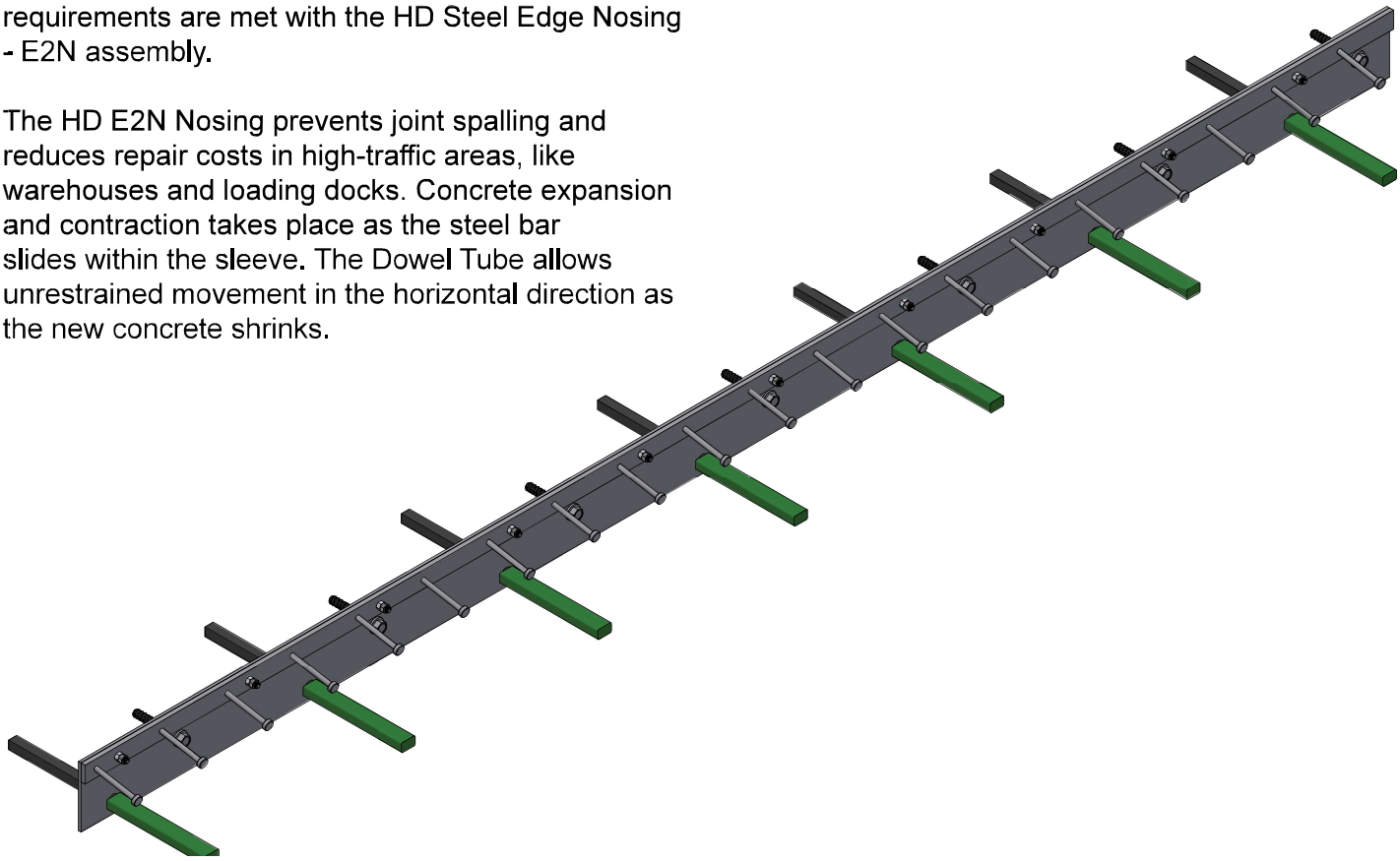
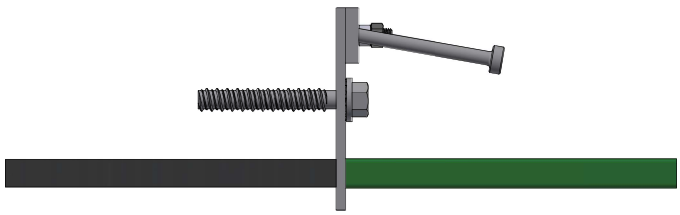
HD Steel Edge Nosing E2N

