COLD HEADING WIRE / BAR STOCK
Fasten your business
APPLICATIONS & MARKETS SERVED

Central Wire Industries is one of North America’s foremost manufacturers of wire in specialty alloys tailored to their customers specific requirements. Our product range includes stainless steel, nickel, copper, brass, bronze, and zinc wires, in diameters ranging from 0.003 inches to 1.000 inches.

CWI’s cold heading wire is used extensively in the manufacturing of security fasteners, blind rivets, bolts, screws and aerospace fastening systems. Your critical fastener applications require that our wire material meets exact dimensional, temper, and ductility specifications. Metallic and non-metallic coatings are available to meet varying conditions of heat and pressure use.

Aerospace  Automotive  Oil & Gas  Industrial

Security fasteners, blind rivets, bolts, screws and aerospace fastening systems
### Nominal Chemical Composition (%)*

<table>
<thead>
<tr>
<th></th>
<th>C</th>
<th>Cr</th>
<th>Ni</th>
<th>Fe</th>
<th>Cu</th>
<th>Otr</th>
<th>UNS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Austenitics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>302HQ</td>
<td>.01</td>
<td>17</td>
<td>19</td>
<td>Bal.</td>
<td>3.5</td>
<td></td>
<td>S30430</td>
</tr>
<tr>
<td>304</td>
<td>.04</td>
<td>18</td>
<td>9</td>
<td>Bal.</td>
<td></td>
<td></td>
<td>S30400</td>
</tr>
<tr>
<td>304L</td>
<td>.02</td>
<td>18</td>
<td>10</td>
<td>Bal.</td>
<td></td>
<td></td>
<td>S30403</td>
</tr>
<tr>
<td>305</td>
<td>.02</td>
<td>18</td>
<td>12</td>
<td>Bal.</td>
<td></td>
<td></td>
<td>S30500</td>
</tr>
<tr>
<td>316</td>
<td>.04</td>
<td>17</td>
<td>11</td>
<td>Bal.</td>
<td>2 Mo</td>
<td></td>
<td>S31600</td>
</tr>
<tr>
<td>316L</td>
<td>.02</td>
<td>17</td>
<td>12</td>
<td>Bal.</td>
<td>2 Mo</td>
<td></td>
<td>S31603</td>
</tr>
<tr>
<td>316HQ</td>
<td>.01</td>
<td>17</td>
<td>10</td>
<td>Bal.</td>
<td>3.0</td>
<td>2 Mo</td>
<td>S31600</td>
</tr>
<tr>
<td>321</td>
<td>.04</td>
<td>18</td>
<td>10</td>
<td>Bal.</td>
<td>Ti-(5xC) min.</td>
<td></td>
<td>S32100</td>
</tr>
<tr>
<td>347</td>
<td>.04</td>
<td>18</td>
<td>11</td>
<td>Bal.</td>
<td>.6 NB</td>
<td></td>
<td>S34700</td>
</tr>
<tr>
<td><strong>Ferritics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>409Cb</td>
<td>.02</td>
<td>11</td>
<td>Bal.</td>
<td>3-(Cb+Ta)</td>
<td></td>
<td></td>
<td>S40940</td>
</tr>
<tr>
<td>430L</td>
<td>.02</td>
<td>16</td>
<td>Bal.</td>
<td></td>
<td></td>
<td></td>
<td>S43000</td>
</tr>
<tr>
<td><strong>Martensitics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>410</td>
<td>.12</td>
<td>12</td>
<td>Bal.</td>
<td></td>
<td></td>
<td></td>
<td>S41000</td>
</tr>
<tr>
<td>420</td>
<td>.30</td>
<td>13</td>
<td>Bal.</td>
<td></td>
<td></td>
<td></td>
<td>S42000</td>
</tr>
<tr>
<td>431</td>
<td>.18</td>
<td>16</td>
<td>2</td>
<td>Bal.</td>
<td></td>
<td></td>
<td>S43100</td>
</tr>
<tr>
<td>440C</td>
<td>1.0</td>
<td>17</td>
<td>Bal.</td>
<td>.5Mo</td>
<td></td>
<td></td>
<td>S43100</td>
</tr>
<tr>
<td><strong>Super Stainless</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A-286/660</td>
<td>.04</td>
<td>14</td>
<td>25</td>
<td>Bal.</td>
<td>1.5 Mo-2 Ti</td>
<td></td>
<td>S66286</td>
</tr>
<tr>
<td>13-8</td>
<td>.03</td>
<td>13</td>
<td>8</td>
<td>Bal.</td>
<td>2 Mo-1 A1</td>
<td></td>
<td>S13800</td>
</tr>
<tr>
<td>17-4</td>
<td>.04</td>
<td>17</td>
<td>4</td>
<td>Bal.</td>
<td>4</td>
<td></td>
<td>S17400</td>
</tr>
<tr>
<td>15-7</td>
<td>.07</td>
<td>15</td>
<td>7</td>
<td>Bal.</td>
<td></td>
<td></td>
<td>S15700</td>
</tr>
<tr>
<td><strong>Nickel Alloys</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>400</td>
<td>.03</td>
<td>66</td>
<td>1</td>
<td>32</td>
<td></td>
<td></td>
<td>N04400</td>
</tr>
<tr>
<td>K-500</td>
<td>.15</td>
<td>65</td>
<td>1</td>
<td>30</td>
<td>3 Al-1/2 Ti</td>
<td></td>
<td>N05500</td>
</tr>
<tr>
<td>600</td>
<td>.01</td>
<td>16</td>
<td>72</td>
<td>9</td>
<td></td>
<td></td>
<td>N06600</td>
</tr>
<tr>
<td>718</td>
<td>.03</td>
<td>18</td>
<td>52</td>
<td>18</td>
<td>3 Mo-1 Ti-5(Cb+Ta)</td>
<td></td>
<td>N07718</td>
</tr>
<tr>
<td>X750</td>
<td>.07</td>
<td>15</td>
<td>71</td>
<td>8</td>
<td>1 NB - 2.5 Ti - .7A1</td>
<td></td>
<td>N07750</td>
</tr>
</tbody>
</table>

