

# **NELSON<sup>®</sup>** **STUD WELDING**

A Nelson Fastener Systems Company

## **Stud Welding Accessories**



December 2017

***[www.NelsonStud.com](http://www.NelsonStud.com)***

**Chucks**

NELSON® STUD WELDING SPECIFICATION

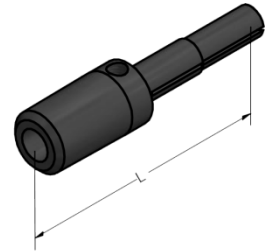
**Stud Weld Gun Imperial Dimension Chucks**

Below is a list of standard imperial chucks for use in welding Nelson studs. The chucks are listed with both imperial and metric dimensions so that the difference in size between two chucks can be easily compared. This will indicate if the stud will be tight or loose in an alternative chuck. The lengths given are the overall chuck lengths.

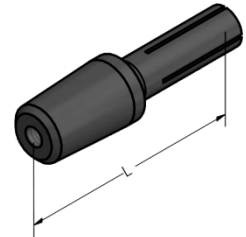
*Chucks for use with Standard Stud Weld Guns*

Chuck Description	Stud Diameter		L Length (inches)	Chuck Part Number	Type
	Imperial Dimension (inches)	Metric Dimension (mm)			
#4	0.112	2.84	2-5/8	500001135	1
1/8" and 11 ga.	0.125	3.17	2-5/8	500001001	
#6 and 10 ga.	0.134	3.40	2-5/8	500001002	
5/32	0.156	3.96	2-5/8	500001003	
#8 and 8 ga.	0.164	4.17	2-5/8	500001006	
3/16" and #10	0.187	4.76	2-5/8	500001005	
7/32 and 1/4-20 pitch	0.218	5.54	2-5/8	500001004	
1/4	0.250	6.35	2-1/4	500001007	2
5/16-18 pitch	0.275	6.98	2-1/4	500001008	
5/16	0.312	7.92	2-1/4	500001009	
3/8-16 pitch	0.330	8.38	2-1/4	500001010	
3/8	0.375	9.53	2-1/4	500001011	
7/16	0.437	11.10	2-1/4	500001012	
1/2-13 pitch	0.448	11.38	2-1/4	500001013	
1/2	0.500	12.70	2-1/2	500001014	3
9/16 and 5/8-11 pitch	0.562	14.27	2-1/2	500001015	
5/8	0.625	15.87	3	500001016	
3/4-10 pitch and 11/16	0.680	17.27	3	500001245	
3/4	0.750	19.05	3	500001018	
7/8	0.875	22.23	3	500001019	

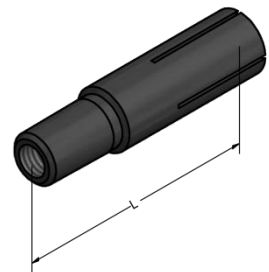
**Types 1-3  
#2 Morse Taper Mounting**



TYPE 1  
#2 MORSE TAPER MOUNTING  
STANDARD LENGTH ADJUSTABLE  
DEPTH CHUCK  
(500001005 SHOWN)



TYPE 2  
#2 MORSE TAPER MOUNTING  
STANDARD LENGTH ADJUSTABLE  
DEPTH CHUCK  
(500001007 SHOWN)



TYPE 3  
#2 MORSE TAPER MOUNTING  
STANDARD LENGTH ADJUSTABLE  
DEPTH CHUCK  
(500001016 SHOWN)

**Chucks**

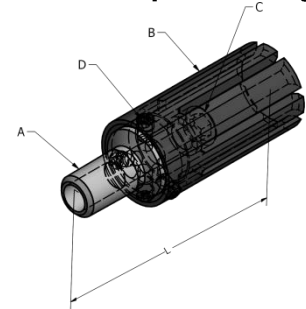
NELSON STUD WELDING SPECIFICATION

**Stud Weld Gun Imperial Dimension Chucks (Continued)**

*Chucks for use with Standard Stud Weld Guns (Continued)*

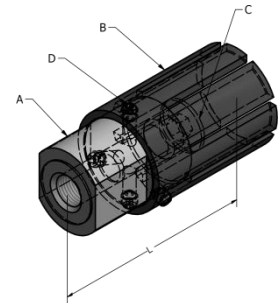
Chuck Description	Stud Diameter		L Length (inches)	Chuck Part Number	Type
	Imperial Dimension (inches)	Metric Dimension (mm)			
1 Assembly	1.000	25.40	3-5/8	500001085	4
A 1 Body				500001110	
B 1 Sleeve				500000111	
1-1/8 Assembly	1.125	28.57	3-5/8	500001086	
A 1-1/8 Body				500001113	
B 1-1/8 Sleeve				500001114	
1-1/4 Assembly	1.250	31.75	3-5/8	500001088	5
A 1-1/4 Body				500001117	
A 1-1/4 Sleeve				500001118	
1-3/8 Assembly	1.375	34.93	3-5/8	500001091	
A 1-3/8 Body				500001121	
A 1-3/8 Sleeve				500001120	
1-1/2 Assembly	1.500	38.10	3-5/8	500001093	
A 1-1/2 Body				500001123	
A 1-1/2 Sleeve				500001124	
1-5/8 Assembly	1.625	41.27	3-5/8	500001424	
A 1-5/8 Body				500001425	
A 1-5/8 Sleeve				500001426	
1-3/4 Assembly	1.750	44.45	3-5/8	500001095	
A 1-3/4 Body				500001115	
A 1-3/4 Sleeve				500001116	

**Type 4  
#2 Morse Taper Mounting**



TYPE 4  
#2 MORSE TAPER MOUNTING  
STANDARD LENGTH ADJUSTABLE  
DEPTH CHUCK  
(500001085 SHOWN)

**Type 5  
1/2-20 Thread Mounting**



TYPE 5  
1/2-20 THREAD MOUNTING  
STANDARD LENGTH ADJUSTABLE  
DEPTH CHUCK  
(500001091 SHOWN)

