

## Day 5 ~ Vishay Dale Resistors Division



Pictured Larry Stuchl & Tracy Dodson

Today I started my, Return to Industry experience with Larry Stuchl. I met Larry about four months ago at Columbus High School where he and Jared Mulligan who came into CHS on Wednesdays to show our advanced manufacturing class how to square steel and run our new Milltronics machine.

Larry started the day out by showing me different departments in the plant. I met a lot of people who were all doing different things such as running wire EDM machines, plunge EDM machines, quality control, mold makers, press workers and machinists. Just like field trips in the past I had very little understanding going into today how technical everything is in each department. When I go on field trips I am usually supervising students and don't focus on what is being shared as I am trying to get the kids to listen to what is being said.

If you have ever heard the saying, "It was like watching paint dry." This experience was the total opposite of that. It was more like one of my favorite quotes, "Those who do the work, do the learning."

Larry gave me ten prints and he said, "Go." The time went extremely fast. I greatly appreciated the time he took to help me with my weakness when he taught me conversational language (basically getting rid of G and M codes when machining). We started a part from scratch using a vertical bandsaw that was specifically made to be used on aluminum and acrylic. He expressed the importance of people following the directive of using the right blade for the job.

I learned how to rough then finish a rounded  $\frac{3}{4}$ " x 6" x 4" plate that started at 6  $\frac{1}{2}$ " x 5". We zeroed off the back-fix jaw of the vice and frame milled it to .625 deep all around. Once again he taught me to use conversational language and we milled out a pocket in the plate clear.

The third program did the same thing. We made a rectangular pocket, finished inside.

The fourth program was a circular pocket, clear with a  $\frac{7}{8}$ " radius, .200 deep

The fifth program was a circular finish inside of the fourth circle, 1" radius and another .150 deep below the .200 hole previously done.

The sixth program which took Larry a little more time to explain to me, was a  $\frac{1}{2}$ " diameter hole .550 deep. Larry then took me to the middle of the plant and explained to me what thread milling looks like and how it works. We then put a  $\frac{1}{4}$ " end mill in the machine and ran the hole. We had to Z every one of the previous holes so I've Z'd the tool five times by now.

The seventh program was drill and tapping four holes that also took a considerable amount of instruction from Larry which I greatly appreciated. The four holes were all tapped with a 10-32 tap. We didn't break anything!

The eighth program we drilled eight holes using a conversational program that made the CNC programming that I'm used to probably 20x faster! We basically told the machine where to drill the eighth holes and a few lines and it did it.

The ninth program we flipped the part over and programmed it to take off another .250 deep to make the part to its thickness.

The tenth (and last) program was probably the most time consuming. I Z'd off the tool once again and I gave the machine multiple linear and radius moves. Once we were done Larry showed my how to delete other blocks and we put a .05 chamfer around the part.

To sum up the day, it was extremely evident that Vishay, especially Larry put a lot of effort in preparing for my day and making it extremely educational for me which in turn will benefit many CHS students. I can't wait for tomorrow!



Start of my Millplate



After programs 1-9