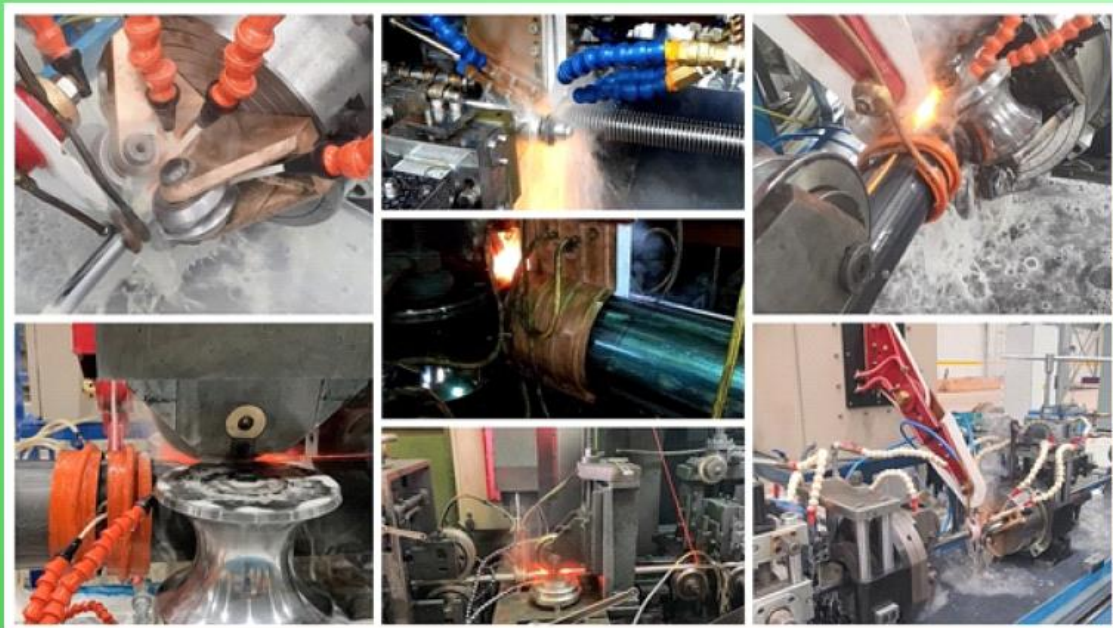




SOLID STATE GENERATOR FOR PIPE WELDING & ANNEALING



SiC MOSFET Module

HISEN ENTERPRISES CO., LTD

COMPANY PROFILE

Hisen Enterprises Co., Ltd. was established in Taiwan since 1967, specializing in high frequency machines. As a pioneer in this field, we continued to maintain our leadership through continuous developments, innovations and transfer of the latest technology from our partners in France and Japan. Our company gained ISO 9001 recognition in 1995, the only company in this field to get such recognition at that time ; and 14001 recognition in 1997.

Our Solid State Generator was a result of a technology transfer from Japan , resulting in a much welcomed equipment.

We have around 60% of the market in Taiwan and export sales has reached the four continents - Europe, USA, Asia, and African continents.

The Solid State Generator is proven to save power by around 30% compared to the vacuum tube type generators. Its compact design is only about one fourth the size of the vacuum tube type machine.

These two factors bear a great weight for customers choosing solid state machines.

Comparing our machine with other brands, our machine gives :

- ◆ Power savings
- ◆ High speed and high quality heating performance
- ◆ Homogeneous quality
- ◆ High productivity
- ◆ Minimum maintenance

We assure our customers high quality and good after sales service.

Contact us for more information.

HISTORY

- 1967 HISEN incorporated in June**
- 1975 Technical cooperation with FUJI Dempa Koki, Japan on H.F. Plastic welding machine & preheater**
- 1978 Computerization of operations**
- 1984 Started using Computer Aided Design and testing of machine system**
- 1995 Honored with an award for excellence by Medium-Small Business association in achieving overall improvement in management system and company operations by using computerization**
- 1996 Obtained ISO 9001 Quality System Certificate from DNV**
- 1997 Obtained ISO 14001 Quality System Certificate from DNV**
- 1998 Transferred technology from Japan on the manufacture of Medium and High Frequency Transistor Generators, resulting in a big leap in the output of our machines to 2000KW.**
- 2006 Exhibited at the Tube Duesseldorf 2006 for the first time, becoming the first company in Asia making HF Induction machines joining an international exhibition**
- 2009 Renewed Technology Transfer contract with Neturen Japan for another 10 years.**
- 2017 Celebrated company' s 50th anniversary.**
- 2019 Renewed Technology Transfer contract with Neturen Japan for another 10 years.**
- 2020 Transistors are fully upgraded to SiC Mosfet**