**Chucks**

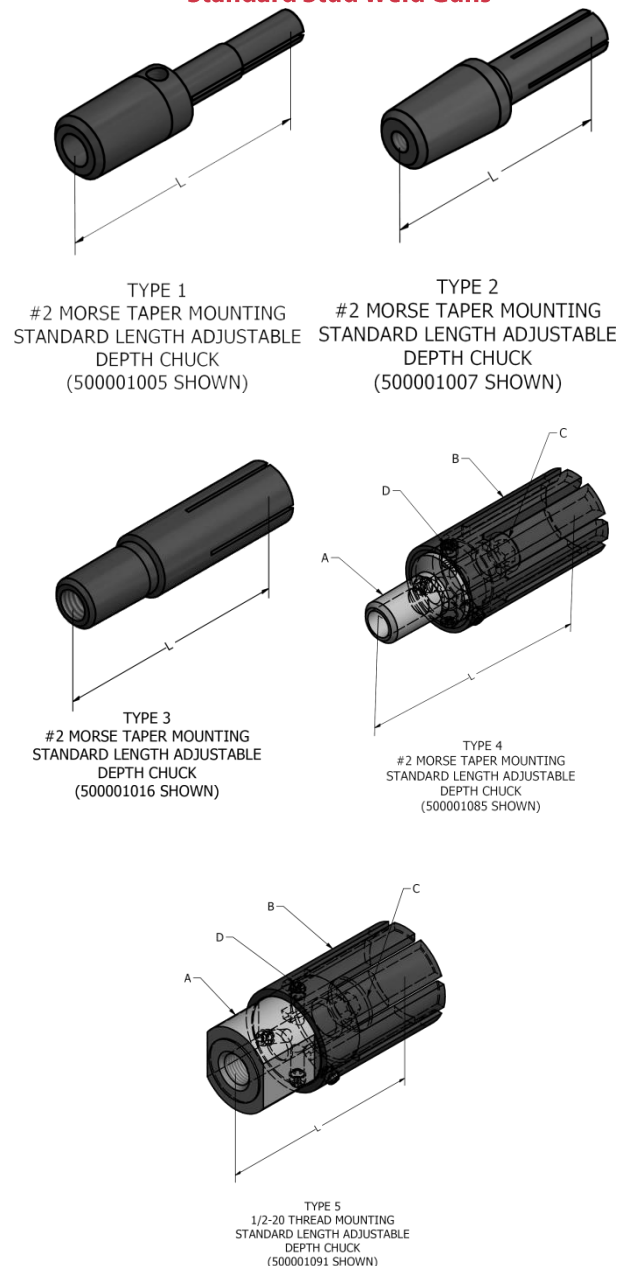
NELSON STUD WELDING SPECIFICATION

**Stud Weld Gun Metric Dimension Chucks**

Stud Diameter		L Length (inches)	Chuck Part Number	Type
Metric Dimension (mm)	Imperial Dimension (inches)			
2	0.079	2-5/8	500001342	1
3	0.118	2-5/8	500001135	
4	0.157	2-5/8	500001003	
5	0.198	2-5/8	500001427	
6	0.236	2-1/4	500001267	2
8	0.315	2-1/4	500001009	
9	0.354	2-1/2	500001434	
10	0.394	2-1/4	500001269	
12	0.472	2-1/2	500001206	
14	0.551	2-1/2	500001391	3
16	0.630	3	500001016	
18	0.708	2-1/2	500001271	
19	0.748	3	500001018	
20	0.787	2-1/2	500001272	
22	0.866	2-1/2	500001019	
24 Assembly	0.944	3-5/8	500001085	
A 24 Body			500001110	
A 24 Sleeve			500001111	
25 Assembly	0.984	3-1/4	500001085	
A 25 Body			500001110	
A 25 Sleeve			500001111	
22 (one piece)	0.866	3-1/2	500001485	5
29 Assembly	1.142	3-5/8	500001481	
A 29 Body			500001113	
A 29 Sleeve			500001482	
32 Assembly	1.260	3-1/2	500001483	
A 32 Body			500001117	
A 32 Sleeve			500001484	
35 Assembly	1.378	3-5/8	500001091	
A 35 Body			500001121	
A 35 Sleeve			500001120	
40 Assembly	1.575	3-5/8	500001433	
A 40 Body			500001425	
A 40 Sleeve			500001426	

To the left is a list of standard metric chucks to be used when welding Nelson studs. The chucks are listed with both metric and imperial dimensions so that the difference in size between two chucks can be easily compared. This will indicate if the stud will be tight or loose in an alternative chuck. The lengths given are the overall chuck lengths.

**Standard Metric Chucks for use with Standard Stud Weld Guns**



**Chucks**

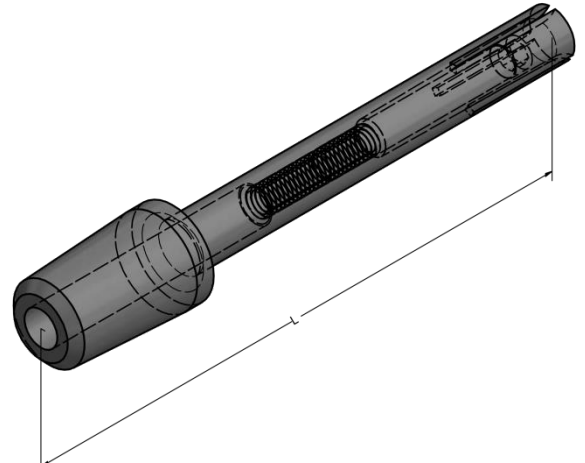
NELSON STUD WELDING SPECIFICATION

**Long Style Chucks**

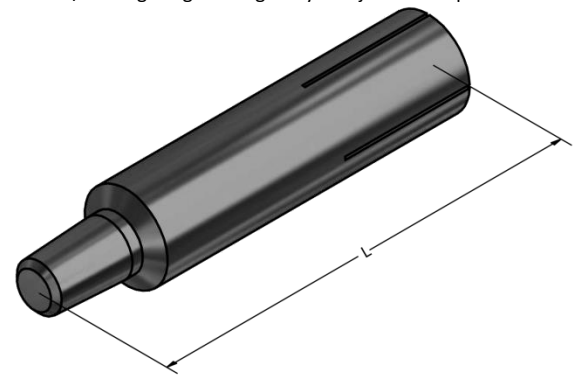
Nelson long style chucks are typically used when additional length is needed. This occurs when short studs are welded through fixtures, templates, or through holes in materials like wood, plastic, or steel. Long style studs are used with ferrule tubing in place of standard ferrule grips.

