

It doesn't matter how efficient your plant is!

What matters is the accuracy of your quote

Joe Arvin

To ensure profitability and avoid losses, accurately quoting jobs is the first line of defense.

The importance of accurate quoting for YOUR plant

The reality is this: When you are quoting, it really doesn't matter how efficient or inefficient you are, or how new or old your equipment is. What really matters is how accurate your quoting is to make a profit running that job in *your* plant. Accurate quoting is paramount. And once you start production on a non-profitable job, it's all over but the shouting!

So you might be saying, "Ok Joe, I agree that an accurate quote is essential, but how in the world can I predict the problems which *can* occur?" The primary challenge with quoting is trying to account for the "unforeseen" variables that may arise. Here are a few tips that I've learned to minimize the unpleasant surprises.

The Disclaimer

First, it's a good idea to have some type of disclaimer on your quote to keep you from getting blindsided — especially important for long-term agreements (LTAs). Consider something like this:

Price is based on data and information furnished at the time of quotation. Any changes or additions in specifications could affect the quoted prices. Any escalation or de-escalation in the material cost can require adjustments to the quoted prices.

Who to Involve in Quoting

A common question is, "Which resources should be involved in quoting?" Should it be one person, the president, sales manager, engineering manager, plant manager, or a team from engineering, purchasing, quality, and/or sales?

The answer to this question depends on two key issues: the size of your company and the size of the order. For a smaller company, when one person is quoting, I would suggest that they con-

sult with the sales (for market intelligence), quality, and/or engineering departments. In larger companies with more resources, it is reasonable to have a quoting team. However, regardless of the company size, when it comes to large, complicated orders, or LTAs, it's prudent to involve everyone who could add a valuable perspective.

Quoting by Similar Jobs

Obviously, the best method for quoting is to use information from a previous run of the same part. A word of caution here — don't rely on your memory.

I always felt that I had a good memory for parts and part numbers we had made. However, several years back, we quoted one job and after being released to the shop, I was talking to Lou, the manufacturing manager, who said, "Oh no, we've got *this* job again!" Surprised, I said "What?" To which Lou replied, "Don't you remember this job? It was a big loser because of heat treat distortion!"

After that experience, I made sure the first step was to ensure all quotes were thoroughly reviewed for matching part numbers. And for the occasions when there was not a matching part number, we developed an identifying characteristic part code.

Do you have an identifying characteristic part code? If you don't, it can be a costly and laborious process looking for a similar job. For example, such a code will represent all the key characteristics, telling you if the part is a spur gear, helical, bevel, spline, or combinations, ground teeth or not, number of teeth (\pm range) OD (\pm range), overall length (\pm range), or any other characteristic you'd like to track.

Quoting by Processing

Another good method for quoting accurately is to develop a rough process; however, this is costly if you don't get the job. For large volumes, LTAs, or very complex parts, you may want to do a rough process.

Market Intelligence

There is one more step that can mean the difference between not getting the job and getting it with a reasonable profit. While I'm certainly not suggesting any type of corporate espionage, it doesn't hurt to talk to people. What have your sales people heard on the street?

Even the customer can provide market intelligence. One time I remember having some technical questions about a part we were quoting. So, I called the buyer and he said, "You're going to have to talk to Ted; he's the engineer on this project." Later, during the discussion with Ted, he said, "You do know the EB Welder charges \$275 for each part, and we require 17 x-rays of the weld." Previous welds on similar parts were \$165 with only five x-rays. These additional costs came as news to me, and obviously were essential in the pricing. So, keep in mind that talking to the customer can be vitally important.

Aerospace Quoting

As some commercial gear markets have contracted, many gear companies have looked at the prospect of pursuing aerospace work. Accurate quoting for the aerospace market is especially critical to ensure profitability. The following are some points to keep in mind.

Contract Review — I learned the hard lesson about contract review years ago when my company had first expanded into aerospace work. After receiving several parts from the same customer, we got an order for a new part. We based our quote on the previous orders. After getting the job we discovered that we had overlooked an additional SPEC that required dynamic balancing. Had we performed a contract review, this costly error would have been avoided.

Contract review is a must. This will help you spot cost risers found in the SPECS which refer to "other SPECS" that are not detailed on the blueprint, such as shotpeening, various surface coatings, or the requirements to only use

approved sources that might be located on the other side of the country.

Other Aerospace Costs—The hidden costs of aerospace work are well-known to gear makers experienced in supplying this sector. For example, it's a typical requirement that one part will need to be cut up after heat treat. There was, however, one occasion that caught me by surprise. The customer not only required a cut-up part after heat treat, but also one after gear grinding and another before final inspection. Being a small order, and at \$1,275 per part, losing an additional two parts made the job non-profitable.

There are other hidden costs. Don't be surprised if the customer requires 100 percent inspection reports for involute, lead, tooth spacing, and runout. You need to charge for these costly activities. Are you also charging for first article inspection? Are you charging for 100 percent magnetic particle inspection and surface temper inspection?

The bottom line is that missing any of these requirements can transform an otherwise accurately quoted job into one that is a loser.

Keeping the Machines Running

"So Joe," you might be asking, "If I quote accurately, can I say goodbye to non-profitable work?" Consider this.

Frank Pielsticker, one of the founders of Arrow Gear, always used to say, "If the machines aren't running, we're not making money." Through the years I have come to believe that "break-even" work is better than having idle machines. It may be in your best interest to take some break-even jobs, as this pays for some overhead. Remember, if your total direct and indirect cost remains the same, it is better to have some money coming into the till, than to not. However, this cannot be your standard operating procedure! When you take this type of work, be sure you communicate to your customer this is a special discounted price.

And don't forget that having an operator running two machines will make this

type of work even more attractive. Over my working career I've had accountants and consultants come in and say to get rid of all non-profitable jobs. But they might be looking at a standard rate for each machine that covers all costs and overhead. And if an operator runs one machine, they're right. That job needs to be quoted to account for the standard rate. But if the same operator runs two machines, the second machine is almost free in terms of overhead. If I knew a job was to be run on a second machine by the same operator, I would comfortably quote less for the job. Accounting would say we lost money on that job, but we didn't.


Tracking Your Record

It is important to know your quote win rate. Hopefully you communicate this to your sales people. Are you promoting this specialty in your ads on your website? Are you keeping your light under a barrel?

Conclusion

Quoting is generally not an exacting science and is generally more of a game of chance. But using a few carefully considered guidelines, you can turn more opportunities into profitable jobs.

A Final Word

If you're having a particular problem or if there is a topic you would like to have addressed in this column, please send me an email at ArvinGlobal@Gmail.com. 

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