

Type II & Type III Frames



Type II Frame, Pan Faces and Beveled Retainers



Type II Frame, Radius Corners and Flat Retainers



Type II Frame, Flat Faces with 1.5" Divider Bars

FOR DESIGNERS AND SPECIFIERS

The **Type II Frame** system is popular because it fills the need for building a large share of the mid-size range of signs which are so prevalent. It combines some very attractive features which make it versatile, practical and economical for either single face or double face signs. The net frame width is 8".

If single face signs are built 1-1/2" over standard sheet metal widths, (37-1/2"- 49-1/2" or 61-1/2"), the **Back Adapter** eliminates the waste and labor of shearing the back metal to fit the height dimension. Just slide the sheet metal back in place and rivet it for added torsional strength. The inside leg of the Back Adapter flashes water outwards, preventing water entry.

Single face signs should have internal struts attached to the metal back, with brackets or gussets similar to illustrations 4 and 5 on Easy Sheet # 11. These should be spaced not more than 60" on center.

For pipe mounting, a 4.5" pipe can pass through the frame without shadowing when lamps are properly spaced. Lamps can be 12" on center with pan-formed faces.

Aesthetically, **Type II Beveled Retainers** are recommended for flat faces and the **Type III Flat Retainers** for pan-formed faces. Both have a full 1-1/2" depth of face retention and are engineered to withstand wind-loads of hurricane velocity. The depth of the Retainer is critical to allow room for faces to expand and contract, yet still give adequate face engagement when fully contracted in cold weather.

The frame features ABC's unique integrated Hanger Bar, with a dropped slot behind the bar to which the face is hung from the top. When the plastic face hanger bar is made to use this feature, as illustrated in the upper left center-fold drawing, the face cannot fall off the frame even if all the Retainers are removed.

This slot can also be used for a Stanley #999 4" x 5/8" flat steel right angle corner brackets, riveted to the frame, for weld-free assembly. (Illustrated in lower left centerfold drawing).



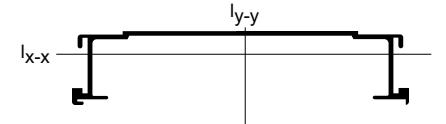
Type II Frame with Back Adapter and Radius Corners

This system is ideal for building signs which must have a number of separate face panels, where each panel can easily be removed for copy changes, such as on small shopping centers or office buildings. The **Small 1.75" Divider bar** is used with the **Type II Beveled Retainer**, and the 1.5" **Conventional Divider Bar** can be used with the **Type III Flat Retainer**.

Radius corners are economical and easy to assemble with our standard 6" or 8" radius corner kits for the **Type II Frame**, or it may be kerf-cut to form any custom curve over a 12" radius. Any radius Retainer must be made to match the **Type III Flat Retainer**.

Maximum recommended sizes for signs built with the **Type II Frame** varies, depending on the height/width (aspect) ratio and whether it will be mounted on one or more pipes. Please call with specific questions.

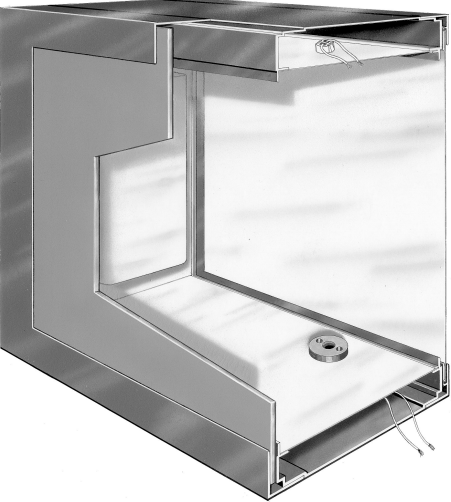
Engineering



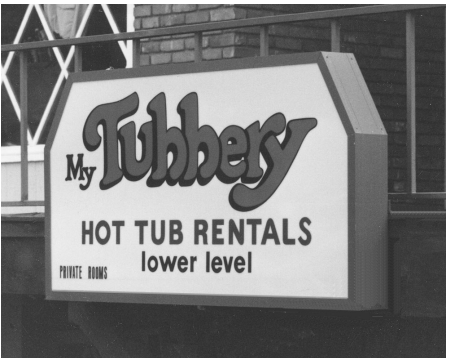
The neutral axes for the Type II Frame are shown above.

Cross sectional area (A) is 1.279 in² .
Moments of inertia about the neutral axes are:
Ixx=.4599 in⁴ and Iyy= 10.690 in⁴.

All ABC extrusions are produced in 6063 alloy, T6 temper, in standard 26' lengths.



