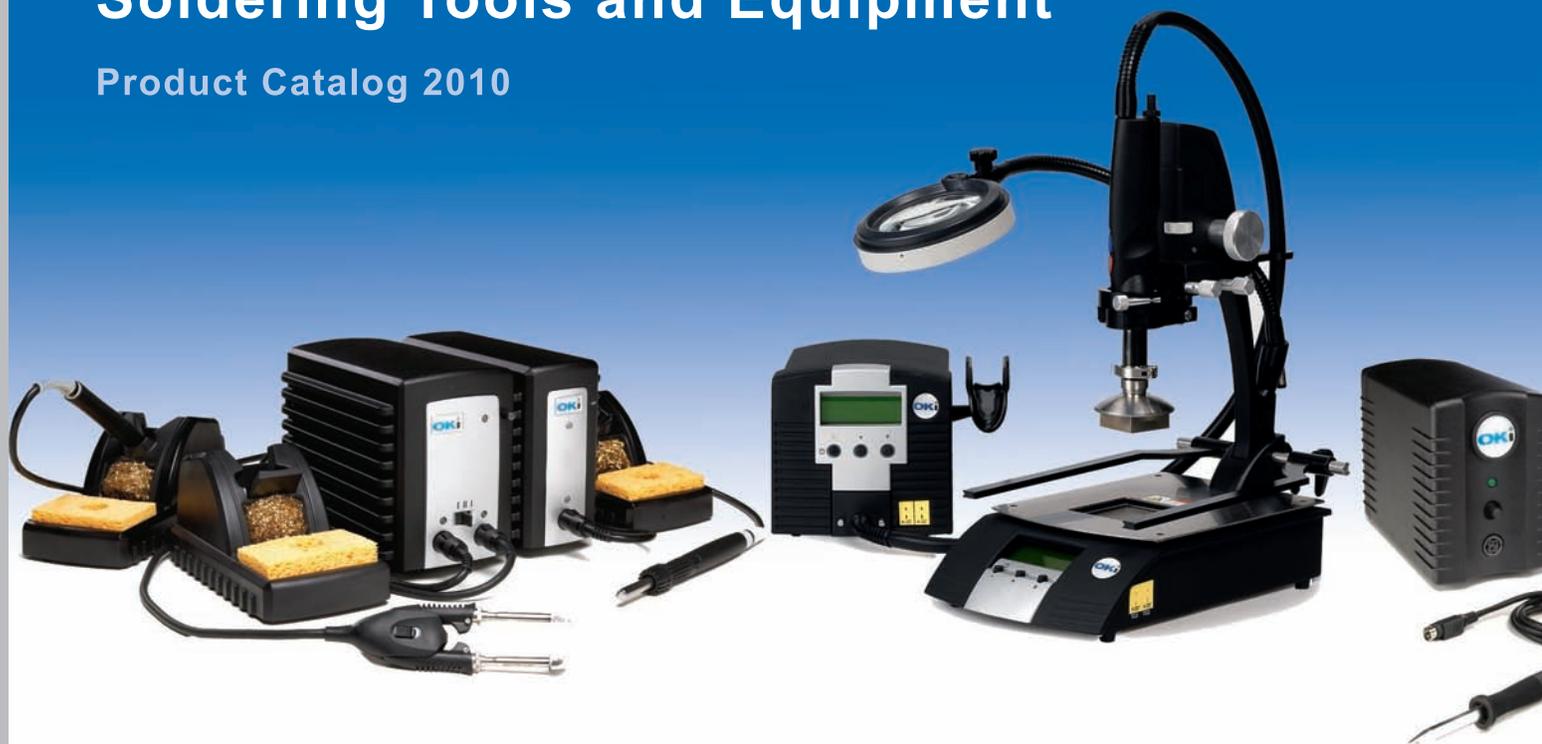


# Soldering Tools and Equipment

Product Catalog 2010



Soldering/Desoldering

Convection Rework

Fume Extraction

Fluid Dispensing



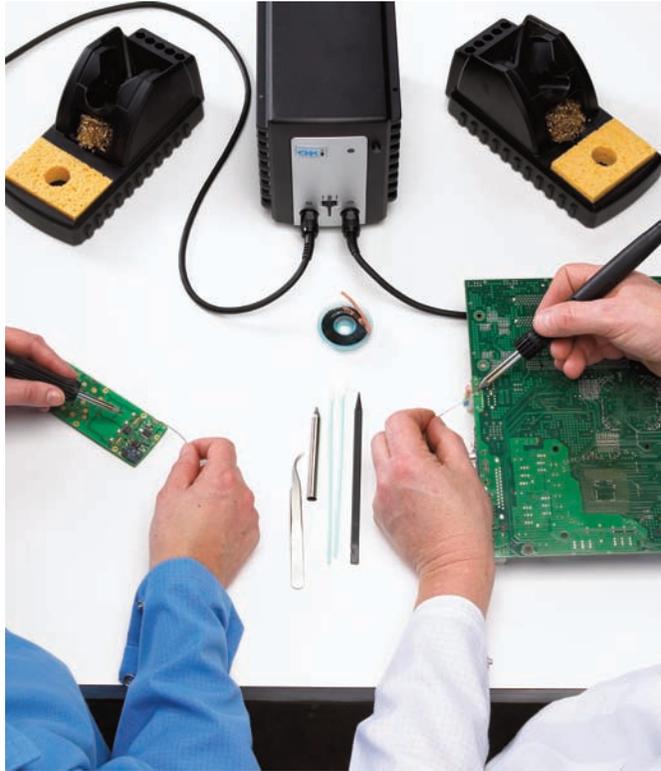
**KREPRO**

[www.krepro.no](http://www.krepro.no)

**OKI**

[www.beasuperproducer.com](http://www.beasuperproducer.com)

# 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**



**SxP**  
Soldering Cartridges



**RxP**  
Rework Cartridges

See Pages 15 & 16

**TIPS**



**SxV**  
Soldering Tips



**CxV**  
Blade Tips

See Pages 13 & 14

**CARTRIDGES**

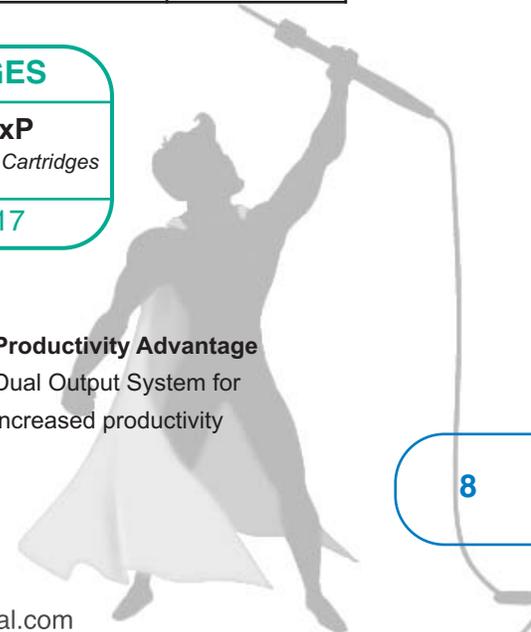


**TxP**  
Tweezer Cartridges

See Page 17



**Productivity Advantage**  
Dual Output System for  
increased productivity



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



Other Accessories Available:

<b>MFR-CA2</b>	Coil Assembly for Tip Hand-piece (MFR-H2-ST)
<b>WS1G</b>	Auto-sleep Workstand, Green
<b>MFR-PM70</b>	Power Meter
<b>AC-CP2</b>	Cartridge / Tip Removal Pad
<b>AC-BP</b>	Brass Pad (for Workstand) - Pack of 10
<b>MFR-UK1</b>	Upgrade Kit: Solder Cartridge Hand-piece (MFR-H1-SC) and Workstand (WS1)
<b>MFR-UK2</b>	Upgrade Kit: Solder Tip Hand-piece (MFR-H2-ST) and Workstand (WS1)
<b>MFR-UK4</b>	Upgrade Kit: Tweezer Cartridge Hand-piece (MFR-H4-TW) and Workstand (MFR-WSPT)
<b>MFR-UK6</b>	Upgrade Kit: Tweezer Cartridge Hand-piece (MFR-H6-SSC) and Workstand (WS2)

## 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 <sup>5</sup> -10 <sup>9</sup> Ohms	10 <sup>5</sup> -10 <sup>9</sup> 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)

## Key Features & Benefits

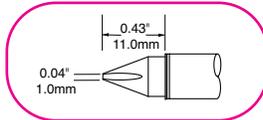
- ▶ SmartHeat® Technology provides exceptional power for high thermal demand applications
- ▶ Single or Dual simultaneous outputs allow for single or dual hand-piece use
- ▶ Four hand-pieces available for increased application solutions for soldering and rework on one system
- ▶ Each hand-piece has a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



