

iBA Series

iBA series ultrasonic welders are integrated with a digital ultrasonic generator and controllers, plus a welding bench to serve as a complete ultrasonic welding equipment. They are featured with multiple welding modes and future-oriented iQS operating system. Each welder is equipped with Dongho-certified Proportion Valve technology and electronic high performance ultrasonic generator. The rigid welding bench, accurate guiderails and mature driving components guarantee the high welding quality and repeatability. This series can meet the demand for data traceability and safety through Ethernet connectivity, password protection with multi-level authorization. The data connectivity supports Industry 4.0 applications. MES connection to Dongho welders supports 4 brands of scanning guns for collection of barcodes in welding moulds and work pieces.



5G Network



Internet of Things



Communication Equipment



Cloud

FEASTURES AND ADVANTAGES

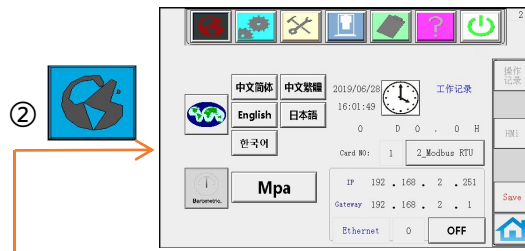
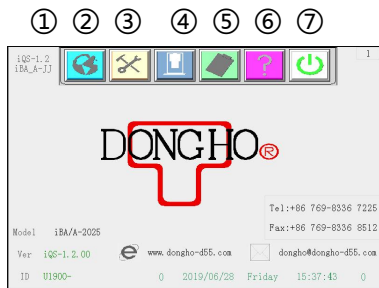
- The 6th generation iQS operating system, multi-level password protection for hierarchical authorizations
- New type electronic pressure-measuring device
- Welding parameters saving in USB, QA quality diagnosis and control
- Digital amplitude setting and amplitude segmentation
- Clearance offset function, and double-feedback control structure
- PropControl (Proportion Valve Technology)
- UTC220 high-speed control for enhancement of track precision, real-time data application with MES system
- Fully digital and auto tuning functions with saving function



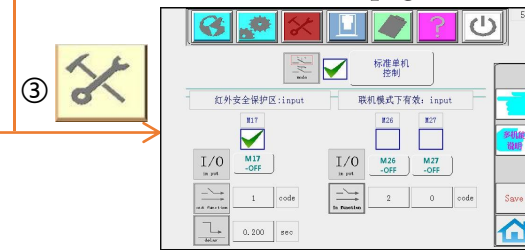
Ultrasonic Welder Series

IBA-F OPERATION PANEL (BASIC)

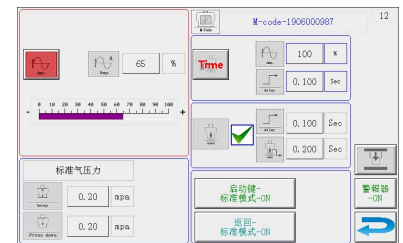
- ① Series Code
- ② Data unit
- ③ Func.Parameters
- ④ Monitor data
- ⑤ Data record
- ⑥ Helps
- ⑦ Switch
- ⑧ Amplitude air pressure setting
- ⑨ Weld function setting



Data unit page



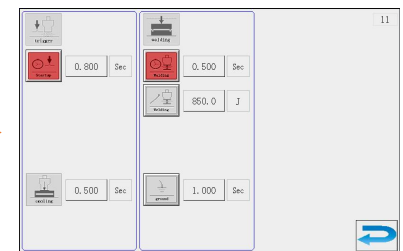
Func. Parameter page



Amplitude and air pressure page



Monitor data page

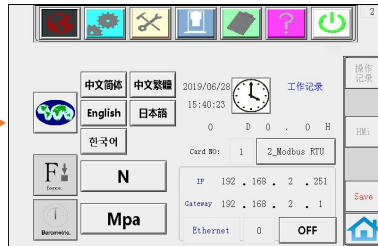


Welding function page

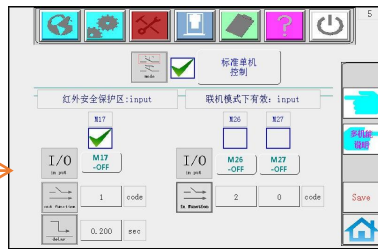
- ⑧ Amplitude and air pressure setting
 - (1) Standard amplitude setting, transducer amplitude (10-100%) triggered by ultrasonic will not change for each weld;
 - (2) Setting of upper limit of the air pressure for holding the welding unit and setting for the lowering air pressure of the welding unit.
- ⑨ Two function blocks available on weld function page:
 - (1) Trigger mode selection: time;
 - (2) Weld mode selection: time, energy and grounding.

