

MFR-2200 Series Dual Output

[Soldering, Desoldering & Rework Systems]

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

The MFR-2200 Systems below offer a choice of three hand-pieces, however two additional hand-pieces including the desoldering option are also available as upgrade kits (see pages 27 & 29).



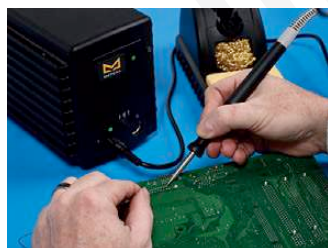
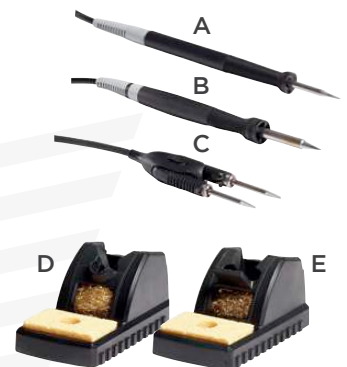
MFR-2200 Systems

All include MFR-PS2200 power supply



System Components

A	MFR-H1-SC2 Soldering Cartridge Hand-piece
B	MFR-H2-ST2 Soldering Tip Hand-piece
C	MFR-H4-TW Tweezer Hand-piece
D	WS1 Universal Soldering Workstand
E	MFR-WSPT Tweezer Workstand



Applicable Soldering Cartridges & Tips (Partial list)

SxP
Soldering Cartridges



RxP
Rework Cartridges



Full range on pages 34-35

SxV
Soldering Tips



CxV
Blade Tips



Full range on pages 32-33



TxP
Tweezer Cartridges



Full range on pages 36

MFR-1100 Series Single Output

[Soldering, Desoldering & Rework Systems]

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

This Series is compact and versatile and can be used with either a soldering tip, cartridge or tweezers hand-piece. A shop air desoldering option is also available as an upgrade kit (see pages 27 & 29).

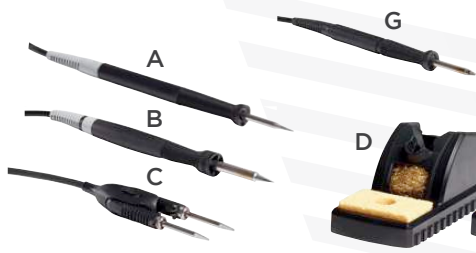
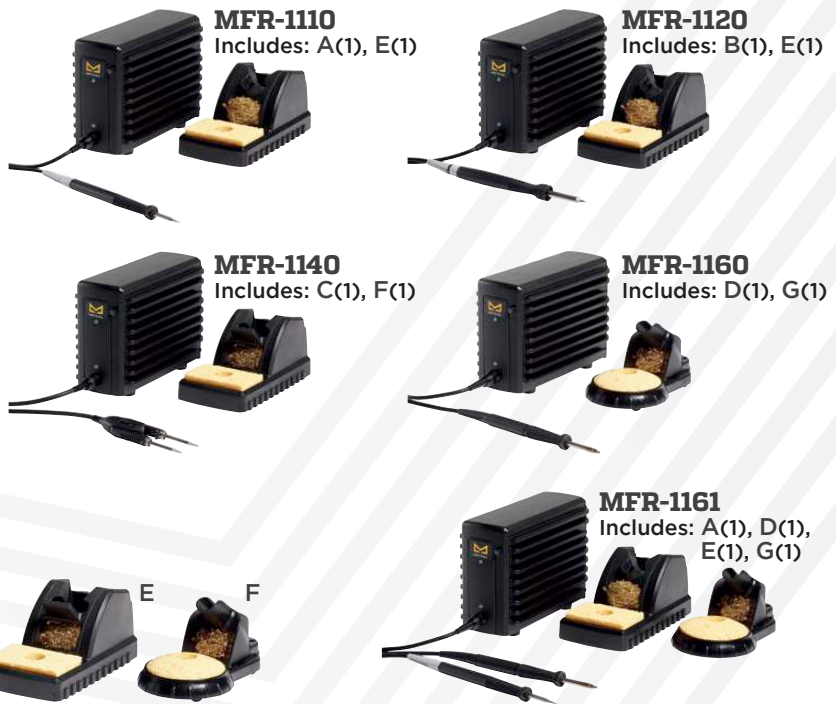


