Course Title: FUNDAMENTALS OF CUTTING TOOLS FOR MACHINING PROCESSES **Course Code: MMF 140**

Course Background / Summary:

The proper selection and utilization of cutting tools are crucial for achieving optimal efficiency and precision in machine processes across various industries. The Fundamentals of Cutting Tools for Machine Processes course is designed to equip participants with a comprehensive understanding of the principles, types, applications, and maintenance of cutting tools. This knowledge is essential for enhancing productivity, reducing downtime, and ensuring high-quality output in machining operations.

Course Objectives:

- Developed a comprehensive understanding of various cutting tool types, their components, and applications.
- Acquired the skills to select the most suitable cutting tools for specific machining tasks.
- Gained insight into the impact of cutting tool geometry, materials, and coatings on machining performance.
- ·earned techniques to enhance tool life, reduce wear, and maintain consistent quality.
- ·astered the art of optimizing cutting parameters for increased productivity and reduced cycle times.
- Cultivated troubleshooting skills to identify and address common cutting tool-related challenges.
- Strengthened safety awareness and adherence to best practices when working with cutting tools.

Target Audience:

- Machine operators and machinists seeking to expand their knowledge and proficiency in cutting tools.
- Manufacturing and production engineers involved in process optimization and quality control.
- Mechanical engineering students or professionals aspiring to specialize in manufacturing.
- Individuals engaged in designing, planning or overseeing machining operations.
- Anyone with a keen interest in understanding the core principles of cutting tools in machining processes.

Course Duration: 3 Days

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