

Catalogue

# WOW!

## World of Weller®





## Weller®

Soldering, Microtools, Desoldering, Hot Air, Rework, Fume Extraction, Electronic Screwdrivers, Dispensing Systems, Accessories, etc.

Page 06 – Page 229



## Erem®

Tweezers, Cutters, Pliers, EROP, Stripping Tools, Kits, etc.

Page 230 – Page 333



## Xcelite®

Knives, Cutters, Screwdrivers, Kits, etc.

Page 334 – Page 351



## Soldering

<b>General Information</b>	<b>6 – 11</b>
Weller - Trusted Technology	6 – 7
Heating Element Technology	8 – 9
Selection Tool for Soldering irons	10 – 11
Why Fume Extraction ?	98 – 99
Solutions for Fume Extraction – For clean air	100 – 101
Recommended treatment of Soldering Tips	160 – 161

<b>Soldering Stations</b>	<b>12 – 43</b>
WX Soldering Stations (Overview page 12 – 14)	12 – 19
Soldering Station (Overview page 20 – 22)	20 – 31
Special Applications	
- For use with solder robots	32 – 35
- For use with inert gas	36 – 37
- Solder Feeder Systems	38 – 39
- Mobile Soldering	40 – 43

## Rework

<b>Rework</b>	<b>44 – 53</b>
Soldering, Desoldering and Hot Air (Overview page 44 – 47)	



## Desoldering

<b>Soldering and Desoldering Stations (Overview page 54 – 57)</b>	<b>54 – 61</b>
---	----------------



## Hot Air

<b>Hot Air Stations (Overview page 62 – 65)</b>	<b>62 – 73</b>
---	----------------



## Repair

<b>BGA/QFP Repair</b>	<b>74 – 83</b>
-----------------------	----------------



## Accessories

<b>Accessories</b>	<b>84 – 97</b>
Temperature Measuring and Calibration	84 – 85
Preheating Plates	86 – 87
PCB Board Holders	88 – 89
Soldering Bathes	90
Thermal Stripping Tools	91
Manual Desoldering Pumps	92
Vacuum Pen / Solder Dispenser	93
Accessories Cleaning Tools	94 – 97
Weller Overview Safety Rests	138 – 139



## Fume Extraction

<b>Fume Extraction (General Information page 98 – 101)</b>	<b>98 – 137</b>
Volume Extraction (Overview page 102 – 103)	104 – 111
Accessories	112 – 117
Accessories Installation	118 – 121
Accessories Filter	122 – 124
Pipe System 75	125
Tip Extraction (Overview page 126–127)	126 – 137
Accessories	130 – 137



## Fume Extraction

Accessories Filter	132 – 133
Pipe System 50	133
Accessories Installation	134 – 135
Safety Rests	136 – 137

## Soldering Irons

<b>Soldering / Desoldering / Hot Air Irons</b>	<b>138 – 159</b>
Soldering iron with different heating technologies	
Active Tip	140 – 141
Fast Response	142 – 145
Silver Line	146 – 149
Magnastat Soldering Irons	150 – 151
Unregulated Line Voltage Soldering Irons	152 – 153
Desoldering Irons and Tweezers	154 – 157
Hot Air Irons	158 – 159



## Soldering Tips

<b>Soldering Tips</b>	<b>160 – 205</b>
Soldering Tips (Overview page 162 – 163)	164 – 193
Nozzles (Overview page 162 – 163)	194 – 197
Hot Air Nozzles (Overview page 162 – 163)	198 – 204



## Electric Screwdrivers

<b>Electric Screwdrivers (Overview page 208 – 209)</b>	<b>206 – 221</b>
Control Unit	210
Electric Screwdriver	211
Accessories	212 – 213
Bits and Knives	214 – 220



## Dispensing Systems

<b>Dispensers (Overview page 212 – 213)</b>	<b>222 – 229</b>
Dispensers	222 – 224
Wands	225
Accessories / Needles	226 – 299

## EREM

<b>Erem (Index page 220)</b>	<b>230 – 333</b>
------------------------------	------------------

## Xcelite

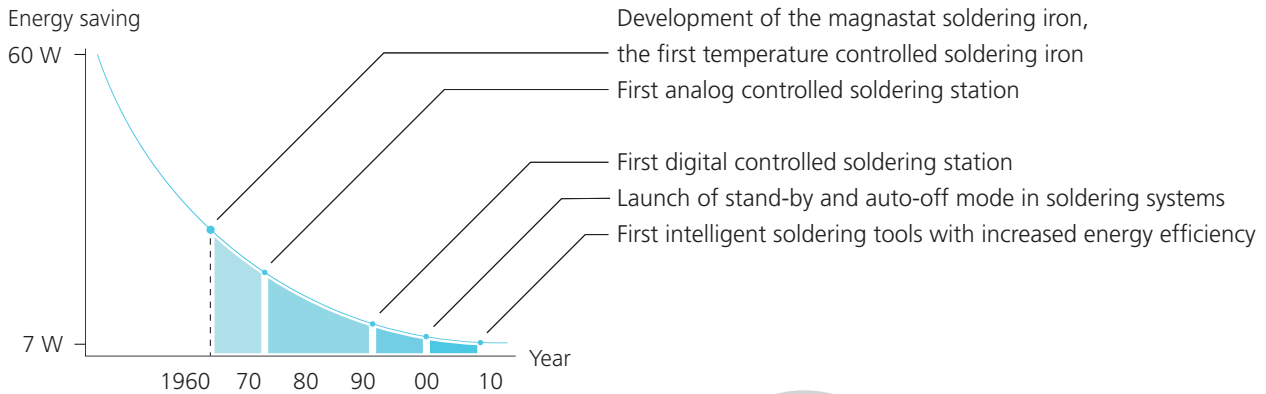
<b>Xcelite</b>	<b>334 – 351</b>
----------------	------------------

<b>Exploded Drawings</b>	<b>352 – 385</b>
--------------------------	------------------

## Index

Numerical Index	386 – 391
Alpha Numerical Index	392 – 396

## Energy Efficient, Professional Soldering Stations



### Quality Built to Guarantee Quality

- Cutting edge mechanical & electronic parts
- Fast reaction & recovery time
- Automatic tool recognition & downloading of parameters
- Micro processor controlled PID control
- Exact temperature settings per one degree
- No calibration needed for Weller soldering units

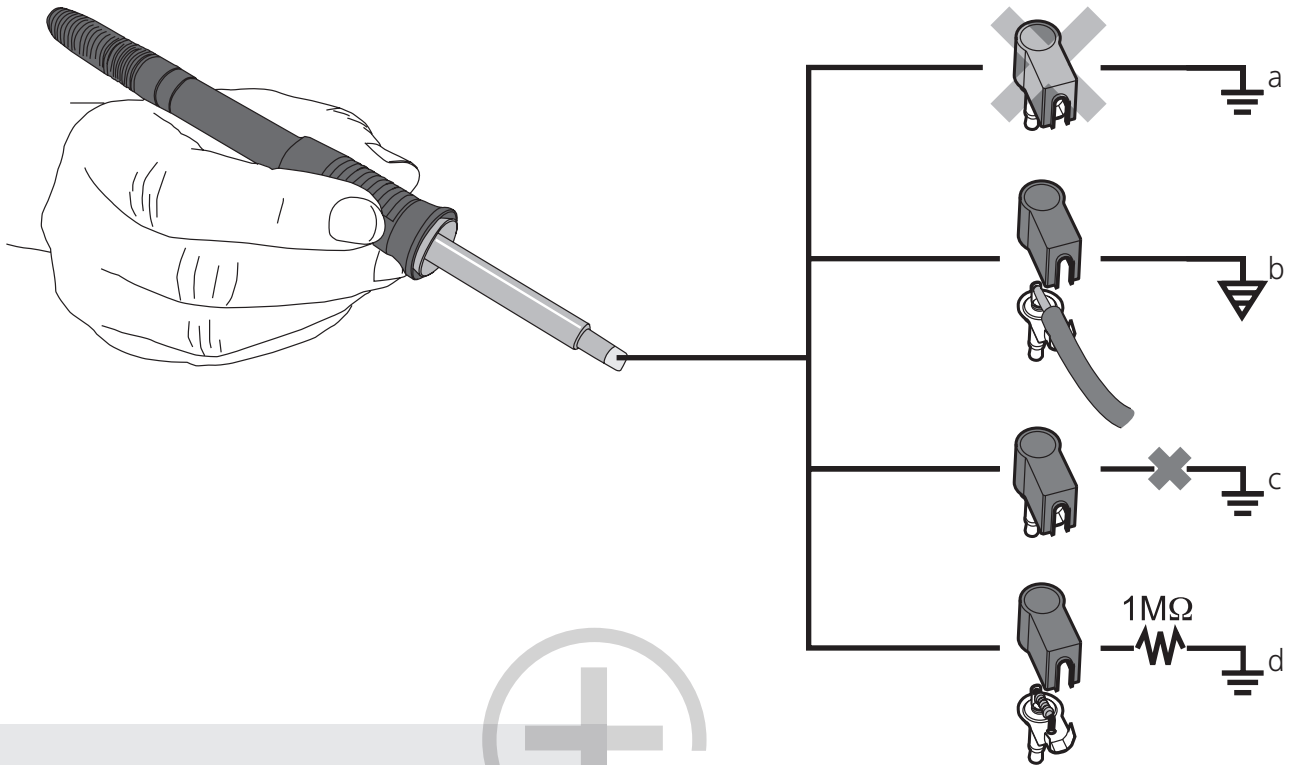


ESD

### High Productivity - No Calibration Required

- Weller soldering stations do not need to be calibrated: the parts of the Weller heating element which determine the temperature have the same physical material characteristics and do not change over time or during use.
- Electronic control units do not wear out. Closed loop temperature regulation & high quality sensor & control technology assure temperature stability of the soldering tool during its lifetime. Built according to IPC J-STD001 D and DIN EN 61191-1.
- If higher accuracy than these standards is required, fine adjustment is possible.
- All industry and military ESD standards are met.

# Weller® - In a League of Their Own



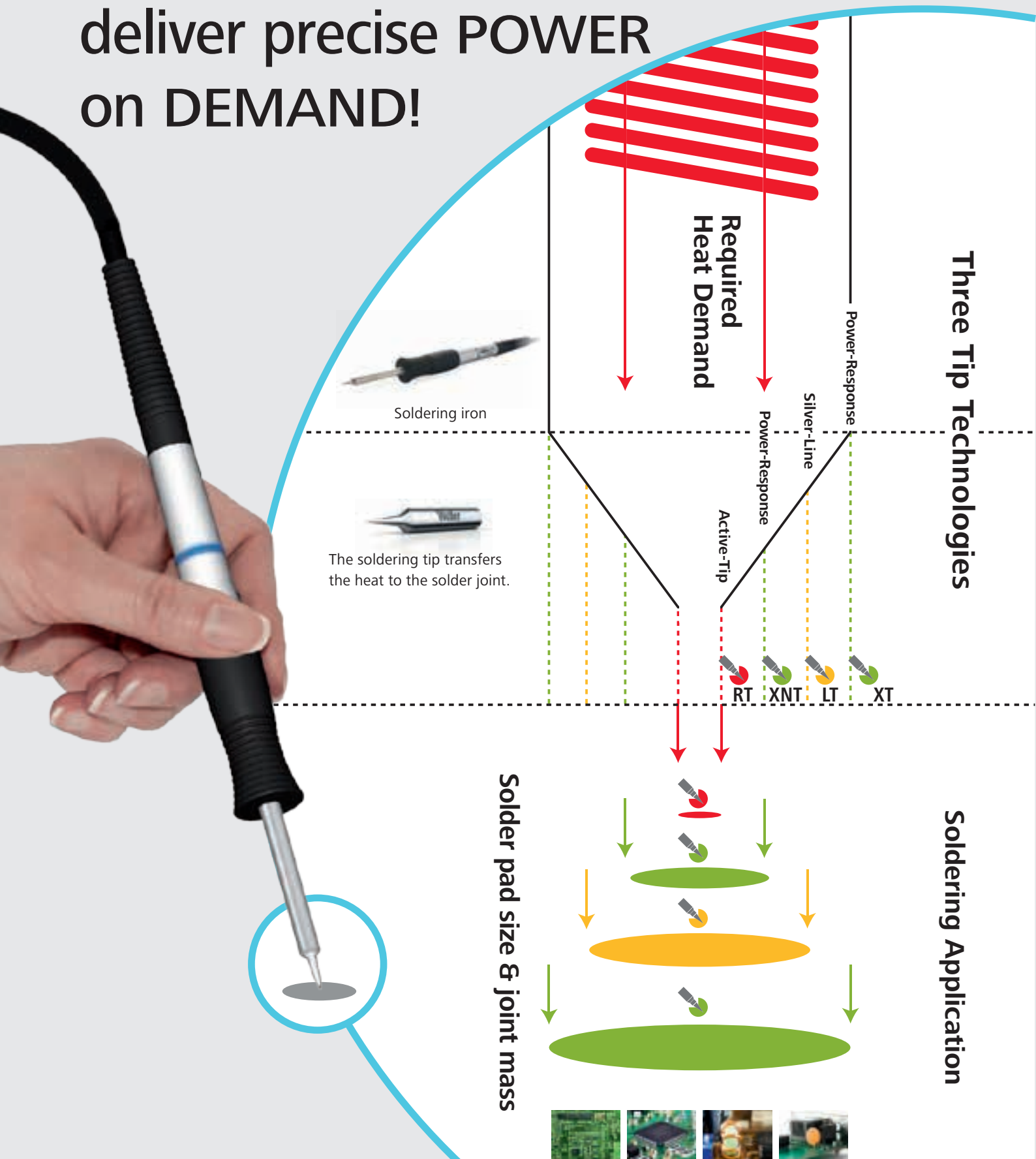
## Safety First with Maximum Flexibility

All Weller soldering stations are equipped with various possibilities for potential equalization:

- a) Hard ground without plug (original delivery)
- b) Potential equalization with plug - equalization line on center contact
- c) Potential free - with plug
- d) Soft ground - with plug and resistor soldered in: Grounding according to selected resistor



# Weller® Heating Technologies deliver precise POWER on DEMAND!



# Three Tip Technologies designed to master ALL soldering jobs - from the most delicate to the most difficult!



RT / RTW



Active-Tip Technology

Most delicate & temp- sensitive applications; for use under microscope; ultra fine tips with fastest heat response & best temp-control; cartridge tips



XNT



Power-Response Technology

SMDs & THTs with very small solder pads & increased heat demand; perfect choice where Active-Tip above lacks sufficient power; lower cost, non-cartridge tips.



LT



Silver-Line Technology

Universal SMD & THT applications both small & large; low mass silver tips offer absolute best heat transfer at lowest price in entire tip range; non-cartridge tips



XT/XHT



Power-Response Technology

Most difficult, high mass soldering jobs; maximum power with ergonomic iron handle; choose when WXP/ WP 65 lack sufficient power; lower cost, non-cartridge tips.





# Selection Tool for Soldering irons

Weller heating & tip technologies are designed for specific applications guaranteeing maximum flexibility!

**RT**

**Soldering tips**

**WXMP  
WMPR**



40 W (55 W with RT 11), 12 V

Ultra slim soldering iron;  
Ideal for microscope work.

**RTW**

**Soldering tips**

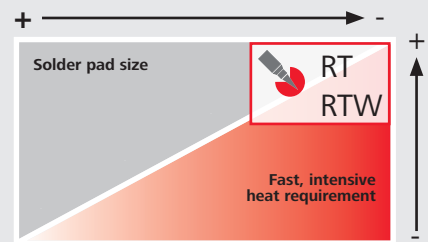
**WXMT  
WMRT**



2 x 40 W, 12 V

Slim tweezers. Ideal for soldering  
and desoldering of very small  
SMD components.

**Active-Tip**



**XNT**

**Soldering tips**

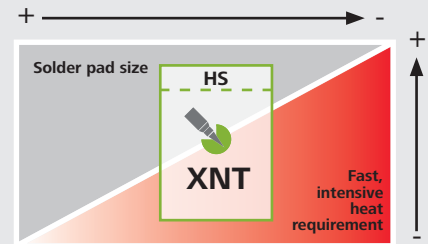
**WXP 65  
WP 65**



65 W, 24 V

SMDs & THTs with very small solder  
pads & increased heat demand.

**Power-Response**



**LT**

**Soldering tips**

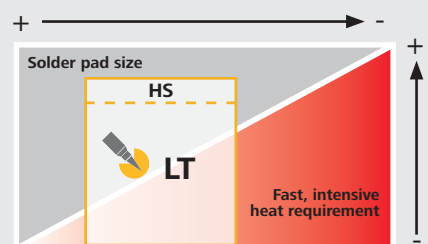
**WSP 80  
WP 80**



80 W, 24 V

Universal SMD & THT applications both  
small & large heat demand..

**Silver-Line**



**XT**

**Soldering tips**

**WXP 120  
WP 120**



120 W, 24 V

All-rounder with great heating power;  
soldering applications from small to  
large components with higher heat  
demand required.

**XHT**

**Soldering tips**

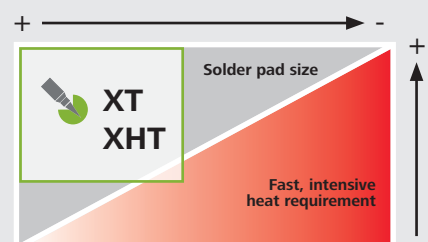
**WXP 200  
WP 200**



200 W, 24 V

Highest Power soldering iron;  
ideal for applications with highest mass  
applications e.g. LED back-panels or RF  
shieldings.

**Power-Response**



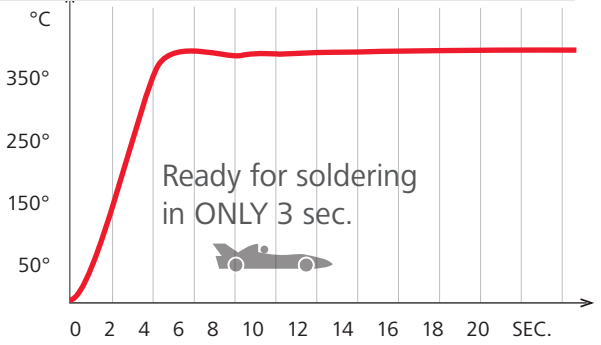


## Active-Tip Technology

This highly innovative technology offers ultra precise heating & temperature control specifically designed for micro-soldering applications. The fully integrated tip cartridge (40W) delivers the fastest recovery on the market for fine tips at just a slightly higher tip price. Temperature sensitive and miniature applications are mastered with precision & safety.



- Fastest heat up & recovery on the market
- Excellent reaction time with finest tips
- Optimal for soldering under microscope
- Rapid hot tip-change; no tool required

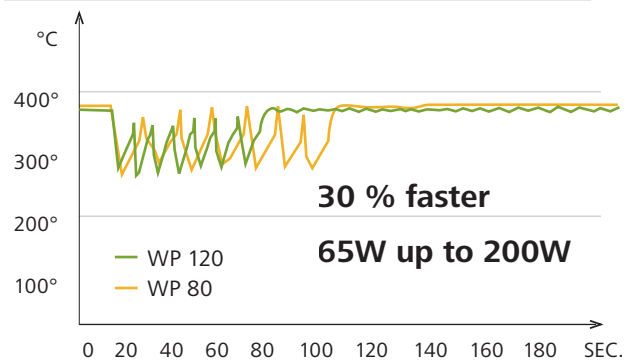


## Power-Response Technology

The newly improved technology maximizes soldering performance on the smallest to the largest joints. A perfect balance between power (65W, 120W & 200W), response, temperature control and lower tip costs makes this unique technology the most attractive solution - Top quality professional soldering designed to meet the highest industry standards.



- Maximum power & rapid response
- Optimized sensor position
- Meeting highest industry standards
- Widest tip range with low price point



## Silver-Line Technology

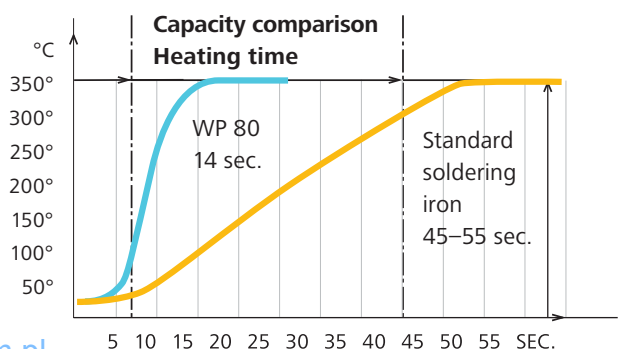
The low mass silver tips offer the absolute best heat transfer at the lowest price in our entire range of tips. The 80W ergonomically designed heating element and pencil type grip make this technology the top performer for universal soldering applications where tip price is a deciding factor.



The Manufacturer Warranty can ONLY be guaranteed when using original Weller parts.



- Effective heat transfer via silver core
- Fast ramp up & recovery
- Designed for universal applications
- Low mass tips with lowest price point



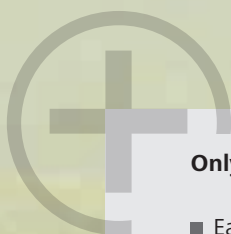
# Highly Efficient Benchtop Soldering Solutions

Hard to believe, but TRUE: This Weller workbench solution will save as much power as a single-person household uses in a whole year!

The all-in-one professional soldering and energy-saving solution includes the new WX 2 dual-channel soldering station complete with WXP 65 intelligent soldering iron, the Zero Smog 4V solder fume extractor and a WHP series preheating plate. Compared to a conventional repair workstation, it is possible to save up to **\*1800 kWh per year**.

The WX 2 acts as a central control unit for the entire benchtop: the intelligent soldering irons, solder fume extractor and the preheating plate. When the soldering iron is not in use, the WX 2 switches all connected devices to Stand-by or Auto-off mode thereby significantly reducing energy costs.

\*Savings based on customer experience with a Weller soldering system is in use on average for one hour per day for 220 workdays per year.



## Only 1 Control Unit per Workbench


- Easy monitoring of entire workplace - WX station acts as the digital controller for all units
- RS232 connection cable for controlling the pre-heating plate and the fume extraction units
- Digital and optical decoupled interface for SPS (e.g. robot applications)
- USB interface





### Process Controlled Soldering – Fast & Simple

- Fast, intuitive & multi-lingual touch screen operation
- Simultaneous operation of two tools with a maximum power of 255 W available
- Consistent & excellent soldering results by stable contact pressure thanks to an optimized, spring-loaded tip barrel
- Key data is saved directly on the tool; Visual process control via blue LED light



### Protection of Worker's Health & the Environment

- Weller Fume Extraction Systems protect operators from unhealthy fine particles and gases
- Auto-stand-by mode of soldering units increases energy efficiency and extends lifetime of products



### Running Cost & Energy savings

- Increased soldering efficiency & lowered tip prices reduce running costs
- Auto-stand-by mode & Auto-off mode result in significant energy savings

[www.labem.pl](http://www.labem.pl)

# Soldering Stations



**WX 1**

■ max. power supply 200 W



**WX 2**

■ max. power supply 200 W (255 W)

## Power-Response



**WX**  
compatible



WXP 65  
XNT Soldering tips



WXP 120  
XT Soldering tips

**WX**  
compatible



WXP 200  
XHT Soldering tips

## Active Tip



**WX**  
compatible



WXMP  
RT Soldering tips

**WX**  
compatible



WXMT  
RTW Desoldering tips

## Fume extraction

**WX**  
compatible



- Zero Smog 4V
- Zero Smog 6V
- Zero Smog 20T

## Solder bath

**WX**  
compatible



WWSB 200  
Available September 2013

## Preheating plates

**WX**  
compatible



- WHP 1000
- WHP 3000 600 W
- WHP 3000 1200 W
- WXHP 120 120 W

Available September 2013

## WX Adapter

**WX**  
compatible



WX Adapter  
for PC  
T005 87 647 11



WX Adapter  
for Zero Smog  
T005 87 647 12

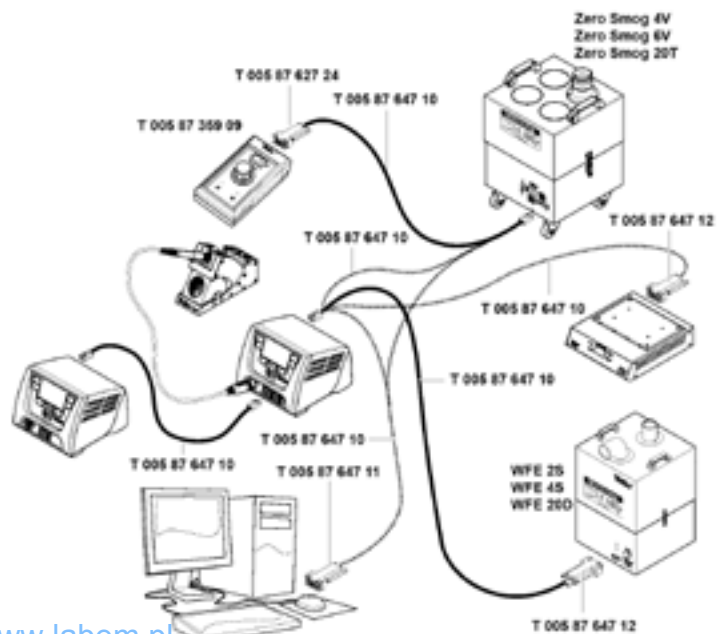


Adapter  
for Remote control  
T005 87 627 24



WX  
connection cable  
T005 87 647 10

WX HUB  
T005 87 647 26



## Technical Data



**WX 1**



**WX 2**

Dimension L x B x H	170 x 151 x 130 mm (6,69 x 5,94 x 5,12 inch)	
Weight	ca. 3,2 kg	
Channels	1	2
Power supply	230 V   50 Hz	
Power consumption	200 W	200 W (255 W)
Protection class	I	
Temperature range	Adjustable 50–550 °C (150–999 °F); adjustable temperature range varies among tools	
Temperature accuracy	± 9 °C (± 17 °F)	
Temperature stability	± 2 °C (± 4 °F)	
Equipotential bonding	Via 3,5 mm pawl socket on back of device	
Material touch panel	Made of antistatic coated material (glas)	
Dimensions touch panel	74 x 38 mm	
Resolution	255 x 127 (128) dots	
Display backlighting	yes	
Equipotential bonding	<p>The 3.5 mm switch box offers four different options:</p> <ul style="list-style-type: none"> <li>a) Hard grounded without plug (original delivery)</li> <li>b) Equipotential bonding: with plug, compensating line on center contact</li> <li>c) Potential free: with plug</li> <li>d) Soft grounded: with plug and soldered resistor grounded via selected resistor</li> </ul>	
USB-interface	USB interface in front for firmware updates, parameterization and monitoring USB interface supports all standard USB flash drive types	
	2 further interfaces to connect Weller accessories	
ESD safe	yes	yes
Order-no.	T005 34 176 99	T005 34 206 99

# Soldering Stations



- Cost savings because only one power unit is needed for different applications
- Use as benchtop controller saves energy
- Lowering the running costs by enlarged tip lifetimes
- Reduction of rework due to optimized tool use and correct working temperature
- ESD safe




The Weller multi tool principle different tools can be connected to the power unit. The intelligent WX tools can be parameterized by means that the parameters are saved individually to the soldering tool. So these tools are connectable to every WX power unit. This saves a lot of time at the workplace.

Intelligent power management allows a max. power of 200 W (255 W). A simultaneous use of different tools is possible. For your overview, all active tools can be seen in the display and a LED ringlight show the working status.



## WX 2020 Set

- Power unit WX 2 with 2 channels, 2 soldering irons WXP 120

 **XT Soldering tip series**  
page 172/173

Order-no.	Model	Description
<b>T005 34 216 99</b>	<b>WX 2020 Set</b>	<b>Power unit with 2 channels 200 W / 230 V</b>
Scope of supply:		
1 T005 34 206 99	WX 2	Power unit, 200 W (255 W)
2 T005 29 201 99	2 x WXP 120	Soldering iron 120 W, 24 V with Power-Response Technology
3 T005 44 704 99	2 x XT B	Standard tip XT B, Chisel 2,4 x 0,8 mm
4 T005 15 121 99	2 x WDH 10	Safety rest with dry cleaner



## WX 2021 Set

- Power unit WX 2 with 2 channels, soldering irons WXMP and tweezers WMRT

RT Soldering tip series  
page 164/165

Order-no.	Model	Description
<b>T005 34 226 99</b>	<b>WX 2021 Set</b>	<b>Power unit with 2 channels 200 W / 230 V</b>
Scope of supply:		
1	T005 34 206 99	WX 2 Power unit, 200 W (255 W)
2	T005 29 203 99	WXMP Micro soldering iron 55 W, 12 V with Active-Tip Technology
3	T005 44 603 99	RT 3 Standard tip RT 3, Chisel 1,3 x 0,4 mm
4	T005 15 171 99	WDH 51 Safety rest with dry cleaner
5	T005 13 177 99	WXMT Micro tweezers 2 x 40 W, 12 V with Active-Tip Technology
6	T005 44 652 99	RTW 2 Standard tip RTW 2, 0,7 x 0,4 mm, 45°
7	T005 15 169 99	WDH 60 Safety rest with dry cleaner

## Power Unit WX 2

- Innovative operation concept
- Robust touch screen with ESD safe glass
- Intuitive use with turn-click-wheel with enter key and finger guide.
- Blue LED backlighting
- Multilingual menu navigation
- High functionality
- No safety rest with Stop & Go function needed thanks to integrated acceleration sensor
- Optimized precision, better stability by sensor in the soldering iron
- Specific parameterization of tool by storage medium in hand piec.
- Visual process control via blue LED ring light
- All WX tools connectable


Order-no.	Model
<b>T005 34 206 99</b>	<b>Power unit WX 2 with 2 channels, 200 W (255 W)</b>



# Soldering Stations

## WX 1010 Set


- Power unit WX 1 with 1 channel, soldering irons WXP 120

 **XT Soldering tip series**  
page 172/173




Order-no.	Model	Description
<b>T005 34 186 99</b>	<b>WX 1010</b>	<b>Power unit with 1 channel, 200 W / 230 V</b>

Scope of supply:

1	T005 34 176 99	WX 1	Power unit, 200 W
2	T005 29 201 99	WXP 120	Soldering iron 120 W, 24 V with Power-Response Technology 
3	T005 44 704 99	XT B	Standard tip XT B, Chisel 2,4 x 0,8 mm
4	T005 15 121 99	WDH 10	Safety rest with dry cleaner

## WX 1011 Set


- Power unit WX 1 with 1 channel, micro soldering irons WXMP

 **RT Soldering tip series**  
page 164/165



Order-no.	Model	Description
<b>T005 34 196 99</b>	<b>WX 1011</b>	<b>Power unit with 1 channel, 200 W / 230 V</b>

Scope of supply:

1	T005 34 176 99	WX 1	Power unit, 200 W
2	T005 29 203 99	WXMP	Soldering iron 55 W, 12 V with Active-Tip Technology 
3	T005 44 603 99	RT 3	Standard tip RT 3, Chisel 1,3 x 0,4 mm
4	T005 15 171 99	WDH 51	Safety rest with dry cleaner



## WX 1012 Set

- Power unit WX 1 with 1 channel, soldering irons WXP 65



XNT Soldering tip series  
page 168/169

Order-no.	Model	Description
<b>T005 34 276 99</b>	<b>WX 1012</b>	<b>Power unit with 1 channel, 200 W / 230 V</b>
Scope of supply:		
1	T005 34 176 99 WX 1	Power unit, 200 W
2	T005 29 211 99 WXP 65	Soldering iron 65 W with Power-Response Technology
3	T005 44 851 99 XNT A	Standard tip XNT A, Chisel 1,6 mm
4	T005 15 121 99 WDH 10	Safety rest with dry cleaner



## Power Unit WX 1

- Innovative operation concept
- Robust touch screen with ESD safe glass
- Intuitive use with turn-click-wheel with enter key and finger guide.
- Blue LED backlighting
- Multilingual menu navigation
- High functionality
- No safety rest with Stop & Go function needed thanks to integrated acceleration sensor
- Optimized precision, better stability by sensor in the soldering iron
- Specific parameterization of tool by storage medium in hand piec.
- Visual process control via blue LED ring light
- All WX tools connectable

Order-no.	Model
<b>T005 34 176 99</b>	<b>1-Channel-Power Unit WX 1 200 W / 230 V</b>

Available adapter for  
WX stations see page 14.