IBA-A OPERATION PANEL (ADVANCED)

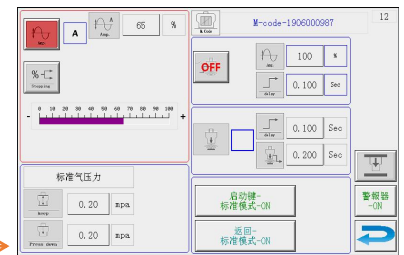
- ① Series Code
- ② Data unit
- ③ Func. Parameters
- ④ Monitor data
- ⑤ Data record
- ⑥ Helps
- ⑦ Switch
- ⑧ Amplitude air pressure setting
- ⑨ Weld function setting
- ⑩ Piling function setting



Data unit page



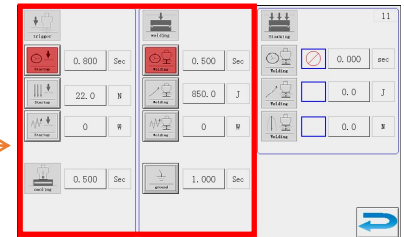
Func. parameter page



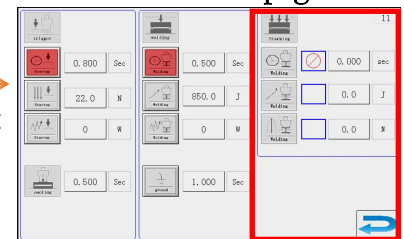
Amplitude and air pressure setting



Monitor data page



Weld function page



Piling function page

- ⑧ Amplitude and air pressure setting
 - (1) Setting of upper limit of the air pressure for holding the welding unit and setting for the lowering air pressure of the welding unit.
 - (2) Amplitude setting:
Standard amplitude setting, transducer amplitude (10-100%) triggered by ultrasonic will not change for each weld;
Segmented amplitude, the ultrasonic triggered transducer amplitude (10-100%) is controlled in stepping way, that is, it is adjusted by steps and segments.
- ⑨ Two function blocks available on Weld Function page:
 - (1) Trigger mode selections: time, pressure and power;
 - (2) Weld mode selection: time, energy, peak power, grounding
- ⑩ Piling function setting: Piling, synchronized with ultrasonic welding in the mode of time, energy and peak power control.
(In the corresponding weld mode, the piling function is automatically turned off.)

