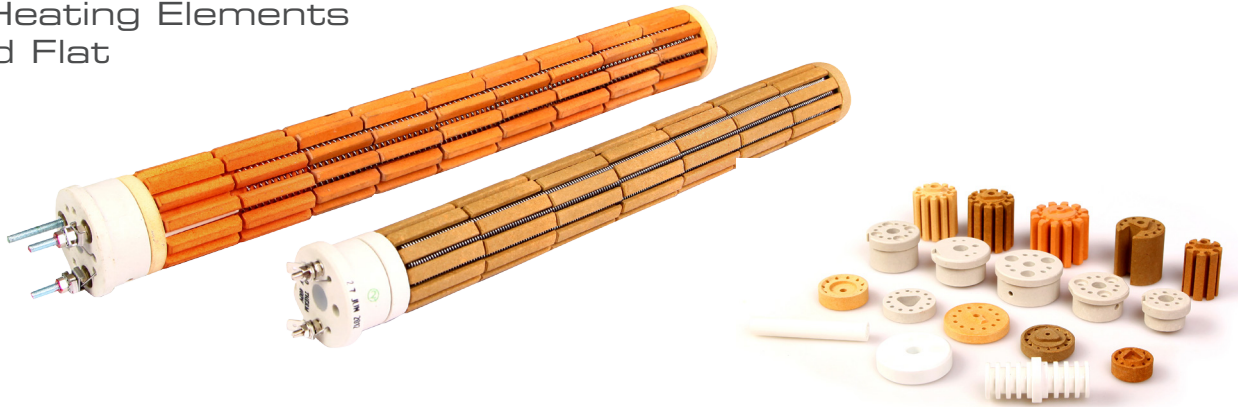


## Electro Heat

### Ceramic Heating Elements Round and Flat



SAN ceramic replacable elements are manufactured according to customer's specification and are used for heating of gas and liquid or for melting of solids such as wax and lead.

The ceramic element is inserted into the pipe mounted into a container that should be heated. The advantage of this heating method is that elements can be removed from the pipe without draining the container. This especially important when substances are frozen in unheated state (e.g. wax).

Pipe material and thickness has been specially selected to obtain a very durable heating system.

The SAN round ceramic heating elements are available in various diametres and lengths and are mounted mostly in tube wells in the plants, which are to be heated.

The SAN flat ceramic heating elements are also available in various widths and lengths and are most often used for surface heating in order to obtain an even heat distribution.

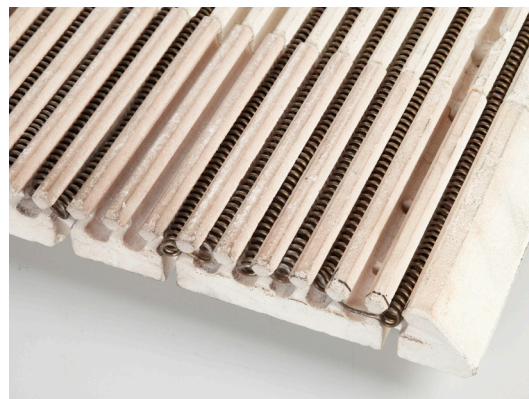
Apart from that the SAN ceramic heating elements are also advantagegely used in many constructions, e.g. furnaces in which a high operating temperature up to 900°C is required. (Only for open oven space)

The following table can be used for most heating tasks.

To allow for easy removal, the dimensions of the pipe must be so that there is a 1-2mm tolerance between pipe inner diameter and the ceramic element outer diameter. A bigger tolerance will hinder heat transfer. The pipe material is preferably a heat resistant stainless steel.

Elements are usually mounted horizontally. For vertical mounting, elements must be specially constructed to prevent sagging of the heating spiral inside the element grooves.

It is recommended that you allow access to the pipe from both ends, facilitating removal of debris when elements are replaced.



## LOAD TABLE

Diametre mm	AIR (stationary)	OIL (stationary)	WATER and circulating OIL
	1.5W/cm <sup>2</sup>	2W/cm <sup>2</sup>	3W/cm <sup>2</sup>
	W per m	W per m	W per m
10	475	650	950
15	700	950	1400
17	800	1100	1600
22	1050	1400	2100
26	1250	1650	2450
29	1400	1800	2700
32	1500	2000	3000
36	1700	2250	3400
40	1900	2500	3800
45	2150	2850	4250
58	2750	3650	5500
Width mm	Flat ceramic heating elements		
48	725	950	140
54	800	1100	1625
58	875	1175	1750

Specify when ordering:

- Diameter (D)
- Total length (L)
- Length of cold end (CE)
- Power (W)
- Supply voltage (V)
- Single or three phase
- Horizontal or vertical mounting

