch Interface
- Mid-drive Wire Feeding Interface
- Constant Penetration
- Standard Pulse
- Stainless Steel
- Aluminum Bronze
- Silicon Bronze

Artsen II CM500 / 400 / 350

- Synergic MAG for Carbon Steel

- DC CO₂/MAG
- Steel
- Push-pull Welding Torch Interface
- Mid-drive Wire Feeding Interface
- Constant Penetration
- Standard Pulse
- Stainless Steel
- Aluminum Bronze
- Silicon Bronze
- Aluminum / Aluminum Alloy



Specification

Artsen II

Manual	Artsen II PM500 / 400 AD	Artsen II PM500 / 400 AS
Robotic *	Artsen II PM500 / 400 AD R	Artsen II PM500 / 400 AS R
Process		
Synergic MAG / CO ₂	●	●
Single & Double Pulse MAG for Steel	●	●
Single & Double Pulse MAG for SUS	●	●
Single Pulse MIG for Aluminum	●	●
Double Pulse MIG for Aluminum	●	-
Silicon bronze	○	○
Aluminum bronze	○	○
Constant Penetration	●	●
Functions		
Push-pull Torch	○	○
Middle-drive wire feeding	○	○
Up/Down Torch	○	○
SMARC / IoT	○	○

Manual	Artsen II PM500 AD / AS / N / F	Artsen II CM500
Robotic	Artsen II PM500 AD / AS / N / F R	Artsen II CM500 R
Control Mode	Fully Digital-control	
Rated Input Voltage	AC 3PH 380V -25% ~ 400V +20% (3PH 285V ~ 3PH 475V)	
Input Frequency	30 ~ 80 Hz	
Rated Input Power	24KVA / 22.3KW	24KVA / 22.3KW
Power Factor	0.93	
Efficiency	87%	
Rated OCV	73.3V	
Max Output Current	500A	
Rated Output Current	39V	
Rated Output Voltage	12 ~ 45V	
Duty Cycle (40°C / 10 min)	500A / 39V 60% @ 40°C 387A / 33.5V 100% @ 40°C	
Wire Diameter	φ 0.8 / 0.9 / 1.0 / 1.2 / 1.6 mm	
Welding Operation Mode	2T / 4T / Special 4T / Spot Welding / Intermittent Welding	
Electromagnetic Compatibility	EN 60974-10: 2014.	
Protection Against Lightening	Class D (6000V/3000A)	
Insulation Grade	H	
Ingress Protection	IP23 S	
Working Temperature / Humidity	-39°C ~ +40°C	
Dimension (L / W / H)	620mm*300mm*480mm	
Gross Weight	52KG	

● Standard ○ Optional

* : Please refer to P56-P64 for Robotic and Automatic Welding.



Artsen II

Manual	Artsen II PM500 / 400 N	Artsen II PM500 / 400 F	Artsen II CM500 / 400 / 350
Robotic *	Artsen II PM500 / 400 N R	Artsen II PM500 / 400 F R	Artsen II CM500 / 400 / 350 R
Process			
Synergic MAG / CO ₂	●	●	●
Single & Double Pulse MAG for Steel	●	●	-
Single & Double Pulse MAG for SUS	●	-	-
Single Pulse MIG for Aluminum	-	-	-
Double Pulse MIG for Aluminum	-	-	-
Silicon bronze	○	○	-
Aluminum bronze	○	○	-
Constant Penetration	●	●	-
Functions			
Push-pull Torch	○	○	○
Middle-drive wire feeding	○	○	○
SMARC / IoT	○	○	○
Up/Down Torch	○	○	○

Manual	Artsen II PM400 AD / AS / N / F	Artsen II CM400	Artsen II CM350
Robotic	Artsen II PM400 AD / AS / N / F R	Artsen II CM400 R	Artsen II CM350 R
Control Mode	Fully Digital-control		
Rated Input Voltage	AC 3PH 380V -25% ~ 400V +20% (3PH 285V ~ 3PH 475V)		
Input Frequency	30 ~ 80 Hz		
Rated Input Power	19.7KVA / 18KW	15 KVA / 12.7KW	15 KVA / 12.7KW
Power Factor	0.94	0.93	0.93
Efficiency	87%	87%	87%
Rated OCV	73.3V	73.3V	73.3V
Max Output Current	400A	400A	400A
Rated Output Current	34V	31.5v	31.5v
Rated Output Voltage	12 ~ 45V	12 ~ 45V	12 ~ 45V
Duty Cycle (40°C / 10 min)	400A 100% @ 40°C	350A 100% @ 40°C	350A 100% @ 40°C
Wire Diameter	φ 0.8 / 0.9 / 1.0 / 1.2 / 1.6 mm		
Welding Operation Mode	2T / 4T / Special 4T / Spot Welding / Intermittent Welding		
Electromagnetic Compatibility	EN 60974-10: 2014.		
Protection Against Lightening	Class D (6000V/3000A)		
Insulation Grade	H		
Ingress Protection	IP23 S		
Working Temperature / Humidity	-39°C ~ +40°C		
Dimension (L / W / H)	620mm*300mm*480 mm		
Gross Weight	52KG		

Push-pull Welding Torch

Outstanding Stability with Push-pull Wire-feeding



Product Features:

- Capability to work with push-pull torches by major torch manufacturers with easy connection and one-button selection in internal menu.
- Welding current (wire-feeding speed) and voltage (arc-length correction) adjustable from push-pull torch body.
- Widely used in welding aluminum for large work pieces.



Up/Down Torch Control and Connection



- Up/Down Control of Current
- Up/Down Control of Voltage

Intermediate Wire-feeder

Mid-way Reinforcement for Ultra-Long Wire-feeding

Product Features

- Light and small, weighing only 4.3kg; robust and durable with metal structure; streamline design for frequent mobility.
- Digital display for convenient checking and configuration of welding parameters.
- Reaching up to 58 m working scope for solid wires of steel, including 30m by wire-feeder, 25 m by the Intermediate wire-feeder and 3 m by the torch.
- Low cost in welding consumables by allowing working with ordinary welding torch.
- Widely applicable for conditions of long distance and narrow space, such as large tanks, shipbuilding and large steel construction.

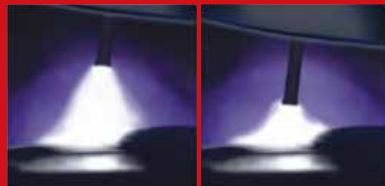


Specification

Specification		
Package List	Power cable set; Control cable set (10 pin); Gas hose, water hose, liner.	
Size of Power Cable	Standard: 50mm; Customized: 70mm;	
Welding Current (50mm Cable)	60%@380A, 100%@300A	
Max Cable Length of Intermediate Wire-feeder	Solid wire of Carbon Steel	25m
	Solid wire of Stainless Steel	25m
	Flux-cored wire of Carbon Steel	15m
	Alluminum and Alloy	10m
Motor Voltage	DC 24V	
Wire-Feeding Speed	1.5 ~ 24 m/min	
Intermediate-Drive Wire Feeder Weight	4.3 Kg	
A/V Display	Yes	
Configuration Function	Yes	
Locking-up Function	Yes	



Artsen Plus Series
Intelligent Platform of MIG/MAG Welding Process





Artsen Plus Series

Intelligent Platform of MIG/MAG Welding Process

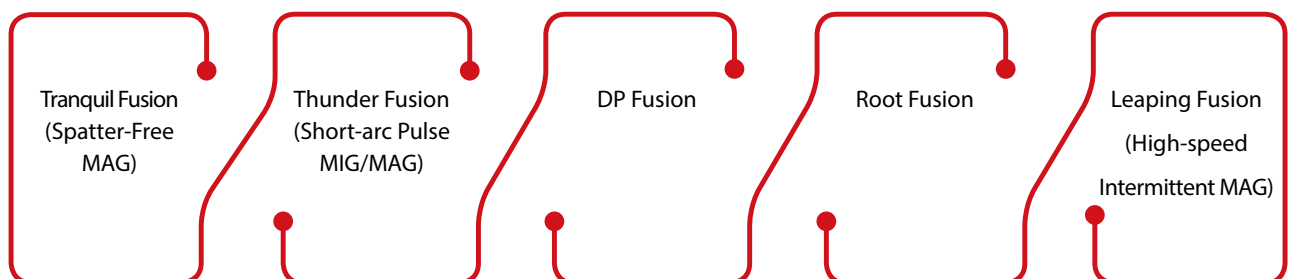


Features

- Based on the robust Artsen series, Artsen Plus is elevated with inverter frequency of 100K HZ, super high-speed sampling and highly precise control.
- Applying worm gear motor of high torque and low inertia, and the highly precise code wheel of 120 lines and the HF motor control system. Start-up, braking and withdrawal at millisecond level are reached. Withdrawal at both the arc ignition and ending stage are controlled precisely. Together with the welding parameter control, optimum arc ignition and crater performance are gained.
- A stable and comprehensive hardware platform of high speed. The open software system makes it possible to expand process control program for different welding conditions and collect expert database, meeting continuously updating process demands from customers.
- Capable of multiple welding processes, as well of combination and switch between different process in order to face the changing welding challenges.
- Equipped with USB port for upgrading, ensuring access to the most advanced welding process developed by MEGMEET and the most suitable welding software to face different welding conditions.
- Capable to work with multiple industrial robots thru multiple robotic protocol.

Advanced Welding Process of Artsen Plus Series

Artsen Plus is capable of multiple welding modes, and provides more suitable welding solution for welding of higher efficiency, thinner sheets, thicker plates or more various metal materials.



