



Modern Machinery Company

Profile Machining Center Expands Capacity And Decreases Production Time



From left, Kelley Lasek (Chief Operating Officer), Tim Walton (Lead Fabricator), and Bob Sloan (President) stand in front of their Elumatec 151. With the SBZ 151 LinEl Signature has been able to reduce production time on some parts by over an hour.

LinEl Signature was founded in 1974 and was bought in 1996 by Bob Sloan who is currently the acting President. LinEl signature primarily manufactures custom skylights for industrial use. In 2008 LinEl Signature purchased an Elumatec SBZ 151 profile machining center, Bob and Kelley Lasek, Chief Operating Officer, spent a few minutes talking about the machine and it's software capabilities.

What do you manufacture?

We manufacture skylights, ornamental metal, and panel systems mostly out of aluminum, but we do cut some steel. They are commercial skylights that can cost anywhere from \$50,000 to 3 million, but we do some high end residential also. Everything is custom, no kits.

How were you making these parts before?

Well we used drill presses, milling machines and radial arm saws and we would set up and cut single pieces.

Was that time consuming?

Oh yes, for a typical hip rafter there are probably about 20 steps we have to go through to make a piece. For a typical hip rafter, even with our best fabricator it would take about 1 hour and 15 minutes. That would consist of compound miter on one end, miter the other end, notches, holes for pins, so it's a pretty complicated construction.

With the Elumatec 151 and the Elumatec 150 before that, you load the piece of material and push a button. On our first job with the Elumatec we averaged just over 4 minutes.

Has the Elumatec improved your tolerance?

Yes that's one of the real advantages to this machine, the accuracy. We used to have to countersink holes or drill holes with a hand drill and if the operator had to drill 2000 holes a day, by the end of the day the parts weren't coming out straight. Now everything lines up, it's consistent and repeatable. With this machine if the first part is good the

“With this machine if the first part is good the 100th part is going to be good.”



With the Elumatec 151 LinEl Signature produces consistent, repeatable parts that offer precise fit-ups.

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What impresses you the most about the Elumatec?

The Elusoft software makes this machine. It's a windows based system that is easy to operate. You can program down on the floor, on the fly and it's very easy to do. Within the programming it will check for problems and make sure you don't collide with the part. It also moves the clamps and separates parts so you can put a factory end on a 30ft extrusion, not only on the first piece, but you can put it on the 10th, 11th and 12th piece. That's what gives this machine an advantage over CNC machines.

The Elusoft software allows you to run the machine virtually. They can simulate the run, the saw blade, the milling machine, the drill, everything on the machine. You can walk your way through it and have a virtual part. And that is very helpful.

What about the programming, how has that affected your process?

It's truly been a capacity expander for us. It has allowed us to standardize our typical, non-changing processes like the distance and the slope angle. Those things are programmed into the machine and held in a library. Now when we need to tweak something, the guys in programming can go 'click, click, click' and change the miter on a slope instead of having to re-write a program. And that's where the real savings is, in programming.

We sell lead times and as we begin to develop new programs and do different things for different jobs and expand our library our lead times decrease.

How has the automation affected your personnel?

Positively, they (the employees) like the machine. We have a constantly evolving training system where we try to intermix brake and fab, so we have less guys in fab, but we have not let people go because of the

Elumatec. We have just expanded our capacity.

What are the benefits to running an automated system like the Elumatec?

It's very

comforting to have a stack of metal that goes into the machine and it comes out complete as opposed to more touches, more human intervention, and more errors. With the Elumatec you get a complete, error free part.

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