Stabilize construction joints for existing-to-new concrete

Additions to high-traffic industrial floor buildings and pavements require precise load transfer, smooth slab-to-slab transition and joint protection. All of these requirements are met with the HD Steel Edge Nosing - E2N assembly.

The HD E2N Nosing prevents joint spalling and reduces repair costs in high-traffic areas, like warehouses and loading docks. Concrete expansion and contraction takes place as the steel bar slides within the sleeve. The Dowel Tube allows unrestrained movement in the horizontal direction as the new concrete shrinks.





A complete assembly includes the HD Steel Edge Nosing - E2N, studs, and square dowels with tube. The hole for the Square Dowel is positioned at mid-slab height.

The installation conforms to ACI 302.1R Guide for Concrete Floor and Slab Construction and ACI 360 Design of Slabs-on-Ground.

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MADE IN USA

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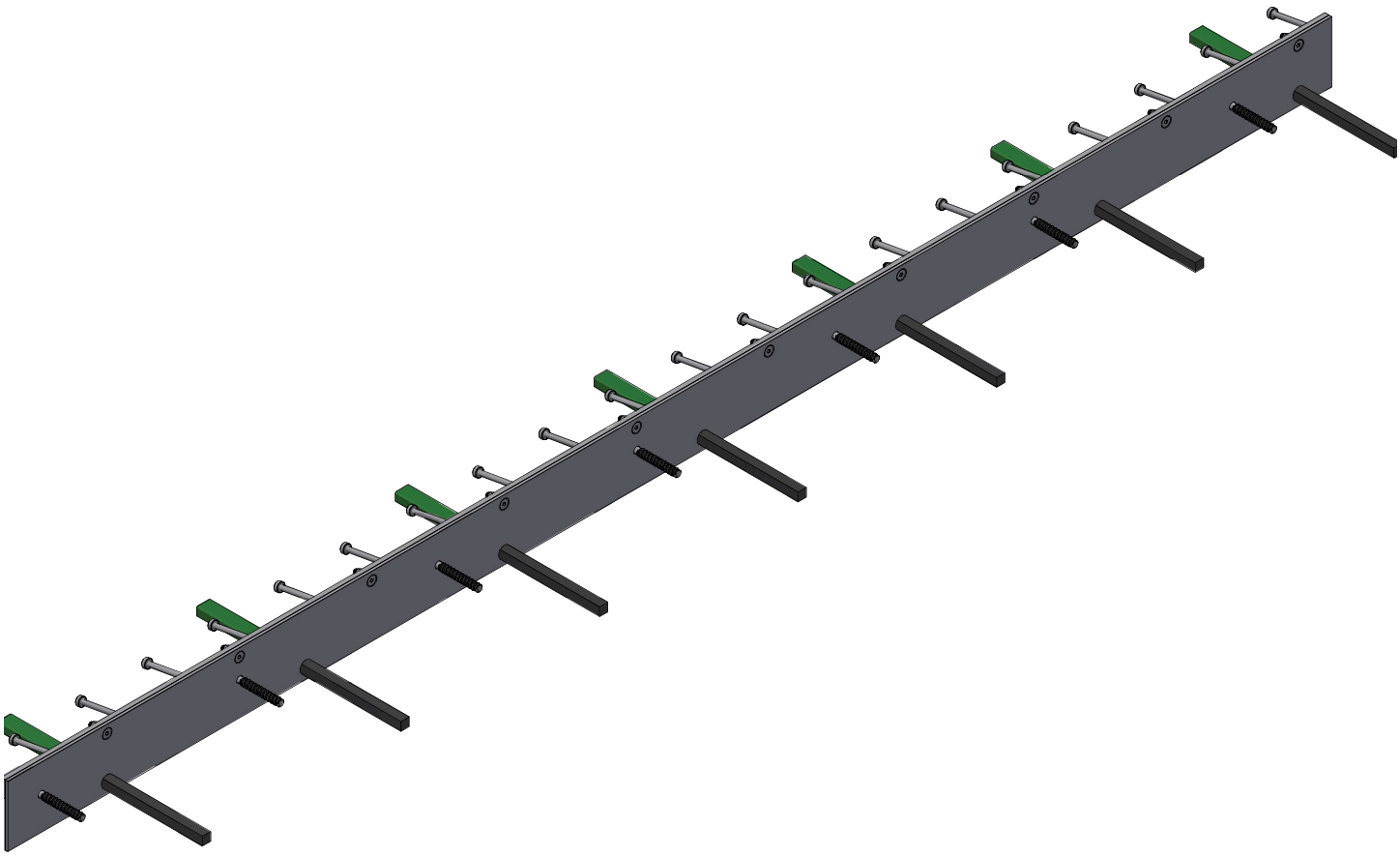
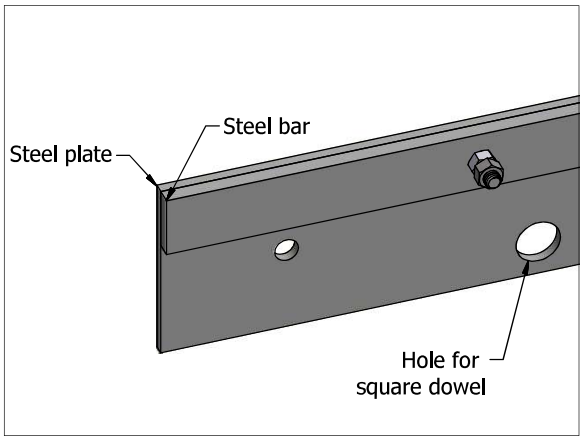