*3-7/8" Long Style Chucks with Adjustable Depth Stop*

Chuck Description	Stud Diameter		Chuck Part Number
	Imperial Dimension (inches)	Metric Dimension (mm)	
#8	0.164	4.17	500001221
#10	0.187	4.76	500001220
1/4	0.250	6.35	500001028
5/16	0.312	7.92	500001029
3/8	0.375	9.53	500001030
7/16	0.437	11.10	500001031
1/2	0.500	12.70	500001032
M6	0.236	6.00	500001332
M10	0.394	10.00	500001334
M12	0.472	12.00	500001336



3-7/8" Long Length Straight Style Adjustable Depth Chuck



4-3/4" Long Length Fixed Chuck Depth (1/2") Chucks

*4-3/4" Long Straight Style Chucks (Fixed Chuck Depth is 1/2")*

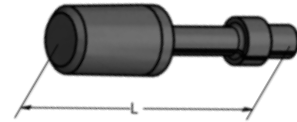
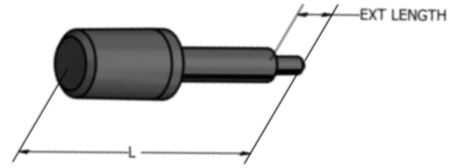
Chuck Description	Stud Diameter		Chuck Part Number
	Imperial Dimension (inches)	Metric Dimension (mm)	
#6	0.138	3.51	500001036
#8	0.164	4.17	500001037
#10	0.190	4.83	500001038
1/4	0.250	6.35	500001039
5/16	0.312	7.92	500001040
3/8	0.375	9.53	500001041
7/16	0.437	11.10	500001042
1/2	0.500	12.70	500001043
5/8	0.625	15.87	500001044
3/4	0.750	19.05	500001045
7/8	0.875	22.23	500001046

**Chucks**

**NELSON STUD WELDING SPECIFICATION**

*Male Style 2-1/2" Long Chucks for Welding Internally Tapped Studs*

Chuck Description	Length of Extension	Chuck Part Number
#10-24	0.218	500003003
#10-24	0.375	500003004
#10-32	0.375	500003005
1/4-20	0.375	500003008
5/16-18	0.375	500003010
3/8-16	0.375	500003014
7/16-14	0.218	500003016
1/2-13	0.500	500003017
5/8-11	0.625	500003018
3/4-10	0.625	500003019



Chuck Extensions – Add 1-1/2" to Length of Chuck Assembly  
1/2-20 External and Internal Thread with Lock Nut

Chuck Description (Overall Length)	Length of Threads	Extension Part Number
3/4 hex x (2 x Overall Length)	0.750	521001005

*Male Style Chucks for Welding Studs with Unthreaded Holes*

Chuck Description	Length of Extension	Chuck Part Number
3/16	3/16	500003007
3/16	7/32	500003042
3/16	3/8	500003006
1/4	3/16	500003057
1/4	7/32	500003012
1/4	5/16	500003053
3/8	3/8	500003058



Chuck Extension #521001005

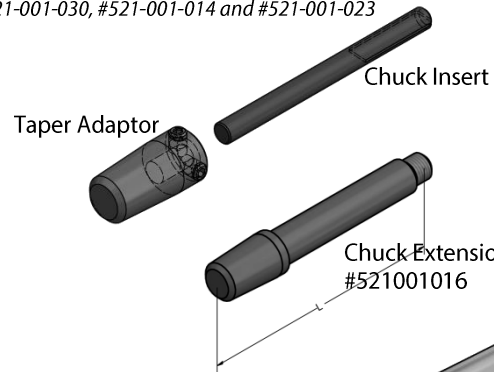
*Taper Adapter with Male Style Chucks  
#2 Morse Taper with Internal Hole and Set Screws*

Chuck Description	Chuck Part Number
3/16" diameter hole	521001030
1/4" diameter hole	521001014
3/8" diameter hole	521001023

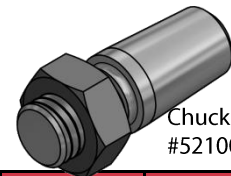
Adapter for Male Style Chucks  
#521-001-030, #521-001-014 and #521-001-023

*Male Insert Style Chucks for Use with Chuck Adapters*

Chuck Description (Hole Diameter)	Length of Extension	Chuck Insert	Adapter Part Number
0.080	0.066	500003001	52100103
0.140	1/8	500001002	52100101
1/8	1/4	500003028	52100101
3/16	3/8	500003021	52100101
1/4	No Shoulder	500003045	52100101



Chuck Extensions  
#2 Morse Taper and External Thread



Chuck Extension #521001004

Chuck Description (Additional Length)	Length of Threads	Adaptor Part Number
3/8-24 x 3	0.375	521001016
1/2-20 x 1.500 Male & Female	0.750	521001004

**Chucks**

NELSON STUD WELDING SPECIFICATION

**Rectangular, Square, Internal, Bent, and Side Gripping**

**Rectangular Chucks**

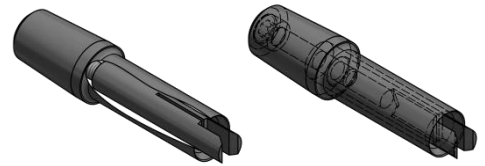
Morse Taper Mounting

Chuck Description	Chuck Part Number
1/8 x 1/4	500005118 (for Fiber-Lok)
1/8 x 3/8	500005003
1/8 x 5/8	500005014
1/8 x 3/4	500005021
1/8 x 7/8	500005005
1/8 x 1	500005006
1/8 x 1-1/2	500005059
3/16 x 3/4	500005007
3/16 x 7/8	500005008
3/16 x 1	500005009
3/16 x 1-1/4	500005011
1/4 x 1/2	500005092
1/4 x 3/4	500005010
1/4 x 1	500005012
1/4 x 1-1/4	500005019
3/8 x 1	500005101

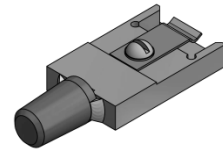
**90° Bent Style Stud Chucks**

1/2-20 Internal Thread Mounting

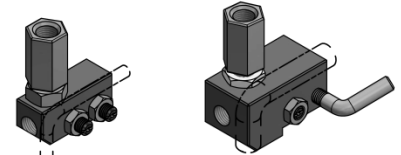
Chuck	Chuck Part Number
1/8	500008001 or 500008002
3/16	500008004
1/4	500008005
5/16	500008006
3/8	500008007
7/16	500008009
1/2	500008010
9/16	500008011
5/8	500008012
3/4	500008013
7/8	500008014



