

# ATTEN



## CARTRIDGE GUIDE

Feel the quality, be exclusive

# ABOUT US

One of the largest and most powerful electronic instrument and electronic tool manufacturers in China, located in Guangming District, Shenzhen City since it was founded in 1996.

The member of China Soldering Station Industry Standard Committee and National Standardization Technical Committee of Home Appliances.

Transferred successfully from an OEM factory into a widely accepted brand enterprise and was titled many times as the "National New High-tech Enterprise" through continuously brought in professional work staff and international management principles.

A system work solution provider experienced in developing, manufacturing, sales and after-sales services, and focused in the following two industrial categories:

1. Advanced soldering and desoldering tools including lead-free soldering station, hot air station, rework system, BGA rework station.

2. Linear DC power supply, switching power supply and programmable power supply.

Enterprise obtained ISO9001:2015 quality control system. Products approved by CE, RoHS 2.0, UKCA, KC, SAA and CCC.

Establishing worldwide distribution network and local cooperation partnership.

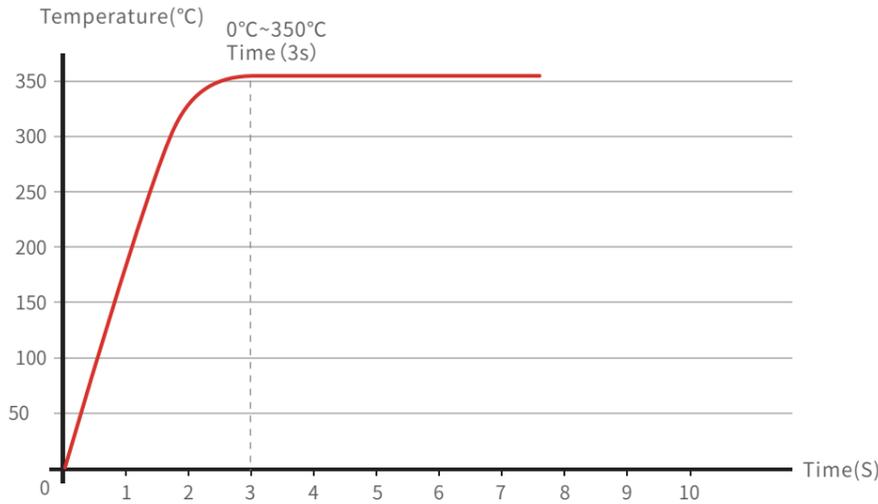


## Most Efficient Soldering System

### ATTEN Exclusive Heating System

ATTEN Stations work with ATTEN Exclusive Heating System, which recovers tip temperature extremely quickly. This increases work efficiency and allows the user to work with lower temperatures.

### Heating Time Test

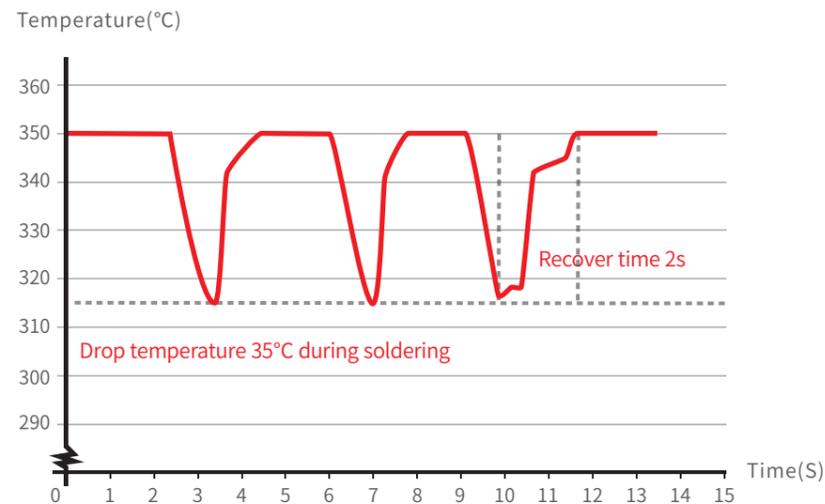


Rapid ramps up to set temperature for increased productivity

**Enhanced**  
Temperature Efficiency

**Increased**  
Productivity + Better Quality

### Drop temperature recovery time control curve



## Intelligent Heat Management

Thanks to automatic detection of the tool in the stand, ATTEN Soldering and Rework Stations allow the tools to enter into Sleep & Hibernation Modes when not being used. As a result, tip life lasts up to 5 times longer.