System Components

A	MFR-H1-SC2 Soldering Cartridge Hand-piece
B	MFR-H2-ST2 Soldering Tip Hand-piece
C	MFR-H4-TW Tweezer Hand-piece
D	WS1 Universal Soldering Workstand
E	MFR-WSPT Tweezer Workstand
F	WS2 Round Soldering Workstand
G	MFR-H6-SSC SSC Cartridge Hand-piece

MFR-1100 Systems

All include MFR-PS1100 power supply



Applicable Soldering Cartridges & Tips (Partial list)

SxP
Soldering Cartridges



RxP
Rework Cartridges



Full range on pages 34-35

SxV
Soldering Tips



CxV
Blade Tips



Full range on pages 32-33

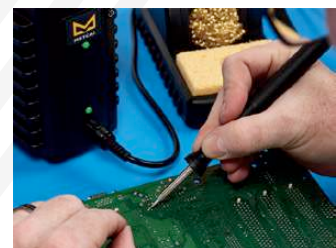
SSC
Soldering Cartridges
(Previous SP200 System)



TxP
Tweezer Cartridges



Full range on pages 36 & 37



MFR-1100 & MFR-2200 Series

[Soldering & Rework Systems]

Exceptional Power. Maximize Solutions.



System Specification	MFR-PS1100	MFR-PS2200
Input Line Voltage	100 - 240 VAC, grounded circuit, 50/60 Hz	
Rated Power Consumption	70 W max.	130 W max.
Output Power	Variable, 60 W max.*	Variable, 2 x 60 W max.*
Output Frequency	450 KHz	
Heating Method	Induction, SmartHeat®	
Connections	Single Port	Dual Port
Power Supply Dim. W x D x H	90 x 200 x 152.5 mm (3.5" x 7.9" x 6")	120 x 200 x 152.5 mm (4.7" x 7.9" x 6")
Power Supply Weight	2.3 kg (5.05 lb)	2.97 kg (6.55 lb)
Certification / Marking	cTUVus, CE	
Tip-to- Ground Potential	< 2 mV	
Tip-to-Ground Resistance	< 2 Ohm	
Ground Detection	Permanent	
Surface Resistivity	10 ⁵ - 10 ⁹ Ohm	
Idle Temperature Stability	1.1 °C (2 °F) in still air	
Tip Temperature Accuracy	Meets or exceeds IPC J-STD-001 Standard	
Warranty	1 year	

*RF SmartHeat® Technology provides greater power.

Soldering Handle and Coil Assembly	
Tip-to-Ground Potential	< 2 mV RMS
Tip-to-Ground Resistance	< 2 Ohm
Idle Temperature Repeatability	1.1 °C (2 °F) in still air
Handle Cord Assembly Length	122 cm – burn proof, ESD safe
Connector	8-pin circular DIN

Accessories

MFR-CA3
Coil Assembly for Tip Hand-piece
(MFR-H2-ST2)

WS1G
Auto-sleep Workstand, Green

MFR-PM70
Power Meter

AC-CP2
Cartridge / Tip Removal Pad

AC-BP
Brass Pad for Workstand (Pack of 10)



Key Features & Benefits

- SmartHeat® Technology provides exceptional power for high thermal demand applications
- Single or Dual simultaneous outputs allow for single/dual hand-piece use
- Five hand-pieces available for increased application solutions for soldering, desoldering (upgrade kit) and rework on one system
- Each hand-piece has a comprehensive range of cartridges or tips for maximum flexibility
- Ergonomic hand-pieces for operator safety and comfort

MFR-1150 Single Output

[Soldering & Desoldering Systems with Venturi]

The MFR-1150 Desolder System with Venturi Workstand provides a compact and easy shop air option.

Metcal's MFR-1150 Desoldering System is a powerful, cost effective system with a small footprint. The MFR-1150 has a powerful 0.85 bar vacuum built into the workstand which makes through-hole desoldering clean and easy.

The MFR-1150 system includes a Desoldering Pistol with an easy to change, large capacity solder collection chamber to ensure minimum downtime. The pistol can easily be converted to a pencil grip for additional control. Metcal offers a wide range of long life desoldering tips that will keep your equipment working efficiently.