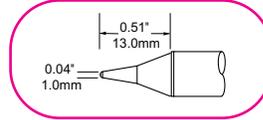
MFR-2200: Three position switch. Select left, right or center (both ports operational) to power hand-pieces

# SxV and CxV Soldering Tips

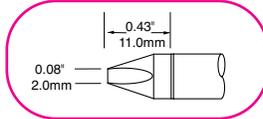
The SxV and CxV tips are for use with the soldering tip hand-pieces of the PS and MFR Platforms and are recommended for heavy duty applications. Full range available at [www.okinternational.com](http://www.okinternational.com).



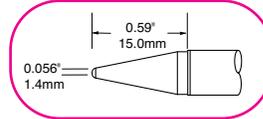
**SFV-CH10**  
Chisel Solder Tip 30°  
1.0mm (.04")



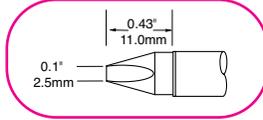
**SFV-CNL10**  
Conical Long Solder Tip  
1.0mm (.04")



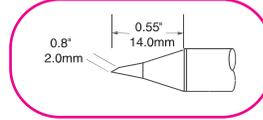
**SFV-CH20**  
Chisel Solder Tip  
2.0mm (.08")



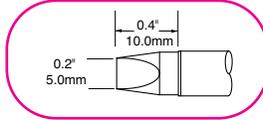
**SFV-CNL14**  
Conical Long Solder Tip  
1.4mm (.056")



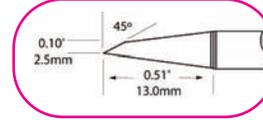
**SFV-CH25**  
Chisel Solder Tip  
2.5mm (.10")



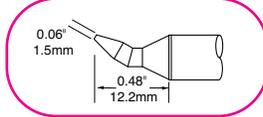
**SFV-DRH20**  
Conical Bevel Solder Tip  
2.0mm (.08")



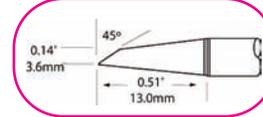
**SFV-CH50**  
Chisel Solder Tip  
5.0mm (.20")



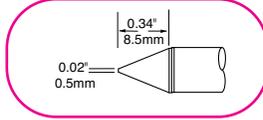
**SFV-DRH20CP**  
Drag Soldering Tip Hoof  
2.5mm (.10")



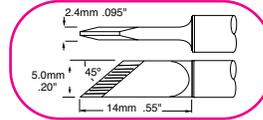
**SFV-CHB15**  
Chisel Bent 30° Solder Tip  
1.5mm (.06")



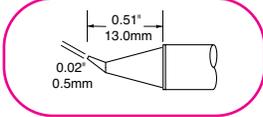
**SFV-DRH30CP**  
Drag Soldering Tip Hoof  
3.6mm (.14")



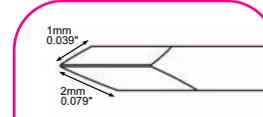
**SFV-CN05**  
Conical Solder Tip  
0.5mm (.02")



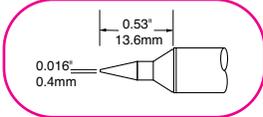
**SFV-DRK50**  
Knife Solder Tip  
5.0mm (.20")



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



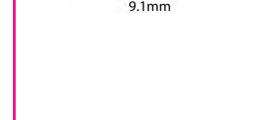
**SFV-DRK50S**  
Drag Soldering Tip Knife  
5.0mm (.20")



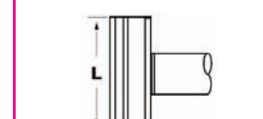
**SFV-CNL04**  
Conical Long Solder Tip  
0.4mm (.016")



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



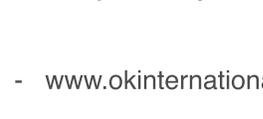
**CFV-BL250**  
Blade Tip L=25mm (1")



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



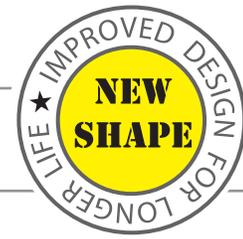
**CFV-BL400**  
Blade Tip L=40mm (1.6")



**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.

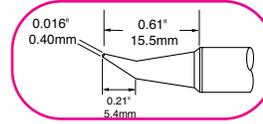
# SxV Soldering Tips - EA Series



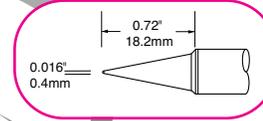
We have taken the most popular soldering tip shapes in the industry and created the new "EA" series of SxV soldering tips. Each one is engineered for optimal thermal transfer and maximum tip life. Offering Easy Access, these new tips are also Economical and Affordable.