HD Steel Edge Nosing - E2N				
Part No.	**Description (height x length)**	**Slab**	**Dowel Size**	**Spacing***
SBHDSENE2N6	HD Steel Edge Nosing E2N 6”x10’	6”	3/4” x 3/4” x 18”	18”
SBHDSENE2N6DT	HD SEN E2N 6”x10’ w/Dowel & Tube	6”	3/4" x 3/4" x 18"	18”
SBHDSENE2N7	HD SEN E2N 7”x10’	7”	3/4” x 3/4” x 18”	18”
SBHDSENE2N7DT	HD SEN E2N 7”x10’ w/Dowel & Tube	7”	3/4” x 3/4” x 18”	18”
SBHDSENE2N8	HD SEN E2N 8”x10’	8”	3/4" x 3/4" x 18"	18”
SBHDSENE2N8DT	HD SEN E2N 8”x10’ w/Dowel & Tube	8”	3/4” x 3/4” x 18”	18”
SBHDSENE2N9	HD SEN E2N 9”x10’	9”	3/4” x 3/4” x 18”	18”
SBHDSENE2N9DT	HD SEN E2N 9”x10’ w/Dowel & Tube	9”	3/4” x 3/4” x 18”	18”
SBHDSENE2N10	HD SEN E2N 10”x10’	10”	3/4” x 3/4” x 18”	18”
SBHDSENE2N10DT	HD SEN E2N 10”x10’ w/Dowel & Tube	10”	3/4” x 3/4” x 18”	18”



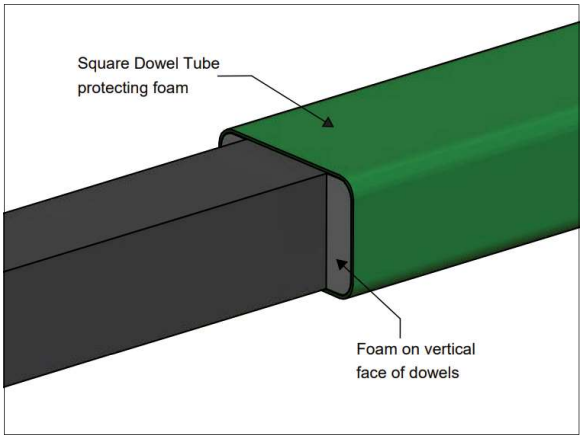
HD Steel Edge Nosing - E2N Installation

1. Position and hold steel plate and steel bar flush with the surface of the existing slab. Mark the locations of the hole in the steel plate for the square dowels and anchor bolts. Remove HD Steel Edge Nosing - E2N.



