

# Trailer Master™ Ballistic NailScrews® Wood to 50 Ksi (ASTM A992) Steel 12 – 16 Gauge



One of the main issues in building trailer floors is installation time. Imagine your largest customer just asked you to double your production. How would you accomplish it knowing that the bottleneck in most trailer manufacturing is installing the flooring? 28 screws installed manually (256 Sec. = 4.27 min.) or using collated screws (112 Sec. = 1.87 min.) into steel are very time consuming, leaving you with a large labor cost for installation. We have the solution to increase your production time by installing 28 BNS pneumatically in less than one minute (50 Sec.). [See the time study videos and cost calculator.](#) You can insert your real cost in any of the yellow values to receive an accurate savings analysis based your cost. Our Trailer Master™ Ballistic NailScrews® are specially made to be pneumatically driven while still providing superior holding power. [See the installation video.](#)

The first thing you need to do is determine the length of the fastener you need. To do this, you need to answer these two questions:

## 1. HOW THICK IS THE WOOD MATERIAL I AM SHOOTING THROUGH?

- 5/4 Lumber (which usually ranges from 1" to 1 1/8" thick): **We recommend 1 1/4" or 1 1/2" plastic sheet coil with a .250" head (32 mm). The longest we would recommend is 1 3/4" wire coil if a larger head of .275" (44 mm) is needed. The larger head will increase the pull-through.**
- 2-Bys: **We recommend 1 3/4" (32 mm) or 2" (50 mm) length NailScrew®. The longest we would recommend is 2 1/4" (57 mm).**

## 2. WHAT GAUGE OR HOW THICK IS THE METAL SUBSTRATE TO WHICH I AM ATTACHING?

Steel Thickness		
Gauge	In Inches	In mm
12	0.1094	2.780
13	0.0938	2.380
14	0.0781	1.980
15	0.0703	1.790
16	0.0625	1.590

1 1/2" & 2" are the most popular lengths. Keep in mind that with steel, it is best to use the shortest possible length BNS. You only want three to seven threads to pass through the metal substrate. For example: Using 5/4 lumber in 16 ga steel, you would calculate  $1.125 + .0625 = 1.1875$ . The best length NailScrew® would be 1 1/4" (1.25").

**Engineering/Technical Note: Make sure all welded metal seams on the square steel tubes are facing downward. NailScrews® will not penetrate welded metal seams.**

**3. IS THE WOOD A TREATED LUMBER (ACQ OR OTHER TREATMENT METHODS)?**

- For Treated Lumber use:
  - **PPG1500™** coated NailScrews® (strip or plastic sheet coil)
  - **PT2000®** coated NailScrews® (wire coil only)
- For SYP (Southern Yellow Pine Standard Construction Grade) or other untreated wood use:
  - Yellow Zinc coated NailScrews® (strip, plastic sheet coil, and wire coil)

Our **PT2000®** and **PPG1500™** have a limited lifetime warranty against corrosion. Yellow Zinc is not recommended for exterior applications.

When installed correctly, expect .113" BNS pull-out to be 500-600 lbs. based on our third-party test data in 12 and 16 ga.

**Available Fasteners:**

Part Number	Size	Coating	Recommended For:
<b>5/4 Lumber</b>			
HSNS114113YZSP	1¼" Sheet Coil	Yellow Zinc	Interior/Weatherproof Areas Untreated Lumber
HSNS112113YZSP	1½" Sheet Coil	Yellow Zinc	Interior/Weatherproof Areas Untreated Lumber
HSNS112113PHG	1½" Sheet Coil	PPG1500™	Exterior/Weather Exposed Areas Treated Lumber
PTWCNS134113SQ	1¾" Wire Coil	PT2000®	Exterior/Weather Exposed Areas Treated Lumber
WCNS134113YZSP	1¾" Wire Coil	Yellow Zinc	Interior/Weatherproof Areas Untreated Lumber
<b>2-Bys</b>			
PTWCNS134113SQ	1¾" Wire Coil	PT2000®	Exterior/Weather Exposed Areas Treated Lumber
WCNS134113YZSP	1¾" Wire Coil	Yellow Zinc	Interior/Weatherproof Areas Untreated Lumber
PTWCNS200113SP	2" Wire Coil	PT2000®	Exterior/Weather Exposed Areas Treated Lumber
PTWC200113TTM	2" Wire Coil	PT2000®	Exterior/Weather Exposed Areas Treated Lumber
WCNS200113YZSP	2" Wire Coil	Yellow Zinc	Interior/Weatherproof Areas Untreated Lumber
WCNS214113YZSP	2¼" Wire Coil	Yellow Zinc	Interior/Weatherproof Areas Untreated Lumber
★Plastic Strip Collations are also available			