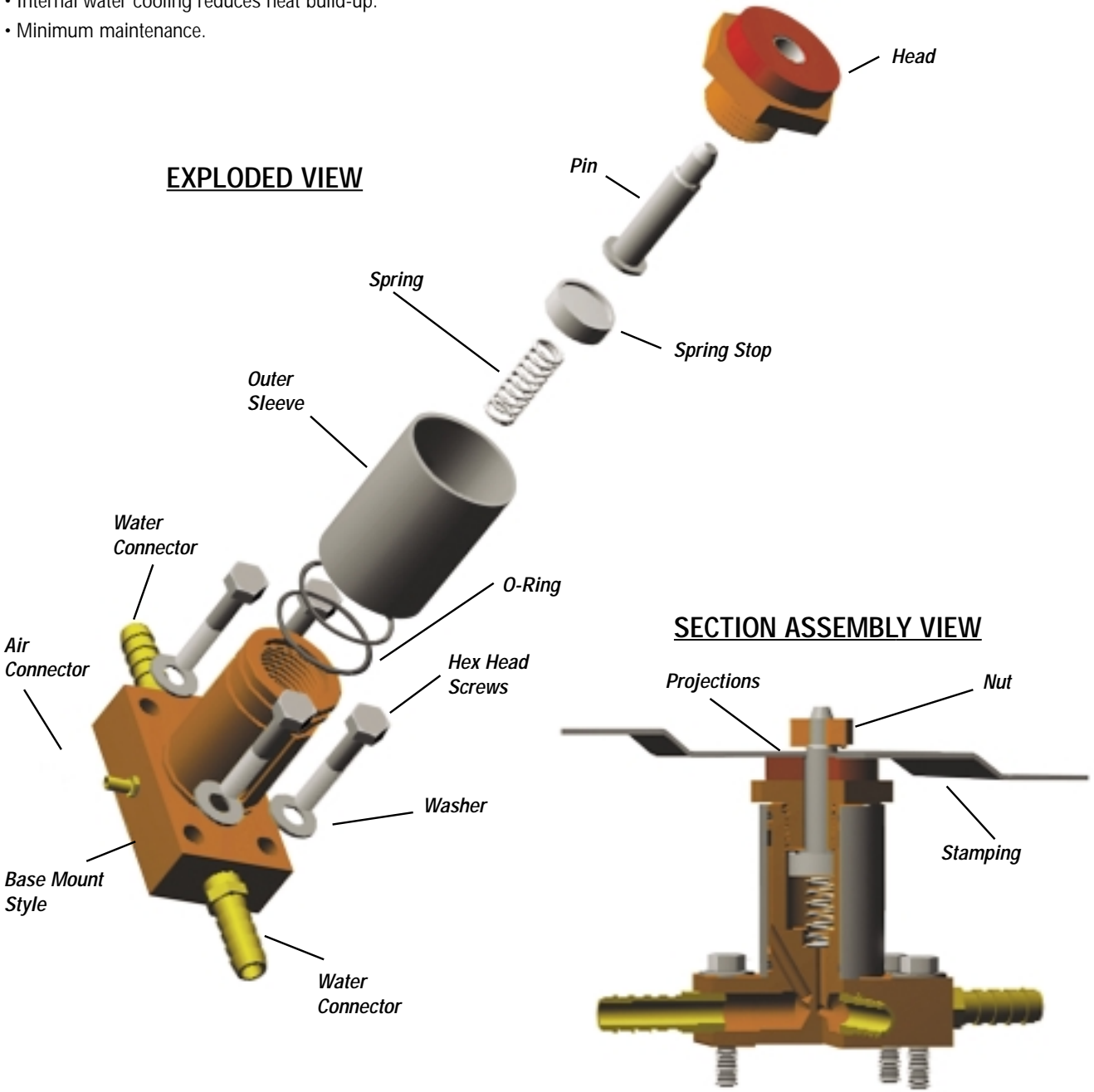


STUD & WELD NUT ELECTRODES

CenterLine manufactures a wide variety of stud & nut welding electrodes. The high quality design and assembly provides a number of features and benefits including:

