All-State®
Welding, Brazing and Soldering

Solutions for maintenance, repair and fabrication
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<th>Product Type</th>
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<td><strong>Product Selection Guides</strong></td>
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## Product Selection Guide — Chart 1

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### Arc Welding — Manual Stick Electrode Products

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### Notes:

- Refer to “Stainless Steel Product Selection — Chart 2” for more detailed product selection choices.
- A lead and cadmium free. Safe to use on potable water, beverage and food-handling applications.
## Arc Welding — Manual Stick Electrode Products

### GlideArc*

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### Arc Welding — Tig (Heliarc) Products

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### Arc Welding — Mig Wire Products

### Super 31 Mig*

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### Notes:

1. Refer to “Stainless Steel Product Selection — Chart 2” for more detailed product selection choices.
2. Lead and cadmium free. Safe to use on potable water, beverage and food-handling applications.
### Stainless Steel Selection Guide — Chart 2

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<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>All-State 308L</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>All-State 309L</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>All-State 310L</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>All-State 316L</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>All-State 308L Hi-Sil</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>All-State 316L Hi-Sil</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

★ Best Choice ✓ Good Choice • Use if service temperature will be less than 500°F or if corrosion resistance is not required.

**Notes:**
- **FC** Flux Coated — eliminates the need for purging or gas backing.
- **FCW** Flux Core Wire — higher deposition rates than solid Mig wire and covered electrodes.
## Soldering Products

### for All Metals (not Aluminum)

<table>
<thead>
<tr>
<th>Product Type and Description</th>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All-State 50/50 Paste Solder</strong></td>
<td>1/4sq</td>
<td>14</td>
<td>1-lb Jar (1-lb) (plastic)</td>
<td>69070060</td>
</tr>
<tr>
<td><strong>All-State Galvover</strong></td>
<td>1/4sq</td>
<td>14</td>
<td>1-lb Tube (1-lb)</td>
<td>69071170</td>
</tr>
<tr>
<td><strong>All-State Galvover</strong></td>
<td>1/4sq</td>
<td>14</td>
<td>3-lb Tube (3-lb)</td>
<td>69071070</td>
</tr>
<tr>
<td><strong>All-State Galvover</strong></td>
<td>1/4sq</td>
<td>14</td>
<td>10-lb Tube (10-lb)</td>
<td>69070070</td>
</tr>
</tbody>
</table>

### for Aluminum

<table>
<thead>
<tr>
<th>Product Type and Description</th>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All-State Rubbon 55</strong></td>
<td>1/8</td>
<td>18</td>
<td>1-lb Spool (1-lb)</td>
<td>69071030</td>
</tr>
<tr>
<td><strong>All-State Strongset 390</strong></td>
<td>1/16</td>
<td>1-lb Spool (1-lb)</td>
<td>69070064</td>
<td></td>
</tr>
<tr>
<td><strong>All-State Strongset 509</strong></td>
<td>1/8</td>
<td>18</td>
<td>1-lb Spool (1-lb)</td>
<td>69070050</td>
</tr>
<tr>
<td><strong>All-State Strongset 509</strong></td>
<td>1/8</td>
<td>10-lb Spool (10-lb)</td>
<td>69070051</td>
<td></td>
</tr>
<tr>
<td><strong>All-State Strongset 509</strong></td>
<td>1/16</td>
<td>1-lb Spool (1-lb)</td>
<td>69070052</td>
<td></td>
</tr>
<tr>
<td><strong>All-State Strongset 509</strong></td>
<td>3/32</td>
<td>18</td>
<td>1-lb Spool (1-lb)</td>
<td>69070053</td>
</tr>
<tr>
<td><strong>All-State Strongset 509</strong></td>
<td>1/8</td>
<td>10-lb Spool (10-lb)</td>
<td>69070054</td>
<td></td>
</tr>
<tr>
<td><strong>All-State Strongset 509</strong></td>
<td>3/32</td>
<td>10-lb Spool (10-lb)</td>
<td>69070055</td>
<td></td>
</tr>
<tr>
<td><strong>All-State Strongset 509</strong></td>
<td>1/8</td>
<td>1-lb Spool (1-lb)</td>
<td>69070056</td>
<td></td>
</tr>
<tr>
<td><strong>All-State Strongset 509</strong></td>
<td>3/32</td>
<td>1-lb Spool (1-lb)</td>
<td>69070057</td>
<td></td>
</tr>
<tr>
<td><strong>All-State Strongset 509</strong></td>
<td>1/8</td>
<td>1-lb Spool (1-lb)</td>
<td>69070058</td>
<td></td>
</tr>
</tbody>
</table>

### for Copper-Based Alloys

<table>
<thead>
<tr>
<th>Product Type and Description</th>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All-State AquaSafe 100</strong></td>
<td>1/8</td>
<td>1-lb Spool (1-lb)</td>
<td>69070201</td>
<td></td>
</tr>
<tr>
<td><strong>All-State AquaSafe 100</strong></td>
<td>Flux</td>
<td>2oz Bottle (1ea)</td>
<td>69070202</td>
<td></td>
</tr>
<tr>
<td><strong>All-State AquaSafe 100</strong></td>
<td>1/8</td>
<td>1 Kit (1ea)</td>
<td>69070200</td>
<td></td>
</tr>
<tr>
<td><strong>All-State DynaGrip 430</strong></td>
<td>1/16</td>
<td>48</td>
<td>1-lb Spool (1-lb)</td>
<td>69070040</td>
</tr>
<tr>
<td><strong>All-State DynaGrip 430</strong></td>
<td>1/16</td>
<td>1-lb Spool (1-lb)</td>
<td>69070041</td>
<td></td>
</tr>
<tr>
<td><strong>All-State DynaGrip 430</strong></td>
<td>1/16</td>
<td>1-lb Spool (1-lb)</td>
<td>69070042</td>
<td></td>
</tr>
<tr>
<td><strong>All-State DynaGrip 430</strong></td>
<td>1/16</td>
<td>1-lb Spool (1-lb)</td>
<td>69070043</td>
<td></td>
</tr>
<tr>
<td><strong>All-State DynaGrip 430</strong></td>
<td>1/16</td>
<td>1-lb Spool (1-lb)</td>
<td>69070044</td>
<td></td>
</tr>
<tr>
<td><strong>All-State DynaGrip 430 Paste</strong></td>
<td>8oz Jar (1ea)</td>
<td>69070080</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Soldering Products

### for Zinc-Based Metals

**All-State No. 53**
An intermediate temperature range solder for zinc-based die castings. Will produce smooth, dense, porosity-free deposits that will color match on zinc die castings.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8</td>
<td>18</td>
<td>1-lb Tube (1-lb)</td>
<td>69070020</td>
</tr>
</tbody>
</table>

### Soldering Fluxes

**AquaSafe Flux**
Meets all Government and Plumbing Code specs.
Flux performs to Fed O-F-506, Form A.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2oz</td>
<td></td>
<td>2oz Bottle (1ea)</td>
<td>69070202</td>
</tr>
</tbody>
</table>

**All-State Duzall Flux**
Clear liquid general purpose soldering flux for use with all soft solders on stainless steels, copper alloys, gold, silver and galvanized steel. Active at 430°F.
Performs to Fed AA51145, Type I Form B.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4oz</td>
<td></td>
<td>4oz Bottle (1ea)</td>
<td>69080161</td>
</tr>
<tr>
<td>16oz</td>
<td></td>
<td>16oz Bottle (1ea)</td>
<td>69080162</td>
</tr>
<tr>
<td>1gal</td>
<td></td>
<td>1gal Jug (1ea)</td>
<td>69080163</td>
</tr>
<tr>
<td>55gal</td>
<td></td>
<td>55gal Drum (1ea)</td>
<td>69080164</td>
</tr>
</tbody>
</table>

**All-State Duzall NCR Paste Flux**
Off-white gel. Use in place of Duzall liquid flux if application calls for a non-corrosive flux residue such as required with electronic applications. Active from 250°F to 520°F.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4oz</td>
<td></td>
<td>4oz Jar (1ea)</td>
<td>69080181</td>
</tr>
</tbody>
</table>

**All-State DynaGrip 430 Acid Flux**
Clear liquid soldering flux particularly suited for corrosion-resistant steels such as 316, 321, 347 and 430. Active to 430°F.
Performs to Fed AA51145, Type II, Form B.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4oz</td>
<td></td>
<td>4oz Bottle (1ea)</td>
<td>69080224</td>
</tr>
<tr>
<td>1gal</td>
<td></td>
<td>1gal Plst Jug (1ea)</td>
<td>69080151</td>
</tr>
</tbody>
</table>

**All-State No. 7 Flux**
Pink powder cast iron soldering tinning flux that can also be used for steel and copper-based alloys (except aluminum bronze). Active temperature to 700°F.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-lb</td>
<td></td>
<td>1-lb Can (1ea)</td>
<td>69080206</td>
</tr>
</tbody>
</table>

**All-State Strongset 509**
Golden viscous flux for ferrous and nonferrous (except magnesium and titanium) soldering. Use with All-State Strongset 509 and Strongset 390 solders. Active at 350°F to 550°F.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4oz</td>
<td></td>
<td>4oz Bottle (1ea)</td>
<td>69080226</td>
</tr>
<tr>
<td>1gal</td>
<td></td>
<td>1gal Plst Jug (1ea)</td>
<td>69080237</td>
</tr>
</tbody>
</table>

---

**For the best results...**

use genuine Prest-O-Lite flame soldering and brazing equipment.
### Soldering, Brazing and Welding Alloys

