

# Canroon



## CR2100 Series Induction Heating

Annealing   Brazing   Hardening / quenching   Heat Treatment   Paint/Coating Removal   Shrink Fitting   Straightening



# About Canroon



Canroon is a leading provider of power electronics products and solutions. We focus on the field of power electronics. Our products include induction heating machine, industrial automation and photovoltaic energy storage.

Canroon has a strong product R&D and engineering team. We are committed to transforming wisdom into leading products and services to meet the needs of different customers and continuously create value for customers. With our comprehensive advantages in the field of power electronics, we strive to become the industry leader.

Canroon always adheres to the concept of "co-create, co-share", and uses continuous innovation as a means to bring more reliable products and better solutions to users, and make human and nature more harmonious.

# Certificates



High tech enterprise certificate



ISO9001 quality certification



Conformity authentication



CE certification



Software registration certificate



Appearance Patent Certificate



Utility model patent certificate

# CR2100 series – the rightful choice of a intelligent, safe, clean and rapid heating.

## 1. Intelligent

- ◆ Accurate control of heating area
- ◆ Accurate control of heating process

## 2. safe

- ◆ No open flame
- ◆ No flue gas
- ◆ Fault protection

## 3. clean

- ◆ No open flame
- ◆ No toxic gas emission

## 4. rapid

- ◆ An overturn technology compared with resistance heating and fuel gas burning. A temperature above 1000 C can be reached in seconds.

# CR2100 series – Product Features

## 1. Advanced system integration

- ◆ Intelligent digital induction heating power source, high efficient coaxial transformer, customized inductor (coil), and reliable chiller, all integrated into an advanced system to guarantee a perfect match with client's application.

