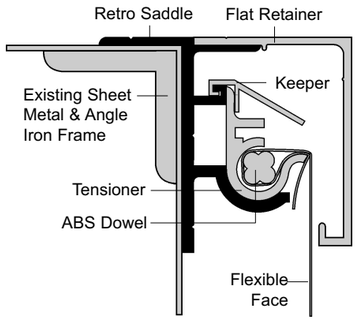
Retro-Fit Extrusions

A BIT OF HISTORY

In the mid to late 1970's the very first market for Panaflex™ Faces was to retro-fit Panaflex™ to existing sheet metal and angle iron signs built with rigid plastic faces. Broken plastic faces were scattered over the landscape with each big windstorm. It was a major problem, especially for big high-rise signs. Not only were millions of dollars lost in face replacement each year, but there was a big concern for liability. There was even a danger of legislation outlawing plastic faces over a certain size.

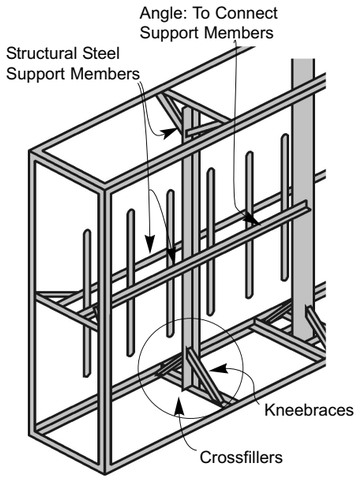
ABC to the Rescue!

As we have written elsewhere, ABC worked closely with 3M while they were introducing Panaflex™ and we first designed ABC's **Retro Saddle** to retro-fit Panaflex™ faces to existing Rigid plastic faced sign cabinets.



Back to the Drawing Board!

3M invested the time and money to develop the first engineering manual for sign frame construction and for tensioning of Panaflex.™ Thereafter, 3M would only guarantee their faces against blowout if new or existing steel frame sign cabinets met their design criteria that required much heavier internal bracing. 3Ms illustration (below) is from their manual. Spacing of the struts and knee-braces were determined by their engineering formulas.



ANGLE IRON FRAME TYPICAL KNEEBRACE TRUSS CONSTRUCTION

Gordon Sign Co., Denver, CO

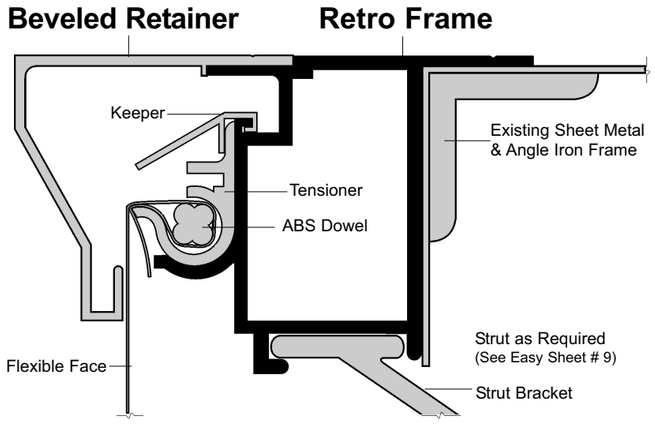
In most cases the sign had to be removed to work on the ground, or to be taken into the plant, retrofit the faces and re-install the sign. The costs were simply prohibitive.

Another ABC First!

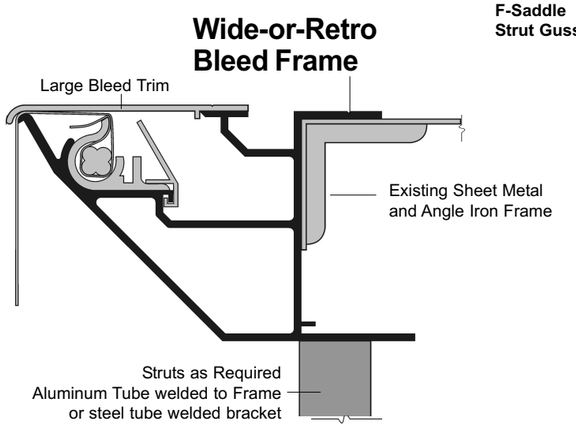
ABC quickly responded again with our hollow tube-shaped **Retro Frame** that was designed to provide all the strength that might be needed for retrofitting faces to existing steel frames, without all the internal bracing. It also provided independent ABC **Strut Brackets** that made any necessary struts a part of our Retro Frame system. Faces could be installed in this separate Retro Frame (with struts) and then be installed in the field as a complete unit.