Carbon Steel Pipe & Finned Tube Welder



A New Breakthrough in Technology High-Efficient, Compact Transistor Inverter

Frequency and Output

The generator accommodates a frequency range of 60kHz to 400 kHz at an output range of 60kw to 1200kw. In case of short time heating, output power can be increased.

Energy savings

Because transistors are used instead of vacuum tubes, input power can be reduced by about 30% and cooling water can be saved by 50%.

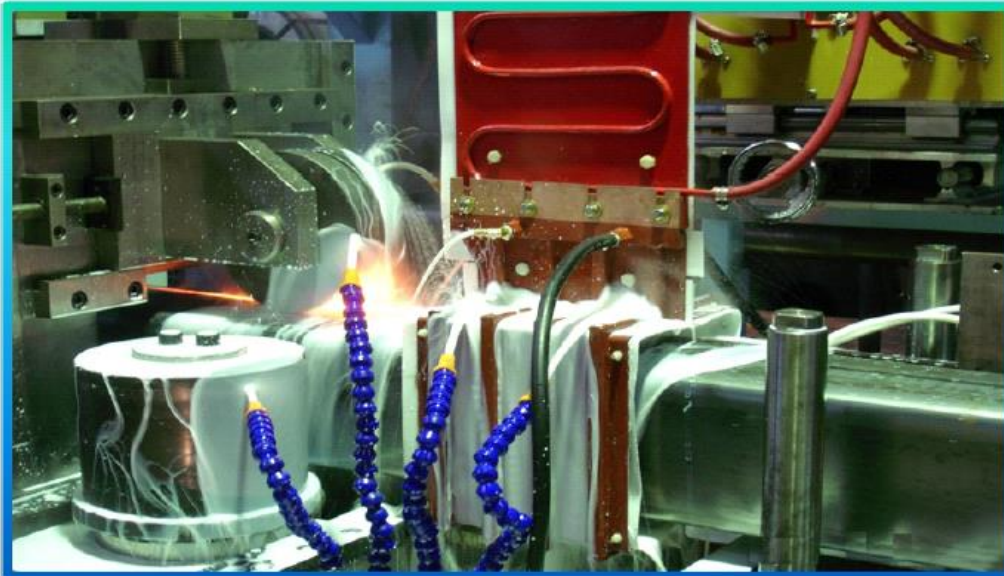
Beginning year 2020, Si MOSFET transistor was upgraded to SiC MOSFET. Additional power savings of 10- 15%.

Compact design

The comprehensive solid-state and low voltage design makes the unit compact in size and reduces the required installation space to one-fourth the space required by conventional vacuum-tube oscillator models.

API PIPE WELDING

300mm*300mm & API 16"



Easy maintenance and inspection

Transistors, printed circuit boards and other components are all placed at the front for easy maintenance access. Cooling water circulation system(option) helps to solve the cooling problems.

