Plastic Pipe Socket Fusion Tools

INSTRUCTIONS

-------- RJQ, ZRJQ,ZRJQ-T PORTABLE SERIES
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A. Brief introduction of the fusion tools

These series of plastic pipe socket fusion tools are new types of hand-held electronic & thermostatical tools for heating and joining plastic pipes & fittings including PPR, PB and HDPE with aluminum sockets and spigots. For support on the building site or in the workshop. The tools are composed of quality electric heating plate, electric controller, comfortable nylon plastic handle shell. There are 2 series with different size and operation for meeting different customer’s requirement. RJQ series are based on the standard and regular hand-held socket welder with a new controller for overheat protection and easy operation.

Digital series of ZRJQ and ZRJQ-T models add a digital controller and screen for improving the accuracy of the heating temperature. The temperature range can set as demand of different plastic pipes & fittings, required fusing temperature can fix and display on the screen, environment temperature will be adjusted and updated automatically, over-temperature will be alarmed automatically and etc. This provides a more excellent fusing result.

***Please read this instruction carefully to ensure safe operation of the tool.
Plastic pipe socket fusion tools series comply with the following specification:

**B. Technical data**

**Table 1  Fusion Tools**

<table>
<thead>
<tr>
<th>Specification and Model no.</th>
<th>Input volt</th>
<th>Frequency</th>
<th>Rated watt</th>
<th>Surface temperature of welding sockets &amp; spigots</th>
<th>Time to specified temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>V~ Hz W ^°C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RJQ-40 (110)220/230 (60)50</td>
<td>600/650</td>
<td>260</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RJQ-63 (110)220/230 (60)50</td>
<td>800/900</td>
<td>260</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RJQ-110 (110)220/230 (60)50</td>
<td>1200/1300</td>
<td>260</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZRJO-40 (110)220/230 (60)50</td>
<td>600/650</td>
<td>200-279</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZRJO-63 (110)220/230 (60)50</td>
<td>800/900</td>
<td>200-279</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZRJO-110 (110)220/230 (60)50</td>
<td>1200/1300</td>
<td>200-279</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZRJO-40T (110)220/230 (60)50</td>
<td>600/650</td>
<td>200-279</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZRJO-63T (110)220/230 (60)50</td>
<td>800/900</td>
<td>200-279</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZRJO-110T (110)220/230 (60)50</td>
<td>1200/1300</td>
<td>200-279</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specifications of pipes (φ)</td>
<td>Internal diameter of concave head---Spigots (φ)</td>
<td>Internal diameter of convex head---Sockets (φ)</td>
<td>Heat-fusing depth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------------------------</td>
<td>---------------------------------</td>
<td>------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A  B</td>
<td>A  B</td>
<td>A    B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>16.04  15.84±0.04</td>
<td>15.54  15.44±0.04</td>
<td>13    13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>20.05  19.78±0.04</td>
<td>19.53  19.38±0.04</td>
<td>14    14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>25.04  24.77±0.04</td>
<td>24.51  24.32±0.04</td>
<td>15    16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>32.03  31.75±0.04</td>
<td>31.50  31.26±0.04</td>
<td>16.5  18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>40.02  39.76±0.04</td>
<td>39.48  39.20±0.04</td>
<td>18    20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>50.02  49.68±0.06</td>
<td>49.46  49.19±0.06</td>
<td>20    23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>63</td>
<td>62.99  62.60±0.06</td>
<td>62.46  62.10±0.06</td>
<td>24    27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>74.91  74.59±0.06</td>
<td>74.32  74.00±0.06</td>
<td>26    31</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td>----------</td>
<td>------</td>
<td>----------</td>
<td>----</td>
</tr>
<tr>
<td>90</td>
<td>89.92</td>
<td>89.57±0.06</td>
<td>89.33</td>
<td>88.93±0.06</td>
<td>29</td>
</tr>
<tr>
<td>110</td>
<td>109.88</td>
<td>109.49±0.06</td>
<td>109.29</td>
<td>108.80±0.06</td>
<td>32.5</td>
</tr>
<tr>
<td>125</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Above mentioned technical data only for your reference. The exact data must refer to the size of the plastic pipes & fittings.

C. RJQ Series-Product Structure

1. Handle shell
2. Indicator lamp
3. Heat insulation cover
4. Heating plate
5. Electrical wires
6. Additional supporting stand

D. RJQ Series-Points for attention

1. The handle shell of the product is strong and reliable, the electric wires are standard with grounding
safety plug. Please insert the plug into the safe outlet when using the tool. The plug shouldn’t be changed arbitrarily.

2. In order to protect the safety of persons and property, make sure to place the tool safely when it works normally.

3. Warning! When the tool is not used but it is heating or cooling, you should put it on the supporting stand.

4. Be careful of high temperature when the fusion tool works normally. In order to avoid hurt the skin, you must wear gloves when operating or changing welding sockets & spigots.

5. Don’t open the handle shell of the fusion tool to avoid electric shock or the damage of tool structure.

6. The fusion tool cannot be used under the rain at outdoors… Avoid contact with water and other liquids.
7. If the electric wires are broken, it should be changed in the appointed maintenance store or distributor because it needs special tools.

