cabinets

Everything You Need to Know About Selecting Cabinets





INTRODUCTION

Cabinets set the tone for the look and feel of a kitchen. When it comes to cabinetry, there are countless options to help make your remodeling dreams a reality. While it's great to have choices, it can be overwhelming without a basic understanding of the types of cabinets, doors and drawers that are available.

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Types of Cabinets

There is almost an unlimited number of choices that can meet any style preference and budget need. Stock, custom and semi-custom refer to different production methods employed to manufacture cabinets.

Stock

Stock cabinets are ready-made, pre-manufactured and ship when ordered. They almost never can be altered or customized. What you see is what you get. There also is a broad range of quality differences among stock cabinets that may not be readily apparent.

Pros: Short to no lead times to have your cabinets delivered. Stock cabinets can be ideal solutions for homeowners who want to increase the value of a home that they plan to sell in the near future. They also are among the more budget friendly options.

Cons: Typically, you don't have a broad selection of styles, shapes, colors, wood type or finishes. Stock cabinets may be offered in only one style of wood species, one paint/stain color and one door style. Some manufacturers offer up to five to 10 different options for door styles, colors and wood types. Stock cabinets also have limited or a predetermined number of doors and drawers depending on the manufacturer. Some stock cabinets are made with lower quality materials, e.g., engineered wood versus natural wood, and lower quality finishes, hardware and construction techniques.

Common misconception: Large home centers typically sell stock cabinets. What is commonly misconceived about home center cabinetry is that it is less expensive than what is offered at a kitchen and bath showroom. Nothing could be further from the truth. In fact, showrooms are better positioned to offer more choices and a range of stock cabinet options that may better suit your needs because showrooms are not limited to one or two manufacturers whose cabinets that a home center stocks. Showrooms also are better equipped to explain quality differences and available options between different stock cabinet options.

Opposite: Stock Kitchen by Aristokraft

Custom

As the name suggest, custom cabinets provide a blank canvas to get whatever size, wood type, color and finish that you desire. Most custom cabinets are built to order on a project-by-project basis.

Pros: Have it your way. Obtain the details and features to make personal design statements in your home and outfit your new kitchen to exacting requirements. Many kitchen cabinet manufacturers have standard cabinets that are fully customizable or they will create something unique for a specific space or application. Think of cabinets that rise to the ceiling or make the best use of awkward corners.

Custom cabinets have almost unlimited style and finish options. You are not limited to oak or cherry. Instead you can opt for more alternative woods such as bamboo, zebra, mahogany or whatever else your heart may desire. Specialty finishes such as hand-brushed washes can be specified for custom cabinets. There is a blank canvas for door styles as well.

Cons: Custom cabinets are labor intensive, because they are built one at a time and can take a few weeks or even a couple of months to build. Because they are built to order, they also generally cost more than semi-custom and stock cabinets.

Semi-Custom

Semi-custom cabinets come in basic sizes similar to stock cabinets but give designers the flexibility to resize cabinet drawers and doors and modify the depth of the cabinets themselves within the manufacturer's specified restrictions.

Pros: A gentler price tag than custom cabinets accompanied by a limited ability to have your cabinets your way to meet space requirements and design preferences.

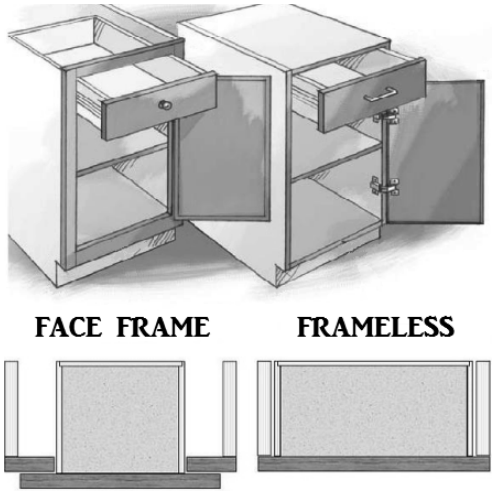
Cons: May not provide all of the flexibility you need to meet room requirements or aesthetic preferences.





Cabinet Construction

How a cabinet is built impacts how it looks, functions and costs.



Framed and Frameless Cabinet Construction

When choosing cabinets, there are two types of construction to consider: framed and frameless. Framed cabinets feature several pieces of wood that are fastened to the forward edge of the cabinet to literally create a frame. The horizontal pieces are referred to as rails and the vertical pieces are called stiles. The inside part of the frame extends slightly past the inside edges of the box. The frame provides structural support for the cabinet. The doors and hinges of a framed cabinet attach to the face frame, allowing more stability for the box. However, framed cabinets have a smaller opening because the frame reduces the amount of available storage space inside the cabinet box by 10 to 15 percent compared to a frameless cabinet.

