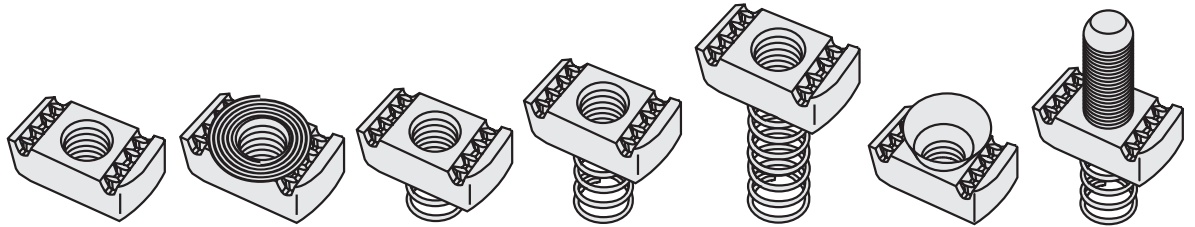




# STRUT CHANNEL NUTS DEFINITIONS/COMPARISONS/APPLICATIONS



What is a channel nut? Strut 'Channel Nuts' are rectangular, self-locking nut fasteners designed for use in metal framing strut channel applications & systems. These unique fasteners have the following important features that facilitate simple and secure strut system assembly with multiple connective fittings and devices.

## COMMON FEATURES TO ALL CHANNEL NUT STYLES

Stamped, rectangular design with opposite radius corners promoting easy maneuvering into 1 5/8" strut

Tapped hole for securing bolts and ATR

Case-hardened for superior strength and holding power

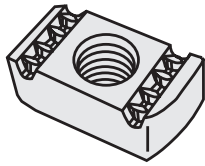
Electro-galvanized for corrosion resistance (variations also available in HDG or stainless steel)

Serrated grooves on case-hardened nut press into channel lips when torqued/tightened for a secure fit which inhibits shear movement, slipping and loosening due to vibration and dynamic loads

## CHANNEL NUT CATEGORIES

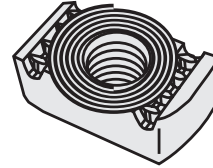
- > **CHANNEL NUTS WITHOUT SPRINGS;**  
AKA – NO SPRING NUTS, PLAIN NUTS, BASIC NUTS
- > **CHANNEL NUTS WITH SPRINGS;**  
AKA – SPRING NUTS, REGULAR SPRING, LONG SPRING, SHORT SPRING, BOTTOM SPRING, BOTTOM POSITIONING, STUDDED SPRING
- > **CHANNEL NUTS WITH TOP POSITIONING SPRING;** AKA – TOP SPRING NUTS
- > **CHANNEL NUTS WITH TOP POSITIONING NYLON OR PLASTIC;** AKA – E-Z NUTS, NYLON CAP, CONE NUTS, TWIRL NUTS

## STRUT CHANNEL NUTS MOST COMMON STYLE/TYPES



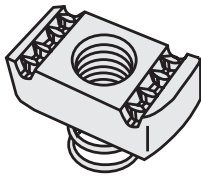
### NO SPRING NUT

The **NO SPRING NUT** is a base design in which the installer does not prefer or require a spring stabilizer. One drawback – depending upon application, it is typically considered more cumbersome or time-consuming to install (particularly on a ladder or overhead), as the installer must manually stabilize the nut with a free hand while tightening with the opposite hand. Least expensive channel nut option.



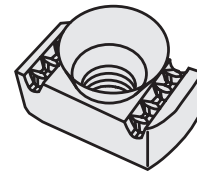
### TOP SPRING NUT

The **TOP SPRING NUT** has the same base design as the **SPRING NUT**, except that the mechanically fastened spring (positioning device) is on the top of the nut. This innovation allows the installer to hold position for fastening via the open side of the channel, thereby eliminating the problem of springs slipping through the perforations. Only drawback is slightly higher cost than conventional spring nuts.



