

A global organization at your service

JBC is a global company with a distributor network spanning 5 continents that guarantees a solid commercial organization with quick and efficient service.

The power of experience

More than 85 years of experience have placed JBC at the technological forefront of tools for soldering and rework operations in electronics. Innovation, efficiency and reliability are the key features of a wide range of products which have been designed to satisfy the most demanding requirements of professionals.

High technology, superior quality

Product perfection is one of the main objectives of JBC's improvement and development program. The R&D department has created the most innovative soldering technologies, which JBC is proud to present in this catalogue.



ESD safe

All JBC products comply with CE standards and EDS recommendations.



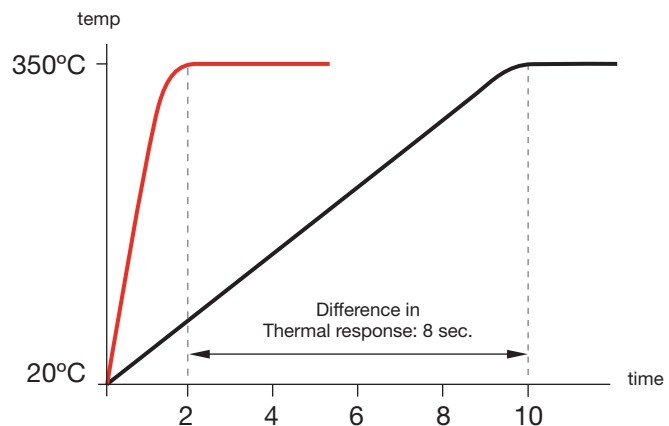
JBC Soldering SL. reserves the right to update, modify or delete any information without previous notice.

High Technology for **quality** soldering

The **JBC** Exclusive Heating System

JBC's stations work with the JBC Exclusive Heating System which recovers tip temperature extremely quickly. This increases work efficiency and allows the user to work with lower temperatures.

