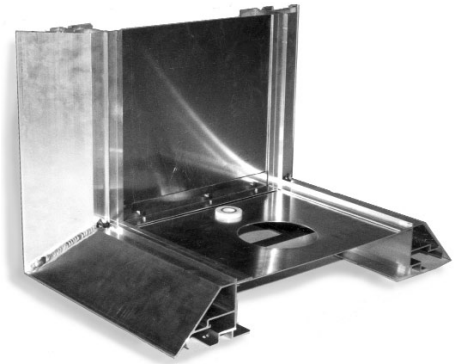


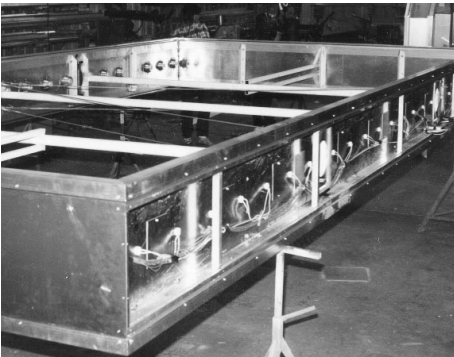
Wide-Fab Frames



With America's Interstate Highways came a need for huge high-rise signs, but large rigid plastic faces were frequently blown out in high winds. The advent of flexible faces, and the first engineering formulae for frame construction finally made it possible to build really large signs that could withstand high winds of even hurricane velocity. ABC Extrusion Company was the **first** to offer a frame and tensioning system for flexible faces.

And to meet designers' demands, ABC also developed construction techniques and produced larger extrusion systems for building signs of most any style, size, shape and depth.

Because it was expensive to service high-rise signs, alternative lighting systems, such as HID lamps, with much longer rated burning life, were a good alternative to fluorescent lighting, but these required very wide frames to avoid "hot-spots". Again, ABC was the **first**, and is still the **only** extrusion company to offer frame systems for building very wide frames for flexible faces and alternative lighting, such as metal halide, **with any desired face-to-face dimension**, and which will also allow radius corners or curved frame sections.



A 13' X 24' X 3' deep single-pole mount sign & metal halide lighting.

- For big, unlimited size signs
- Any desired face-to-face dimension
- Less labor intensive than steel construction
- External service access without disturbing the faces
- Any lamp spacing or metal halide lighting systems

For over twenty years signs built with our frames and tensioning system have virtually **eliminated** face blow-outs, even in the most severe wind conditions! When built to our design and engineering specifications. ABC offers a five-year warranty against face blow-outs. No other extrusion company offers as much technical assistance for the design, engineering and construction of signs, or such diversity of style, size and shape as ABC extrusions!

ABC's Wide-Fab Frame has an integrated flexible face tensioning saddle and is so strong, it eliminates most of the internal steel struts and braces. It is much easier to build than any comparable steel angle and sheet metal cabinet, and actually costs less, overall, than an all-steel frame.

When the sign is too large to transport in one piece, as the illustrated sign was, ABC has special **Abutting Flex Joints** to which the flexible faces are tensioned. These allow the sign to be delivered to the job site in two pieces, to be mounted one over the other, with no more shadow than that from a seamed face! (See Easy Sheet #12) The illustrated sign is built of an 8' high lower section and a 5' high top section.



For Designers, Engineers and Sign Buyers

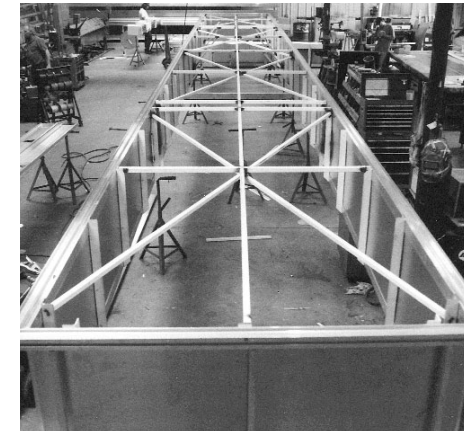
When a really big, wide, face-to-face sign is needed, there is no better or more economical design solution than **ABC's Wide-Fab Frame!**

Or if you must solve the problem of retro-fitting a big existing steel frame sign with flexible faces, **ABC's Wide-or-Retro Bleed Frame** solves all the problems of unknown frame engineering to be sure the frame is strong enough to meet the face tension load and the wind load. When attached to an existing steel frame sign, the **Retro-Frame** with struts that are independent from the existing sign are designed to provide the strength needed. (See Easy Sheet # 9)

Or, for a rigid plastic sign which must be wider, face to face, than our other frame systems offer, use our **Type I Wide-Fab frame**. It is built in a similar manner as the other wide-fab frames, but is for rigid plastic faces.

