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## Hakko T30-J

# HAKKO T30-J Solder Tip User Manual

Brand: Hakko | Model: T30-J

## INTRODUCTION

This manual provides essential information for the proper use, maintenance, and care of your HAKKO T30-J Bent Solder Tip. The T30-J tip is designed for precision soldering applications, particularly suitable for drag soldering and working in narrow spaces. Adhering to these instructions will ensure optimal performance and longevity of your solder tip.



Figure 1: HAKKO T30-J Bent Solder Tip. This image displays the overall view of the HAKKO T30-J solder tip, highlighting its bent shape designed for specific soldering tasks.

### Unpacking

Carefully remove the HAKKO T30-J solder tip from its packaging. Inspect the tip for any visible damage before use.

### Compatibility

The HAKKO T30-J solder tip is specifically designed for use with the HAKKO FM-2032 Micro Soldering Iron. Ensure your soldering station and iron are compatible with T30 series tips for proper function and heat transfer.



Figure 2: HAKKO FM-2032 Micro Soldering Iron. This image illustrates the HAKKO FM-2032 Micro Soldering Iron, which is compatible with the T30 series solder tips, including the T30-J.

### Installing the Solder Tip

1. Ensure the soldering iron is powered off and cool.
2. Carefully insert the T30-J tip into the designated slot on the HAKKO FM-2032 Micro Soldering Iron.

3. Ensure the tip is securely seated to allow for proper heat transfer.

## OPERATING INSTRUCTIONS

### Selecting the Correct Tip Shape and Size

The tip shape and size are critical for effective soldering. Consider the thermal capacity of the Printed Wiring Board (P.W.B.) and the electronic components. A wider contact area generally allows for more efficient heat transfer. Ensure the tip size is appropriate for the land diameter to prevent damage from overheating.



#### Shape I

Shape I has a conical tip end like Shape B but quite thinner. It is suitable for soldering fine components and in narrow spaces.

##### Soldering fine components



A slim tip end makes it easy to solder fine components.

##### Soldering in the narrow spaces



It is easy to work with shape I for the narrow pitches where the tip end of shape B contacts the components nearby.





#### Shape J

Shape J is the bent type of Shape I or D. Shape J tips are good for drag soldering with the bent area as well as for soldering in the narrow spaces.

##### Drag soldering



Drag the soldering tip slowly using the bottom surface of tip end.



##### Fixing solder bridge



If there is a little solder, keep the tip upright and slide it in the direction of the red arrows.

If there is too much solder, place the bottom surface of the tip to the bridging area and drag in the direction of the red arrows.

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Figure 3: Overview of HAKKO Solder Tip Shapes. This image displays various tip shapes, including B, I, J, D, C, BC, BCM, K, and Special shapes, illustrating the diversity available for different soldering needs.

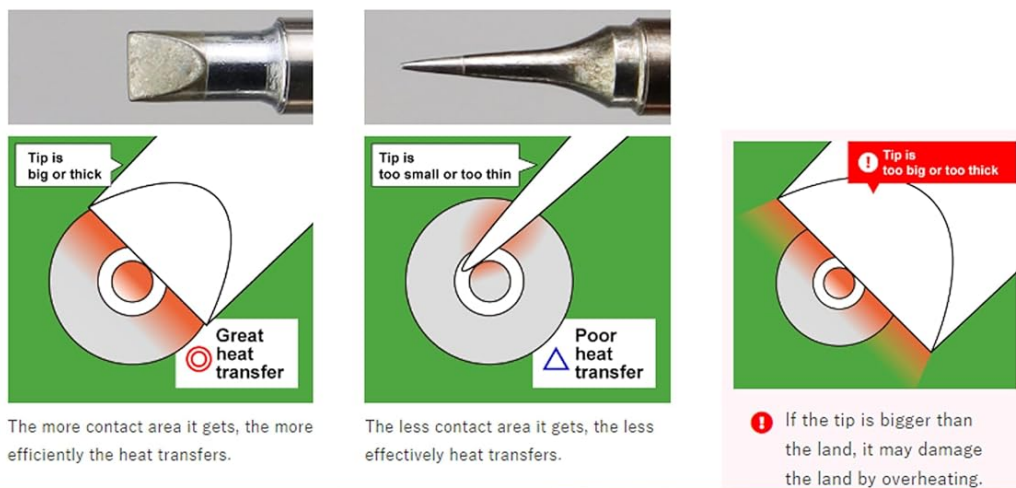
The tip shape is one critical factor for soldering as it can make a big difference in soldering performance.

