

## HILTI 331547

# HILTI HDA-P M12 x 125/50 Undercut Anchor System User Manual

Model: 331547

## INTRODUCTION

This manual provides instructions for the safe and effective installation and use of the Hilti HDA-P M12 x 125/50 Undercut Anchor System. This anchor is designed for high-performance fastening in both cracked and uncracked concrete, suitable for indoor, dry conditions. Adherence to these instructions is crucial for optimal performance and safety.

## SAFETY INFORMATION

- Always wear appropriate personal protective equipment (PPE), including safety glasses, gloves, and hearing protection, during installation.
- Ensure the base material (concrete) is suitable for undercut anchors and meets the specified strength requirements.
- Do not exceed the maximum fixture thickness or apply loads beyond the anchor's rated capacity.
- Consult local building codes and engineering specifications before installation.
- Keep children and unauthorized personnel away from the work area.
- Handle anchors with care to avoid injury.

## PRODUCT OVERVIEW



Image: A Hilti HDA-P M12 x 125/50 Undercut Anchor, showing its steel construction, expansion mechanism,

and threaded end. The anchor is zinc-plated for corrosion resistance in dry indoor environments.

## SETUP AND INSTALLATION

---

Proper installation is critical for the performance and safety of the HDA-P undercut anchor. Follow these steps carefully:

1. **Drill Hole:** Drill a hole in the concrete base material to the specified diameter (14 mm for baseplate clearance) and depth using a rotary hammer drill. Ensure the hole is perpendicular to the surface.
2. **Clean Hole:** Thoroughly clean the drilled hole using a brush and compressed air to remove all dust and loose particles. Proper cleaning is crucial for anchor performance.
3. **Insert Anchor:** Insert the HDA-P undercut anchor into the cleaned hole. The anchor should fit snugly.
4. **Set Anchor:** Use the appropriate Hilti setting tool to expand the anchor. This process creates the undercut in the concrete, ensuring a secure mechanical interlock. Follow the setting tool's instructions for proper expansion and verify the anchor is fully set.
5. **Attach Fixture:** Position the fixture over the anchor and secure it with the appropriate nut and washer. Tighten to the recommended torque specifications provided by Hilti for the specific application.

*Note: Specific drilling depths and torque values are critical for optimal performance and must be obtained from the official Hilti technical data sheet for the HDA-P M12 anchor. Always refer to the latest Hilti documentation.*

## OPERATING INSTRUCTIONS

---

Once installed and set, the HDA-P undercut anchor provides a secure fastening point. Ensure that the attached fixture is stable and that the anchor is not subjected to loads exceeding its design capacity. Regularly inspect the anchor and fixture for any signs of damage or loosening, especially in dynamic load applications. Do not modify the anchor or its components after installation.

## MAINTENANCE

---

Hilti HDA-P undercut anchors are designed for long-term, maintenance-free performance when installed correctly in suitable conditions. However, periodic checks are recommended:

- Periodically inspect the anchor and the attached fixture for any visible signs of corrosion, damage, or loosening.
- In environments where conditions might change or become more aggressive (even if initially indoor/dry), consider more frequent inspections.
- Do not attempt to re-tighten an anchor that has been subjected to excessive load or shows signs of failure; replace it if necessary.
- Ensure the area around the anchor remains clean and free from debris that could compromise its integrity.

## TROUBLESHOOTING

---

- **Anchor does not set properly:** Ensure the hole was drilled to the correct diameter and depth, and thoroughly cleaned. Verify the setting tool is correctly used and calibrated. Incorrect hole dimensions or debris can prevent proper expansion.
- **Anchor feels loose after setting:** This may indicate improper hole preparation, incorrect setting

procedure, or unsuitable base material. Do not use the anchor; remove and replace it with a new one after re-evaluating the installation process and base material.

- **Fixture wobbles:** Check if the nut is tightened to the specified torque. Ensure the baseplate clearance hole is appropriate and the fixture itself is not damaged or warped. Re-tighten to specification if necessary, but do not overtighten.
- **Visible damage to anchor or concrete:** If any part of the anchor or surrounding concrete shows cracks, deformation, or significant corrosion, the anchor's integrity may be compromised. It must be replaced immediately.

## SPECIFICATIONS

Feature	Detail
Brand	HILTI
Model Number	331547
Anchor Size	M12
Dimensions (Length/Embedment Depth)	125/50
Max. Fixture Thickness (standard embedment)	1-15/16 inches
Baseplate Clearance Hole	14 mm
Base Materials	Concrete (cracked), Concrete (uncracked)
Environmental Conditions	Indoor, dry conditions
Material Composition	Bolt: steel, strength 8.8 grade, zinc-plated (min. 5 µm)
Item Weight	1 pound
Measurement System	Inch, Metric
Usage	Concrete

## WARRANTY AND SUPPORT

For specific warranty information and technical support regarding your Hilti HDA-P M12 x 125/50 Undercut Anchor, please refer to the official Hilti website or contact Hilti customer service directly. Always use genuine Hilti accessories and follow recommended procedures to ensure product performance and validity of any warranty. Keep your purchase receipt for warranty claims.

© 2023 HILTI. All rights reserved.

This manual is for informational purposes only. Hilti reserves the right to make changes without prior notice.

For the latest information and safety data sheets, please visit [www.hilti.com](http://www.hilti.com).

