

Northern Illinois Parts Manufacturer

company confidential

Objective: Solve Issues with Perpendicularity & Parallelism

Background

Parts manufacturer located in Northern Illinois producing high volumes of gear blanks.

Scope

A northern Illinois automotive parts manufacturer was struggling with perpendicularity and parallelism in the high volume production of gear blanks. The original cell was made up of (8) cnc lathes and the use of standard B206 Kitagawa chucks. These chucks were found to be lifting the part in the z-axis, which is what contributed towards the high scrap rate of 5%. The second consideration is that there was no validation, nor feedback that the part was up against its datum reference surface.

After reviewing the application and needs of the customer, the final solution led to a sealed, pull back chuck (PU206) with a perpendicularity / parallelism monitoring system. The PU206 additionally permitted more aggressive machining and thus cycle time reduction over the B206.

Solution Value

- ▶ 4.5% reduction of scrap parts
- ▶ A reduction in overhead costs associated with the reduction in hours worked
- ▶ Decreased cycle time

Customer Returns:

Delivering a measurable ROI is critical to any productivity improvement project. We conduct an ROI analysis with all of our customers to make sure the investment make sense.

In this case a 4.5% reduction in scrapped parts saved **\$389 each week and an additional \$864 each week in new throughput**. This solution paid for itself in less than 8 weeks and delivered a **6+ times return on investment for the first year**.