





HEATING ELEMENTS
THERMOSTATS & CONTROLS
HEATING SYSTEMS & UNITS

# THEETA®

# The Company

Theeta is the largest producer and exporter of tubular heating elements for domestic, commercial and industrial applications in India. The elements are sold under the brand name Theeta



## Our Mission & Vision

From the day of inception, THEETA has come a long way with a strong determination to survive all odds, we are committed to:-

- Incorporate latest innovations and technological expertise in our production systems that are cost effective.
- To excel in every aspect of product quality and customer satisfaction.
- Our worldwide acceptance is rooted in quality processes that are employed at every step throughout the enterprise production line.

The company is led by a team of highly qualified engineers and professionals with more than 25 years in the specialized field of electric heating.

Our ISO 9001:2008 certified plant is located at IMT Manesar, Gurgaon, 30 kms from New Delhi and covers an area of 80,000 sq ft.

Our customers for heating elements include all major domestic and multinational white goods manufacturers in India.

#### Milestones



ISO 9001:2008 certified heating element plant in India



certified plant in India in year 2000



UL certified heating element plant in India in 2005



Heating elements & Rod Thermostats

# Manufacturing

The heating elements are manufactured at our plants with a combined area of approx 100,000 sq ft. This gives us the capacity to handle huge volumes both for domestic and exports market.

#### **Manufacturing Strengths**

- Fully and semi automatic machines from leading manufacturers of heating element equipment all over the
- Dedicated production lines for high volumes
- Fully Automated and semi automated processes at various stages of production.
- Facility for Glass lined Heating Elements
- Large tonnage Hydraulic Presses
- High capacity pressure testing machines
- Ample raw material stocks for faster turnaround
- Heating Elements available from 6.5 mm to 16mm diameter and lengths upto 8 metres
- Tubing: Various grades of Stainless Steel, Incoloy, Inconel, Copper, Aluminum, Mild Steel, Steel tube Copper coated, Titanium



#### As per ISI requirements we conduct

- Routine tests
- Acceptance Tests
- Type Tests

Our Incoming Inspection lab, Quality Lab and R&D lab are also well equipped with all the necessary instruments and testing panels which are regularly calibrated from master instruments which are in turn calibrated from accredited labs.



# Testing

Theeta has all the testing equipment necessary for manufacturing of elements. Right from the inception to the final stages, the elements go through various tests.





#### Refrigerators



Elements are manufactured out of Stainless Steel/ Incoloy Tubing and sealed using high grade Synthetic rubber insulation.

Available in wattages from 250W- 2KW and suitable for Frost free Refrigerators and Refrigeration Units

#### **Washing Machines**

Elements are manufactured out of Stainless Steel/ Incoloy Tubing and available in Dual and Single thermal fuse along with NTC thermistor'

Suitable for all front loading automatic washing machines





#### **International Range**

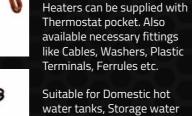














Suitable for Domestic hot water tanks, Storage water heaters.

Manufactured out of Copper/

Incoloy /Titanium Tubing and available in various wattages

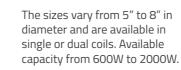
Export worthy packing or pallets available for shipping

Elements can also be designed as per customer specifications Elements are available in various wattages and tubes of various grades and diameters

# Domestic Air Heating Elements

#### **Cooking Ranges/Hot Plates**

Cooking Coils are manufactured out of high temperature resistant nickel alloy tube. Each coil consists of two individual elements (One element in case of 1000W) to give three ratings when used with a rotary switch.



