

Thick Film Heater(TFH)

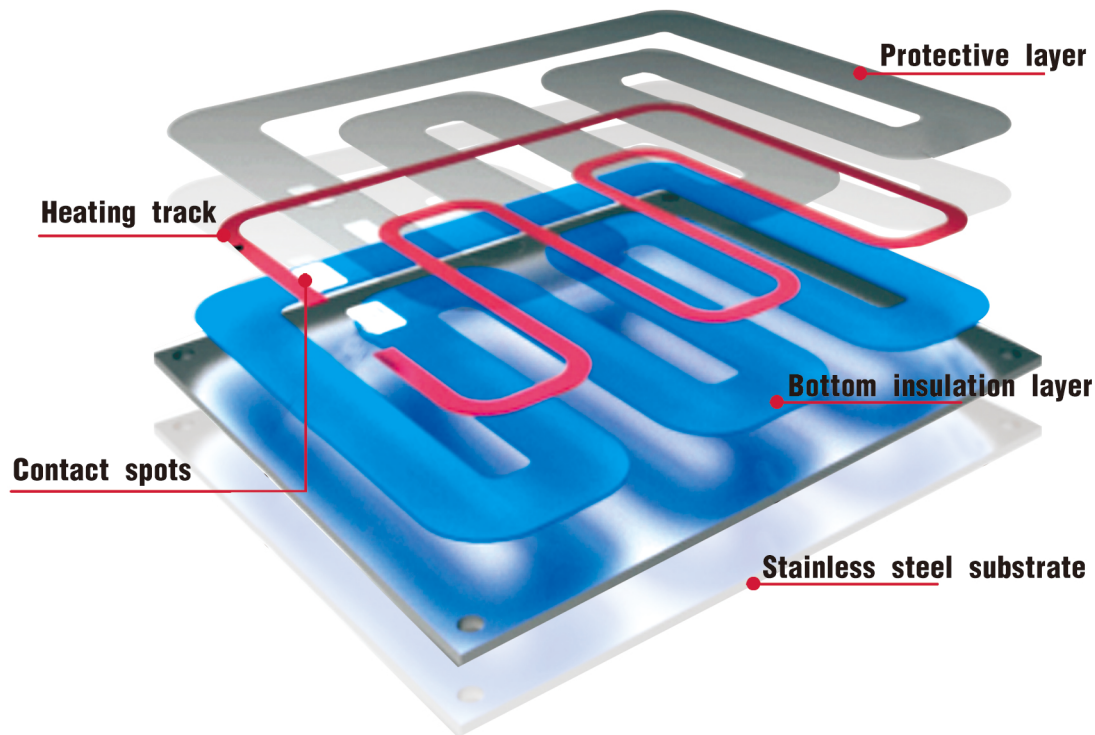
Thick-film electric heater on stainless steel is a new type of heating device that is printed on stainless steel substrate by using a thick-film screen printing process to print insulating materials, heating resistors, conductors, glass protective glazes, etc., and is applied to home appliances, instruments, etc.

