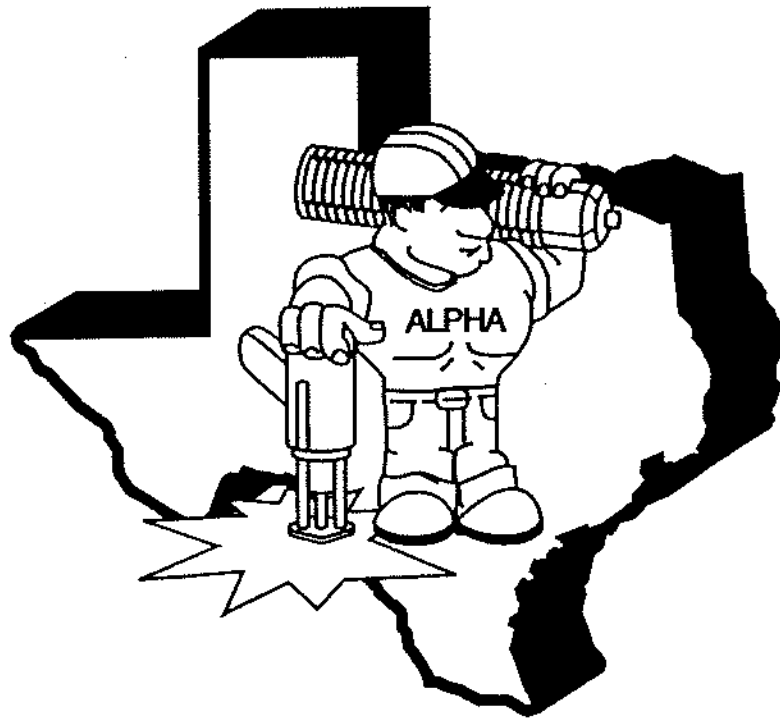


# ALPHA STUD WELD

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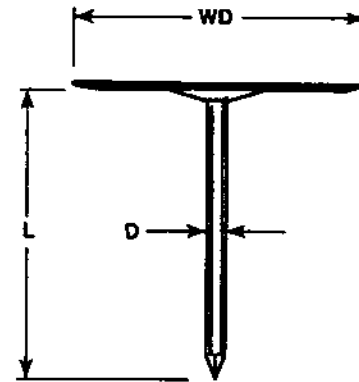


5121 STEADMONT  
HOUSTON, TX. 77040

(713)460-5118 FAX: (713)460-8786  
NATIONAL WATS (800)468-5118

**CUP HEAD PIN (CD)**

TYPE	D	WD	MIN. L	MAX. L
CL 10	.135	1.500	3/8	NO MAX.
CL 12	.105	1.500	3/8	NO MAX.
CS 12	.105	1.187	3/8	NO MAX.
CS 14	.080	1.187	3/16	2"



	<b>PIN</b>	<b>WASHER</b>
<b>MATERIAL:</b>	LOW CARBON STEEL C - 0.23% max. P - 0.04% max. Mn - 0.90% max. S - 0.05% max.	LOW CARBON STEEL C - 0.23% max. P - 0.04% max. Mn - 0.90% max. S - 0.05% max.
<b>MECHANICAL PROPERTIES:</b>	Values available upon request.	Values available upon request.
<b>PLATING:</b>	Standard Pin is copper plated.	Standard Washer is galvanized.

**BEVEL:** Washer edge is beveled to prevent cutting of insulation material.

**STAINLESS STEEL:** Not standard, but available by special order.

**PAPER INSULATING WASHERS:** Available upon request for welding through foil faced insulation.

**TO ORDER OR SPECIFY GIVE:**

1. Product Code ..... **CHP**
2. Type .....
3. Length ..... **L**
4. Material .....

**EXAMPLE:**

CHP CS 12 x 1½" SS

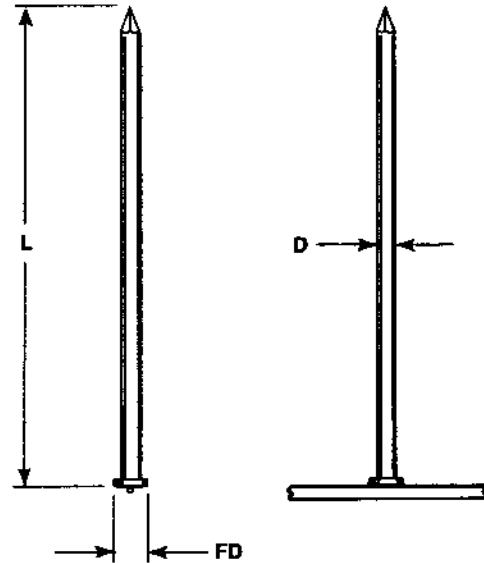
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**CAPACITOR DISCHARGE (CD)**

