What Are Round Head Solid Rivet Used For?

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Round Head Solid Rivets are used for permanent, vibration-proof joints in sheet and plate. They are manufactured to GB/T 867 / DIN 660, and selection is driven by the nominal diameter, the fit and tolerance the assembly requires, and the service environment.

Primary duty
: Permanent, vibration-proof joints in sheet and plate

Governing standard
: GB/T 867 / DIN 660

Nominal diameter range
: 2.5 mm to 12 mm

Category
: Rivets

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

Round Head Solid Rivets are selected when an assembly calls for permanent, vibration-proof joints in sheet and plate. This application guide to the GB/T 867 / DIN 660 type covers concrete end-uses, the specification checklist, correct installation, and where an alternative fastener performs better. Stocked across roughly 2.5 mm to 12 mm, they cover general to heavy-duty work.

Typical Applications for Round Head Solid Rivet — GB/T 867 / DIN 660 (Series 097)

The most common settings where these are specified:

- **Bodywork & trailers:** blind joints where only one side is accessible.
- **Signage & cladding:** fast, vibration-resistant fixing of thin panels.
- **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.

How to Specify Round Head Solid Rivet — GB/T 867 / DIN 660 (Series 097) for Your Application

- **Size:** Select on nominal diameter, then on the hole tolerance and fit class — the fit, not the diameter alone, determines whether the part locates or slips. This product spans 2.5 mm–12 mm; check the full table below for the exact dimensions of each size.
- **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 GB/T 867 / DIN 660. Quoting the standard on your order guarantees interchangeable dimensions between suppliers.

Installation & Assembly Practice

- Drill the hole 0.1 mm over the nominal rivet diameter and deburr both sides before setting.
- Grip range must match the total joint thickness — a rivet set outside its grip range clamps poorly and works loose.

Common Selection Mistakes with Round Head Solid Rivet — GB/T 867 / DIN 660 (Series 097)

- Setting a rivet outside its grip range, which leaves the joint loose from day one.
- Using aluminum rivets on steel sheet outdoors — galvanic corrosion eats the rivet.

Where Round Head Solid Rivet — GB/T 867 / DIN 660 (Series 097) Are Not the Right Choice

Not where the joint must later be disassembled, and not for high-tension structural connections.

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 (GB/T 867 / DIN 660)

Nominal diameter (mm)	Length L (mm)	Head diameter dk (mm)	Head height k (mm)	Material	Reference standard
2.5	8	5	1.6	Aluminum	GB/T 867 / DIN 660
3	10	6	1.9	Aluminum	GB/T 867 / DIN 660
4	16	8	2.5	Carbon steel	GB/T 867 / DIN 660
5	20	10	3.1	Carbon steel	GB/T 867 / DIN 660
6	25	12	3.8	Carbon steel	GB/T 867 / DIN 660
8	32	16	5.0	Carbon steel	GB/T 867 / DIN 660
10	40	20	6.3	Carbon steel	GB/T 867 / DIN 660
12	50	24	7.5	Carbon steel	GB/T 867 / DIN 660

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

What material should Round Head Solid Rivet — GB/T 867 / DIN 660 (Series 097) be for outdoor use?
For damp, coastal or chemical environments specify A4 (316) stainless or a suitably coated steel. For indoor or dry use, A2 (304) stainless or zinc-plated steel is normally adequate.

Are Round Head Solid Rivet — GB/T 867 / DIN 660 (Series 097) made to a recognized standard?
Yes — they are manufactured to GB/T 867 / DIN 660, so dimensions are interchangeable between suppliers when you quote the standard on your order.

What are Round Head Solid Rivet — GB/T 867 / DIN 660 (Series 097) used for?
Permanent, vibration-proof joints in sheet and plate. They are supplied to GB/T 867 / DIN 660.

Which industries use Round Head Solid Rivet — GB/T 867 / DIN 660 (Series 097)?

They are commonly specified in fabrication & metalwork, sheet-metal assembly and bodywork & trailers, among other sectors.

Can I get a quote for Round Head Solid Rivet — GB/T 867 / DIN 660 (Series 097) 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: Round Head Solid Rivet — GB/T 867 / DIN 660 (Series 097) — specifications & sizes

Round Head Solid Rivet — GB/T 867 / DIN 660 (Series 097) Specification Guides

- A4 stainless Round Head Solid Rivet — GB/T 867 / DIN 660 (Series 097)

Related Fastener Applications

- Blind (Pop) Rivets applications
- Blind Pop Rivet — GB/T 12618 / ISO 15983 (Series 098) applications
- Solid Rivets applications