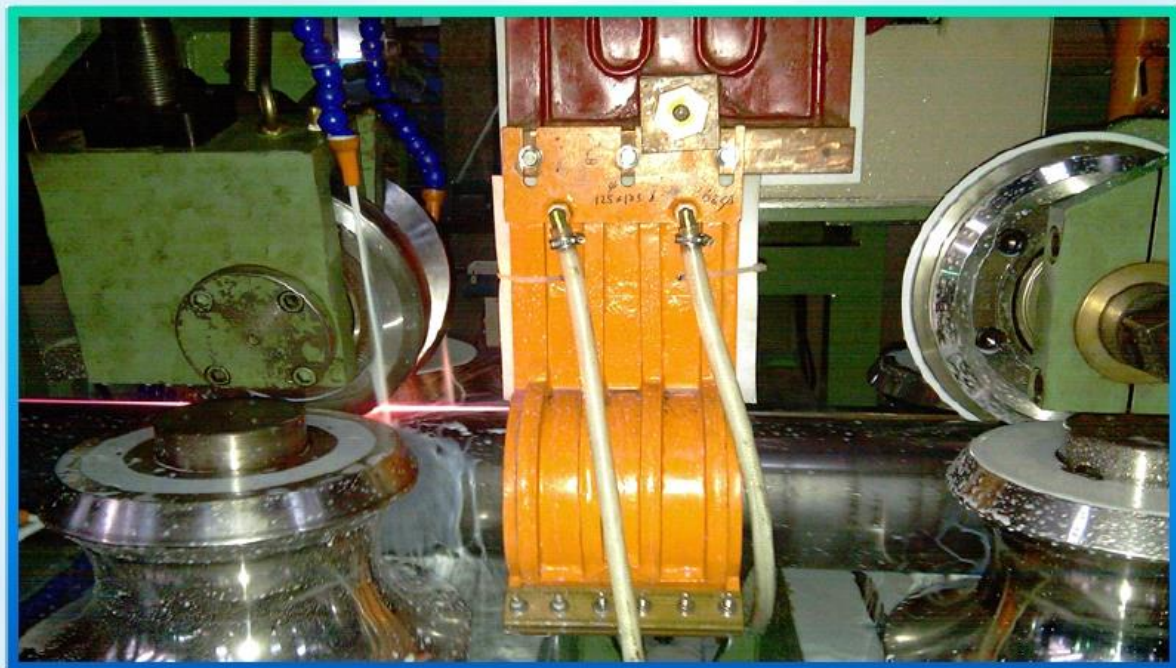
Dependable protective circuits

The protective circuits ensure safe inverter operation in case of touching coils, no-load operations, over-load operations and other operation errors.

Tripping operations:

Door interlock • Cooling water flow • Water inlet/outlet temp. • IAC trip
IDC trip • Phase fault • LOW.F trip • HI.F trip • Tank fault(coil short)
Tank capacitor over voltage.

CARBON STEEL PIPE WELDING

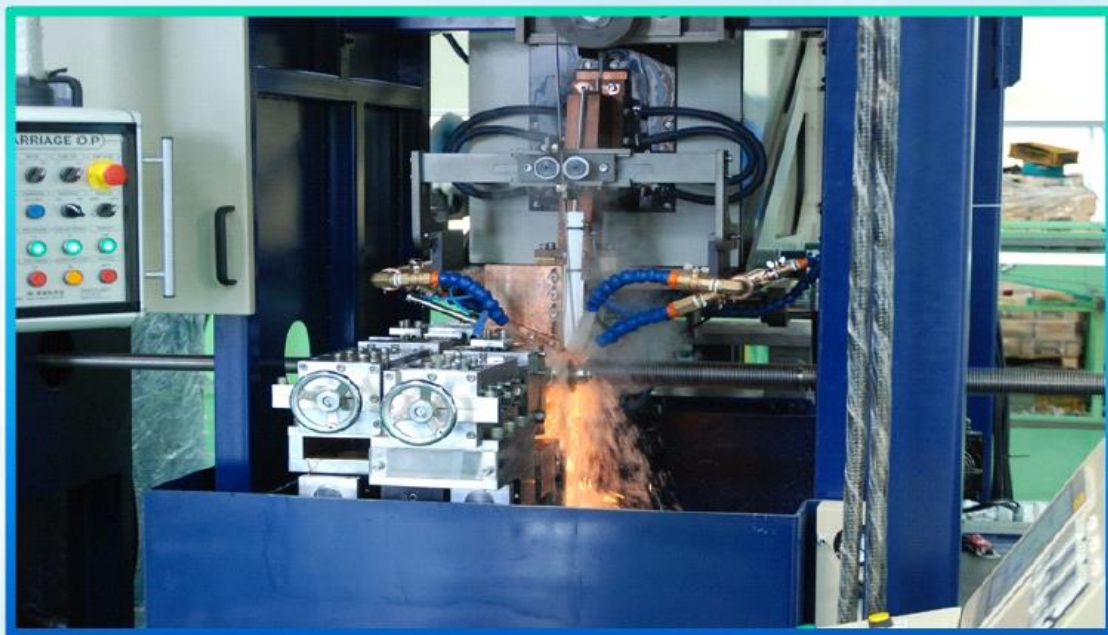


CARBON STEEL PIPE WELDING



FINNED TUBE WELDER (CARBON STEEL, STAINLESS STEEL ALLOY, ALUMINUM)