Suitable for Cooking Ranges and Hotplates











S. No.	Product Code	Product Description	Material	Voltage	Wattage
1	1029	DSKJ	H.T.N.A	230V	1.0KW
2	1030	CC	H.T.N.A	230V	1.0KW
3	1031	6" DH	H.T.N.A	230V	1250W
4	7323	6" RADIANT	H.T.N.A	230V	1250W
5	1031	6" DH	H.T.N.A	230V	1500W
6	1037	7" DH	H.T.N.A	230V	2.0KW
7	1040	8" DH	H.T.N.A	230V	2.0KW

# H.T.N.A: High Temperature Nickel Alloy

#### Irons

Manufactured out of Aluminium / Steel tube copper coated. Available in wattages from 600W - 1350W

Suitable for all Dry and Steam Irons









Elements can also be designed as per customer specifications Elements are available in various wattages and tubes of various grades and diameters

#### **Microwave Ovens**



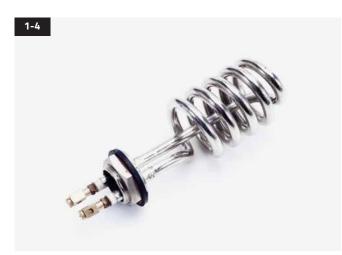
Manufactured out of Stainless Steel / Incoloy tubing. Available in wattages from 1000W -2000W.

Suitable for all Convection Microwave ovens.





#### **Storage Water Heaters**















S. No.	Product Code	Product Description	Material	Voltage	Wattage
1	6256	CUP STUD	COPPER	230V	3.0KW
2	5292	CUP STUD	COPPER	230V	4.5KW
3	2677	CUP STUD (SPH)	COPPER	230V	3.0KW
4	6982	CUP STUD TSP	COPPER	230V	3.0KW
5	2652	ROUND FLANGE	COPPER	230V	3.0KW
6	2653	ROUND FLANGE TSP	COPPER	230V	3.0KW
7	2644	9/16 NIPPLE	COPPER	230V	3.0KW
8	7617	15 LTR / 25 LTR (HTH)	COPPER / INCOLOY	230V	2.0KW
9	7369	D/T (JTH)	COPPER / INCOLOY	230V	2.0KW
10	8106	10 LTR PTH	COPPER / INCOLOY	230V	2.0KW
11	8105	15/25 LTR PTH	COPPER / INCOLOY	230V	2.0KW

Elements can also be designed as per customer specifications Elements are available in various wattages and tubes of various grades and diameters

▲ Caution: All Water heating elements are meant for heating water only and these must be fully immersed in water before putting them in operation

## **Storage Water Heaters - Glass Lined**

Manufactured out of Incoloy tube, the elements are coated with Glass. Glass coating substantially reduces the scale formation on the heating element, thereby ensuring a highly efficient and long lasting heating element











S. No.	Product Code	Product Description	Material	Voltage	Wattage
1	8143	10 LTR STH	GLASS LINED- INCOLOY	230V	2.0KW
2	8144	15 LTR STH	GLASS LINED- INCOLOY	230V	2.0KW
3	7851	TRG CUP	GLASS LINED- INCOLOY	230V	2.0KW
4	8145	15 LTR / 25 LTR HTH	GLASS LINED- INCOLOY	230V	2.0KW
5	8130	нтн	GLASS LINED- INCOLOY	230V	2.0KW
6	8149	MRTH	GLASS LINED- INCOLOY	230V	2.0KW
7	8148	15 LTR PTH	GLASS LINED- INCOLOY	230V	2.0KW
8	7980	Solar	GLASS LINED- INCOLOY	230V	2.0KW
9	7917	Solar	GLASS LINED- INCOLOY	230V	3.0KW







Elements can also be designed as per customer specifications Elements are available in various wattages and tubes of various grades and diameters



Caution: Please handle the elements carefully so as no to damage the glass lining. All Water heating elements are meant for heating water only and these must be fully immersed in water before putting them in operation

# Design

A dedicated team at Theeta uses the latest 2D & 3D software tools to design the element, heating systems and units according to customer's requirement.



Our sourcing team with their vast experience has a number of qualified vendors on the panel that help us develop and supply the machined parts and accessories Our Tool room is well equipped with the necessary machinery like Lathe Machines, Milling Machines, Shapers, Drill machines, Grinders etc for developing fixtures and assemblies required for the heating elements. Some of the complicated fixtures are sourced from various tool rooms.

