



## DUCTILE IRON CASTING FORMWORK TIE NUT / WING NUT

FOR CONCRETE FORMWORK TIE SYSTEMS | 2026

Reusable ductile-iron formwork nut with an integral load-bearing flange and two wings for practical tightening and removal.

### DUCTILE CAST IRON

QT450-10, GGG40, GGG50 or specified grade.

### COMMON SYSTEM

15/17 mm or DW15 formwork tie rod thread.

### SURFACE OPTIONS

Black, zinc-plated, hot-dip galvanized or painted.

**SHIJIAZHUANG EVERSTAR HARDWARE MACHINERY CO., LTD.**

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# EVERSTAR AT A GLANCE

Factory-direct wire, fencing and construction-hardware supply



EVERSTAR MANUFACTURING SITE | WUJI, SHIJIAZHUANG, HEBEI, CHINA

Founded in 1999, Shijiazhuang Everstar Hardware Machinery Co., Ltd. manufactures wire, fencing and construction-hardware products for international buyers. The company operates a 58,000 m<sup>2</sup> facility with 45 production lines and 210 experienced employees.

|                     |                                       |                        |                  |
|---------------------|---------------------------------------|------------------------|------------------|
| ESTABLISHED<br>1999 | FACTORY AREA<br>58,000 m <sup>2</sup> | PRODUCTION LINES<br>45 | EMPLOYEES<br>210 |
|---------------------|---------------------------------------|------------------------|------------------|

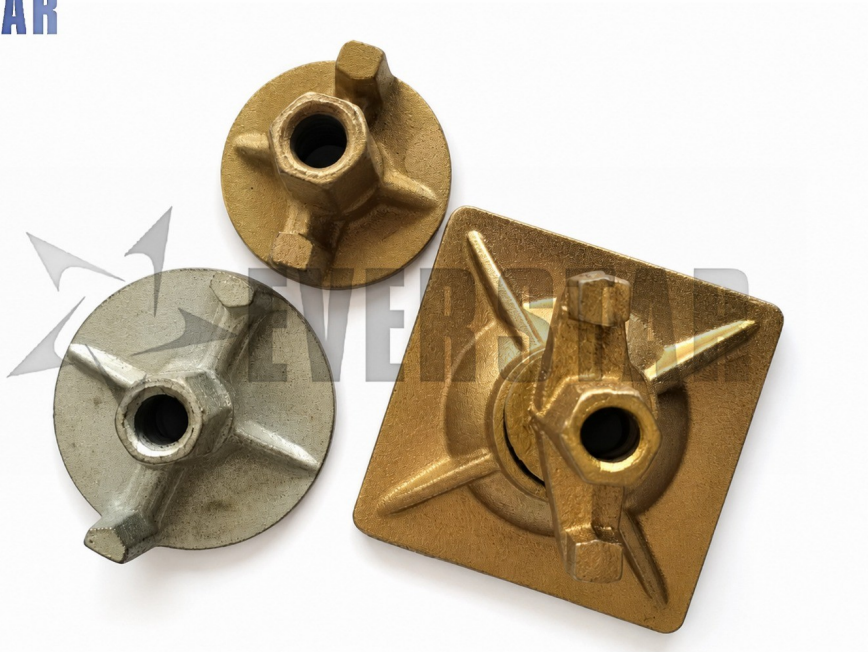
## Buyer Support

|                                                                                        |                                                                                             |
|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>01 DRAWING REVIEW</b><br>Thread, flange, wing shape, weight and mating-part review. | <b>02 QUALITY CONTROL</b><br>Material, casting, dimensions, thread, surface and packing.    |
| <b>03 OEM SERVICE</b><br>Custom grades, sizes, labels, cases and pallet marks.         | <b>04 EXPORT SUPPORT</b><br>Protected packing, commercial documents and inspection support. |

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# PRODUCT OVERVIEW

Ductile-iron load-bearing nut for reusable concrete formwork tie systems



The EVERSTAR Ductile Iron Casting Formwork Tie Nut, also called a Formwork Wing Nut, is used with a threaded tie rod in concrete wall and column formwork. It is tightened on the outside of the formwork to clamp panels and walers while concrete is being poured. An integral flange distributes force to the waler, washer plate or other approved bearing surface. Two wings support practical tightening and removal. Thread size, flange diameter, unit weight, ductile-iron grade, surface treatment and packing can be customized.

