

THINKING OUTSIDE THE BOX**Artistic Alternatives to Door & Door Frame Design**

**By: Jack Shinder, President of Ambico Ltd., Published in
*Door and Hardware Magazine***

One of the great surprises of the architectural supply business is being able to take a simple every day item - an item that a lay person would not give a second thought to - and add to it an aspect of beauty that would be unexpected.

In the realm of steel doors - a decidedly ordinary realm - discussions of beauty usually take a back seat to technical considerations. These necessary, but everyday matters, include code compliance, hardware co-ordination, glazing usage and fire retardance. Consideration of the door as an art piece is not often thought of. Usually it is understood that the door is simply a flat rectangular steel slab to be fully prime painted.

In our opinion however, when certain aspects of these ordinary products are modified, startling results can occur - results that can truly get you "thinking outside the box".

Change the shape of the door or the door lite cutouts. Why be satisfied with rectangular shapes? Modify the frame design. Consider a unique brake-formed profile for the pressed frame. Alter the flat plane of the door face. Add panels or mouldings to the door.

Make use of materials other than mild steel. Consider the use of stainless steel in particular areas of the building. As you will find out, dramatic solutions are not required in order to achieve dramatic results!

Pressed Steel Frame Design

A standard pressed steel frame is designed with a two inch face. At times, one may consider specifying narrow profile frames with 1 1/4" faces - the current minimal requirement for fire rated frames. However, if one is able to make use of pressed steel frames in a non-fire rated application, consider the use of 3/4" face frames. The effect of this single change to the frame design is effective - the frame has a surprisingly slim, clean appearance.

One of the many other subtle changes to frame profile design is the addition of a "reveal" to a standard frame profile. The addition of this 5/8" leg on both sides of the frame will create a shadow around the frame perimeter that will highlight the entire frame/door opening. The two alternative profiles discussed above are shown clearly in Figure One. An experienced distributor or manufacturer of pressed steel frames should be consulted to determine the many precise alternatives to frame profile design that are technically feasible.

A more dramatic alternate to rectangular frame design is the use of a curved header. This elevation can be used dramatically in public areas of older buildings where this rolled steel shape may be consistent with the overall design of the project. The design can be manufactured in mild steel or stainless steel! Certain types of building projects make good use of this design concept - churches, schools, universities as well as buildings that wish to conform with building styles common to the early twentieth and nineteenth centuries.

Recessed Steel Panel Doors

Why specify a flat door face when one can provide surprising visual interest to the door elevation with a pattern that is recessed into the door face? One can add to this delightful visual effect by specifying doors with a multi-panel configuration. A surprising variety of design ideas now becomes possible.

The steel recessed panel door is not to be confused with the common steel embossed door used in many residential projects. A comparison of the two products is shown in Table One, Figure Two and Figure Three.

The Recessed Steel Panel Door offers a number of unique features:

1. complete flexibility with respect to door size, door gage, quantity and placement of door panels
2. the depth of each recessed panel creates a prominent "shadow".

The overall effect produced by the Recessed Panel Steel Door is striking and will provide building projects with outstanding visual appearance and security, while integrating a pleasing visual old world motif.

Decorative Steels - Providing an Artistic Visual Statement to Even the Simplest Opening

The use of stainless steels, brass and bronze adds a striking presence to an otherwise ordinary door or door frame. But does the mere use of a pleasing metal finish constitute the presence of an artistic mind set? Let us examine for a moment the most common of stainless steel finishes - the "number four" finish (known in hardware parlance as a #32D finish). This finish has noticeable lines running parallel to one another and is defined by the Stainless Steel Institute of America as "a general bright finish with a visible grain". It is specified ninety percent of the time that stainless steel door openings are called for and in fact, the finish is so commonplace that certain specialized steel door manufacturers now stock the product!

Now take this same number four finish and step "outside the box" by etching simple patterns onto the door face. The effect is unique. Alternatively, mechanically abrade repetitive patterns into the door face and the results will be startling.

This is a sample of what can be accomplished with a little bit of creativity! Figure 4 provides a more complete visual explanation of what I have described.

When it comes to stainless steel however this only begins to describe some of the decorative possibilities. Below you will find a more complete listing of the decorative types of stainless steels available for use on doors and door frames.

Mill Finish (#2B)	an unpolished stainless steel used where an industrial "look" is preferred.
Hairline	an alternative to #4 finish. It combines a delicate brushed appearance with the ability to hand restore surface damage on site.
Etched	a chemical wash is applied to the base stainless steel usually for purposes of providing a contrasting finish. See Figure Four.
Abraded	a mechanical device is applied to the base stainless steel. Circular abraisons are applied to the door face. The visual appearance is striking. See Figure Four.
Bead Blasted	base stainless steel sheet is peened with glass bead providing a hardened surface which simultaneously makes visible the annealing process to which the base metal was subject to in the steel manufacturing process. The appearance is quite unusual.
Colored	bronze and gold colors are produced on #4 and #8 stainless sheet, prior to the door manufacturing process, by immersing the product in a hot acidic solution. This material can be used as an alternative to brass and will not tarnish or fade!
Textured	the base stainless steel is embossed with repetitive patterns stamped onto metal sheets. Often used in heavy traffic areas such as transit stations or airports.
Mirror #8	the most reflective stainless steel surface which is obtained by polishing until all grit lines are removed. Used in high profile commercial projects to contrast or to conform with the surrounding curtainwall.

