

Soldering Tools and Equipment

Product Catalogue 2009



Soldering/Desoldering

Convection Rework

Fume Extraction

Fluid Dispensing



OKI

TAP into OK International and become a SuperProducer



Only at OK International will you find conduction soldering & rework, convection rework, fume extraction and fluid dispensing products that allow you to TAP into three advantages over competitive systems.

Training Advantage

Our products require minimal training time, and are easy and comfortable to use.

Application Advantage

We design our products to be multi-functional and flexible to meet every application need.

Productivity Advantage

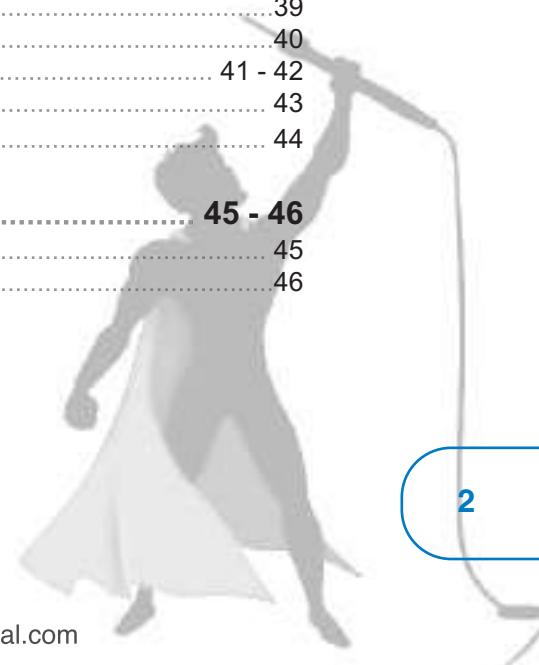
Our products are proven to improve productivity, yield and your bottom line.



Learn more and view our customers testimonials at www.beasuperproducer.com

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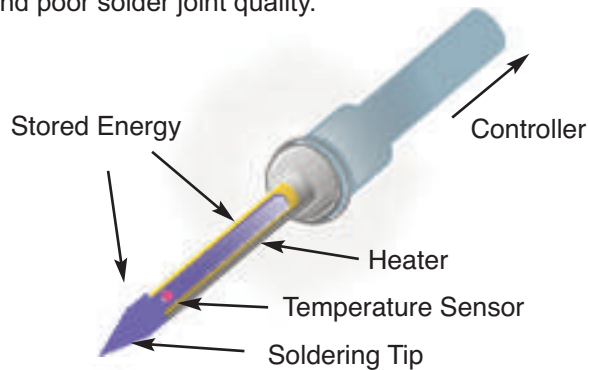
SmartHeat® Technology

OK International is the only provider of SmartHeat® patented Soldering Technology. SmartHeat® senses the exact thermal requirement for each solder joint and responds by delivering the precise amount of thermal energy required to create a reliable connection.

The result is a high degree of control without resorting to higher tip idle temperatures required by conventional heater process technologies. Consequently, the risk of component and board damage is minimized. This is especially important with the greater thermal demands required by lead-free applications.

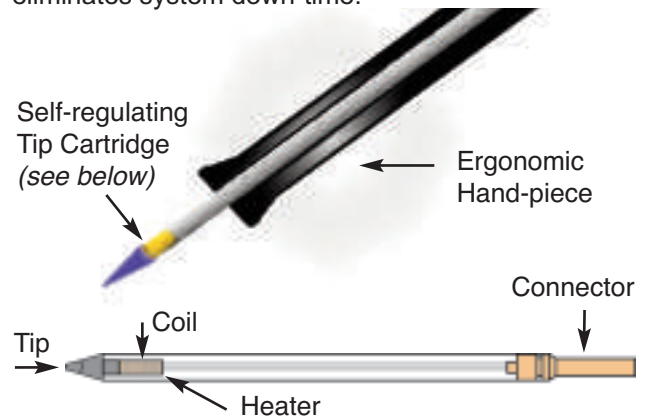
Conventional Soldering Technology = Fixed Power / Variable Temperature

- ▶ Conventional soldering irons are fixed power systems that store energy in the tip, they don't adjust power in response to thermal demand.
- ▶ The temperature needs to be manually set and adjusted to vary the amount of thermal energy applied, the operator can vary the process.
- ▶ The tip cools as it heats the joint and the heater reheats the tip, often overshooting the set temperature.
- ▶ Conventional soldering systems require calibration.
- ▶ The actual tip temperature can vary widely from set point, slowing the process and causing thermal damage and poor solder joint quality.

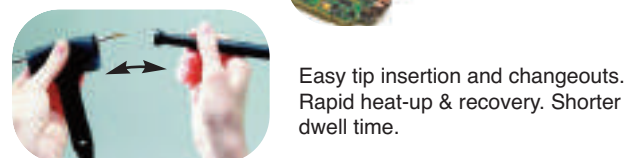
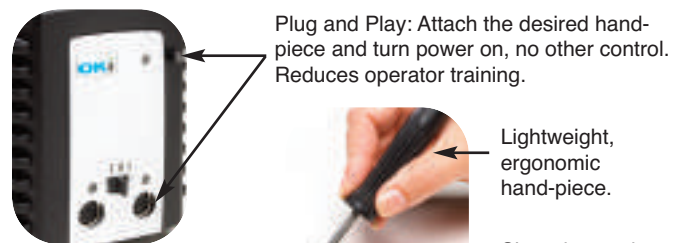


SmartHeat® Soldering Technology = Variable Power / Fixed Temperature

- ▶ SmartHeat® tips and cartridges sense the load and instantly deliver the right amount of heat directly to the solder joint.
- ▶ The required solder joint temperature drives the heating process, as opposed to the idle tip temperature setting (as in a conventional iron).
- ▶ Operates at lower safer temperatures. Power is delivered in proportion to the load. SmartHeat® technology eliminates overshoot.
- ▶ No calibration required - saves money and eliminates system down-time.



Other Unique OKi Features



Watch the SmartHeat® Video at www.okinternational.com/video

Hand Soldering & Rework Product Selection

SELECT A COMPLETE SYSTEM

| | Soldering | Rework | Desoldering, External Air | Desoldering, Internal Air Pump | Tweezer Hand-Piece | Cartridge Hand-Piece | Tip Hand-Piece | Single Output | Dual Simultaneous Output | Dual Switched Output | Auto Sleep Workstand | OKi Tips | OKi Cartridges | SSC Cartridges |
|----------|-----------|--------|---------------------------|--------------------------------|--------------------|----------------------|----------------|---------------|--------------------------|----------------------|----------------------|----------|----------------|----------------|
| PS-900 | ✓ | | | | | ✓ | ✓ | ✓ | | | | ✓ | | |
| MFR-1110 | ✓ | ✓ | | | | ✓ | ✓ | ✓ | | ✓ | | | ✓ | |
| MFR-1120 | ✓ | | | | | ✓ | ✓ | | | ✓ | ✓ | | | |
| MFR-1140 | | ✓ | | ✓ | | | ✓ | | | ✓ | | | ✓ | |
| MFR-1160 | ✓ | | | | ✓ | | ✓ | | | ✓ | | | | ✓ |
| MFR-1161 | ✓ | ✓ | | | ✓ ² | | ✓ | | | ✓ ² | | | ✓ | ✓ |
| MFR-2210 | ✓ | ✓ | | | ✓ | | | ✓ | | ✓ | | | ✓ | |
| MFR-2220 | ✓ | | | | | ✓ | | ✓ | | ✓ | ✓ | | | |
| MFR-2240 | | ✓ | | ✓ | | | | ✓ | | ✓ | | | ✓ | |
| MFR-2211 | ✓ | ✓ | | | ✓ ² | | | ✓ | | ✓ ² | | | ✓ | |
| MFR-2222 | ✓ | | | | | ✓ ² | | ✓ | | ✓ ² | ✓ | | | |
| MFR-2241 | ✓ | ✓ | | ✓ | ✓ | | | ✓ | | ✓ | | | ✓ | |
| MFR-DSX | | | ✓ | | | | | | ✓ | | | ✓ | | |
| MFR-DSI | | | | ✓ | | | | | ✓ | | | ✓ | | |
| MFR-SDX | ✓ | ✓ | ✓ | | ✓ | | | | ✓ | | | ✓ | ✓ | |
| MFR-SDI | ✓ | ✓ | | ✓ | ✓ | | | | ✓ | | | ✓ | ✓ | |

OR CONFIGURE YOUR OWN SYSTEM - 3 PLATFORMS ARE AVAILABLE

PS Platform - Single Output - Soldering Only

MFR Single or Dual Simultaneous Output Platform - Soldering and Rework

MFR Dual Switched Output Platform - Soldering and Desoldering

All OKi Consumables are shared between the 3 product platforms



| POWER SUPPLIES | HAND-PIECES (see page 11) | WORKSTANDS (see page 11) | CONSUMABLES |
|---|---|---|---------------------------|
| PS-PW900 Production Soldering | PS-HC3 Tip Hand-Piece (incl. PS-CA3 coil assembly) | WS2-NS (black Non Sleeper) WS2G-NS (green Non Sleeper) | OKi TIPS: PHT - SxV - CxV |
| MFR-PS1100 Single Output Soldering & Rework or MFR-PS2200 Dual Simultaneous Output Soldering & Rework | MFR-H2-ST Tip Hand-Piece (incl. MFR-CA2 coil assembly) | WS1 (black) / WS1G (green) | OKi TIPS: SxV - CxV |
| | MFR-H6-SSC Cartridge Hand-Piece | | METCAL CARTRIDGES: SSC |
| | MFR-H1-SC Cartridge Hand-Piece | MFR-WSPT (black) | OKi CARTRIDGES: SxP - RxP |
| MFR-PS2X Dual Switched Output Desoldering with External Air or MFR-PS2K Dual Switched Output Desoldering with Internal Air Pump | MFR-H4-TW Tweezer Hand-Piece | | OKi CARTRIDGES: TxP |
| | MFR-HSR Cartridge Hand-Piece | MFR-WSSR (black Non Sleeper) | OKi CARTRIDGES: SxP - RxP |
| | MFR-HDS Desoldering Gun | MFR-WSDS (black Non Sleeper) | OKi TIPS: DxP |



Tip Soldering Hand-Piece with Coil Assembly



Cartridge Soldering Hand-Piece

PS-900 Production Soldering System



The PS-900 Soldering System, powered by SmartHeat® Technology, is part of a new generation of **cost effective soldering** systems from OK International.

The PS-900 provides power and exceptional thermal control in a small benchtop footprint.

Key Features & Benefits

- ▶ SmartHeat® temperature control
- ▶ Ergonomic, lightweight handle
- ▶ Rugged cast aluminum housing
- ▶ Added plating thickness to tips
- ▶ Low cost, quick-change heater coil

The PS-900 increases productivity by performing a wide range of applications. It is designed for lead-free soldering processes, multilayer boards and thermally demanding components.



Technical Specifications

Power Supply

| | |
|-------------------------------|---|
| Ambient Operating Temperature | 10 - 40°C |
| Maximum Enclosure Temperature | 65°C |
| Input Line Voltage | 100 - 240 VAC |
| Input Line Frequency | 50/60 Hz |
| Power Consumption | 90 Watts max. |
| Output Power | 60 Watts max. at 22°C ambient temperature |
| Output Frequency | 450 KHz |
| Power Cord (3-wire) | 183 cm 18/3 SJT |
| Dimensions W x D x H | 80 x 160 x 115 mm (3.1" x 6.3" x 4.5") |

Soldering Handle and Coil Assembly

| | |
|--------------------------------|--|
| Tip-to-Ground Potential | < 2 mV |
| Tip-to-Ground Resistance | < 2 ohms |
| Idle Temperature Repeatability | ± 1.1°C in still air |
| Handle Cord Assembly Length | 122 cm – burn proof, ESD safe |
| Connector | 3-pin power connector |
| Overall length (with tip) | 230 mm (9.06") with standard tips |
| Grip diameter | 13 mm (0.51") |
| Tip to grip | 58 mm (2.28") |
| Tip shaft diameter | 8.0 mm (0.31") |
| Tip length | 82 mm (3.23") to 93 mm (3.66") (typical) |
| Workstand W x D x H | 105 x 175 x 90 mm (4.1" x 6.9" x 3.5") |

PS-900 Production Soldering System

| Part No. | Description |
|----------|-----------------|
| PS-900 | Complete System |

Includes:

| | | |
|----------|---|---|
| PS-PW900 | 1 | Power Supply |
| PS-HC3 | 2 | Hand-piece (PS-H3) and Coil Assembly (PS-CA3), no tips included |
| WS2-NS | 3 | Workstand, Black |

Other Accessories Available:

| | | |
|---------|---|--|
| PS-H3 | 4 | Hand-piece only, NO Coil Assembly |
| PS-CA3 | 5 | Coil Assembly for SxV Soldering Tips and CxV Blade Tips ONLY |
| WS2G-NS | | Workstand, Green |
| AC-CP2 | | Tip Removal Pad |
| WS2 | | Sleeper Stand |

TIPS



SxV
Soldering Tips



CxV
Blade Tips

See Pages 13 & 14



ONLY AVAILABLE ON PS-900 SYSTEM AND FOR USE WITH PHT TIPS

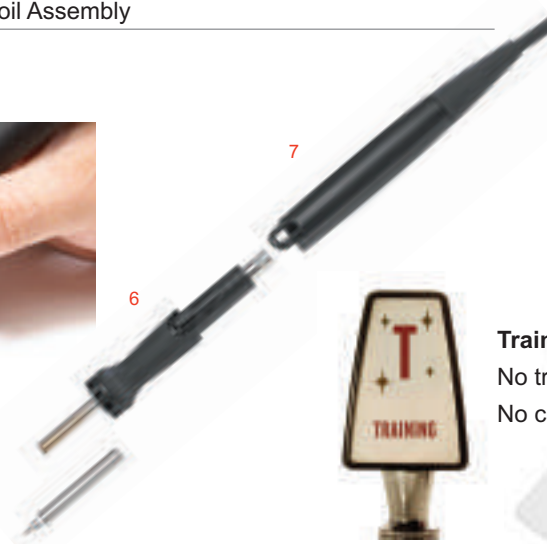
| | | |
|--------|---|---|
| PS-CA1 | 6 | Coil Assembly for PHT Soldering Tips ONLY |
| PS-HC1 | | Hand-piece (PS-H3) and Coil Assembly (PS-CA1) |
| PS-H3 | 7 | Hand-piece only, NO Coil Assembly |

TIPS



PHT
Light Load, Fine
Access Soldering Tips

See Page 18



Training Advantage

No training: Switch on and Solder
No calibration required either

MFR-1100 Series Single Output Soldering & Rework System



The MFR-1100 Single Output Series is designed to minimize training investment, maximize application solutions and increase productivity.

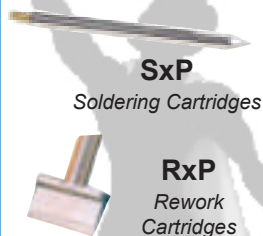
This Series is highly **versatile** in that it can be used with either a soldering tip, cartridge or tweezers and offers a choice of four hand-pieces.



| Systems | MFR-PS1100 Power Supply | MFR-H1-SC Soldering Cartridge Hand-piece | MFR-H2-ST Soldering Tip Hand-piece | MFR-H4-TW Tweezer Hand-piece | MFR-H6-SSC SSC Cartridge Hand-piece | WS1 Universal Soldering Workstand | MFR-WSPT Tweezer Workstand |
|-------------------|----------------------------|--|--|------------------------------------|---|---|----------------------------------|
| Picture Reference | | 1 | 2 | 3 | 4 | | |
| MFR-1110 | 1 | 1 | | | | 1 | |
| MFR-1120 | 1 | | 1 | | | 1 | |
| MFR-1140 | 1 | | | 1 | | | 1 |
| MFR-1160 | 1 | | | | 1 | 1 | |
| MFR-1161 | 1 | 1 | | | 1 | 2 | |

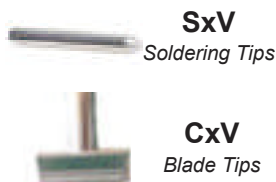
Note: The MFR-1160 is replacing the Metcal SP200 Soldering System

CARTRIDGES



See Pages 15 & 16

TIPS



See Pages 13 & 14

CARTRIDGES



See Page 17

CARTRIDGES



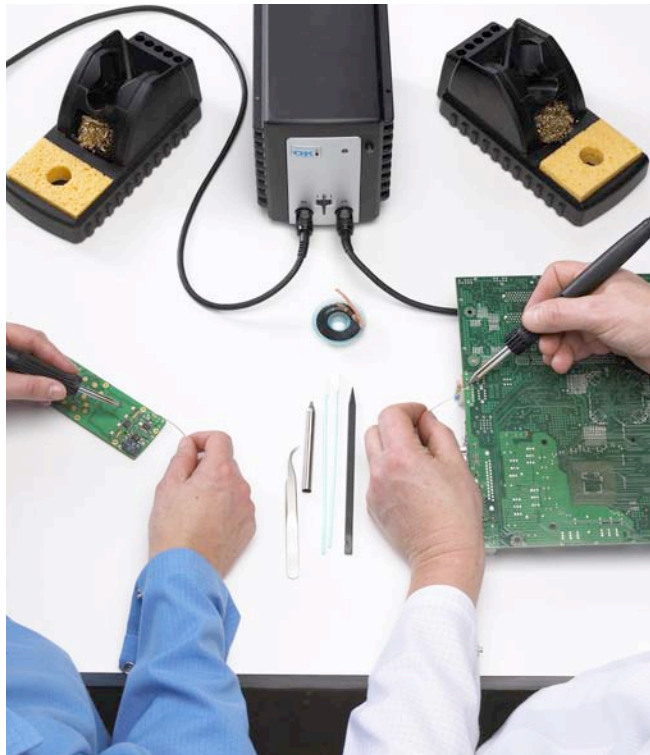
See Page 18



Application Advantage

Multiple hand-pieces offering a wide range of applications.

