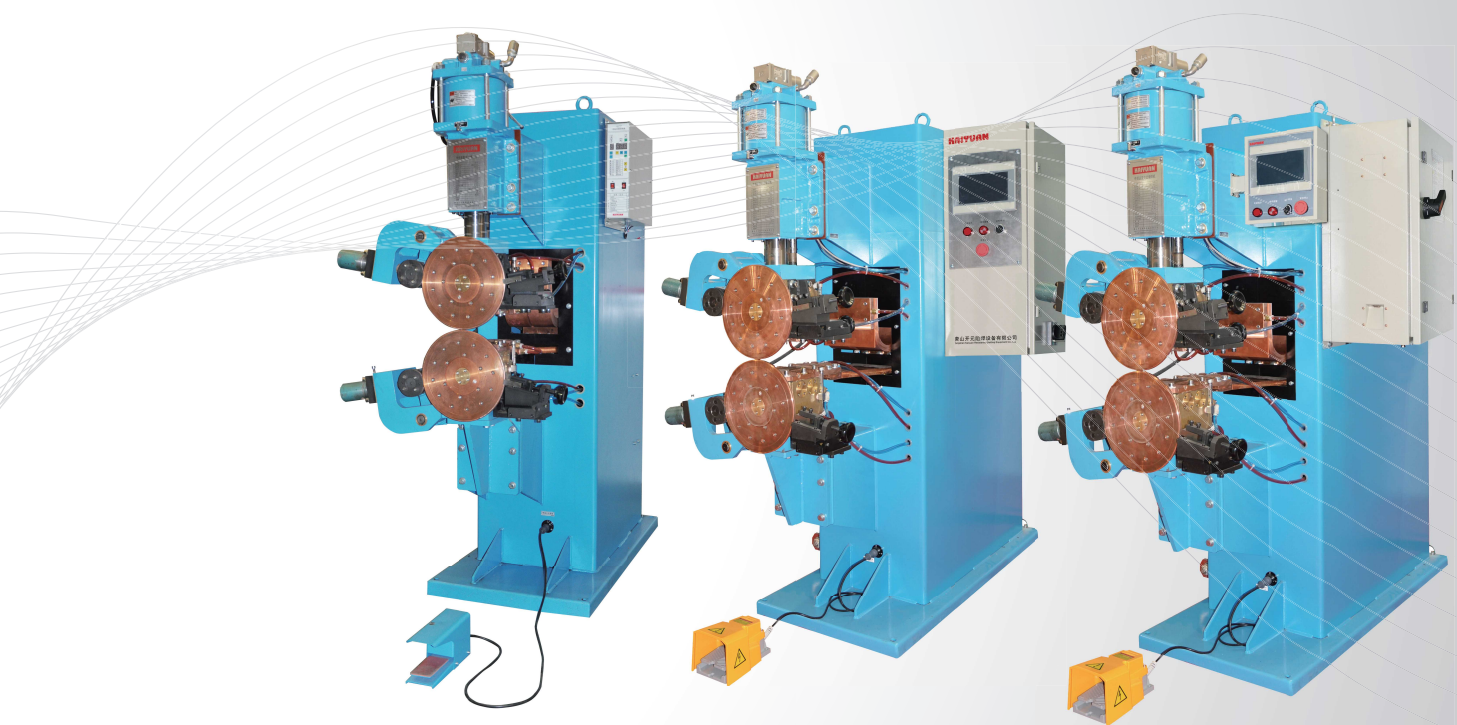


KAIYUAN

Seam Welder

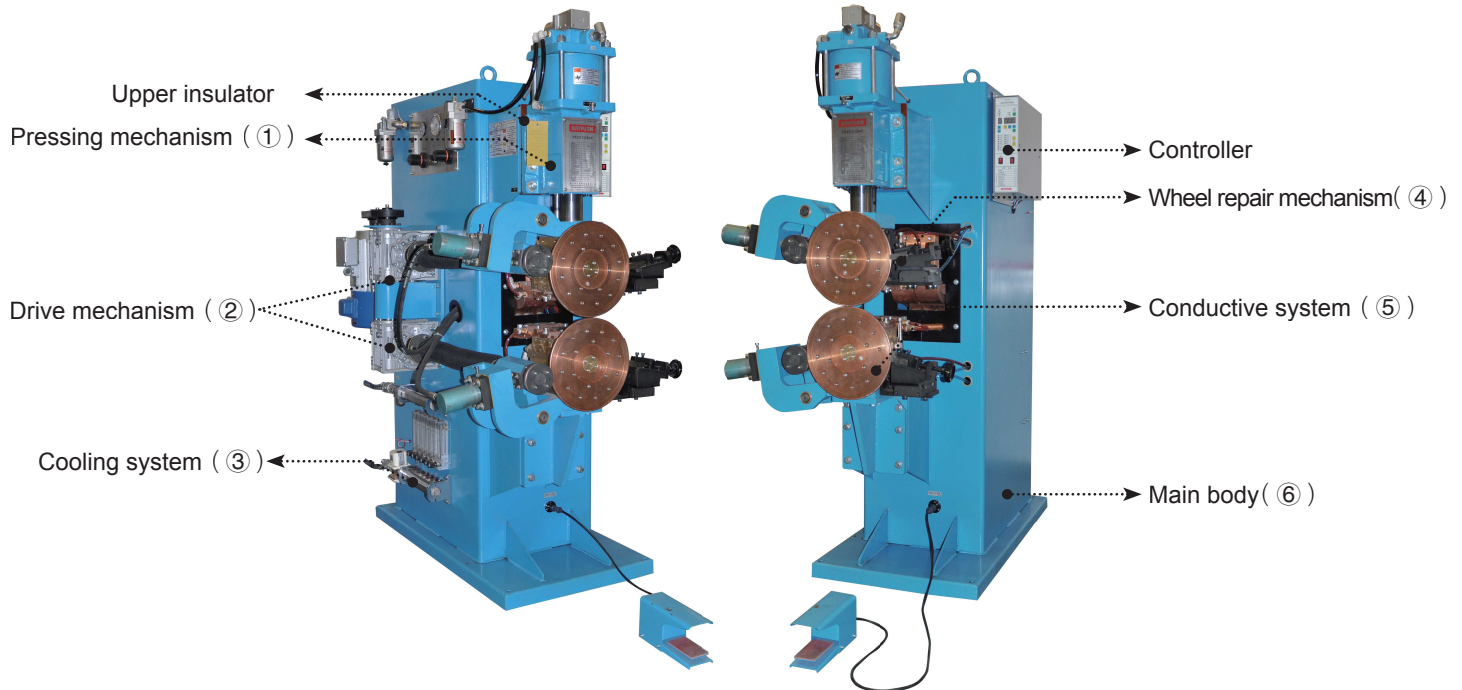


KAIYUAN WELDING & CUTTING AUTOMATION INDIA PVT., LTD.

Single Phase AC Seam Welder

For continuous or discontinuous seam welding on MS, SS, Ti, Ti alloy, GA plate etc.

Structure and traits



- ① Pressing mechanism: Vertical type pressure mechanism has good follow-up performance, low noise and long life.
- ② Drive mechanism: Driven by 3 phase variable frequency motor. Easy adjustment and running stable. Exclusively circumference synchronization technology ensured the welding speed will not change along with the dia. of welding wheel. Stable welding speed guaranteed the welding quality.
- ③ Cooling system: Parallel cooling water route is used in this machine. Every route is adjustable separately. Special welding head cooling structure. Warning function is working through water flow detector.
- ④ Wheel repair mechanism: It can cut profiling the outer edge of the welding wheel without dismantling the wheel. Good surface condition ensured the high welding quality.
- ⑤ Conductive system: Conductive shaft adopt silver device. Well contact and automatic compensation for wearing clearance. Maximum reduced the loss of energy transfer. Conductive surface be soaked in the conductive solution reducing the wearing.
- ⑥ Machine body: Anti-vibration, anti-shock; Avoid the electrode sliding during pressure. Stable welding.

