



## MM – Machinist’s Mate

**Machinist’s Mate** operate and maintain steam turbines and reduction gears used for ship propulsion and auxiliary machinery such as turbo generators, pumps and oil purifiers. They also maintain auxiliary machinery outside of main machinery spaces, such as electro hydraulic steering engines and elevators, refrigeration plants, air conditioning systems and desalinization plants. They may also operate and maintain compressed gas producing plants.

### What They Do

- aligning piping systems for oil, water, air and steam, and controlling the operation of ship boilers and steam turbines used for ship propulsion and service systems;
- controlling operation of turbo generators used to produce electrical power;
- cleaning, adjusting, testing and performing other preventive maintenance on a ship’s boilers, main engines, turbo generators and other auxiliary machinery including steering engines, elevators, winches, pumps and associated valves;
- operating and maintaining desalinization plants (distilling plants) to make fresh water from sea water;
- maintaining refrigeration plants, air conditioning systems and galley equipment;
- repairing or replacing valves, pumps, heat exchangers, compressors, steam turbines and hydraulic or pneumatic control devices;
- making entries in and analyzing machinery operating records and reports.

### Working Environment

Machinist's mates work within the hull of a ship in fire rooms, boiler rooms, engine rooms or shops. These locations are sometimes hot and noisy. MMs may be required to perform some heavy physical work. They must be able to work closely with others and, in some cases, with limited supervision.

### Opportunities

The Navy has a continuing need for qualified machinist's mates. Approximately 6,300 men and women perform duties in the MM rating aboard conventional steam-propelled ships and at shore stations. Opportunities for placement are good for qualified candidates.

### Qualifications and Interests

Machinist's mates should have clear speech, physical stamina, manual dexterity and the ability to work with others as a team. They should know how to use common hand and power tools and enjoy working with mechanical devices. Other helpful characteristics are resourcefulness and an interest in learning new ideas and skills. Normal hearing is required.

### **Career Path After Recruit Training**

Enlistees are taught the fundamentals of this rating through on-the-job training or formal Navy schooling. Advanced technical and operational training is available in this rating during later stages of career development.

School	Present Location	Approximate Training Time	Subjects	Training Methods
Basic Engineering Common Core and “A” School	Great Lakes, Ill.	9 Weeks	Introduction to technical documentation, basic mechanical theory, safety precautions and programs, alignment and operation of piping systems and equipment, hand tools, precision instruments, lubricants, bearings, couplings, gears, valves, pumps and the Maintenance Material Management System (3M). Introduction to technical documentation, basic watch standing procedures, alignment and operation of piping systems and equipment, hand tools, precision instruments, lubricants and lubricating systems, bearings, couplings, gears, valves, the Maintenance Material Management System (3M), basic technical knowledge, terminology and watch standing procedures for the operation of conventional marine steam propulsion systems and preventive maintenance of plant equipment.	Group instruction in classroom and shop

After “A” School, MMs may be assigned to ships and naval repair activities afloat and at shore stations in the United States or overseas. During a 20-year period in the Navy, MMs spend about 70 percent of their time assigned to fleet units and 30 percent to shore stations. Shore assignments are normally at shore intermediate activities (SIMAs) as instructors in Class “A” or “C” Schools, as recruit company commanders or in recruiting duty.



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## Earn College Credit



The American Council on Education recommends that semester hour credits be awarded in the vocational certificate and lower-division bachelor's/associate's degree categories for courses taken in this rating on office machines and general clerical procedures. To see the college credits available via a **Joint Service Transcript** for this rating:

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[https://www.cool.navy.mil/usn/jst/mm\\_jst.pdf](https://www.cool.navy.mil/usn/jst/mm_jst.pdf)

## Earn Department of Labor (DOL) Nationally Recognized Apprenticeships



USMAP

The United Services Military Apprenticeship Program (USMAP) is a formal military training program that provides active duty and Full Time Support (FTS) Service members the opportunity to improve their job skills and to complete their civilian apprenticeship requirements while they are on active duty. The U.S. Department of Labor (DOL) provides the nationally recognized "Certificate of Completion" upon program completion. Visit United Services Military Apprenticeship Program (USMAP) for LS apprenticeships.

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<https://usmap.netc.navy.mil/usmapss/static/navyRates.htm>

## Earn Industry Recognized Credentials



Navy Credentialing Opportunities On-Line (Navy COOL)

Navy COOL catalogs and defines comprehensive information on occupational credentials - including certifications, licenses, and apprenticeships - correlating with every Navy rating and some collateral duties. It provides "how to" instructions for pursuing these credentials, links to credentialing organizations, and cross-references to programs that help Sailors pay for credentialing fees. Shortly following the initial rating technical training (Class "A" technical school), Sailors may be able to take advantage of earning civilian/industry certifications & licenses (credentials), funded through Navy COOL. Visit the Navy COOL website to view these opportunities. See the link below.

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<https://www.cool.navy.mil/usn/enlisted/mm.htm>

## Manage a Navy Career with Navy LaDR (Learning and Development Roadmap)



To see the Navy LaDR (Learning and Development Roadmap) for this rating:

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[https://www.cool.navy.mil/usn/LaDR/mm\\_e1\\_e9.pdf](https://www.cool.navy.mil/usn/LaDR/mm_e1_e9.pdf)

## Earn Skill Sets Towards Civilian Related Occupations



The skill sets for this rating crosswalk to civilian related occupations listed by the U.S. Department of Labor. To see Related Civilian, Federal, and Military Sealift Command Occupations for this rating, see the link below.

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<https://www.cool.navy.mil/usn/enlisted/mm.htm>

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