



WorkOne



Machine Maintenance Technician (C.M.R.T.)

Machine maintenance technicians do basic maintenance and repairs on machines. They are responsible for cleaning and lubricating machinery, performing basic diagnostic tests, checking performance, and testing damaged machine parts to determine whether major repairs are necessary. They work with programmers, engineers and manufacturers to ensure that machines are functional and efficient.

Maintenance workers must follow machine specifications and adhere to maintenance schedules. They perform minor repairs, generally leaving major repairs to machinery mechanics. All maintenance workers use a variety of tools to do repairs and preventive maintenance. For example, they may use a screwdriver or socket wrenches to adjust a motor's alignment, or they might use a hoist to lift a heavy printing press off the ground.

Individuals in this line of work must be physically fit and have a basic understanding of the entire production process from beginning to end, regardless of their specialty area. Technical and problem-solving skills are also essential.

Workers in this occupation must follow safety precautions and use protective equipment, such as hardhats, safety glasses, and hearing protectors. Most work full-time. However, they may be on call and work night or weekend shifts. Overtime is common.

Indiana Wage Information

	Entry	Median
Hourly Wage	\$17.61	\$21.71

Job Outlook in Indiana

Long term	18.08 % (increase)
Short Term	6.06 % (increase)

*Data collected from hoosierdata.in.gov

Job Duties

- Start machines and observe mechanical operation to determine efficiency and to detect problems
- Read work orders and specifications for machines and equipment requiring repair or maintenance
- Inspect or test damaged parts and mark defective areas or advise machinists of repair needs
- Reassemble machines after the completion of repair or maintenance work
- Adjust equipment and reset or calibrate sensors and controls
- Install, replace, or change machine parts and attachments, according to production specifications

Important Qualities

Arm-Hand Steadiness — must be able to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position

Problem Sensitivity — must be able to tell when something is wrong or is likely to go wrong; does not involve solving the problem, only recognizing there is a problem

Control Precision — must be able to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions

Information Ordering — must be able to arrange things or actions in order according to a specific rule or set of rules (e.g., letters, words, pictures, and mathematical operations)

Skills and Knowledge

Technical

- Knowledge of machines and tools, including their designs, uses, repair, and maintenance
- Knowledge of design, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models
- Knowledge of the practical application of engineering science and technology

English Language Arts

- Understanding written sentences and paragraphs in work related documents

Math

- Knowledge of arithmetic, algebra, geometry, statistics, and their applications

Certification and Advancement

Employers of machine maintenance workers generally require them to have at least a high school diploma or a High School Equivalency (HSE) certificate. However, employers increasingly prefer to hire workers who have taken some technical instruction or on-the-job training.

The Society for Maintenance and Reliability Professionals' Certified Maintenance and Reliability Technician (CMRT) program indicates to employers that you have achieved a level of ability consistent with the requirements for competence on the job as a multi-skilled maintenance and reliability technician. Further, it means you are recognized across all industries in the manufacturing world.

Maintenance workers often advance to machinery mechanics or machinists, which usually requires a year or more of education and training after high school to learn the necessary mechanical and technical skills. Although mechanics used to specialize in one area, such as hydraulics or electronics, many factories now require every mechanic to understand electricity, electronics, hydraulics, and computer programming. These skills allow mechanics to troubleshoot a much larger range of machine problems.

Employers may offer onsite technical training or send workers to local technical schools in addition to on-the-job training. Classroom instruction focuses on subjects such as shop mathematics, blueprint reading, the use of hand tools, welding, electronics, and computer training. In addition to technical instruction, mechanics train on the specific machines that they will repair. They can get this training on the job, through dealers' or manufacturers' representatives, or in a classroom.

How can Adult Education teachers get involved?

The world of work relies on the foundational skills students acquire in your classrooms and/or programs!

- Know your students'/clients' interests and career goals
- Affirm the value of the skills/hobbies students demonstrate both in and outside of the classroom
- Infuse your classroom culture and/or meetings with career-minded activities
- Provide time to make connections between the material learned in adult education or workshops and students' daily lives/career aspirations
- Know the basic job descriptions and training requirements of in-demand occupations in your area
- Know which WorkINdiana programs are available in your region
- Know the processes for referring students to postsecondary or on-the-job training
- Post resources where students can find more information about further education/training and careers