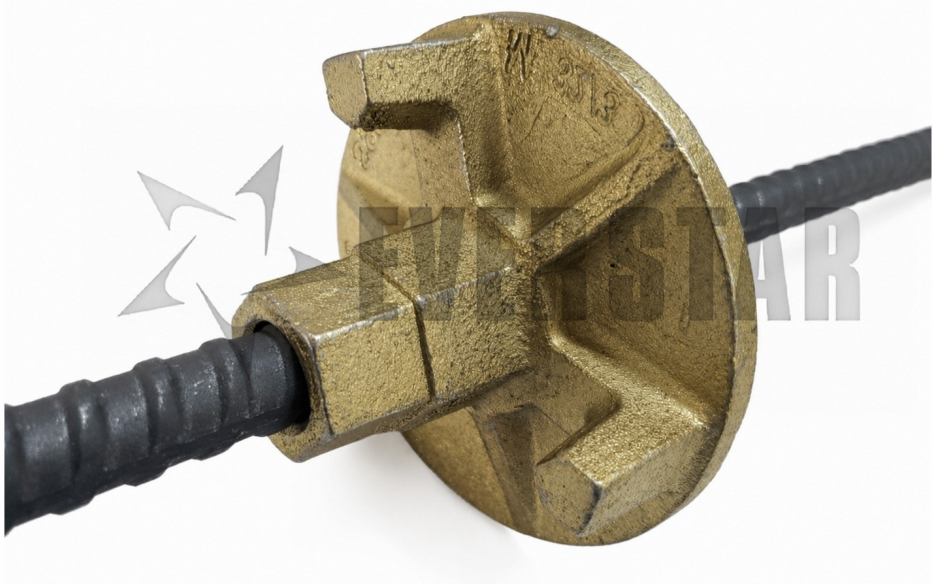
## Main Features

|                                                                                                               |                                                                                                  |                                                                                                         |
|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| <b>01 DUCTILE IRON</b><br>Selected for toughness and impact resistance compared with ordinary grey cast iron. | <b>02 INTEGRAL FLANGE</b><br>Wide bearing area helps distribute clamping force at the tie point. | <b>03 FORMWORK THREAD</b><br>Coarse thread is designed for compatible formwork tie rods.                |
| <b>04 TWO-WING DESIGN</b><br>Wings support convenient tightening and removal on site.                         | <b>05 REUSABLE SYSTEM</b><br>Reusable when correctly selected, installed, removed and inspected. | <b>06 CUSTOM PRODUCTION</b><br>Grade, thread, flange, wing, weight, finish and packing can be tailored. |

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# SYSTEM & INSTALLATION

How the nut works with tie rods, walers and formwork panels



| TIE ROD                                    | WALER                           | BEARING FACE                               | TIE NUT                                 |
|--------------------------------------------|---------------------------------|--------------------------------------------|-----------------------------------------|
| Passes through both sides of the formwork. | Timber or steel support member. | Flange bears on plate or approved surface. | Tightens the assembly from the outside. |

## Working Sequence

|    |                                                                                                           |
|----|-----------------------------------------------------------------------------------------------------------|
| 01 | Pass the compatible formwork tie rod through both faces of the wall or column formwork.                   |
| 02 | Position the timber or steel waler, washer plate, spacer components and other approved parts.             |
| 03 | Place one tie nut on each exposed end. Keep the flange squarely against the approved bearing surface.     |
| 04 | Tighten the two-wing nut until the formwork reaches the designed thickness and alignment.                 |
| 05 | After concrete reaches the required strength, remove reusable components according to the site procedure. |

**SYSTEM NOTICE | Compatibility and permissible load must be confirmed for the complete tie system before use.**

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TECHNICAL SPECIFICATIONS

Supply data taken from the approved product document

FINAL THREAD PROFILE, DIMENSIONS AND LOAD REQUIREMENTS FOLLOW THE APPROVED DRAWING AND TEST METHOD.