Main specification

Item (unit)	Model	Single phase AC seam welder	
		FN-100SA	FN-160SA
Rated capacity (kVA)		100	160
Rated voltage (V)		380	380
Rated duty cycle(%)		50	50
Rated frequency(Hz)		50/60	50/60
Max. short current (kA) (duty cycle)		25(28.7%)	30(30.9%)
Continuous output current(kA)		13.4	16.7
Max. pressure(N)		12000	12000
Throat size(mm)		130×430	130×430
Electrode stroke(mm)		80	80
Cooling water flow(L/min)		36	36
Speed of welding wheel (m/min)		0.55 ~ 3.5	0.55 ~ 3.5
welding capacity (MS)		1.5+1.5	2+2
Net weight(kg)		900	900

Single Phase AC Seam Welder

Feature

- Suitable for single phase AC spot/projection welder and seam welder.
- Closed-loop controlled by CPU during welding. Welding current is stable even the fluctuation of power supply there. Welding quality guaranteed.
- Both CC and CV function available.
- Both single spot weld and continuous spot weld available.
- 3 pulses welding can be controlled.
- Current upslope and downslope.
- Count the welding spots.
- Monitor the actual voltage of the power supply.
- Monitor the actual welding current (CC mode).
- Two type of current feedback: Welding transformer primary side and secondary side.
- Automatic self-diagnosis, display Error number for any abnormal condition.
- Maintain data after power off. The data will keep up to 10 years after power off.
- Interface for power on authorization, convenient to limit the power capacity.