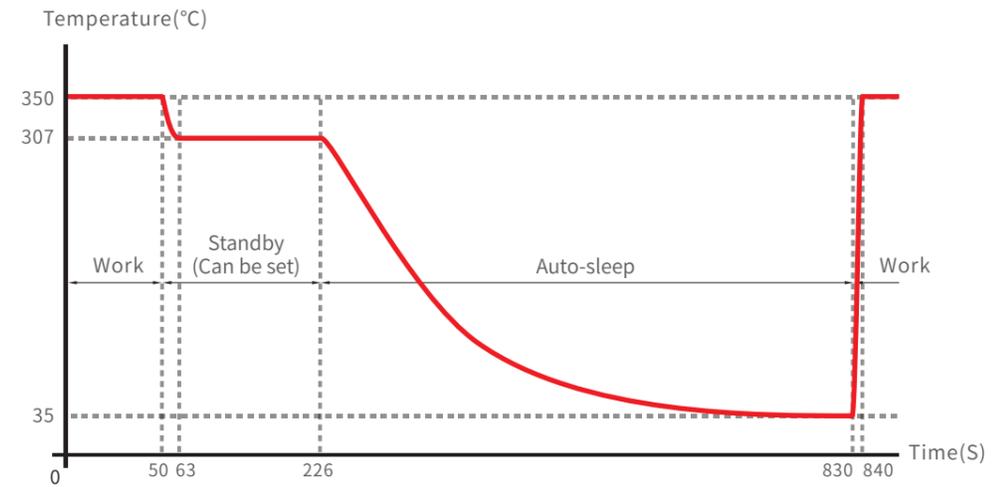
### Sleep Mode

Sleep Mode automatically lowers tip temperature below the solder melting point when the tool rests in the stand. It prevents the dissolution of the tip iron coating into molten solder.

### Hibernation Mode

After a configurable period of tool inactivity in the stand, the tool enters into Hibernation Mode. It cuts off the power supply making the tip reach room temperature thus preventing oxidation and saving energy.

### Auto-standby/Auto-sleep Show



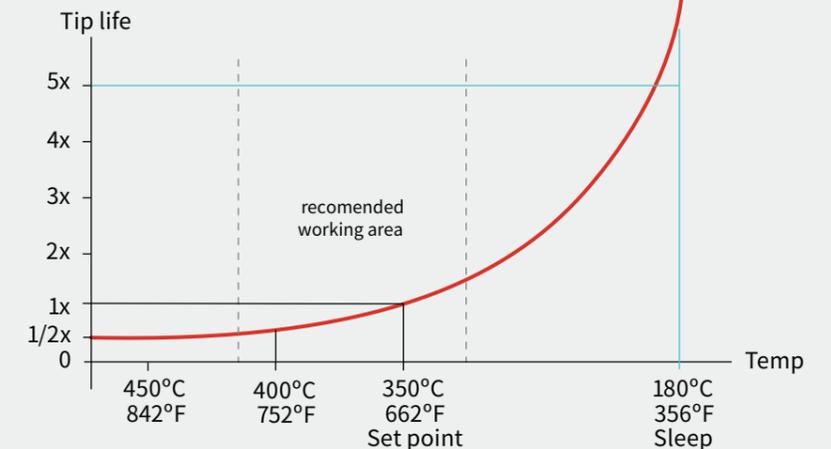
The standby function automatically reduces the temperature of the tip when the tool is in the stand. When the time set for standby mode is reached, the host will automatically enter sleep mode. The power is cut off and the tip temperature drops to room temperature. When used again, the tip quickly rises to the set temperature.