**Solutions for Maintenance, Repair and Fabrication**

---

<table>
<thead>
<tr>
<th>Product Type and Description</th>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brazing Products</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>for Aluminum</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All-State Super 31</td>
<td>1/16</td>
<td>18</td>
<td>5-lb Tube (5-lb)</td>
<td>69050071</td>
</tr>
<tr>
<td></td>
<td>1/16</td>
<td>18</td>
<td>1-lb Tube (1-lb)</td>
<td>69050007</td>
</tr>
<tr>
<td>Use with All-State Brazaloy No. 31 flux.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use Prest-O-Lite air/fuel or oxy/fuel brazing equipment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All-State Super 31FC (Flux Core)</td>
<td>1/16</td>
<td>48</td>
<td>4 ft Coil (1ea)</td>
<td>69010044</td>
</tr>
<tr>
<td>Super 31FC has a non-corrosive, non-hygrosopic flux inside a tubular rod — no separate flux required. 31FC has a higher strength and ductility than aluminum solders and is a superior choice when heating to brazing temperatures is not objectionable. Use this rod for joining light-gauge aluminum such as used in furniture, truck and trailer bodies, window frames, aircraft instruments, kitchen equipment, HVAC and refrigeration. Very fluid, capillary action similar to silver brazing alloys. Provides an excellent color match but will darken if anodized.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use with No. 1113 flux or Jet Flux.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use Prest-O-Lite air/fuel or oxy/fuel brazing equipment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All-State Sealcor</td>
<td>1/8</td>
<td>32</td>
<td>2-lb Tube (2-lb)</td>
<td>69050093</td>
</tr>
<tr>
<td>A special aluminum flux cored brazing alloy for fabrication and repair of all weldable grades of aluminum including cast, sheet, and wrought. Ideal for out-of-position work, building up and joining dissimilar gauges of aluminum. Also a great choice for field repair of aluminum irrigation pipes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All-State No. 13 (Bare &amp; Flux Coated)</td>
<td>1/8</td>
<td>18</td>
<td>10-lb Ctn (10-lb)</td>
<td>69050031</td>
</tr>
<tr>
<td>Bare:</td>
<td>1/8</td>
<td>18</td>
<td>10-lb Ctn (10-lb)</td>
<td>69050032</td>
</tr>
<tr>
<td>Use with No. 1113 flux or Jet Flux.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use Prest-O-Lite air/fuel or oxy/fuel brazing equipment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All-State No. 101 (Bare &amp; Flux Coated)</td>
<td>1/16</td>
<td>120</td>
<td>1 Kit w/ 4oz #110 Flux</td>
<td>69050179</td>
</tr>
<tr>
<td>A 45% silver brazing alloy for use on light-gauge material and tight-fitting joints. Excellent capillary flow on ferrous and nonferrous metals or combinations of both (excluding white metals). Excellent for food processing or food handling equipment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use with No. 110 or S-200 flux.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use Prest-O-Lite air/fuel or oxy/fuel brazing equipment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All-State No. 125</td>
<td>1/16</td>
<td>18</td>
<td>4oz Coil (1ea)</td>
<td>69050161</td>
</tr>
<tr>
<td>An economical 25% silver brazing alloy for ferrous and nonferrous metals where high ductility and impact strength is not required.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use Prest-O-Lite air/fuel or oxy/fuel brazing equipment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Kits contain 4oz coil of No. 125 and 1oz of No. 110 flux.**
### Soldering, Brazing and Welding Alloys

**Solutions for Maintenance, Repair and Fabrication**

#### Brazing Products

<table>
<thead>
<tr>
<th>Product Type and Description</th>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>for Copper-Based Alloys</strong> (continued)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>All-State No. 155 (Bare &amp; Flux Coated)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A cadmium-free, food-grade brazing alloy with low melting temperature. For joining and repair of all combinations of ferrous and nonferrous metals (except aluminum or magnesium) including steels, stainless steels, nickel, copper and high-speed steels.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excellent for food-related applications. Provides a good color match to stainless steel.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. 155 Bare should be used with All-State No. 110 or S-200 flux.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can be used for torch, furnace or induction applications.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>No. 155FC (Flux Coated)</strong> does not require flux.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>All-State No. 41FC (Flux Coated)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A premium, flux-coated rod widely used for maintenance and in body shops as a general purpose brazing alloy and a favorite for arts and crafts use.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. 41FC has a broad working temperature range that can be used as either a bead forming or thin flowing alloy. Perfect for repair, joining or overlay of steel, cast iron, brass, bronze, galvanized and malleable irons or any combination of these metals.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use with Prest-O-Lite air/fuel or oxy/fuel brazing equipment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>All-State Sil-Flo 15</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A self-fluxing brazing alloy for copper-to-copper joining. Use All-State Brazaloy 110 flux or S-200 flux when joining brass or bronze metals.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grey color as brazed — will turn to polished brass color with acid treatment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do not use on ferrous metals.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use Prest-O-Lite air/fuel or oxy/fuel brazing equipment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>All-State Sil-Flo 0</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A self-fluxing brazing alloy for copper-to-copper joining. For tight-fitting (0.001&quot; to 0.002&quot;) areas.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tip of rod colored grey.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use Prest-O-Lite air/fuel or oxy/fuel brazing equipment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>All-State Sil-Flo 5</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A self-fluxing alloy for copper-to-copper joining. Use where close fit-up cannot be maintained.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use All-State Brazaloy 110 flux or S-200 flux when joining brass or bronze metals.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional sizes available upon request. Tip of rod colored light blue.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use Prest-O-Lite air/fuel or oxy/fuel brazing equipment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
for Copper-Based Alloys (continued)

All-State Low-Fuming Bronze

All-State Low-Fuming Bronze is available in two types: Bare and Flux Coated (FC). The flux-coated rods have a waterless coating that gives a superior cleaning action and promotes wetting qualities. In either form, the alloy is designed to meet today’s high industrial standards. Typical applications include fabricating or repairing steels, cast iron, copper base metals, galvanized and malleable irons or any combination of these metals.

*use with All-State Brazo flux, Brazaloy No.1 flux, Brazaloy No. 5 flux or All-State Jet flux.

Use Prest-O-Lite air/fuel or oxy/fuel brazing equipment.

### Feature Product... All-State Stud Plus®

for Removal of Broken Studs, Snapped Drills or Taps

Stud Plus is a unique metal working electrode that provides a low cost method of removing broken studs, bolts or taps from holes without any damage to the threads or base metal. Works with any common DC or AC stick welding machine.

#### Procedures

1. Select the correct electrode size from the table below. Set the welding current on your DC or AC stick welding machine. For DC machines, put the electrode connections on the + terminal.
2. Strike an arc precisely at the center of the broken stud and begin build-up. Take your time. Continue re-striking “dead center” on the built-up material (see Figure 2). Caution: Striking the arc and welding the build-up off center will cause the stud to be welded to sides of cavity. Do not overheat.
3. Before building up the deposit above the top of the cavity, allow weld deposit to cool. This precaution will help avoid welding the deposit to top edges of the cavity.
4. Carefully chip away only the top center of the slag (glass like material.) Build-up enough deposit above the top edge of the cavity to be able to weld a nut and washer to the deposit without welding them to edges of your part.
5. Allow deposit to cool slightly. Weld a washer and nut of the same or smaller size to the built-up column of metal at the center of the deposit (see Figure 3). Caution: Do not weld nut and washer to part edges.
6. Allow assembly to cool before using a wrench or other appropriate tool to unscrew the broken part. If there are any problems removing the broken part, the weld deposit build-up was probably improperly centered in cavity (see Figure 2).
7. Slag is easily chased from cavity by using a tap.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
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</thead>
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<td>1/4</td>
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<table>
<thead>
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<th>Item No.</th>
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</table>
# Soldering, Brazing and Welding Alloys
## Solutions for Maintenance, Repair and Fabrication

## Brazing Products

### for Steel — Carbon & Low Alloy

**All-State No. 11 (Bare & Flux Coated)**

A high strength brazing alloy for joining of ferrous and nonferrous metals (except white metals.) Higher strength than ordinary bronze rods. Also has thin-flowing and high capillary attraction qualities that allow this alloy to be substituted for higher-cost silver brazing alloys.

No. 11FC (Flux Coated) does not require flux.

No. 11 Bare should be used with No. 1113 flux or Jet Flux.

Use Prest-O-Lite air/fuel or oxy/fuel brazing equipment.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
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### All-State RG-45

(Copper Finish)

For oxy-fuel welding on steel plate, sheet and pipe wrought iron where strength up to 45 ksi is required. Meets AWS A5.2, Class R45.

Use Prest-O-Lite air/fuel or oxy/fuel brazing equipment.

<table>
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<tr>
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<th>Length (in.)</th>
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<td>1-lb Tube (1-lb)</td>
<td>69740214</td>
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<td>1/8</td>
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<td>1-lb Tube (1-lb)</td>
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<tr>
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<td>5-lb Tube (5-ib)</td>
<td>69710212</td>
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<tr>
<td>1/8</td>
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<td>5-lb Tube (5-ib)</td>
<td>69710216</td>
</tr>
<tr>
<td>1/16</td>
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<td>50-lb Ctn (50-lb)</td>
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</table>

### All-State RG-60

(Bare Finish)

For oxy-fuel welding on steel pipe, plates, and structural shapes in 50-60 ksi range and castings. Meets AWS A5.2, Class R60.

Use Prest-O-Lite air/fuel or oxy/fuel brazing equipment.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
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<th>Standard Package (min. order qty)</th>
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<td>50-lb Ctn (50-lb)</td>
<td>69700200</td>
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<tr>
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<td>50-lb Ctn (50-lb)</td>
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<td>1/8</td>
<td>36</td>
<td>50-lb Ctn (50-lb)</td>
<td>69700204</td>
</tr>
</tbody>
</table>

### All-State RG-65

(Bare Finish)

For oxy-fuel welding of tubes, pipes, sheets, pressure vessels, and tanks in the 65-75 ksi range. Higher weld strengths on low alloy steels. Meets AWS A5.2, Class R65.

