



induction cooking

the latest in kitchen appliances

According to some experts, induction cooking has become the most innovative change in the

modern kitchen since the microwave oven – yet it is actually based on basic, well-known technology. As a result of modern materials and efficiencies, many professional chefs and high-end designers believe induction cooking is the next “big thing” in residential kitchens.

How It Works

Induction cooking utilizes electromagnetism on cooktops to create a unique form of range cooking. This system offers some clear advantages relative to gas ranges, electric coil ring ranges, solid flat burners and even smooth ceramic/glass cooktops. The secret lies below the smooth cooking surface, in the form of an “incomplete” electromagnetic field. The electromagnetic field is only completed when compatible cookware is in position. As a result, instead of an element transferring heat to the bottom of the cookware and then to its contents, the main body of the pot or pan actually becomes the source of heat, cooking its contents much more evenly and efficiently.

Options

Induction cooking units are available in countertop models and built-in units. The versatile countertop units plug-in to electric outlets and look like the base of a coffeemaker. Built-in ranges offer as many as six elements but are priced significantly higher. Built-in models can be installed into most countertops, and require only about four inches (approx. 10 cm) of clearance below the surface – making them ideal for wheelchair access.

Advantages

Because heat is “induced” within the cookware, it goes directly to the contents inside, without wasting peripheral heat. As a result, a large element holding a small pot would emit no heat beyond the contact area. For example, a glass of cold water on the unused portion of the element would experience no heat from the element. With this degree of control, heat adjustment is instant and precise, even at low temperatures. These are significant advantages over conventional cooking methods, as they use less energy and save money. Furthermore, since the cooking surface doesn’t get hot, induction cooking is much safer than standard gas burners and electric elements, and clean-up is minimized, since spills don’t burn on the surface.

Disadvantages

Aside from the current purchase price and cost of installation, there is one additional drawback that may inhibit this trend from catching on overnight: induction cooking requires flat-bottomed cookware made of ferrous metal to complete the magnetic cooking field. This means you need to cook with cast iron or stainless steel pots and skillets – not copper, aluminum, glass or ceramic. However, experienced chefs do not see this as a barrier, because they tend to prefer these high-quality, long lasting cooking vessels.

The Next Generation

In the future, induction cooking units may evolve to accept a broader range of cookware. In fact, some induction cooktops currently have a bowl-shaped element to accommodate a round-bottomed wok pan with full element contact. With more innovations just around the corner, and prices eventually coming down, induction cooking is sure to generate serious consideration for future kitchens.