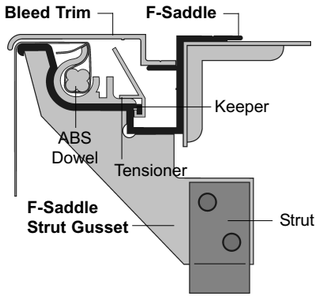
Initially, 3M guaranteed Panaflex™ would not blow out when retro-fitted to existing signs. But they soon discovered that many existing steel-framed signs were not strong enough to withstand the wind-force, which was different for Panaflex™ than for plastic faces. The original plastic faces would simply break and fall out, thereby relieving the wind-load on the sign and foundation! Because the Panaflex™ faces would not blow out, the frame would deform, or sometimes the sign would blow over!

While some existing steel sign frames failed, ABC's **Tensioning system** and **Retro Saddle** did *not* fail in these early applications.



In a few years, other Flexible substrates appeared on the market, and as flexible faces became more popular, ABC introduced our **Wide-or-Retro Bleed Frame** and finally, our **F-Saddle** and **Bleed Trim**, both for providing a means of retro-fitting flexible bleed-face applications. The latter were especially popular for using flexible substrate for long, continuous, shadow-free fascia signs





In many regions, more restrictive sign codes now prohibit replacing "grandfathered" signs with new signs. Many of these large signs with plastic faces continue to be a problem. However, they can still benefit from a flexible face retrofit, and present an opportunity for profit for your sign company to fill this need!

For those sign companies that still prefer to work with steel frame fabrication, ABC's Retro-Fit Extrusions offer the most economical and proven methods for fitting flexible faces to a steel cabinet! After all, we were there at the very beginning of this technology. As our slogan

ABC Frames Proved Strongest!

