Quick Change Electrode Configuration

1. **Quick Change Barrel**
   - Barrel Clamp Diameter: 1 3/8" or 1 3/8"*
   - Cylinder Rod Diameter: 3/4" or 1"*
   - Part Number: 606-17982 or 408-44768

2. **Quick Change Clamp**
   - Part Number: 408-44601

3. **Quick Change Adapter**
   - **Adapter Type**
     - Straight Adapter = SA (with tapered end)
     - Water Proof Thread Adapter = WPTA (with threaded end)
   - **Port Thread Type**
     - 1/8" BSPT = BT
     - 1/8" BSPP = BP
     - 1/8" NPT = NT
   - **Adapter Diameter**
     - for SA: N = ø 1 1/8"
     - E = ø 30 mm
     - for WPTA: N = ø 1 1/4"
     - E = ø 32 mm
   - **Taper Code**
     - 1316         4E         4C
     - 1620         5E         5C
     - 2025         6E         6C
   - **Thread Code**
     - 87S = for 7/8"-14 thread
     - 10S = for 1"-12 thread
   - **Length from Shoulder**
     - Example: If this length is 60 mm, the number in this field will be 060.

4. **Water Tube**
   - **Water Tube**
     - CLT 1900 12
   - **Type**
     - CLT
   - **Tube Length Increments**
     - To determine the number of 1/8" increments (for the length of the water tube), apply the following formula: "Length from Shoulder" x 0.315 - 7 (see the Quick Change Adapter part numbering system above for the "Length from Shoulder"). Then, round the result to the closest whole number and write that number in the current field.
     - Example (considering "Length from Shoulder" = 60 mm, as above): 60 x 0.315 - 7 = 18.9 - 7 = 11.9
     - Rounded up, the number in this field will be 12, as the length of tube would be 12 increments of 1/8".

5. **Backup Electrode**
   - For various configurations see the pages that follow. These configurations can include: Backup Electrode only, Backup Electrode and Hex Adapter, or Hex Electrode only.

Specifications*:  
- **Maximum Force**: 5000 lbs (22 kN)
- **Maximum Current**: 45 kA
- **Duty Cycle**: 10 welds/min. with a weld time of 200 ms

* For parameters outside these specifications, please contact CenterLine.
** For reference only.
5.1 Adapter End / Backup or Hex Electrode / Hex Adapter Combinations

**Straight Adapter**
See *Quick Change Adapter* on page 1.

**Backup Electrode**
See *Backup Electrode* below.

**Water Proof Thread Adapter**

**Hex Adapter**

**Hex Electrode**

**Backup Electrode**

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**Electrode Identifier**

- Backup Electrode = BE

**RWMA Alloy Class**
- Class 2 RWMA Material = 2
- Class 3 RWMA Material = 3

**Zirconium** = Z

**RWMA Taper**
(Use RWMA Taper from chart above)

**Stickout Length**
(meaured in number of 1/8" increments, 3 increments minimum)
- Stickout Length = 0.375" (or 3 increments x 1/8") = 03
- Stickout Length = 1" (or 8 increments x 1/8") = 08

**Weld Face Diameter**
(measured in number of 1/8" increments.
Minimum Weld Face Diameter is RWMA Taper diameter)
- Weld Face Diameter = 0.375" (or 3 increments x 1/8") = 03
- Weld Face Diameter = 1.25" (or 10 increments x 1/8") = 10

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**Backup Electrode**

**Optional Weld Face**
- Class 11 RWMA Alloy Weld Face
- Class 12 RWMA Alloy Weld Face
Leave blank for no optional weld face.

**Clearance Hole Depth in Weld Face (F)**
(2 decimals, measured in inches. 3 characters field)
- Example: If the Clearance Hole Depth is 0.63", the number in this field will be 063.
Use 000 for no clearance hole.

**Clearance Hole Diameter in Weld Face (ØE)**
(2 decimals, measured in inches. 2 characters field)
- Example: If the Clearance Hole Diameter is 0.23", the number in this field will be 23.
Use 00 for no clearance hole.

---

**RWMA Taper**

<table>
<thead>
<tr>
<th>RWMA Taper</th>
<th>B</th>
<th>X</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>3E</td>
<td>.375</td>
<td>.500</td>
<td>9/32</td>
</tr>
<tr>
<td>4E</td>
<td>.463</td>
<td>.500</td>
<td>9/32</td>
</tr>
<tr>
<td>5E</td>
<td>.525</td>
<td>.750</td>
<td>3/8</td>
</tr>
<tr>
<td>6E</td>
<td>.750</td>
<td>.875</td>
<td>7/16</td>
</tr>
<tr>
<td>7E</td>
<td>.875</td>
<td>1.125</td>
<td>1/2</td>
</tr>
<tr>
<td>4C</td>
<td>.375</td>
<td>.285</td>
<td>9/32</td>
</tr>
<tr>
<td>5C</td>
<td>.415</td>
<td>.390</td>
<td>5/16</td>
</tr>
<tr>
<td>6C</td>
<td>.501</td>
<td>.500</td>
<td>3/8</td>
</tr>
<tr>
<td>7C</td>
<td>.613</td>
<td>.500</td>
<td>1/2</td>
</tr>
</tbody>
</table>

---

Note: All dimensions are in inches.
### Adapter End / Backup or Hex Electrode / Hex Adapter Combinations

**Straight Adapter**

**Backup Electrode**

**Hex Adapter**

**Water Proof Thread Adapter**

See Quick Change Adapter on page 1.