Frameless cabinets (sometimes called European, or Full Access style cabinets) are built without a face frame. They will have minimal space between the doors and drawers which maximizes interior storage and drawer space, offering 10 to 15 percent more storage than framed cabinets. Frameless cabinets panels are put together using wooden dowels and glue. The back of the cabinet is attached to the top, bottom and sides of the box. Door hinges attach directly to the sides of the cabinet box and shelves are usually adjustable. Frameless styles offer greater access. Cabinet doors are typically full overlay which means they cover the entire perimeter of the cabinet box.

Style preference is the main factor that is used to select between framed and frameless cabinets. Framed is often selected for those who don't need to worry about storage and want the frame to show between the doors or those who want a more traditional style. Frameless cabinets are more commonly associated with contemporary and modern design motifs.

Materials

The materials used to manufacture kitchen cabinets influence performance and price. It's important to view kitchen cabinets and drawers as two distinct pieces. One piece is the case or box and the other piece is the front.

Cabinet Doors and Drawer Front Materials

Kitchen cabinet doors and drawer fronts typically are made from different materials than the box. Higher quality cabinet doors and drawers are made from solid wood.

Because wood remains active even after it is cut into boards to make cabinets, higher quality pieces tend to be manufactured with stable woods – maple, cherry, mahogany, walnut and oak. Woods that are highly figured like ash burl, walnut burl and crotch mahogany are not stable and generally sliced very thin (1/16 of an inch also known as face veneer). These types of woods are glued to a stable core wood to prevent cracking, splitting or moving.

Cabinet Box Materials

The material used to make boxes varies with different materials having unique pros and cons.

Plywood

Few manufacturers use solid wood for cabinet and drawer boxes because of its propensity to warp, splinter or crack, especially in moist environments or when exposed to chemicals in cleaning products commonly used in kitchens. Plywood is commonly used for the sides, bottom and back of cabinets and drawer boxes because of its stability and durability.

Higher-quality cabinets are made from 3/4-inch eight ply veneer panels while less expensive cabinets are made from 5/8-inch particleboard or an MDF core with a face and back veneer.

Medium Density Fiberboard (MDF)

MDF is an engineered wood product made from hard or soft wood fibers that are glued together to form a panel. It also is used to make kitchen cabinets and drawers, because of its stability and resistance to warping. MDF has the same density and hardness of alder wood and soft maple. One reason why MDF is used by manufacturers is that it is easily paintable.

Engineered Wood/Particleboard

Particleboard is another engineered manufactured wood product made from combining wood chips and resin. Particleboard made from recycled wood and environmentally safer resins can result in a greener finished product. Particleboard is less expensive than plywood or MDF. Because of its lower cost, particleboard is often used as a base material for kitchen cabinets when appearance and strength are less important than cost.

The strength of particleboard depends on the density of the material. Not all cabinets made from particleboard are equal. Have your showroom consultant explain the differences. Particleboard is often used for cabinet boxes and shelving and as a base material for laminated overlays to provide a finished look and protect cabinets from moisture damage.

A major disadvantage of particleboard is that it is very prone to expansion and discoloration due to moisture, particularly when it is not properly painted or sealed and is less likely to be a viable selection in high humidity climates.

When purchasing cabinets ask about the materials used to make the boxes and fronts and their performance records.

Edge Banding

Edge banding is used on the top and bottom of the cabinet to prevent moisture from infiltrating the wood. Edge banding is both a process and an associated narrow strip of wood used to create durable and aesthetically pleasing trim edges attached to cabinets.



Edge Banding



Cabinet Categories

As you explore cabinetry solutions, you'll select a variety of cabinets to meet your functional and aesthetic needs. The major cabinet categories are:

- Wall cabinets
- Base cabinets
- Pantry cabinets

The two main differences between a base cabinet and a wall cabinet are the dimensions of the boxes, and the inclusion of a toe kick on base cabinets where the cabinet meets the floor.

Standard base cabinets are 34 1/2 inches high and 24 inches deep. A stock wall cabinet is almost always 12 inches deep, but can come in a variety of heights – 30 inches being the most common height.

Wall cabinets as their name implies are affixed to the wall. Wall cabinets can extend to the ceiling, providing space to store infrequently used cookware and serving pieces. Wall cabinets can also be specified to stretch from floor to ceiling, creating a super functional accent wall that stores everything from pantry food and cookbooks to small appliances and cleaning supplies. Wall cabinets typically are mounted above countertops and appliances.

