

How to extend the life of your tools.

E-Book with 13 chapters.



At home in the heart of the Black Forest, the responsible use of natural resources is a matter of course for us. It is therefore firmly anchored in our sustainability strategy that we provide you, the user, with durable products that minimize waste, energy consumption and pollutant emissions during production. Our aim is for you to enjoy our hand tool solutions for many years to come and to always associate Wiha with the terms reliability and quality.

On this basis, we have created a guide that shows you in 13 steps what you should bear in mind when working with your tools, because: regular maintenance and the correct use of your tools will extend their service life and ensure they are safe to use for your daily challenges. In addition to conserving resources, this also saves you time in terms of replacement purchases and their acquisition costs.

So let's work together to ensure that our tools help you to work safely, efficiently and reliably for as long as possible.

Your Wiha team.



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01 It all depends on the right planning

Plan upcoming work in good time and find out about the tools you need

Haste and a lack of advance planning have a direct impact on tool wear. The result is often that work is carried out with the tool that is currently to hand.

An incorrectly selected screwdriver profile, pliers that are unsuitable for the workpiece being worked on. The wrong bit hardness or a poorly matched hammer head. All these aspects play a significant role in the service life of a tool.



- Good advance planning pays off! What work do you want to tackle and what tools or other materials do you need? Once you have answered these questions, you can put together the tools you need and procure accessories and consumables (e.g. cables, plugs, etc.).
- Do not use one tool for everything. The right tool must be used depending on the application.
- You can find help on selecting the right screwdriver profile here:
[**>> To screw profile guide**](#)

02 Corroded screws

Loosen stuck or corroded screws

Corroded screws are screws where the metallic surface is damaged due to oxidation or other chemical reactions. Corrosion is a natural process that occurs particularly in metals that are not rustproof. If screws are already heavily corroded, they can be difficult to loosen.

- Select a screwdriver whose profile and size are ideally suited to the screw to be loosened.
- Use rust remover or lubricant to loosen the corrosion.
- Heat also helps to loosen screws. You can therefore use a heat gun or hair dryer to heat up the joint if the screws are glued or corroded. Penetrating oil can then be applied to the still warm (but no longer hot) screw connection so that it spreads more easily and the corrosion can be loosened more easily.

03 Damaged screws and threads

Check the screws and threads for damage

Damaged screw inserts or threaded spirals contribute to above-average wear on the screwdriver. Excessive force or a tool set at an angle can cause damage to the tool.

- When screwing in an already deformed screw, the screw profile moves inside the screw and damages it even more (rounding).
- A damaged screw should never be retightened but must always be replaced. This will prevent damage to the tool.
- Clean the screw head before loosening the screw. This will help you to position the tool.
- The Wiha screw extractor set helps you with twisted or stripped screws. Simply hammer in the extractor, insert the ring spanner deeply and unscrew without jamming. [➤> To the screw extractor set](#)



04 Protection of components and materials

Pay attention to the recommended torque

Many screw connections require a specific tightening value recommended by the manufacturer of the respective product. If the force applied exceeds the specification, the component may be damaged or destroyed as a result. In extreme cases, consequential damage with warranty claims can also occur. If, for example, a cable is overtightened during switch cabinet assembly, increased heat is generated at the connection point, which in the worst case can lead to a house fire. Other examples and applications for torque-limited bolting are:

- > Socket mounting; p=p[0
- > Screw connections for plastic elements
- > Wallbox installation
- > Hinges on glass doors
- > And much more.



05 Tool cleaning

Always clean tools and work surfaces immediately after use

A surface covered with dirt or grease as well as accumulated moisture can lead to reduced tool performance or the formation of corrosion. Regular cleaning of tools is therefore crucial to ensure their functionality, service life and safety.

- Immediate cleaning: Clean your tools immediately after use. The longer dirt or residues remain on the tools, the more difficult they can be to remove.
- Never store wet or damp tools. Always wipe tools dry with a soft cloth before placing them in a drawer, tool bag or tool case. This will protect your tools, especially polished pliers, from rusting.

Brief cleaning instructions:

- Remove visible dirt, dust, paint on the tool and other deposits. You can wipe off superficial dirt with a damp cloth.
- Use warm soapy water or a special tool cleaner to remove oil or greasy residues. To do this, immerse the tool in the solution. You can also use a brush to clean hard-to-reach areas.
- After cleaning, rinse the tools thoroughly with clean water to remove any soap residue. Then dry the tools completely.



06 Care instructions

For a long service life of your tool

By regularly caring for and maintaining your tools, you can ensure that they are always ready for use. It also extends their service life and maintains their performance. So, treat your tools to a little wellness on a regular basis.