MFR-2200 Series Dual Simultaneous Output Soldering & Rework System



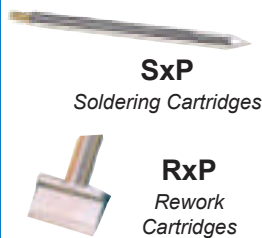
The MFR-2200 Series features dual output capability allowing users to select operation of one hand-piece or two hand-pieces **simultaneously**.

Like the MFR-1100 Series, the MFR-2200 offers the same choice of multiple hand-pieces. Flexibility can be increased by locking both systems together.



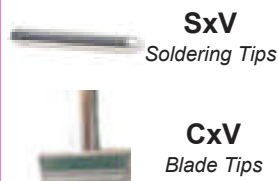
| Systems | MFR-PS2200 Power Supply | MFR-H1-SC Soldering Cartridge Hand-piece | MFR-H2-ST Soldering Tip Hand-piece | MFR-H4-TW Tweezer Hand-piece | WS1 Universal Soldering Workstand | MFR-WSPT Tweezer Workstand |
|-------------------|----------------------------|--|--|------------------------------------|---|----------------------------------|
| Picture Reference | | 1 | 2 | 3 | | |
| MFR-2210 | 1 | 1 | | | 1 | |
| MFR-2220 | 1 | | 1 | | 1 | |
| MFR-2240 | 1 | | | 1 | | 1 |
| MFR-2211 | 1 | 2 | | | 2 | |
| MFR-2222 | 1 | | 2 | | 2 | |
| MFR-2241 | 1 | 1 | | 1 | 1 | 1 |

CARTRIDGES



See Pages 15 & 16

TIPS



See Pages 13 & 14

CARTRIDGES



See Page 17



Productivity Advantage
Dual Output System for
increased productivity

MFR-1100 & MFR-2200 Series Soldering & Rework Systems



Other Accessories Available:

| | |
|-----------------|--|
| MFR-CA2 | Coil Assembly for Tip Hand-piece (MFR-H2-ST) |
| WS1G | Auto-sleep Workstand, Green |
| MFR-PM70 | Power Meter |
| AC-CP2 | Cartridge / Tip Removal Pad |
| AC-BP | Brass Pad (for Workstand) - Pack of 10 |
| MFR-UK1 | Upgrade Kit: Solder Cartridge Hand-piece (MFR-H1-SC) and Workstand (WS1) |
| MFR-UK2 | Upgrade Kit: Solder Tip Hand-piece (MFR-H2-ST) and Workstand (WS1) |
| MFR-UK4 | Upgrade Kit: Tweezer Cartridge Hand-piece (MFR-H4-TW) and Workstand (MFR-WSPT) |

Key Features & Benefits

- ▶ SmartHeat® Technology provides exceptional power for high thermal demand applications
- ▶ Single or Dual simultaneous outputs allow for single or dual hand-piece use
- ▶ Four hand-pieces available for increased application solutions for soldering and rework on one system
- ▶ Each hand-piece has a comprehensive range of cartridges or tips for maximum flexibility
- ▶ Hand-pieces are ergonomic for operator safety and comfort



MFR-2200: Three position switch. Select left, right or center (both ports operational) to power hand-pieces

Technical Specifications

| Power Supply | MFR-1100 | MFR-2200 |
|--------------------------------|---|---|
| Ambient Operating Temperature | 10 - 40°C (50°F - 104°F) | 10 - 40°C (50°F - 104°F) |
| Maximum Enclosure Temperature | 55°C (131°F) | 55°C (131°F) |
| Input Line Voltage | 100 - 240 VAC | 100 - 240 VAC |
| Input Line Frequency | 50/60 Hz grounded circuit | 50/60 Hz grounded circuit |
| Power Consumption | 70 Watts maximum | 130 Watts maximum |
| Output Power | 60 Watts at 22°C | 60 Watts at 22°C per output (2 outputs) |
| Output Frequency | 450 KHz | 450 KHz |
| Power Cord (3-wire) | 183 cm 18/3 SJT | 183 cm 18/3 SJT |
| Dimensions (approx.) W x D x H | 90mm (3.5") x 142mm (5.6") x 197mm (7.8") | 170mm (7") x 200mm (8") x 152.5mm (6") |
| Weight | 2.3kg (5.05 lbs) | 2.97 kg (6.55 lbs) |
| Surface Resistivity | 10 ⁵ -10 ⁹ Ohms | 10 ⁵ -10 ⁹ Ohms |
| Certification / Marking | cTUVus, CE | cTUVus, CE |

Soldering Handle and Coil Assembly

| | | |
|--------------------------------|---|---|
| Tip-to-Ground Potential | < 2 mV RMS | < 2 mV RMS |
| Tip-to-Ground Resistance | <2 ohms | <2 ohms |
| Idle Temperature Repeatability | ± 1.1°C (2°F) in still air | ± 1.1°C (2°F) in still air |
| Handle Cord Assembly Length | 122 cm – burn proof, ESD safe | 122 cm – burn proof, ESD safe |
| Connector | 8-pin circular DIN | 8-pin circular DIN |
| Workstand W x D x H | 100 mm (4") x 200 mm (8") x 100 mm (4") | 100 mm (4") x 200 mm (8") x 100 mm (4") |
| Workstand Weight | 0.69 kg (1.51 lbs) | 0.69 kg (1.51 lbs) |

MFR Series Desoldering & Rework Systems

MFR-DSX / MFR-DSI



MFR-SDX / MFR-SDI



Key Features & Benefits

- ▶ Versatile and ergonomic gun hand-piece that easily switches to a pencil handpiece
- ▶ Dual switched outputs (soldering or desoldering)
- ▶ SmartHeat® makes through-hole desoldering easy and safe
- ▶ The solder collection chamber and filter system is quick and easy to change, and provides low cost maintenance
- ▶ Two Desoldering Systems available: MFR-DSX requires shop air. The MFR-DSI features an internal vacuum pump.

| Part No. | Description |
|------------------|--|
| MFR-DSX | Desolder System, External Air |
| MFR-DSI | Desolder System, Internal Air Pump |
| MFR-SDX | Solder / Desolder System, External Air |
| MFR-SDI | Solder / Desolder System, Internal Air Pump |
| <i>Includes:</i> | |
| MFR-HDS | Desolder Hand-piece |
| MFR-WSDS | Desolder Workstand |
| MFR-HSR | Soldering and Rework Hand-piece (only for MFR-SDX /-SDI) |
| MFR-WSSR | Soldering Workstand (only for MFR-SDX /-SDI) |
| MFR-PS2X | Switched Two-Port Power Supply, External Air |
| MFR-PS2K | Switched Two-Port Power Supply, Internal Air Pump |

TIPS



DxP

Desoldering Tips

See Page 17

CARTRIDGES



SxP

Soldering Cartridges



RxP

Rework Cartridges

See Pages 15 & 16

The Gun Hand-piece can be adjusted from a pencil to a gun with a simple press of a button



Technical Specifications

| | |
|----------------------------------|--|
| Ambient Operating Temperature | 10- 40°C |
| Maximum Enclosure Temperature | 55°C |
| Input Line Voltage | 100- 240 VAC, grounded circuit |
| Input Line Frequency | 50/60 Hz |
| Recommended Air Pressure Input | 450kPa (65PSI) MFR-PS2X only |
| Power Consumption (max.) | 75 Watts (MFR-PS2K), 70 Watts (MFR-PS2X) |
| Output Power | 50 Watts max. at 22°C ambient temp |
| Output Frequency | 450 KHz |
| Power Cord 3-Wire | 183cm (18/3") SJT |
| Dimensions w x d x h | 170mm (7") x 200mm (8") x 152.5mm (6") |
| Certification / Marking | cTUVus, CE |
| Tip-to-Ground Potential | <2mV RMS |
| Tip-to-Ground Resistance | <2 ohms |
| Idle Temperature Repeatability | ± 1.1°C in still air |
| Desolder Hand-piece Cable Length | L=152cm (60"), burn proof, ESD safe |
| Other Hand-piece Cable Length | L=122cm (48"), burn proof, ESD safe |
| Hand-piece Connector | 8-pin circular DIN |
| Workstand Dimensions w x d x h | 100 mm (4") x 200 mm (8") x 100 mm (4") |

Accessories and Spare Parts for PS and MFR Platforms



Hand-pieces and replacement coils

| | | |
|------------|----|--|
| PS-HC3 | | Soldering Handle with PS-CA3 Coil Assembly (PS-900) |
| PS-H3 | 5 | Soldering Handle without Coil Assembly (PS-900) |
| PS-CA3 | 6 | Coil Assembly for PS-HC3 / PS-H3 Hand-piece (PS-900) |
| MFR-H1-SC | 1 | Cartridge Solder / Rework Hand-piece (MFR-1100 & MFR-2200) |
| MFR-H2-ST | 2 | Tip Solder Hand-piece (MFR-1100 & MFR-2200) |
| MFR-CA2 | | Coil Assembly for MFR-H2-ST Hand-piece (MFR-1100 & MFR-2200) |
| MFR-H4-TW | 4 | Precision Tweezer Hand-piece (MFR-1100 & MFR-2200) |
| MFR-H6-SSC | 3 | SSC Cartridge Solder Hand-piece (MFR-1100 & MFR-2200) |
| MFR-HSR | | Cartridge Solder / Rework Hand-piece (MFR-SDX & MFR-SDI) |
| MFR-HDS | 14 | Desolder Hand-piece (MFR-DSX,-DSI,-SDX,-SDI) |

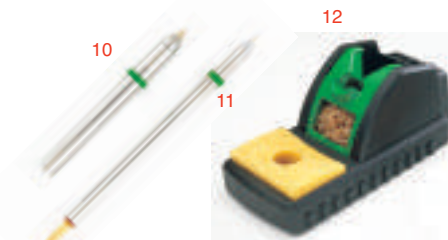


Workstands

| | | |
|----------|---|--|
| WS1 | | Universal Auto Sleep Workstand |
| WS2-NS | 9 | Solder Workstand (PS-900) |
| MFR-WSPT | 7 | Non Sleeper Precision Tweezer Workstand |
| MFR-WSSR | | Non Sleeper Stand Soldering Workstand |
| MFR-WSDS | 8 | Non Sleeper Desoldering Workstand (MFR-DSX,-DSI,-SDX,-SDI) |
| WS1CB | | Solder Rework Cradle Replacement for WS1 Workstand |
| WS2CB | | Solder Rework Cradle Replacement for WS2 Workstand |

Auto-Sleep Workstand WS1 & WS1G: how do they work?

- ▶ An insert helps increase tip life by allowing the tip or cartridge to idle at a lower temperature, thereby reducing oxidation.
- ▶ Does not shut the iron off, only reduces the power available to the tip while in the Workstand.
- ▶ The recovery time, from when the tip is removed from the Workstand, is within seconds.
- ▶ Also includes a brass wire wool cleaning compartment to remove heavy oxidation build up associated with lead-free processes.



Lead-Free Process Identification

| | | |
|---------|----|---|
| WS1G | 12 | Green Universal Auto Sleep Workstand |
| WS2G-NS | | Green Solder Workstand (PS-900) |
| WS1CG | | Green Solder Rework Cradle Replacement for WS1 Workstand |
| WS2CG | | Green Solder Rework Cradle Replacement for WS2 Workstand |
| AC-CK1 | 11 | Green Identification Ring for OKi Cartridges (Pack of 50) |
| AC-CK3 | | Green Identification Ring for SSC Cartridges (Pack of 50) |
| AC-CK4 | 10 | Green Identification Ring for OKi Tips (Pack of 50) |

Miscellaneous Accessories

| | | |
|------------|----|--|
| AC-BRUSH-P | | Soft Brass Brush (Pack of 6) |
| AC-CP2 | | Cartridge and Tip Removal Pad |
| AC-FX1 | 13 | Fume Extraction Kit |
| AC-IK | | Interlocking / Mounting Kit |
| MFR-PM70 | | Power Meter for MFR Series |
| PS-PM900 | | Power Meter for PS-900 |
| AC-Y10 | | Yellow Sponge for WS1 Workstand (Pack of 10) |
| AC-YS4 | | Yellow Sponge Round for WS2 Workstand (Pack of 10) |
| AC-BP | | Brass Pad (Pack of 10) |



Desoldering Accessories

| | | |
|----------|--|--------------------------------------|
| AC-TC-P | | Desoldering Tip Cleaner (Pack of 12) |
| AC-SK1 | | Seal Kit Collection Chamber |
| AC-VL | | ESD Air Hose |
| MFR-HDCA | | Desolder Coil Assembly |
| AC-CC | | Solder Collection Chamber |
| AC-DFP | | Chamber Liner, Filter & Fume |

Tips and Cartridges Selection

| RANGE | Tip | Cartridge | Soldering | Rework | Blade | Tweezer | Desoldering | PS-HC3 Hand-piece | PS-HC1 Hand-piece | MFR-H2-ST Hand-piece | MFR-H6-SSC Hand-piece | MFR-H1-SC Hand-piece | MFR-H4-TW Hand-piece | MFR-HSR Hand-piece | MFR-HDS Hand-piece |
|-------|-----|-----------|-----------|--------|-------|---------|-------------|-------------------|-------------------|----------------------|-----------------------|----------------------|----------------------|--------------------|--------------------|
| SxV | ✓ | | ✓ | | | | | ✓ | | ✓ | | | | | |
| CxV | ✓ | | | | ✓ | | | ✓ | | ✓ | | | | | |
| PHT | ✓ | | ✓ | | | | | ✓ | | | | | | | |
| SxP | | ✓ | ✓ | | | | | | | | ✓ | | ✓ | | |
| RxP | | ✓ | | ✓ | | | | | | | ✓ | | ✓ | | |
| SSC | | ✓ | ✓ | | | | | | | ✓ | | | | | |
| TxP | | ✓ | | | | ✓ | | | | | | ✓ | | | |
| DxP | ✓ | | | | | | ✓ | | | | | | | | ✓ |

Maximum Tip Temperature For Smartheat® Soldering Cartridges and Tips

Based on our SmartHeat® Technology, our tips and cartridges provide a fixed temperature, offering users a safe and thermally effective solution to their soldering needs as well as complete process control.

Furthermore, fixed temperature cartridges and tips can offer better tip life because they can operate at a lower temperature than conventional technology.

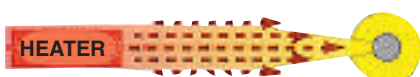
We acknowledge that some of our customers have specific maximum temperature criteria to meet when choosing a tip/cartridge for a particular application. The table below provides the max heater temperature:

| Series | P/N Example | Substrate / Application | Max tip temperature |
|--|------------------------|-------------------------|---------------------|
| OKi Tips and Cartridges: the second digit (x) denotes substrate material. Replace x by T, F or C as per below : | | | |
| T | SxV-xxxx = STV-xxxx | Temp Sensitive | 690°F/365°C |
| F | SxV-xxxx = SFV-xxxx | FR4/Glass Fiber | 790°F/421°C |
| C | SxV-xxxx = SCV-xxxx | Ceramic | 860°F/460°C |
| OKi PHT Tips only: 2 Series available. Replace x by 65 or 75 as per below: | | | |
| 650 | PHT-x3035 = PHT-653035 | Temp Sensitive | 680°F/360°C |
| 750 | PHT-x3035 = PHT-753035 | FR4/Glass Fiber | 780°F/416°C |
| Metcal SSC Cartridges: 3 Series available. Replace x by 5, 6 or 7 as per below: | | | |
| 500 | SSC-x17A = SSC-517A | Temp Sensitive | 575°F/302°C |
| 600 | SSC-x17A = SSC-617A | Temp Sensitive | 675°F/357°C |
| 700 | SSC-x17A = SSC-717A | FR4/Glass Fiber | 775°F/412°C |

Choosing the correct tip geometry



Small pad demand is satisfied with a small geometry tip.