**Make sure to select the correct shape and size for your soldering application**



**B Shape I Shape J Shape D Shape C Shape BC Shape BCM Shape K Shape Specials**

Consider the thermal capacity of the P.W.B. and the electric components (size and shape). It is important to select the soldering tip with enough thermal mass for the boards and components, and a wide contact area to effectively transfer the heat to the soldering point. Consider the size and shape of the P.W.B. and components for their thermal mass carefully, and select the soldering tip that fits with them well. Be sure not to select the tip that is too big for the land diameter.



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Figure 4: Heat Transfer Efficiency. This diagram illustrates how the contact area between the solder tip and the workpiece affects heat transfer. A larger contact area (left) results in great heat transfer, while too small (middle) or too large (right) can lead to poor heat transfer or damage.

## Using the T30-J Bent Tip

The T30-J tip features a bent design, making it ideal for specific soldering techniques and challenging access points.



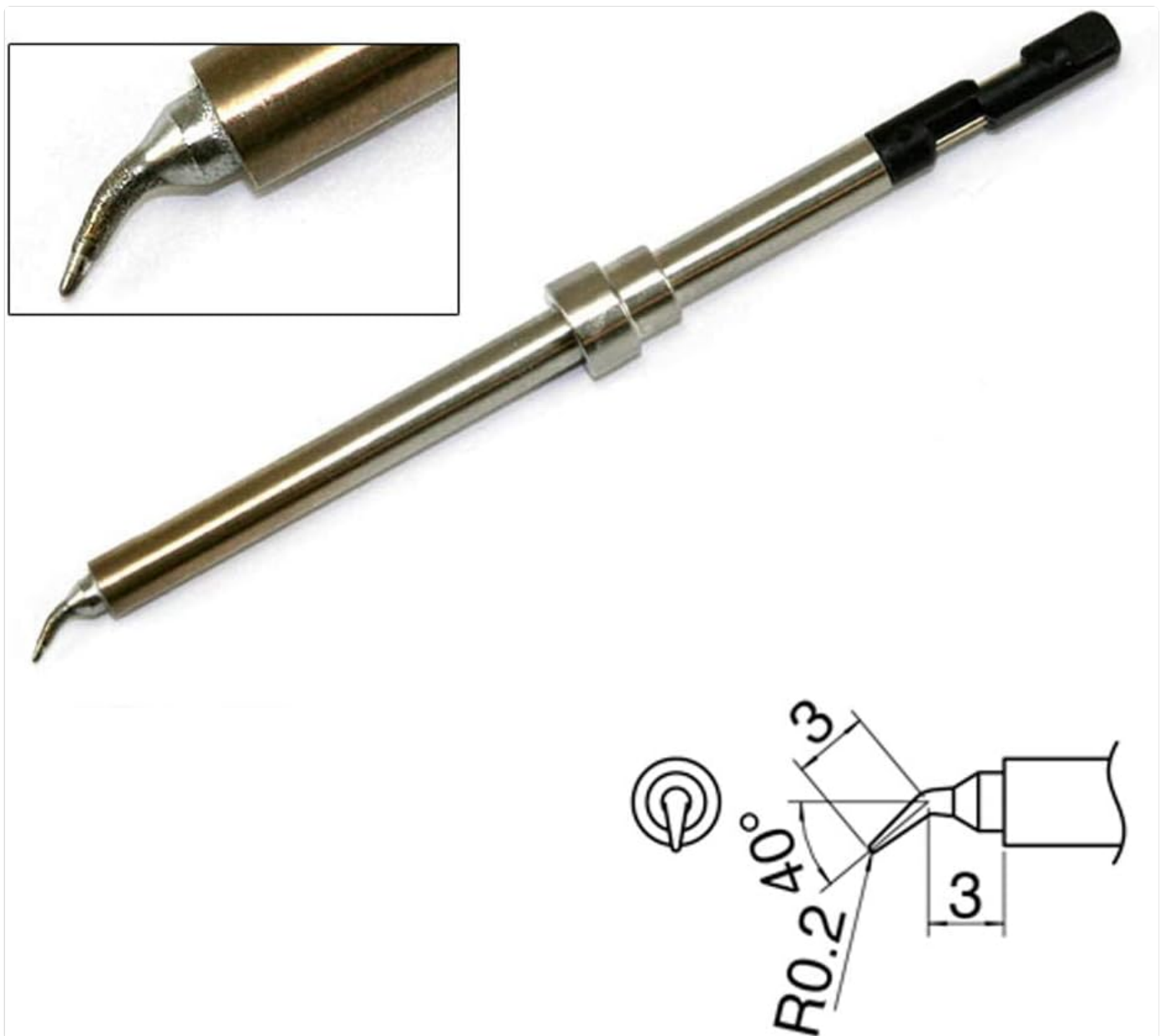
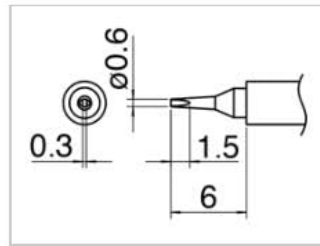


