

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

# MEGMEET Welding Technology Powering the Future





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#### 01/02 About MEGMEET

# Company Profile

Pioneering Collaboration Openness Innovation Established in 2003, MEGMEET Electrical Co. Ltd. (Stock Code: 002851.sz) is a China National Hightech 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.



MEGINE





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.

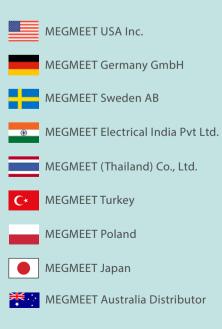
In an effort to provide better products and services to our customers, MEGMEET has restructured its welding division and transformed it into a subsidiary named MEGMEET Welding Technology Co. Ltd., With integrated multidisciplinary knowledge and technologies, MEGMEET redefines the standards for reliability 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

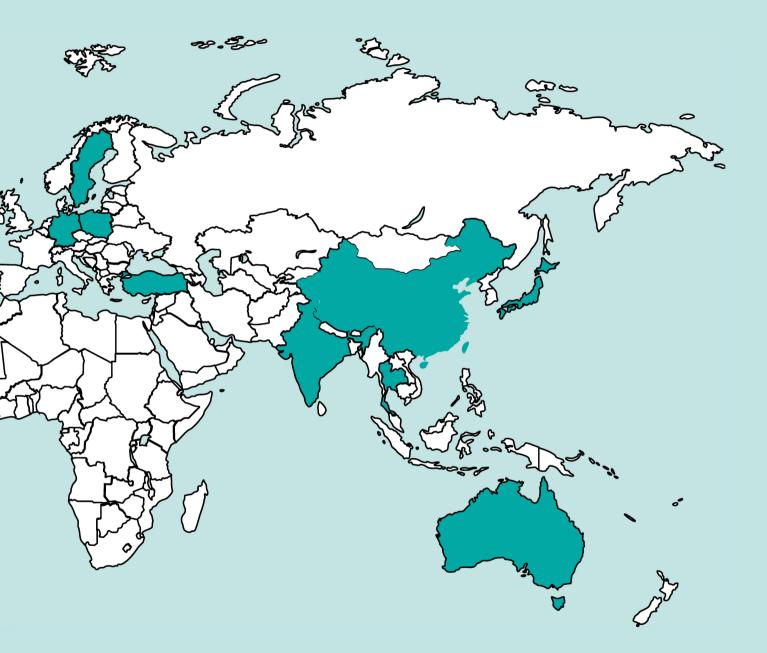
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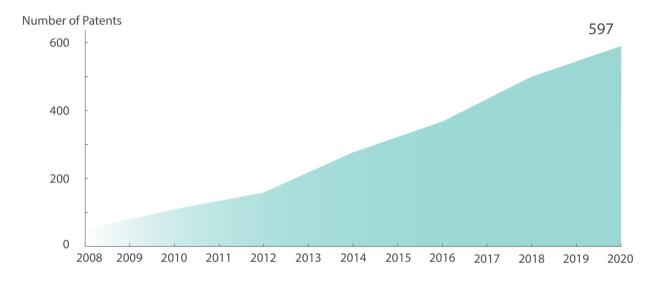


#### 05/06 About MEGMEET

- O China National High-tech Enterprise
- $\ensuremath{\bigcirc}$  Guangdong Smart Power Engineering Technology Center
- ◎ Shenzhen Municipal R&D Center (Technology)
- ◎ MEGMEET-Texas Instrument Joint Laboratories
- © Shenzhen Narrow-gap Welding Technology Laboratory

- © Guangdong Pilot Enterprises for Industrialization & Informatization Management System
- © Shenzhen Intellectual Property Advantageous Enterprises
- © MEGMEET-Onsemi Joint Laboratories
- O Shenzhen Nanshan Top-100 taxpayers
- $\odot$ Shenzhen Nanshan High-level Innovative Talents Training Center
- © First Asian"CRAW Certification and Testing Center"designated by AWS





#### International Management Standard Certification

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

#### **Three-phase Verification**

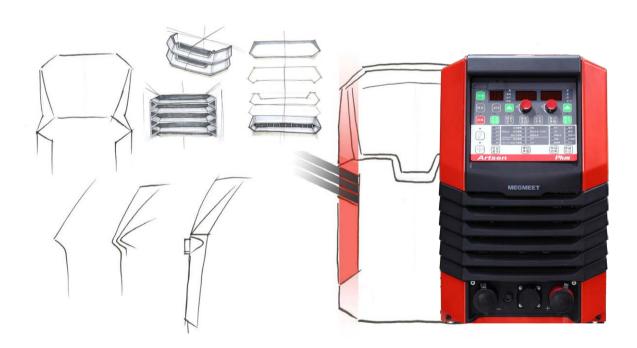
- $\bigcirc$  Verification of sourcing items
- $\bigcirc$  Validation in product development
- $\bigcirc$  Testing of materials in mass production