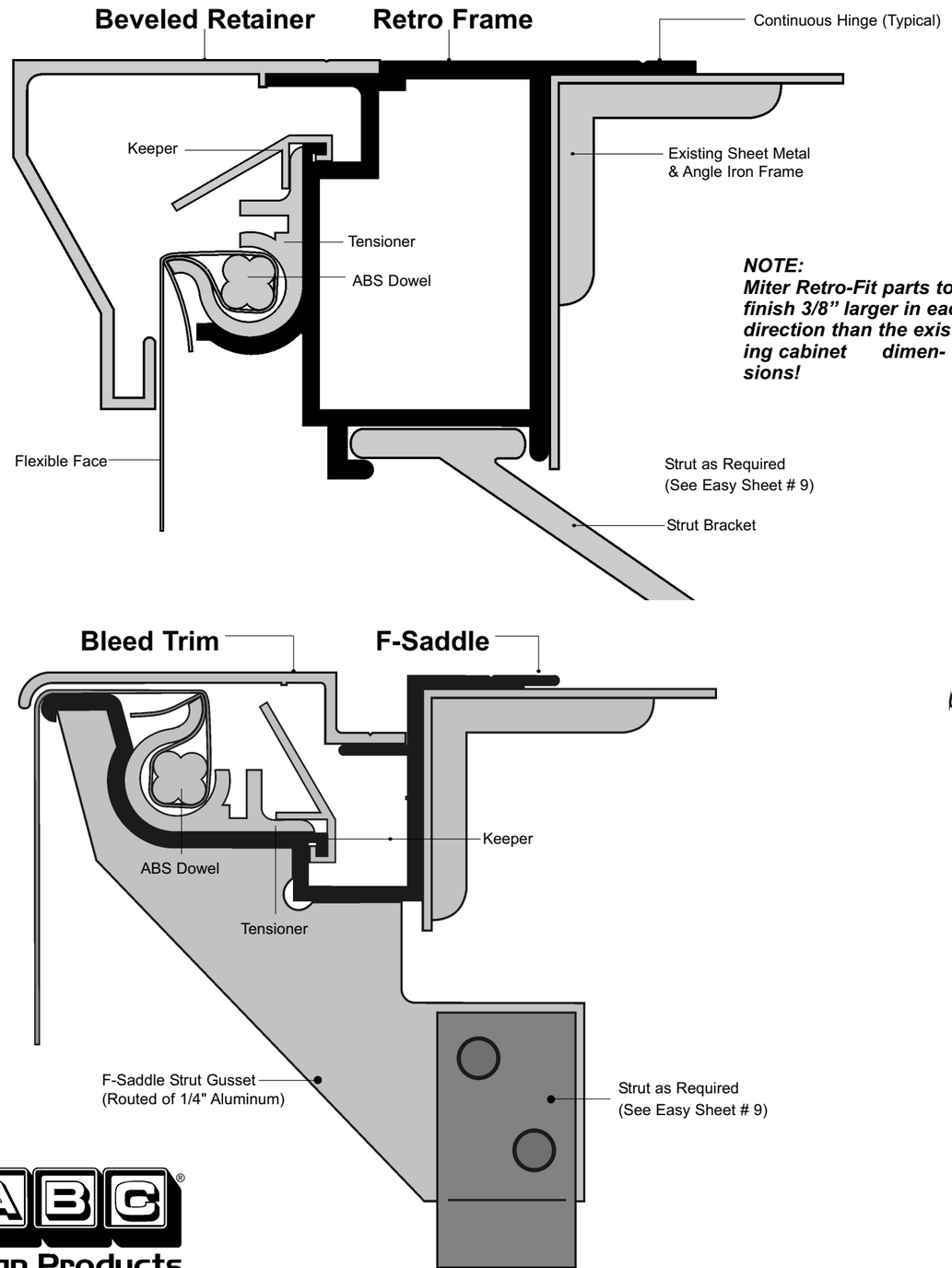
3M's engineering manual proved conclusively that ABC's extruded aluminum frames for flexible faces were the strongest and most economical in the industry. In the late 1970's ABC introduced our **Large and Small Access/Flexframes**, which were the final solution for building new flexible face signs.

They are so much stronger than typical angle iron and sheet metal frames that they require little or no internal bracing by comparison to steel! And they are so much less labor intensive that they soon became the standard by which all other flexible face construction methods were judged!

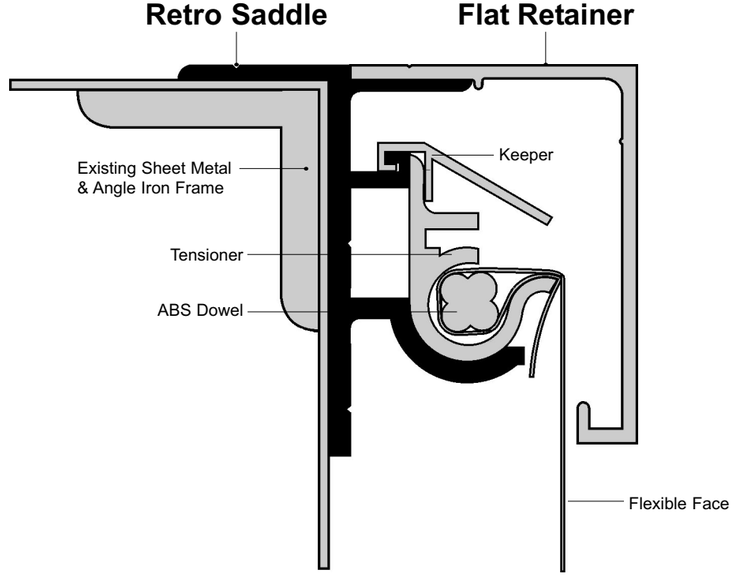
Obviously, aluminum costs more per pound than steel, but strength is derived largely by shape, which is impossible to duplicate in steel. Even though aluminum is a more expensive material than steel, the labor cost is so much less that there is an overall savings of about 25% for the frame only, and about 15% savings for the whole sign!

