

Garage Door Options



Steel doors still rule, but wood carriage house doors are a hit with upscale buyers

Because the garage door is often the single largest unbroken surface on a home's front facade, it can have a major effect on a

by Jon Vara

visitor's (or potential buyer's) first impression. Fortunately, today's builders have an unusually wide range of garage doors to choose from. Stock

doors are available to suit almost any taste and budget, and a growing number of manufacturers offer custom and semi-custom designs as well.

Steel Doors

Steel garage doors have some obvious strengths. They're reasonably priced, provide good security, and require little or no maintenance. As a result, steel is by far the leading material used for res-

idential garage doors today. Tom Wadsworth, editor of *Door and Access Systems Newsmagazine*, estimates that steel doors account for about 90% of the overall market.

Insulation. Uninsulated steel doors — sometimes described as hollow-pan doors — are a popular budget choice in applications where there's no living space over the garage. But because they tend to be noisy and often have a flimsy



Figure 1. The new Relante steel door from Raynor is insulated with 1³/₈ inches of blown-in polyurethane foam. A single door sells for about \$550 and is said to have an R-value of 12. The polyurethane is injected with a non-HCFC blowing agent that does not deplete atmospheric ozone.

Figure 2. Although it's not a requirement, the Consumer Products Safety Commission has encouraged manufacturers to offer garage doors with pinch-resistant joints. The Windsor 650 Pinch ProTech, shown here, is typical; it makes use of close-fitting shielded joints to keep fingers out of harm's way.



feel, many builders prefer to upgrade to an insulated door even where energy efficiency isn't an important consideration.

Inexpensive insulated doors often make use of the "laid in place" method, in which sheets of polystyrene foam are placed in the hollow steel pans and backed with a vinyl liner. Better-quality insulated steel doors use what's sometimes called "sandwich construction": Both the inner and outer faces of the door are steel, and the EPS panels between them — which are molded to conform closely to the shape of the steel skin — are bonded to the steel with adhesive. In addition to providing better thermal and sound insulation, the bonded foam also dampens impact, yielding a more dent-resistant door.

Some premium-quality doors are insulated with injected polyurethane foam rather than polystyrene panels (see Figure 1). Because the blown-in foam completely fills the space between the inner and outer steel facings, that's said to increase dent resistance still further. The higher R-value of polyurethane foam may also lead to increased energy efficiency. Windsor Door's Model 550, for example, incorporates 2 inches of polyurethane foam and has a claimed R-value of 17.51.

Joint design. Where there's living



Figure 3. The Gadco 7524 (left) features interchangeable snap-in window inserts. The "Colonial" window shown here is one of a half-dozen options. An unglazed one-car door sells for about \$400. Other manufacturers of steel doors offer similar systems; the wider sunburst panels in the Clopay 4310 (right) are another popular style. The one-car version of the single-glazed door shown here goes for about \$500.

space over the garage, door insulation is obviously an important consideration. But in practice, it's hard to say where the law of diminishing returns kicks in, because air infiltration between door sections and around the sides and bottom tends to offset the gains that result from decreased conduction. In general, doors that use a tongue-and-groove joint at panel intersections leak less air than those with shiplap joints.

Joints between panels are often large enough to admit a finger, posing a danger of pinching injuries. As a result, the Consumer Products Safety Commission has begun urging manufacturers to voluntarily incorporate pinch-resistant designs into at least some of their products. A number of manufacturers, including Wayne-Dalton and Raynor, have already introduced pinch-resistant doors (Figure 2), and others are likely to follow suit.

Steel thickness. While insulation can help make a door less prone to denting, a much more important factor is the thickness of its steel skin. Premium doors are typically built from solid-feeling 24-gauge stock, while mid-price doors often make use of lighter 25- or 26-gauge material. Economy doors may use steel as light as 28-gauge, which looks fine when new but is easily dented.

Glazing options. Most steel doors are available with or without glass panel lights, and many steel door manufacturers offer ornamental acrylic lights — including imitation beveled or stained glass — as an option. Indecisive clients can choose conventional glass lights designed to accept snap-in decorative inserts, which make it possible to change the appearance of a door simply by replacing the inserts (Figure 3).

Wood and Hardboard Doors

Despite the overwhelming popularity of steel doors, traditional wood doors still have their admirers. In fact, manufacturers of steel doors devote a lot of their marketing efforts to emphasizing how closely their prod-



Figure 4. After priming, Taylor Door's wood-grained steel doors can be finished with oil stain. The manufacturer provides detailed instructions and maintains that the finished product rivals the look and feel of natural wood. An uninsulated one-car door without glazing sells for \$380 or so.