Rectangular 1/8 x 5/8" Chuck with Insert

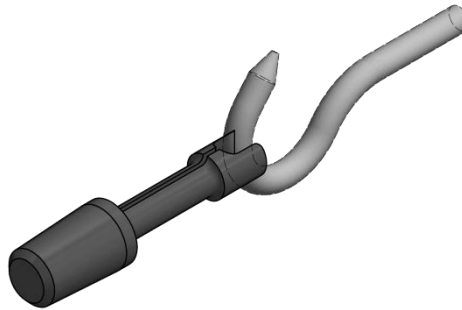


Rectangular Spring chuck with Morse Taper Mounting



90° Bent Style Chucks with 1/2-20 Internal Thread Mounting

Left: Chuck for studs 1/8 thru 7/16"



**45° Bent Style Stud Chucks**

Morse Taper Mounting

Chuck Description	Chuck Part Number
3/8	500010002
1/2	500010008
5/8	500010010
3/4	500010016
7/8	500010037

**Internal Morse Taper Adapter with Internal Threads**

Thread	Length	Part Number
1/2-20	1-7/8	751004029

**Square Chucks**

1/2-20 Internal Thread Mounting

Chuck Description	Chuck Part Number
3/4	500007035
7/8	500007037
1-1/8	500007039

**Eyebolt Style Chucks**

Morse Taper Mounting

Chuck Description	Chuck Part Number
3/16	500011002
1/4	500011003
5/16	500011004
3/8	500011005
7/16	500011006
1/2	500011007

**Side Gripping Chuck Assemblies (LEGACY)**

Chuck Description	Chuck Part Number
1/4	500014103
3/8	500014102
1/2	500014095
5/8	500014096
3/4	500014097
7/8	500014101

Nelson Side Gripping chucks have two ball detents and a screw lever to grip the studs. Chuck adapter offset, #500014088, and other parts are needed to mount these chucks on the stud welding gun.

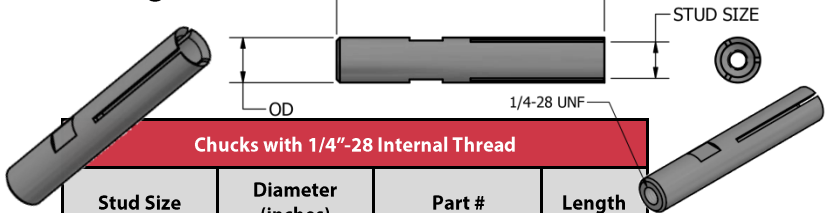
**Alternate side gripping chuck designs are available.** See [PSR Studs](#)



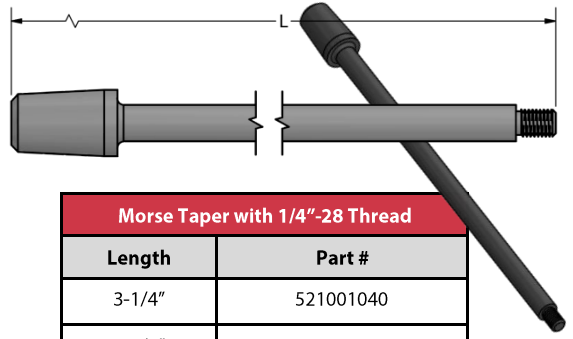
**Chucks**

NELSON STUD WELDING SPECIFICATION

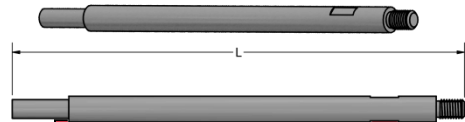
**Screw-On Chucks and Extensions to Reach into Ferrule Tubing & Holes**



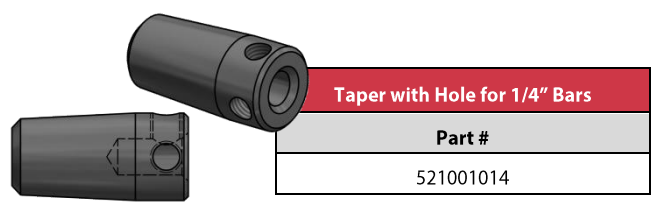
Chucks with 1/4"-28 Internal Thread			
Stud Size	Diameter (inches)	Part #	Length
#8	0.164	500001077	3-5/8"
#10 & 3/16"	0.187	500001142	1-1/4"
1/4"	0.250	500001079	2-1/2"
5/16"	0.312	500001080	2-1/2"



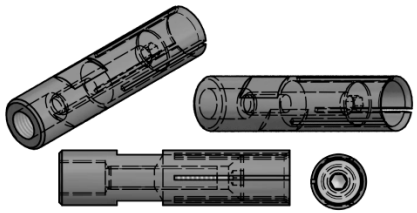
Morse Taper with 1/4"-28 Thread	
Length	Part #
3-1/4"	521001040
3-3/4"	521001021
4-3/4"	521001063
5-1/2"	521001051
8"	521001049



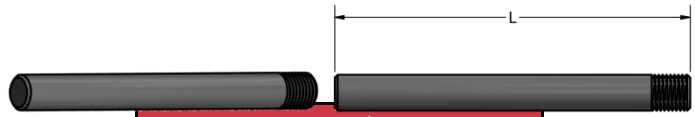
1/4" Bar with 1/4"-28 Thread	
Length	Part #
6"	521001074



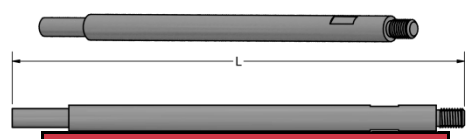
Taper with Hole for 1/4" Bars	
Part #	
521001014	



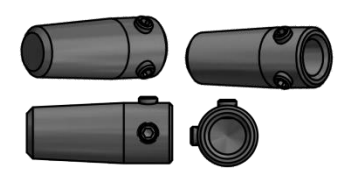
Chucks with 3/8"- 24 Internal Thread			
Stud Size	Diameter (inches)	Part #	Length
1/8"	0.125	500007179	2-1/2"
#6	0.132	500001144	2-1/2"
#8	0.164	500001145	2-1/2"
#10 & 3/16"	0.187	500001146	2-1/2"
1/4"	0.250	500001147	2-1/2"
5/16"	0.312	500001190	3-1/4"
3/8"	0.375	500001131	2-1/2"
1/2"	0.500	500001083	2-1/2"
5/8" & 3/4"	None needed. The Chuck Stop Threads are 3/8"-16 (no part number) custom made with Taper Adaptor #521-001-023		



Morse Taper with 3/8"-24 Thread	
Length	Part #
1-3/8"	521001056
3-1/2"	521001016
10-3/16"	521001039
21-1/2"	521001046



Bar with 3/8-24 Thread	
Length	Part #
3-3/4"	521001073
10"	521001089



Taper with Hole for 3/8" Bars	
Part #	
521001023	



**Feet**

**NELSON STUD WELDING SPECIFICATION**

Standard feet are made of an insulating material. They are mounted on the two legs that extend from the gun body. A ferrule grip, ferrule holder, or spark shield is then installed on the foot.