SxV series tips are for use with the soldering tip handpieces on both the PS and MFR soldering platforms.

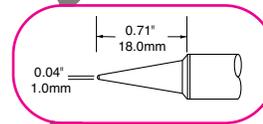
These new tips are shown here, and will be available soon. Please contact your OK International representative for further information, availability and evaluation samples.



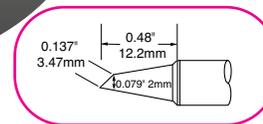
**SFV-CNB04A**  
Conical Bent Solder Tip  
0.4mm (.0155")



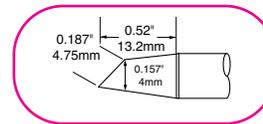
**SFV-CN05A**  
Conical Solder Tip  
0.4mm (.016")



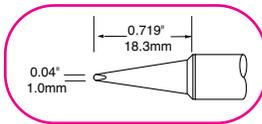
**SFV-CNL10A**  
Conical Long Solder Tip  
1.0mm (.04")



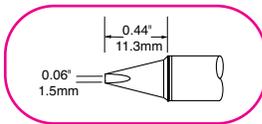
**SFV-DRH420A**  
Hoof Solder Tip  
3.47mm (.137")



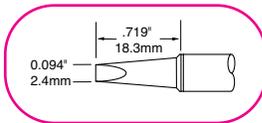
**SFV-DRH440A**  
Drag Solder Tip  
Hoof, 4.75mm (.187")



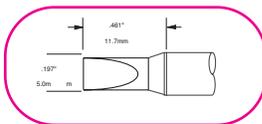
**SFV-CH10A**  
Chisel Solder Tip  
1.0mm (.04")



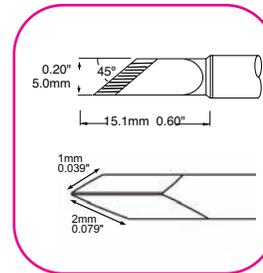
**SFV-CH15A**  
Chisel Solder Tip  
1.5mm (.06")



**SFV-CH24A**  
Chisel Solder Tip  
2.4mm (.094")



**SFV-CH50A**  
Chisel Solder Tip  
5.0mm (.20")



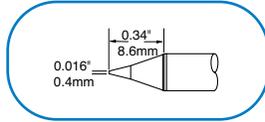
**SFV-DRK45A**  
Knife Solder Tip  
5.0mm (.20")

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

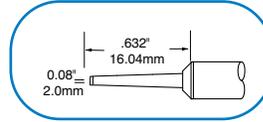


# SxP Soldering Cartridges

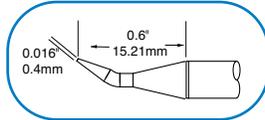
The SxP cartridges are for use with the soldering cartridge hand-piece of the MFR Single and Dual Platform. They provide a wide range of options addressing specialized soldering and rework applications. Full range available at [www.okinternational.com](http://www.okinternational.com).



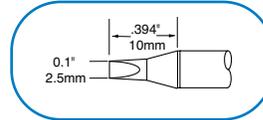
**SFP-CN04**  
Conical Cartridge 0.4mm (.016")



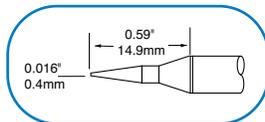
**SFP-CHL20**  
Chisel Soldering Cartridge 60°  
Long Reach 2.0mm (.08")



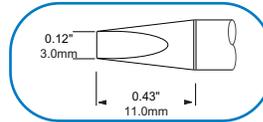
**SFP-CNB04**  
Conical Cartridge Bent  
0.4mm (.016")



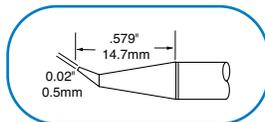
**SFP-CH25**  
Chisel Cartridge 30°  
2.5mm (.10")



