

PRODUCT DATA SHEET
QD3
QuicDiamond™ 3 Assembly



Plate Dowels for Saw-Cut Contraction Joints

The QuicDiamond™ 3 Assembly provides reliable joint stability and positive load transfer in concrete flatwork applications. The continuity of the surface profile helps minimize joint spalling. Engineered to provide the optimal use of steel, the performance-based design is cost effective for interior and exterior concrete exposed to wheeled traffic and heavy loads.

- Provides stable dowel support and alignment with fully welded basket assemblies
- Custom baskets available through our distribution network
- Stock baskets available in limited sizes
- Doweling method in accordance with ACI 360 Design of Slab-on-Ground and with ACI 330.2 R17 Guide for the Design and Construction of Concrete Site Paving for Industrial and Trucking Facilities
- Sawing of steel according to industry guidelines ensures smooth plate edges and leads to free movement of dowel
- Factory applied debonding agent on all baskets reduces on-site labor

- Design joint deflection tolerance between slab panels.
 - 0.01 inches (0.25 mm) for hard wheels
 - 0.02 inches (0.50 mm) for air cushioned rubber tires
 - 0.035 inches (0.875 mm) for pneumatic tires
- All plates are manufactured from steel certified to meet ASTM A36

Basket Dimensions:

Cross-sectional area of steel at the outside edge of the saw-cut installation tolerance.

Dowel length 12" (allowing 4" embedment and 2" tolerance) for all dowels.

Dowel width 2" or 2.5" at joint center

Slab Depth	QuicDiamond™ Dowel Dimensions	On Center Spacing
5 - 7"	3/8" thick x 2" width x 12" length	18" – 24" *
7 - 9"	1/2" thick x 2.5" width x 12" length	18" – 24" *
10"+	3/4" thick x 2.5" width x 12" length	18" – 24" *
* Additional "On Center" spacing available on request.		

QuicDiamond™ 3 Assembly - pg 2

DOWEL SIZE AND SPACING FOR CONTRACTION JOINTS							
Slab Depth	Dowel Dimensions*			On-Center Dowel Spacing			Sheer Strength @ joint center
	Round	Square	QuicDiamond™**	Round	Square	QuicDiamond™	
5" to 7"	3/4" x 14"	3/4" x 14"	3/8" x 2" x 12"	12"	14"	18" - 24"	16,200 lbs
7" to 9"	1" x 16"	1" x 16"	1/2" x 2.5" x 12"	12"	14"	18" - 24"	27,000 lbs
10"+	1-1/4" x 18"	1-1/4" x 18"	3/4" x 2.5" x 12"	12"	12"	18" - 24"	40,500 lbs



Stakes for securing baskets are sold separately.

Available for QDB and QD3 Baskets

Source Material: ACI 360R-10, *Design of Slabs-on-Ground*, Table 6.1;
 ACI 302.IR-04, *Guide for Concrete Floor and Slab Construction*, Table 3.2
 PCA 4th Edition, Table 6.2

* Table values based on a maximum joint opening of 0.2 in (5mm).
 Dowels must be carefully aligned and supported during concrete operations.
 Misaligned dowels may lead to cracking. Total dowel length includes
 allowance made for joint opening and minor errors in positioning dowels.

** Required construction joint tolerances make it impractical to use diamond
 shaped dowels in saw-cut contraction joints.

Carrollton, GA Manufacturing Facility
 141 Hammond Street
 Carrollton, GA 30117

Phone 770-832-2000 • 800-862-4835 • FAX 770-832-2095
 Visit our website @ www.bometals.com
 Address email to info@bometals.com

*Founded in 1989, BoMetals has become an industry leader in the
 design and manufacture of concrete and masonry accessories.*