Use Prest-O-Lite air/fuel or oxy/fuel brazing equipment.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
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<td>5-lb Tube (5-ib)</td>
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<tr>
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<tr>
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<td>1/8</td>
<td>36</td>
<td>50-lb Ctn (50-lb)</td>
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<td>5/32</td>
<td>36</td>
<td>50-lb Ctn (50-lb)</td>
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### for Hard-facing, Wear-facing & Overlay

**All-State RUF-KUT**

Deposits hard tungsten carbides in a tough nickel-silver matrix for maximum abrasion resistance and superior cutting action. Use for drill bits, overlaying horse shoes and cutting tools.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
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</table>
# Soldering, Brazing and Welding Alloys
## Solutions for Maintenance, Repair and Fabrication

<table>
<thead>
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<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
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<td><strong>Brazing Fluxes</strong></td>
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<td></td>
</tr>
<tr>
<td><strong>All-State Brazaloy No. 1 Flux</strong></td>
<td></td>
<td>1-lb Can (1-lb)</td>
<td>69080200</td>
</tr>
<tr>
<td>A blue powder general purpose brazing flux for cast iron, steel, brass, bronze and copper brazing. Active from 1400°F to 2000°F. Performs to AWS A5.31, Type FB3-F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>All-State Brazaloy No. 5 Flux</strong></td>
<td></td>
<td>1-lb Can (1-lb)</td>
<td>69080204</td>
</tr>
<tr>
<td>Red powder welding flux for cast iron, cast steels, mild and low alloy steels, and stainless steel to cast iron joining. Active from 1400°F to 2000°F. Performs to AWS A5.31, Type FB3-F.</td>
<td></td>
<td></td>
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<tr>
<td><strong>All-State Brazaloy No. 31</strong></td>
<td></td>
<td>4oz Plst Jar (1ea)</td>
<td>69080208</td>
</tr>
<tr>
<td>Light blue powder flux for sheet and extruded aluminum. Removes oxides at just below the melting point of aluminum. Active from 1050°F to 1250°F. Performs to AWS A5.31, Type FB1-A and AMS 3412D.</td>
<td></td>
<td>8oz Plst Jar (1ea)</td>
<td>69080209</td>
</tr>
<tr>
<td><strong>All-State Brazaloy No. 31NCR</strong></td>
<td></td>
<td>8oz Plst Jar (1ea)</td>
<td>69080229</td>
</tr>
<tr>
<td>Non-corrosive residue brazing flux that requires minimum clean-up. Effective on aluminum and aluminum alloys with up to 1% magnesium, such as 6061. Non-hygroscopic. Water and/or alcohol may be added to form a slurry. Active from 1050°F to 1100°F.</td>
<td></td>
<td>14oz Plst Jar (1ea)</td>
<td>69080210</td>
</tr>
<tr>
<td><strong>All-State Brazaloy No. 35</strong></td>
<td></td>
<td>8oz Plst Jar (1ea)</td>
<td>69080211</td>
</tr>
<tr>
<td>White powder flux for cleaning aluminum at welding temperatures. Active from 1080°F to 1350°F. Performs to AWS A5.31, Type FB1-A and AMS 3412D.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>All-State Brazaloy No. 53</strong></td>
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<td>8oz Plst Jar (1ea)</td>
<td>69080212</td>
</tr>
<tr>
<td>White powder flux for removing oxides of aluminum and zinc-based alloys. Active to 700°F. Performs to AWS A5.31, Type FB1-A.</td>
<td></td>
<td>25-lb Pail (1ea)</td>
<td>69080045</td>
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<tr>
<td><strong>All-State Brazo Flux</strong></td>
<td></td>
<td>1-lb Can (1-lb)</td>
<td>69080205</td>
</tr>
<tr>
<td>White powder flux for brazing on steel, cast iron, copper and brass. Active from 1400°F to 2000°F. Performs to AWS A5.31, Type FB3-F.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>All-State Ferro Flux</strong></td>
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<td>1-lb Can (1-lb)</td>
<td>69080214</td>
</tr>
<tr>
<td>Red powder flux for cast iron welding. Combines with iron and silicon oxides to draw slag to top of molten weld puddle. Active from 1400°F to 2200°F. Performs to Mil-F-1613B.</td>
<td></td>
<td>25-lb Pail (25-lb)</td>
<td>69080301</td>
</tr>
<tr>
<td><strong>All-State Jet Flux</strong></td>
<td></td>
<td>1gal metal cntr (1ea)</td>
<td>69080170</td>
</tr>
<tr>
<td>Clear liquid welding and brazing flux for use on steels, copper, and cast iron with the Jet Fluxing system. Active from 1400°F to 1800°F. Flammable. Performs to MIL-F-1613B.</td>
<td></td>
<td>5gal drum (1ea)</td>
<td>69080171</td>
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<tr>
<td><strong>All-State Brazaloy No. 110</strong></td>
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<td>7oz Bottle (1ea)</td>
<td>69080215</td>
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<tr>
<td>Blue paste brazing flux for stainless steel, nickel, monel, copper alloys, and silver alloys. Active at 1000°F, protects up to 1600°F. Performs to AWS A5.31, Type FB3-A, AMS 3410F, Mil-F-4483, and Fed OF499D.</td>
<td></td>
<td>8oz Jar (1ea)</td>
<td>69080216</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1-lb Jar (1ea)</td>
<td>69080217</td>
</tr>
<tr>
<td><strong>All-State Brazaloy No. 1113</strong></td>
<td></td>
<td>1-lb Plst Jar (1ea)</td>
<td>69080227</td>
</tr>
<tr>
<td>Gray paste flux for welding and brazing on cast iron, mild steel, nickel silvers, and copper. Use with All-State No. 11 bare and No. 13 bare brazing rods. Active from 1400°F and protects up to 2200°F. Performs to AWS A5.31, Type FB3-G.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>All-State No. 61</strong></td>
<td></td>
<td>8oz Plst Jar (1ea)</td>
<td>69080213</td>
</tr>
<tr>
<td>White powder flux for welding or brazing most magnesium alloys. Active from 950°F to 1200°F. Performs to AWS A5.31, Type FB1-A.</td>
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</tr>
<tr>
<td><strong>All-State S-200</strong></td>
<td></td>
<td>8oz Jar (1ea)</td>
<td>69080218</td>
</tr>
<tr>
<td>White paste brazing flux for stainless steels, monel, copper alloys, and silver alloys. Active at 1100°F and protects to 1800°F. Performs to AWS A5.31, Type FB3-A, AMS 3410F, Mil-F-4483, and Fed OF499D.</td>
<td></td>
<td>1-lb Jar (1ea)</td>
<td>69080219</td>
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</table>
### Arc Welding Products — Manual “Stick” Electrodes

#### for Aluminum

**All-State SmoothCote 34**
A universal aluminum electrode for repair of all common weldable aluminum alloys including cast aluminum. This rod can also be used for build-up, cladding or reinforcing. Particularly useful when Tig or MIG equipment is unavailable, inconvenient or ineffective (permanently contaminated metal). Provides a smooth, spatter-free arc and a weld deposit with good color match to base metal. Can also be used as a bead-forming or free-flowing brazing alloy or, if the flux is removed, a Tig rod. Use DC (electrode +)

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package</th>
<th>Item No.</th>
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<td>1/8</td>
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<td>5/32</td>
<td>14</td>
<td>5-lb Box (5-lb)</td>
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</tbody>
</table>

#### for Cast Iron

**All-State No. 4 IMP**
A premium AC/DC (electrode +), all-position electrode for welding thin sections of cast iron. Provides dense, machinable non-cracking, porosity free welds. For filling defects, repairing cracks, and build-up repair.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package</th>
<th>Item No.</th>
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<tbody>
<tr>
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<td>5-lb Box (5-lb)</td>
<td>69200016</td>
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<td>1/8</td>
<td>14</td>
<td>10-lb Box (10-lb)</td>
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<tr>
<td>5/32</td>
<td>14</td>
<td>10-lb Box (10-lb)</td>
<td>69200018</td>
</tr>
</tbody>
</table>

**All-State No. 6 IMP**
An AC/DC (electrode +), all-position electrode for cast iron. For high strength, dense, sound welds where machinability is not needed. Excellent for dirty or grease-soaked castings.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8</td>
<td>14</td>
<td>5-lb Box (5-lb)</td>
<td>69015026</td>
</tr>
<tr>
<td>1/8</td>
<td>14</td>
<td>10-lb Box (10-lb)</td>
<td>69010026</td>
</tr>
<tr>
<td>5/32</td>
<td>14</td>
<td>10-lb Box (10-lb)</td>
<td>69010027</td>
</tr>
</tbody>
</table>

**All-State No. 8**
An all-position AC/DC (electrode +) 99% nickel electrode for thin sections of cast iron. Provides a high nickel, machinable deposit. For volume welding of defects, filling holes, and salvaging imperfect castings. Meets AWS A5.15, Class ENi-Ci-A.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8</td>
<td>14</td>
<td>8 rods / pack (1ea)</td>
<td>69001054</td>
</tr>
<tr>
<td>3/32</td>
<td>9</td>
<td>1-lb Box (1-lb)</td>
<td>69023100</td>
</tr>
<tr>
<td>1/8</td>
<td>14</td>
<td>1-lb Box (1-lb)</td>
<td>69021101</td>
</tr>
<tr>
<td>3/32</td>
<td>9</td>
<td>5-lb Box (5-lb)</td>
<td>69020000</td>
</tr>
<tr>
<td>1/8</td>
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<tr>
<td>5/32</td>
<td>14</td>
<td>5-lb Box (5-lb)</td>
<td>69020003</td>
</tr>
<tr>
<td>1/8</td>
<td>14</td>
<td>10-lb Box (10-lb)</td>
<td>69020002</td>
</tr>
<tr>
<td>5/32</td>
<td>14</td>
<td>10-lb Box (10-lb)</td>
<td>69020004</td>
</tr>
<tr>
<td>3/16</td>
<td>14</td>
<td>10-lb Box (10-lb)</td>
<td>69020006</td>
</tr>
</tbody>
</table>

**All-State No. 8-60**
An all-position, AC/DC (electrode +) 55% nickel electrode for heavy sections of cast iron and ductile iron. For production welding requiring machinable deposits with high strength and good ductility. Meets AWS A5.15, Class ENiFe-Ci-A.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8</td>
<td>14</td>
<td>8 rods / pack (1ea)</td>
<td>69001053</td>
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<tr>
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<td>9</td>
<td>1-lb Box (1-lb)</td>
<td>69021110</td>
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<tr>
<td>1/8</td>
<td>14</td>
<td>1-lb Box (1-lb)</td>
<td>69021112</td>
</tr>
<tr>
<td>3/32</td>
<td>9</td>
<td>5-lb Box (5-lb)</td>
<td>69020010</td>
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<tr>
<td>1/8</td>
<td>14</td>
<td>10-lb Box (10-lb)</td>
<td>69020012</td>
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<tr>
<td>5/32</td>
<td>14</td>
<td>10-lb Box (10-lb)</td>
<td>69020014</td>
</tr>
<tr>
<td>3/16</td>
<td>14</td>
<td>10-lb Box (10-lb)</td>
<td>69020016</td>
</tr>
</tbody>
</table>