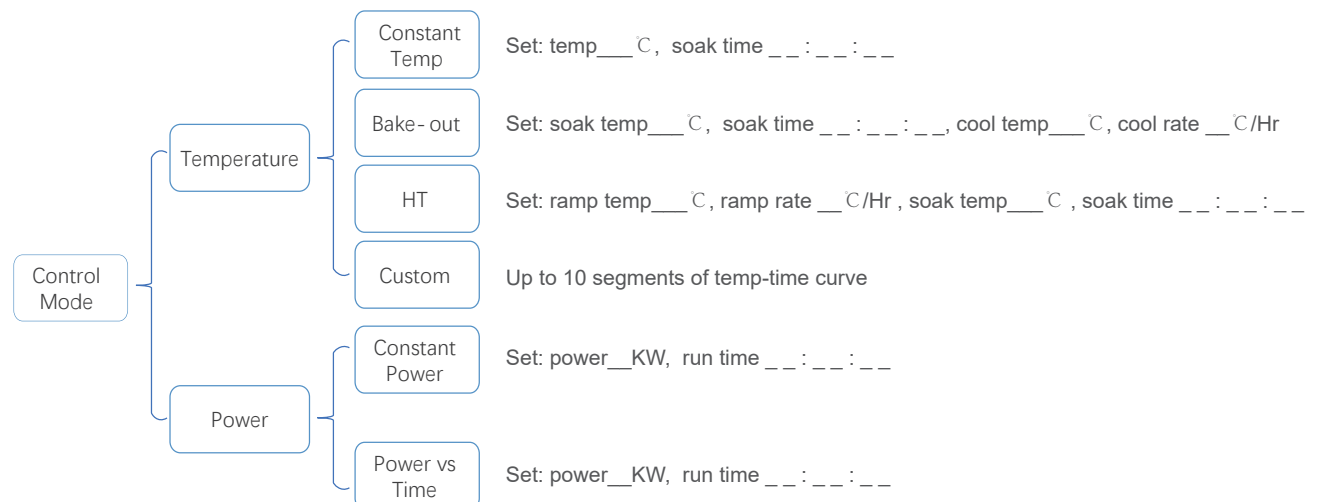
## 2. Wide applications

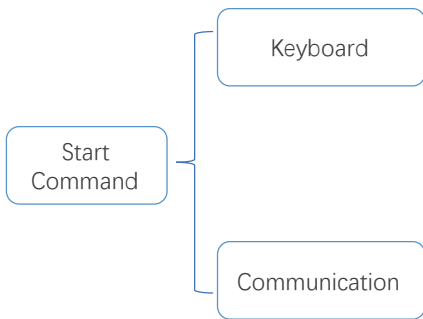
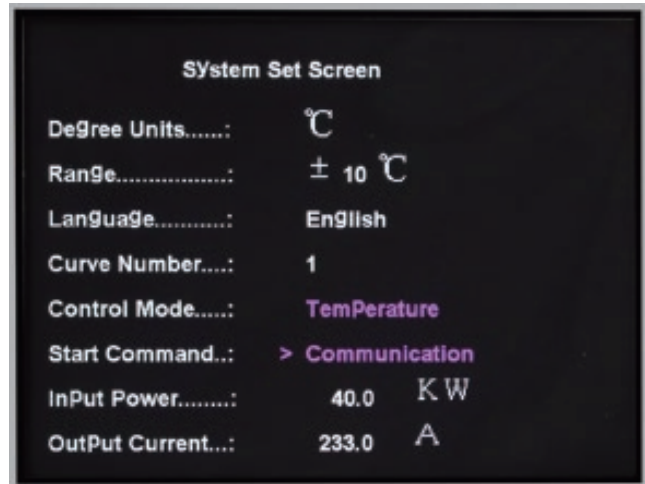
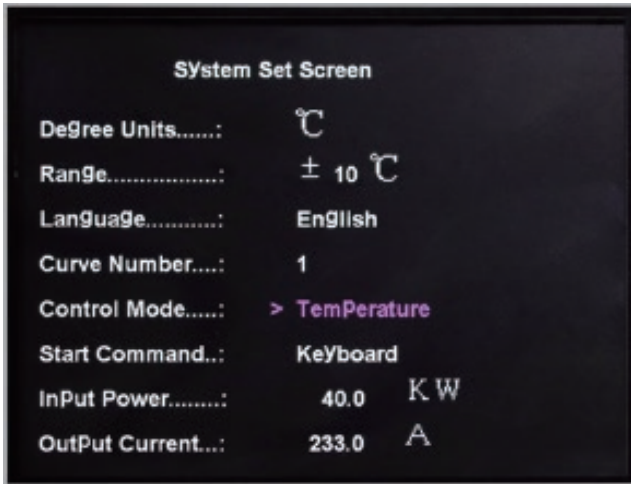
- ◆ Thanks to automatic impedance matching, CR2100 are ideal for a wide range of applications: **annealing, hardening, brazing, curing, shrink-fitting, straightening, coating removal, etc.**
- ◆ Able to heat all metal material: iron, steel, copper, aluminum, zinc, silver, gold, titanium, tin, nickel, etc.

## 3. Multiple control mode built-in

- ◆ PID temperature closed-loop control
- ◆ Power control

All control modes and parameters can be easily set and displayed in the LCD panel.





HHT trigger,  
or other switch though remote control interface.

#### 4. Multiple external control methods support

- ◆ 0-10V, 4-20mA analog signal
- ◆ RS-485 communication

This offers perfect support for client's system integration, especially when a reliable induction heating machine is required for their CNC.

#### 5. Monitoring of run status and fault protection.

- ◆ Display of run status
- ◆ Fault code display, alarm indicator, automatic stop upon fault occurred
- ◆ 35 fault code and 11 alarm code: over current, over voltage, phase loss, short circuit, earth leakage, overload, high temperature of heat sink / capacitor, cooling fault, communication fault, etc.
- ◆ Fault logging

Safe & friendly for operator and maintenance.

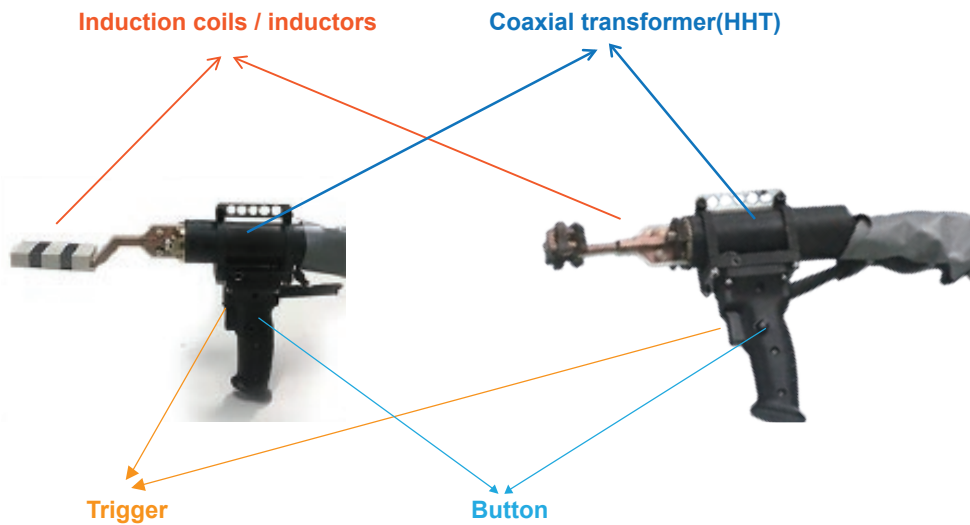
#### 6. Module design

Whole machine is module design, makes it very friendly for maintenance.

## CR2100 series – HHT

**Hand-held transformer (HHT)** are designed with **coaxial transformer**, for your easy manual manipulation, and also can be integrated into robot arm for automatic production.

**Induction coils / inductors** (detachable) are easy for assemble and dismantle from HHT, so you can connect with different coil for different application.



Two control keys:

- ◆ **Trigger** : pull to start heating, loose to stop heating;
- ◆ **Button** : lock the trigger (pull the trigger and press the button), heating will be continuous.

## CR2100 series – Custom Inductor

Canroon offer custom service for clients.

