

Quality Control

The Key to Better Products

By Jim Burke

A quality control program can improve your product quality and help you spot problems that may be impacting your bottom line

Many production framers believe that quality control (QC) is a nebulous thing that's of marginal use for framing operations. Often the view is that it may be great for large manufacturing processes like building automobiles or airplanes but is not really necessary for the smaller companies like production framers.

The truth is, of course, that without quality control in your business, the quality of your production ends up being whatever you allow out the door--whether or not it was planned that way. Even for smaller companies, quality is important and it can eventually build or ruin a company. If the quality isn't there, your customers may not be there in the future--unless your price is so cheap that they don't care. And even then, your profit might not be there.

Most companies have a quality level they want to maintain based on the type of product and the market they sell to. But that's not what most people would consider real QC. The question is, how can you upgrade from a haphazard maintenance of quality to a real QC program? How large should a QC department or operation be? For smaller framing companies with limited personnel, it's usually less about having a department and more about developing standards that all departments have to meet.

Overseeing quality is not just the job of one person; it is the job of many people in their own areas of production. For instance, when moulding comes



A good quality control program can lead to satisfied customers, including those who like to make the final inspection for orders containing a large number of pieces.

Quality control for production framing is an important part of the final fitting process, which must be clean with no mistakes showing.



in from a supplier and is being racked or stacked, does someone check the condition of it? If the moulding is scratched, damaged, or incorrect in any other way, do you wait until moulding is needed for a job to discover the problem? The same questions can be asked about any materials coming into your facility.

The first step in quality control is to verify the condition of all purchased items and material as they arrive. Most of what framing companies buy is considered standard material, not custom components. Therefore the quality of the material is of primary importance. Incoming product quantities should also be checked and matched with the original order.

If an item is being manufactured for you to your specifications, those items need to be inspected carefully to ensure that they were made correctly. In any type of production, the first rule of QC is to make sure you got what you ordered, both in specification and quantity. If you're ordering frame hardware and five companies are supplying you with that hardware, you need to inspect every part as it comes in. Otherwise the inconsistencies will show up in the production process, slowing everything down. Parts that are not made correctly need to be brought to the attention of your suppliers. There is a good chance their quality control may not be working properly if this is a constant issue. If supplier quality isn't up to your standards, how long would you continue to use their services?

The fact is that any incoming product that does not meet your requirements, whether standard or custom, will eventually cost you in lost time. This time can be very important in the long haul, especially if you have to work around inconsistent materials for a large job. Checking for consistent material quality and quantity when it first arrives will save you money over time.

A Systematic View

Taking a broader view, there should be a system in place that allows the person responsible in each part of your company to reject product that doesn't meet your standards. And there need to be standards available for reference.

This is where smaller companies can run into problems. With a small workforce, there might be one key person to reject or accept frame rails to make sure they are cut properly, joined properly, and delivered to the assembly area in good condition ready for fitting. Every frame has to be assembled properly and have the correct dimensions for the job at hand. Especially when making individual components for a large job all at the same time,



Checking for quality is not just for completed frames. To ensure the best products, important steps in the framing process, such as creating tight corners, also need to be monitored as part of a quality control system.



For some jobs, corners like these are adequate, but for others they might not pass the test. It is important to establish regular quality standards, which can be supplemented by individual customer requirements.



everything has to meet standards. For most production companies, the frame is assembled at the same time the glass is cut, the mats are cut, and the backing boards and mounted art are all headed for the fitting area. If one component doesn't meet specifications, it shuts down the whole production process.

QC is especially vital for large framing runs. Someone has to cut and join the first few frames to be sure the product and glass fit properly. Without this step, you could produce hundreds or thousands of frames that aren't correct. So even if you don't have an official QC process, you need to be aware of the benefits of having one. Even at a small company, the time taken to set up a QC system can pay off if just one slow product run is eliminated.

Setting Up a QC Program

So how do you set up a basic QC system at your company? First, if you don't see the need for it, you won't approach it properly.

Reporting System: Problems with quality, whether with incoming materials or manufactured components, need to be reported in some fashion. Will your reporting system be strictly verbal, or do you want a written note or report for future reference? A short, standardized form can be used to track errors and can help you see just how good your quality really is. The nature of a reporting system can depend on the size of your company and staff. After all, you don't want a QC program that is so involved that will cause you to exceed the profitable limits of a particular job or your company.

Personnel: After you determine how you want problems reported, the second step is determining who will report these infractions. Once they are reported, it's also important to assign the responsibility for correcting the problems. For a small company, this might be the same person.

Sampling: Do you plan to look at every frame that goes out the door or every stick of moulding coming into your plant? That can be time consuming if you have runs that are very large. Many QC programs at large manufacturers look at a sample, such as one in every 10 products. Then, if problems are spotted, that sampling might be increased to one in every three or four—or perhaps every product—until the quality issue is resolved.

Problem Solving: Fixing defects requires a systematic approach, which is the third step in creating a QC system. Quality isn't just about rejecting bad products but using it to fix those problems. Solving problems as they are discovered and reported properly will help ensure that the problem doesn't continue to repeat itself in the future. Everyone has problems in production because of materials or personnel.

How you remedy these problems will determine the success of your QC system. Will the problem solver be the same as the problem reporter? Sometimes it takes a person with more experience to solve the problem than it does to spot a problem. Remember: the goal of QC is to make sure there are no problems to report. Investing time now to correct quality problems can have a positive effect on your bottom line, whether it is from time saved in production or sales increases because of better final quality to customers.

A Final Thought

QC in framing is often only about the final product quality going out the door. Though it is the “final” quality check, it's really only a part of the total QC picture. Each step of the manufacturing process leading up to fitting also needs to be monitored as each component is made. And QC should continue after final assembly; it isn't over until the product is shipped and arrives at your customer's door in good shape.

Sometimes customers may want to give the okay on a group of products that you manufacture for them. A customer's input can be helpful in determining the overall quality level needed for that job. QC for a particular job shouldn't end up costing you profits, however, and should be tailored to fit a client's needs while staying within a manageable budget. The production framing market is unusual in this regard because few other industries can change their QC standards to meet individual customer needs. Ideally, your regular quality standards should be high enough so that a specific customer's requirements wouldn't require any changes in your procedures.

You may not have an inspection room or a person with the title of QC manager, but it is very beneficial to manufacture like you do. Maybe it's the owner or production manager who checks quality, but it's something that must be done if you want to produce consistent quality. It's not just a catchphrase; it should be part of everyday life to make sure that all aspects of your company are producing the best product it can. ■

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