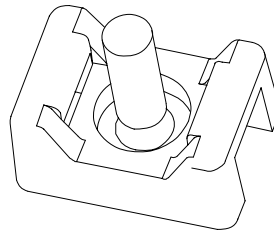
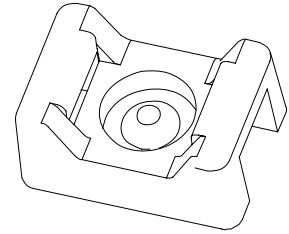


# Wire Tie Down Stud



**As shipped before welding**



**As installed after extension is broken off**

Wire Tie Down Studs, designed specifically for quick and rugged wire security, holds wire bundles up to 1" in diameter and can be neatly welded into place within milliseconds providing a permanent, worry-free wire maintenance system.

Image's design engineers created the Wire Tie Down Stud as an aesthetic and reliable alternative to traditional screw and adhesive fasteners. Because Wire Tie Down Studs are stud welded into place, eliminating the need for drilling holes, they provide a secure installation that will not break, loosen, or weaken over time. With a pull off that exceeds the capability of a typical 3/16" nylon strap, wire tie down studs are ideally suited for any wire assembly need from heavy duty construction equipment to wire management in industrial control boxes and telephone junction boxes.

The stud is a capacitive discharge (CD) weld stud. This means that the stud is installed with traditional CD stud welding equipment. The stud is equivalent to a U.S. #10 fastener. The wire tie stud is compatible with any CD welder capable of welding a #10 stainless steel fastener.

## INSTALLATION PROCEDURE:

1. Insert the stud extension into the welding gun chuck.
2. Position the tie down against the work and pull the welding gun trigger.
3. Remove the gun from the tie down.
4. Break off the extension with a pair of pliers.

NOTE: The retainer finishes below the surface of the nylon for a smooth, non abrasive surface.



## IMAGE INDUSTRIES INC.

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# Wire Tie Down Stud Mechanical Properties

## Nylon 6/6 Properties

Property	ASTM Method	Test Condition	Units	Nylon 6/6
Tensile Strength	D638	+73°F; 50% RH	kpsi	11.2
Elongation at Break	D638	+73°F; 50% RH	%	>= 300
Yield Strength	D639	+73°F; 50% RH	kpsi	8.5
Shear Strength	D732	Dry as Molded (DAM)	kpsi	9.6
Deformation Under Load	D621	2,000 psi; +122°F; DAM	%	1.4
IZOD Impact	D256	+73°F; 50% RH	ft lb/in	2.1
Tensile Impact Strength	D1822	+73°F; Long Specimen; DAM	ft lb/in	240
Melting Point	D789	Fisher-Johns	°F	491
Thermal Linear Expansion	D696	DAM	in/in/°F	TBD
Thermal Conductivity	--	DAM Conche-Fitch	BTU-in/h•ft•°F	1.7
Brittleness Temperature	D746	50% RH	°F	-85
Oxygen Index	D2863	DAM	%O	28
Oxygen Index	D2864	50% RH	%O	31
UL Flammability	UL 94	DAM	--	V-2
UL Flammability	UL 95	50% RH	--	V-2

## Nylon 6/6 NBS Smoke Generation

Sample Thickness	UL Flammability	Energy Source	Specific Optical Density	
			at Maximum Smoke Accumulation	at 2 Minutes
1/16"	94 V-2	Radiant (2.5 watts/sq cm)	13	0
1/8"	94 V-2	Radiant Plus Flaming Gas Jets	26	1

## Nylon 6/6 Temperature Index

Minimum Thickness	Temperature Index		Hot Wire Ignition (sec)
	Electrical (°C)	Mechanical w/o Impact (°C)	
0.028	125	65	11.8
0.058	125	85	15.0

## Nylon Wire Tie Mechanical Dimensions

	Inch	mm
Height	0.390	9.90
Length	0.875	22.22
Width	0.625	15.87
Slot Height	0.090	2.29
Slot Width	0.325	8.26

## Retaining Stud

**Material:** 302 HQ Stainless Steel  
Ultimate Tensile 85 KPSI

**Size:** Equivalent to U.S. #10

## Chemistry (%)

C	0.017	Mn	0.83	P	0.024
S	0.001	Si	0.32	Co	Trace
Cr	17.5	Ni	9.54	N	PPM 155
Mo	0.05	Cu	3.07	Fe	Remainder

Material data as provided by our suppliers



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