Remove grip for Pencil configuration



Collection chamber replacement



DxP
Desoldering Tips



Full range on page 36

MFR-H5-DS Desolder Hand-piece	
Solder Hand-piece cable length	152 cm (60"), burn proof, ESD safe
Hand piece connector	8 pin power connector
MFR-WSDSX Workstand	
Input voltage	24 V
Input power	15 W
Workstand dimensions	100 mm x 200 mm x 140 mm (4" x 8" x 5.5")
Noise level	< 55 dB
Recommended Air pressure input	550 kPa (80 PSI) - Shop air only
Vacuum suction force	0.85 bar (25" Hg)

Part Number	Description
MFR-1150	Complete System (Includes parts listed below)
MFR-PS1100	Power Supply
MFR-H5-DS	Desolder hand-piece
MFR-WSDSX	Workstand with venturi box for desolder hand-piece
MFR-FTKIT	Fittings and air hose kit
AC-TC	Desolder tip cleaner tool
AC-CP2	Cartridge and Tip Removal Pad

Key Features & Benefits

Venturi Workstand

2 in 1 Desolder hand-piece (Pistol or Pencil)

MFR-H5-DS & MFR-WSDSX

are compatible for use with all MFR systems (available under MFR-UK5 upgrade kit)

Uses DxP desolder cartridges and replaceable coil assembly (MFR-HDCA)



MFR-UK5 Upgrade Kit
Compatible with all MFR Series Power Supplies

MFR-1350 Dual Switchable Output

[Soldering & Desoldering Systems with Internal Air]

The MFR-1350 Desoldering and Rework System

features an innovative desoldering hand-piece and a power supply with an internal pump providing 0.7 bar of vacuum suction force making through-hole desoldering easy.

SxP

Soldering Cartridges



Full range on page 34

RxP

Rework Cartridges



Full range on page 35

DxP

Desoldering Tips



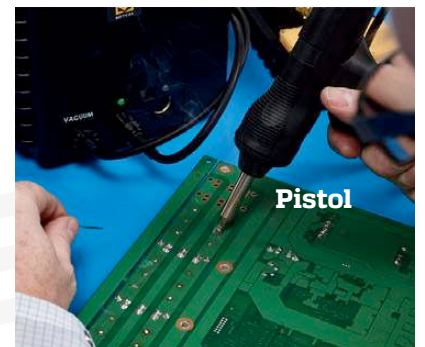
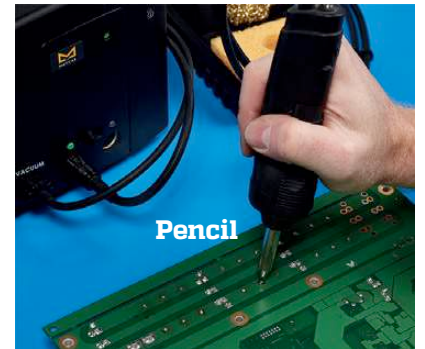
Full range on page 36



System Specification - MFR-PS1350

Input Line Voltage	100 - 240 VAC, grounded circuit, 50/60 Hz
Rated Power Consumption	110 W max.
Output Power	Variable, 60 W max.*
Output Frequency	450 KHz
Heating Method	Induction, SmartHeat®
Connections	Switchable Dual Port
Power Supply Dim. W x D x H	170 x 200 x 152.5 mm (6.7" x 7.9" x 6")
Power Supply Weight	3.9 kg (8.6 lb)
Certification / Marking	cTUVus, CE
Tip-to- Ground Potential	< 2 mV
Tip-to-Ground Resistance	< 2 Ohm
Ground Detection	Permanent
Surface Resistivity	10 ⁵ - 10 ⁹ Ohm
Idle Temperature Stability	1.1 °C (2 °F) in still air
Tip Temperature Accuracy	Meets or exceeds IPC J-STD-001 Standard
Vacuum Suction Force	0.7 bar (21" Hg at Vacuum pump)
Noise Level	< 55 dB
Warranty	1 year

*RF SmartHeat® Technology provides greater power.



Key Features & Benefits

- Self-contained powerful vacuum pump
- 2-in-1 ergonomic and flexible hand-piece
- Recyclable collection chamber with increased capacity
- Quick and easy change collection chamber
- Dual switchable output
- Powered by SmartHeat® Technology
- Compatible with previous MFR Desolder range

Part No.	Description
MFR-1350	Desolder System with internal pump includes power supply, desolder hand-piece and workstand
MFR-1351	Solder/Desolder System with internal pump includes power supply, desolder hand-piece, solder hand-piece, and (2) workstands
MFR-PS1300	Power Supply
MFR-H5-DS	Desolder hand-piece
MFR-H1-SC2	Solder Cartridge hand-piece
MFR-WSDSU	Workstand for Desolder hand-piece
WS1	Workstand for Solder hand-piece

MFR/PS Accessories and Spare Parts

[Soldering, Production Soldering & Rework Systems]



