

## Xhorse HKSL25

# Xhorse 2.5mm Milling Cutter Instruction Manual

For Condor and Dolphin Key Cutting Machines

## 1. PRODUCT OVERVIEW

This manual provides essential information for the proper use and maintenance of the Xhorse Original 2.5mm Milling Cutter. Designed for precision key cutting, this cutter is a critical component for various Xhorse key cutting machines.

**Product Name:** Xhorse Original 2.5mm Milling Cutter

**Model Number:** HKSL25

**Compatibility:** This milling cutter is specifically designed for use with the following Xhorse key cutting machines:

- Condor XC-Mini Plus
- Condor XC-Mini Plus II
- Condor XC-002
- Dolphin XP005
- Dolphin XP005L
- Dolphin XP007



Image 1: Xhorse 2.5mm Milling Cutters in packaging.



Image 2: Xhorse 2.5mm Milling Cutter compatibility with various Xhorse key cutting machines.

## 2. SAFETY INFORMATION

Always prioritize safety when working with cutting tools and machinery. Failure to follow safety guidelines can result in injury or damage to equipment.

- **Eye Protection:** Always wear appropriate eye protection (safety glasses or goggles) to shield against flying debris.
- **Hand Protection:** Use gloves when handling cutters to prevent cuts and to maintain a firm grip.
- **Power Disconnection:** Ensure the key cutting machine is powered off and unplugged before installing, removing, or performing maintenance on the milling cutter.
- **Secure Installation:** Verify that the cutter is securely installed in the machine's spindle before operation. A loose cutter can cause damage or injury.
- **Inspect Cutter:** Before each use, inspect the cutter for any signs of damage, wear, or dullness. Do not use damaged cutters.

- **Keep Clear:** Keep hands, loose clothing, and long hair away from moving parts during machine operation.
- **Ventilation:** Ensure adequate ventilation in the work area, especially when cutting materials that may produce fine dust.
- **Children and Pets:** Keep children and pets away from the work area and operating machinery.

### 3. SETUP AND INSTALLATION

---

Proper installation of the milling cutter is crucial for accurate key cutting and to prevent damage to the cutter or machine.

1. **Power Off:** Ensure your Xhorse key cutting machine is turned off and unplugged from the power source.
2. **Access Spindle:** Open the machine's protective cover to access the cutter spindle area.
3. **Remove Old Cutter (if applicable):** If replacing an existing cutter, carefully loosen the retaining screw(s) or collet nut that secures the cutter. Remove the old cutter, exercising caution as it may be sharp or hot if recently used.
4. **Clean Spindle:** Clean the spindle and collet area to remove any debris or metal shavings. A clean seating surface ensures proper alignment.
5. **Insert New Cutter:** Carefully insert the Xhorse 2.5mm Milling Cutter into the collet. Ensure it is seated fully and correctly. Do not force the cutter.
6. **Secure Cutter:** Tighten the retaining screw(s) or collet nut firmly. Do not overtighten, as this can damage the cutter or collet. Ensure the cutter is held securely and does not wobble.
7. **Close Cover:** Close the machine's protective cover.
8. **Power On:** Plug in and power on your key cutting machine. Perform a test cut or calibration as recommended by your machine's specific manual.





Image 3: Installing the milling cutter into an Xhorse key cutting machine.

## 4. OPERATING INSTRUCTIONS

The Xhorse 2.5mm Milling Cutter is designed for precise key duplication and cutting. Always refer to your specific Xhorse key cutting machine's manual for detailed operating procedures.

- **Machine Calibration:** Before cutting, ensure your key cutting machine is properly calibrated according to its manufacturer's instructions. This includes probe calibration and jaw alignment.
- **Key Blank Selection:** Use the correct key blank for the key you intend to cut.
- **Secure Key Blank:** Firmly secure the key blank and the original key (if duplicating) in the machine's clamps. Ensure they are aligned correctly.
- **Cutting Parameters:** Select the appropriate cutting parameters (e.g., key type, depth, speed) on your machine's interface. The 2.5mm cutter is suitable for a wide range of standard key types.

- **Supervise Cutting:** Always supervise the key cutting process. Do not leave the machine unattended while it is operating.
- **Post-Cut Inspection:** After cutting, carefully remove the new key and inspect it for accuracy and burrs. Use a deburring tool or fine file to remove any sharp edges.



Image 4: Cutters and probes in operational setup on Xhorse key cutting machines.

## 5. MAINTENANCE

Regular maintenance extends the life of your milling cutter and ensures consistent cutting performance.

