COMPOSITE MATERIALS AND METALLIC APPLICATIONS FOR AEROSPACE & MEDICAL DEVICE INDUSTRIES

Fluctuations in Price Quotations between Suppliers in the World of Machining

10 Reasons Why

The world of subcontracting is a fascinating one, and the competition among suppliers usually brings them to higher levels of creativity and productivity. This competition between subcontractors is what breeds large fluctuations in their bids for the same job. In a study conducted by the research group Gardner Intelligence within Modern Machine Shop (editor Peter Zelinski), many interesting reasons were discovered for the vast range of differences in price quotes for the same package. They asked a number of suppliers to prepare a quote for certain parts, and learned what most buyers already knew — the price range among quotes was quite broad. Apparently, there is no simple and unequivocal answer to the simple question "How much would it cost to machine these parts?"

The company MakeTime (www.maketime.io) is trying to coordinate between suppliers and customers and, in preparing a particular format, the company recorded ten discrepancies in the submission of price bids for identical parts. To simplify the pricing, the company recently introduced a "web pricing" mechanism that can estimate the cost of machining based on historical data from MakeTime and a pricing analyses of similar parts (comparable to that of GROUP TECHNOLOGY).

Apparently, there is no single explanation for this phenomenon, but rather a variety of reasons. Below are ten reasons for the vast disparity in suppler price quotes.

1. Capabilities

Many factories can produce a specific item according to the specification (model), but not all of these companies have the same level of sophistication when it comes to manufacturing the product. The difference between parts that require 5-axis and 3-axis machining, dramatically affects the price. In addition, the existence of complementary production capabilities such as sharpening, special processes, etc. inside the factory will be preferable to outsourcing such services.

2. Capacity / Volume

Factories that are overloaded with work will often issue high bids due to lack of capacity.

3. Interpretation / Comprehension

Companies interpret the exact same requests for price quotes differently. Those companies who are familiar with the customer from previous projects or from a previous work relationship understand that some of the specification requirements are meaningless and will not be checked on the same basis. However, a new supplier entering the market does not know this 'secret' and does not know what he can ignore or disregard. At the same time, an experienced manufacturer with countless connections might fail due to a change in the customer's policy of which he was not made aware, in which case the inexperienced supplier will have the upper hand.

4. Regional Dependence

A correlation exists between the location of an industrial zone and the price bid. A plant located in a distant or remote rural area will offer a lower price quote than a plant situated



COMPOSITE MATERIALS AND METALLIC APPLICATIONS FOR AEROSPACE & MEDICAL DEVICE INDUSTRIES

in an area crowded with aerospace suppliers. The remote supplier will also usually take upon itself to deliver the product to the customer's door.

5. Automation

In large-scale projects, labor costs will have a significant impact on the price.

6. Manufacturing Process

An experienced engineer or technician will discover the way and process to reduce SETUP or to shorten the process and will offer a lower price in the quote.

7. Relationships

Relationships, contacts and professional networks will provide those with experience the tools needed to provide a better price quote than others.

8. Uniqueness

If the factory has industry or specific process accreditations, special machinery or fast and reliable inspection, chances are the price for penetrating into the specific industry will be lower.

9. Production Envelope

The work pace to which factories are accustomed will affect the price quote when the quote requires a rate of work that is different to what they are unaccustomed to.

10. Mistakes

Making mistakes in price quotes is an inherent part of the manufacturing world. Sometimes human error is all that is behind an especially low bid. In such a case, the factory which is bidding on the project -- and the customer -- will be lucky not to win the job!

Eli Yudkevich is a retired CTO and deputy director for Israel Aerospace Industries (IAI). He is currently a senior engineering consultant for the aerospace industry, specializing in matters related to infrastructure and strategic marketing. He can be reached at eyudkevich@gmail.com