- Tools with wooden handles: With wooden handles, you can use special wood care products to protect the handles. You can also polish the wooden handles from time to time to refresh their appearance. Use a wood polish for this purpose.
- Plastic handles and blades made of tool steel (chrome-molybdenum steel) are very easy to clean. Simple cleaning with a mild detergent is sufficient. No additional care is required. It is important to avoid aggressive cleaning agents that can damage the surface of the steel.
- Chrome-plated tools: Chrome-plated surfaces are already corrosion-resistant, but you can still apply a thin film of rust inhibitor or anti-corrosion agent to the chrome surface to provide additional protection. Wipe off excess agent to avoid streaking.
- Polished tools: Polished surfaces can react sensitively to corrosion. Protect them with a rust inhibitor or anti-corrosion agent. To maintain the shine on the polished surface, you can use a special metal polish.
- Blackened tools are more resistant to corrosion than unprotected steel, but they are still susceptible to corrosion. After cleaning, apply a thin film of rust inhibitor to provide additional protection.
- Tools with moving parts, such as pliers, can be lightly oiled after cleaning to improve their maneuverability and cutting performance. Use a suitable lubricant for this purpose.

07 Tool storage

Store your tools in a dry place

Moisture and water have a particularly negative effect on metal parts and contribute to their corrosion. So how do you protect metal parts?

- Make sure that your tools are stored in a dry place. If the humidity in your workshop is very high, you can use a dehumidifier.
- If moisture forms in the toolbox/drawer, it's important to get it completely dry as quickly as possible. To do this, place 1-2 bags of silica gel inside. The silica gel absorbs the moisture.
- When buying a tool case, make sure that it is equipped with a seal to protect against moisture and dust. Wiha tool cases are made of robust polypropylene ensure a long service life and resistance even at high temperatures. However, the cases should not be exposed to heavy rain or high UV radiation for long periods of time, as this will reduce their service life.
- A tool backpack can also be an alternative. When choosing a tool backpack, it is important that the base of the rucksack is made of robust, waterproof materials so that it can be placed on damp ground without the risk of moisture getting inside. The wiha tool backpack has a waterproof plastic base tray. The upper part is made of high-quality 1680 D outer material and is therefore very hard-wearing and waterproof. (Order no.: 45229).

>> To the tool backpack

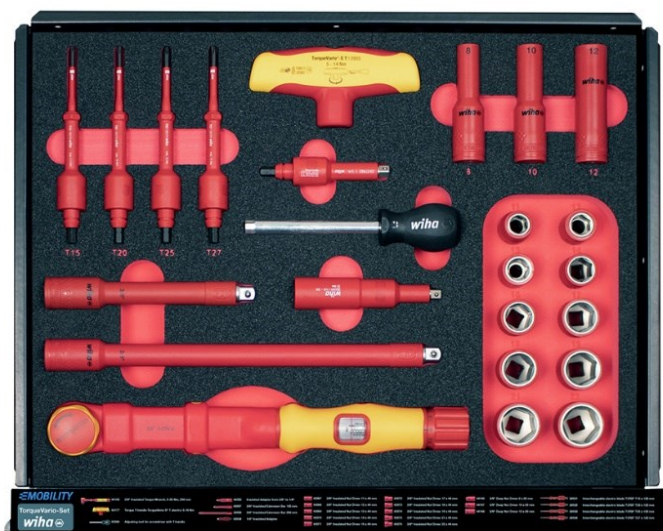


08 Safe transport and storage

The right storage system for your tools

To prevent damage to the tools, care must be taken both during transport and when storing the tools.

- Avoid transporting tools loose. If they knock against each other, damage can quickly occur.
- Keep your workshop clean and tidy: get into the habit of putting your tools back in their place immediately after use. Briefly check that all tools are tidy or that none are missing (empty compartment, free space on the perforated wall).
- Choose the right storage systems - ideally, each tool should have its own place. Various toolboxes, cases or tool bags are suitable for this.
- Ensure that your tools are transported safely to prevent damage, e.g. to the insulating sheath of the VDE tools or the cutting edges of the pliers. To do this, transport the tools in special toolboxes or tool bags.



09 Rust formation

Always remove rust as quickly as possible

Tools that are rarely used or those that do not have a chrome coating are particularly susceptible to rust formation. You should therefore inspect these tools more frequently for signs of rust.

When do tools rust? Rust can occur when ferrous metals come into contact with water and oxygen. This compound oxidises, which means that rust forms. Metal tools are not completely protected from rust in the tool case either. Moisture and oxygen can also get in there.

- If you have discovered rust on one of your tools, it must be removed as quickly as possible.

Tip: You can easily make your own rust remover. Mix vinegar, baking soda or citric acid with water. Then clean the affected areas with an old toothbrush or a normal kitchen sponge.