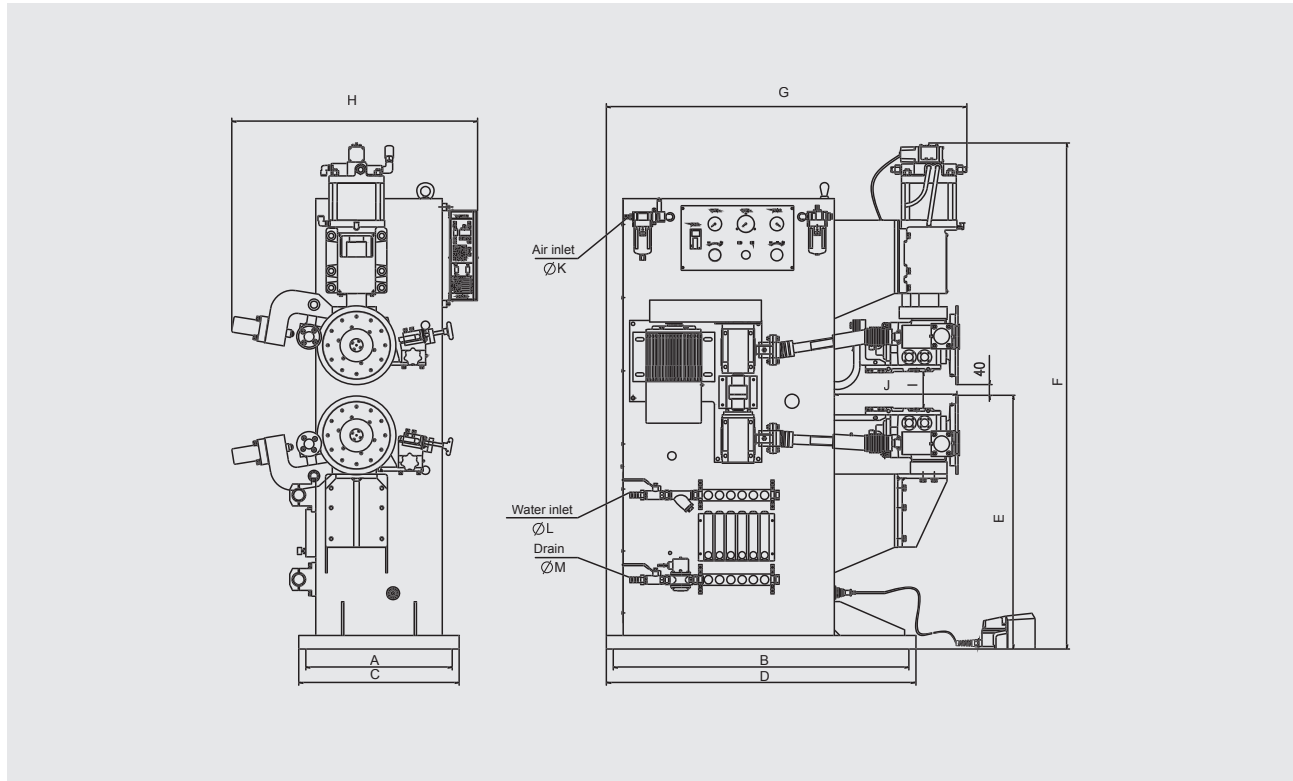
Controller

Specification

Items		Resistance Welding Controller	
Mode/Mode		KCT01	
Control factor / times	-	4/15 parameters / 3 times pulse control	
Pressure valve drive output	-	2 pc of pressure valves, DC 24V	
Feedback mode	-	Welding transformer primary side / secondary side	
Rated input voltage	V	415V / 1 phase, ±10%	
Frequency	Hz	50/60	
Control parameter range	Pressure parameter	-	Pressure valve 1 1 - 15
	Initial pressure delay	cycle	0 - 199
	Initial pressure time	cycle	1 - 199
	Current upslope time	cycle	1 - 199
	Pre-heat time	cycle	0 - 199
	Pre-heat current	X 100 A	20 - 199
	First cooling time	cycle	0 - 199
	Welding time	cycle	0 - 199
	Welding current	X 100A	20 - 199
	Second cooling time	cycle	0 - 199
	Reweld time	cycle	0 - 199
	Reweld current	X 100A	20 - 199
	Current downslope time	cycle	0 - 199
	Hold time	cycle	1 - 199
	Off time	cycle	0 - 99
	Transformer turn ratio	M	1 - 99
	Number of welding circuit	-	1 - 4
	Over current limitation	-	5 - 99%
	Under current limitatin	-	5 - 99%
	Repair welding control if under current limitation		1 / 1 time repair welding allowed, 0 / No repair welding allowed
Suitable welding power source	-	Thyristor	
Start mode	-	Pulse start, Normal start	
Welding Mode	-	Spot / projection, Seam	
Keep ending signal	-	Built-in	
Power signal	-	Build-in	
Power on authorization signal	-	Build-in	
Monitor function	-	Count spot, welding current, current ratio etc.	
Count function	-	Count welding spots	
Running mode switching	-	Welding/adjustment, discontinuous/continuous	

Single Phase AC Seam Welder

Overall dimensions (mm)



Model	A	B	C	D	E	F	G	H	I	J	K	L	M
FN-100SA	520	1050	570	1100	900	1800	1285	880	130	430	12	20	20
FN-160SA	520	1050	570	1100	900	1800	1285	880	130	430	12	20	20