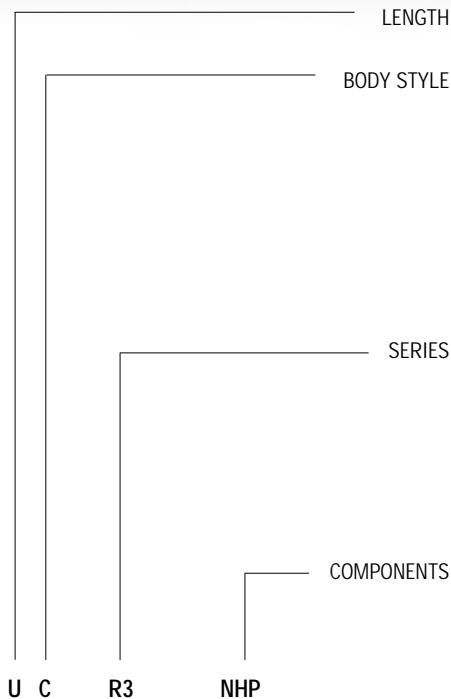
- Accurate on center positioning of pilotless nuts provided automatically.
- Insulated pin and sleeve prevents pin arcing in the threads.
- Unit converts from welding nuts to studs in seconds by removal of pilot pin and/or welding head.
- Used by automotive, mass transit, farm implement, stamping and appliance manufacturers.
- Internal water cooling reduces heat build-up.
- Minimum maintenance.



STUD & WELD NUT ELECTRODES

Stud & Weld Nut Model Number Breakdown

CODING EXAMPLE



USE **U** FOR STANDARD LENGTH (SHOWN BELOW)
 USE **X** FOR EXTENDED LENGTH (.50 (12.70) LONGER THAN STANDARD LENGTH)

USE **A** FOR BASE MOUNT
 USE **B** FOR 4 RW TAPER
 USE **C** FOR 5 RW TAPER
 USE **D** FOR 6 RW TAPER
 USE **E** FOR 7 RW TAPER
 USE **F** FOR 7/8-14 THREAD
 USE **G** FOR 1-12 THREAD
 USE **H** FOR BASE MOUNT WITH CABLE LUG (17/32" clearance hole for 1/2 screw)
 USE **J** FOR BASE MOUNT WITH CABLE LUG (Tapped hole for 1/2-13 screw)
 USE **K** FOR BASE MOUNT WITH CONTACT (CL-200-37)

USE **2** FOR SERIES 2 (.88" WELD FACE)
 USE **3** FOR SERIES 3 (1.25" WELD FACE)
 USE **4** FOR SERIES 4 (1.50" WELD FACE)
 USE **R2** FOR RETRACTABLE PIN SERIES 2 (.88" WELD FACE)
 USE **R3** FOR RETRACTABLE PIN SERIES 3 (1.25" WELD FACE)
 USE **R4** FOR RETRACTABLE PIN SERIES 4 (1.50" WELD FACE)
Note: Leave blank if generating a complete nut or stud welding unit because information is contained in the pin or head number.

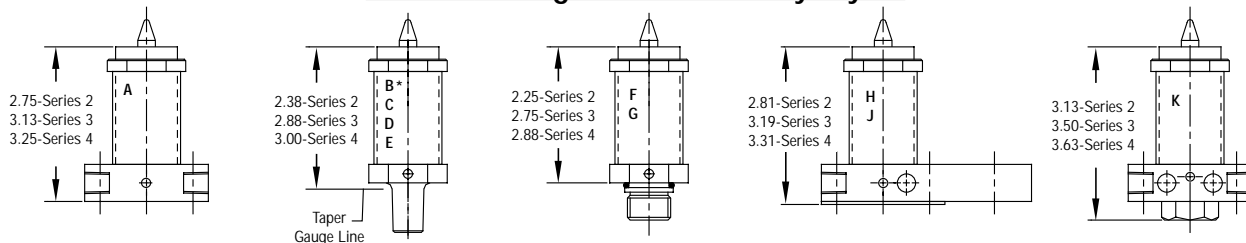
USE **NHP** FOR UNIT WITH NO HEAD OR PIN
 USE GENERATED PIN # FOR COMPLETE NUT WELDING UNIT
 USE GENERATED HEAD # FOR COMPLETE STUD WELDING UNIT

X A GH3050T125417
U G GP2A3482700525

Standard Length with 5 RW Body Style Retractable Series 3 with no Head or Pin.