Hand-pieces and replacement coils

PS-HC3		Soldering Handle with PS-CA3 Coil Assembly (PS-900)
PS-H3	1	Soldering Handle without Coil Assembly (PS-900)
PS-CA3	2	Coil Assembly for PS-HC3 / PS-H3 Hand-piece (PS-900)
MFR-H1-SC2	3	Cartridge Solder / Rework Hand-piece (MFR)
MFR-H2-ST2	4	Tip Solder Hand-piece (MFR)
MFR-CA3		Coil Assembly for MFR-H2-ST2 Hand-piece (MFR)
MFR-H4-TW	5	Precision Tweezer Hand-piece (MFR)
MFR-H6-SSC	6	SSC Cartridge Solder Hand-piece (MFR)
MFR-H5-DS	7	Desolder Hand-piece
MFR-HSREC		Cartridge Solder / Rework Hand-piece with long cord (1.83 m / 6 ft)
MFR-HSRLR	8	Cartridge Solder / Rework Hand-piece with long reach access

Workstands

WS1		Universal Auto Sleep Workstand
WS2		Round Auto Sleep Workstand
WS2-NS	9	Solder Workstand (PS-900)
MFR-WSPT	10	Non Sleeper Precision Tweezer Workstand
MFR-WSDSX	11	Venturi Workstand for Desolder Hand-piece
MFR-WSDSU		Non Sleeper Workstand for Desolder Hand-piece
WS1CB		Solder Rework Cradle Replacement for WS1 Workstand
WS2CB		Solder Rework Cradle Replacement for WS2 Workstand
MFR-WSDSCB		Replacement cradle for MFR-WSDSX Desolder Workstands

Lead-Free Process Identification

WS1G	12	Green Universal Auto Sleep Workstand
WS2G		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	13	Green Identification Ring for MFR Cartridges (Pack of 50)
AC-CK3		Green Identification Ring for SSC Cartridges (Pack of 50)
AC-CK4	14	Green Identification Ring for MFR Tips (Pack of 50)

Miscellaneous Accessories

AC-BRUSH	15	Soft Brass Brush
AC-CP2		Cartridge and Tip Removal Pad
AC-FX1	16	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

MFR-DC10	17	Disposable Collection Chamber for MFR-H5-DS (Pack of 10)
MFR-DC100		Disposable Collection Chamber for MFR-H5-DS (Pack of 100)
MFR-HDCA	18	Coil Assembly for MFR Desolder Hand-piece
MFR-PG		Replacement Pistol grip for MFR-H5-DS Hand-piece
AC-SK1		Seal Kit Collection Chamber (Pack of 2)
AC-VP		Vacuum Port
AC-VL		ESD Air Hose
AC-VPF		Vacuum Port Filter (Pack of 5)
LM-PS		Power supply for MFR-WSDSX with multi plug adapters
AC-TC		Desoldering Tip Cleaner Tool


Upgrade Kits

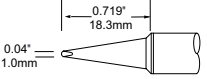
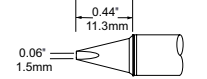
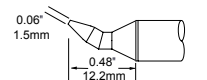
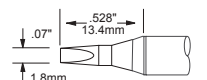
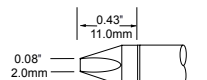
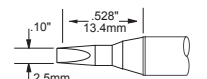
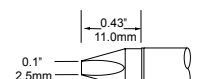
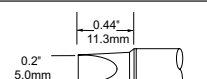
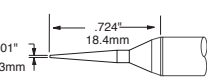
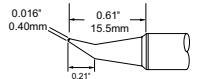
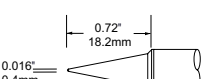
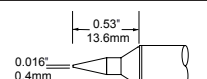
MFR-UK1		Solder Cartridge Hand-piece (MFR-H1-SC2) and Workstand (WS1)
MFR-UK2		Solder Tip Hand-piece (MFR-H2-ST2) and Workstand (WS1)
MFR-UK4		Tweezer Cartridge Hand-piece (MFR-H4-TW) and Workstand (MFR-WSPT)
MFR-UK5		Desolder Hand-piece (MFR-H5-DS) and Workstand (MFR-WSDSX)
MFR-UK6		Solder Cartridge Hand-piece (MFR-H6-SSC) and Workstand (WS2)
MFR-H5-DS-C		Desolder Hand-piece (MFR-H5-DS) and Workstand cradle (MFR-WSDSCB)

SxV Soldering Tips

[Soldering, Desoldering & Rework Systems]

