

METCAL

ELECTRONICS BENCH TOOL SOLUTIONS



HAND
SOLDERING,
DESOLDERING
AND REWORK

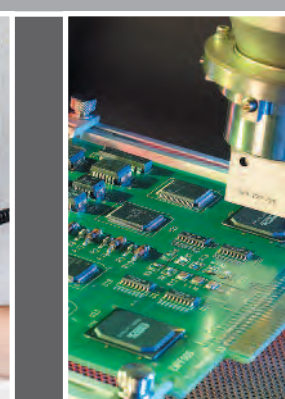
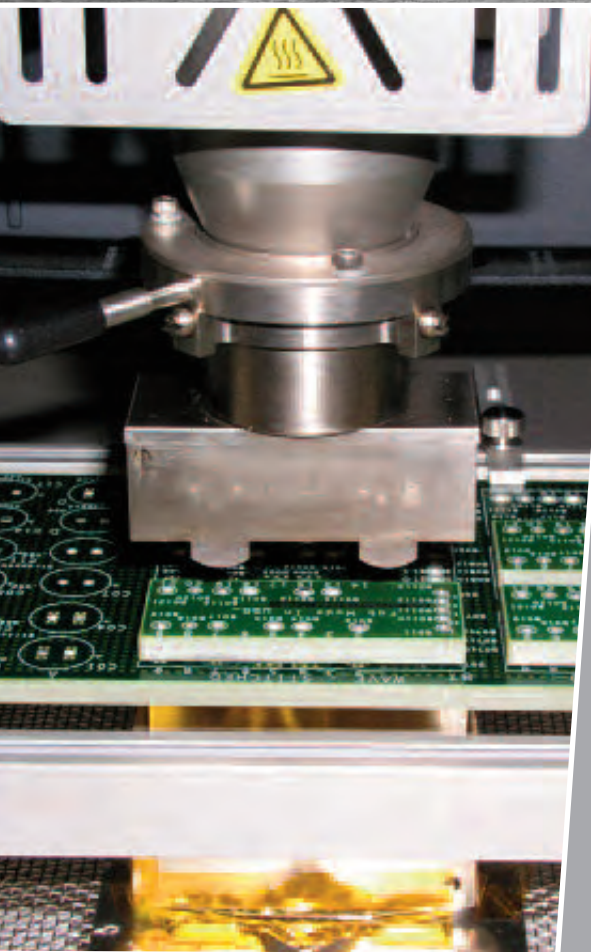
CONVECTION
REWORK

FUME
EXTRACTION

FLUID
DISPENSING



www.metcal.com



HAND SOLDERING

CONVECTION REW

DELIVERING CORE TECHNOLOGICAL ADVANTAGES WITH BEST-IN-CLASS PERFORMANCE.

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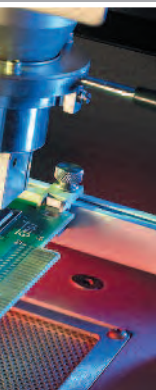
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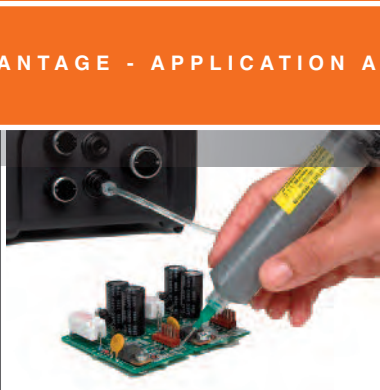
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WORK



FUME EXTRACTION



FLUID DISPENSING

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We are committed to understanding the product needs of our customers, and supply professional grade products that are innovative, reliable, price competitive and easy to use.

METCAL

Metcal is part of the OK International family and provides expert product support and responsive customer service, with localization to meet regional market needs.

**SERVING THE ELECTRONICS
ASSEMBLY INDUSTRY FOR OVER
30 YEARS**



Visit our site www.metcal.com and social media sites for additional product information, applications, videos, special offers and more!

Hand Soldering, Desoldering &

Single Port

Dual Port Switchable



PS-900



MFR-1100 Series



MFR-1300 Series



MFR-2200 Series

M U L T I F U N C T I O N



PS-900 Tip Hand-Piece



MFR Hand-pieces

SmartHeat® Technology

OK International is the original supplier of SmartHeat® 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.



Rework Systems Overview

Single Port Selectable



MX-500 Series

Dual Port Simultaneous

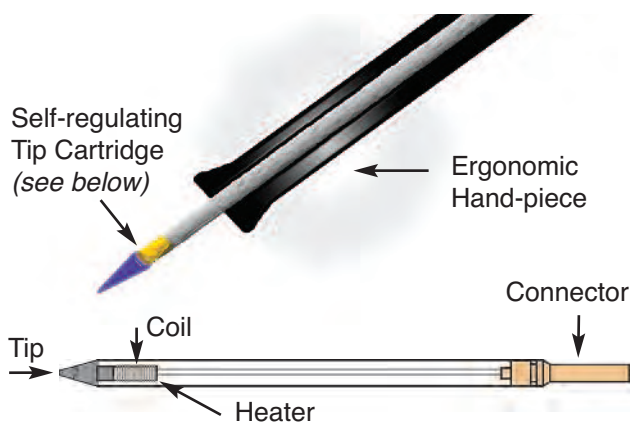


MX-5200 Series

R E W O R K S Y S T E M S



MX Hand-pieces



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 and safer temperatures. Power is delivered in proportion to the load. SmartHeat® technology eliminates overshoot.
- ▶ No calibration required - saves money and eliminates system down-time.

