What Are Specialty Nails Used For?

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Fasteners Nails Specialty Nails/Applications

Nails · Industry standard · Application guide

Typical applications, the industries that specify specialty nails, and how to choose the right size, material and finish for the joint.

Specialty Nails are used for fast fixing in timber and packaging. They are manufactured to Industry standard, and selection is driven by the size designation, the fit and tolerance the assembly requires, and the service environment.

Primary duty

Fast fixing in timber and packaging

Governing standard

Industry standard

Category

Nails

Application notes are general engineering guidance. Verify the property class and any approval requirement against your own design calculation.

The primary duty of Specialty Nails is fast fixing in timber and packaging. Below: the sectors that specify them in volume, the checklist used to select the right size and material for the application, installation notes, and the known limits of the type.

Typical Applications for Specialty Nails

The most common settings where these are specified:

- **General machine building:** fastening covers, brackets, motors and sub-assemblies on production equipment.
- **Maintenance & repair (MRO):** a stocked size for servicing existing plant where the original fastener spec must be matched.
- **Fabrication & metalwork:** bench and on-site assembly of steel frames, enclosures and weldments.
- **Construction & framing:** fixing timber framing, sheathing and battens.
- **Packaging & crating:** closing cases and pallets at speed.

How to Specify Specialty Nails for Your Application

- **Size:** Match the size to the mating part — see the dimension table below for each option.
- **Material:** Choose the material and finish for the service environment — plated steel for general use, stainless for corrosion resistance.
- **Environment:** For damp, coastal or chemical exposure prefer A4/316 stainless or a suitable coating; indoors, plated steel or A2 is usually sufficient.
- **Standard:** This product is supplied to Industry standard. Quoting the standard on your order guarantees interchangeable dimensions between suppliers.

Where Specialty Nails Are Not the Right Choice

Not for joints needing later removal or high withdrawal resistance — a screw holds far better in tension.

Technical Drawing

Customize the parameters below — every spec field is editable, and the drawing redraws to match the values you choose. Changing the size will snap the other fields to that size's standard values; you can then override any individual value.

Sends the selected values to the quote form below.

Request a Quote

The form below follows the current technical drawing configuration. Change the drawing values above and the request details update automatically.

Dimensions & Specifications (Industry standard)

Nail type	Diameter (mm)	Common length range (mm)	Head diameter (mm)	Point form	Application	Reference standard
Round steel nail	1.8	32~65	4.5	Pointed	General woodworking	DIN 1151
Round steel nail	2.5	45~90	6.5	Pointed	General woodworking	DIN 1151
Round steel nail	3.1	60~120	7.5	Pointed	Structural woodworking	DIN 1151
Round steel nail	3.8	80~150	9.5	Pointed	Structural woodworking	DIN 1151
Spiral nail	2.5	45~90	5.5	Pointed	Pallet / crate	Industry standard
Spiral nail	3.1	60~120	7.5	Pointed	Pallet / crate	Industry standard
Ring-shank nail	2.5	45~75	6.5	Pointed	Pull-out resistant	DIN 1052
Ring-shank nail	3.1	60~100	7.5	Pointed	Pull-out resistant	DIN 1052
Concrete steel nail	2.5	20~50	5.5	Hardened taper	Concrete / masonry	Industry standard
Concrete steel nail	3.0	30~60	6.5	Hardened taper	Concrete / masonry	Industry standard
Pneumatic nail	1.6	15~50	3.0	D-head	For nail gun	Industry standard
Pneumatic nail	2.0	25~65	3.5	D-head	For nail gun	Industry standard
Staple	1.4	10~20	-	Double-pointed	Cable / hose fixing	Industry standard
Staple	1.8	14~25	-	Double-pointed	Cable / hose fixing	Industry standard

Nail type	Diameter (mm)	Common length range (mm)	Head diameter (mm)	Point form	Application	Reference standard
Staple	2.0	16~32	-	Double-pointed	Cable / hose fixing	Industry standard

Video: What Are Specialty Nails Used For? in use

► Watch video: https://www.youtube.com/watch?v=o91PHmh6AEk

Third-party video, selected automatically for this topic. It is not produced by Engineering Hardware and is not a specification source — use the tables on this page for dimensional data.

Inside the plant

Manufactured in our own plant

This part is cold-formed, threaded, heat-treated and finished in-house. The stages below are where its class and finish are actually decided.

1. 

01

Cold heading

Wire rod is drawn to size and cold-formed into blanks. Forming rather than cutting keeps the grain flow continuous around the head, which is where a bolt is most likely to fail.

Head dimensions and under-head radius checked at set-up and per shift.

2. 

02

Thread rolling

Threads are rolled between hardened dies rather than cut. Rolled threads are stronger in fatigue than cut threads and hold pitch and flank angle far more consistently across a batch.

Go / no-go ring gauges to ISO 965 tolerance class 6g.

3. 

03

Heat treatment

Quench-and-temper brings carbon and alloy steel to the property class ordered — 8.8, 10.9 or 12.9 — with the furnace charge tracked so a finished lot can be traced back to it.

Core hardness and tensile tested per lot to ISO 898-1.

4. 

04

Surface treatment

Zinc, zinc-nickel, hot-dip galvanizing, black oxide, phosphate and Dacromet, selected against the service environment rather than against the price list.

Coating thickness and neutral salt spray hours to ISO 9227.

Frequently Asked Questions

How do I choose the right size of Specialty Nails?
Match the size to the mating part using the dimension table on this page.

Do Specialty Nails hold as well as screws?
Nails resist shear well and drive fast, but screws hold far better in withdrawal (tension). Use screws where the joint is loaded in pull-out or may need removal.

Are Specialty Nails made to a recognized standard?
Yes — they are manufactured to Industry standard, so dimensions are interchangeable between suppliers when you quote the standard on your order.

What are Specialty Nails used for?

Fast fixing in timber and packaging. They are supplied to Industry standard.

Can I get a quote for Specialty Nails in the size and material I need?
Yes. Use the technical drawing and quote form on this page to set the size and options, then send the exact configuration to our team for pricing and lead time.

Related Pages

Product page: Specialty Nails — specifications & sizes

Specialty Nails Specification Guides

- A4 stainless Specialty Nails

Related Fastener Applications

- Wire Nails applications