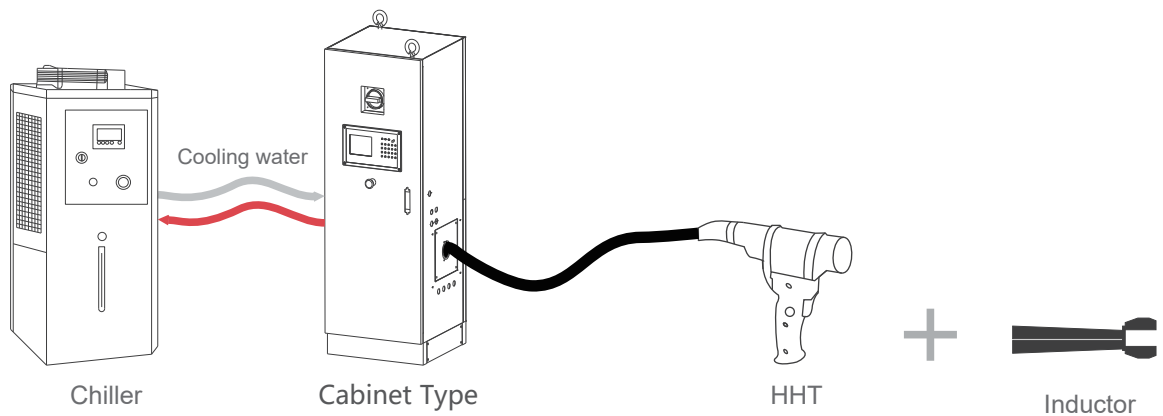
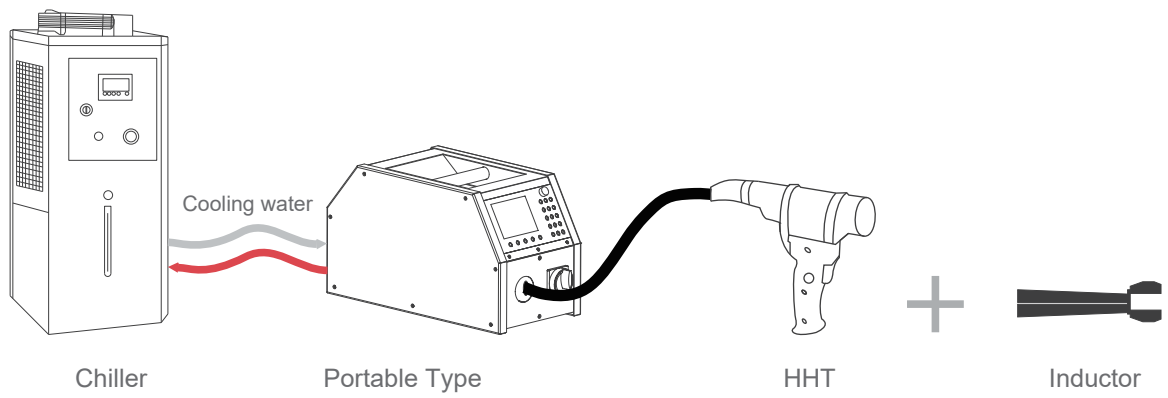
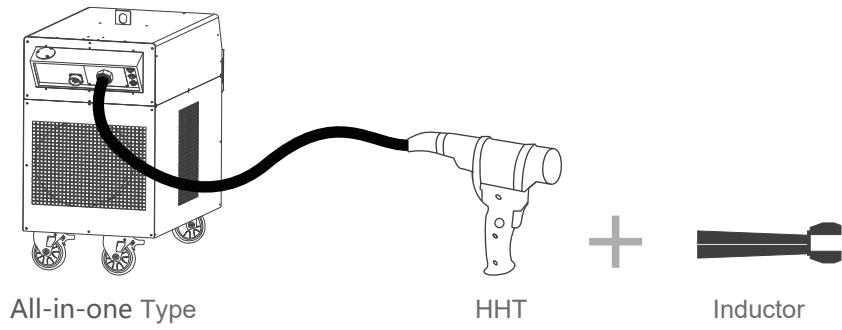
Each inductor are designed specially for client's specific application case, to ensure a perfect matching with the workpiece and CR2100 power source, and manufactured in high-standard craft to ensure its performance and robust quality.

Inductor is essential to the induction heating process, and many factors contribute to a coil's effectiveness. It's important to insist on professionally made and maintained coils – preferably from the same people who made you induction system.

Necessary information are required from clients for a professional service provided by Canroon: specific application, workpiece material and dimensions (better with drawing and pictures).



## CR2100 series – System Wiring



## CR2100 series – Induction Heating Power Source

CR2100 induction heating power source uses IGBT and module design, integrates with programmable controller and large LCD display for monitoring, and covers a wide range of power and frequency.

Based on power range and chiller integration, CR2100 offers in three types: **portable type / cabinet type / all-in-one type**.

**Portable type / cabinet type:** need external chiller for water cooling.

**All-in-one type:** designed with built-in chiller, and universal wheels, perfect for on-site service.

Canroon also offer custom equipment for clients if their requirement for parameters is not in our standard equipment line, which is listed in below form.