#### Product Certification for Different Markets



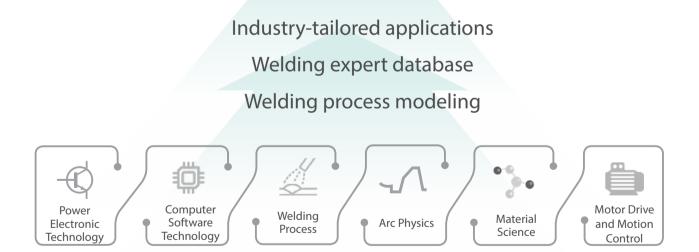
# Business Philosophy

"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



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



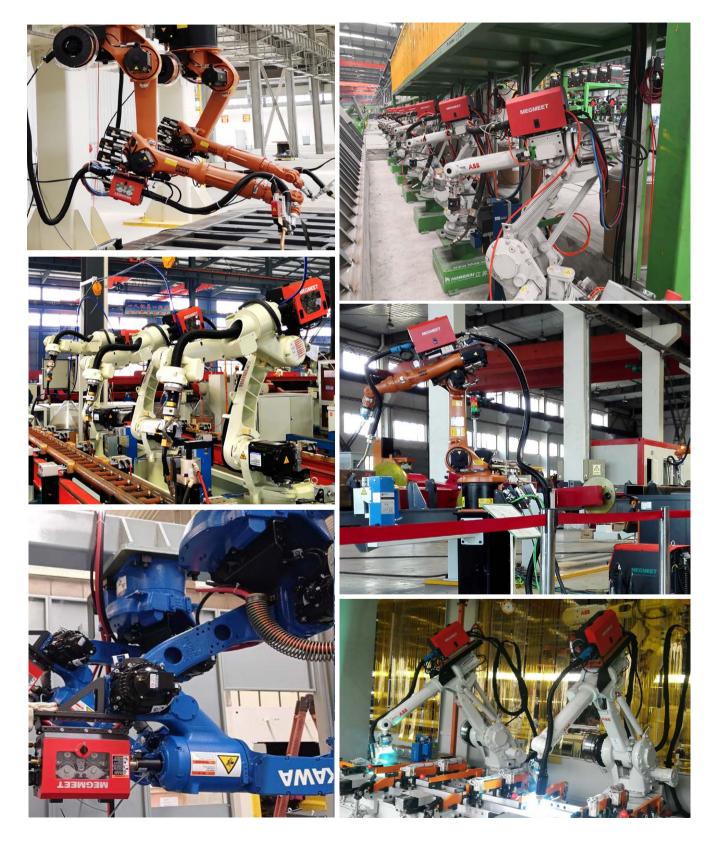
#### Shipping Container & others

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

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#### 11/12 Products & Solutions

## Product market performance



MEGMEET



## Selection List

		Арр	licable	Metal / C	Consumat	oles		Weldin	g Process			Feature	d Welding	g Process	5	
Product Series	Page No.	Steel / Solid Wire	SUS	Alum- inum Alloy	AlSi CuSi (1.2mm)	Metal- cored		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	•			0		•	•	•	•						
Artsen II PM 500 / 400 N	25	•			0		•	•	٠	•						
Artsen II PM 500 / 400 AS	25	•	•	•	0		•	•	[1]	•						
Artsen II PM 500 / 400 AD	25	•		•	0		•	•	٠	•						
Artsen Plus 500 / 400 / 350 D	33	•	•				•	•			•		0	0		
Artsen Plus 500 / 400 / 350 P	33	•					•	•	•		•	•	0	0		
Artsen Plus 500 / 400 / 350 Q	33	•	•	•			•	•	•		•	•	0	0		
Artsen Pro 500 H / 500 / 400 D	33	٠	•				•	•							•	
Artsen Pro 500 H / 500 / 400 P	33	•	•				•	•	•			•			•	
Artsen Pro 500 H / 500 / 400 Q	33	•	٠	•			•	•	٠			•			•	
Dex DM 3000	43	•	•				•			•					•	
Dex PM3000	43	•	•	•			•		•	•					•	
Dex PM3000 Q	43	•	•	•		•	•		•	•					•	•

[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						Featured Functions			ons	
EtherNetIP	EtherCAT	ProfiNet	Analog & Automation	DeviceNet	CANOpen	SMARC IoT	Constant Penetration	Up/Down Torch	Intermediate Wire-feede [2]	Push-Pull Torch	Digital Meter on Wire-feeder
0	0	0	0	0	0	0		0	0	•	•
0	0	0	0	0	0	0	•	0	0	•	•
0	0	0	0	0	0	0	•	0	0		•
0	0	0	0	0	0	0	•	0	0	•	•
0	0	0	0	0	0	0	•	0	0	•	•
0	0	0	0	0	0	0				•	•
0	0	0	0	0	0	0	•			•	•
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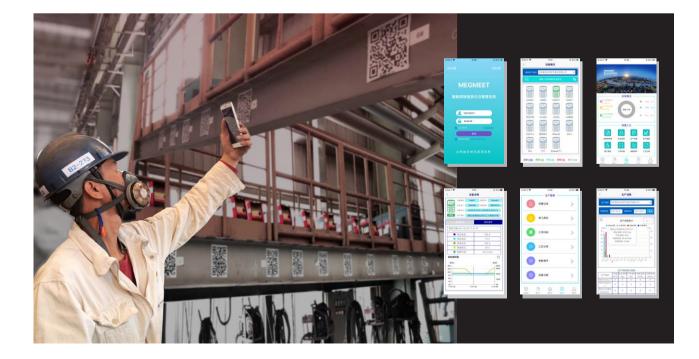
15/16 Products & Solutions

