

Excel 440 Lubricant Machining Test on Tool Life with Dry Milling



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|---------------------------|------------------------------------|
| Operation: | Dry milling |
| Metal: | 32 Rockwell flame cut steel |
| Tools: | Carbide inserts (3) |
| Time of operation: | 40 – 45 minutes per part |
| Before Excel 440: | 2 parts completed |
| After Excel 440: | 3 parts completed |

Excel 440 Lubricant Saves Money

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|----------|---|
| Before: | 150 inserts per month at \$15.00 each (\$2,250/month) |
| After: | 100 inserts per month at \$15.00 each (\$1,500/month) |
| Savings: | \$750 per month (tool cost saving of 33%) |

Test parameters

Before:

The customer had been dry milling flame cut steel with carbide-insert tools. The operator completed two parts before changing inserts, because the edges were beginning to chip.

After:

Excel 440 Lubricant was applied to each insert (3 total) before each part milling cycle.

After treatment, the tool completed 3 parts before changing inserts again (tool life increase of 33%). The edges of the treated inserts were smooth, and had no cracks or chipping. It is believed the inserts could have successfully performed additional milling cycles.