Artsen Plus Series

Artsen Plus 500Q / 400Q / 350Q

- Tranquil Fusion for Carbon Steel and Stainless Steel.
- Thunder Fusion for Aluminum, Carbon Steel and Stainless Steel

- Tranquil Fusion
- Synergic CO₂/MAG
- Thunder Fusion
- Leaping Fusion
- DP Fusion
- Steel
- Stainless Steel
- Aluminum
- Constant Penetration
- USB Port
- Push-pull Torch Connector

Artsen Plus 500P / 400P / 350P

- Tranquil Fusion for Carbon Steel and Stainless Steel
- Thunder Fusion for Carbon Steel and Stainless Steel

- Tranquil Fusion
- Synergic CO₂/MAG
- Thunder Fusion
- Leaping Fusion
- DP Fusion
- Steel
- Stainless Steel
- Aluminum
- Constant Penetration
- USB Port
- Push-pull Torch Connector

Artsen Plus 500D / 400D / 350D

- Tranquil Fusion for Carbon Steel and Stainless Steel

- Tranquil Fusion
- Synergic CO₂/MAG
- Thunder Fusion
- Leaping Fusion
- DP Fusion
- Steel
- Stainless Steel
- Aluminum
- Constant Penetration
- USB Port
- Push-pull Torch Connector



- Standard
- Optional with extra costs
- Not Applicable



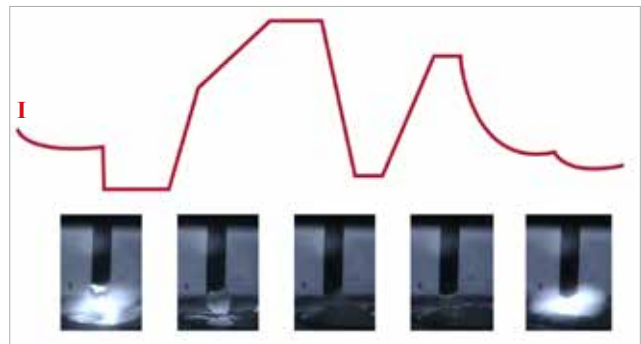
Tranquil Fusion

Using the patented monitoring and control technology in droplet formation, with the highly sensitive Tranquil Fusion module and the energy-releasing technology in the power source, MEGMEET achieved precise control of the droplet formation and transfer. At the transfer moment of each droplet, welding current is controlled to be an extremely low level. As a result, the droplet moves into the molten pool peacefully without spatter from explosion. The waveform also lowered the heat-input substantially.



Features in Welding Process:

- Soft welding arc with tranquil welding pool and superbly low spatter.
- The welding energy is subject to adjustment. Heat input can be effectively reduced
- Remarkable welding junction with lowered defects of blowhole and undercut. Suitable for high quality root welding at all welding positions.
- The welding speed is significantly increased



Automotive parts
Spatter-free and low heat-input



Automotive parts
Stainless steel



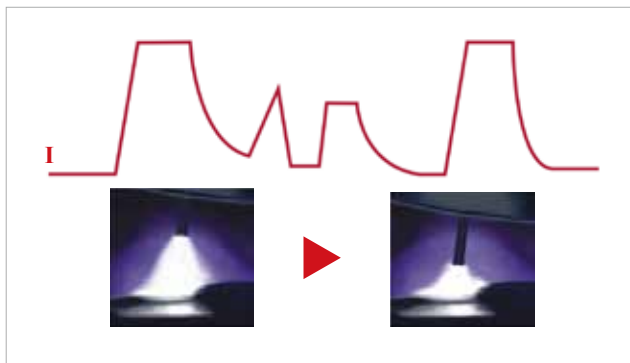
Two-wheeler parts
Low heat-input
and strong in gap-filling

Thunder Fusion

Shot-circuit transfer was added into waveform of the standard pulse process. It is a superb combination of synergic and pulse welding process together with their advantages, and achieving better results with short welding arc.

Features in Welding Process:

- Welding with lowered voltage to achieve spatter-free and beautiful results with pulse process
- Short in transfer arc, higher in transfer frequency, stronger in anti-interference capability
- More friendly to robotic welding with high arc stiffness and sharp arc direction
- Heat-input lowered to avoid defects like under-cut
- Deposition rate increased
- Welding spatter is eliminated. Welding process becomes well controlled



Standard Pulse

Thunder Fusion



Heavy construction equipment

Spatter-free with Thunder Fusion



Energy

High-speed welding with anti-interference capability



Welding aluminum and alloys

Higher quality in aluminum welding

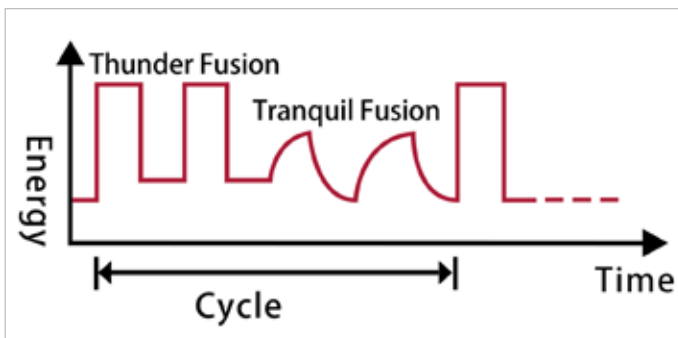


DP Fusion

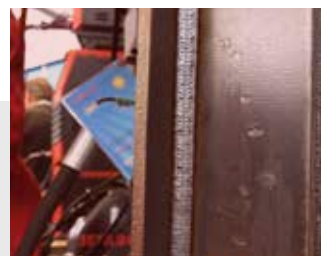
Using short-circuit and pulse welding waveform together but at high-frequency and stable alternate switching. Welding arc periodically heats and cools the base material, and effectively reduces heat-input. It is a welding method that combines short-circuit and pulse transfer, which requires precise control of welding power source and waveform

Features in Welding Process:

- Highly applicable for vertical-up welding without weaving
- Highly suitable for full-position welding of plates over 2.5 mm, especially with robotics and welding automation
- More precise control of heat-input and welding formation. The internal expert menu is highly open for configuration, and enables precisely control of the parameters such as the alternating frequency, duty cycle, peak value and base value
- Obvious changes in energy. Fast in welding cycle. Achieving clear fish-scale results even in carbon steel and stainless steel



All-position welding



Vertical-up welding without weaving

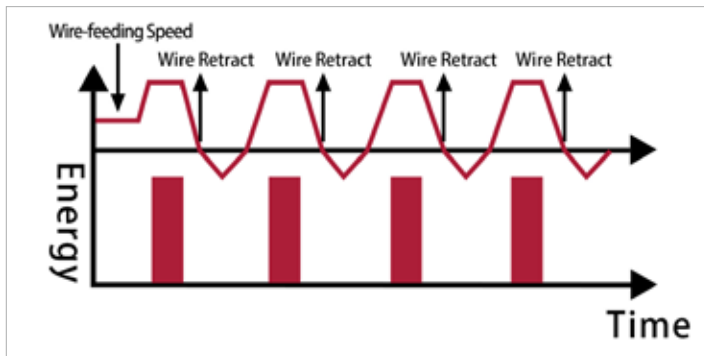


Leaping Fusion

Perfectly integrating the welding process, arc physics, power source technology of high dynamic response and motor control technology. Each time a macroscopic molten pool is formed during the welding process, the welding wire is drawn back at high frequency while the current is sharply reduced to quickly complete a spot welding. The cycle repeats itself, which is more efficient than the traditional spot-welding

Process characteristics:

- The welding arc starts quickly, and ends sharply. The molten-pool can be formed fast, with extremely low heat input and deformation
- 2-3 times faster than traditional spot welding, while achieving clear fish-scale welding appearance
- High tolerance over in-consistent cutting results. Very suitable for welding of gaps and at all-position
- Suitable for the bicycle industry where fish-scale results are requested for carbon steel





USB Port

It benefits welders by ensuring fast access to the latest or any tailor-made welding process by MEGMEET. Welding process could be shared and down-loaded from online into a USB, and used thru the port for upgrading



Consistant Fusion



When the base material is uneven and the stick-out length changes, the power-source automatically adjust instantly the wire-feeding speed, and prevent the melting depth from being affected by the changing stick-out length. Welding quality is therefore improved

Process characteristics:

- The welding arc has high dynamic characteristics and stability, stable penetration, and high quality
- Suitable for automated welding by robots and special machines



Artsen Plus Wire-feeders

	Enclosed-type	Light-weight type
		
Drive control mode	Photoelectric encoder feedback / Counter electromotive force	Counter electromotive force
Rated current	4.5A	4.5A
Rated voltage	24V	24V
Wire-feeding speed	0.8 ~ 24 m / min	0.8 ~ 24 m / min
Wire diameter	0.8 ~ 1.6	0.8 ~ 1.6
Wire-spool	All standard wire reel	All standard wire reel
Drive and roller	4-rollers	4-rollers
Torch connectors	Euro (standard) / Japanese (optional)	Japanese (optional) / Euro
Dimension (L / W / H)	630*250*400	519*200*370
Gross weight	14.5	9.6