### SPRING NUT

The **SPRING NUT** has the same base design as the **NO SPRING NUT**, but with the added feature of a mechanically fastened spring on the bottom of the nut. Springs are available in various lengths, depending upon the channel profile depth. The spring functions as a temporary stabilizer during installation, which holds the nut in place with pressure until torqued and secured. Once tightened, the spring no longer serves any functionality. Spring nuts are particularly convenient to installers as it frees up a hand, promoting quicker installation. One notable drawback – as most strut channel uses are perforated/slotted, the positioning spring is highly susceptible to slipping through the slot which inhibits efficient installation. (Also available 'pre-studded')



### E-Z NUT

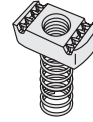
The **E-Z NUT** is also commercially referred to as 'cone', 'nylon', 'plastic cap', 'conical', etc. Same base design as above, except that the mechanically fastened spring is replaced with a vinyl or plastic conical design. This innovation also allows the installer to hold position for fastening via the open channel side and eliminate the same problem. Top Spring and E-Z function similarly and come down to installer preference. Drawbacks include higher cost than Top Spring. Also, some installers have noted in extreme hot or cold conditions, the vinyl can react too soft or brittle.

## G-STRUT® CHANNEL NUT LOAD VALUES

	CHANNEL NUT SIZE & PITCH	NUT THICKNESS	CHANNEL GAUGE	PULLOUT STRENGTH (LBS)	RESISTANCE TO SLIP (LBS)	TORQUE (FT-LBS)
G-STRUT® CHANNEL NUT LOAD VALUES	1/4" - 20	1/4"	12	450	300	6
	5/16" - 18	1/4"	12	750	450	11
	3/8" - 16	3/8"	12	1,100	800	19
	7/16" - 14	3/8"	12	1,500	1,000	35
	1/2" - 13	3/8"	12	1,500	1,500	50
	1/2" - 13	1/2"	12	2,000	1,500	50
	5/8" - 11	7/16"	12	1,500	1,500	100
	3/4" - 10	7/16"	12	1,500	1,500	125
	1/4" - 20	1/4"	14	450	300	6
	5/16" - 18	1/4"	14	750	450	11
	3/8" - 16	3/8"	14	1,000	600	19
	7/16" - 14	3/8"	14	1,200	800	35
	1/2" - 13	3/8"	14	1,500	1,000	50
	1/2" - 13	1/2"	14	2,000	1,000	50
	5/8" - 11	7/16"	14	1,400	1,000	100
	5/8" - 11	1/2"	14	1,400	1,000	100
	3/4" - 10	7/16"	14	1,400	1,000	125
	3/4" - 10	1/2"	14	1,400	1,000	125

*NOTE: Made of steel conforming to ASTM A575, Grade M1015, 3/8" or thicker  
Produced in standard electro-galvanized finish. Also available in stainless steel, painted, & hot-dip galvanized.*

