



EDWPL has been in manufacturing and designing of induction heater since 1981, we have made equipments from 300 watts to 2000kw. We make Sigma Therm induction heater for various applications such as hardening, brazing, shrink fitting, forging, annealing and pipe coating. We have developed the PWHT induction heater to specially cater to the welding requirements of pre and post welding heat treatment of metals with induction technology.

FEATURES:

The Sigmatherm is specially designed Induction Heater for pre heating applications (up to 250°C) Post Heating applications (up to 400°C) and PWHT/stress relieving normalising application (up to 760°C).

Induction Heating

Clean green and safest way to pre weld, post weld heat treatment. Induction heating induces the heat directly into the metal, the heat is not conducted. This helps heat faster and with more efficiency. This method has very quick setup time and can preheat much faster than gas fired or resistance heating methods.

Induction Coil

Flexible air cooled are available to wrap around and heat any shape, size of jobs. For pipes quick connect blankets are also available in various sizes. Blankets are suitable for plant and onsite use they are manufactured from high temperature wear resistant materials.

Customized blankets or coil can be designed to take care of specific requirements.

Digital Control System

PLC based system with touch screen HMI controls the Sigma Therm to get the desired temperature profile. The advanced logic control helps achieve the accurate heating temperature Rate and maintain the cycle desired. The heating cycle can be programmed to ensure correct heating rate (Degree C / HR), soaking temperature and soaking time, cooling ramp rate and cooling time. There are preset programs and any new heating cycle can be easily customized.

Temperature Measurement and Recording

Temperature is constantly monitored with a thermocouple. If needed the temperature chart can be recorded in soft format or temperature chart can be printed. Upto 6 thermo couples can be interfaced with recorder. The temperature can be recorded, graphed and printed for each cycle.

Cross Country Pipelining

Sigma Therm Pre Weld, Post Weld Heating Machines are rugged and built to work on generator sets or fixed supply lines. They are used onsite by mounting on trucks along with DG set and welding machines. The truck moves from joint to joint in the cross country layout of pipes. The setup and heating time is largely reduced thanks to quick connect wrap around coils. Typical heating cycles are under 1.5 minutes to reach 150°C

Sigma Therm - IH

Pre - Post Weld Heat Treatment

Upto 400°C

Sigma Therm Pre Heating Applications

Power Source - Sigma Therm PWHT - IH are available from 5Kw upto 60Kw for pre heating applications. The system can work in manual mode(Power % Setup) or Temperature control mode(Thermocouple required).

Induction Blanket for pipes

Specially designed quick connect induction blankets are available from 12inch upto 36inch pipes. These can be wrapped around and used for pre heating upto 250°C. Blankets consists of High temperature textile, Induction coil, Cerawool insulation, all stitched together.

FEATURES



Manual Mode

Sigma Therm give power as per set power percentage. The cut off level can be time based. Heating time can be set on the display panel(HMI). The heating remains ON for the duration of timer.

Temperature Mode

Sigma Therm auto sets the desired power percentage and stops once the desired temperature is achieved. Thermocouple is required to be connected for this mode.

PRE WELD HEATING APPLICATIONS



Bucket Plate Preheat



Bucket Tooth



Stone Crusher



Stone Crusher



Long Seam Heating



Pipeline Heating



Circular Seam Heating

Sigma Therm - IH

Pre - Post Weld Heat Treatment

Digital Recorder

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.

Contact Thermocouple Sensor

Contact thermocouple sensor installed between the induction blanket and the part being heated. The temperature feedback to the power source. Upto 6 can be used in one machine.