Specification

Artsen Plus

Manual	Artsen Plus 500 / 400 / 350 Q	Artsen Plus 500 / 400 / 350 P	Artsen Plus 500 / 400 / 350 D
Robotics	Artsen Plus 500 / 400 / 350 Q R	Artsen Plus 500 / 400 / 350 P R	Artsen Plus 500 / 400 / 350 D R
Welding Process			
Synergic	●	●	●
Tranquil Fusion	●	●	●
Thunder Fusion	●	●	-
Leaping Fusion	●	○	○
DP Fusion	●	○	-
Material			
Steel	●	●	●
Stainless Steel	●	●	●
Aluminum	●	-	-
Featured Function			
USB for Upgrading	●	●	●
Consistent Fusion	●	●	-
Push-pull torch connection	●	●	●
Relay wire-feeder for barrel	○	○	○
SMARC / IoT	○	○	○
A / V display in manual wire-feeder	●	●	●
Manual	Artsen Plus 500 D / P / Q	Artsen Plus 400 D / P / Q	Artsen Plus 350 D / P / Q
Robotics	Artsen Plus 500 D / P / Q R	Artsen Plus 400 D / P / Q R	Artsen Plus 350 D / P / Q R
Control Mode	Fully Digital-Control		
Rated Input Voltage 1	AC 3PH 380V -25% ~ 400V +10% (3PH 285V ~ 3PH 440V)		
Rated Input Voltage 2	-	-	AC 3PH 220V +/-15% (3PH 187V ~ 3PH 254V)
Input Frequency	45 ~ 65Hz		
Rated Input Power	24KVA / 22.3KW	16KVA / 14KW	15KVA / 12.7KW
Power Factor	0.93	0.94	0.94
Efficiency	87%		
Rated OCV	85V		
Max Output Current	500A	400A	350A
Rated Output Current	30 ~ 500 A	30 ~ 400 A	30 ~ 350 A
Rated Output Voltage	12 ~ 45V (Precision at 0.1V)		
Duty Cycle (40°C / 10 min)	500A / 39V 60% @ 40°C 387A / 33.5V 100% @ 40°C	400A / 34V 100% @ 40°C	350A / 33.5V 60% @ 40°C 270A / 27.5V 100% @ 40°C
Wire Diameter	φ 0.8 / 1.0 / 1.2 / 1.6 mm		
Welding Operation Mode	2T / 4T / Special 4T / Spot Welding / Intermittent Welding		
Electromagnetic Compatibility	EN 60974-10 EMC		
Protection Against Lightning	Class D (6000V/3000A)		
Insulation Grade	H		
Ingress Protection	IP23 S		
Working Temperature / Humidity	-39°C ~ +50°C ; Humidity ≤ 95%;		
Dimension (L / W / H)	620mm*300mm*480mm		
Gross Weight	57.5Kg	57.5Kg	53Kg

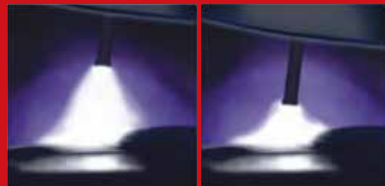
* : Please refer to P56-P64 for Robotic and Automatic Welding.

● Standard ○ Optional





Artsen Pro Series
Intelligent Platform of MIG/MAG Welding Process





Artsen Pro Series

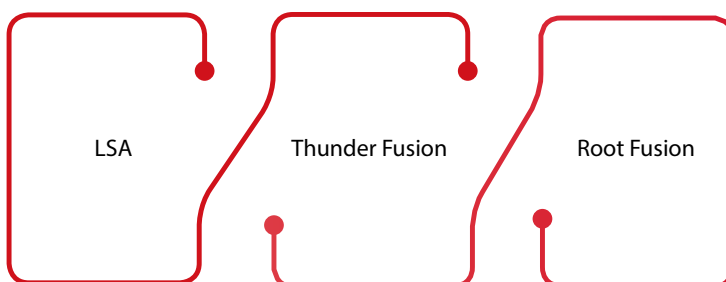
Intelligent Platform of MIG/MAG Welding Process



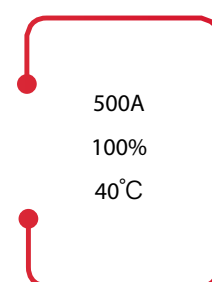
Features

- Artsen Pro series was developed on the basis of the Artsen Plus series. It has met the demand of high efficiency welding, especially for thick plates.
- Power source of 500A 100% is available for Artsen Pro series.
- With inverter technology of frequency as high as 100K HZ and high-speed sampling, Artsen Pro achieves precise control, and is flexible with various welding characteristics.
- Artsen Pro series brings LSA, a featured low-spatter welding process, as standard. Thunder Fusion is also available with Artsen Pro for the advanced short-arc pulse and double pulse MIG/MAG.
- Artsen Pro series meets high quality welding of carbon steel, stainless steel and aluminum alloys.
- Equipped with Constant Fusion, which allows wire-feeding speed at pulse mode to change automatically according to the stick-out length, and keeps the penetration stabilized.
- Capable to work with multiple industrial robots thru multiple robotic protocols.
- Anti-interference capability, especially convenient for welding automation of multiple torches.
- Equipped with USB port for upgrading, ensuring access to the most advanced welding process developed by MEGMEET and the most suitable welding software to face different welding conditions.
- Artsen Pro brings various wire-feeders to meet different welding applications at different markets of different budget levels.

Advanced Welding Process of Artsen Pro Series



Heavy-duty Power Source



Artsen Pro Series

Artsen Pro

500H Q / 500Q / 400Q / 350Q

- LSA for Carbon Steel and Stainless Steel.

- Thunder Fusion for Aluminum, Carbon Steel and Stainless Steel

LSA Synergic CO₂/MAG

Thunder Fusion

Steel Stainless Steel Aluminum

Constant Penetration USB Port

Push-pull Torch Connector

Artsen Pro

500H P / 500P / 400P / 350P

- LSA for Carbon Steel and Stainless Steel

- Thunder Fusion for Carbon Steel and Stainless Steel

LSA Synergic CO₂/MAG

Thunder Fusion

Steel Stainless Steel Aluminum

Constant Penetration USB Port

Push-pull Torch Connector

Artsen Pro

500H D / 500D / 400D / 350D

- LSA for Carbon Steel and Stainless Steel

LSA Synergic CO₂/MAG

Thunder Fusion

Steel Stainless Steel Aluminum

Constant Penetration USB Port

Push-pull Torch Connector

Standard

Optional with extra costs

Not Applicable

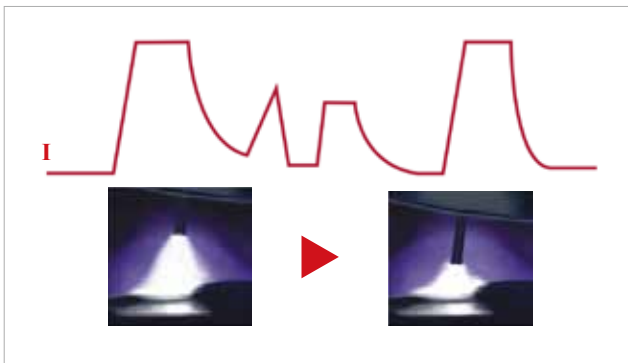


Thunder Fusion

Shot-circuit transfer was added into waveform of the standard pulse process. It is a superb combination of synergic and pulse welding process together with their advantages, and achieving better results with short welding arc.

Features in Welding Process:

- Welding with lowered voltage to achieve spatter-free and beautiful results with pulse process
- Short in transfer arc, higher in transfer frequency, stronger in anti-interference capability
- More friendly to robotic welding with high arc stiffness and sharp arc direction
- Heat-input lowered to avoid defects like under-cut
- Deposition rate increased
- Welding spatter is eliminated. Welding process becomes well controlled



Standard Pulse

Thunder Fusion



Heavy construction equipment

Spatter-free with Thunder Fusion



Heavy steel fabrication

High-speed welding of multiple torches



Welding aluminum and alloys

Higher quality in aluminum welding



LSA (Low-spatter Arc for MAG / CO₂)

Optimized and upgraded on the basis of standard synergic MIG/MAG, through software-based precise control, the molten droplet of short-circuit transfer is softly disconnected, so that the spatter caused by the traditional liquid bridge explosion and electromagnetic repulsion is reduced. The molten pool is calmer, and the weld formation is more beautiful.

Process Characteristics:

- Accurate in software control for high-frequency short-circuit transfer. Lower in spatter. Lower in heat input. Highly suitable for sheet metal welding
- Soft in welding arc and fine with spatter particles. Less spatter to remain on the workpiece. Lower with rework like grinding after welding. Higher in total working efficiency
- Higher in welding speed. Better in deformation control. More helpful in welding quality



USB Port

It benefits welders by ensuring fast access to the latest or any tailor-made welding process by MEGMEET. Welding process could be shared and down-loaded from online into a USB, and used thru the port for upgrading



Consistant Fusion

When the base material is uneven and the stick-out length changes, the power-source automatically adjust instantly the wire-feeding speed, and prevent the melting depth from being affected by the changing stick-out length. Welding quality is therefore improved

Process characteristics:

- The welding arc has high dynamic characteristics and stability, stable penetration, and high quality
- Suitable for automated welding by robots and special machines





