

By David Smith, Service Engineer-Trainer

Problem: Sometimes during the normal part cycle process, you may experience problems with parts loading crooked, uneven or loading with "runout" issues. With any automated machining process, it is important that parts load correctly to prevent damage to the machine or workholding device, allow proper tool wear to get the longest tool life and to provide the best possible, stable process that can be achieved.

Solution: Rechucking Stations

Rechucking Stations: Rechucking stations are custom-made, part-leveling stations that are used when the ordinary process of picking up parts from a load station are not level or even. They are primarily used on large castings that when stacked one on top of the other are uneven and will not load correctly. However, they are not limited to just large castings.

Any time it is critical that parts be loaded evenly, rechucking stations are a great tool to achieve proper loading. They are usually designed as a three-point leveling system consisting of a base plate that attaches the station to the machine, a leveling plate attached to the base plate, and a three-point leveling system attached to the leveling plate that can be adjusted up and down to seat the parts correctly without any leaning or unevenness.

How they are made: Murata rechuck stations are custom engineered in-house by our design team, fabricated and machined by our well-trained fabricators, and installed and setup by our applications team. They are usually made of cold-rolled steel, but depending on the process, can be made from most any material the customer requests.

How the process works: The gantry comes over and picks up the part as normal, but instead of taking it to the machine for loading, the gantry takes it to the rechuck station. It then drops the part into the station, releases the part in order to allow the station to level it, regrips the part, removes the part from the station, and takes it to the machine for loading. It is a simple, yet extremely effective way to level a part for loading.

Below are examples of rechuck stations that were engineered by Murata's design team that are currently being used in the field with great results. If you are experiencing any part loading issues and feel rechuck stations would be a good solution, contact Jeff Kalmbach, Engineering Manager, at Murata (jkalmbach@muratec-usa) to discuss solutions to remedy the situation. In addition to selling machine tools, we also offer our experience and knowledge in a wide range of machine processes to assist in any problems or issues you may be experiencing.