Figure 5. Although steel doors have largely replaced wood-frame doors with hardboard panels, some customers still prefer the crisp appearance of the older style. This simple uninsulated door, made by Amarr, goes for about \$360.

ucts resemble natural wood. Windsor Door labels its heavily wood-grained steel as "Ruff-Tex," while Gadco describes its version as "Roughsawn Embossed Steel." Taylor Door goes a step further with its wood-grained stainable steel doors, which are designed to be finished with oil stain (the company provides detailed directions) for a more "woodlike" appearance (Figure 4).

Customers who are willing to live with the extra maintenance that a real wood door requires have a number of options. The budget choice is a painted door with a wood frame — typically made from hemlock — and flat hardboard panels (Figure 5). Its appearance is similar to that of a pressed-panel steel door (actually, hardboard doors were the standard before steel doors took over the low- and mid-priced sectors of the market), but its true frame-and-panel construction provides a crisper

Figure 6. Traditional stain-grade wood doors demand regular maintenance but add a warm, welcoming appearance. The Howell “Brennan” (top right) raised-panel door is made from clear 1³/₈-inch meranti, at a cost of about \$500. Wayne-Dalton’s Classic 311 (middle right), which features clear hemlock or red cedar panels in a hemlock frame, costs about \$700 for all hemlock, or \$900 with the optional cedar panels. (The finger-jointed Classic 310 is somewhat less.) The flat-panel door from the Clopay Reserve Collection (bottom right) uses smooth or grooved plywood panels in a solid wood frame, backed with an additional layer of plywood. The single-car model pictured here sells for about \$900 installed.



Figure 7. High-end custom homes and historic restoration projects may call for high-end custom doors, and several manufacturers can produce doors from plans or drawings in almost any material, at prices that typically run between \$2,500 and \$10,000 for a single door. This red cedar combination garage door and entry door is a custom product from Designer Doors.



look and stronger shadow lines.

A number of manufacturers, including Howell, Clopay, and Wayne-Dalton, also offer stain-grade doors with flat or raised wood panels (Figure 6). They’re a pricier choice — typically falling in the \$500 to \$750 range for a single door with no glazing — but such a door can add a warm touch of wood to the facade of a custom home. Because frame-and-panel doors lack added insulation, they’re not a good choice in cold climates where there’s heated space over the garage.

Read the fine print. Many steel doors carry 10- or 15-year warranties, or even lifetime warranties (subject, of course, to the usual restrictions and limitations). Wood doors, by contrast — even very expensive ones — are seldom guaranteed for more than a year or two, reflecting the potential for moisture damage and rot.

It also pays to think twice before settling on a finish for a wood garage door, since improper application — or even proper application of an unapproved finish — may void the warranty. (One custom and semi-custom manufacturer, for example, voids the warranty of any garage door that is finished with polyurethane, spar varnish, or other transparent film-forming finish.) Customers who are used to low-maintenance steel doors may need to be reminded that wood doors require regular maintenance and refinishing.

Carriage House Doors

A sizable and fast-growing subset of the wood door market belongs to retro-styled carriage house doors, which resemble old-fashioned hinged doors but open and close with modern overhead hardware. Originally, this area was the preserve of a few custom manufacturers who produced doors to order for historic restorations (Figure 7). Within the last few years, though, major players such as Clopay, Wayne-Dalton, and Windsor have entered the field (Figure 8). Prices vary widely, but most single-car doors seem to fall in the \$1,500 to \$3,500 range.



Figure 8. Most mainstream garage door manufacturers have introduced their own interpretations of carriage house doors. Top left, Colonial Collection model 500H in knotty cedar from Summit Door; above, Summit 6000B in red oak, about \$3,200, from the company's new Mediterranean Collection; left, the "Anderson" model from Howell Manufacturing; and below left, a wood-trimmed, hardboard-faced door from Wayne-Dalton's Heritage Accents Collection, about \$1,800.

Less expensive carriage house doors often consist of painted hardboard sheathing on a wooden frame, trimmed out with ornamental bracing made from solid wood. Higher-priced stock doors (and most custom and semi-custom doors) may use plywood in place of hardboard and are more often faced entirely with wood. In either case, the sheathed-frame design makes it easy to incorporate an insulated core, usually of expanded polystyrene. Amarr's Bob Timberlake series of carriage house doors features an unusual construction consisting of wood cladding on an insulated steel frame.

Like other wood doors, most carriage house doors are guaranteed for only a year or two, although a few high-end doors carry five-year guarantees. Like other wood doors, carriage house doors need to be stained or painted periodically — not necessarily an easy task on a surface complicated by window trim, crossbucks, and other irregularities.

Fiberglass and Plastic Doors

There are also retro-style doors from a much later era. Lightweight, translucent fiberglass doors were very popular in the 1950s and '60s, and they're still manufactured by Gadco. They may not seem timely today, but just wait: A decade ago, who knew people would want their garages to look like little upscale barns?

