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Versatility of Options Is a Virtue by Michael de Ovando

There is no such thing as one system being superior to the other. Each system offers various features for different applications. This is similar to comparing the variety of features available with television units. As we know, some TVs offer more attractive features than others; some have a wider screen, others offer superior sound, and still others feature sharper images. This is why we, as consumers, have so many choices when searching for the ideal television set. We are free to choose from an array of sets and select the one with the features that most closely fit our needs and our budget.

Throughout my years in the steel truss industry, I have been very fortunate to experiment with, design, assemble and erect some of the most unique truss systems in America. From close observation of each of these systems, I can say that every system has certain advantages, depending on several factors. As you take a close look at steel truss systems in the market today, you will notice that each is quite versatile when applied to the appropriate project.

ALL STEEL TRUSS SYSTEMS ARE CREATED EQUAL

With light gauge steel trusses, you will find two systems to be prevalent in the industry: proprietary systems and CEE shape systems. Each type will offer a particular feature more suitable for a specific application than the other does. For example, some truss systems will tend to have better eccentricity values than the others can offer. Some will offer single sided attachment when assembling, which can be advantageous during the erection phase on the jobsite. Others will have better deflection values. So, which truss can really offer the features to satisfy all the engineering and feasibility criteria for all projects? All and none!

But how can it be all and none at the same time? All, because all truss systems are pre-engineered and will basically meet with the engineering criteria. And none, because there could be some project design criteria that one of the other truss systems could have performed better or could have been more cost effective.

TWO DIFFERENT ANIMALS

Both CEE shape truss systems and proprietary truss systems are cold roll-formed components with different section properties cut and assembled into a truss. Most proprietary systems roll-form their own shapes and cut them to a specific length, typically

40'. From this point, they are shipped to the assemblers, who add value to such components by cutting them to specified sizes and turning them into trusses. The difference between the proprietary and the CEE shape system is that the CEE shape system is cut to length during the roll-forming process. The pre-cut property can give this component immediate added value and can save the assembler time in the complete assembling process. But for inventory purposes, it is practical to have both the proprietary and the CEE shape systems on hand, as some will provide product in one standard size for chords and webs and others will provide the material cut to specific inventory lengths or cut to length for each job.

HOW DO I DETERMINE WHICH SYSTEM TO USE?

As the CEE shape system and the proprietary system are being assembled in a controlled environment facility, the assembler, ultimately the one selling and assembling the trusses, will usually decide which system is more suitable for each particular application. This decision is based on the type of project, the engineering criteria, the labor availability for truss assembly, the size of the trusses, and whether they will have to be assembled on-site or in a controlled environment due to the shipping logistics. While some systems are more on-site assembly-friendly than others, some projects forbid on-site truss assembly. When the trusses are oversized, shipping logistics make controlled environment assembly practically impossible.

As one can quickly see all product types available offer a variety of unique features much like the modern day television set and the key to selection is asking all the questions you can to assess how each fits best into meeting your specific business and customer needs. This country offers the greatest selection of truss systems available today, providing tremendous versatility for the variety of construction projects we are seeing in modern construction today. Working together to market steel as a highly versatile product in all markets where steel is the best economic structural solution will facilitate a stronger and more united component industry.

Michael de Ovando has been involved with cold-formed steel framing systems for nearly 25 years. He currently serves as president of USA Frametek in Austin, TX.

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