

**RESCINDED BY BUILDINGS
BULLETIN 2023-021**

THE CITY OF NEW YORK
DEPARTMENT OF BUILDINGS

DEPARTMENTAL MEMORANDUM

DATE: June 7, 1982

TO: Borough Superintendents
FROM: Irving E. Minkin, P.E., Deputy Commissioner
SUBJECT: Pneumatically Driven Roof Staples

Table 10-4 of the Building Code specifies a nailing schedule for fastening structural lumber components to each other. Included therein are provisions relating to staples; however, the foregoing did not include specifications for fastening non-structural components of building elements, such as roof shingles or the like.

The enclosed specifications for installation of pneumatically driven roof staples has been reviewed, and found to be acceptable for use in construction in this city, provided that all of the requirements set forth in the enclosures are strictly adhered to.


Irving E. Minkin, P.E.
Deputy Commissioner

IEM:rmr

cc: Commissioner I. Fruchtmann, P.E.
Ass't. Commissioner, C.F. Dennis, P.E.
Professional Societies
B.I.A.C.

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BUILDING ELEMENT	NAIL TYPE	NUMBER AND DISTRIBUTION	LEG LENGTH
Asphalt Composition Roof Shingles	16 gauge galvanized staples, 3/4" crown minimum, manufactured from steel wire which is zinc coated by hot-dip galvanized zinc, mechanically deposited zinc or electro-deposited zinc.	A minimum of 4 staples per each 36" section of shingle.	Staple leg length should be long enough to penetrate the opposite side of the sheathing 1/8" or to penetrate the sheathing 3/4"
Asphalt Composition Ridge, Hip, Caps	16 gauge galvanized staples, 3/4" crown minimum, manufactured from steel wire which is zinc coated by hot-dip galvanized zinc, mechanically deposited zinc or electro-deposited zinc.	A minimum of 4 staples per each 36" section of shingle.	Staple leg length should be long enough to penetrate the opposite side of the sheathing 1/8" or to penetrate the sheathing 3/4".

- NOTES:**
1. Staples should be driven with pneumatic staplers which are specifically designed and manufactured for roofing applications.
 2. Staples should be spaced based on the nailing locations as outlined on the roofing manufacturer's packages.

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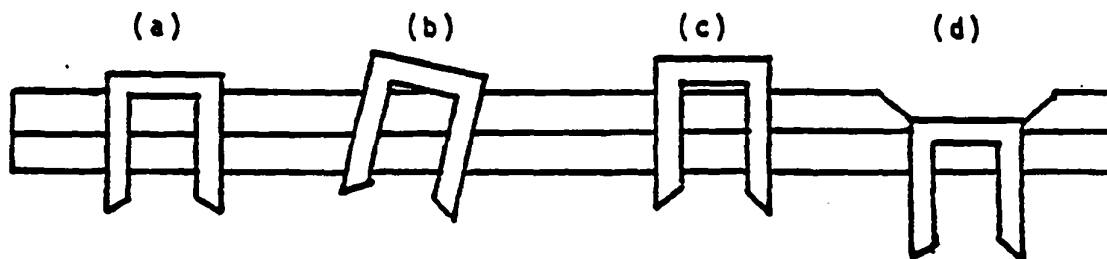
SUMMARY OF PROPER INSTALLATION PRACTICES FOR ROOF STAPLES

1. STAPLE AND STAPLER SELECTION

For new roof construction only, the staples should be zinc coated, 16 gauge, semi-flattened to an elliptical cross section, and long enough to penetrate 3/4" into the wood deck or through it 1/8" if the deck is thinner. The staples should be driven with pneumatic stapler specially designed and manufactured for roofing applications.

2. STAPLE INSTALLATION

To properly secure the shingles and obtain a smooth roof, make sure the tool is always perpendicular to the surface of the shingle. The staple crown must bear tightly against the shingles, but must not cut the shingle surface.



- a. Properly Driven
- b. Improperly Driven (tool not perpendicular to surface)
- c. Under Driven
- d. Over Driven

3. ADJUSTING AIR PRESSURE

Start by adjusting the air pressure regulator to show a pressure on the pressure indicator of 90 pounds per square inch (PSI) in the line to the tool (the pneumatic outfit must contain an air pressure indicator/regulator). Using the starter course as a test area, drive staples and adjust the air pressure so the staple crown is driven flush with the shingle surface. Any depressing or tearing of the shingle surface requires reducing the air pressure until the staple is driven flush with the surface. If any light can be seen between the staple and the shingle surface, or your fingernail, or a strip of paper torn from the wrapper can be inserted under a driven staple, the air pressure must be increased until the staple is driven flush with the surface.

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Because of the hardness variances in roof decking, periodically check how deep the staples are being driven. Adjust air pressure as required to drive staple flush with shingle surface (as indicated in above).