350°C in 2 seconds



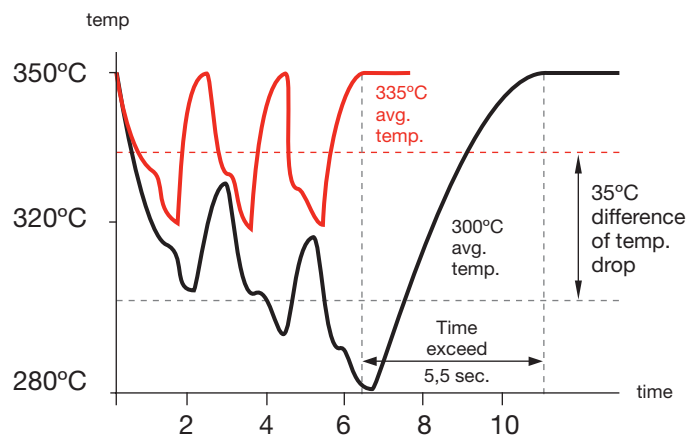
Enhanced
Temperature Efficiency



Increase Productivity
+ Better Quality

Efficient Temperature Control

Comparative process of 3 solder joints



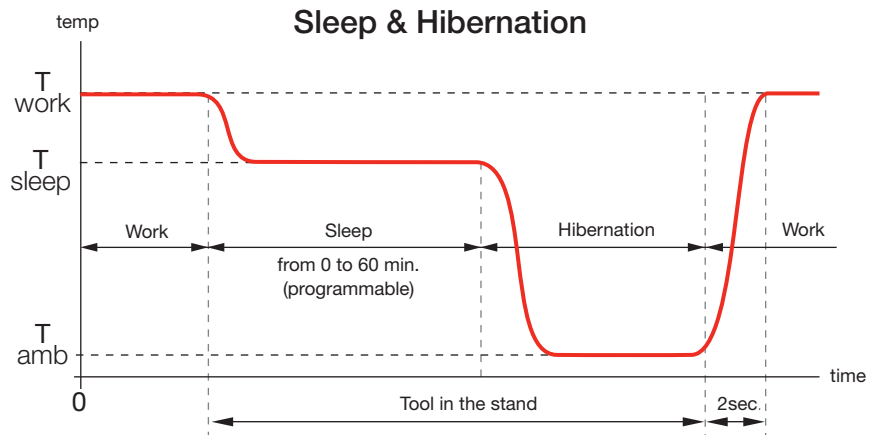
— JBC
— Another top brand

The Intelligent Heat Management

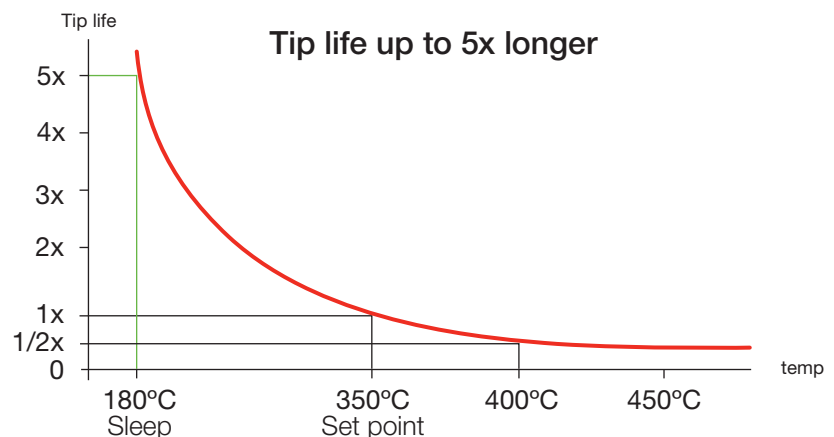
The JBC equipment also incorporates the **Sleep & Hibernation** modes to help extend tip life by further reducing the temperature when the tool is not in use. As a result, tip life increases by 5.

The **Sleep** function automatically reduces tip temperature when the tool is in the stand.

When the set time for Sleep mode is up, the station automatically goes to **Hibernation**. The power supply is cut and the tip remains at room temperature.

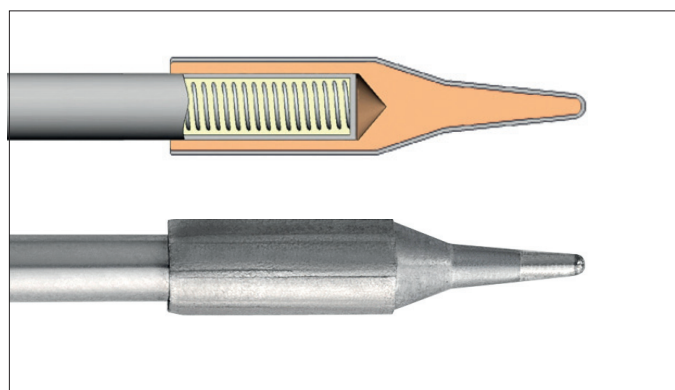


Tip life increases exponentially by using lower temperatures as shown. Using the **Sleep** mode the temperature is further reduced, which extends tip life by 5.



Cartridges with extended tip life

The essential part of the soldering iron is the tip so JBC has over 400 models of cartridges of different sizes and shapes to choose from depending on each application. JBC has developed the most advanced technology based on the following principles:



Excellent Heat Transfer

The compact element reduces thermal barriers.

Instantaneous Heating Up

A fully integrated thermal sensor in the heater ensures quick temperature recovery.

Great Durability

The intelligent algorithm control program extends tip life.

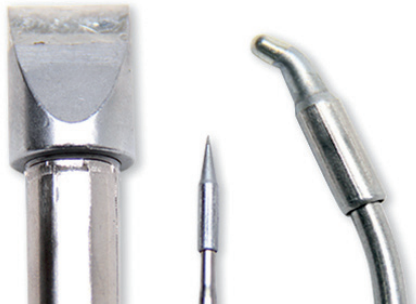
When you start working do not forget:

Bigger is better

As you know, **the bigger the solder tip, the better the thermal transfer**. So remember to **select the biggest tip possible for your application**. This way you will be able to:

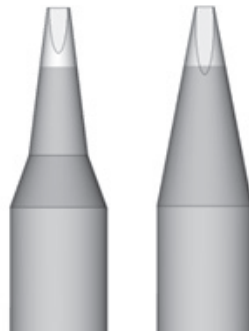
- ▶ Work at **lower temperatures** (350°)
- ▶ Improve **thermal performance**
- ▶ Reduce **collateral damage**
(*thermal stress on components and PCBs*)
- ▶ Obtain **better results** in **less time**
- ▶ Increase **temperature precision**

Over 400 tips of different sizes, shapes and power



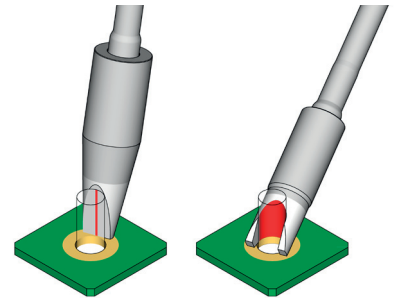
The JBC range includes models from Ø0,1 mm for precision work to the Ø15 mm for high power requirement applications.

Geometry
Slimness vs Efficiency



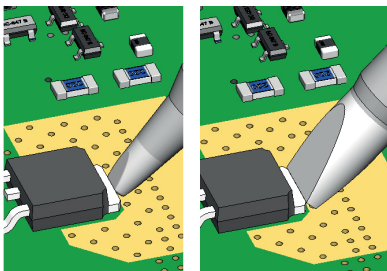
A high thermal efficient tip makes your job up to **40% faster** than a tip with a slimmer geometry.