The foot is adjusted and locked so that a portion of the stud extends beyond the ferrule or spark shield. This portion of the stud is available to be melted during the welding process to create the weld flash surrounding the welded stud. The foot and leg assembly is locked into position by set screws in the gun body that tighten against the legs. When the gun is positioned to make a weld, the spark shield or ferrule contacts the base material and provides a reference for the lift and plunge of the stud during the weld cycle.

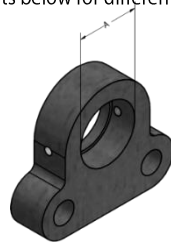
In order to properly fit the feet to the ferrule and ferrule grip, please consult the chart below.

Foot Size	Nominal Ferrule Size		Ferrule Neck Diameter	
	Minimum	Maximum	Minimum	Maximum
Small	1/8	1/2	0.281	0.650
Medium	5/8	3/4	0.785	1.030
Large	7/8	1	1.210	

Different feet may be needed for various stud welding applications. Please consult the charts below for different foot styles.

**Standard Closed Feet**

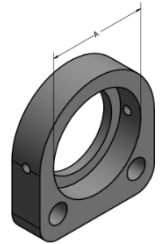
Gun Description	Small A=0.875	Medium A=1.156	Large A=1.750
NS-20 / NS-20A-HD	502001001	502001002	502001003
NS-30 / NS-40	502001137	502001138	502001144



NS-20 & NS-20A-HD  
Small & Medium Closed Feet



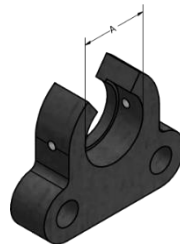
NS-30 & NS-40  
Small & Medium Closed Feet



NS-20 & NS-20A-HD  
NS-30 & NS-40  
Large Closed Feet

**Standard Split or Open Feet**

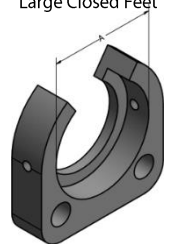
Gun Description	Small A=0.875	Medium A=1.156	Large A=1.750
NS-20 / NS-20A-HD	502002001	502002002	N/A
NS-30 / NS-40	502002045	502002046	N/A



NS-20 & NS-20A-HD  
Small & Medium Open Feet



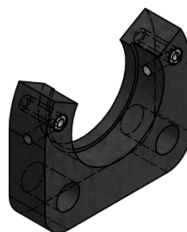
NS-30 & NS-40  
Small & Medium Open Feet



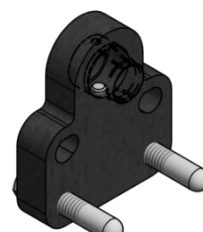
NS-20 & NS-20A-HD  
NS-30 & NS-40  
Large Open Feet

**Shear Connector and Gas Feet**

Gun Description	Standard Shear Connector Foot <sup>1</sup> A=1.750	Shear Connector Bipod Foot <sup>1,2</sup>	Gas Adapter Feet <sup>3</sup>
NS-20 / NS-20A-HD	502002009	503000000	751020000
NS-30 / NS-40	N/A	503019000	751020000



NS-20A-HD  
Standard Shear  
Connector Foot



NS-20-HD, NS-30, NS-40  
Shear Connector  
Bipod Foot



NS-20, NS-30, NS-40  
Gas Adaptor Foot

1 Use with Shear Connector Ferrules/Grips

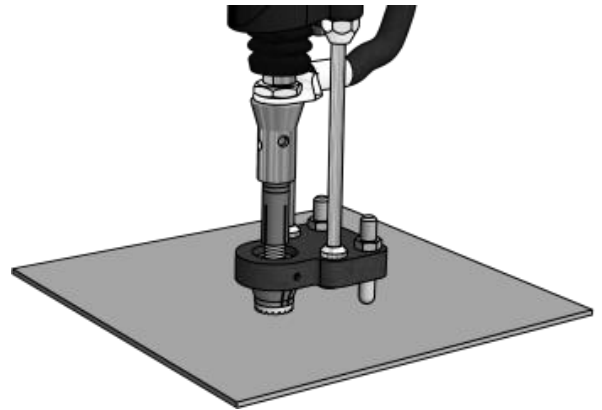
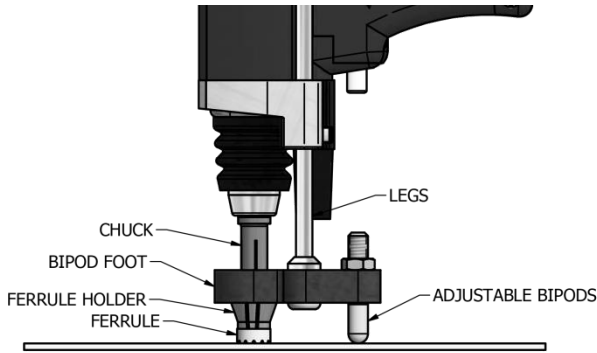
2 NS-20A-HD: for ferrules 1/2" diameter and larger

NS-30 and NS-40: for ferrules with .650" neck diameter and smaller

3 For studs 3/16" through 1/2"

**Bipod Feet for Perpendicularity**  
NELSON STUD WELDING SPECIFICATION

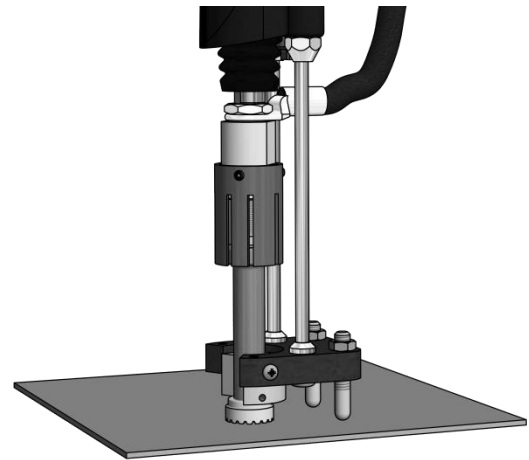
The bipod feet have two tapped holes with threaded pins using locking nuts. The adjustable pins are located back from the legs. The height of the two pins needs to be adjusted so that they are at the same elevation as the face of the ceramic ferrule when it is in the ferrule grip. The ferrule and the properly adjusted pins will provide three points of reference on the surface of the base material. This three-point contact will enable the welders to maintain precise stud perpendicularity to the base material.