# Research & Development

Research and Development play an important and strategic role, hence a structured approach to creativity is used to stimulate innovation at Theeta



Theeta has dedicated R&D lab for testing and developing new ideas, improvement in production processes, new and existing product development, long term product testing based on actual environment, value engineering and developing of most appropriate industrial production for higher quality.

The main projects undertaken for the benefit of the Business Units include the development of new and next generation products and solutions in areas of scaling, corrosion, design, target materials, alloys, coating and casting.

More than ever, the successes of the businesses in our company are the result of a relentless pursuit of new, innovative solutions and developments.

#### Certifications









# **Quality Policy**

We at Theeta Electrical ensure customer satisfaction through quality and safety in our products, achieved through up gradation of human resources, technology and continual improvement in systems.

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#### OTG / Tandoors

Manufactured out of Stainless Steel/ Incoloy Tubing and available in various wattages.

Supplied with all necessary fittings like mounting brackets, clamps etc. Suitable for all Ovens and Tandoors.









#### **International Range**

Manufactured out of Stainless Steel/ High Temperature Nickel Alloy Tube and available in various wattages.

Supplied with all necessary fittings like mounting brackets, clamps, rods etc.

Suitable for all Fan Heaters, Cooking Ranges and Ovens.

Export worthy packing or





# pallets available for shipping.





Elements can also be designed as per customer specifications Elements are available in various wattages and tubes of various grades and diameters

#### **Toasters**





Manufactured out of Steel Tube Copper Coated and available in wattages from 250W to 700W.

Suitable for all toasters and Waffle makers.

#### **Chapati Makers**



Manufactured out of Steel Tube Copper Coated and available in wattages from 600W-1350W.

Suitable for all Chapati makers.

# Industrial Air Heating Elements

#### **Air Heater**

Air Heaters are made out of Stainless Steel/ Incoloy tubing to withstand a surface temperature of 650 deg C. Each element is provided with two adjustable fixing is provided with two fixing

Some of the applications of Industrials air heating elements include Load Banks, Furnaces, Industrial Ovens etc.

#### **Finned Air Heaters**

Finned Air Heaters are made out of Stainless Steel/ Incoloy tubing. Elements are supplied with round fins of various dia. Each element brackets.

Some of the applications include Dehumidifiers.



S. No.	Product Code	Product Description	Material	Voltage	Wattage
1	2002	24" U FINNED	SS/INCOLOY	230V	1.0KW
2	2734	30" U FINNED	SS/INCOLOY	230V	1.5KW
3	2005	39" U FINNED	SS/INCOLOY	230V	2.0KW
4	2011	10" U	SS/INCOLOY	230V	500W
5	2007	18" U	SS/INCOLOY	230V	750W
6	2003	24" U	SS/INCOLOY	230V	1.0KW
7	2001	30" U	SS/INCOLOY	230V	1.5KW
8	2006	39" U	SS/ INCOLOY	230v	2.0 KW



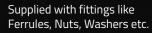
#### **International Range**





out of SS/ Incoloy Tubing and fitted with rectangular fins or round continuous fins for even heating.

Elements are manufactured





Elements can also be designed as per customer specifications Elements are available in various wattages and tubes of various grades and diameters



# Domestic Water Heating Elements **Storage Water Heaters**

Manufactured out of Copper tube duly Nickel plated or Incoloy tube for hard water applications. The elements are brazed to brass cups/flanges/ferrules and are plated if required. Fiber/ Rubber washers are provided if required. Heaters can also be supplied with Thermostat pockets

TRG CUP 7"

TRG CUP 11"

DUAL TUBE

TRG

TRG ECO

TRG TSP

TRG TSP

TRG TSP 7"

TRG TSP 11"

TRG TSP

CUP TSP

BANANA

CLIPON D/T

TRG ECO BANANA

CLIPON SINGLE TUBE







2622

2621

2583

2625

2631

2628

2633

2603

1107

2676





230V

2.0KW

2.0KW

2.0KW

2.0KW

1.5KW

2.0KW

2.0KW

2.0KW

2.0KW

2.0KW

2.0KW

2.0KW

2.0KW



S. No.	Product Code	Product Description	Material	Voltage	Wattage
1	2578	ROUND CUP	COPPER	230V	1.5KW
2	2536	ROUND CUP	COPPER	230V	2.0KW
3	2581	TRG CUP	COPPER	230V	1.5KW
4	2537	TRG CUP	COPPER	230V	2.0KW
5	2660	TRG CUP	COPPER	230V	3.0KW