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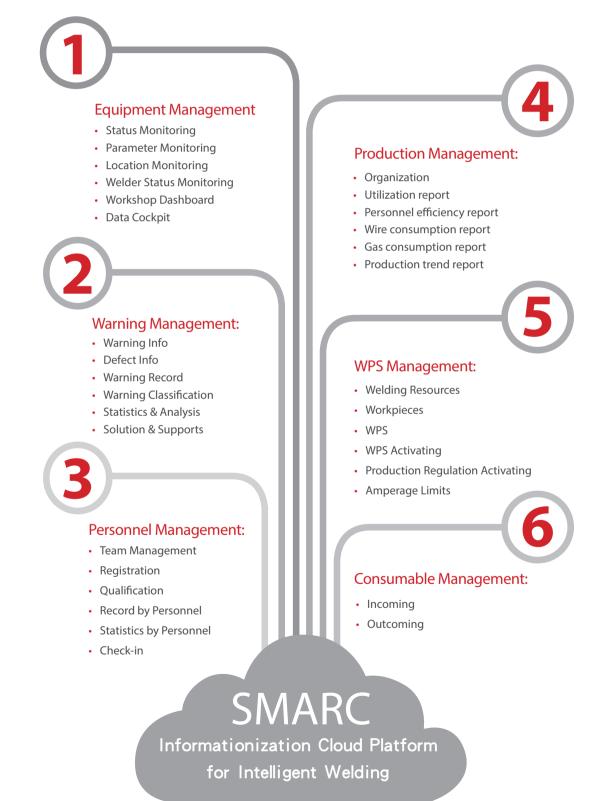
# SMARC ™ Informatization and IoT Solution for Smart Welding Manufacturing





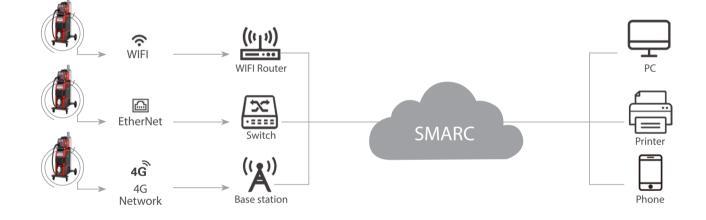
## SMARC Informatization and IoT Solution for Smart Welding Manufacturing

Supporting Smart Manufacturing for the Industries.

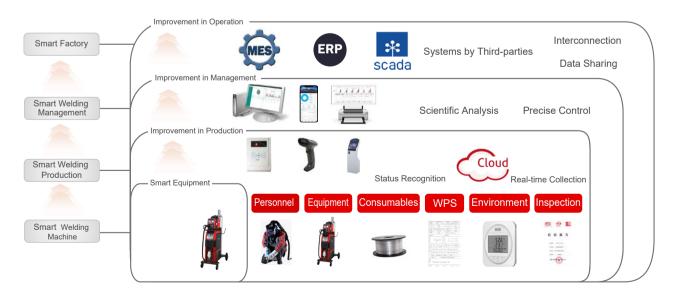


#### 17/18 Products & Solutions





#### Smart Welding Manufacturing and Solutions

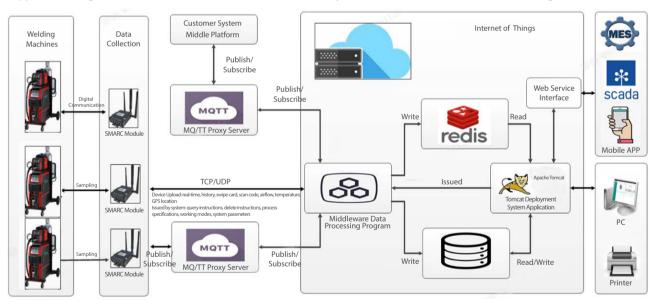




### Informatization and IoT Solution for Smart Welding Manufacturing

#### **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.





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## Artsen II CM/PM Series



#### **Product Features**

- Digital Microprocessor Controlled Inverter Technology.
- Synergic control of MIG/MAG/C02 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.



#### 21/22 Products & Solutions

	Standard
*	Optional with extra cost
	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 CO <sub>2</sub> /MAG	Standard Pulse
🗹 Steel	✓ Stainless Steel
🗹 Aluminum / Aluminu	im Alloy
💌 Aluminum Bronze	💌 Silicon Bronze

Push-pull Welding Torch Interface

Constant Penetration

Mid-drive Wire Feeding Interface

#### 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	☑ Standard Pulse
☑ Steel	✓ Stainless Steel
🗹 Aluminum / Aluminu	m Alloy
💌 Aluminum Bronze	\star Silicon Bronze

- Push-pull Welding Torch Interfac
- Mid-drive Wire Feeding Interface
- Constant Penetration

#### Artsen II PM500 / 400 F

- Synergic & Pulse MAG for Carbon Steel

DC CO <sub>2</sub> /MAG	Standard Pulse
☑ Steel	Stainless Steel
💌 Aluminum Bronze	<ul> <li>Silicon Bronze</li> </ul>
🔲 Aluminum / Aluminu	m Alloy

