

CNC Operator Job Description

A comprehensive job description template
for manufacturing and machining operations

Company Name: _____

Location: _____

Employment Type: _____

Reports To: _____

Date: _____

DISCLAIMER

This template is provided for general informational purposes only and does not constitute legal advice. It is designed to reflect Australian workplace standards and manufacturing industry practices at the time of publication. You should review and tailor this template to suit your business, applicable modern award and specific requirements. For complex situations, independent legal or HR advice should be sought. RosterElf Pty Ltd accepts no liability for any loss arising from reliance on this document.

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1. Position Overview

1.1 Position Title

CNC Operator / CNC Machinist / CNC Machine Operator

1.2 Position Summary

The CNC Operator is responsible for setting up and operating Computer Numerical Control (CNC) machines including lathes, mills and routers to produce precision metal and plastic parts. This role involves interpreting technical drawings and blueprints, loading CNC programs, setting up tooling and work holding devices, and monitoring machine operations to ensure parts meet exact specifications.

The position requires performing quality inspections using precision measurement instruments such as micrometers, calipers and gauges. CNC Operators make program adjustments and offsets as needed, manage tooling inventory and wear, perform routine machine maintenance, and maintain accurate production records. The role demands strong attention to detail, technical aptitude, and commitment to producing high-quality work in a safe manufacturing environment.

1.3 Reporting Structure

This position reports to:

- CNC Supervisor / Production Supervisor
- Machine Shop Manager / Manufacturing Manager
- Operations Manager

1.4 Employment Type

This position is available as:

- Part-time (regular rostered shifts)
- Full-time (38 hours per week)
- Shift work may be required in larger operations

2. Key Responsibilities

2.1 Machine Setup and Programming

- Read and interpret technical drawings, blueprints and work orders
- Set up CNC machines including lathes, mills and routers
- Load CNC programs into machine controls via USB, network or manual entry
- Select and install appropriate cutting tools, holders and inserts
- Set up work holding devices including vises, chucks and fixtures
- Enter tool offsets and work coordinate systems

- Perform dry runs and first article inspections before production

2.2 Machine Operation

- Operate CNC lathes, mills, routers and other machining equipment
- Monitor machine operations and adjust feeds and speeds as needed
- Load raw materials and remove finished parts
- Deburr and clean machined parts
- Ensure machines run efficiently with minimal downtime
- Operate multiple machines simultaneously when required
- Follow standard operating procedures and work instructions

2.3 Quality Inspection

- Measure parts using precision instruments including micrometers and calipers
- Verify dimensions against technical drawings and specifications
- Use gauges, dial indicators and other measuring tools
- Conduct first article inspections and in-process quality checks
- Document inspection results and maintain quality records
- Identify and report non-conforming parts
- Maintain quality standards and tolerances

2.4 Program Adjustments and Troubleshooting

- Make minor program edits and adjustments at the machine
- Adjust tool offsets to maintain part dimensions
- Modify feeds, speeds and cutting parameters as needed
- Troubleshoot machining issues and implement corrective actions
- Communicate programming issues to supervisors or programmers
- Optimize cycle times while maintaining quality

2.5 Tool Management

- Change cutting tools, inserts and toolholders as needed
- Monitor tool wear and replace tools before breakage
- Maintain tool inventory and organize tool storage
- Select appropriate cutting tools for different materials
- Keep cutting tools sharp and in good condition
- Document tool life and usage

2.6 Maintenance and Housekeeping

- Perform daily machine checks and preventive maintenance

- Clean machines and work areas regularly
- Check and top up coolant, lubricant and hydraulic fluids
- Remove chips and swarf from machines
- Report machine malfunctions and maintenance needs
- Maintain organized and safe work environment
- Follow 5S principles for workplace organization

3. Required Skills and Attributes

3.1 Essential Skills

Technical Aptitude

Understanding of CNC machine operation and basic G-code programming. Ability to read and interpret technical drawings, blueprints and GD&T symbols. Knowledge of machining processes, cutting tools and materials. Basic math skills including trigonometry and geometric calculations.

Precision Measurement

Proficiency using precision measuring instruments including micrometers, calipers, dial indicators and gauges. Ability to measure to tolerances of ± 0.001 " or tighter. Understanding of measurement techniques and quality inspection procedures. Attention to dimensional accuracy and specifications.

Blueprint Reading

Ability to read and interpret engineering drawings, technical blueprints and work orders. Understanding of views, dimensions, tolerances, notes and symbols. Knowledge of Geometric Dimensioning and Tolerancing (GD&T) basics. Ability to visualize 3D parts from 2D drawings.

Problem Solving

Analytical thinking to troubleshoot machining issues and part defects. Ability to identify root causes and implement corrective actions. Making adjustments to maintain quality and productivity. Decision-making skills for optimizing processes and tool selection.

3.2 Personal Attributes

- High attention to detail and precision
- Strong focus and concentration for extended periods
- Mechanical aptitude and hands-on skills
- Reliability and punctuality
- Ability to work independently with minimal supervision
- Team player who communicates effectively
- Commitment to safety and quality standards
- Willingness to learn new technologies and techniques
- Physical stamina for standing and repetitive tasks
- Pride in producing quality work

4. Qualifications and Requirements

4.1 Mandatory Requirements

- Ability to read blueprints and technical drawings
- Previous CNC machining experience (for skilled roles)
- Basic computer literacy for machine controls
- Understanding of workplace safety procedures
- Eligibility to work in Australia
- Ability to pass pre-employment medical if required

4.2 Desirable Qualifications

- Certificate III in Engineering - Mechanical Trade (Machining)
- Certificate III in Engineering - Production Technology (CNC Machining)
- Trade qualification in fitting and machining
- Formal training in CNC programming (CAM software)
- Forklift license and overhead crane ticket
- Experience with specific CNC controls (Fanuc, Haas, Mazak, Siemens)
- Knowledge of CAD/CAM software

4.3 Experience

Entry-level positions are available for candidates with basic machining knowledge and willingness to learn. Training will be provided in machine operation, setup procedures, quality inspection and safety practices. Experienced CNC operators should demonstrate proficiency in machine setup, program adjustments, precision measurement, troubleshooting and maintaining quality standards. Experience with multi-axis machines and various materials is highly valued.