**All-State Super 4-60**
A premium electrode for repairing grey, malleable and ductile cast irons. Also use for welding cast iron to steels. Produces a strong, machinable, crack-resistant deposit without porosity. Unique coating does not overheat at rated welding current. Use AC or DC (electrode + or —) in the flat position. Typical applications: Repair engine blocks, pump housings, manifolds, and other cast iron parts.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8</td>
<td>14</td>
<td>8 rods / pack (1ea)</td>
<td>69001001</td>
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<tr>
<td>1/8</td>
<td>14</td>
<td>1-lb Box (1-lb)</td>
<td>69011022</td>
</tr>
<tr>
<td>3/32</td>
<td>12</td>
<td>5-lb Box (5-lb)</td>
<td>69010001</td>
</tr>
<tr>
<td>1/8</td>
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<td>69010018</td>
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<tr>
<td>1/8</td>
<td>14</td>
<td>10-lb Box (10-lb)</td>
<td>69010019</td>
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<tr>
<td>5/32</td>
<td>14</td>
<td>10-lb Box (10-lb)</td>
<td>69010024</td>
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### Arc Welding Products — Manual “Stick” Electrodes

#### for Copper-Based Alloys

<table>
<thead>
<tr>
<th>Product Type and Description</th>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All-State No. 16</strong></td>
<td>3/32</td>
<td>9</td>
<td>5-lb Box (5-lb)</td>
<td>69100020</td>
</tr>
<tr>
<td>A DC (electrode +), all-position electrode for welding nickel-copper alloys to steel and nickel-copper clad steel, and overlay where strength, toughness and resistance to corrosion are required. Provides sound, porosity free deposits with minimum spatter loss. (ENiCu-7)</td>
<td>1/8</td>
<td>14</td>
<td>5-lb Box (5-lb)</td>
<td>69100021</td>
</tr>
<tr>
<td></td>
<td>5/32</td>
<td>9</td>
<td>5-lb Box (5-lb)</td>
<td>69100022</td>
</tr>
</tbody>
</table>

| **All-State No. 20**         | 1/8       | 14           | 10-lb Box (10-lb)                | 69100040|
| A DC (electrode +) electrode is used for welding aluminum bronze, manganese bronze, silicon bronze, bronze to steel and cast iron, and ferrous alloys. Deposits are strong, dense, ductile, crack free, have good resistance to corrosion, salt water, and many acids and alkalis. AWS A5.6, Class ECuAl-A2. | 5/32      | 14           | 10-lb Box (10-lb)                | 69100041|

| **All-State No. 24 DC**      | 3/32      | 9            | 5-lb Box (5-lb)                  | 69201408|
| A DC (electrode +) phosphor bronze electrode for welding bronze, brass, copper, cast iron, steel, and dissimilar metals. Smooth, high-strength deposits can be made in all positions. | 1/8       | 14           | 5-lb Box (5-lb)                  | 69210241|
|                              | 5/32      | 14           | 5-lb Box (5-lb)                  | 69210242|

#### for Hard-facing, Wear-facing & Overlay

<table>
<thead>
<tr>
<th>Product Type and Description</th>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All-State HS-6IP</strong></td>
<td>1/8</td>
<td>14</td>
<td>7 rods / pack (1ea)</td>
<td>69010005</td>
</tr>
<tr>
<td>A hard-facing electrode for mild and low alloy steels. Designed for high abrasion, light impact applications. Two layers on mild steel typically results in 55-59 Rc surface hardness. Deposits are non-machinable. Convex bead. Limit to 2 passes to prevent spalling. Use AC or DC (electrode +) in the flat position. Typical applications: Quick repairs on earthmoving and farm implements (blades, points, discs, buckets, etc).</td>
<td>3/32</td>
<td>14</td>
<td>1-lb Box (1-lb)</td>
<td>69011074</td>
</tr>
<tr>
<td></td>
<td>1/8</td>
<td>14</td>
<td>1-lb Box (1-lb)</td>
<td>69011075</td>
</tr>
<tr>
<td></td>
<td>1/8</td>
<td>14</td>
<td>10-lb Box (10-lb)</td>
<td>69010504</td>
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<tr>
<td></td>
<td>5/32</td>
<td>14</td>
<td>10-lb Box (10-lb)</td>
<td>69010505</td>
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<tr>
<td></td>
<td>3/16</td>
<td>14</td>
<td>10-lb Box (10-lb)</td>
<td>69010506</td>
</tr>
<tr>
<td></td>
<td>1/4</td>
<td>18</td>
<td>10-lb Box (10-lb)</td>
<td>69010507</td>
</tr>
</tbody>
</table>

| **All-State HS-2C**          | 1/8       | 14           | 10-lb Box (10-lb)                | 69010700|
| A smooth-running electrode that lays a beautiful bead composed of complex carbides for long-lasting protection against wear. Designed for severe abrasion and light impact. Deposits have low coefficient of friction. Ideal for severe wear caused by sand and other abrasive minerals. Good hot hardness at 1100°F. Hardness 58 to 62 Rockwell C. Use HS-2C in all positions with AC or DC (electrode +). Build-up: 2 to 3 passes. Typical applications: Hard surfacing large areas in earthmoving and rock crushing equipment, augers, asphalt feed screws, sand pumps, slurry pumps, mixer blades, crushing and pulverizing mills, scrapers, paddles and wear pads. | 5/32      | 14           | 10-lb Box (10-lb)                | 69010701|
|                              | 3/16      | 14           | 10-lb Box (10-lb)                | 69010702|

| **All-State Hard-Tuff 56**   | 1/8       | 14           | 10-lb Box (10-lb)                | 69210524|
| An AC/DC electrode for heavy impact and abrasion on carbon and manganese steels. Hardness up to 54-56 Rockwell C. | 5/32      | 18           | 10-lb Box (10-lb)                | 69001061|

| **All-State HS-65W**         | 1/8       | 14           | 10-lb Box (10-lb)                | 69010710|
| A highly alloyed AC/DC (electrode +) electrode for superior wear resistance involving extreme abrasion. Hardness up to 63-67 Rockwell C. | 5/32      | 18           | 10-lb Box (10-lb)                | 69010712|
|                              | 3/16      | 18           | 10-lb Box (10-lb)                | 69010714|

| **All-State KoreBide 6000**  | 1/4       | 18           | 10-lb Box (10-lb)                | 69109000|
| Chromium carbide alloy used in high abrasion, compressive impact loads and erosion found in: shovel buckets, dredge bucket lips, crusher mantles and liners, clutch jaws, manganese steel swing hammers, sprocket teeth, pressure rolls, grinder rings, gritzly bars and feeder sprouts. Rc 55 to 60 hygroscopic coating and tubular construction eliminates moisture problems and rebaking | Non-      |              |                               |

| **All-State KoreBide 6100**  | 1/4       | 18           | 10-lb Box (10-lb)                | 69109004|
| Deposits of extremely hard chromium carbides and nodular columbium carbides will withstand abrasion and high-impact loads. This alloy can also be applied to bucket teeth. Rc 58 to 61 hygroscopic coating and tubular construction eliminates moisture problems and rebaking. | Non-      |              |                               |

| **All-State KoreBide 6200**  | 1/4       | 18           | 10-lb Box (10-lb)                | 69109010|
| Outstanding abrasion resistance on steel or grey cast iron in brick extrusion augers, pump impellers, snowplow shoes, feed screws, dozer end bits, mixer paddles, scraper blades. Rc 58 to 62 hygroscopic coating and tubular construction eliminates moisture problems and rebaking. | Non-      |              |                               |
**Arc Welding Products — Manual “Stick” Electrodes**

### for Hard-facing, Wear-facing & Overlay (continued)

<table>
<thead>
<tr>
<th>Product Type and Description</th>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All-State KoreBide 6400</strong></td>
<td>1/4</td>
<td>14</td>
<td>10-lb Box (10-lb)</td>
<td>69109013</td>
</tr>
<tr>
<td>Deposits from this electrode resist extreme abrasion at temperatures up to 1500F and provides outstanding erosion resistance. Use on scrapers, blast furnace feed chutes, sinter crushers, mill guide rolls, hopper teeth and shanks, cement handling equipment. RC 62-64 Non-hygroscopic coating and tubular construction eliminates moisture problems and rebaking.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>All-State Ni-Matrix</strong></td>
<td>1/8</td>
<td>14</td>
<td>10-lb Box (10-lb)</td>
<td>69010522</td>
</tr>
<tr>
<td>An all-position AC/DC electrode for fabrication and build-up of manganese steels. For constant heavy impact and abrasion. Hardness to 48 Rockwell C.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/32</td>
<td>10-lb Box (10-lb)</td>
<td>69010520</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/16</td>
<td>10-lb Box (10-lb)</td>
<td>69010521</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>All-State Roll Matrix</strong></td>
<td>1/8</td>
<td>14</td>
<td>10-lb Box (10-lb)</td>
<td>69010500</td>
</tr>
<tr>
<td>An AC/DC all-position electrode that provides a machinable deposit for heavy impact and compression. Use on carbon and low alloy steels. Hardness 25 to 30 Rockwell C.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/32</td>
<td>10-lb Box (10-lb)</td>
<td>69010501</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/16</td>
<td>10-lb Box (10-lb)</td>
<td>69010502</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>All-State Super Join-M</strong></td>
<td>1/8</td>
<td>14</td>
<td>10-lb Box (10-lb)</td>
<td>69010527</td>
</tr>
<tr>
<td>This AC/DC (electrode +) electrode provides deposits for severe impact on manganese steel and unknown iron base metals. Resistant to corrosion from water, steam and mild corrosives</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/32</td>
<td>10-lb Box (10-lb)</td>
<td>69010528</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/16</td>
<td>10-lb Box (10-lb)</td>
<td>69010529</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>All-State WearHard</strong></td>
<td>1/8</td>
<td>14</td>
<td>10-lb Can (10-lb)</td>
<td>69914180</td>
</tr>
<tr>
<td>High-alloy, high-strength deposit. For both work-hardening, wear-resistant build-up and attachment welding. Use on LaBounty Shear blades to build up cutting edge. Extremely deformation resistant on both carbon and manganese steels.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/32</td>
<td>10-lb Can (10-lb)</td>
<td>69914530</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/16</td>
<td>10-lb Can (10-lb)</td>
<td>69914310</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Metal Working Electrodes