PIN			
SIZE	D	STEEL FD	ALUM. FD
14GA	.080	.160	—
12GA	.105	.180	.230
10GA	.135	.195	.250
9GA	.148	.230	—



<b>MATERIAL:</b>	<b>LOW CARBON "MILD" STEEL</b> C - 0.23% max. P - 0.04% max. Mn - 0.90% max. S - 0.05% max.	<b>STAINLESS STEEL</b> AISI grade - 302/304/305 std. Other grades available upon request.
<b>MECHANICAL PROPERTIES:</b>	Tensile ..... 60,000 psi (min.) Yield ..... 50,000 psi (min.) Elongation ..... 20% (in 2 inches)	Values for various grades available upon request.
<b>PLATING:</b>	Copper coating is standard on pins. Copper and other platings available upon customer request.	Does not apply to Stainless.
<b>ANNEALING:</b>	Pins are annealed where required.	Does not apply.

<b>MATERIAL:</b>	<b>ALUMINUM</b> Alloy - 1100-H14 std. Other alloys available upon request.
<b>MECHANICAL PROPERTIES:</b>	Values for various alloys available upon request.

**TO ORDER OR SPECIFY GIVE:**

1. Product Code ..... WP CD
2. Size .....
3. Length ..... L
4. Material .....

**EXAMPLE:**

WP CD 12 GA x 6" MS

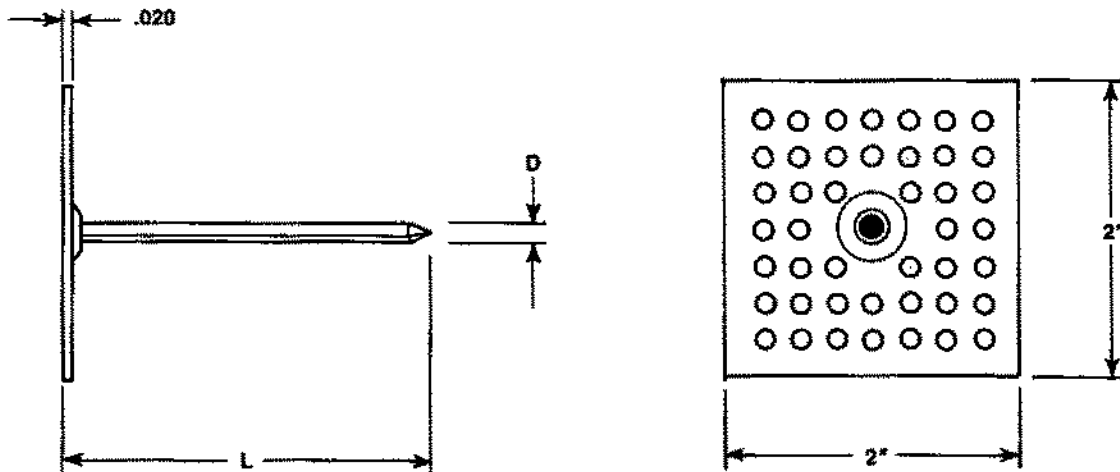
**APPLICATION:** This is the standard weld pin used for most insulation fastening applications.

**WASHERS:** Self-locking washers are available in a variety of sizes, shapes, and materials.

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**SPINDLE**



<b>SIZE:</b>	<b>D</b>	12 GA (.105") is standard. Other sizes available by special order only.
<b>LENGTH:</b>	<b>L</b>	1" 1-5/8, 2", 2-1/2, 3-1/2, 4-1/2, 5-1/2, 6-1/2, 8" and 9" are standard. Other lengths available by special order.

	<b>PLATE</b>	<b>PIN</b>
<b>MATERIAL:</b>	LOW CARBON STEEL	LOW CARBON STEEL
<b>PLATING:</b>	Galvanized is standard.	Copper coating is standard.