See Hex Adapter below.

See Backup Electrode on page 2.

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### Hex Adapter

<table>
<thead>
<tr>
<th>CenterLine Specials</th>
<th>Group</th>
<th>Thread</th>
<th>Taper</th>
<th>Adapter Type</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL HA</td>
<td>87</td>
<td>5</td>
<td>E</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

- **O-RING (INCLUDED)**
- **“X” THD.**
- **Length** (measured in number of 1/8” increments)
  - **Example:** If Length = 1.25” (or 10 increments x 1/8”) = 10

- **D**
- **Minimum A**

<table>
<thead>
<tr>
<th>TAPER NO.</th>
<th>D</th>
<th>7/8-14</th>
<th>1-12</th>
<th>1-1/4-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>#4RW</td>
<td>0.463</td>
<td>0.25</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td>#5RW</td>
<td>0.625</td>
<td>0.25</td>
<td>0.25</td>
<td>0.25</td>
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<tr>
<td>#6RW</td>
<td>0.750</td>
<td>1.13</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td>#7RW</td>
<td>0.875</td>
<td>1.38</td>
<td>1.25</td>
<td>0.25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>THREAD</th>
<th>“X”</th>
<th>B</th>
<th>C</th>
<th>HEX</th>
<th>O-RING</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/8-14</td>
<td>87</td>
<td>0.25</td>
<td>1</td>
<td>1-1/4</td>
<td>SLORD-117</td>
<td>1.22</td>
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<tr>
<td>1-12</td>
<td>10</td>
<td>0.25</td>
<td>1.13</td>
<td>1-1/4</td>
<td>SLORD-119</td>
<td>1.22</td>
</tr>
<tr>
<td>1-1/4-12</td>
<td>12</td>
<td>0.25</td>
<td>1.38</td>
<td>1-1/2</td>
<td>SLORD-123</td>
<td>1.47</td>
</tr>
</tbody>
</table>

**Note:** All dimensions are in inches.

- **O-RING (INCLUDED)**
- **“X” THD.**
### Adapter End / Backup or Hex Electrode / Hex Adapter Combinations

**3**

#### 5.3

**Straight Adapter**

**Backup Electrode**

**Water Proof Thread Adapter**

**Hex Electrode**

**Hex Adapter**

**Backup Electrode**

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#### Hex Electrode

- **HE**
- **87S**
- **12**
- **08**
- **31**
- **062**
- **11**

**Hex Electrode**

**RWMA Alloy Class**

- Class 2 RWMA Material = 2
- Class 3 RWMA Material = 3

**Thread**

- For 7/8"-14 thread = 87S
- For 1"-12 thread = 10S

**Stickout Length**

*(measured in number of 1/8" increments, 4 increments minimum)*

- Stickout Length = 0.5" (or 4 increments x 1/8") = 04
- Stickout Length = 1.5" (or 12 increments x 1/8") = 12

**Weld Face Diameter**

*(measured in number of 1/8" increments)*

- Weld Face Diameter = 0.375" (or 3 increments x 1/8") = 03
- Weld Face Diameter = 1" (or 8 increments x 1/8") = 08

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**Water Proof Thread Adapter**

See Quick Change Adapter on page 1.

**Hex Electrode**

See Hex Electrode below.

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**Clearance Hole Diameter in Weld Face (ØE)**

*(2 decimals, measured in inches, 2 characters field)*

- Example: If the Clearance Hole Diameter is 0.31", the number in this field will be 31.
- Use 00 for no clearance hole.

**Clearance Hole Depth in Weld Face (F)**

*(2 decimals, measured in inches, 3 characters field)*

- Example: If the Clearance Hole Depth is 0.62", the number in this field will be 062.
- Use 000 for no clearance hole.

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**Optional Weld Face**

- Class 11 RWMA Alloy Weld Face
- Leave blank for no Optional Weld Face.

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**Drill ØD**

*(2 decimals, measured in inches)*

- Example: 0.638

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**AS568-114 THREAD**

*0.638 0.640*

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See Hex Electrode below.
Quick Couple Water Fittings

A

Set of two (2) Compression Fittings, 90°
Part Number: 608-69137

Coupling Plug, with female thread
Part Number: 100-51118

Coupling Socket, with male thread
Part Number: 100-51119

Coupling Socket, with female thread
Part Number: 100-51120

Coupling Plug, with male thread
Part Number: 100-51117

B

Set of two (2) Compression Fittings, straight
Part Number: 608-69136

CenterLine recommends using fire-resistant (anti-spatter) tubing, sized 8mm x 5mm.
(Example: SMC FR Tube - TRBU0805 8x5)

Note: For all part numbers on this page, the threads are R 1/8" (1/8" BSPT).