

Diamond Dowel Pocket

DCS DURABLE
CONCRETE
SOLUTIONS

LOAD TRANSFER SYSTEM FOR INDUSTRIAL FLOORS

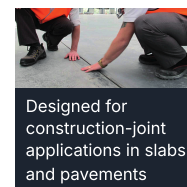
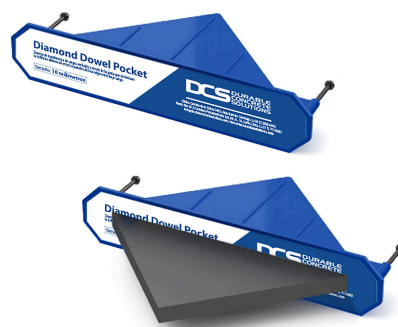
TECHNICAL DATA SHEET

Description

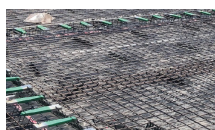
The **Diamond Dowel System** is a set of components, a plastic pocket and an ASTM A36 steel plate, designed for construction-joint applications in concrete slabs and pavements. It is configured as a system that provides load transfer along the joint and minimizes differential deflection between adjacent slab panels.

The **Diamond Dowel System** meets the requirements of TR34 (4th edition) and provides a low in-place cost solution by eliminating the need to drill or modify the formwork, as traditional round and square dowel systems require. The **Diamond Dowel Pocket** is fixed directly to the wood or metal form used for the pour.

Applications include industrial, commercial and civil pavements, as well as roadways and heavy-duty concrete slab-on-ground pavements.



Designed for construction-joint applications in slabs and pavements



The Diamond Dowel System meets the requirements of TR34 (4th edition) and ACI 360.

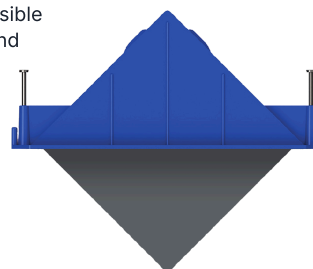
Strategic reinforcement

This design is based on project cost-effectiveness and concrete performance. It optimizes steel by using DCS **Diamond Dowels** and PD3 Baskets where they are really needed, minimizing spalling and cracking at the construction joint.

Features

- Dowel plates manufactured from ASTM A36 steel.
- Maximizes surface area at the joint.
- The nailing flange provides secure attachment to the form.
- The nails help retain the sleeve in the concrete when the wood form is removed.
- The sleeve system keeps the dowel perpendicular and stable in the form.
- Pockets molded from durable, non-compressible plastic.

Non-compressible plastic Diamond Dowel Pocket



Available in
1/4 in (6 mm),
3/8 in (10 mm)
and
3/4 in (20 mm).



Packaged with all components for quick, easy installation.

Use and performance

SLAB THICKNESS	DOWEL DIMENSIONS*, IN (MM)			DOWEL SPACING, CENTER TO CENTER, IN (MM)		
	Round dowel	Square dowel	Diamond Dowel**	Round dowel	Square dowel	Diamond Dowel**
5 to 6 in 130–150 mm	3/4 × 14 19 × 360	3/4 × 14 19 × 360	1/4 × 4-5/16 × 4-5/16 6 × 110 × 110	12 300	14 360	18 460
6 to 8 in 150–200 mm	1 × 16 25 × 410	1 × 16 25 × 410	3/8 × 4-5/16 × 4-5/16 10 × 110 × 110	12 300	14 360	18 460
8 to 11 in 200–280 mm	1-1/4 × 18 32 × 460	1-1/4 × 18 32 × 460	3/4 × 4-5/16 × 4-5/16 20 × 110 × 110	12 300	12 300	20 510

Source: ACI 360R-06, Design of Slabs-on-Ground, Table 5.2; ACI 302.1R-04, Guide for Concrete Floor and Slab Construction, Table 3.2.

* Total dowel length includes allowance for joint opening and minor errors in dowel placement.

** The construction tolerances required make it impractical to use diamond-shaped load plates in saw-cut contraction joints.

Note: table values are based on a maximum joint opening of 0.20 in (5 mm). Dowels must be carefully aligned and supported during concrete operations. Misaligned dowels may cause cracking.

Inch values are rounded conversions; metric dimensions govern.