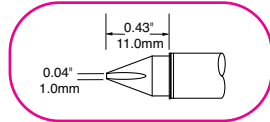
Large pad demand with small tip geometry will not meet the thermal energy required to form a good solder joint.



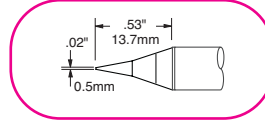
Large pad demand requires large tip geometry to form a good solder joint.

SxV and CxV Soldering Tips

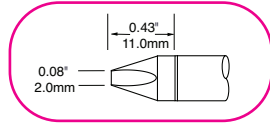
The SxV and CxV tips are for use with the soldering tip hand-pieces of the PS and MFR Platforms and are recommended for heavy duty applications. Full range available at www.okinternational.com.



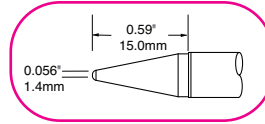
SFV-CH10
Chisel Solder Tip 30°
1.0mm (.04")



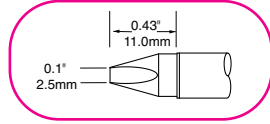
SFV-CNL10
Conical Long Solder Tip
1.0mm (.04")



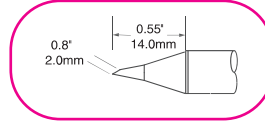
SFV-CH20
Chisel Solder Tip
2.0mm (.08")



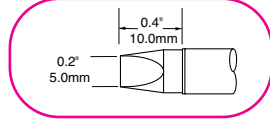
SFV-CNL14
Conical Long Solder Tip
1.4mm (.056")



SFV-CH25
Chisel Solder Tip
2.5mm (.10")



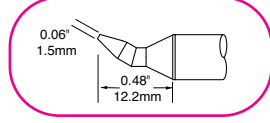
SFV-DRH20
Conical Bevel Solder Tip
2.0mm (.08")



SFV-CH50
Chisel Solder Tip
5.0mm (.20")



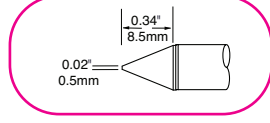
SFV-DRH20CP
Drag Soldering Tip Hoof
2.5mm (.10")



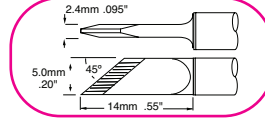
SFV-CHB15
Chisel Bent 30° Solder Tip
1.5mm (.06")



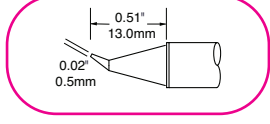
SFV-DRH30CP
Drag Soldering Tip Hoof
3.6mm (.14")



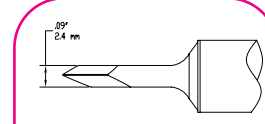
SFV-CN05
Conical Solder Tip
0.5mm (.02")



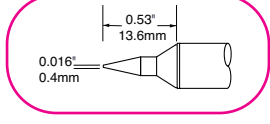
SFV-DRK50
Knife Solder Tip
5.0mm (.20")



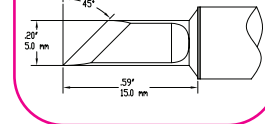
SFV-CNB05
Conical Bent Solder Tip
0.5mm (.02")



SFV-DRK50S
Drag Soldering Tip Knife
5.0mm (.20")



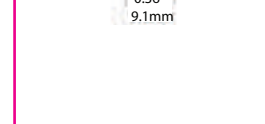
SFV-CNL04
Conical Long Solder Tip
0.4mm (.016")



CFV-BL100
Blade Tip L=10mm (.40")



CFV-BL250
Blade Tip L=25mm (1")



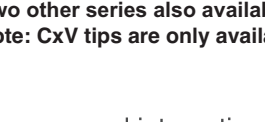
CFV-BL350
Blade Tip L=35mm (1.4")



CFV-BL400
Blade Tip L=40mm (1.6")



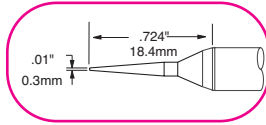
CFV-BL500
Blade Tip L=50mm (2")



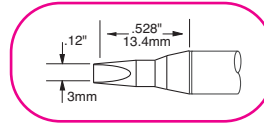
F = FR4 / Glass Fiber, for most standard applications. Two other series also available, just replace F with either T or C.
T = Temperature Sensitive **C** = Ceramic. Note: CxV tips are only available in F and C Series.

SxV Soldering Tips - Easy Access

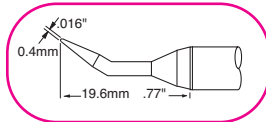
The SxV Easy Access tips are for use with the soldering tip hand-pieces of the PS and MFR Platforms and are recommended for longer reach touch up applications. Full range available at www.okinternational.com.



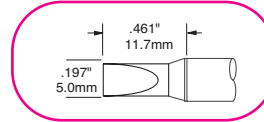
SFV-CNL03A
Conical Long Solder Tip
0.3mm (.0125")



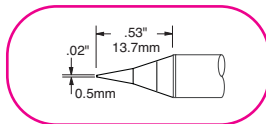
SFV-CH30A
Chisel Solder Tip
3.0mm (.118")



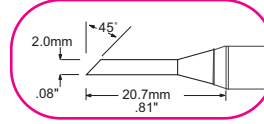
SFV-CNB04A
Conical Bent Solder Tip
0.4mm (.0157")



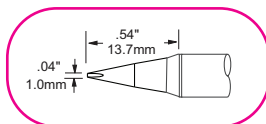
SFV-CH50A
Chisel Solder Tip
5.0mm (.197")



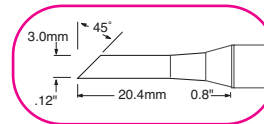
SFV-CN05A
Conical Solder Tip
0.5mm (.02")



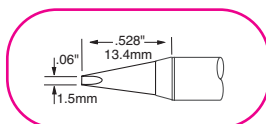
SFV-DRH420A
Drag Solder Tip Hoof, 45°
2.0mm (.079")



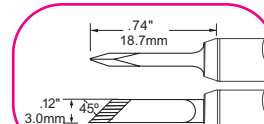
SFV-CH10A
Chisel Solder Tip
1.0mm (.039")



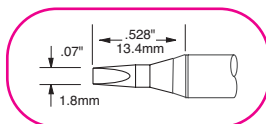
SFV-DRH430A
Drag Solder Tip Hoof, 45°
3.0mm (.118")



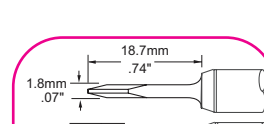
SFV-CH15A
Chisel Solder Tip
1.5mm (.059")



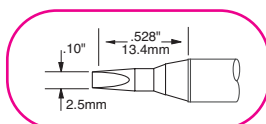
SFV-DRK30A
Knife Solder Tip,
3.0mm (.118")



SFV-CH18A
Chisel Solder Tip
1.8mm (.071")

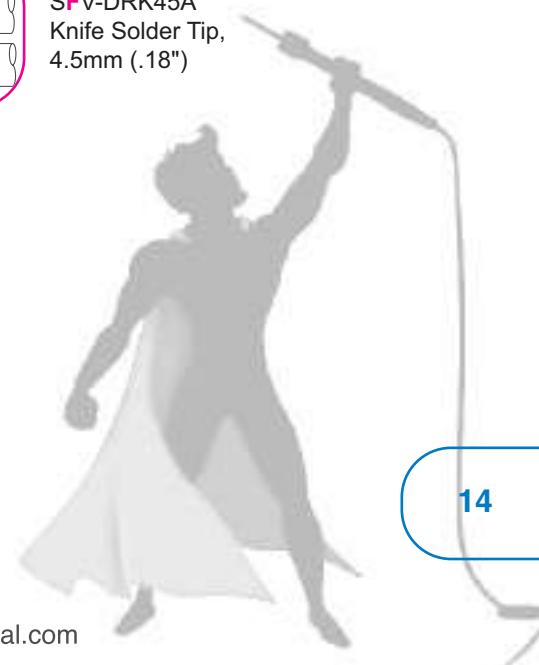


SFV-DRK45A
Knife Solder Tip,
4.5mm (.177")



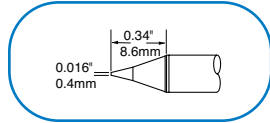
SFV-CH25A
Chisel Solder Tip
2.5mm (.098")

F = FR4 / Glass Fiber, for most standard applications.
Two other series also available, just replace F with either T or C.
T = Temperature Sensitive **C** = Ceramic

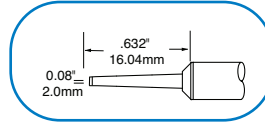


SxP Soldering Cartridges

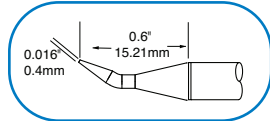
The SxP cartridges are for use with the soldering cartridge hand-piece of the MFR Single and Dual Platform. They provide a wide range of options addressing specialized soldering and rework applications. Full range available at www.okinternational.com.



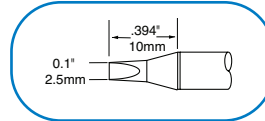
SFP-CN04
Conical Cartridge 0.4mm (.016")



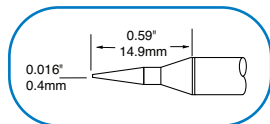
SFP-CHL20
Chisel Soldering Cartridge 60°
Long Reach 2.0mm (.08")



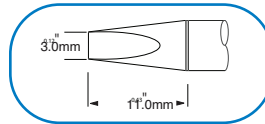
SFP-CNB04
Conical Cartridge Bent
0.4mm (.016")



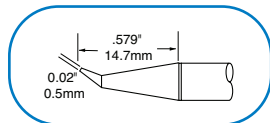
SFP-CH25
Chisel Cartridge 30°
2.5mm (.10")



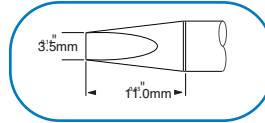
SFP-CNL04
Conical Cartridge Long Reach
0.4mm (.016")



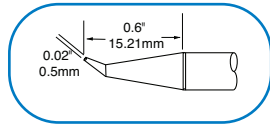
SFP-CH30
Chisel Cartridge 30°
3.0mm (.12")



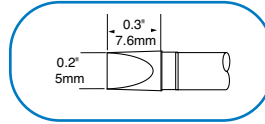
SFP-CNB05
Conical Cartridge Bent
0.5mm (.02")



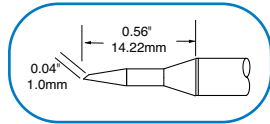
SFP-CH35
Chisel Cartridge 30°
3.5mm (.14")



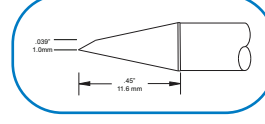
SFP-DRH05
Drag Soldering Cartridge Hoof
0.5mm (.02")



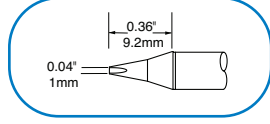
SFP-CH50
Chisel Cartridge 30°
5.0mm (.20")



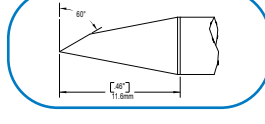
SFP-BVL10
Bevel Cartridge 60°
1.0mm (.04")



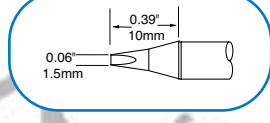
SFP-DRH610
Drag Soldering Cartridge Hoof
1.0mm (.04")



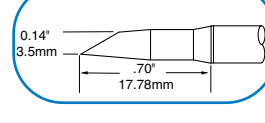
SFP-CH10
Chisel Cartridge 30°
1.0mm (.04")



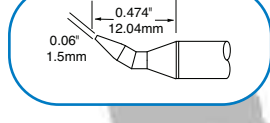
SFP-DRH615
Drag Soldering Cartridge Hoof
1.5mm (.06")



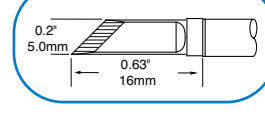
SFP-CH15
Chisel Cartridge 30°
1.5mm (.06")



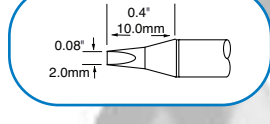
SFP-DRH35
Drag Soldering Cartridge Hoof
3.5mm (.14")



SFP-CHB15
Chisel Cartridge 30° Bent
1.5mm (.06")



SFP-DRK50
Drag Soldering Cartridge
5.0mm (.20")

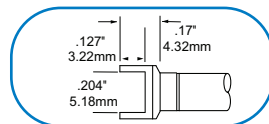


SFP-CH20
Chisel Cartridge 30°
2.0mm (.08")

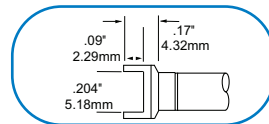
RxP Rework Cartridges

The RxP cartridges are for use with the soldering cartridge hand-piece of the MFR Single and Dual Platform. Full range available at www.okinternational.com.

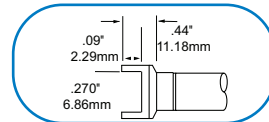
Tunnel cartridges are used for the removal of multi-lead, two-sided components such as SOICs, SOJs and TSOPs.



RFP-DL1
Tunnel Cartridge

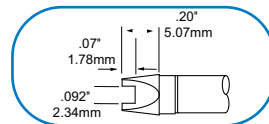


RFP-DL2
Tunnel Cartridge

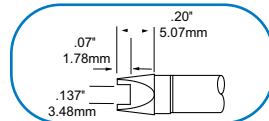


RFP-DL3
Tunnel Cartridge

Slot cartridges are used for the removal of discrete and passive devices

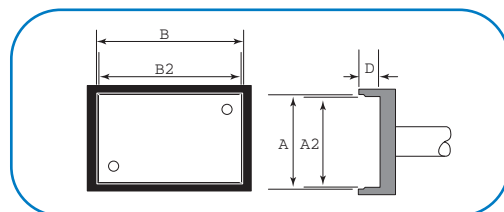


RFP-SL1
0805 Chip Package



RFP-SL2
1206 Chip Package

Quad cartridges are used for the removal of four-sided devices such as QFPs and PLCCs.

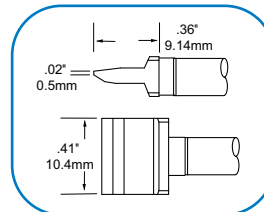


Dimensions in mm (")

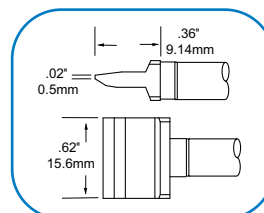
| Part No. | SMT TYPE | A2 | A | B2 | B | D |
|----------|----------|--------------|--------------|--------------|--------------|-------------|
| RFP-QD4 | PLCC 32 | 11.43 (.450) | 12.70 (.500) | 13.97 (.550) | 15.24 (.600) | 3.81 (.150) |
| RFP-QD6 | PLCC 44 | 16.76 (.660) | 17.78 (.700) | 16.76 (.660) | 17.78 (.700) | 3.81 (.150) |
| RFP-QD7 | PLCC 68 | 24.38 (.960) | 25.27 (.995) | 24.38 (.960) | 25.27 (.995) | 5.59 (.220) |
| RFP-QD10 | PLCC 52 | 19.30 (.760) | 20.32 (.800) | 19.30 (.760) | 20.32 (.800) | 3.81 (.150) |
| RFP-QD15 | TQFP 80 | 12.32 (.485) | 13.34 (.525) | 12.32 (.485) | 13.34 (.525) | 2.79 (.110) |
| RFP-QD19 | QFP 44 | 16.13 (.635) | 16.13 (.635) | 16.13 (.635) | 16.13 (.635) | 3.30 (.130) |
| RFP-QD20 | QFP 100 | 16.51 (.650) | 16.51 (.650) | 22.48 (.885) | 22.48 (.885) | 3.30 (.130) |

F = FR4 / Glass Fiber, for most standard applications. Two other series are also available, just replace F with either T or C.
T = Temperature Sensitive, **C** = Ceramic. Note: RxP tips are only available in F and C Series.

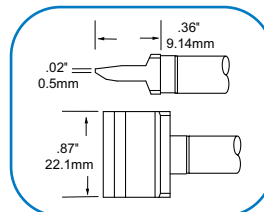
Blade cartridges are designed to allow effective and quick cleaning of PCB pads.