✓ Push-pull Welding Torch Interface
✓ Mid-drive Wire Feeding Interface

Constant Penetratio

#### Artsen II PM500 / 400 N

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



#### Artsen II CM500 / 400 / 350

- Synergic MAG for Carbon Steel

☑ DC CO₂/MAG	Standard Pulse
☑ Steel	Stainless Steel
Aluminum Bronze	Silicon Bronze
Aluminum / Aluminu	um Alloy
🔽 Push-pull Welding To	orch Interface

Mid-drive Wire Feeding Interface

Constant Penetration



## Specification for Artsen II Series

Manual	Artsen    PM500/400 AD	Artsen    PM500/400AS
Process		
Synergic MAG / CO <sub>2</sub>	•	•
Single & Double Pulse MAG for Steel	•	•
Single & Double Pulse MAG for SUS	•	•
Single Pulse MIG for Aluminum	•	•
Double Pulse MIG for Aluminum	•	-
Silicon bronze	0	0
Aluminum bronze	0	0
Constant Penetration	•	•
Functions		
Push-pull Torch	0	0
Middle-drive wire feeding	0	0
Up/Down Torch	0	0
SMARC / IoT	0	0

Manual	Artsen    PM500 AD / AS / N / F	Artsen    CM500			
Control Mode	Fully Digital-control				
Rated Input Voltage	AC 3PH 380V -25% ~ 400V +20% (3PH 285V ~ 3PH 475V)				
Input Frequency	30 ~	$_{ m 30}$ $\sim$ 80 Hz			
Rated Input Power	24KVA / 22.3KW	24KVA / 22.3KW			
Power Factor	0.	93			
Efficiency	87	7%			
Rated OCV	73.3V				
Max Output Current	500A				
Rated Output Current	39V				
Rated Output Voltage	$12 \sim 45 V$				
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 We	elding / Intermittent Welding			
Electromagnetic Compatibility	EN 60974	-10: 2014.			
Protection Against Lightening	Class D (60	00V/3000A)			
Insulation Grade	Н				
Ingress Protection	IP23 S				
Working Temperature / Humidity	-39°C∼ +40°C				
Dimension (L / W / H)	620*300*480 mm				
Gross Weight	52KG				

#### • Standard Optional

Artsen    PM 500 / 400 N	Artsen    PM 500 / 400 F	Artsen    CM500/400/350
•	•	•
•	•	-
•	-	-
-	-	-
	-	-
0	0	-
0	0	-
•	•	-
0	0	0
0	0	0
O	0	0
0	0	0

Artsen    PM400 AD/AS/N/F	Artsen    CM400	Artsen    CM350
	Fully Digital-control	
	AC 3PH 380V -25% ~ 400V +20% (3PH 285V ~ 3PH 475	V)
	$30\sim 80~{ m Hz}$	
19.7KVA / 18KW	15 KVA / 12.7KW	15 KVA / 12.7KW
0.94	0.93	0.93
87%	87%	87%
73.3V	73.3V	73.3V
400A	400A	400A
34V	31.5v	31.5v
$12 \sim 45 V$	$12 \sim 45 V$	$12 \sim 45 \mathrm{V}$
400A 100% @ 40°C	350A 100% @ 40℃	350A 100% @ 40°C
	φ 0.8 / 0.9 / 1.0 / 1.2 / 1.6 mm	
	2T / 4T / Special 4T / Spot Welding / Intermittent Weldi	ing
	EN 60974-10: 2014.	
	Class D (6000V/3000A)	
	Н	
	IP23 S	
	-39°C~ +40°C	
	620*300*480 mm	
	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 withe 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



## Intermediate Wire-feeder Mid-way Reinforcement for Ultra-Long Wire-feeding

**Product Features** 

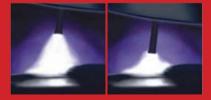
- Light and small, weighing only 4.3kg; robust and durable with metal structure streamline design for frequent mobility.
- Digital display for convenient checking and configuration of welding parameters.
- Reaching up to 58 m working scope for solid wires of steel, including 30m by wire-feeder, 25 m 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				
	Solid wire of Carbon Steel	25m			
Max Cable Length of	Solid wire of Stainless Steel	25m			
Intemediate Wire-feeder	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				

🛚 Series 🛛 🔪

## Artsen Plus / Pro Series Intelligent Platform of MIG/MAG Welding Process





## Artsen Plus / Pro Series

Intelligent Platform of MIG/MAG Welding Process

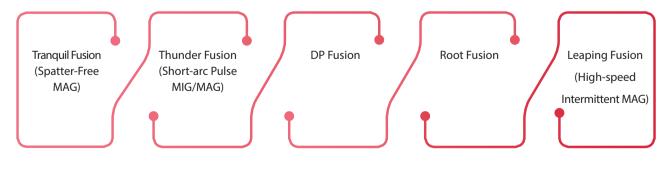


#### Features

- Based on the robust Artsen series, Artsen Plus is elevated with inverter frequency of 100K HZ, super high-speed samplying
  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 Artsn 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.



