Becoming Gun Manufacturers of AR15 Lowers by Joargegaby1

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Building an automated system is very similar to building your own AR-15 rifle. There are systems for every budget. As gun manufacturers, Detroit Gun Works is dedicated to providing reasonably priced gun components and equipment. In order to do so, it is essential to us that we have simple and effective automation systems that help us reduce our downtime and changeover from all the different lower receivers and upper receivers that we produce, and also that this equipment is reasonably priced, so that we are not passing unnecessary costs onto our customers.

Automation can only be discussed after we have developed our fixturing, and our process. Without a repeatable process we are simply producing scrap at a high rate of speed. For the AR15 lower receiver we have altered our thinking about automation, and we are very excited to share this part of our manufacturing process. Our parent company, Central Screw Products, has implemented a Zero Point Positioning System from a manufacturer named Schunk. It is called the Vero-S system. We use Schunk grippers and chucks throughout our factory, and decided to go with their system for palletizing.

The zero point positioning system allows us to build all of our fixtures on a common pallet, enabling quick changeover for production jobs, and the ability to do short runs if we need to for development and certain customers. The fascinating part of the zero point positioning system is how well it applies to Detroit Gun Worksâ€™ plans for our lower receivers, and their ability to be entirely automated. When we automate a job on a machine tool we have a:

1.) Robot

2.) Robot Gripper

3.) Machine Tool

4.) Fixture on the machine tool

In order to automate a part we need the robot to be able to pick up the part, in this case an AR15 lower receiver, load it into the machine tool, start the cycle, and then unload the part. It is possible to design all of our tooling to load and unload the AR15 lower receiver, but then what do we do when we want to run AR15 upper receivers, or .308 lower receivers? Do we need to change out all the tooling? What if instead we loaded the entire fixture into the machine every time?

By using the zero point positioning system for manufacturing our AR15 lower receiver.we are able to palletize each operation of each part, and make the pallets the same size. By commonizing the pallets, the robot does not need to change end of arm tooling, and the machine can simply run a different program. This allows us to seamlessly switch between production jobs at Central Screw Products, lower receivers, upper receivers, and tooling. This reduces our lead time and allows us to quickly respond to the demands of our customers. It also allows us to run our machines more hours of the day.

Our system is also capable of running on ANY of our machines in our shop, as we are commonizing our holding throughout our enterprise. This too shortens our lead times and allows us to squeeze things in when necessary. Please send us your requests for AR15 uppers and lowers and .308 uppers and lowers. We are putting the finishing touches on our lower receiver parts kit, and buttstock assemblies, and hope to be releasing them soon. Please give us a call if you wish to talk

gun components, or even if you want to talk gun machining!

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