For our complete selection of tips, visit www.metcal.com

 Temperature Guide & Tip Specifications_SxV-Series		
Max Temperature	PS and MFR-Series	Application
690°F/366°C	STV	Temperature Sensitive
790°F/421°C	SFV	Fiberglass, Most Standard
880°F/471°C	SCV	Ceramic and High Thermal Demand
	Compatible with: PS-900, MFR-1120, MFR-2220, MFR-2222 Systems, PS-HC3, MFR-H2-ST and MFR-H2-ST2 hand-pieces, PS-CA3, MFR-CA2 and MFR-CA3 Coil Assemblies.	
Please note the above temperatures are the maximum temperatures of the heater. The idle temperature is dependent on the geometry of the cartridge (up to 15 °C lower.)		

Chisel		
	SFV-CH10A	Chisel, (W x L), 1.0 x 18.3 mm (.04" x .72")
	STV-CH10A	
	SCV-CH10A	
	SFV-CH15A	Chisel, (W x L), 1.5 x 11.3 mm (.06" x .44")
	STV-CH15A	
	SCV-CH15A	
	SFV-CHB15	Chisel, Bent, (W x L), 1.5 x 12.2 mm (.06" x .48")
	STV-CHB15	
	SCV-CHB15	
	SFV-CH18AR	Chisel, (W x L), 1.8 x 13.4 mm (.07" x .53")
	STV-CH18AR	
	SCV-CH18AR	
	SFV-CH20	Chisel, (W x L), 2.0 x 11.0 mm (.08" x .43")
	STV-CH20	
	SCV-CH20	
	SFV-CH25AR	Chisel, (W x L), 2.5 x 13.4 mm (.10" x .53")
	STV-CH25AR	
	SCV-CH25AR	
	SFV-CH25	Chisel, (W x L), 2.5 x 11.0 mm (.10" x .43")
	STV-CH25	
	SCV-CH25	
	SFV-CH50A	Chisel, (W x L), 5.0 x 11.3 mm (.20" x .44")
	STV-CH50A	
	SCV-CH50A	
Conical		
	SFV-CNL03AR	Conical, (Ø x L), Long Reach 0.3 x 18.4 mm (.01" x .72")
	STV-CNL03AR	
	SCV-CNL03AR	
	SFV-CNB04A	Conical, (Ø x L), Bent 0.4 x 15.5 mm (.016" x .61")
	STV-CNB04A	
	SCV-CNB04A	
	SFV-CN05A	Conical, (Ø x L), 0.4 x 18.2 mm (.016" x .72")
	STV-CN05A	
	SCV-CN05A	
	SFV-CNL04	Conical, (Ø x L), 0.4 x 13.6 mm (.016" x .53")
	STV-CNL04	
	SCV-CNL04	

SxV Soldering Tips, CxV Blade Tips

[Soldering, Desoldering & Rework Systems]

For our complete selection of tips, visit www.metcal.com



Temperature Guide & Tip Specifications_SxV & CxV-Series

Max Temperature	PS and MFR-Series	Application
690 °F/366 °C	STV & CTV	Temperature Sensitive
790 °F/421 °C	SFV & CFV	Fiberglass, Most Standard
880 °F/471 °C	SCV & CCV	Ceramic and High Thermal Demand
	Compatible with: PS-900, MFR-1120, MFR-2220, MFR-2222 Systems, PS-HC3, MFR-H2-ST and MFR-H2-ST2 hand-pieces, PS-CA3, MFR-CA2 and MFR-CA3 Coil Assemblies.	

Please note the above temperatures are the maximum temperatures of the heater. The idle temperature is dependent on the geometry of the cartridge (up to 15 °C lower.)

Conical

	SFV-CN05AR	Conical, (Ø x L), 0.5 x 13.7 mm (.02" x .53")
	STV-CN05AR	
	SCV-CN05AR	
	SFV-CNB05	Conical, Bent, (Ø x L), 0.5 x 13 mm (.02" x .51")
	STV-CNB05	
	SCV-CNB05	
	SFV-CNL10A	Conical, Long Reach, (Ø x L), 1.0 x 18 mm (.04" x .71")
	STV-CNL10A	
	SCV-CNL10A	
	SFV-CNL10AR	Conical, Long Reach, (Ø x L), 1.0 x 13.7 mm (.04" x .54")
	STV-CNL10AR	
	SCV-CNL10AR	
	SFV-CNL10	Conical, Long Reach, (Ø x L), 1.0 x 13 mm (.04" x .51")
	STV-CNL10	
	SCV-CNL10	
	SFV-CNL14	Conical, Long Reach, (Ø x L), 1.4 x 15 mm (.056" x .59")
	STV-CNL14	
	SCV-CNL14	
	SFV-DRH20	Conical, Bevel, (Ø x L), 2.0 x 14 mm (.08" x .55")
	STV-DRH20	
	SCV-DRH20	
	SFV-WV20	Rework Hoof-Cartridge - For Drag Soldering SOICs/QFPs, Concave Wave Hoof, Bevel 45°, (Ø x L), 2.0 x 13.8 mm (.08" x .54")
	STV-WV20	
	SCV-WV20	

