

# COMPLETE STUD WELDING

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## SECTION 6

### INSULATION PINS

FOR INQUIRIES, TO PLACE ORDERS,  
SERVICE AND TECHNICAL SUPPORT CONTACT  
ANY OF THE FOLLOWING:

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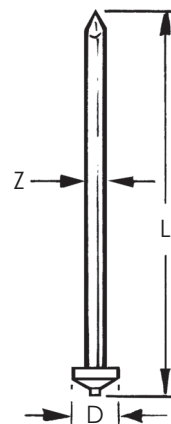
# Insulation Pins

## CWP – CD WELD PINS – TECHNICAL DETAILS

Weld pins are commonly used to attach blanket insulation to ducts, ovens, boilers and hot/cold equipment. The pins are welded in place, the insulation impaled over the pin and then self locking washers are installed over the pin to secure the insulation.

The CD process is used to weld CD type studs to sheet metal and plate.

For application, dimensional and technical assistance, please contact your **Complete Stud Welding** representative.



Stud Specifications							
10 Gauge				12 Gauge			
Stud Diameter	Flange Diameter	Standard Lengths	Pounds Per 1,000 Pieces	Stud Diameter	Flange Diameter	Standard Lengths	Pounds Per 1,000 Pieces
Z	D	L		Z	D	L	
10 Gauge 0.135	0.220	1.0	5	12 Gauge 0.105	0.175	0.75	2
		1.5	7			1.0	3
		2.0	8			1.25	4
		2.5	11			1.5	5
		3.0	13			2.0	6
		3.5	15			2.5	7
		4.0	17			3.0	8
		4.5	18			3.5	9
		5.0	21			4.0	11
		5.5	22			4.5	12
		6.0	25			5.0	13
		6.5	26			5.5	14
		7.0	29			6.0	15
		8.0	33			6.5	16
		9.0	37			7.0	17
		10.0	41			8.0	20
						9.0	24

**To order or specify give: Stud Code, Z x L, Material and Quantity**

**Example: CWP, 10 Ga. X 4, Mild Steel, 5000 pcs.**

**Materials:** Low carbon steel (copper plated), stainless steel 18-8 and aluminum are standard. Other materials are available upon request. Material is annealed as required.

**Plating:** Galvanized Weld Pins and other coatings are available.

**Accessories:** See the Accessories section for details. P/N's CDB-013, CDB-013A, CDBN-013, CDBS-013, CIP-014-075 and CDB-010, CDB-010A, CDBN-010, CDBS-010, CIP-010-075

**Self Locking Washers:** See Technical Details in this section.

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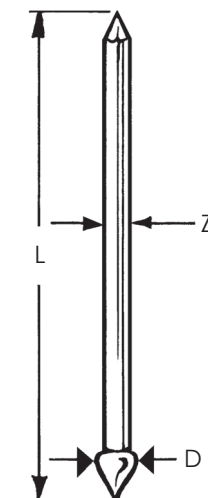
# Insulation Pins

## CPT - CD POWER TIP WELD PINS - TECHNICAL DETAILS

Weld pins are commonly used to attach blanket insulation to ducts, ovens, boilers and hot / cold equipment. The pins are welded in place, the insulation impaled over the pin and then self locking washers are installed over the pin to secure the insulation.

The CD Stud Welding process is used to weld CPT's to sheet metal and plate.

For application, dimensional and technical assistance, please contact your **Complete Stud Welding** representative.



Stud Specifications							
10 Gauge				12 Gauge			
Stud Diameter	Base	Standard Lengths	Pounds Per 1,000 Pieces	Stud Diameter	Base Diameter	Standard Lengths	Pounds Per 1,000 Pieces
Z	D	L		Z	D	L	
10 Gauge 0.135	0.220	2.5	11	12 Gauge 0.105	0.220	2.5	6
		3.0	14			3.0	8
		3.5	16			3.5	10
		4.0	18			4.0	11
		4.5	20			4.5	12
		5.0	21			5.0	13
		5.5	22			5.5	14
		6.0	26			6.0	15
		7.0	29			7.0	18
		8.0	34			8.0	20

**To order or specify give: Stud Code, Z x L, Material and Quantity**

**Example: CPT, 12 Ga. X 3", Mild Steel, 6000 pcs.**

**Materials:** Low carbon steel (copper plated) and stainless steel are standard. Other materials are available upon request. Material is annealed as required.