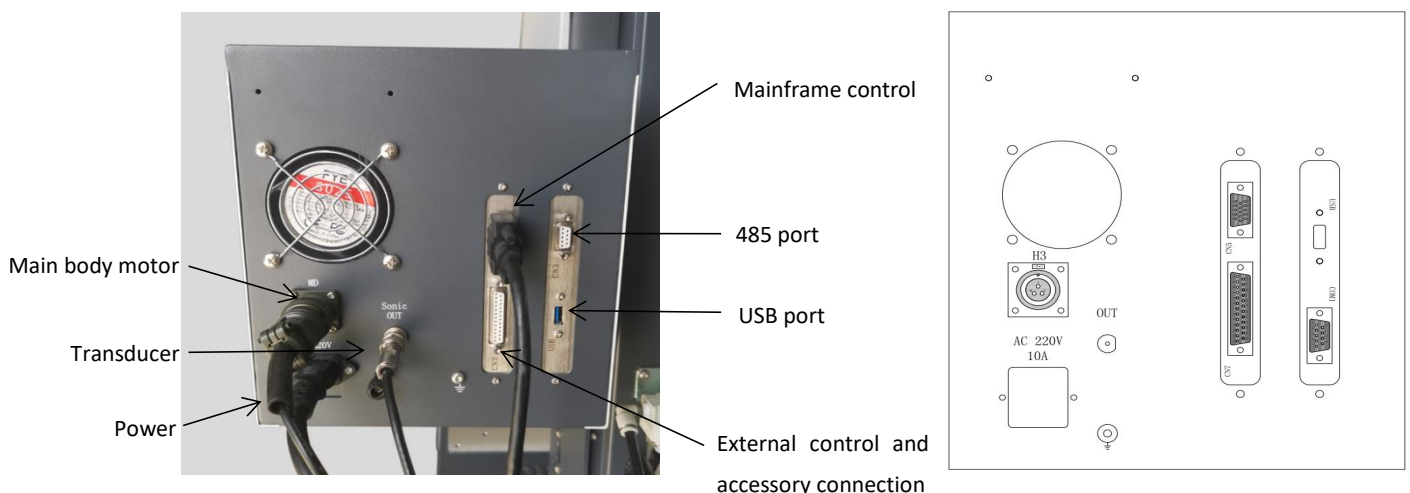
FEATURES AND ADVANTAGES

- High speed processing core-New generator Dongho UTC high speed processing core, enables quicker ultrasonic welding process.
- Wide-screen touch screen- easy for programming, all the welding parameters can be set on the menu.
- Multi operation interface-different parameter blocks displayed on one screen, which enables direct analysis on the operation procedure.
- Parameter setting in blocks-Different function blocks enables easier setting of the parameters and more ideal human-machine efficiency.
- Optimized welding procedure-Monitoring the weld process in stepping sequence , multiple-step control at the same time, making more visible welding process and smoother welding.
- Real-time data--provides more welding data.
- Data storage-Record and store the ultrasonic welder setting, welding parameters and welding data.
- Programming-Welding program editing and storing.
- Welding route-Store and record the latest welding data profile, analyzing the welding flow points through the relationship between the pressure,position, frequency and power.
- Accessories connection-Directly connect to outer auxiliary devices, such ask noise insulation case, IR safety curtain, clamps and protection film rolling device, etc.
- User-defined connection-Using unit setting parameters to change the functional definition of input and output.
- Extension connection-user-defined connections and external control, enables flexible control.
- Ethernet connection-connect to local area network, adjust parameters, monitor welding process, upload welding data;
- Communication connection-RS232 / RS485 communication mode;



Ultrasonic Controller

ULTRASONIC GENERATOR BACKVIEW



iBA SERIES DIMENSIONAL PARAMETERS



Technische Daten:
Technische specification:

Hub max: 300 mm
Stroke max: 300 mm

Air Pressure: 6 Kgf
Schliesskraft : 6 Kgf
Nominal force at: 1800 N

Cylinder Trip: 75 mm

Base size: 400x668x1111 mm
3D Shape size: (1386.5)

+Control box
Base size: 502x752x1111 mm
3D Shape size: (1386.5)

Fixed specification: 340 mm
Location specification: 2-∅11.0

DONG HO ULTRASONIC Pneumatic ultrasonic series iBA-L Base/3D Shape size	3019-10
	Main DONGHO Ultrasonic www.dongho-d55.com dongho@dongho-d55.com
	A-2 A

TECHNICAL PARAMETERS

Hardware	
Output interface	7" Color screen
Operation system	iQS
Motion control system	Pneumatic
Frequency adjustment	IGBT Auto-tuning
Z-Axis accuracy(mm)	±0.02mm
Cylinder stroke(mm)	80mm±1mm
Max. Compressed air pressure(Mpa)	1Mpa
Max. Weld time(S)	≤5 seconds
Cooling system	Vortex cooler
Generator alarm	Abnormal frequency/over current/over load/excess temperature
Relative moisture	30% - 95%, no condensate
Operation temperature	+5℃ - +55℃
Air source	Clean, dry compressed air, free of lubricant
Voltage power supply(V)	AC 220V±5% 50/60Hz

Transducer	
Warranty	1 year
Brand	DONGHO
Conversion ratio	95% < real ratio < 100%

TECHNICAL PARAMETERS OF iBA-G (BASIC)

Controller		
Model	iBA-G S1530e	iBA-G S2020e
Frequency	15KHz	20KHz
Power	3000W	2000W
Triggering Method	Time	
Welding Method	Time,Energy,Power	
Air pressure control	proportional valve	
Operating air method	standard	
Amplitude control	Single stage amplitude	
Pre-press vibration	1) OFF, 2) pre-vibration time	
Max Working Stroke(mm)	80mm±1mm	
Max Welding Time	5 seconds	
Voltage(V)	AC220V±5% 50/60Hz	
Dimension(L*W*H)mm	500*750*1100mm	
Weight(kg)	106kg	

Sonotrode		
Model	iBA-G S1530e	iBA-G S2020e
Frequency accuracy	14.80KHz-15.200KHz	19.80KHz-20.20KHz
Weld area	Not more than 250mm as per material, shape, etc.	Not more than 150mm as per material, shape, etc.
Product size scope	Not more than 250mm as per material, shape, etc.	Not more than 150mm as per material, shape, etc.