These three Wide-Fab Frame systems can solve most any unique frame and lighting requirement, and all three can be built with radius corners or curved frame sections! (See Easy Sheet #8)

And don't forget—our wholesale manufacturing division can also build any wide-fab sign for you, perhaps for less than your own plant can!



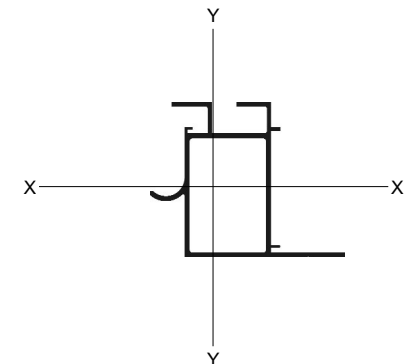
Wide-Fab Frame

Questions? Call the experts!
1-800-248-9889

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

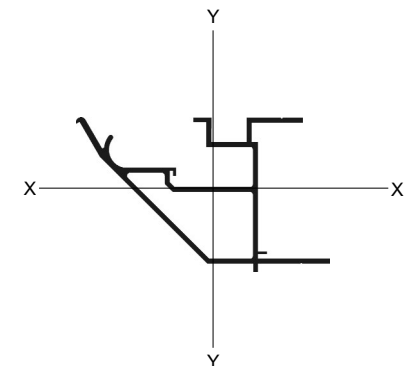


Engineering



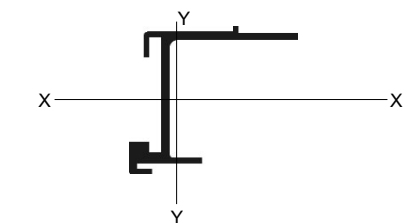
The neutral axes for the Wide-Fab Frame are shown above.

Cross sectional area (A) is 1.170 in².
Moments of inertia about the neutral axes are
 $I_{x-x} = 1.144 \text{ in}^4$, and $I_{y-y} = 0.880 \text{ in}^4$



The neutral axes for the Wide-or-Retro Bleed Frame are shown above.

Cross sectional area (A) is 1.610 in².
Moments of inertia about the neutral axes are
 $I_{x-x} = 1.585 \text{ in}^4$, and $I_{y-y} = 2.398 \text{ in}^4$.



The neutral axes for the Type I Wide-Fab Frame are shown above.

Cross sectional area (A) is 0.4229 in².
Moments of inertia about the neutral axes are
 $I_{x-x} = 1.176 \text{ in}^4$, and $I_{y-y} = 0.097 \text{ in}^4$.

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



*Visit our Website to review all of ABC's fine products...
Designed by Sign People for Sign People!*

www.abcsignproducts.com

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EXTRUSIONS...The Original - and Still the Best!