# Soldering Stations

Take your mark, get set, GO - with SPEED & SAFETY!



## Systematic Soldering

- Control units accept wide range of different soldering tools
- Power ranges from 80 W up to 150 W for micro-fine as well as for robot soldering applications
- Extensive accessories available: micro-tweezers, soldering irons and solder baths
- Easy monitoring via Automatic tool recognition and fast temperature setting via buttons and large LC display



## Reliability & Longlife

- Robust design for continuous operation
- Small and compact soldering stations with easy-to-read display
- ESD safe unit with different functions: potential equalization, temp. set-back, stand-by and lock function





#### Cost-Effective, Industrial Soldering Station

- For different applications with a power range from 80 W up to 150 W
- Fast temperature setting and easy monitoring
- Easy to use buttons or potentiometer and LED signal

#### Low running costs

- Industrial housing: easy to clean, robust design
- High cost saving of consumables; Cost efficient & long life Silver-Line soldering tips reduce running costs

# Soldering Stations



**WD 1**

**WD 1M**

■ max. power supply 80 W  
●●●●●

■ max. power supply 150 W  
●●●●●●●●●●

Photo similar



**PUD 81i**

**PUD 81**

**PUD 151**

**PU 81**

Available from January 2014

■ max. power supply 80 W  
●●●●●

■ max. power supply 80 W  
●●●●●

■ max. power supply 150 W  
●●●●●●●●●●

■ max. power supply 80 W  
●●●●●

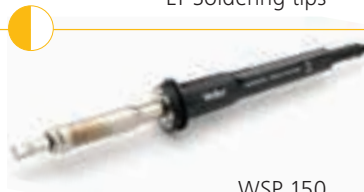
## Silver-Line



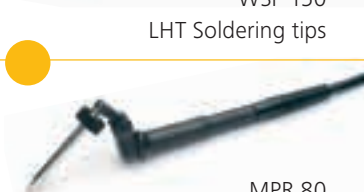
WP 80  
LT Soldering tips



WSP 80  
LT Soldering tips



WSP 150  
LHT Soldering tips



MPR 80  
LT Soldering tips

## Power-Response



WP 120  
XT soldering tips



WMP  
NT Soldering tips



WP 65  
XNT Soldering tips

## Standard-Line



LR 21  
LT Soldering tips



WTA 50  
WTA Tips

## Active Tip

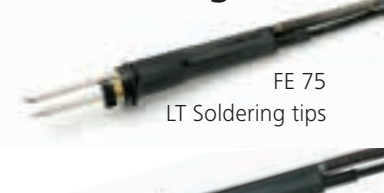


WMRP  
RT Soldering tips

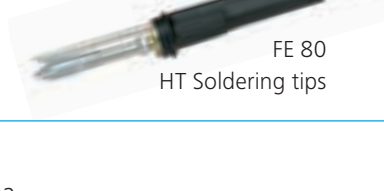


WMRT  
RTW Tips

## FE-Soldering iron



FE 75  
LT Soldering tips



FE 80  
HT Soldering tips

## Preheating plate



WHP 80

## Solder bath



WSB 80



WSB 150

## Technical Data



**WD 1**

**WD 1M**

Photo similar

**PUD 81i**

**PUD 81**

**PUD 151**

**PU 81**

Available from  
January 2014

Dimension L x B x H	34 x 108 x 147 mm	134 x 108 x 147 mm	166 x 140 x 103 mm	166 x 115 x 101 mm	166 x 115 x 101 mm	166 x 115 x 101 mm
Channels	1	1	1	1	1	1
Power supply	230 V	230 V	230 V	230 V	230 V	230 V
Power consumption	95 W	150 W	95 W	95 W	150 W	95 W
Protection class	I	I	I	I	I	I
Temperature range	50°C – 450°C	50°C – 450°C	50°C – 450°C	50°C – 450°C	50°C – 550°C	150°C – 450°C
Temperature accuracy	± 9°C	± 9°C	± 9°C	± 9°C	± 11°C bei 550°C	± 9°C
Temperature stability	± 5°C	± 5°C	± 5°C	± 5°C	± 5°C	± 5°C
Display	LCD	LCD	LED	LED	LED	no
Setting	Tasten	Tasten	Tasten	Tasten	Tasten	Drehpotentiometer
ESD safe	yes	yes	yes	yes	yes	yes
Equipotential bonding	Via 3,5 mm pawl socket on back of device (normal state hard grounded)					
USB interface	yes*	yes*	no	no	no	no
Order-no.	T005 34 006 99	T005 34 156 99	T005 32 956 99	T005 32 626 99	T005 32 786 99	T005 32 526 99

\*optional (see page 25)

# Soldering Stations



- Cost reduction - longer tip lifetime due to temperature reduction
- Automatic tool recognition
- Easy tip exchange without tools
- ESD safe



**Ready, set, go - with perfect accuracy!**

1 channel WD soldering station is userfriendly due to the large LC display. 2 special menus for individual settings, e.g. stand-by mode, lock function and many more.



## WD 1000 Set

- Power unit 80 W, 1 channel with soldering iron
- For small sensible components



LT Soldering tip series  
page 177-180

Order-no.	Model	Description
<b>T005 34 026 99</b>	<b>WD 1000 Set</b>	<b>Soldering station, 1 channel, 80 W / 230 V</b>
Scope of supply:		
1 T005 34 006 99	WD 1	Power unit, 80 W
2 T005 29 180 99	WP 80	Soldering iron 80 W, 24 V with Silver-Line Technology
3 T005 44 405 99	LT B	Standard tip LT B, Chisel 2,4 x 0,8 mm
4 T005 15 121 99	WDH 10	Safety rest with dry cleaner

## WD 1000 T Set

- Power unit 80 W, 1 channel as WD 1000 Set but with safety rest WDH 10T with Stop & Go function



LT Soldering tip series page 177-180

Order-no.	Model	Description
<b>T005 34 026 70</b>	<b>WD 1000 T Set</b>	<b>Soldering station, 1 channel, 80 W / 230 V</b>
Scope of supply:		
T005 34 006 99	WD 1	Power unit, 80 W
T005 29 180 99	WP 80	Soldering iron 80 W, 24 V with Silver-Line Technology
T005 44 405 99	LT B	Standard tip LT B, Chisel 2,4 x 0,8 mm
T005 15 161 99	WDH 10T	Safety rest with Stop & Go function and with dry cleaner

## WD 1M Power Unit

- Power unit, 1 channel, digital 150 W / 230 V
- For micro soldering iron WMRP and micro tweezers WMRT



Order-no.	Model	Description
T 005 34 156 99	WD 1M	Power Unit 150 W, 230 V

## WD 1 Power Unit

- Power unit, 1 channel, digital 80 W / 230 V
- For all soldering tools up to 80 W



Order-no.	Model	Description
T005 34 006 99	WD 1	Power Unit 80 W / 230 V

Order-no.	Description
T005 31 185 99	USB Interface for ISO applications

[www.labem.pl](http://www.labem.pl)



# Soldering Stations



- Easy handling
- Very good cost / performance ratio
- ESD safe



**Digital soldering stations WSD (Optical set and read temperature display) and WS (set-temperature display) stations**  
Weller WSD and WS stations are cost effective, digital soldering stations with an easy handling.

## WSD 81i Set

- Power unit 80 W, 1 channel with soldering iron WSP 80
- Many parameter are available with this unit



LT Soldering tip series page 172



Available from January 2014

Order-no.	Model	Description
T005 32 976 99	WSD 81i Set	Soldering station, 1 channel 80 W / 230 V

Scope of supply:

1	T005 32 956 99	PUD 81i	Power unit, 80 W
2	T005 29 161 99	WSP 80	Soldering iron 80 W, 24 V with Silver-Line Technology
3	T005 44 405 99	LT B	Standard tip LT B, chisel 2,4 x 0,8 mm
4	T005 15 121 99	WDH 10	Safety rest with cleaning sponge

## WSD 81i SE Set

- Power unit 80 W, 1 channel with soldering iron WP 65
- Many parameter are available with this unit



XNT Soldering tip series page 172



Available from January 2014

Order-no.	Model	Description
T005 32 966 99	WSD 81i SE Set	Soldering station, 1 channel 80 W / 230 V

Scope of supply:

1	T005 32 956 99	PUD 81i	Power unit, 80 W
2	T005 29 215 99	WP 65	Soldering iron 65 W, 24 V with Power-Response Technology
3	T005 44 851 99	XNT A	Standard tip XNT A, chisel 1,6 x 0,4 mm
4	T005 15 121 99	WDH 10	Safety rest with cleaning sponge

Photo similar



Available from January 2014

## PUD 81i

- Power unit, 1 channel  
80 W, 230 V
- Many parameter are  
available with this unit

Order-no.	Model	Description
T005 32 956 99	PUD 81i	Soldering station, 1 channel 80 W / 230 V

## WSD 121 Set


- Power unit 120 W,  
1 channel with  
soldering iron WP 120
- Further parameter with an  
external calibration unit.  
WCB 2 possible. See page 84



Order-no.	Model	Description
T005 32 776 70	WSD 121	Soldering station, 1 channel 80 W / 230 V

Scope of supply:

1	WSD 121	Power unit, 120 W / 230 V
2	T005 29 193 99	WP 120 Soldering iron 120 W, 24 V with Power-Response Technology
3	T005 44 704 99	XT B Standard tip LTB, chisel 2,4 x 0,8 mm
4	T005 15 170 99	KH 18 Safety rest with dry cleaner
	T005 15 125 99	WDC 2 Dry cleaner

 **XT Soldering tip**  
series page 172/173

## WSD 151 Set

- Power unit, 1 channel with soldering iron WSP 150
- Further parameter with an external calibration unit. WCB 2 possible. See page 84



LHT Soldering tip series  
page 183



Order-no.	Model	Description
<b>T005 32 766 99</b>	<b>WSD 151 Set</b>	<b>Soldering station, 1 channel, 150 W / 230 V</b>

Scope of supply:

1	T005 32 786 99	PUD 151	Power unit, 150 W
2	T005 29 170 99	WSP 150	Soldering iron 150 W, 24 V with Silver-Line Technology
3	T005 44 450 99	LHT F	Standard tip LHT F, Chisel 9,3 mm
4	T005 15 027 99	KH 27	Safety rest with cleaning sponge

## WSD 151 Power Unit

- Power unit 150 W, 1 channel
- Further parameter with an external calibration unit. WCB 2 possible. See page 84



Order-no.	Model	Description
<b>T005 32 786 99</b>	<b>WSD 151</b>	<b>Power unit 150 W, 240 V</b>

## WSD 81 Set

- Power unit 80 W, 1 channel with soldering iron WSP 80
- Further parameter with an external calibration unit. WCB 2 possible. See page 84



LT Soldering tip series  
page 177-180



Order-no.	Model	Description
<b>T005 32 606 99</b>	<b>WSD 81 Set</b>	<b>Soldering station, 1 channel, 80 W / 230 V</b>

Scope of supply:

1	T005 32 626 99	PUD 81	Power unit, 150 W
2	T005 29 161 99	WSP 80	Soldering iron 80 W, 24 V with Silver-Line Technology
3	T005 44 405 99	LT B	Standard tip LT B, Chisel 0,8 mm
4	T005 15 140 99	WPH 80	Safety rest with cleaning sponge

## WS 81 Set

- Power unit, 1 channel with soldering iron WSP 80



LT Soldering tip series  
page 177-180



Order-no.	Model	Description
<b>T005 32 506 99</b>	<b>WS 81 Set</b>	<b>Soldering station, 1 channel, 80 W / 230 V, analog</b>

Scope of supply:

1	T005 32 526 99	PU 81	Power unit, 80 W, analog
2	T005 29 161 99	WSP 80	Soldering iron 80 W, 24 V with Silver-Line Technology
3	T005 44 405 99	LT B	Standard tip LT B, Chisel 2,4 x 0,8 mm
4	T005 15 170 99	KH 18	Safety rest with cleaning sponge

## PU 81 Power Unit

- Power unit 80 W
- Further parameter with an external calibration unit. WCB 2 possible



Order-no.	Model	Description
<b>T005 32 524 99</b>	<b>PU 81</b>	<b>Power unit switchable, 80 W, 120 V / 240 V with US plug, analog</b>

Accessory:

T005 87 489 90	Key switch with control panel
----------------	-------------------------------

# Soldering Stations



- Easy handling
- Good cost / performance ratio



## Ferro Magnetic Controlled Soldering Station (Magnastat)

The Weller Magnastat system operates through a ferro-magnetic device which changes its characteristics when specific temperatures are reached. This causes it to either attract or repel a permanent magnet which operates a power supply switch. In this way power to the heating element can be quickly switched on or off to either provide extra power for soldering operations or reduced power when idling. Various preselected tip temperatures (260°C, 310°C, 370°C, 425°C, 480°C) are available for different soldering tasks. The unit is not suitable for ESD application because the iron is not antistatic.

## Technical Data

### WTCP 51



Dimension L x B x H:	166 x 115 x 101
Channels:	1
Power supply:	230 V (240 V, 120 V), 50 (60) Hz
Power consumption	55 W
Heating voltage:	24V, 50 (60) Hz
Soldering iron:	max. 50 W at 24 V
Display:	no
Temperature control:	two-level controller
Equipotential bonding:	yes
USB interface:	no
Control:	two-level controller with temperature sensor
Order-no.	T0053220699



## WTCP 51 Set

- Power unit, 1 channel with soldering iron TCPS



LT Soldering tip series  
page 177-180

Order-no.	Model	Description
<b>T005 32 206 99</b>	<b>WTCP 51 Set</b>	<b>Soldering station, 1 channel, 50 W / 230 V</b>
Scope of supply:		
1	T005 32 226 99 P 51	Power unit, 50 W
2	T005 32 105 99 TCPS	Soldering iron 50 W, 24 V with Silver-Line Technology
3	T005 44 415 99 LT M	Standard tip LT M, Chisel 2,0 x 0,8 mm and PT-LT adapter
4	T005 15 020 99 KH 20	Safety rest with cleaning sponge

## P 51 Power Unit

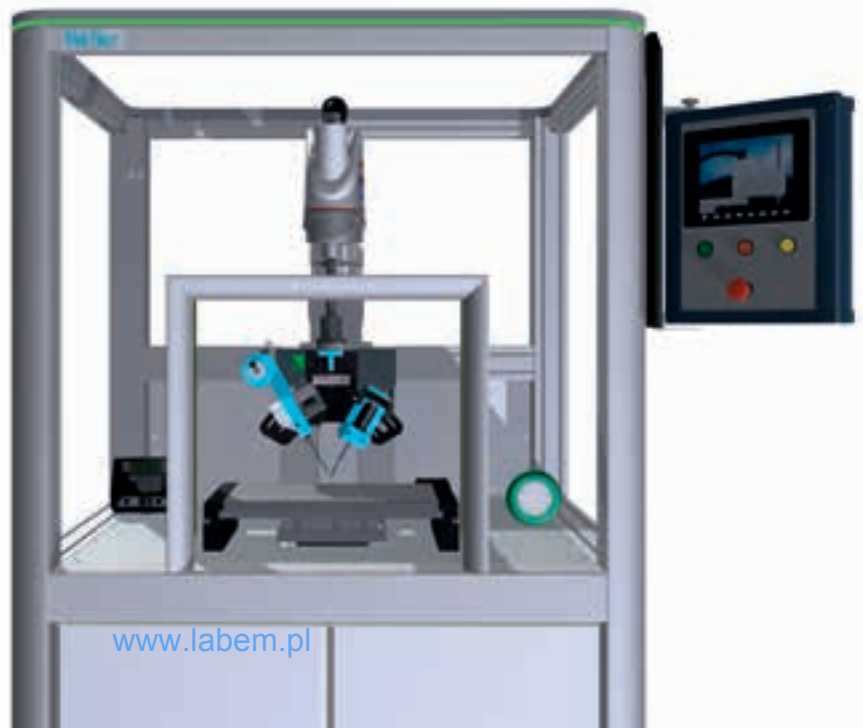
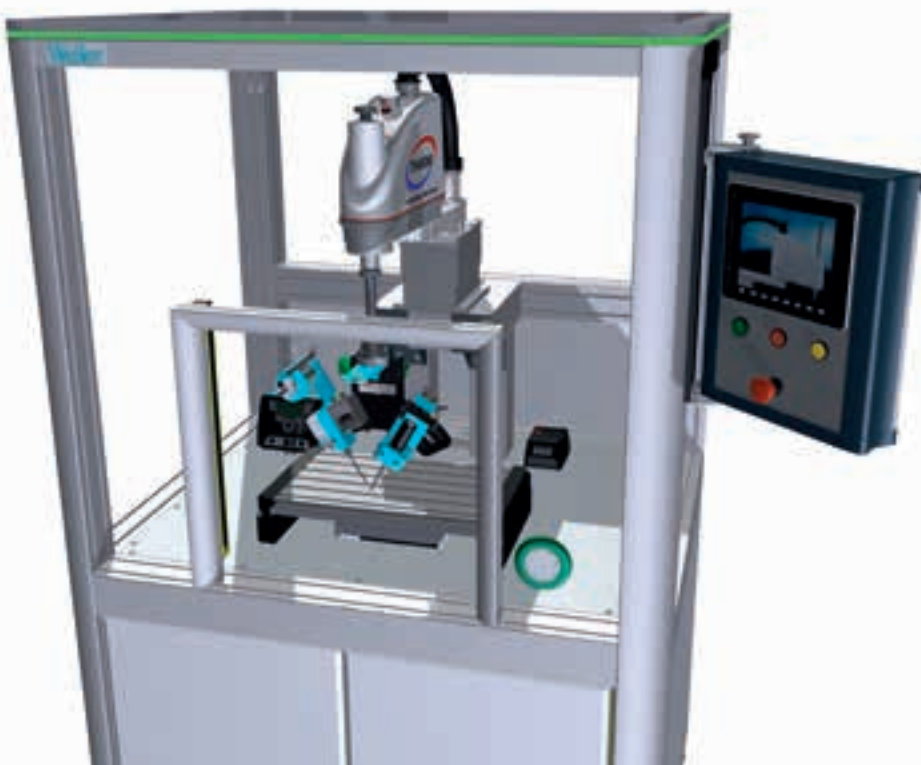
- Power unit switchable, 50 W, 120 V / 240 V with US plug
- For all tools upto 50 W except WMRP and WMRT



Order-no.	Model	Description
<b>T005 32 224 99</b>	<b>P 51</b>	<b>Power unit switchable, 50 W, 120 V / 240 V with US plug</b>

# Special application for use in solder robots

The soldering station PUD 151R is suitable for soldering tasks in industrial manufacturing in which the soldering process is to be automated. For this purpose the unit is equipped with a monitoring circuit. As function of an adjustable temperature window (tolerance band) an un-powered contact is reduced to a low impedance. Straight forward, easy operation is made possible with the usage of a micro processor. Digital control electronics ensure optimal regulation behaviour with different soldering irons upto 150 W. The soldering irons are automatically recognized by the soldering station and assigned the appropriate control parameter.



## Technical Data



**WX 1**



**WX 2**



**PUD 151R**

Dimension L x B x H	170 x 151 x 130 mm (6,69 x 5,94 x 5,12 inch)		166 x 115 x 101 mm
Weight	ca. 3,2 kg		
Channels	1	2	1
Power supply	230 V   50 Hz		230 V
Power consumption	200 W (255 W)		150 W
Protection class	I		1
Temperature range	Adjustable 50–550 °C (150–999 °F); adjustable temperature range varies among tools		150°C – 550°C
Temperature accuracy	± 9 °C (± 17 °F)		± 9°C (± 11°C bei 550°C)
Temperature stability	± 2 °C (± 4 °F)		± 5°C (± 9 °F)
Equipotential bonding	Via 3.5 mm pawl socket on back of device (normal state hard grounded)		
Material touch panel	Made of antistatic coated material (glas)		–
Dimensions touch panel	74 x 38 mm		–
Resolution	255 x 127 (128) dots		–
Display backlighting	yes		LED
Equipotential bonding	<p>The 3.5 mm switch box offers four different options:</p> <ul style="list-style-type: none"> <li>a) Hard grounded without plug (original delivery)</li> <li>b) Equipotential bonding: with plug, compensating line on center contact</li> <li>c) Potential free: with plug</li> <li>d) Soft grounded: with plug and soldered resistor grounded via selected resistor</li> </ul>		
USB-interface	USB interface in front for firmware updates, parameterization and monitoring USB interface supports all standard USB flash drive types		No
	2 further interfaces to connect Weller accessories		–
ESD safe	yes	yes	yes
Order-no.	T005 34 176 99	T005 34 206 99	T005 32 786 70



# Special application for use in solder robots



## PUD 151R

- Temperature window adjustable  $\pm 99^{\circ}\text{C}$
- Temperatur control via buttons
- 3-position digital display
- Calibration unit WCB 2 connectable (see page 84)
- Automatic tool recognition
- Digitally controlled electronic for soldering tools upto 150 W

---

Order-no.	Model	Description
T00 32 786 70	PUD 151R	Power unit, 1 channel, 150W



## HER 80 Heating element

Order-no.	Model	Description
T005 87 447 38	HER 80	Heating element 80 W for solder robots applications with PUD 151R

## LT Soldering tips for HER 80

Order-no.	Model	Description	Width	Thickness	Length
<b>Soldering tips for HER 80 with twist lock</b>					
T005 44 441 99	LTR A	Chisel tip	1,6 mm	0,8 mm	17 mm
T005 44 422 99	LTR B	Chisel tip 1,5 mm wettable	2,4 mm	0,8 mm	17 mm
T005 44 422 71	LTR B	Chisel tip 6,0 mm wettable	2,4 mm	0,8 mm	17 mm
T005 44 433 99	LTR C	Chisel tip	3,2 mm	0,8 mm	17 mm
Special tips on request					



## HER 120 Heating element

Order-no.	Model	Description
T005 87 637 30	HER 120	Heating element 120 W for solder robot application with PUD 151R



## HERX 120 Heating element

Order-no.	Model	Description
T005 87 657 40	HERX 120	Heating element 120 W for solder robot application with WX 1 / WX 2



## XTR Soldering tips for HER 120 and HERX 120

Order-no.	Model	Description	Width	Thickness	Length
<b>Soldering tips for HER 120 with twist lock</b>					
T005 44 723 99	XTR A	Chisel tip	1,6 mm	0,7 mm	36,0 mm
T005 44 724 99	XTR B	Chisel tip	2,4 mm	0,8 mm	35,0 mm
T005 44 725 99	XTR C	Chisel tip	3,2 mm	0,8 mm	35,0 mm
T005 44 726 99	XTR D	Chisel tip	4,6 mm	0,8 mm	34,5 mm
T005 44 727 99	XTR E	Chisel tip	5,9 mm	1,2 mm	34,5 mm
T005 44 728 99	XTR M	Chisel tip	3,2 mm	1,2 mm	39,0 mm

## Cord for HER 80 / 120 and HERX 120

Order-no.	Model	Description
T005 87 447 13		Cord for HER 80 / 120, 1,6 m
T005 87 657 15		Cord for für HERX 120, 1,6 m

# Special Application Inert Gas Soldering



Ideal solution for soldering application under an atmosphere of inert gas

Advantages of inert gas soldering

- Oxygen will be blocked out from solder joint and soldering tip
  - less oxidation on solder joint and soldering tip
  - less surface tension of solder
  - better flow characteristics of solder
- Preheating of solder joints
- ESD safe
- Better and constant activation of flux

The inert gas soldering irons WP 80IG and WP 120IG achieve all ESD requirements and enables soldering jobs with inert gas in used way. Inert gas is fed through openings in the heating element to envelop the solder joint. Inert gas and temperature control via power unit WAD 101IG. The set is complete with the Stop & Go safety rest WDH 10P.



**WAD 101IG**

## Technical Data

Dimension L x B x H:	166 x 115 x 101
Weight	3,335 kg
Channels	1
Power supply	230 V / 120 V (50/60 Hz)
Power consumption	150 W
Protection class	1 Power unit, 3 Soldering irons,
Temperature range	Soldering and desoldering irons adjustable 50°C – 550°C (150°F – 999°F)
Adjustable Temperature range	depends on tool
Temperature accuracy	± 2°C
Temperature stability	± 5°C
Potential free contact	Optocoupler (transistor output) max. 24 V / 20mA; Pin 1 (+), Pin 2 (-)
Display	
Temperature control	Via buttons
ESD safe	yes
Equipotential bonding	Via 3.5 mm pawl socket on back of device
USB interface	no
Order-no.	T005 32 666 71



## WAD 101IG

Order-no.	Model	Description
T005 32 666 71	WAD 101IG	Power unit, 1 channel 150 W for soldering with inert gas

### Perfect solution for lead free soldering applications under an atmosphere of inert gas

With the WSP 80 inert gas safety rest set the WSP 80 soldering iron can be switched to an inert gas soldering iron. The safety rest WDH 10P can be used with the WSP 80IG and WP 120IG. Inert gas is fed through openings in the heating element to envelop the solder joint.

### Accessory

Order-no.	Model	Description
T005 29 197 99	WP 80IG	Soldering iron 80 W for soldering with inert gas 50 °C - 450 °C

Order-no.	Model	Description
T005 29 198 99	WP 120IG	Soldering iron 80 W for soldering with inert gas 50 °C - 450 °C

Order-no.	Model	Description
T005 15 161 99	WDH 10T	Safety rest with Stop & Go function with dry cleaner

Order-no.	Model	Description
T005 87 637 32		Barrel WP120IG



## WDH 10P Set

- Safety rest WDH 10P with inert gas barrel set for soldering iron WSP 80
- 80 W, 24 V
- Lead free soldering



LT Soldering tip series  
page 177-180



Order-no.	Model	Description
T005 15 147 99	WDH 10P Set	Inert gas safety rest set 80 W, 24 V

Scope of supply:

WDH 10P	Safety rest for use with inert gas, ball valve, compressed air hose, 4 mm
	Inert gas barrel for WSP 80

# Special application solder feeder



- Smooth proportion of solder by automatical solder feeder system
- „3.hand“ for easy handling



The WSF 81D is a soldering station with an automatic solder feeder system. There are 2 suitable solder diameter. The WSF 81D8 is qualified for solder diameter from 0,8 mm - 1,5 mm, the WSF 81D5 fits from 0,5 mm - 0,8 mm. The adjustment to the exact diameter is automatically with both stations. The operator can switch between automatic and continuous solder supply. The power unit is fitted with digital electronics for regulation the soldering iron temperature and solder feed operation. In the feeder unit a solder reel holder can host coils upto max. 1 kg.



**WSF 81D8**



**WSF 81D5**

## Technical Data

Dimension L x B x H	120 x 217 x 199 mm	
Channels	1	
Solder	ø 0,8 - 1,5 mm	ø 0,5 - 0,8 mm
Power supply	230 V / 120 V (50/60 Hz)	
Power consumption	95 W	
Protection class	1 Power unit, 3 Soldering irons	
Temperature range	150°C – 450°C	
Adjustable Temperature range	digital control	
Tools recognition	automatically	
Display	3 position digital display	
Temperature control	Via buttons	
ESD safe	yes	
Equipotential bonding	normal state hard grounded	
USB interface	no	
Order-no.	T005 28 226 99	T005 28 206 99



## WSF 81D5 Solder Feeder System

■ For solder wire from  
Ø 0,5 mm upto 0,8 mm



LT Soldering tip series  
page 177-180

Order-no.	Model	Description
<b>T005 28 206 99</b>	<b>WSF 81D5</b>	<b>Solder feeder system 80 W for wire from Ø 0,5 mm upto 0,8 mm</b>

Scope of supply:

1		Power Unit
2	T005 28 116 99	WSF 2 Feeding unit
3	T005 28 121 99	WSFP 5 Soldering iron 80 W, 24 V with soldering tip LT HX
4	T005 15 028 99	AK S Safety rest with cleaning sponge

Accessory:

T005 13 120 99		Foot switch 1-step
T005 87 328 48		Soldering nozzle straight Ø 0,5 x 52LG F. WSF P5
T005 87 328 50		Soldering nozzle straight Ø 0,8 x 52LG F. WSF P5
T005 87 328 73		Soldering nozzle straight Ø 0,5 x 62LG F. WSF P5
T005 87 328 74		Soldering nozzle straight Ø 0,8 x 62LG F. WSF P5

## WSF 81D8 Solder Feeder System

■ For solder wire from  
Ø 0,8 mm upto 1,5 mm



LT Soldering tip  
series page 177-180

Order-no.	Model	Description
<b>T005 28 226 99</b>	<b>WSF 81D8</b>	<b>Solder feeder system 80 W for wire from Ø 0,8 mm upto 1,5 mm</b>

Scope of supply:

		Power Unit
T005 28 116 99	WSF 2	Feeding unit
T005 28 122 99	WSFP 8	Soldering iron 80 W, 24 V with soldering tip LT BX
T005 15 028 99	AK S	Safety rest with cleaning sponge

Accessory:

T005 13 120 99		Foot switch 1-step
T005 87 328 32		Soldering nozzle straight Ø 1,5 x 63LG F. WSF P/P8
T005 87 328 34		Soldering nozzle straight Ø 1,5 x 52LG F. WSF P/P8
T005 87 328 35		Soldering nozzle straight Ø 1,0 x 52,5LG F. WSF P/P8
T005 87 328 36		Soldering nozzle straight Ø 1,0 x 63LG F. WSF P/P8

# Special Applications Mobile Soldering



- Heated uptime within 4 seconds only
- Cordless soldering capacity upto 1 hour
- Precise temperature control
- Easy use via touch sensor
- ESD safe

## Soldering without plug

**WSM 1C: first professional rechargeable soldering station for mobile use. The WSM 1C from Weller is a perfect soldering station when a small mobile tool is required which works absolutely professional.**



**WSM 1C**

## Technical Data

Dimension L x B x H (inch / mm):	5.24 x 4.33 x 2.17   133 x 110 x 55 mm
Weight:	ca. 2,0 kg
Power supply:	100 V to 240 V
	50 Hz to 60 Hz
Power consumption:	50 W
Safety class (with switching power supply)	II
(battery powered)	III
Temperature control	100°C - 400°C (200°F - 750°F)
Temperature accuracy	± 9°C (± 17°F)
Temperature stability	± 5°C (± 9°F)
Acceleration sensor:	Efficient stand-by mode
Equipotential bonding:	via 3,5 mm pawl socket on side of device
Display:	Touch-Sensor-Technology
Operating temperature:	10°C - 35°C (50°F - 95°F)
Stock temperature:	24°C - 45°C (75°F - 113°F)
Air humidity:	0% - 90%, no condensation
	<ul style="list-style-type: none"> <li>- Latest LiFePO4 battery technology</li> <li>- Fixed micro soldering iron WMRP</li> <li>- Stop &amp; Go function: automatic switch-off of the soldering iron by motion sensor</li> <li>- Temperature lock function</li> <li>- Car adapter</li> </ul>

## WSM 1C Rechargeable soldering station

- Solution for service technician
- 50 W



RT Soldering tip series  
page 164/165



Order-no.	Model	Description
T005 32 936 99	WSM 1C	Rechargeable soldering station with micro soldering iron WMRP and soldering tip RT 3, chisel 1,3 mm and safety rest with dry cleaner. Recharged in 20 minutes.



## Accessory

Order-no.	Description
T005 87 518 80	Car adapter for recharge via 12 V board net





# Special Applications Mobile Soldering



- For small mobile soldering application
- Cost effective
- Easy to recharge via butane gas

## Butane Gas Powered Soldering Irons

Powered by butane gas, the Pyropens offer soldering iron, hot air blow and blow torch operations. They have a short heat up time and are refilled in seconds from a refill cylinder. A small glass window shows the level of gas in the reservoir. The temperature variation is obtained by increasing or decreasing the gas flow. All Pyropen soldering irons need very clean refill for precise temperature regulation.

