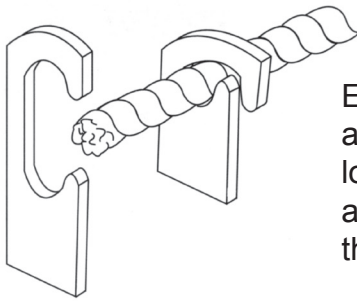
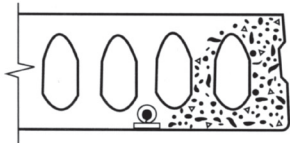


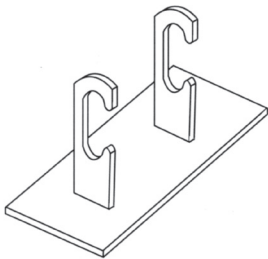
BOTTOM WELD PLATES

WITH STUD ANCHORS

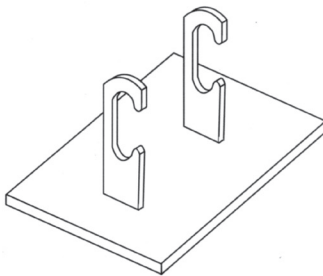
As part of a program for evaluating various inserts used in Spancrete® hollowcore plank, weld plates, as shown below, were tested in the bottom of some plank. These plates were located on the casting bed prior to placing concrete, and centered on one of the bottom prestressing strands. Bending the stud tightly over the strand anchors the plate in its predetermined location.



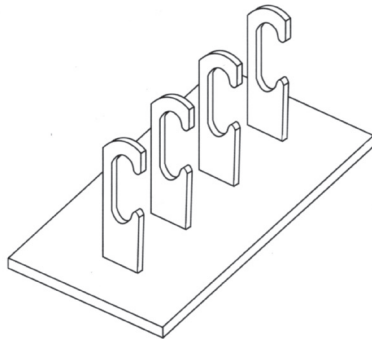
Each stud is crimped to a strand to initially fix its location and ultimately anchor the plate into the concrete.



BWA-3
 Plate $\frac{3}{16}$ " x 2" x 6" with
 Two $\frac{1}{8}$ " x $\frac{5}{8}$ " x $\frac{7}{8}$ "
 Rectangular Studs



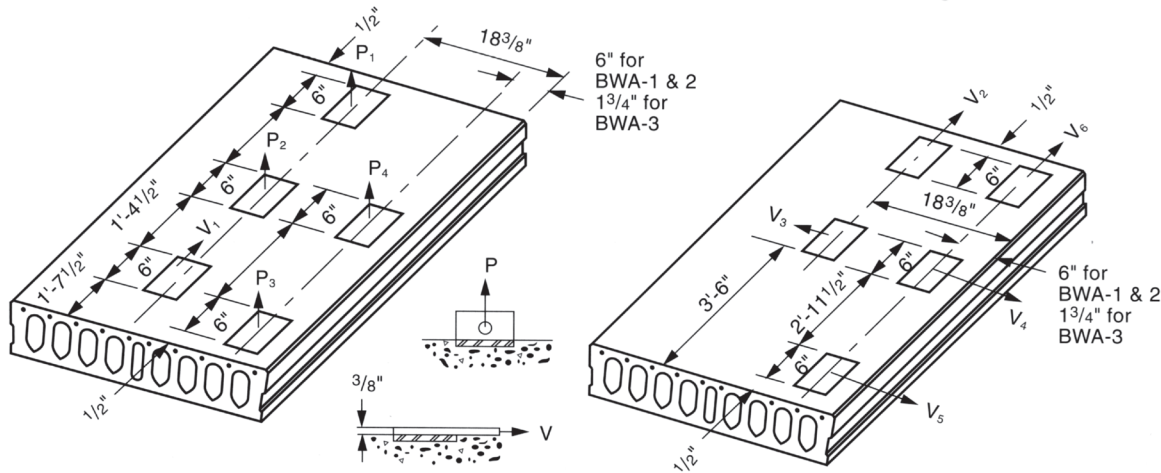
BWA-2
 Plate $\frac{3}{8}$ " x 4" x 6" with
 Two $\frac{1}{8}$ " x $\frac{5}{8}$ " x $\frac{7}{8}$ "
 Rectangular Studs



BWA-1
 Plate $\frac{3}{8}$ " x 4" x 6" with
 Four $\frac{1}{8}$ " x $\frac{5}{8}$ " x $\frac{7}{8}$ "
 Rectangular Studs

Test setup and results are given on the reverse side.

BOTTOM WELD PLATE TEST SETUP (STUD ANCHORS)



SUMMARY OF TEST RESULTS (in kips)

First value given is average test capacity. Second value given is lowest test capacity.

INSERT	P ₁	P ₂	P ₃	P ₄	V ₁	V ₂	V ₃	V ₄	V ₅	V ₆
BWA-3	2.8	3.1	1.9	2.9	8.6	5.4	9.7	1.9	.95	3.0
	2.5	2.9	1.3	2.7	8.6	4.7	9.3	1.8	.70	2.6
BWA-2	3.6	4.1	3.1	2.9	14.3	5.3	12.7	6.2	2.7	3.2
	3.3	4.0	2.7	2.8	10.6	4.2	9.2	3.7	2.5	3.2
BWA-1	4.1	5.8	2.5	4.0	20.3	8.2	19.6	5.9	2.9	4.9
	3.3	5.2	2.4	3.1	19.6	5.6	15.2	5.0	2.6	4.2

Note: Actual test values must be reduced by appropriate strength reduction factors and safety factors to obtain working load values.

This research was done using 40" wide, 8" thick Standard Spancrete® hollowcore. However, this concept applies to all Spancrete cross sections.

MIDWEST

Hanson Structural
Precast Midwest, Inc.
Maple Grove, Minnesota

Spancrete, Inc.
Green Bay, Wisconsin

Spancrete Industries, Inc.
Waukesha, Wisconsin

Spancrete of Illinois, Inc.
Arlington Heights, Illinois

Wells Concrete
Wells, Minnesota

WEST
Hanson Structural
Precast Pacific, Inc.
Irwindale, California

KIE-CON

Division of Kiewit Pacific Co.
Anitoch, California

Owell Precast
Sandy, Utah

SOUTHWEST
Manco Structures, Ltd.
Schertz, Texas

SOUTH
Cement Industries, Inc.
Fort Myers, Florida

Florida Precast Industries, Inc.
Sebring, Florida

EAST

Mid-Atlantic Precast, LLC.
King George, Virginia

EGYPT
Samcrete Egypt
Ahram, Giza

MEXICO
ITISA
Mexico City, Mexico

Spancrete Noreste
Monterrey, Mexico

CROATIA
Mucic & Co
Dugopolje, Croatia

CARIBBEAN

Preconco Limited
Barbados, West Indies

TURKEY
Yapi-Merkezi
Camlica-Istanbul, Turkey

UAE
Hi-Tech Concrete
Products LLC
Abu Dhabi, UAE

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**SPANCRETE IS ALSO
MANUFACTURED IN:**

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- Russia
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- South Korea
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Spancrete® hollowcore is a registered trademark