

**Applications**

**Systems**

**Handpieces**

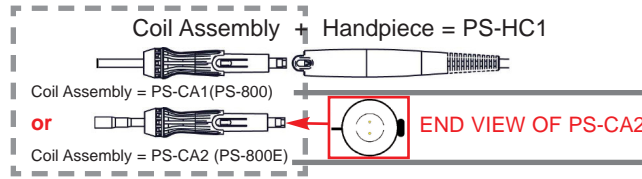
**Tips & Cartridges**

**S O L D E R I N G**

Repetitive production soldering, touch ups and through-hole



**PS-800**  
**PS-800E**  
Soldering System



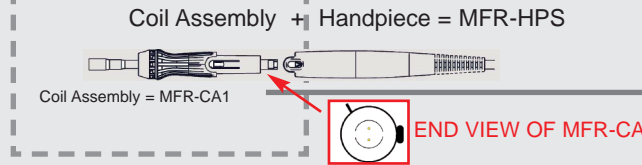
**TIPS**

**PHT** 37 geometries

PS-CA1  
Light/medium load

PS-CA2 & MFR-CA1  
Heavy load

\* **MFR-PST**  
Production Soldering Tip System



**TIPS**

**SFV** 12 geometries

**S O L D E R I N G & R E W O R K**

Production soldering rework & SMT removal



\* **MFR-SRC**  
Soldering & Rework Cartridge System



**CARTRIDGES**

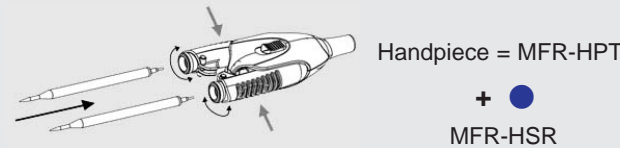
**SFP** 17 geometries

**RFP** 7 geometries

0201 Packages & small discrete components



\* **MFR-PTZ**  
Precision Tweezer, Soldering & Rework System

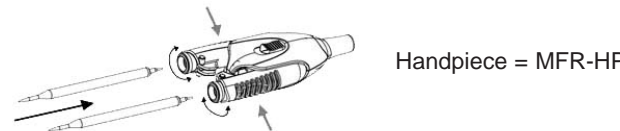


**CARTRIDGES**

**TFP** 3 geometries

TFP-BLP1, TFP-BLP2  
TFP-CNP1

\* **MFR-PTW**  
Precision Tweezer System

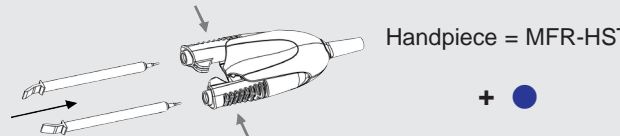


*TFP tips are not interchangeable between MFR-HPT & MFR-HST*

Discrete & SOIC components



\* **MFR-STZ**  
Standard Tweezer Soldering & Rework System



**CARTRIDGES**

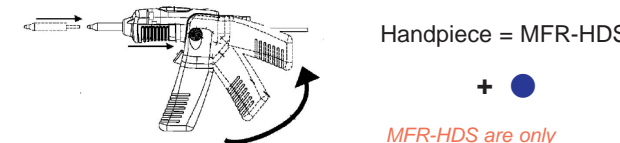
**TFP** 5 geometries

TFP-BLH3, TFP-BLH4,  
TFP-BLH5, TFP-BLH6,  
TFP-BLH7

Desoldering through-hole from 0.67mm (.26") O/D to 2.44mm (.096") O/D



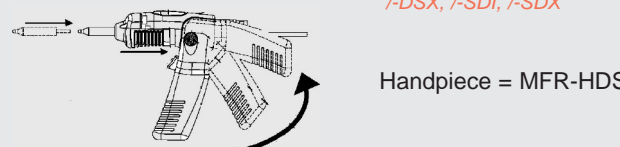
\* **MFR-SDI / -SDX**  
Solder/Desolder Internal Pump  
Solder/Desolder External Air