COPPER

COPPER/ INCOLOY

COPPER/ INCOLOY

COPPER/ INCOLOY











Elements can also be designed as per customer specifications

Elements are available in various wattages and tubes of various grades and diameters

#### **Storage Water Heaters**









S. No.	Product Code	Product Description	Material	Voltage	Wattage
1	6448	MTTH	COPPER	230V	3.2KW
2	6644	MTTH	COPPER	230V	2.0KW
3	2636	ERTH	COPPER/ INCOLOY	230V	2.0KW
4	2586	ALTO	COPPER/ INCOLOY	230V	2.0KW
5	6408	15 LTR	COPPER	230V	2.0KW
6	6409	25 LTR	COPPER	230V	2.0KW
7	2587	ALTO (HORZ)	COPPER	230V	2.0KW
8	7617	SPH (HORZ)	COPPER	230V	2.0KW
9	2589	(HORZ)	COPPER	230V	2.0KW
10	2657	TRG (HORZ) 15 LTR	COPPER	230V	2.0KW
11	2635	TRG (HORZ) 25 LTR	COPPER	230V	2.0KW
12	6420	(HORZ) NIPPLE	COPPER	230V	3.0KW
13	2612	SPH	COPPER	230V	2.0KW
14	2615	SPH BIG CUP	COPPER	230V	2.0KW







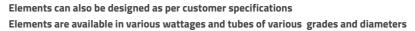






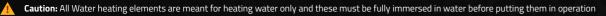








▲ Caution: All Water heating elements are meant for heating water only and these must be fully immersed in water before putting them in operation



# Industrial Water Heating Elements







S. No.	Product Code	Product Description	Material	Voltage	Wattage
1	2020	1.1/4" INDL	COPPER	230V	2.0KW
2	2021	1.1/4" INDL	COPPER	230V	3.0KW
3	4666	1.1/4" INDL	COPPER	230V	4.0KW
4	4264	1.1/2" INDL	COPPER	230V	2.0KW
5	2022	1.1/2" INDL	COPPER	230V	3.0KW
6	2023	1.1/2" INDL	COPPER	230V	4.0.KW
7	6519	1.1/2" INDL	COPPER	230V	6.0KW
8	6427	2" INDL	COPPER	230V	3.0KW
9	2664	2" INDL	COPPER	230V	4.0KW
10	2024	2" INDL	COPPER	230V	5.0KW
11	2025	2" INDL	COPPER	230V	6.0KW
12	2026	2" INDL	COPPER	230V	9.0KW
13	1379	2" INDL	COPPER	230V	12.0KW

copper tube brazed to brass flange and are duly nickel plated. Each element is provided with a brass check nut, two fiber washers and a painted metallic cap with a grommet for cable end.

Industrial Water Immersion

Heaters are made out of

## **LPG Units**



Elements are made out of Copper tube duly Nickel plated and supplied with 2 ¼" Flange, Washer and Check Nut.

Available in 6 KW, 12 KW, 15 KW and 18 KW. Suitable for **Gas Vaporisers** 

Elements can also be designed as per customer specifications Elements are available in various wattages and tubes of various grades and diameters



Caution: All Water heating elements are meant for heating water only and these must be fully immersed in water before putting them in operation



# Industrial Chemical Heating Elements



#### **Over-the-side Immersion Heaters**

Over-the-side Immersion Heaters are used in solution where it is necessary to remove the heater for periodic inspection and cleaning as these heaters can be easily removed without emptying the tank. These are also specially suitable for use in tanks of wood and concrete etc. where screwed immersion heaters cannot be used.