2. Drill holes 9-1/2” into slab, parallel to slab surface using 1-1/8” drill bit for the 3/4” square dowels. Drill holes 4-1/2” into slab, parallel to slab surface using 1/2” drill bit. Attach joint assembly flush with existing slab using anchor bolts.

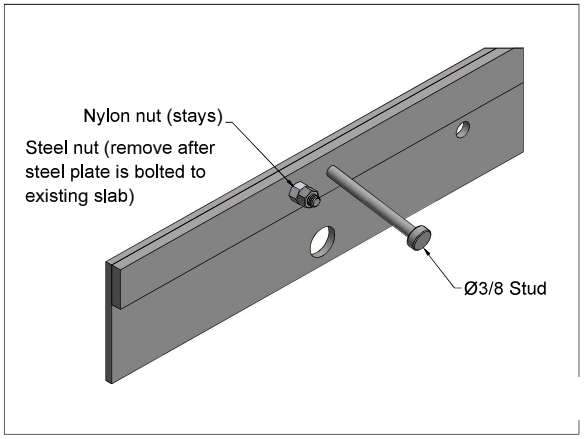
3. Epoxy grout 3/4” x 18” square dowels with dowel tube into pre-drilled holes so that dowel sleeve is outside of the existing concrete surface. Dowel with sleeve must be installed with foam on left and right sides to allow side-to-side movement as seen in middle picture. Once installed properly, allow epoxy to cure.



4. If the HD Steel Edge Nosing - E2N will butt up to a sawcut contraction joint, cut through the full depth of the side of the Steel Edge Nosing that abuts the saw-cut to allow activation of the joint.

5. Remove the steel alignment nut from nut and bolt alignment assembly to allow joint to activate. If steel alignment nut is not removed the joint will not activate. Cover the exposed steel alignment bolt with tape or plastic sleeve so that the threads do not restrain the new concrete slab.

6. Place and finish concrete normally. Vibration is required to properly consolidate concrete and eliminate air entrapment. Follow industry guidance for consolidating concrete around embedments.



7. Concrete paste can be removed from top of HD Steel Edge Nosing - E2N plate and bar during finishing.

8. If concrete leveling is needed, grind joint flush or saw-cut 1/2” deep, 18 - 24 inches back into existing slab, chip existing slab down 1/2 - 3/4” and top with approved epoxy materials.

9. See project specifications for joint filler installation.

E2N Square Dowel and Tube

Stabilize construction joints for existing to new concrete floors and flatwork

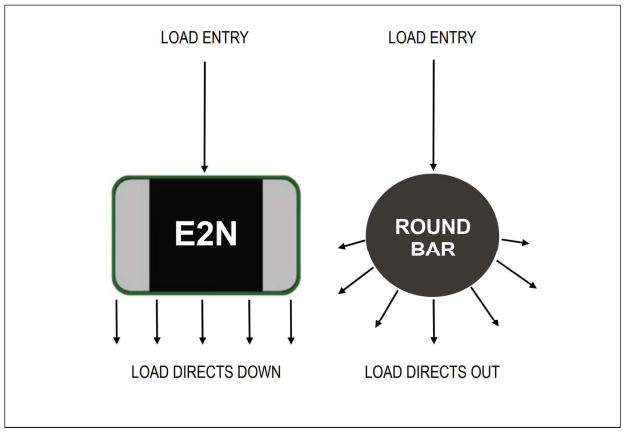
Designed for joint activation and free horizontal movement of existing-to-new concrete without restraint.