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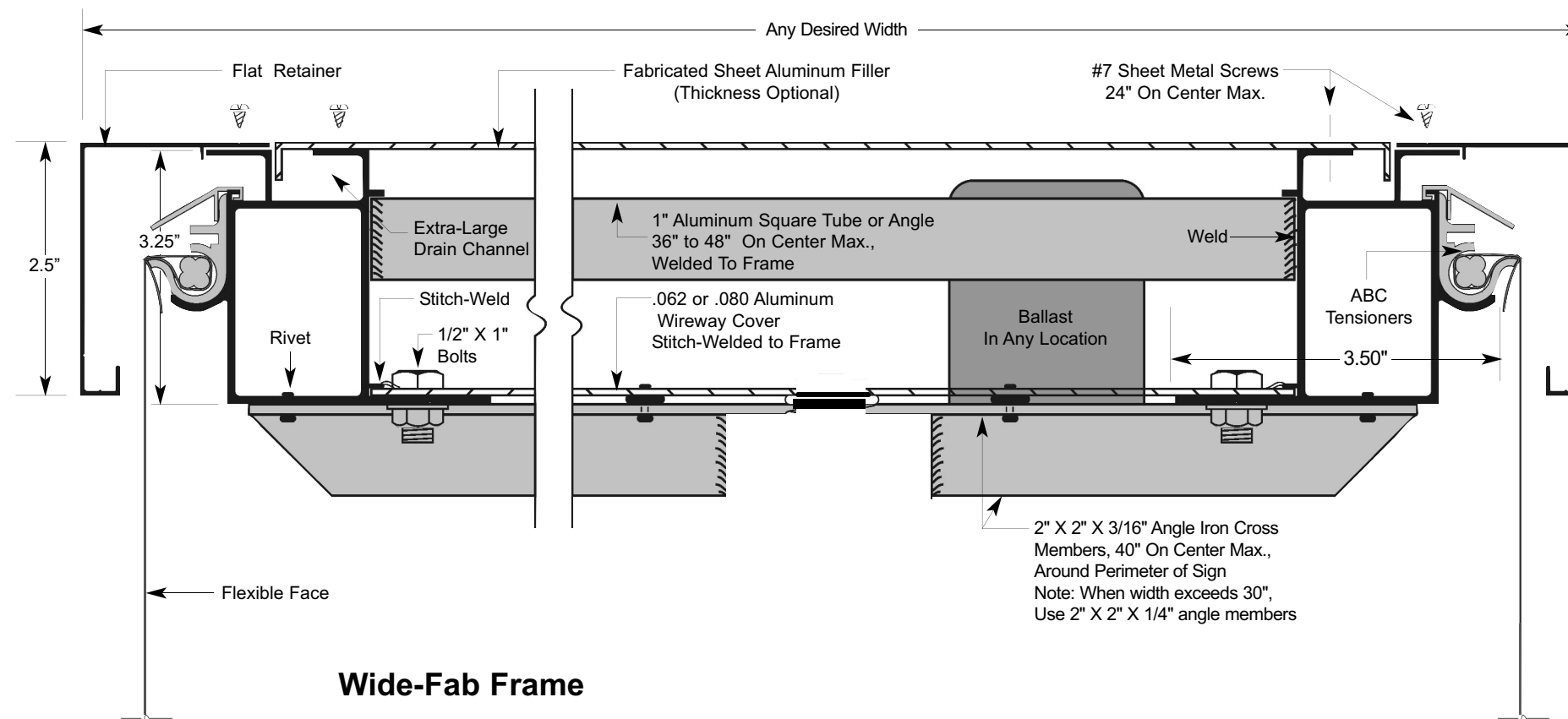
WIDE-FAB FRAMES
1/2 actual size sectionals

Construction is simple!

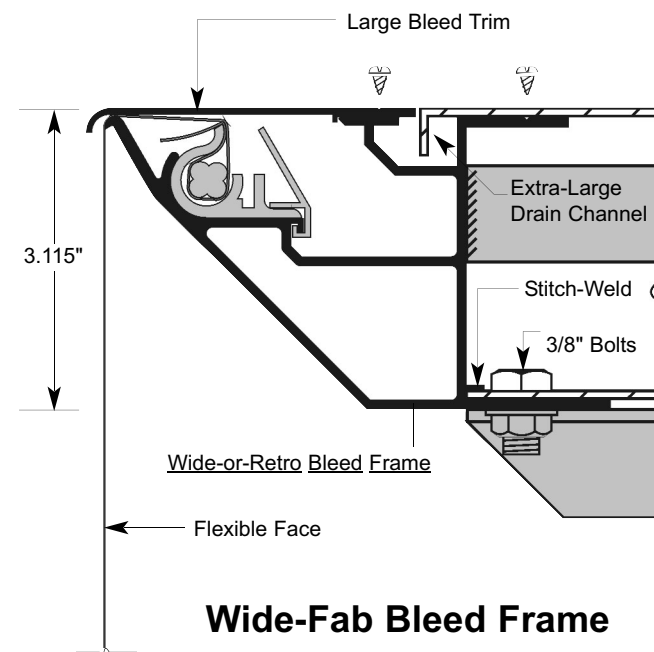
ABC has three frames for building signs with any Desired face-to-face dimension. Two are for flexible face signs and one is for rigid plastic or routed aluminum faces.