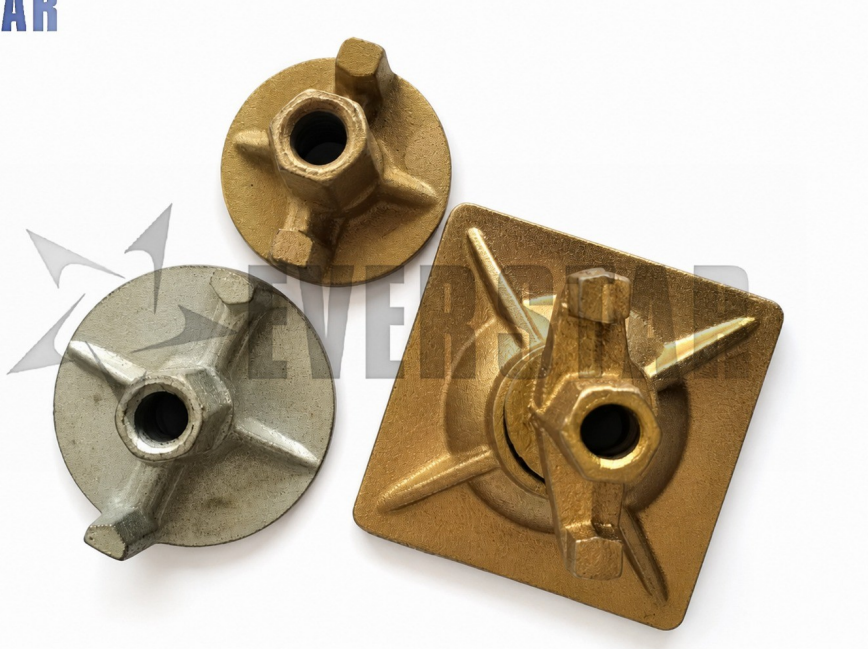
| PRODUCT ITEM     | DETAILS                                                    |
|------------------|------------------------------------------------------------|
| Product Name     | Ductile Iron Casting Formwork Tie Nut / Wing Nut           |
| Brand            | EVERSTAR                                                   |
| Material         | Ductile Cast Iron                                          |
| Optional Grades  | QT450-10, GGG40, GGG50 or According to Requirement         |
| Process          | Casting, Thread Machining and Surface Treatment            |
| Nut Design       | Integral Round Flange with Two Wings                       |
| Common Thread    | 15/17 mm or DW15 Formwork Tie Rod Thread                   |
| Optional Threads | D12, D15, D20 or Customized                                |
| Common Flange    | 70–120 mm                                                  |
| Common Weight    | Approximately 0.30–0.90 kg                                 |
| Surface          | Natural Black, Zinc-Plated, Hot-Dip Galvanized or Painted  |
| Application      | Concrete Wall and Column Formwork Tie Systems              |
| Load Capacity    | Confirmed According to Product Design and Test Requirement |
| Packaging        | Woven Bags, Wooden Cases or Pallets                        |
| OEM / ODM        | Available                                                  |

Performance depends on the nut, tie rod, washer or waler, formwork arrangement and test method. Confirm the complete assembly for the actual project.

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# COMMON SIZE REFERENCE

Market-reference dimensions for preliminary selection



The following dimensions and weights are common market references. Final thread profile, flange size, permissible load and breaking load must be confirmed for the complete tie system and approved test method.

| MODEL   | THREAD / SYSTEM      | FLANGE DIAMETER | APPROX. WEIGHT      |
|---------|----------------------|-----------------|---------------------|
| ES-TN12 | D12 System           | 60–80 mm        | 0.25–0.50 kg        |
| ES-TN15 | 15/17 mm or DW15     | 70–120 mm       | 0.30–0.90 kg        |
| ES-TN20 | D20 System           | 90–130 mm       | 0.60–1.20 kg        |
| CUSTOM  | According to Drawing | Customized      | According to Design |

## Selection Checklist

|                                                                                        |                                                                                       |                                                                                         |
|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <b>01 THREAD PROFILE</b><br>Match the selected tie rod, not only the nominal diameter. | <b>02 FLANGE DIAMETER</b><br>Select for the approved plate, waler or bearing surface. | <b>03 UNIT WEIGHT</b><br>Confirm the requested design and production tolerance.         |
| <b>04 MATERIAL GRADE</b><br>Specify QT450-10, GGG40, GGG50 or another requirement.     | <b>05 SURFACE</b><br>Choose black, zinc-plated, hot-dip galvanized or painted.        | <b>06 SYSTEM LOAD</b><br>Confirm performance by complete assembly and approved testing. |

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# MANUFACTURING & QUALITY CONTROL

Inspection from ductile-iron input to final export packing

Each batch is controlled for casting quality, stable dimensions, thread compatibility and surface condition. Certificates, inspection reports and third-party load testing can be arranged when required by the order.