<table>
<thead>
<tr>
<th>Product Type and Description</th>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All-State Green Blaster</strong></td>
<td>3/32</td>
<td>14</td>
<td>1-lb Box (1-lb)</td>
<td>69010167</td>
</tr>
<tr>
<td>A unique “All-In-One” metal removal electrode. Use on all metals for cutting, chamfering, and gouging where oxy/fuel, plasma or grinder is unavailable or inconvenient to use. Use AC or DC (electrode —) in all positions. Typical application: Commonly used to remove existing cracks or defects prior to welding with electrodes like All-State Super 4-60 or Super 275.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/8</td>
<td>1-lb Box (1-lb)</td>
<td>69010168</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/32</td>
<td>1-lb Box (1-lb)</td>
<td>69010169</td>
<td></td>
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</tr>
<tr>
<td>3/32</td>
<td>5-lb Box (5-lb)</td>
<td>69010163</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/8</td>
<td>5-lb Box (5-lb)</td>
<td>69010162</td>
<td></td>
<td></td>
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<tr>
<td>5/32</td>
<td>5-lb Box (5-lb)</td>
<td>69010165</td>
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<td></td>
</tr>
<tr>
<td>3/16</td>
<td>5-lb Box (5-lb)</td>
<td>69010164</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>All-State Stud Plus</strong></td>
<td>3/32</td>
<td>9</td>
<td>4 rods / pack (1ea)</td>
<td>69001050</td>
</tr>
<tr>
<td>A unique electrode specifically formulated to be a cost-effective way of removing broken studs, bolts or taps from holes. Works on all grades of steel fasteners including stainless steel, grades 2, 5, 8 and casehardened steel bolts.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/8</td>
<td>4 rods / pack (1ea)</td>
<td>69001051</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/32</td>
<td>4 rods / pack (1ea)</td>
<td>69001052</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kit*</td>
<td>1-lb Box (1ea)</td>
<td>69001015</td>
<td></td>
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<td>3/32</td>
<td>1-lb Box (1-lb)</td>
<td>69201006</td>
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</tr>
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<td>1-lb Box (1-lb)</td>
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</tr>
<tr>
<td>3/32</td>
<td>5-lb Box (5-lb)</td>
<td>69200006</td>
<td></td>
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</tr>
<tr>
<td>1/8</td>
<td>5-lb Box (5-lb)</td>
<td>69200007</td>
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</tr>
<tr>
<td>5/32</td>
<td>5-lb Box (5-lb)</td>
<td>69200005</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Kit package contains 8-ea 3/32” electrodes, 5-ea 1/8” electrodes and 4-ea 5/32” electrodes.

**Featured Product — go to page 8 for details.**

<table>
<thead>
<tr>
<th>Product Type and Description</th>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All-State Chamfer Rod</strong></td>
<td>3/32</td>
<td>14</td>
<td>5-lb Box (5-lb)</td>
<td>6910138</td>
</tr>
<tr>
<td>An AC/DC (electrode —), all-position electrode for chamfering and gouging both ferrous and nonferrous metals.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/8</td>
<td>5-lb Box (5-lb)</td>
<td>6910147</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/32</td>
<td>5-lb Box (5-lb)</td>
<td>6910148</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/16</td>
<td>5-lb Box (5-lb)</td>
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</tr>
<tr>
<td>1/8</td>
<td>50-lb Box (50-lb)</td>
<td>6910130</td>
<td></td>
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</tr>
<tr>
<td>5/32</td>
<td>50-lb Box (50-lb)</td>
<td>6910131</td>
<td></td>
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<tr>
<td>3/16</td>
<td>50-lb Box (50-lb)</td>
<td>6910132</td>
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</tr>
<tr>
<td>1/4</td>
<td>50-lb Box (50-lb)</td>
<td>6910150</td>
<td></td>
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</tbody>
</table>
### Metal Working Electrodes continued

#### All-State Cutting Rod
An AC/DC (electrode —), all-position electrode for cutting and piercing of all metals.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
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<tbody>
<tr>
<td>1/8</td>
<td>14</td>
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#### for Nickel Alloys

#### All-State Super 18-HI
An AC/DC (electrode +), all-position, machinable electrode for high-heat and high-corrosion resistance in joining and cladding most nickel alloys, carbon and stainless steels.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
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<tbody>
<tr>
<td>3/32</td>
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<tr>
<td>1/8</td>
<td>14</td>
<td>5-lb Box (5-lb)</td>
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</table>

#### for Steel — Carbon & Low Alloy

#### All-State Super 275
A high-strength, universal electrode for welding or repairing all steels including low carbon, medium carbon, high carbon, low alloy, stainless, tool, manganese, spring steels, nickel-clad and any dissimilar combination of these metals. Particularly useful for welding steels of unknown analysis. Use as a build-up rod on any steel prior to capping with a hard-facing rod or to build up tool steels prior to capping with a tool steel rod for heat treatment compatibility. Good for welding over dirt, grease or rust. Machinable deposit. Do not use on cast iron.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
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<tbody>
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<td>5-lb Box (5-lb)</td>
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<td>14</td>
<td>10-lb Box (10-lb)</td>
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</tbody>
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#### All-State No. 252
This AC/DC (electrode +), all-position electrode is used for welding 310 and 314 stainless subjected to corrosion and elevated temperatures, as well as dissimilar steels and stainless of unknown analysis. Also available as a Tig rod.

<table>
<thead>
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<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
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<td>10-lb Box (10-lb)</td>
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#### All-State No. 616
A special AC/DC (electrode +), all-position electrode for joining high sulphur, low alloy, enameled and cold rolled steels. Provides better properties than mild steel electrodes, and can replace stainless steel electrodes in many applications.

<table>
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<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
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</tr>
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<tbody>
<tr>
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<td>10-lb Can (10-lb)</td>
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<td>10-lb Can (10-lb)</td>
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<td>14</td>
<td>10-lb Can (10-lb)</td>
<td>69010103</td>
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#### All-State HY-10
A special AC/DC (electrode +), all-position high-strength electrode for low alloy and sulphur steels. Machinable and ideal for joining or build-up.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
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<td>14</td>
<td>5-lb Box (5-lb)</td>
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#### All-State SteelArc 80LV
A premium, all-purpose electrode that provides smooth, spatter-free, X-ray quality welds even when welding over rust, oil, dirt or galvanized metal. Excellent strikes and re-strikes make it a good choice for ticking. Also a great choice when using a welder with low open circuit voltage. Use AC or DC (electrode + or —) in all positions.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
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<td>1-lb Box (1-lb)</td>
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### Arc Welding Products — Manual “Stick” Electrodes

#### for Steel — Stainless

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<td>for Steel — Tool Steels</td>
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#### for Steel — Tool Steels

<table>
<thead>
<tr>
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<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
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<tbody>
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## Arc Welding Products — Tig (Heliarc) Rods

### for Aluminum

**Super 31 Tig**
Super 31 has the smoothest characteristics of all the aluminum alloys and, due to a narrow freezing range, Super 31 will significantly reduce hot cracking. Special manufacturing techniques provide unsurpassed wire feedability. Super 31 provides excellent color match to base metal and produces uniform fillet welds and almost smut-free deposits. Will darken if anodized.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
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**All-State 4043**
All-State 4043 is a popular general purpose aluminum filler metal that produces fluid, bright and almost smut-free deposits. Excellent base metal color match. Maximum salt water corrosion resistance on base metals 6061/6063. Will darken if anodized.

Meets AWS A5.10, Class ER4043

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
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<tbody>
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**All-State 5356**
All-State 5356 is typically used on 5XXX series base alloys welded to themselves or to the 6XXX series heat treatable alloys. Provides high strength and great color match after anodizing. Because of its 5% Mg content, it is unsuitable for use on components operating at a service temperature exceeding 150° F.

Meets AWS A5.10, Class ER5356

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
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<th>Item No.</th>
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<tbody>
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### for Cast Iron

**All-State No. 4-60-T**
A unique AC/DC (electrode + or —) Tig rod that provides a machinable, crack resistant deposit with maximum strength and ductility on heavy sections of cast iron. Due to its iron content, it is excellent for welding ferrous metals which are high in phosphorus content and ductile iron. It can also be used to join these cast irons to steel.

Use with a 100% Argon or a 25% Argon / 75% Helium shielding gas.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package</th>
<th>Item No.</th>
</tr>
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<tbody>
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<td>3/32</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>690701011</td>
</tr>
<tr>
<td>1/16</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>690700010</td>
</tr>
<tr>
<td>3/32</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>690700011</td>
</tr>
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</table>

**All-State Deoxidized Copper**
A bare filler rod that produces high purity deposits for fabricating deoxidized copper. Also used to join copper to steel or for overlaying them. Provides high electrical conductivity and excellent corrosion resistance.