*Not for specification purposes. The grades shown above are manufactured to the latest AMS, ASTM and U.S Government specifications. Values listed reflect approximate nominal alloy content. The processing of the wire allows complete compliance with the RoHS directive.*
COATINGS FOR EVERY APPLICATION

CWI's team of specialists sets industry standards for the production of high-performance cold heading wire and bar stock. The broad range of coatings and lubricants, coupled with superior metallurgical consistency, ensure peak performance under demanding conditions of heat and pressure.

Central Wire's molybdenum disulfide coating decreases the coefficient of friction as heading and extrusion forces increase. In effect, the harder you work, the harder it works for you. The copper-moly coating has a shiny black appearance, is securely bonded to the wire surface, and formulated specifically for the most difficult cold and warm-formed parts. For less complex applications, CWI's Techcote™ wire is unsurpassed for consistency.

Precoat Only:
- Annealed.
- Ready for heading or skinpass.
- Simple parts

Bare

Precoat

Copper Moly:
- Skinpassed
- Ready for heading directly
- Highest performance coating available for the most difficult engineered fasteners.

Bare

Nickel Strike

Copper Strike

Moly

Precoat Only:
- Annealed.
- Ready for heading or skinpass.
- Molybdenum acts as lubricant

Bare

Moly

Moly Supercoat:
- Annealed.
- Ready for heading or skinpass.
- Molybdenum acts as lubricant

Bare

Moly Supercoat

Copper Techcote™:
- Skinpassed
- Ready for heading directly
- More difficult parts requiring high performance lubrication but with light residual for anti-packing, low dusting.

Bare

Nickel Strike

Copper Strike

Techcote™

Copper Precoat:
- Annealed.
- Ready for heading or skinpass.
- Copper acts as lubricant for moderately severe forming.

Bare

Nickel Strike

Copper Strike

Precoat

Copper Techcote™

Grease:
- Skinpassed
- Ready for heading directly
- Light duty forming

Bare

Oil / Grease

Moly Techcote™:
- Skinpassed
- Ready for heading directly
- Available light or heavy moly
- Soap coating enriched with molybdenum disulfide for extra protection during forming.