RFP-BL1
Blade Cartridge



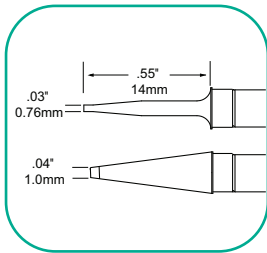
RFP-BL2
Blade Cartridge



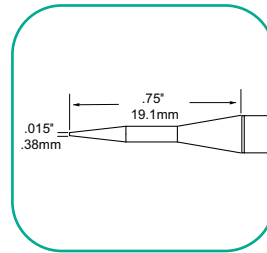
RFP-BL3
Blade Cartridge

TxP Tweezer Cartridges

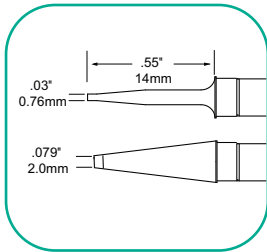
For use on MFR Single and Dual Platforms
 More cartridges available at www.okinternational.com



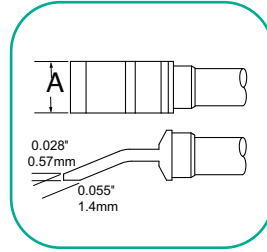
TFP-BLP1
 Tweezer Cartridge
 Blade Pair
 1.0mm (.04")



TFP-CNP1
 Tweezer Cartridge
 Conical Pair
 0.4mm (.015")



TFP-BLP2
 Tweezer Cartridge
 Blade Pair
 2.0mm (.08")

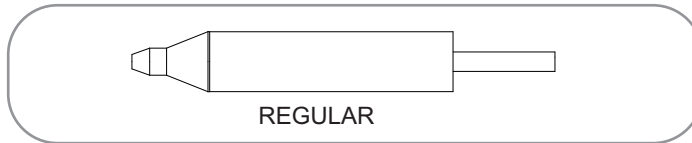


Heavy Duty Tweezer Pair
TFP-BLH40 - A= 6.35mm (.25")
TFP-BLH50 - A= 16mm (.62")
TFP-BLH60 - A= 20.5mm (.81")
TFP-BLH70 - A= 28mm (1.1")

F = FR4 / Glass Fiber, for most standard applications. Two other series are also available, just replace F with either T or C.
T = Temperature Sensitive, **C** = Ceramic

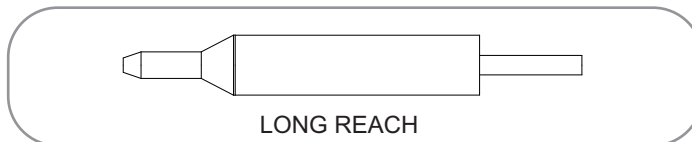
DxP Desoldering Tips

For use on MFR Desoldering Platform
 More tips available at www.okinternational.com



REGULAR

| | | |
|---------|----------------------|----------------------|
| DFP-CN2 | Ø A = 0.67mm (.026") | Ø B = 1.8mm (.07") |
| DFP-CN3 | Ø A = 0.79mm (.031") | Ø B = 2.05mm (.080") |
| DFP-CN4 | Ø A = 1.05mm (.041") | Ø B = 2.30mm (.090") |
| DFP-CN5 | Ø A = 1.31mm (.052") | Ø B = 2.65mm (.104") |
| DFP-CN6 | Ø A = 1.55mm (.061") | Ø B = 2.85mm (.112") |
| DFP-CN7 | Ø A = 2.44mm (.096") | Ø B = 3.65mm (.143") |



LONG REACH

| | | |
|----------|----------------------|----------------------|
| DFP-CNL3 | Ø A = 0.79mm (.031") | Ø B = 2.05mm (.080") |
| DFP-CNL4 | Ø A = 1.05mm (.041") | Ø B = 2.30mm (.090") |
| DFP-CNL5 | Ø A = 1.31mm (.052") | Ø B = 2.65mm (.104") |

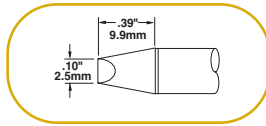


F = FR4 / Glass Fiber, for most standard applications. Two other series are also available, just replace F with either T or C.
T = Temperature Sensitive, **C** = Ceramic. Note: DxP tips are only available in F and C Series.

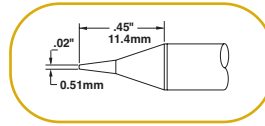
SSC Soldering Cartridges

For use on MFR Single Platform

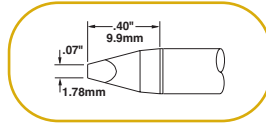
More cartridges available at www.okinternational.com



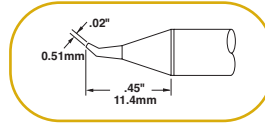
SSC-736A
Chisel 30°
2.5mm (.10")



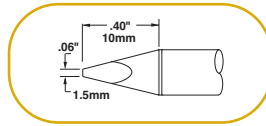
SSC-722A
Conical Sharp
0.51mm (.02")



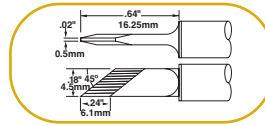
SSC-737A
Chisel 30°
1.78mm (.07")



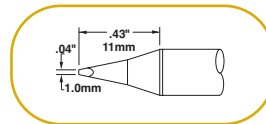
SSC-726A
Sharp Bent 30°
0.51mm (.02")



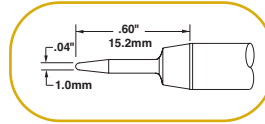
SSC-738A
Chisel 30°
1.50mm (.06")



SSC-773A
Drag Soldering (increased tinned area)
6.1mm (.24")



SSC-725A
Chisel 30°
1.0mm (.04")



SSC-701A
Conical Sharp
1.0mm (.04")

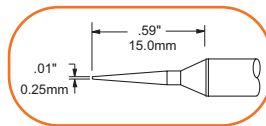
7= 700 Series for most standard applications. 6= 600 Series and 5= 500 Series also available for temperature sensitive applications. To order these series, replace 7 with either 6 or 5 except * (not available in 500 Series)

PHT Soldering Tips

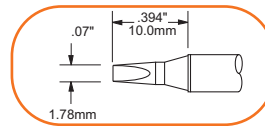
For use on PS Platform

More tips available at www.okinternational.com

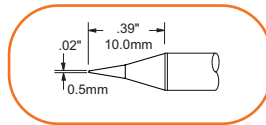
The PHT tips are specifically offered to provide a solution for light load and fine access applications using the PS-900 and the PS-CA1 coil assembly.



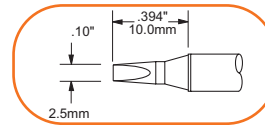
PHT-752017
Conical 30°
0.25mm (.01")



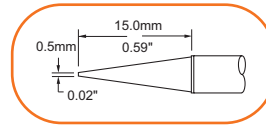
PHT-750335
Chisel Fine 30°
1.78mm (.07")



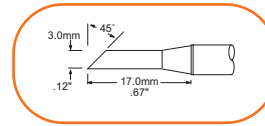
PHT-752035
Conical Fine
0.5mm (.02")



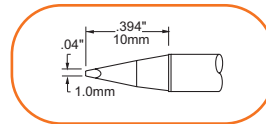
PHT-751355
Chisel 30°
2.5mm (.10")



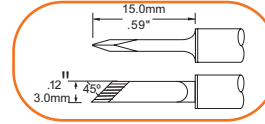
PHT-753035
Conical 30°
0.5mm (.02")



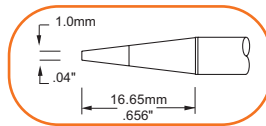
PHT-754487F
Hoof 45° Face Only
3.0mm (.12")



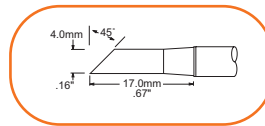
PHT-750315
Chisel Fine 30°
1.0mm (.04")



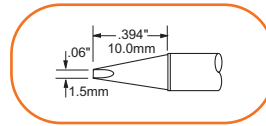
PHT-755437
Knife Sharp 45°
3.0mm (.12")



PHT-753077
Power Conical
1.0mm (.04")



PHT-754497
Hoof 45°
4.0mm (.16")



PHT-750325
Chisel 60°
1.5mm (.06")

75 = 750 Series for most standard applications. 65 = 650 Series also available for temperature sensitive applications. To order this series, replace 75 with 65.

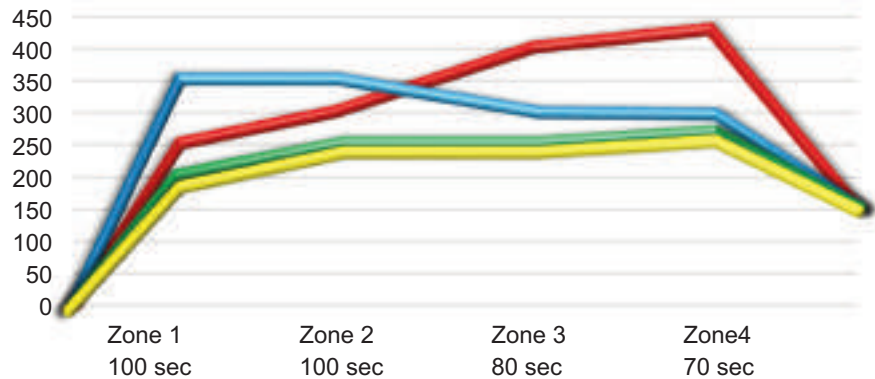
Convection Rework Product Selection

| SYSTEMS | 110V | 240V | Analog | Digital | Pre-heater | Hand held tool | Programmable | Manual | External TC option | Vacuum pickup | Integrated board holder | Profiles Storage |
|------------|------|------|--------|---------|------------|----------------|--------------|--------|--------------------|---------------|-------------------------|------------------|
| MRS-1000 | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| HCT-1000 | ✓ | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ |
| PCT-1000 | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ | ✓ | | | ✓ |
| PCT-100-11 | ✓ | | ✓ | | ✓ | | | ✓ | | | | |
| PCT-100-21 | | ✓ | ✓ | | ✓ | | | ✓ | | | | |
| PCT-101-11 | ✓ | | ✓ | | ✓ | | | ✓ | | | | |
| PCT-101-21 | | ✓ | ✓ | | ✓ | | | ✓ | | | | |
| PCT-102-11 | ✓ | | ✓ | | ✓ | | | ✓ | | | | |
| PCT-102-21 | | ✓ | ✓ | | ✓ | | | ✓ | | | | |
| PCT-103-11 | ✓ | | ✓ | | ✓ | | | ✓ | | | ✓ | |
| PCT-103-21 | | ✓ | ✓ | | ✓ | | | ✓ | | | ✓ | |
| HCT-900-11 | ✓ | | ✓ | | | ✓ | | ✓ | | | | |
| HCT-900-21 | | ✓ | ✓ | | | ✓ | | ✓ | | | | |

Why is convection important?

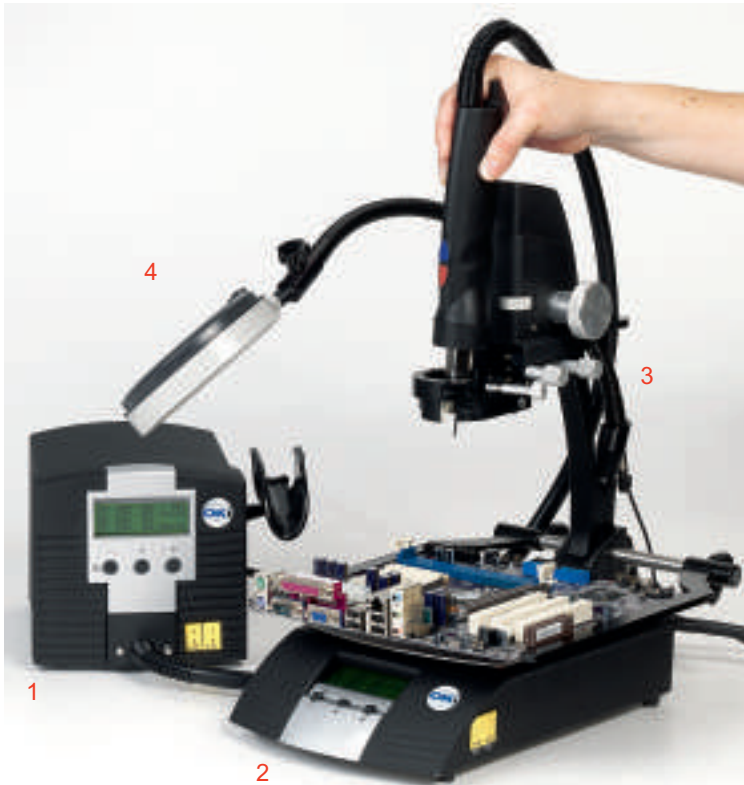
- Best stable heating method for rework
- Excellent temperature stabilization across the PCB
- Gentle ramp up to temperature prevents component damage
- Gentle ramp up reduces solder balls
- Cool down mode ensures proper solder joint formation
- Non-contact reflow prevents thermal shocking of delicate components such as BGAs, CSPs and QFPs
- Non-contact reflow assists with component self centering during the soldering process
- Convection removal is the preferred method for component recycling
- Convection is used in most manufacturing production lines today

Typical Profile Characteristics of the MRS System



■ HCT-1000 ■ Top of Component
■ PCT-1000 ■ Solder Reflow Area

MRS-1000 Modular Rework System



The MRS-1000 Modular Rework System is an **integrated convection rework** system for the removal and placement of BGA/CSP and SMT components.

The MRS-1000 is comprised of a hand held convection tool, preheater, and adjustable tool holder with board holder to create a manually assisted rework system. A series of nozzles, targeting a variety of applications, and light magnifier round out the product offering for this system.

The 4 components of the MRS-1000 Systems are:

1. HCT-1000 Programmable Hand Held Convection Tool. *See pages 21 & 22.*
2. PCT-1000 Programmable Pre-heater. *See page 23.*
3. ATH-1000 Adjustable Tool Holder. *See page 24.*
4. LM-1000 Light Magnifier. *See page 24.*

Key Features & Benefits

- ▶ Simple removal and replacement of SMT components
- ▶ Quick, easy and cost effective removal of BGA & CSP
- ▶ Digital display for repeatable temperature settings
- ▶ Automatic control of the preheater for simple operation
- ▶ Easy 5 zone profile creation for operator repeatability
- ▶ Integrated vacuum pickup for easy component removal
- ▶ Hand held or tool holder mounted for operator comfort
- ▶ Manual mode for quick setup
- ▶ External thermocouple for process setup and verification
- ▶ Digital controlled airflow for repeatable results
- ▶ X, Y, Z and Theta controls for component alignment
- ▶ Adjustable PCB holder for easy change outs
- ▶ Automaticity lifts the component at the end of the cycle, preventing operators from prematurely lifting components and damaging expensive PCBs



| Part No. | Description |
|-----------|--|
| MRS-1000A | Modular Rework System Advanced <i>Incl.: HCT-1000, PCT-1000, ATH-1000A and LM-1000</i> |
| MRS-1000B | Modular Rework System Basic <i>Incl.: HCT-1000, PCT-1000, ATH-1000B and LM-1000</i> |

The 4 components of the MRS system can also be ordered separately, see pages 21 to 24.



HCT-1000 Programmable Hand Held Convection Tool



The HCT-1000 is a fully Programmable Hand Held Convection Tool offering **fast and easy removal and placement of SMT components**.

The HCT-1000 stands out as a versatile convection rework tool. It can be used on its own or as part of the MRS-1000 Modular Rework System for more complex applications.

The system comes equipped with a 5mm nozzle and nozzle adapter. In addition, a wide range of nozzles is available, see page 22.