Watch our SmartHeat® Video on YouTube or www.metcal.com

MX-5200 Dual Simultaneous

Soldering, Desoldering & Rework Systems

The MX-5200 Soldering, Desoldering and Rework Series has the same increased power and process control as the MX-5000 Series, now with dual-simultaneous ports.

For two users or single user with dual applications. The MX-5200 can be operated with two hand-pieces dynamically sharing the 80 watts output power based on demand adding even more application flexibility and speed.

Fast time-to-recovery. Delivers increased production rates and throughput no matter the application. The challenges of high mass components, multilayered boards and lead-free solders are seamlessly tackled by the MX-5200 super-charged power supply.

SmartHeat process control. The technology built-in every Metcal System means that soldering and rework are always performed at safe, controlled temperatures. Metcal users know that moderate fixed temperatures, where power is varied, provides the best assurance for a well controlled soldering and rework process.

TipSaver™ Workstand improves tip life as well as operator ergonomics. This “Auto-Sleep” Workstand reduces the power to the hand-piece when it is placed in the Metcal TipSaver™ Workstand.

Reduction in power will substantially decrease tip oxidation, a major cause of reduced tip life.

Ergonomic Hand-pieces. The aluminium hand-pieces for soldering and rework provides a cooler, lighter weight and more comfortable feel for the operator. And, the Metcal UltraFine™ Hand-piece features a new generation of extremely fine diameter cartridges in a slim profiled handle. Both of these hand-pieces uniquely offer users a choice of three interchangeable grips.

ESD safe and features incoming AC ground monitoring circuitry. The AC (mains) ground monitor detects power line ground failure, immediately alerting the operator and shutting down the system. Only after the power line ground has been restored can the MX-5200 be restarted and soldering operations can be resumed.

Built-in power indication meter with digital display and bar graph that visually provides the operator with feedback on the status of the soldering operation. Whether using a large mass rework tip for QFPs or a fine-point soldering tip, the power indication meter is a valuable resource for making consistent, acceptable solder joints.

Four mode indicators:

Ready Mode: The hand-piece is removed from the workstand, ready for soldering or rework.

Power Mode: The hand-piece's tip is in contact with the load. The power indication meter provides graphical and numeric feedback on the system power output.

Sleep Mode : The hand-piece is at rest in the workstand; power is reduced to the hand-piece.

Powersave Mode: Power to the hand-piece is shut off. This programmable sleep feature allows an operator to set the desired time to cut off power to the hand-piece (from 10 to 120 min.).



MX-5200 Dual Simultaneous

Soldering, Desoldering & Rework Systems

SYSTEMS CONFIGURATION

PART NUMBER	MX-PS5200 Power Supply	Hand-pieces				TipSaver™ Workstands		
		MX-H1-AV	MX-H2-UF	MX-PTZ	MX-DS1	MX-W1AV	MX-W4PT	MX-W5DS
MX-5210	✓	✓				✓		
MX-5211	✓	✓ ✓				✓ ✓		
MX-5220	✓		✓			✓		
MX-5241	✓	✓		✓		✓	✓	
MX-5250	✓				✓			✓
MX-5251	✓	✓			✓	✓		✓

SYSTEMS WITH ONE HAND-PIECE



MX-5210 Soldering and Rework System
Configured with the Advanced™ Hand-piece. Highly effective for soldering applications including: lead-free, high mass components or boards, thermally sensitive components requiring low operating temperature, high volume production soldering and touch-up soldering operations.

Soldering cartridges: STTC Series and SMTC Series



MX-5220 UltraFine™ Soldering System
Configured with the UltraFine™ Soldering Hand-piece which is a speciality tool for soldering and touch-up of very small components, restricted access or high density component packaging on a PCB.

Soldering cartridges: UFTC cartridges featuring small tip geometries and low mass, suited for small part soldering.



MX-5250 Plated-Through-Hole Component Desoldering System
Includes the MX-DS1 Desoldering hand-piece designed for through-hole desoldering.

Desoldering cartridges: STDC Series provides fast, high quality results

NOTE: Unit requires shop air for desoldering.

SYSTEMS WITH TWO



MX-5211 Soldering and Rework System
Same features as MX-5210 but configured with two Advanced™ Hand-pieces and two TipSaver™ Workstands.

Best Seller

Soldering cartridges: STTC Series and SMTC Series



MX-5241 Precision Tweezers, Soldering and Rework System
Combines both the Advanced™ Hand-piece and the Precision Tweezers Hand-piece. Users get maximum application flexibility for soldering and reworking the widest range of surface mount components.

Tweezer cartridges: PTTC Series.
Soldering Cartridges: STTC and SMTC Series



MX-5251 Soldering, Desoldering and Rework System
For through-hole desoldering, general soldering, and SMD rework applications. Includes two hand-pieces: the Advanced™ Hand-piece and the MX-DS1 Desoldering hand-piece. Ideal for mixed technology boards. Provides versatility for addressing soldering & rework tasks.

Desoldering cartridges: STDC Series
Soldering cartridges: STTC and SMTC Series.