#### 29/30 Products & Solutions

## **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 CO <sub>2</sub> /MAG	
✓ Thunder Fusion	Leaping Fusion	
DP Fusion		
Steel 🗹 Stainless Steel 🗹 Aluminum		
Constant Penetra	tion 🔽	USB Port

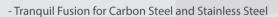
#### Artsen Plus 500P / 400P / 350P

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

Tranquil Fusion	Synergic CO <sub>2</sub> /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	Synergic CO <sub>2</sub> /MAG
Thunder Fusion	<ul> <li>Leaping Fusion</li> </ul>
DP Fusion	

- ✓ Constant Penetration
   ✓ USB Port
   ✓ Push-pull Torch Connector

```
Standard

Storal with extra costs
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Not Applicable

## **Artsen Pro Series**

# Artsen Pro 500H / 500Q / 400Q - LSA for Carbon Steel and Stainless Steel. - Thunder Fusion for Aluminum, Carbon Steel and Stainless Steel Synergic CO<sub>2</sub>/MAG ✓ Thunder Fusion ☑ Steel ☑ Stainless Steel ☑ Aluminum Constant Penetration USB Port Artsen Pro 500H D / 500D / 400D - LSA for Carbon Steel and Stainless Steel Synergic CO<sub>2</sub>/MAG Thunder Fusion Steel 🗹 Stainless Steel 🔲 Aluminum

#### Artsen Pro 500H / 500P / 400P

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

🗹 LSA	Synergic CO <sub>2</sub> /MAG	
Mathematical Thunder Fusion		
Steel 🗹 Stainless Steel 🗌 Aluminum		
🗹 Constant Penetra	tion 🗹 USB Port	
✓ Push-pull Torch Connector		

Standard

\* Optional with extra costs

Not Applicable

#### 31/32 Products & Solutions

# 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 a extremely low level. As a result, the droplet moves into the melton 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 wedling positions.
- The welding speed is significantly increased





Automotive parts Spatter-free and low heat-input



Home appliances Spatter-free and low heat-input



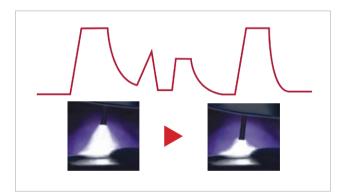
Metal fabrication Gap-filling with low heat-input

# 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:

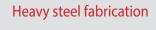
- Welding with lowered voltage to achieve spatter-free and beautiful results with pulse process
- Short in transfer arc, higher in transfer frequency, stronger in anti-interference capability
- More friendly to robotic welding with high arc stiffness and sharp arc direction
- · Heat-input lowered to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



Standard Pulse

Thunder Fusion





High-speed welding of multiple torches

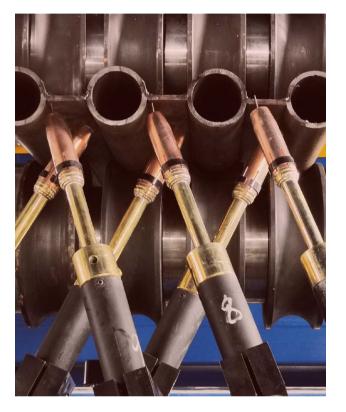


## Welding aluminum and alloys

Higher quality in aluminum welding

Heavy construction equipment

Spatter-free with Thunder Fusion



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#### 33/34 Products & Solutions

# 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 moltenpool 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



# 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





It benefits welders by ensuing 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



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

### 35/36 Products & Solutions

## Specification

## **Artsen Plus**

•			
Manual	Artsen Plus 500 / 400 / 350 Q	Artsen Plus 500 / 400 / 350 P	Artsen Plus 500 / 400 / 350 D
	Welding	g Process	_
Synergic		•	•
Tranquil Fusion	•	•	•
Thunder Fusion	•	•	
Leaping Fusion	•	0	0
DP Fusion	•	0	-
	Mat	terial	
Steel	•	•	•
Stainless Steel	•	•	•
Aluminum	•	-	
	Featured	l Function	
USB for Upgrading	•	•	•