Figure 5: Close-up of T30-J Bent Tip. This image provides a detailed view of the bent tip, showcasing its precise angle for intricate soldering tasks.

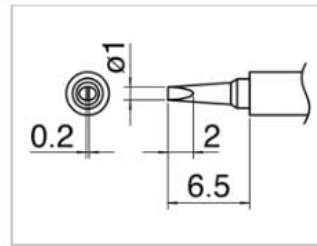
- **Drag Soldering:** The bent shape of the T30-J is excellent for drag soldering. Lay down the end pad section and drag the tip slowly. Apply flux to leads and land pads before soldering to prevent bridging.
- **Soldering in Narrow Spaces:** The bent tip allows for easier access and manipulation in confined areas, such as soldering tiny chip parts (e.g., 0603 packages). Lay down the end pad section and put the tip to the board.
- **Correcting Bridging:**
  - If the bridge amount is small, stand the tip on end and drag the tip slowly.
  - If the bridge amount is large, lay down the end pad section and drag the tip slowly while putting the tip on the solder in the bridged section.

*Note: Always operate with a clean tip when correcting bridging.*

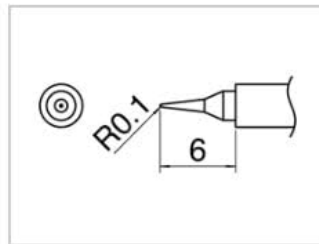
Available to Purchase Separately



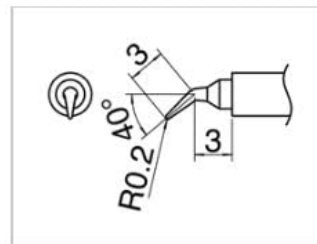
T30-D06 Shape-0.6D



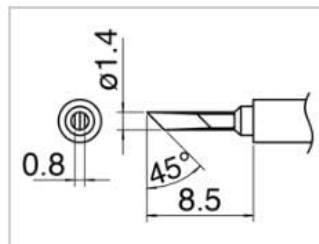
T30-D1 Shape-1D



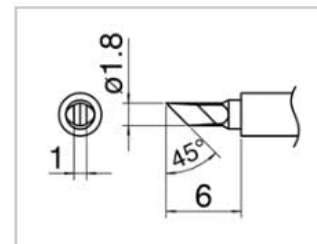
T30-I Shape-I



T30-J Shape-J



T30-KN Shape-KN



T30-KU Shape-KU

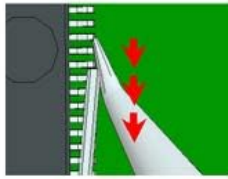
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Figure 6: J Series Soldering Techniques. This image illustrates drag soldering, soldering tiny chip parts, and correcting solder bridges using the J series tips, including the T30-J.

## Optional Nitrogen Soldering

For advanced applications, the T30 series tips can be used with nitrogen soldering setups, requiring an additional nozzle assembly. This can enhance soldering quality by preventing oxidation.

## Drag soldering



Lay down the end pad section and drag the tip slowly.

