



HOW TO INSTALL A CONCRETE WEDGE ANCHOR

SIMPSON® Strong-Bolt® 2 – STB2

The STB2 Wedge Anchor is a torque-controlled, expansion anchor designed for use in cracked and uncracked normal-weight concrete.



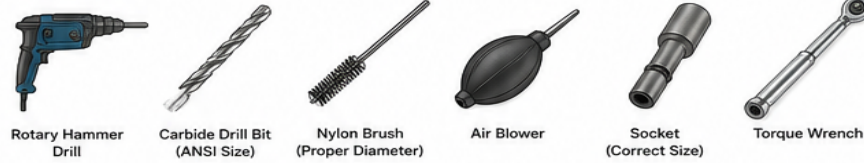
ABOUT THE STB2

- Carbon steel
- Zinc plated
- For cracked and uncracked concrete
- Internally threaded wedge for strength and reliability
- ICC-ES ESR-3037

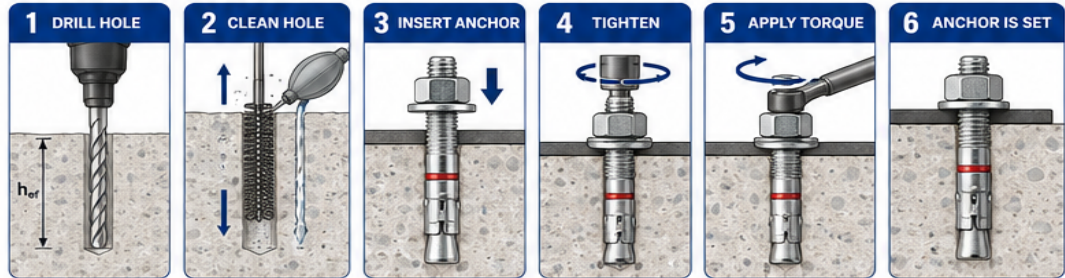
PRODUCT SHOWN:
STB2 1/2" x 4"



TOOLS REQUIRED



INSTALLATION STEPS



- Drill a hole to the recommended diameter and minimum embedment depth (h_{ef}).
- Do not drill oversized holes.

- Clean the hole using the following sequence:
 1. Blow out 2x
 2. Brush 2x
 3. Blow out 2x
- Proper hole cleaning is critical for performance.

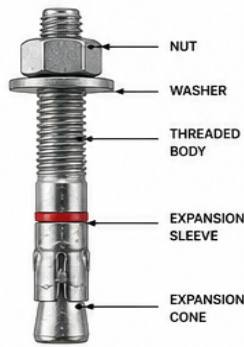
- Insert the anchor through the fixture and into the hole.
- Tap gently if needed to seat the anchor.
- The washer should be flush with the fixture.

- Tighten the anchor nut until snug.
- The wedge will begin to expand against the concrete.

- Tighten to the recommended installation torque (T_{inst}).
- Do not over-torque.
- Anchor is set.

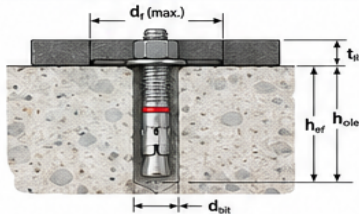
- Anchor is properly installed when the correct torque is achieved.
- Ready to load.

ANCHOR COMPONENTS

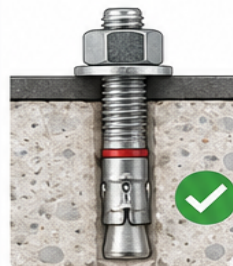


INSTALLATION REFERENCE

STB2 WEDGE ANCHOR (CARBON STEEL)		1/2" DIAMETER EXAMPLE
Drill Bit Diameter (d_{bit})		1/2"
Minimum Embedment (h_{ef})		3-1/2"
Hole Depth (h_{hole})		4-1/4" (min.)
Fixture Hole Diameter (d_f)		9/16" (max.)
Installation Torque (T_{inst})		65 ft-lbs

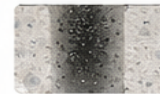


CORRECT INSTALLATION



Washer is flat on fixture. Nut is torqued to T_{inst} . Anchor is fully set.

COMMON MISTAKES



- ❌ **HOLE NOT CLEANED**
Reduces holding strength.



- ❌ **INSUFFICIENT EMBEDMENT**
May lead to anchor pull-out.



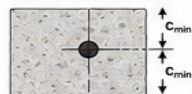
- ❌ **OVER-TORQUED**
Can damage anchor or reduce performance.

GENERAL NOTES

- Use only in normal-weight concrete (2,500 – 7,000 psi).
- Maintain proper edge distance and spacing.
- Do not install in deteriorated or cracked concrete outside of ESR-3037 limitations.
- Use a calibrated torque wrench.
- Do not reuse anchors.

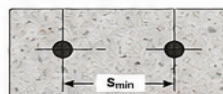
EDGE DISTANCE & SPACING (GUIDELINES)

MINIMUM EDGE DISTANCE (c_{min})



Typically $1.5 \times h_{ef}$ (see ESR-3037 for details)

MINIMUM SPACING (s_{min})



Typically $3.0 \times h_{ef}$ (see ESR-3037 for details)

SAFETY FIRST



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