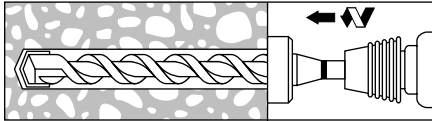


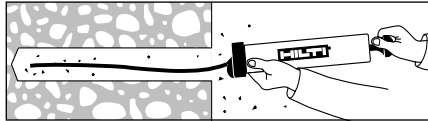
3.3.1 HDA Undercut Anchor

3.3.1.4 Installation Instructions

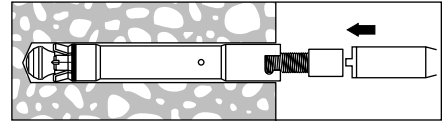
Setting Operation HDA-P/-PR/-PF (Preset Style)



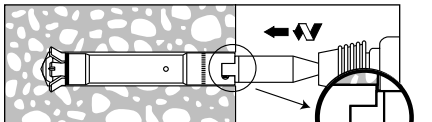
1. Drill a hole to the required depth using a stop drill bit matched to the anchor, (refer to specification table and ordering info.). If rebar is encountered, use a Hilti metric matched tolerance diamond core bit to drill through the rebar. Remove the concrete core and finish drilling the hole with the stop drill bit. Always consult with the Engineer of Record before cutting rebar.



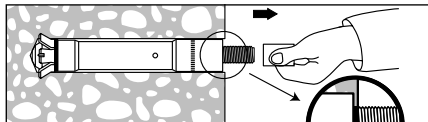
2. Clean hole with a shop vacuum, compressed air or a hand air pump to remove drilling debris.



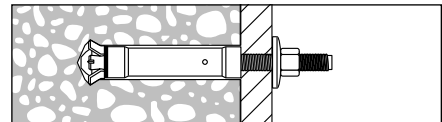
3. Insert the anchor into the hole by hand, so that the cone sits on the bottom of the drilled hole. Do not remove the plastic cap which protects the threaded rod. Using the assigned setting tool and Hilti hammer drill, the setting tool is guided over the anchor rod and engages the grooves in the sleeve. **It is critical to use the specified Hilti hammer drills.**



4. The anchor is set with the specified Hilti hammer drill in hammer drill mode and in the specified gear. During the setting procedure, both drilling and impact energy are transferred to the sleeve by the setting tool, causing the sleeve to slide over the conical end of the anchor bolt while forming the undercut in the base material. On the setting tool, the red ring indicates the progress of the setting operation. When this marking is flush with the concrete surface, check the anchor for proper setting (refer to step 5).

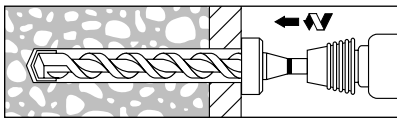


5. The anchor is correctly set and the undercut is fully formed when the red mark on the anchor bolt is visible above the top edge of the sleeve. The top edge of the anchor sleeve must be positioned dimension h_s below the concrete surface. If the anchor setting time exceeds 60 seconds for M10, M12 or M16 anchors or 120 seconds for M20 anchors the installation failed and the anchors must not be loaded.

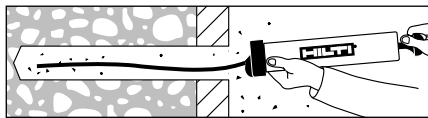


6. Remove the plastic thread protector cap. Secure the part to be fastened by using the conical spring washer and nut provided. Apply a torque not to exceed the maximum values given in the Specification Table. Torque is not required to set the anchor.

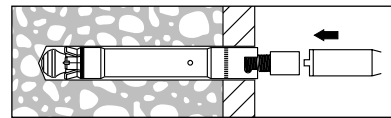
Setting Operation HDA-T/-TR/-TF (Through-Set Style)



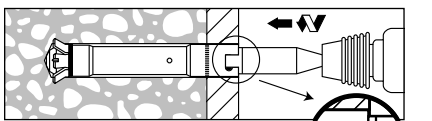
1. Drill a hole to the required depth using a stop drill bit matched to the anchor, (refer to specification table and ordering info.). If rebar is encountered, use a Hilti metric matched tolerance diamond core bit to drill through the rebar. Remove the concrete core and finish drilling the hole with the stop drill bit. Always consult with the Engineer of Record before cutting rebar.



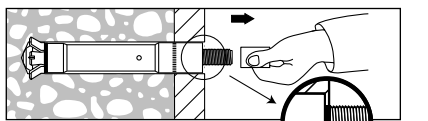
2. Clean hole with a shop vacuum, compressed air or a hand pump.



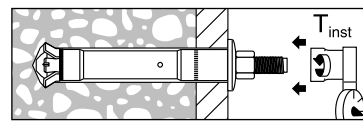
3. Insert the anchor into the hole by hand, so that the cone sits on the bottom of the drilled hole. Do not remove the plastic cap which protects the threaded rod. Using the assigned setting tool and Hilti hammer drill, the setting tool is guided over the anchor rod and engages the grooves in the sleeve. **It is critical to use the specified Hilti hammer drills.**



4. The anchor is set with the specified Hilti hammer drill in hammer drill mode and in the specified gear. During the setting procedure, both drilling and impact energy are transferred to the sleeve by the setting tool, causing the sleeve to slide over the conical end of the anchor bolt while forming the undercut in the base material. On the setting tool, the red ring indicates the progress of the setting operation. When this marking is flush with the connected part, check the anchor for proper setting (refer to step 5).



5. The anchor is set and the undercut is fully formed when the red marking on the anchor bolt is visible above the top edge of the sleeve. The top edge of the anchor sleeve must be positioned dimension h_s below the surface of the fixture. If anchor setting time exceeds 60 seconds for M10, M12 or M16 anchors or 120 seconds for M20 anchors the installation failed and the anchor must not be loaded.



6. Remove the plastic thread protector cap. Secure the part to be fastened by using the conical spring washer and nut provided. Apply a torque not to exceed the maximum values given in the Specification Table. Torque is not required to set the anchor.

dia.	h_s (mm)	
	min.	max.
M10	2	6
M12	2	7
M16	2	8
M20	2	8

The HDA Undercut Anchor, designed to carry significant, safety-relevant loads, **must** be installed correctly with the prescribed tools to function properly. Carefully follow **all** instructions located inside the box. Installer training is also available upon request.