Use with a 100% Argon or a 25% Argon / 75% Helium shielding gas.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/16</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>6900080</td>
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<tr>
<td>3/32</td>
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<td>5-lb Tube (5-lb)</td>
<td>6900081</td>
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<tr>
<td>1/8</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>6900082</td>
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<tr>
<td>1/16</td>
<td>36</td>
<td>50-lb Box (50-lb)</td>
<td>69030200</td>
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<tr>
<td>3/32</td>
<td>36</td>
<td>50-lb Box (50-lb)</td>
<td>69030201</td>
</tr>
<tr>
<td>1/8</td>
<td>36</td>
<td>50-lb Box (50-lb)</td>
<td>69030202</td>
</tr>
</tbody>
</table>

**All-State Silicon Bronze**
A bare filler metal for fabricating and joining silicon bronze, copper alloys, some iron-base metals, and thin-gauge galvanized steel. Deposits are high strength, ductile, and crack resistant. Use with a 100% Argon or a 25% Argon / 75% Helium shielding gas.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>1-lb Tube (1-lb)</td>
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<tr>
<td>3/32</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>6901091</td>
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<tr>
<td>1/8</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>6901092</td>
</tr>
<tr>
<td>0.045</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69030214</td>
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<td>1/16</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>6900090</td>
</tr>
<tr>
<td>3/32</td>
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</tr>
<tr>
<td>1/8</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>6900092</td>
</tr>
<tr>
<td>0.045</td>
<td>36</td>
<td>50-lb Ctn (50-lb)</td>
<td>69030213</td>
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<td>69030210</td>
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<tr>
<td>3/32</td>
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<td>69030211</td>
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<tr>
<td>1/8</td>
<td>36</td>
<td>50-lb Ctn (50-lb)</td>
<td>69030212</td>
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## Soldering, Brazing and Welding Alloys
### Solutions for Maintenance, Repair and Fabrication

<table>
<thead>
<tr>
<th>Product Type and Description</th>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
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</thead>
<tbody>
<tr>
<td>for Magnesium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All-State No. 61-T</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A general alloy for Tig welding magnesium sheets, plates, extrusions and castings. Use on bare metals such as A2318, A261A, A280A, A283A, A292A, A292C, and A281A. Argon or Argon/Helium shielding gas is recommended.</td>
<td>3/32</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69701161</td>
</tr>
<tr>
<td></td>
<td>1/8</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69701162</td>
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<tr>
<td>for Steel — Carbon &amp; Low Alloy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All-State 70S-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Triple deoxidized for welding over rust and mill scale. For all position welding of small diameter pipe. Ideal out of position puddle control. Copper coated.</td>
<td>1/16</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69740250</td>
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<tr>
<td></td>
<td>3/32</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69740251</td>
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<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69740255</td>
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<td></td>
<td>1/16</td>
<td>36</td>
<td>50-lb Ctn (50-lb)</td>
<td>69700250</td>
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<td></td>
<td>3/32</td>
<td>36</td>
<td>50-lb Ctn (50-lb)</td>
<td>69700251</td>
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<tr>
<td></td>
<td>1/8</td>
<td>36</td>
<td>50-lb Ctn (50-lb)</td>
<td>69700253</td>
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<tr>
<td>All-State No. 88-T</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A mild steel, copper coated Tig rod with good wetting characteristics, and excellent bead appearance. Can be used on uncleaned metal.</td>
<td>1/16</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69701150</td>
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<tr>
<td></td>
<td>3/32</td>
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<td>1-lb Tube (1-lb)</td>
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<td>1/16</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69700150</td>
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<tr>
<td></td>
<td>3/32</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69700151</td>
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<tr>
<td></td>
<td>1/8</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69700152</td>
</tr>
<tr>
<td>All-State No. 4130-T</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low alloy Tig rod for medium and high carbon steels where complete heat treatment is desired such as SAE 4130, 4140, 4330, 4340, 8620, and 8630 steels. Hardness from 36 to 38 Rockwell C, Copper coated.</td>
<td>1/16</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69701140</td>
</tr>
<tr>
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<td>3/32</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69701141</td>
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<tr>
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<td>1/8</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69701142</td>
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<td></td>
<td>1/16</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69700140</td>
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<td></td>
<td>3/32</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69700141</td>
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</tbody>
</table>

### Feature Product... All-State Hot Metal Powder Spray Kit
for build-up or repair of cast iron, steel or stainless steel

The All-State TorchWeld® Hot Metal Spray Kit provides a quick, effective and easy-to-use method for joining, repairing, overlaying and filling in defects. The Hot Metal Spray Powders are nickel based and can be used on cast iron, steel and stainless steel. Each of the kit’s torch tips and powders were selected for the most common uses in the field.

#### Features:
- Joins and overlays cast iron, stainless steel and carbon steel.
- Can be used out-of-position.
- Eliminates burn-through.
- Hardens surfaces to close tolerances.
- Corrects machining errors.
- Deposits corrosion, erosion, abrasion or heat resistant overlays.
- Repairs broken cast iron parts.
- Increases service life and improves performance of repaired parts.
- Applies easily and economically.

The All-State TorchWeld® Kit consists of a Purox W-300 torch handle, powder hopper, flow control unit, 3 popular tips (20, 30 and 40 single orifice) and 3 nickel alloy metal powders (All-State RC-20, RC-30 and RC-60.) The torch attaches to existing oxyacetylene equipment without special adaptors.

### Metal Spray Powder

<table>
<thead>
<tr>
<th>Metal Spray Powder</th>
<th>Machinability</th>
<th>Rockwell C Hardness</th>
</tr>
</thead>
<tbody>
<tr>
<td>All-State RC-20</td>
<td>machinable</td>
<td>16 — 20 Rc</td>
</tr>
<tr>
<td>All-State RC-30</td>
<td>machinable</td>
<td>26 — 32 Rc</td>
</tr>
<tr>
<td>All-State RC-60</td>
<td>non-machinable</td>
<td>55 — 60 Rc</td>
</tr>
<tr>
<td>All-State RC-60WC</td>
<td>same as RC-60</td>
<td></td>
</tr>
</tbody>
</table>

Argon or Argon/Helium shielding gas is recommended.

1 kit (1ea) complete 69320000
1 kit (1 ea) w/o handle 69300096

Go to page 23 for ordering information
### Arc Welding Products — Tig (Heliarc) Rods

<table>
<thead>
<tr>
<th>Product Type and Description</th>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>for Steel — Carbon &amp; Low Alloy continued</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All-State No. 252-T</td>
<td>1/16</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69701030</td>
</tr>
<tr>
<td>This Tig rod is used for welding 310 and 314 stainless subjected to corrosion and elevated temperatures, as well as dissimilar steels and stainless of unknown analysis.</td>
<td>3/32</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69701031</td>
</tr>
<tr>
<td></td>
<td>1/16</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69700030</td>
</tr>
<tr>
<td></td>
<td>3/32</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69700031</td>
</tr>
<tr>
<td><strong>for Steel — Stainless</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All-State 308/308L Flux Coated</td>
<td>3/32</td>
<td>23</td>
<td>5-lb Tube (5-lb)</td>
<td>69601460</td>
</tr>
<tr>
<td>Especially designed for pipe welding applications. Flux coating eliminates the need for purging gas.</td>
<td>1/8</td>
<td>23</td>
<td>5-lb Tube (5-lb)</td>
<td>69601461</td>
</tr>
<tr>
<td>Length of 23” for easier control and less waste.</td>
<td>3/32</td>
<td>5-lb Tube (5-lb)</td>
<td>69601133</td>
<td></td>
</tr>
<tr>
<td>316/316L also available. Other alloys available by special order only.</td>
<td>1/8</td>
<td>5-lb Tube (5-lb)</td>
<td>69602113</td>
<td></td>
</tr>
<tr>
<td>All-State 308/308L</td>
<td>1/16</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69601032</td>
</tr>
<tr>
<td>For welding 304L, stainless, and 321 and 347 steels if service temperature is less than 500°F (260°C). Weld metal deposits have a maximum of .04% carbon which minimizes the formation of Chromium Carbides. Used extensively for chemical plant equipment.</td>
<td>3/32</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69601033</td>
</tr>
<tr>
<td>Flag tagging is also available.</td>
<td>1/8</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69602113</td>
</tr>
<tr>
<td></td>
<td>1/16</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69602333</td>
</tr>
<tr>
<td></td>
<td>3/32</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69602183</td>
</tr>
<tr>
<td>All-State 309/309L</td>
<td>1/16</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69603568</td>
</tr>
<tr>
<td>Primarily used in the overlay of steel where intergranular corrosion must be kept to a minimum. Also for welding mild or carbon steel to stainless steel provided the service temperature is less than 600°F (316°C). Flag tagging also available.</td>
<td>3/32</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69603569</td>
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<td>1/8</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69603567</td>
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<td></td>
<td>1/16</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69603113</td>
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<td></td>
<td>3/32</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69603333</td>
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<tr>
<td></td>
<td>1/8</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69603183</td>
</tr>
<tr>
<td>All-State 310</td>
<td>1/16</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69604182</td>
</tr>
<tr>
<td>For welding type 310 stainless, as well as 410, 430, and 502 stainless where preheat or annealing is not possible after welding. Flag tagging also available.</td>
<td>3/32</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69604333</td>
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<tr>
<td>All-State 312</td>
<td>3/32</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69605333</td>
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<tr>
<td>All-State 312</td>
<td>1/8</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69605185</td>
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<tr>
<td>All-State 316/316L Flux Coated</td>
<td>3/32</td>
<td>23</td>
<td>5-lb Tube (5-lb)</td>
<td>69606460</td>
</tr>
<tr>
<td>Especially designed for pipe welding applications. Flux coating eliminates the need for purging gas. Length of 23” for easier control and less waste. 308/308L also available. Other alloys available by special order only.</td>
<td>1/8</td>
<td>23</td>
<td>5-lb Tube (5-lb)</td>
<td>69606461</td>
</tr>
<tr>
<td>All-State 316/316L</td>
<td>1/16</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69617342</td>
</tr>
<tr>
<td>Used for welding 316L and 318 type steels. Weld deposit has a maximum of 04% carbon. Widely used in the chemical industry. Flag tagging also available.</td>
<td>3/32</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69617343</td>
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<td></td>
<td>1/8</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69617344</td>
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<td></td>
<td>1/16</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
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<td></td>
<td>3/32</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
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<td>5-lb Tube (5-lb)</td>
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### Arc Welding Products — Tig (Heliarc) Rods