Product Pictures	Product Model	Dimension (mm)	Rated Input Power	Rated Input Current	Output Frequency	Cooling Water Pressuer / Flow Rate	Rated Input Voltage / Frequency	HHT / Coaxial Transformer Weight	
 <p>Portable type</p>	CR2100-010B-14TW	L : 621.4 W : 282.4 H : 349.4	10KVA	12-18A	10-40KHz	4 ~ 6bar ≥12L/min	3-phase /400V (±20%)	1.5 kg	
	CR2100-020B-14TW		20KVA	24-36A					
	CR2100-030B-14TW		30KVA	36-54A					
	CR2100-040B-14TW		40KVA	48-72A		4 ~ 6bar ≥25L/min			
	CR2100-050B-14TW		50KVA	60-90A					
	CR2100-060B-14TW		60KVA	72-108A					
	CR2100-010H-14TW	L : 621.4 W : 282.4 H : 349.4	10KVA	12-18A	50-200KHz	4 ~ 6bar ≥15L/min	3-phase /400V (±20%)	1.5 kg	
	CR2100-020H-14TW		20KVA	24-36A					
	CR2100-030H-14TW		30KVA	36-54A					
	CR2100-040H-14TW		40KVA	48-72A		4 ~ 6bar ≥25L/min			
	CR2100-050H-14TW		50KVA	60-90A					
	CR2100-060H-14TW		60KVA	72-108A					
 <p>All-in-one type</p>	CR2100-010E-14TW	L : 1102 W : 668 H : 1238	10KVA	12-18A	10-40KHz	Built-in	3-phase /400V (±5%)	1.5 kg	
	CR2100-020E-14TW		20KVA	24-36A					
	CR2100-030E-14TW		30KVA	36-54A					
	CR2100-040E-14TW		40KVA	48-72A					
	CR2100-050E-14TW	L : 1463 W : 904 H : 1363.5	50KVA	60-90A	50-200KHz			3kg	
	CR2100-060E-14TW		60KVA	72-108A					
	CR2100-010HE-14TW	L : 1102 W : 668 H : 1238	10KVA	12-18A				50-200KHz	1.5 kg
	CR2100-020HE-14TW		20KVA	24-36A					
	CR2100-030HE-14TW		30KVA	36-54A					
	CR2100-040HE-14TW		40KVA	48-72A					
	CR2100-050HE-14TW	L : 1463 W : 904 H : 1363.5	50KVA	60-90A				3kg	
	CR2100-060HE-14TW		60KVA	72-108A					

Product Pictures Cabinet type	Product Model	Dimension (mm)	Rated Input Power	Rated Input Current	Output Frequency	Cooling Water Pressuer / Flow Rate	Rated Input Voltage / Frequency	HHT / Coaxial Transformer Weight	
	CR2100-080B-14TW	L : 512 W : 525.7 H : 1250	80KVA	96-144A	10-40 KHz	4 ~ 6bar ≥25L/min	3-phase /400V (±20%)	6.5 kg	
	CR2100-100B-14TW		100KVA	120-180A		4 ~ 6bar ≥35L/min		19kg	
	CR2100-120B-14TW		120KVA	144-216A	50-200 KHz	4 ~ 6bar ≥25L/min		6.5 kg	
	CR2100-080H-14TW		80KVA	96-144A		4 ~ 6bar ≥35L/min		19kg	
	CR2100-100H-14TW		100KVA	120-180A		50-200 KHz		4 ~ 6bar ≥35L/min	19kg
	CR2100-120H-14TW		120KVA	144-216A				4 ~ 6bar ≥35L/min	19kg
	CR2100-160B-14TW	L : 801 W : 656 H : 1750.5	160KVA	192-288A	0.5-25KHz	4 ~ 6bar ≥60L/min	3-phase /400V (±20%)	21kg	
	CR2100-200B-14TW		200KVA	240-360A		4 ~ 6bar ≥90L/min		35kg	
	CR2100-250B-14TW		250KVA	300-451A		0.5-20KHz		4 ~ 6bar ≥120L/min	50 kg
	CR2100-300B-14TW		300KVA	360-541A	50-200 KHz			4 ~ 6bar ≥4 ~ 6bar	21kg
	CR2100-400B-14TW		400KVA	481-721A		4 ~ 6bar ≥90L/min		35kg	
	CR2100-160H-14TW		160KVA	192-288A		50-200 KHz		4 ~ 6bar ≥4 ~ 6bar	21kg
	CR2100-200H-14TW		200KVA	240-360A				4 ~ 6bar ≥90L/min	35kg
	CR2100-250H-14TW		250KVA	300-451A	50-200 KHz			4 ~ 6bar ≥90L/min	35kg
	CR2100-300H-14TW		300KVA	360-541A		4 ~ 6bar ≥90L/min		35kg	
			CR2100-500B-14TW	L : 1080 W : 815.5 H : 1930	500KVA	601-902A		0.5-20KHz	4 ~ 6bar ≥120L/min
CR2100-600B-14TW		600KVA	721-1082A						
CR2100-800B-14TW		800KVA	962-1443A		100 kg				