Increasing the contact surface
Tip-Application



The bigger the contact surface the tip has with application, the higher the **thermal transfer**.

Largest mass possible



The more mass the tip has, the more heat accumulated and the **lower the temperature drop**.

Maintain tip surface clean and tinned



Remember that rusty and dirty surfaces reduce **heat transfer** to the solder joint.
(See JBC's cleaning methods on pages 8-9).

Factors limiting **life of tips**

Working temperature

The higher the temperature, the higher the oxidation and the corrosion.

Work at the lowest possible temperature. Use thermal efficient tools and keep tips clean of oxidation.

Flux and solder alloy

Too much active Flux can cause corrosion.

IPC recommends: ROL, REL and ORL.

The internal flux from small Ø solder reels might not be enough. Provide external Flux if necessary.

Correct soldering techniques

Too much pressure on the surface to solder can cause tip or plate breakage.

Do not use as a pointed object or a screwdriver.

Choose the biggest possible tip for each application to work at the lowest possible temperature.

Iron plating thickness

The wearing down of the plate shortens its life (hollowed-out).

Do not use mechanical or chemical means to clean the tip. Use the cleaning methods provided by the manufacturer.

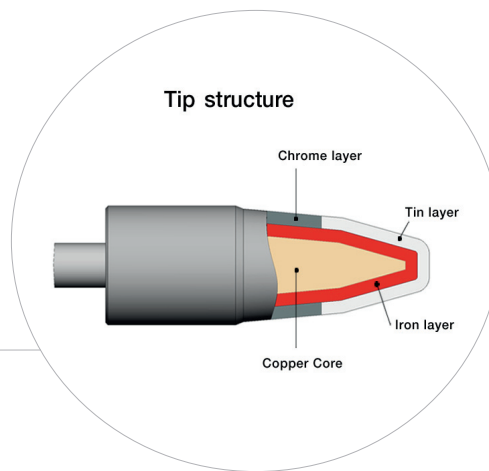
Do not apply too much pressure.

Oxidization

Iron oxide does not wet nor transfer temperature well (dewetting). The higher the temperature, the greater the risk of oxidation. Keep tips always tinned while not in use.

Use flux on your solder joints.

Take advantage of SLEEP & HIBERNATION functions.



- ▶ Always work at the **LOWEST POSSIBLE TEMPERATURE**.
- ▶ Uses **THERMAL EFFICIENT TOOLS**.
- ▶ Choose the **BIGGEST** tip possible.
- ▶ IPC recommends FLUX **ROL**, **REL** and **ORL**.
- ▶ Protect the tip with a **TIN COATING** when not in use.
- ▶ Use the **SLEEP & HIBERNATION** functions.
- ▶ **DO NOT** apply too much pressure to the tip
- ▶ Use the **CLEANING METHODS** recommended by the manufacturer.
- ▶ Only use re-tinners when absolutely necessary.



Cleaning systems

For a good thermal transfer, we must keep the tip clean of oxidizing and solder remains.

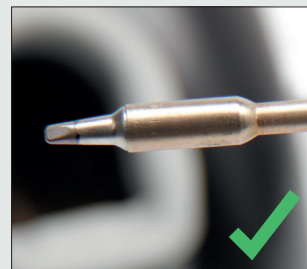
Clean the tip in a fraction of a second

With automatic cleaners you get optimal and uniform cleaning in a very short time.



Improve heat transfer

A clean tip is always easier to tin resulting in higher quality solder joints.



JBC offers effective, practical and affordable methods to prevent splashing and extend a tip's life:

CLMS · Automatic Junior Tip Cleaner

Two modes of operation

The motorized brushes start by pressing the button or by selecting the continuous mode.

Save space

You can easily fit the tip cleaner into your work area thanks to its reduced size.

Splashguard

Switch ON



Brushes for CLMS
Ref. **CLMS-A8**



CLMB · Automatic Senior Tip Cleaner

Ref. **CLMB-A**, **CLMB-PA**

Sensor detection

Two motorized brushes start working when the sensors detect the tip at the window.

Vertical Access

This innovative tip cleaner features a second position which facilitates working with robots.



Easy to empty

The solder collector tray can be easily emptied and re-used with no wear and tear.



Keep your work area clean

The splashguard helps keep the bench always clean and free of solder particles.



CL6166 · Tip Cleaner

Designed to be used at the **workbench**.



Splashguard

Brushes for CLMB

Ref. **CLMB-P1**

Non metal brushes

Ref. **CLMB-A8**



Brass wool

Ref. **CL6210**

Very effective cleaning method. Leaves a small layer of solder on the tip preventing oxidation between cleaning.



Splashguard

Minimises splashing of solder particles.

Tip wiper

Ref. **CL0240**

This is the method to eliminate the excess of solder in the tip.



Sponge

Ref. **CL0354**

This is the softest method. Be sure to have the sponge always clean and wet, not soaked, with de-ionated water.