POST WELD HEATING APPLICATIONS



Long Seam Heating



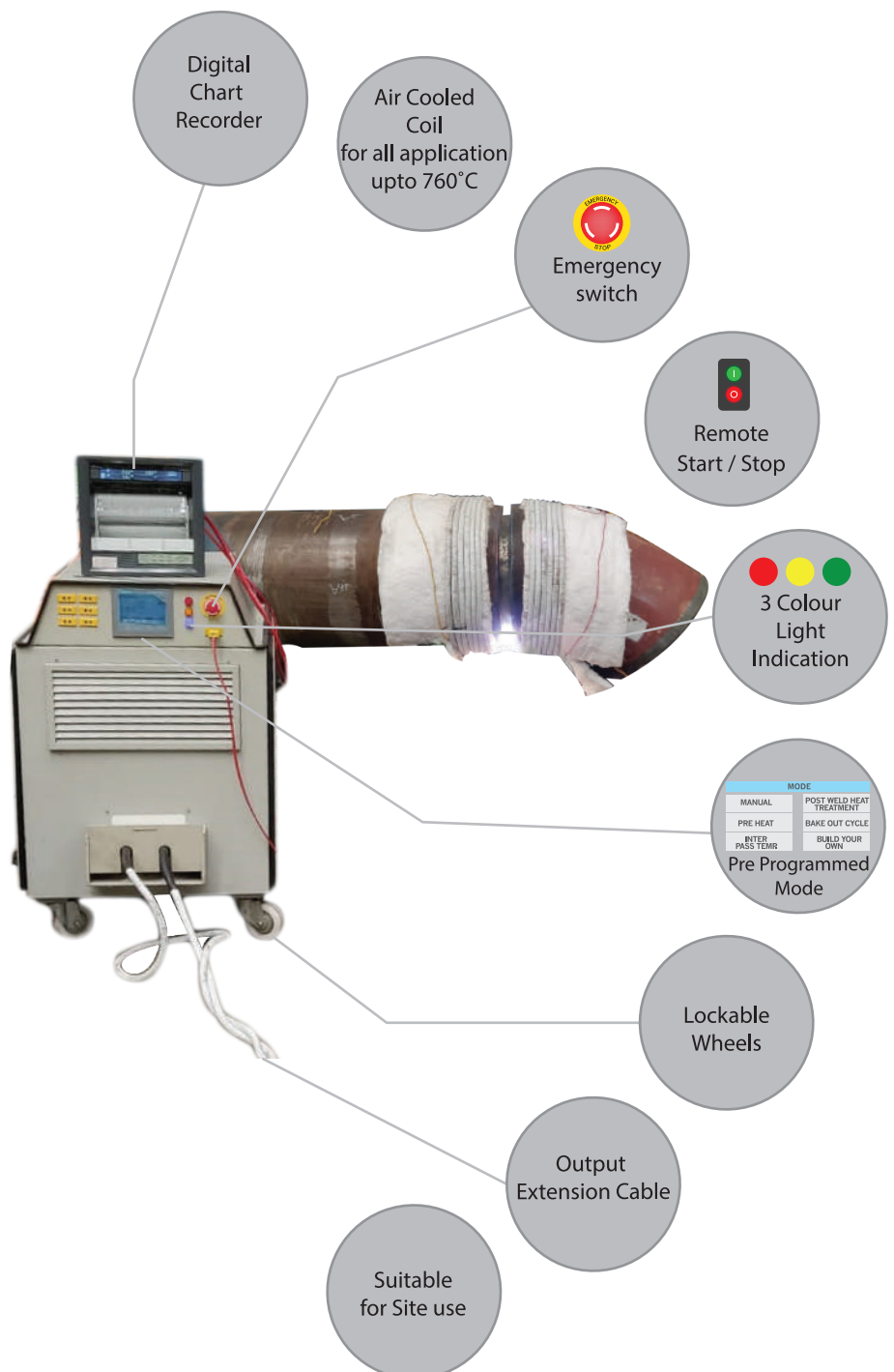
Circular Seam Heating



Pipe Line Heating



Nozzle Heating



Sigma Therm - IH

Pre - Post Weld Heat Treatment

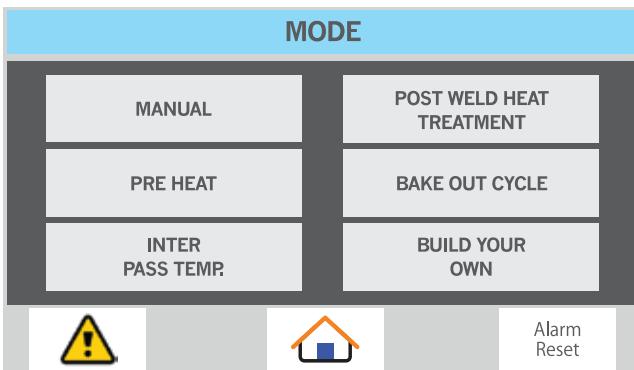
Technical Specification

Temperature Range	Induction: 20°C - 760°C
Heating Power	5KW - 60KW
Connection Voltage	3-Phase 50Hz

Standard Accessories

Air Cooled Coil	5m upto 30m
Extension Cable	5m / 10m / 15m
Induction Blankets for Pre Heat	6inch - 30inch
Customized Coils	On request

Operating Panel:



Applications for PWHT / Pre Heating

- Components made from P91 grade materials
- Power piping
- Construction repair pipeline
- Petro chemical
- Shipbuilding
- Heavy fabrication
- Shrink fitting

Safety

Substituting gas burners for pre heating of welding joints

Optional Accessories

- Coil
- Heating Pad
- Temperature Chart Recorder/ Printer
- Cerawool Blanket
- Thermocouple
- Thermocouple Attachment Unit



Material Handling Systems



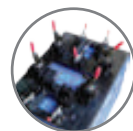
SAW:
600 to 1000 Amps



Welding SPM



MIG:
250 to 1000 Amps



Welding Fixture



TIG:
170 to 600 Amps



Robotic Integration



ARC:
170 to 600 Amps