**OTHER MATERIALS:** Also available by special order in all Stainless Steel or all Aluminum.

**WASHERS:** Self-locking washers are available in a variety of sizes, shapes, and materials.

**TO ORDER OR SPECIFY GIVE:**

1. Product Code ..... IA SP
2. Size ..... 12 GA
3. Length ..... L
4. Material . . (if other than standard)

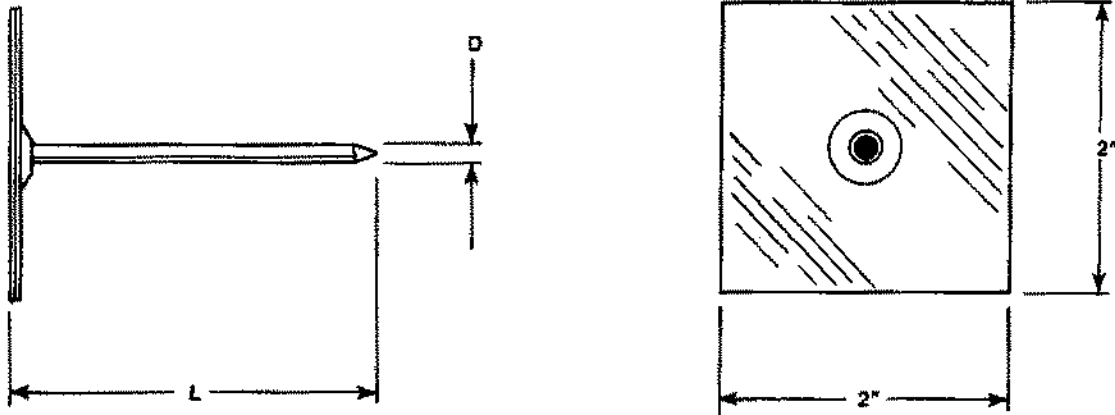
**EXAMPLE:**

IA SP 12GA x 2-1/2"

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**SELF-STICK**



<b>SIZE:</b>	D	12 GA (.105") is standard. Other sizes available by special order only.
<b>LENGTH:</b>	L	1" 1-5/8, 2", 2-1/2, 3-1/2, 4-1/2, 5-1/2, 6-1/2, 8" and 9" are standard. Other lengths available by special order.

	<b>PLATE</b>	<b>FIN</b>
<b>MATERIAL:</b>	LOW CARBON STEEL	LOW CARBON STEEL
<b>PLATING:</b>	Galvanized is standard.	Copper coating is standard.

**OTHER MATERIALS:** Also available by special order in all Stainless Steel or all Aluminum.

**WASHERS:** Self-locking washers are available in a variety of sizes, shapes, and materials.

**TO ORDER OR SPECIFY GIVE:**

1. Product Code ..... IA SS
2. Size ..... 12 GA
3. Length ..... L
4. Material ... (if other than standard)

**EXAMPLE:**

IA SS 12 GA x 2-1/2

**ALPHA STUD WELD** Inc.

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**SELF-LOCKING WASHERS (Round)**



Type .....	K200	K175	K150	K120
Diameter .....	2"	1-3/4	1-1/2	1-3/16
Thickness .....	.015 nom.	.015 nom.	.015 nom.	.015 nom.
Material .....	Mild Steel	Mild Steel	Mild Steel	Mild Steel
Plating .....	Galv.	Galv.	Galv.	Galv.
Edges/flat or beveled .....	beveled	flat	flat	beveled
Other materials available .....	Alum., S.S.	Alum., S.S.	Alum., S.S.	—
Packed per carton .....	2000	1000	1000, 5000	1000, 5000
Shipping weight per 1000 .....	19 lbs.	10-1/2 lbs.	8 lbs.	6 lbs.

**ALPHA STUD WELD** Self-Locking Washers are used in conjunction with **ALPHA STUD WELD** weld pins, insul-anchors and lacing anchors to fasten insulation in place. Simply press the self-locking washer onto the pin up against the insulation until the desired position is reached and then clip off, or bend over, the remaining portion of pin for a permanent attachment.

The choice between Round or Square self-locking washers is basically a matter of aesthetics or personal preference. The domed, multi-lanced hole design provides for ease of locating washer on pin and positive self-locking. Some styles of washers are manufactured with a beveled edge to prevent the washer from cutting into the

**ALPHA STUD WELD** Self-Locking Washers are available according to the chart above and with standard 10 GA, 12 GA, or 14 GA hole sizes off-the-shelf. Other material/plating combinations and hole sizes are available by special order.

