



- **Main applications and characteristics:**

SP-45B series is suitable for many applications, for example,

- (1) Heat treatment of gear and shaft
- (2) Brazing of diamond tools
- (3) Brazing of electrical kettle bottom
- (4) Tube heating for coating
- (5) Heating of stainless steel vessel for annealing
- (6) Brazing of machining tools
- (7) Melting of all kinds of metals
- (8) Brazing of copper & brass tube and connectors in air conditioner manufacturing factories and so on.

Specifications

Model	Max. input power	Output Frequency	Input	Auxiliary function
SP-45AB split/timer	45KW	30-80KHZ	380V 3P 50 or 60HZ	Split and with timer

Typical applications:



Advantages and applications of models with Timer function:

1. Heating power, retaining power, heating time, retaining time and cooling time can be preset and adjusted, this makes it possible to control the heating curve and heating time.
2. It is suitable to use in the repeated heating or high speed heating of small parts;
3. When using in brazing, with proper timing parameters, rapid heating and retaining can be achieved to keep the temperature while the brazing material is melted and then to let the brazing material spread smoothly to form good joint.

Advantages and applications of separated transformer:

1. In these three series machines, the high frequency transformer is separated from the generator, with 2 meters connecting cable at least.
2. It is suitable to use in the dirty or corrosive surroundings, the generator can be put in a clean space to increase the reliability.
3. With the small size and light weight of the separated transformer, it is convenient to use in the production line and easily assembled inside the machinery or moved mechanism.

Working theory and structure

In SP-25BD, SP-35B and SP-45B series machines, series oscillating circuit is applied, through high frequency transformer, low voltage and high current power is output to go through the induction coil.

Inside these series machines, IGBT module and our second generation inverting control technology has been used, that is the dual control and inverting technology. In these new technologies, output power and oscillating frequency are controlled independently. we use IGBT components and high frequency voltage regulate control circuit to control the power and we use IGBT components, series oscillating and automatic tracing circuit to reach soft switching in the inverting course, all these make the machine to be more reliable and make the machine possible to work continuously with 100% duty cycle.

Compared to machines with first generation technology, second generation technology is more suitable for large power machines to get higher reliability.

Due to the adopting of advanced technology, SP-25BD, SP-35B and SP-45B series machines are characterized by larger frequency range, smaller size, water cooled transformer, higher reliability and lower repair cost.



* Actual unit of water chiller may be different from the demo unit

Machine Characteristics :

- 220V 1/3 phase input power saving 70%
- Heating speed superfast
- Heating time & keep warm are adjustable
- 24 hours continuous working is possible
- Induction coil is easy to take apart or install
- Easy operation & totally safety

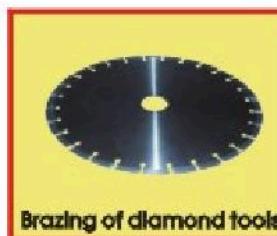
Main Specifications :

M/C Type	Power Source	Power Voltage	Output-Frequency	Heating Current
SP-15A	15KVA	1 Φ 220v	30-100 KHZ	200-600A
SP-25A	25KVA	3 Φ 220v	30-100 KHZ	100-1000A

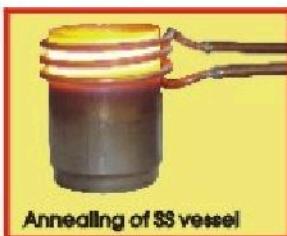
Machine Advantages :

- Without gas heating to avoid air explode to raise industry safety
- Full transistor circle magnetic force go through work-piece directly, heating efficiency can ready to 95%
- Rapid heat treatment equally temperature decrease work-piece oxidize deformed high up products quality

Typical applications:



Brazing of diamond tools



Annealing of SS vessel



Brazing of copper tubes



Melting of gold, silver etc.



- **Main applications and characteristics:**

SP-35AB & SP-45AB series are suitable for many applications, for example,

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- (2) Brazing of diamond tools
- (3) Brazing of electrical kettle bottom
- (4) Tube heating for coating
- (5) Heating of stainless steel vessel for annealing
- (6) Brazing of machining tools
- (7) Melting of all kinds of metals
- (8) Brazing of copper & brass tube and connectors in air conditioner manufacturing factories and so on.

- **Advantages and applications of separated transformer:**

1. In these series machines, the high frequency transformer is separated from the generator, with 2 meters connecting cable at least.
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3. With the small size and light weight of the separated transformer, it is convenient to use in the production line and easily assembled inside the machinery or moved mechanism.

- **Specifications :**

Model	Max. input power	Output frequency	Input	Auxiliary function
SP-25BD split type	25KW	30-80KHZ	415V 3P 50 or 60HZ	Connecting cable length 2 meters
SP-25ABD with timer				Split and with timer
SP-35B split type	35KW	30-80KHZ	415V 3P 50 or 60HZ	Connecting cable length 2 meters
SP-35AB split/timer				Split and with timer
SP-45B split type	45KW	30-80KHZ	415V 3P 50 or 60HZ	Connecting cable length 2 meters
SP-45AB split/timer				Split and with timer

Typical applications:



Advantages and applications of models with Timer function:

1. Heating power, retaining power, heating time, retaining time and cooling time can be preset and adjusted, this makes it possible to control the heating curve and heating time.
2. It is suitable to use in the repeated heating or high speed heating of small parts;
3. When using in brazing, with proper timing parameters, rapid heating and retaining can be achieved to keep the temperature while the brazing material is melted and then to let the brazing material spread smoothly to form good joint.

