Real-Life Stories

Productivity: Working Together for Our Customers

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What You Need to Know

Walter and MSC team up daily to provide high productivity solutions to our customers that generate significant cost savings.
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In Pennsylvania, another MSC/Walter team created similar great results for a customer in a variety of applications.

Walter and MSC team up daily to provide high productivity solutions to our customers that generate significant cost savings. Below are some great examples of what our partnership has become and demonstrates the power of focus on being a solutions provider and the cost savings that can generate.

Process Focus for Efficiency

Recently Walter & MSC concluded a field test at one of its customers in Nevada that manufactures specialty fasteners. Before testing began, the customer specified the following objectives:

- Lower cycle times
- Cost savings of 15% immediately, target of 40-50% within 12 months
- Lower tool usage (tool life improvement as well as reduced cycle times)

The customer gave Walter and MSC this opportunity expecting a “plug and play” strategy using exactly the same process and insert types to improve tool life. After discussing the project with their lead Machinist, the team generated an engineered solution by providing a different tool holder to utilize the 100° corner on a CNMG insert. That allowed them to fully use all eight corners of the insert and eliminate an entire insert in the process. By also applying Walter’s latest turning grade technology, they obtained following results in the first round of testing:

Tool Life	+125%
Cycle Time	- 54%
Tool Change Time	- 33%
Freed Machine Capacity	+312 hours
Overall Cost Savings	$23,585
Cost Savings %	- 60%

Teamwork Generates Savings

Across the country in Pennsylvania, another MSC/Walter team created similar great results for a customer in a variety of applications including drilling, milling, turning and threading and materials ranging from cast iron to high temperature alloys.

Turning a High Temp Alloy

Starting on turning a challenging material, age hardened A286 high temperature alloy, the team chose Walter's new MS3 geometry and WSM01 grade to rough and finish the component. The new technology enabled speed and tool life increases of 20% and 200% respectively. The results:

Tool Life +200%

Cycle Time - 17%

Freed Machine Capacity +13 hours per 100 pcs produced

Overall Cost Savings $1,577 per every 100 pcs produced

Cost Saving % - 27%

Thread Milling to Reduce Cycle Time

Next, they addressed the threading application by applying the new Walter T2711 thread mill on a 1-1/4"-12 thread in a 4140 steel component. By increasing the feed rate 33% and reducing speed 25% and taking advantage of the two rows of indexable inserts in the T2711 vs. the single row in the competitor tool, the cycle time was reduced from 1.4 minutes to 0.45 minutes, a 68% improvement.

Tool Life +166%

Cycle Time - 68%

Freed Machine Capacity +40 hours per 100 pcs produced

Overall Cost Savings $4,178 per every 100 pcs produced

Cost Saving % - 65%

Deep Hole Drilling Stainless Steel

For a deep hole drilling application at the same customer, the process was using spade-style insert drills for 12" deep by 7/16" diameter holes in 316 stainless steel; three different drills were required to reach the full depth of the hole. By using a Walter Titex pilot drill and an Alpha 4 XD deep hole drill we were able to reduce the drills needed to two. Adjusting the machining parameters to take advantage of this new tool combination enabled the customer to see a large cycle time reduction as well as significantly reduced costs. The detail:

Tool Life +400%

Cycle Time - 74%

Freed Machine Capacity +39 hours per 100 pcs produced

Overall Cost Savings $4,162 per every 100 pcs produced

Cost Saving % - 50%

Carbide vs. HSS drills for Cost Savings

Often, HSS Cobalt drills are used as a default choice due to their relatively low cost, and carbide drills are not considered because of the perception that they are high cost. The idea here is that higher machining parameters and tool life of carbide can't make up for the cost difference. The MSC/Walter team in Pennsylvania disregarded the conventional wisdom and applied a Walter Titex Xtreme DM drill

for a deep hole application in annealed 4140, paired with a pilot drill. By using the advantages of the carbide drill/pilot drill combination, cycle times were slashed by more than 90%, leading to machining cost savings of over $18,000 for every 50 parts produced.

Tool Life	+200%
Cycle Time	- 94%
Freed Machine Capacity	+205 hours per 50 pcs produced
Overall Cost Savings	$18,479 per every 50 pcs produced
Cost Saving %	- 82%

Key Takeaways

- Walter and MSC have created a partnership that has become and demonstrates the power of focus on being a solutions provider and the cost savings that can generate.
- By working together Waller and MSC have been able and continues to service the customers and help them gain more profitability and productivity.