

# Machinists and Tool and Die Makers

SOC: 51-4041 • Career Profile Report

## ■ Key Facts

<div><div>\$57,700</div><div>Median Salary</div></div>	<div><div>5,900</div><div>Employment</div></div>	<div><div>-2.0%</div><div>Growth Rate</div></div>
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## ■ Requirements & Salary Range

Education: See Requirements (BLS)

## ■ Automation Risk Assessment

**Medium Risk** - 30.0% probability of being automated in the next 10-20 years.  
This job has some routine elements but still requires human judgment and interaction.

## ■■ Work-Life Balance

**6.1/10** - Good work-life balance

## ■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

Realistic	8.4/10	Investigative	5.0/10
Artistic	3.8/10	Social	4.6/10
Enterprising	4.0/10	Conventional	8.0/10

## ■ Top Skills Required

Analytical skills, Manual dexterity, Mechanical skills, Physical stamina, Technical skills

### ✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

### ■ Challenges

- Burnout Risk
- Rapid Technological Change

## ■ What They Do

Machinists and Tool and Die Makers typically perform the following tasks:

- Calculate dimensions or tolerances, using instruments, such as micrometers or vernier calipers.
- Machine parts to specifications, using machine tools, such as lathes, milling machines, shapers, or grinders.
- Measure, examine, or test completed units to check for defects and ensure conformance to specifications, using precision instruments, such as micrometers.
- Set up, adjust, or operate basic or specialized machine tools used to perform precision machining operations.
- Program computers or electronic instruments, such as numerically controlled machine tools.
- Study sample parts, blueprints, drawings, or engineering information to determine methods or sequences of operations needed to fabricate products.
- Monitor the feed and speed of machines during the machining process.
- Maintain machine tools in proper operational condition.
- Fit and assemble parts to make or repair machine tools.
- Align and secure holding fixtures, cutting tools, attachments, accessories, or materials onto machines.
- Confer with numerical control programmers to check and ensure that new programs or machinery will function properly and that output will meet specifications.
- Operate equipment to verify operational efficiency.
- Evaluate machining procedures and recommend changes or modifications for improved efficiency or adaptability.
- Diagnose machine tool malfunctions to determine need for adjustments or repairs.
- Design fixtures, tooling, or experimental parts to meet special engineering needs.
- Dispose of scrap or waste material in accordance with company policies and environmental regulations.
- Confer with engineering, supervisory, or manufacturing personnel to exchange technical information.
- Lay out, measure, and mark metal stock to display placement of cuts.
- Separate scrap waste and related materials for reuse, recycling, or disposal.
- Check work pieces to ensure that they are properly lubricated or cooled.

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*Generated by StartRight • Data from U.S. Bureau of Labor Statistics & O\*NET*

Source: <https://www.bls.gov/ooh/production/machinists-and-tool-and-die-makers.htm>