Key Features & Benefits

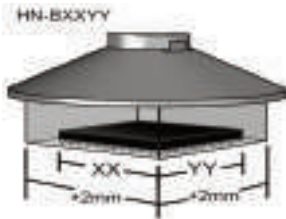
- ▶ Integrated vacuum pickup for easy component removal
- ▶ Profile creation for operator repeatability and storage for up to 50 user defined profiles
- ▶ Manual mode for quick setup
- ▶ External thermocouple for process setup and verification
- ▶ Hand-piece controls for heater and vacuum
- ▶ Programmable, digitally controlled airflow for repeatable results
- ▶ Multiple modes of operation: manual, 4 zone heating (with the MRS-1000 System)
- ▶ The HCT-1000 is connected to the PCT-1000 via a cable when used as part of the MRS System
- ▶ May be used with ATH-1000 Adjustable Tool Holder (see page 24)

| Part No. | Description |
|--------------|---|
| HCT-1000 | Programmable Hand Held Convection Tool |
| Includes: | |
| HCT-PS1000 | HCT-1000 Power Supply |
| HCT-HV1 | Hand-piece with integral vacuum, cord and connector |
| HCT-FS2 | Footswitch, Dual, HCT-1000 |
| HCTA-VC50-5 | Vacuum Cup, 3/16" (5.00mm), pack of 5 |
| HCTA-VC64-5 | Vacuum Cup, 1/4" (6.4mm), pack of 5 |
| HCTA-VC80-5 | Vacuum Cup, 5/16" (8mm), pack of 5 |
| HCTA-VC11-5 | Vacuum Cup, 7/16" (11mm), pack of 5 |
| HCTA-TH1 | Hand-piece Tool Holder |
| AC-TCK-24-36 | Thermocouple |
| HCTA-CC | Communications Cable |
| HCT-HTRASSY | Heater Assembly |

Technical Specifications

| | |
|-------------------|---|
| Size | 229 x 178 x 152mm (9" x 7" x 6") |
| Weight | 5.4kg (12 lbs.) |
| Rated Power | 600 W |
| Input Voltage | 100-240 VAC, 50/60 Hz |
| Storage | 0°C to 50°C Temperature (32°F to 122°F) |
| Air Flow | 5-25 l/minute |
| Temperature Range | Up to 450°C (840°F) |
| Vacuum Pump | 15" Hg (381mm Hg) |
| Noise Level | <55 dB |

HCT-1000 Programmable Hand Held Convection Tool

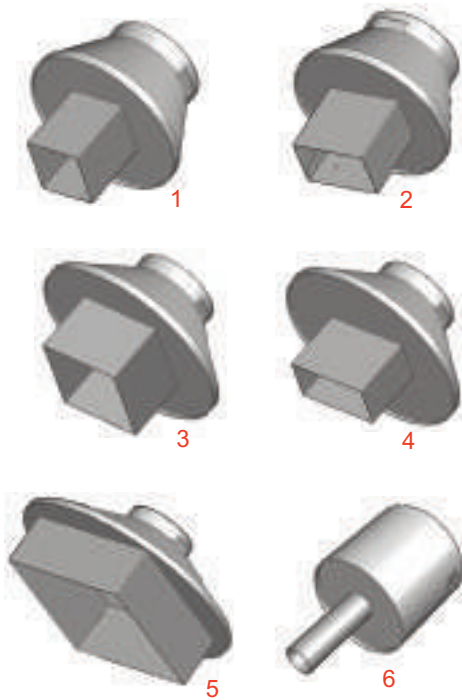


HN Series Nozzles

A series of 14 Nozzles are available for use with the MRS-1000 / HCT-1000. The nozzles fit applications reworking components of all sizes from (including, but not limited to) BGAs, QFPs, LGAs, PLCC and SOIC. A custom nozzle program is also available.

Nozzle Measurement and Selection

The nozzle part number (the digits after the “B”) represents the size of the component. 2mm have been added to each side of the internal nozzle dimension to allow for component access.



| Part Number | Component Size | Components |
|-------------|-------------------|--------------------------|
| HN-B0707 | 1 7mm X 7mm | CSP, LGA44 |
| HN-B1010 | 1 10mm X 10mm | CSP, LGA178, LCC28 |
| HN-B1414 | 1 14mm X 14mm | CSP, QFP, TQFP100 |
| HN-B1408 | 2 14mm X 8mm, | CSP, SOIC24M |
| HN-B1515 | 3 15mm X 15mm | BGA |
| HN-B1818 | 3 18mm X 18mm | PLC44, CSP, TQFP100, BGA |
| HN-B2525 | 3 25mm x 25mm | BGA, PLCC68 |
| HN-B1809 | 4 18.2mm X 8.5mm | SOLJ28, SOIC28M, TSOP32 |
| HN-B2519 | 4 24.5mm X 18.5mm | QFP100, QFP80 |
| HN-B2727 | 5 27mm X 27mm | BGA |
| HN-B3232 | 5 32mm X 32mm | BGA |
| HN-B3535 | 5 35mm X 35mm | BGA |
| HN-B4040 | 5 40mm X 40mm | BGA |
| HN-J0005 | 6 5mm Ø Diameter | DISCRETE |

Other Nozzle Accessories for HCT-1000

| | | |
|----------|---|----------------|
| HCT-NC | 7 | Nozzle Carrier |
| HNA-1 | 8 | Nozzle Adapter |
| HCTA-NW1 | 9 | Nozzle Wrench |



PCT-1000 Programmable Pre-heater



The PCT-1000 is a fully Programmable Pre-heater offering **more heat, lower temperatures for faster and higher quality results.**

The PCT-1000 provides users exceptional ability to increase heat capacity with highly controlled thermal output.

The PCT-1000 can be used as a stand alone unit or as part of the MRS-1000 Modular Rework System.

Key Features & Benefits

- ▶ Adds heat capacity and enables lower process temperatures
- ▶ Used in a variety of processes including soldering, desoldering, SMD rework
- ▶ Provides faster production rates while lowering overall process temperatures.
- ▶ 2 modes: manual for constant heater temperature and profile for greater control
- ▶ 4 programmable heating zones and 1 cooling zone
- ▶ Storage for up to 50 user defined profiles for easy set-up
- ▶ Heater control with temperature controlled either at the heater output or at the board
- ▶ High efficiency vortex heater design maximizes ramp to temperature for increased productivity

| Part No. | Description |
|--------------|--------------------------|
| PCT-1000 | 1 Programmable Preheater |
| Includes: | |
| PCT-FS1 | 2 PCT-1000 Foot Switch |
| AC-TCK-24-36 | 3 Thermocouple |



Technical Specifications

| | |
|---------------------|-------------------------------------|
| Size | 330 x 203 x 76mm (13" x 8" x 3") |
| Weight | 3.4kg (7.5 lbs) |
| Rated Power | 1200 W |
| Input Voltage | 100-240 VAC, 50/60 Hz |
| Storage Temperature | 0°C to 50°C (32°F to 122°F) |
| Air Flow | 19 cfm |
| Temperature Range | Up to 350°C (622°F) |
| Operational Modes | Setup, Run, Manual, Active Setup |
| Display | LCD 20 x 4 display segments |
| Number of Programs | 50 memory locations |
| Number of Zones | 5 (4 Heat Zones, 1 Cool Down Zone) |

See Board Holders options on pages 24 and 26



The ATH-1000 and LM-1000 are both attached to the back of the PCT-1000 when the components are used together, as part of the MRS System.

ATH-1000 Adjustable Tool Holder



Key Features & Benefits

- ▶ Adjustable Tool Holder designed to work as stand-alone operation or integrated as part of the MRS-1000
- ▶ Consists of a board holder, locking hand-piece retainer, Z axis stop and mounting configurations
- ▶ Sturdy and easy to attach to the PCT-1000 when incorporated into the MRS System.

Two Adjustable Tool Holder models are available:

- ▶ The **ATH-1000A** uses the Advanced Head Assembly which features 4" of Z axis adjustment, ½" fine adjustment of the X & Y axis as well as 30° θ adjustment.
- ▶ The **ATH-1000B** uses the Basic Head assembly and provides 4" of Z axis adjustment.

| Part No. | Description |
|-------------|--|
| ATH-1000A | Adjustable Tool Holder, Advanced Head (without base plate)* |
| ATH-1000B | Adjustable Tool Holder, Basic Head (without base plate)* |
| ATH-RAIL-12 | Board Holder Rail for ATH-1000, 12" |
| | ¹ Both ATH-1000A and ATH-1000B are supplied with an 8" rail as standard (ATH-RAIL-8). |
| ATH-BASE | ² Base assembly for ATH-1000A and ATH-1000B |

* As part of the MRS-1000, the ATH-1000 is attached to the back of the PCT-1000, see page 23. The ATH-BASE can be ordered separately when the ATH-1000 is used as a stand-alone unit.

LM-1000 Light Magnifier



Key Features & Benefits

- ▶ Integrated light and magnifier
- ▶ 4x magnification lens
- ▶ Integrated LED lighting system for shadow free illumination
- ▶ Can be used with the MRS System or as standalone operation

| Part No. | Description |
|----------|--|
| LM-1000 | ³ Light Magnifier (without base plate)* |
| LM-BP | ⁴ Base Plate for Light Magnifier |

* As part of the MRS-1000, the LM-1000 is attached to the back of the PCT-1000, see page 23. The LM-BP can be ordered separately when the LM-1000 is used as a stand-alone unit.

Technical Specifications

| | |
|---------------|-----------------|
| Weight | 2.9kg (6.5 lbs) |
| Magnification | 4x |
| Lighting | 8 LEDs, white |
| Power | 24V DC |

PCT-100 Focused Convection Pre-heater



Key Features & Benefits

- ▶ For hand soldering, through-hole desoldering, hot air SMT rework, lead-free, multi-layer boards and assemblies with large ground planes
- ▶ Improved process time and exceptional control of potentially damaging temperatures
- ▶ Vented top plate allows the PCB to be placed directly over the heater for maximum heat transfer
- ▶ Integrated or stand-alone board holder
- ▶ Optional adjustable-angle arm rest



The PCT-100 is a focused convection pre-heater that is designed to **provide extra heat capacity** for demanding applications.

Unlike conventional pre-heaters, the PCT-100 Focused Convection Pre-heater directly targets the underside PCB providing a substantial thermal boost for lead-free processes.

| Part No. | Description |
|------------|--|
| PCT-100-11 | 1 Pre-heater 115V |
| PCT-100-21 | 1 Pre-heater 230V |
| PCT-101-11 | 2 Pre-heater 115V with Arm Rest |
| PCT-101-21 | 2 Pre-heater 230V with Arm Rest |
| PCT-102-11 | 3 Pre-heater 115V with Arm Rest and Boardholder |
| PCT-102-21 | 3 Pre-heater 230V with Arm Rest and Boardholder |
| PCT-103-11 | 4 Pre-heater 115V with Arm Rest and Integrated Boardholder |
| PCT-103-21 | 4 Pre-heater 230V with Arm Rest and Integrated Boardholder |
| PCT-1HE-11 | Heating Element Replacement for PCT-100 115V |
| PCT-1HE-21 | Heating Element Replacement for PCT-100 230V |
| BH-010 | Integrated Boardholder for PCT-100 |
| BH-100 | Boardholder for PCT-100 |
| PCT-AR | Arm Rest for PCT-100 |
| PCT-ARPAD | Replacement Pad for Arm Rest PCT-AR |

Technical Specifications

| | |
|---------------------------|--|
| Input Voltage | 115 V (PCT-100-11) 230 V (PCT-100-21) |
| Heater Rating | 450 W |
| Storage Temperature | -10°C—60°C (14°F—140°F) |
| Environmental Temperature | 0°C—40°C (32°F—104°F) |
| Air Flow | 0.2 CFM (280 l/min) |
| Control Temperature | Variable up to 300°C (572°F) |
| Surface Resistivity ESD | 10 ⁶ Ω - 10 ¹¹ Ω |
| Dimensions (L x W x H) | 205 x 155 x 65 mm (8" x 6.1" x 2.6") |
| Weight | 1.6 kg (3.5 lbs) |
| Certificate/Approvals | cTUVus, CE |

See more Board Holders on pages 24 and 26

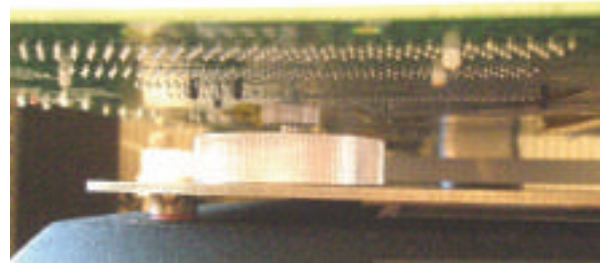
Board Holders for PCT-1000 & PCT-100 Pre-heaters



BH-100 Board Holder. Recommended for use with the PCT-100 Pre-heater



BH-1000 Post-Rail Board Holder. Includes: 4 posts, 2 rails with sliding clips, 4 support pins and flat-head support



BH-PK1000 Board Holder Pin Kit. Includes: 2 discs, 2 long pins, 2 short pins



ATH-1000(A or B) + ATH-BASE **ATH-1000(A or B) + PCT-1000**
A = Advanced Head - B = Basic Head



HCT-900 Hand Held Convection Tool



The HCT-900 Hand Held Convection Tool offers a **low cost, versatile rework solution** for a wide variety of production and rework application challenges:

- ▶ Rework a wide range of simple and complex SMT components
- ▶ Rework pin in-hole devices such as sockets and connectors
- ▶ Remove solder shorts and splashes by using it with solder braid and flux
- ▶ Plastic applications such as applying shrink wrap to components

Key Features & Benefits

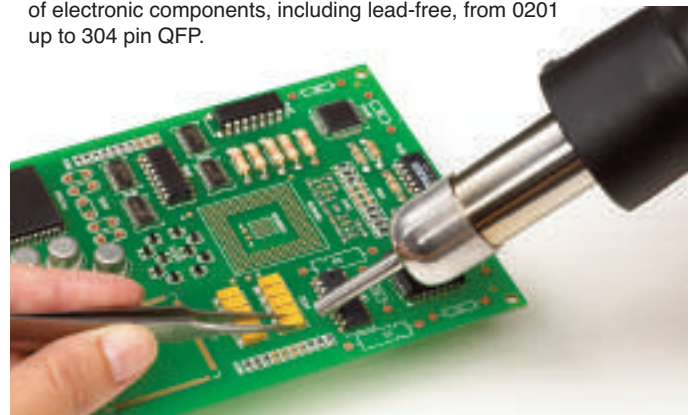
- ▶ Versatile Hot Air Tool for soldering and desoldering applications
- ▶ Robust and compact design
- ▶ Analog controls for both airflow and heat
- ▶ Closed loop feedback circuit controls the temperature
- ▶ Unique low noise air pump (less than 45 db) provides precise airflow control
- ▶ Fully ESD compliant



A closed loop feedback circuit allows the desired temperature to be achieved and maintained regardless of changes in the volume of airflow.

| Part No. | Description |
|------------|------------------------------------|
| HCT-900-11 | 115V Hand Held Convection Tool |
| HCT-HE-11 | Heating Element, Replacement, 115V |
| HCT-900-21 | 230V Hand Held Convection Tool |
| HCT-HE-21 | Heating Element, Replacement, 230V |

The HCT-900 can be used for the removal and refitting of electronic components, including lead-free, from 0201 up to 304 pin QFP.



HCT-900 Hand Held Convection Tool

Nozzle Selection

The HCT-900 is supplied with a standard single jet H-D50 (0.2", 5.0mm) nozzle. In addition, two rework nozzle kits, predefined for specific applications, are available, as well as a full selection of nozzles.



| | |
|---------------|---|
| NZKT-1 | Nozzle Kit for Chip Resistors, SOIC & TSOP Packages. Includes (one each): <ul style="list-style-type: none"> • H-D25 • H-SL16 • H-SL28 • H-SOJ40 • H-TS48 |
| NZKT-2 | Nozzle Kit for PLCC, QFP & BQFP packages. Includes (one each): <ul style="list-style-type: none"> • H-P20 • H-P44 • H-P84 • H-Q1420 • H-Q2626 |

| | Model | Chip Type | A mm (in) | B mm (in) |
|---------|----------|---------------------|--------------|--------------|
| | H-P20 | PLCC-20 | 11.9 (0.47") | 11.9 (0.46") |
| | H-P28 | PLCC-28 | 14.5 (0.57") | 14.5 (0.57") |
| | H-P32 | PLCC-32 | 16.9 (0.67") | 14.3 (0.56") |
| | H-P44 | PLCC-44 | 19.5 (0.77") | 19.5 (0.77") |
| | H-P52 | PLCC-52 | 22.0 (0.86") | 22.1 (0.87") |
| | H-P68 | PLCC-68 | 27.0 (1.06") | 27.2 (1.07") |
| | H-P84 | PLCC-84 | 32.4 (1.28") | 32.4 (1.28") |
| | H-Q07 | QFP-48 | 8.4 (0.33") | 8.4 (0.33") |
| | H-Q10 | QFP-44 | 13.4 (0.53") | 13.4 (0.53") |
| | H-Q14 | QFP-52,80 | 17.3 (0.68") | 17.3 (0.68") |
| | H-Q1420 | QFP-64,80,100 | 23.4 (0.92") | 18.1 (0.71") |
| | H-Q28 | QFP-120,128,144,160 | 31.2 (1.23") | 31.2 (1.23") |
| | H-BQ23 | BQFP-100 | 22.4 (0.88") | 22.4 (0.88") |
| | H-Q3232 | QFP-240 | 34.5 (1.36") | 34.5 (1.36") |
| H-BQ38 | BQFP-196 | 37.7 (1.48") | 37.7 (1.48") | |
| H-Q2626 | QFP-208 | 29.8 (1.17") | 29.8 (1.17") | |
| | H-S16 | SOIC 14,16 | 6.8 (0.27") | 10.2 (0.4") |
| | H-SL16 | SOL 14,16 | 10.6 (0.41") | 10.8 (0.43") |
| | H-SL20 | SOL 20,20J | 10.6 (0.41") | 13.3 (0.52") |
| | H-SL24 | SOL 24,24J | 10.6 (0.41") | 15.9 (0.63") |
| | H-SL28 | SOL 28 | 10.6 (0.41") | 18.4 (0.72") |
| | H-SL44 | SOL 44 | 16.0 (0.41") | 27.9 (1.1") |
| | H-SOJ32 | SOJ 32 | 13.5 (0.53") | 20.6 (0.81") |
| | H-SOJ40 | SOJ 40 | 13.5 (0.53") | 25.4 (1.0") |
| | H-TS24 | TSOP 20-24 | 17.0 (0.67") | 7.1 (0.28") |
| | H-TS32 | TSOP 28-32 | 21.0 (0.83") | 9.1 (0.36") |
| | H-TS40 | TSOP 40 | 21.0 (0.83") | 10.8 (0.43") |
| | H-TS48 | TSOP 48 | 21.0 (0.83") | 13.3 (0.52") |
| | H-TSW24 | TSOP 20-24 | 10.2 (0.4") | 18.4 (0.72") |
| | H-TSW44 | TSOP 24-28/40-44 | 12.7 (0.5") | 19.8 (1.78") |
| | Model | ø A (mm) | | |
| | H-D25 | 2.5 (0.1") | | |
| | H-D50 | 5.0 (0.2") | | |
| | H-D120 | 12.0 (0.47") | | |