Specification

Artsen Pro

Manual	Artsen Pro 500 H / 500 / 400 / 350 Q	Artsen Pro 500 H / 500 / 400 / 350 P	Artsen Pro 500 H / 500 / 400 / 350 D	
Robotics	Artsen Pro 500 H / 500 / 400 / 350 Q R	Artsen Pro 500 H / 500 / 400 / 350 P R	Artsen Pro 500 H / 500 / 400 / 350 D R	
Welding Process				
Synergic	●	●	●	
LSA	●	●	●	
Thunder Fusion	●	●	-	
Leaping Fusion	-	-	-	
DP Fusion	-	-	-	
Material				
Steel	●	●	●	
Stainless Steel	●	●	●	
Aluminum	●	-	-	
Featured Function				
USB for Upgrading	●	●	●	
Consistent Fusion	●	●	-	
Push-pull torch connection	●	●	●	
Relay wire-feeder for barrel	○	○	○	
SMARC / IoT	○	○	○	
A / V display in manual wire-feeder	●	●	●	
Manual	Artsen Pro 500 H D / P / Q	Artsen Pro 500 D / P / Q	Artsen Pro 400 D / P / Q	Artsen Pro 350 D / P / Q
Robotics	Artsen Pro 500 H D / P / Q R	Artsen Pro 500 D / P / Q R	Artsen Pro 400 D / P / Q R	Artsen Pro 350 D / P / Q R
Control Mode	Fully Digital-Control			
Rated Input Voltage1	AC 3PH 380V -25% ~ 400V +10% (3PH 285V ~ 3PH 440V)			
Rated Input Voltage2	AC 3PH 220V +/-15% (3PH 187V ~ 3PH 254V)			
Input Frequency	45 ~ 65Hz			
Rated Input Power	24KVA / 22.3KW	24KVA / 22.3KW	16KW / 14KW	15KVA / 12.7KW
Power Factor	0.93	0.94	0.94	0.93
Efficiency	87%			
Rated OCV	85V			
Max Output Current	500A	500A	400A	350A
Rated Output Current	30 ~ 500 A	30 ~ 500 A	30 ~ 400 A	30 ~ 350 A
Rated Output Voltage	12 ~ 45 V (Precision at 0.1V)			
Duty Cycle (40°C / 10 min)	500A / 39V 100% @ 40°C	500A / 39V 60% @ 40°C 387A / 33.5V 100% @ 40°C	400A / 34V 100% @ 40°C	350A / 33.5V 60% @ 40°C 270A / 27.5V 100% @ 40°C
Wire Diameter	φ 0.8 / 1.0 / 1.2 / 1.6 mm			
Welding Operation Mode	2T / 4T / Special 4T / Spot Welding / Intermittent Welding			
Electromagnetic Compatibility	EN 60974-10 EMC			
Protection Against Lightning	Class D (6000V/3000A)			
Insulation Grade	H			
Ingress Protection	IP23 S			
Working Temperature / Humidity	-39°C ~ +50°C ; Humidity ≤ 95%;			
Dimension (L / W / H)	620mm*300mm*480mm			
Gross Weight	57.5Kg			

● Standard ○ Optional

* : Please refer to P56-P64 for Robotic and Automatic Welding.



Dex Series
(Compact)



Dex Series
(Decompact)

Compact but
Powerful and
Professional.



Dex Series

Born for sheet metal



Features

- Low spatter arc for carbon steel at synergic MAG mode
- Better performance for SUS at synergic mode
- Short-arc pulse MIG/MAG (QPT) with superb performance for SUS
- Highly easy to use with wide expert database and synergic control
- Power-saving with up to 90% efficiency
- Waveform control at a new level with 180K HZ output frequency
- Better tolerance for minor changes of welding voltage
- Standard Job saving features (up to 50 Job)
- Up to 15m inter-connection cable for more flexibility
- Highly adaptive for automation with precise control of wire-feeding
- Longer service life and lower defective rate thanks to better mechanical design



Dex Series

- Standard
- Optional with extra costs
- Not Applicable

Dex PM3000 (Compact) Dex PM3000S (Separate)

- Spatter-Free Synergic, Pulse and Double Pulse MAG for Carbon Steel and Stainless Steel
- Pulse & Double Pulse MIG for Aluminum and alloy

- LSA (Low spatter Arc for MAG / CO₂)
- Pulse MIG / MAG MMA
- QPT (Short-arc pulse MIG / MAG)
- Synergic MAG for Metal-cored wire
- Pulse MAG for Metal-cored wire
- Steel Stainless Steel Aluminum

Dex DM3000 (Compact) Dex DM3000S (Separate)

- Spatter-Free Synergic MAG for Carbon Steel and Stainless Steel

- LSA (Low spatter Arc for MAG / CO₂)
- Pulse MIG / MAG MMA
- QPT (Short-arc pulse MIG / MAG)
- Synergic MAG for Metal-cored wire
- Pulse MAG for Metal-cored wire
- Steel Stainless Steel Aluminum

Dex PM3000Q (Compact) Dex PM3000QS (Separate)

- Spatter-Free Synergic, Pulse and Double Short-arc Pulse MAG for Carbon Steel and Stainless Steel
- Short-arc Pulse & Double Pulse MIG for Aluminum and alloy

- LSA (Low spatter Arc for MAG / CO₂)
- Pulse MIG / MAG MMA
- *QPT (Short-arc pulse MIG / MAG)
- Synergic MAG for Metal-cored wire
- Pulse MAG for Metal-cored wire
- Steel Stainless Steel Aluminum



Decompact

Compact

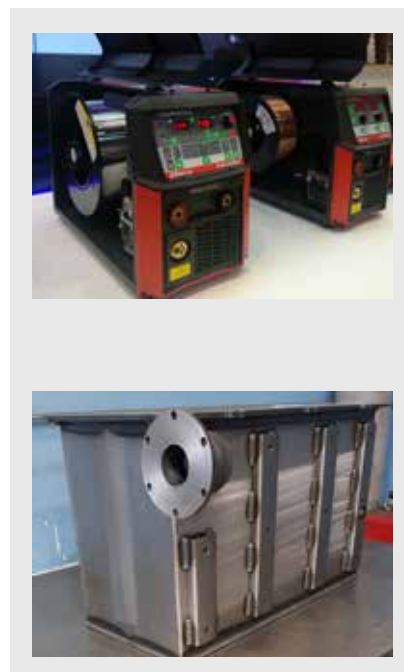


LSA (Low-spatter Arc for MAG / CO₂)

Optimized and upgraded on the basis of standard synergic MIG/MAG, through software-based precise control, the molten droplet of short-circuit transfer is softly disconnected, so that the spatter caused by the traditional liquid bridge explosion and electromagnetic repulsion is reduced. The molten pool is calmer, and the weld formation is more beautiful.

Process Characteristics:

- Accurate in software control for high-frequency short-circuit transfer. Lower in spatter. Lower in heat input. Highly suitable for sheet metal welding
- Soft in welding arc and fine with spatter particles. Less spatter to remain on the workpiece. Lower with rework like grinding after welding. Higher in total working efficiency
- Higher in welding speed. Better in deformation control. More helpful in welding quality



QPT (Short-arc pulse)

The industry-leading 180 K HZ inverter frequency brings advantages of high-speed sampling and control. Dex can find critical control and balance between short-circuit and spray transfer, and achieve higher transfer speed.

Process Characteristics:

- Low spatter, low heat-input, suitable for high speed sheet metal welding
- 50%~100% faster than standard pulse MIG/MAG process
- Less sensitive to shield gas composition. Capable of welding SUS solid wire with mixed gas of 80% argon / 20% CO₂



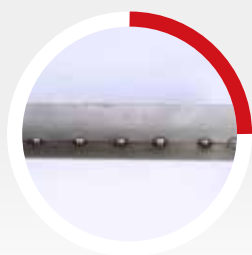
Stainless steel



Aluminum alloy



Multiple welding processes



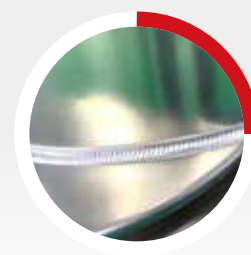
High-speed spot welding

Higher arc-striking success rate. Easier to control. Completing a round and full-sized welding spot in 0.3 seconds.



Stainless steel

Special control program for stainless steel welding. Reduce the sensitivity to pulses welding arc. No complicated parameter matching is required. Applicable with multiple types of shield gas to weld SUS only by adjusting the welding voltage.





Aluminum alloy

Various expert and special programs for aluminum welding. Brand new pulse welding control scheme. The contrast of peak and base current can reach 90%, and therefore enables welders to achieve clear fish-scale welding of aluminum.



Specification

Dex DM/PM

Manual - Compact	Dex DM3000	Dex PM3000	Dex PM3000Q	-	-	-
Manual - Decompact	-	-	-	Dex DM3000S	Dex PM3000S	Dex PM3000QS
Robotic	-	-	-	Dex DM3000R	Dex PM3000R	Dex PM3000QR
Process						
Synergic MAG / CO ₂	●	●	●	●	●	●
LSA	●	●	●	●	●	●
Pulse MIG / MAG	-	●	●	-	●	●
QPT	-	○	●	-	○	●
MMA	●	●	●	●	●	●
Material						
Steel	●	●	●	●	●	●
Stainless Steel	●	●	●	●	●	●
Aluminum & Alloy	-	●	●	-	●	●
Metal-cored Wire	-	-	●	-	-	●
Specification						
Control mode	Fully Digital-control					
Rated Input Voltage	AC 3PH 380V -15% ~ 400V +15% (3PH 323V ~ 3PH 460V)					
Input Frequency	45 ~ 65Hz					
Rated Input Power	9.2KVA / 8.7KW					
Power Factor	0.94					
Efficiency	91%					
Rated OCV	54.2V					
Rated Output Current	30A~300A					
Rated Output Voltage	12V~30V					
Parameter channel	50					
Duty Cycle (40°C / 10 min)	100%@207A / 24.9V 60%@250A / 28V			100%@217A / 24.9V 60%280A / 28V		
Wire feeding speed	1.4 ~ 28m/min					
Insulation Grade	H					
Ingress Protection	IP23 S					
Protection Against Lightning	Class D (6000V/3000A)					
Certification	EN60974-10:2014 EN60974-1:2012 GB/T15579.1-2013			GB/T15579.1-2013		
Working Temperature	-10°C ~ +40°C					
Dimension (L / W / H)	610mm*260mm*398mm					
Gross Weight	25.4kg			23.7kg		
Manual wire-feeder	Built-in wire-feeder		Light-weight wire-feeder		Enclosed-type wire-feeder	
						



→ Artsen CM500 C

Born for Long-reach Welding.