Consistent Fusion			-
Push-pull torch connection Relay wire-feeder for barrel			
SMARC / IoT	0	0	0
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
Control Mode		Fully Digital-Control	
Rated Input Voltage 1	AC 3PH	380V -25% ~ 400V +20% (3PH 285V ~ 3	BPH 475V)
Rated Input Voltage 2	-	-	AC 3PH 220V +/-15% (3PH 187V ~ 3PH 254V)
Input Frequency		$45\sim 65 Hz$	
Rated Input Power	24 KVA	22.3 KVA	16.8 KVA
Power Factor	0.93	0.94	0.94
Efficiency		87%	
Rated OCV		85V	
Max Output Current	500A	400A	350A
Rated Output Current	$_{30}{\sim}$ 500 A	$30\sim400~{\rm A}$	$30\sim350~{ m A}$
Rated Output Voltage	12 ~ 45 V (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		∮ 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 EMC		
Protection Against Lightening		Class D (6000V/3000A)	
Insulation Grade		Н	
Ingress Protection		IP23 S	
Working Temperature / Humidity		-39°C ~ +50°C ; Humidity ≤ 95%;	
/	· · · · · · · · · · · · · · · · · · ·		
Dimension (L / W / H)		620*300*480	

## Specification

## Artsen Pro

opeenication			
Manual	Artsen Pro 500 H / 500 / 400 Q	Artsen Pro 500 H / 500 / 400 P	Artsen Pro 500 H / 500 / 400 [
	) A ( a l alian	Durana	_
Companyation (	weiding	g Process	•
Synergic			
LSA Thunder Fusion			•
Leaping Fusion			-
DP Fusion		-	-
	Mat	terial	
Steel	•	•	•
Stainless Steel	•	•	•
Aluminum	•	-	-
	Featured	Function	
USB for Upgrading	•	•	•
Consistent Fusion	•	•	-
Push-pull torch connection	•	•	•
Relay wire-feeder for barrel	0	0	0
SMARC / IoT	0	0	0
A / V display of in manual wire-feeder	•	•	•
Manual	Artsen Pro 500 H D / P / Q	Artsen Pro 500 D / P / Q	Artsen Pro 400 D / P / Q
Control Mode		Fully Digital-Control	
	AC 3PH 380V -25% ~ 400V +20% (3PH 285V ~ 3PH 475V)		
Rated Input Voltage	AC 3PH	380V -25% ~ 400V +20% (3PH 285V ~	3PH 475V)
	AC 3PH	380V -25% ~ 400V +20% (3PH 285V ~ 45 ∼ 65Hz	3PH 475V)
Input Frequency	AC 3PH 24 KVA		3PH 475V) 22.3 KVA
Input Frequency Rated Input Power		$45\sim 65 Hz$	
Input Frequency Rated Input Power Power Factor	24 KVA	45 ~ 65Hz 24 KVA 0.93	22.3 KVA
Input Frequency Rated Input Power Power Factor Efficiency	24 KVA	45 ~ 65Hz 24 KVA 0.93 87%	22.3 KVA
Input Frequency Rated Input Power Power Factor Efficiency Rated OCV	24 KVA 0.93	45 ~ 65Hz 24 KVA 0.93 87% 85V	22.3 KVA 0.94
Input Frequency Rated Input Power Power Factor Efficiency Rated OCV Max Output Current	24 KVA 0.93 500A	45 ~ 65Hz 24 KVA 0.93 87% 85V 400A	22.3 KVA 0.94 350A
Input Frequency Rated Input Power Power Factor Efficiency Rated OCV Max Output Current Rated Output Current	24 KVA 0.93	45 ~ 65Hz 24 KVA 0.93 87% 85V 400A 30 ~ 500 A	22.3 KVA 0.94
Input Frequency Rated Input Power Power Factor Efficiency Rated OCV Max Output Current Rated Output Current	24 KVA 0.93 500A	45 ~ 65Hz 24 KVA 0.93 87% 85V 400A 30 ~ 500 A 12 ~ 45 V (Precision at 0.1V)	22.3 KVA 0.94 350A
Input Frequency Rated Input Power Power Factor Efficiency Rated OCV Max Output Current Rated Output Current Rated Output Voltage	24 KVA 0.93 500A	45 ~ 65Hz 24 KVA 0.93 87% 85V 400A 30 ~ 500 A	22.3 KVA 0.94 350A
Input Frequency Rated Input Power Power Factor Efficiency Rated OCV Max Output Current Rated Output Current Rated Output Voltage Duty Cycle (40°C / 10 min)	24 KVA 0.93 500A 30 ~ 500 A	45 ~ 65Hz 24 KVA 0.93 87% 85V 400A 30 ~ 500 A 12 ~ 45 V (Precision at 0.1V) 500A / 39V 60% @ 40°C	22.3 KVA 0.94 350A 30 ~ 400 A