## Pyropen Piezo

- With self ignition (Piezo)
- Set in metal box



Soldering tip series 70 for Pyropen Piezo page 193



Order-no.	Model	Description
T005 16 059 99	Pyropen Piezo	Pyropen butane gas powered profi line soldering iron (self ignition)

Scope of supply:

1		Soldering iron Pyropen Piezo
2	T005 16 121 99	70-01-02 Chisel tip 3,0 mm
3	T005 16 142 99	70-01-52 Hot air nozzle Ø 4,9 mm
4	T005 16 159 99	70-01-55 Reflector unit Ø 6,0 mm
5	T005 16 160 99	RB-TS Gas refill canister 75 ml
6	T005 16 156 99	7040U Metal box
7	T005 16 281 99	7042 Burn proof accessory pocket
8		Iron holder
9		Cleaning sponge

## Pyropen

- Ignition via lighter
- Set in metal box



Soldering tip series 70 for Pyropen Piezo page 193



Order-no.	Model	Description
T005 16 060 99	Pyropen	Pyropen butane gas powered profi line soldering iron

Scope of supply:

1		Soldering iron Pyropen
2	T005 16 121 99	70-01-02 Chisel tip 3,0 mm
3	T005 16 142 99	70-01-52 Hot air nozzle Ø 4,9 mm
4	T005 16 151 99	70-07TU Torch ejector
5	T005 16 160 99	RB-TS Gas refill canister 75 ml
6	T005 16 156 99	7040U Metal box
7	T005 16 281 99	7042 Burn proof accessory pocket
8		Iron holder
9		Cleaning sponge

## Pyropen Jr.

- Manual ignition
- Pen shape



Soldering tip series 71 for Pyropen Jr. page 192



Order-no.	Model	Description
T005 16 075 99	Pyropen Jr.	Butane gas powered mini soldering iron

Scope of supply:

1	Pyropen Junior	Soldering iron
2	T005 16 165 99	70-01-01 Needle tip Ø 1,0 mm
3		Aluminium protection cap

## WP 60K

- Manual ignition
- Set with soldering tip, hot air nozzle and knife



Soldering tip series 60 page 192



Order-no.	Model	Description
T005 16 087 99	WP 60K	Butane gas powered soldering iron

Scope of supply:

1	WP 60	Soldering iron
2	T005 16 134 99	60-01-05 Needle tip Ø 0,5 mm
3	T005 16 447 99	60-01-52 Hot air nozzle Ø 4,7 mm
4	T005 16 135 99	60-01-06 Hot knife 5,0 mm, 45°
5	T005 16 450 99	60-02 Protection cap

## Refill Canister



Order-no.	Model	Description
T005 16 160 99	RB-TS	Butane gas refill canister

# Rework – Soldering, Desoldering and Hot Air

## The Repair Professionals with Multi-Channel Flexibility!

### Energy Savings & Environmental Protection

- Low running costs with flexible use of tools & process controlled, stable working temperatures
- Energy efficient repair processes with longer tip & nozzle lifetime
- Stand-by mode for desoldering tool
- Energy saving desoldering

### Low Investment Costs

- Cost effective soldering process with Automatic tool recognition guarantees safe & simultaneous operation of up to 3 tools
- Fully integrated multi-channel unit saves investment costs & workbench space



WR 3M



WR 2M



### Flexible Solution for All Soldering & Desoldering Applications

- One power unit for all rework applications: compact, multi-channel unit more cost effective compared to single units
- High flexibility with various connectable tools: Soldering and desoldering irons, hot air irons, preheating plates, wire strippers and solder baths



### Safe Soldering & Desoldering Operations

- ESD safe in accordance with all industrial & military standards worldwide



# Rework – Soldering, Desoldering and Hot Air

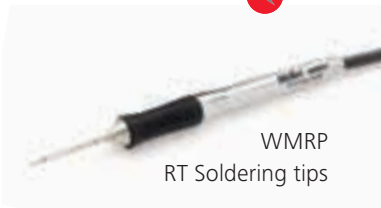


## WR 3M

■ max. power supply 360 W



### Active Tip



WMPRP  
RT Soldering tips

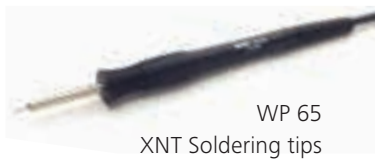


WMRT  
RTW Tips

### Power-Response



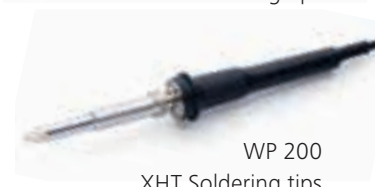
WMP  
NT Soldering tips



WP 65  
XNT Soldering tips



WP 120  
XT Soldering tips



WP 200  
XHT Soldering tips

### Standard-Line



LR 21  
LT Soldering tips



WTA 50  
WTA Tips

### Accessory



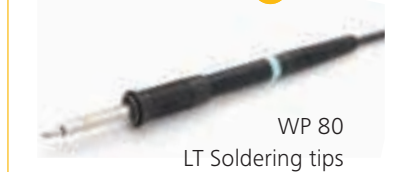
WVP

### Accessory



WRK

### Silver-Line



WP 80  
LT Soldering tips



WSP 150  
LHT Soldering tips



MPR 80  
LT Soldering tips



## WR 2

■ max.power supply 250 W

## Desoldering Iron



DXV 80  
DX Nozzles



DSX 80  
DX Nozzles



DSX 120  
XDS Nozzles

## FE-Soldering Iron



FE 75  
LT Soldering tips

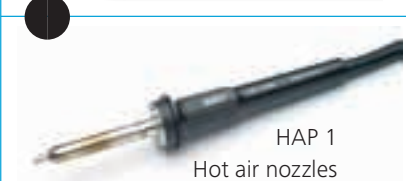


FE 80  
HT Soldering tips

## Hot Air Iron



HAP 200  
Hot air nozzles



HAP 1  
Hot air nozzles

## Preheating Plate



WHP 80

## Stripping Tool



WST 82

## Solder Bath



WSB 80



WSB 150

# Rework – Soldering, Desoldering and Hot Air



- One station meets the requirements of a rework workplace
- Unique connecting compatibility of all tools
- 3 respectively 2 independent tool channels with automatic tool recognition guarantee the simultaneous operation of 2 to 3 soldering tools.
- Tools are permanently ready for use



## Technical Data



**WR 3M**



**WR 2**

Dimension L x B x H	273 x 235 x 102 mm	
Weight:	ca. 6,7 kg	
Channels	3	2
Net supply	230 V	230 V
Power supply	400 W	300 W
Protection class	1 Power unit, 3 Soldering irons	
Fuse	T500 mA (230 V / 50/60 Hz)	
Fuse: overcurrent release	2 A	1,6 A
Temperature control of channels	Soldering- and desoldering irons continuously 50°C - 550°C (150°F - 999°F) Temperature control range depends on tool Soldering iron WP 80 / WP 120: 50°C - 450°C (150°F - 850°F) Soldering iron WP 200 / WSP 150: 50°C - 550°C (150°F - 950°F) Soldering iron WMRT / WMRP (only WR 3M): 100°C - 450°C (200°F - 850°F) Desoldering iron DSX 80 / DXV 80: 50°C - 450°C (150°F - 850°F) Desoldering iron DSX 120: 50°C - 450°C (150°F - 850°C) Hot air irons HAP 200 (only WR 3M) / HAP 1: 50°C - 550°C (150°F - 950°C)	
Temperature accuracy	± 9°C	
Temperature stability	± 2°C	
Bleeder	Soldering tip (Tip to ground) IPC-J-001 conform	
Bleeder voltage	Soldering tip (Tip to ground) IPC-J-001 conform	
Pump	(periodic duty 30/30 s)	
Max. vacuum	0,7 bar	
Max. delivery rate	max. 18 l/min	max. 18 l/min
Hot Air	max. 15 l/min	max. 10 l/min
Display	LCD	
Temperature control	Buttons	
ESD safe	yes	yes
Equipotential bonding	Via 3.5 mm pawl socket at the back of device (hard grounded normal state)	
USB interface	yes	no
Order-no.	T005 33 666 99	T005 33 776 99



# Rework – Soldering, Desoldering and Hot Air

## WR 3000M Set

- Power unit, 3 channels with soldering iron WP 80, desoldering iron DSX 80 and hot air iron HAP 200
- Large allround set for all repair jobs
- Desoldering iron DSX 80 for horizontal applications



LT Soldering tip series  
page 177-180  
Hot air nozzles  
page 198-204  
DX Nozzle  
page 194



Order-no.	Model	Description
<b>T005 33 686 99</b>	<b>WR 3000M Set</b>	<b>Rework station, 3 channels WR 3M</b>

Scope of supply:

1	T005 33 666 99	WR 3M	Power unit, 360 W
2	T005 29 180 99	WP 80	Soldering iron, 80 W with Silver-Line Technology
3	T005 44 405 99	LT B	Standard tip LT B, Chisel 2,4 x 0,8 mm
4	T005 15 161 99	WDH 10T	Safety rest with Stop & Go function and dry cleaner
5	T005 13 190 99	DSX 80	Desoldering iron, 80 W
6	T005 13 150 00	DX 113HM	Nozzle
7	T005 15 152 99	WDH 30	Safety rest for DSX 80 with dry cleaner
8	T005 27 116 99	HAP 200	Hot air iron, 200 W
9	T005 15 152 99	WDH 30	Safety rest for hot air iron HAP 200 with dry cleaner
10	T005 29 184 99	WVP	Vacuum pick-up Software

## WR 3000M Set for vertical applications

- Power unit, 3 channels with soldering iron WP 80, desoldering iron DXV 80 and hot air iron HAP 200.
- Desoldering iron DXV 80 for vertical applications



LT Soldering tip series  
page 177-180  
Hot air nozzles  
page 198-204  
DX Nozzle  
page 194



Order-no.	Model	Description
<b>T005 33 683 99</b>	<b>WR 3000M Set</b>	<b>Rework station, 3 channels WR 3M</b>

Scope of supply:

1	T005 33 666 99	WR 3M	Power unit, 360 W
2	T005 29 180 99	WP 80	Soldering iron, 80 W with Silver-Line Technology
3	T005 44 405 99	LT B	Standard tip, Chisel 2,4 x 0,8 mm
4	T005 15 161 99	WDH 10T	Safety rest with Stop & Go functions for WP 80
5	T005 13 180 99	DXV 80	Inline desoldering iron, 80 W
6	T005 15 153 99	WDH 40	Safety rest for desoldering iron DXV 80
7	T005 27 116 99	HAP 200	Hot Air Iron, 200 W
8	T005 15 152 99	WDH 30	Safety rest for hot air irons HAP 200
9	T005 29 184 99	WVP	Vacuum pick-up
10	T005 13 150 00	DX 113HM	Desoldering tip Software

## WR 3000MER

- Power unit, 3 channels with soldering iron WP 120, desoldering iron DSX 120 and hot air iron HAP 200
- Large allround set for all repair jobs
- Desoldering iron DSX 120 for horizontal applications



LT Soldering tip series  
page 172-173  
Hot air nozzles  
page 198-204  
XDX Nozzle  
page 197

Order-no.	Model	Description
<b>T005 33 688 11</b>	<b>WR 3000MER Set</b>	<b>Rework station, 3 channels WR 3M</b>

Scope of supply:

1	T005 33 666 99	WR 3M	Power unit, 360 W
2	T005 29 193 99	WP 120	Soldering iron, 120 W, 24 V with Power-Response Technology
3	T005 44 704 99	XT B	Standard tip XT B, chisel 2,4 x 08 mm
4	T005 15 121 99	WDH 10	Safety rest with Stop & and dry cleaner
5	T005 13 198 99	DSX 120	Desoldering iron, 120 W, 24 V
6	T005 15 152 99	WDH 30	Safety rest with dry cleaner
7	T005 27 116 99	HAP 200	Hot air iron, 200 W
8	T005 15 152 99	WDH 30	Safety rest with dry cleaner
9	T005 87 658 01	PDN	Pliers Desoldering Nozzle



## Accessories for both WR 3000M sets

Order-no.	Description
T005 87 388 50	Adapter for foot switch
T005 13 120 99	1 step foot switch
T005 29 184 99	WVP Vacuum pick-up
T005 87 658 01	PDN Pliers Desoldering Nozzle

## HAP 200 Set

- Temperature range from 50°C – 550°
- Hot air flow adjustable
- Activation of hot air flow via finger switch
- For WR 3M only



**Nozzles**  
page 198-204

Order-no.	Model	Description
<b>T005 27 117 99</b>	<b>HAP 200 Set</b>	<b>Hot air iron set 200 W, 24 V</b>

Scope of supply:

1	T005 27 116 99	HAP 200	Hot air iron 200 W / 24 V with hot air nozzle R 06 round Ø 3,0 mm
2	T005 15 152 99	WDH 30	Safety rest
3	T005 87 278 21	R 04	Hot air nozzle round Ø 1,2 mm
	T005 87 617 28		Adapter M6 for HAP 200
	T005 87 278 22	R 06	Hot air nozzle round Ø 3,0 mm

## WR 2002 Set

- Power unit, 2 channels with soldering iron WP 80, desoldering iron DSX 80
- Small repair set for all rework applications
- Simultaneous operation of hot air and desoldering iron is not possible.



**DX Nozzles**  
page 194  
**LT Soldering**  
tip series  
page 177-180

Order-no.	Model	Description
<b>T005 33 806 99</b>	<b>WR 2002 Set</b>	<b>Rework station, 2 channels WR 2</b>

Scope of supply:

1	T005 33 776 99	WR 2	Power unit
2	T005 29 180 99	WP 80	Soldering iron 80 W with Silver-Line Technolgy
3	T005 44 405 99	LT B	Standard tip LT B, Chisel 2,4 x 0,8 mm
4	T005 15 121 99	WDH 10	Safety rest with dry cleaner
5	T005 13 150 00	DX 113 HM	Nozzle inner-Ø 1,2 mm
6	T005 13 190 99	DSX 80	Desoldering iron 80 W / 24 V
7	T005 15 152 99	WDH 30	Safety rest with dry cleaner
			Power cable
			Equipotential bonding connector

# Soldering and Desoldering Stations

The BEST of the very BEST!



## Two Channel, High Power Soldering & Desoldering

- High power soldering & desoldering tools Simultaneous running of two 120 W, intelligent WX tools
- Process parameters are stored directly on the soldering or desoldering tool
- Process controlled, stable working temperatures
- Flexible & fast modification of workplace possible



Save Energy



ESD

## Less Maintenance

- Compressed air system for stable desoldering & high vacuum
- Fast and easy filter change

## Ergonomics & Safety

- Single-handed, easy & safe change of solder reservoir via bayonet & cardboard solder cartridge - not hot to handle!
- Fatigue-reduced, gentle work possible and safe handling by the latest ergonomic grip-design

## Cost Savings

- Extremely fast heat-up time of desoldering iron in only 40 sec. from 50°C up to 350°C!
- Stand-by mode of desoldering iron saves energy & tip life
- Easy and fast setting of tool parameters with WX technology via ESD safe touch screen



## Flexible Solutions for professional soldering & desoldering applications

- One power unit for various rework applications; Compact set more cost effective compared to single units
- High flexibility with various connectable tools: Soldering and desoldering irons, hot air irons, preheating plates, wire strippers and solder baths.



## Low Investment Costs

- Cost effective soldering process with automatic tool recognition guarantees safe operation of both irons
- Fast & safe soldering and desoldering
- Fully integrated multi-channel unit saves investment costs & workbench space



# Soldering and Desoldering Stations

## Power-Response

**WX**  
compatible



WXP 65  
XNT Soldering tips



WXP 120  
XT Soldering tips

**WX**  
compatible



WXP 200  
XHT Soldering tips



## WXD 2

## Desoldering iron

**WX**  
compatible



WXDP 120  
XDS Nozzles



WXDV 120  
XDS Nozzles  
Available September 2013



DXV 80  
DX Desoldering nozzles



DSX 80  
DX Desoldering nozzles



DSX 120  
XDS Desoldering nozzles

## Active Tip

**WX**  
compatible



WXMP  
RT Soldering tips

**WX**  
compatible



WXMT  
RTW Tips

## Soldering bathes

**WX**  
compatible



WXSB 200  
Available September 2013

## WX Adapter

**WX**  
compatible



WX Adapter  
for PC  
T005 87 647 11



WX Adapter  
for Zero Smog  
T005 87 647 12



WX  
Connection cable  
T005 87 647 10

Options for adapter connections  
see page 14.

## Fume Extraction

**WX**  
compatible



- Zero Smog 4V
- Zero Smog 6V
- Zero Smog 20T

## Preheating plates

**WX**  
compatible



- WHP 1000
- WHP 3000  
600 W
- WHP 3000  
1200 W
- WXHP 120  
120 W

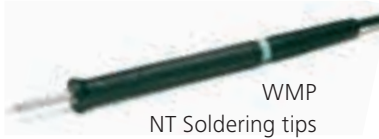
Available September 2013



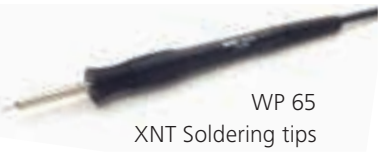
WR 2



## Power-Response



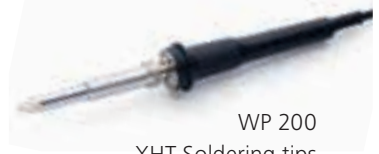
WMP  
NT Soldering tips



WP 65  
XNT Soldering tips

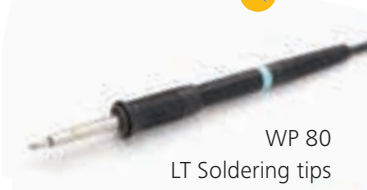


WP 120  
XT Soldering tips



WP 200  
XHT Soldering tips

## Silver-Line



WP 80  
LT Soldering tips



WSP 150  
LHT Soldering tips



MPR 80  
LT Soldering tips

## Standard-Line



LR 21  
LT Soldering tips



WTA 50  
WTA Tips

## Hot air iron



HAP 1  
Hot air nozzles

## Preheating plate



WHP 80

## Wire Stripper



WST 82

## FE-Soldering Iron

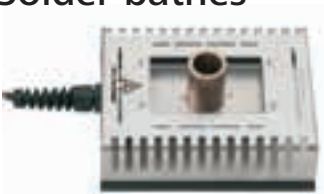


FE 75  
LT Soldering tips

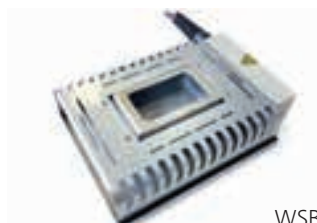


FE 80  
HT Soldering tips

## Solder bathes



WSB 80



WSB 150



# Soldering and Desoldering Stations



## WXD 2

- Cost effective because only one station is needed
- Less rework by optimal use of tools and the correct working temperature.  
Reduction of running costs by longer tip lifetime
- Desoldering iron with stand-by mode
- ESD safe



## WR 2

- Only one station that meets all rework requirements
- Unique compatibility
- Many tools are connectable (except WX tools)
- 2 independent channels with automatic tool recognition guarantees simultaneous operation of 2 tools
- ESD safe



## Technical Data



WXD 2



WR 2

Dimension L x B x H	170 x 151 x 130 mm	273 x 235 x 102 mm
Weight:	3,8 kg	ca. 6,7 kg
Channels	2	2
Power supply	230 V	230 V
Power supply	200 W (255 W)	300 W
Protection class	1 power unit, 3 Soldering irons	
Fuse	T2 A	
Fuse: overcurrent release		1,6 A
Temperature accuracy	± 9°C	
Temperature stability	± 2°C	
Bleeder	Soldering tip (Tip to ground) IPC-J-001 conform	
Bleeder voltage	Soldering tip (Tip to ground) IPC-J-001 conform	
Vacuum source via	Venturi Air consumption 35l/min max vacuum 55 kPal (8 psi)	Pump max. pressure 0,7 bar periodic duty 30/30 s
Hot Air	–	max. 15 l/min
Display	LCD	LCD
Temperature control	Touch	Keys
ESD safe	yes	yes
Equipotential bonding	Via 3.5 mm pawl socket (hard grounded normal state)	
USB interface	yes	no
Order-no.	T005 34 266 99	T005 33 776 99

# Soldering and Desoldering Stations

New products enlarge the WX family. A new WXD 2 desoldering station and a new WXDP desoldering iron. These tools are ideal for professional rework applications of the latest electronic components in the industrial operation. Typically for the WX stations: soldering and desoldering parameters can be saved easily on the iron. The WXDP 120 heats up within 35 sec. only. With stand-by function.

## WXD 2010

- Desoldering station, 2 channels digital and electronically controlled with desoldering iron WXDP 120
- Soldering- and desoldering tools with intelligent WX technology
- Connection to external compressed air supply for high vacuum
- Energy effective: automatic stand-by mode for tools
- Patented, ESD safe glass display. Simple and fast setting of soldering parameter.



Order-no.	Model	Description
<b>T005 34 286 99</b>	<b>WXD 2010 Set</b>	<b>Solder- and Desoldering station, 2 channels 200 W (255 W)</b>

Scope of supply:

1	T005 34 266 99	WXD 2	Power Unit
2	T005 13 201 99	WXDP 120	Desoldering iron 120 W, 24 V
3	T005 15 172 99	WDH 70	Safety rest with dry cleaner
4	T005 13 250 99	XDS 1	Nozzle
	T005 87 658 01	PDN	Desoldering pliers



**XDS Nozzle-series**  
page 197

## WXD 2020

- Soldering and desoldering station, 2 channels with WXDP 120 and soldering iron WXP 120



Order-no.	Model	Description
<b>T005 34 296 99</b>	<b>WXD 2020 Set</b>	<b>Solder- and Desoldering station, 2 channels 200 W (255 W)</b>

Scope of supply:

1	T005 34 266 99	WXD 2	Power Unit
2	T005 13 201 99	WXDP 120	Desoldering iron 120 W, 24 V
3	T005 13 250 99	XDS 1	Nozzle
4	T005 15 172 99	WDH 70	Safety rest with dry cleaner
5	T005 29 202 99	WXP 120	Soldering iron
6	T005 44 704 99	XT B	Standard soldering tip, chisel 2,4 x 0,8 mm
7	T005 15 121 99	WDH 10	Safety rest with dry cleaner
	T005 87 658 01	PDN	Desoldering pliers




**XT Soldering tip series**  
page 172–173

**XDS Nozzle-series**  
page 197

## WR 2000D

- Power unit, 2 channels with desoldering iron DSX 80 and safety rest WDH 30.
- Repair kit for soldering and desoldering

 DX Soldering tip series page 194




Order-no.	Model	Description
<b>T005 33 796 99</b>	<b>WR 2000D</b>	<b>Desoldering station, 2 channels, 250 W</b>

Scope of supply:

1	T005 33 776 99	WR 2	Power unit
2	T005 13 190 99	DSX 80	Desoldering iron 80 W / 24 V
3	T005 13 150 00	DX 113 HM	Nozzle inner-Ø 1,2 mm
4	T005 15 152 99	WDH 30	Safety rest with dry cleaner
			Power cable
			Equipotential bonding (normal state hard grounded)

## WR 2000ER

- Power unit, 2 channels with desoldering iron DSX 80, soldering iron WP 65 and safety rests WDH 10 & WDH 30.
- Repair kit for soldering and desoldering

 XDS Nozzle Series page 197  
XNT Soldering tip series page 168/169



Order-no.	Model	Description
<b>T005 33 808 99</b>	<b>WR 2000ER</b>	<b>Desoldering station 2 channels, 250 W</b>

Scope of supply:

1	T005 33 776 99	WR 2	Power unit
2	T005 13 198 99	DSX 120	Desoldering iron 120 W / 24 V
3	T005 13 250 99	XDS 1	Nozzle
4	T005 29 215 99	WP 65	Soldering iron 65 W, 24 V
5	T005 44 851 99	XNT A	Soldering tip
6	T005 15 121 99	WDH 10	Safety rest with dry cleaner
7	T005 15 152 99	WDH 30	Safety rest with dry cleaner
			Desoldering pliers
			Power cable
			Equipotential bonding (normal state hard grounded)

More than just hot air...



## Small power unit

- Small and compact housing  
This station is easy to integrate to the workplace and supports the organization of soldering processes.

## Best soldering results

- Electronically controlled hot air station. Best soldering results with inert gas or compressed air for component safe soldering
- Fix solder joints  
Easy handling of air volume and temperature parameters
- Automatic tool recognition



- Low running costs by safety rests
- Foot switch for activating the hot air
- Temperature sensor for process control
- Control via PC possible





## WR 2

■ max. power supply 250 W

### Silver-Line



WP 80  
LT Soldering tips



MPR 80  
LT Soldering tips



WSP 150  
LHT Soldering tips

### Power-Response



WMP  
NT Soldering tips



WP 65  
XNT Soldering tips



WP 120  
XT Soldering tips



WP 200  
XHT Soldering tips

### Standard-Line



LR 21  
LT Soldering tips



WTA 50  
WTA Nozzles

### FE-Soldering iron



FE 75  
LT Soldering tips



FE 80  
HT Soldering tips

### Hot air iron



HAP 1  
Hot air nozzles

### Desoldering iron



DXV 80  
DX Nozzles



DSX 80  
DX Nozzles

### Preheating plate



WHP 80

### Wire stripper



WST 82



DSX 120  
XDS Nozzles



**WXA**

Available September 2013



**WAD 101**

■ max. power supply 100 W



## Power-Response

**WX**  
compatible



WXP 65  
XNT Soldering tips

**WX**  
compatible



WXP 120  
XT Soldering tips

**WX**  
compatible



WXP 200  
XHT Soldering tips

**WX**  
compatible



WXHAP 200  
XHT Hot air nozzles

Available September 2013

## Active Tip

**WX**  
compatible



**WX**  
compatible



## Preheating plate

**WX**  
compatible



- WHP 1000
- WHP 3000 600 W
- WHP 3000 1200 W
- WXHP 120 120 W

Available September 2013

## WX Adapter

**WX**  
compatible



WX Adapter  
for PC  
T005 87 647 11



WX Adapter  
for Zero Smog  
T005 87 647 12



WX Adapter  
for Remote  
control  
T005 87 627 24



WX  
Connection cable  
T005 87 647 10

Options for adapter connections  
see page 14.

## Fume Extraction

**WX**  
compatible



- Zero Smog 4V
- Zero Smog 6V
- Zero Smog 20T





- For every application we offer the optimal tool
- From to 100 to 700 W
- Wide nozzle program



## Technical Data



**WXA 2**

Available September 2013



**WR 2**



**WAD 101**

Dimension (L x B x H)	170 x 151 x 130 mm	273 x 235 x 102 mm	166 x 134 x 101
Weight	ca. 3,3 kg	ca. 6,7 kg	
Channels	1	2	1
Power supply	230 V	230 V	230 V
Power input	200 W	300 W	150 W
Protection class	I	I	I
Fuse	T 2,0 A	Fuse: overcurrent release 1,6 A 230 V: T 630 mA / 120 V: T 1,0 A	
Temperature range	Adjustable 50 °C - 550 °C (150 °F - 999 °F) Temperature control range depends on tool	Soldering- and desoldering irons continuously °C Version: 50°C – 550°C (150°F – 999°F) Temperature control range depends on tool WP 80 / WP 120 50°C – 450°C (150°F – 850°F) WP 200 50°C – 550°C (150°F – 950°F) WSP 150 50°C – 550°C (150°F – 950°F) DSX 80 / DXV 80 / DSX 120 50°C – 450°C (150°F – 850°F) HAP 1 50°C – 550°C (150°F – 999°F)	Hot air 50°C – 550°C Soldering iron 50°C – 550°C °F Version: Hot air 122°F – 999°F Soldering iron 122°F – 842°
Temperature accuracy	Hot air ± 30°C (± 54°F) Soldering iron ± 9°C (± 17°F)	± 9°C (± 20°F)	
Temperature accuracy HAP 1		± 30°C (± 50°F)	
Temperature stability		± 2°C (± 5°F)	
Air volume	0 – 20 l/min.		approx. 0 - 10 l/min
Pressure	Pressure input, 400 kPa (58 psi), oilfree, dry compressed air or inert gas N2		
Vacuum			max 15 l/min
Order-no.	T005 34 256 99	T005 33 776 99	T005 32 686 99

## WXA 2010 Set

- Power unit, 2 channels with Hot air iron WXHAP 200
- Best set for hot air tasks
- Simultaneous operation of 2 soldering tools
- All WX tools compatible



Hot air nozzles  
page 198–204



Available September 2013

Order-no.	Model	Description
T005 34 306 99	WXA 2010	Power unit, 2 channels 200 W (255 W) / 230 V

Scope of supply:

1	T005 34 256 99	WXA 2	Power unit, 2 channels 200 W (255 W)
2	T005 27 119 99	WXHAP 200	Hot air iron 200 W
3	T005 87 278 22	R 06	Hot air nozzle R 06 round $\varnothing$ 3,0 mm
4	T005 15 152 99	WDH 30	Safety rest with dry cleaner
	T005 87 278 21	R 04	Hot air nozzle R 04 round $\varnothing$ 1,2 mm
			Power cable
			Equipotential bonding (normal state hard grounded)

## WXA 2

- Power unit, 2 channels



Hot air nozzle  
page 198–204



Available September 2013

Order-no.	Model	Description
T005 34 256 99	WXA 2	Power unit, 2 channels 200 W (255 W) / 230 V

Scope of supply:

T005 34 256 99	WXA 2	Power unit, 2 channels 200 W (255 W) / 230 V
----------------	-------	--

## WR 2000A Set

- Hot air station, 2 channels with hot air iron HAP 1
- Large hot air set
- Simultaneous operation of 2 soldering tools
- All soldering tools upto 200 W connectable



Hot air nozzles  
page 198–204



Order-no.	Model	Description
<b>T005 33 786 99</b>	<b>WR 2000A</b>	<b>Hot air station, 2 channels 300 W / 230 V</b>

Scope of supply:

1	T005 33 776 99	WR 2	Power unit 300 W
2	T005 27 115 99	HAP 1	Hot air iron 100 W / 24 V
	T005 87 278 22	R 06	Hot air nozzle R 06 round $\varnothing$ 3,0 mm
3	T005 15 152 99	WDH 30	Safety rest with dry cleaner
	T005 87 278 21	R 04	Hot air nozzle R 04 round $\varnothing$ 1,2 mm
			Power cable
			Equipotential bonding (normal state hard grounded)

## WAD 101 Set

- Hot air station, 1 channel with HAP 1 soldering iron
- Small hot air set
- For hot air irons or soldering irons upto 100 W



Hot air nozzles  
page 198–204



Order-no.	Model	Description
<b>T005 32 666 99</b>	<b>WAD 101</b>	<b>Hot air station, 1 channel 150 W / 230 V</b>

Scope of supply:

1	T005 32 686 99	PU WAD101	Power Unit 150 W
2	T005 27 115 99	HAP 1	Hot air iron 100 W / 24 V
	T005 87 278 22	R 06	Hot air nozzle R 06 round ø 3,0 mm
3	T005 15 027 99	KH 27	Safety rest with cleaning sponge
4	T005 87 278 21	R 04	Hot air nozzle round ø 1,2 mm

## Accessories

Order-no.	Description
T005 87 388 50	Adapter for foot switch
T005 13 120 99	Foot switch 1 step

# Hot Air

The Weller WHA hot air stations are designed for soldering and desoldering sensitive SMD components with hot air. The station use temperature and volume controlled hot air with Weller patented nozzle technology. 3 stations are available: a digital hot air station with integrated turbine and vacuum (WHA 3000V and WHA 3000P) and an analog hot air station without vacuum for easy applications (WHA 900). A wide range of different nozzles for common SMD components are available.

## WHA 3000V

- With integrated vacuum
- 700 W Hot air station
- For compressed air or inert gas.