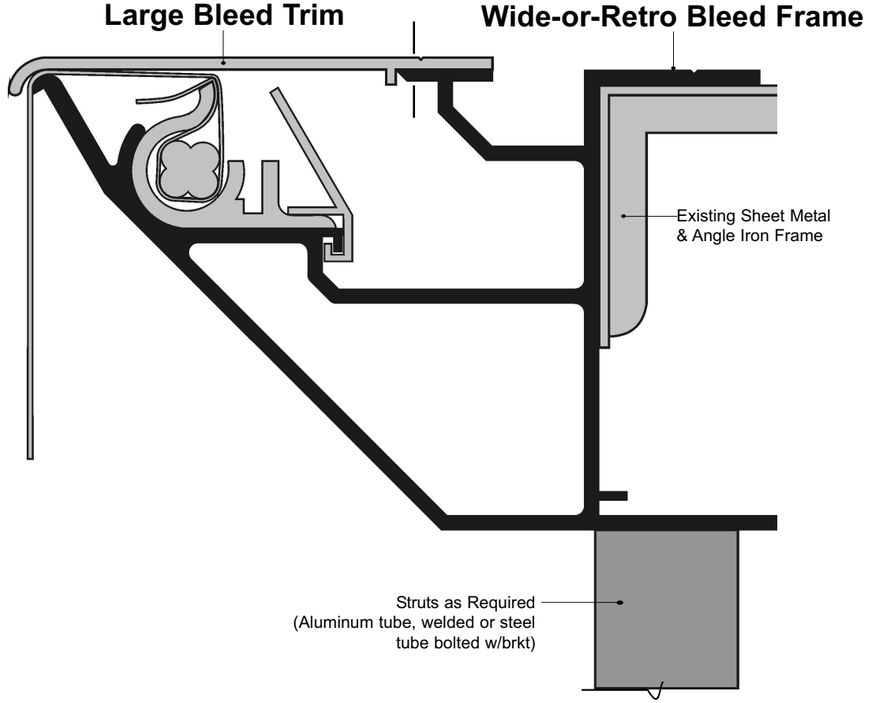
All of this occured a whole generation ago, and many of today's sign company owners may never have known the story of 3M's engineering, and how ABC Extrusion Systems proved to be the strongest on the market! Whether you need a Retro-Fit or a new sign frame system, please remember…
ABC is the Original…and Still the Best!

Retrofit Frames
Full Size Sectionals



NOTE:
Miter Retro-Fit parts to finish 3/8" larger in each direction than the existing cabinet dimensions!

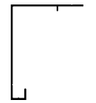




Retainers

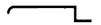
BEVELED RETAINER:
2.5" (64mm) wide. A popular "picture frame" retainer used for either flexible or rigid faces not to exceed a thickness of 3/16" (5mm).

FLAT RETAINER:
2.5" (64mm) wide. A standard retainer, used as an alternate to the Beveled Retainer.



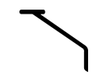
FLAT RETAINER: 3" (76MM) wide. Used to minimize any visible stretching around tensioners.

LARGE BLEED TRIM:
For use with the Wide-or-Retro Bleed-Frame as illustrated.



BLEED TRIM:
Allows the face to be illuminated to the very edge of the sign with no visible retainer.

Strut Brackets



STRUT BRACKETS FOR RETRO-FRAME

STRUT GUSSETS FOR F-SADDLE

CONTINUOUS TENSIONERS AND DOWELS: Used to eliminate "scallops" in flexible faces with perimeter borders.

See ABC's "Easy Sheets" for further construction details.

ABC® Sign Products