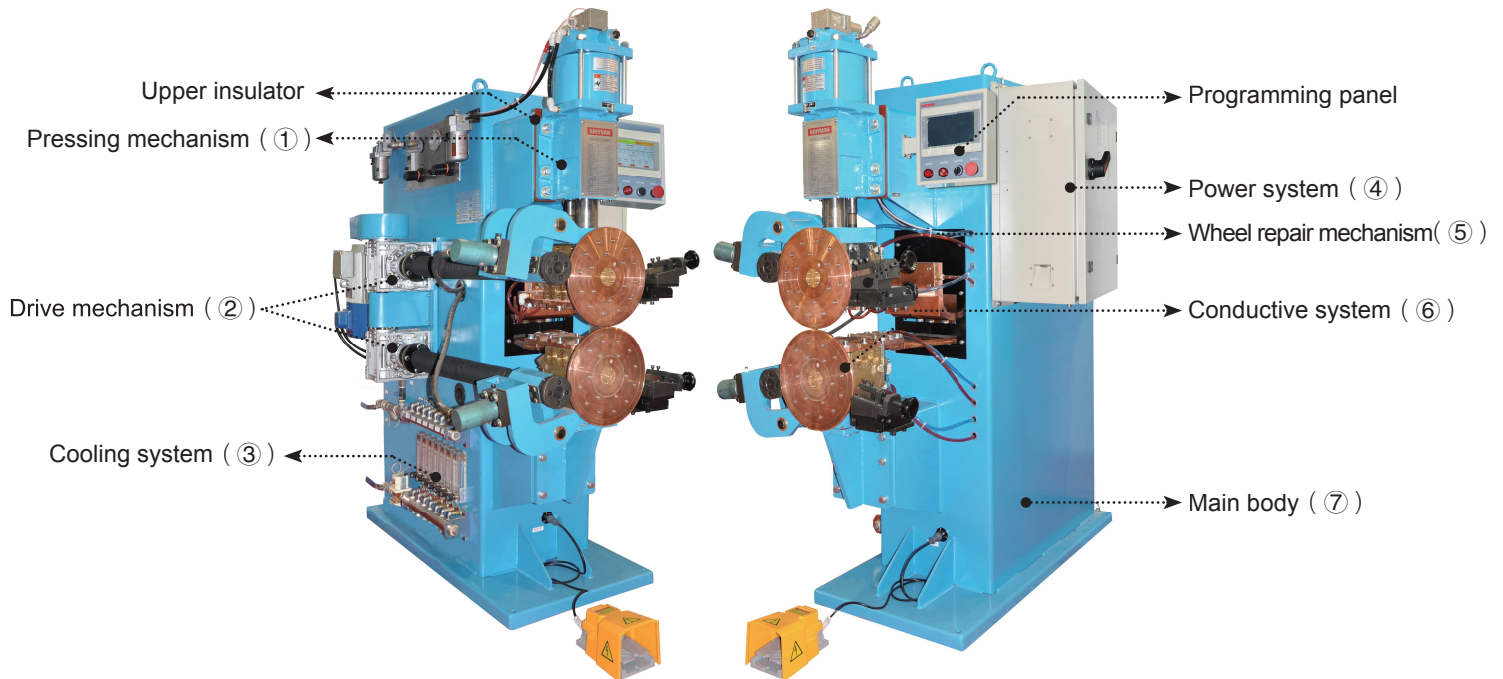
Customer prepare

Model		FN-100SA	FN-160SA
Power supply	Input voltage(V)	3 phase 415±10%	
	Power capacity(kVA)	According to welder power capacity (refer to rated specification)	
	Breaker capacity(A)	200	315
	Cable size(mm ²)	≥70	≥95
Cooling water	Water pressure(MPa)	0.3 ~ 0.5	
	Cooling water flow(L/min)	36	36
	Water temperature(°C)	10 ~ 30	
	Water resistivity(kΩ·cm)	5 above	
	Hose size for water supply(mm)	φ20	
	Hose size for drain(mm)	φ20	
Compressed air	Air pressure(MPa)	0.5 ~ 0.7	
	Hose inner size(mm)	φ12	φ12
Earthing cable	Earthing cable(mm ²)	≥35	≥50

MF Inverter AC Seam Welder

For continuous or discontinuous seam welding on MS, SS, Al, Al alloy, Ti, Ti alloy, GA plate etc.

Structure and traits



- 1** Pressing mechanism: Vertical type pressure mechanism has good follow-up performance, low noise and long life.
- 2** Drive mechanism: Driven by 3 phase variable frequency motor. Easy adjustment and running stable. Exclusively circumference synchronization technology ensured the welding speed will not change along with the dia. of welding wheel. Stable welding speed guaranteed the welding quality.
- 3** Cooling system: Parallel cooling water route is used in this machine. Every route is adjustable separately. Special welding head cooling structure. Warning function is working through water flow detector.
- 4** Power source: Input is three phase 415V. The invert frequency is 5000Hz with high power factor. The

- 5** Wheel repair mechanism: It can cut profiling the outer edge of the welding wheel without dismantling the wheel. Good surface condition ensured the high welding quality.
- 6** Conductive system: Conductive shaft adopt silver device. Well contact and automatic compensation for wearing clearance. Maximum reduced the loss of energy transfer. Conductive surface be soaked in the conductive solution reducing the wearing.
- 7** Machine body: Anti-vibration, anti-shock; Avoid the electrode sliding during pressure. Stable welding.

Main specification

Item (unit)	Model	MF Inverter AC Seam Welder	
		FB-100SA	FB-160SA
Rated capacity (kVA)		100	160
Rated voltage (V)		380	380
Rated duty cycle(%)		50	50
Rated frequency(Hz)		50/60	50/60
Max. short current (kA) (duty cycle)		25 (29.5%)	30 (31.1%)
Continuous output current(kA)		13.6	16.7
Max. pressure(N)		12000	12000
Throat size(mm)		130×430	130×430
Electrode stroke(mm)		80	80
Cooling water flow(L/min)		36	36
Speed of welding wheel (m/min)		0.55 ~ 3.5	0.55 ~ 3.5
welding capacity (MS)		1.5+1.5	2+2
Net weight(kg)		900	900

Control system

Advanced inverter welding system.