**Plating:** Galvanized Weld Pins and other coatings are available.

**Accessories:** See the Accessories section for details. P/N's CDB-013, CDB-013A, CDBN-013, CDBS-013, CIP-014-075 and CDB-010, CDB-010A, CDBN-010, CDBS-010, CIP-010-075

**Self Locking Washers:** See Technical Details in this section.

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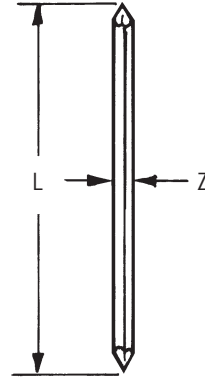
# Insulation Pins

## DPW – DOUBLE POINTED WELD PINS – TECHNICAL DETAILS

Weld pins are commonly used to attach blanket insulation to ducts, ovens, boilers and hot / cold equipment. The pins are welded in place, the insulation impaled over the pin and then self locking washers are installed over the pin to secure the insulation.

The ARC Stud Welding process is used to weld DPW's to sheet metal and plate.

For application, dimensional and technical assistance, please contact your **Complete Stud Welding** representative.



Stud Specifications				Standard Accessories		
Stud Diameter	Standard Lengths	Pounds Per 1,000 Pieces	Ferrule	Foot	Grip	Chuck
Z	L		P/N	P/N	P/N	P/N
10 Gauge 0.135	1.5	7	F014-F	B-1N	GC-019	CN-013
	2.0	9				
	2.5	11				
	3.0	13				
	3.5	15				
	4.0	17				
	4.5	19				
	5.0	21				
	5.5	23				
	6.0	25				
	6.5	27				
	7.0	29				
	7.5	31				
	8.0	33				

**To order or specify give: Stud Code, Z x L, Material and Quantity**

**Example: DPW, 10 Ga. X 3.5", Mild Steel, 2500 pcs.**

**Materials:** Low carbon steel (copper plated), stainless steel 18-8 and aluminum are standard. Other materials are available upon request. Material is annealed as required.

**Plating:** Galvanized Weld Pins and other coatings are available.

**Self Locking Washers:** See TECHNICAL DETAILS in this section.

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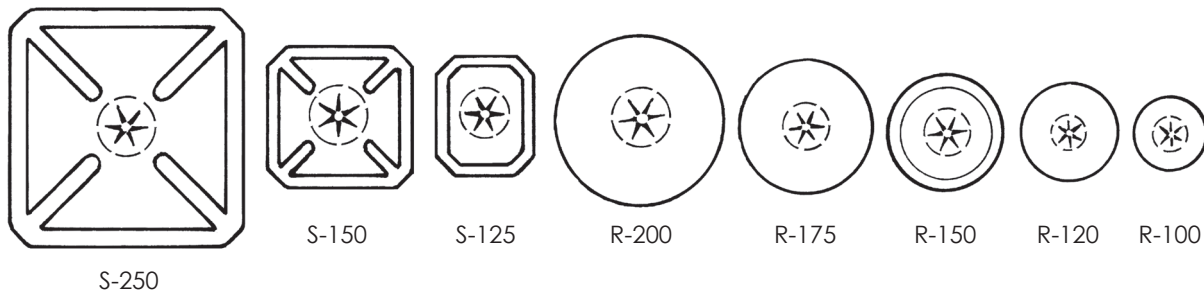


# Insulation Pins

## WAS & WAR – SELF LOCKING WASHERS “SPEED CLIPS” – TECHNICAL DETAILS

After weld pins are welded in place and insulation is impaled over the weld pins, the Self Locking Washers are installed onto the weld pins to retain the insulation.