Working theory and structure

In SP-35B and SP-45B series machines, series oscillating circuit is applied, through high frequency transformer, low voltage and high current power is output to go through the induction coil.

Inside these series machines, IGBT module and the second generation inverting control technology has been used, that is the dual control and inverting technology. In these new technologies, output power and oscillating frequency are controlled independently. To use IGBT components and high frequency voltage regulate control circuit to control the power and use IGBT components, series oscillating and automatic tracing circuit to reach soft switching in the inverting course, all these make the machine to be more reliable and make the machine possible to work continuously with 100% duty cycle.

Compared to machines with first generation technology, second generation technology is more suitable for large power machines to get higher reliability.

Due to the adopting of advanced technology, SP-25BD, SP-35B and SP-45B series machines are characterized by larger frequency range, smaller size, water cooled transformer, higher reliability and lower repair cost.



INDUCTION HEATING MACHINE

- **Main applications and characteristics:**



Model : SP-70AB

SP-70B series are suitable for many applications, for example,

- (1) Heat treatment of gear and shaft
- (2) Heating of stainless steel parts in kitchen wares factories for shaping.
- (3) Heating of rods for shaping
- (4) Heating of rotors or stators for fitting.

Due to the adopting of inverting control technology, SP-70B series machines are characterized with high reliability, the oscillating cap is connected to the primary coil of the transformer, so SP-70B is also characterized with low price.

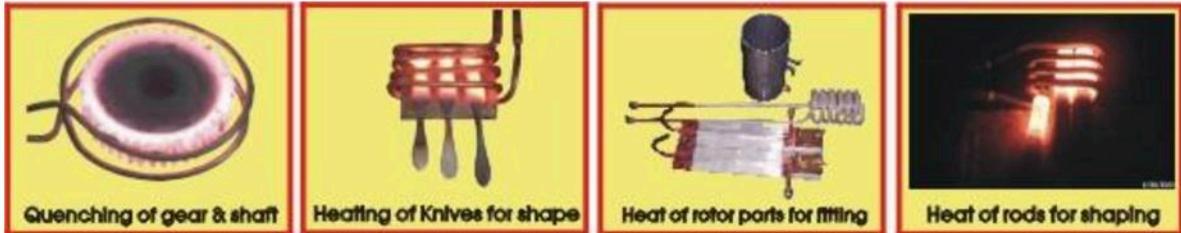
Specifications

Model	Max. Input power	Output frequency	Input	Auxiliary function
SP-70B split type	70KW	30-80KHZ	415V 3P 50 or 60HZ	Connecting cable length 2 meters
SP-70AB with timer				Split and with timer



INDUCTION HEATING MACHINE

Typical applications:



Advantages and applications of models with Timer function

1. Heating power, retaining power, heating time, retaining time can be preset and adjusted, this makes it possible to control the heating curve and heating time.
2. It is suitable to use in the repeated heating or high speed heating of small parts;
3. When using in brazing, with proper timing parameters, rapid heating and retaining can be achieved to keep the temperature while the brazing material is melted and then to let the brazing material spread smoothly to form good joint.

Advantages and applications of separated transformer

1. In this series machine, the high frequency transformer is separated from the generator, with 2 meters connecting cable at least.
2. It is suitable to use in the dirty or corrosive surroundings, the generator can be put in a clean space to increase the reliability.

Working theory and structure

In SP-70B series machines, series oscillating circuit is applied, through high frequency transformer, low voltage and high current power is output to go through the induction coil.

Inside these series machines, IGBT module and inverting control technology has been used, that is the soft and dual control and inverting technology. In this technology, output power and frequency can be controlled and adjusted separately, IGBT module and soft switching control technology are used in the high frequency switching circuit to control the output power. In the inverting circuit, the IGBT and frequency tracing circuit is applied to achieve high speed and accurate soft switching control. The adoption of new technologies not only improves the quality and reliability of the machine, but also solve the technology problem on large power induction heating machine and makes it possible to work 100% duty cycle.

In SP-70B series machines, oscillating cap is connected to the primary coil of the high frequency transformer, due to the low cost of this structure, SP-70B is characterized with low price.

TSM

INDUCTION HEATING MACHINE



Specifications

Model	SPG-06AB-III	SPG-06B-III
Max. Input power	6KW	
Output frequency	0.5-1.1MHZ	
Input	220V single phase 50 or 60 HZ	
Auxiliary function	Connecting cable length 2 meters	Split and with timer
Duty Cycle	80% continuous working	
Generator Weight		18kg
Transformer Weight		3.5kg

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