Rework Knife-Cartridges - For Multi-Lead Soldering of PLCCs/SOJs

	SFV-DRK50	Knife, Bevel 45°, (W x L), 5.0 x 14 mm (.20" x .55")
	STV-DRK50	
	SCV-DRK50	

CxV Blade Tips for Rework Applications

				A
	CFV-BL100	CTV-BL100	CCV-BL100	10 mm (.40")
	CFV-BL250	CTV-BL250	CCV-BL250	25 mm (1")
	CFV-BL350	CTV-BL350	CCV-BL350	35 mm (1.4")
	CFV-BL400	CTV-BL400	CCV-BL400	40 mm (1.6")
	CFV-BL500	CTV-BL500	CCV-BL500	50 mm (2")

SxP Soldering & Rework Cartridges

[Soldering, Desoldering & Rework Systems]

For our complete selection of tips, visit www.metcal.com

Temperature Guide & Tip Specifications_SxP-Series		
Max Temperature	MFR-Series	Application
690 °F/366 °C	STP	Temperature Sensitive
790 °F/421 °C	SFP	Fiberglass, Most Standard
880 °F/471 °C	SCP	Ceramic and High Thermal Demand
	Compatible with: MFR-1110, MFR-1161, MFR-2210, MFR-2211, MFR-2241, MFR-1350/51 Systems and MFR-H1-SC2 hand-piece.	

Please note the above temperatures are the maximum temperatures of the heater. The idle temperature is dependent on the geometry of the cartridge (up to 15 °C lower.)

Chisel		
	SFP-CH10	Chisel, Cone 30°, (W x L), 1.0 x 9.2 mm (.04" x .36")
	STP-CH10	
	SCP-CH10	
	SFP-CH15	Chisel, Cone 30°, (W x L), 1.5 x 10 mm (.06" x .39")
	STP-CH15	
	SCP-CH15	
	SFP-CHB15	Chisel, Cone 30°, Bent, (W x L), 1.5 x 12.04 mm (.06" x .474")
	STP-CHB15	
	SCP-CHB15	
	SFP-CH20	Chisel, Cone 30°, (W x L), 2.0 x 10 mm (.08" x .4")
	STP-CH20	
	SCP-CH20	
	SFP-CH25	Chisel, Cone 30°, (W x L), 2.5 x 10 mm (.10" x .39")
	STP-CH25	
	SFP-CH30	Chisel, Cone 30°, (W x L), 3.0 x 11 mm (.12" x .43")
	STP-CH30	
	SCP-CH30	
	SFP-CH35	Chisel, Cone 30°, (W x L), 3.5 x 11 mm (.12" x .43")
	STP-CH35	
	SCP-CH35	
	SFP-CH50	Chisel, Cone 30°, (W x L), 5.0 x 7.6 mm (.20" x .3")
	STP-CH50	
Conical		
	SFP-CNB04	Conical, Bent, (ø x L) 0.4 x 15.21 mm (.016" x .6")
	STP-CNB04	
	SCP-CNB04	
	SFP-CNL04	Conical, Long Reach, (ø x L) 0.4 x 14.9 mm (.016" x .59")
	STP-CNL04	
	SCP-CNL04	
	SFP-BLV10	(Bevel/L) 60°, x 2 mm, (ø x L) 0.5 x 14.22 mm (.02" x .56")
	STP-BLV10	
	SCP-BLV10	
Rework Hoof-Cartridges - For Drag Soldering SOICs/QFPs		
	SFP-DRH05	Hoof, (ø x L) 0.5 x 15.21 mm (.02" x .6")
	STP-DRH05	
	SCP-DRH05	
	SFP-DRH35	Hoof, Bevel 60°, Long Reach, (ø x L) 3.5 x 17.78 mm (.14" x .7")
	STP-DRH35	
	SCP-DRH35	

RxP Rework Cartridges

[Soldering, Desoldering & Rework Systems]

For our complete selection of tips, visit www.metcal.com



Temperature Guide & Tip Specifications_RxP-Series

Max Temperature	MFR-Series	Application
790 °F/421 °C	RFP	Fiberglass, Most Standard
880 °F/471 °C	RCP	Ceramic and High Thermal Demand
	Compatible with: MFR-1110, MFR-1161, MFR-2210, MFR-2211, MFR-2241, MFR-1350/51 Systems and MFR-H1-SC2 hand-piece. All dimensions shown are in mm (inches)	

Please note the above temperatures are the maximum temperatures of the heater. The idle temperature is dependent on the geometry of the cartridge (up to 15 °C lower.)