For application, dimensional and technical assistance, please contact your **Complete Stud Welding** representative.



Washer Specifications							
Type / Code	Size	Hole Gauge	Material	Edge	Thickness	Pounds per 1000 pieces	Box Quantity
Square							
WAS-250	2.5 x 2.5	10 Gauge	Mild Steel	Beveled	0.016	28	1000
WAS-150	1.5 x 1.5	12 Gauge	(Galvanized)	Beveled		10	
WAS-125	1 x 1.25	or 14 Gauge	Stainless and Aluminum	Beveled		6	
Round							
WAR-200	2.00	10 Gauge	Mild Steel	Beveled	0.016	14	1000
WAR-175	1.75	12 Gauge	(Galvanized)	Flat		12	
WAR-150	1.50	or	Stainless and	Beveled		9	
WAR-120	1.20	14 Gauge	Aluminum	Beveled		6	
WAR-100	1.00			Beveled		4	

**To order or specify give: Product Code, Hole Gauge, Material and Quantity**

**Example: WAS-150, 10Ga., mild steel, 9000 pcs.**

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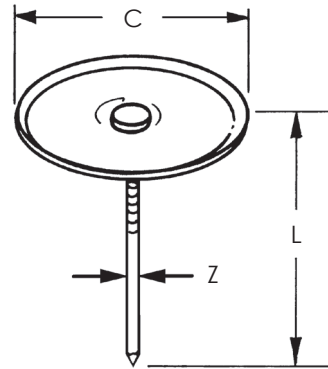
# Insulation Pins

## CHP – CD CUPPED HEAD WELD PINS – TECHNICAL DETAILS

Weld pins are commonly used to attach blanket insulation to ducts, ovens, boilers and hot / cold equipment. The insulation material is placed on the surface, the Cupped Head Pin pushed through the insulation and then welded to the base metal.

The CD Stud Welding process is best suited for welding CHP's to sheet metal and plate.

For application, dimensional and technical assistance, please contact your **Complete Stud Welding** representative.



Stud Specifications							
Standard Cupped Head Pins				Mini Cupped Head Pins			
Stud Diameter	Cup Head Diameter	Standard Lengths	Pounds Per 1,000 Pieces	Stud Diameter	Cup Head Diameter	Standard Lengths	Pounds Per 1,000 Pieces
Z	C	L		D	C	L	
12 Gauge 0.105	1.500	0.375	9	12 Gauge 0.105	1.188	0.375	6
		0.500	10			0.500	7
		0.625	11			0.625	8
		0.750	11			0.750	8
		0.875	11			0.875	8
		1.000	11			1.000	8
		1.125	12			1.125	9
		1.250	12			1.250	9
		1.375	12			1.375	9
		1.500	12			1.500	9
		1.625	12			1.625	9
		1.750	13			1.750	9
		1.875	13			1.875	10
		2.000	13			2.000	10
		2.125	14			2.125	11
		2.250	14			2.250	11
		2.500	14			2.500	11
		2.626	15			2.626	12
		2.875	15			2.875	12
		3.000	16			3.000	13
		3.125	16			3.125	13
		3.500	17			3.500	14
		4.000	18			4.000	15
		4.125	18			4.125	15
		4.500	19			4.500	16
		5.000	20			5.000	17
		5.500	21			5.500	18
		6.000	23			6.000	19

**To order or specify give: Stud Code, C x L, Material and Quantity**

**Example: CHP, 1.5 x 2.125", 3000 pcs.**

**Materials:** Low carbon steel

**Plating:** The washer and pin are Galvanized.

**Paper Washers:** Sold separately either in bulk or installed on the CHP

**Accessories:** See the Accessories section for details -  
1piece Chuck P/N 039-613 and multi part Chuck P/N 035-301

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