S. No.	Product Code	Product Description	Material	Voltage	Wattage
1	2015	TITANIUM TUBE	TITANIUM	230V	3.0KW
2	2012	ALKALINE	STAINLESS STEEL	230V	3.0KW
3	2014	LEAD COVERED	MILD STEEL	230V	3.0KW



#### **Alkaline Immersion Heaters**

Manufactured out of Stainless steel tubing, Alkaline Immersion Heaters are used for alkaline cleaning solutions, citrus juices and very mild acid baths not corrosive to stainless steel sheath.

#### **Lead Covered Immersion Heaters**

Lead Covered Immersion Heaters are recommended for nickel and copper plating baths, or chrome plating baths and sulphuric acid solution having not more than 10% concentration. Not recommended for any other acid.

#### Titanium Sheath **Immersion Heaters**

Titanium sheath immersion heaters are generally used for plating baths such as nickel, chrome, gold and silver plating. These can also be used for ferric and iron chloride solutions, bright dips and pickles containing nitric, phosphoric and chromic acids, nitrates, nitrites permanganates persulphates and dichromates.

# Industrial oil heating elements

#### Oil Immersion Heaters

Oil Immersion Heaters are manufactured out of special steel tube brazed to 2.1/2" B.S.P.P. Cast Iron Flange. Each element is provided with a Thermostat Pocket and a painted metallic cap with a grommet for cable end.



S. No.	Product Code	Product Description	Material	Voltage	Wattage
1	2016	OIL HEATER	MILD STEEL	230V	2.0KW
2	2017	OIL HEATER	MILD STEEL	230V	3.0KW
3	2018	OIL HEATER	MILD STEEL	230V	4.0KW
4	2019	OIL HEATER	MILD STEEL	230V	6.0KW

Elements can also be designed as per customer specifications Elements are available in various wattages and tubes of various grades and diameters

# Commercial Air Heating Elements

The elements are manufactured out of Stainless Steel / Incoloy Tube. Supplied with all necessary fittings like ferrules, flanges etc.

Available in various wattages. Applications include Pop corn machines, Kitchen & Catering Equipment, Pizza Ovens.





# Commercial Water Heating Elements

The elements are manufactured out of Copper tube duly Nickel plated. Supplied with all necessary fittings like ferrules, flanges etc.

Available in various wattages. Applications include Solar Water Heaters, Washing Machines, Sterlizers, Kitchen Equipment, Kettles etc.









S. No.	Product Code	Product Description	Material	Voltage	Wattage
1	2641	SOLAR	COPPER	230V	2.0KW
2	5339	SOLAR	COPPER	230V	3.0KW
3	2637	W/M	COPPER	230V	2.0KW
4	2584	W/M	COPPER	230V	1.5KW
5	2570	1" F	COPPER	230V	1.5KW
6	2593	1" F	COPPER	230V	2.0KW
7	2600	1.1/4" F	COPPER	230V	2.0KW
8	7632	1.1/4" BAINMARIE	COPPER	230V	2.0KW
9	4109	1.1/4" CMO	COPPER	230V	2.0KW
10	2606	FIXED TYPE 1.1/4"	COPPER	230V	2.0KW
11	2649	FIXED TYPE 1.1/4"	COPPER	230V	3.0KW
12	2580	STERLIZER	COPPER	230V	1.5KW
13	2619	STERLIZER	COPPER	230V	2.0KW
14	2576	KETTLE	COPPER	230V	1.5KW
15	2538	KETTLE	COPPER	230V	2.0KW









Elements can also be designed as per customer specifications
Elements are available in various wattages and tubes of various grades and diameters

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#### **Laundry Machines**

Manufactured out of Stainless Steel / Incoloy / Copper Tubing. Round/ Square Flanged elements available from 2KW- 9KW. Finned elements available in 2KW, 3KW & 4KW.

1", 1  $\frac{1}{4}$ " , 1  $\frac{1}{4}$ " & 2" Threaded Flanged elements available in 2KW, 4KW, 6KW and 9 KW.

Suitable for all commercial laundry machines.





**International** 

Range

#### **Vending Machines**



Elements manufactured out of Copper tube duly Nickel Plated/ SS tube and supplied with necessary fittings like flanges, ferrules etc.