Technical Specifications

| | |
|---------------------------|--|
| Input Line Voltage | 230 V HCT-900-21 / 115V HCT-900-11 |
| Power | 320 W |
| Air Pump Type | Diaphragm |
| Air Flow | 6-25 l/min |
| Control Temperature | 100°C - 500°C (212°F - 932°F) |
| Dimensions (L x W x H) | 210 x 170 x 140 mm (8.7" x 6.7" x 5.5") |
| Noise Level | Less than 46 dBA |
| Surface Resistivity | Unit: 10 ⁵ Ω - 10 ⁶ Ω. Hand-piece & tube: 10 ⁷ Ω - 10 ¹¹ Ω |
| Weight | 4.7Kg (10.4 lbs) |
| Certification / Approvals | cTUVus, CE |

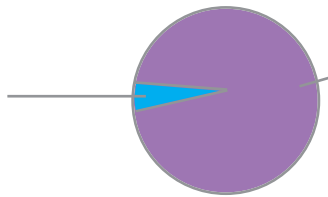
Fume Extraction Product Selection

| SYSTEMS | Volume Extraction | Tip Extraction | Single User | Multiple Users | Portable / Benchtop | Plenum Function | BVX Arms | Omniflex Arms | Particle Extraction* | Gas Extraction | Filter Block Indicator | Analog Unit | Digital Unit | Exhaust Cabinet |
|--------------|-------------------|----------------|-------------|----------------|---------------------|-----------------|----------|---------------|----------------------|----------------|------------------------|-------------|--------------|-----------------|
| BVX-101 | ✓ | | ✓ | | ✓ | ✓ | ✓ | | ✓ | | ✓ | | | |
| BVX-103 | ✓ | | ✓ | | ✓ | ✓ | ✓ | | | ✓ | ✓ | | | |
| BVX-201-KIT | ✓ | | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | | ✓ | | | |
| BVX-201-KIT1 | ✓ | | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | | ✓ | | | |
| BVX-201 | ✓ | | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | | ✓ | | | |
| BVX-203 | ✓ | | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ | | | |
| BTX-208 | | ✓ | | ✓ | | | | | ✓ | | | | | |
| MFX-2200C-A | ✓ | | | ✓ | | | ✓ | ✓ | ✓ | | ✓ | ✓ | | |
| MFX-2200C-D | ✓ | | | ✓ | | | ✓ | ✓ | ✓ | | ✓ | | ✓ | |
| MFX-2206C-A | ✓ | | | ✓ | | | ✓ | ✓ | ✓ | | ✓ | ✓ | | |
| MFX-2206C-D | ✓ | | | ✓ | | | ✓ | ✓ | ✓ | | ✓ | | ✓ | |
| MFX-2200G-A | ✓ | | | ✓ | | | ✓ | ✓ | | ✓ | ✓ | ✓ | | |
| MFX-2200G-D | ✓ | | | ✓ | | | ✓ | ✓ | | ✓ | ✓ | | ✓ | |
| MFX-2206G-A | ✓ | | | ✓ | | | ✓ | ✓ | | ✓ | ✓ | ✓ | | |
| MFX-2206G-D | ✓ | | | ✓ | | | ✓ | ✓ | | ✓ | ✓ | | ✓ | |
| EC-1800 | ✓ | | ✓ | | | | | | | ✓ | | | | ✓ |

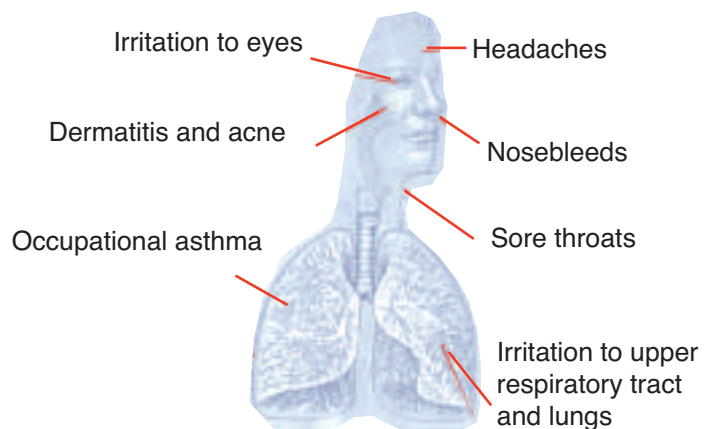
* all particle filter units are inclusive of a thin gas filter.

What are Solder Fumes?

5% Gases:
 Acetone
 Methyl Alcohol
 Formaldehyde
 Carbon Dioxide
 Diterpine Acid
 Carbon Monoxide
 Isopropyl Alcohol



95% Particulates (Fumes)



Health Implications of Solder Fumes

Largely seen as an irritant, solder smoke can reduce the productivity of workers through a loss of concentration as well as the accompanying onset of fatigue and other health concerns as shown in the illustration.

BVX-100 Benchtop Single User Arm/Plenum System



Key Features & Benefits

- ▶ Portable, single user fume extraction system
- ▶ Low noise unit
- ▶ No external ducting or compressor needed
- ▶ Unit easily fits on any bench-top or under-bench
- ▶ Innovative adaptor transforms the plenum into an arm
- ▶ Powerful 85m³/hr-airflow rate
- ▶ Immediate extraction of fumes, particles and vapors
- ▶ Two filtration configurations: heavy soldering and light dust or light duty organic solvent and adhesive applications
- ▶ Bi-coloured LED light indicates when the filters are blocked and require replacing

▶ **Compatible with BVX Arms (page 30)**

| Part No. | Description |
|----------|--|
| BVX-101 | Bench-Top, single user arm/plenum system, Pre-HEPA-Gas |
| BVX-103 | Bench-Top, single user arm/plenum system, Pre-Gas |

Filters

| | |
|--------|---------------------------------|
| FG-BVX | Deep Bed Gas Filter |
| FM-BVX | Main Filter (Combined HEPA/Gas) |
| FP-BVX | Pre-Filter (Pack of 5) |

Accessories

| | |
|----------|---|
| BVX-ADT | Replacement Arm-To-Plenum Adaptor |
| BVX-IADT | Inverted Arm Adaptor, ESD Safe |
| BVX-BCK | Under Bench Mounting Bracket |
| BVX-CH01 | Connection hose, 50mm (2") diameter, 1.8m (6') long |
| BVX-TB01 | Table bracket with 2 C-clamps |

Technical Specifications

| | |
|---------------------------------|---|
| Static Pressure (suction force) | 1250 Pa (5"WC) |
| Fan Capacity | 110m ³ /h (65 cfm) |
| Flow Rate (with filter) | 85m ³ /h (50 cfm) |
| Air Inlets/Number of Stations | 1 |
| HEPA Efficiency | 99.97% at 0.3 micron |
| Noise Level | < 55 db A |
| Dimensions (W x D x H) | 300mm x 230mm x 290mm (11.8" x 9.1" x 11.4") |
| Weight | 9kg (20lbs) |
| Voltage | 100-240 VAC |
| Frequency | 50-60 Hz |
| Power | 85 watt |
| Certification | UL, CSA, CE |



BVX-200 Two Stations Portable Filter Unit



Key Features & Benefits

- ▶ Two station design for dynamic fume extraction
- ▶ New brushless motor, quiet operation
- ▶ Complete portability, placed under or next to the bench-top
- ▶ Fitted with 2x 50mm (2") Ø arms or 1x 63mm (2.5") Ø arm
- ▶ Main filter has a HEPA efficiency of 99.97% at 0.3 micron, and an activated carbon filter to remove additional gases
- ▶ Deep-bed gas filter for high capacity of gas filtration, such as cleaning with solvents or conformal coatings
- ▶ Audible alarm informs operators when filters need replacing
- ▶ Easy access on/off remote switch

▶ **Compatible with Omniflex Arms and BVX Arms (page 30)**



| Part No. | Description |
|--------------|--|
| BVX-201 | Filter unit for 2 stations, Pre-HEPA-Gas |
| BVX-203 | Filter unit for 2 stations, Pre-Deep Bed Gas |
| BVX-201-KIT | Filter unit with 2 BVX-ARML, Pre-HEPA-Gas |
| BVX-201-KIT1 | Filter unit with 2 BVX-ARM-K1, Pre-HEPA-Gas |

Filters

| | |
|-----------|-------------------------|
| FP-BVX200 | Pre-Filter (Pack of 5) |
| FM-BVX200 | Main Filter HEPA Carbon |
| FG-BVX200 | Deep Bed Gas Filter |

Accessories

| | |
|------------|---|
| BVX-ARM-K1 | 1 BVX-ARM 760mm (30") long with 1.8m (6') long hose and table bracket with C-clamps |
| BVX-ARM-K2 | 1 BVX-ARM 760mm (30") long and table bracket with C-clamps |
| BVX-ARM | Arm flexible ESD safe, 760mm (30") long |
| BVX-ARML | Arm flexible ESD safe, 1.5m (59") long with arm clip |
| BVX-TB01 | Table bracket with 2 C-clamps |
| BVX-CH01 | Connection hose, 50mm (2") diameter, 1.8m (6') long |
| BVX-CH02 | Connection hose, 50mm (2") diameter, 3.6m (12') long |
| RPS-1 | Remote power switch |

Technical Specifications

| | |
|---------------------------------|--|
| Static Pressure (suction force) | 850 Pa (3.5"WC) |
| Fan Capacity | 250m ³ /h (150 cfm) |
| Flow Rate (with filter) | 2 x 75m ³ /h (45 cfm) |
| Air Inlets/Number of Stations | 2 |
| HEPA Efficiency | 99.97% at 0.3 micron |
| Noise Level | < 55 db A |
| Dimensions (W x D x H) | 508mm x 254mm x 388mm (20" x 10" x 15.3") |
| Weight | 9kg (20lbs) |
| Voltage | 100-240 VAC |
| Frequency | 50-60 Hz |
| Power | 85 watt |
| Certification | UL, CSA, CE |
| Max duct run | 3.6 m (12') |



MFX-2200C Particle Fume Extraction System



Controls and Filter Monitor



- ▶ Unit On/Off Switch with power indicator
- ▶ Thermal overload protection
- ▶ Analog models with filter status gauge
- ▶ Digital models with filter status indicator lights and other control options

The multi-user MFX-2200C Fume Extraction System provides the ultimate performance in a compact size that easily fits under most workbenches. It is ideal for removing solder fumes and filtering laser fumes.

Key Features & Benefits

- ▶ Excellent air flow performance
- ▶ Large, pleated pre-filter
- ▶ HEPA filter rating of 99.97% at 0.3 micron
- ▶ Casters as standard
- ▶ Dust filter seal keeps filter housing clean
- ▶ Minimum operating noise
- ▶ Compact size, unit fits under most workbenches
- ▶ Connects up to 4 Omniflex arms with rectangular nozzle (EA1122) or large hood (EA1126)
- ▶ Connects up to 8 BVX arms or 8 Omniflex arms with tapered nozzle (EA1124)

▶ **Compatible with Omniflex Arms and BVX Arms (page 30)**

| Part No. | Description |
|-------------|--|
| MFX-2200C-A | Particle Fume Extraction System Analog 110V |
| MFX-2206C-A | Particle Fume Extraction System Analog 230V |
| MFX-2200C-D | Particle Fume Extraction System Digital 110V |
| MFX-2206C-D | Particle Fume Extraction System Digital 230V |

Filters

| | |
|-----------|--|
| FIL22P030 | Prefilter Pleated 60% Efficiency (Pack of 2) |
| FIL22H070 | Combination Filter HEPA/Carbon |

Accessories

| | |
|--------|---|
| AC2204 | Top cover with 2 air inlets Ø100mm (4") and 2 air inlets Ø63mm (2.5") |
|--------|---|

Technical Specifications

| | 110V Units | 230V Units |
|------------------------|-----------------------|----------------------|
| Air Inlet Openings | 4 x Ø2.5" | 4 x Ø63mm |
| Fan Capacity | 600 cfm | 900m ³ /h |
| Flow Rate | 400 cfm | 600m ³ /h |
| HEPA Efficiency | 99.97% at 0.3 micron | 99.97% at 0.3 micron |
| Static Pressure | 4.5" WC Max | 1075 Pa |
| Power Supply | 100-120VAC, 60Hz | 220-240VAC, 50Hz |
| Power | 400 Watt | 400 Watt |
| Noise Level | 58 dbA | 58 dbA |
| Dimensions (W x D x H) | 17.7" x 20.7" x 26.4" | 450 x 525 x 670mm |
| Weight | 93 lbs | 43 Kg |
| Certification | UL, CSA | CE |
| Max duct run | 100' | 30 m |

MFX-2200G Gas Fume Filtration System



The MFX-2200G Fume Extraction System has been specifically designed for the removal of gases and vapors from a range of heavy duty bench-top applications, including solvent cleaning, gluing/bonding and conformal coatings.

Key Features & Benefits

- ▶ High capacity gas filter cartridge ensures a long dwell-time of the gases inside the filter media
- ▶ Large, pleated pre-filter
- ▶ Casters as standard
- ▶ Minimum operating noise
- ▶ Provides air flow for two exhaust cabinets
- ▶ The unit lid features 100mm (4") and 63mm (2.5") air inlet flanges suitable for the connection of exhaust arms or cabinets
- ▶ **Compatible with Omniflex Arms and BVX Arms (page 30)**
- ▶ **Compatible with EC1800 Exhaust Cabinet (page 32)**

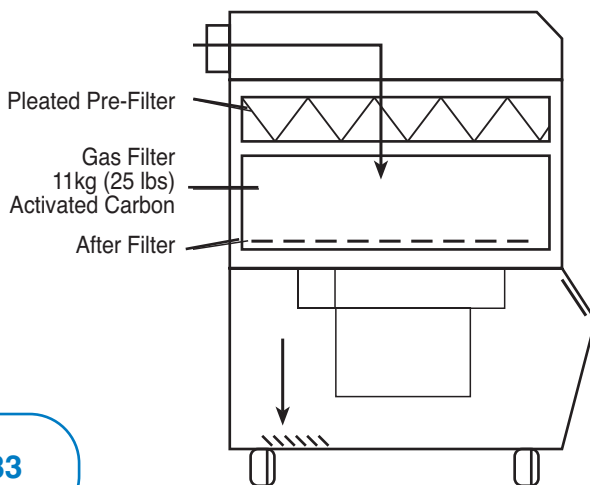
| Part No. | Description |
|-------------|---|
| MFX-2200G-A | Gas Fume Extraction System Analog 110V |
| MFX-2206G-A | Gas Fume Extraction System Analog 230V |
| MFX-2200G-D | Gas Fume Extraction System Digital 110V |
| MFX-2206G-D | Gas Fume Extraction System Digital 230V |

Filters

| | |
|-----------|-----------------------------------|
| FIL22P040 | Pre-filter Pleated 85% Efficiency |
| FIL22G010 | Gas Filter Cartridge 11kg (25lbs) |
| FIL22G020 | Carbon Refill Kit 11kg (25lbs) |

Accessories

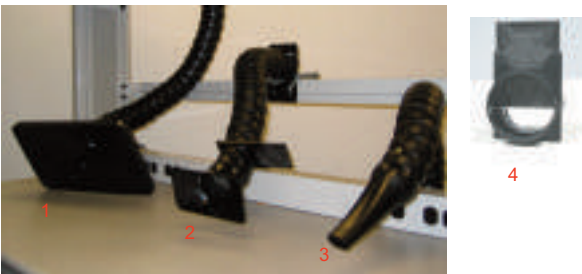
| | |
|--------|---|
| AC2202 | Top cover with 4 air inlets Ø 63mm (2.5") |
|--------|---|



Technical Specifications

| | 110V Units | 230V Units |
|------------------------|-----------------------|----------------------|
| Air Inlet Openings | 2xØ4" & 2xØ2.5" | 2xØ100mm & 2xØ63mm |
| Fan Capacity | 600 cfm | 900m ³ /h |
| Flow Rate | 350 cfm | 550m ³ /h |
| Static Pressure | 4.5" WC Max | 1075 Pa |
| Power Supply | 100-120VAC, 60Hz | 220-240VAC, 50Hz |
| Power | 400 Watt | 400 Watt |
| Noise Level | 58 dbA | 58 dbA |
| Dimensions (W x D x H) | 17.7" x 20.7" x 26.4" | 450 x 525 x 670mm |
| Weight | 115 lbs | 52 Kg |
| Certification | UL, CSA | CE |
| Max duct run | 100' | 30 m |

Omniflex & BVX Arms



The **Omniflex Arms** (Ø63mm) are designed for higher airflow rates and effective fume capture from greater distances. A unique ball/socket design provides an unmatched flexibility in manoeuvring and positioning. The arms can be adjusted in working length or radius, simply by adding or removing Omniflex components. ESD conformance is ensured through the use of fully conductive material.