### Longer Tip life

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

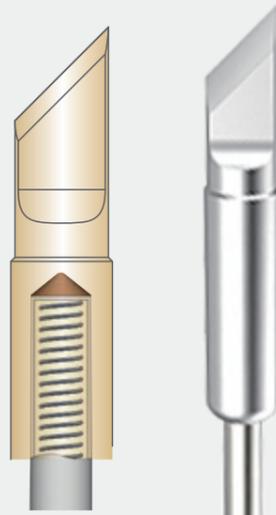
As data show: Tip's lifetime will be double prolonged, sleep mode to further extend lifespan.

### Tip's lifetime can up to 5 times



## Cartridges with **extended** tip life

The essential part of the soldering iron is the tip. Therefore, ATTEN has over 500 cartridge models of different shapes and sizes to choose from, depending on each application. JBC has developed the most advanced technology based on the following principles:



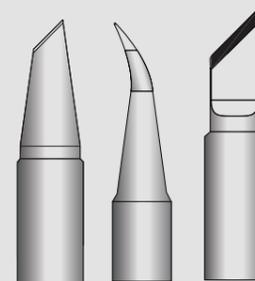
- Excellent Heat Transfer  
The compact element reduces thermal barriers.
- Instantaneous Heating  
A fully-integrated thermal sensor in the heater ensures quick temperature recovery.
- Great Durability  
The intelligent algorithm control program extends tip life.

**When You** Start Working Do Not Forget:

## **BIGGER** IS BETTER

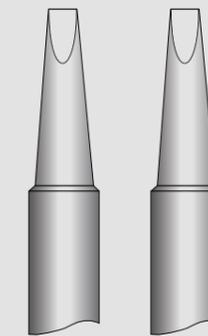
The bigger the solder tip, the better the thermal transfer. Select the tip that has the greatest contact area.

Various tips optional, can reach different needs



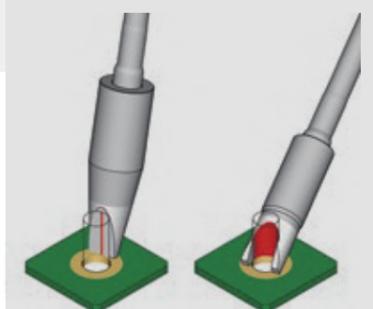
ATTEN Cartridges range from models for precision work to high power requirement applications.