- Is your home-made remedy not working? If the corrosion is severe, we recommend that you first remove the first layer of corrosion with a wire brush or a cleaning brush. Then apply a commercially available rust remover to the surface to be treated and continue with brushing after an appropriate exposure time.
- Once the rust layer has been completely brushed off, remove the rust remover residue from the tool surface. You can use a brake cleaner, for example, to do this.
- Please remember rust attacks the surface directly. This damage is only visible after the rust has been removed, it's called rust pitting. We therefore recommend applying preservative oil directly to the surface to be treated.

10 Battery and battery-operated tools

Properly charge battery and battery operated tools

The service life of batteries and rechargeable batteries is significantly reduced if they are completely discharged. Extreme temperature fluctuations also have a negative effect on performance.

- Ensure that the batteries are properly charged before starting to work.
- Remove batteries and rechargeable batteries after use if you only use the appliance infrequently. If batteries are rarely used, they should still always be recharged, as complete discharge will cause irreversible damage, i.e. the battery will break.
- Dirty battery terminals can be cleaned with a cotton bud soaked in alcohol.
- If there are large deposits or if the battery has leaked, the battery should no longer be used and should be disposed of properly as soon as possible. We recommend wearing gloves when cleaning. Deposits can first be cleaned with a scraper or fine sandpaper. Then wipe the surface clean with a cleaning agent.



11 The right tool for every application

Use your tools for their intended purpose

Any improper use of tools leads to premature wear or, in extreme cases, complete destruction. If a tool is used for a purpose other than its intended use, this can result in the tool being damaged and no longer being able to perform to its full potential. But what does it actually mean to use a tool as intended?

- Take a look at the instructions for use, even for tools that are 'self-explanatory' for you. If you are familiar with the tool, tell your colleagues how to use it.
- When selecting a screwdriver or pin spanner, for example, pay attention not only to the correct screw profile, but also to the profile size. Only if the output of the screwdriving tool sits snugly in the profile of the screw is optimum force transmission guaranteed without damaging the edges.

Dimensions and units:

Hexagonal screw profiles are available in metric and imperial sizes. The dimensions of metric screw profiles are measured in millimetres. The metric system is used in many countries worldwide, especially in Europe and many industrialised countries.

In the imperial system, also known as the imperial system, dimensions are measured in inches. The imperial system is traditionally used in the USA, the United Kingdom and the Commonwealth countries.

➤ Use of the correct screw profiles:

There is no such thing as the colloquial cross-slot profile. Rather, there are two different profiles: One is the Philips profile, which is formed from two slotted profiles crossed at right angles. And the Pozidriv profile, which is formed by two crosses offset by 45 degrees. You can find a detailed description with an overview of all screw profiles in our guide. [➤➤ Guide to screw profiles](#)

➤ A screwdriver is designed for screwing and unscrewing screws in terms of its choice of material and degree of hardness. If it is used for levering or hammering, there is a risk of breakage. This applies to, in particular, slim screwdrivers, as the metal blade is reduced in diameter. The more robust SoftFinish screwdrivers with a (continuous) hexagonal blade and impact cap or special tools such as chisels or crowbars are suitable for tougher applications.

➤ **The right tool for the application:**

For applications involving electrostatic discharge, use ESD tools to protect the components or material. These dissipate electrostatic energy in a controlled and safe manner.

Use VDE tools for VDE applications. The insulated VDE tools enable safe working in the area of live parts up to 1,000 V AC.

Once you have determined the area of application, focus on the type of work to be carried out. (e.g. for pliers: gripping, cutting, bending, etc.), then select the size of your tool. (e.g. the handle size for a screwdriver).



12 VDE applications

NEVER work DIRECTLY on live parts

When choosing the right electrician's tool, safety is the top priority. The VDE test seal confirms that a tool is 100% safe in terms of voltage protection. This is awarded by the German Electrical Engineering Association (VDE).

Note: Work on electrical systems may only be carried out by qualified electricians with the appropriate training.

- NEVER work DIRECTLY on live parts. Follow the 5 safety rules and de-energise live parts of electrical systems and equipment before starting work and ensure that they are de-energised for the duration of the work.

The 5 safety rules:

1. Unlocking
2. Determine absence of voltage
3. Cover or enclose neighbouring live parts
4. Secure against reactivation
5. Earthing and short-circuiting

- Always use VDE tools when working on live parts. Check them regularly for visible signs of damage or cracks. If damage is detected, the tool should no longer be used.



13 For a longer service life

Use professional tools

- Professional tools are often made from high-quality materials. These materials are more resistant to wear, corrosion and breakage and are therefore more durable.
- Precision manufacturing means that professional tools fit the application perfectly and therefore wear less.
- Professional tools are generally more robust and can withstand the demands of professional use. They are less susceptible to breakage or deformation.
- Spare parts are available for products with wearing parts, e.g. the XXL case or the stripping tool with spare cutting edges. [➤ To the spare parts](#)

Invest in high-quality tools and look after them properly and you will be able to work reliably with them for many years to come.

We hope you enjoy working with your tools!

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