Hot air nozzles  
page 198–204



Order-no.	Model	Description
<b>T005 33 366 99</b>	<b>WHA 3000V</b>	<b>Hot air station 700 W / 230 V</b>

Scope of supply:

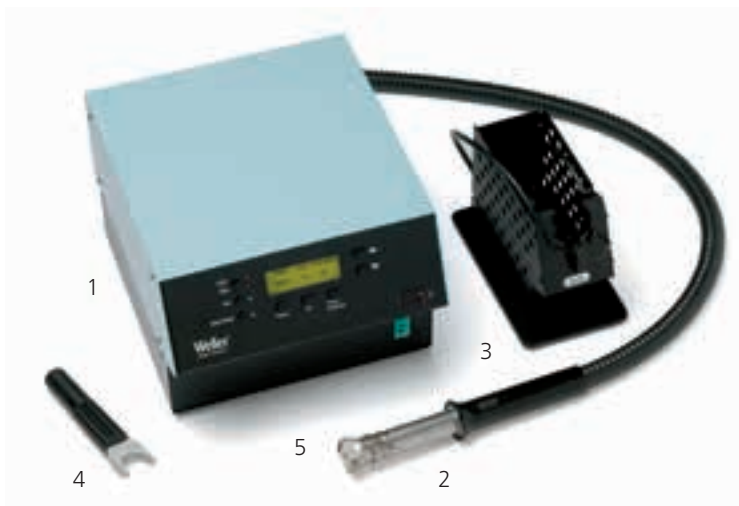
1	WHA 3000V	Power unit 230 V for use with compressed air or inert gas
2	HAP 3000	Hot air iron
3	T005 15 043 99 T005 87 577 70	AKT 30 Safety rest with Stop & Go function Foot switch 2 steps
4	T005 15 049 99	Nozzle change tool
5	T005 87 507 21 NQ 30	Nozzle, 4 side heated, 17,5 x 23,5 mm

## WHA 3000P

- 700 W Hot air station
- With integrated vacuum
- With integrated turbine



Hot air nozzles  
page 198–204



Order-no.	Model	Description
<b>T005 33 346 99</b>	<b>WHA 3000P</b>	<b>Hot air station 700 W / 230 V</b>

Scope of supply:

1	WHA 3000P	Power Unit 230 V with integrated turbine
2	HAP 3000	Hot air iron
3	T005 15 043 99 T005 87 577 70	AKT 30 Safety rest with Stop & Go function Foot switch 2 steps
4	T005 15 049 99	Nozzle change tool
5	T005 87 507 21 NQ 30	Nozzle, 4 side heated, 17,5 x 23,5 mm

## WHA 900

- 700 W hot air station for easy repair applications and heating processes as e.g. shrinking
- Brushless turbine for ideal hot air flow
- Hot air temperature is electronically controlled

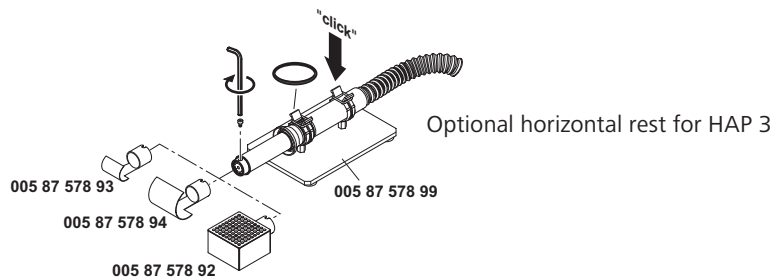


Hot air nozzles  
page 198-204



Order-no.	Model	Description
T005 31 716 99	WHA 900	Hot air station 700 W / 230 V
Scope of supply:		
T005 15 048 99		Depositing rackNR, ND, NQ
T005 15 157 99		Rest for WHA 900
Optional:		
T005 87 578 98		Horizontal rest for HAP 3

**Attention: Hot air nozzles are not included in the scope of supply (see page 198-204).  
Foot switch is not connectable to WHA 300 (T005 87 578 98)**



## WHA 900 with Foot switch

Order-no.	Model	Description
T005 31 716 70	WHA 900	as WHA 900 (see above) with foot switch for activating the hot air
Scope of supply:		
	WHA 900	WHA 900 with connection for foot switch
		Foot switch 1 step

## 6966 EK Hot air heat gun

- For heat shrinking, drying or to detect faulty components on circuit boards.
- Cooling is possible because the air flow is independent of the heater.
- Temperature range ca. 400°C - 430°C



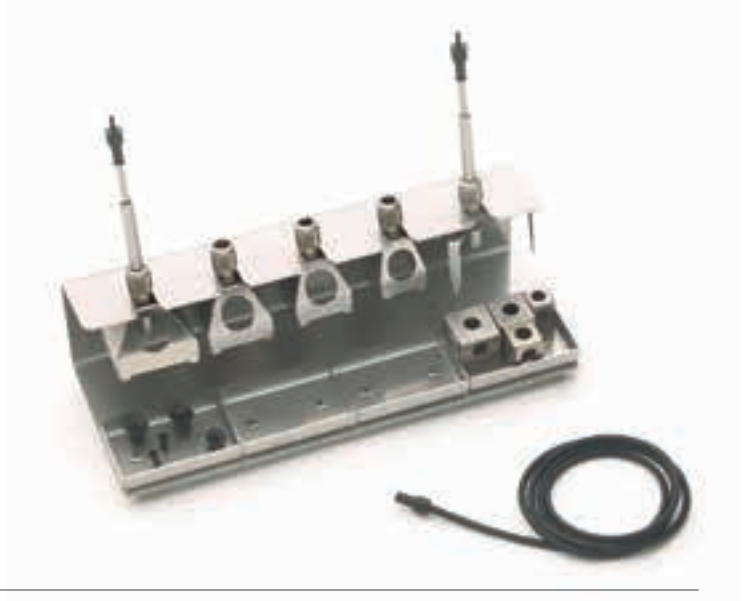
Order-no.	Model	Description
6966EK	6966EK	Hot air heat gun 210 W / 230 V
Scope of supply:		
		Hot air heat gun 210 W
6964 0,2"		Reflector 0,2"
6957 1,5"		Reflector 1,5"
6958		Shrinking nozzle

Accessory:  
6965A

[www.labem.pl](http://www.labem.pl) Rest for gun

## WRK Reflow system

- Reflow system with vacuum pick-up
- For desoldering of SMD components 30 X 30 mm



Order-no.	Model	Description
T005 15 155 99	WRK	<b>Reflow system for SMD components with external hot air</b> works with desoldering station WR 3M

### Scope of supply:

Reflow housing:  
 once each 33 x 33 mm, 27 x 27 mm, 24 x 24 mm, 20 x 20 mm,  
 15,5 x 15,5 mm, 12,5 x 12,5 mm, 10 x 10 mm  
 Vacuum Pick-up 4,5 mm  
 Vacuum Pick-up 10 mm  
 Tripod Pick-up  
 Depositing rack for nozzles

## Accessories

Order-no.	Description
T005 15 154 99	Depositing rack for nozzles
T005 87 617 32	Reflow housing Set 10 x 10 mm, 12,5 x 12,5 mm, 15,5 x 15,5 mm
T005 87 617 31	Reflow housing Set 20 x 20 mm, 27 x 27 mm
T005 87 617 30	Reflow housing Set 33 x 33 mm, 24 x 24 mm
T005 87 137 99	Rubber insert Ø 4,5 mm, 10 pieces
T005 87 137 98	Rubber insert Ø 10,0 mm, 10 pieces

## WRK Sets

Order-no.	Model	Description
<b>T005 87 617 30</b>	<b>WRK Set</b>	<b>Reflow Set 33 x 33 mm / 24 mm x 24 mm</b>

Scope of supply:

Rubber insert, 10,0 CSF, 3 pieces  
 Spring, 3 pieces  
 Vacuum Pick up Ø 10,0 mm  
 Reflow housing 33 x 33 mm  
 Reflow housing 24 x 24 mm  
 VAC-hose, WRK

Order-no.	Model	Description
<b>T005 87 617 31</b>	<b>WRK Set</b>	<b>Reflow Set 27 x 27 mm / 20 mm x 20 mm</b>

Scope of supply:

Rubber insert, 10,0 CSF, 4 pieces.  
 Spring, 4 Stk.  
 Vacuum Pick up Ø 10,0 mm  
 Reflow housing 27 x 27 mm  
 Reflow housing 20 x 20 mm  
 VAC-hose, WVP-WRK

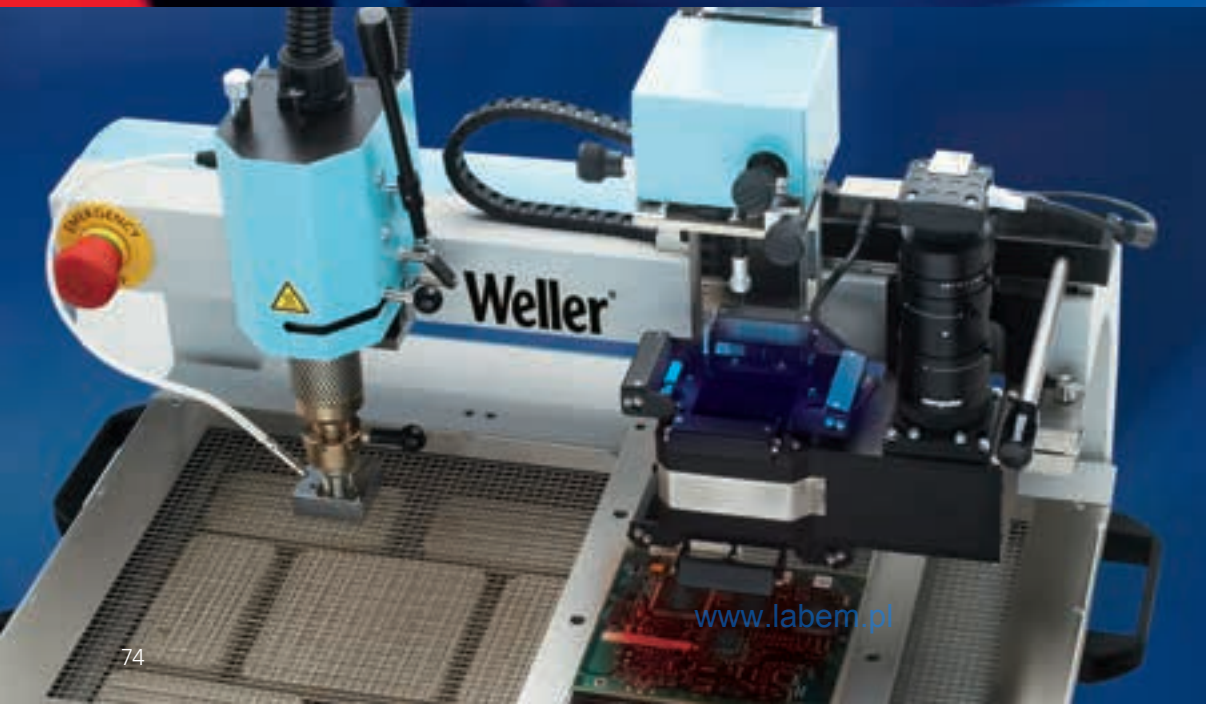
Order-no.	Model	Description
<b>T005 87 617 32</b>	<b>WRK Set</b>	<b>Reflow Set 18 x 18 mm / 15,5 mm x 15,5 mm / 12,5 x 12,5 mm / 10 mm x 10 mm</b>

Scope of supply:

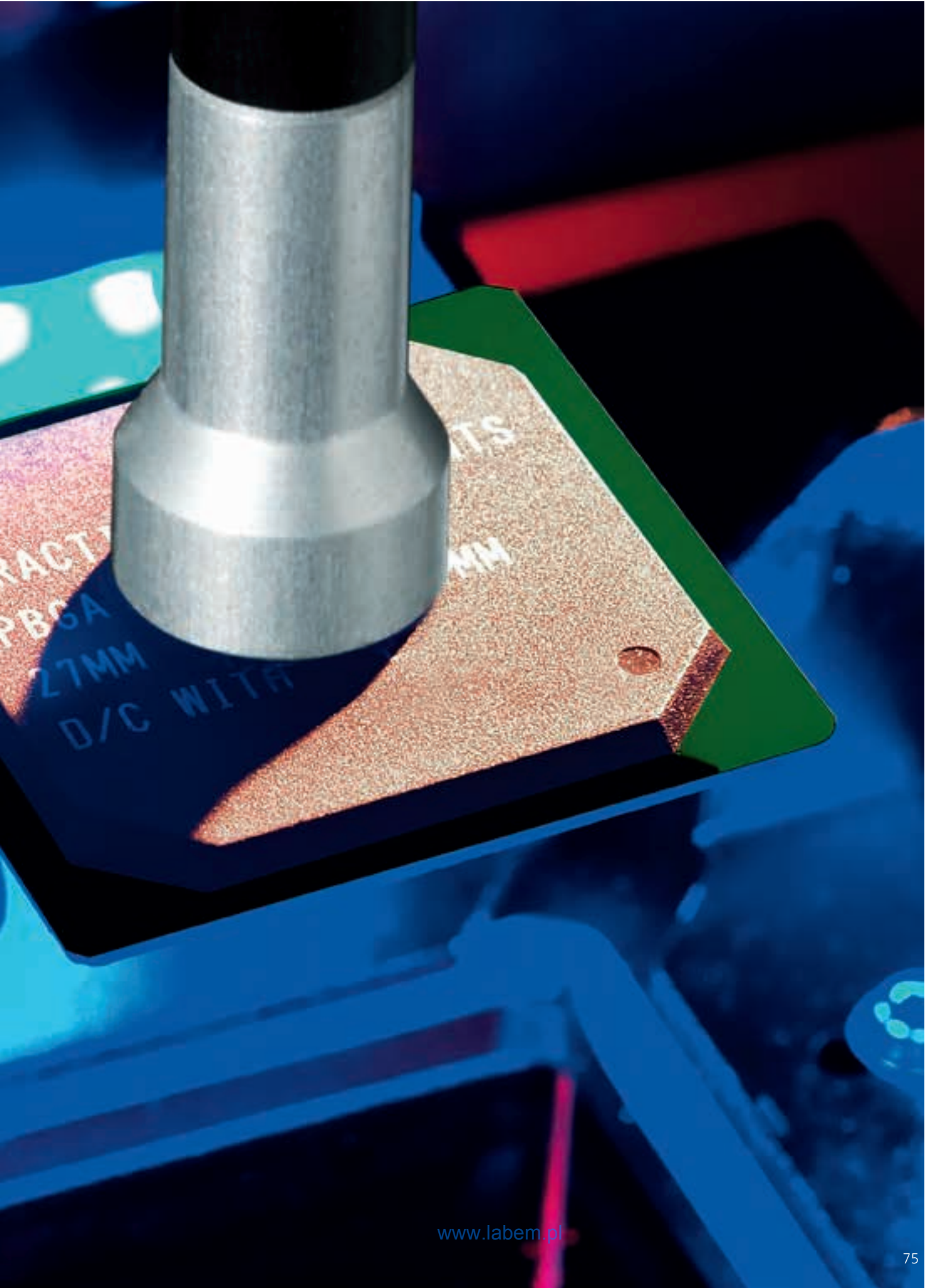
Rubber insert, 4,5 CSF/WVP, 3 pieces  
 Tripod  
 Vacuum Pick up Ø 4,5 mm  
 Reflow housing 18 x 18 mm  
 Reflow housing 15,5 x 15,5 mm  
 Reflow housing 12,5 x 12,5 mm  
 Reflow housing 10 x 10 mm  
 VAC-hose, WVP-WRK



# BGA/QFP Rework Systems



[www.labem.pl](http://www.labem.pl)



## Technical Data



**WHA 3000P**

**WHA 3000V**

**WQB 4000SOPS**

Dimensions (B x L x H) mm:	240 x 270 x 170	240 x 270 x 101	692 x 580 x 680
Dimensions (W x L x H) inch:	9,44 x 10,63 x 6,69	9,44 x 10,63 x 3,97	248 x 248 x 256
Mains supply voltage:	230 V	230 V	230 V
Power Output:	700 W	700 W	2300 W
Top heating:			700 W
Heating plate:			large 1600 W (260 x 260 mm) small 400 W (120 x 120 mm) (switchable)
Compressed air supply:	–	400 – 600 kPa clean, dry compressed air	400 – 600 kPa clean, dry compressed air
Temperature accuracy:	50°C – 550°C +/- 30°C (+ - 54°F)	50°C – 550°C +/- 30°C (+ - 54°F)	continuously variable 50°C – 400°C Control accuracy ±10°C
Air volume hot air:			continuously variable 5 – 50 l/min
Air consumption:	5 – 50 l/min	5 – 50 l/min	60 – 100 l/min
Safety Class:	1 (control unit and hand piece hard grounded)	1 (control unit and hand piece hard grounded)	1
Order-no.	T005 33 346 99	T005 33 366 99	T005 33 706 99

**WHA 3000PS Set** – The versatile system for repair and rework of fine pitch and BGA components  
 The WHA 3000P will perform demanding repair tasks on circuit boards with complex fine pitch surface mounted components. The advanced control technology coupled with user-friendly operation, guarantees precision of repair processes. While the sophisticated automatic operation mode guarantees repeatability of the process and increases productivity and quality. Extensive range accessories compliment the machine to promote flexibility. Further Accessories see page 82.

Patented Weller nozzle technology for maximum process control and user friendly operation. The powerful variable speed controlled turbine generates an air volume of up to 50 litres/min. Hot Air Nozzle flows hot air at the component. Memory space to store up to 10 thermal profiles to ensure process repeatability. Manual operation or operation via PC software.



## WHA 3000PS Set

- 700 W Hot air station
- Integrated turbine
- Set with Infrared preheating plate and circuit board holder



BGA Hot air nozzles  
page 198–204

Order-no.	Model	Description
T005 33 556 99	WHA 3000PS Set	Hot air station

Scope of supply:

1	T005 33 346 99	WHA 3000P	700 W Hot air station with integrated turbine
2	T005 33 165 99	WBHS	Circuit board holder with pivoting stand
3	T005 33 386 99	WHP 3000	Infrared preheating plate, 600 W

## WHA 3000P

- 700 W
- Hot air station with turbine



BGA Hot air nozzles  
page 198–204



Order-no.	Model	Description
T005 33 346 99	WHA 3000P	700 W Hot air station with turbine

# BGA/QFP Rework Systems

WBHS Circuit board holder with a pivoting stand for the HAP 3000 hot air pencil. Circuit boards upto 310 mm x 320 mm can be accommodated. The circuit board holder ensures that the hot air pencil is vertical to the printed circuit board under repair and the pivoting stand allows the HAP 3000 hot air pencil to be raised and lowered precisely onto the component being reworked.




## WBHS

- Circuit board holder with a pivoting stand
- For boards upto 310 x 320 mm

Order-no.	Model	Description
T005 33 165 99	WBHS	Circuit board holder with a pivoting stand

## WHA 3000VS Set

- 700 W
- For use with inert gas

 Hot air nozzles  
page 198–204



Order-no.	Model	Description
T005 33 596 99	WHA 3000VS Set	700 W Hot air station

Scope of supply:

T005 33 366 99	WHA 3000V	Hot air station 700 W for use with inert gas
T005 33 165 99	WBHS	Circuit board holder with pivoting stand
T005 33 386 99	WHP 3000	Infrared preheating plate, 600 W

## WHP 3000 Infrared preheating plate

- 600 W, 230 V
- Board size upto 120 x 190 mm
- Temperature range 50°C – 400°C
- Digital display for set and actual temperature
- Digitally controlled
- 3 Infrared high temperature ceramic elements for fast and efficient heat up
- 2 heated zones can be selected
- External sensor (accessory) connectable
- RS 232-Interface cable e.g. for connection to WHA 3000 hot air station
- Easy Fix board holder (as WHP 200 see page 87)
- K-type thermo couple socket for monitoring



Order-no.	Model	Description
T005 33 386 99	WHP 3000	Infrared preheating plate 600 W / 230 V with Easy Fix board holder

## WHP 3000 Infrared preheating plate

- 1200 W, 230 V
- Board size upto 190 x 245 mm
- Temperature range 50°C – 400°C
- Digital display for set and actual temperature
- Digitally controlled
- 3 Infrared high temperature ceramic elements for fast and efficient heat up
- 2 Easy Fix board holder (as WHP 200 see page 87)
- K-type thermo couple socket for monitoring



Order-no.	Model	Description
T005 33 646 99	WHP 3000	Infrared preheating plate 1200 W / 230 V with Easy Fix board holder

Accessory:

T005 31 191 99		RS 232 Interface cable
T005 31 190 99		K-Thermoelement 0,5 mm
T005 33 165 99	WBHS	Circuit board holder with pivoting stand
T005 33 164 99	WBH	Circuit board holder without pivoting stand

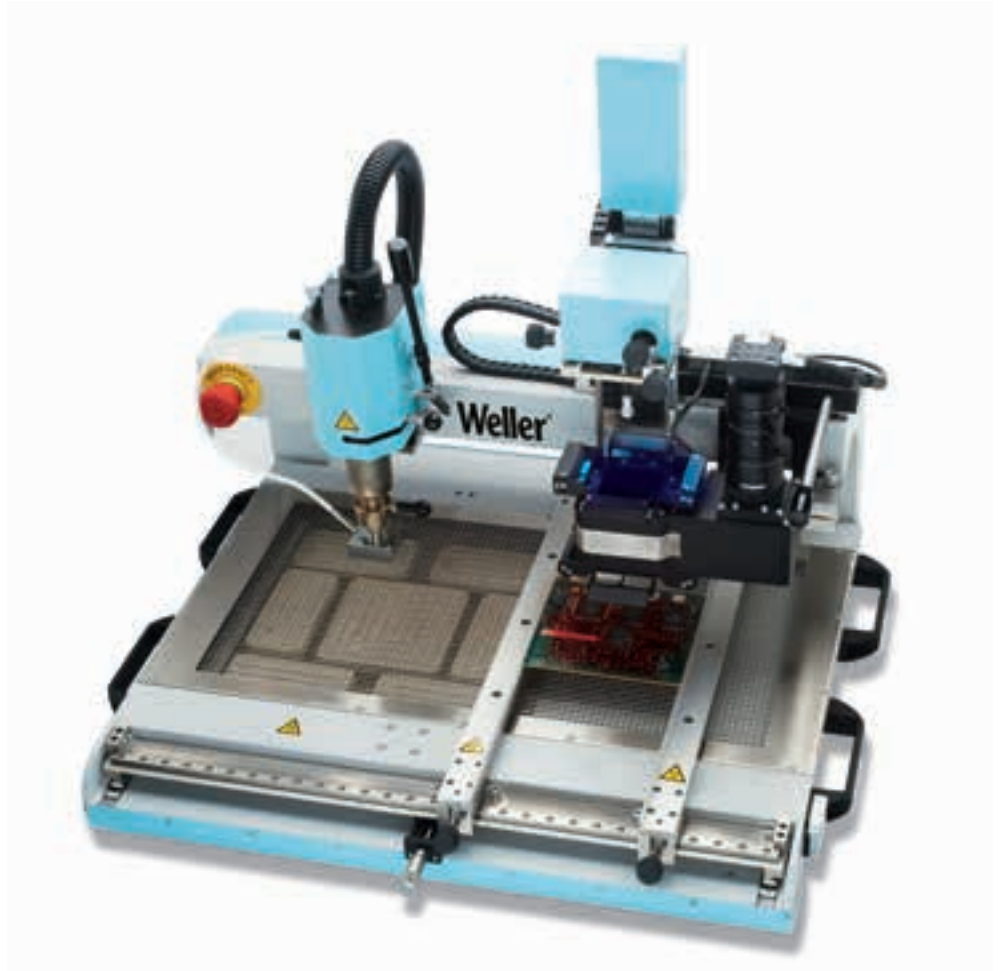
# BGA/QFP Rework Systems

## Weller WQB Rework System

The WQB 4000SOPS rework system upgrades the Weller product range in the SMD tool sector. A well thought-out design concept combines reliability and maximum process control with ease of use and technically advanced solutions. Usefull accessories increase the possible uses of these repair work stations. For the universal circuit board repair of BGA, QFP and SMD components, it is necessary to preheat the circuit board effectively from below and from above to precisely heat the components to be repaired to the reflow temperature as well as to reliably control the process. On the WQB 4000 the temperature regulated 2-Zone infrared bottom heater provides rapid warm-up and homogeneous substrate temperatures. The hot air top heater, with digital control electronics for temperature monitoring and regulation of the air flow rate, facilitates the finely metered supply of heat to the components.

A temperature sensor placed directly in the hot air nozzle efficiently regulates the top heater and thus provides maximum process control. On the digital programming unit all process steps can be programmed, saved and if necessary protected against unauthorized use as required. The most important process parameters are optionally displayed on the LC display during operation. Camera with two-color lighting for exact positioning.





## WQB 4000SOPS

- 2300 W / 230 V
- BGA/SMT Rework system
- For components placing with camera support placing system



BGA Hot air nozzles  
page 204

Order-no.	Model	Description
T005 33 706 99	WQB 4000SOPS	BGA/SMT Rework system 2300 W / 230 V

### Scope of supply:

Base unit with top heater, bottom heater, control electronics and pneumatic unit

Infrared radiation 1600 W

Positioning unit with digital camera and split optic

Circuit board holder with fine adjustment in X and Y direction

Temperature sensor PT 100

Nozzle change tool

Thermoelement type K 0,1 mm

5 pcs. Vacuum inserts Ø 4,5 mm

5 pcs. Vacuum inserts Ø 10,0 mm

Software WQB 4000 CONTROL and WQB 4000 SOPS

USB cable

Calibration tool

Vacuum pick up with 2 changeable vacuum inserts

Mains cable

2 m connecting tube for compressed air

Instruction manual

Max. PC board size 450 x 500 mm



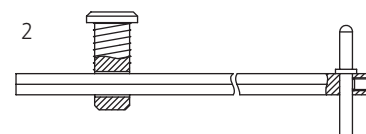
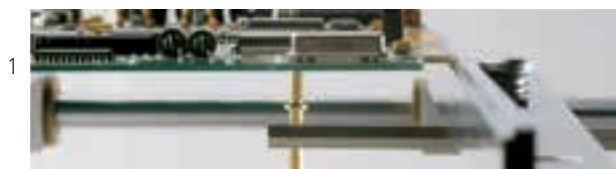
## Accessories for für WQB 4000SOPS, WQB 3000OPS, WQB 3000 and WHA 3000 PS / VS

### Clamping set



Order-no.	Description
T005 87 549 24	Clamping set for irregluar shaped circuit boards (e.g. mobilephones, video/digital camera boards, etc.)

### Support



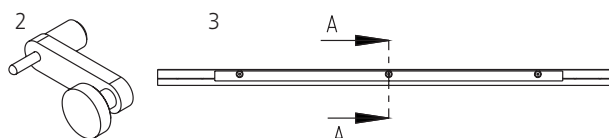
Order-no.	Description
1 T005 87 557 45	Support for large circuit boards for WQB 3000, WQB 3000OPS, WQB 4000SOPS with iron angle
2 T005 87 667 29	Support for circuit boards for WQB 4000 with aluminium angle

### Adjustable circuit board stop



Order-no.	Description
T005 87 548 73	WQB 3000 Adjustable circuit board stop for WQB 3000 and WQB 4000

### Downholder



Order-no.	Description
1 T005 87 557 41	Spring-loaded downholder with magnet stand for WQB 3000, WQB 3000SOPS, WBH, WBHS
2 T005 87 667 25	Spring loaded downholder with magnet stand for WQB 4000 with aluminium angle. Angle downholder please order separately.
3 T005 87 667 26	Angle downholder (for WQB 4000 with aluminium angle)
T005 87 667 27	Set consists of: 2 x T005 87 667 25 & 1 x T005 87 667 26

## Temperature sensor

Order-no.	Description
T005 87 549 48	Temperature sensor for WQB 3000, WQB 3000OPS, WQB 4000SOPS



## Thermoelement

Order-no.	Description
T005 87 557 82	Thermoelement type K, Ø 0,1 mm
T005 31 190 99	Thermoelement type K, Ø 0,5 mm



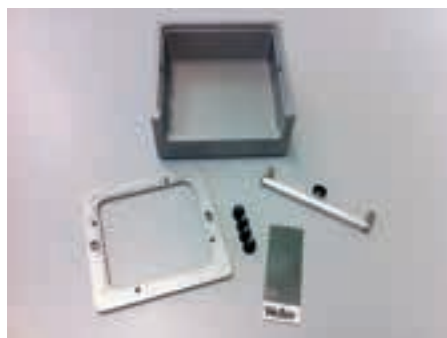
## NQ-Adapter

Order-no.	Description
T005 87 549 70	NQ adapter for WQB 2000/3000/4000



## Vacuum insert

Order-no.	Description
T005 87 137 99	Vacuum insert Ø 4,5 mm, 10 piece
T005 87 137 98	Vacuum insert Ø 10,0 mm, 10 piece



## WPK Print Kit

Order-no.	Description
T005 13 847 99	The right print kit for your component. On request

consists of: Print station complete with squeegee blade 70 x 25 mm  
 Matching print templates for your device on request.

## WCB 2 Measuring and Calibration Box

The WCB 2 is an external input unit for programming additional functions. It works with every digital Weller station. The setting is fast and easy. Battery powered supply makes the box independent from any mains and easy to transport. The WCB 2 has an PC interface (RS 232) and an integrated temperature gauge for thermo couple type K (accessory). The functions are:

## WCB 2 Measuring and Calibration Box for WSD series

- OFFSET: Correction value for soldering tip temperature
- SETBACK: Reduction on set temperature after a specified period of time
- LOCK: Locking the set temperature
- °C/°F: Switching temperature display °C/°F
- WINDOW: Setting a set value window.  
If the actual temperature is within the set value window a potential-free contact is activated
- Temperature measuring tips are available for each soldering iron



Order-no.	Model	Description
T005 31 180 99	WCB 2	Calibration unit

Scope of supply:

Calibration unit
Battery 4 x 1,5 V

Accessories:

T005 31 184 99	Network adapter 230 V, 50 Hz
T005 31 190 99	Thermoelement type K, ø 0,5 mm
T005 31 191 99	Interface Cable RS 232

**WTT 1 Temperature Measuring Unit**

The WTT 1 digital temperature measuring system has been specially designed for measuring the temperature of soldering iron tips. The probe has a double sensor system and an own internal heat source. The measured temperature is fed to a control system that records the flow of heat in the probe and stabilises it with the aid of the internal heat source. This design ensures that no heat is drawn by the probe from the object to be measured. Erroneous measurements due to the large thermal load of the probe are thus prevented.

The measured temperature is indicated on a three-digit LED display to a resolution of 1°C. A red dot in the display is used to indicate the measured value and simplifies the reading of the measured temperature. An adjustable pre-heat temperature ensures a rapid response even at high temperatures. Different methods of equipotential bonding and the ESD appropriate design of the control unit and probe supplement the quality of this measuring unit.



**WTT 1  
Temperature measuring system**

- Temperature range  
50°C –500°C
- Tolerance +/- 5°C
- Dimensions 166 x 115 x 101 mm  
(L x W x H)

Order-no.	Model	Description
T005 31 246 99	WTT 1	Temperature measuring system
Scope of supply:		
		Power unit
T005 29 109 99		Probe for WTT 1

**Temperature  
Measuring System**

- Connection to WCB 2 calibration unit
- For measuring soldering tip temperature



Order-no.	Model	Description
T005 13 832 99		For connection to unit WCB 2 or all other temperature measure instruments with type K sensor port.

# Accessories Preheating plates

Preheating plates are used to preheat circuit boards under repair to reduce the possibility of thermal damages and to reduce the heat requirement of the soldering tool for speeding up the repair process.