Base cabinets are mounted on the floor and usually support countertops. Islands are a type of base cabinet. Base cabinets are generally deeper than wall cabinets and are used for storing everything from plates and cutlery to cookware and small appliances.

Pantry cabinets are tall base cabinets that can be free standing, attached to the floor or attached to other wall and/or base cabinets.

Cabinet Doors

Cabinet doors make a big impression and provide a great opportunity for you to define your style.

Cabinet Door Types

The most common door types are:

- Overlay
- Inset

Overlay cabinet doors come in full or partial overlay versions. Full overlay doors and drawers completely cover the face frame. When two overlay cabinets are viewed side-by-side, only a very small portion of the frame is visible, creating a nearly seamless and streamlined look.

Partial overlay doors and drawers partially cover the face frame and are typically associated with more traditional decor.

Inset doors and drawers that fit inside the face frame. This type of cabinet construction gives a full view of the cabinet frame, with only minimal spacing or gaps between the cabinet components. Inset cabinetry offers clean lines, flush inset doors and features that can change the look of a standard cabinet with a full overlay door. With inset cabinets, you can personalize the design with either beaded or non-beaded inserts to create your own look and complement your home's décor.

Cabinet Door Styles

Cabinet doors are offered in many styles to suit any design. Popular styles include:

- Shaker design is characterized by clean lines that add depth and interest without being visually overpowering. The most basic shaker style is a five-piece door with a recessed center panel and no additional edge detailing.
- Slab doors do not have panels, molding or detailing to produce a clean minimalist look.
- Arched doors have a curve at the top that is either recessed or raised within the door panel. Cathedral arch doors have a medieval arch at the top. This style is almost always limited to wall hung cabinets.
- Beaded cabinets feature decorative wood paneling with vertical grooves on the interior panel.
- Glass inset cabinets feature a clear or frosted piece of glass that allows you to see the contents of the cabinet.
- Mission-style cabinets are usually made from oak and stained to highlight the grain of the wood. They employ a square frame molding to produce a simple elegant style.

Cabinet Door Construction

The most common types of cabinet door construction are:

- Five-piece doors
- Slab doors

Five-piece doors are made from two door stiles (one on each side), two door rails (top and bottom) and a center panel. Five-piece doors made from MDF, plywood or engineered wood are covered with a wood veneer, laminate or thermofoil.

Slab doors can be made from wood or MDF. As the name implies, the door is a single slab of material that is mounted on the cabinet frame by hinges. Slab doors that are made from MDF or plywood are covered in a veneer, laminate or thermofoil covering. The use of slab doors is a common feature of contemporary designs.



Full Overlay



Inset



Shaker doors



Slab doors



Cathedral doors



Beaded doors



Glass Insert



Mission- style

Cabinet Drawer Construction

Techniques and materials to manufacture cabinet drawers affect longevity and durability. Drawer boxes comprise two side panels, the bottom, back panel and front panel. Cabinet construction is accomplished by joining boards or panels together.

Joinery techniques affect quality, durability and price.

The most common methods of drawer construction are:

- Dovetail and glued
- Mortise and tenon
- Dado
- Rabbet
- Butt-joint glued and stapled

Dovetail is a joinery technique to connect the side of the drawer to the front. A series of pins cut to extend from the end of one board interlocks with a series of tails cut into the end of another board, and they are then glued together. The pins and tails have a trapezoidal shape. Once glued, the joint is permanent and requires no mechanical fasteners.

This technique is typically used with solid woods. Dovetail joints embody the best of form and function.

The mortise and tenon joint functions by inserting one end of a piece of wood into a hole in another piece of wood. The smaller end of the wood is the tenon and the wood with the hole in it is referred to as the mortise. Glue is used to secure the pieces together and variations on the joint also use pins and wedges to lock the joint in place. This type of joinery is often used to fasten the pieces of the cabinet's face frame together.

A dado joint is created by fitting the end of one piece of wood at a right angle into a groove cut across the width of another, to a depth of half its thickness. A common usage is to dado together the sides and back of a cabinet to accept the edges of the drawer bottom.

Rabbet joints feature a notch that is cut into the edge of a board to accept the edge of another board, forming a 90-degree angle.



Dovetail



Mortise and Tenon



Dado



Rabbet



Butt-joint glued and stapled

Butt-joints are formed by two pieces of wood united end to end without overlapping. They are typically glued or stapled together. The technique of assembling the drawer involves manufacturing a box where the sides overlap the front. Glue or stapling is used to hold the piece together. The drawer front is then glued to the drawer box.

Nails, screws, staples, glue are used in a lot of cabinet assemblies. They either reinforce the wood joinery techniques or they're used alone which makes for less-sturdy construction.