Geometry Slimness vs Efficiency



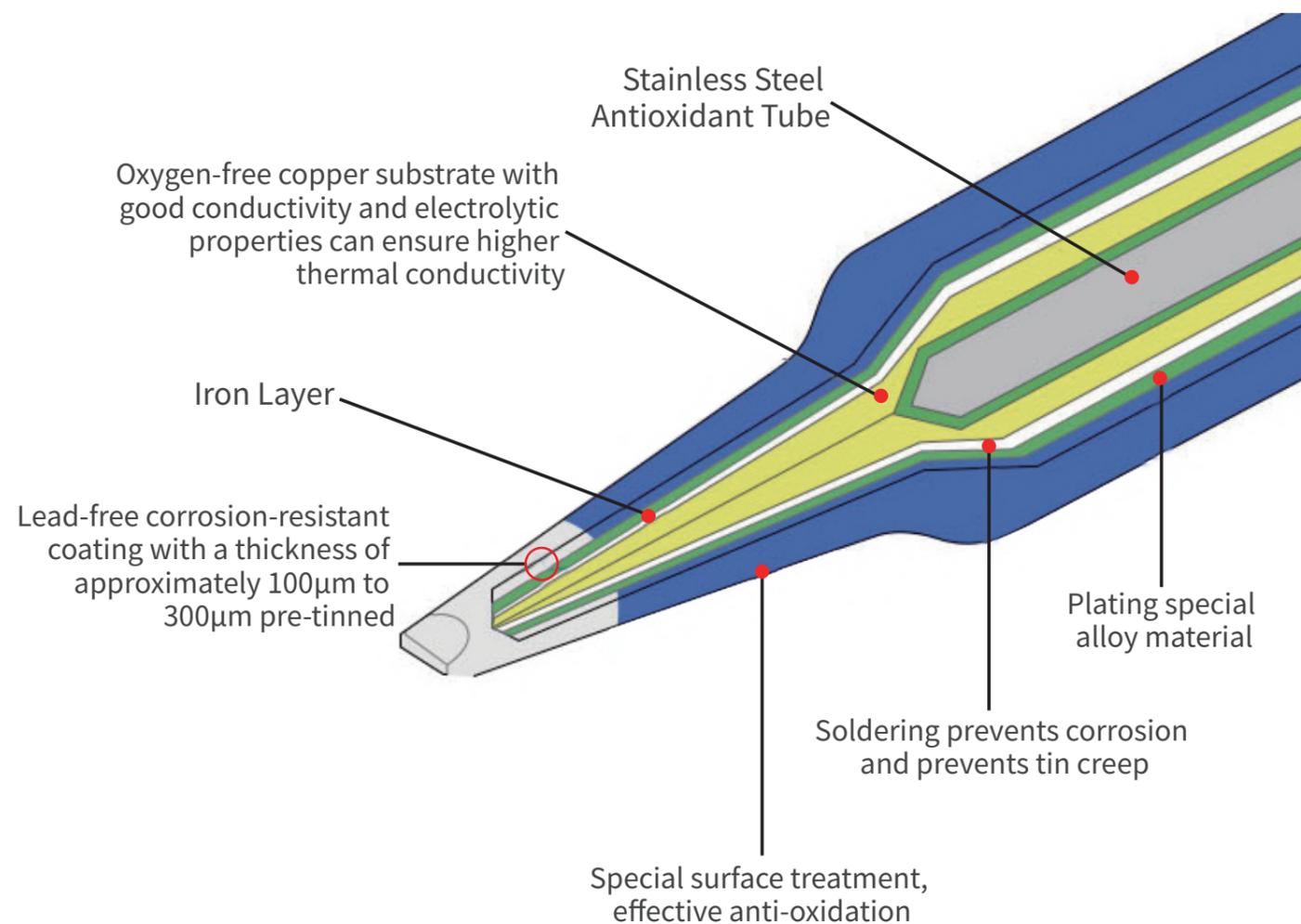
A tip with high thermal efficiency makes your job up to 40% faster than a tip with a slimmer geometry.

Increase the contact surface Tip - Application

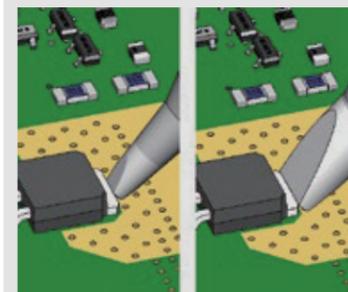


The bigger the contact surface that the tip has with the application, the higher the thermal transfer

## Intelligent Heat Management



Largest mass possible



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

Maintain tip surface clean and tinned



Remember that rusty and dirty surfaces reduce heat transfer to the solder joint.

This way you will be able to:

- work at lower temperatures (350°C / 662°F).
- obtain better results in less time.
- improve thermal performance.
- increase temperature precision.
- reduce collateral damage (thermal shock on components and PCBs).

# Factors limiting tip lifet

## Working temperature

The higher the temperature, the greater the oxidation and corrosion. Work with the lowest possible temperature the tip with the greatest contact area for each application. Use thermally efficient tools and keep tips clean of oxidation.

## Correct techniques

Too much pressure on the surface to solder can cause tip or plate breakage. Do not use the tip as a pointed object or a screwdriver. Choose the right temperature and tip shape for each application

## Iron plate thickness

Iron plate wear shortens tip life by hollowing tips out. Do not use mechanical or chemical means to clean the tip. Use the cleaning methods provided by the manufacturer - such as brass wool, automatic tip cleaner or sponges.