Input Frequency Rated Input Power Power Factor Efficiency Rated OCV Max Output Current Rated Output Current Rated Output Voltage Duty Cycle (40°C / 10 min) Wire Diameter	24 KVA 0.93 500A 30 ~ 500 A 500A / 39V 100% @ 40°C	45 ~ 65Hz 24 KVA 0.93 87% 85V 400A 30 ~ 500 A 12 ~ 45 V (Precision at 0.1V) 500A / 39V 60% @ 40°C 387A / 33.5V 100% @ 40°C	22.3 KVA 0.94 350A 30 ~ 400 A 400A / 34V 100% @ 40°C
Input Frequency Rated Input Power Power Factor Efficiency Rated OCV Max Output Current Rated Output Current Rated Output Voltage Duty Cycle (40°C / 10 min) Wire Diameter Welding Operation Mode	24 KVA 0.93 500A 30 ~ 500 A 500A / 39V 100% @ 40°C	45 ~ 65Hz 24 KVA 0.93 87% 85V 400A 30 ~ 500 A 12 ~ 45 V (Precision at 0.1V) 500A / 39V 60% @ 40°C 387A / 33.5V 100% @ 40°C	22.3 KVA 0.94 350A 30 ~ 400 A 400A / 34V 100% @ 40°C
Input Frequency Rated Input Power Power Factor Efficiency Rated OCV Max Output Current Rated Output Current Rated Output Voltage Duty Cycle (40°C / 10 min) Wire Diameter Welding Operation Mode Electromagnetic Compatibility	24 KVA 0.93 500A 30 ~ 500 A 500A / 39V 100% @ 40°C	45 ~ 65Hz 24 KVA 0.93 87% 85V 400A 30 ~ 500 A 12 ~ 45 V (Precision at 0.1V) 500A / 39V 60% @ 40°C 387A / 33.5V 100% @ 40°C 387A / 33.5V 100% @ 40°C	22.3 KVA 0.94 350A 30 ~ 400 A 400A / 34V 100% @ 40°C
Input Frequency Rated Input Power Power Factor Efficiency Rated OCV Max Output Current Rated Output Current Rated Output Voltage Duty Cycle (40°C / 10 min) Wire Diameter Welding Operation Mode Electromagnetic Compatibility Protection Against Lightening	24 KVA 0.93 500A 30 ~ 500 A 500A / 39V 100% @ 40°C	45 ~ 65Hz 24 KVA 0.93 87% 85V 400A 30 ~ 500 A 12 ~ 45 V (Precision at 0.1V) 500A / 39V 60% @ 40°C 387A / 33.5V 100% @ 40°C Class D (6000V/3000A)	22.3 KVA 0.94 350A 30 ~ 400 A 400A / 34V 100% @ 40°C
Input Frequency Rated Input Power Power Factor Efficiency Rated OCV Max Output Current Rated Output Current Rated Output Voltage Duty Cycle (40°C / 10 min) Wire Diameter Welding Operation Mode Electromagnetic Compatibility Protection Against Lightening Insulation Grade	24 KVA 0.93 500A 30 ~ 500 A 500A / 39V 100% @ 40°C	45 ~ 65Hz 24 KVA 0.93 87% 85V 400A 30 ~ 500 A 12 ~ 45 V (Precision at 0.1V) 500A / 39V 60% @ 40°C 387A / 33.5V 100% @ 40°C	22.3 KVA 0.94 350A 30 ~ 400 A 400A / 34V 100% @ 40°C
Input Frequency Rated Input Power Power Factor Efficiency Rated OCV Max Output Current Rated Output Current Rated Output Voltage Duty Cycle (40°C / 10 min) Wire Diameter Welding Operation Mode Electromagnetic Compatibility Protection Against Lightening Insulation Grade Ingress Protection	24 KVA 0.93 500A 30 ~ 500 A 500A / 39V 100% @ 40°C	45 ~ 65Hz 24 KVA 0.93 87% 85V 400A 30 ~ 500 A 12 ~ 45 V (Precision at 0.1V) 500A / 39V 60% @ 40°C 387A / 33.5V 100% @ 40°C 400 / 12 / 16 mm	22.3 KVA 0.94 350A 30 ~ 400 A 400A / 34V 100% @ 40°C
Input Frequency Rated Input Power Power Factor Efficiency Rated OCV Max Output Current Rated Output Current Rated Output Voltage Duty Cycle (40°C / 10 min) Wire Diameter Welding Operation Mode Electromagnetic Compatibility Protection Against Lightening Insulation Grade	24 KVA 0.93 500A 30 ~ 500 A 500A / 39V 100% @ 40°C	45 ~ 65Hz 24 KVA 0.93 87% 85V 400A 30 ~ 500 A 12 ~ 45 V (Precision at 0.1V) 500A / 39V 60% @ 40°C 387A / 33.5V 100% @ 40°C	22.3 KVA 0.94 350A 30 ~ 400 A 400A / 34V 100% @ 40°C



## Dex Series (Compact)



MEGMEET

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 S/S at synergic mode
- Short-arc pulse MIG/MAG (QPT) with superb performance for S/S
- 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)
- · Highly adaptive for automation with precise control of wire-feeding
