



Vision

To be the first choice international supplier of welding and welding related equipment

Commitment

To offer consistent high quality service and the right equipment to our customers

Behind the Scenes

Red-D-Arc
Welderrentals

- Red-D-Arc is a “specialist” in welder rentals and long-term operating leases
- Extreme-Duty™ proprietary RDA products are what we supply
- 70,000 welders, and specialty equipment are Red-D-Arc’s ONLY focus
- RDA personnel are welding-knowledgeable specialists... where and when you need them...in most major markets in North America and around the world

ProHeat 35 Induction Heating Systems

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Water Cooled System



Air Cooled System



ProHeat 35 Induction Heating Systems

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Air Cooled System



ProHeat 35 Induction Heating Systems

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Air Cooled System

The Air-Cooled Induction Heating System is specifically designed for preheating applications up to 400° F (204° C).

The system can be operated in the Manual Programming mode where a power output is applied to a part for a specified time or in the Temperature Based Programming mode where part temperature is used to control power output.

Air-cooled blankets are available for pipe diameters from 8 to 56 inches or in the case of plate, the lengths are from 41 to 193 inches.

ProHeat 35 Induction Heating Systems

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Typical Applications for Air-Cooled Induction Heating Systems

On-Shore Transmission Pipelines

- Provides uniform heating around the circumference of higher strength pipe.
- Maintains temperature on large diameter, thick wall pipe where heat input from process cannot maintain minimum interpass temperature.
- Eliminates propane costs.

Off-Shore Transmission Pipelines (Barge)

- Provides uniform heating around the circumference of higher strength pipe.
- Provides rapid time-to-temperature.
- Eliminates propane costs, storage and transportation.
- Eliminates open flame safety hazard on barge

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Air-Cooled Induction Heating Systems :- Induction Blanket

The patented flexible induction blanket is the newest innovation in preheat technology from a leader in the welding industry. The flexible, lightweight induction heating blankets come in a variety of sizes and are capable of preheat temperatures up to 400° F (204° C).

The blankets easily conform to circular and flat parts and install in a matter of seconds.

Manufactured from durable high-temperature materials, flexible induction blankets are designed to withstand the tough conditions in both industrial and construction applications.

Each blanket is supplied with two spare blanket-securing straps and one replaceable Kevlar® sleeve which provides added protection against abrasion, cuts and tears, extending blanket life.



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Air-Cooled Induction Heating Systems :- Extension Cables

Output extension cables are available in 25, 50, and 75 ft (7.6, 15.2, and 22.8 m) lengths and provide interconnection between the power source and flexible induction blanket.

This product includes durable twistlock connectors for attachment to the induction blanket.

The power source connection is made using an insulated twist lock connector which also identifies the type of heating device to the power source controller (air-cooled or liquid-cooled system).

This cable identification system (patent pending) prevents over duty cycling of the heating blanket. A special cable-potting process is utilized at the cable ends to assure the product withstands the rugged environment experienced in the industrial and construction markets.

The series cable adapter is used to combine two blankets in series. This enables one power source and one output cable to be used to create extra heating area using two blankets.



Air Cooled Applications

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Airgas

Air Cooled Applications

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Airgas

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Water Cooled System



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Water Cooled System

The Liquid-Cooled Induction Heating System is designed for preheating, hydrogen bake-out and stress relieving applications up to 1450° F (788° C).

The system can be operated in the Manual Programming mode where a power output is applied to a part for a specified time or in the Temperature Based Programming mode where part temperature is used to control power output.

Liquid-cooled heating cables provide a highly versatile tool for preheating a variety of pipe diameters and even flat plate.

In general, shorter cables are used for smaller diameter pipe and are easier to handle and set-up. Longer cables are used for larger diameter pipe or small pressure vessels and tanks.

Great for preheat applications on geometrics that prevent use of air-cooled blankets.