Key Features & Benefits

- ▶ 140m³/h (85cfm) air flow rating (varies with nozzle)
- ▶ 63mm (2.5") diameter
- ▶ 0.6m (24") long with optional extensions of 300mm (12")
- ▶ **Omniflex Arms are compatible with BVX-200* and MFX units**

| Part No. | Description |
|----------|---|
| EA1122 | 2 Omniflex Arm ESD with Rectangular Nozzle |
| EA1124 | 3 Omniflex Arm ESD with Tapered Nozzle |
| EA1126 | 1 Omniflex Arm ESD with Large Hood 350 x 212mm (14" x 8.5") |
| AC1101 | 4 Damper for Omniflex Arm |
| AC1102 | Omniflex Arm Extension 30cm (12") |

*BVX-200 series is only rated for one EA1122 arm, one EA1126 arm or two EA1124 arms.

The **BVX Arms** (Ø50mm) are most economic solution while providing good airflow rates and high flexibility. The spiral rolled duct can be tightened in stiffness and can be positioned precisely. The BVX Arm-K2 kit includes a mounting plate and c-clamps for universal mounting. A Y-connection piece is available to connect two BVX Arms to one hose.

Key Features & Benefits

- ▶ 75m³/h (45cfm) air flow rating
- ▶ 50mm (2") ducting with 40mm (1.75") nozzle
- ▶ 710mm (28") long
- ▶ **BVX Arms compatible with all units**

| Part No. | Description |
|------------|---|
| BVX-ARM-K1 | 5 1 BVX-ARM 760mm (30") long with 1.8m (6') long hose and table bracket with C-clamps |
| BVX-ARM-K2 | 1 BVX-ARM 760mm (30") long and table bracket with C-clamps |
| BVX-ARM | Arm flexible ESD safe, 760mm (30") long |
| BVX-ARML | Arm flexible ESD safe, 1.5m (59") long with arm clip |

Connection Hoses for Omniflex and BVX Arms

| | |
|--------|--|
| CH0251 | 6 Connection Hose 2.5m xØ63mm (8" x 2.5") with clamps |
| CH0252 | 6 Connection Hose 3.5m xØ63mm (12" x 2.5") with clamps |
| CH0253 | 6 Connection Hose 7.5m xØ63mm (25" x 2.5") with clamps |
| AC2025 | 7 Y-Piece for Ø63mm (2.5") hose with clamps |

BTX-208 Portable Tip Extraction Unit



Key Features & Benefits

- ▶ High performance extraction directly from the tip of any iron
- ▶ Easy extraction network configuration for up to 8 benches
- ▶ Complete portability. Designed for under-bench installation
- ▶ Main filter has a HEPA efficiency of 99.97% at 0.3 micron, and an activated carbon filter to remove gases
- ▶ Both pre- and main- filters can be changed independently
- ▶ Plug-and-play ducting system for simple, flexible low cost solution and fast installations
- ▶ Universal hose connection kit



| Part No. | Description |
|----------|---|
| BTX-208 | Filter Unit for 8 Tip Extraction Stations, Pre/HEPA/Gas |

Filters

| | |
|-----------|-----------------------------------|
| FP-BVX200 | Pre-Filters (pack of 5) |
| FM-BVX200 | Main Filter, HEPA 99.95% / Carbon |

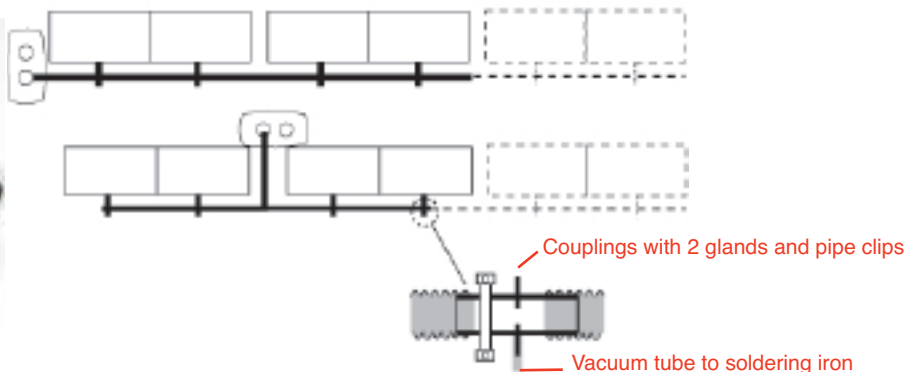
CONNECTION KITS:

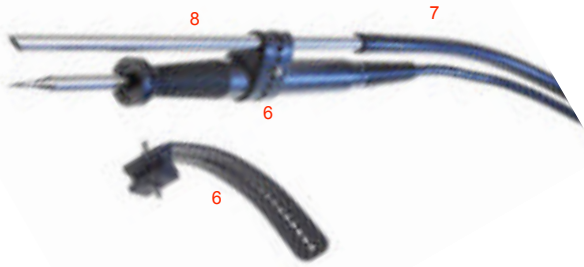
| | |
|------------|---|
| BTX-CK2-25 | Connection Kit for 2-4 stations with 2.5m (8') Long Hose |
| BTX-CK4-50 | Connection Kit for 4-8 stations with 5m (16') Long Hose |
| BTX-CK4-75 | Connection Kit for 4-8 stations with 7.5m (25') Long Hose |

Individual Parts

| | | |
|------------|---|---|
| CH0121 | 1 | Flexible Hose Ø35mm x 2.5m (8') Long |
| CH0122 | 1 | Flexible Hose Ø35mm x 5m (16') Long |
| CH0123 | 1 | Flexible Hose Ø35mm x 7.5m (25') Long |
| AC-TX001-4 | 2 | Couplings with 2 Glands 5.6mm (pack of 4) |
| 18566S-5 | 3 | End Plug (Pack of 5) |
| AC-TX002-2 | 4 | T-Piece Connector (pack of 2) |
| 19115S-10 | 5 | Pipe Clip (pack of 10) |

| CONNECTION KITS | | BTX-CK2-25 | BTX-CK4-50 | BTX-CK4-75 |
|------------------------|------------------------------|------------|------------|------------|
| Max number of stations | single-row bench | 2 | 4 | 4 |
| when using 5.6mm tubes | double-row bench | 4 | 8 | 8 |
| | | Qty | Qty | Qty |
| 1 | Flexible Hose Ø35mm (1.25") | 2.5m (8") | 5.0m (16") | 7.5m (25') |
| 2 | Coupling with 2 Glands 5.6mm | 2 | 4 | 4 |
| 3 | End Plug | 1 | 2 | 2 |
| 4 | T-piece Connector | 0 | 1 | 1 |
| 5 | Pipe Clip | 2 | 5 | 5 |
| - | Roll of Vinyl Tape | 1 | 1 | 1 |





Iron Adapter Kits

| Part No. | Description |
|------------|--|
| AC-FX1 | Universal tip extraction iron adapter clip includes: |
| BTX-UC01 | 6 2 x universal clips |
| 18574S-5 | 7 1 x silicon hose |
| DS03-910-5 | 1 x cleaning brush |
| 20233S-5 | 8 1 x stainless tube |
| 20237S-5 | 4 x S clips |
| 18576S-5 | 1 x connecting gland |

Other tip extraction iron adapter kits available:
www.okinternational.com/product_fume/btx_208

Technical Specifications

| | |
|-------------------------|--|
| Max. number of stations | 8 |
| Flow Rate per station | >28 l/min |
| Noise Level | < 55 db A |
| Dimensions (W x D x H) | 508mm x 254mm x 388mm (20" x 10" x 15.3") |
| Weight | 9kg (20lbs) |
| Voltage | 100-240 VAC |
| Frequency | 50-60 Hz |
| Power | 85 Watt |
| Max Duct Run | 30m (100') |
| Certification | UL/CSA/CE |



EC1800 Exhaust Cabinet



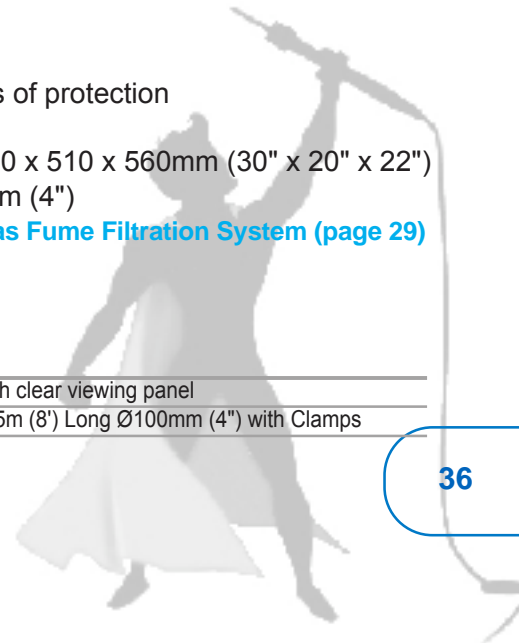
The EC1800 is an ideal bench top exhaust cabinet for applications such as volatile vapors and gases with high toxic levels.

A hinged and clear viewing panel maintains excellent visibility while at the same time reducing the airflow demand on the cabinet.

Key Features & Benefits

- ▶ Bench Top exhaust cabinet
- ▶ Offers operators high levels of protection
- ▶ Easy Assembly
- ▶ Dimensions (W x D x H) 760 x 510 x 560mm (30" x 20" x 22")
- ▶ Connection Flange Ø100mm (4")
- ▶ Requires MFX-2200G-A/D Gas Fume Filtration System (page 29)

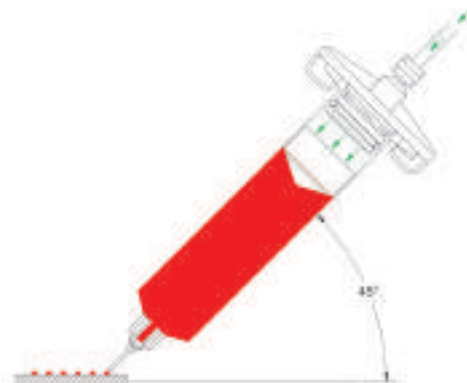
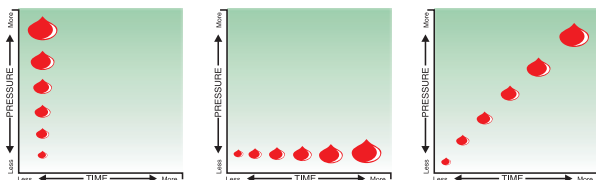
| Part No. | Description |
|----------|--|
| EC1800 | Exhaust Cabinet with clear viewing panel |
| CH0047 | Connection hose 2.5m (8') Long Ø100mm (4") with Clamps |



Product Selection

| SYSTEMS | Dispenser 0 to 100 psi | Dispenser 0 to 15 psi | Digital Timer & Vacuum | Digital Pressure | Economical | Programmable | Foot Valve Dispenser | Analog Vacuum | Dispensing Tips | Stainless Steel Canula | Double Helix Brush | Flexible Plastic | Double Helix Luer Lock Hub | Tapered |
|-------------|------------------------|-----------------------|------------------------|------------------|------------|--------------|----------------------|---------------|-----------------|------------------------|--------------------|------------------|----------------------------|---------|
| DX-250 | ✓ | | ✓ | | ✓ | | | | | | | | | |
| DX-255 | | ✓ | ✓ | | ✓ | | | | | | | | | |
| DX-350 | ✓ | | ✓ | ✓ | | ✓ | | | | | | | | |
| DX-355 | | ✓ | ✓ | ✓ | | ✓ | | | | | | | | |
| 924-DFV | | | | | ✓ | | ✓ | | | | | | | |
| 924-DFV-VAC | | | | | ✓ | | ✓ | ✓ | | | | | | |
| TE Series | | | | | | | | ✓ | ✓ | | | | | |
| BT Series | | | | | | | | ✓ | | ✓ | | | | |
| TS-P Series | | | | | | | | ✓ | | | ✓ | | | |
| TT Series | | | | | | | | ✓ | | | | ✓ | ✓ | |

Tutorial Time-Pressure Dispensing



Time pressure dispensing is the most common dispensing method used today. Its popularity stems from the need for process control and the fact it is possible to dispense from disposable containers without the need for cleaning.

Factors affecting dispensing

- ▶ **PRESSURE:** Increasing fluid pressure will increase dot size and vice versa
- ▶ **TIME:** Increasing dispense time will increase dot size and vice versa
- ▶ **TIP SIZE:** Larger inside diameter (orifice) tip results in bigger dot size

Basic dispensing guidelines

- ▶ Small shot size = small tip, low fluid pressure, short dispense time
- ▶ Large shot size = larger tip, higher fluid pressure, longer dispense time
- ▶ Low viscosity fluid = small tip, low pressure, time as required
- ▶ High viscosity fluid = larger tip (tapered needles recommended), high pressure, time as required
- ▶ Position the syringe barrel at a 45° angle
- ▶ Position the tip close to the work surface then activate the dispensing cycle and keep the syringe barrel in the same position until the cycle is completed
- ▶ If vacuum “suck-back” is needed, use only enough vacuum to draw back fluid into dispense tip. Excessive vacuum could draw air into the fluid and also could draw fluid into the dispenser

DX-250 Series Digital Dispenser



The DX-250 Series is a high performance Digital Dispenser. Complete with a range of accessories, the micro-air dispensing system unites affordability with high accuracy and repeatability for exceptional results.

These user friendly fluid dispensing systems include a digital timer with a rotary control time knob for easy setup and a vacuum suck-back control for all viscosities of fluids.

Key Features & Benefits

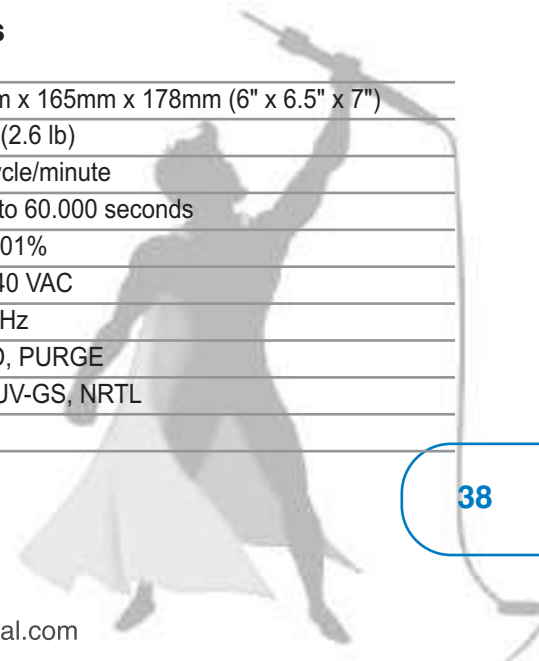
- ▶ Small footprint and lightweight
- ▶ Economical dispenser
- ▶ Highly accurate and repeatable micro-air dispensing
- ▶ Digital timer and vacuum controls
- ▶ Available in two versions of operating pressure: 0 to 100 psi for general applications, and 0 to 15 psi for specific low viscosity applications
- ▶ Packaged ready to use with a universal power supply, foot switch, air hose, sample tips, syringe barrels and adapter.



| Part No. | Description |
|----------|---|
| DX-250 | Digital Dispenser 0 to 100 psi (0 to 6.9 bar) |
| DX-255 | Digital Dispenser 0 to 15 psi (0 to 1.0 bar) |

Technical Specifications

| | |
|-------------------|--|
| Size (W x L x H) | 152mm x 165mm x 178mm (6" x 6.5" x 7") |
| Weight | 1.2Kg (2.6 lb) |
| Cycle Rate | 600 cycle/minute |
| Timing Range | 0.020 to 60.000 seconds |
| Timing Tolerances | +/- 0.001% |
| Input Voltage | 100-240 VAC |
| Input Frequency | 50-60 Hz |
| Cycle Mode | TIMED, PURGE |
| Certification | CE, TUV-GS, NRTL |
| Warranty | 1 year |



DX-350 Series Digital Dispenser



The DX-350 Series is a microprocessor-driven and fully digital Dispenser. Intuitive to use, the DX-350 dispenses low, medium and high-viscosity fluids accurately and consistently.

