

STEEL MILL ROUNDTABLE

(Steel Mill Roundtable is an occasional feature in Modern Steel Construction. The Roundtable focuses on a single issue of importance to designers and contractors and asks the major steel suppliers in the U.S. for their opinions.)

Background: In the past, the least weight structure was typically the least cost structure. Today, however, reducing labor costs on the fabrication side can have a bigger affect than reducing the weight of the frame. Still, an understanding of how mills price their steel can be useful for designers and fabricators.

Question: What are some of the factors that determine the cost of steel today?

Robert W. Johns, Sales Manager, Nucor-Yamato Steel Co.:

Today in the U.S., wide flange and standard sections are produced by electric furnace mills of varying sizes and types. Each mill will have varying degrees of efficiency (labor cost, production rates), different capital costs, different debt structure and the like. However, some cost components are similar in nature, including scrap, electrodes, alloys, power, lime, rolls, purchased services and many others.

Part of the success of the steel industry's increase in market share in the building frame market relates very directly to the fact that average mill prices today are the same or lower than they were 10 years ago. One fabricator, who saved a 1979 price

list, related that his price of steel today was essentially the same as it was in 1979. That's about a 20-year freeze on mill prices while other materials have escalated in price over the same period.

Question: What constitutes the basic cost, and for what items are extras charged?

Greg DePhillis, General Manager, Plate and Structures, TradeARBED, Inc.:

Each size today has its own "base price", which is set by market conditions as established by the domestic mills. Prices therefore vary from size-to-size but price levels for 4" to 36" beams generally do not vary greatly and have no more than a \$10 to \$30 per ton separation. Some very heavy sections, such as Jumbo columns (W14x426 to 730 lbs.), where ARBED is the main supplier today, must still be produced via a separate ingot cast production method and therefore require a higher price level.

Currently, extras are charged as follows:

- Length—no charge for lengths from 20' to 60' on our small beam mill (4" to 18" mostly under 50 lbs. per ft.) and from 30' to 60' on our large beam mill (10" to 44" mostly over 50 lbs. per ft.). Lengths ordered can be at 4" increments (no fractions). Longer lengths up to 110' are available, but mill and shipping extras will apply. The mills prefer to roll large quantities of standard stock lengths (40', 50', 60'),

although they like to have some mixture of lengths on the books.

- Cutting—our normal cutting margin is +4"/-0". Cutting closer to tolerance via the cold saw is available at extra cost.

- Cambering—we offer cambering for all sections that we produce, but we are more cost competitive on heavier sections (over 200 lbs. per ft.).

- Grade—all sizes on our small beam mill conform to A36, A572 Gr. 50 and the new A572 Gr.50 per AISC bulletin #3. On our large beam mill, we offer this same tri-certification on W10x10, W12x12 to 152 lbs., W21x8¹/₄, W24x9 and W24x12³/₄ to 162 lbs. Other sizes have A572 Gr. 50 extras ranging from \$1.25 to \$2.25 per cwt. Our HISTAR A913 Gr.50 is available at the same price as A572 Gr.50. Our HISTAR A913 Gr.65 is priced \$1.00 to \$1.25 per cwt. (about 5%) over Gr.50.

- Bundling—sizes from our small beam mill must be purchased in 5 ton bundles, cut to any length from 20' to 60' at 4" increments. Sizes from our large beam mill must be ordered in a minimum quantity of 5 tons for the same size/length/grade. These may be cut to any length from 30' to 60' at 4" increments.

James L. Wroble, General Manager, Structural Products, Chaparral Steel Co.:

Chaparral Steel's Structural Business Unit pricing is very simple and is outlined on our

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published price list. Each standard length section has an F.O.B. Midlothian price per hundred weight clearly stated. Noted selected sections also are available F.O.B. regional depot points.

There are very few "extras" or "adders" to Chaparral pricing. For example, the following grades are currently available at published list prices with no grade extras: A36, A529 Gr.50, A572 Gr. 50, A572 Gr. 50 per AISC Technical Bulletin #3, CSA 44W and CSA 50W.

The following services and specifications are available for nominal charges; in some cases no charge applies if the customer's order meets certain parameters:

- cut-to-length/stock and/or rolling—no charge for lengths 30' and over; \$1.00 cwt charge for WFB and STD beams under 30'
- military specifications—\$1.25/cwt
- nuclear specifications—\$1.00/cwt
- ABS certifications—\$1.25/cwt
- Charpy impact requirements—extra varies
- A572 Gr.60—\$1.75/cwt
- A572 Gr.65—\$2.00/cwt
- A588—\$3.00/cwt
- other extras—exact piece count; special chemistries; and specified chemistries.

Johns:

Nucor-Yamato is not in the processing or customized service business. Activities such as exact cutting, cambering, tee splitting, piece marking, single piece counts and the

like have become the province of service centers and processors or, in some cases, the fabricator has changed its operation to satisfy those needs.

At Nucor-Yamato, we can handle bulk products very efficiently. However, structural products are very cumbersome to handle and are most efficiently handled in a mill shipping area several pieces at a time (bundles). As such, we greatly prefer multiple pieces of the same section, length and grade that are shipping via the same mode of transportation to one destination. The lighter the footweight, the more true this is.

As to length, each mill has different cutting constraints. In the case of Nucor-Yamato, our sawing setup and configuration precludes cutting pieces under 25' due to the very real and very high cost problem of slowing down \$400 million in productive assets due to congestion in the sawing area. Hence, we publish length tolerances, minimums and bundle piece counts that reflect the nature of our operation. We have a very broad range of lengths that require no extra. Over 80' presents some handling challenges, thus an "extra" for such lengths.

(If you have a question related to mill practices, please send it to Scott Melnick at MSC, One East Wacker Dr., Suite 3100, Chicago, IL 60601-2001 (fax: 312/670-5403; email: melnick@aiscmail.com)