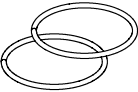
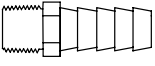


Extended Length, Base Mount Style, head #. This describes a complete stud welding unit.
 Standard Length, 1-12 Threaded Body Style, pin #. This describes a complete nut welding unit.

Standard Length of Series Body Styles



*Note: On Body Style 'B' add .25 to length shown.

Spare Parts List (Not including Pin or Head)

 Spring Stop	 Spring	 Screw Insulator 230-012	 Screw Insulator Washer W-203NP																				
<table border="1" style="margin: auto;"><tr><td>U2</td><td>SPRINGSTOP-U2</td></tr><tr><td>X2</td><td>SPRINGSTOP-X2</td></tr><tr><td>U3</td><td>SPRINGSTOP-U3</td></tr><tr><td>X3</td><td>SPRINGSTOP-X3</td></tr><tr><td>U4</td><td>SPRINGSTOP-U4</td></tr><tr><td>X4</td><td>SPRINGSTOP-X4</td></tr></table>	U2	SPRINGSTOP-U2	X2	SPRINGSTOP-X2	U3	SPRINGSTOP-U3	X3	SPRINGSTOP-X3	U4	SPRINGSTOP-U4	X4	SPRINGSTOP-X4	<table border="1" style="margin: auto;"><tr><td>U2</td><td>SPRING037013050</td></tr><tr><td>U3 & U4</td><td>SPRING037025075</td></tr><tr><td>X2</td><td>SPRING037032100</td></tr><tr><td>X3 & X4</td><td>SPRING037034125</td></tr></table>	U2	SPRING037013050	U3 & U4	SPRING037025075	X2	SPRING037032100	X3 & X4	SPRING037034125	 O-Ring Set CL-206, CL-306, CL-406	 Water Connector RW-1015
U2	SPRINGSTOP-U2																						
X2	SPRINGSTOP-X2																						
U3	SPRINGSTOP-U3																						
X3	SPRINGSTOP-X3																						
U4	SPRINGSTOP-U4																						
X4	SPRINGSTOP-X4																						
U2	SPRING037013050																						
U3 & U4	SPRING037025075																						
X2	SPRING037032100																						
X3 & X4	SPRING037034125																						
		 Water Tube CLT-308-32	 Air Connector BF1																				

STUD & WELD NUT ELECTRODES

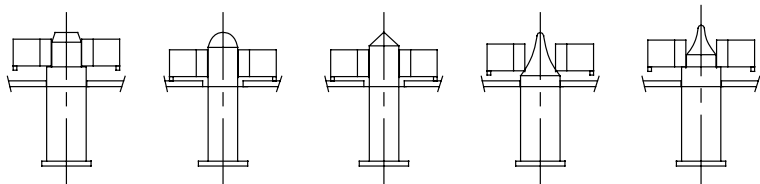
Manual Load Weld Nut Pins

PinType	Description
GP	Stainless Steel Pin, Supported by spring and/or air
CP	Coated, D2 Steel Pin, Supported by spring and/or air
RP	Retractable, Stainless Steel Pin, Movement controlled by Air Pressure only, Special Application please contact CenterLine
KP	Coated Retractable, D2 Steel Pin, Movement controlled by Air Pressure only, Special Application please contact CenterLine

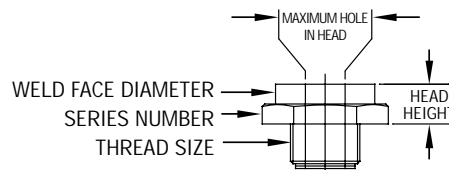
Series	Thread Size	Weld Face Diameter	Maximum Hole in Head*	Head Height
2	5/8-18	7/8 Standard	0.427 (10.85) ID	0.500
3	7/8-14	1-1/4 Standard	0.642 (16.31) ID	0.500
4	1-1/8-12	1-1/2 Standard	0.852 (21.64) ID	0.625

*Special weld nut electrodes are available for larger IDs and areas with clearance restrictions.