NOTE: Unit requires shop air for desoldering.

MX-500 Dual Switchable Output

Soldering, Desoldering & Rework Systems

Metcal's MX-500 Soldering and Rework System has been reimagined, adding features and a new look to a bench top icon. The system utilizes SmartHeat® Technology, where each cartridge is equipped with a self-regulating heater which 'senses' its own temperature and closely maintains its pre-set idle temperature for the life of the heater-tip. The tip temperature is determined by the inherent metallurgical properties of the heater; no external adjustment or equipment is required. The MX-500 retains switchable dual port, 40W operation while introducing numerous new features in a new housing.



Key Features & Benefits

- ▶ A built in Net Power Meter which will display a graphical and numerical representation of the power applied to the cartridge.
- ▶ User Programmable PowerSave Mode: the time to enter PowerSave Mode is adjustable from 10 to 120 minutes.
- ▶ Ground Fault Interrupt: AC ground monitor detects power line ground failures and immediately alerts the operator and shuts down the system.
- ▶ Universal Power Supply: automatically senses the input line voltage and adjusts accordingly, which allows for worldwide operation without adaptors or a change in performance.
- ▶ Full compatibility with existing and previous MX upgrade kits, tip-cartridges, hand-pieces and accessories.

SYSTEM WITH ONE HAND-PIECE



MX-500S Soldering / Rework System

Power supply, MX-RM3E soldering and rework hand-piece and WS1 sleeper workstand

Soldering cartridges:
STTC Series and SMTC Series



MX-500AV Soldering / Rework System

Power supply, MX-H1-AV Advanced™ hand-piece and MX-W1AV workstand

Soldering cartridges:
STTC Series and SMTC Series



MX-500UF Ultrafine™ Soldering System

Power supply, MX-H2-UF Ultrafine™ hand-piece and MX-W1AV workstand

Soldering cartridges:
UFTC Series

SYSTEMS WITH TWO HAND-PIECES



MX-500SPT Rework System

Power supply, MX-PTZ precision tweezer hand-piece with MX-W4PT TipSaver workstand and MX-RM3E soldering and rework hand-piece and WS1 sleeper workstand.

Tweezer cartridges:
PTTC Series.
Soldering Cartridges:
STTC and SMTC Series



MX-500DS Desoldering System

Power supply, MX-DS1 desoldering hand-piece with MX-W5DS TipSaver workstand and MX-RM3E soldering and rework hand-piece and WS1 sleeper workstand.

Desoldering cartridges:
STDC Series
Soldering cartridges:
STTC and SMTC Series.
NOTE: Unit requires shop air for desoldering.

POWER SUPPLY WITH NO HAND-PIECE



MX-500P

MX-500 dual port switchable power supply

NOTE: Additional Hand-pieces and Upgrade Kits are available, see pages 7 and 8

MX Series Hand-pieces

Soldering, Desoldering & Rework Systems

The MX-500 AND MX-5200 Series offers users a choice of hand-pieces to meet the customer's application needs. Each hand-piece has its own range of cartridges with many choices available for tip geometry and temperature. The hand-pieces below are compatible with existing MX-500 and MX-5200 Systems as well as backward compatible with previous MX-500 and MX-5000 Systems



Hand-pieces

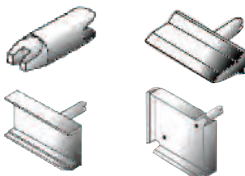
Cartridges

MX-RM3E
Metcal
Hand-piece



STTC Soldering Cartridges
See pages 11-12.

MX-H1-AV
Metcal
Advanced™
Hand-piece



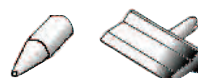
SMTC Rework Cartridges
See pages 14-15.

MX-H2-UF
Metcal
UltraFine™
Hand-piece



UFTC Ultra Fine Soldering Cartridges. See page 13.

MX-PTZ
Metcal
Precision
Tweezer
Hand-piece



PTTC Tweezer Cartridges.
See page 17.

Also available are TATC Cartridges for the previous TALON hand-piece and the existing MX-TALON-01 upgrade kit. See page 15.

MX-DS1
Metcal
Desoldering
Hand-piece



STDC Desoldering Cartridges.
See page 18.