## WHP 80 Preheating plate

- 80 W, 24 V
- Heating surface 80 x 50 mm
- Temperature range 50°C – 200°C
- For all Weller stations with min. 80 W
- Size housing 150 x 120 x 65 mm (L x B x H)



Order-no.	Model	Description
T005 27 028 99	WHP 80	Preheating plate 80 W, 24 V, 80 x 50 mm

## WXHP 120 Preheating plate

- 120 W, 24 V
- Preheating Size 80 x 50 mm
- Temperature range 50°C – 200°C
- Platinum sensor
- Internal parameter storage (Zero Tolerance)
- Connectable to:  
WX 1, WX 2, WXD 2 WXA 2
- Size housing 150 x 120 x 65 mm (L x B x H)



Available from September 2013



Order-no.	Model	Description
T005 27 029 99	WXHP 120	Preheating plate 120 W, 24 V, 80 x 50 mm

## WHP 1000 Preheating plate

- 1000 W, 230 V
- Heating surface
- Temperature range
- RS 232 Interface e.g. for connection to Weller hot air stations WHA 3000
- Digital display for set and read temperature
- Element Type K (accessory) connectable



Order-no.	Model	Description
T005 33 648 99	WHP 1000	Preheating plate 1000 W, 230 V, 220 x 150 mm

[www.labem.pl](http://www.labem.pl)

## WHP 200 Infrared preheating plate

- 200 W, 230 V
- Heating surface 120 x 60 mm
- Temperature range 50°C - 400°C
- Digital display for set and read temperature
- Electronic temperature control
- Infrared high temperature ceramic elements for fast and efficient heat up
- 2 Easy Fix board holder
- ESD safe



Order-no.	Model	Description
T005 33 716 99	WHP 200	Preheating plate 200 W, 230 V, 120 x 60 mm with easy fix board holder

## WHP 3000 Infrared preheating plate

- 600 W, 230 V
- Heating surface 120 x 190 mm
- Temperature range 50°C - 400°C
- Digital display for set and read temperature
- Electronic temperature control
- 3 Infrared high temperature ceramic elements for fast and efficient heat up
- Two heated zones can be selected
- Element Type K (accessory) connectable
- RS 232 Interface e.g. for connection to Weller hot air stations WHA 3000
- 2 Easy Fix board holder (as WHP 200)



Order-no.	Model	Description
T005 33 386 99	WHP 3000	Infrared preheating plate 600 W / 230 V with Easy Fix board holder

## WHP 3000 Infrared preheating plate

- 1200 W, 230 V
- Heating surface 190 x 245 mm
- Temperature range 50°C - 400°C
- Digital display for set and read temperature
- Electronic temperature control
- 6 Infrared high temperature ceramic elements for fast and efficient heat up
- 2 Easy Fix board holder (as WHP 200)



Order-no.	Model	Description
T005 33 646 99	WHP 3000	Infrared preheating plate 1200 W, 230 V with Easy Fix board holder

Accessories:

T005 31 191 99		RS 232 Interface Cable
T005 31 190 99		Thermoelement Type K 0,5 mm
T005 33 165 99	WBHS	PC board holder with pivoting stand
T005 33 164 99	WBH	PC board holder without stand

# Accessories PCB Board Holders

## USB Microscope

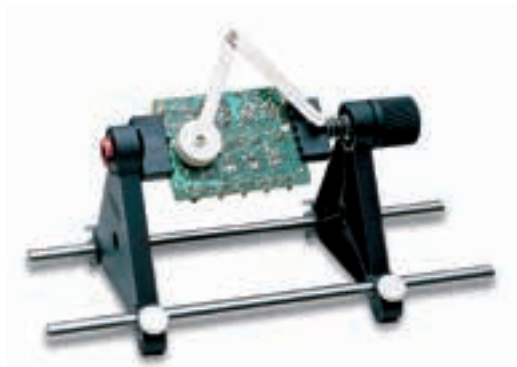
- Microscope with digital camera and USB interface
- Adjustable work stand
- Application software
- Resolution: 1280 x 1024 MP
- Interface: USB 2.0
- Magnification: 20X – 90X
- Sensor 1/3" Color CMOS
- Video frame rate: up to 30 Fps
- Illumination: 8 build-in Hightech LEDs
- LED on/off controlled by software
- Save file format: BMP, JPG, AVI
- Dimensions: 100 mm (L) x 32 mm (D)
- Cable length: approx. 1,8 m



Order-no.	Model	Description
T005 13 835 99		USB Microscope with digital camera and adjustable work stand
T005 13 839 99		USB Microscope with digital camera and adjustable work stand, with polarisation filter
T005 13 834 99		Stand without arm

## ESF 120ESD PCB board holder

- Max. size 160 x 235 mm
- Rotates through 360° in increments of 15°
- Spring clamp
- Cushioned arm for component fixing



Order-no.	Model	Description
T005 15 026 99	ESF 120ESD	PCB board holder

## WBH 2 PCB board holder

- Max. size 310 x 320 mm



Order-no.	Model	Description
T005 33 167 99	WBH2	Board holder without stand

[www.labem.pl](http://www.labem.pl)

## WBHS PCB board holder with stand

- Max. size 310 x 320 mm
- Board positioning in X and Y directions
- For single and doublesided boards
- Stand to mount hot air pencil HAP 3000
- Preheating plate WHP 3000 could be fitted under the board holder



Order-no.	Model	Description
T005 33 165 99	WBHS	PCB board holder with stand for WHA 3000P + WHA 3000V

## Stand of WBHS

Order-no.	Description
T005 33 166 99	Stand of WBHS



## WBH PCB board holder without stand

- Same as WBHS but without stand

Order-no.	Model	Description
T005 33 164 99	WBH	PCB board holder without stand

## Accessories for WBHS, WBH, WQB



Order-no.	Description
T005 87 548 73	Adjustable circuit boarder stop



T005 87 557 45	Support for large dimensioned circuit boards
----------------	--



T005 87 557 41	Downholder for circuit boards
----------------	-------------------------------



T005 87 549 24	Clamping set for irregular shaped circuit boards (e.g. mobile phones, video/digital camera boards, etc.)
----------------	--



# Accessories Soldering Bathes

Rework preparation tool e.g. for tin coating of wire ends and cleaning of leads and wires from excess and dirt.  
All soldering baths are suitable for leadfree solder.

## W101 H Soldering Bath

- 100 W, 230 V
- Inside Ø 17,4 mm, depth 22 mm
- Different temperatures available
- Magnastat temperature control
- Horizontal stand
- For lead free solder



Order-no.	Model	Description
<b>T005 61 093 99</b>	<b>W101 H</b>	<b>Miniature soldering bath 100 W, 230 V</b>

Scope of supply:

Miniature soldering bath with 330°C insert and horizontal stand

Accessories:

T005 11 706 99	Insert for temperature 285°C
T005 11 707 99	Insert for temperature 330°C
T005 11 708 99	Insert for temperature 380°C
T005 11 709 99	Insert for temperature 450°C

## WSB 80 Soldering Bath

- 80 W, 24 V
- Inside Ø 20 mm, depth 25 mm
- Temperature range 50°C – 450°C
- Connectable to all Weller 80 W digital stations
- V2A tray to guard against dripping solder residue
- Size housing: 150 x 120 x 65 mm (L x B x H)
- Heat-up time ~ 7 min (50°C – 350°C)
- For lead free solder



Order-no.	Model	Description
<b>T005 27 040 99</b>	<b>WSB 80</b>	<b>Soldering bath 80 W, 24 V</b>

## WSB 150 Soldering Bath

- 150 W, 24 V
- Soldering bath size: 58 x 33 x 19 mm (L x W x H)
- Temperature range 50°C – 550°C
- Connectable to all Weller 150 W digital stations
- V2A tray to guard against dripping solder residue
- Size housing: 150 x 120 x 65 mm (L x W x H)
- Heat-up time ~ 10 min (50°C – 350°C)
- For lead free solder



Order-no.	Model	Description
<b>T005 27 042 99</b>	<b>WSB 150</b>	<b>WSB 150 Soldering bath 150 W, 24 V</b>

## WXSB 200 Soldering Bath

- 200 W, 24 V
- Soldering bath size: 58 x 33 x 19 mm (L x W x H)
- Temperature range 100°C – 500°C
- Connectable to all WX tools
- Heat-up time ~ 10 min (50°C – 350°C)
- Size housing: 150 x 120 x 65 mm (L x W x H)



Available from September 2013



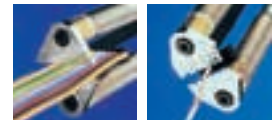
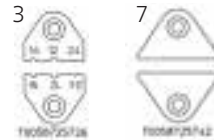
Order-no.	Model	Description
<b>T005 27 043 99</b>	<b>WXSB 200</b>	<b>WXSB 200 Soldering bath 200 W, 24 V</b>

[www.labem.pl](http://www.labem.pl)

The Weller WST 82 temperature controlled thermal stripping tool is suitable for all 80 W Weller stations. It strips off thermoplastic insulation materials by using precisely shaped stripping blades. The stripping length is adjustable up to 30 mm. Optimal temperature control via power unit (accessory).

## Thermal stripping tool WST 82 KIT1

- Suitable for all 80 W Weller stations
- For ribbon cable and round wire



Order-no.	Model	Description
<b>T005 25 032 99</b>	<b>WST 82 KIT1</b>	<b>Thermal stripping tool 80 W, 24 V</b>

Scope of supply:

	Thermal stripping tool WST 82
T005 87 250 34	Brush
7 T005 87 257 42	Cutting knife set
3 T005 87 257 26	Knife Set AWG 12, 16, 24
T005 15 032 98	Safety rest

## Thermal stripping tool WST 82 KIT2

- Suitable for all 80 W Weller stations
- Flex cord for 1,5 - 3,5 m working distance
- For ribbon cable and round wire



Order-no.	Model	Description
<b>T005 25 031 99</b>	<b>WST 82 KIT2</b>	<b>Thermal stripping tool 80 W, 24 V with flexcord for wider operation range</b>

Scope of supply:

	Thermal stripping tool WST 82
1 T005 87 250 34	Brush
6 T005 87 257 36	V-Knife Set 4,25 mm x 2 mm
2 T005 15 032 98	Safety rest

## Accessories WST 82



Order-no.	Description
2 T005 87 257 22	Universal knife set 9 mm x 2 mm
3 T005 87 257 26	Knife set AWG 12, 16, 24 (2,0, 1,3, 0,51 mm)
4 T005 87 257 29	Knife set AWG 12, 14, 24, 26 (2,0, 1,6, 0,51, 0,4 mm)
5 T005 87 257 32	Knife set AWG 14, 18, 22, 26 (1,6, 1,02, 0,64, 0,4 mm)
6 T005 87 257 36	V-Knife set AWG 4,25 mm x 2 mm
7 T005 87 257 42	Cutting knife set, width 23 mm

# Accessories Desoldering Pumps

With the hand-held desoldering pumps a vacuum is produced by means of a piston, cylinder and spring force. The piston is tensioned manually and secured automatically. The piston is moved back suddenly by pressing the release button and a vacuum is created briefly so that the soldered joint is freed of liquid solder.

## SA 21A Manual desoldering pump

- Length 200 mm
- Metal housing
- antistatic



Order-no.	Model	Description
SA21A	SA 21A	Manual desoldering pump

Accessories:

SA 21A1	Desoldering tip antistatic for SA 21A
---------	---------------------------------------

## PS 100A Manual desoldering pump

- Length 150 mm
- Strong vacuum, minimal rebound
- Metal housing
- antistatic (with tip PS 1001A)



Order-no.	Model	Description
PS100A	PS 100A	Manual desoldering pump

Accessories:

PS 1001A	Desoldering tip antistatic for PS 100A
----------	--

## PS 200A Manual desoldering pump

- Length 200 mm
- Strong vacuum, minimal rebound
- Metal housing
- antistatic (with tip PS 2001A)



Order-no.	Model	Description
PS200A	PS 200A	Manual desoldering pump

Accessories:

PS 2001A	Desoldering tip antistatic for PS 200A
----------	--

## Vacuum-Pen

For easy pick and place of delicate SMD components. The vacuum pen avoids stress and damage to the leads. The versatile compact sized pen is independent from compressed air or batteries.



## WLSK 200 Vacuum-Pen

Order-no.	Model	Description
<b>WLSK200</b>	<b>WLSK 200</b>	<b>Vacuum-Pen including Tip 3,2 mm x 9,5mm</b>
Accessories:		
WLSK200T18	WLSKT 18	Replacement with tip, rubber 3,2 mm
WLSK200T38	WLSKT 38	Replacement with tip, rubber 9,5 mm
KDS260S	KDS 260S	Replacement rubber Ø 3,2 mm
KDS260M	KDS 260S	Replacement rubber Ø 6,3mm
KDS260L	KDS 260L	Replacement rubber Ø 9,5 mm

## SD 1000 Solder Dispenser

- For use of coils up to 1000 g
- Length 95 mm, core Ø > 17 mm
- Length 70 mm, core Ø > 12 mm
- Length 84 mm, core Ø < 12 mm



Order-no.	Model	Description
<b>T005 13 017 99</b>	<b>SD 1000</b>	<b>Solder Dispenser</b>

## ABW 2 Extension for additional reel

- For use of coils up to 1000 g
- Length 95 mm, core Ø > 17 mm
- Length 70 mm, core Ø > 12 mm
- Length 84 mm core Ø < 12 mm



Order-no.	Model	Description
<b>T005 13 013 99</b>	<b>ABW 2</b>	<b>Extension for additional reel, to be fixed on SD 1000</b>

# Accessories Cleaning Tools

## The solution for cleaning lead free solder!

When using lead free you will be experienced an increased in oxidation in the wettable area of the tip. These oxides must be removed regularly otherwise it will make the tip completely unwettable and not usable anymore. When cleaning the tip by means of the Weller WDC Dry Cleaner a special brass wool is used. First the surplus solder is removed by tapping the tip on the soft edge of the collector box. The final cleaning is then done by pushing and turning the tip in the brass wool. After cleaning there is still a fine amount of solder on the tip avoiding fast oxidation of the iron layer which is an advantage versus the cleaning by the wet sponge. The brass wool can be soaked in flux which may improve the performance further. More informations for cleaning you can find on page 160/161.

## WDC Dry cleaner

- Minimisation of the erosion
- Double soldering tip lifetime
- Superior wetting properties
- Reduced spring effect - less solder splashes



Order-no.	Model	Description
T005 15 124 99	WDC	Dry cleaner for soldering tips with brass cleaning wool

### Accessories:

T005 13 840 99		Brass cleaning wool for WDC (2 pieces)
T005 13 824 99		Metal wool for WDC (2 pieces)

## WDC 2 Dry cleaner



Order-no.	Model	Description
T005 15 125 99	WDC 2	Dry Cleaner for WDH safety rests with brass cleaning wool

### Accessories:

T005 13 841 99		Brass cleaning wool for WDC 2 (2 pieces)
T005 13 825 99		Metal wool for WDC 2 (2 pieces)

## Cleaning sponge



Order-no.	Description
T005 22 419 99	Cleaning sponge single-layer, 70 x 55 x 16 mm
T005 22 420 99	Cleaning sponge double-layer, 70 x 55 x 16 mm

## Stainless steel brush



Order-no.	Model	Description
T005 13 827 99		Stainless steel brush (3 pieces)

## WPB 1 Polishing Bar

- Cleaning only possible in cold state of the soldering tip.
- Further informations for cleaning you can find on page 160/161



Order-no.	Model	Description
WPB1	WPB 1	Polishing Bar for removal of compacted oxidised films on soldering tips.

## WSW Lead free soldering wire for longer tip lifetime

- Soldering wire with integrated flux core
- Superior wetting properties
- Cost reduction due to reduction in tip change frequency
- Not flux soaked - no process pollution
- Reduction of service costs for removing of oxidised layers
- No-clean flux
- Flux content 3,5 %
- Further informations for cleaning you can find on page 160–161.



Available September 2013

Type	WSW SAC M1	WSW SAC L0	WSW SC L0	WSW SC M1
<b>Alloy</b>	Sn3.0Ag0.5Cu	Sn3.0Ag0.5Cu	Sn0.7Cu	Sn0.7Cu
<b>Temperature</b>	217-221°C	217-221°C	227°C	227°C
<b>Flux J-STD 004</b>	M1	L0	L0	M1
<b>Flux content</b>	3.5%	3.5%	3.5%	3.5%
<b>Weight</b>	500 gr	500 gr	500 gr	500 gr
<b>Diameter</b>	Art.-Nr.	Art.-Nr.	Art.-Nr.	Art.-Nr.
0,3 mm	T005 13 865 99	T005 13 872 99	-	-
0,5 mm	T005 13 864 99	T005 13 870 99	T005 13 880 99	T005 13 876 99
0,8 mm	T005 13 863 99	T005 13 869 99	T005 13 879 99	T005 13 875 99
1,0 mm	T005 13 862 99	T005 13 868 99	T005 13 878 99	T005 13 874 99
1,2 mm	T005 13 861 99	T005 13 867 99	T005 13 877 99	T005 13 873 99
1,6 mm	T005 13 860 99	T005 13 866 99	-	-
<b>Gewicht</b>	250 gr	250 gr	250 gr	250 gr
<b>Diameter</b>	Art.-Nr.	Art.-Nr.	Art.-Nr.	Art.-Nr.
0,8 mm	T005 13 885 99	T005 13 887 99	-	-
1,0 mm	T005 13 886 99	T005 13 888 99	-	-
<b>Weight</b>	100 gr	100 gr	100 gr	100 gr
<b>Diameter</b>	Art.-Nr.	Art.-Nr.	Art.-Nr.	Art.-Nr.
0,3 mm	T005 13 881 99	T005 13 883 99	-	-
0,5 mm	T005 13 882 99	T005 13 884 99	-	-

## Tip-Activator

- Cleaning only possible in hot state of the soldering tip.
- Further informations for cleaning you can find on page 160–161.



Order-no.	Model	Description
T005 13 031 99	Tip-Activator	For regeneration of oxidized tips

# Accessories Cleaning Tools

## WDC Dry cleaner

■ Further informations for cleaning you can find on page 160–161.



Order-no.	Model	Description
<b>T005 15 126 99</b>	<b>WDC</b>	<b>Dry cleaner</b>

Scope of supply:

1	T005 15 124 99	WDC	Weller Dry Cleaner
2	T005 13 031 99		Tip Activator
3	T005 13 827 99		Stainless steel brush
4	WPB 1		Polishing Bar

## WDC 2 Dry cleaner

■ Further informations for cleaning you can find on page 160–161.



Order-no.	Model	Description
<b>T005 15 127 99</b>	<b>WDC 2</b>	<b>Dry cleaner</b>

Scope of supply:

1	T005 15 124 99	WDC 2	Weller Dry Cleaner
2	T005 13 031 99		Tip Activator
3	T005 13 827 99		Stainless steel brush
4	WPB 1		Polishing Bar

The desoldering wires consists of a copper net with flux.  
The special surface treatment allows efficient solder removal.



## Desoldering Wires

Order-no.	Model	Description
T005 13 010 99	Desoldering wire	1,6 m coil, width 1,5 mm
T005 13 011 99	Desoldering wire	1,6 m coil, width 2 mm
T005 13 012 99	Desoldering wire	1,6 m coil, width 2,5 mm
T005 13 028 99	Desoldering wire	15 m coil, width 2,5 mm
T005 13 026 99	Desoldering wire	30 m coil, width 1,5 mm
T005 13 027 99	Desoldering wire	30 m coil, width 2 mm

## Liquid flux

- Without brush.
- Typ 1.1.3.AF-SW32, EN29 454
- Remaining flux is not corrosive
- DIN EN 61190 ROLO
- Flux on base of resin



Order-no.	Description
T005 13 831 99	Liquid flux (100 ml) for simple soldering applications with high temperature and long soldering times (for example wire and dip)

## Liquid flux

- With brush
- Solvent content 73 %
- ROL1 related to IPC J-STD-004



Order-no.	Description
T005 13 837 99	Liquid flux RMA (15 ml) especially for BGA and SMT rework. Very reliable, avoids short cuts

The Spot-Mask is a material to protect connectors of PCBs from tinning during the reflow process. For manual rework the Spot-Mask is easily applied and removed. Mechanical fixture after 6 min, hardened after 2-3 hours by 20°C, 1 hour by 95°C.

## Spot-Mask

- Storable 12 months.
- Suitable for lead free applications.



Order-no.	Model	Description
SM15748BK	Spot-Mask	Suitable for lead free applications, 250 ml

## Extension cord



Order-no.	Description
T005 32 099 99	Extension cord 2-wire, 4 m for, Soldering iron TCPS
T005 25 098 99	Extension cord 5-wire, 4 m, up to 50 W for Soldering iron LR 21, MLR 21, WTA 50
T005 26 098 99	Extension cord 7-wire, 3 m, up to 80 W, for Soldering iron WMP, WP 80, WSP 80



# Why Fume Extraction ?

Many work environments today, including soldering, adhesives, welding and laser applications, create particles and gases that can be harmful to the work place and the environment. Most people thought that the move to leadfree soldering would be more nature friendly. In reality leadfree soldering smoke emissions contain more breathable fine dust particles. More smaller particles are produced due to the higher working temperatures required and because more flux is used in the soldering process.

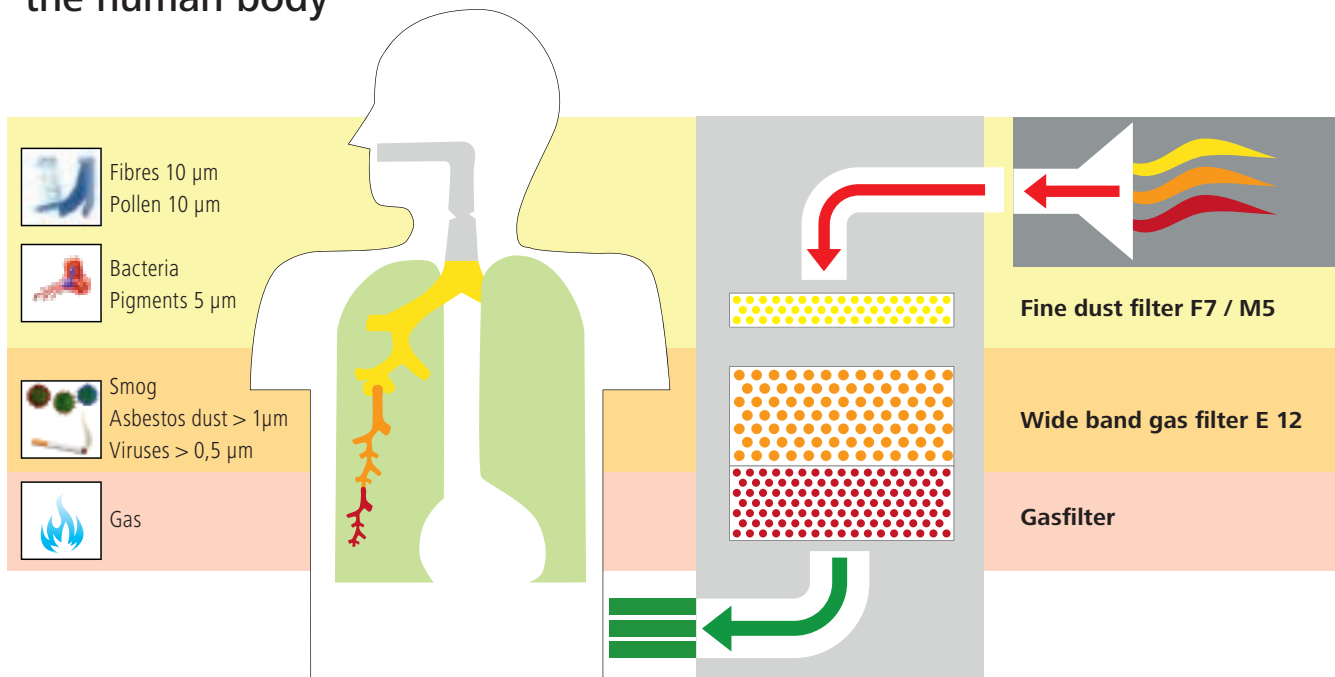
In many countries legal regulations governing clean air in the work place require that hazardous substances are removed from the air in order to avoid harmful effects on people and machines.

It is important to use the correct safety equipment to remove these hazardous substances. Fine particles are more dangerous to inhale than big particles as they get caught more easily and block the alveoli in the lungs.

To protect the operator it is important to use an extraction system that is able to separate these particles and gases and then re-circulates the cleaned air back into the work place. This saves energy and reduces energy costs.

- The smaller the particles are, the deeper they penetrate into the respiratory system
- The deeper the particles penetrate, the higher are the health risks
- The smallest particles travels via alveoli into the bloodstream

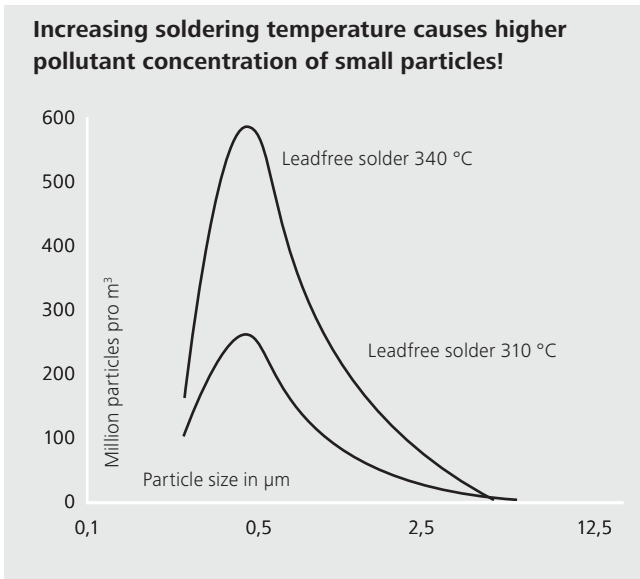
## Fine dust accumulation in the human body



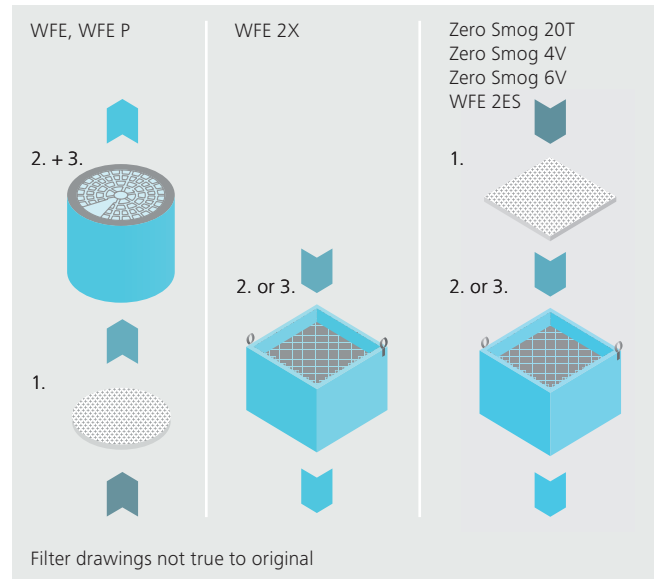
90 minutes soldering with leadfree solder wire



## Pollution concentration



## Filter process



## Filter classes and recommended applications

### 1. Fine dust filter

For standard applications with a small amount of flux and pollution gases with high solid content, Weller<sup>®</sup> FT offers filter classes M 5 or F 7.

### 2. Compact filter consisting of:

#### EPA filter

Filter particles up to 0,3 µm.

Weller<sup>®</sup> FT offers EPA (Efficiency Particulate Air) filters of class E 12, medium filtration efficiency 99,5%.

#### Wide band gas filter

Wide band gas filter

For cleaning harmful fumes and vapours. The Weller<sup>®</sup> FT wide band gas filter consists of 50% active carbon and 50% Puratex. Harmful gases with a high molecular weight are cleaned by the active carbon. Puratex is suitable for absorbing gases of lower molecular weight. Because of its composition, Puratex is able to convert a large number of chemical pollutants by means of molecular modification into non-polluting gases.

### 3. Gas filter (option)

The gas filter is used for extracting adhesive fumes and solvents. Experience has shown that filtering suspended particles is not so vital in this respect. The gas filter is filled with 50% active carbon and 50% Puratex. The EPA E 12 is omitted.

### Medium filtration efficiency Em % against particle size 0,12 µm



# Solutions for Fume Extraction – For clean air

Weller FT offers two extraction solutions:

## Volume Extraction



- Larger areas can be covered
- Low maintenance
- Mobile
- Quick & easy installation
- Economic for 1 to 8 work places
- Remote control



More suitable for applications involving, for example, solder baths, hot air soldering, micro solders and gluing work. Weller® FT offers various mobile systems that purify the air up to a maximum of 8 workplaces.

Weller® FT Easy-Click-60 Example for installation



Set up your volume extraction solution with our configurator [www.weller.eu](http://www.weller.eu)



## Tip Extraction



- Less investment per work place
- Collect pollution direct at source
- Up to 20 collection points with one system (200 m apart)
- Ergonomic friendly with easy access to work piece
- No noise
- Minimal air movement



Weller® FT FE (Fume extraction) soldering irons have a smoke tube integrated into the handle. When soldering the tube is positioned directly above the joint and collects any fumes produced. Fume extraction attachments can be retro fitted to non fume extraction



- Volume extraction with extraction arms
- Low underpressure
- High volume flow rate

**For 1 extraction arm ø 60**

- Volume flow rate = 50 – 80 [m<sup>3</sup>/h]
- Underpressure = 300 – 700 [Pa]

**For 6 extraction arms ø 60**

- Volume flow rate = 300 – 480 [m<sup>3</sup>/h]
- Underpressure = 300 – 700 [Pa]



Weller<sup>®</sup> FT Easy-Click-60 connection elements for quick and easy installation for volume extraction



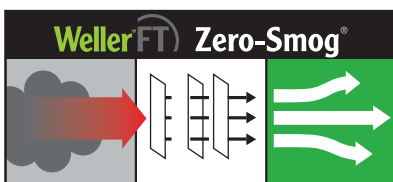
- The tube is positioned directly above the joint and collects any fumes produced.
- High underpressure
- Low volume flow rate

**For 1 FE soldering iron**

- Volume flow rate = 1 – 1,5 [m<sup>3</sup>/h]
- Underpressure = 10.000 [Pa]

**For 25 soldering irons**

- Volume flow rate = 25 – 30 [m<sup>3</sup>/h]
- Underpressure = 10.000 [Pa]



# Volume Extraction

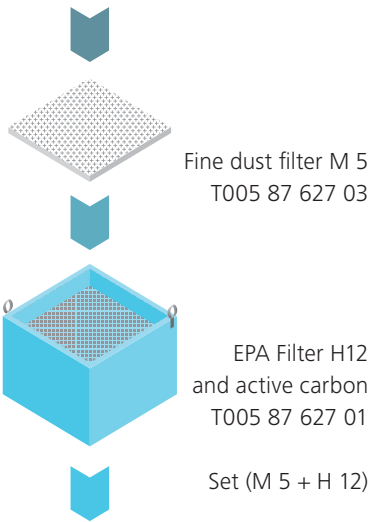


WFE 2ES



WFE 2X

## Spare filter



## Sloped nozzle



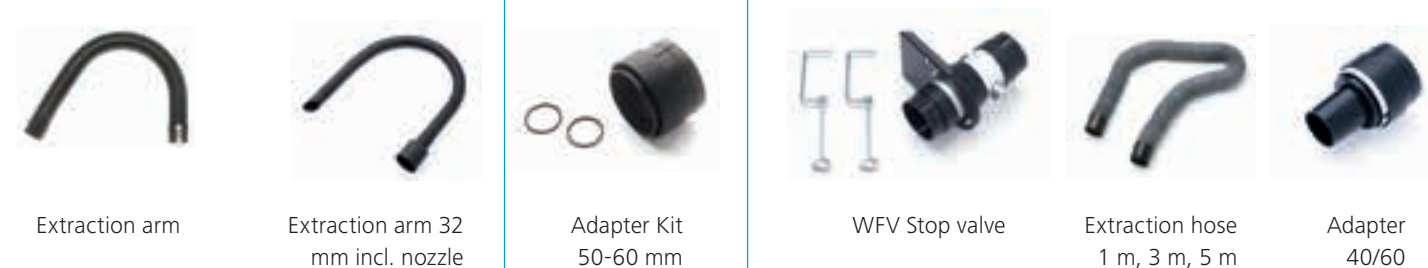
## Accessory



## Extraction arms Sets



## Accessories Installation





Zero Smog 4V



Zero Smog 6V



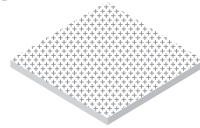
### Remote control



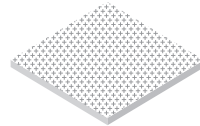
WX Adapter for Remote control  
T005 87 627 24

WX Connection cable  
T005 87 647 10

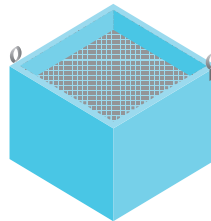
### Spare filter



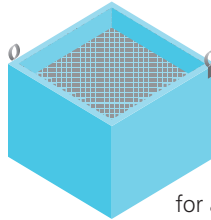
Fine dust filter M 5  
T005 87 359 37 (2S, 4V)  
T005 87 358 37 (4S, 6V)



Fine dust filter F 7  
T005 87 359 38 (2S, 4V)  
T005 87 358 36 (4S, 6V)



Compact filter  
T005 87 359 36 (2S, 4V)  
T005 87 358 38 (4S, 6V)



Compact filter for adhesive fumes  
T005 87 358 95 (2S, 4V)  
T005 87 358 35 (4S, 6V)

### Filter



Pre filter box



Pocket filter F7



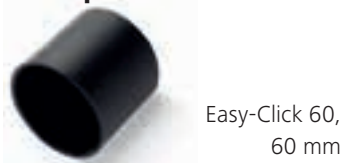
Filtering for sticky particles

### Adapter



ø 75 mm on Easy-Click 60

### End cap



Easy-Click 60,  
60 mm



Female adapter



Male adapter



T-piece with 2 male and 1 female adapter



Hose connector, angle



Hose connector, straight

# Volume Extraction

## Technical data



**WFE 2ES**



**WFE 2X**

Dimensions L x B x H (mm):	320 x 320 x 395	460 x 610 x 210
Weight	9 kg	15 kg
Voltage	230V, 50Hz / 120 V, 60 Hz	100-240 V, 60 Hz
Sound level in 1m	55 dB (A)	54 dB (A)
Electrical power	115 VA	175 VA
Max. vacuum	1800 Pa	2.300 Pa
Max. capacity	180 m <sup>3</sup> /h	100 m <sup>3</sup> /h
Fine dust filter	Fine dust filter M 5	Fine dust filter F 7
Filter	EPA Filter E 12 and active carbon (*Set incl. filter M 5)	Compact filter EPA filter E 12 and 50% active carbon, 50% Puratex



**Zero Smog 4V**



**Zero Smog 6V**

Dimensions L x B x H (mm):	320 x 320 x 395	450 x 450 x 650
Weight	19 kg	40 kg
Voltage	230 V / 50 Hz (120 V / 60 Hz)	230 V / 50 Hz
Sound level in 1m	48 dB (A)	51 dB (A)
Electrical power	275 VA	460 VA
Max. vacuum	2700 Pa	2800 Pa
Max. capacity	230 m <sup>3</sup> /h	615 m <sup>3</sup> /h
Fine dust filter	Fine dust filter F 7	Fine dust filter F 7
Filter	Compact filter EPA filter E 12 (50% active carbon, 50% Puratex)	Compact filter EPA filter E 12 (50% active carbon, 50% Puratex)



# Volume Extraction



- Low maintenance
- Flexible
- Quick and easy installation
- For different applications



For applications where volume extraction is more suitable, e.g. solder baths, hot air soldering, micro solders and gluing work, Weller offers the mobile systems Zero Smog 4V and Zero Smog 6V. The units purify the air upto 8 workplaces. A wide range of accessory is available for each system.