Gun Description	Small Closed ≤0.875"	Medium Closed 0.785-1.156"	Large Split 1.750
NS-40 / NS-20HD	503-019-000	503057000	N/A
NS-20HD	503-01-9000	503057000	503000000

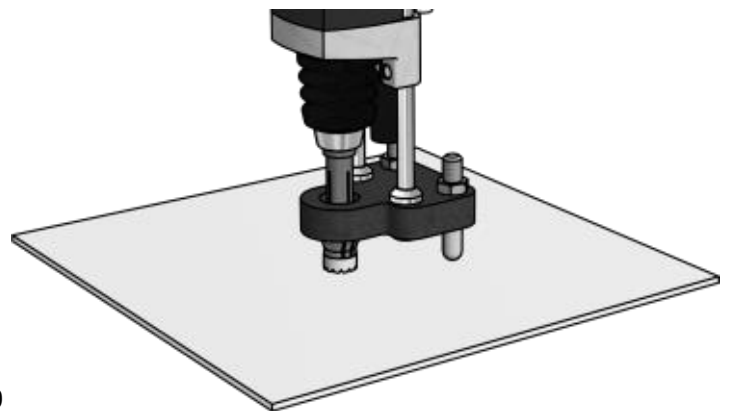
**Large Split Bipod Foot**  
Shear Connector Ferrule Grips

Neck Diameter	Ferrule Holder	Split Grip
0.650"	501-003-022	N/A
0.785"	501-003-021	N/A
1.030"	501-003-019	501002014
1.210"	501-003-020	501003015
1.460"	501-003-025	501003016



**WTD Bipod Kit**

NS-20HD	512032003
<b>WTD Ferrule Holders</b>	
0.505"	501-006-050
0.650"	501-006-039
0.785"	501-006-044
1.030"	501-006-027
1.210"	501-006-028
1.406"	501-006-046



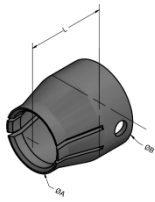
## Ferrule Grips and Ferrule Holders

### NELSON STUD WELDING SPECIFICATION

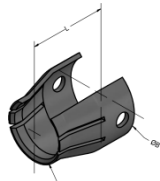
Ceramic ferrules, an essential part of the stud welding process, can be positioned on the front of the stud welding gun using several different styles of ferrule grips or ferrule holders.

Standard ferrule grips are used for most studs. Split ferrule grips are used for long studs, and for studs that have heads larger than the stud base diameter. Shear Connector grips and the Weld Through Metal Deck ferrule holders are used in construction applications. Ferrule tubes are used for welding through holes in wood, plastic, or masonry.

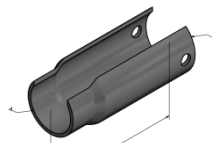
The neck diameter of the ferrule is the primary dimension needed when selecting the appropriate ferrule grip or ferrule holder. Below is a chart showing the various ferrule grips, ferrule holders, and ferrule tubing needed for ferrules with different neck diameters.



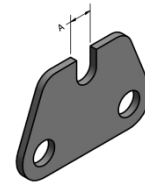
Standard Ferrule Grip



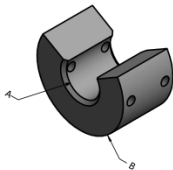
Split Ferrule Grip



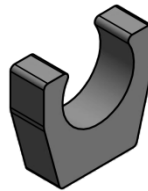
Long Length Ferrule Grip



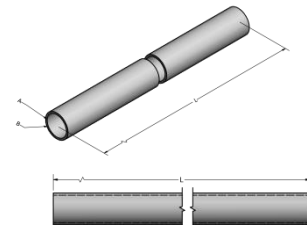
Ferrule Foot Plate - BRASS



Shear Connector Ferrule Grip - BRASS



Weld Through Deck Ferrule Holder - ALUMINUM



Ferrule Tube Bushing - FIBERGLASS

## Small Ferrule Grips

Fits in Standard "Small" Feet  
Major Diameter: 0.875"

Neck Diameter of Ferrule	Nominal Size	Standard Ferrule Grip	Standard Split Ferrule Grip	Long Length Split Ferrule Grip	Ferrule Foot Plate	Shear Connector Grip <sup>1</sup>	Weld Through Deck Ferrule Holder <sup>2</sup>	Ferrule Tubing	Tube Bushing
0.28 1	#6	501001002	501003001	N/A	N/A	N/A	N/A	N/A	
0.29 1	#8	501001003	501003002	N/A	N/A	N/A	N/A	501005001	506000001
0.30 5	#10	501001004	501003003	N/A	501006010	N/A	N/A	501005002	506000002
0.38 0	1/4*	501001005	501003005	501004003	501006001	N/A	N/A	501005003	506000003
0.44 5	5/16	501001006	501003006	501004005	501006002	N/A	N/A	501005004	506000004
0.50 5	3/8*	501001007	501003007	501004006	501006003	N/A	501006050	501005005	506000005
0.58 5	7/16	501001008	501003008	501004007	501006004	N/A	N/A	501005006	506000006
0.65 0	1/2*	501001009	501003009	501004008	501006005	501003022	501006039	501005007	506000007

1 Shear Connector ferrule grips are for use in Standard Shear Connector foot #502002009; Shear Connector Bipod Foot #503000000, or Standard Large Feet, #502001144, for NS-30 and NS-40 guns, or #502001003 for NS-20 and Heavy Duty guns.