100_{MTR}

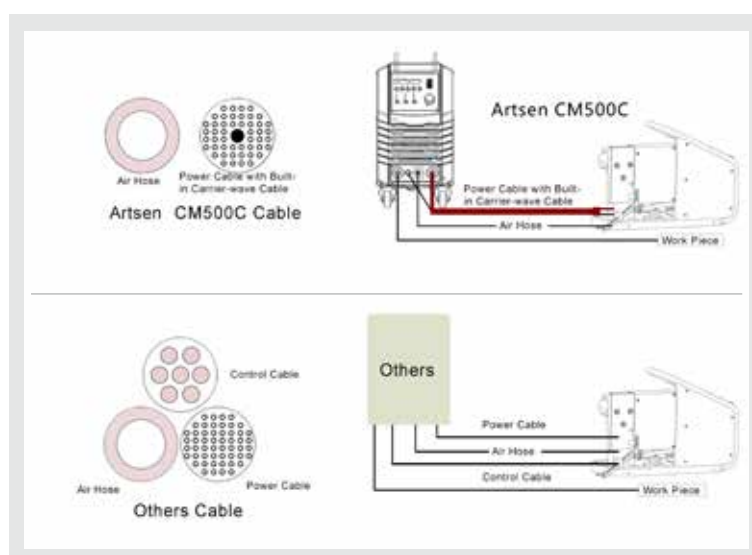


Artsen CM500C

Specially designed for sites and application with super long-reach welding such as shipbuilding, marine engineering and steel construction



Pioneer in adapting the Two-way Digital High-speed Carrier-wave Communication Technology

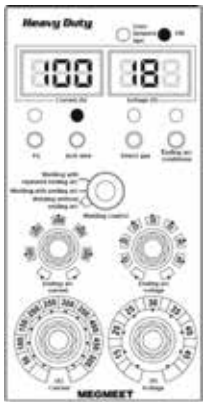


Product Features:

- Digital Microprocessor Controlled Inverter Technology
- Longer and 30% lighter interconnection cable set up to 100 m
- Stronger inter-connection cable set, better protection, less cable damages, much less down-time
- MAG / CO2 process with synergic control and MMA as standard
- Lighter but more functional wire-feeder for better mobility and easier operation
- Stable welding with stick-out length up to 30mm
- Achieving stabilized vertical-up welding at 150A with flux-cored wire and 50 m inter-connection cable set
- Protection of PCB and wire-feeder from vibration, collision, moisture and salty air
- Superior reliability with self-protecting design and error code display for easy trouble-shooting

Advantages of the Two-way Digital High-speed Carrier-wave Communication Technology

	Communication	Anti-interference Capability	A / V display on the wire-feeder	Reliability in wire-feeder PCBs
Artsen CM500C	the Two-way Digital High-speed Carrier-wave Communication Technology	Excellent	Yes	High
Traditional Carrier-wave Technology	One-way analog carrier-wave technology	Normal	No	Normal



The light-weighted wire-feeder supports A / V display. It also allows setting up of A / V, as well as parameters for starting and crater arc. It brings huge convenience to long-reach welding, and saves welders' time.

Industries and Application



Marine engineering





Specification

Artsen CM500C

Parameters		Artsen CM500C	
Control Mode	Fully Digital-control		
Carrier-wave Communication Method	Two-way Digital High-speed Carrier-wave Communication Technology		
Rated Input Voltage	AC 3PH 380V -15% ~ 400V +15% (3PH 323V ~ 3PH 460V)		
Input Frequency	30 ~ 80 Hz		
Rated Input Power	24KVA		
Power Factor	0.93		
Efficiency	86%		
Rated OCV	75V		
Rated Output Current	50 ~ 500A		
Rated Output Voltage	12 ~ 50V		
Duty Cycle (40°C / 10 min)	500A / 39V 100% @40°C		
Certification	EN 60974-1		
Protection Against Lightening	Class D (6000V/3000A)		
Welding Operation Mode	2T / 4T / Special 4T		
Inductance Scope (Soft / Strong Arc)	-9 ~ +9		
Parameter Channel	10 (standard)		
Reserved Communication Interface	CAN		
Cooling Mode	Intelligent air cooling		
Wire-feeder Digital Display	Included, welding parameter can be adjusted remotely		
Wire-feeding Speed	1.4 ~ 24m/min		
Insulation Grade	H		
Ingress Protection	IP23 S		
Working Temperature	Industrial heavy duty, -39°C ~ +50°C		
Dimension (L / W / H)	620mm*300mm*480mm		
Gross Weight	52kg		
Welding Process	Welding Material	Welding Wire Diameter (mm)	Shield-gas
Synergic CO ₂ & MAG	Solid wire / Carbon steel	1.0/1.2/1.6	100% CO ₂
	Solid wire / Carbon steel	1.0/1.2/1.6	80% Ar + 20% CO ₂
	Flux-cored / Carbon steel	1.2/1.4/1.6	100% CO ₂
DC MMA	Electrode	2.0 / 2.5 / 3.2 / 4.0 / 5.0 / 6.0 mm	
Wire-feeder	Standard	Euro	Lite
Connector	Japanese-type	Euro	Japanese-type
Roller	4-roller	4-roller	2-roller





→ Ehave CM Series
A classical option for welding carbon steel.



Ehave CM Series

Classic carbon steel welding



Features

- Digital Microprocessor Controlled Inverter Technology
- Synergic control
- Stable welding with stick-out length up to 30mm
- Inter-connection cable set extendable up to 30 m
- Supporting 3-in-1 cable set of high protection
- Standard locking function
- Standard Job saving features (up to 10 Job)
- Supporting SMARC for networking
- Available for 500A 100% @ 40°C for heavy duty application
- High tolerance with welding condition changes
- Proven record in heavy industries since 2012
- High tolerance against input voltage fluctuation (25%+/-)
- Superior reliability with self-protecting design and error code display for easy maintenance



Specification

Ehave

Manual	Ehave CM500 H	Ehave CM500	Ehave CM400	Ehave CM350
Robotic	Ehave CM500 H AR	Ehave CM500 AR	Ehave CM400 AR	Ehave CM350 AR
Control Mode	Full Digital-Control			
Rated Input Voltage	AC 3PH 380V -25% ~ 400V +20% (3PH 285V ~ 3PH 475V)			
Input Frequency	30 ~ 80 Hz			
Rated Input Power	24KVA	22.3KVA	16.8KVA	13.5KVA
Power Factor	0.93	0.93	0.94	0.94
Efficiency	86%			
Rated OCV	75V	73.3V	63.7V	63.7V
Rated Output Current	30 ~ 500A	30 ~ 500A	30 ~ 400A	30 ~ 400A
Rated Output Voltage	12 ~ 45V	12 ~ 45V	12 ~ 38V	12 ~ 38V
Duty Cycle (40°C / 10 min)	500A 100% @ 40°C	500A 60% @ 40°C 390A 100% @ 40°C	400A 100% @ 40°C	350A 60% @ 40°C 271A 100% @ 40°C
Applicable Material	Carbon Steel			
Welding Process	CO ₂ / MAG / FCAW / MMA			
Wire Diameter	φ 1.0 / 1.2 / 1.6 mm		φ 0.8 / 1.0 / 1.2 mm	
Welding Operation Mode	2T / 4T / Repeated 4T / Spot Welding			
Parameter Channel	10 (Standard)			
Inductance Scope (Soft / Strong Arc)	-9 ~ +9			
Communication with Robot Controller	Analog			
Reserved Communication Interface	CAN			
Cooling Mode	Intelligent Air Cool			
Wire-feeding Speed	1.4 ~ 24 m/min			
Certification	IEC 60974:1			
Protection Against Lightening	Class D (6000V/3000A)			
Wire feeding speed	1.4 ~ 24m/min			
Insulation Grade	H			
Ingress Protection	IP23 S			
Working Temperature	-39°C ~ +50°C ; Humidity ≤ 95%			
Dimension (L / W / H)	620mm*300mm*480mm			
Gross Weight	55kg	52kg	48kg	48kg

Welding Process	Welding Material	Welding Wire Diameter (mm)	Shield-gas
Synergic CO ₂ & MAG	Solid wire / Carbon steel	1.0/1.2/1.6	100% CO ₂
	Solid wire / Carbon steel	1.0/1.2/1.6	80% Ar + 20% CO ₂
	Flux-cored / Carbon steel	1.2/1.4/1.6	100% CO ₂
DC MMA	Electrode	2.0 / 2.5 / 3.2 / 4.0 / 5.0 / 6.0 mm	

Wire-feeder	Standard	Advance	Euro
Connector	Japanese-type	Japanese-type	Euro
Roller	2-roller	4-roller	4-roller



*  : Please refer to P56-P64 for Robotic and Automatic Welding.

Robotic and Automatic Welding

Communications Protocols with Industrial Robots

Model	Communications Protocols with Industrial Robots							Touch-sensing		TAST
	Analog	DeviceNet	EtherNet/IP	EtherCAT	ProfiNet	CANOpen	MEGMEET CAN	54V	5V	
Ehave	●								●	●
Artsen II CM / PM	○	○	○	○	○	○	○	●	●	●
Artsen Plus / Pro	○	○	○	○	○	○	○	●	●	●
Dex DM / PM	○	○	○	○	○	○	○			●

● Standard ○ Optional

- For 7 consecutive years since 2014, MEGMEET have been the market leader with the highest share of GMAW (MIG/MAG/CO2) equipment for robotic arc welding in China, the biggest single-country market in the world.
- Capable to communicate with industrial robot and cobot by almost all international or regional manufacturers. Convenient to select robot type thru one click in the internal menu.
- Multiple baud rate built-in, capable of communicating with multiple third-party devices simultaneously.
- 54V for touch sensing, allowing better performance with workpieces with rust, dirt and oily surface.
- Perfectly support TAST (Thru-arc Seam Tracking) function by robots by different manufacturers. Especially suitable for robotic welding of thick plates.
- High speed inter-communication of welding parameters with robot controller. Highly open with parameter adjustments.
- Supporting push-pull torch for robotic welding. Capable of synchronizing motor torque and speed between the push-pull torch and wire-feeder without extra devices. Capable of driving push-pull torch directly. [1]
- Relay wire-feeder of synchronization optionally available for wire barrels, especially suitable for welding conditions with long wire conduits. [2]

[1] : Artsen series and Artsen Plus series supports robotic push-pull torch.