**TO ORDER OR SPECIFY GIVE:**

1. Product Code ..... WCN
2. Type .....
3. Diameter of Pin/Stud on which washer is to be used. ....
4. Material .....

**EXAMPLE:**

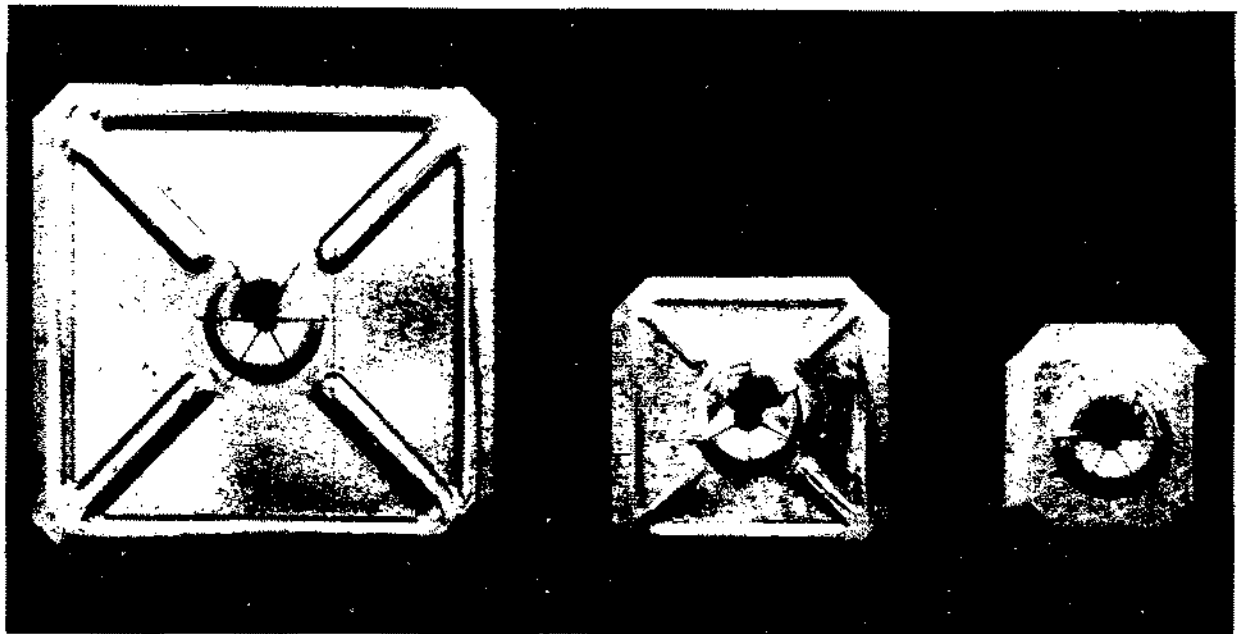
WCN K150 x 10 GA MS

**ALPHA STUD WELD** Inc.

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**SELF-LOCKING WASHERS (Square)**



Type .....	K250	K150S	K125
Size .....	2-1/2 x 2-1/2	1-1/2 x 1-1/2	1-1/4 x 1-1/8
Thickness .....	.015 nom.	.015 nom.	.015 nom.
Material .....	Mild Steel	Mild Steel	Mild Steel
Plating .....	Galv.	Galv.	Galv.
Edges/flat or beveled .....	beveled	beveled	beveled
Other materials available .....	Alum., S.S.	Alum., S.S.	Alum., S.S.
Packed per carton .....	1000	3000	1000, 5000
Shipping weight per 1,000 .....	28-1/2 lbs.	10 lbs.	6 lbs.

**ALPHA STUD WELD** Self-Locking Washers are used in conjunction with **ALPHA STUD WELD**, weld pins, insul-anchors and lacing anchors to fasten insulation in place. Simply press the self-locking washer onto the pin up against the insulation until the desired position is reached and then clip off, or bend over, the remaining portion of pin for a permanent attachment.

The choice between Round or Square self-locking washers is basically a matter of aesthetics or personal preference. The domed, multi-lanced hole design provides for ease of locating washer on pin and positive self-locking. Some styles of washers are manufactured with a beveled edge to prevent the washer from cutting into the insulation facing.

**ALPHA STUD WELD** Self-Locking Washers are available according to the chart above and with standard 10 GA, 12 GA, or 14 GA hole sizes off-the-shelf. Other material/plating combinations and hole sizes are available by special order.

**TO ORDER OR SPECIFY GIVE:**

1. Product Code ..... **WCN**
2. Type .....
3. Diameter of Pin/Stud on which washer is to be used. ....
4. Material .....

**EXAMPLE:**

WCN K125 x 14 GA MS

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