## REGULAR CHANNEL NUTS



	THREAD SIZE	THICKNESS	NO SPRING ALL CHANNEL 100 PCS/CTN	TOP SPRING ALL CHANNEL 100 PCS/CTN	SHORT SPRING 13/16 CHANNEL 100 PCS/CTN	REGULAR SPRING 1 5/8 CHANNEL 100 PCS/CTN	LONG SPRING 3 1/4 CHANNEL 50 PCS/CTN
REGULAR CHANNEL NUTS	8 - 32	1/4"	GN832800 6.1 LBS/100 PCS	GTSN832800 6.4 LBS/100 PCS	GN832810 6.4 LBS/100 PCS	GN832820 6.7 LBS/100 PCS	GN832830 7 LBS/100 PCS
	10 - 32	1/4"	GN1032800 5.9 LBS/100 PCS	GTSN1032800 6.2 LBS/100 PCS	GN1032810 6.2 LBS/100 PCS	GN1032820 6.5 LBS/100 PCS	GN1032830 6.8 LBS/100 PCS
	10 - 24	1/4"	GN1024800 5.9 LBS/100 PCS	GTSN1024800 6.2 LBS/100 PCS	GN1024810 6.2 LBS/100 PCS	GN1024820 6.5 LBS/100 PCS	GN1024830 6.8 LBS/100 PCS
	1/4 - 20	1/4"	GN800 6 LBS/100 PCS	GTSN800 6 LBS/100 PCS	GN810 7 LBS/100 PCS	GN820 7 LBS/100 PCS	GN830 7 LBS/100 PCS
	3/8 - 16	3/8"	GN801 9 LBS/100 PCS	GTSN801 9 LBS/100 PCS	GN811 9 LBS/100 PCS	GN821 10 LBS/100 PCS	GN831 10 LBS/100 PCS
	1/2 - 13	3/8"	GN802 9 LBS/100 PCS	GTSN802 9 LBS/100 PCS	GN812 9 LBS/100 PCS	GN822 10 LBS/100 PCS	GN832 10 LBS/100 PCS
	1/2 - 13	1/2"	GN803 12 LBS/100 PCS	-	-	GN823 13 LBS/100 PCS	GN833 13 LBS/100 PCS
	5/8 - 11	7/16"	GN804 13 LBS/100 PCS	-	-	GN824 13 LBS/100 PCS	GN834 13 LBS/100 PCS
	3/4 - 10	7/16"	GN805 13 LBS/100 PCS	-	-	GN825 13 LBS/100 PCS	GN835 13 LBS/100 PCS
	5/8 - 11	3/8"	GN806 13 LBS/100 PCS	-	GN814 10 LBS/100 PCS	-	-
	3/4 - 10	3/8"	GN807 13 LBS/100 PCS	-	GN815 9 LBS/100 PCS	-	-
	5/16 - 18	3/8"	GN808 7 LBS/100 PCS	GTSN802 7 LBS/100 PCS	GN818 7 LBS/100 PCS	GN828 7 LBS/100 PCS	GN838 7 LBS/100 PCS
	7/8 - 9	7/16"	GN809 13 LBS/100 PCS	-	-	GN829 13 LBS/100 PCS	-
	M6 - 1	1/4"	GNM6800 6.6 LBS/100 PCS	-	GNM6810 5.5 LBS/100 PCS	GNM6820 5.8 LBS/100 PCS	GNM6830 6.1 LBS/100 PCS
	M8 - 1.25	1/4"	GNM8800 5.5 LBS/100 PCS	-	GNM8810 5.8 LBS/100 PCS	GNM8820 5.8 LBS/100 PCS	GNM8830 6.1 LBS/100 PCS
	M10 - 1.5	3/8"	GNM10801 7.8 LBS/100 PCS	-	GNM10811 8.1 LBS/100 PCS	GNM10821 8.4 LBS/100 PCS	GNM10831 8.7 LBS/100 PCS
	M12 - 1.75	3/8"	GNM12801 7.4 LBS/100 PCS	-	GNM12811 7.7 LBS/100 PCS	GNM12821 8 LBS/100 PCS	GNM12831 8.3 LBS/100 PCS
	M12 - 1.75	1/2"	GNM12803 9.5 LBS/100 PCS	-	-	GNM12823 10 LBS/100 PCS	-

*NOTE: All parts are electro-galvanized. For other finishes, please specify finish type by adding the following suffix to the part number: STAINLESS STEEL=SS, HOT DIP GALVANIZED=HDG.*

*Example: When ordering 3/8 - 16 thread, 3/8" thickness, Regular Spring, Hot Dip Galvanized Spring Nut, the part number would be: GN821HDG.*

**i** G-STRUT® channel nuts are case hardened and made from steel conforming to ASTM A575, Grade M1015 3/8" or thicker