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Typical Applications for Water-Cooled Induction Heating Systems

Pipe Fabrication Shops

- Provides uniform heating around the circumference of higher strength pipe.
- Reduces set-up time and time-to-temperature in preheat applications.
- Significantly reduces consumable costs.
- Eliminates propane costs.

Field Construction of Power and Process Piping

- Provides uniform heating around the circumference of higher strength pipe.
- Provides rapid time-to-temperature, reducing total weld cycle time.
- Easy to set-up and operate in preheat applications — welder friendly.
- Reduces consumable costs.

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Water-Cooled Induction Heating Systems :- Cables & Blanket

The liquid-cooled heating cable couples the power to the part to be heated. The silicone hose encloses a special copper conductor specifically designed for carrying high frequency current to maximize efficiency.

The hose also carries the coolant, which cools the conducting wire. The hose is reinforced for strength and durability.



Preheat cable covers are available to protect the heating cable from slag and molten metal created during welding.

The cable covers must be used with the 1/2 in preheat insulation up to 650° F (343° C).



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The insulation is designed to insulate the work for process efficiency, maintain the optimum coupling distance between the coil and the work and protect the liquid-cooled cable from high temperatures.

Preheat insulation is provided in strips six or twelve inches wide and ten feet long. Preheat insulation is 1/2 in (12.7 mm) thick due to the lower temperatures of preheating (typically up to 600° F). The insulation is cut to length for the application.



Postweld heat treatment insulation blankets are sized and stencilled for the pipe size to be treated. The insulation is sewn into a silica blanket, which provides high durability. 50 thermal cycles or more can be achieved with one blanket.

The sewn blanket insulation does not create the dust and particulate associated with insulation. This creates a friendlier environment for the heat-treater's and welders.



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The digital recorder is commonly used in stress relieving and critical preheat applications. The recorder stores temperature data based on time. It is not required to perform successful heating applications.

- The recorder is attached to power source top panel or can be removed for office downloads, storage or protection when not in use.
- The recorder power cord plugs into the 110 V auxiliary receptacle on the rear of the ProHeat and the TC cable plugs into the TC receptacle on the rear of the ProHeat.
- Six temperature (0 –10 V) inputs provide temperature data on the heating cycle.
- The recorder is equipped with a touch screen for simple programming and use. The colour display permits clear monitoring of the heating process in outdoor environment (direct sunlight).
- Data can be transferred from internal memory to USB memory stick or directly to a PC via a network cable for printing, storage or further analysis. Files are encrypted for quality assurance.
- Simplified software prints recorded information onto 8-1/2 x 11 in size paper for convenient handling.
- The recorder does not require pens, paper or fragile mechanical devices to document the heating cycle.

Induction Heating

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Resistance Set up



Induction Set Up



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WHY USE INDUCTION?

Example quoted by global customer

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Less time to tempering temp:

Induction heating: from 20-725°C **5 min.**

Traditional heating: from 20-725°C **210 min.**

Potential less holding time:

Induction heating: 725°C **60 min.**

Traditional heating: 725°C **180 min.**

Rig time total:

Induction heating: 20 min.

Traditional heating: 80 min.

Total potential savings, 1 weld by using Induction : 385 min.