OD: Φ 25.4mm~ Φ 114.3mm
FIN SIZE: Φ 10.0mm~ Φ 25.4mm

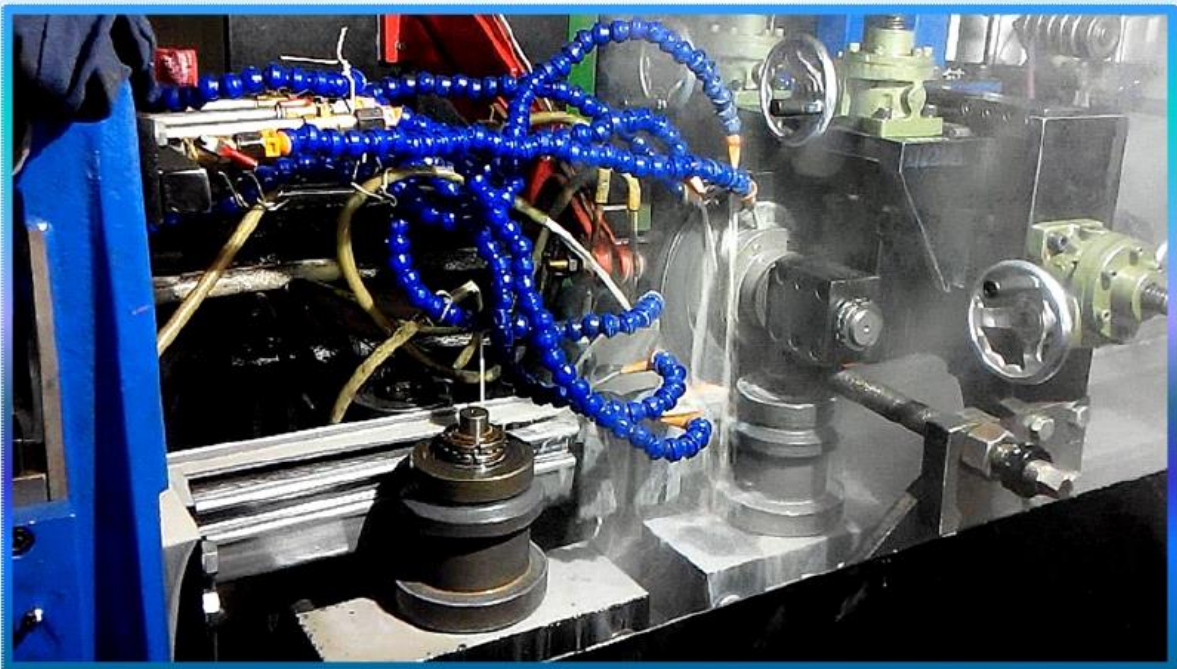
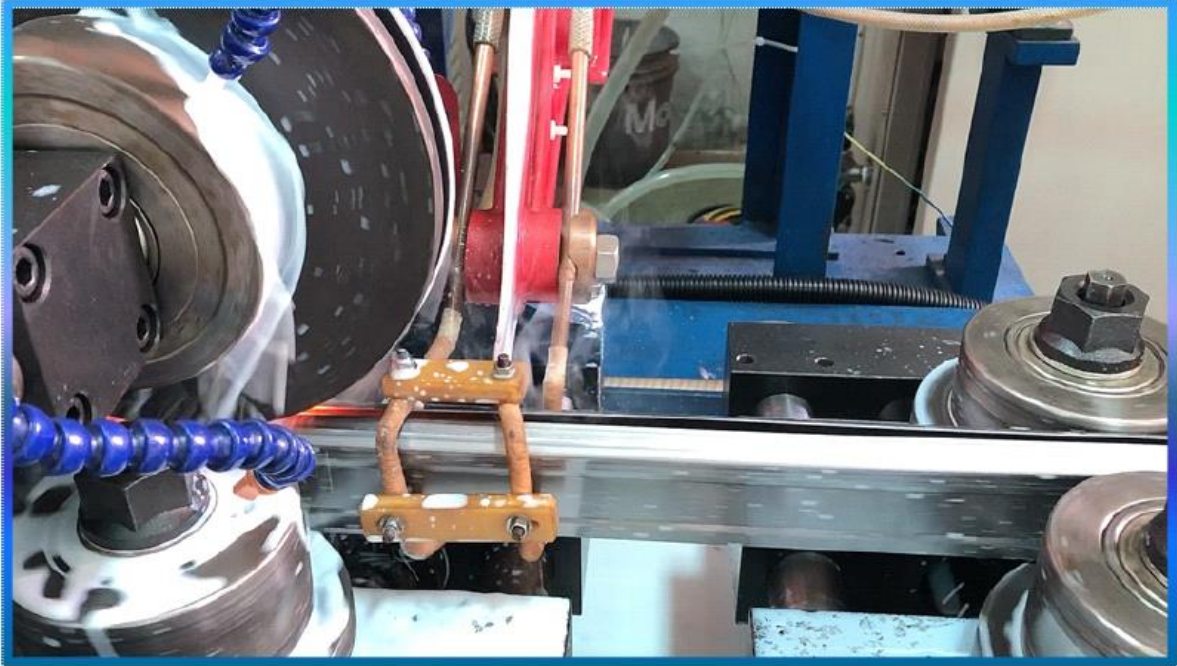


