IFS Academy

Training For The Future!!

Milling Design & Toolpaths using Mastercam

Course Curriculum (Duration: 60 Hrs.)

Chapter 1: Before you start using Mastercam
a. Coordinate Systemes
b. Conversions, Measurements, and Tools
c. Machining Processes
d. Milling Machining
e. Milling Machine Movements
f. Cutting Tools and Tool Holders
g. Cutting Speeds, Feeds, and Revolutions per Minute (RPM)
h. Chip Formation, Load, and Material Removal Rates
i. Work Holding and Setup
j. Introduction to CNC Part Programming

Chapter 2: Basics of CAD/CAM & Introduction to Mastercam
a. Introduction to CAD/CAM
b. Advantages of CAD/CAM over conventional methods
c. Mastercam Software Installation
d. Mastercam Modules
e. GUI
f. Getting Help
g. File Management
h. File Conversions

Chapter 3: Milling Design
a. Set the plane to diameter
b. Create lines on diameter
c. Create a groove
d. Create a revolved solid
e. Create dimensions
f. Use radius blends
g. Create chamfers
h. 3D Modeling of various Parts & Assemblies
i. Assignments

Chapter 4: Mill Toolpaths
a. Chaining Overview
b. Toolpaths Overview
c. Alt Mount
d. Power Mount
e. Tool Manager
f. Autowinder
g. Dash
h. 30 Degree Clamp
i. Receiver
j. Assignments

Chapter 5: Mill Applications
a. Programming the brake for a limited production run.
b. Programming the brake for a big production run with dedicated fixturing.
c. Assignments

****