<table>
<thead>
<tr>
<th>Product Type and Description</th>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
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<tbody>
<tr>
<td><strong>for Steel - Tool Steels</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>All-State Air Hard-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Designed for repairs to high-chromium type tool steels. Deposits are wear-resistant and porous-free. May be annealed, reheat-treated, drawn or tempered.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/16</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69701070</td>
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<tr>
<td>3/32</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
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<tr>
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<td>36</td>
<td>5-lb Tube (5-lb)</td>
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<tr>
<td><strong>All-State High Speed-T</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This is a great Tig electrode for repairing or rebuilding high-speed tools without hardening the tool. Deposits a tungsten-moly high-speed steel that may be annealed, reheat-treated, drawn or tempered.</td>
<td></td>
<td></td>
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<td>36</td>
<td>1-lb Tube (1-lb)</td>
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<td>5-lb Tube (5-lb)</td>
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<tr>
<td><strong>All-State Hot Work-T</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The versatile electrode that provides sound, porosity-free deposits with excellent hot work air — are abrasive resistant, tough, and withstand alternate heating and cooling. May be annealed, reheat-treated, drawn or tempered.</td>
<td></td>
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</tr>
<tr>
<td>1/16</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69701050</td>
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<td>5-lb Tube (5-lb)</td>
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<tr>
<td><strong>All-State Oil Hard-T</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A unique and tough electrode for repairing oil hardening class die units, or fabrications requiring oil hardening steel. Deposit is sound and homogeneous. May be annealed, reheat-treated, drawn or tempered to various degrees of hardness.</td>
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<td></td>
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</tr>
<tr>
<td>3/32</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69701061</td>
<td></td>
</tr>
<tr>
<td>1/16</td>
<td>36</td>
<td>1-lb Tube (1-lb)</td>
<td>69701160</td>
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</tr>
<tr>
<td>1/16</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69700060</td>
<td></td>
</tr>
<tr>
<td>3/32</td>
<td>36</td>
<td>5-lb Tube (5-lb)</td>
<td>69700061</td>
<td></td>
</tr>
</tbody>
</table>
### for Aluminum

**Super 31 Mig**
Super 31 has the smoothest characteristics of all the aluminum alloys and, due to a narrow freezing range, Super 31 will significantly reduce hot cracking. Special manufacturing techniques provide unsurpassed wire feedability. Super 31 provides excellent color match to base metal and produces uniform fillet welds and almost smut-free deposits. Will darken if anodized.

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Spool Size</th>
<th>Stock Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>.030</td>
<td>1-lb Spool (4&quot;)</td>
<td>69050067</td>
</tr>
<tr>
<td>.035</td>
<td>1-lb Spool (4&quot;)</td>
<td>69050068</td>
</tr>
<tr>
<td>3/64</td>
<td>1-lb Spool (4&quot;)</td>
<td>69050069</td>
</tr>
</tbody>
</table>

**All-State 4043**
All-State 4043 is a popular general purpose aluminum filler metal that produces fluid, bright and almost smut-free deposits. Excellent base metal color match. Maximum salt water corrosion resistance on base metals 6061/6063. Will darken if anodized.

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Spool Size</th>
<th>Stock Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>.030</td>
<td>1-lb Spool (1-lb)</td>
<td>69020110</td>
</tr>
<tr>
<td>.035</td>
<td>1-lb Spool (1-lb)</td>
<td>69020111</td>
</tr>
<tr>
<td>3/64</td>
<td>1-lb Spool (1-lb)</td>
<td>69020112</td>
</tr>
</tbody>
</table>

**All-State 5356**
All-State 5356 is typically used on 5XXX series base alloys welded to themselves or to the 6XXX series heat treatable alloys. Provides high strength and great color match after anodizing. Because of its 5% Mg content, it is unsuitable for use on components operating at a service temperature exceeding 150°F.

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Spool Size</th>
<th>Stock Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>.030</td>
<td>1-lb Spool (1-lb)</td>
<td>69020120</td>
</tr>
<tr>
<td>.035</td>
<td>1-lb Spool (1-lb)</td>
<td>69020121</td>
</tr>
<tr>
<td>3/64</td>
<td>1-lb WireSpool (16-lb)</td>
<td>69020122</td>
</tr>
</tbody>
</table>

Meets AWS A5.10, Class ER5356

### for Cast Iron

**All-State Core-Cast 8600**
A continuous flux cored DC (electrode +) composite electrode for joining cast iron to itself or mild steel. Use with 86% Argon/2% Oxygen shielding gas. Machinable.

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Spool Size</th>
<th>Stock Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>.035</td>
<td>33-lb Spool (33-lb)</td>
<td>69807051</td>
</tr>
<tr>
<td>.045</td>
<td>33-lb Spool (33-lb)</td>
<td>69807050</td>
</tr>
</tbody>
</table>

### for Copper-Based Alloys

**All-State Silicon Bronze**
A bare filler metal for fabricating and joining silicon bronze, copper alloys, some iron-base metals, and thin-gauge galvanized steel. Deposits are high strength, ductile, and crack resistant. Use with a 100% Argon or a 25% Argon / 75% Helium shielding gas.

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Spool Size</th>
<th>Stock Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>.030</td>
<td>25-lb Spool (25-lb)</td>
<td>69040230</td>
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<tr>
<td>.035</td>
<td>25-lb Spool (25-lb)</td>
<td>69040231</td>
</tr>
<tr>
<td>.045</td>
<td>25-lb Spool (25-lb)</td>
<td>69040232</td>
</tr>
<tr>
<td>1/16</td>
<td>25-lb Drum (500-lb)</td>
<td>69040233</td>
</tr>
</tbody>
</table>

Use with a 100% Argon or a 25% Argon / 75% Helium shielding gas.

**All-State Deoxidized Copper**
A bare filler rod that produces high-purity deposits for fabricating deoxidized copper. Also used to join copper to steel or for overlaying them. Provides high electrical conductivity and excellent corrosion resistance.

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Spool Size</th>
<th>Stock Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>.035</td>
<td>30-lb Spool (30-lb)</td>
<td>69040221</td>
</tr>
<tr>
<td>.045</td>
<td>30-lb Spool (30-lb)</td>
<td>69040222</td>
</tr>
<tr>
<td>1/16</td>
<td>30-lb Drum (500-lb)</td>
<td>69040223</td>
</tr>
</tbody>
</table>
### Arc Welding Products — Mig Wires

#### for Hard-facing, Wear-facing & Overlay

**All-State Overlay 3038**
A strong, tough, low-alloy, build-up wire for carbon and low-alloy steels. Weld deposits are exceptionally sound and dense. Heavy thicknesses are possible without danger of cracking. Machinable with hardness of 33-38 RC. For parts that must be rebuilt prior to hard-facing or back to original dimensions.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>.045</td>
<td>10-lb Spool</td>
<td>10-lb</td>
<td>69870448</td>
</tr>
<tr>
<td>.045</td>
<td>25-lb Spool</td>
<td>25-lb</td>
<td>69870446</td>
</tr>
<tr>
<td>1/16</td>
<td>25-lb Spool</td>
<td>25-lb</td>
<td>69870447</td>
</tr>
</tbody>
</table>

**All-State Overlay 4550**

Typical applications are forging dies, ingot buggy car wheels, kiln trunnions, steel mill rolls, cable sheaves, dredge ladder rolls, and overlaying of shafts. Welding Power DC (electrode +). Shielding Gas: 75% Argon / 25% CO2 or 98% Argon / 2% Oxygen gas. Hardness: 45 — 50 RC.

**All-State Overlay 5560**
High-carbon, high-chromium, metal-cored hard-facing alloy produces a wear-resistant chromium carbides in a tough alloy matrix designed for high abrasion or abrasion combined with moderate impact resistance. Typical applications: screw conveyors, bulldozer blades, dragline buckets, power shovel buckets and teeth, ore and coal chutes, roadippers, scraper blades. Deposits are slag-free. Use deposit thickness of 2 to 3 layers. Deposits cannot be flame cut and will check-crack to relieve stresses. Use a 75% Argon/25% CO2 or 98% Argon/2% Oxygen shielding gas. Deposit hardness is 55-60 RC.

**All-State Overlay 5659**
General purpose hard-facing metal-cored gas shielded overlay with excellent abrasion and impact resistance. Can be applied to carbon, alloy and manganese steels as well as cast iron on plowing tools, augers, bucket teeth, screw conveyors, dozer blades, and coal chutes. Best with Argon/CO2 mixtures, 100% CO2 okay. Deposit hardness: 55-59 RC.

**All-State Overlay 5759HW**
Excellent toughness metal-cored hard overlay with good abrasion resistance and heat resistance up to 1100°F (599°C) and still maintains a good cutting edge. Typical applications: Hot working shear blades, forging dies, damaged or hot working punches, headers, trimmers, shear knives in hot work operations, mandrels, piercers, ejecting rods, augers, dozer blades, and earthworking tools. Use with CO2, but best results are obtained with Argon/CO2 mixtures. Deposit hardness: 57-59 RC.

**All-State Overlay 5862**
A high-carbon, chromium-carbide, metal-cored, open-arc hard-facing wire for abrasion and abrasion with mild impact on tillage tools, blades, paddles, chutes and teeth. Slag-free deposits cannot be flame-cut. Deposit hardness: 56-62 RC.

**All-State Overlay 6065**
Provides extremely good earth abrasion resistance. May be applied to steels, stainless steels, manganese steels, and cast iron. Wire runs through rust and other surface contaminants, and will operate in conditions where wind may blow shielding away. Non-machinable with hardness of 60-65 RC. Heat resistant to 1000°F.

**All-State Overlay Ni-Matrix CR**
Work-hardening austenitic manganese steel flux cored wire is designed for all-position build-up & fabricating of wear plates, blades, hammers, crusher liners, dipper teeth and lips, dragline buckets, railroad frogs and switches. Excellent weld ability. Can be flame cut. Can weld multi-pass without deslagging. Non-machinable. Deposit hardness: 15-20 RC. Work-hardened 50-55 RC.
Arc Welding Products — Mig Wires

**for Steel — Carbon & Low Alloy**

**All-State EasyGrind**
An excellent small diameter wire for auto body repair. Meets all HSLA requirements. Welds over rust and paint. Copper coated.