 **Note:**

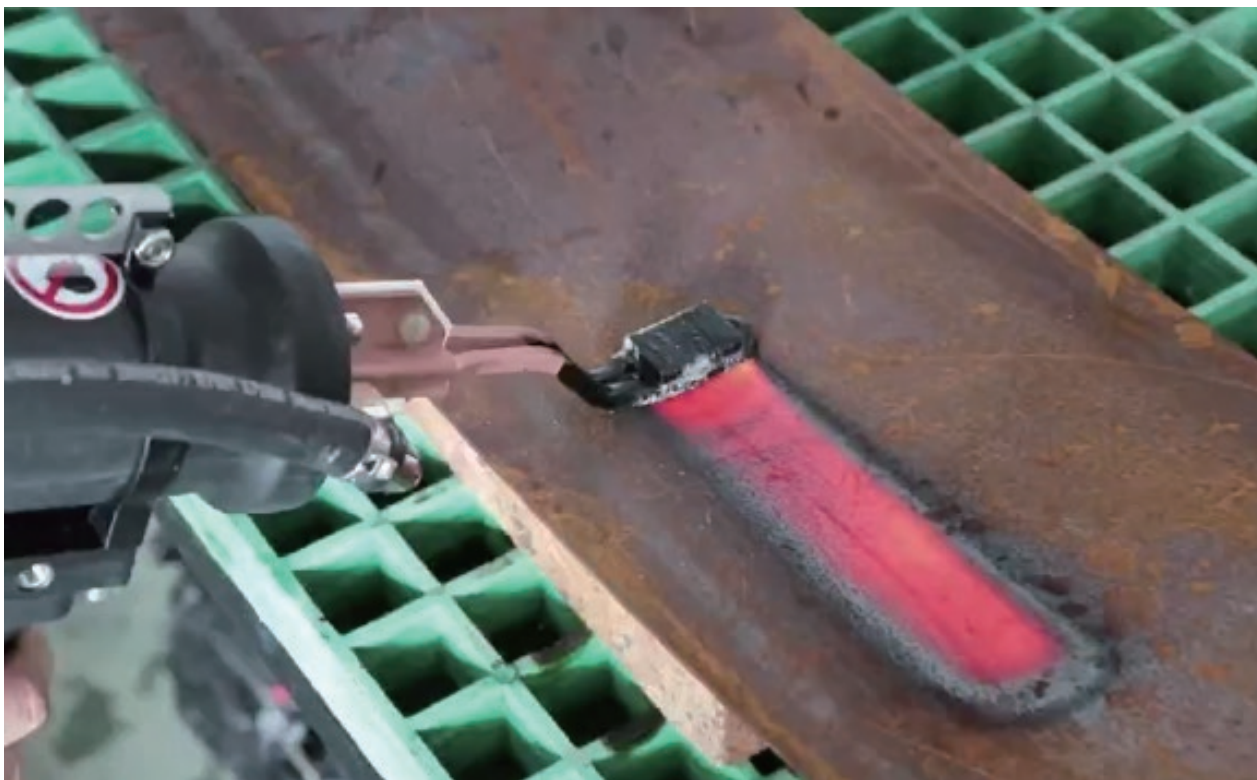
The standard frequency configuration for the CR2100-160B-14TW, CR2100-200B-14TW, CR2100-250B-14TW, and CR2100-300B-14TW models is 10-25kHz.

Below 10kHz require customization.

The standard frequency configuration for the CR2100-400B-14TW, CR2100-500B-14TW, CR2100-600B-14TW, and CR2100-800B-14TW models is 10-20kHz.

Below 10kHz require customization.

