

Are your manufacturing processes delivering maximum performance?

PROCESS OPTIMIZATION

Process Optimization Services

Kennametal's Process Optimization Services incorporate metalworking expertise, LEAN best practices, and a proven project management methodology to maximize the efficiency of existing tool applications, machines, cells, and lines.

Our tooling optimization and manufacturing expertise have yielded significant financial savings for customers worldwide.

Kennametal Process Optimization Services include:

- Tool selection, application, standardization, and design.
- Process sequencing to create flow.
- Operation consolidation to maximize value.
- LEAN principles to minimize waste.
- Standardization to reduce inventory.
- Programs for minimizing tool vibration and optimizing spindle performance.

Spindle Optimization

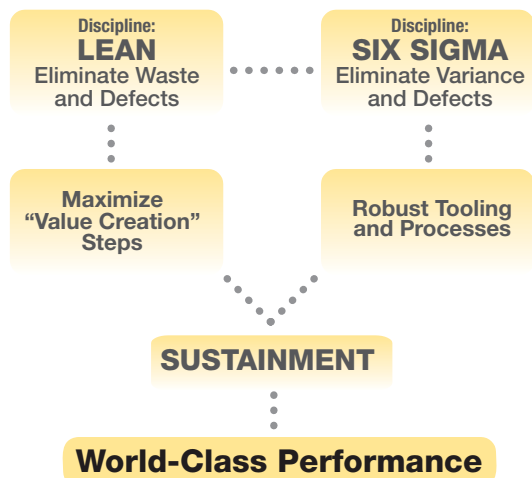
Through our partnership with BlueSwarf Manufacturing Labs, Kennametal can provide balance and concentric tool assembly services to optimize your machine tool performance at the spindle:

- Maximize stable zone or chatter-free sweet spot — reducing unwanted vibration.
- Determine precise spindle speed and metal removal rate for a specific tool in a specific machine.
- Prolong tool life.
- Eliminate secondary finishing.
- Reduce damage to the machine tool spindle.



While your overhead and materials costs may remain relatively constant, Kennametal can deliver productivity benefits that will reduce your labor and machinery costs and dramatically increase your overall savings.

Tools for Success





A Proven Methodology and Partnership

Successful optimization projects require planning, teamwork, and disciplined execution. Through our extensive experience in designing and implementing Process Optimization Services, Kennametal has developed a proven methodology for managing your project from beginning to end. Service deliverables are carefully outlined and jointly agreed to upfront. Progress and results are formally evaluated with your active involvement in every step of the project through our stage-gate management system:



Kennametal Shared Rewards Program

Kennametal's Shared Rewards Program enables you to invest your tooling spend with a partner completely dedicated to the optimization of your production processes.

In fact, we often deliver cost savings that exceed your annual tooling purchases of Kennametal's industry-leading brands!

Call us today to find out more!

Kennametal Complete...

Kennametal Complete focuses the resources of the metalworking industry's leading offering of products and services to help you **reduce production costs, improve productivity, achieve operational excellence, increase profitability, strengthen customer loyalty, and thrive in an increasingly competitive marketplace.**

To learn more about how Kennametal Complete can boost your bottomline, contact your Kennametal Representative or visit www.kennametal.com/completeservices today!

 **KENNAMETAL[®]**
Engineering Your Competitive Edge