Features

- Balanced three phase, reduced the input power of power supply, avoided any single phase instant over loading.
- Output frequency is 20 – 400Hz. Adjustment accuracy is millisecond. The welding current waveform can be programed based on the welding material. Improved the welding quality with high thermal efficiency and low energy consumption. Stable welding quality.
- Max. 15 sets of welding parameters can be programmed and saved in the system.
- Three stages of heat process: Pre-heat, Welding and Rewelding. Current upslope and downslope can be adjustable in welding stage.
- Pressure is programmable with maximum 10 pressure stages.
- Programmable I/O interface: 3 stages can be programmable. Easy to connect with PLC or Robot.
- Have spot count and electrode repair function.



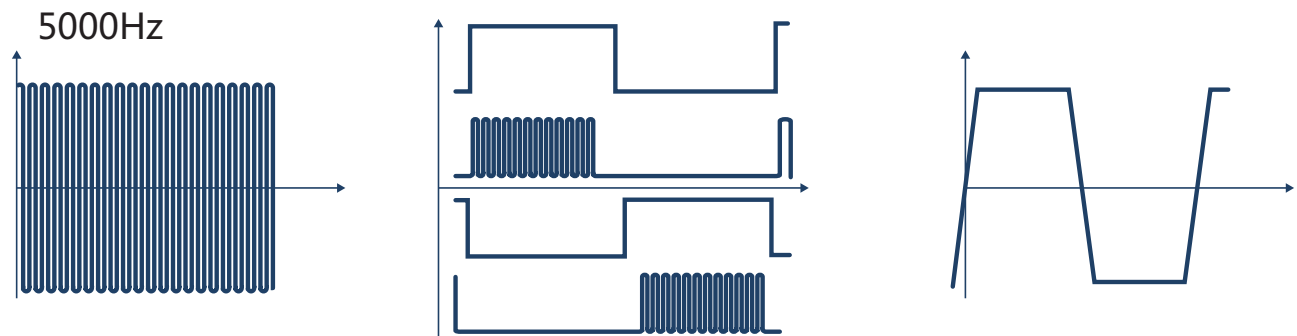
Program panel

Excellent welding operation HMI



Features

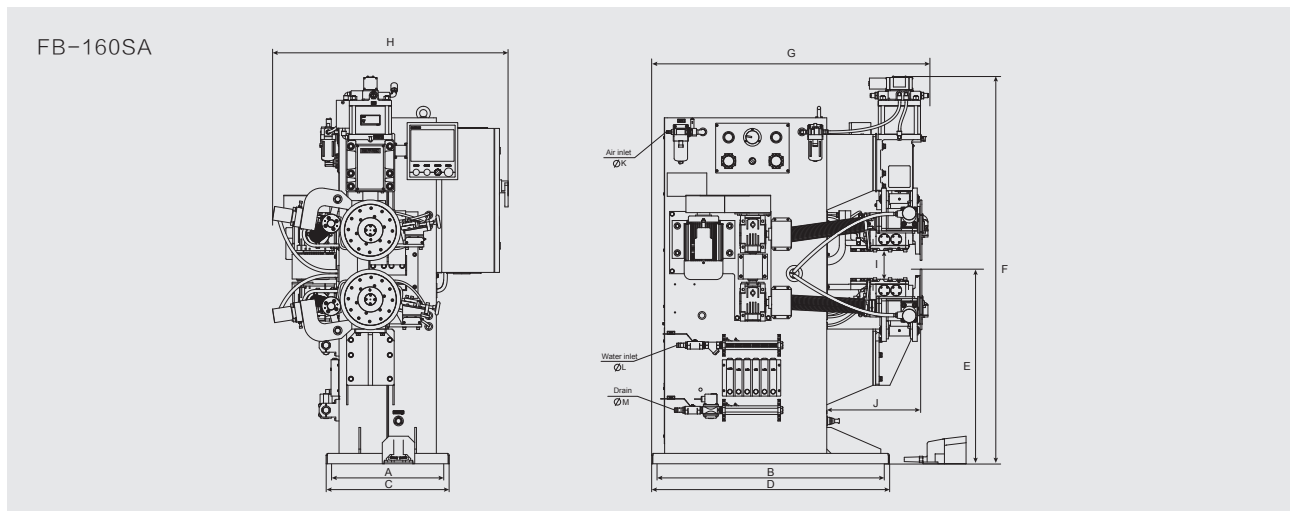
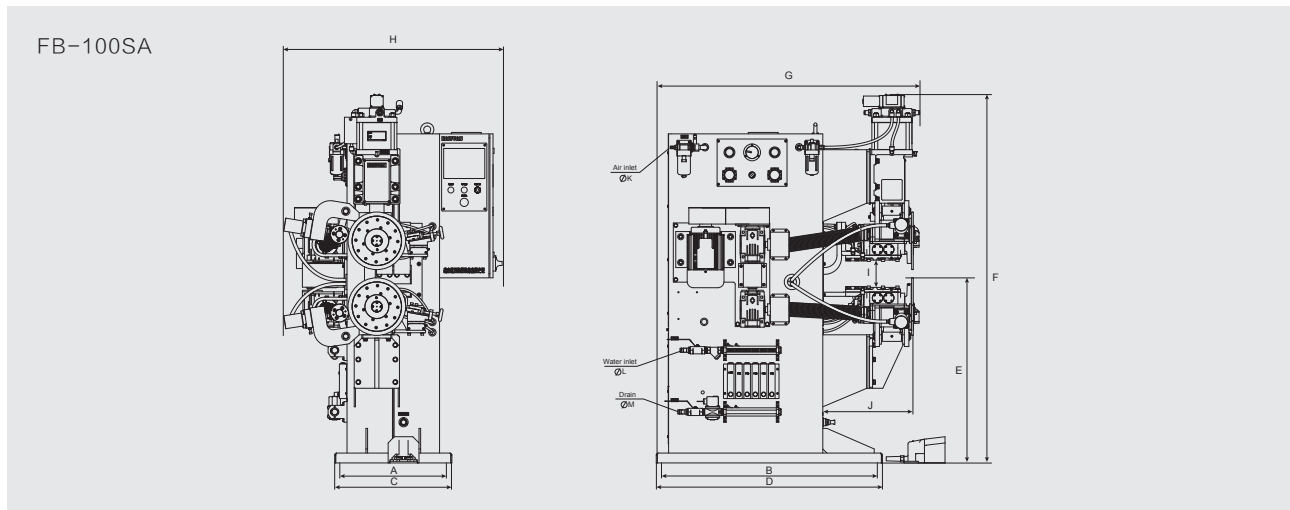
- Colorful touch screen.
- Program and fault diagnosis.
- User authorization management.



Main specifications