- Constant flow control (CFC)
- Efficiency test via USB port
- Acoustical and optical filter alarm

## Zero Smog 4V

- For upto 4 workplaces

Order-no.	Model	Description
T005 36 606 99	Zero Smog 4V	Mobile fume extraction unit 230 V / 50 Hz, for volume extraction with built in turbine

Scope of supply:

Fume extraction unit 230 V / 50 Hz  
 Filter (EPA filter E 12 and wide band gas filter  
 50% active carbon / 50% Puratex)  
 Fine dust filter F 7



- Constant flow control (CFC)
- Efficiency test via USB port
- Acoustical and optical filter alarm

## Zero Smog 4V

- Includes adhesive fume filter
- For upto 4 workplaces

Order-no.	Model	Description
T005 36 616 99	Zero Smog 4V	Mobile fume extraction unit 230 V / 50 Hz for volume extraction with built in turbine with adhesive fume filter

Scope of supply:

Fume extraction unit 230 V / 50 Hz  
 Filter for adhesive fumes (wide band gas filter  
 50% active carbon / 50% Puratex)  
 Fine dust filter F 7

## Zero Smog 4V Kit 1 sloped nozzle

- For upto 4 workplaces
- Set with 1 Extraction arm and Sloped nozzle



Order-no.	Model	Description
<b>T005 36 636 99</b>	<b>Zero Smog 4V Kit 1 sloped nozzle</b>	<b>Mobile fume extraction kit 230 V / 50 Hz for 1 workplace - upgrading to 4 workplaces possible with further accessories</b>

Scope of supply:

T005 36 606 99	Zero Smog 4V	Fume extraction unit 230 V / 50 Hz Compact filter (EPA filter E 12 and wide band gas filter 50% active carbon / 50% Puratex) Fine dust filter F 7
T005 36 572 99		Kit 1 WF Sloped 60 for volume extraction (50% Active carbon , 50% Puratex)

Consists of:

T005 36 578 99		Extraction arm
T005 36 577 99		Sloped nozzle
T005 36 574 99	WV 60	Stop valve incl. bench mounting brackets
T005 36 575 99		Bench mounting bracket
T005 36 576 99		Extraction hose

## Zero Smog 4V Kit 2 sloped nozzle

- For upto 4 workplaces
- Set with 2 Extraction arms and Sloped nozzle



Order-no.	Model	Description
<b>T005 36 656 99</b>	<b>Zero Smog 4V Kit 2 sloped nozzle</b>	<b>Mobile fume extraction kit 230 V / 50 Hz for 2 workplaces - upgrading to 4 workplaces possible with further accessories</b>

Scope of supply:

T005 36 606 99	Zero Smog 4V	Fume extraction unit 230 V / 50 Hz Compact filter (EPA filter E 12 and wide band gas filter 50% active carbon / 50% Puratex) Fine dust filter F 7
2 x T005 36 572 99		KIT 1 WF Sloped 60 for volume extraction

Consists of:

2 x T005 36 578 99		Extraction arm
2 x T005 36 577 99		Sloped nozzle
2 x T005 36 574 99	WV 60	Stop valve incl. bench mounting brackets
2 x T005 36 575 99		Bench mounting bracket
2 x T005 36 576 99		Extraction hose

## Zero Smog 4V Kit 1 Funnel nozzle

- For upto 4 workplaces
- Set with 1 Extraction arm and funnel nozzle



Order-no.	Model	Description
T005 36 626 99	Zero Smog 4V Kit 1 Funnel nozzle	Mobile fume extraction kit 230 V / 50 Hz for 1 workplace - upgrading to 4 workplaces possible with further accessories

### Scope of supply:

T005 36 606 99	Zero Smog 4V	Fume extraction unit 230 V / 50 Hz Compact filter (EPA filter E 12 and wide band gas filter 50% active carbon / 50% Puratex) Fine dust filter F 7
T005 36 571 99		Kit 1 WF Funnel 60 for volume extraction

### Consists of:

T005 36 578 99		Extraction arm
T005 36 573 99		Funnel nozzle
T005 36 574 99	WV 60	Stop valve incl. bench mounting brackets
T005 36 575 99		Bench mounting bracket
T005 36 576 99		Extraction hose

## Zero Smog 4V Kit 2 Funnel nozzle

- For upto 4 workplaces
- Set with 2 Extraction arm and funnel nozzle



Order-no.	Model	Description
T005 36 646 99	Zero Smog 4V Kit 2 Funnel nozzle	Mobile fume extraction kit 230 V / 50 Hz for 2 workplace - upgrading to 4 workplaces possible with further accessories

### Scope of supply:

T005 36 606 99	Zero Smog 4V	Fume extraction unit 230 V / 50 Hz Compact filter (EPA filter E 12 and wide band gas filter 50% active carbon / 50% Puratex) Fine dust filter F 7
2 x T005 36 571 99		KIT 1 WF Funnel 60 for volume extraction

### Consists of:

2 x T005 36 578 99		Extraction arm
2 x T005 36 573 99		Funnel nozzle
2 x T005 36 574 99	WV 60	Stop valve incl. bench mounting brackets
2 x T005 36 575 99		Bench mounting bracket
2 x T005 36 576 99		Extraction hose

## WFE 2ES Set

- For max. 2 workplaces
- Set with 1 Extraction arm and Funnel nozzle
- Economy solution



Order-no.	Model	Description
<b>T005 36 516 89</b>	<b>WFE 2ES Set</b>	<b>Mobile solution for volume extraction for max. 2 workplaces, quick and easy to install for 1 workplace</b>

Scope of supply:

T005 36 506 99	WFE 2ES	Fume extraction unit - Compact filter, consists of: EPA filter E 12, active carbonate foam, Fine dust filter M 5
T005 36 571 99		KIT 1 WF Funnel 60 for volume extraction

Consists of:

T005 36 578 99		Extraction arm
T005 36 573 99		Funnel nozzle
T005 36 574 99	WV 60	Stop valve incl. bench mounting brackets
T005 36 575 99		Bench mounting bracket
T005 36 576 99		Extraction hose

## WFE 2ES

- For max. 2 workplaces
- Economy solution



Order-no.	Model	Description
<b>T005 36 506 99</b>	<b>WFE 2ES</b>	<b>Fume extraction unit 230 V with EPA filter E 12 active filter, fine dust filter M 5</b>
<b>T005 36 506 70</b>	<b>WFE 2ES</b>	<b>WFE 2ES with wide band gas filter for adhesive fumes</b>

# Volume Extraction

## WFE 2X Kit

- For max. 2 workplaces
- Set with 1 Extraction arm and Sloped nozzle



Order-no.	Model	Description
<b>T005 36 587 99</b>	<b>WFE 2X Kit 1S</b>	<b>Mobile fume extraction unit 100-240 V with Sloped stativ extraction arm for 1 workplace</b>

Scope of supply:		
T005 36 588 99	WFE 2X	Fume extraction unit 100-240 V / 50/60 Hz
T005 36 579 99		Easy-Click-60 2 joint aluminium arm with sloped nozzle, length 1,2 m

Consists of:		
T005 36 598 99		Stativ extraction arm without valve
T005 36 575 99		Bench mounting bracket
T005 36 576 99		Extraction hose
T005 36 577 99		Sloped nozzle
		Extraction arm 70 cm

## WFE 2X Kit 1

- For max. 2 workplaces
- Set with 1 extraction arm



Order-no.	Model	Description
<b>T005 36 589 99</b>	<b>WFE 2X Kit 1</b>	<b>Mobile fume extraction unit 100-240 V with Sloped stativ extraction arm for 1 workplace</b>

Scope of supply:		
T005 36 588 99	WFE 2X	Fume extraction unit 100-240 V / 50/60 Hz
T005 36 719 99		in the scope of supply

Consists of:		
		Stop valve
		Bench mounting bracket
		Extraction hose flexible 3 m
		Extraction arm ø 60 mm with funnel
		Funnel nozzle



## WFE 2X

- For max. 2 workplaces

Order-no.	Model	Description
<b>T005 36 588 99</b>	<b>WFE 2X</b>	<b>Fume Extraction Unit 230 V / 50 Hz for volume extraction</b>

Scope of supply:		
		WFE 2X Fume extraction unit 100-240 V / 50/60 Hz
		Active carbon (EPA Filter E 12, wide band gas filter (50% Active carbon / 50% Puratex))



- Constant flow control (CFC)
- Efficiency test via USB port
- Acoustical and optical filter alarm

## Zero Smog 6V

- For upto 6 workplaces
- 1 connection included
- Further connections must be ordered separately

Order-no.	Model	Description
T005 36 666 99	Zero Smog 6V	Mobile fume extraction unit 230 V / 50 Hz, for volume extraction with built in turbine

Scope of supply:

	Fume extraction unit 230 V / 50 Hz
T005 87 358 38	Compact filter, consists of EPA filter E 12 and wide band gas filter (50% Active carbon, 50% Puratex)
T005 87 358 37	Fine dust filter F 7



- Constant flow control (CFC)
- Efficiency test via USB port
- Acoustical and optical filter alarm

## Zero Smog 6V

- Fume extraction with adhesive fume filter
- For upto 6 workplaces
- 1 connection included
- Further connections must be ordered separately

Order-no.	Model	Description
T005 36 667 99	Zero Smog 6V	Mobile fume extraction unit 230 V / 50 Hz, for volume extraction with built in turbine and adhesive fume filter

Scope of supply:

	Fume extraction unit 230 V / 50 Hz
T005 87 358 35	Compact filter for adhesive fumes (wide band gas filter 50% active carbon / 50% Puratex)
T005 87 358 37	Fine dust filter F 7

# Accessoires Volume Extraction: Extraction Arm Sets



## Easy Click 60 Kit 1 WF 32

- Microscope extraction arm
- With sloped nozzle



Order-no.	Model	Description
T005 87 627 70	Kit 1 WF 32	Easy-Click-60 Microscope Extraction arm Ø 32 mm, Set flexible, length 1 m

Consists of:

T005 36 574 99	Stop valve with bench mounting brackets
T005 36 576 99	Extraction hose flexible 3 m
T005 36 580 99	Extraction arm ø 32 mm

## Easy Click 60 Kit 1 WF Funnel

- With funnel



Order-no.	Model	Description
T005 36 571 99	Kit 1 WF	Easy-Click-60 Extraction arm with funnel, width 230 mm, height 100 mm, Set flexible, Ø 60 mm, length 1 m

Consists of:

T005 36 574 99	Stop valve with bench mounting brackets
T005 36 576 99	Extraction hose flexible 3 m
T005 36 578 99	Extraction arm ø 60 mm
T005 36 573 99	Funnel nozzle

## Easy Click 60 Kit 1 WF Nozzle

- With sloped nozzle



Order-no.	Model	Description
T005 36 572 99	Kit 1 WF	Easy-Click-60 Extraction arm with sloped nozzle, 60 mm, length 1 m

Consists of:

T005 36 574 99	Stop valve with bench mounting brackets
T005 36 576 99	Extraction hose flexible 3 m
T005 36 578 99	Extraction arm ø 60 mm
T005 36 577 99	Sloped nozzle

## Easy Click 60 Kit 1S WF Nozzle

- With sloped nozzle
- With 2 joint arms



Order-no.	Model	Description
<b>T005 36 579 99</b>	<b>Kit 1S WF sloped nozzle</b>	<b>Easy-Click-60 2 joint aluminium arm with sloped nozzle, length 1,5 m</b>
Consists of:		
T005 36 598 99		2 joint arms
T005 36 575 99		Bench mounting brackets
T005 36 576 99		Extraction hose flexible 3 m
		Extraction arm ø 60 mm, 0,7 m
T005 36 577 99		Sloped nozzle

## Easy Click 60 Kit 1S WF Funnel

- With funnel nozzle
- With 1 joint arms



Order-no.	Model	Description
<b>T005 87 627 63</b>	<b>Kit 1S WF funnel nozzle</b>	<b>Easy-Click-60 Extraction arm with funnel nozzle with stop valve, length 1,20 m</b>
Consists of:		
T005 87 627 47		1 joint arm with stop valve and bench mounting brackets
T005 36 576 99		Extraction hose flexible 3 m
		Extraction arm ø 60 mm, 0,7 m
T005 36 573 99		Funnel nozzle



# Accessories Volume Extraction: Extraction Arms

## Easy Click 60 Extraction arm



Order-no.  
T005 36 578 99

Description  
Extraction arm, flexible, Ø 60 mm for sloped and funnel nozzles, length 1 m

T005 87 627 77

Extraction arm, flexible, Ø 60 mm for sloped and funnel nozzles, length 1,5 m.

on request

Extraction arm, flexible, Ø 60 mm for sloped and funnel nozzles, length 0,7 m

## Easy Click 60 WF 32

■ Ø 32 mm



Order-no.  
T005 36 580 99

Description  
ESD microscope extraction arm, flexible, Ø 32 mm

## Easy Click 60 Joint extraction arm

■ With single pivot arm



Order-no.  
T005 87 627 47

Description  
Aluminium stativ extraction arm ESD safe.

## Easy Click 60 Joint extraction arm

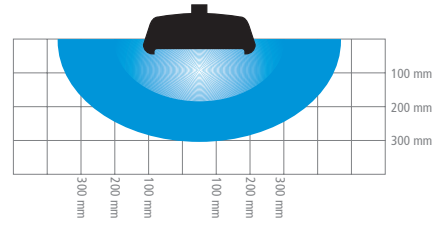
■ With dual pivot arm



Order-no.  
T005 36 598 99

Description  
Aluminium stativ extraction arm, ESD safe

Easy Click 60  
Funnel nozzle



<b>Order-no.</b> T005 36 573 99	<b>Model</b> WF 60	<b>Description</b> Funnel nozzle for flexible extraction arm, width 230 mm, high 100 mm
------------------------------------	-----------------------	---

Easy Click 60  
Sloped nozzle



<b>Order-no.</b> T005 36 577 99	<b>Model</b> WF 60	<b>Description</b> Sloped nozzle for flexible extraction arm
------------------------------------	-----------------------	---

Exhaust hood



<b>Bestell-Nr.</b> T005 87 358 45	<b>Beschreibung</b> Exhaust hood, 200 x 100 mm (7.87 x 3.93 in), recommended for use with hot air soldering operations uses extraction hose 60. Metal black.
--------------------------------------	---

Remote control



<b>Order-no.</b> 1 T005 87 359 09	<b>Description</b> For WFE 2S, WFE 4S, Zero Smog 4V, WFE 20D, Zero Smog 20T
2 T005 36 593 99	For WFE 2X

RS 232  
Interface cable



<b>Order-no.</b> T005 31 191 99	<b>Description</b> Interface cable RS 232, 2 m (78.74 in) for remote control or monitoring by PC (type 1:1) (T005 87 359 09)
------------------------------------	---

<b>Order-no.</b> T005 87 627 24	<b>Description</b> Adapter Remote control Zero Smog 4V
------------------------------------	---

<b>Order-no.</b> T005 87 647 10	<b>Description</b> Cable WX
------------------------------------	--------------------------------

## Pre filter box

■ For WFE 2X



**Order-no.**

**T005 87 627 57**

**Description**

**Pre filter box for WFE 2X,  
Pre filter for large fine dust quantities**

**T005 87 627 58**

**Pocket filtering F 7 for Pre filter box (5 pieces)**

## Hanging Bracket for WFE 2X



**Order-no.**

**T005 36 591 99**

**Description**

**Hanging Bracket for WFE 2X.  
For fixing WFE 2X on the work table.**



## Trolley with wheels

- For WFE 2X
- For mobile use

**Order-no.**  
**T005 36 592 99**

**Description**  
**Trolley with wheels for WFE 2X**



## Exhaust connector

- For Zero Smog 6V

**Order-no.**  
**T005 87 358 40**

**Description**  
**Exhaust connector DN 100 for Zero Smog 6V and WFE 4S**

## Exhaust connector

- For Zero Smog 4V  
Zero Smog 6V

**Order-no.**  
**T005 87 359 15**

**Description**  
**Exhaust connector DN 75 for WFE 2S, Zero Smog 4V, Zero Smog 6V and WFE 4S**

Easy Click 60  
Extension hose  
1 m, 3 m, 5 m



Order-no.

T005 87 354 27

T005 36 576 99

T005 87 627 56

Description

Extension hose 1 m

Extension hose 3 m

Extension hose 5 m

Extension hose 60  
Sold by metre



Order-no.

T005 87 620 36

Description

Extension hose, heavy construction,  
sold by metre (max. length 15 m)

Hose connection  
60 mm



Order-no.

T005 87 627 68

Description

Hose connection 60 mm for flexible hose,  
sold by the metre T005 87 620 36.

Easy Click 60  
Female adapter



Order-no.

T005 87 627 72

Description

Female adapter for installation e.g. stop valve on  
fume extraction units

Easy Click 60  
Male adapter



Order-no.

T005 87 627 55

Description

Male adapter for hose extension, Ø 60 mm

Easy Click 60  
Hose connector, straight



Order-no.  
T005 87 627 67

Description  
Hose connector, straight for WFE 2S / WFE 4S,  
Zero Smog 4V / Zero Smog 6V and pre filter box

Easy Click 60  
Hose connector,  
angle 90°



Order-no.  
T005 87 627 69

Description  
Hose connector, angle 90° for WFE 2S / WFE 4S,  
Zero Smog 4V / Zero Smog 6V and pre filter box

Easy Click 60  
WFV 60 Stop valve



Order-no.  
T005 36 574 99

Description  
WFV 60 Stop valve incl. bench mounting brackets

Easy Click 60  
WFV 60 A



Order-no.  
T005 87 627 46

Description  
WFV 60 A Stop valve 230 V



Easy Click 60  
WFV 60  
Stop valve



Order-no.  
T005 87 627 65

Description  
WFV 60 Stop valve for extraction arm

Easy Click 60  
Butterfly valve  
Spare



Order-no.  
T005 87 628 08

Description  
Butterfly valve for WFV 60 stop valve

## Easy Click 60 T-piece



Order-no.  
T005 87 627 66

Description  
T-piece with 2 male connections and  
1 female connection

## Easy Click 60 End Cap



Order-no.  
T005 87 627 74

Description  
End Cap 60 mm click connections

## Hose adapter Ø 50 mm



Order-no.  
T005 87 627 53

Description  
Hose adapter for WFE 2ES  
-with Silicon O-Ring, Ø 50 mm

## Bench mounting brackets



Order-no.  
T005 36 575 99

Description  
Bench mounting brackets (2 clamp)

Adapter  
ø 75 mm



Order-no.  
T005 87 627 71

Description  
Adapter ø 75 mm for Easy-Click 60

Adapter  
40/60



Order-no.  
T005 87 627 50

Description  
40/60 Adapter for Easy Click 60 Extraction arms  
on 50 mm WFEMP50 power socket

Hose clamp  
50 – 70 mm



Order-no.  
T005 87 358 79

Description  
Hose clamps 50 – 70 mm, 2 pieces,  
for securing extraction hose 50 mm





## Fine dust filter M 5

- For WFE 2S,  
Zero Smog 4V
- 10 pieces



**Order-no.**  
T005 87 359 37

**Description**  
Fine dust filter for WFE 2S, Zero Smog 4V



## Fine dust filter F 7

- For WFE 2S,  
Zero Smog 4V
- 10 pieces



**Order-no.**  
T005 87 359 38

**Description**  
Fine dust filter for WFE 2S, Zero Smog 4V

## Compact filter

- For WFE 2S,  
Zero Smog 4V



**Order-no.**  
T005 87 359 36

**Description**  
Compact filter for WFE 2S, Zero Smog 4V,  
EPA filter E 12 EN 1822  
and 50% active carbon, 50% Puratex

## Wide band gas filter

- For WFE 2S,  
Zero Smog 4V
- From October 2013 supplied  
in cardboard housing



**Order-no.**  
T005 87 358 95

**Description**  
Compact filter for adhesive fume, wide band gas  
filter (50% active carbon, 50% Puratex)

## Filterset E 12

- For WFE 2ES,  
WFE 2CS

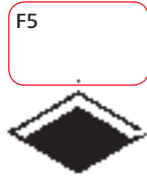


**Order-no.**  
T005 87 627 01

**Description**  
Filterset E 12 with 10 Prefilter M 5,  
EPA Filter E 12, wide band gas filter  
(10% active carbon)

## Fine dust filter M 5

- For WFE 2ES / CS
- 10 pieces



**Order-no.**  
T005 87 627 03

**Description**  
Fine dust filter M 5

## Compact filter

- For WFE 2X



**Order-no.**  
T005 36 590 99

**Description**  
EPA Filter E 12, wide band gas filter  
(50% active carbon / 50% Puratex)

## Pocket filter F 7 for WFE 2X

- For Pre filter box WFE 2X

**Order-no.**  
T005 87 627 58

**Description**  
Pocket filter for Pre filter box for WFE 2X

## Pocket filter F 7

- For WFE 2S / WFE 4S,  
Zero Smog 4V /  
Zero Smog 6V



**Order-no.**  
T005 87 358 60

**Description**  
Pocket filter F 7.  
For applications with a high fine dust rate.

## Filtrating ash

- For Pre filter box
- For WFE 2S / WFE 4S,  
Zero Smog 4V /  
Zero Smog 6V

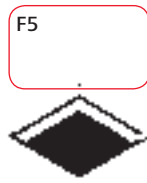


**Order-no.**  
T005 87 359 24

**Description**  
Filtrating fine dust for sticky particles  
(e.g. large quantities of liquid flux)

## Fine dust filter M 5

- For Zero Smog 20T / WFE 20D and Zero Smog 6V / WFE 4S
- 10 pieces



**Order-no.**

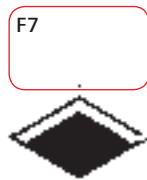
**T005 87 358 37**

**Description**

**Fine dust filter M 5**

## Fine dust filter F 7

- For Zero Smog 20T / WFE 20D and Zero Smog 6V / WFE 4S
- 10 pieces



**Order-no.**

**T005 87 358 36**

**Description**

**Fine dust filter F 7**

## Compact filter

- For Zero Smog 20T / WFE 20D and Zero Smog 6V / WFE 4S



**Order-no.**

**T005 87 358 38**

**Description**

**Compact filter**

**EPA filter E 12, wide band gas filter  
(50% active carbon, 50% Puratex)**

## Adhesive fume filter

- For Zero Smog 6V / WFE 4S
- For adhesive fumes



**Order-no.**

**T005 87 358 35**

**Description**

**Compact filter for adhesive fumes,  
wide band gas filter  
(50% active carbon, 50% Puratex)**

## Pipe System 75 Volume Extraction

Volume extraction systems require a large volume of air to be extracted and the level of vacuum is of lesser importance. This means that a relatively large diameter pipe system is required. If the pipe diameter was too small the flow resistance would increase and extraction capacity reduced. The pipe system 75 allows installations up to 30 m with the WFE 4S uses in a stand alone system. The pipe sections are designed to stick together and have internal sealing bushes. \*PEHD = Polyethylen high density, PE = Polyethylen.

### Pipe 2 m



Order-no.  
T005 87 358 70

Description  
Pipe 2 m, with seal at one end, plastic, PEHD black

### Right angle pipe 90°



Order-no.  
T005 87 358 69

Description  
Right angle pipe, 90°, 0,2 m, with seal at one end, plastic, PEHD black

### T-piece 2 x 90°



Order-no.  
T005 87 358 71

Description  
T-piece, 2 x 90°, 0,5 m, with 3 seals, plastic, PEHD black

### End seal



Order-no.  
T005 87 358 55

Description  
End seal, PE, transparent

### Pipe clamps



Order-no.  
T005 87 358 64

Description  
Pipe clamps, PE, grey

### Adapter



Order-no.  
T005 87 358 63

Description  
Adapter PEHD pipe system 75 to pipe system 50, with seals 2 seals

T005 87 358 56

Adapter PEHD pipe system 75 to pipe system 50, without seals

# Tip Extraction



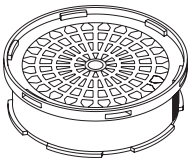
WFE



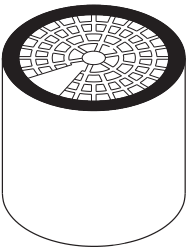
WFE P



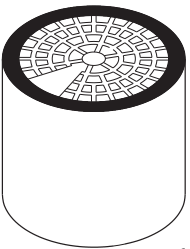
## Spare filter



Compressed air cleaning filter



Compact filter



Compact filter for adhesive fumes



Fine dust filter F 7

## Safety rests



KHP 81

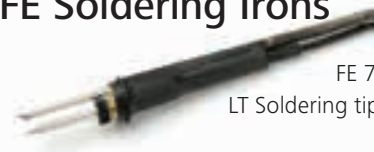


KHE 81



KHE / KHP 81  
Additional safety rest

## FE Soldering Irons



FE 75  
LT Soldering tips



FE 80  
HT Soldering tips

## Attachments and Accessories



FE-Attachment



Extraction hose 5 mm



Locking clip



FE-Attachment



FE-Clip-Set Pipe Ø 6mm



FE-Clip-Set Pipe Ø 4,5 mm

## Pipe system 50 and Accessories



Pipe 2 m



Right angle pipe 0°, 0,2 m



T-piece 2 x 90°, 0,5 m



Branch  
2 x 45°, 0,3 m



Double socket



End seal



Pipe clamps



**Zero Smog 20T**



**Interface cable**



WX Adapter for  
Zero Smog 20T  
with remote control  
T005 87 627 24

WX  
compatible

WX  
Connection cable  
T005 87 647 10

**Remote control**



**Exhaust connector**



DN 100

**Accessories**



Extraction hose 40,  
1 m complete with  
2 connecting elements



Extension hose  
5,0 m, DN 17



Extraction hose 40,  
sold by metre



Connection nipple DN 17 +  
Nut G 3/8" for connection nipple



Connetion element



Adapter DN 17 for connection  
extension hose 17 with 5 mm  
hose of FE iron

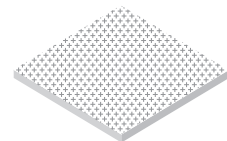


End cap

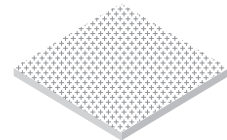


Connection nipple for 5 mm hose of  
FE iron for direct connection to pipe system

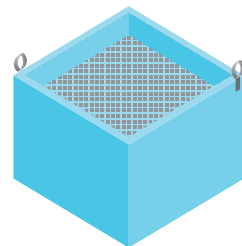
**Spare filter**



Fine dust filter M 5



Fine dust filter F 7



Compact filter

# Tip Extraction

The Weller FT Zero Smog Systems put an end to air pollution caused by soldering, adhesives and laser work. In all of these applications fumes or fine particles are released into the work place atmosphere which are hazardous to the staff exposed to them. The Weller Zero Smog Systems' combination of pumps, electronic controls and filters removes this hazard.

## Tip Extraction

Weller FT FE soldering irons have an integral smoke tube mounted in the handle. It is positioned directly above the joint during the soldering process to collect any fumes generated. Fume extraction irons can be connected to Weller Zero Smog Systems WFE and WFE P bench mounted units driving up to 2 irons or Zero Smog 20T mobile unit driving up to 20 irons. Fume extraction attachments can be retro fitted to non fume extraction Weller soldering irons.



## WFE

- For 2 soldering irons
- Compressed air operated



low sound level

Order-no.	Model	Description
T005 36 402 99	WFE	Portable fume extraction unit for tip suction, compressed air operated

Scope of supply:

Fume extraction unit  
Compressed air cleaning filter  
Compact filter (EPA filter E 12 and wide band gas filter 50% active carbon / 50% Puratex)  
Fine dust filter F 7



## WFE P

- For 2 soldering irons
- With built in pump



low sound level

Order-no.	Model	Description
T005 36 386 99	WFE P	Portable fume extraction unit for tip suction with built in pump (do not use for 24 h continuous operation)

Scope of supply:

Fume extraction unit 230 V / 50 Hz  
Compact filter (EPA filter E 12 and wide band gas filter 50% active carbon / 50% Puratex)  
Fine dust filter F 7



## Zero Smog 20T

■ For 20 soldering irons



low sound level

Order-no.	Model	Description
<b>T005 36 4706 99</b>	<b>Zero Smog 20T</b>	<b>Fume extraction unit 230 V / 50 Hz, for tip suction with built in turbine</b>

### Scope of supply:

Fume extraction unit 230 V / 50 Hz  
Compact filter (EPA filter E12 and wide band gas filter 50% active carbon / 50% Puratex)  
Fine dust filter F 7

### Specifications Zero Smog 20T

Dimensions L x B x H	450 x 450 x 695 mm
Weight	45 kg
Mains supply voltage	T005 36 706 99: 230 V / 50 Hz T005 36 702 99: 120 V / 60 Hz
Electrical power rating	530 VA
Fuse	T 3, 15 A
Maximum vacuum	10.000 Pa
Maximum quantity supplied	100 m <sup>3</sup> /h
Noise emission level	51 dB(A)
Pre filter Stage 1	Pre filter mat class F7
Combined filter Stage 2,3	Combined E12 high efficiency submicron filter (99.95 % particle separation upto 0.12 µm) and wide band gas filter (50 % activated carbon, 50 % Puratex)
RS232 port	All system functions can be operated and remotely monitored via the RS232 port.
USB port	The USB port can be used to load firmware updates, run efficiency tests and log data. Do not leave the USB medium inserted for longer than 2 minutes. After this time expires, the USB module will switch off automatically.



# Accessories Tip Extraction



## FE 75 Set

Order-no.	Model	Description
<b>T005 33 151 99</b>	<b>FE 75 Set</b>	<b>FE-Soldering iron Set 80 W / 24 V</b>

Scope of supply:

T005 29 166 99	FE 75	FE-Soldering iron 80 W / 24 V with soldering tip LT B
T005 15 020 99	KH 20	Safety rest
T005 87 447 28		Funnel for FE 75
T005 25 409 99		Cleaning brush for FE tube



## FE 80

Order-no.	Model	Description
<b>T005 26 162 99</b>	<b>FE 80</b>	<b>FE-Soldering iron 80 W / 24 V</b>

Scope of supply:

	FE 80	FE-Soldering iron 80 W / 24 V with soldering tip HT B
T005 87 337 59		Funnel for FE 80
T005 25 409 99		Cleaning brush for FE tube

Please order related safety rest KH 20 separately!