The firmware provides the option of programming up to 10 varied, sequenced or individual shots.

The DX-350 includes an adjustable vacuum-driven “suck-back” to control material “tailing” and waste.

Key Features & Benefits

- ▶ Small footprint and lightweight
- ▶ 10 programmable dispense routines and 4 operating modes
- ▶ Digital timer, pressure and vacuum read-outs
- ▶ Accurate reproduction of sequences of beads or dots
- ▶ Adjustable vacuum feature for controlling drips of fluid between dispense cycles
- ▶ Available in two versions of operating pressure: 0 to 100 psi for general applications, and 0 to 15 psi for specific low viscosity applications
- ▶ Packaged ready to use with a universal power supply, foot switch, air hose, sample tips, syringe barrels and adapter

| Part No. | Description |
|----------|---|
| DX-350 | Digital Dispenser 0 to 100 psi (0 to 6.9 bar) |
| DX-355 | Digital Dispenser 0 to 15 psi (0 to 1.0 bar) |

Technical Specifications

| | |
|-------------------|--|
| Size (W x L x H) | 152mm x 165mm x 178mm (6" x 6.5" x 7") |
| Weight | 1.2Kg (2.6 lb) |
| Cycle Rate | 1200 cycle/minute |
| Timing Range | 0.008 to 60.000 seconds |
| Timing Tolerances | +/- 0.001% |
| Input Voltage | 100-240 VAC |
| Input Frequency | 50-60 Hz |
| Memories | 10 programmable |
| Cycle Mode | TIMED, INTERRUPT, TEACH, PURGE |
| Certification | CE, TUV-GS, NRTL |
| Warranty | 1 year |



924-DFV Series Foot Valve Dispenser



The 924-DFV Series Foot Valve Dispenser offers increased production combined with dispenser economy. Floor mounted, they have a built in pressure regulator, pressure gauge and a unique fast-dump, three-way air valve. Output rate and shot size are operator controlled.

The 924-DFV is the ideal basic dispensing unit for most general applications of adhesives, sealants, coatings and compounds.

The 924-DFV-VAC features a vacuum suck-back to prevent very thin materials from dripping to reduce tailing or stringing with thicker materials.

Key Features & Benefits

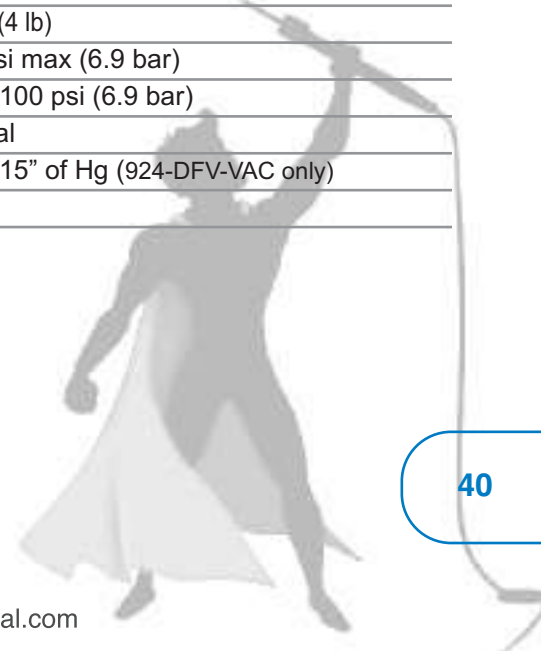
- ▶ Ideal for applications where electricity is prohibited
- ▶ Robust design
- ▶ Floor mounted conserves bench space
- ▶ No programming required



| Part No. | Description |
|-------------|----------------------------------|
| 924-DFV | Foot Valve Dispenser |
| 924-DFV-VAC | Foot Valve Dispenser with Vacuum |

Technical Specifications

| | |
|--------------------|--|
| Size (W x L x H) | 124mm x 206mm x 121mm (8.1" x 4.9" x 4.7") |
| Weight | 1.8Kg (4 lb) |
| Input Pressure | 100 psi max (6.9 bar) |
| Operating Pressure | Up to 100 psi (6.9 bar) |
| Cycle Mode | Manual |
| Vacuum Force | Up to 15" of Hg (924-DFV-VAC only) |
| Warranty | 1 year |



Dispensing Tips



TE Tips Series

- ▶ Stainless-steel cannula with a double Helix polypropylene hub
- ▶ Burr-free and electro-polished cannula for unobstructed and consistent material flow
- ▶ Silicone and chloride free
- ▶ Sold in packs of 50

| Gauge | 1/4" (6.35mm) | 1/2" (12.7mm) | 1" (25.4mm) | 1-1/2" (38.1mm) |
|-------|------------------|------------------|----------------|--------------------|
| 14 | | 914050-TE | 914100-TE | 914150-TE |
| 15 | | 915050-TE | 915100-TE | 915150-TE |
| 18 | 918025-TE | 918050-TE | 918100-TE | 918150-TE |
| 20 | 920025-TE | 920050-TE | 920100-TE | 920150-TE |
| 21 | 921025-TE | 921050-TE | 921100-TE | 921150-TE |
| 22 | 922025-TE | 922050-TE | 922100-TE | 922150-TE |
| 23 | 923025-TE | 923050-TE | 923100-TE | 923150-TE |
| 25 | 925025-TE | 925050-TE | | |
| 27 | 927025-TE | 927050-TE | | |
| 30 | 930025-TE | 930050-TE | | |
| 32 | 932025-TE | | | |



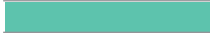

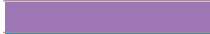








TE Bent Tip Series

- ▶ Precision bent tips at 45° and 90° angles
- ▶ Perfect for dispensing fluid in hard to reach places
- ▶ Sold in packs of 50

| Gauge | 1/2" (12.7mm) | | 1-1/2" (38.1mm) |
|-------|---------------|--------------|-----------------|
| | 90° | 45° | 45° |
| 14 | 914050-90BTE | 914050-45BTE | 914150-45BTE |
| 15 | 915050-90BTE | 915050-45BTE | |
| 18 | 918050-90BTE | 918050-45BTE | 918150-45BTE |
| 20 | 920050-90BTE | 920050-45BTE | |
| 21 | 921050-90BTE | 921050-45BTE | 921150-45BTE |
| 22 | 922050-90BTE | 922050-45BTE | |
| 23 | 923050-90BTE | 923050-45BTE | |
| 25 | 925050-90BTE | 925050-45BTE | |
| 27 | 927050-90BTE | 927050-45BTE | |
| 30 | 930050-90BTE | 930050-45BTE | |

Color Coding and Gauge For TE Series and TE Bent Tips

| | Gauge | Colour | I.D. (inches) | I.D.(mm) |
|---|-------|----------|---------------|----------|
|  | 14 | Olive | 0.063 | 1.600 |
|  | 15 | Amber | 0.054 | 1.371 |
|  | 18 | Green | 0.033 | 0.838 |
|  | 20 | Pink | 0.024 | 0.610 |
|  | 21 | Purple | 0.020 | 0.508 |
|  | 22 | Blue | 0.016 | 0.406 |
|  | 23 | Orange | 0.013 | 0.330 |
|  | 25 | Red | 0.010 | 0.254 |
|  | 27 | Clear | 0.008 | 0.203 |
|  | 30 | Lavender | 0.006 | 0.152 |
|  | 32 | Yellow | 0.004 | 0.102 |

Dispensing Tips



BT Series

- ▶ Double Helix Brush Tips for "spread" applications such as glues and other materials.
- ▶ Soft brush is made of Red Sable
- ▶ Stiff brush is made of Nylon
- ▶ Available in packs of 12.

| Gauge | Soft Bristle | Stiff Bristle |
|-------|--------------|---------------|
| 16 | 916BT-SOFT | 916BT-STIFF |
| 18 | 918BT-SOFT | 918BT-STIFF |
| 22 | 922BT-SOFT | 922BT-STIFF |



TS-P Plastic Series Tips

- ▶ Flexible tips allow access to hard to reach areas
- ▶ 1-1/2" but length can also be customized
- ▶ Ideal for CA applications
- ▶ Both hub and cannula are made from polypropylene
- ▶ Sold in packs of 50

| Gauge | Colour | TS-P Needle |
|-------|--------|-------------|
| 15 | Grey | 915150-PTS |
| 16 | Brown | 916150-PTS |
| 18 | Pink | 918150-PTS |
| 20 | Yellow | 920150-PTS |
| 22 | Black | 922150-PTS |
| 25 | Red | 925150-PTS |



TT Series Tips

- ▶ Molded in high density polyethylene with UV light block additive
- ▶ Include a double Helix luer lock hub
- ▶ Tapered tip prevents blockage and increases the flow of high viscosity materials
- ▶ Sold in packs of 50

| Gauge | Colour | TT Needle |
|-------|--------|-------------|
| 14 | Olive | 914125-DHUV |
| 16 | Grey | 916125-DHUV |
| 18 | Green | 918125-DHUV |
| 20 | Pink | 920125-DHUV |
| 22 | Blue | 922125-DHUV |
| 25 | Red | 925125-DHUV |
| 27 | Clear | 927125-DHUV |



Dispensing Tip Kit

- ▶ Kit contains a selection of most popular TE, TE Bent and TT tips

| | |
|--------|--------------------|
| 900-NK | Dispensing Tip Kit |
|--------|--------------------|

Dispensing Consumables



End Caps

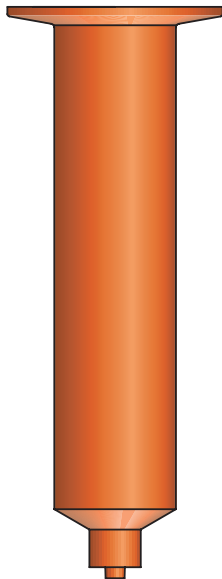
- ▶ Designed to seal large end of the syringe barrel
- ▶ Ensure no contaminants come in contact with material during storage
- ▶ Made from polyethylene
- ▶ Available in packs of 50

| Size | End Cap |
|---------|----------|
| 3cc | 903-EC |
| 5cc | 905-EC |
| 10cc | 910-EC |
| 30/55cc | 93055-EC |

pistons



syringe barrels



Air Powered Pistons

- ▶ Wiper Pistons provide a seal for low to medium viscosity fluids
- ▶ Straight Wall Pistons for reduced stringing with medium to high viscosity fluids
- ▶ Both styles of pistons are made from polyethylene
- ▶ Sold in packs of 50

| Size | Wiper Piston (White) | Straight Wall (Red) |
|---------|-------------------------|------------------------|
| 3cc | 903-WW | 903-SWR |
| 5cc | 905-WW | 905-SWR |
| 10cc | 910-WW | 910-SWR |
| 30/55cc | 93055-WW | 93055-SWR |

Syringe barrels

- ▶ Unique ultra-low draft of inner diameter yield high accuracy and stability
- ▶ Industry compliant silicone / chloride free, low friction polypropylene
- ▶ 3 colours: Natural for most generic applications, Amber for protection of UV/visible light block (up to 520nm), Black for total light block
- ▶ Sold in packs of 50

| Size | Natural | Dark Amber | Black |
|------|---------|------------|-------|
| 3cc | 903-N | 903-D | 903-B |
| 5cc | 905-N | 905-D | 905-B |
| 10cc | 910-N | 910-D | 910-B |
| 30cc | 930-N | 930-D | 930-B |
| 55cc | 955-N | 955-D | 955-B |

Tip Cap

- ▶ Use to seal syringe barrel when not in use
- ▶ Fits all syringe sizes
- ▶ Made from polypropylene
- ▶ Sold in packs of 50



| | |
|----------|-------------------------------------|
| 900-ORTC | Tip Care Double Helix Thread Orange |
| 900-BTC | Tip Care Double Helix Thread Black |

Syringe Assembly Kits

- ▶ Packaged together in ready-to-use kits of 50 each (syringe and Wiper Piston, without piston inserted)

| Size | Natural |
|------|---------|
| 3cc | 903-NW |
| 5cc | 905-NW |
| 10cc | 910-NW |
| 30cc | 930-NW |
| 55cc | 955-NW |

Dispensing Accessories

Receiver Head Assembly

- ▶ Connecting link between time/pressure controllers and Syringe assemblies
- ▶ Provides a safe connection for accident proof dispensing
- ▶ Available with 3 or 6 feet of tubing
- ▶ Includes: receiver head with O-ring, tubing and male quick connector
- ▶ Receiver heads are made of Delrin®
- ▶ Sold individually

| Size | 3' Hose | 6' Hose |
|---------|------------|------------|
| 3cc | 903-3RHB | 903-6RHB |
| 5cc | 905-3RHB | 905-6RHB |
| 10cc | 910-3RHB | 910-6RHB |
| 30/55cc | 93055-3RHB | 93055-6RHB |

Manual Syringe Gun

- ▶ Lightweight barrel applicator gun
- ▶ Provides excellent control for medium/high viscosity products
- ▶ Easy to use. No dripping or mess

| Size | Manual Syringe Gun |
|------|--------------------|
| 5cc | 905-MSG |
| 10cc | 910-MSG |
| 30cc | 930-MSG |
| 55cc | 955-MSG |

Vacuum Pencil

- ▶ Use for pick and place function
- ▶ Stand-alone vacuum pick-up requires shop air
- ▶ Optional Mixed Kit of Vacuum Cups also available

| | |
|--------|-------------------------|
| TS8120 | Vacuum Pick Up Assembly |
|--------|-------------------------|

Syringe Holder

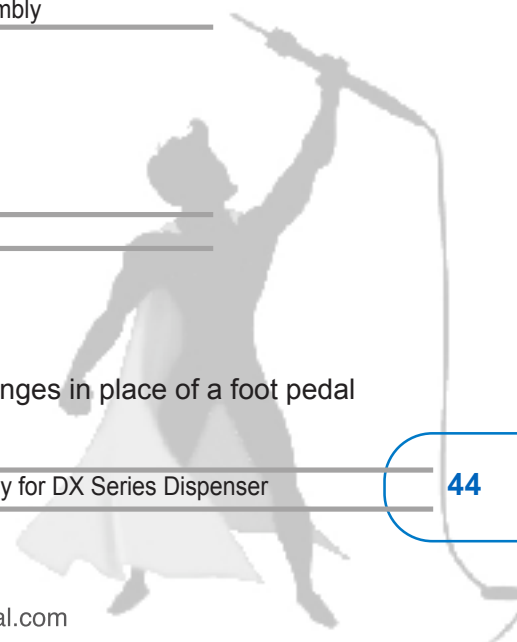
- ▶ Use for 900 Series syringes

| | |
|--------|----------------|
| SH-300 | Syringe Holder |
|--------|----------------|

Finger Switch Assembly

- ▶ Use with OKi dispensers and syringes in place of a foot pedal
- ▶ Provides control at your finger tip

| | |
|--------|--|
| DX9010 | Finger Switch Assembly for DX Series Dispenser |
|--------|--|



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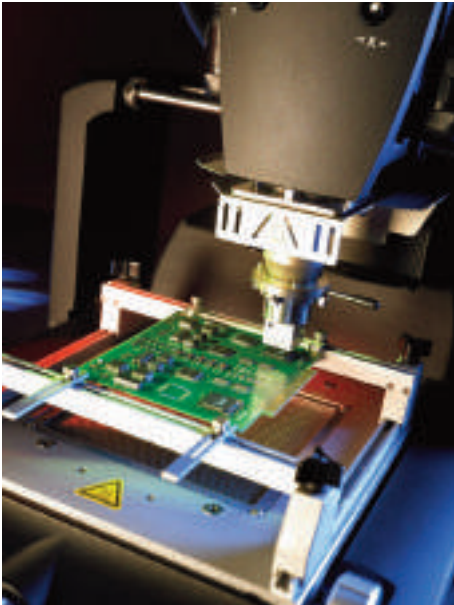
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- ▶ Easy-to-program multi-lingual software manages the five stages of the reflow profile: pre-heat, soak, ramp, reflow and cooling.
- ▶ Innovative single reflow/placement head and dual stage preheaters help achieve a consistently small Delta T across the board and the component.
- ▶ The dual stage convective pre-heater can be switched between inner and outer stage within the four heating zones of a profile to meet the higher rework requirement of lead-free.
- ▶ Two models are available: The APR-5000-DZ capable of handling boards up to 229mm x 381mm (9" x 15") and the APR-5000-XLS for boards up to 622mm x 622mm (24.5" x 24.5").



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