## Oxidization

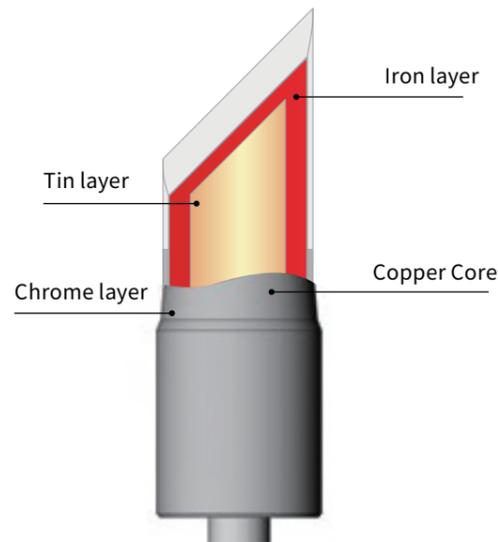
An oxidized soldering iron does neither wet nor transfer heat well (dewetting). The higher the temperature, the greater the risk of oxidation. Always keep tips tinned while not in use and take advantage of ATEN Sleep & Hibernation Modes

## Flux and solder alloy

Too much active flux can cause corrosion. IPC recommends: ROL, REL and ORL. Flux quantity inside small diameter solder wires might not be enough. Provide compatible external flux if necessary

## Remember

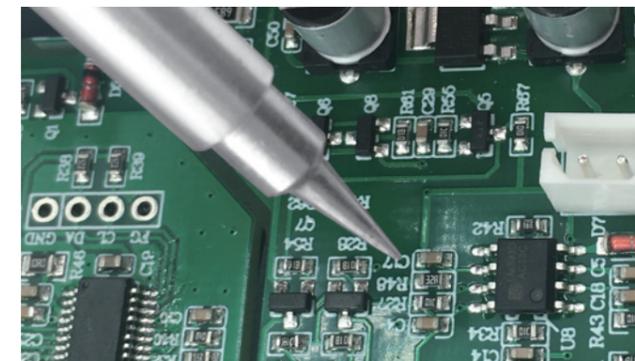
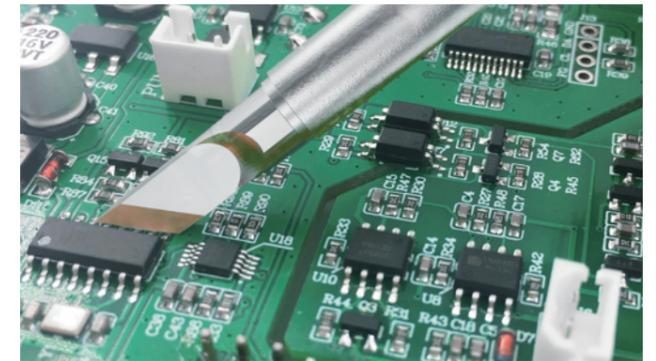
- Work with the lowest possible temperature.
- Use thermally efficient tools.
- Choose the right temperature and tip shape for each application
- IPC recommends: ROL, REL and ORL.
- Always keep tips tinned while not in use Take advantage of ATEN Sleep & Hibernation Modes
- Too much pressure on the surface to solder can cause tip or plate breakage Use the cleaning methods provided by the manufacturer.



# Tip application scenarios

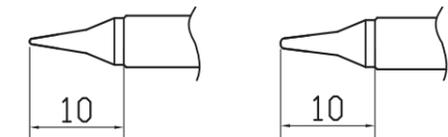
## K (Knife type)

It has good thermal conductivity and can be used for welding on both sides of the knife shape, which can perform almost any work, especially for the neat and vertical pads side by side with a good welding effect. Such as terminal blocks, IC chips, etc., it is a multi-functional soldering iron head.