STAINLESS STEEL TUBE WELDER (SERIES : 2,3,4)

$\Phi 12.7\text{mm} \sim \Phi 127\text{mm}$



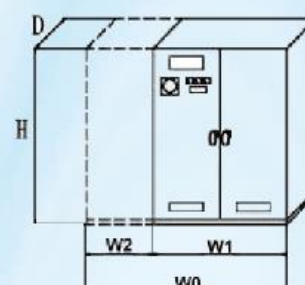
SPECIAL SHAPED STEEL PIPE WELDER



SPECIFICATIONS

Output	Output Capacity(kw)	100	150	200	250	300	350	400	500
	Frequency (kHz)	40~400kHz							
Input	Voltage(V)	3Ø,220/380/415/440V ± 10%,50/60Hz							
	Capacity (kVA)	Output(kW)÷ 0.9 =Input(kW)				Output(kW)x1.4 =Input(kVA)			
Cooling Water	Common specifications	Water pressure 2.5~3.5kgf/cm2 Water temperature 25~40℃							
	Water flow (L/m)	120	200	260	350			400	450
	Water inlet/ outlet dia	40A	50A	40A*2		40A*1,50A*1		50A*2	
External dimensions	Height H(mm)	1500	1500	1500	1600	1800	1800	2050	2050
	Inverter W1(mm)	660	660	660	660	660	660	660	660
	Cooling system W2(mm)	500						600	
	Total Width W0(mm)	1450	1650	2350		2800			3900
	Depth D(mm)	1530	1530	1670	1670	1860	1860	1960	1960
	Mass(kg)	1700	1900	2000	2200	2800	3000	3300	3400

- **Input capacity includes KVA for cooling water system.**
- **Feel free to contact us for information on inverters with other output capacities and frequencies not indicated in the above tables.**
- **For product improvement, specification and external appearance are subject to change without notice.**