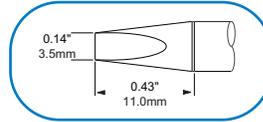
**SFP-CNL04**  
Conical Cartridge Long Reach  
0.4mm (.016")



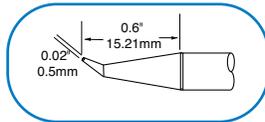
**SFP-CH30**  
Chisel Cartridge 30°  
3.0mm (.12")



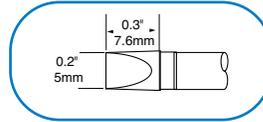
**SFP-CNB05**  
Conical Cartridge Bent  
0.5mm (.02")



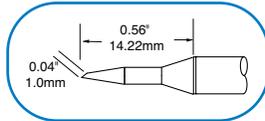
**SFP-CH35**  
Chisel Cartridge 30°  
3.5mm (.14")



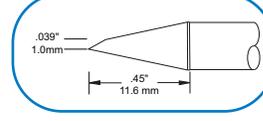
**SFP-DRH05**  
Drag Soldering Cartridge Hoof  
0.5mm (.02")



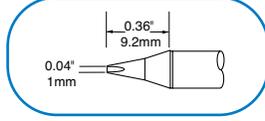
**SFP-CH50**  
Chisel Cartridge 30°  
5.0mm (.20")



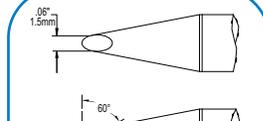
**SFP-BVL10**  
Bevel Cartridge 60°  
1.0mm (.04")



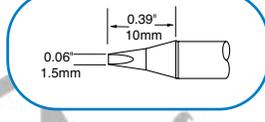
**SFP-DRH610**  
Drag Soldering Cartridge Hoof  
1.0mm (.04")



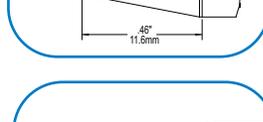
**SFP-CH10**  
Chisel Cartridge 30°  
1.0mm (.04")



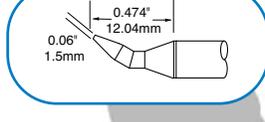
**SFP-DRH615**  
Drag Soldering Cartridge Hoof  
1.5mm (.06")



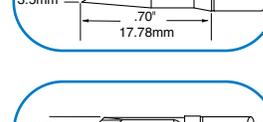
**SFP-CH15**  
Chisel Cartridge 30°  
1.5mm (.06")



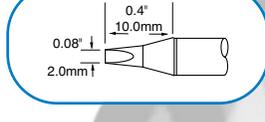
**SFP-DRH35**  
Drag Soldering Cartridge Hoof  
3.5mm (.14")



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



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

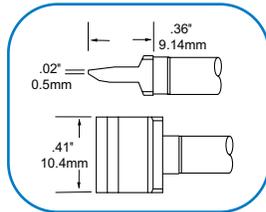


**SFP-CH20**  
Chisel Cartridge 30°  
2.0mm (.08")

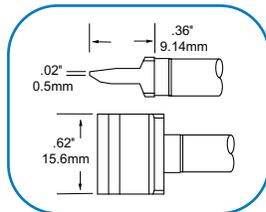
# RxP Rework Cartridges

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](http://www.okinternational.com).

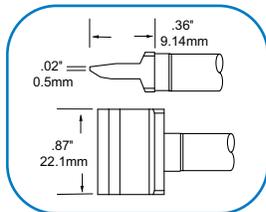
**Blade cartridges** are designed to allow effective and quick cleaning of PCB pads.



**RFP-BL1**  
Blade Cartridge  
Length 10.4mm (0.41")

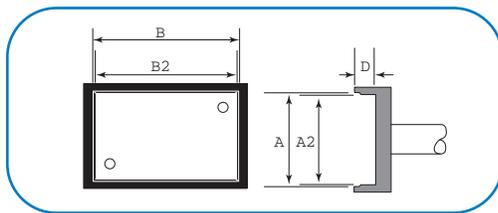


**RFP-BL2**  
Blade Cartridge  
Length 15.6mm (0.62")



**RFP-BL3**  
Blade Cartridge  
Length 22.1mm (0.87")

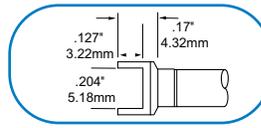
**Quad cartridges** are used for the removal of four-sided devices such as QFPs and PLCCs.