[2] : The relay wire-feeder is only optional for Artsen Plus / Pro series.

Smart Design and Rich Experience in Robotic Arc Welding

- ABB
- Cobot
- FANUC
- KUKA
- YASKAWA
- KAWASAKI
- COMAU



EtherNet/IP

PROFI
NET

EtherCAT

DeviceNet

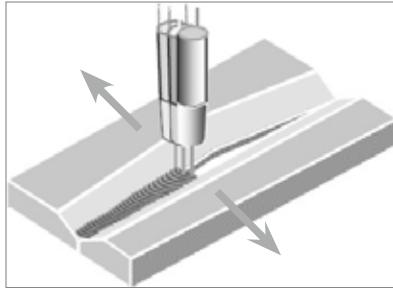
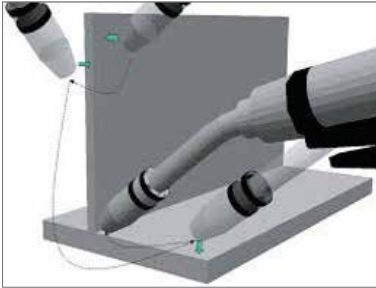
CANopen

MEGMEET CAN

Analog

Functions of Robot Arc Welding

- Touch sensing with high voltage (54V)
- Thru-Arc Seam Tracking (TAST)
- Multi-layer and multi-pass welding



Smart Compensation for Extra Long Cables



- Correction of welding parameters P23 (on)
- Compensation for resistance
- Compensation for inductance
- Smart compensation ensures more stabilized welding
- Particularly suitable for welding large-sized workpiece

Instant Switch between Welding Jobs

Only one arc ignition is needed to achieve rapid switch between different welding jobs. All happens within 0.08 seconds. Welding spatter and possible defects caused by new ignition are avoided. It is particularly suitable for robotic welding under complex conditions



Display of Wire-feeding Resistance

The machine panel can display the "wire feeding resistance coefficient" to remind customers to check if the wire-feeding system is smooth enough so as not to affect the welding quality



Robotic Wire-feeders



Euro-connector
(standard)

Features:

- Buttons available for fast operation of wire-feeding, wire withdrawing, and gas check for Artsen Plus / Pro
- Switching between mechanisms of encoder feedback and "Opposing electromotance feedback"
- Supporting push-pull torch



Japanese-connector
(Optional)

Remote Rontroller



Features:

- Supporting welding automation, convenient adjustment of welding parameters at real-time Synergic control
- Control cable length up to 25m
- * Only optional for Artsen Plus / Pro series



Specification of Robotic Wire-feeders

Model	Euro Connector	Japanese-type Connector	Weight (kg)	Water-cool	Dimension (L / W / H) mm
Artsen II CM/PM Series	Standard	Optional	6.8	Standard	303*170*205
Artsen Plus / Pro Series	Standard	Optional	6	Standard	230*170*170
Ehave Series	Standard	Optional	6.8	-	303*170*205
Dex DM/PM Series	Standard	Optional	6	Optional	230*170*170

Cooling-unit

Specification

AnyCool-100

For Artsen II CM/PM series, and Artsen Plus / Pro series



Water cooler AnyCool-100	
Power Supply	By welding power source
Rated Power	260W
Rated Voltage	380V-400V AC
Volume of Cooling Water	10L
Flow Speed	3.5L/min
Max Pump Head	26m
Flow Alarm	Yes

AnyCool-68

For Dex PM3000 / PM3000 Q / PM3000 S / PM3000 QS / PM3000 R



Water cooler AnyCool-68	
Power Supply	By welding power source
Rated Power	260W
Rated Voltage	380V-400V AC
Volume of Cooling Water	6.8L
Flow Speed	3.5L/min
Max Pump Head	20m
Flow Alarm	Yes

Powering the Future



Reliability

Re-defining reliability and stability of inverter welding machines.

Firm and strong like a rock, even being used at outdoors or under tough conditions





Quality

Halt



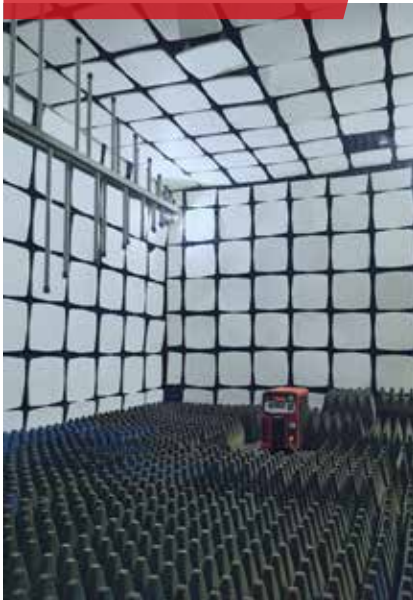
All the imaginable harsh conditions are added on testing the welding machine at the same time. The severity levels are gradually increased, until the welding machine break down. After that, the short-board analysis is performed, and the design is continuously optimized. The process was performed again and again. Test conditions include, but not limited to, full load operation, vibration, high temperature, high humidity, ultra-low temperature, salt spray, conductive dust, power surge, voltage drop, ESD, EFT, etc. The designed product lifetime of the welding power source reaches 10 years after HALT test. It is the highest for arc welding equipment of inverter technologies.

Lightning Protection Test



The industry's unique Class D (6000V/3000A) surge lightning device is used to conduct extreme tests on the welding machine. To ensure stable and reliable work under the conditions of thunder and lightning and large fluctuations in the network voltage of the customer's factory. It avoids "soft damage" to the welder, and greatly extend the life of the welding machines

EMC Test



Passing EMC Test ensures welding power source not to interfere with other equipment nearby, or to be interfered. It is especially suitable for complex robot welding production line and other intelligent factories.

Conductive Dust Test



Iron powder and graphite powder floating in the air are used as test conditions to ensure that the welding machines are highly reliable under similar harsh working conditions.

High and Low Temperature Impact Test



For the purpose of ensuring MEGMEET products' performance at indoor and outdoor in different countries, this test verifies the stability and reliability of the welding machines' output parameters under high and low working temperatures.

Salt Spray Test



The Salt Spray Test can test the corrosion resistance of the welding machine. Passing this test, the welding machine can be more suitable for the high salinity and high humidity environment such as in the ship-building and marine engineering industries

Water Spray Test



Make sure that the welding machine can work reliably under the raining situation

Mechanical Vibration



Multi-angle Free-fall Test



These tests examines the robustness of the whole structure, packaging its components, as well as the workmanship of final assembly. It ensures quality and performance after transportations and falls

Consistency

Consistent performance by any machine, anytime, anywhere



5V								
PCB#	1	2	3	4	5	6	7	8
Current (A)	173.28	172.08	169.84	172.16	173.92	173.12	172.88	171.04
Real Output Voltage	5	4.97	4.91	4.97	5.01	5	5	4.94
Output Voltage Deviation	0	-0.03	-0.09	-0.03	0.01	0	0	-0.06
Displayed Voltage Deviation	0	0.0706	0.0106	0.0706	0.1106	0.1006	0.1006	0.0406

20V								
PCB#	1	2	3	4	5	6	7	8
Current (A)	197.2	196.96	198	196.72	196.96	196.64	197.12	196.88
Real Output Voltage	20.06	20.03	20.15	20.01	20.02	19.97	20.04	20.02
Output Voltage Deviation	0.06	0.03	0.15	0.01	0.02	-0.03	0.04	0.02
Displayed Voltage Deviation	0.06	0.03	0.15	0.01	0.02	-0.03	0.04	0.02

30V								
PCB#	1	2	3	4	5	6	7	8
Current (A)	295.44	295.12	295.28	294.88	295.44	295.2	295.28	295.12
Real Output Voltage	30.09	30.06	30.07	30.02	30.08	30.03	30.06	30.05
Output Voltage Deviation	0.09	0.06	0.07	0.02	0.08	0.03	0.06	0.05
Displayed Voltage Deviation	0.09	0.06	0.07	0.02	0.08	0.03	0.06	0.05

45V								
PCB#	1	2	3	4	5	6	7	8
Current (A)	545.36	544.8	541.28	544.24	545.6	544.8	544.88	546.24
Real Output Voltage	45.08	45.06	44.77	44.98	45.09	45.02	45.03	45.12
Output Voltage Deviation	0.08	0.06	-0.23	-0.02	0.09	0.02	0.05	0.12
Displayed Voltage Deviation	0.08	0.06	-0.23	0.0806	0.09	0.1206	0.05	0.12

- Thanks to the design of high-frequency inverter and excellent full digital control, the dependency on the accuracy of hardware parameters are largely lowered. Consistent performance of each welding power source is therefore ensured even under large fluctuation of input power network
- By using components of low temperature drift and high accuracy, the output performance are kept consistently from turning-on to long-time operation, and from -10°C to +50°C working temperature
- Multiple compensations and automatic adjustments are designed for components in the sampling and control section, which ensures the consistency of each machine performance.