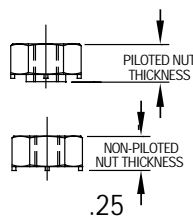
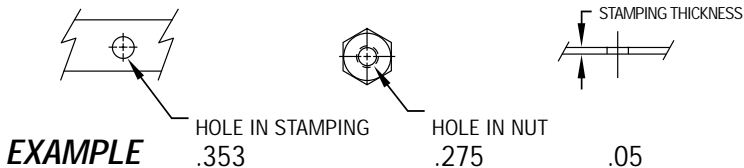
Nose Type	Description
A	Preferred when locating nut and stamping, no stamping contact during weld, no hole in upper electrode
B	Preferred when locating nut only, no stamping contact, no hole in upper electrode
C	Preferred when locating nut only, no stamping contact, no hole in upper electrode
D	Locates nut at a point on the pin nose. upper electrode requires clearance hole for pin tip
E	Preferred when locating nut and stamping, no hole in upper, good for hard to load applications



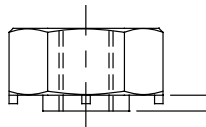
NOSE TYPE A NOSE TYPE B NOSE TYPE C NOSE TYPE D NOSE TYPE E



APPLICATION SIZES



CAUTION



DO NOT select B & C nose types when pilot thickness exceeds stamping thickness.

Generate Your Own Number (Total 14 Characters)

Example	GP	2	A	348	270	05	25
Breakdown	Pin Type	Series Number	Nose Type	Hole in Stamping -.005" (3 Dec.) - see note below	Hole in Nut -.005" (3 Dec.) - see note below	Stamping Thickness (2 Dec.)	Nut Thickness (2 Dec.)
NOTE: For B & C style pins, the "Hole in Stamping" value is the "Hole in Nut" value (i.e. GP2B2702700525)							
Part Number							

STUD & WELD NUT ELECTRODES

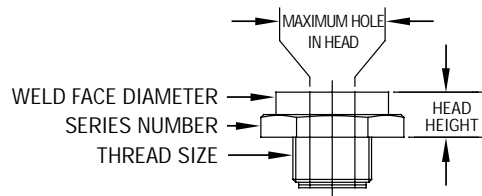
Auto Load Weld Nut Pins

PinType	Description
GA	Stainless Steel Pin, Supported by spring and/or air
CA	Coated, D2 Steel Pin, Supported by spring and/or air
RA	Retractable, Stainless Steel Pin, Movement controlled by Air Pressure only, Special Application please contact CenterLine
KA	Coated Retractable, D2 Steel Pin, Movement controlled by Air Pressure only, Special Application please contact CenterLine

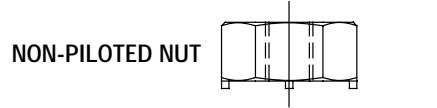
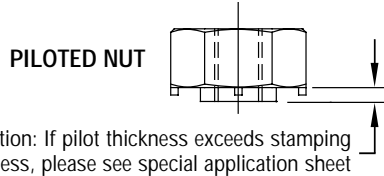
Series	Thread Size	Weld Face Diameter	Maximum Hole in Head*	Head Height
2	5/8-18	7/8 Standard	0.427 (10.85) ID	0.500
3	7/8-14	1-1/4 Standard	0.642 (16.31) ID	0.500
4	1-1/8-12	1-1/2 Standard	0.852 (21.64) ID	0.625

**Special weld nut electrodes are available for larger IDs and areas with clearance restrictions.*

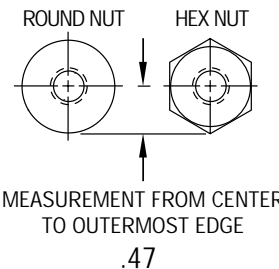
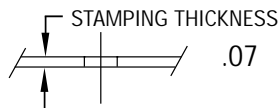
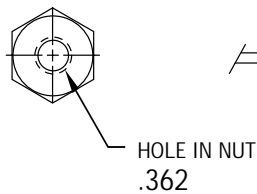
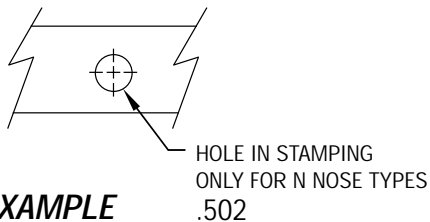
Nose Type	
N	P
 NOSE TYPE N	 NOSE TYPE P
 STRAIGHT	 STRAIGHT
For auto loading nuts where the stamping is being located.	For auto loading nuts where the stamping is not being located. Refer to caution note.