# Canroon



## *Spot Annealing*





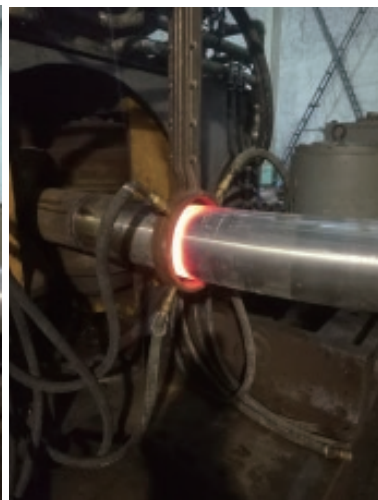
# *Bolt Expansion*



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*Bending Thick Wall Pipe*





# *Tube Disassemble*



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## *Brazing*



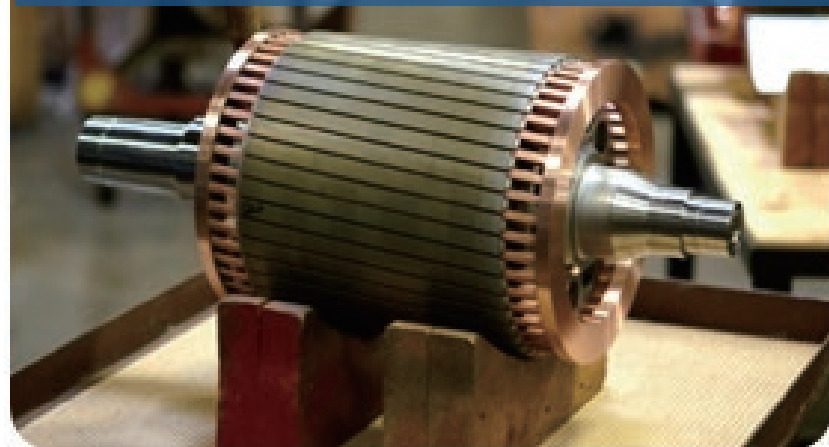
*Brazing*



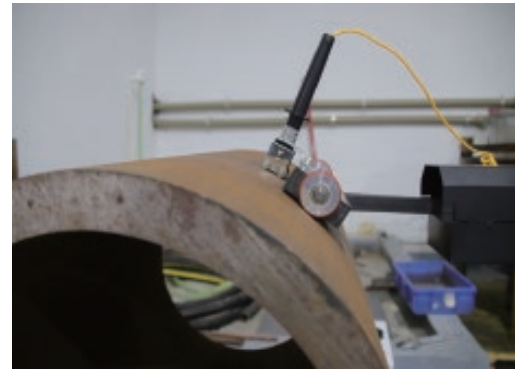
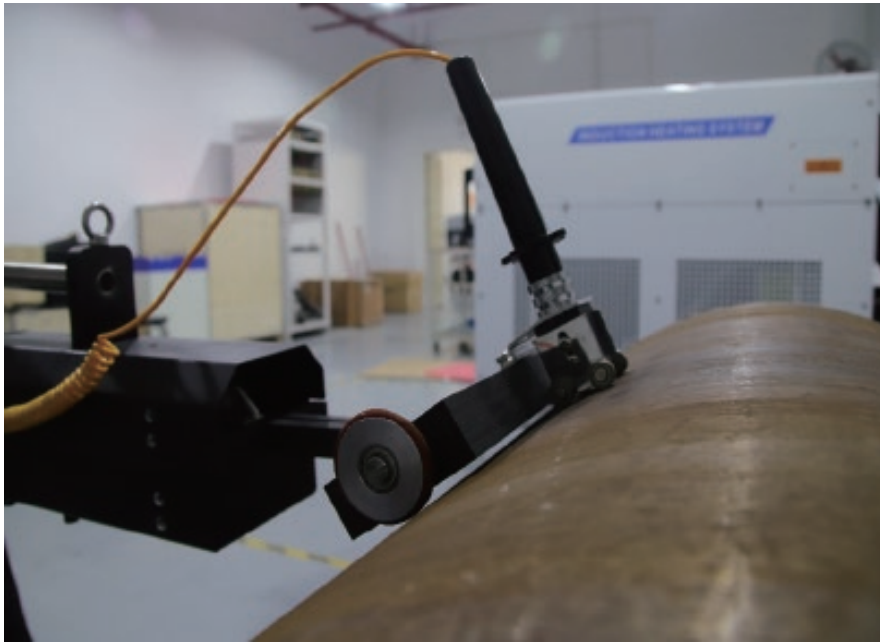
***Brazing for Heat Exchanger***