2 Weld Through Deck ferrule Holders are for use on WTD Foot extension Assembly, #502002042.

**NOTE: The ferrules supplied for unthreaded 1/4", 3/8", 1/2", and 5/8" diameter studs have neck diameters that are for 1/8" larger ferrules than the standard. This applies to NBL, H4L, HBL, SBL, and D2L studs.**

**Ferrule Holders**

NELSON STUD WELDING SPECIFICATION

**Medium Ferrule Grips**

Fits Standard "Medium" Feet

Major Diameter: 1.156"

Neck Diameter of Ferrule	Nominal Size	Standard Ferrule Grip	Standard Split Ferrule Grip	Long Length Split Ferrule Grip	Ferrule Foot Plate	Shear Connector Grip <sup>1</sup>	Weld Through Deck Ferrule Holder <sup>2</sup>	Ferrule Tubing
0.785	5/8	501001011	501003010	501004009	501006007	501003021	501006044	501005008
0.921	3/4 Special	501001012	501003011	N/A	501006011	N/A	N/A	N/A
1.030	3/4	501001014	501003014	501004014	501006008	501003019	501006027	501005009

**Larger Ferrule Grips**

Fits Standard "Large" Feet

Major Diameter: 1.750

Neck Diameter of Ferrule	Nominal Size	Standard Ferrule Grip	Standard Split Ferrule Grip	Long Length Split Ferrule Grip	Ferrule Foot Plate	Shear Connector Grip <sup>1</sup>	Weld Through Deck Ferrule Holder <sup>2</sup>	Ferrule Tubing
1.210	7/8	501001015	501003015	N/A	501006009	501003020	501006028	N/A
1.406	1	501001016	501003016	N/A	501006032	501003025	501006046	N/A

1 Shear Connector ferrule grips are for use in Standard Shear Connector foot #502002009 or Shear Connector Bipod Foot #503000000 on Heavy Duty guns.

2 Weld Through Deck ferrule Holders are for use on WTD Foot extension Assembly, #502002042.

**NOTE: The ferrules supplied for unthreaded 1/4", 3/8", 1/2", and 5/8" diameter studs have neck diameters that are for 1/8 larger ferrules than the standard. This applies to NBL, H4L, HBL, SBL, and D2L studs.**

**Miscellaneous Stud Welding Accessories**

NELSON STUD WELDING SPECIFICATION

**S4X and S7X Refractory Anchor Accessories**

Part Description	Part Number
Chuck	500015073
Ferrule Foot Plate	501006018

**Ferrule Foot Plates**

Stud Diameter	Inside Diameter	Part Number
1/4	0.380	501006001
5/16	0.445	501006002
3/8	0.505	501006003
7/16	0.585	501006004
1/2	0.650	501006005
5/8	0.785	501006006
3/4	1.030	501006007
7/8	1.210	501006008

**Ferrule Grips for Shear Connectors (for large feet)**

Stud Diameter	Inside Diameter A	Outside Diameter B	Part Number
1/2	0.650	1.750	501003022
5/8	0.785	1.750	501003021
3/4	1.030	1.750	501003019
7/8	1.210	1.750	501003020
1	1.406	1.750	501003023

**NS-30 or NS-40 Legs; 5/16" Leg Diameter**

Part Description	Stud Length	Part Number
Adjustable 7" leg	Less than 4 1/2"	504000050
Adjustable 12" leg	4 1/2 thru 9 1/2"	504000051
Adjustable 17" leg	9 thru 14"	504000052
Adjustable 22" leg	14 1/2 thru 19 1/2"	504000053

**Weld Through Deck Accessories**

Part Description	Inside Diameter	Part Number
Foot Extension Assembly	-	502002042
Foot	-	502002043
3" Foot Extension Bar	-	502002044
5 1/2" Foot Extension Bar	-	502002065
8" Foot Extension Bar	-	502002055
10" Foot Extension Bar	-	502002052
16" Foot Extension Bar	-	502002053
22" Foot Extension Bar	-	502002054
28" Foot Extension Bar	-	502002056
34" Foot Extension Bar	-	502002057
46" Foot Extension Bar	-	502002058
Ferrule Holder (1/4-3/8")	0.505	501006050
Ferrule Holder (3/8-1/2")	0.650	501006039
Ferrule Holder (1/2-5/8")	0.785	501006044
Ferrule Holder (5/8-3/4")	1.030	501006027
Ferrule Holder (3/4-7/8")	1.210	501006028
Ferrule Holder (7/8-1")	1.406	501006046

**NS-20 HD Legs – 3/8" Leg Diameter**

Part Description	Stud Length	Part Number
Adjustable 9" leg	Up to 2"	504000002
Adjustable 14" leg	Up to 7"	504000003
Adjustable 18" leg	Up to 11"	504000004
Adjustable 23" leg	Up to 16"	504000005
Adjustable 27" leg	Up to 20"	504000006
Adjustable 32" leg	Up to 25"	504000007

With Standard Feet

**Pipe Hanger Assemblies (Clip Stud 101084029)**

Part Description	Part Number
Chuck	500005061
Foot-Grip Assembly	503022000

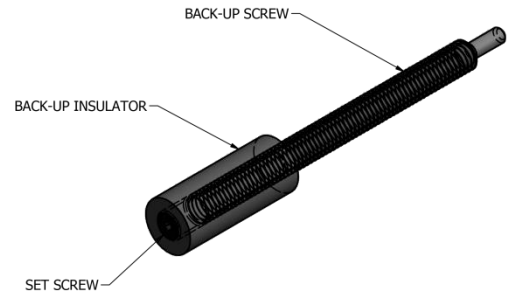
**Chucks**

NELSON STUD WELDING SPECIFICATION

**Capacitor Discharge Weld Gun Chucks**

**Standard and Metric Capacitor Discharge Stud Welding Chucks for Use with NCD and NCD+ Stud Welding Guns**

3/8" O.D. Chuck Description	Stud Diameter		Length (inches)	Chuck Part Number
	Imperial Dimension (inches)	Metric Dimension (mm)		
13ga.	0.095	2.41	2-3/8	500001374
12ga.	0.105	2.77	2-3/8	500001363
0.118 and #4	0.112	2.84	2-3/8	500001355
1/8 and #5	0.125	3.17	2-3/8	500001390
10ga. and #6	0.134	3.40	2-3/8	500001356
M4	0.157	3.99	2-3/8	500001361
#8 threaded	0.164	4.17	2-3/8	500001357
3/16 Annular	0.178	4.75	2-3/8	500001373
3/16" and #10	0.190	4.83	2-3/8	500001366
M5	0.197	5.00	2-3/8	500001358
M6	0.236	6.00	2-3/8	500001362
1/4	0.250	6.35	2-3/8	500001359
M7	0.275	7.00	2-3/8	500001368
5/16 and M8	0.312	7.92	2-3/8	500001360
3/8	0.375	9.53	2-3/8	500001369
M10	0.394	10.00	2 3/8	500001369