Further to this palette of stainless steels one can add a range of brass and bronze alloys able to be polished in a variety of finishes, almost as varied as those of stainless steel.

Conclusion

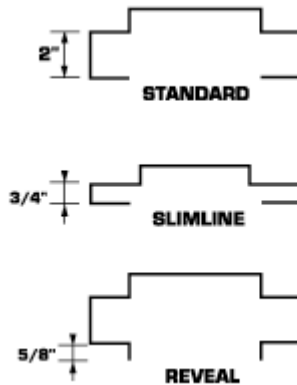
How many times must one walk past a Class "A" building and view the identical door and door frame that one has seen at the neighborhood convenience store.

In fact, the mere choice of exotic materials can at times make an artistic statement. Are these specialized doors and door frames expensive? Of course they are. However, given the unique role of a doorway as the entrance to a multi-million dollar building the use of stainless steels, brass and bronze to make clear artistic statements about the character of a building provides the architect or designer with an opportunity to "think

outside the box" - to think in an extraordinary way about an ordinary product, thereby adding character to an entire building project.

The use of artistic solutions to door and door frame design is as limitless as the human imagination. All of us enjoy the challenge of creating unique concepts that will leave our imprint on the work that we do. When this aspect of door and door frame supply and production is combined with technical expertise and well engineered products, then value is added to the building project, and the experience of those who enter or view the building is greatly enhanced.

Figure 1 Pressed Steel Frame Profile



Pressed Steel Frame Elevations

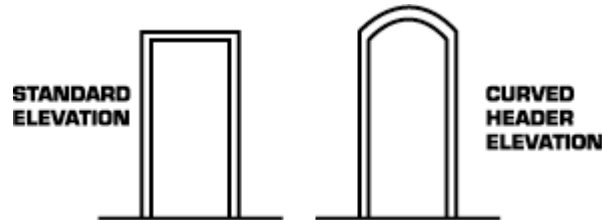


Table 1

	Recessed Steel Panel Door	Embossed Steel Door
Method of Fabrication	Customized	Mass Produced Metal Stamping
Number of Steel Panels	Unlimited	Eight, Six
Door Size	Any size up to 4' x 12'	Limited to Standard Door Sizes in order to accomodate mass production
Door Guage	14, 16, 18	16, 18, 20

Figure 2

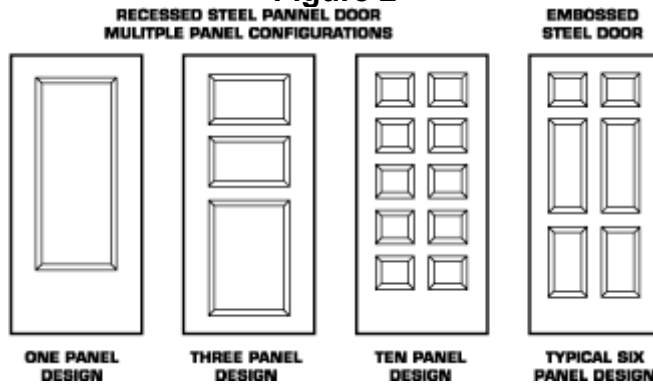


Figure 3

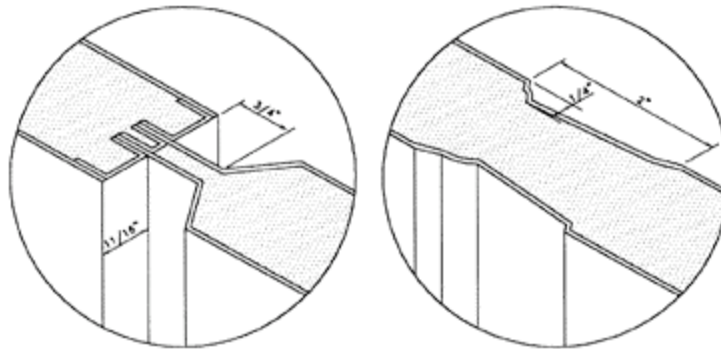
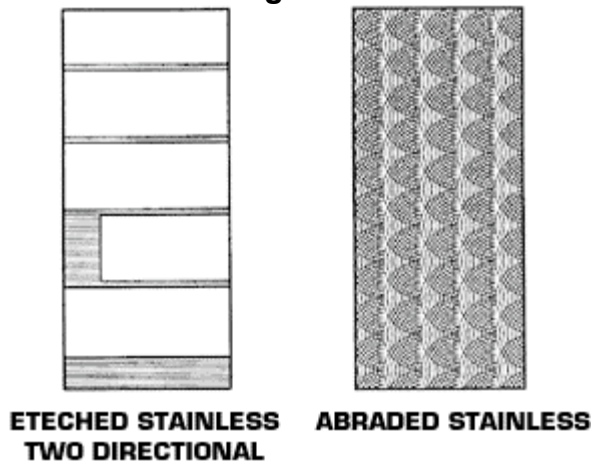


Figure 4



Reprinted with permission from *Doors and Hardware* magazine, published by the Door and Hardware Institute, 14170 Newbrook Drive, Suite 200, Chantilly, VA 20151; 703/222-2010; www.dhi.org