Radius corners or curved frame sections can be made with any of the three frames. (See Easy Sheet #8)

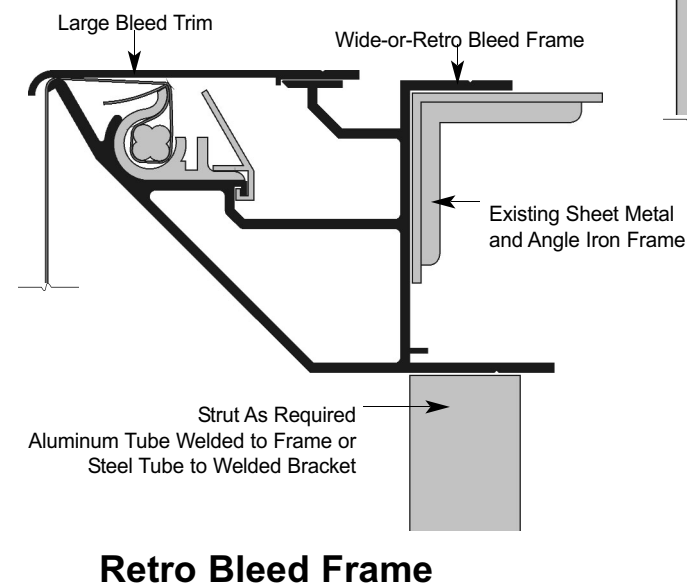
For further details of proper engineering and selecting and attaching steel plates for pipe mounting, see ABC's *Wind Speed and Design Criteria, 1998 Edition*.



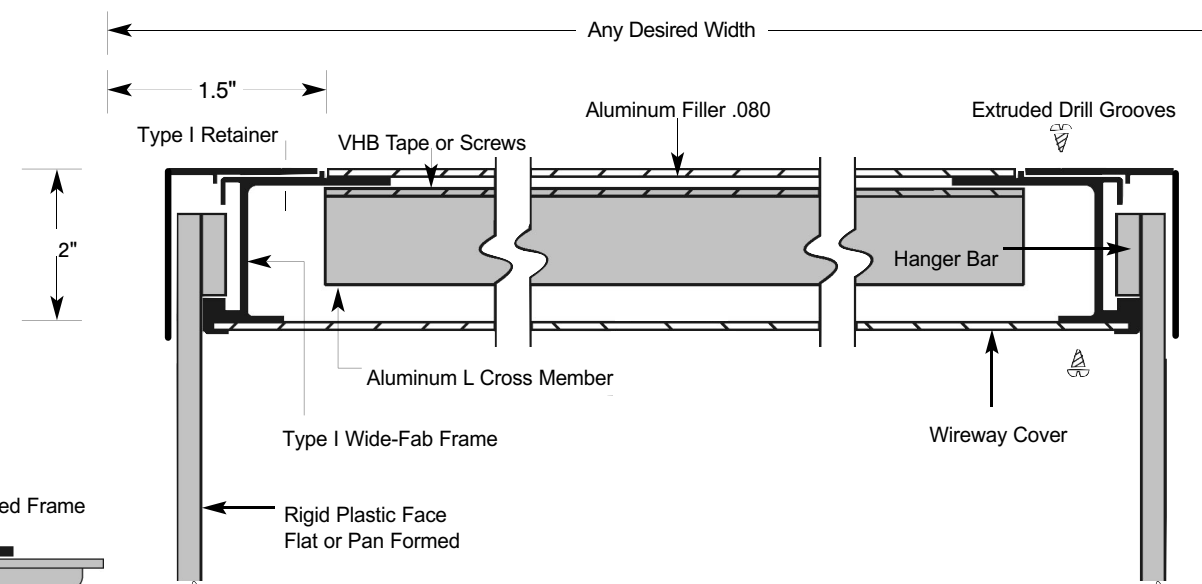
Wide-Fab Frame



Wide-Fab Bleed Frame



Retro Bleed Frame



Type I Wide-Fab Frame

*Strut Sizes For Length of Struts	
LENGTH	SQUARE TUBE/WALL
To 36"	3/4" x .125 Wall
To 48"	1" x .125 Wall
To 68"	1 1/4" x .125 Wall
To 72"	1 1/2" x .125 Wall
To 96"	2" x .125 Wall
To 120"	2 1/2" x .188 Wall

*ASTM A36 Structural Steel

Wide-Fab Retainers

2-1/2" Flat Retainer (Illustrated)
3-1/8" Flat Retainer

2-1/2" Beveled Retainer
3" Beveled Retainer

Type I Accessories

1-3/4" DIVIDER BAR: Used with the Type II Beveled Retainer to divide the faces into smaller panels to control wind-load on the overall face. Return flange matches that of the Type II Beveled Retainer.

1-1/2" DIVIDER BAR: Used with the Type III Flat Retainers on the Type II Frame for the same purpose as described above.

BACK ADAPTER: Used on the Type II Frame for single face signs. It attaches like a retainer, but receives a sheet metal back.

Type I Frame Retainers

TYPE III FLAT RETAINER: 1.6" wide, it is designed for a maximum face thickness of .187"