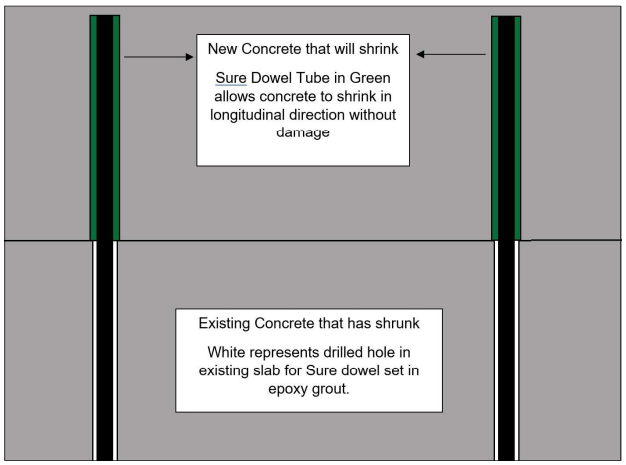
The E2N Square Dowel and Tube has compressible foam on both sides of the 3/4” square steel dowel protected by a plastic tube

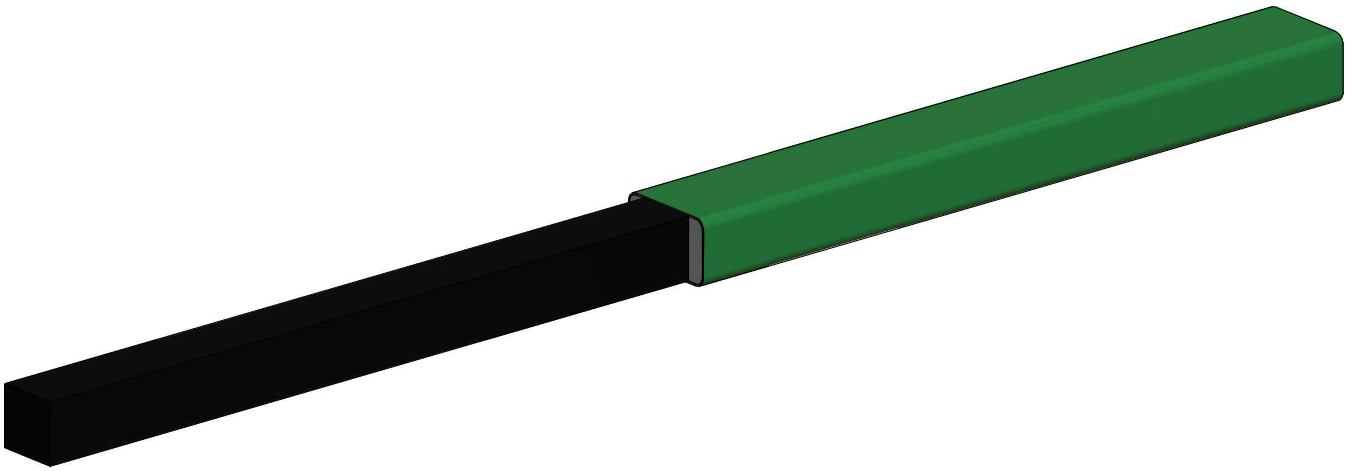
This allows new concrete to shrink adjacent to existing concrete without the dowel causing unintended damage to the concrete.

The comparison to the right shows the load transfer on square bars compared to round bars. The load transfer directly down into the concrete effectively eliminates splitting stresses within the concrete.

Square bars have greater resistance to bending, reducing edge and corner curling without increasing the amount of steel used.