Hand-pieces and Grips

MX-H1-AV	1	Metcal Advanced™ Hand-piece with cord, soldering and rework, two grips included (see *)
MX-H1GR	2	Grip Metcal Advanced™ Hand-piece with black sleeve in ring pattern (*)
MX-H1GS	3	Grip Metcal Advanced™ Hand-piece with black scallop pattern
MX-H1GKG	4	Grip Metcal Advanced™ Hand-piece with green knob pattern (*)
MX-H1-BSR-5		Replacement Sleeve only, black ring pattern (pack of 5) - For MX-H1-AV and MX-H1GR
MX-H1-BSS-5		Replacement Sleeve only, black scallop pattern (pack of 5) - For MX-H1-AV and MX-H1GS
MX-H1-GSK-5		Replacement Sleeve only, green knob pattern (pack of 5) - For MX-H1-AV and MX-H1GKG
MX-H2-UF	5	Metcal UltraFine™ Hand-piece with cord, fine soldering, two grips included (see **)
MX-H2GR	6	Grip Metcal UltraFine™ Hand-piece with black sleeve in ring pattern (**)
MX-H2GRS	7	Short grip Metcal UltraFine™ Hand-piece with black sleeve in ring pattern
MX-H2GS		Grip Metcal UltraFine™ Hand-piece with black sleeve in scallop pattern
MX-H2GKG		Grip Metcal UltraFine™ Hand-piece with green sleeve in knob pattern (**)
MX-H2-BSR-5		Replacement Sleeve only, black ring pattern (pack of 5) - For MX-H2-UF and MX-H2GR
MX-H2-BSS-5		Replacement Sleeve only, black ring pattern (pack of 5) - For MX-H2-UF and MX-H2GS
MX-H2-GSK-5		Replacement Sleeve only, black ring pattern (pack of 5) - For MX-H2-UF and MX-H2GKG
MX-RM3E	8	Metcal Soldering / Rework Hand-piece
MX-PTZ	9	Metcal Precision Tweezer Hand-piece, SMD rework
MX-DS1	10	Metcal Desoldering Hand-piece
MX-RM8E		Metcal Desoldering Hand-piece Cord for MX-DS1
MX-RM5E		Standard Robotic cable (1.83m / 6ft) with connector for Soldering/Rework cartridges
MX-RM6E		Metcal Soldering / Rework Hand-piece for long reach cartridge access

NOTE: Cartridges are not included with hand-pieces. A cartridge removal pad (MX-CP1 see page 8) is included with every hand-piece.

MX Series Accessories

Workstands and Accessories

MX-W1AV	1	Metcal TipSaver™ Workstand, for Metcal Advanced™ and UltraFine™ Hand-pieces
MX-W1CR		Cradle for TipSaver™ Workstand, Advanced™ and UltraFine™ Hand-pieces, incl. knobs
MX-W4PT	2	Metcal TipSaver™ Workstand, for MX-PTZ Hand-piece
MX-W4CR		Cradle for Metcal TipSaver™ Workstand, MX-PTZ Hand-piece, includes knobs
MX-W5DS		Metcal TipSaver™ Workstand, for MX-DS1 Hand-piece
MX-W5CR		Cradle for Metcal TipSaver™ Workstand, MX-DS1 Hand-piece, includes knobs
WS1	3	Sleeper Soldering Workstand for MX-RM3E hand-piece
WST		Talon Workstand for MX-TALON hand-piece
AC-Y10	4	Yellow sponge, pack of 10
AC-YS3-P		Yellow sponge, pack of 50
AC-BP	5	Brass pad, pack of 10
AC-BRUSH		Soft Brass Brush
MX-CP1	7	Cartridge removal pad
AC-CK2		Green Lead Free identification ring for STTC cartridges (pack of 50)

Accessories for MX-DS1 Desoldering Hand-piece

MX-DCF1		Chamber Liners (pack of 15) and Filters (pack of 6)
MX-DCF1L		Chamber Liners (pack of 40)
MX-DCF1F		Filters (pack of 20)
AC-TC	8	Desolder Tip Cleaner
AC-CB1-P		Desolder Chamber Cleaning Brush (pack of 25)
AC-CB2-P		Tube Cleaning Brush (pack of 6)
MX-DSL2		Seal Cartridge
MX-DSB		Swivel Connector
MX-DLA		Desolder Gun Latch Adjustment (pack of 10)
MX-DMK1		Maintenance Kit
MX-DAH4		ESD air hose for MX-DS1 Desoldering Hand-piece
MX-DSL1		Seal Chamber
MX-DVC1		Venturi Cartridge
MX-DAR1		Air Regulator and Filter



All Metcal TipSaver Workstands can be configured as shown above.

UPGRADE KITS GUIDE: HAND-PIECE AND WORKSTAND

PART NUMBER	Hand-pieces					Workstands			
	MX-H1-AV Metcal Advanced™	MX-H2-UF Metcal UltraFine™	MX-PTZ Precision Tweezers	MX-DS1 Desoldering	MX-HPDC	MX-W1AV	MX-W4PT	MX-W5DS	MX-WHPDC
MX-UK1	✓					✓			
MX-UK2		✓				✓			
MX-UK3					✓				✓
MX-UK4			✓				✓		
MX-UK5				✓				✓	

MX-TALON-01 Upgrade kit is also available for the MX-500 Series. It includes the previous MX-TALON hand-piece and WST workstand (as shown right). The TALON hand-piece is for use with TATC cartridges only.

All upgrade kits include a hand-piece and a workstand.



Solder Wire Feeder

Metcal's USF-1000 Solder Wire Feed System adds control and convenience to your soldering process. The digital controls, high performance, and its ability to handle multiple solder diameters provide repeatability and functionality to your process. The USF-1000 pairs with Metcal's SmartHeat® MX-5200 or MX-500 Soldering and Rework Systems.

The soldering system utilizes SmartHeat® Technology, wherein each cartridge is equipped with a self-regulating heater which 'senses' its own temperature and closely maintains its pre-set idle temperature for the life of the heater-tip.

