

Pilot Induction Heated Hotplate



- **Hot plate operating temperatures up to 340 °C**
- Suitable for all cooking requirements
- **Rapid heating**
- **Much improved thermal efficiency**
- 84 % efficient in recent US Dept of Energy research
(compare to ~ 40 % for gas cookers)
- **Operator friendly**
- **Safe and hygienic**

Petrie's Pilot induction heated hotplate is ideal for the development of products that are traditionally cooked using gas based systems.

The principle of induction heating is that an alternating electrical current is passed through a metal coil thereby generating a changing magnetic field. The magnetic field then passes through the metal object to be heated and produces an electric current in the body. Since the metal body has little resistance it heats up due to resistance heating. Efficient and uniform heating is the result of the design of the metal coils and consistent power supply.

When coupled with a microwave / steam process, the process can form part of a continuous stir-frying process. Delivering accurate and precise amounts of heat to food ingredients at very rapid rates. The process can be described as a series of 'WOK' zones arranged sequentially on a continuous flat bed, each of which is heated appropriately to the required end product. The combined effect can overcome problems such as irregular heating that is encountered with gas based methods.



Pilot Induction Heated Hotplate Spec.

Hotplate Size (Working Area)	0.85 m x 0.5 m (0.425 m ²)
Approximate Weight	300 kg
Installed Power	24 kW - 60 kVA
Nominal Maximum Mains Current	35 amps
Electrical Connections	415 V, 3 phase via 5 pin 63 amp plug (supplied with 7 m of cable) 240 V, single phase (3 amp) for control unit
Cooling Water Requirements	Minimum 5 litres / min of clean water in the range of 20 to 40 °C
Operating Frequency	20 kHz
Maximum Operating Temperature	350 °C (dependent upon the flashpoint of oil)

