

*The MTP chip breaking system is a cost-saving solution for machining operations that create continuous chips. These chips can damage the workpiece or machine tool, pose hazards to the machine operator, complicate cleanup of the work space, and cause operation delays. The MTP chip breaking system creates a significantly safer operating environment and can reduce cleanup, repair and replacement costs.*

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#### FEATURES

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- Computer modeling and simulation techniques
- Selectable chip lengths
- Automatic chip breaking motion
- No special cutting tool required
- Works with all materials, part shapes, and machine configurations
- Compatible with light depths of cut

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#### BENEFITS

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- Eliminate down time due to chip bird nests
- Simplified and less costly chip processing/recycling
- Reduced machine repairs
- Decreased product delivery delays
- Improved workplace safety
- Reduced cutting tool temperatures

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#### APPLICATIONS

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- Turning and boring operations involving ductile materials including metals and plastics
- New and existing machines

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#### PATENTS AND AWARDS

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The Y-12 National Security Complex and the University of North Carolina–Charlotte have patent-pending protection for this technology – U.S. Patent Application No. 12/760,115; 12/760,159. Patent Application Publication No. US 2009/0107308.

2010 R&D 100 award



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#### INVENTORS

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William Barkman, Ed Babelay, and UNC-Charlotte

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#### TECHNOLOGY READINESS LEVEL (1-9)

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8 – Technology has been proven to work in its final form and under expected conditions.

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#### PARTNERING OPPORTUNITIES

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Y-12 is seeking an industrial partner to fully commercialize this technology.

*If you would like more information about this technology, please contact:*

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