- Longer service life and lower defective rate thanks to better mechanical design



#### 39/40 Products & Solutions

$\checkmark$	Standard
*	Optional with extra co
	Not Applicable

## Dex PM3000 (Compact)

- Spatter-Free Synergic, Pulse and Double Pulse

- MAG for Carbon Steel and Stainless Steel
- Pulse & Double Pulse MIG for Aluminum and alloy

$\checkmark$ LSA(Low.spatter Arc for MAG / CO <sub>2</sub> )		
Pulse MIC	G/MAG	MMA
💌 QPT (Sh	ort-arc pulse MIG	/ MAG)
Synergic MAG for Metal-cored wire		
Pulse MAG for Metal-cored wire		
Steel	Stainless Steel	🗹 Aluminum

## Dex DM3000 (Compact)

**Dex Series** 

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

$\checkmark$ LSA(Low.spatter Arc for MAG / CO <sub>2</sub> )		
Pulse MK	G/MAG	MMA
💌 QPT (Sh	ort-arc pulse MIG /	′ MAG)
Synergic MAG for Metal-cored wire		
Pulse MAG for Metal-cored wire		
Steel	Stainless Steel	Aluminum

## Dex PM3000Q (Compact)

- 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

SA(Low.spatter Arc for MAG / CO <sub>2</sub> )		
🗹 Pulse MI	G/MAG	MMA
🗹 *QPT (S	hort-arc pulse MIG	/ MAG)
Synergic MAG for Metal-cored wire		
✓ Pulse MAG for Metal-cored wire		
☑ Steel 🛛 ☑ Stainless Steel 📝 Aluminum		



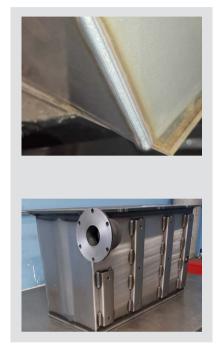
#### Compact

# $\checkmark$ LSA (Low-spatter Arc for MAG / CO<sub>2</sub>)

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





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:**

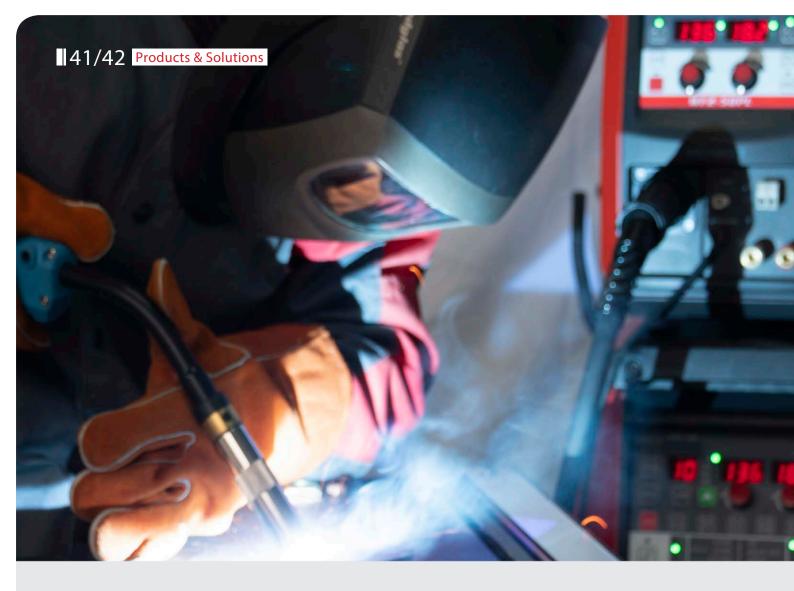
- · Low spatter, low heat-input, suitable for high speed sheet metal welding
- 50%~100% faster than standard pulse MIG/MAG process
- Less sensitive to shield gas composition. Capable of welding S/S solid wire with mixed gas of 80% argon / 20% CO<sub>2</sub>



Stainless steel



#### Aluminum alloy



### Multiple welding processes



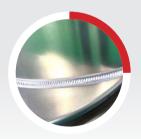
#### High-speed spot welding

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 S/S 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.

Standard Optional

Dex PM3000Q

Specification		
Manual - Compact	Dex DM3000	Dex Pl
		Proc
Synergic MAG / CO <sub>2</sub>	•	•
LSA	•	•
Pulse MIG / MAG	-	•
QPT	-	С
MMA	•	
		Mate
Charl		

Manual - Compact	Dex Division	DexTW5000	DEXTINUOUQ	
		Process		
Synergic MAG / CO <sub>2</sub>	• • •			
LSA	•	• • •		
Pulse MIG / MAG	-	•	•	
QPT	-	0	•	
MMA	•		•	
Steel	•	Material		
Stainless Steel				
Aluminum & Alloy			•	
Metal-cored Wire			•	
		Specification	-	
Control mode		Fully Digital-control		
Rated Input Voltage	AC 3PH 38	0V -15% ~ 400 V +15% (3PH 323V ~ 3	3PH 460V)	
Input Frequency		$45\sim 65 { m Hz}$		
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			
Wire feeding speed	$1.4 \sim 28 \text{m/min}$			
Insulation Grade	Н			
Ingress Protection	IP23 S			
Protection Against Lightening	Class D (6000V/3000A)			
Certification		EN60974-10:2014 EN60974-1:2012 GB/T15579.1-2013		
Working Temperature		-10°C~ +40°C		
Dimension (L / W / H)		610mm × 260mm × 398mm		
Gross Weight	25.4kg			

Manual wire-feeder



Built-in wire-feeder



## 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	

# Reliability

Re-defining reliability and stability of inverter welding machines.

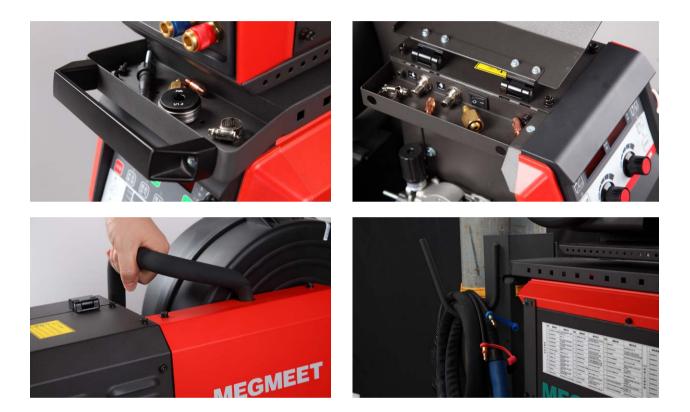
# Firm and strong like a rock, even being used at outdoors or under tough conditions





## **User-friendly Design**

How to deal with the challenges of inexperienced welding personel? 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