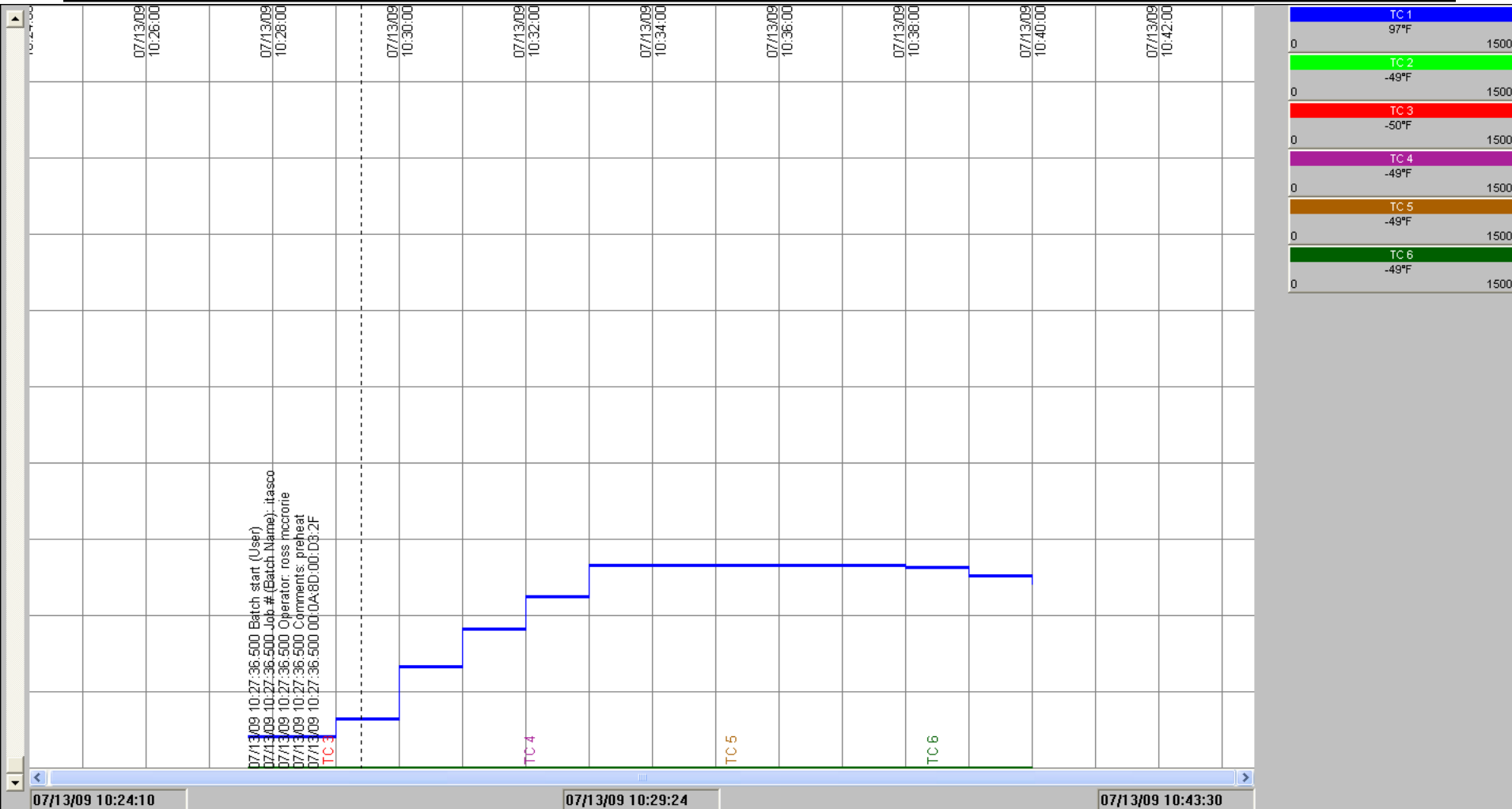
6 hour 25 min.

Airgas

WHY USE INDUCTION?

Digital data recording which can be stored to files

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WHY USE INDUCTION?

Cleaner & Safer working Environment

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Resistance Set up



Induction Set Up



WHY USE INDUCTION?

Low input power costs

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Input Power

460–575 V,
3-Phase, 60 Hz
400–460 V,
3-Phase, 50/60 Hz, **CE**

Input Amperes at Rated Output

50 A, 460 V
40 A, 575 V
60 A, 400 V
50 A, 460 V

Output Frequency

5–30 kHz

Rated Output

35 kW at
100% Duty Cycle

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