## Accessories for FE-soldering irons



## Safety rest KH 20

Order-no.	Description
<b>T005 15 020 99</b>	<b>KH 20 Safety rest</b>



## Locking clip

Order-no.	Description
<b>T005 36 352 99</b>	<b>Locking clip for extraction hose</b>

## Extraction hose



Order-no.	Description
<b>T005 25 410 00</b>	<b>Extraction hose (spare), by metre, 5 mm</b>

## FE attachments

A range of FE attachments is available to fit to Weller soldering and desoldering irons to convert standard products to fume extraction versions. The attachments are supplied with all necessary fittings and hoses. The performance of the retro fitted tools is not affected.



Order-no.	Description
T005 25 125 99	FE-attachment for LR 21, LR 82, TCPS, W 61, W 101, WP 200, WXP 200 WSP 150
T005 28 126 99	FE-attachment for WSF 80D5/D8 for AKS safety rest
T005 13 125 99	FE-attachment for DS 22, DS 80 and DSX 80 desoldering iron

## Universal FE attachments

For Weller soldering irons WP 80, WSP 80, WMP, WMRP, MLR 21 or soldering irons with handle diameter Ø 10-13 mm. Clip will be fasten with an O-ring to the soldering iron.



Order-no.	Description
T005 29 186 99	FE-attachment with tube Ø 6 mm for WSP 80, WP 80, MLR 21, WMP, WP 120
T005 29 214 99	FE-attachment with tube, Ø 6 mm for WP 65 and WP 120
T005 29 185 99	FE-attachment with tube Ø 4,5 mm, for WMRP and WSP 80, WP 80, MLR 21, MLR 80, WMP, for fine soldering applications
T005 87 448 75	FE-Clip-Set for FE-attachment, tube Ø 4,5 mm
T005 87 448 76	FE-Clip-Set for FE-attachment, tube Ø 6,0 mm



T005 87 657 98	FE-Add-on kit, attachment tube Ø 6 mm WXP 120
T005 87 657 99	FE-Add-on kit, attachment tube Ø 6 mm WXP 65



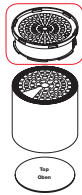
## Safety rest WDH 50

■ With Stop+Go function

Order-no.	Model	Description
T005 15 156 99	WDH 50	Safety rest with Stop+Go function for WMRP iron with FE-attachment

## Compressed air cleaning filter

- For WFE and WFE P

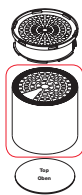


**Order-no.**  
**T005 87 357 57**

**Description**  
**Compressed air cleaning filter (active carbon)**

## Compact filter

- For WFE and WFE P

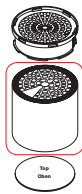


**Order-no.**  
**T005 36 410 99**

**Description**  
**Compact filter (EPA filter E 12 and wide band gas filter 50% active carbon / 50% Puratex)**

## Compact filter

- For adhesive fumes
- For WFE and WFE P

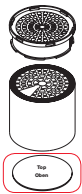


**Order-no.**  
**T005 36 407 99**

**Description**  
**Compact filter (EPA filter E 12 and wide band gas filter 100% active carbon)**

## Fine dust filter F 7

- For WFE and WFE P
- 3 pieces



**Order-no.**  
**T005 36 421 99**

**Description**  
**Fine dust filter F7**

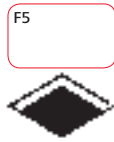
## Compact filter

- For Zero Smog 20T / WFE 20D



**Order-no.**  
**T005 87 358 38**

**Description**  
**Compact filter (EPA filter E 12 and wide band gas filter 50% active carbon / 50% Puratex)**



## Fine dust filter M 5

- For Zero Smog 20T / WFE 20D
- 10 pieces

Order-no.  
**T005 87 358 37**

Description  
**Fine dust filter M 5 for Zero Smog 20T / WFD 20D**



## Fine dust filter F 7

- ForZero Smog 20T / WFE 20D
- 10 pieces

Order-no.  
**T005 87 358 36**

Description  
**Fine dust filter F 7 for Zero Smog 20T / WFD 20D**

## Pipe System 50

Tip extraction systems demand a high value and constant level of vacuum across the installation, the volume of air extracted is of lesser importance. To achieve this it is necessary to use a pipe system with Zero Smog 20T small diameter. The Weller FT pipe system 50 allows extraction installations of up to 200 m when used with the WFE 20D unit in a stand alone system. The pipe sections are designed to stick together and have internal sealing bushes. In a central system, the FE irons are connected directly to the fume extraction units.

\*PEHD = Polyethylen high density

### Pipe 50, 2 m



Order-no.  
**T005 36 323 99**

Description  
**Pipe 2 m, with seal at one end, plastic, PEHD black**

### Right angle pipe 50, 90°



Order-no.  
**T005 36 322 99**

Description  
**Right angle pipe 90°, 0,2 m, with seal at one end, PEHD black**

### T-piece 50 2 x 90°



Order-no.  
**T005 36 344 99**

Description  
**T-piece 2 x 90°, 0,5 m, with 3 seals, plastic, PEHD black**

### Branch 50 2 x 45°



Order-no.  
**T005 36 321 99**

Description  
**Branch 2 x 45°, 0,3 m, with 2 seals, plastic, PEHD black**

## Pipe clamps 50



---

Order-no.	Description
T005 36 329 99	Pipe clamps for 50 pipe system, grey

## End seal 50



---

Order-no.	Description
T005 36 324 99	End seal, PE, transparent

## Double socket 50



---

Order-no.	Description
T005 36 319 99	Double socket for pipe system 50, PEHD black

## Extraction hose 40



---

Order-no.	Description
T005 36 316 99	Extraction hose 40, 1 m, Ø 40 mm, complete with 2 connecting elements

## Extraction hose 40



---

Order-no.	Description
T005 36 414 00	Extraction hose 40, Ø 40 mm, without connecting elements, sold by metre

Connection element 40-50



Order-no.	Description
T005 36 415 99	Connection element 40-50

Extension hose DN 17



Order-no.	Description
T005 36 326 99	Extension hose DN 17, 5 m



Order-no.	Description
T005 36 338 99	Connection nipple for extraction hose 5 mm (T005 25 410 00)

End cap



Order-no.	Description
T005 87 350 50	End cap for connection nipple (T005 36 338 99)

Adapter



Order-no.	Description
T005 36 343 99	Adapter for connection extension hose 17 with 5 mm extraction hose (T005 36 326 99), 5 mm

Connection nipple



Order-no.	Description
T005 87 358 65	Connection nipple on extension hose DN 17 (T005 36 326 99)

Nut G 3/8"

Order-no.	Description
T005 87 358 66	Nut G 3/8" for connection nipple (T005 87 358 99), 3 pieces

Connection adapter



Order-no.	Description
T005 87 628 10	Connection adapter for Zero Smog 20 T

# Accessories Tip Extraction

## Safety Rests with Stop+Go function for FE Irons with WFE or WFE P

The Weller safety rests with Stop+Go function are recommended accessories for FE irons using the WFE or WFE P extraction units. A fibre optic sensor switches the extraction unit on when the FE iron is removed from the safety rest and when the FE iron is replaced in the safety rest, after a short delay to gather the fumes from any solder on the tip it switches the unit off. This reduces running costs.



### KHP

Order-no.	Model	Description
T005 15 086 99	KHP	Basic unit pneumatic (for WFE) safety rest with Stop+Go function with fibre optic sensor for FE 75 and FE 80



### KHE

Order-no.	Model	Description
T005 15 076 99	KHE	Basic unit electric (for WFE P) safety rest with Stop+Go function with fibre optic sensor for FE 75 and FE 80



### KHE/P

Order-no.	Model	Description
T005 15 080 99	KHE/P	Second safety rest with fibre optic sensor for extending to 2 workplaces



### KHP 81

Order-no.	Model	Description
T005 15 168 99	KHP 81	Basic unit electric (for WFE) safety rest with Stop+Go function with fibre optic sensor for WSP 80, WP 80, WP 120

**KHE 81**



Order-no.	Model	Description
T005 15 167 99	KHE 81	Basic unit electric (for WFE P) safety rest with Stop+Go function for soldering irons WSP 80, WP 80, WP 120 with fibre optic sensor

**KHE / KHP 81**



Order-no.	Model	Description
T005 15 161 72	WDH 10T OPTO	Second safety rest for KHE / KHP with fibre optic sensor for extending to 2 workplaces

**KH 6**



Order-no.	Model	Description
T005 15 006 99	KH 6	Safety rest for FE 75, FE 80

**WDH 30**



Order-no.	Model	Description
T005 15 152 99	WDH 30	Safety rest for FE 75, FE 80 and LR 21, LR 82 and TCPS with FE attachment



# Weller Safety Rests – Overview

Tools	AK 51	AKT 30	KH 4	KH 6	KH 18	KH 20	KH 20 + FE 75 funnel	KH 20 + FE 80 funnel	KH 25P	KH 27	KHE/KHP	KHE 81/ KHP 81
<b>Power-Response</b>												
WP 65 page 142												■
WP 120 page 144												■
WP 200 page 145												
WXP 65 page 142												
WXP 120 page 143												
WXP 200 page 145												
<b>Silver-Line</b>												
FE 75 page 126 / 130 / 148							■				■	
FE 80 page 126 / 130 / 149								■			■	
MPR 80 page 147									■			
WP 80 page 146												■
WSP 80 page 146					■							■
WSP 150 page 147												■
<b>Active Tip</b>												
WMRP page 140												
WMRT page 141												
WXMP page 140												
WXMT page 141												
<b>Standard-Line</b>												
LR 21 page 149											■	
WTA 50 page 158	■											
<b>Magnastat controlled low voltage soldering irons</b>												
TCPS page 150						■						
W 61 page 151			■									
W 101 page 151				■		■						
<b>Desoldering irons</b>												
DSX 80 page 154												
DXV 80 page 155												
WXDP 120 page 157												
DSX 120 page 157												
WXDV 120 page 155												
<b>Hot air irons</b>												
HAP 1 page 158										■		
HAP 200 page 159												
HAP 3000 page 70		■										
WXHAP 200 page 159												
<b>Inert gas soldering irons</b>												
WP 80IG/120IG page 37												
<b>Solder feeder system</b>												
WSFP 5/8 page 39												

Standard safety rest
  Safety rest with Stop & Go function
  Alternative safety rest



# Active-Tip Heating Technology



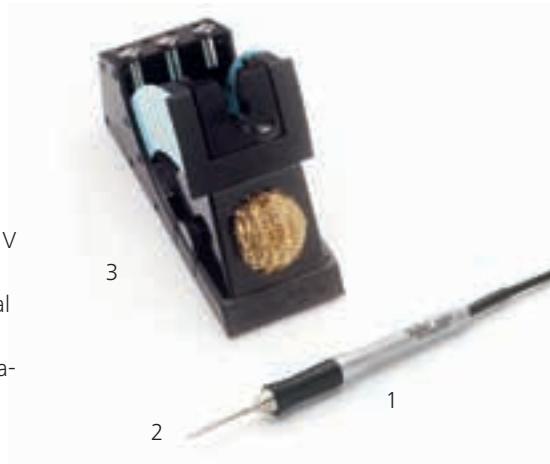
- Quick tip exchange without any tools
- Extremely short heating time 100°C/sec
- Energy saving by standby function
- Optimal reaction time

## Optimum for soldering applications

Optimal tool where heating element and sensor are integrated in the soldering tip. By lowering the soldering joint temperature a faster reaction time is possible. With this tool the performance is exactly at the solder joint.

## WXMP Set

- 40 W (55 W with RT 11), 12 V
- For WX stations
- Fine slim soldering iron. Ideal for microscope work.
- High performance by integrated active soldering tip.



**RT Soldering tip series**  
page 164/165

Order-no.	Model	Description
<b>T005 29 204 99</b>	<b>WXMP Set</b>	<b>Micro soldering iron WXMP with safety rest</b>

### Scope of supply

1	T005 29 203 99	WXMP	Micro soldering iron WXMP 40 W, 12 V with Active-Tip Heating Technology
2	T005 44 603 99	RT 3	Standard soldering tip, chisel 1,3 x 0,4 mm
3	T005 15 171 99	WDH 51	Safety rest with dry cleaner



## WMRP Set

- 40 W (55 W with RT 11), 12 V
- Fine slim soldering iron. Ideal for microscope work.
- High performance by integrated active soldering tip.



**RT Soldering tip series**  
page 164/165

Order-no.	Model	Description
<b>T005 29 190 99</b>	<b>WMRP Set</b>	<b>Micro soldering iron WMRP with safety rest</b>

### Scope of supply

1	T005 29 171 99	WMRP	Micro soldering iron WMRP 40 W, 12 V mit with Active-Tip Heating Technology
2	T005 44 603 99	RT 3	Standard soldering tip, chisel 1,3 x 0,4 mm
3	T005 15 156 99	WDH 50	Safety rest with dry cleaner



### Accessory

4	T005 87 518 16		Bracket can be plugged sideways into the rest and hold 2 RT tips
---	----------------	--	--

## WXMT Set

- 2 x 40 W, 12 V
- For WX stations
- Slim tweezers. Ideal for soldering and desoldering of very small SMD components.



RTW Soldering tip series page 166/167



Order-no.	Model	Description
<b>T005 13 178 99</b>	<b>WXMT Set</b>	<b>Micro desoldering tweezers WXMT with safety rest</b>

Scope of supply

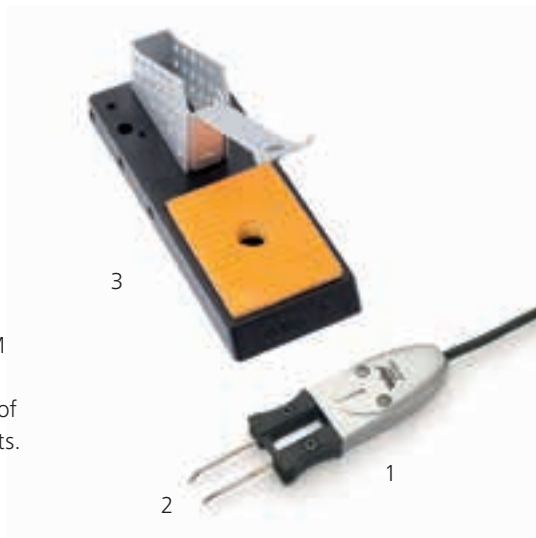
1	T005 13 177 99	WXMT	Micro desoldering tweezers 2 x 40 W, 12 V (hand piece without tips) with Active-Tip Heating Technology	
2	T005 44 652 99	RTW 2	Soldering triplet, 0,7 x 0,4 mm, 45°	
3	T005 15 169 99	WDH 60	Safety rest with dry cleaner	

## WMRT Set

- 2 x 40 W, 12 V
- For rework stations WR 3M
- Slim tweezers. Ideal for soldering and desoldering of very small SMD components.



RTW Soldering tip series page 166/167



Order-no.	Model	Description
<b>T005 13 173 99</b>	<b>WMRT Set</b>	<b>Micro desoldering tweezers WMRT with safety rest</b>

Scope of supply

1	T005 13 174 99	WMRT	Micro desoldering tweezers 2 x 40 W, 12 V (hand piece without tips) with Active-Tip Heating Technology	
2	T005 44 652 99	RTW 2	Soldering triplet, 0,7 mm x 0,4 mm, 45°	
3	T005 15 146 99	WMRTH	Safety rest	

# Power-Heating Technology



- Beneficial soldering tip prices
- Max. heating transfer
- Soldering tip in optimized sensor position
- Fast reaction time

## Power-Response Heating Technology

Due to an optimized sensor position a high performance is given. With a wide range of beneficial soldering tips these tools are an alternative to the micro soldering irons.

## WXP 65 Set

- 65 W, 24 V
- Small fast soldering iron with 65 W for for WX stations. Qualified for fine solder jobs with high heating demand.



**XNT Soldering tip series**  
page 168/169



Order-no.	Model	Description
T005 29 212 99	WXP 65 Set	Soldering iron WXP 65 with safety rest

### Scope of supply

1	T005 29 211 99	WXP 65	Soldering iron 65 W, 24 V with Power-Response Heating Technology
2	T005 44 851 99	XNT A	Standard soldering tip, Chisel, 1,6 x 0,4 mm
3	T005 15 121 99	WDH 10	Safety rest with dry cleaner

### Optional:

T005 29 211 70	WXP 65 Set	WXP 65 Set with cable 2,5 m
----------------	------------	-----------------------------

## WP 65 Set

- 65 W, 24 V
- Small fast soldering iron with 65 W. Qualified for fine solder jobs with high heating demand.



**XNT Soldering tip series**  
page 168/169



Order-no.	Model	Description
T005 29 216 99	WP 65 Set	Set Soldering iron WP 65 with safety rest

### Scope of supply

1	T005 29 215 99	WP 65	Soldering iron 65 W, 24 V with Power-Response Heating Technology
2	T005 44 851 99	XNT A	Standard soldering tip, Chisel, 1,6 x 0,4 mm
3	T005 15 121 99	WDH 10	Safety rest with dry cleaner

### Accessory for both sets:

T005 87 657 58

[www.labem.pl](http://www.labem.pl) Barrel

## WXP 120 Set

- 120 W, 24 V
- Allrounder with 120 watts. For soldering applications from small to large components with high temperature demand.



XT Soldering tip series  
page 172/173



Order-no.	Model	Description
<b>T005 29 202 99</b>	<b>WXP 120 Set</b>	<b>Soldering iron WXP 120 with safety rest</b>
Scope of supply		
1 T005 29 201 99	WXP 120	Soldering iron 120 W, 24 V with Power-Response Heating Technology
2 T005 44 704 99	XT B	Standard soldering tip, XT B, Chisel 2,4 x 0,8 mm
3 T005 15 121 99	WDH 10	Safety rest with dry cleaner
<b>Accessory</b>		
T005 87 657 11		Barrel

## WXP 120 Solar

- 120 W, 24 V
- For solar modules
- 2,5 m connection cable



XT Soldering tip series  
page 172/173



Order-no.	Model	Description
<b>T005 29 210 99</b>	<b>WXP 120 Solar</b>	<b>Soldering iron WXP 120</b>
Scope of supply		
1 T005 29 201 99	WXP 120	Soldering iron 120 W, 24 V with Power-Response Heating Technology
2 T005 44 730 99	XTDDH 45°	Soldering tip 4 mm slopped
<b>Accessory:</b>		
T005 87 657 11		Barrel

## WP 120 Set

- 120 W, 24 V
- Allrounder with 120 watts. For soldering applications from small to large components with high temperature demand.



XT Soldering tip series page 172/173



Order-no.	Model	Description
<b>T005 29 194 99</b>	<b>WP 120 Set</b>	<b>Soldering iron WP 120 with safety rest</b>

### Scope of supply

1	T005 29 193 99	WP 120	Soldering iron 120 W, 24 V with Power-Response Heating Technology
2	T005 44 704 99	XT B	Standard soldering tip, XT B, Chisel 2,4 x 0,8 mm
3	T005 15 161 99	WDH 10T	Safety rest with Stop & Go function with dry cleaner

### Accessory

T005 87 657 09		Spare barrel
----------------	--	--------------

## WP 120 Solar

- 120 W, 24 V
- For solar modules
- 2,5 m connection cable



XT Soldering tip series page 172/173



Order-no.	Model	Description
<b>T005 29 207 99</b>	<b>WP 120 Solar</b>	<b>Soldering iron WP 120 with safety rest, with 2,5 m connection cable</b>

### Scope of supply

1	T005 29 207 99	WP 120 Solar	Soldering iron 120 W, 24 V with Power-Response Heating Technology
2	T005 44 730 99	XTDDH 45°	XTDDH 45° 4 mm sloped

### Accessory

T005 87 637 43		Spare barrel
----------------	--	--------------

## WXP 200 Set

- 200 W, 24 V
- High Power soldering iron compatible to the WX stations. Ideal for applications with a high temperature demand e.g. LED backpanels or HF shieldings

XHT Soldering tip series page 176



Order-no.	Model	Description
<b>T005 29 206 99</b>	<b>WXP 200 Set</b>	<b>Soldering iron WXP 200 with safety rest</b>
<b>Scope of supply</b>		
1 T005 29 205 99	WXP 200	Soldering iron 200 W, 24 V with Power-Response Heating Technology
2 T005 44 801 99	XHT D	Standard soldering tip, 5,0 x 1,2 mm
3 T005 15 158 99	WDH 31	Safety rest with dry cleaner
<b>Accessory</b>		
T005 87 637 25		Barrel

## WP 200 Set

- 200 W, 24 V
- High Power soldering iron. Ideal for applications with a high temperature demand e.g. LED backpanels or HF shieldings

XHT Soldering tip series page 176



Order-no.	Model	Description
<b>T005 29 200 99</b>	<b>WP 200 Set</b>	<b>Soldering iron WP 200 with safety rest</b>
<b>Scope of supply</b>		
1 T005 29 199 99	WP 200	Soldering iron 200 W, 24 V with Power-Response Heating Technology
2 T005 44 801 99	XHT D	Standard soldering tip, 5,0 x 1,2 mm
3 T005 15 158 99	WDH 31	Safety rest with dry cleaner
<b>Accessory</b>		
T005 87 637 25		Barrel



# Silver-Line Heating Technology



- Effective heat transfer
- Wide soldering tip range
- Universal use

## Silver-Line Heating Technology

Approved heating technology with effective heat transfer. For all purpose industrial applications. A wide range of soldering tips are available.

## WSP 80 Set

- 80 W, 24 V
- Fast and precise reach of soldering temperature.
- Slim iron design
- For all purpose soldering jobs



LT Soldering tip series page 177-180



Order-no.	Model	Description
T005 33 125 99	WSP 80 Set	Soldering iron WSP 80 with safety rest

### Scope of supply

1	T005 29 161 99	WSP 80	Soldering iron 80 W, 24 V with Silver-Line Heating Technology
2	T005 44 405 99	LT B	Soldering tip chisel 2,4 x 0,8 mm
3	T005 15 170 99	KH 18	Safety rest with sponge

### Accessory

T005 87 447 10		Barrel for WSP 80 (spare)
----------------	--	---------------------------

## WP 80 Set

- 80 W, 24 V
- Soldering iron WP 80 with short tip-to-grip design.
- Comfortable safety rest with 4 step varying inclination



LT Soldering tip series page 177-180



Order-no.	Model	Description
T005 29 181 99	WP 80 Set	Soldering iron WP 80 with safety rest

### Scope of supply

1	T005 29 180 99	WP 80	Soldering iron 80 W, 24 V with Silver-Line Heating Technology
2	T005 44 405 99	LT B	Soldering tip chisel 2,4 x 0,8 mm
3	T005 15 121 99	WDH 10	Safety rest with dry cleaner

### Accessory

T005 87 448 46		Barrel long, 55 mm
T005 87 448 45		Barrel short, 40 mm

## WSP 150 Set

- 150 W, 24 V
- For soldering applications with high temperature demand



LHT Soldering tip series page 183



Order-no.	Model	Description
T005 29 189 99	WSP 150 Set	Soldering iron WSP 150 with safety rest

### Scope of supply

1	T005 29 170 99	WSP 150	Soldering iron 150 W, 24 V with Silver-Line Heating Technology	
2	T005 44 450 99	LHT F	Soldering tip chisel 9,3 x 2,0 mm	
3	T005 15 152 99	WDH 30	Safety rest with dry cleaner	

## MPR 80 Set

- 80 W, 24 V
- Soldering iron with an adjustable head up to 40°



LT Soldering tip series page 177-180



Order-no.	Model	Description
T005 33 131 99	MPR 80 Set	Soldering iron MPR 80 with safety rest

### Scope of supply

1	T005 29 163 99	MPR 80	Soldering iron 80 W, 24 V, with Silver-Line Heating Technology	
2	T005 44 405 99	LT B	Soldering tip chisel 2,4 x 0,8 mm	
3	T005 15 033 99	KH 25P	Safety rest with sponge	

### Accessory

T005 87 447 10		Barrel for WSP 80 (spare)
----------------	--	---------------------------

# Silver-Line Heating Technology

Weller FE soldering irons are specifically designed for tip extraction applications (tip extraction see page 126). The fume extraction tube is integrated to the iron and positioned above the soldering tip. Regardless the iron is ergonomical and allows precise work. The FE soldering irons are controlled electronically and can be connected to all Weller soldering stations except WX stations. Different performances and the wide range of Weller soldering tips gives a multi-purpose applications to the FE irons. Weller FE soldering irons are delivered with a 5,0 mm heat resistant fume extraction hose (2,5 mm). Irons are ESD safe.



## FE 75 Set

- 80 W, 24 V
- For tip extraction



LT Soldering tip series page 177-180

	Order-no.	Model	Description
	<b>T005 33 151 99</b>	<b>FE 75 Set</b>	<b>Soldering iron FE 75 with safety rest</b>
Scope of supply			
1	T005 29 166 99	FE 75	FE-Soldering iron 80 W, 24 V with Silver-Line Heating Transfer
2	T005 44 405 99	LT B	Soldering tip chisel 2,4 x 0,8 mm
3	T005 15 020 99	KH 20	Safety rest with sponge
	T005 87 447 28		Funnel for FE 75
	T005 25 409 99		Cleaning brush for extraction tube
<b>Accessory</b>			
	T005 87 447 10		Barrel for FE 75 (spare)

## FE 80

- 80 W, 24 V
- For tip extraction



HT Soldering tip series page 185



Order-no.	Model	Description
<b>T005 26 162 99</b>	<b>FE 80</b>	<b>FE-Soldering iron</b>
Scope of supply		
T005 26 162 99	FE 80	FE-Soldering iron 80 W, 24 V with Silver-Line Heating Transfer
T005 44 261 99	HT 2	Soldering tip
T005 87 337 58		Funnel for FE 80
T005 25 409 99		Cleaning brush for extraction tube
<b>Accessory</b>		
T005 15 152 99	WDH 30	Safety rest

## LR 21 Set

- 50 W, 24 V
- For standard soldering applications



LT Soldering tip series page 177-180



Order-no.	Model	Description
<b>T005 29 187 99</b>	<b>LR 21 Set</b>	<b>Soldering iron LR 21 with safety rest</b>
Scope of supply		
1 T005 25 106 99	LR 21	Soldering iron 50 W, 24 V with LT-B soldering tip adapter
2 T005 44 415 99	LT M	Standard soldering tip, LT M, 3,2 mm X 1,2 mm
3 T005 15 152 99	WDH 30	Safety rest with dry cleaner

# Magnastat Soldering Iron

The Magnastat system operates through a ferro-magnetic sensor device which changes its characteristics when specific temperatures are reached. This causes it to either attract or repel a permanent magnet which operates a power supply switch. In this way power to the heating element can be quickly switched on or off to either provide extra power.

## Magnastat Controlled Low Voltage Soldering Iron

### TCPS

- 50 W, 24 V
- 3 wire silicone cord and plug for Weller WTCP 51 Magnastat soldering station.
- Hard grounded



LT Soldering tip series page 177-180

Order-no.	Model	Description
T00 532 105 99	TCPS	Magnastat Soldering iron 50 W, 24 V with adapter PT 7 (370°C) and soldering tip LT M

### TCP 24

- 50 W, 24 V
- 2 wire silicone cord without plug
- No grounding possible



LT Soldering tip series page 177-180

Order-no.	Model	Description
T005 10 001 99	TCP 24	Magnastat Soldering iron 50 W, 24 V, with adapter PT 7 (370°C) and soldering tip LT M

### TCP 42

- 45 W, 24 V
- 2 wire cord (4 m) without plug



LT Soldering tip series page 177-180

Order-no.	Model	Description
T005 10 055 71	TCP 42	Magnastat Soldering iron 45 W, 24 V, with adapter PT 7 (370°C) and soldering tip LT M

### TCP 12

- 3 m cord with battery clamps e.g. for car battery



LT Soldering tip series page 177-180

Order-no.	Model	Description
T005 10 053 99	TCP 12	Magnastat Soldering iron 30/40 W, 12/14 V, with adapter PT 7 (370°C) and soldering tip LT M

## Magnastat controlled line voltage soldering irons

### W 61

- 60 W, 230 V



CT 5 Soldering tip series page 188



Order-no.	Model	Description
T005 61 036 99	W 61	Line voltage soldering iron 60 W, 230 V, Magnastat controlled

### W101

- 100 W, 230 V
- Complete with soldering tip CT6E7 and safety rest



CT 6 Soldering tip series page 189



Order-no.	Model	Description
T005 61 046 99	W 101	Low voltage soldering iron 100 W, 230 V, Magnastat controlled

### W 101SP

- 100 W, 230 V
- Complete with welding wedge Teflon coated 50 x 40 x 4 mm, twist lock and safety rest

Welding wedge spare page 189



Order-no.	Model	Description
T005 61 096 99	W 101SP	Line voltage soldering iron 100 W, 230 V, Magnastat controlled with welding wedge (260°C-295°C)

### W 201

- 200 W, 230 V
- Complete with soldering tip CT2F7 and safety rest



CT 2 Soldering tip series page 190



Order-no.	Model	Description
T005 61 056 99	W 201	Line voltage soldering iron 200 W, 230 V, Magnastat controlled

# Unregulated Line Voltage Soldering Iron

Robust heating elements of special steel between natural mica-leaves, embedded in cast ceramics and first-class material make the Weller SPI irons outstanding in technology and life-time. Ideal for professional applications in crafts and schools.

## SPI 16

- 15 W, 230 V
- Heating up time approx. 180 sec.
- Tip temperature approx. 360°C



SPI 16-Soldering tip series page 191



Order-no.	Model	Description
T005 64 005 99	SPI 16	Line voltage soldering iron unregulated 15 W, 230 V

Scope of supply

Complete with soldering tip 4SPI15212 chisel tip 1,2 mm and safety rest

## SPI 27

- 25 W, 230 V
- Heating up time approx. 180 sec.
- Tip temperature approx. 410°C



SPI 27-Soldering tip series page 191



Order-no.	Model	Description
T005 64 021 99	SPI 27	Line voltage soldering iron unregulated 25 W, 230 V

Scope of supply

Complete with soldering tip 4SPI26206 chisel tip 1,2 mm and safety rest

## SPI 41

- 40 W, 230 V
- Heating up time approx. 180 sec.
- Tip temperature approx. 450°C



SPI 41-Soldering tip  
series page 191



Order-no.	Model	Description
T005 64 037 99	SPI 41	Line voltage soldering iron unregulated 40 W, 230 V

### Scope of supply

Complete with soldering tip 4SPI402224 chisel tip 2,0 mm and safety rest

## SPI 81w

- 80 W, 230 V
- Heating up time approx. 180 sec.
- Tip temperature approx. 480°C



SPI 81-Soldering tip  
series page 191



Order-no.	Model	Description
T005 64 053 99	SPI 81	Line voltage soldering iron unregulated 80 W, 230 V

### Scope of supply

Complete with soldering tip 4SPI80237 chisel tip 5,0 mm and safety rest



# Desoldering Iron

The desoldering irons of the X-series feature a novel threadless desoldering nozzle fixture system whereby the nozzle is inserted into the head and locked into place by applying a 1/4 turn. This patented feature allows the desoldering nozzles to be quickly and easily exchanged and also improves the rate of thermal transfer from the desoldering head to the desoldering nozzle providing the tools with a faster heating up time and recovery rate. Together with a 80 watts heating element the desoldering iron is qualified for solder joints where a high temperature is required.

Desoldering iron with external solder collector (DSX 80) for SMD components. Same working position as usual soldering irons. Electronic temperature control. Micro finger switch for activating the vacuum pump. Various desoldering nozzles as well as CSF desoldering heads are available.



## DSX 80 Set

- 80 W, 24 V
- With external solder collector
- Same working position as usual soldering irons



DX Desoldering nozzle series  
page 194

Order-no.	Model	Description
<b>T005 13 183 99</b>	<b>DSX 80 Set</b>	<b>Desoldering iron set 80 W, 24 V with threadless nozzle fixture system</b>

### Scope of supply

1	T005 13 190 99	DSX 80	Desoldering iron 80 W, 24 V
2	T005 15 152 99	WDH 30	Safety rest
3	T005 13 142 00	DX 112	Nozzle inner ø 1,0 mm
4	T005 13 143 00	DX 113	Nozzle inner ø 1,2 mm
	T005 13 500 99		Cleaning Set
	T005 13 603 99		Gaskets for glastube (10 pieces)

## Accessory


Order-no.	Description
<b>T005 13 604 99</b>	<b>Filter for glastube (10 pieces)</b>

Inline desoldering iron with internal solder reservoir for vertical handling. Electronic temperature control. Micro finger switch controls quick start of fast action vacuum pump. Different nozzles and CSF heads are available.