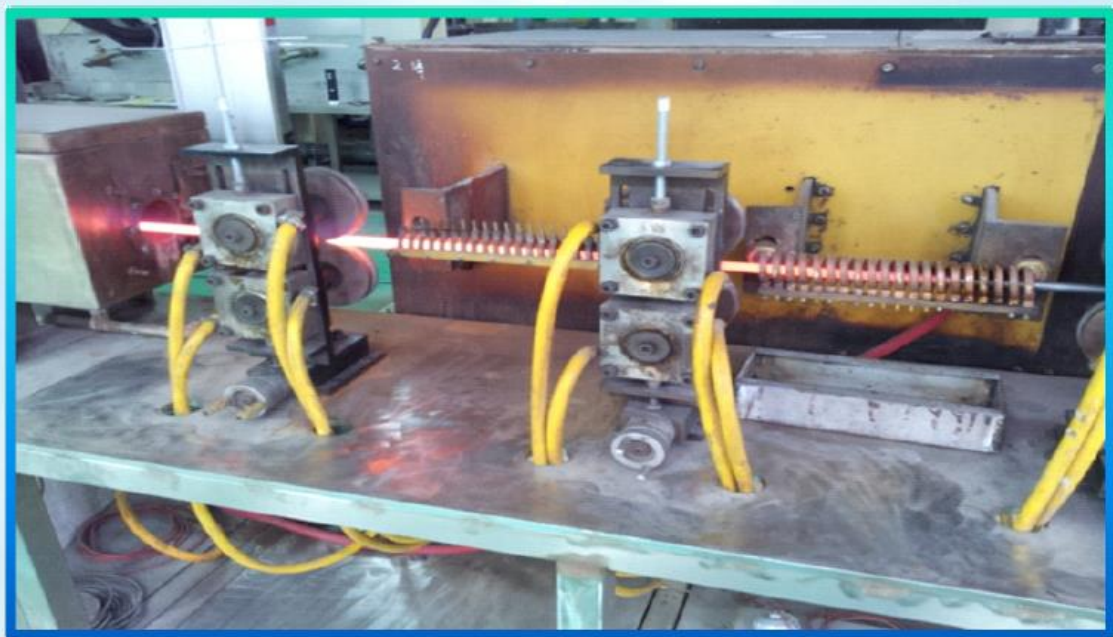
SUS PIPE IN-LINE ANNEALING

$\Phi 12.7\text{mm} \sim \Phi 406.4\text{mm}$



WIRE HEATING

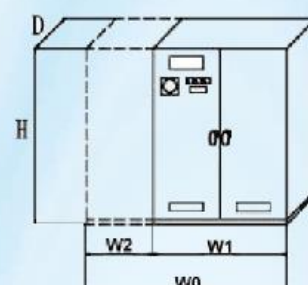
$\Phi 3.0\text{mm} \sim \Phi 30.0\text{mm}$



SPECIFICATIONS

Output	Output capacity(kW)	100	200	300	400	500	600	800	1000	1200	1600	2000
	Frequency(kHz)	1~50KHZ										
Input	Voltage(V)	3Ø, 220/380/415/440V±10% , 50/60Hz										
	Capacity(kVA)	Output(kW)÷ 0.9=Input(kW) Output(kW)X 1.2=Input(kVA)										
Cooling Water	Common specifications	Water pressure 2.5~3.5kgf/cm ² Water temperature 25~40℃										
	Water flow(L/m)	30/40	60/80	85/110	100/130	120/160	140/190	230/300	275/350	340/440	500/650	520/680
	Water inlet/outlet dia	20A		25A	40A	40A/50A		65A	65A*2	80A*2		
External Dimensions	Height H(mm)	1950		1950		1950	2350				2550	
	Inverter W1(mm)	800		950	1300	1600	1400	1700	2500	3500	5000	
	Cooling system W2(mm)	500		600		700					900	
	Total Width W0(mm)	1300		1550	1900	2300	2100	2400	3200	4200	5900	
	Depth D(mm)	800	1000	1300		1200	1500	1200				
	Mass(kg)	1200	1400	1700	1900	2400	3000	2600	3200	3800	6000	7200

- **Input capacity includes KVA for cooling water system.**
- **Feel free to contact us for information on inverters with other output capacities and frequencies not indicated in the above tables.**
- **For product improvement, specification and external appearance are subject to change without notice.**



SALES SUMMARY

Asia

China, Japan, India, Indonesia, Bangladesh, Hong Kong, Cambodia, Thailand, Malaysia, Vietnam, Philippines, Sri Lanka, Burma, South Korea

Middle East

Qatar, Iran, Iraq, Saudi Arabia, Syria, Yemen, Lebanon

Europe

Turkey, Turkmenistan, Lithuania, Belarus, Kyrgyzstan, Greece, Poland, Bulgaria, Russia, Egypt, Ukraine, Uzbekistan, Armenia, Republic of Georgia, Serbia, Romania

Africa

Angola, Burkina Faso, Ethiopia, Benin, Libya, Kenya, Algeria, South Africa, Nigeria, Tanzania, Ghana, Congo, Macedonia, Cameroon, Senegal, Morocco, Sudan, Zambia

America

Trinidad, Ecuador, Paraguay, Honduras, Venezuela, USA, El Salvador





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ISO9001 & ISO14001