Daniel Eschbach

Drawing – Programming – Manufacturing: This is how Versatile Training as a Polymechanic is

When your own drawing actually becomes a product that you can hold in your hands at the end of the day, it's a great experience. In my polymechanic apprenticeship at Muller Martini, I learn from A to Z how this manufacturing process works – and much more besides.

What I knew one hundred percent after my first trial apprenticeship as a physics lab technician: I wanted an apprenticeship where I didn't just sit in an office or lab, but could also do something practical with my hands. Something that you can also touch. At the same time, I've always loved programming. And so I found the perfect apprenticeship for me as a polymechanic.

One of my main activities as a polymechanic is manufacturing. I manufacture components from metals such as steel, chrome steel or aluminum. These can be single-part productions, such as express parts for assembly or prototypes for engineering. Or we have larger series orders that take longer. It can happen that I have to make the same movements all day until the job is finished. So it's good to have a lot of stamina for this apprenticeship and be able to work with concentration at the same time.

My highlight: Programming

On the one hand, I work on lathes, milling machines, drills and grinders – this requires skilled hands above all. On the other hand, we also use computer-controlled machines. I program

these on the basis of a design drawing and determine the necessary machining steps. Programming in general and CAM programming in particular are what I like best.

Drawing something three-dimensionally and then seeing what comes out of it is a very exciting process. I need a very good spatial imagination and an understanding of abstract relationships. I also learn which tools are needed and use them to equip the machine. Then there are the first test runs before I finally hold the finished part in my hands.

Get the maximum out

I really enjoy working on the machines. It is a challenge to load the milling cutter as well as possible. On the one hand, I want to go so fast that production doesn't take too long. On the other hand, you can't go too fast either, or you'll hit the vise at full speed or break the part. And carbide cutters cost a lot when they have to be replaced – my vocational trainer wouldn't be happy about that. That's why you slowly approach the optimum cutting data at the beginning until you can finally get the maximum out of the machine and the process.

What I like about my job is that I work very independently right from the start. I receive an assignment from my vocational trainer Martin Richner and can then get started right away. Of course, he's always there when questions arise or I'm waiting in line somewhere. He has a lot of experience, so I can learn a lot. For example, if you can't clamp a part well in the machine, he always has good ideas on how it might work even better.

A good feel for numbers

In addition, he also supports us intensively in studying for school or preparing for exams. Before we had even started our apprenticeship, he was always cramming math with us on Thursday evenings so that we could start at a better school level (E profile) at the vocational school. He generally finds a good balance between being strict and relaxed at the same time. I feel very comfortable with that.

It's important for the polymechanic apprenticeship that you're good with numbers. Physics is one of my favorite subjects at vocational school, which I attend in Zofingen for one and a half days. I like solving trigonometry problems and calculating torques and powers is great fun. You have to be able to think logically to solve problems and figure out new approaches.

A lot of support at the start

Of course, at Muller Martini you are slowly introduced to the tasks during your training, and the learning content builds on each other logically. I found the start of my apprenticeship very pleasant and received a lot of support.

After the trial apprenticeship and the extremely pleasant job interview, the first thing we did in the first week of work was go to the training camp. There we learned a lot about Muller Martini and were able to get to know the other apprentices and the vocational trainers. The program consisted of a good mix of group work, lectures, sports and excursions. It was a very good start to my apprenticeship.

Basics and more

Back at the factory, we started with basic training in filing, drilling and sawing. Later, milling and turning were added. We learned how to calculate cutting data and were already allowed to carry out simple orders from assembly or engineering. In the second year, we had to learn how to work even more precisely and efficiently so that, for example, the surfaces of the machined parts would be even more beautiful. And we prepared for the partial exam, in which we were tested in the subjects milling, turning, manual production technology (filing, drilling

and assembling) and assembly technology (assemble small pneumatic system).

Now in the third year of my apprenticeship, I've started the focus training in manufacturing; by the way, the second polymechanic apprentice in my year has chosen the focus on assembly. I'm now learning CNC programming and milling, which I really enjoy. That's why I also chose CAM programming as a free subject at school, so that I can get even better at it. When I started my training, I could hardly believe that you have to work so precisely, i.e. to hundredths of a millimeter. Today, I take it for granted.

You will feel the same way when you apply for an apprenticeship as a polymechanic at Muller Martini. You can find all the information you need on our new careers website.

Yours
Daniel Eschbach, Apprentice Polymechanic at Muller Martini