



Smartbore
Micron accurate cutting edge tool adjuster

RIGIBORE
The most accurately adjustable boring tools in the world

Success Story - Connection Rods

Project Overview

Rigibore tooling was enlisted to improve boring efficiency of a 2nd Tier Automotive company, machining Connection Rod components.

Prior to implementation of the Rigibore solution, this well known Automotive parts manufacturer was machining components using a bladed reamer style boring bar.

Although accuracy in operation was of sufficient quality, this tooling package was taking anywhere up to an entire shift to accurately set the diameter.

Often, if a skilled operator was not present on site to make accurate diameter changes the tool would remain idle for hours at a time, dramatically decreasing productivity rates and impacting the organisations abilities to meet critical lead times.

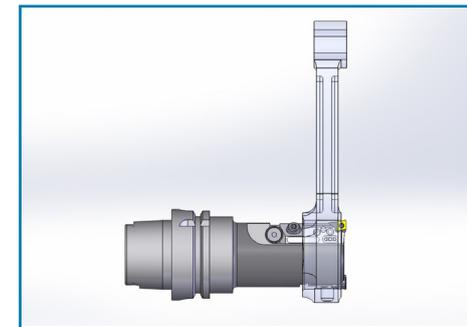
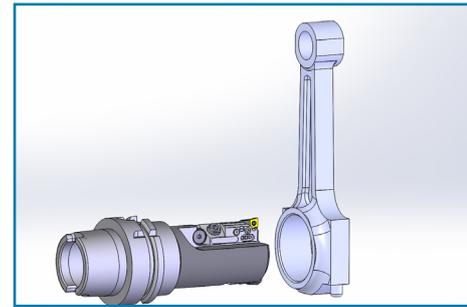
Smartbore Solution

Rigibore selected Smartbore technology as a solution to improve efficiency this application. The goals of this project were to provide micron accuracy in adjustment, whilst minimising setting time.

- **Smartbore Adjuster**- The handheld Adjuster allows the capability for operators of all skill and experience levels to make micron-precise adjustments quickly and simply. Turning the adjusters handle clockwise or anti-clockwise initiates micron-precise positive or negative adjustments to the tools cutting edge.
- **PCD Inserts**- PCD inserts provide superior wear resistance, even when operating at high speeds and feeds. This capability meant that tooling could run for longer periods of time without requiring changes to the tools cutting edge.

Results

- **Scrap Rates** - The Smartbore tool was set, and left to run, after 200 parts were machined just **2 pieces were scrapped**.
- **Setting** - Where setting with previous tooling could take an entire shift, Smartbore tooling was accurately set in just **30-40 minutes**. Smartbore tooling dramatically decreased spindle downtime and maximised production capabilities.
- **Cost Savings** - PCD inserts cost a around a quater to replace - compared to the bladed reamer solution, results showed the Smartbore tool machined **4,600 parts** using just 1 PCD insert and without the need for adjustment.



Smartbore tooling provided excellent accuracy and durability when machining connection rod components.