- Dia.: .025
- Length: 2-lb Spool (2-lb)
- Standard Package: 2-lb Spool (2-lb)
- Item No.: 69130051

**All-State 70S-6**
All-State 70S-6 is a copper-coated solid Mig welding wire containing high levels of manganese and silicon. The high levels of deoxidizers provide excellent tolerance of rust and mill scale. The high levels of manganese and silicon also provide excellent wetting action and a fluid weld puddle. Shielding gas choices for All-State 70S-6 are 100% carbon dioxide, argon/carbon dioxide mixtures, argon/oxygen mixtures and other argon based mixed gas blends. All-State 70S-6 excels in HVAC duct work, heavy equipment fabrication, structural, and other general steel fabrication.

- Dia.: .023
- Length: 2-lb Spool (4") (2-lb)
- Standard Package: 11-.lb Spool (11-lb)
- Item No.: 69040023

**All-State 70S-6**
An excellent small diameter wire for auto body repair. Meets all HSLA requirements. Welds over rust and paint. Copper coated.

- Dia.: .030
- Length: 2-lb Spool (4") (2-lb)
- Standard Package: 11-.lb Spool (11-lb)
- Item No.: 69040020

**All-State 70S-6**
An excellent small diameter wire for auto body repair. Meets all HSLA requirements. Welds over rust and paint. Copper coated.

- Dia.: .035
- Length: 2-lb Spool (4") (2-lb)
- Standard Package: 11-.lb Spool (11-lb)
- Item No.: 69040021

**All-State 70S-6**
An excellent small diameter wire for auto body repair. Meets all HSLA requirements. Welds over rust and paint. Copper coated.

- Dia.: .030
- Length: 2-lb Spool (4") (2-lb)
- Standard Package: 11-.lb Spool (11-lb)
- Item No.: 69040022

**All-State 70S-6**
An excellent small diameter wire for auto body repair. Meets all HSLA requirements. Welds over rust and paint. Copper coated.

- Dia.: .030
- Length: 2-lb Spool (4") (2-lb)
- Standard Package: 11-.lb Spool (11-lb)
- Item No.: 69040023

**All-State 70S-6**
An excellent small diameter wire for auto body repair. Meets all HSLA requirements. Welds over rust and paint. Copper coated.

- Dia.: .030
- Length: 2-lb Spool (4") (2-lb)
- Standard Package: 11-.lb Spool (11-lb)
- Item No.: 69040021

**All-State 70S-6**
An excellent small diameter wire for auto body repair. Meets all HSLA requirements. Welds over rust and paint. Copper coated.

- Dia.: .035
- Length: 2-lb Spool (4") (2-lb)
- Standard Package: 11-.lb Spool (11-lb)
- Item No.: 69040022

**All-State Shield-Free Plus SP**
Self-shielding flux cored wire. No gas required. All-position, DC (electrode +). Ideal for thin-gauged galvanized and mild steels, light to moderate rusty steels. Welds over oil, grease, and mill scale. Single pass only.

- Dia.: .030
- Length: 2-lb Spool (4") (2-lb)
- Standard Package: 11-.lb Spool (11-lb)
- Item No.: 69130036

**All-State All-Shield 308/308L**
An all-position, DC (electrode +), flux cored stainless steel wire with self-peeling slag. Excellent for welding stainless types 301, 302, 304, 304L, 308 and 308L. Also for use on types 321 and 347, provided the service temperature does not exceed 500°F (260°C). For best results, use with a 75% Argon/25% CO2 shielding gas. Meets AWS A5.22. Class E308LT-1.

- Dia.: .023
- Length: 2-lb Spool (4") (2-lb)
- Standard Package: 11-.lb Spool (11-lb)
- Item No.: 69803305

**All-State All-Shield 309/309L**
An all-position, DC (electrode +), flux cored stainless steel wire with self-peeling slag. Designed for welding stainless 304 to mild or carbon steel, 309 wrought or cast forms, 304 clad sheets, and for applying stainless steel sheet linings to carbon steel. For best results, use with a 75% Argon/25% CO2 shielding gas. Meets AWS A5.22. Class E309LT-1.

- Dia.: .035
- Length: 10-lb Spool (8") (10-lb)
- Standard Package: 33-lb Spool (33-lb)
- Item No.: 69803304

**All-State All-Shield 316/316L**

- Dia.: .035
- Length: 10-lb Spool (8") (10-lb)
- Standard Package: 33-lb Spool (33-lb)
- Item No.: 69803303

**All-State 309/309L**
Primarily used in the overlay of steel where intergranular corrosion must be kept to a minimum. Also for welding mild or carbon steel to stainless steel provided the service temperature is less than 600°F (316°C).

- Dia.: .023
- Length: 2-lb Spool (4") (2-lb)
- Standard Package: 11-.lb Spool (11-lb)
- Item No.: 69802552

**All-State 316/316L**
Used for welding 316L and 318 type steels. Weld deposit has a maximum of .04% carbon. Widely used in the chemical industry.

- Dia.: .023
- Length: 2-lb Spool (4") (2-lb)
- Standard Package: 11-.lb Spool (11-lb)
- Item No.: 69802599
### Arc Welding Products - Mig Wires

**For Steel — Stainless continued**

**All-State 308/308L Hi-Sil**
A smooth drawn, uniform surfaced stainless steel wire useful in applications where uniform appearance is essential. For use on stainless steel types 304, 305, 308, 308L, 321 and 347 as well as other 18-9 stainless steels where carbide precipitation may arise.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>2-lb Spool (4&quot;) (2-lb)</td>
<td>69130020</td>
<td></td>
</tr>
<tr>
<td>.030</td>
<td>2-lb Spool (4&quot;) (2-lb)</td>
<td>69130021</td>
<td></td>
</tr>
<tr>
<td>.035</td>
<td>2-lb Spool (4&quot;) (2-lb)</td>
<td>69130019</td>
<td></td>
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<tr>
<td>.023</td>
<td>10-lb Spool (8&quot;) (10-lb)</td>
<td>69130022</td>
<td></td>
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<td>.030</td>
<td>10-lb Spool (8&quot;) (10-lb)</td>
<td>69130023</td>
<td></td>
</tr>
</tbody>
</table>

**All-State 316/316L Hi-Sil**
A smooth flowing, high deposition stainless wire with low carbon content. Excellent for corrosion resistance when used on equipment subject to sulphuric, sulphurous, cellulosic and citric acids.

<table>
<thead>
<tr>
<th>Dia. (in.)</th>
<th>Length (in.)</th>
<th>Standard Package (min. order qty)</th>
<th>Item No.</th>
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</thead>
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<tr>
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<td>.035</td>
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</tr>
<tr>
<td>.023</td>
<td>10-lb Spool (8&quot;) (10-lb)</td>
<td>69130044</td>
<td></td>
</tr>
<tr>
<td>.030</td>
<td>10-lb Spool (8&quot;) (10-lb)</td>
<td>69130045</td>
<td></td>
</tr>
</tbody>
</table>

### Welding Aids

**All-Guard Anti-Spatter Spray**
A quickly applied weld spatter preventative spray. Spatter adhering to weld beads, jigs, and fixtures is virtually eliminated. Environmentally Safe Formula.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>16oz Can (1ea)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>69300502</td>
<td></td>
</tr>
</tbody>
</table>

**All-Guard Nozzle-Gel**
Helps eliminate weld spatter build-up on gas nozzles and contact tubes. Provides better control of gas shielding and reduces filler wire snarling.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>16oz Jar (1ea)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>69300600</td>
<td></td>
</tr>
</tbody>
</table>

**All-Guard Handi-Jig**
Heat-resistant compound for insulating metals from heat and for positioning parts for brazing and soldering.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>2-lb Jar (1ea)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>69300650</td>
<td></td>
</tr>
</tbody>
</table>

### Hot Metal Spray Powder

**All-State TorchWeld Hot Metal Powder Spray Kit**
The All-State TorchWeld Kit consists of a Purox W-300 torch handle, powder hopper, flow control unit, three popular tips (20, 30 and 40 single orifice) and three nickel alloy metal powders. The torch attaches to existing oxy-acetylene equipment and can be used for the joining and overlay of, cast iron stainless steel and carbon steel. Kit includes All-State RC-20, RC-30 and RC-60 metal spray powders.

*Featured Product — go to page 17 for details.*

**All-State RC-20 Metal Spray Powder**
A machinable nickel based build-up powder for cast iron, steels, stainless steels and nickel alloys. 16 to 20 Rockwell C.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>1-lb Jar (1-lb)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>69320003</td>
<td></td>
</tr>
</tbody>
</table>

**All-State RC-30 Metal Spray Powder**
A machinable nickel based build-up powder for cast iron, steels, stainless steels and nickel alloys. 26 to 32 Rockwell C.

<table>
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<tr>
<th></th>
<th></th>
<th>1-lb Jar (1-lb)</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>69320004</td>
<td></td>
</tr>
</tbody>
</table>

**All-State RC-60 Metal Spray Powder**
Non-machinable, nickel based powder for carbon steel, alloy steel, stainless steels, cast iron, copper, monel, nickel and cobalt based alloys. 55 to 60 Rockwell C.

<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>69320005</td>
<td></td>
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</tbody>
</table>

**All-State RC-60WC Metal Spray Powder**
RC-60 with tungsten carbide particles.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>1-lb Jar (1-lb)</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>69320006</td>
<td></td>
</tr>
</tbody>
</table>

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**Dia. Length Standard Package**

- **Product Type and Description**
- **Dia. (in.)**
- **Length (in.)**
- **Standard Package (min. order qty)**
- **Item No.**
NOTICE:
Test results described above were obtained under controlled laboratory conditions, and are not guarantees for use in the field. Actual use of the product may produce varying results due to conditions and welding techniques over which ESAB has no control, including but not limited to plate chemistry, weldment design, fabrication methods, wire size, welding procedure, service requirements and the environment. The User should confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application.

CAUTION:
Users should be thoroughly familiar with the safety precautions referenced in the product label for the relevant product and the Safety Data Sheet for the product. Safety Data Sheets are available at www.esabna.com or by calling 1-800-ESAB-123.