

Dr. Die Cast



Decoding “Design Intent” (What did the engineer really need?)

Some of you may have experienced the “Telephone game” in which people in a circle whisper a word or short sentence to the person next to them. The receiver repeats the message to the person next to them and so on until it returns to the person who started. He or she repeats out loud for everyone to hear the message that returned. Quite often there is little resemblance to the original meaning. In today’s global business climate the effects of miscommunicating in a second or third language is amplified. We often depend on the dimensions and tolerances on a design to provide the key information that we need in order to deliver what the customer expected. Therein often lies the problem. Failure for both parties to truly understand the part requirements and the capability of the processes available from the supplier can lead to crippling delays in product launches, excess shipping costs and heated long distance conference calls.

What is a supplier to do? Read the fine print in the “Request for Quote” (RFQ). It is not unusual for companies to reference “Engineering standards” that are unique to their company or specific industry. It is also quite common “Not to include them” with the “RFQ”. One needs to thoroughly review the notes on the drawing and request copies of internal standards that were referenced in the drawings. In some cases they define porosity standards that were not specifically defined on the drawing and may or may not

be appropriate for the specific part you are being asked to quote. It is always beneficial to understand how and where your part will be used. For example, is your part specifically intended for use near the ocean? Corrosion resistance testing and certification might be a part of the standard. What about surface preparation, finishing, coatings, paint, powder coating, etc.? Each requirement includes certain testing and verification methods and/or equipment. How about internal porosity standards? Do you have an X-ray or would you have to outsource? Is your supplier available 24/7? Are yours or your supplier’s X-ray operators certified to national testing standards?

“Fit and function” may be all the testing required, but does everyone at your customers’ plant have the same expectation? Quality standards based on conversations between purchasing and sales or engineering almost never filter down to the floor level. I have seen “Quality standards” in 3 languages that filled an “E-size” (33” X 44”) paper! The written standards in that instance imposed an X-ray standard that exceeded the manufacturer’s capabilities and limited production at the auto assembly plant. If little or no heat checking will be tolerated, do you and your customer have a financial agreement in place for tooling maintenance costs and insert replacement?

Educate yourself and your customers. Both supplier and customer need to be experts at their products. If you don’t understand

your own capabilities you will inevitably oversell your product and/or production capacity. None of us can afford to be a “one man show”. There are often highly skilled leaders within companies who are driving the success of the company. Often the skill levels do not go deep within the organization. The retirement or “vacation” of one person should not determine the final success of a company. For this reason it is essential to have a training (and succession) plan. Who is your back-up when you’re on vacation? Time away from work isn’t always scheduled as in a vacation. Personal emergencies will always happen. It only becomes an organizational emergency when you haven’t prepared yourself and your team.

It was noted recently a two day NADCA class was cancelled because we didn’t reach the minimum number of attendees. The reason employers gave was that they couldn’t afford to lose people for two days. Employers felt they could spare someone for one day but not for two days. If that is the case in your facility, then perhaps it’s time to do more training. The one hour NADCA webinars have been a welcome system of training in-house. They are often introductory by necessity, but it is a good way to evaluate where more detailed training is needed.

Make it a great year and I’ll see you at some of the NADCA events.

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