Bare

Moly Techcote™

Grease:
- Skinpassed
- Ready for heading directly
- Light duty forming

Bare

Oil / Grease

Techcote™ is a registered trademark of Central Wire Industries Ltd.
EXCEPTIONAL QUALITY

ASSURANCE OF PRODUCT CONSISTENCY

Product testing at every step of manufacturing

• Mechanical testing measures tensile strength, yield strength, and elongation
• High energy impact testing for cold forging simulation
• Analysis verifies coating consistency and performance under pressure
• Microscopy evaluation for grain structure and surface quality
• Onsite positive material identification
• DFARS (Defense Federal Acquisition Regulation Supplement) compliance
• Special high quality protective paper and plastic shrink wrap available
• Heavy duty bar stock packaging
• Fast, reliable shipping, customized inventory and delivery programs
• Customer service: in person, on-line or over the phone

Grade verification via an x-ray fluorescence analyzer. (PMI)
Special high quality protective paper and plastic shrink wrap.
Material Sampling and polishing: product sample preparation for grain structure analysis and surface quality verification.
Meeting exact customer product dimensional, ductility, coating, and temper specifications requires specialized manufacturing and a broad array of precise production and processing equipment capabilities.

**PRECISION COLD HEADING WIRE**

Central Wire draws material for cold heading applications from 0.040 inches to 1.000 inches (1.02 mm to 25.4 mm). Sturdy double wrap packaging ensures that your wire arrives in excellent condition, ready for inline drawing or cold forming. CWI cold heading wire provides excellent formability and consistency during part forming.

**PRODUCT OPTIONS**

CWI maintains a complete array of production equipment for:

- Drawing to size
- Strand bright annealing
- Batch annealing furnace
- Acid pickling for oxide removal
- Inline or batch copper coating
- Rotary shaving or reverse scalping available

**Moly and copper coating facilities** provide a highly consistent coating thickness as well as large, heavyweight packages. The wire can be provided as bare copper, pre-coated, or skin pass drawn through grease, soap, or molybdenum disulfide for maximum lubricity.

**Batch Anneal Furnaces** heat austenitic stainless and nickel alloy wire at temperatures as high as 2,100 °F (1,149 °C). The wire is then immersed in a cooling bath to complete the annealing process. Low temperature annealing furnaces are available for the 400 series of stainless and nickel alloys.
BAR STOCK

PRODUCTION CAPABILITIES
Central Wire manufactures bars up to 0.750 inches (19.05 mm) to your specifications for parameters such as tensile strength, Rockwell hardness, diameter tolerance, and length. Material is usually supplied to 12 foot (3.65 m) random lengths. When required, bars are supplied centerless ground to meet high custom tolerances.

The through-feed centerless grinding process ensures high productivity. The workpiece is fed through the grinding wheels completely, entering on one side and exiting on the opposite side. Material is bundled by individual lot to ensure full traceability back to the mill source.

PACKAGING
CWI offers various types of bar stock shipping packages to meet individual customer requirements. Heat treated wooden boxes are available upon request.

SHIPPING
CWI has multiple production and distribution facilities throughout North America. Customer specific programs available to fit your inventory needs and delivery requirements. CWI also offers customized stocking programs to meet specific production schedules.

Fast and reliable shipping
Through-feed centerless grinding for bar stock
Vendor custom inventory management programs
Various types of heavy duty packaging options for bar stock
A Leader in stainless steel & nickel alloy wires

Central Wire Industries

Exceptional Quality                Precision Manufacturing                Coatings                Value

CWI

Central Wire Industries

Satisfaction Guaranteed!

Value for our customers

CWI has programs tailored to you, to ensure that your requirements are met with flexibility, innovation and experience.

Common stock sizes are:

A286 size range from .078" to .551"
302HQ size range from .054” to .525”

Additional sizes are available upon request.

CWI has the materials and resources to meet your custom requirements whether it is DFARS, RoHS, or Conflict mineral complaint.

Made in the USA.

Supplying industry specialty wire including: Stainless Steel, Nickel, Copper, Brass, Bronze and Zinc

Help us create a Customer Specific Program to fit your inventory needs and delivery requirements!

If you have any additional questions about our products, check out the Live Chat Option on our website.

www.centralwire.com

Contact Us Today!

CWI West Coast / 951-657-2105
CWI Gulf Coast / 800-325-5861
CWI Midwest / 800-435-8317
CWI East / 888-267-3761

Contact Us Today!

AS 9100:2016
Certified

DFARS
Compliant

ISO 9001:2015
Quality
Management

Central Wire
Perris, CA, USA