Reintroducing Induction – The Waves of the Future…

By Aron Tomassi • *Showroom Representative*

Originally introduced in the early 1970's, induction cooktops never really took off. They were rather large, difficult to install properly, and just a little too ahead of their time. The recent re-introduction of this technology has heads turning because the latest generation of induction cooktops are more efficient, more compact, and, at the same time, more robust.

Induction cooktops are smooth, glass-topped electric units which closely resemble regular radiant electric units. They are currently being produced in the most popular drop-in cooktop dimensions, so they can be difficult to distinguish from their radiant counterparts. Instead of using radiant heat, as in a standard electric cooktop, induction tops generate fields of magnetic energy, immediately in the vicinity of their cooking areas. The field reverses polarity many times per second resulting in waves which cause friction between the molecules of magnetic cookware. Since no heat is generated by the cooktop "elements", they are inherently safer than those that get hot. This also translates into better longevity of the unit because heated and cooled cooktop components, over time, can suffer from metal fatigue. Induction tops only experience heat conducted from the heated pans and their surface. When removed, the glass rapidly cools, since no infra-red energy is coming from below.

Perhaps more importantly, induction cooktops have greater efficiency than electric or gas cooking appliances because of the way they transmit energy. A gas burner delivers anywhere from 55 to 70% of its potential energy, and electric delivers around 70 to 80% of its energy. The "burners" in induction tops are aimed at one thing—the pan. The magnetic field around that cooking area is invisible not only to the naked eye, but to practically every other thing in its path. A magnetic pan acts as a sort of a barrier to the field's flow, and the magnetic field forces those little iron molecules to butt heads; which cause heat. The obvious benefit is that the energy, since not absorbed by other factors, is entirely focussed on the pan. The entire piece of cookware near the cooking surface heats quickly and uniformly, receiving in most cases well over 90% of the initial energy—an enormouse efficiency when compared to gas or electric. In recent testing of the induction cooktop against its rivals gas & electric, the induction cooktop boils water in one minute and twenty second, as opposed to its competition, which took between three and four minutes. Control is one area in which gas has maintained its supremacy, but that crown may have to be relinquished! Change in temperature with the induction top is nearly instantaneous. Anything from a violent boil or sear to the most gentle melt was achievable with induction cooking.

It is simply a matter of time before all the manufacturers introduce induction tops. They are rather expensive but like most efficient, durable products, their value will make up for the initial cost. Pay attention to power levels and cooking areas when comparing units by price. Some less expensive units are hybrids (only one or two induction zones paired with conventional elements), and can be half the power (and much less flexible) than the more expensive models. Also keep in mind that the cookware necessary to use with this type of technology must be magnetic. Cast iron is a natural choice, and some types of stainless cookware will work. Copper, Aluminum or Pyrex pots will not work. The message here is to be sure to check your pans.

More information on induction cooking is available. Join a cooking class or ask an appliance expert. Let the latest entrant in cooktop innovation simplify, streamline, and stimulate your cooking experience. ■


VIKING


KUPPERSBUSCH


VIKING