

SELECTING KITCHEN APPLIANCES

By Carol Lamkins, CID, CMKBD



The world is being driven by technology focused on using less energy, less water and environmentally safe and/or recyclable materials. “Smart” technology using microprocessors and electronic sensors is designed to result in optimum control and performance. We have options that we never dreamed possible such as remotely controlling a home appliance from our place of work or car.

Some notable aesthetic trends in the major appliance industry are the use of commercially-styled or commercial-grade appliances in high-end kitchens and built-in appliances. These have quickly become the norm for the fashionable kitchen especially for gourmet cooks.

Appliance selection is basically driven by five key elements - quality, energy efficiency, functionality, flexibility and aesthetics. Price is usually not a key element as there are many choices in each price category.

- **Quality** is not guaranteed by the price. Comparisons are easy to research on the Internet and in consumer magazines. Family and friends also can give input on how their appliances have held up over the years.
- **Energy efficiency** is the easy one. Look for the Energy Star logo. In 1992, the Environmental Protection Agency introduced the Energy Star program as a voluntary and objective labeling program designed to identify and promote energy-efficient products. Environmentally sound products may be more expensive, but they pay for themselves over time.
- **Functionality** is the ease of use as well as the performance of the appliance. Consider the ease of using knobs, dials, handles, levers and switches. Do they have redundant cueing with shape, sound, color-contrast and/or light? Are they intuitive or do you need the manual to determine their use.
- **Flexibility** is adapting to changes. Appliances often come with changeable panels that allow updating the look or color when changing the kitchen. Many times there is a series of color panels behind the selected color so a white dishwasher can be changed to black. Brushed stainless steel offers a beautiful contemporary look, but harder to maintain. Matching cabinet panels and doors can cover the front and sides of the appliance to integrate them into the look of the kitchen.

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- **Aesthetics** range from the color to the style to the details. The kitchen must function but it must also have the “WOW” factor. The kitchen is a reflection of self that includes discriminating appearance and comfortable status.

So where does the consumer begin and what are the choices? Following is a comprehensive list of styles and features that are available on the market for each type of kitchen appliance. The list allows the consumer to see the scope of choices at a glance and educate themselves before beginning the shopping process.

Refrigeration

Freestanding Refrigeration

- Typically has a deeper than 25 inch box
- Compare energy guide labels
- Warning - watch for door swing clearances
- Side by side - freezer on the left and refrigeration on the right
- Top and bottom mount - freezer on the top and refrigeration on the bottom
- Refrigerator single door
- Double “French Doors” on top and freezer on the bottom
- Single door - all refrigerator (upright)
- Single door - all freezer (upright)
- Cubic foot rating indicates size
- Typical upright refrigerator height varies from 60“ to 78” adjustable x width varies from 24” to 36” x depth 24” to 36”
- Options
 - Ice makers / Water dispensers / special storage drawers
 - Water filtration on board / television in door / holds cabinet panels
- Chest type freezer
 - Easy drain plug

Built-in Refrigeration

- Typically has a 24 inch deep box
- Compare energy guide labels
- Check for door hinge option on upright models
- Check for door swing clearance into room
- Side by side - left side freezer and on the right refrigeration
- Top and bottom mount - freezer on the top and refrigeration on the bottom
- Refrigerator single door – refrigerator on the top and freezer on the bottom
- Refrigerator split “French Doors” on top and freezer on the bottom
- Single door - all refrigerator
- Single door - all freezer
- Single door - refrigeration and freezer
- Single door - wine storage
- Cubic foot rating indicates size

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- Typical height varies from 60" to 84" x width varies from 24" to 60" x depth 24"
- Options
 - Ice makers / Water dispensers / special storage drawers
 - Water filtration on board / hold cabinet panels

Undercounter Refrigeration - Built-in or Freestanding

- Single door all refrigerator (indoor and outdoor models)
- Single door all freezer (indoor and outdoor models)
- Single door refrigeration and freezer (indoor and outdoor models)
- Single door wine storage (indoor and outdoor models)
- Single door ice maker (in door and OUT DOOR models)
- Typical height adjustable 32" to 34" x width 24" x depth 24"
- Check for door swing clearance
- Compare energy guide labels

Drawer Refrigeration

- Special size refrigeration drawer
- Typical height varies x width 24" x depth 24"

Ice Makers

- Freestanding and built - in models
- All Electric - 120 volt - water supply required - some require a floor drain
- Options
 - Custom front panel / internal water filtration system
 - Typical height adjustable 32" to 34" x width 15" to 18" x depth 24"