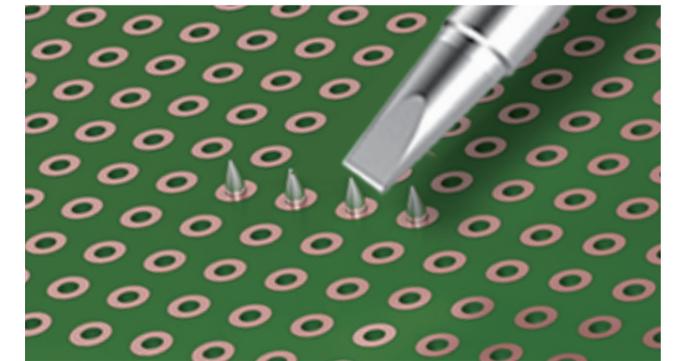
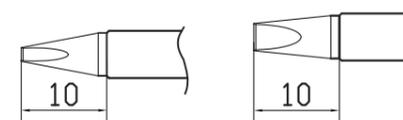
## I (Sharp Type)

Its tip is very small. It is very suitable for precision welding. Due to the thin tip, the thermal conductivity is slightly poor, so it is not easy to weld large solder joints. Such as welding small SMD resistive components (0603, 0402) with good results.



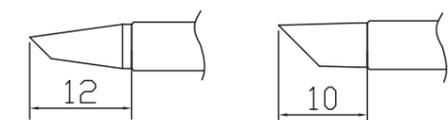
## D (Chisel Type)

The thermal conductivity of the excellent surface iron head is adopted, and the welding performance of the surface is used to perform welding in a good way.



## C (Horseshoe type, bevel type)

Use the corresponding inclined plane of the front end for welding. This kind of soldering iron has good thermal conductivity and is suitable for cleaning the solder plane. It is also suitable for welding large pads and welding surfaces with more heat requirements.



## Integrated heater (50W)

<p>T50-0.1IS / T950-0.1IS</p>	<p>T50-0.3IS / T950-0.3IS</p>	<p>T50-0.1SI / T950-0.1SI</p>	<p>T50-0.3SI / T950-0.3SI</p>
<p>T50-0.5I / T950-0.5I</p>	<p>T50-1.2C / T950-1.2C</p>	<p>T50-K / T950-K</p>	<p>T50-2.0SK / T950-2.0SK</p>
<p>T50-1.3D / T950-1.3D</p>	<p>T50-2.2D / T950-2.2D</p>	<p>T50-3.0D / T950-3.0D</p>	<p>T50-3.5SK / T950-3.5SK</p>

## Integrated heater (100W)

<p>T100-0.5I / T9100-0.5I</p>	<p>T100-1.3D / T9100-1.3D</p>
<p>T100-2.2D / T9100-2.2D</p>	<p>T100-1.0I / T9100-1.0I</p>

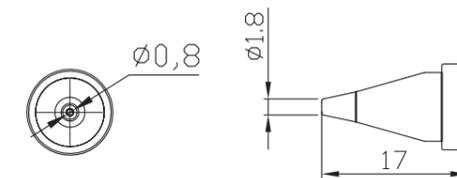
## Desoldering Nozzles (T151)



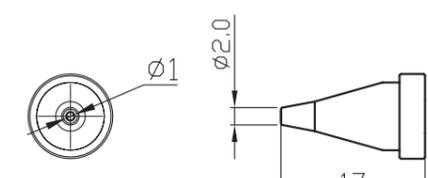
### GT-Y050

#### 50W Mini Soldering iron

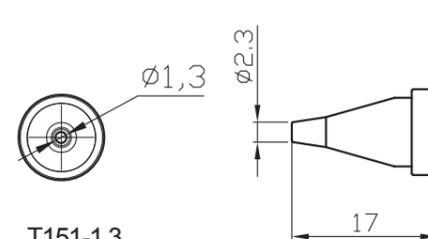
50W mini soldering iron, suitable for small welding components



