

CNC operators

diminishing returns when passing on knowledge

New Zealand is suffering from a shortage of skilled CNC operators, ask any company that has a CNC machine and they will all say that CNC operators are hard to come by. Why is this when the woodworking industry has used these machines for many years, what has happened and what can be done about it? Anthony Scammell from Design2Cam gives us his insight.

The answer is that over the years companies have had CNC machines installed and they have trained someone in their workshop to use this machine, this training has typically been done by the machinery company selling them the CNC machine. This one operator has not only had to learn the operation of the machine, but in many cases also how to create the programs to run on the machine. This is a steep learning curve for anyone, especially when you consider that the first CNC machines were upwards of \$1 million.

So these new operators got used to the machine and "worked out" how to do certain things and so everything looked great and the work seemed to run smoothly. Then another company purchased a CNC machine and they decided it would be better to employ someone that had some experience on a CNC machine to shorten the learning curve so they "poached" an operator from the company that had previously purchased a CNC machine.

This then left the first company without their "experienced" CNC operator, so they did what any employer would do they got another guy from the factory and before the operator left they got him to teach the guy all he knew about the machine and programming. This sounds a good idea and means that the factory continues without any hiccups. However what has happened is that the "trained" operator who only remembered 80% of what he was taught (if he was lucky), has passed on that 80% to the new guy who now possibly only remembers 50% of that 80% or even worse only knows how to do the work they currently do.

So the company then gets a new contract with different machining and the new operator (maybe

even the old one as well) does not know how to do the work, he fumbles through and eventually (hopefully) manages to get the work through the factory, but not as efficiently as it should.

Now consider what happens as this second-hand trained operator leaves and another one is trained by him and so on, slowly you find that the person operating the machine only knows enough to make it go. Each time the information is passed on it gets distorted and not everything gets passed on, slowly diminishing the amount the operator actually knows about the machine and the software. This is not very good for the business and can slow the production considerably. Where is the efficient manufacturing now.

So what is the answer?

The answer is that New Zealand needs more qualified and trained CNC operators, people that have had formal training, that have a certificate to confirm that they are a CNC operator. The benefits of this are huge for any business, efficient manufacturing being the major benefit, confident staff and with more CNC operators in the market less poaching and longer service to a company.

But you say - *if as a company I spend money to train the operator all he will do is go off and work for someone else or demand more money when he has gained his certificate* - this is no different to the situation of an apprentice served cabinet maker, carpenter or joiner.

The answer is smart thinking and great contracts. If you are going to put a person through the training, you are committing to support them for the 12 months duration of the NZQA CNC strand, so the same contract should have a clause that states if the person

leaves your employment within say 2 years of the completion of the certificate they have to repay a certain amount to your company as compensation.

We need the employers to break the circle of the shortage of CNC operators, once this cycle is broken then everyone will gain, instead of training just one operator, train two so that if one is sick or on holiday someone can take his or her place, better still upskill all your factory staff so they can all operate the CNC machine, then you will never have the issue of the factory slowing due to the lack of a skilled CNC operator.

When your staff are trained the factory will run much more efficiently, which in turn will mean a better bottom line for the business. It will also mean happier staff which will mean they will not be tempted to look elsewhere.

You are not allowed to drive a car, truck, motorbike or forklift without a licence, so why should you use a CNC machine without an NZQA certificate, it is just as dangerous.