CAUTION
P Nose Types Only



APPLICATION SIZES



EXAMPLE

Generate Your Own Number (Total 14 Characters)

Example	GA	3	N	497	357	07	47
Breakdown	Pin Type	Series Number	Nose Type	Hole in Stamping -.005" (3 Dec.) - see note below	Hole in Nut -.005" (3 Dec.) - see note below	Stamping Thickness (2 Dec.)	Measurement from Center to Outermost Edge (2 Dec.)
NOTE: For P style pins, the "Hole in Stamping" value is the "Hole in Nut" value (i.e. GA3PB3573570747)							
Part Number							

STUD & WELD NUT ELECTRODES

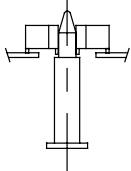

Special Application Auto Load Weld Nut Pins

PinType	Description
GA	Stainless Steel Pin, Supported by spring and/or air
CA	Coated, D2 Steel Pin, Supported by spring and/or air
RA	Retractable, Stainless Steel Pin, Movement controlled by Air Pressure only, Special Application please contact CenterLine
KA	Coated Retractable, D2 Steel Pin, Movement controlled by Air Pressure only, Special Application please contact CenterLine

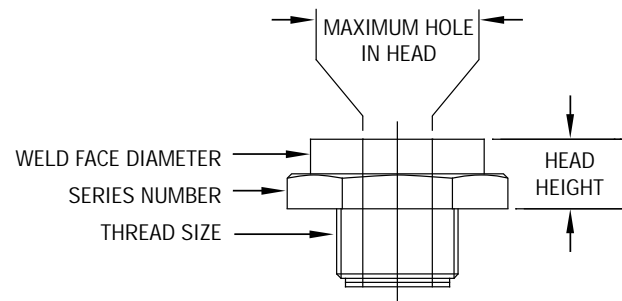
Series	Thread Size	Weld Face Diameter	Maximum Hole in Head*	Head Height
2	5/8-18	7/8 Standard	0.427 (10.85) ID	0.500
3	7/8-14	1-1/4 Standard	0.642 (16.31) ID	0.500
4	1-1/8-12	1-1/2 Standard	0.852 (21.64) ID	0.625

**Special weld nut electrodes are available for larger IDs and areas with clearance restrictions.*

Nose Type

 NOSE TYPE M
 STRAIGHT

For auto loading nuts where the stamping is not being located and pilot thickness is greater than material thickness.

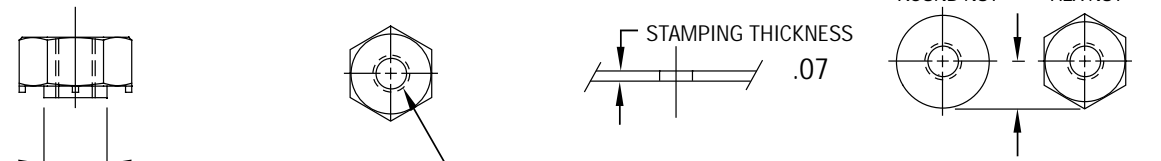


PILOTTED NUT

Use M nose type if pilot thickness exceeds stamping thickness, and pin is not used to locate stamping.

CAUTION
For M Nose Type pins ADD .005" to the pilot diameter.

APPLICATION SIZES



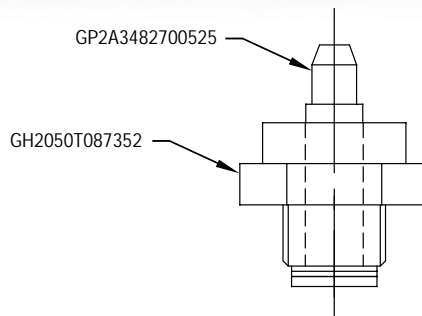
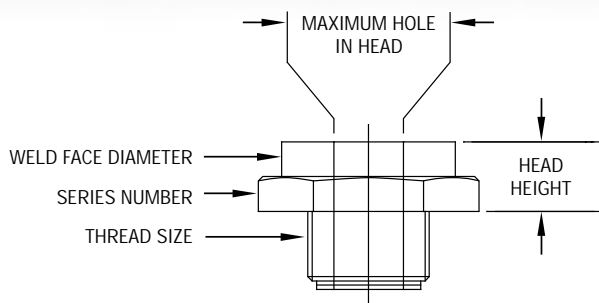
EXAMPLE

Generate Your Own Number (Total 14 Characters)