**NOTE** Apply flux to leads and land pads before soldering. It prevents the troubles such as solder bridge.

## Soldering tiny chip parts such as 0603

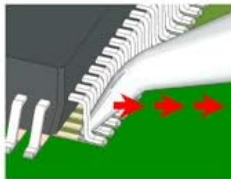


Lay down the end pad section and put the tip to the board.

\* Soldering tip in the picture is T30-J with an N2 system iron for pre-heating effect.

**NOTE** Some IC is specified by manufacturer not to be touched electrode by tip end.

## Correcting Bridging



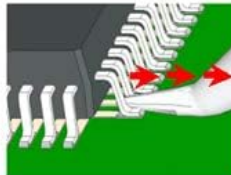
If the bridge amount is small

Stand the tip on end and drag the tip slowly.

**NOTE** Please operate with clean tip.



The operating bellow is also available.

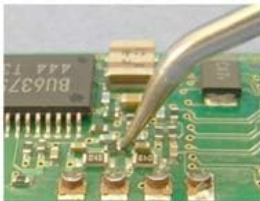


If the bridge amount is large

Lay down the end pad section and drag the tip slowly while putting the tip on the solder in the bridged section.

**NOTE** Please operate with clean tip.

## Soldering at the narrow pitches

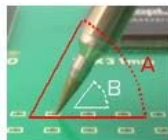


Enlarge the tip end.

You can hold the grip with the natural angle (Refer to A) while soldering with Shape J, which has the same high-angle of tip end (Refer to B) as Shape I.



Shape J



Shape I

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Figure 7: Nitrogen Soldering Nozzle Assembly. This image shows various nozzle assemblies (C5038, C5040, C5041) compatible with T30 series soldering tips for nitrogen soldering applications.

## MAINTENANCE AND CARE

### Tip Cleaning

Regular cleaning of your solder tip is crucial for maintaining its performance and extending its lifespan. Use a dedicated tip cleaner or a damp sponge to wipe off excess solder and oxidation during and after use.

## Recommended Extras (Available to Purchase Separately)



599B  
Tip Cleaner



B2756  
Tip Holder



Solder Wire Holder  
611-1 (Single)  
611-2 (Double)



FG100B  
Tip Thermometer



FA-400 Desk Top  
Fume Extractor



FT-700  
Tip Cleaner + Polisher

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Figure 8: Recommended Tip Cleaning Accessories. This image displays the HAKKO 599B Tip Cleaner, an essential accessory for maintaining the cleanliness and performance of your solder tips.

## Storage

When not in use, store the solder tip in a dry, clean environment. Using a tip holder can prevent damage and keep the tip organized.

## TROUBLESHOOTING

This section addresses common issues you might encounter with your HAKKO T30-J solder tip.

Issue	Possible Cause	Solution
Tip not heating properly	Poor contact with heating element; incorrect installation; faulty soldering iron.	Ensure tip is fully seated. Check soldering iron connection. Consult FM-2032 manual for iron troubleshooting.



Issue	Possible Cause	Solution
Solder not wetting the tip	Tip oxidation; insufficient tinning; incorrect temperature.	Clean and re-tin the tip. Ensure proper soldering temperature is set on the station.
Tip wears out quickly	Excessive pressure; abrasive cleaning; high temperature settings.	Use light pressure. Use appropriate cleaning methods (e.g., brass wool). Verify temperature settings are suitable for the solder.

## PRODUCT SPECIFICATIONS

Specification	Detail
Model Number	T30-J
Tip Type	Bent
Dimensions	0.07 in. x 0.11 in. (approximate working area)
Material	Iron (tip material)
Color	Black (handle/base)
Compatibility	HAKKO FM-2032 Micro Soldering Iron
Item Weight	3.22 g
Manufacturer	AMERICAN HAKKO PRODUCTS INC

## WARRANTY AND SUPPORT

### Warranty Information

HAKKO products are manufactured to high-quality standards. For specific warranty details regarding your T30-J solder tip, please refer to the warranty documentation provided with your HAKKO soldering station or visit the official HAKKO website. Solder tips are consumable items and their lifespan can vary based on usage and maintenance.

### Customer Support

For technical assistance, troubleshooting, or inquiries about your HAKKO T30-J solder tip, please contact HAKKO customer support through their official website or authorized distributors. Provide your product model number (T30-J) and any relevant purchase information when seeking support.