4. APPLICATION OF SHINGLES

The application instructions printed on the packages of shingles must be followed as they apply to deck preparation, underlayment, shingle layout, valley, flashing and hips or ridges as they are required for new construction. To insure proper securing of each unit of 36" strip-type asphalt shingles a minimum of four (4) staples is required.

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As a building professional, you are responsible for the safety and integrity of every project. Using air-powered staplers is a proven way to ensure fast, safe, and accurate fastening.

The Big Bonus® ...

... a bonus when you use air-powered staplers. They are actually 17% faster than hand staplers. In fact, they are 17% faster than hand staplers. In fact, they are 17% faster than hand staplers. In fact, they are 17% faster than hand staplers.

The Big Bonus® ... a bonus when you use air-powered staplers. They are actually 17% faster than hand staplers. In fact, they are 17% faster than hand staplers. In fact, they are 17% faster than hand staplers.



Pneumatic Stapling ... Extra Benefits

The two main benefits of using pneumatic staplers are speed and accuracy. They are 17% faster than hand staplers and ensure precise placement every time.

When you use the tool properly, the results are even better. You can work faster and with less fatigue, which is a real benefit on any job.

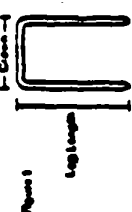
Follow the instructions on this guide and you will find a stapled roof is completed quickly and efficiently.

1 General Instructions

To obtain stated coverage, these directions must be followed.

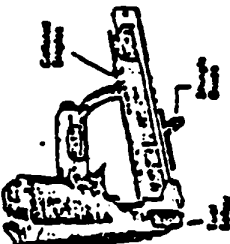
2 Staple and Stapler Selection

For new roof construction only, the staples must be zinc coated, no less than 18 gauge, semi flared to an elongated section, and long enough to penetrate 1/2" into the second deck or through it if the deck is standard width.



The staples must be defined with pneumatic staplers. CertainTeed recommends the use of staples specifically designed and manufactured for roofing applications.

Figure 1
Roofing Stapler



For new construction only, the following chart lists the length of staple required for common roof deck thickness:

Thickness of roof deck	Minimum staple leg length
5"	7"
6"	8"
7"	9"
8"	10"

3 Using Pneumatic Staplers

To properly secure the shingles and sheath to a roof deck, make sure the staples are spaced evenly to the width of the shingle. The staples crown must bear lightly against the shingles, but must not cut into the sheath. If sheath is not properly secured, it will not be properly secured. If sheath is not properly secured, it will not be properly secured.



- 1. Properly Define
- 2. Inspectively Define Good and poor
- 3. Uniformly to surface
- 4. Check Stapler

4 Adjusting Air Pressure

Start by adjusting the air pressure regulator to show a pressure on the pressure indicator of 80 pounds per square inch (PSI) or less. The tool (the pneumatic outlet must contain an air pressure indicator/regulator). Using the stainer course at a low rate, with a steady and repeat the air pressure on the staple crown is shown such with the shingle surface. Any adjustment of

5 Application of Shingles

The application instructions printed on the packages of Big Bonus shingles must be followed as they apply to each preparation, underlayment, shingle type, valley, flashing and hips or ridges as they are required for new construction. To insure proper nailing of each unit of shingle-type asphalt shingles a minimum of four (4) staples is required. The location of the staples is as follows:

Staples should be set at a line 2 1/2" above bottom edge, that is equal to 1 1/2" from top edge.

Staples should be placed 1 1/2" from each edge.

Staples must be placed parallel to length of the shingle.

Always check that you are using the correct collection mark.



- 1. Staples should be set at a line 2 1/2" above bottom edge, that is equal to 1 1/2" from top edge.
- 2. Staples should be placed 1 1/2" from each edge.
- 3. Staples must be placed parallel to length of the shingle.
- 4. Always check that you are using the correct collection mark.

The adjustable guide is provided to assist in securing correct shingle exposure from rim joist or other edge. The shingle guide is moved across the roof surface until the guide is positioned at the correct exposure. The guide should be set at 1 1/2" from each edge. To properly secure the guide along the lower edge of the shingle, the guide should be fastened to the roof edge of the roof where the lower edge of the next row of shingles should be stapled. (Drawing of stapler uniting shingle guide - Figure 5)

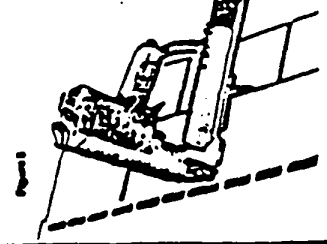


Figure 5
Important Note: The guide is used to the left and as an indicator of its correct location.

An Application Guide to Installing CertainTeed Big Bonus® Shingles with Air-Powered Staplers

New Construction
CertainTeed

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