Example	GA	3	M	507	357	07	47
Breakdown	Pin Type	Series Number	Nose Type	Pilot Diameter + .005" (3 Dec.)	Hole in Nut -.005" (3 Dec.)	Stamping Thickness (2 Dec.)	Measurement from Center to Outermost Edge (2 Dec.)
Part Number							

STUD & WELD NUT ELECTRODES

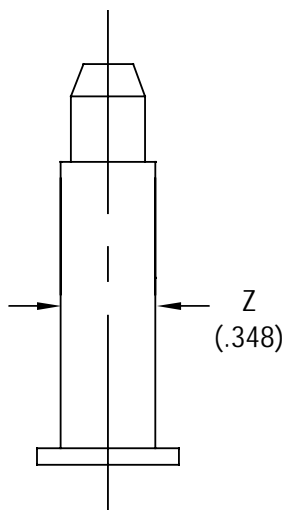
Nut Welding Heads



Series	Thread Size	Weld Face Diameter	Maximum Hole in Head*	Head Height
2	5/8-18	7/8 Standard	0.427 (10.85) ID	0.500
3	7/8-14	1-1/4 Standard	0.642 (16.31) ID	0.500
4	1-1/8-12	1-1/2 Standard	0.852 (21.64) ID	0.625

*Special weld nut electrodes are available for larger IDs and areas with clearance restrictions.

EXAMPLE



Pin # GP2A3482700525

Series Number Major Diameter of Pin (Z dimension)

PART NUMBER INSTRUCTIONS

- Example:** Z Dimension = .348
- Step 1** Establish the major diameter of pin (Z dimension).
- Step 2** The final 3 digits in the nut welding head # are represented by the following formula.
 $Z (.348) + .002 = .350$
- Step 3** Lastly, insert the result from **Step 2** to the end of the series part number prefix below.

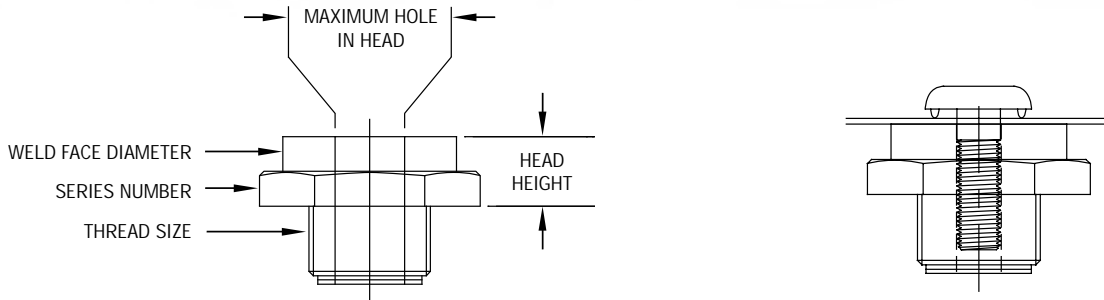
Final Nut Welding Head Number
Example Series 2 - GH2050T087350

Generate Your Own Number (Total 13 Characters)

Series	Part Number Prefix	Z + .002" Specify to 3 decimal places.
2	GH2050T087	
3	GH3050T125	
4	GH4062T150	