All dimensions shown are in mm (inches)

Blades for Rework Applications		A	B	D	SMT TYPE
	RFP-BL1	10 (0.41)	-	-	-
	RCP-BL1				
	RFP-BL2	15.6 (0.62)	-	-	-
	RCP-BL2				
	RFP-BL3	22.1 (0.87)	-	-	-
	RCP-BL3				

Tunnel - Special Rework Cartridges		A	B	D	SMT TYPE
	RFP-DL1	5.18 (0.204)	10.16 (0.40)	3.22 (0.127)	Tunnel SOIC-14-16
	RCP-DL1				
	RFP-DL2	5.18 (0.204)	4.32 (0.17)	2.29 (.09)	Tunnel SOIC-8
	RCP-DL2				
	RFP-DL3	6.86 (.270)	11.15 (0.44)	2.29 (.09)	Tunnel SOIC-16
	RCP-DL3				

Slot - Special Rework Cartridges		A	B	D	SMT TYPE
	RFP-SL1	2.34 (.092)	1.37 (.054)	1.78 (.07)	0805 Chip Package
	RCP-SL1				
	RFP-SL2	3.48 (.137)	1.63 (.064)	1.78 (.07)	1206 Chip Package
	RCP-SL2				

Quad - Special Rework Cartridges		A	A2	D	B	B2	SMT TYPE
	RFP-QD4	12.70 (.500)	11.43 (.450)	3.81 (.150)	15.24 (.600)	13.97 (.550)	PLCC 32
	RCP-QD4						
	RFP-QD6	17.78 (.700)	16.76 (.660)	3.81 (.150)	17.78 (.700)	16.76 (.660)	PLCC 44
	RCP-QD6						
	RFP-QD7	25.27 (.995)	24.38 (.960)	5.59 (.220)	25.27 (.995)	24.38 (.960)	PLCC 68
	RCP-QD7						
	RFP-QD10	20.32 (.800)	19.30 (.760)	3.81 (.150)	20.32 (.800)	19.30 (.760)	PLCC 52
	RCP-QD10						
	RFP-QD15	13.34 (.525)	12.32 (.485)	2.79 (.110)	13.34 (.525)	12.32 (.485)	TQFP 80
	RCP-QD15						
	RFP-QD19	16.13 (.635)	16.13 (.635)	3.30 (.130)	16.13 (.635)	16.13 (.635)	QFP 44
	RCP-QD19						
	RFP-QD20	16.51 (.650)	16.51 (.650)	3.30 (.130)	22.48 (.885)	22.48 (.885)	QFP 100
	RCP-QD20						

TxP Tweezer, DxP Desoldering Cartridges

[Soldering, Desoldering & Rework Systems]

For our complete selection of tips, visit www.metcal.com

Max Temperature	MFR-Series	Application
690 °F/366 °C	TTP & DTP	Temperature Sensitive
790 °F/421 °C	TFP & DFP	Fiberglass, Most Standard
880 °F/471 °C	TCP & DCP	Ceramic and High Thermal Demand
TxP Tweezer Cartridges compatible with: MFR-1140, MFR-2240, MFR2241 Systems and MFR-H4-TW hand-piece		
DxP Desoldering Tips compatible with: MFR-1150, MFR-1350, MFR-1351 systems with MFR-H5-DS hand-piece and previous MFR-DSX, -DSI, -SDX, -SDI Systems with MFR-HDS hand-piece. All dimensions shown are in mm (inches).		
Please note the above temperatures are the maximum temperatures of the heater. The idle temperature is dependent on the geometry of the cartridge (up to 15 °C lower.)		