**New
Product**



Systems Configuration & Upgrade Kits

MX-5200-SF Soldering / Rework System with USF-1000

Power supply, solder feeder, MX-H7-SF solder feeder hand-piece, USF-FTA-12 Feeder Tube Assembly, USF-GTA-12 Teflon Nozzle, AC-FS1 footswitch and WS1 sleeper work stand



MX-500-SF Soldering / Rework System with USF-1000

Power supply, solder feeder, MX-H7-SF solder feeder hand-piece, USF-FTA-12 Feeder Tube Assembly, USF-GTA-12 Teflon Nozzle, AC-FS1 footswitch and WS1 sleeper work stand



Accessories & Spares

MX-H7-SF	Solder Wire Feeder hand-piece for MX system
USF-FTA-06	Feeder Tube Assembly, 0.25-0.39mm wire dia.
USF-FTA-12	Feeder Tube Assembly, 0.56-0.71mm wire dia.
USF-FTA-17	Feeder Tube Assembly, 0.79-1.27mm wire dia.
USF-GTA-06	Guide Tube and Teflon Nozzle
USF-GTA-12	Guide Tube and Teflon Nozzle
USF-GTA-17	Guide Tube and Teflon Nozzle
AC-FS1	Footswitch

Features & Benefits

- ▶ Digital Controls with multiple Modes of Operation: Forward Feed, Retraction, Delay, and Speed are programmable parameters in either the automatic, forward, or the backward mode of operation.
- ▶ Large LCD Display: displays program parameters and a cycle counter with the selectable unit of measure, millimeters or inches.
- ▶ Internal Program Storage: stores internally thirty (30) programs allowing the operator to select the right program for the right application
- ▶ Password Protection: prevents unintended changes to stored programs
- ▶ Multiple Solder Diameters: compatible with solder diameters 0.4mm to 1.80mm
- ▶ Solder Feed Blades: reduces the tendency for solder balls to form at point of use
- ▶ Solder Spool Lock: secures the solder spool to the unit

USF-1000: solder feeder, MX-H7-SF solder feeder hand-piece, USF-FTA-12 Feeder Tube Assembly, USF-GTA-12 Teflon Nozzle, AC-FS1 footswitch and WS1 sleeper



MX Series Specifications

Soldering, Desoldering & Rework Systems



MX-500

MX-5200

MX-5200

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
Rated Power Consumption	125W
Output Power	Single mode: 80 Watts max. per channel * Dual Mode: 80 Watts shared dynamically *
Output Frequency	13.56 MHz *
Power Supply Dimensions w x d x h	12.1 cm (4.8") x 13.0 cm (5.1") x 23.5 cm (9.3")
Certification / Marking	cTUVus, CE
Tip-to-Ground Potential	<2mV
Tip-to-Ground Resistance	<2 ohms
Idle Temperature Stability	± 1.1°C in still air
Hand-piece Cable Length	L=182 cm (72"), burn proof, ESD safe
Hand-piece Connector	F connector
Weight of the power supply	7.4 lbs (3.35 kg)

* RF SmartHeat Technology provides greater power. More details at www.metcal.com/smarheat

MX-500

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
Rated Power Consumption	70 W
Output Power	40 Watts max. RF SmartHeat Power *
Output Frequency	13.56 MHz *
Power Supply Dimensions w x d x h	12.1 cm (4.8") x 12.1 cm (4.8") x 2.2 cm (8.8")
Certification / Marking	cNRTLus, CE
Tip-to-Ground Potential	<2mV
Tip-to-Ground Resistance	<2 ohms
Idle Temperature Stability	± 1.1°C in still air
Hand-piece Cable Length	L=182 cm (72"), burn proof, ESD safe
Hand-piece Connector	F connector
Weight of the power supply	5.85 lbs (2.65 kg)

* RF SmartHeat Technology provides greater power. More details at www.metcal.com/smarheat

STTC Soldering Cartridges



STTC SOLDERING CARTRIDGES

Compatible with: MX-500, MX-5000 and MX-5200 Systems / MX-RM3E and MX-H1-AV hand-pieces

CHISEL		STTC-025P STTC-125P STTC-825P	CHISEL		STTC-036P STTC-136P STTC-836P
		STTC-525 STTC-025 STTC-125 STTC-825			STTC-536 STTC-036 STTC-136 STTC-836
		STTC-038P STTC-138P STTC-838P			STTC-513 STTC-013 STTC-113 STTC-813
		STTC-538 STTC-038 STTC-138 STTC-838			STTC-020 STTC-120 STTC-820
		STTC-599 STTC-099 STTC-199 STTC-899			STTC-517 STTC-017 STTC-117 STTC-817
CONICAL		STTC-037P STTC-137P STTC-837P	CONICAL		STTC-565 STTC-065 STTC-165 STTC-865
		STTC-537 STTC-037 STTC-137 STTC-837			STTC-090 STTC-190 STTC-890
		STTC-598 STTC-098 STTC-198 STTC-898			STTC-526 STTC-026 STTC-126 STTC-826
		STTC-042 STTC-142 STTC-842			STTC-522 STTC-022 STTC-122 STTC-822
		STTC-514 STTC-014 STTC-114			STTC-045P STTC-145P STTC-845P

5 = 500 Series and 0 = 600 Series for temperature sensitive applications - 1 = 700 Series for most standard applications.
8 = 800 Series for Ceramic and high thermal demand applications.