Available in wattages from 250W-2KW . Suitable for all vending machines.







# 44

Manufactured out of Titanium / Stainless Steel Tube / Incoloy tube and available in various wattages

Suitable for Jacuzzis, Spas, Pools etc.

#### **Garment Steam Machines**



Manufactured out of Copper tube duly Nickel plated and available with necessary fittings. Suitable for Garment Steam Machines.

# Commercial Oil Heating Elements Deep Fryers



Manufactured out of Stainless Steel Tube and supplied with necessary fittings

Available in wattages from 1000W- 2000W. Suitable for Commercial deep Fryers.

Elements can also be designed as per customer specifications
Elements are available in various wattages and tubes of various grades and diameters

# Heating Systems and Units

Having vast experience and qualified engineering staff, Theeta has a dedicated team and area for designing and manufacturing various heating systems and units.

Latest 3D software are used for designing the product and further simulating the heating systems hence avoiding fitment issues. We can design systems upto 1 MW for a wide range of heating mediums, tube or tank sizes, and temperatures. Some of our in house capabilities include Sand blasting, Buffing, Brazing, Tig welding, Pressure testing etc. IP ratings can be provided from third parties. Control panels are supplied along with if required.

#### Certifications

All certifications, testing and approvals required are amply provided.

#### **Packing**

Units and systems can be packed on skids on pallets as well as wooden boxes

#### **Industries Catered**

Petrochemical, Chemical, Marine, HVAC, Oil and Gas, Power, Plastic, Shipping, Glass etc.

#### **Immersion Heaters**



Tubing Stainless Steel/ Copper/ Incoloy/ Inconel /Titanium

Immersion Heaters are designed for direct contact heating of water, Oils, Viscous materials, Solvents & other Fluids. They are installed in a Tank/ Boiler/Pressure vessels to heat fluids and gases such as water, oil, chemical, air etc.

Screw Plug Immersion Heaters Flanged Immersion Heaters Over The Side Heaters

#### **Circulation Heaters**



Single or Double Circulation Heaters also known as Inline Heaters are used where transitional heating is required while maintaining the flow rate. Circulation heaters are better than using external source such as heat exchangers as the losses are minimal because of direct heating.

The units are assembled in a Screwplug / Square flange / Round flange.

Tubing

Stainless Steel / Incoloy / Titanium.

#### **Air Duct Heaters**



Duct Heaters are used for heating forced air in many industrial processes. Heater wattage is dependent on air outlet temperature and air velocity. The flanges are customised to ensure easy installation and Maintenance.

The heaters can be customised for any duct size and required temperature. They can be supplied with/without fins. The plate or cover can be of Stainless Steel or Mild Steel.

Tubin

Stainless Steel/ Incolog

For more information and case studies, visit our website www.theeta.com

#### Thermostats and Controls

Theeta manufactures Rod Thermostats at its plant in India located at Manesar, Haryana.

#### The thermostats are available in two Models

- Single Pole Thermostat WT SERIES
- Combistat with Resettable function WC SERIES (Under Development)

Both are available in immersion lengths of 7", 11" & 18". Clip can be made available on request.

Applications: Domestic Storage Water Heaters, Immersion Heaters, Domestic and Chemical systems



Theeta is an exclusive agent for Inter Control, Germany, a leading manufacturer of controls for household appliances industry like Energy Controls, Thermal cut outs, Capillary Thermostats, bi metal thermostats etc.

Applications: Applications include Oil Heaters, Gas boilers, Dishwashers, Dryers, Irons, Ovens, Rice Cookers, Coffee Makers, Storage Water Heaters, Immersion Heaters, Domestic and Chemical systems and many more. For more information, please visit www.intercontrol.de

# Global Presence and Marketing



One of the major reasons to expand and increase capacity for us has been to increase our share of exports.

We keep sufficient stocks to reduce the cycle time and our new 80,000 sq ft plant is capable of handing large volume export orders.

We also offer palletization and specific packing according to customer requirements for our export customers

Theeta currently exports to United Kingdom, Australia, Singapore, Vietnam etc.





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