***Brazing for Short Circuit Ring***

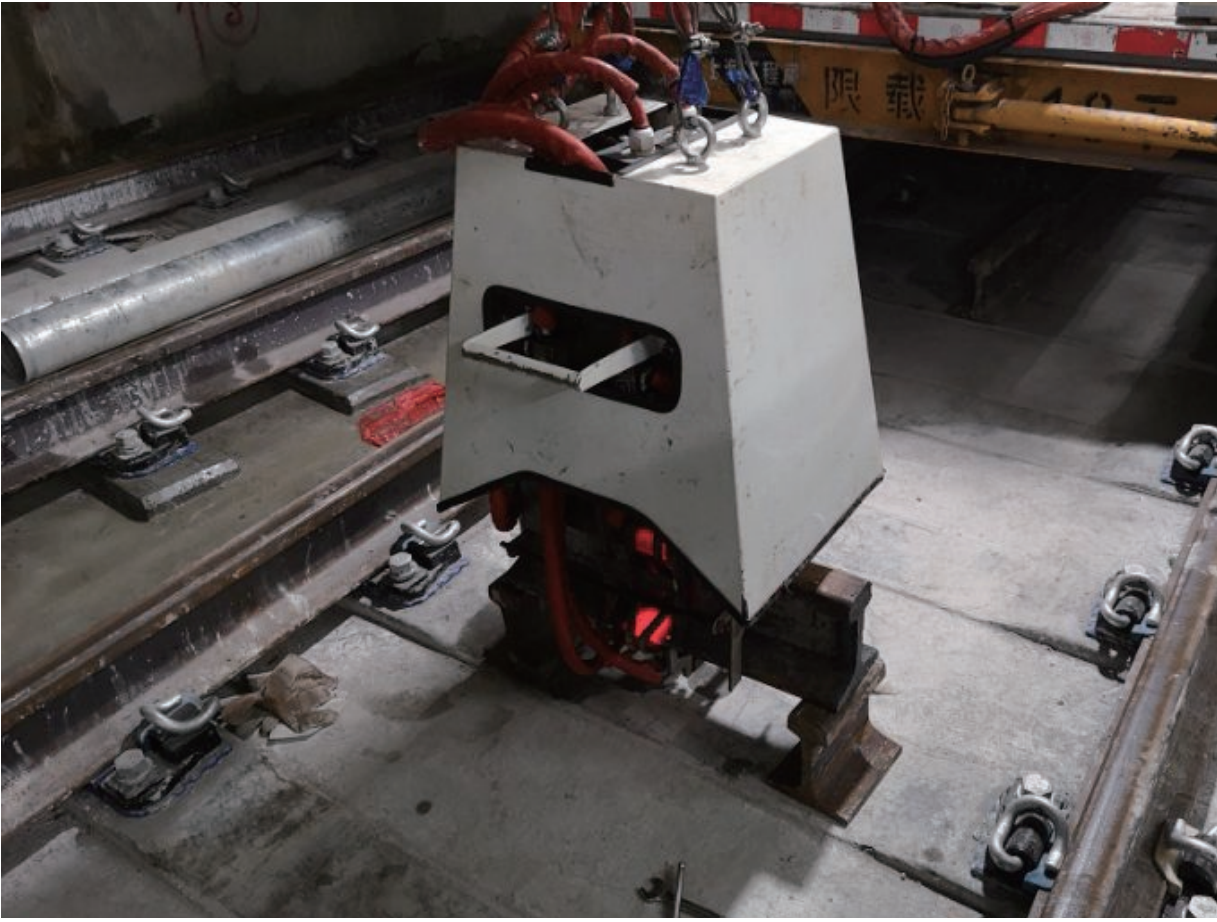


# *Rolling Inductor for Welding Preheat*

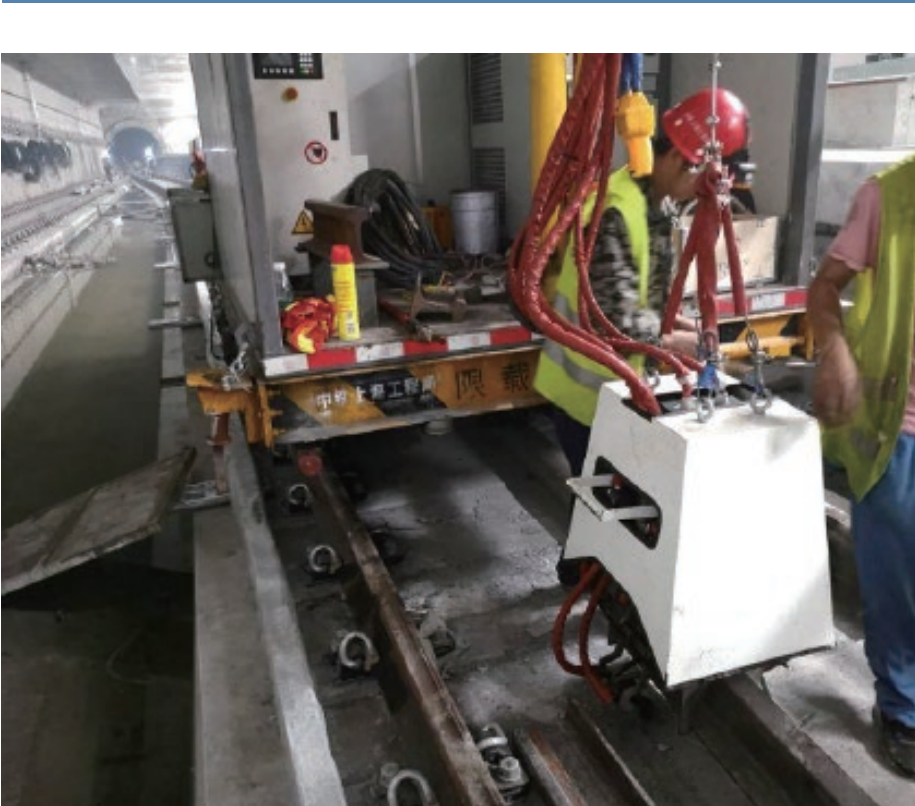


Induction Heating Applications

Induction Heating Applications

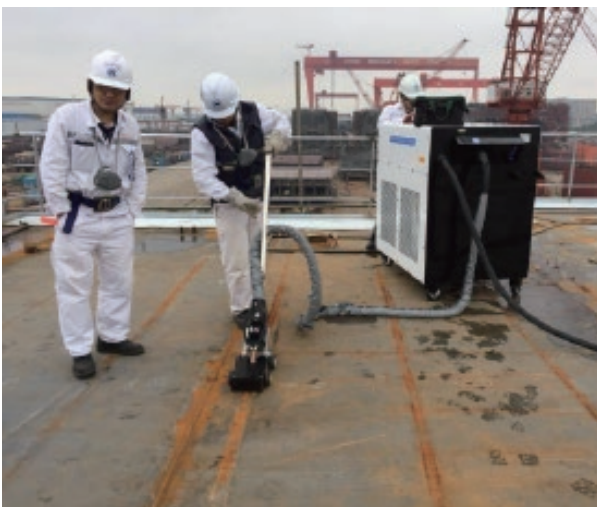


# *Rail Heat Treatment*



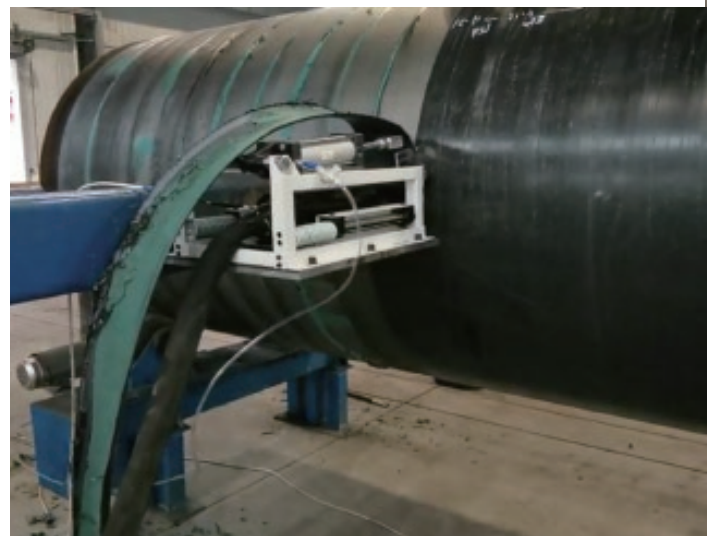