Stability and Reliability

Stability is the cornerstone of intelligent welding machine



Stable as Always

Through leading power electronics and software technology, high-frequency digital sampling, and circuit correction, it's as stable as a new welding machine, whether it's a year, five years, or ten years

Intelligent Adjustment

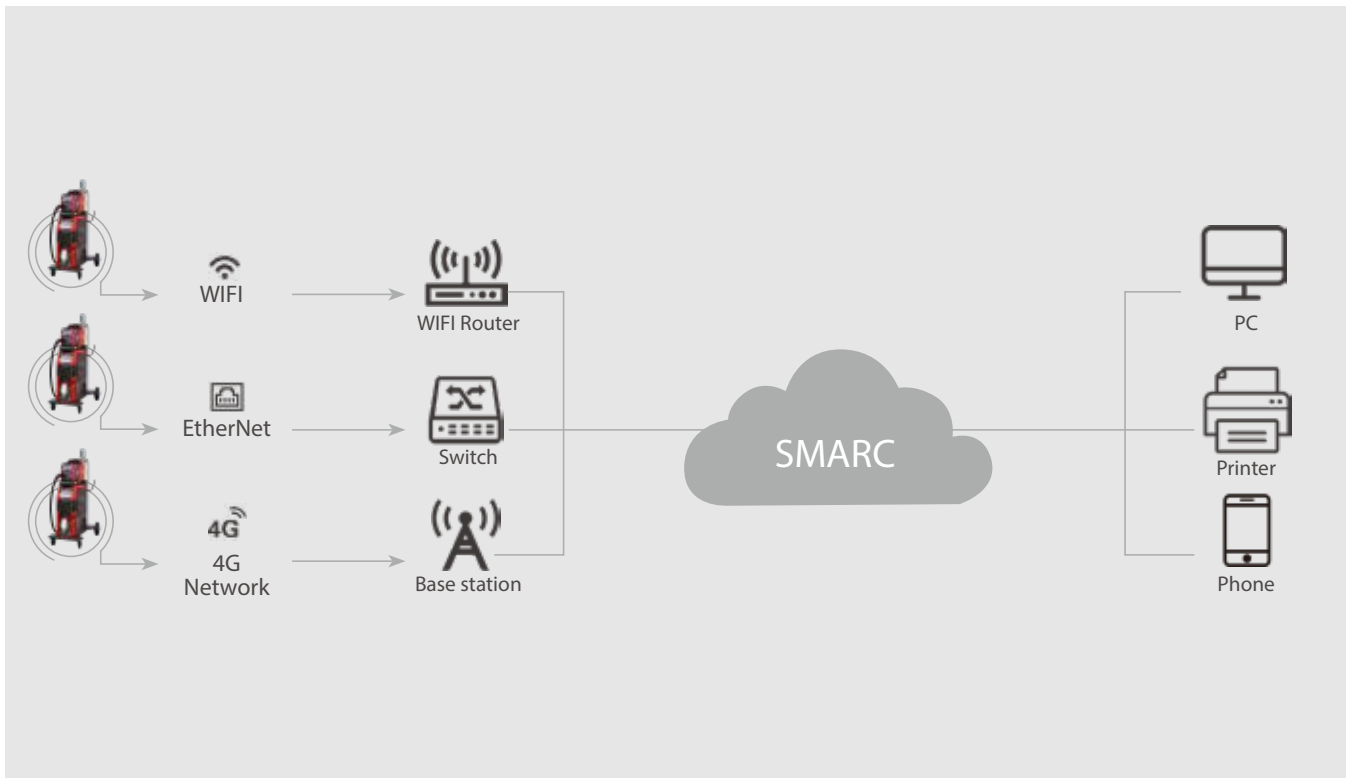
The stick-out length is changeable when the welding arc reaches a different position. By using the unique technology of compensation on microcosmic welding voltage and of constant arc-length control, MEGMEET power source can ensure the stability of molten pool and welding arc.

Smart Compensation

By adopting the technology of compensation on macroscopic welding voltage, MEGMEET power source is able to prevent arc voltage from decreasing when working with connection cable of 5m or 50m

IoT Capability and Informatization

Prepared for Industry 4.0 and the era of IoT



External Communication

With many communication connectors as options, MEGMEET welding systems are well prepared for seamless and digital connection with robot controller, and automatic welding systems



Networking

By using MEGMEET smarc group control system to realize welding informatization, the welding machine can be operated by wifi / 4G / network cable interconnection, and can be interconnected with MES, ERP and other systems



Software Updating

The welding machine is an intelligent hardware platform, which can upgrade the welding process and customize the function by refreshing the software so as to save the cost of purchasing the new machine

User-friendly Design

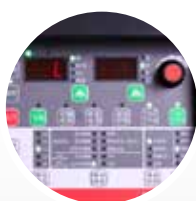
How to deal with the challenges of inexperienced welding personnel? How to ensure the welding quality with a wide range of welder knowledge?



Convenience for New Welders

Anti-shake function: Arc voltage compensation and arc length constant control technology make new welders easier to work

Synergic Control: The welding machine has a massive built-in expert database. Welders only need to input current, and the parameters can be automatically set up



Locking-up Function

Without any external devices, a locking-up password is able to be set up on the front panel. This can ensure welders to use the requested WPS. The cost of management and testing will decrease, while welding quality can be ensured better. ("L" stand for locking, which means the parameter can only be changed within the allowed scope.)



Quick Recovery of Production

The embedded structure and the modular design increase the reliability. Meanwhile, dismantling and re-assembly will be faster. The welder recognizes by itself and quickly locates faults, and displays the error code as an alarm

“

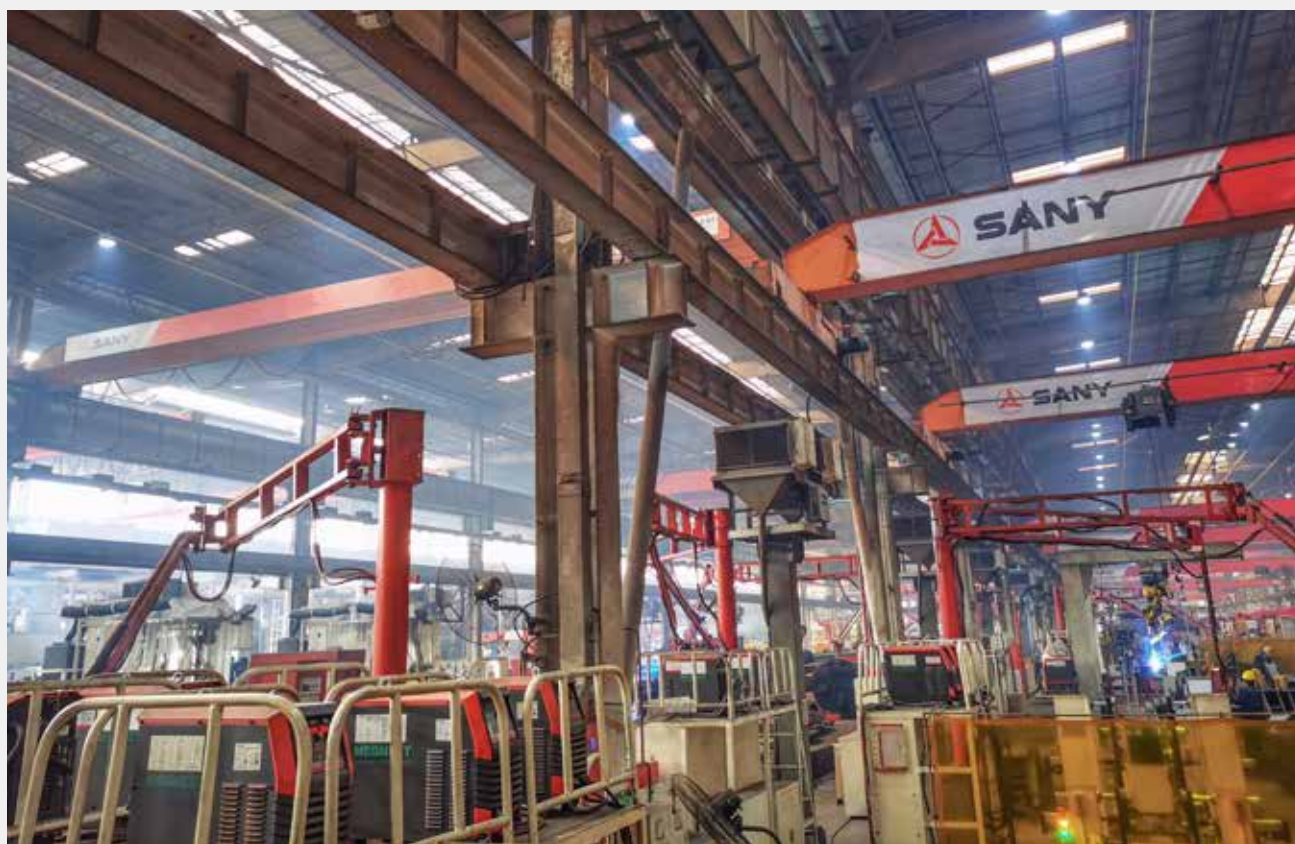
For over 10 years, we have been devoted to researching the basic disciplines of arc welding and welding engineering application technology. Today, we are highly recognized by the industry. This is due to MEGMEET's strong multidisciplinary technical team, corporate R&D platform and the spirit of innovation. We firmly believe that we can help our customers overcome their challenges in the welding production process, and ensure that customers can focus on their core business other than welding, so that they will stand out.

