



CASE STUDY 20051208S

Optimal Near Dry Milling – Combine Technologies for Best Results

Near Dry processes offer exceptional benefits to the manufacturing environment. When combined with optimum machine and tooling capabilities, the results of near dry machining can be astounding. Last year, UNIST was involved in a process improvement effort for a manufacturer in the southeastern US. By partnering with a machine tool provider and a tooling manufacturer, UNIST was able to assist with exponential improvements to the production rate, which was increased to 20 times its original output.*

Application: Milling of aluminum extrusion for high end electrical power strips for heavy duty commercial and enterprise IT applications.

Original Set Up

Machine: Fryer Knee Mill
Tooling: (Tooling Type Unavailable)
Lubrication: Standard OEM System on Mill with Straight Oil
Production Rate: 4ipm (inches per minute)
115,200" of cutting per 60 days

Test Set Up

Machine: HAAS GR510 Gantry Router
Tooling: SGS Shear Carb End Mills
Lubrication: Unist Coolubricator™ 9550-4-20-12 / Coolube® 2210 and 2210EP
Production Rate: 80ipm
2,304,000" of cutting per 60 days

New Production Set Up

Machine: HAAS GR510 Gantry Router
Tooling: Original Tooling (Tooling Type Unavailable)
Lubrication: Unist Coolubricator (Custom Configuration) / Coolube 2210
Production Rate: 15ipm
432,000" of cutting per 60 days - approximately

*The highest production rate was achieved in testing documented by the machine tool manufacturer. The end user decided to remain with the original tooling, which significantly reduced the production rate achieved in testing, but still provided nearly a 400% overall improvement in milling production.