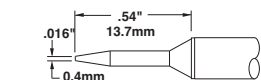
STTC Soldering Cartridges



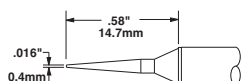
STTC SOLDERING CARTRIDGES

Compatible with: MX-500, MX-5000 and MX-5200 Systems / MX-RM3E and MX-H1-AV hand-pieces

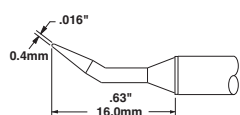
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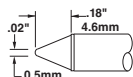
STTC-506
STTC-006
STTC-106
STTC-806



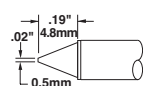
STTC-545
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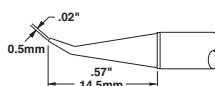
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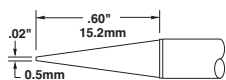
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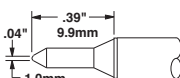
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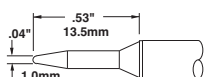
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STTC-843



STTC-101P
STTC-801P

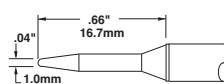


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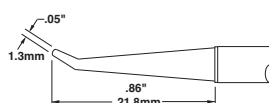


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STTC-001
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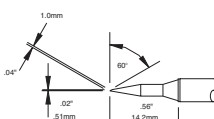
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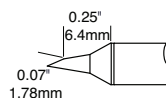
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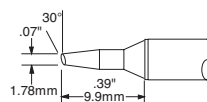
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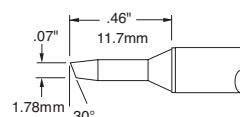
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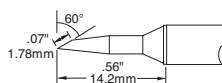
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STTC-847P



STTC-535
STTC-035
STTC-135



STTC-505
STTC-005
STTC-105



STTC-547
STTC-047
STTC-147
STTC-847

BEVEL

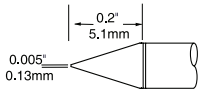
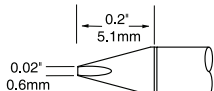
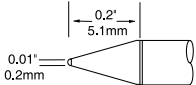
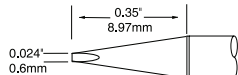
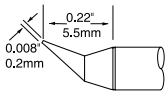
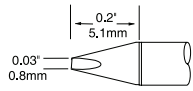
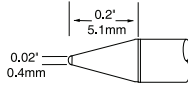
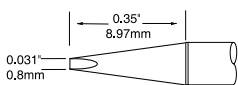
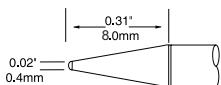
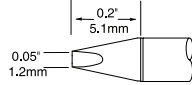
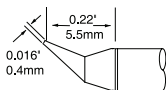
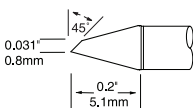
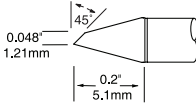
5 = 500 Series and 0 = 600 Series for temperature sensitive applications - 1 = 700 Series for most standard applications.
8 = 800 Series for Ceramic and high thermal demand applications.

UFTC UltraFine Soldering Cartridges



UFTC UltraFine Soldering Cartridges

Compatible with: MX-500, MX-5000 and MX-5200 Systems and MX-H2-UF hand-piece

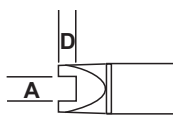
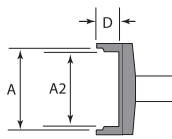

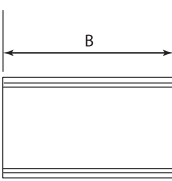
CONICAL		UFTC-7CN01	CHISEL		UFTC-6CH06 UFTC-7CH06
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		UFTC-7CNB02			UFTC-6CH08 UFTC-7CH08
		UFTC-6CN04 UFTC-7CN04			UFTC-6CHL08 UFTC-7CHL08
		UFTC-7CNL04			UFTC-6CH12 UFTC-7CH12
		UFTC-6CNB04 UFTC-7CNB04			
HOOF		UFTC-6DRH408 UFTC-7DRH408			
		UFTC-7DRH412			

7 = 700 Series for most standard applications
6 = 600 Series for temperature sensitive applications

SMTC Rework Cartridges

SMTC REWORK CARTRIDGES

Compatible with: MX-500, MX-5000 and MX-5200 Systems / MX-RM3E and MX-H1-AV hand-pieces
All dimensions shown are in mm (inches)