## Production Control Flow

|                       |                      |                        |                        |
|-----------------------|----------------------|------------------------|------------------------|
| 01<br>RAW MATERIAL    | 02<br>CASTING        | 03<br>CLEANING         | 04<br>THREAD MACHINING |
| 05<br>DIMENSION CHECK | 06<br>SURFACE FINISH | 07<br>FINAL INSPECTION | 08<br>PACKING          |

## Quality Control Items

| PRODUCT ITEM          | DETAILS                                                 |
|-----------------------|---------------------------------------------------------|
| Material / Chemistry  | Raw material and chemical composition verification      |
| Mechanical Properties | Ductile-iron properties checked when required           |
| Casting Appearance    | Cracks, cold shuts, severe porosity and visible defects |
| Dimensions / Weight   | Flange, wings, overall size and unit weight             |
| Thread Gauge          | Thread profile and assembly with approved tie rod       |
| Assembly Check        | Fit with mating system components                       |
| Surface               | Appearance and coating condition                        |
| Zinc Thickness        | Coating-thickness test when specified                   |
| Proof / Load Test     | According to order and approved method                  |
| Packing               | Quantity, labels, protection and pallet marks           |

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SURFACE, PACKING & OEM

Application-matched finishes and protected export delivery



Surface & Product Options

|                                                                                     |                                                                                              |                                                                                      |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <b>01 NATURAL BLACK</b><br>Standard natural cast surface for suitable applications. | <b>02 ZINC-PLATED</b><br>Clean zinc-coated finish, including the gold-colored example shown. | <b>03 HOT-DIP GALVANIZED</b><br>Enhanced zinc protection for specified environments. |
| <b>04 PAINTED</b><br>Project color or coating system can be specified.              | <b>05 CUSTOM GEOMETRY</b><br>Thread, flange, wing shape and unit weight to drawing.          | <b>06 OEM MARKING</b><br>Labels, barcodes, customer marks and export identification. |

Export Packing

|                                                                      |                                                                    |                                                                                     |
|----------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>WOVEN BAGS</b><br>Heavy-duty bags for controlled unit quantities. | <b>WOODEN CASES</b><br>Reinforced cases for heavy cast components. | <b>PALLETIZED EXPORT</b><br>Wrapping, labels, barcodes and marks can be customized. |
|----------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------|

Lead time is confirmed according to quantity, thread machining, surface treatment, inspection and packing requirements.

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# APPLICATIONS & ORDER CONFIRMATION

Specify the complete tie system and project requirements

## Application Areas

|                     |                     |                             |
|---------------------|---------------------|-----------------------------|
| WALL FORMWORK       | COLUMN FORMWORK     | FOUNDATION FORMWORK         |
| TIMBER-BEAM SYSTEMS | STEEL WALER SYSTEMS | BRIDGES & CIVIL WORKS       |
| RESIDENTIAL         | COMMERCIAL          | INDUSTRIAL & INFRASTRUCTURE |

## Information Required for Quotation

| PRODUCT ITEM     | DETAILS                                                  |
|------------------|----------------------------------------------------------|
| Tie Rod          | Size and complete thread profile                         |
| Nut Geometry     | Flange diameter, wing form and product drawing           |
| Material         | Ductile-iron grade or governing requirement              |
| Unit Weight      | Required target weight and tolerance                     |
| Surface          | Black, zinc-plated, hot-dip galvanized or painted        |
| Load Requirement | Complete system, approved method and acceptance criteria |
| Quantity         | Order quantity by model or drawing                       |
| Packing          | Bag, case, pallet, labels, barcodes and shipping marks   |

## Important Technical Note

Thread compatibility and load performance depend on the nut, tie rod, washer or waler, formwork arrangement and test method. Approve the complete system before production and use. Do not rely on nominal thread diameter alone.

# CONTACT EVERSTAR

Factory-direct support for standard and customized formwork tie nuts



## QUALITY CREATES LONG-TERM PARTNERSHIPS

DUCTILE IRON TIE NUT | STANDARD & CUSTOM SUPPLY

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ESTABLISHED

**1999**

FACTORY AREA

**58,000 m<sup>2</sup>**

PRODUCTION LINES

**45**

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CUSTOMIZED MANUFACTURING | QUALITY CONTROL | EXPORT SUPPORT