



## Diamond Head Nails

*Diamond Head Nails are the most cost-effective fastener choice for steel construction.*

By Mike Theriault

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A Diamond Head Nail is made of super strong 1060 hardened steel and consists of a standard nail head with a diamond-shaped emblem engraved into it. Compared to the alternative (screws) Diamond Head Nails are much more efficient and economical and just as reliable for a range of construction materials—particularly steel.

### Description

The nail-shaped fasteners with a flat head are manufactured from steel wire complying with ASTM A 510, Grade 1060 (UNS 1600) and are heat-treated to provide case and core hardness of 52-55 HRC. The nails have either electrodeposited zinc coatings with a chromate finish or mechanically deposited zinc coatings complying respectively with ASTM B633 Type II, SC 1 or ASTM B695 Type 1 Class 12. The hardened nails have a ballistic point with a nominal 0.10-inch (2.69mm) or 0.145-inch (3.66mm) diameter knurled or smooth shank, a nominal 0.245-inch (6.2 mm) diameter head and a minimum length of 3/4 inch. They are available in 15 degree wire collated and 21 degree plastic collated strips, and 0 degree plastic coil sheets.

### Features and Benefits of Diamond Head Nails

- When compared to screws, Diamond Head Nails install at least 50% faster.
- Diamond Head Nails are manufactured out of 1060 hardened steel and are excellent for attaching steel-to-steel, wood-to-steel, and wood-to-cement. Mainstream nails are made with 1020-1030 steel and are limited to fastening wood-to-wood.
- Diamond Head Nails are appropriate for commercial construction, while regular nails are best for wood-framed residential construction.
- Using Diamond Head Nails, contractors and inspectors can trace the nails; they know the Diamond Head design, the manufacturer, and the necessary testing to win ICC approval.

### Diamond Head Nails and Steel Construction

With the innovation of light gauge steel, new fasteners were required. The introduction of the Diamond Head Nail now allows builders to fasten OSB board, plywood, gypsum board, metal and other sidings to light gauge steel in a fraction of the time and at a fraction of the cost (screw guns vs. nail guns). Regular nails will not penetrate or hold in steel.

Thanks to the efforts of industrial groups such as The National Association of Home Builders, The American Iron and Steel Institute and the Light Gauge Steel Engineers Association the perception of light gauge steel framing of homes and high rise buildings, has rapidly evolved from that of an experimental building practice to one that offers many benefits over wood framing. Light gauge steel in conjunction with Diamond Head Nails:

- Is stronger
- Results in straighter, truer walls
- Is termite proof
- Is noncombustible
- Will never rot.

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### Builder Benefits

- Precision – steel is precisely manufactured; it's straight with square corners.
- Greater Design Range For all Materials---steel has the highest strength-to- weight ratio, creates a stronger, lighter-weight frame, accommodates greater spans, and allows for larger open spaces within a building.
- Long Term Price Stability – compared to lumber, the price of steel is much more stable.
- Less Waste - steel studs can be cut to exact lengths with almost no waste.
- Dimensionally Stable – there is no shrinkage, no rotting, and no warping.
- No Possibility of Insect or Mold Damage – steel is naturally termite, carpenter ant, and mold proof.
- Better Protection in Natural Disasters---steel withstands hurricanes and earthquakes better.
- Less Warranty Work – there are no nail pops or drywall cracks.

### Building Owner Benefits

- Environmentally Superior – steel is non-toxic and allergy-free, with no waste, and higher recycling potential.
- Highly Durable Over the Long Haul – there are no jammed doors and windows, no out-of-plumb walls or sagging roof lines.
- Fire Safety – steel does not burn.
- Lower Insurance Premiums – because steel is fire retardant and more durable in hurricanes and earthquakes, insurance premiums are lower.

The other alternative for steel construction is screws. Using screws is very time consuming; the installation of nails is at least 50% faster. Screws are put in place one at a time with screw guns. Nails are installed with gas or air tools. Savings in worker hours is a major benefit. A recent school project saved the contractor about \$9,000 in labor alone. While Diamond Head Nails are cost competitive with alternative fasteners, the major savings is in how they are installed.

B2B Industrial Packaging's Herb Burrows is the developer of the highly innovative fastener. After receiving International Code Council (ICC) code approval, Herb received the required approval from the State of California. Herb is the only person who has three ICC Code approved nails (numbers ESR2961, ESR2962, and ER3091). Herb granted B2B Industrial Packaging permission to sell these nails and use the ICC Code approval.

Contact your B2B Industrial Packaging sales representative for additional information.

### B2B Industrial Packaging LLC

B2B Industrial Packaging is the source for Diamond Head Nails. B2B Industrial offers the best fastener and packaging products, service, and solutions for businesses ranging from Fortune 500 companies to small growing enterprises. With a base of more than 2,000 active clients, we sell fasteners and industrial packaging products, such as such as banding carts, strapping carts, steel strapping, polyester banding, polypropylene banding, steel banding seals, and stretch film.. B2B Industrial serves clients primarily in the Central Great Lakes, Northern California, Southern California, Dallas, and Houston areas and operates a banding tool repair and strapping tool repair facility at its Addison, Illinois headquarters. To contact B2B Industrial Packaging, call 1-800-413-2463 or visit [www.B2BInd.com](http://www.B2BInd.com).