5. Working Conditions

5.1 Hours of Work

- Full-time positions typically 38 hours per week
- Day shift (typically 7:00am to 3:30pm or 8:00am to 4:30pm)
- Afternoon shift (typically 3:00pm to 11:00pm)
- Night shift (typically 11:00pm to 7:00am) in larger operations
- Overtime may be required to meet production demands
- Weekend work may be required in some operations

5.2 Physical Requirements

- Standing for extended periods (up to 8-10 hours per shift)

- Lifting and carrying materials and parts (up to 20kg regularly)
- Bending, reaching and working in various positions
- Manual dexterity for operating controls and handling small parts
- Good vision including depth perception and color recognition
- Hearing protection required in noisy environments

5.3 Work Environment

- Machine shop or manufacturing facility environment
- Operating precision CNC machining equipment
- Exposure to cutting fluids, oils and coolants
- Noise from operating machinery
- Standing on concrete floors
- Temperature variations in workshop environment
- Working with sharp tools and rotating machinery

5.4 Safety Requirements

- Mandatory use of Personal Protective Equipment (PPE)
- Safety glasses/goggles must be worn at all times
- Steel-capped safety boots required
- Hearing protection in designated areas
- No loose clothing, jewelry or long hair near machinery
- Follow lockout/tagout procedures for machine maintenance
- Comply with all workplace health and safety policies

6. Award Information

6.1 Modern Award Coverage

This position is covered by the Manufacturing and Associated Industries and Occupations Award 2020 (MA000010). The award sets minimum pay rates, penalty rates, allowances and conditions for employees working in manufacturing and engineering operations.

6.2 Classification Level

CNC Operators are generally classified under the award as:

- Level C7: Tradesperson (first year after completion of trade)
- Level C8: Tradesperson with post-trade training
- Level C9: Tradesperson with advanced skills
- Level C10: Tradesperson special class (highest trade level)

Classification is based on qualifications, skills, responsibilities and complexity of work performed. Non-trade CNC operators may be classified at lower levels based on their duties and experience.

6.3 Penalty Rates and Allowances

Employees are entitled to penalty rates for work performed:

- Afternoon shift: 15% loading
- Night shift: 30% loading
- Saturday: 150% for first 2 hours, then 200%
- Sunday: 200% of ordinary time rate
- Public holidays: 250% of ordinary time rate
- Tool allowance may apply for tradespersons
- Additional allowances for disabilities, leading hand duties, etc.

Refer to the Manufacturing and Associated Industries and Occupations Award 2020 for current rates, classifications and detailed conditions.

7. Expected Behaviours

7.1 Professional Conduct

- Arrive on time and ready to commence work at shift start
- Notify supervisor as early as possible if unable to attend
- Follow all company policies, procedures and work instructions
- Maintain confidentiality regarding company processes and products
- Represent the company professionally at all times
- Participate in training and skills development opportunities

7.2 Quality and Production Standards

- Produce parts that meet specifications and tolerances
- Complete quality inspections accurately and thoroughly
- Meet production targets while maintaining quality
- Report quality issues and non-conforming parts immediately
- Minimize scrap and rework through careful work
- Complete production records and documentation accurately

7.3 Safety and Housekeeping

- Wear all required Personal Protective Equipment (PPE)
- Follow safe work procedures and practices at all times
- Report safety hazards, incidents and near misses immediately
- Keep work area clean, organized and free from hazards
- Store tools, materials and equipment properly

- Never take shortcuts that compromise safety
- Participate in safety training and toolbox talks

7.4 Communication and Teamwork

- Communicate effectively with supervisors and team members
- Report machine issues and maintenance needs promptly
- Share knowledge and assist in training new operators
- Collaborate with quality control and production planning
- Participate positively in team meetings and discussions
- Provide feedback on processes and continuous improvement

8. Application Process

8.1 How to Apply

Interested candidates should submit:

- Current resume/CV including work history and qualifications
- Cover letter outlining relevant CNC machining experience
- Copies of trade certificates or CNC training qualifications
- Copies of forklift license or other relevant tickets
- Contact details for at least two work-related referees
- List of CNC machines and controls you have operated

8.2 Selection Process

Shortlisted candidates will be invited to:

- Initial phone interview to discuss experience and availability
- Face-to-face interview with production supervisor or manager
- Practical skills assessment (machine setup, measurement, blueprint reading)
- Workshop tour to view machines and work environment
- Verification of qualifications and licenses
- Reference checks with previous employers
- Pre-employment medical assessment if required

8.3 Equal Opportunity

We are an equal opportunity employer and welcome applications from all qualified candidates regardless of age, gender, cultural background, disability or other characteristics protected by law. We value diversity and are committed to creating an inclusive workplace for all employees.

Position Acknowledgement

I have read and understood this job description. I understand that my duties may be varied from time to time to meet the operational needs of the business.

Employee Name: _____

Employee Signature: _____

Date: ____ / ____ / ____

For Manager Use Only

Manager Name: _____

Manager Signature: _____

Date: ____ / ____ / ____