

TOP WELD ANCHORS

As part of a program for evaluating various inserts used in Spancrete® hollowcore plank, weld anchors were tested in the tops of some plank as shown below. These anchors were installed by cutting holes over cores in fully cured slabs, and then installing the insert in a fairly stiff sand and cement grout.

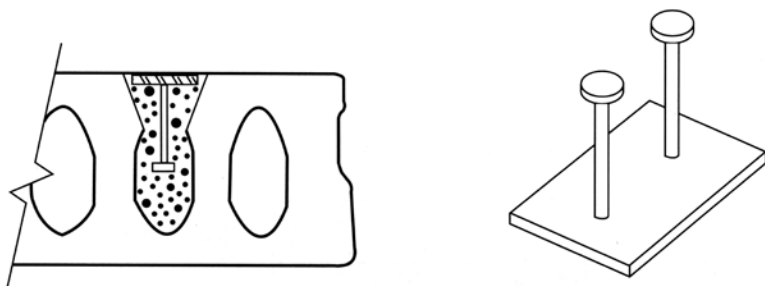


Plate $\frac{3}{8}$ " x 3" x 6"
 with two $\frac{3}{8}$ " dia. x 4"
 headed anchors

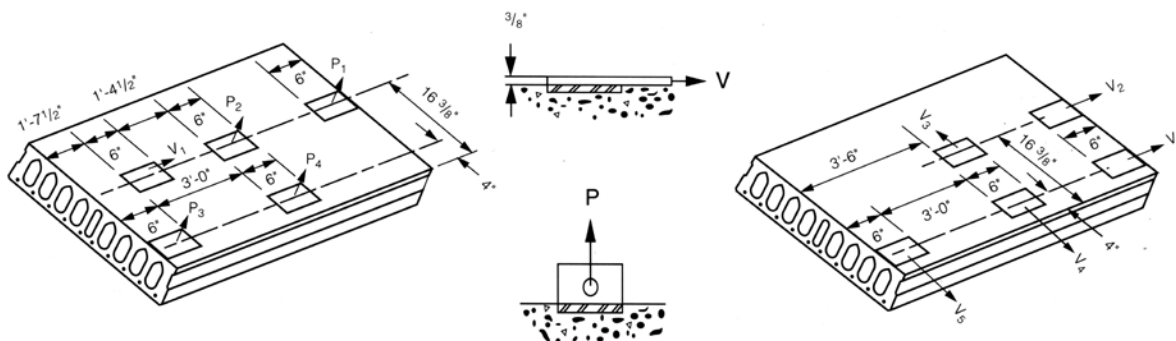
TOP WELD ANCHOR TESTED

CONCLUSIONS:

1. Holding capacity is reduced when anchor is located near any plank edge.
2. Weld plates grouted into a finished plank are an acceptable and economical way to locate a weldment in the Spancrete plank.
3. Test values must be reduced by appropriate strength reduction factors and safety factors to obtain working load values.

Test results are given on the reverse side.

TOP WELD ANCHOR TEST SETUP



Load	Test #1	Mode*	Test #2	Mode*	Avg.	Low
P ₁	10.05 ^k	Conc.	8.31 ^k	Conc.	9.2 ^k	8.31 ^k
P ₂	11.45	Conc.	10.16	Conc.	10.8	10.16
P ₃	8.13	Conc.	7.13	Conc.	7.6	7.13
P ₄	10.38	Conc.	6.90	Conc.	8.6	6.90
V ₁	11.94	Conc.	16.61	Steel	14.3	11.94
V ₂	5.71	Steel	8.04	Conc.	6.9	5.71
V ₃	16.61	Conc.	24.47	Conc.	20.5	16.61
V ₄	6.96	Conc.	4.32	Conc.	5.6	4.32
V ₅	-	Conc.	3.39	Conc.	3.39	3.39
V ₆	1.98	Conc.	6.21	Conc.	4.10	1.98

TEST RESULTS
(kips)

*Failure mode

Note: Values given are test results. Appropriate strength reduction factors and safety factors must be applied to these values. Consideration should be given to the number of tests and the inconsistencies in results of the concrete failures when determining these factors.

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

EAST

Oldcastle Precast, Inc.
South Bethlehem, NY

Oldcastle Precast, Inc.
Manchester, NY

Conewago Precast Building Systems
Hanover, PA

MIDWEST
Spancrete, Inc.
Green Bay, WI

Spancrete Industries, Inc.
Waukesha, WI

Hanson Structural Precast Midwest, Inc.
Maple Grove, MN

Spancrete of Illinois, Inc.
Arlington Heights, IL

WEST
Hanson Structural Precast Pacific, Inc.
Inwindale, CA

KIE-CON
Div. of Kiewitt Pacific Co.
Antioch, CA

Owell Precast
Sandy, UT

SOUTHWEST
Manco Structures, Ltd.
Schertz, TX

SOUTH

Cement Industries, Inc.
Fort Myers, FL

Florida Precast Industries, Inc.
Sebring, FL

MC Precast, Inc.
Atlanta, GA

CANADA
Burnco Concrete Products Ltd.
Calgary, Canada

EGYPT
Samcrete Egypt
Ahram, Giza

MEXICO

ITISA
Mexico City, Mexico

Spancrete Noreste
Monterrey, Mexico

TURKEY
Yapi-Merkezi
Camlica-Istanbul, Turkey

CARIBBEAN
Preconco Limited
Barbados, West Indies

Spancrete Caribbean, Ltd.
Trinidad, West Indies

UAE
Hi-Tech Concrete Products, LLC
Abu Dhabi, UAE

MACHINE MANUFACTURER

Spancrete Machinery Corporation
Waukesha, WI

Spancrete is also manufactured in

Armenia	Denmark	Russia
Australia	Guatemala	South Korea
Belgium	Hungary	Spain
Brazil	Ireland	Switzerland
China	Israel	
Croatia	Japan	