Product Features

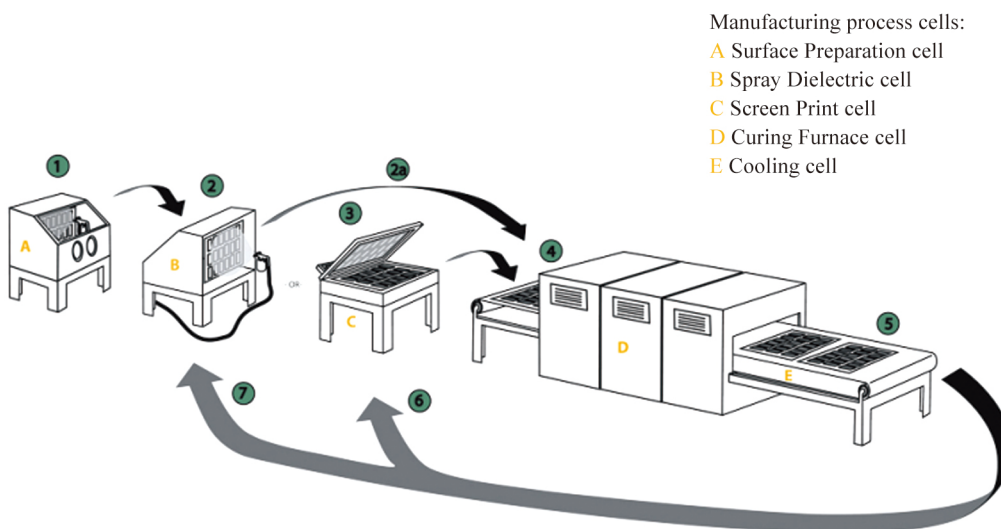
- The element is on a flat sheet thus ensure significantly better heat transfer to flat wall as compared to tubular element
- Quick temperature rise time - energy savings
- Inner surface of heated vessel remain smooth and easily washable
- Very suitable for heating of aggressive liquids
- No need to discharge the vessel content during maintenance
- Heating through sufficiently large area may effectively prevent burning of content to the vessel surface



Product Structure



Production Process

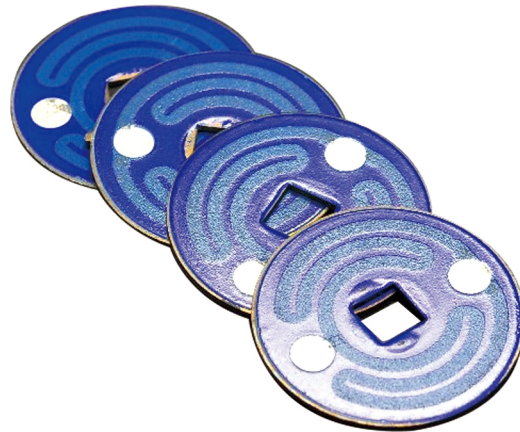
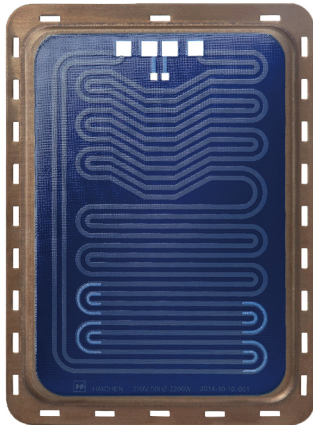


Manufacturing process steps:

- ① Surface Preparation-sandblast
- ② Spray Dielectric layer
- ②a Dielectric layer Curing step through furnace
- ③ Screen Print conductive layer
- ④ Screen Print Curing step through furnace
- ⑤ Cooling heated sub-assembly
- ⑥ Screen Print next resistive layer step&through furnace/cool
- ⑦ Spray Dielectric Top layer
- ⑧ Continue on to Screen Print conductive or resistive layer if desiring more than one resistance

Product Type

- Thick Film Flat Plate Heater



- Thick Film Tubular Heater





Product Application

- Home appliances, such as washing machines/dishwashers/electric kettles/electric water heaters,/coffee machines/water dispensers.
- Industrial equipment & industrial equipment/medical equipment/high temperature sterilization equipment.



Coffee machine



Steam Cleaner



Milk Frother

Technical Data

Substrate material	SUS 430 /440;DIN 1.4016 ;EN 1.4301	Pastes	US ESL& Du Pont
Voltage	0-400v	Maximum Watt Density	60 watts/cm ²
Input power tolerance	-50	Maximum Temperature	400°C
Insulation Resistance	≥200MΩ	Leakage Current	≤0.25mA
Electric Intensity	1,750V/5mA/60s	Max life test	> 10,000 hours
Environmental Certification	ROSH	Type	Plate & Tube
Diameter	customization	Test Standard	CQC,UL ,SEMKO ,CE,CSA/ EN 60335-1/QB-T4702
Remark	If it is special dimensions or specifications we offer customization		