Data collection method	
Systematic data display	Weld data block
Memory data transfer	USB storage and read

TECHNICAL PARAMETERS OF iBA-F (BASIC)

Controller			
Model	iBA-F S2025e	iBA-F S3512e	iBA-F S4008e
Specification			
Frequency	20KHz	35KHz	40KHz
Power	2500W	1200W	800W
Triggering Method	Time		
Welding Method	Time/Energy/Grounding detection		
Air pressure control	proportional valve		
Operating air method	Standard		
Amplitude control	Single stage amplitude		
Pre-press vibration	1) OFF, 2) pre-vibration time		
Max Working Stroke(mm)	80mm±1mm		
Max Welding Time	5 seconds		
Voltage(V)	AC220V±5% 50/60Hz		
Dimension(L*W*H)mm	500*750*1100mm	470*720*950mm	
Weight(kg)	106KG	75kg	

Sonotrode			
Model	iBA-F S2025e	iBA-F S3512e	iBA-F S4008e
Frequency accuracy	19.80KHz-20.20KHz	34.80KHz-35.20KHz	39.80KHz-40.20KHz
Weld area	Not more than 150mm as per material, shape, etc.	Not more than 50mm as per material, shape, etc.	Not more than 40mm as per material, shape, etc.
Product size scope	Not more than 150mm as per material, shape, etc.	Not more than 50mm as per material, shape, etc.	Not more than 40mm as per material, shape, etc.

Data collection method	
Systematic data display	Dynamic data block/Trigger data block/Weld data block
Product identification	Bar code/QR code
Scanning gun brands supported(USB port)	Honewell/Code Reader/Datalogic/Infoscanner
Memory data transfer	USB storage and read
Dynamic data transmission	RS485/RS232/MES

TECHNICAL PARAMETER FOR iBA-A (ADVANCED)

Controller				
Model	iBA-A S2025e	iBA-A S2030e	iBA-A S3512e	iBA-A S4008e
Frequency	20KHz	20KHz	35KHz	40KHz
Power	2500W	3000W	1200W	800W
Triggering Method	Time/Pressure/Power			
Welding Method	Time/Energy/Power/Grounding detect			
Air pressure control	proportional valve			
Operating air method	Standard/multi-stage			
Amplitude control	Single stage amplitude/stepping amplitude			
Pre-press vibration	1) OFF, 2) pre-vibration time			
Welding stacking function	Time/Energy/Pressure			
Max Working Stroke(mm)	80mm±1mm			
Max Welding Time	5 seconds			
Voltage(V)	AC220V±5% 50/60Hz			
Dimension(L*W*H)mm	500*750*1100mm		470*720*950mm	
Weight(kg)	106kg		75kg	

Sonotrode				
Model	iBA-A2025e	iBA-A2030e	iBA-A3512e	iBA-A4008e
Freq.accuracy	19.80KHz-20.20KHz		34.80KHz-35.20KHz	39.80KHz-40.20KHz
Weld area	Not more than 150mm as per material, shape, etc.	Not more than 170mm as per material, shape, etc.	Not more than 50mm as per material, shape, etc.	Not more than 40mm as per material, shape, etc.
Product size	Not more than 150mm as per material, shape, etc.	Not more than 170mm as per material, shape, etc.	Not more than 50mm as per material, shape, etc.	Not more than 40mm as per material, shape, etc.

Data collection method	
Systematic data display	Dynamic data block/Trigger data block/Weld data block
Product identification	Bar code/QR code
Scanning gun brands supported(USB port)	Honewell/Code Reader/Datalogic/Infoscanner
Memory data transfer	USB storage and read
Dynamic data transmission	RS485/RS232/MES

(We preserve the right to update the above specifications, in case of any improvement of the products, we will not otherwise inform due to above change.)