Plastic doors form another tiny but intriguing slice of the market. Duo-

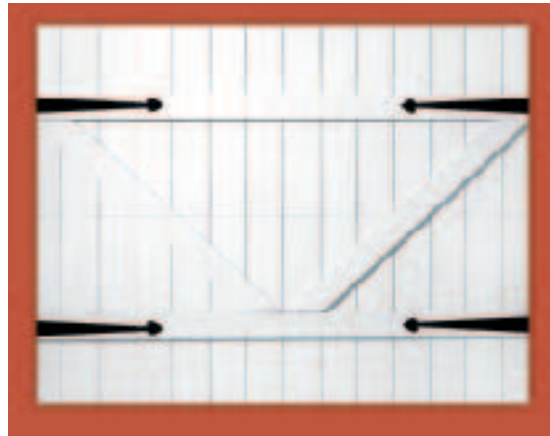


Figure 9. This lightweight door from Duo-Gard Industries is available with clear or tinted glazing in two thicknesses. It has little insulating value but provides good natural lighting of the garage bays. A single door sells for about \$800.

Figure 10. The 9001 high-density polyethylene door from Gadco resembles a steel door, without the dents. Because the plastic is also corrosion proof, the manufacturer bills it as a good choice for coastal areas subject to salt-laden air.




Gard Industries makes a lightweight aluminum-framed door with translucent polycarbonate glazing and an appearance similar to that of fiberglass (Figure 9, previous page).

At least two manufacturers also make plastic doors that resemble steel doors, although manufacturing limitations have hampered their acceptance by

consumers: Unlike steel or wood doors, which can easily be cut to any desired width (on a custom basis, for example, Gadco can provide some of its steel doors in 1-inch increments), each different-sized plastic door requires its own mold, raising manufacturing costs beyond what most customers are willing to pay.

The Premium Garage Door Company — a subsidiary of Alside Corporation, which manufactures vinyl trim, siding, and soffit material — makes a vinyl door that one industry insider describes as “impressive, gorgeous, and enormously expensive.” Gadco currently offers two garage doors blow-molded from high-density polyethylene (HDPE) plastic (Figure 10). They’re said to be dent proof, all but unbreakable, and totally maintenance free, making them a good choice for use in driveways frequented by skateboarders.

On the negative side, the plastic door costs about twice as much as a comparable steel door and is available only in brown or white. Although HDPE can reportedly be painted if the surface is properly prepared, the company doesn’t recommend it. 

Sources

Amarr Garage Doors

Winston-Salem, N.C.
800/503-3667
www.amarr.com
Steel doors and carriage house doors

Ankmar Door Manufacturing

Denver, Colo.
303/321-6051, 800/322-9075
www.ankmar.com
Steel doors, wood-hardboard carriage house doors, hardboard doors

Clopay

Cincinnati, Ohio
800/225-6729
www.clopaydoor.com
Steel doors, wood doors, carriage house doors

Designer Doors

River Falls, Wisc.
715/426-1100, 800/241-0525
www.designerdoos.com
Custom wood and carriage house doors

Duo-Gard Industries

Canton, Mich.
800/872-4404
www.duo-gard.com
Polycarbonate plastic doors

General American Door Company (Gadco)

Montgomery, Ill.
630/859-3000
www.gadco.com
Steel, high-density polyethylene, and fiberglass doors

Holmes Garage Door

Auburn, Wash.
800/557-0488
www.holmesgaragedoor.com
Steel doors

Howell Manufacturing Company

Westchester, Pa.
610/692-7515
www.howell-dor.com
Wood and carriage house doors

Martin Door Manufacturing

Salt Lake City, Utah
801/973-9310, 800/388-9310
www.martindoor.com
Steel doors

North Central Door Company

Bemidji, Minn.
218/751-6962, 800/677-8431
www.northcentraldoor.com
Steel doors, wood and hardboard carriage house doors

Overhead Door Corp.

Dallas, Texas
972/233-6611, 800/929-3667
www.overheaddoor.com
Steel doors and wood doors

Premium Garage Door Company

Cuyahoga Falls, Ohio
330/922-2274, 888/846-9588
www.premiumgaragedoors.com
Vinyl doors

Raynor Garage Doors

Dixon, Ill.
815/288-1431, 800/472-9667
www.raynor.com
Steel doors

Sections, Inc.

Burnsville, Minn.
952/707-8810, 877/707-8810
www.sections.com
Custom and semi-custom wood and carriage house doors

Summit Door

Corona, Calif.
909/272-6633, 888/768-3667
www.summit-door.com
Custom and semi-custom wood and carriage house doors

Taylor Door

West Branch, Mich.
800/248-3600
www.taylor-door.com
Steel doors

Wayne-Dalton Corp.

Mount Hope, Ohio
330/674-7015, 800/827-3667
www.wayne-dalton.com
Steel doors, wood doors, wood and hardboard carriage house doors

Windsor Door

Little Rock, Ark.
501/562-1872
www.windsordoor.com
Steel doors