TxP - Rework Tweezer Cartridges - Conical

	TFP-CNP1	(Ø x L), 0.4 x 19.1 mm (.015" x .75"), sold per pair
	TTP-CNP1	
	TCP-CNP1	

TxP - Rework Tweezer Cartridges - Blade

	TFP-BLP1	(W x L), 1.0 x 14 mm (.04" x .55"), sold per pair
	TTP-BLP1	
	TCP-BLP1	

	TFP-BLP2	(W x L), 2.0 x 14 mm (.08" x .55"), sold per pair
	TTP-BLP2	
	TCP-BLP2	

TxP - Rework Tweezer Cartridges - Wide Blade

		A
	TFP-BLH40	6.35 mm (.25"), sold per pair
	TTP-BLH40	
	TCP-BLH40	
	TFP-BLH50	16 mm (.62"), sold per pair
	TTP-BLH50	
	TCP-BLH50	
	TFP-BLH60	20.5 mm (.81"), sold per pair
	TTP-BLH60	
	TCP-BLH60	
	TFP-BLH70	28 mm (1.1"), sold per pair
	TTP-BLH70	
	TCP-BLH70	

All dimensions shown are in mm (inches)

	DxP - Desoldering Tips	A	B	Type
	DFP-CN2	0.64 (.025)	1.78 (.070)	Standard
	DCP-CN2			
	DFP-CN3	0.76 (.030)	2.03 (.080)	Standard
	DCP-CN3			
	DFP-CN4	1.02 (.040)	2.28 (.090)	Standard
	DCP-CN4			
	DFP-CN5	1.27 (.050)	2.64 (.104)	Standard
DCP-CN5				
	DFP-CN6	1.52 (.060)	2.84 (.112)	Standard
	DCP-CN6			
	DFP-CN7	2.41 (.095)	3.63 (.143)	Standard
	DCP-CN7			
	DFP-CNL3	0.76 (.030)	2.03 (.080)	Long Reach
	DCP-CNL3			
	DFP-CNL4	1.02 (.040)	2.28 (.090)	Long Reach
DCP-CNL4				
DFP-CNL5	1.27 (.050)	2.64 (.104)	Long Reach	
DCP-CNL5				

SSC Cartridges

[Soldering, Desoldering & Rework Systems]

For our complete selection of tips, visit www.metcal.com



Temperature Guide & Tip Specifications_SSC-Series

Max Temperature	MFR & SP200-Series	Application
675 °F/357 °C	SSC-6	Temperature Sensitive
775 °F/413 °C	SSC-7	Most Standard
	Compatible with: SP200, MFR-1160 Systems, SP-HCI and MFR-H6-SSC hand-pieces	

Please note the above temperatures are the maximum temperatures of the heater. The idle temperature is dependent on the geometry of the cartridge (up to 15 °C lower.)

Chisel

	SSC-671A	Chisel, (W x L) 1.0 x 9.1 mm (.04" x .36")
	SSC-771A	
	SSC-625A	Chisel, (W x L) Cone 30°, 1.0 x 11 mm (.04" x .43")
	SSC-725A	
	SSC-638A	Chisel (W x L) 30°, 1.5 x 10 mm (.06" x .40")
	SSC-738A	
	SSC-637A	Chisel (W x L) 30°, 1.78 x 9.9 mm (.07" x .40")
	SSC-737A	
	SSC-672A	Chisel, (W x L) 1.78 x 9.9 mm (.07" x .39")
	SSC-772A	
	SSC-636A	Chisel 30°, (W x L) 2.5 x 9.9 mm (.10" x .39")
	SSC-736A	

Conical

	SSC-645A	Conical, Sharp, Long Reach, (Ø x L), 0.4 x 19 mm (.016" x .75")
	SSC-745A	
	SSC-622A	Conical, Sharp, (Ø x L), 0.51 x 11.4 mm (.02" x .45")
	SSC-722A	
	SSC-626A	Conical, Sharp Bent 30°, (Ø x L), 0.51 x 11.4 mm (.02" x .45")
	SSC-726A	
	SSC-654A	Conical, Sharp Bent 30°, Long Reach, (Ø x L), 0.51 x 18.5 mm (.02" x .73")
	SSC-754A	
	SSC-601A	Conical, Sharp, (Ø x L), 1.0 x 15.2 mm (.04" x .60")
	SSC-701A	

Rework Knife-Cartridges – For Multi-Lead Soldering of PLCCs/SOJs

	SSC-661A	Knife, Bevel 45°, (W x L), 4.5 x 16.25 mm (.18" x .64")
	SSC-761A	
	SSC-673A	Knife, Bevel 45°, Increased tinned area 6.1 mm, (W x L), 5.1 x 16.25 mm (.24" x .64")
	SSC-773A	



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