Cooking

Freestanding Ranges

- Stand on the floor and do NOT RIM on the counter
- Multiple burners above the oven and broiler
- All Electric 220 volt operation
- All Gas - 120 volt operation and Natural or LP gas
- Dual Fuel - Gas Burners (Natural or LP)
- Positioned over electric oven and broiler 220 volt
- Self cleaning / standard cleaning (oven cleaners)
- Optional downdraft ventilation system / griddles / grills / programming
- Warning - back guards may or MAY NOT be removable
- Typical height varies is usually 36" with adjustable legs x width from 24" to 60" x depth varies from 24" to 36"

Built-in Ranges

- Stand on the floor and RIM on the counter
- Multiple burners above the oven and broiler

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- All electric 220 volt operation
- All gas - 120 volt operation and Natural or LP gas
- Dual fuel - gas burners (Natural or LP)
- Positioned over electric oven and broiler 220 volt
- Self cleaning / Stand Cleaning (oven cleaners)
- Optional downdraft ventilation system / griddles, grills, programming
- Warning - back guards may or MAY NOT be removable
- Typical height varies / adjustable x width 24" to 30" x depth varies from 24" to 32"

Cooktops

- Burners or elements only and drop into or set into countertop
- Multiple burners (in door and outdoor "BBQ / Grill" models)
- All electric - 220 volt operation
- All gas - 120 volt operation and Natural or LP gas
- Optional downdraft ventilation system (indoor models only)
- Set on accessories or built in
 - Grill / griddle / wok / simmer plate / chopping block
- Typical height varies x width 12" to 48" x depth varies from 24" to 32"

Wall Ovens

- Built into a tall cabinet or undercounter
 - Single cell
 - All electric - 220 volt operation
 - All gas - 120 volt operation and Natural or LP gas
- Optional downdraft ventilation system with cooktop when wall oven is mounted under the cook top
- Microwave combination
 - All electric - 220 volt single oven and factory mounted microwave and trim kit
 - "Stackable Units" - Single Electric (220 volt) or Gas oven under a separate microwave oven (120 volt) and special built-in trim kit
- Double cell
 - All electric - 220 volt operation
 - All gas - 120 volt operation and Natural or LP gas
- Optional program cooking / timers / rotisseries / meat probe / convection cooking / self cleaning or stand cleaning
- Typical height varies x width 24" to 36" x depth varies from 24"

Microwave Ovens

- Countertop / built-in / attached to ovens / hanging
- All electric - 120 volt – 220 volt operation
- Countertop models usually position on countertop
- Optional built-in application with approved trim kits
- Install above other appliances with approved trim kits
- Special models include updraft ventilation system
- Optional - convection / programmable cooking / meat probe

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- Typical height varies x width varies up to 30" x depth varies from 12" to 24"

Warming Ovens

- Built-in below counter / combined with other ovens
- All electric - 120 volt (note this item keeps food warm and does NOT cook)
- Typical maximum temperatures reach only 200 degrees F.
- Optional decorative fronts / special controls / racks
- Typical height varies x width varies from 24" to 36" x depth 24"

Woks

- Built-in residential versions are designed like a cooktop burner
- All electric – 220 volt (indoor and OUT DOOR models)
- All gas – 120 volt with natural or LP gas

Grills and Griddles

- Built-in residential versions are drop in cooktop burners
- All electric – 220 volt (in door and OUT DOOR models)
- All gas – 120 volt with natural or LP gas
- Optional accessory grill / griddle available to sit on burners

Deep Fryers

- Built-in residential versions are drop in cooktop burners
- All electric – 220 volt - may require a drain

Coffee systems

- Built-in residential version is installed like a wall oven
- All electric – 120 volt or 220 volt - may require a plumbing connection
- Options of plumbed or tank

Ventilation

Updraft

- Called “hoods” install over burners against the wall or island and exhausts out of the house or recycles
- All electric blowers - 120V (indoor and outdoor models)
- Optional remote or internal blowers / special lighting / filters / surfaces
- Power packs (controls, blower, filters but NO CANOPY) available for custom hood structures
- Typical height varies x width varies from 24" to 60" x depth varies from 24" to 36"

Downdraft

- System is installed behind burners against the wall in an island/exhausts out of the house with internal or remote blower
- All electric blowers – 120 volt
- Range integrated downdrafts available (factory installed into range)

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- Optional downdrafts sold separate from ranges and cooktops
- Optional blowers with different “CFM” outputs are sold separately
- Typical heights and depth varies with widths from 30” to 60”

Clean Up

Dishwashers

- **Freestanding**
 - Typically on rollers for portability / has finished sides and top/hooks up to sink faucet temporarily
 - All electric – 120 volt
 - Water source required / drain required
 - Typical height varies x width 24” x depth varies
 - Optional countertop models sold as small appliances
- **Built-in**
 - Typically built-in next to plumbing connections)
 - All electric – 120 volt - water source required / drain required
 - Plumb to hot water supply under the primary sink and sink waste for drainage
 - Optional custom fronts / programmability / rack configurations
 - Energy guide for water and power
 - Typical height is adjustable 32” to 34” x width 18” to 30” x depth 24”

