

Dixie Pacific® Technical Bulletin

Date: September 1, 2016
 Technical Bulletin – 00001D

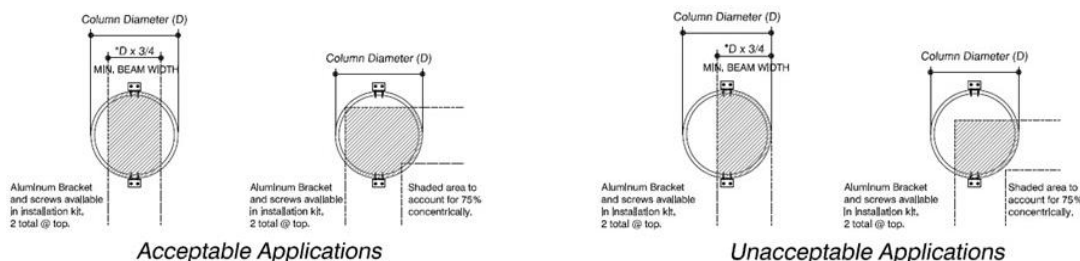
Subject: Changes to AC265 and New ICC Evaluation Report

The acceptance criteria for the evaluation of Fiber-Reinforced Polymer (FRP) Composite Columns used as Axial Load-bearing and Non-load bearing architectural and decorative columns are established under International Code Council (ICC) AC265.

In the revision to AC265, there were two (2) major changes to the acceptance criteria for FRP columns namely: Eccentric Axial Loading and Increased Safety Factor.

ECCENTRIC AXIAL LOADING

Under the revised AC265 requirements for Fiberglass Columns, the maximum allowable load values are based on an eccentric (offset) axial load, instead of a concentric (centered) axial loading (as per industry standard installation instructions). Under the new testing requirements, the load is applied without covering 75% of the top of the column. This testing change was due to the many incorrectly installed columns found in residential installations. Eccentric installation of columns is an unacceptable method of installation and one that today voids manufacturers' warranty.



Columns concentrically loaded with 75% contact at the top and 100% contact at the bottom can bear greater loads than eccentrically loaded columns.

INCREASED SAFETY FACTOR

The safety factor for the maximum allowable load values tested eccentrically (per the AC 265) are being increased from 2.5 times to 5 times. The maximum allowable load value stated by a manufacturer in their code compliance document must take into account the new safety factor (For example a column tested eccentrically to an ultimate load capacity of 30,000 lbs. would have a maximum allowable load value of 6,000 lbs.).

[Dixie Pacific®](#) is pleased to announce the release of the ICC-ES Evaluation Report for our PermaCast® Fiberglass Reinforced Polymer (FRP) columns; ESR-1361. The evaluation reports verifies Dixie Pacific's compliance with the 2015 International Builders Code (IBC) and 2015 International Residential Code (IRC) under Acceptance Criteria (AC) 265 for Fiber-Reinforced Polymer (FRP) Composite Columns.

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Subject: Average Allowable Loads

The allowable loads for fiberglass are based on the columns being eccentrically (offset) loaded 0.167 times the width/diameter of the column (based on AC208 and 2015 IBC/IRC). Concentrically loaded columns will bear larger loads.

DuraCast™ Round*

Column Size	Avg. Allowable Load (lbs)
6"	4580
8"	4600
10"	4690
12"	4800
14"	7800
16"	8250
18"	10000
20"	10000
22"	10000
24"	10000
28"	10000
30"	10000

*Includes Fluted

DuraCast™ Round NT

Column Size	Avg. Allowable Load (lbs)
6"	4580
8"	4590
10"	4670
12"	4750
14"	7000
16"	7000
18"	7000
24"	9000

DuraLite® Round

Column Size	Avg. Allowable Load (lbs)
8"	4000
10"	4000

DuraCast™ Square*

Column Size	Avg. Allowable Load (lbs)
6"	5100
8"	5150
10"	5640
12"	5900
14"	8500
16"	9500

*Includes Recessed Panel and Fluted Square

DuraCast™ Craftsman

Column Size	Avg. Allowable Load (lbs)
10" x 6" x 66"	9000
10" x 8" x 66"	9000
10.25" x 7.5" x 7'	7000
12" x 10" x 6'	8000
12" x 10" x 10'	8000
14" x 12" x 9'	8000
16" x 9" x 58"	9000
16" x 9" x 6'	9000
16" x 9" x 8'	9000
16" x 12" x 58"	9000
16" x 12" x 6'	9000
16" x 12" x 8'	9000

DuraLite® Square*

Column Size	Avg. Allowable Load (lbs)
6"	3000
8"	3000
10"	3000
12"	3000

*Includes Recessed Panel Square