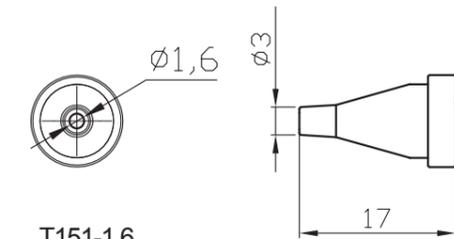
T151-0.8  
ACF029749



T151-1.0  
ACF029633



T151-1.3  
ACF029634

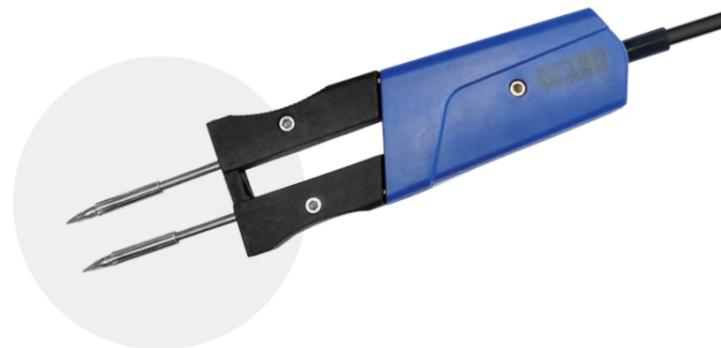


T151-1.6  
ACF029635

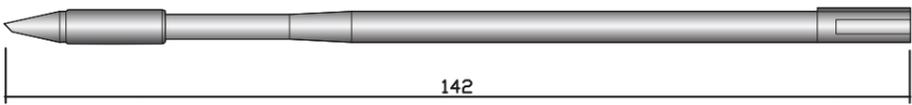
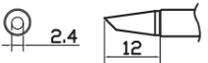
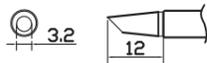
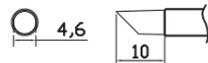
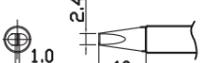
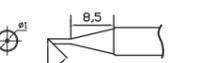
### GT-N100

#### 100W Tweezers handle

With soldering and desoldering function, suitable for soldering and desoldering various SMD devices



## Integrated heater (130W)

			
 T130-1.2C T9130-1.2C	 T130-2.4C T9130-2.4C	 T130-3.2C T9130-3.2C	 T130-4.6C T9130-4.6C
 T130-1.6D T9130-1.6D	 T130-2.4D T9130-2.4D	 T130-3.2D T9130-3.2D	 T130-4.6D T9130-4.6D
 T130-0.5I T9130-0.5I	 T130-1.0I T9130-1.0I	 T130-K T9130-K	 T130-C T9130-C
 T130-SI T9130-SI	 T130-0.5IS T9130-0.5IS	 T130-SK T9130-SK	

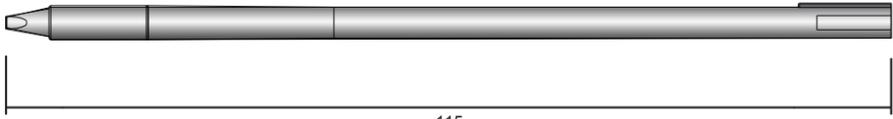
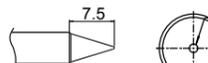
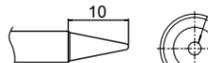
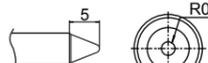
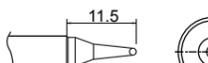
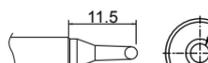
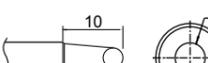
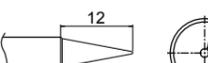
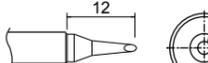
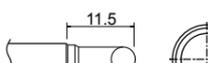
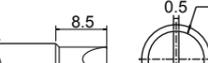
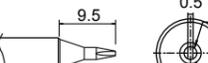
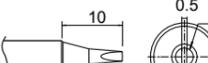
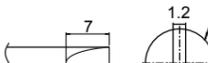
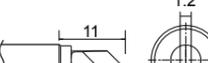
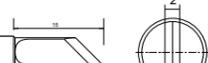
## GT-Y130