- **Cleaning:** After each use, carefully remove the cutter from the machine (ensure power is off) and clean it with a soft brush or compressed air to remove metal shavings and debris. Do not use harsh chemicals that could damage the cutter's coating or material.
- **Inspection:** Periodically inspect the cutter for signs of wear, chipping, or dullness. A dull cutter will produce poor quality cuts and put undue strain on the machine. Replace worn cutters promptly.
- **Lubrication:** Some key cutting machines may require lubrication of certain components. Refer to your machine's manual for specific lubrication guidelines. The cutter itself typically does not require lubrication.
- **Storage:** Store the milling cutter in its original protective case or a dedicated tool holder when not in use. This prevents damage to the cutting edges and protects against corrosion. Store in a dry, cool place.

## 6. TROUBLESHOOTING

If you encounter issues during key cutting, consider the following common problems and solutions:

Problem	Possible Cause	Solution
Poor cut quality / Rough edges	Dull or damaged cutter, incorrect cutting parameters, loose key blank, machine calibration issue.	Inspect and replace cutter if worn. Verify cutting parameters. Ensure key blank is securely clamped. Recalibrate machine.
Cutter breakage	Excessive cutting force, incorrect cutting speed, material too hard for cutter, cutter not securely installed.	Reduce cutting speed/force. Ensure cutter is appropriate for material. Verify secure installation. Replace broken cutter.

Problem	Possible Cause	Solution
Key not cutting to correct depth	Incorrect machine calibration, worn probe, incorrect key blank alignment.	Recalibrate machine and probe. Check key blank alignment in clamps.

If troubleshooting steps do not resolve the issue, contact Xhorse customer support or a qualified service technician.

## 7. SPECIFICATIONS

Detailed specifications for the Xhorse 2.5mm Milling Cutter (Model HKSL25).

Feature	Detail
Model Number	HKSL25
Size	2.5mm
Material	Tungsten Carbide
Finish Type	Unfinished
Number of Flutes	10
End Cut Type	Round
Cut Type	Center Cutting
Number of Cutting Edges	2
Tolerance Held	Precision
Item Weight	2.39 ounces
Package Dimensions	3.35 x 2.36 x 0.59 inches



Image 5: Comparison of Xhorse probes and milling cutters of various sizes.

## 8. WARRANTY AND SUPPORT







Xhorse products are manufactured to high-quality standards. For specific warranty information regarding your Xhorse 2.5mm Milling Cutter, please refer to the documentation provided with your purchase or visit the official Xhorse website.

For technical support, product inquiries, or warranty claims, please contact Xhorse customer service through their official channels. When contacting support, please have your product model number (HKSL25) and purchase details readily available.

**Xhorse Official Website:** [www.xhorse.com](http://www.xhorse.com)

© 2025 Xhorse. All rights reserved. This manual is for informational purposes only.

## Related Documents - HKSL25

	<p><a href="#">Condor XC-002 PRO Mechanical Key Cutting Machine User Manual</a></p> <p>User manual for the Condor XC-002 PRO Mechanical Key Cutting Machine, covering safety precautions, machine features, installation, operation, maintenance, and warranty.</p>
	<p><a href="#">Condor XC-002 PRO User Manual</a></p> <p>A comprehensive user manual for the Condor XC-002 PRO Mechanical Key Cutting Machine, detailing its features, operation, installation, maintenance, and warranty information.</p>
	<p><a href="#">Xhorse Condor Dolphin XP-007 Key Cutting Machine User Manual</a></p> <p>Comprehensive user manual for the Xhorse Condor Dolphin XP-007, a manually operated key cutting machine designed for laser, dimple, and flat keys. Learn about its features, specifications, operation, and maintenance.</p>
	<p><a href="#">Xhorse Dolphin XP-005L Automatic Key Cutting Machine User Manual</a></p> <p>Comprehensive user manual for the Xhorse Dolphin XP-005L automatic key cutting machine. This guide covers installation, operation, system features, maintenance, and warranty information for locksmiths and key cutting professionals.</p>
	<p><a href="#">Xhorse KEY TOOL MIDI User Manual</a></p> <p>Comprehensive user manual for the Xhorse KEY TOOL MIDI, a portable specialized tablet device for locksmiths, offering functions like IMMO programming, remote generation, transponder cloning, TPMS functions, cloud diagnosis, and control of Xhorse key cutting machines.</p>
	<p><a href="#">Xhorse KEY TOOL PLUS User Manual: Automotive Key Programming Guide</a></p> <p>Comprehensive user manual for the Xhorse KEY TOOL PLUS, detailing its features for automotive key programming, immobilizer matching, transponder cloning, remote generation, and key cutting. Includes specifications, accessories, and operational guides.</p>