SLOT			A	D	B	SMT TYPE	TUNNEL			A	A2	D	B	SMT TYPE
		SMTC-505 SMTC-005 SMTC-105	1.7 (.068)	1.27 (.05)	2.5 (.10)	SOT-23			SMTC-004 SMTC-104	5.08 (.20)	5.08 (.20)	2.3 (.90)	4.32 (.17)	SOIC-8
		SMTC-596 SMTC-096 SMTC-196	1.78 (.070)	1.02 (.040)	1.02 (.040)	Chip 0402, 0603			SMTC-006 SMTC-106	5.08 (.20)	5.08 (.20)	2.3 (.90)	10.16 (.40)	SOIC-14, 16
		SMTC-088 SMTC-188	2.03 (.080)	1.52 (.60)	1.27 (.050)	Chip 0402, 0603, 0805			SMTC-0142 SMTC-1142	5.18 (.204)	5.18 (.204)	2.54 (.100)	8.89 (.350)	SOIC-14
		SMTC-501 SMTC-001 SMTC-101	2.3 (.090)	1.8 (.070)	1.3 (.050)	Chip 0805			SMTC-047 SMTC-147	8.51 (.335)	8.51 (.335)	5.08 (.200)	6.35 (.250)	DPAC
		SMTC-502 SMTC-002 SMTC-102	3.6 (.14)	1.8 (.07)	1.5 (.06)	Chip 1206,1210			SMTC-126	8.64 (.340)	8.0 (.315)	1.88 (.074)	18.8 (.740)	SOJ-28, SOM-32
		SMTC-132	3.81 (.150)	2.54 (.10)	2.41 (.095)	Chip Box B EIA SOPM-3528			SMTC-007 SMTC-107	9.53 (.375)	9.53 (.375)	3.20 (.125)	18.3 (.720)	SOIC-28
		SMTC-536 SMTC-036 SMTC-136	4.8 (.190)	4.06 (.16)	2.8 (.110)	Chip Box B EIA SOPM-4532			SMTC-009 SMTC-109	9.53 (.375)	9.53 (.375)	3.18 (.125)	15.75 (.620)	SOIC-24
		SMTC-010 SMTC-110	9.53 (.375)	9.53 (.375)	3.20 (.125)	13.20 (.520)			SMTC-010 SMTC-110	9.53 (.375)	9.53 (.375)	3.20 (.125)	13.20 (.520)	SOIC-20
		SMTC-503 SMTC-003 SMTC-103	4.83 (.190)	1.91 (.075)	2.03 (.080)	Chip 1812			SMTC-040 SMTC-140	11.43 (.450)	10.40 (.410)	1.90 (.075)	25.9 (1.02)	SOJ-40, SOM-32

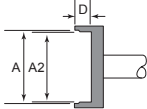
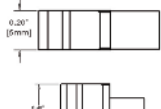
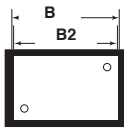
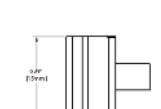
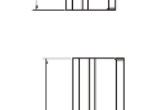



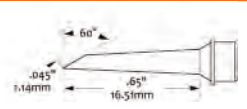
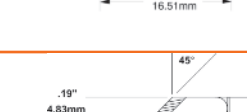
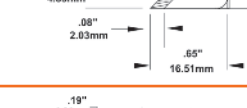
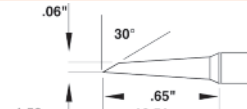

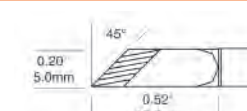
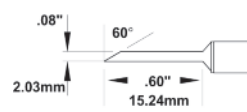
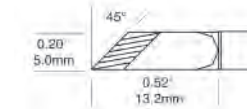

5 = 500 Series & 0 = 600 Series for temperature sensitive applications. 1 = 700 Series for most standard applications.

SMTC Rework Cartridges



SMTC REWORK CARTRIDGES

Compatible with: MX-500, MX-5000 and MX-5200 Systems / MX-RM3E and MX-H1-AV hand-pieces. All dimensions shown are in mm (inches)

QUAD			A	A2	D	B	B2	SMT TYPE	BLADE			A	BLADE TYPE
		SMTC-0121	8.38	8.38	2.54	8.38	8.38	SQFP 48 (EIA)			SMTC-064	5mm (.20")	Short
		SMTC-1121	(.330)	(.330)	(.100)	(.330)	(.330)	PLCC 20			SMTC-164	10mm (.40")	Long
		SMTC-012	10.16	9.14	3.80	10.16	9.14	SQFP 64 (EIA)			SMTC-560	15.75mm (.62")	Long
		SMTC-112	(.400)	(.360)	(.150)	(.400)	(.360)	TQFP 44			SMTC-060	22mm (.86")	Long
		SMTC-0120	11.18	11.18	2.54	11.18	11.18	PLCC 28			SMTC-160		
		SMTC-1120	(.440)	(.440)	(.100)	(.440)	(.440)	TQFP 80			SMTC-860		
		SMTC-1159	12.19	11.18	2.79	13.21	12.19	QFP 100 Rectangular			SMTC-561		
		SMTC-013	12.70	11.56	3.80	12.70	11.56	QFP 100 Rectangular			SMTC-061		
		SMTC-113	(.500)	(.455)	(.150)	(.500)	(.455)	PLCC 32			SMTC-161		
		SMTC-116	12.70	11.43	3.80	15.24	13.97	QFP 100 Square			SMTC-861		
		SMTC-1132	13.34	12.32	2.79	13.34	12.32				SMTC-062		
		SMTC-0118	15.49	14.48	2.79	15.49	14.48				SMTC-162		
		SMTC-1118	(.610)	(.570)	(.110)	(.610)	(.570)				SMTC-862		
		SMTC-043	16.51	16.51	3.30	22.48	22.48						
		SMTC-143	(.650)	(.650)	(.130)	(.885)	(.885)						
HOOF		SMTC-5175								SMTC-064	5mm (.20")	Short	
		SMTC-0175					SMTC-164			10mm (.40")	Long		
		SMTC-1175					SMTC-560			15.75mm (.62")	Long		
		SMTC-8175					SMTC-060			22mm (.86")	Long		
HOOK & CONICAL		SMTC-5174								SMTC-5172			
		SMTC-0174					SMTC-0172						
		SMTC-1174					SMTC-1172						
		SMTC-8174					SMTC-8172						
		SMTC-0167					SMTC-5171						
		SMTC-1167					SMTC-0171						
		SMTC-0169					SMTC-1171						
KNIFE		SMTC-0183								SMTC-8171			
		SMTC-1183					SMTC-5161						
		SMTC-8183					SMTC-0161						
		SMTC-0170					SMTC-1161						
		SMTC-5147								SMTC-5173			
		SMTC-0147					SMTC-1173						
		SMTC-1147					SMTC-8173						
		SMTC-8147					STTC-1173P						

5 = 500 Series & 0 = 600 Series for temperature sensitive applications. 1 = 700 Series for most standard applications.
8 = 800 Series for Ceramic and high thermal demand applications.

