ButtonHead
HEADED ENDS FOR DEVELOPMENT
AND EXTENSION OF
REINFORCING BARS

BarSplice
PRODUCTS INC.
A SUBSIDIARY OF FC INDUSTRIES, INC.
BPI® BUTTONHEAD MECHANICAL END ANCHORAGE FOR REINFORCING BARS

### BPI® BUTTONHEAD, BNH, 5Ab
COLD SWAGED HEADED REBAR DEVICE

- **BNH 5A HEAD** – for transmitting bond force from the reinforcing bar to concrete by a combination of head bearing & development length. A "standard" head size for most applications.
- **CALTRANS Reduced Size Head Approved.**
- **SHOP INSTALLATION** – Attaches directly to the reinforcing bar - no thread cutting required. Shop swaged quickly and efficiently.
- **HIGH STRENGTH** – Connections to bar exceed the specified yield strength of the bar, fy, for ASTM A615 and A706, Grades 60, 75 and 80 as required by ACI 318. Confirming in-air tests meet ASTM A970 Class A and Class HA for uncoated Grade 60, 75, 80, 100 and 120 reinforcing bars.
- **REPLACES HOOKS** – no special bend direction – alleviates congeal – for beam column joints, knee joints, pile caps, column roof slab connections; replaces stirrup bars used as confinement steel.
- **KEY ADVANTAGES** – Avoids lengthy hook extensions/complex stress patterns. No heat, welding or forging – no special chemistry or rebar grade requirements, no bending or cracking of rebar.

### BPI® BUTTONHEAD, BNX, 10Ab
COLD SWAGED HEADED REBAR DEVICE

- **BNX 10A HEAD** – has larger area to transmit full force in bar by head bearing alone. Generally used in sections that may be required to withstand higher forces. CALTRANS Full Size Head Approved.
- **SHOP INSTALLATION** – Attaches directly to the reinforcing bar - no thread cutting required. Shop swaged quickly and efficiently.
- **HIGH STRENGTH** – Connections to bar exceed the specified yield strength of the bar, fy, for ASTM A615 and A706, Grades 60, 75 and 80 as required by ACI 318. Confirming in-air tests meet ASTM A970 Class A and Class HA for uncoated Grade 60, 75, 80, 100 and 120 reinforcing bars.
- **KEY ADVANTAGES** – Capable of developing the reinforcing bar at the head without the need for additional rebar development length. Alleviates congeal. Quick Assembly. Easy jobsite placement.

#### HOW TO SPECIFY BPI® BUTTONHEAD HEADED DEVICES

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<tbody>
<tr>
<td>#3 [10]</td>
<td>RED</td>
<td>3BNH</td>
<td>3BNX</td>
<td>3/4</td>
<td>1/16</td>
<td>3/4</td>
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<td>#4 [13]</td>
<td>YELLOW</td>
<td>4BNH</td>
<td>4BNX</td>
<td>7/8</td>
<td>1 3/8</td>
<td>3/4</td>
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<tr>
<td>#5 [16]</td>
<td>BLACK</td>
<td>5BNH</td>
<td>5BNX</td>
<td>11/16</td>
<td>1 3/4</td>
<td>3/4</td>
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<td>RED</td>
<td>6BNH</td>
<td>6BNX</td>
<td>1 5/8</td>
<td>1 7/8</td>
<td>3/4</td>
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<tr>
<td>#7 [22]</td>
<td>BLUE</td>
<td>7BNH</td>
<td>7BNX</td>
<td>1 1/2</td>
<td>2 3/8</td>
<td>3/4</td>
</tr>
<tr>
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<td>1 3/4</td>
<td>2 3/4</td>
<td>3/4</td>
</tr>
<tr>
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<td>PINK</td>
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<td>9BNX</td>
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<td>2 7/8</td>
<td>3 9/16</td>
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<td>3 1/8</td>
<td>4</td>
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<td>11BNH</td>
<td>11BNX</td>
<td>2 7/16</td>
<td>3 13/16</td>
<td>4 1/2</td>
</tr>
<tr>
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<td>RED</td>
<td>14BNH</td>
<td>14BNX</td>
<td>2 7/8</td>
<td>3 7/8</td>
<td>5</td>
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</tbody>
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* Head Cross Sectional Area is approximately 5 x Rebar Area
** Head Cross Sectional Area is approximately 10 x Rebar Area

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**BPI® ButtonHead cold-swaged headed devices** are made from high quality steel that meets the chemistry and grade requirements of ASTM A519 or A576. Installed performance satisfies the **CLASS A** and **CLASS HA** requirements of ASTM A970-15 and ACI 318-14 Section 20.2.1.6 [ACI 318-11 Section 3.5.9].

Develops the specified tensile strength of uncoated Grade 60, 75, 80, 100 and 120 reinforcing bar.

**Powerful hydraulically actuated presses** with color-coded octagonal die sets are utilized in fabricating shops for the most efficient swaging operation. Swaging pressures is factory preset and equipment is automated to release after each swaging ‘bite’ or pressing. When components have been compressed onto the reinforcing bar by cold-swaging they become mechanically interlocked with the rebar deformation.

**Cold swaging technology for mechanical anchorage and splicing is one of the most established, developed, and refined connection methods worldwide. Key to cold swaging success is its simplicity, low cost and adaptability. There is no loss of reinforcing bar cross-sectional area at the anchorage location so the system is a natural choice when considering the objectives of seismic design and safety related applications. BPI-Grip swaging equipment is easy to use and may be leased or purchased. Splicing manuals provided with equipment explain step-by-step installation and safety information.**

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