**CARTRIDGES**

**DFP** 9 geometries

\* **MFR-DSI / -DSX**  
Desolder Internal Pump System  
Desolder External Air System



Handpieces MFR-HPS / MFR-HSR / MFR-HPT / MFR-HST are compatible and interchangeable with systems marked \*

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

# Tip Cross Reference

MX-500	MFR-SFP	MFR-SFV/ PS-800E	PS-800	SP200
STTC-X25	SFP-CH10	SFV-CH10	PHT-XY0315	SSC-X25A
STTC-X38	SFP-CH15			SSC-X38A
STTC-X37	SFP-CH20	SFV-CH20	PHT-XY0335	
STTC-X36	SFP-CH25	SFV-CH25	PHT-XY1335	SSC-X36A
STTC-X17	SFP-CH50	SFV-CH50	PHT-XY1384	SSC-X17A
STTC-X22	SFP-CN04			
STTC-X16	SFP-CN05	SFV-CN05	PHT-XY3035	SSC-X22A
STTC-X45	SFP-CNL04	SFV-CNL04	PHT-XY2017	
STTC-X42	SFP-CHL20			
STTC-X40	SFP-CNB04			
STTC-X44	SFP-CNB05	SFV-CNB05	PHT-XY2335	SSC-X54A
STTC-X99	SFP-CHB15	SFV-CHB15	PHT-XY0326	
STTC-X46	SFP-BVL10			
SMTC-X172	SFP-DRH05			
SMTC-X167	SFP-DRH15			SSC-X67A
SMTC-X147	SFP-DRH35			SSC-X39A
SMTC-X161	SFP-DRK50	SFV-DRK50	PHT-XY5477	SSC-X73A
SMTC-X62	RFP-BL3			
SMTC-X61	RFP-BL2			
SMTC-X60	RFP-BL1			
SMTC-X01	RFP-SL1			
SMTC-X02	RFP-SL2			
SMTC-X04	RFP-DL2			
SMTC-X06	RFP-DL1			
TATC-X01	TFP-CN1			

## MFR Tip Part Numbering

**First Digit - Application**  
Denotes the primary application of the tip or cartridge:

- S = Soldering
- R = Rework
- T = Tweezer
- D = De solder

**Second Digit - Substrate**  
Denotes substrate material (Damage tolerance):

- F = FR4 / Glass Fiber
- T = Temperature Sensitive
- C = Ceramic

**Third Digit - Class**  
Denotes performance characteristics:

- P = Performance (Cartridge)
- V = Value (Tip)

## Upgrade Kits

**Add versatility to your MFR System.**  
Hand-piece Upgrade Kits can be ordered to compliment any of the MFR Systems. Kits include both the hand-piece and workstand.

### MFR-PST-AD

Production / Solder Tip Upgrade Kit

### MFR-SRC-AD

Solder / Rework Cartridge Upgrade Kit

### MFR-PTZ-AD

Precision Tweezer Upgrade Kit

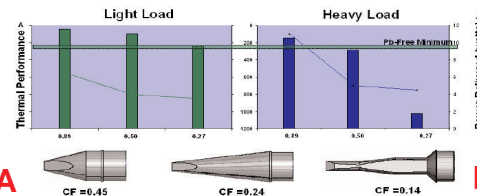
### MFR-STZ-AD

Standard Tweezer Upgrade Kit



## Conductivity Factor

Our new SmartHeat® PowerTips™ have been specifically developed for Lead free applications. They offer high performance at low tip idle temperatures, by optimizing the conduction of the thermal energy through the design of the tip geometries.



The tip **B** is formed with multiple steps. This reduces its diameter size and inhibits its ability to conduct thermal energy efficiently to the joint.

The tip **A** has a smooth progressive taper allowing good conduction from the heater source to the substrate.

The above diagram is a representation of how each tip performed when soldering a 2 layer board (light load) and a 10 layer board (heavy load). The temperature was the same for both tests and a bench mark line added to signify the requirements of Lead free. This shows that by maintaining the source temperature (typically 370°C) and just changing the geometries you can achieve much better thermal performance.



## Hand Soldering & Rework Product Guide

### PS-800 & MFR Range



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