Type III Frame, Flat Faces and Back Adapter



Type III Frame, Flat Retainers and Back Adapter



Type III Frame, Beveled Retainers and Back Adapter

The **Type III Frame** is another popular "conventional" frame for smaller single or double face signs. It will allow a 2.875" pipe to pass through the frame. It has an assembled width of 6.625". It is used with flat or pan-formed faces. The **Type II Back Adapter** is used for single face signs. Lamp centers should never exceed the face-to-face dimension to prevent shadowing.

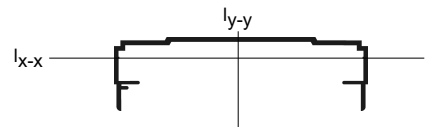
The principal feature of this frame system is that it comes in two versions: the **Type III Unit Frame**, with integral retainers, and the **Type III End Frame**, for use with removable **Type III Retainers**. When the **Unit Frame** is used on three sides of the sign, with the **End Frame** on one end for face removal, it minimizes cost. The labor for cutting, drilling and fitting retainers is almost nil and it eliminates visible fasteners on three sides.

The maximum recommended sizes for signs built with the **Type III Frame** varies, depending on the aspect ratio and whether used on one or more pipes. Please call with specific questions.

The **Type III End Frame** can also be used with the **Type II Beveled Retainer** and matching 1-3/4" **Small Divider Bar**.

6", 8" and 10" radius corner kits, with the **Type III Flat Retainer** are available for this frame, and it can be kerf-cut to form a random radius or curve. (See Easy Sheet #8.) While that illustrates the Large Access Frame, the formula and technique is the same.

Engineering



The neutral axes for the Type III End Frame are shown above. Details for the Unit Frame are available by request.

Cross sectional area (A) is .917 in².
Moments of inertia about the neutral axes are
Ixx=.216 in⁴ and Iyy=4.576in⁴.

All ABC extrusions are produced in 6063 alloy, T6 temper, in standard 26' lengths.



Monument sign with routed push-though lettering and flush copy panes.



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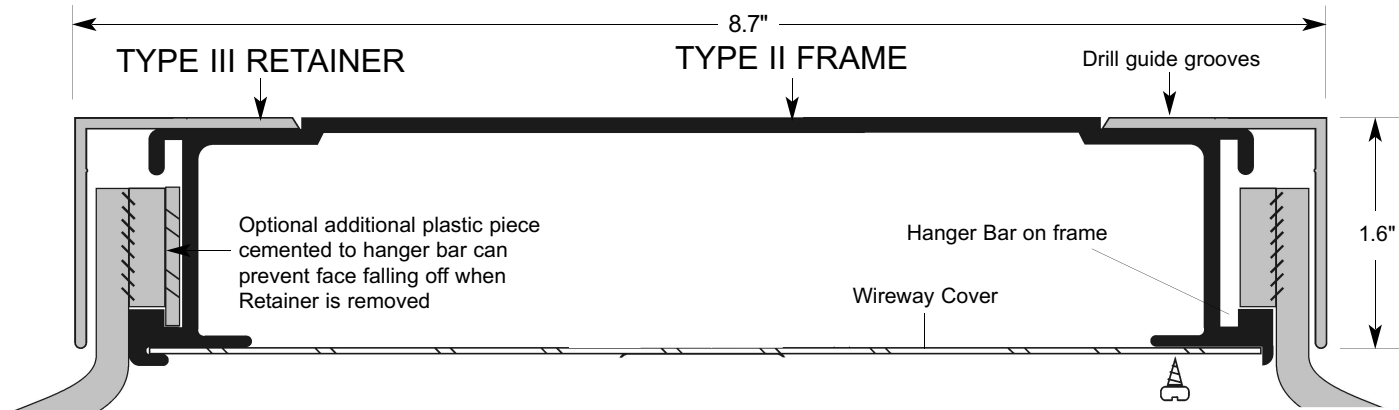
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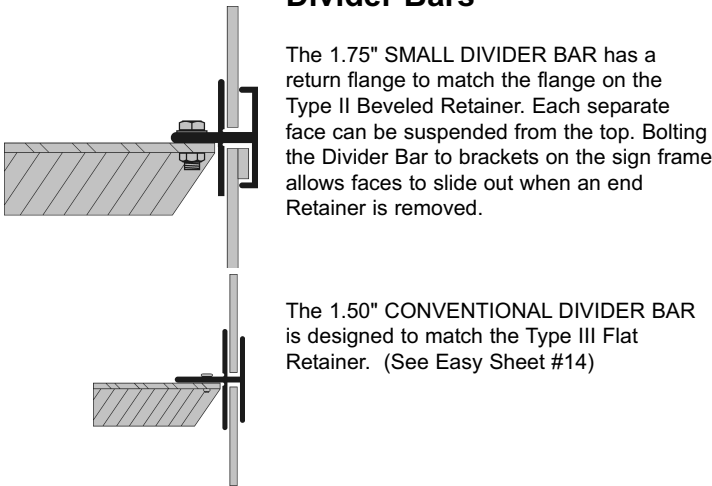
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TYPE II & TYPE III FRAMES **3/4 Actual Size Sectionals**