Sinks

- Multiple applications for primary sink / prep sink / clean up sink
- Sink bowl shape and configuration drives cabinet design
- Point of first use varies sink bowl sizes and shape configurations
- Installation techniques vary - drop in (“self rimming”) / under mounted / slide in / top mounted and so on
- Material types vary - cast iron with porcelain coating/ steel painted / Stainless steel / composite / concrete / etc.
- Faucet hole considerations - Number of holes in sink - none / one to five / or field drill in sink or countertop adjacent to sink location
- Colors - color pallets for sink are driven by trends and will generally match other appliance colors and counter top material colors
- Typical height x width x depth varies (common double bowl is 21”x 33”x 6”to 9”)
- Bowl location
 - Food preparation techniques
- Bowl depth
 - Installation of correct disposal and plumbing roughs

Faucets

- Multiple applications for primary sink / prep sink / clean up sink will drive shape and size
- Faucet shape should accommodate reach across the sink dimension

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- Faucet location should accommodate client reach
- Bowl size / shape / installation
 - Address cleaning needs for large items such as cookie sheets or pots
 - Hand rinse and countertop drying of dishes and glasses
- On-off handle design
 - Single lever / single hole
 - Dual levers / multiple holes
- Water spray system
 - Pull out spray head
 - Separate mount spray
- Typical height x width x depth varies

Soap Dispensers

- Point of first use located next to clean up area
- Soap / Lotion dispensers
 - Installed built into the counter top or sink
 - Below counter canister holds soap and is hand pumped
- Colors and sizes vary
- Typical height x width x depth varies - be aware of potential installation issues with tank clearance below the counter

Instant hot and cold dispensers on sinks

- Locate at point of first use
- **Instant hot dispensers**
 - All electric - 120 volt with water supply required
 - Instant hot tank - under the counter (special faucet requires separate from the primary faucet)
 - Recommend installation with “point of first use water filtration system”
 - Optional - special faucets to supply hot and cold water from one faucet
 - Color and sizes vary.
 - Typical height x width x depth varies - be aware of potential installation issues with tank clearance below the counter
- **Instant hot / cold “ Chilled water” dispensers**
 - All electric - 120 volt with water supply connected.
 - Instant hot/chiller tank - under the counter (special faucet requires separate from the primary faucet)
 - Recommend installation with “point of first use water filtration system”
 - Optional - special faucets to supply hot and cold water from one faucet
 - Color and sizes vary.
 - Typical height x width x depth varies - be aware of potential installation issues with tank clearance below the counter

Waste Material Handling / Recycling

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Food waste disposals

- Typically on primary sink NOT recommended for septic tank applications
- Continuous feed models
 - requires a wall switch or deck mounted operating air switch
- Batch feed models
 - Utilize a disposal cap operating switch
 - Unit is installed for maximum safety
 - All electric - 120 volt
 - Horse Power (HP) rated typical 1/4, 1/2, or 3/4 HP for residential applications
 - Some models have special mounting to reduce sink vibration
 - Typical height x width x depth varies with “horsepower (HP) rating”

Trash compactors

- Freestanding
 - Typically on rollers for portability / has finished sides and top
 - All electric - 120 volt
 - Optional special bags / decorative fronts / wood block tops
 - Typical height varies x width 18” x depth 24”
- Built-in (typically built-in next to the food prep area or food clean up area)
 - All electric - 120 volt
 - Optional special bags / decorative fronts / wood block tops
 - Typical height varies 30” to 34” x width 18” x depth 24”

Water Filtration Systems

Whole House

- Typically a very large tank is required / garage installation common
- All electric - 120 volt
- Plumbing connection required
- Large amounts of salt may be required
- Optional service companies to supply needed frequent service
- Warning - not healthy water for drinking (if conditioned by salt) consequently the system is only connected to HOT WATER supply side of the house.
- Typical height x width x depth varies with output rating and salt tank size

Undercounter

- Typically mounted at a “point of first use” location near food preparation locations
- No power required
- These units are commonly installed to the cooled water line only.
- Used to supply drinking water only - NOT wash water
- Cleans water for ice in refrigeration freezers or ice making machines
- Water quality varies according to amount of particulates removed from the city or well water whole house supply system
- Optional homeowner friendly cartridge removal for annual replacement

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- Typical height x width x depth varies with “output rating and cartridge sizes”

Whether upgrading an appliances or outfitting a kitchen from scratch, the choices today are greater than ever. The five key elements of quality, energy efficiency, functionality, flexibility and aesthetics are the drivers for making difficult appliance decisions. The consumer must navigate through this decision-making process one step at a time. Their ultimate challenge is to become educated to find the right appliance to meet their specific needs and wants.