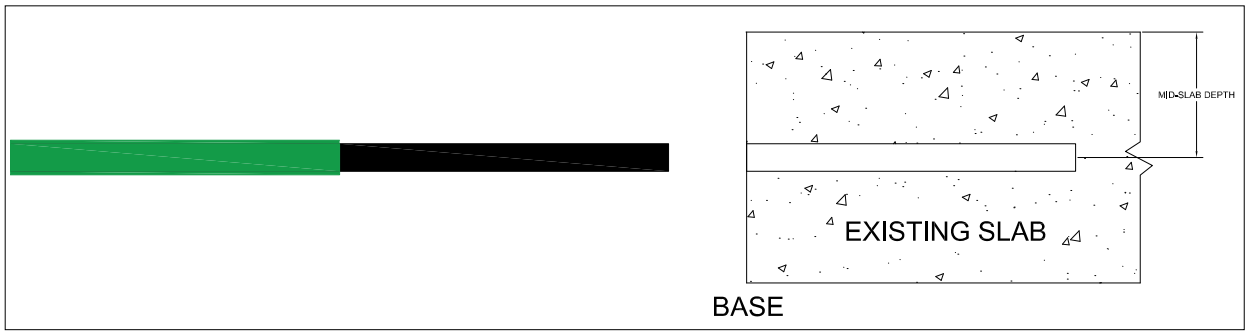




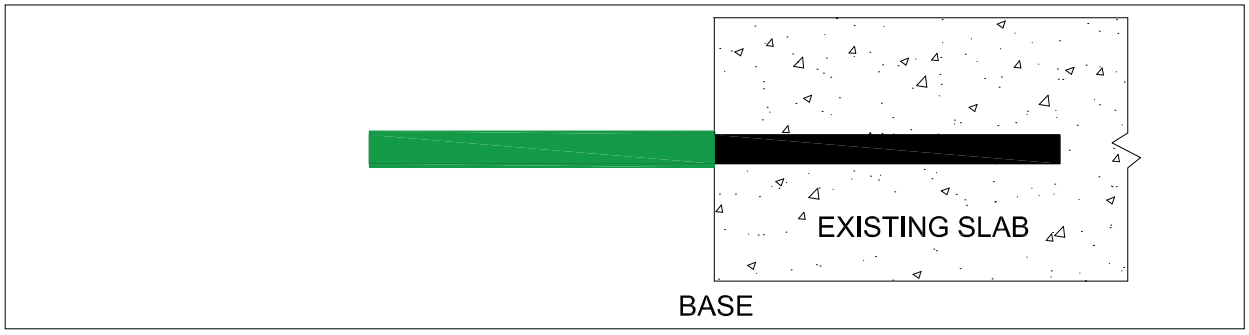


E2N Square Dowel and Tube Installation Guide

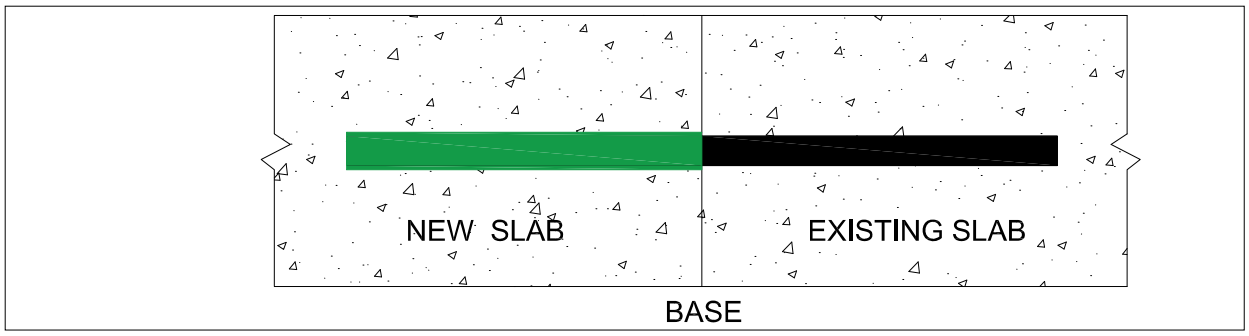
1. Drill 1-1/8” hole to 9-1/2” at mid-slab depth. Space E2N Square Dowels at 18” O.C.



2. Set E2N Square Dowel and Tube in epoxy grout with Tube flush with existing slab and foam on the left and right sides.



3. Place and finish new concrete.



E2N Square Dowel & Tube						
Part No.	**Description**	**Slab Thickness**	**Square Dowel Size**	**Dowel Length**	**Square Dowel Clip Length**	**Embedment (in)**
SBSDKTT	Square Dowel & Tube	any	0.75”	18”	9”	9”
SBSDKEAI	Epoxy Acrylic Injection					