Dual and Hoof Cartridge Tips

The success of conduction soldering depends upon the availability and controlled flow of thermal energy into the connection during two critical phases – flux activation and intermetallic bond formation. Higher thermal demand applications such as microwave shields, heavy block type housing and tabbing, preheat applications, BGA removal as an alternative to convection, cell phone shields, and industrial lugs and leads require additional thermal energy during these critical phases.

To address these challenging applications, Metcal offers the MX-HPDC dual cartridge hand-piece with the MX-WHPDC workstand for use with the MX series power supplies, along with a new series of (5) SMTC dual-shaft cartridges. Dual shaft cartridges are available with 700 & 800 series heaters.



Systems Configuration & Upgrade Kits

- ▶ MX-5200 power supply in dual-simultaneous mode to provide 40W of power to both heaters
- ▶ 2x MX-5200 power supplies to provide 80W of power to both heaters



Part Number	Description
MX-HPDC	Dual Cartridge Hand-Piece
MX-WHPDC	Workstand for Dual Cartridge Hand-Piece
MX-UK3	Upgrade Kit, MX-HPDC Hand-Piece & MX-WHPDC Workstand
SMTC-xCH75D	Dual Cartridge Chisel, 7.5mm
SMTC-xCH100D	Dual Cartridge Chisel, 10mm
SMTC-xCH150D	Dual Cartridge Chisel, 15mm
SMTC-xDRH75D	Dual Cartridge, Hoof, Drag, 7.5mm
SMTC-xCHB100D	Dual Cartridge Chisel, Bent, 10mm

Concave Hoof Cartridges

Metcal is pleased to release our new Concave Hoof geometries to our family of rework cartridges.

The new cartridges consist of 2mm and 3mm geometrics in the SMTC and SxP series.

The concave hoof cartridges improve the drag soldering techniques as the concave face of the tip provides a reservoir of solder. These are ideal for drag soldering multi-lead devices.

<p>2.0mm x 11.6mm (SMTC-X185)</p>	<p>SMTC-0185 SMTC-1185</p>
<p>3mm x 11.6mm (SMTC-X186)</p>	<p>SMTC-0186 SMTC-1186</p>

PTTC Tweezer Cartridges

TATC Talon Cartridges

Compatible with: MX-500, MX-5000,
and MX-5200 Systems and MX-PTZ
Precision Tweezers hand-piece

Compatible with: MX-500 Systems
and MX-Talon hand-piece

CONICAL

BLADE

PTTC TWEEZER CARTRIDGES		TATC TALON CARTRIDGES	
	PTTC-601 PTTC-701 PTTC-801		TATC-609
	PTTC-701B PTTC-801B		TATC-601
	PTTC-602 PTTC-702 PTTC-802		TATC-608
	PTTC-603 PTTC-703 PTTC-803		TATC-602
	PTTC-608B PTTC-708B PTTC-808B		TATC-605
	PTTC-604 PTTC-704 PTTC-804		TATC-603
	PTTC-605 PTTC-705 PTTC-805		TATC-604
	PTTC-606 PTTC-706 PTTC-806		TATC-606
	PTTC-607 PTTC-707 PTTC-807		

6 = 600 Series for temperature sensitive applications. 7 = 700 Series for most standard applications.
8 = 800 Series for Ceramic and high thermal demand applications.

STDC Desolder Cartridges

Compatible with: MX-500 MX-5000 and MX-5200 Systems, MX-DS1 Desoldering hand-piece
All dimensions shown are in mm (inches)

STDC DESOLDER CARTRIDGES



Standard



Long Reach

	A	B	C	TYPE
STDC-102 STDC-802	0.64 (.025)	1.40 (.055)	11.43 (.45)	Standard
STDC-103 STDC-803	0.76 (.029)	1.68 (.066)	11.17 (.44)	Standard
STDC-104 STDC-804	1.02 (.04)	1.78 (.07)	10.92 (.43)	Standard
STDC-105 STDC-805	1.27 (.05)	2.03 (.08)	10.66 (.42)	Standard
STDC-106 STDC-806	1.52 (.06)	2.29 (.09)	10.41 (.41)	Standard
STDC-107 STDC-807	2.41 (.09)	3.18 (.12)	9.14 (.36)	Standard
STDC-703L STDC-803L	0.76 (.03)	1.68 (.06)	21.33 (.84)	Long Reach
STDC-704L STDC-804L	1.02 (.04)	1.79 (.07)	21.08 (.83)	Long Reach
STDC-705L STDC-805L	1.27 (.05)	2.03 (.08)	20.82 (.82)	Long Reach

1 = 700 Series (standard length) and 7 = 700 Series (long reach) for most standard applications.
8 = 800 Series for Ceramic and high thermal demand applications.