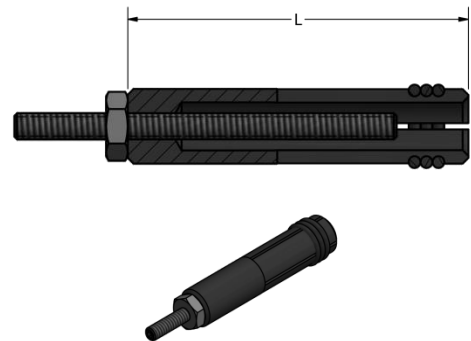
**Stud Stop Pin Assembly for NCD and NCD+ Stud Welding Guns**

Stud Length (inches)	Part Number
1/4 to 5/8	500017017
3/4 to 1-1/8	500017018
1-1/4 to 1-5/8	500017019
1-3/4 to 2-1/8	500017020
Pencil Gun	500017063

**Standard Capacitor Discharge Stud Welding Chucks for use with CD Lite-G and CD Lite-C Stud Welding Guns for Welding 1/4 to 1-1/2" (6 to 40mm) long studs\***

10mm O.D. Chuck Description	Stud Diameter		Length inches (mm)	Chuck Assembly Part Number
	Imperial Dimension (inches)	Metric Dimension (mm)		
#4 & 12 ga	0.112	2.84	1-3/4 (45)	500001515
M3	0.118	3.00	1-3/4 (45)	500001510
#6 & 10 ga	0.134	3.40	1-3/4 (45)	500001516
M4	0.157	4.00	1-3/4 (45)	500001511
#8	0.164	4.17	1-3/4 (45)	500001517
3/16	0.178	4.75	1-3/4 (45)	
M5	0.197	5.00	1-3/4 (45)	500001512
#10 & 3/16	0.190	4.83	1-3/4 (45)	500001518
M6	0.236	6.00	1-3/4 (45)	500001513
1/4	0.250	6.35	1-3/4 (45)	500001519
5/16 & M8	0.312	7.92	1-3/4 (45)	500001520

**Note: NCD and CD Lite chucks are NOT interchangeable due to the difference in the 3/8" and 10mm outside diameter of these chucks**

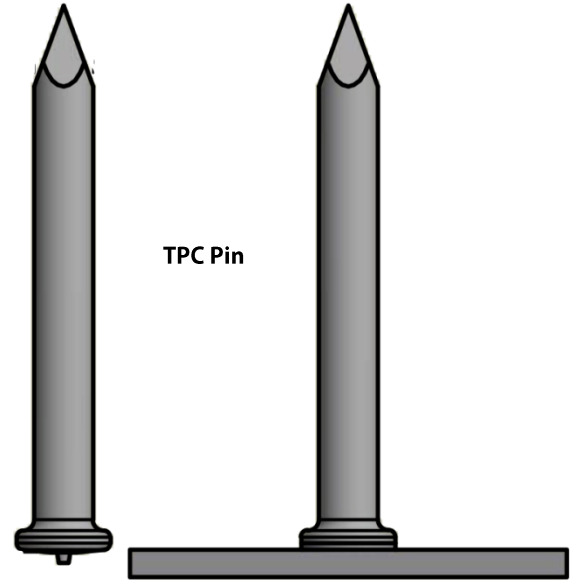


\*Welding of studs longer than 1-1/2" (40mm), or through a template, requires special accessories

**Miscellaneous Capacitor Discharge Accessories**  
NELSON STUD WELDING SPECIFICATION

Accessories for Welding TPC 12 ga. Insulation Pins

Part Description	Stud Length	Part Number
Chuck – CD Process		500001363
Chuck – Short Cycle Process	3/4" (1/2" deep)	500001169
Chuck – Short Cycle Process	Larger than 1" (3/4" deep)	500001153
Morse Taper Adapter	--	521001014
Spark Shield (.437 hole)	Less than 3-1/2" long	511001002
Spark Shield (.250 hole)	3-1/2" long and over	511001001



TPC Pin

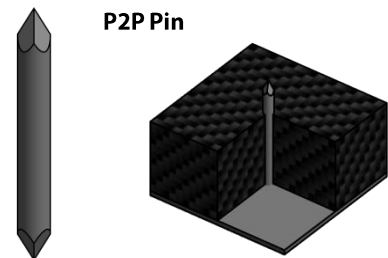
Accessories for Welding TPC 10 ga. Insulation Pins

Part Description	Stud Length	Part Number
Chuck – CD Process		500001356
Chuck – Short Cycle Process	Larger than 1" (3/4" deep)	500001149
Morse Taper Adapter	--	521001014
Spark Shield* (.437 hole)	Less than 3-1/2" long	511001002
Spark Shield* (.250 hole)	3-1/2" long and over	511001004

\* Use foot #502001002 for NS-20 gun, and #502001138 for NS-30 and NS-40 guns.

Accessories for Welding P2P 10 ga. Insulation Pins

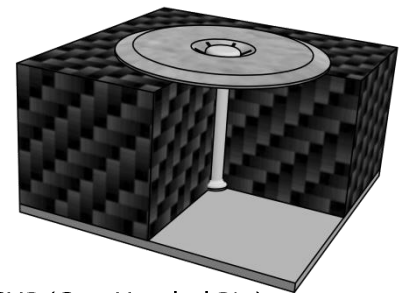
Part Description	Stud Length	Part Number
Chuck	Larger than 1" (3/4" deep)	500001149
Morse Taper Adapter	--	521001014
Ferrule Grip	--	501001003
Foot Small		502001137 / 502001001



P2P Pin

Accessories for Welding CHP 10 ga. or 12 ga. Insulation Pins

Part Description	Stud Length	Part Number
Chuck – Magnetic Type	10 or 12 ga.	500015093
Chuck – Grip Type	12 ga., 1-3/-16" diameter	500015094
Chuck – Grip Type	10 ga., 1-1/2" diameter	500015095
Morse Taper Adapter	--	521001023
Foot – Standard; NS-20*	--	503011030
Foot – Standard; NS-30 and NS-40*	--	503011050
Foot – Swivel; NS-20, NS-30, and NS-40*	--	503011040



CHP (Cup-Headed Pin)

\* Supplied with stop screws for welding pins up to 1-1/2" long. Optional stop screw, #503011033, for pins 1-1/2—4" long is available.





## Nelson® Stud Welding

7900 W. Ridge Rd. • Elyria, OH 44035 USA • PH: +1 (440)-329-0400 • Fax: +1-(440) 329-0526 • [www.NelsonStud.com](http://www.NelsonStud.com)  
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