



The Manufacturers Association

JOB QUALIFICATION STANDARD (JQS)

Occupation: MACHINIST (CNC)

Work Process: General Operations

Practical Hours: 1250 hrs.

DOL Standard: CNC Operations: Apply a working knowledge for the operation and tending of Computer Numerical Controls (CNC) machines that execute milling or turning operations to meet required specifications.

Performance Objective: Demonstrate the ability to monitor the CNC machining process by interrupting machining, measuring or checking dimensions, and making adjustments to machine feeds, speeds, and offsets, so that the dimensions, shape, and tolerances of the machined workpiece are maintained during machining in conformance job specifications.

Performance Indicator	Qualification Date/Initial
Demonstrate the ability to apply CNC safe work habits when operating CNC machines.	
Demonstrate the ability to describe features and functions of CNC controls which controls axis moves, tool changes, settings, automatic modes, set-up elements and coolant operation.	
Demonstrate the ability to read and interpret blueprint for CNC Machining Operations.	
Demonstrate the ability to identify, select, and set up CNC cutting tools and tooling (tool holders, end and face mills, carbide insert tools, center-drill, drill, taps, reamers, counter bores, and boring head) to pre-determined reference points outlined from the prepared sequence sheets and tool lists, to ensure that the tools and tooling selected are the correct ones to machine the workpiece efficiently and safely.	
Demonstrate the ability to monitor the CNC machining process and making adjustments to machine feeds, speeds, and offsets, so that the dimensions, shape, and tolerances of the machined workpiece are maintained during machining in conformance with job specifications.	
Demonstrate the ability to monitor CNC tool wear.	
Demonstrate the ability to interpret various CNC machine alarms and how to cancel each alarm.	
Demonstrate the ability to maintain the maximum quality and production of finished pieces.	
Demonstrate the ability to perform final inspection using precision measuring instruments and checking devices including inside and outside micrometers, vernier height gauges or indicators, gauge blocks, and pin gauges to ensure that the tolerances and dimensions of the workpiece to conform to the engineering drawings and job specifications.	



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Apprentice Signature:	Completed: MM/DD/YY
Mentor Signature:	Completed: MM/DD/YY
Supervisor Signature:	Completed: MM/DD/YY
Comments:	