



**Electronics  
Devices**

Worldwide Pvt. Ltd.

Making things happen

**Sigma Weld**

Digital Welding Inverters for MMA, TIG, MIG

## Sigma Therm - IH Pre - Post Weld Heat Treatment



### Features:

The SigmaTherm is an inverter based preheating and post weld heat treatment unit especially for tubes and pipes. Depending on the size of the pipe, one or two units are used. Induction coils are placed on both sides of the welding seam.

#### Induction Heating

Heats only the tube material, so radiant heat loss is very small. The maximum temperature with the induction method is around 700° C. Induction coils are fast to install and can be used in tight heating places, and for any shape.

#### Heating Elements

Induction coil(s) with maximum length of 50m can be connected.

#### Digital Control System

PLC based system with Touch Screen HMI controls the SigmaTherm to get the desired temperature profile.

#### Temperature Measurement

Temperature is constantly monitored with a thermocouple. If needed, the temperature can be recorded, graphed and plotted for each cycle. The data can be transferred over a USB as desired.

### Modes of Heating

- PRE-HEATING
  - Set temperature
- POST WELD HEAT TREATMENT
  - Heating Rate
  - Soaking Temperature
  - Soaking Time
  - Cooling Rate
  - Cooling Temperature
- MANUAL HEATING OPERATION
  - Power Percentage
- HYDROGEN BAKING CYCLE
- CUSTOMIZED HEATING CYCLE

### Induction Coils

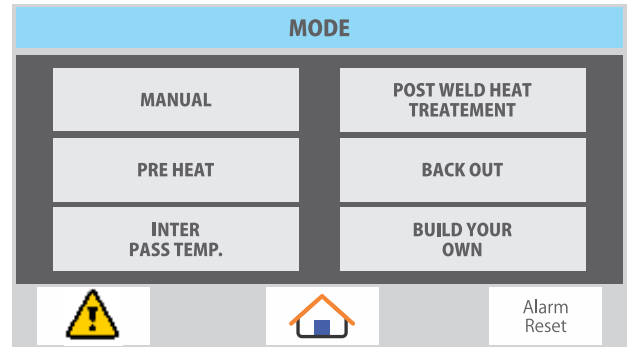
Induction coils are in ready-to-use lengths in multiples of 5 mtrs. When using an induction coil in preheating, it is wrapped around the pipe with or without any insulation. The coil can be protected against welding spatter with insulation cloth. When doing post-weld heat treatment, the pipe is first insulated with 20 mm-thick ceramic blanket after which the coil is wrapped around the pipe.

- Pipe Fabrication Shops
- Power Piping
- Construction/Repair Transmission Pipeline
- Construction/Repair Petrochemical
- Construction/Repair Shipbuilding
- Mining Equipment Maintenance Drill Pipe Manufacturing
- Substituting Gas Burners for Pre-Heating of Welding Joints

# Sigma Therm - IH

<b>Temperature Range</b>	Induction: 20° C - 700° C
<b>Heating Power</b>	5KW / 40KW
<b>Connection Voltage</b>	1-Phase/50Hz / 3-Phase/50Hz

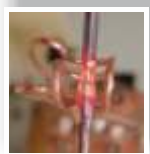
## Operating Panel:



DI-ELECTRIC PRE-HEATER



HARDENING



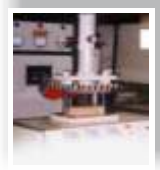
BRAZING



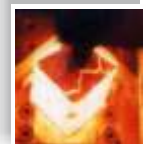
VALVE HARDENING



TOOL BRAZING



SINTERING



FORGING

**flexible** solutions for  
your **Heating** needs



BLACK ANNEALING



BRIGHT ANNEALING



WIRE & UTENSILS ANNEALING



PARTIAL HEATING



CHAIN HARDENING



SOFT SOLDERING



SHRINK FITTING



### Electronics Devices Worldwide Pvt. Ltd.

31, Mistry Industrial Complex, Cross Road 'A', M.I.D.C, Andheri [E], Mumbai 400093. INDIA.  
Sales - T: +91.22.26870311 to 18 | Service - T: +91.22.26870649  
E: [sigmaweld@edmail.in](mailto:sigmaweld@edmail.in) | W: [www.electronicsdevices.com](http://www.electronicsdevices.com), [www.sigmaweld.com](http://www.sigmaweld.com)