



# Square Cartridge Heaters

## for Heating Plates & Hot Surfaces

**For high power density at low mass.**

Square Cartridge Heaters are perfectly suited for **very thin plates**. With a soft, malleable condition in stainless steel or nickel sheath they can be pressed **into common milled grooves**. In standard construction the max. temperature capability is 750°C. All sizes also available with integrated **thermocouple** and **power distribution**.

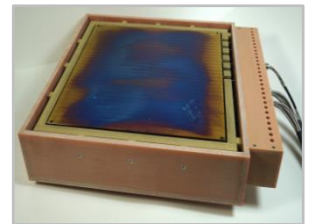
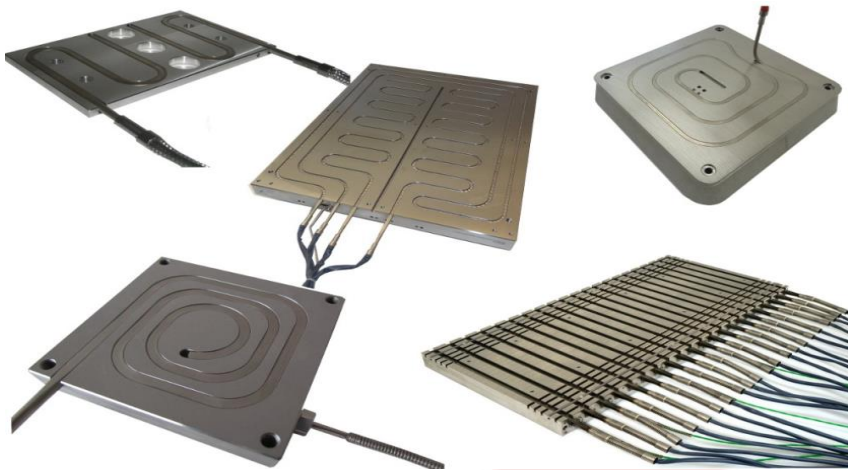


	<b>With terminal head</b> 4,5 x 4,5 mm → Ø 6,5 x 30 mm 6,0 x 6,0 mm → Ø 8,0 x 30 mm 8,0 x 8,0 mm → Ø 9,2 x 30 mm 10 x 10 / 6 x 12 mm → on request				
	□	4,5 x 4,5 <sup>±0,1</sup>	6 x 6 <sup>±0,1</sup>	8 x 8 <sup>±0,1</sup>	10 x 10 <sup>±0,15</sup>
∅	4,5 <sup>±0,1</sup>	6 <sup>±0,1</sup>	8 <sup>±0,1</sup>	10 <sup>±0,15</sup>	10 <sup>±0,15</sup>
L <sub>max</sub>	bis 3 m				
P <sub>max</sub>	limited by max. surface load of 16 W/cm <sup>2</sup> and max. current of 16 A				
R <sub>min</sub>	12 mm	15 mm	20 mm	25 mm	30 mm

# Heating Plates & Hot Surfaces with Square Cartridge Heaters



**Example "Stamp":** D=100 mm out of tempered tool steel up to max. 700°C continuous temperature. Fitted with 2 Square Cartridge Heaters 1500 W/ 230 V, 4,5 x 4,5 mm x 600 mm, with 50 mm unheated at the termination end. Annealed and formable with a nickel sheath, resistant up to 850°C surface temperature. Connection by fibreglass insulated pure nickel high-temperature leads (max. 500°C) with ground conductor and stainless steel braided metal sleeve.



## Advantages of Heating Plates with Square Cartridge Heaters

- + Simple plate manufacture due to rectangular groove geometry, no deep-hole boring
- + Simple heater installation by bending and pressing along the plate surface
- + Complex plate geometries with bores and openings
- + Optimal heat transfer due to 75% surface contact
- + No casting with heat conductive compound
- + Uniform temperature profiles due to thermally optimized groove layouts/power distribution and utilization of insulation plates
- + high process temperatures  
(up to 450°C in aluminium, up to 700°C in stainless steel)

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