8. When you finished the fusing work, you must pulled out the plug first, and after the tool becomes cool, put it back to the box.

9. Fix the welding sockets & spigots: according to specifications, fix welding sockets with M8×45 hex key screws. Do not screw too firmly when the tool is cool, as the screw thread will be damaged when disassembled at work. Be carefully when changing the welding sockets under work. The disassembled welding sockets should be stored appropriately. Do not damage the surface coat of welding sockets, as it will cause stick the plastic on and influence working quality and reduce the lifetime of welding sockets.

10. Fix the fusion tool: The fusion tool is equipped with special supporting stand that can be fixed handle shell with both slots. It can be fixed firmly. The operator stepped on the supporting stand when using the tool and it makes operating easily and steadily.
11. Switch on the power and heat: Switch on the power (Warning: the power should have the grounding wire!!!), then the red indicator lamp will be on. That means the fusion tool is being heated. When the red lamp is off and the green indicator lamp is on, it means the fusion tool stops heating. After a while, the red lamp will be on again and the fusion tool is in a state of keeping temperature and ready to work.(the process is often less than ten minutes.)

12. Fusing and connecting pipes: Use pipe cutter to cut pipes vertically. Push the pipes and fittings into the welding sockets and heat for several seconds (Briefly in the Table3). Pull it out quickly and then push the heated pipes to heated pipe fitting exactly. Do not press extremely, in order to avoid bending pipes head.
Table 3  Fusing Standards for Plastic Pipes & Fittings

<table>
<thead>
<tr>
<th>External diameter of pipes (mm)</th>
<th>Fusing depth (mm)</th>
<th>Heating time (s)</th>
<th>Processing time (s)</th>
<th>Cooling time (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>13</td>
<td>13</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>20</td>
<td>14</td>
<td>14</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>25</td>
<td>15</td>
<td>16</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>32</td>
<td>16.5</td>
<td>18</td>
<td>8</td>
<td>4 (6)</td>
</tr>
<tr>
<td>40</td>
<td>18.0</td>
<td>20</td>
<td>12</td>
<td>6</td>
</tr>
</tbody>
</table>
Note: If the surrounding is lower than 5℃, the heating time should be extended 5%.

E. ZRJQ Series- Product Structure

1. Handle shell
2. Digital controller with temperature display screen including following keys:
   “RDY” and “HEAT” Indicator lamp, Down key \( \downarrow \), Up key \( \uparrow \), Alt Key \( \leftarrow \), Set Key
3. Heat insulation cover
4. Heating plate
5. Electrical wires
6. Additional supporting stand

F. ZRJQ Series—Points for attention

1. The suggestion temperature for below pipe:
   
   PP-R  260°C  
   PB    240°C  
   HDPE  250°C  

2. Set the temperature:
   First press the key “SET”, it will display the original set temperature and with flickering on the unit figure(0-digit), and if you press “Up” key  or “Down” key , you can adjust the unit figure, if need adjust the data on the decimal figure(00-digit), you need to press the “Alt” key , and at the same time, decimal figure will be flicker, and press “Up” or “Down” key to adjust. The adjustment for the unit and decimal data is independence. Press the “Alt” key can repeat to adjust
the unit and decimal figure. Temperature range is fixed, Maximum is 279°C, Minimum is 200°C, after
finish the temperature setting, please press the “SET” key once again, then the tool is ready to work.
3. Over-heating alarm
When the tool make the buzz, it warns the temperature over 295°C, and you must switch off the
power. After troubleshootings, the tool can work again.
4. Change the fuse
The tool is equipmented with fuse, when short circuit happens, the fuse can protect the tool. Please
check the fuse is good or not when the tool have no display, if find the fuse is broken, please eliminate
the fault then change the fuse by professional worker.
5. Environment temperature compensate automatically
This tool have the fuction that the environment temperature compensates automatically, when the
environment temperature lower than 7°C, the tool will increase the set temperature 10°C more, when
the environment temperature higher than 30°C, the tool will decrease the set temperature 8°C less.
When the environment temperature have big deviation, worker can set the temperature by himself to get a satisfy temperature.

6. The set temperature before sales

This tool is set temperature 260℃ before sales.

7. Other attention points are same as RJQ series tools.

G. After service

All series of portable socket fusion tool are safe, convenient, practical and reliable. It is guaranteed for one year. So the users should store the instructions well to make it as maintenance voucher.

1. The factory will change any parts of the fusion tools for free charge which the tool is proved to be quality problem not misuse problem within six months since from the day when the user buys the tool.

2. After six months, any broken parts can be replaced with the cost price.

3. The fusion tool has the factory mark on it. Any broken parts can be replaced a new one with the
4. If you want to have further service, you can contact local agent or manufacturing factory.
5. The users who without any agent in the locality can post the broken parts to the factory. The factory will bear all the charges within six months but charge the cost fee and postage after six months. (The local users should bring the original invoice together with the damaged tools or parts, the users out of province should post the damaged tools or parts and send the duplicating invoice together.)
H. guarantee receipt

Guarantee receipt of plastic pipes fusion tools

Customer’s name_________________ Tel.___________________ Purchase date __________________

Address________________________ Purchase place____________________

Specification______________________ Suggestions and evaluation of the product________