”

Applications and Cases

Construction Machinery





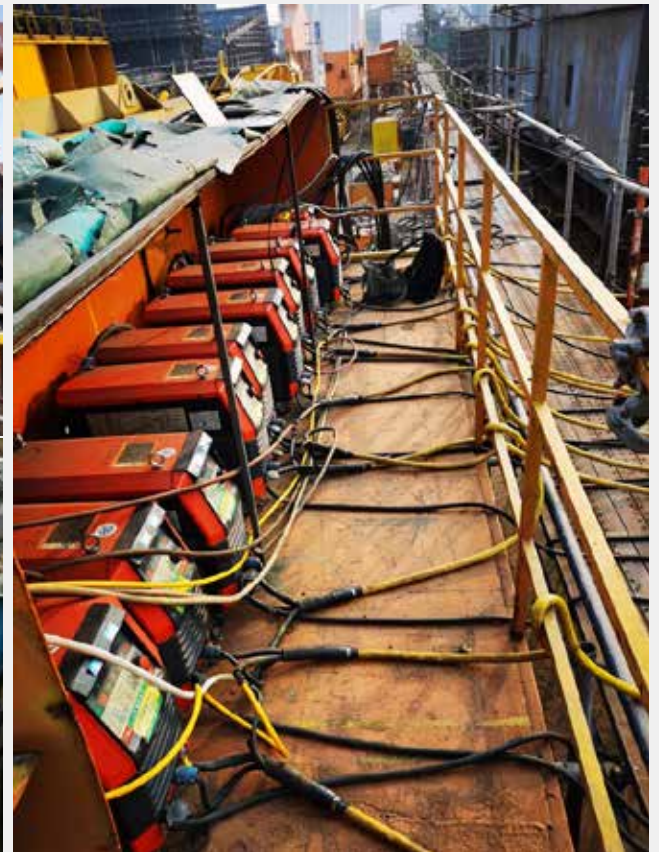
Mining Machinery





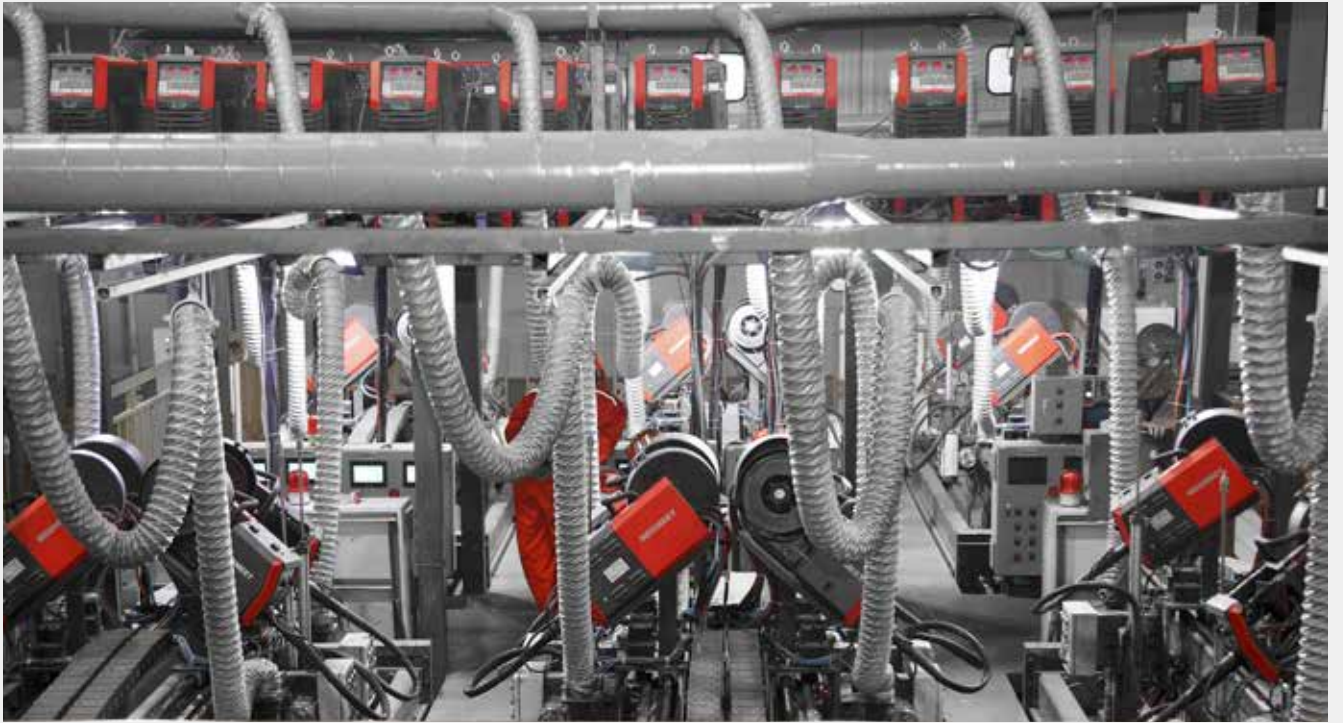
Ship-building & Marine Engineering





Shipping Container





Automotive





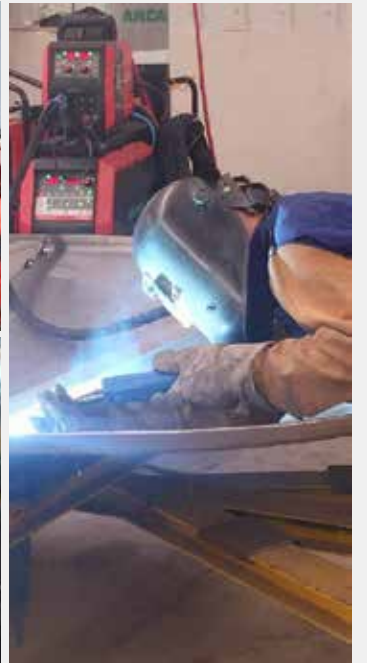
Construction





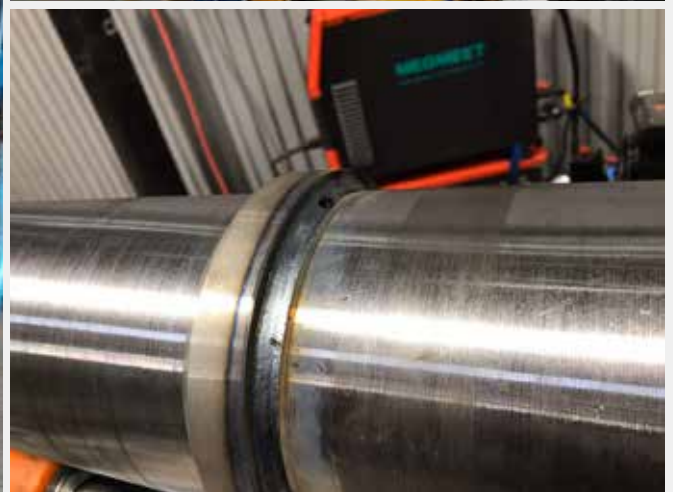
Commercial Vehicles





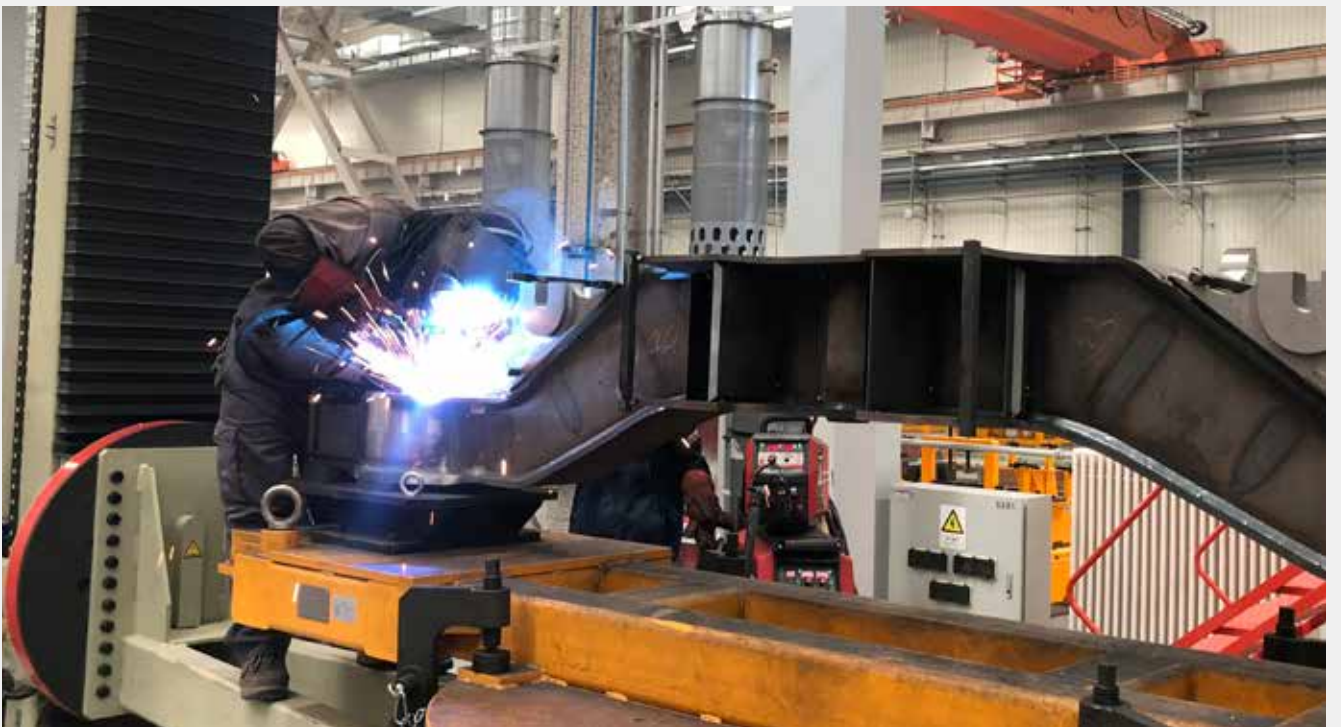
Vessels and Tanks





Railway







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MEGMEET's strong technical strength, extensive industry application experience, relentless attention to customer needs, and the spirit of continuous innovation enable us to bring tailor-made products and solutions to help customers achieve greater success.

*MEGMEET Welding Technology Co., Ltd is continuously striving to develop and innovate for new product. We reserves the right of changing the technical specifications and designs without notices in advance.
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