



Optimize

Machine Maintenance—Preventative Maintenance Tips

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Preventive industrial maintenance tasks can range from replacing gaskets in the restroom sinks to machine maintenance involving dismantling and reassembling an entire processing line. These small jobs keep everything running and help to prevent unscheduled downtime and other more costly repairs. Tools for the job can range from a simple adjustable wrench to highly specialized and calibrated equipment.

When you know what job needs to be done and what tasks will be involved, you know what tools to take to get the job done as quickly and efficiently as possible — running back to grab a forgotten tool can be really annoying and waste valuable time.

Something is likely to leak or drip during preventive maintenance or repair work. Whether it's water, coolant or hydraulic fluid – it still makes a mess and can end up all over your clothes or as a slippery mess on the floor. Stocking absorbent mats in your toolbox keeps you and the floor clean.

In addition to keeping your toolbox well-stocked and ready for any task, here are some more preventive maintenance procedures that can keep things running smoothly and help prevent unscheduled maintenance and downtime.

Schedule Equipment Maintenance According to Usage

An old adage teaches us that nothing lasts forever. But when tools and equipment are properly maintained and are well-cared for, they tend to last longer than those that aren't.

Equipment manufacturers provide recommended heavy equipment maintenance schedules to help their customers gauge when repairs, upgrades, parts or other service is needed to keep it running properly. Using this information to schedule preventive maintenance tasks helps prevent breakdowns and costly downtime.

Keep Your Equipment and Work Environment Clean

Dust, debris and metal shavings don't just look bad, they can also cause premature wear and tear on gears, engines and other moving parts. Keeping work areas clean improves safety and morale. It also helps to prevent premature part wear.

It doesn't take a lot of dust and debris to cause damage. We sent 10 samples of oil containing clay dust particles from various types of clay-based loose absorbents to a lab for wear testing. The results showed that the abrasive particles in the oil reduced part life by 20%.

In addition to keeping work areas clean, consider switching from loose absorbents to absorbent mats because they do the job faster, are much less labor-intensive and don't contain harmful silica dust.

Lubricate Regularly

Moving parts can seize or become overheated if they are not properly lubricated. Check lubricant reservoirs regularly and be sure to use the right types of lubricant for each machine, engine or tool.

When you're refilling reservoirs or changing out spent lubricants, don't forget to grab an absorbent mat or two to catch leaks and drips.

Inspect for Wear/Damage

Inspecting tools and equipment before they are used or started each day can help to identify problems that could affect their safe operation. It can also be an important step in prioritizing which items need scheduled maintenance.

Stay Within Performance Guidelines of Equipment

Tools and machines have intended purposes. Tools that are intended for occasional home use, for example, will likely have a shorter lifespan and will fail quickly if they are used all day, every day in an industrial setting.

Exceeding the manufacturer's usage guidelines can cause premature wear and shorten the life expectancy of tools and equipment. They can also overheat or cause other safety issues for employees when they are not used as intended.

When it comes to maintenance of machine tools, if tools or machinery need to be repaired frequently, check the manufacturer's usage guidelines. It may be time to upgrade to a tool that is better rated for the tasks being performed.

Keep Machine Maintenance Records

Chances are good that there is more than one machine or tool in the facility that needs to be maintained. It can be nearly impossible to remember when each was last serviced.

Keeping track of which services were performed on which machine is a task best served by maintaining a paper or electronic log. Although it does take time to document preventive maintenance and other services, this data can be used to improve scheduling and help to predict future maintenance tasks as well as end of service life.

Ensure Staff Are Trained

Each employee should be taught how to properly use and maintain tools and equipment that they will use on the job. They should also be able to identify when these items are not working correctly and when they need to be repaired or serviced.

In addition to training, keeping manuals and manufacturer's instructions up-to-date and making them easily accessible is a good practice to implement. This provides any employee who has been trained to use a tool or piece of equipment with a resource that they can access when they need a refresher on how to use or service a tool properly. It can also be used to remind them when a tool needs to be sent for preventive maintenance.

Preventive maintenance procedures and schedules vary for each facility and for each piece of equipment. But creating schedules and properly maintaining each item helps to eliminate unexpected downtime, predict service life and keep operations running smoothly.

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