Divider Bars

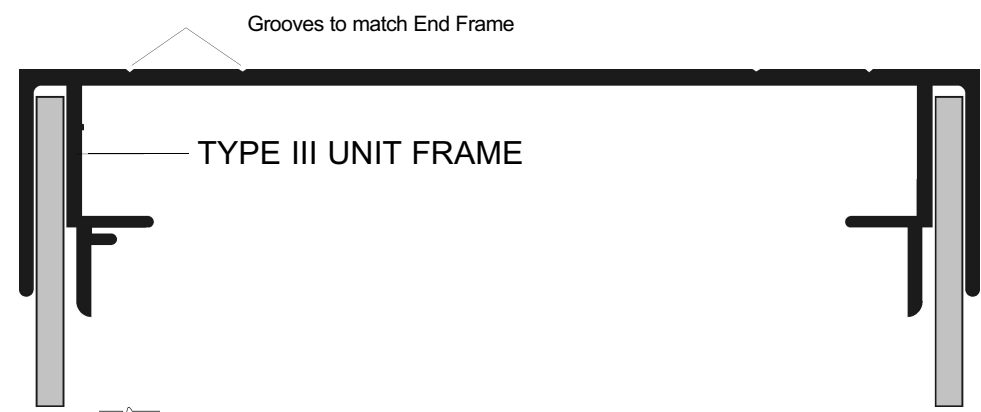
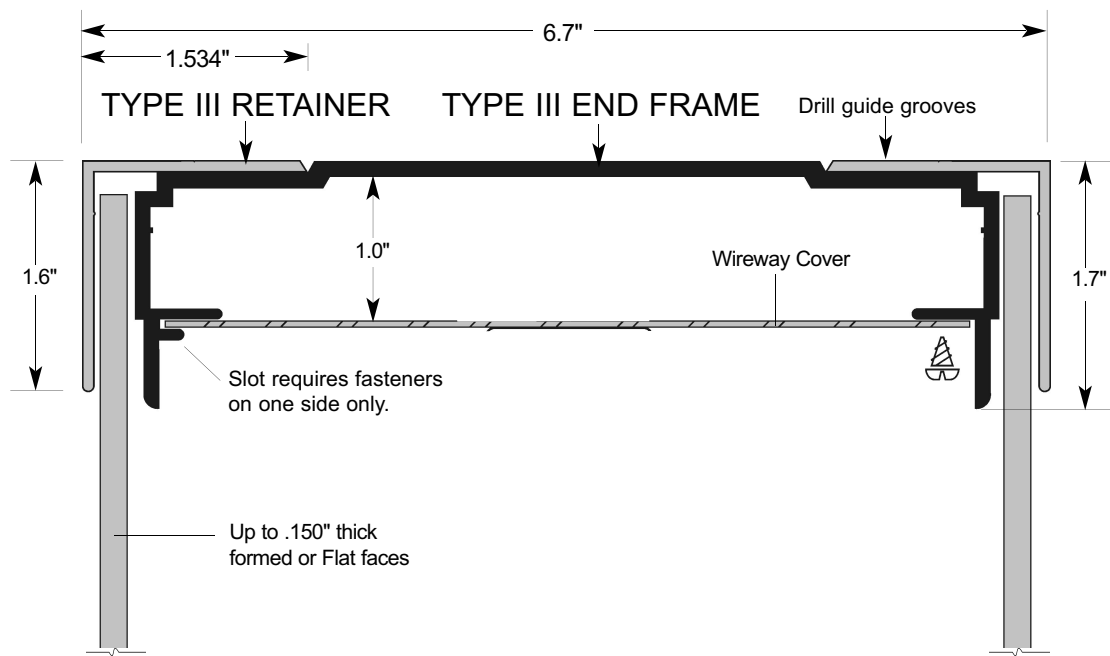
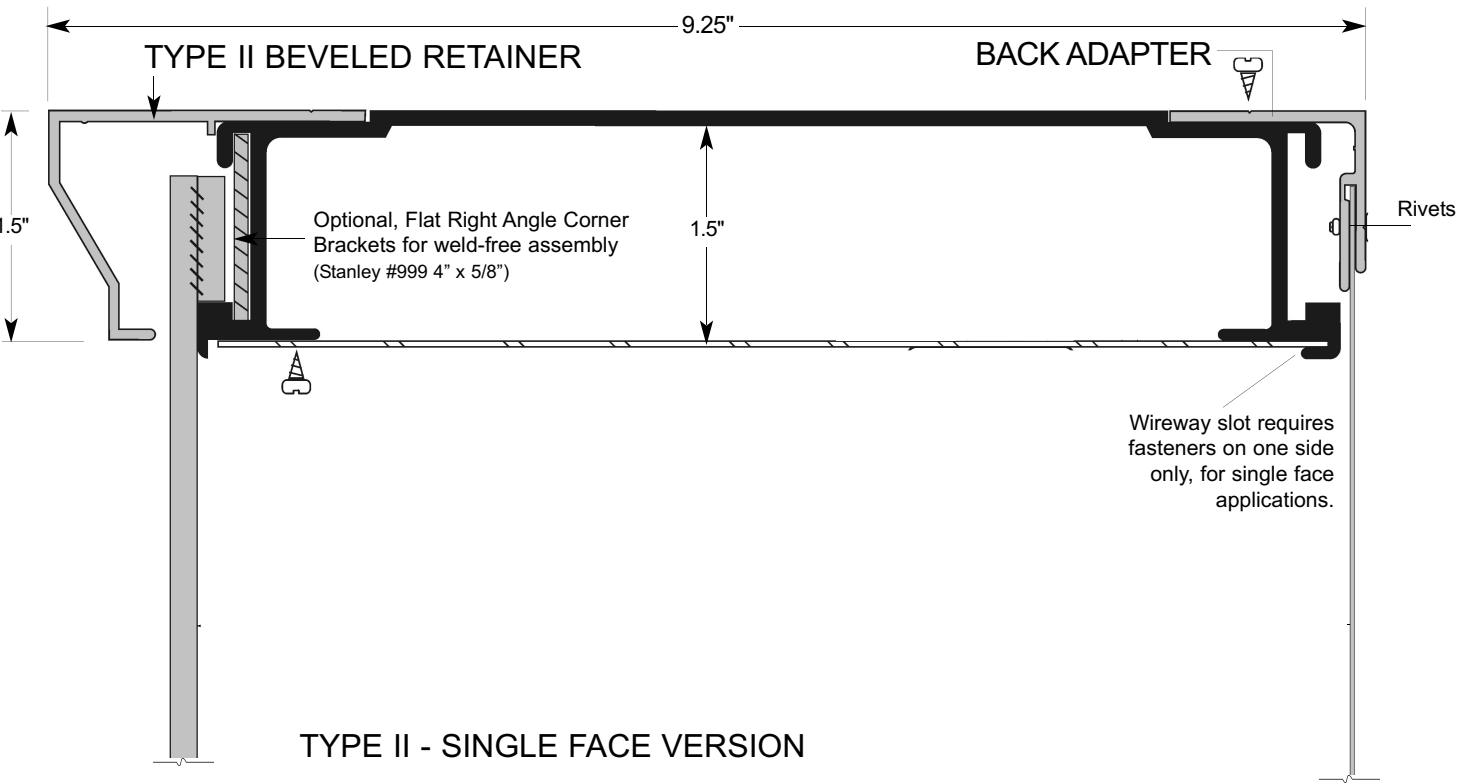


Retainers

- TYPE III FLAT RETAINER:**
 1.6" wide. Designed for faces up to .188" thick when used on the **Type II Frame** and up to .150" thick when used on the **Type III Frame**. It is normally used with formed faces where the dimensional detail is provided by the formed face.
- TYPE II BEVELED RETAINER:**
 1.5" wide. It is especially attractive with flat faces, giving a picture frame effect which adds more interesting dimensional detail.

Accessories

- BACK ADAPTER:**
 Can be used with several of our frames. It holds and flashes the sheet-metal back to prevent leaks into the wireway. When used with the Type II Frame, it often eliminates the labor for shearing the metal to fit the height of the frame.
- RADIUS CORNER KITS:**
 ABC's Precision fabricated radius corner kits are available in 6" and 8" radius for the Type II Frame, and 6"- 8" and 10" radius for the Type III Frame. (See Easy Sheet # 3)



All ABC Sign Products parts described on these pages are included by one or more of the following patents:
 U.S. 6,088,942 4,817,656 4,265,039 4,007,522
 Canadian 1,170,048-049-050 1,149,159 1,021,565