### 130W Soldering iron

130W middle size soldering iron, suitable for most welding components



## Soldering tips (T990)

			
 T990-B	 T990-B2	 T990-B3	 T990-B4
 T990-BC1	 T990-BC2	 T990-BC3	 T990-BL
 T990-C1	 T990-C4	 T990-D4	 T990-D08
 T990-D16	 T990-D12	 T990-D24	 T990-D52
 T990-I	 T990-KU	 T990-K	

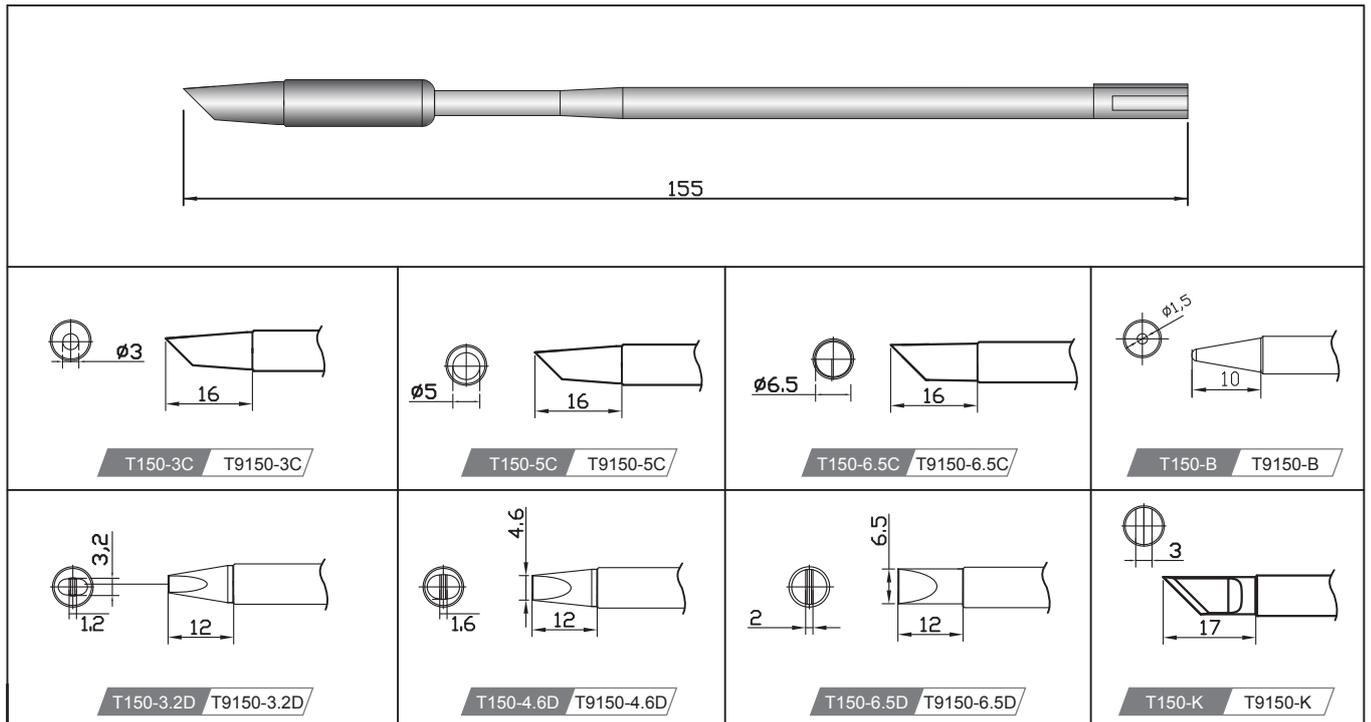
## GT-Y150

### 150W High- power Soldering iron

150W high- power soldering iron with sufficient heat energy, suitable for welding large bonding pad and weldments



## Integrated heater (150W)



## GT-X150

### 150W Desoldering gun

High power, heating up quickly, minimize damage to PCB boards. New design with replaceable nozzle, heat conducting quickly, high efficiency and low cost