# *Straightening*

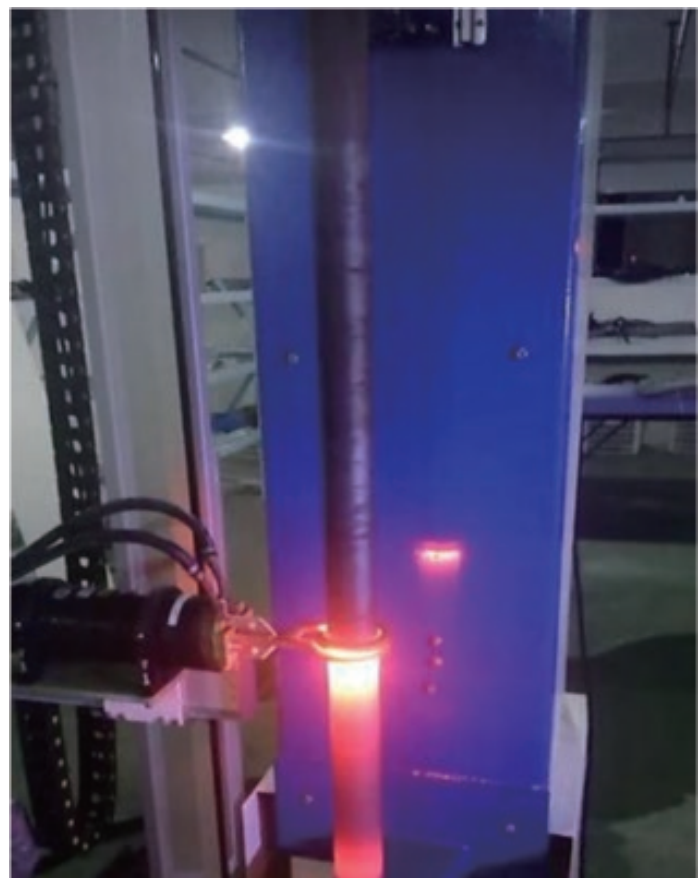
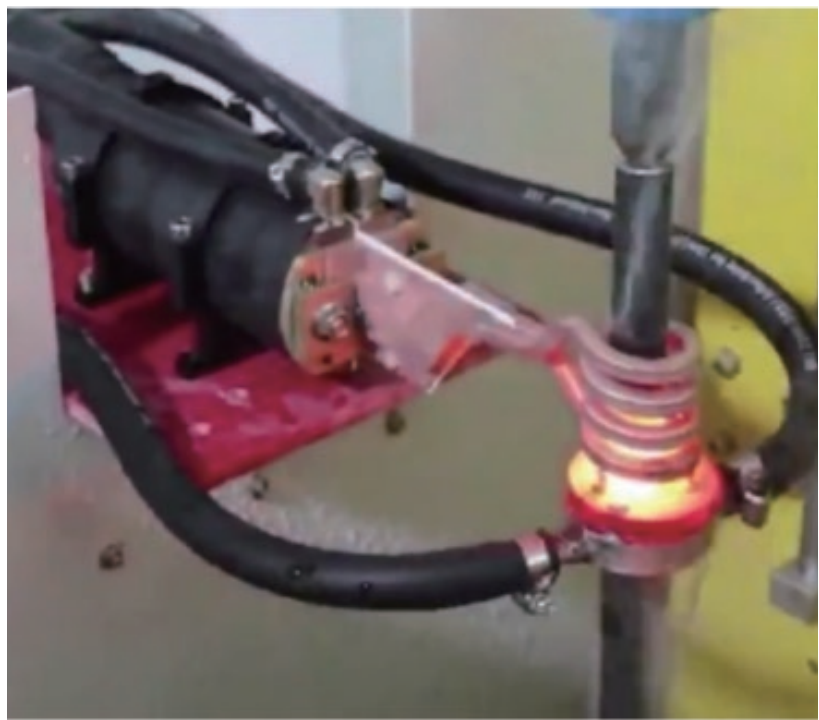


# Canroon

## *Coating Removal*



Induction Heating Applications



***Hardening / Quenching***

# Canroon

— Global Leading Provider of Power Electronic Product and Technical Solution —



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