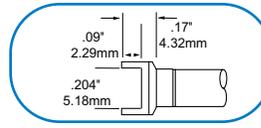
Dimensions in mm (")

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)

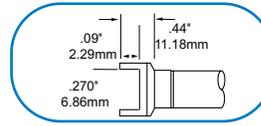
**Tunnel cartridges** are used for the removal of multi-lead, two-sided components such as SOICs, SOJs and TSOPs.



**RFP-DL1**  
Tunnel Cartridge  
SOIC-14-16  
Length 10.16mm (0.4")

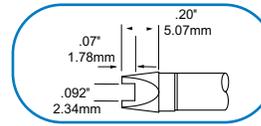


**RFP-DL2**  
Tunnel Cartridge  
SOIC-8  
Length 4.32mm (0.17")

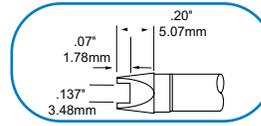


**RFP-DL3**  
Tunnel Cartridge  
SOMC-16  
Length 11.15mm (0.44")

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



**RFP-SL1**  
0805 Chip Package  
B= 1.37mm (0.054")



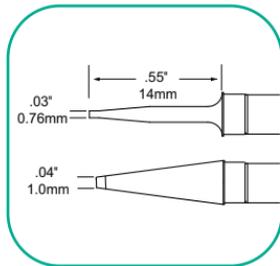
**RFP-SL2**  
1206 Chip Package  
B= 1.63mm (0.064")

**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.

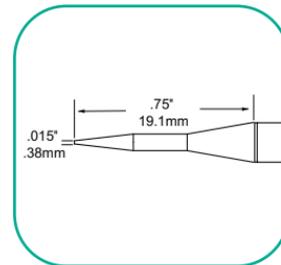
# TxP Tweezer Cartridges

For use on MFR Single and Dual Platforms

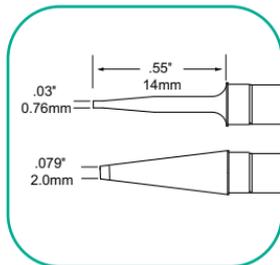
More cartridges available at [www.okinternational.com](http://www.okinternational.com)



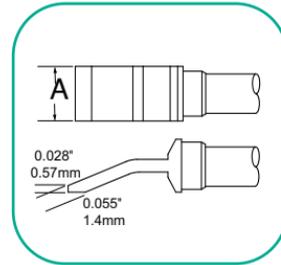
**TFP-BLP1**  
Tweezer Cartridge  
Blade Pair  
1.0mm (.04")



**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")

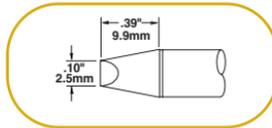
**TFP-BLH70** - A= 28mm (1.1")

**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

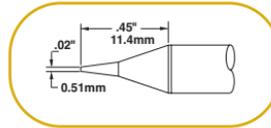
# SSC Soldering Cartridges

For use on MFR Single Platform

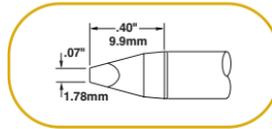
More cartridges available at [www.okinternational.com](http://www.okinternational.com)



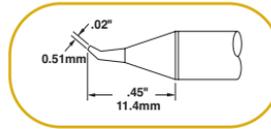
SSC-736A  
Chisel 30°  
2.5mm (.10")



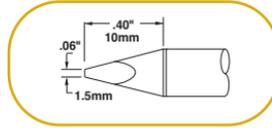
SSC-722A  
Conical Sharp  
0.51mm (.02")



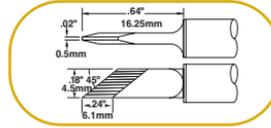
SSC-737A  
Chisel 30°  
1.78mm (.07")



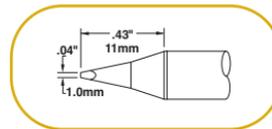
SSC-726A  
Sharp Bent 30°  
0.51mm (.02")



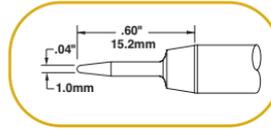
SSC-738A  
Chisel 30°  
1.50mm (.06")



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)