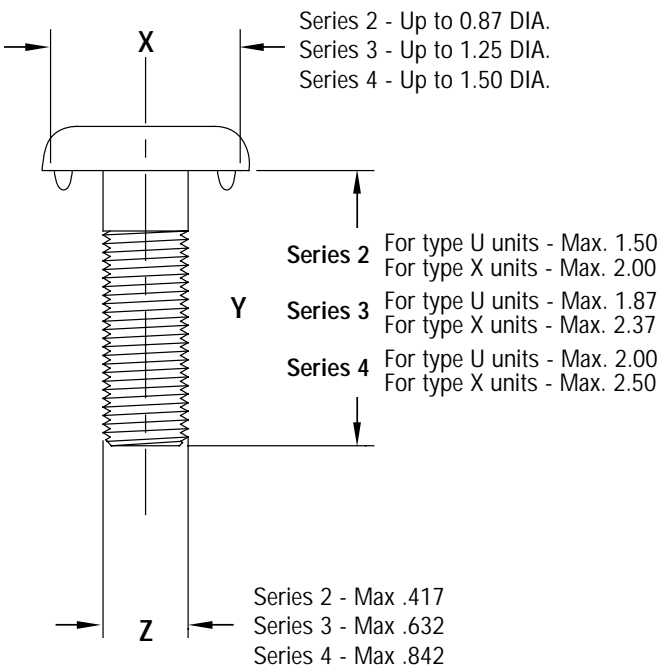
STUD & WELD NUT ELECTRODES

Stud Welding Heads



Series	Thread Size	Weld Face Diameter	Maximum Hole in Head*	Head Height
2	5/8-18	7/8 Standard	0.427 (10.85) ID	0.500
3	7/8-14	1-1/4 Standard	0.642 (16.31) ID	0.500
4	1-1/8-12	1-1/2 Standard	0.852 (21.64) ID	0.625

*Special weld nut electrodes are available for larger studs and areas with clearance restrictions.



PART NUMBER INSTRUCTIONS

Example: X Dimension - .75
Y Dimension - 1.25
Z Dimension - .430

- Step 1** In this case, X & Y indicates Series 2 however, Z dimension dictates Series 3 or larger.
- Step 2** The final 3 digits in the stud welding head # is represented by the following formula.
 $Z (.430) + .010 = .440$
- Step 3** Lastly, insert the result from Step 2 to the end of the series part number.

Final Stud Welding Head Number
Example Series 3 - GH3050T125440

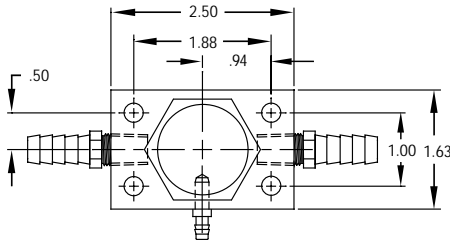
Generate Your Own Number (Total 13 Characters)

Series	Part Number Prefix	Z + .010" Specify to 3 decimal places.
2	GH2050T087	
3	GH3050T125	
4	GH4062T150	

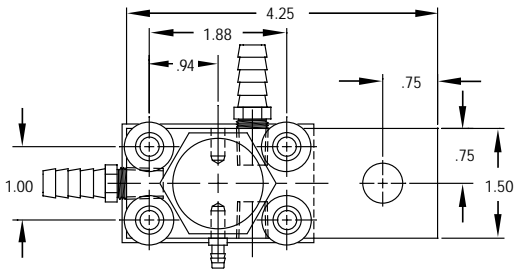
STUD & WELD NUT ELECTRODES

Mounting Dimensions For Base Mount Body Styles

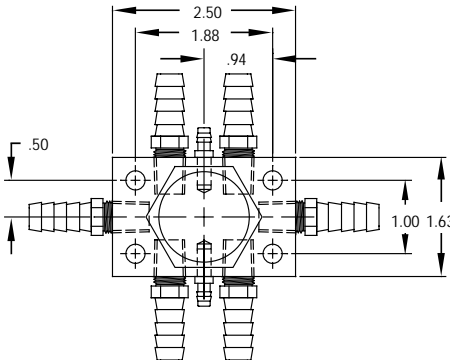
Body Style A



Body Style H&J



Body Style K

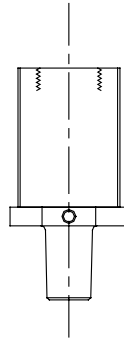


NOTE: Base units come with 1/4-20 screws for mounting.

PART NUMBER EXAMPLE

COMPLETE BODY REPLACEMENT UNIT

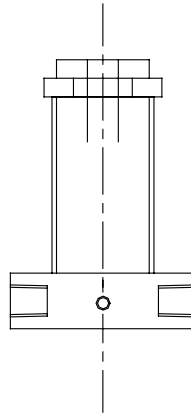
UCR3NHP



- NHP - No Head or Pin
- R3 - Retractable Pin series 3
- C - 5 RW Taper
- U - Standard Length

COMPLETE STUD WELDING UNIT

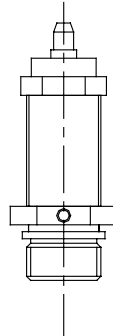
XAGH3050T125440



- GH3050T125440
Head # created from Stud welding head sheet.
- A - Base Mount
- X - Extended Length

COMPLETE NUT WELDING UNIT

UGGP2A3482700525



- GP2A3482700525
Pin # created from manual load weld nut pins sheet.
- G - 1" - 12 Thread
- U - Standard Length