Item (unit)	Model	SVF3-800 D	SVF3-800
Rated input (V)		3 phase 415V	3 phase 415V
Rated frequency (Hz)		50/60	50/60
Output voltage (V)		500	500
Inverter frequency (Hz)		5000	5000
Controller Max. output current(A)		800	800
Cooling water flow(L/Min)		6	6

Overall dimensions (unit:mm)



Model	A	B	C	D	E	F	G	H	I	J	K	L	M
FB-100SA	520	1050	570	1100	900	1800	1285	1065	130	430	12	20	20
FB-160SA	520	1050	570	1100	900	1800	1285	1090	130	430	12	20	20

Customer prepare

Item (unit)		Model	FB-100SA	FB-160SA
Power supply	Input voltage(V)		3 phase 415±10%	
	Power capacity(kVA)		According to welder power capacity (refer to rated specification)	
	Breaker capacity(A)		100	160
	Cable size(mm ²)		≥35	≥50
Cooling water	Water pressure(MPa)		0.3 ~ 0.5	
	Cooling water flow(L/min)		36	36
	Water temperature(°C)		10 ~ 30	
	Water resistivity(kΩ·cm)		5以上	
	Hose size for water supply(mm)		φ20	
	Hose size for drain(mm)		φ20	
Compressed air	Air pressure(MPa)		0.5 ~ 0.7	
	Hose inner size(mm)		φ12	φ12
Earthing cable	Earthing cable(mm ²)		≥16	≥25



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