The bottom line on cabinet construction methods is that good joinery techniques where the parts 'lock' together or where one piece is captured in the other makes for the strongest joints and the longest life. Supplemental fastening methods on these joints (such as a mortise and tenon joint plus screws) makes an even stronger connection. Stronger joints equate to more durable cabinets.

Shelving Options

Cabinet shelves are made from one of the engineered wood products – either plywood, MDF or particle board. Regardless of which material is used, they're normally covered with another material such as a wood veneer or laminate ply.

Shelf thickness varies based on cabinet manufacturer and the particular product line (often equating to the level of quality). Shelf thickness ranges from 1/2" to 5/8" to 3/4" thick. Thicker is better when it comes to longer shelves on wide cabinets in order to avoid sag.

The reinforcing rail is an additional strip of wood that's attached to the front edge of a shelf. It provides added rigidity which is especially helpful in avoiding sag, particularly on long shelves. It's a worthwhile feature if you can find it but it's not a prevalent feature on many manufactured cabinets.









Finishes

Wood cabinet finishing involves preparing the wood, applying surface treatments and baking the finish. Finishes protect the underlying wood surface from the moisture and chemicals that are typical in a kitchen and also provide aesthetic appeal. Finishes can vary the look of the cabinet, making it appear smooth and sophisticated or rough or rustic.

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The most popular types of finishes used in kitchen cabinets are:

- Natural
- Stains
- Glazes
- Veneers
- Paints

Natural

A natural finish protects and seals without the use of stains or dyes. Natural finishes can be either clear or opaque.

Clear finishes include lacquer, shellac, varnish, oils and polyurethane. Clear finishes allow the markings and the grain variations of the wood to show through.

Opaque finishes include paint and some lacquers. Tinted or opaque finishes change the color of the wood. They are used to make two different pieces of wood appear to be similar.

Lacquer
If lacquer is used as a finish, it must be precatalized or acrylic-based to protect the wood from moisture. High-end cabinets feature a minimum of three coats of lacquer that is sprayed on and sanded between each coat. The final coat is wet sanded, compounded and waxed to generate a clear, soft, glowing finish.

Varnish
Varnish is a common finishing material. It is more durable than lacquer.

Polyurethane
Polyurethane is more durable than varnish or lacquers.

Stains

Stains change the look or enhance the appearance of the wood. Stain does not protect the wood, though some manufacturers may add a UV protectant to help prevent fading caused by exposure to sunlight. A sealer is typically applied on top of the stain to protect the wood.



Natural - Lacquer



Veneer



Maple Stain



Painted



Glaze



Painted

Glazes

Glaze finishes are a transparent, colored material that enhances or changes the color of the cabinet, to give the appearance of age, to mimic the appearance of more heavily grained woods and to add character and/or depth to a wood surface. It is hand applied.

Veneers

Veneer is a thin piece of wood, usually less than 3/16th of an inch thick glued to another piece of wood or plywood. Veneers can be stained or painted. Veneers are used to provide stability in moist areas. Many times, exotic woods are used as veneers because of their rarity and cost of the species, e.g., wenge.

Veneers are often used on the sides of the cabinet. If veneers are sealed properly, they should last a lifetime. However, if they are not, they can chip or be damaged. Lower-end pieces typically will use veneer on particleboard as the core wood. If moisture enters the particleboard, the piece will swell and ultimately fail.

Paint

Paint offers a limitless color pallet. You're not limited to a range of earth tones and browns like you are with wood stains.

Manufacturers will use latex paint to create an antique buttermilk look. Latex paint needs to have a clear protective topcoat. Lacquer paint is more durable than latex. Most higher-end manufacturers apply two coats of paint and a clear coat of lacquer to achieve a smooth finish.



Budgeting for a New Kitchen

There are too many variables to budget for a new kitchen before the scope of the project is finalized and the materials, fixtures, appliances and other components are determined. The best rule of thumb to budget for your new kitchen is to allocate 10 to 20 percent of the value of your home for your new kitchen. The range will depend upon goals, materials and products and scope of the project. For assistance with budgeting for your new kitchen remodel call us at 508-295-1311 or email us at info@tmkitchens.com

When it comes to cabinetry, the cost is driven by type, door style, material and finish. Standard sized cabinets offered by manufacturers typically are less expensive than custom-made, one-of-a-kind cabinets. Remember, cabinets also are considered the backbone of the kitchen and key to longevity. It's relatively easy to replace an appliance. It's more difficult to change out cabinetry. If you plan to live in your home for more than five years, invest in cabinets that can withstand the test of time.