## DXV 80 Set

- 80 W, 24 V
- Internal solder reservoir
- For vertical applications

 **DX Nozzle series**  
page 194

Order-no.	Model	Description
<b>T005 13 182 99</b>	<b>DXV 80 Set</b>	<b>Inline desoldering iron 80 W, 24 V with threadless nozzle fixture system</b>

### Scope of supply

1	T005 13 180 99	DXV 80	Inline desoldering iron 80 W, 24 V
2	T005 15 153 99	WDH 40	Safety rest
3	T005 13 142 00	DX 112	Nozzle inner ø 1,0 mm
4	T005 13 143 00	DX 113	Nozzle inner ø 1,2 mm
5	T005 13 500 99		Cleaning Set
6	T005 87 418 15		Filter cartridge for DXV 80 (5 pieces)
7	T005 87 418 23		Brush for heating element
8	T005 87 067 94		Cone cleaner

## WXDV 120 Set

- 120 W, 24 V
- Temperature range  
100°C - 350°C, 120 W, 24 V
- Heat-up time ca. 35 sec.  
(50°C - 350°C / 122° F- 662°F)
- Setback capable
- Blue LED indication light
- Integrated tin collector
- Internal parameter storage  
(Zero Tolerance)
- Connectable to WXD 2




Available from September 2013



Order-no.	Model	Description
<b>T005 13 205 99</b>	<b>WXDV 120</b>	<b>Desoldering iron 120 W, 24 V</b>

### Lieferumfang

1	T005 13 204 99	WXDV 120	Desoldering iron 120 W, 24 V
2	T005 15 153 99	WDH 40	Safety rest
	T005 87 658 01	PDN	Pliers for desoldering nozzles
	T005 13 252 00		XDS 3 Nozzle
	T005 13 254 00		XDS 5 Nozzle
	T005 87 657 73		Cleaning Set
	T005 87 657 72		Cone cleaner
	T005 87 418 19		Filter cartridge (5 pieces)

 **XDS Nozzle series**  
page 197

# Desoldering Irons

## Maintenance set for Desoldering Irons and nozzles

- For cleaning nozzles and for nozzle exchange



Order-no.	Description
T005 87 658 01	PDN Pliers for desoldering nozzles

Order-no.	Description
T005 87 637 73	Cleaning set for WXDP 120 and WSDV 120
T005 13 500 99	Cleaning set for DSX 80 und DXV 80

Order-no.	Description
T005 87 657 78	Glas tube for WXDP 120
T005 13 605 99	Glas tube for DSX 120 and DSX 80 (4 pieces)

Order-no.	Description
T005 87 657 72	Cone cleaner for WXDP 120 / WXDV 120 / DSX 120
T005 87 067 94	Cone cleaner for DSX 80 and DXV 80

Order-no.	Description
T005 13 500 99	Cleaning set complete

### Scope of supply

T005 87 488 61	Handle
T005 13 501 99	Spare needle set, 0,6 mm / 0,9 mm / 1,4 mm / 1,9 mm

### Accessory

T005 13 502 99	Spare needle set, 1 x 1,9 mm, 3 x 0,9 mm
T005 13 503 99	Spare needle set, 1 x 1,9 mm, 3 x 0,5 mm
T005 13 504 99	Spare needle set, 1 x 1,9 mm, 3 x 1,4 mm

New products enlarge the WX family. A new WXD 2 desoldering station and a new WXDP desoldering iron. These tools are ideal for professional rework applications of the latest electronic components in the industrial operation. Typically for the WX stations: soldering and desoldering parameters can be saved easily on the iron. The WXDP 120 heats up within 35 sec. only. With stand-by function.

## WXDP 120 Set

- 120 W, 24 V High power desoldering iron
- Heat up time 35 sec only Set-back function
- Push and pull technolgy: cartridge change with one hand possible
- Programmable, intelligent WX desoldering iron



Order-no.	Model	Description
<b>T005 13 202 99</b>	<b>WXDP 120 Set</b>	<b>Desoldering iron 120 W, 24 V with excenter fixture</b>

Scope of supply

1	T005 13 201 99	WXDP 120	Desoldering iron 120 W, 24 V
2	T005 15 172 99	WDH 70	Safety rest with dry cleaner
3	T005 87 657 78		Glas tube with strap
	T005 87 657 72		Cone cleaner
	T005 87 657 73		Filter ø 17 für Glasrohr (10 pieces)
	T005 87 657 73		Cleaning set WXDP / DSX 120
	T005 87 658 01	PDN	Pliers desoldering nozzles

## DSX 120

- 120 W, 24 V High power desoldering iron
- Heat up time 35 sec only, set-back function



Order-no.	Model	Description
1 <b>T005 13 198 99</b>	<b>DSX 120</b>	<b>Desoldering iron 120 W, 24 V with excenter fixture, without safety rest. Safety rest must be ordered separately.</b>

2 Scope of supply

T005 13 604 99	XDS 1	Nozzle
----------------	-------	--------

Accessory

T005 15 152 99	WDH 30	Safety rest with dry cleaner
----------------	--------	------------------------------

## WTA 50 Set

- Tweezers 50 W, 24 V
- For desoldering of SMD components



WTA tips  
page 185



Order-no.	Model	Description
<b>T005 33 133 99</b>	<b>WTA 50 Set</b>	<b>Tweezers WTA 50 with safety rest</b>

### Scope of supply

1	T005 13 171 99	WTA 50	Tweezers 2 x 25 W, 24 V
2	T005 44 141 99	WTA 1	Tip set, bent 45°, 0,5 mm X 0,5 mm
3	T005 15 042 99	AK 51	Safety rest

The hot air irons HAP 1 and HAP 200 work with a temperature range from 50°-550°C. They provide a directional hot air flow that is adjustable. Finger switch controls adjustable pump. Different nozzles are available.



ESD

## HAP 1 Set

- 100 W, 24 V
- Temperature range 50°C to 550°C
- Hot air flow ionic free
- Activated by finger switch



Hot air nozzles  
page 198-204



Order-no.	Model	Description
<b>T005 27 118 99</b>	<b>HAP 1 Set</b>	<b>Hot air iron set 100 W, 24 V</b>

### Scope of supply

1	T005 27 115 99	HAP 1	Hot air iron 100 W / 24 V with Hot air nozzle R 06 round ø 3,0 mm
2	T005 87 278 21	R 04	Hot air nozzle round ø 1,2 mm
3	T005 15 152 99	WDH 30	Safety rest with dry cleaner

The hot air iron HAP 200 works with the rework station WR 3M only.

## HAP 200 Set

- 200 W, 24 V
- Temperature range 50°C to 550°C
- Activated by finger switch



Hot air nozzles  
page 198–204



Order-no.	Model	Description
<b>T005 27 117 99</b>	<b>HAP 200 Set</b>	<b>Hot air iron set 200 W, 24 V</b>

Scope of supply

1	T005 27 116 99	HAP 200	Hot air iron 200 W / 24 V
2	T005 87 278 21	R 04	Hot air nozzle round ø 1,2 mm
3	T005 15 152 99	WDH 30	Safety rest with dry cleaner
	T005 87 617 28		Adapter M6 for HAP 200
4	T005 87 278 22	R 06	Hot air nozzle ø 3,0 mm

## WXHAP 200 Set

- 200 W, 24 V
- Temperature range 50°C to 550°C
- Blue LED light
- Internal Parameter storage (zero tolerance)
- Hot air flow ionic free



Hot air nozzles  
page 198–204



Available from September 2013

Order-no.	Model	Description
<b>T005 27 120 99</b>	<b>WXHAP 200 Set</b>	<b>Hot air soldering iron set 200 W, 24 V</b>

Scope of supply

1	T005 27 119 99	WXHAP 200	Hot air iron 200 W / 24 V with hot air nozzle R 06 round ø 3,0 mm
2	T005 15 152 99	WDH 30	Safety rest with dry cleaner
4	T005 87 278 22	R 06	Hot air nozzle ø 3,0 mm
	T005 87 278 21	R 04	Hot air nozzle round ø 1,2 mm
	T005 87 617 28		Adapter M6 for WXHAP 200

# Recommended treatment of Soldering Tips

## Solutions for cleaning challenges with lead free solder!

When using lead free it will be experienced an increased oxidation in the wettable area of the tip. These oxides must be removed regularly otherwise it will make the tip completely unwettable and not usable anymore. When cleaning the tip by means of the Weller WDC Dry Cleaner a special brass wool is used. First the surplus solder is removed by tapping the tip on the soft edge of the collector box. The final cleaning is then done by pushing and turning the tip in the brass wool. After cleaning there is still a fine layer of solder on the tip avoiding fast oxidation of the iron layer which is an advantage versus the cleaning by the wet sponge. The brass wool can be soaked in flux which may improve even the performance.

### Why dry cleaning?

- Best cleaning effect
- Soldering tip will be cleaned but stays wetted
- Flux will be removed
- Safe from oxidation
- Less temperature shock

### Individual cleaning methods

Wet cleaning with cleaning sponge



Dry cleaning with steel or brass wool



To ensure continued pleasure of our products it is essential to use only genuine Weller parts.

Weller's soldering tip and heater form a unit and therefore a perfect heating system to produce high quality solder joints. Perfect interaction between the heater and soldering tip protects the soldering iron from irreparable damage. Other tips often damage the heating system. A manufacturer's warranty is given only if genuine Weller replacement parts are used.

Genuine Weller tips can be identified by the Weller marking on the shaft of the tip as well as the Genuine Weller seal on the packaging.

[www.labem.pl](http://www.labem.pl)

## Use all possibilities and accessories for lowering the soldering tip temperature

- Stand-by mode
- Auto-off mode
- Safety rests with Stop & Go function
- Tools with Acceleration sensor

### High power infra-red preheating plate

Support for hand soldering processes without risking overheating



### After use wet the soldering tip again - with Weller WSW

Always use the lowest possible tip temperature and add sufficient solder to the tip before placing the iron back to the safety rest.



### Tip activator

Regeneration of oxidized tips. Use when tip is hot.



### Dry cleaning with WDC

- Soldering tip will be cleaned but stays wetted. Flux will be removed.
- Best treatment for soldering tips.



### Polishing bar WPB 1

Removes compact oxid films and regenerates tip surfaces when tip is cold.





# Weller Summary Soldering Tips

## Soldering Tips

### Soldering Tools

		XT Page 172 / 173	XTR Page 175	LTR Page 182	ET Page 184	XHT Page 176	XNT Page 168 / 169	RT Page 164 / 165	RTW Page 166 / 167	LT Page 177/ 178/179/180	NT Page 170	LHT Page 183	HT Page 185	WTA Page 185	PT Page 186 / 187	
<b>Fast response</b>																
WP 65	Page 142															
WP 120	Page 144															
WP 200	Page 145															
WXP 65	Page 142															
WXP 120	Page 143															
WXP 200	Page 145															
<b>Silver-Line</b>																
FE 75	Page 130 /148 / 126															
FE 80	Page 130, 149, 126															
MPR 80	Page 147															
WP 80	Page 146															
WSP 80	Page 146															
WSP 150	Page 147															
<b>Active-Tip</b>																
WMRP	Page 140															
WMRT	Page 141															
WXMP	Page 140															
WXMT	Page 141															
<b>Standard-Line</b>																
LR 21	Page 149															
LR 82																
WTA 50	Page 158															
<b>Unregulated Line Voltage Soldering Irons</b>																
SPI 16,27,41,81	Page 152, 153															
<b>Magnastat Controlled Line Voltage Soldering Irons</b>																
TCPS,TCP 12,TCP 24	Page 150															
W 61,101,201	Page 151															
<b>Desoldering Irons</b>																
DS 22,80,DSV 80																
DSX 80	Page 154															
DXV 80	Page 155															
WXDP 120	Page 157															
DSX 120	Page 157															
WXDV 120	Page 155															
<b>Hot Air Irons</b>																
HAP 1,HAP 200	Page 158 / 159															
HAP 3000	Page 70															
WXHAP 200	Page 159															
<b>Gas Powered Soldering Irons</b>																
Pyropen Jr.	Page 43															
Pyropen and P. Piezo	Page 42															
WP 60	Page 43															
<b>Inert Gas Soldering Irons</b>																
WSP 80IG	Page 37															
WSP 120IG	Page 37															
<b>Heating Elements</b>																
HER 120	Page 35															
HER 80	Page 35															



## RT Soldering Tip Series

### Soldering Tips for Soldering irons WMRP, WXMP

#### WMRP/ WXMP



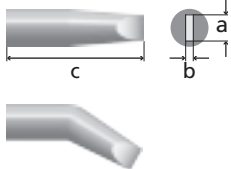
Fine slim soldering iron. Ideal for microscope work.  
High performance by integrated active soldering tip.

40 W (55 W with RT 11), 12 V



- Excellent heat transfer and sensors
- Soldering tips can be changed quickly and easily
- Excellent reaction time
- Extremely short heating time

#### Chisel



RT	Ø a mm	b mm	Order-no.
RT 15C	0,4	0,15	T005 44 612 99
RT 15CNW*	0,3	0,1	T005 44 626 99
RT 3	1,3	0,4	T005 44 603 99
RT 4	1,5	0,4	T005 44 604 99
RT 8	2,2	0,4	T005 44 608 99
RT 9	0,8	0,4	T005 44 609 99
RT 11	3,6	0,9	T005 44 611 99
RT 5 30°	0,8	0,4	T005 44 605 99

Type	Ø a mm	b mm	Order-no.
RT 15CMS	0,4	0,15	T005 44 615 99
RT 15CNWMS*	0,3	0,1	T005 44 626 71
RT 3MS	1,3	0,4	T005 44 616 99
RT 4MS	1,5	0,4	T005 44 618 99
RT 8MS	2,2	0,4	T005 44 622 99
RT 9MS	0,8	0,4	T005 44 623 99
RT 11MS	3,6	0,9	T005 44 631 99
RT 5MS 30°	0,8	0,4	T005 44 619 99
RT 3XMS 30°	1,3	0,5	T005 44 603 73

#### Sloped



Type	a mm	Order-no.
RT 6 45°	1,2	T005 44 606 99




Type	a mm	Order-no.
RT 6MS 45°	1,2	T005 44 620 99






\* none wetttable

MS tips: separate grounded

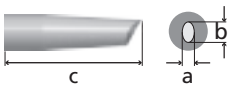
## Conical





Type	Ø a mm	Order-no.
 RT 1	0,2	T005 44 601 99
 RT 1NW*	0,1	T005 44 625 99
 RT 2	0,8	T005 44 602 99

Type	Ø a mm	Order-no.
 RT 1MS	0,2	T005 44 614 99
 RT 1NWMS*	0,1	T005 44 625 71
 RT 2MS	0,8	T005 44 617 99
 RT 12MS 25°	0,5	T005 44 632 99
 RT 13MS 30°	0,4	T005 44 633 99

## Gull Wing





Type	Ø a mm	b mm	Order-no.
 RT 10GW	1,2	2,0	T005 44 610 99

Type	Ø a mm	b mm	Order-no.
 RT 10GWMS	1,2	2,0	T005 44 624 99

## Knife




Type	Ø a mm	Order-no.
 RT 7 45°	2,2	T005 44 607 99

Type	Ø a mm	Order-no.
 RT 7MS 45°	2,2	T005 44 621 99

MS tips: separate grounded

## Measuring tip

Type	Order-no.
 Measuring tip	T005 44 613 99

\* none wettable

MS handles and MS soldering tips have to be used together.  
MS soldering tips are for use with MS handles only (WXMP MS / WMRP MS)

MS handles for RT MS soldering tips  
 T005 29 213 99      WXMP MS soldering iron handle packed  
 T005 29 217 99      WXMP MS soldering iron with safety rest WDH 51  
 T005 29 192 99      WMRP MS soldering iron handle packed

## RTW Soldering Tip Series

### Soldering tips for desoldering tweezers WMRT, WXMT



#### WXMT / WMRT

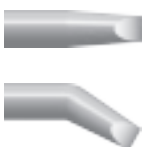
Slim tweezers. Ideal for soldering and desoldering of very small SMD components.

2 x 40 W, 12 V






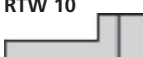
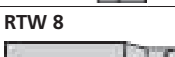








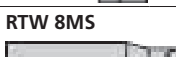

- Excellent heat transfer and sensors
- Solder tips can be changed quickly and easily
- Excellent reaction time
- Extremely short heating time

#### Chisel





RTW = tweezers



RTW	Ø a mm	b mm	Order-no.
RTW 2 45° 	0,7	0,4	T005 44 652 99
RTW 3 45° 	3,0	1,0	T005 44 653 99
RTW 4 45° 	6,0	1,0	T005 44 654 99
RTW 9 	3,0	1,0	T005 44 666 99
RTW 11 	6,0	1,0	T005 44 667 99
RTW 10 	10,0	1,0	T005 44 668 99
RTW 8 	1,3	0,4	T005 44 664 99

Type	Ø a mm	b mm	Order-no.
RTW 2MS45° 	0,7	0,4	T005 44 657 99
RTW 3MS 45° 	3,0	1,0	T005 44 658 99
RTW 4MS 45° 	6,0	1,0	T005 44 659 99
RTW 9MS 	3,0	1,0	T005 44 669 99
RTW 11MS 	6,0	1,0	T005 44 670 99
RTW 10MS 	10,0	1,0	T005 44 671 99
RTW 8MS 	1,3	0,4	T005 44 665 99
RTW 7NWMS* 	0,8	0,4	T005 44 663 71

Conical



Type	Ø a mm	Order-no.
RTW 1 45° 	0,4	T005 44 651 99
RTW 6NW* 45° 	0,2	T005 44 656 99

Type	Ø a mm	Order-no.
RTW 1MS 45° 	0,4	T005 44 655 99
RTW 6NWMS* 45° 	0,2	T005 44 656 71

\* none wettable

MS tips: separate grounded

MS handles and MS soldering tips have to be used together.  
MS soldering tips are for use with MS handles only (WXMT MS / WMRT MS)

MS handles for RTW MS soldering tips

- T005 29 213 99      WXMT MS Micro tweezers handle packed
- T005 29 217 99      WXMT MS Micro tweezers with safety rest WDH 60
- T005 29 192 99      WMRT MS Micro tweezers handle without tips

# Soldering Tips

## XNT Soldering Tip Series

### Soldering Tips for Soldering irons WXP 65, WP 65

#### WXP 65 / WP 65

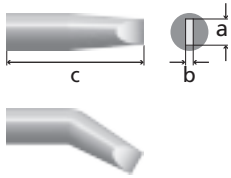
Small fast soldering iron. Suitable for fine solder jobs with high heating demand.

65 W, 24 V



- Interchangeable soldering tips at low prices
- Maximum heat transfer
- Heater with improved sensor position
- Fast recovery time

#### Chisel



XNT	Ø a mm	b mm	c mm	Order-no.
XNT 15CNW*	0,3	0,1	27,0	T005 44 881 99 T005 44 881 10
XNT 15C	0,4	0,15	27,0	T005 44 862 99 T005 44 862 10
XNT H	0,8	0,4	28,0	T005 44 859 99 T005 44 859 10
XNT K	1,2	0,4	28,0	T005 44 860 99 T005 44 860 10
XNT A	1,6	0,4	28,0	T005 44 851 99 T005 44 851 10
XNT 6	1,6	0,4	29,5	T005 44 856 99 T005 44 856 10
XNT B	2,4	0,8	27,0	T005 44 857 99 T005 44 857 10

Type	Ø a mm	b mm	c mm	Order-no.
XNT C	3,2	0,8	27,0	T005 44 858 99 T005 44 858 10
XNT D	4,0	0,8	28,0	T005 44 853 99 T005 44 853 10
XNT HX 30°	0,8	0,4	36,5	T005 44 873 99 T005 44 873 10
XNT 4X 45°	1,2	0,4	34,6	T005 44 874 99 T005 44 874 10
XNT AX	1,6	0,8	28,0	T005 44 864 99 T005 44 864 10
XNT BX	2,4	0,8	36,5	T005 44 882 99 T005 44 882 10
XNT MX	3,2	0,8	37,5	T005 44 883 99 T005 44 883 10

#### Sloped



Type	a mm	Order-no.
XNT 4	1,2	T005 44 855 99 T005 44 855 10
XNT AA 45°	1,6	T005 44 884 99 T005 44 884 10
XNT BB 45°	2,4	T005 44 885 99 T005 44 885 10

Type	a mm	Order-no.
XNT CC 45°	3,2	T005 44 886 99 T005 44 886 10
XNT F 45°	1,2	T005 44 887 99 T005 44 887 10

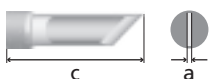
#### Conical



Typ	Ø a mm	c mm	Order-no.
XNT 1	0,5	27,0	T005 44 850 99 T005 44 850 10

Typ	Ø a mm	c mm	Order-no.
XNT 5	0,4	37,5	T005 44 868 99 T005 44 868 10

#### Knife



Type	Ø a mm	c mm	Order-no.
XNT KN	2,0	33,0	T005 44 863 99 T005 44 863 10

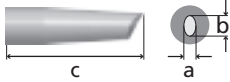
\* none wetttable



[www.labem.pl](http://www.labem.pl)

- T005XXXXX99 = 1 Piece
- T005XXXXX10 = 10 Pieces
- T005XXXXX11 = 100 Pieces

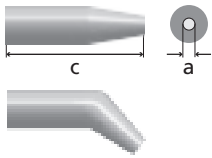




### Gull Wing





XNT		b mm	c mm	Order-no.
	<b>XNT GW 1</b>	2,0	33,0	T005 44 854 99 T005 44 854 10
	<b>XNT GW</b>	1,5	27,5	T005 44 880 99 T005 44 880 10


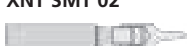
### Round

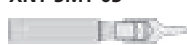


Type	Ø a mm	c mm	Order-no.	
	<b>XNT 1S</b>	0,2	28,5	T005 44 852 99 T005 44 852 10
	<b>XNT 1LX</b>	0,2		T005 44 872 99 T005 44 872 10

Type	Ø a mm	c mm	Order-no.	
	<b>XNT 1X</b>	0,4	28,0	T005 44 865 99 T005 44 865 10
	<b>XNT 1SLX 45°</b>	0,4	39,5	T005 44 875 99 T005 44 875 10

### SMT

Type	Ø a mm	b mm	c mm	Order-no.	
	<b>XNT SMT 01</b>	10,4	0,6	7,1	T005 44 876 99
	<b>XNT SMT 02</b>	16,8	0,6	7,1	T005 44 877 99

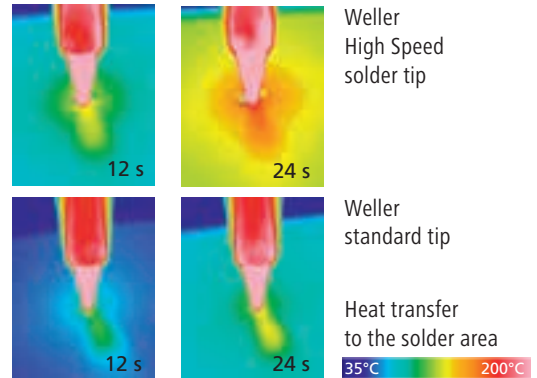
Type	Ø a mm	b mm	c mm	Order-no.	
	<b>XNT SMT 03</b>	20,8	0,6	7,1	T005 44 878 99

### High Speed




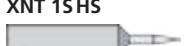






### High Speed heat transfer


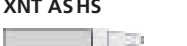
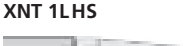
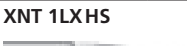




High Speed soldering tips provide enhanced heat transfer to the solder area.



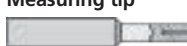
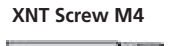
### High Speed


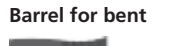


Type	Ø a mm	b mm	c mm	Order-no.	
	<b>XNT 1HS</b>	0,5		27,0	T005 44 888 99 T005 44 888 10
	<b>XNT 1SHS</b>	0,2		28,5	T005 44 889 99 T005 44 889 10
	<b>XNT 4HS</b>	1,2			T005 44 890 99 T005 44 890 10
	<b>XNT 6HS</b>	1,6	0,4	29,5	T005 44 891 99 T005 44 891 10
	<b>XNT HHS</b>	0,8	0,4	28,0	T005 44 892 99 T005 44 892 10
	<b>XNT KHS</b>	1,2	0,4	28,0	T005 44 893 99 T005 44 893 10
	<b>XNT AXHS</b>	1,6	0,8	28,0	T005 44 894 99 T005 44 894 10
	<b>XNT 1XHS</b>	0,4		28,0	T005 44 895 99 T005 44 895 10

Type	Ø a mm	b mm	c mm	Order-no.	
	<b>XNT SHS</b>	0,4			T005 44 896 99 T005 44 896 10
	<b>XNT ASHS</b>	1,6			T005 44 897 99 T005 44 897 10
	<b>XNT 1LHS</b>	0,2			T005 44 898 99 T005 44 898 10
	<b>XNT 1LXHS</b>	0,2			T005 44 8 99 99 T005 44 8 99 10
	<b>XNT HXHS 30°</b>	0,8	0,4	36,5	T005 44 900 99 T005 44 900 10
	<b>XNT 4XHS 45°</b>	1,2	0,4	34,6	T005 44 901 99 T005 44 901 10
	<b>XNT 1SLXHS 45°</b>	0,4		39,5	T005 44 902 99 T005 44 902 10
	<b>XNT F HS45°</b>	1,2			T005 44 903 99 T005 44 903 10

### Accessories

Type	Ø a mm	c mm	Order-no.	
	<b>Measuring tip</b>	0,6	31,3	T005 44 861 99
	<b>XNT Screw M4</b>		26,0	T005 44 879 99

Type	Order-no.	
	<b>Barrel</b>	T005 87 657 58
	<b>Barrel for bent</b>	T005 87 657 67






# Soldering Tips

## NT Soldering Tip Series Soldering Tips for WMP



Order-no.	Model	Description	Width A	Thickness B	Length L		
NT 1SC	<b>NT 1SC</b>	Chisel tip slim	0,4 mm	0,15 mm	14 mm		
NT H	<b>NT H</b>	Chisel tip	0,8 mm	0,4 mm	8,4 mm		
NT K	<b>NT K</b>	Chisel tip	1,2 mm	0,4 mm	8,4 mm		
NT A	<b>NT A</b>	Chisel tip	1,6 mm	0,4 mm	9,5 mm		
NT 6	<b>NT 6</b>	Chisel tip	1,6 mm	0,7 mm	7,4 mm		
NT B	<b>NT B</b>	Chisel tip	2,4 mm	0,8 mm	7,8 mm		
NT C	<b>NT C</b>	Chisel tip	3,2 mm	0,8 mm	8,2 mm		
NT D	<b>NT D</b>	Chisel tip	4,0 mm	0,8 mm	8,6 mm		
NT AX	<b>NT AX</b>	Chisel tip bent	1,6 mm	0,4 mm	8,2 mm		
NT 1S	<b>NT 1S</b>	Round tip slim	Ø 0,25 mm		8,5 mm		
NT 1	<b>NT 1</b>	Round tip	Ø 0,50 mm		7,4 mm		
NT 1X	<b>NT 1X</b>	Round tip bent 45°	Ø 0,4 mm		8,6 mm		
NT 4	<b>NT 4</b>	Round tip sloped 45°	Ø 1,2 mm		9,9 mm		
NT GW	<b>NT GW</b>	Gullwing tip	2,0 mm	3,0 mm	13,4 mm		
NT MS	<b>NT MS</b>	NT Measuring tip for thermoelement Ø 0,5 mm					

Continuation page 170, further soldering tips for WMP

Order-no.	Description	
T005 87 517 17	Silicon pad for changing bent NT tips	
T005 87 517 10	Tip changing tool for changing straight NT tips	

## XT Soldering Tip Series

### Soldering Tips for Soldering irons WP 120 and WXP 120

#### **WXP 120 / WP 120**

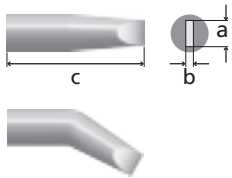
All-rounder with 120 watts. For soldering applications from small to large components with higher heat demand.



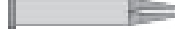
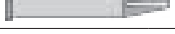


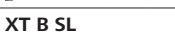


120 W, 24 V




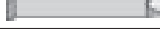
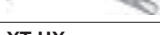
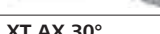
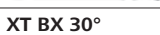



- Interchangeable soldering tips at low prices
- Maximum heat transfer
- Heater with improved sensor position
- Fast reaction time

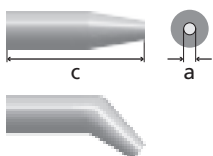
#### Chisel

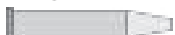



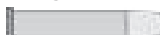
XT	Ø a mm	b mm	c mm	Order-no.
 XT H	0,8	0,4	36,5	T005 44 713 99 T005 44 713 10
 XT A	1,6	0,7	36,5	T005 44 703 99 T005 44 703 10
 XT AL	1,6	1,0	39,5	T005 44 701 99 T005 44 701 10
 XT ASL	1,6	0,45	36,5	T005 44 740 99 T005 44 740 10
 XT M	3,2	1,2	39,5	T005 44 702 99 T005 44 702 10
 XT B	2,4	0,8	36,0	T005 44 704 99 T005 44 704 10
 XT BSL	2,4	0,45	36,0	T005 44 741 99 T005 44 741 10
 XT B SL	2,5	0,8	36,3	T005 44 738 99 T005 44 738 10
 XT C	3,2	0,8	36,0	T005 44 705 99 T005 44 705 10

Type	Ø a mm	b mm	c mm	Order-no.
 XT D	4,6	0,8	34,5	T005 44 706 99 T005 44 706 10
 XT CSL	3,2	0,45	36,0	T005 44 742 99 T005 44 742 10
 XT E	5,9	1,2	34,5	T005 44 707 99 T005 44 707 10
 XT DL	4,6	0,8	39,5	T005 44 736 99
 XT MX	3,2	0,8	53,5	T005 44 745 99 T005 44 745 10
 XT HX	0,8	0,4	51,5	T005 44 737 99
 XT AX 30°	1,6	0,7	51,5	T005 44 743 99 T005 44 743 10
 XT BX 30°	2,4	0,8	51,5	T005 44 744 99 T005 44 744 10

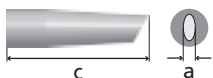
#### Round









Type	Ø a mm	c mm	Order-no.
 XT BS	2,4	36,5	T005 44 715 99 T005 44 715 10
 XT CS	3,2	36,5	T005 44 716 99 T005 44 716 10

Type	Ø a mm	c mm	Order-no.
 XT DS	5,0	34,5	T005 44 717 99 T005 44 717 10

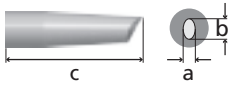
#### Sloped



Type	a mm	c mm	Order-no.
 XT F 30°	1,2	36,5	T005 44 718 99 T005 44 718 10
 XT AA 60°	1,6	36,5	T005 44 708 99 T005 44 708 10
 XT BB 45°	2,4	36,5	T005 44 709 99 T005 44 709 10

Type	a mm	c mm	Order-no.
 XT CC 45°	3,2	36,5	T005 44 710 99 T005 44 710 10
 XT DDH 45 45°	4,0	40,5	T005 44 730 99 T005 44 730 10
 XT AA 60 °	1,6	36,5	T005 44 708 99 T005 44 708 10

### Gull Wing



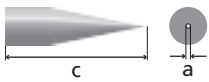
<b>XT</b>		<b>Ø a</b>	<b>b</b>	<b>c</b>	<b>Order-no.</b>
		mm	mm	mm	
<b>XT GW1</b>		2,3	3,2	36,5	T005 44 712 99 T005 44 712 10
<b>XT GW2</b>		3,5	4,8	36,5	T005 44 735 99

<b>Type</b>	<b>Ø a</b>	<b>b</b>	<b>c</b>	<b>Order-no.</b>	
	mm	mm	mm		
<b>XT GW3</b>		0,8	0,9	41,5	T005 44 711 99 T005 44 711 10

### Knife

<b>Type</b>	<b>Ø a</b>	<b>c</b>	<b>Order-no.</b>	
	mm	mm		
<b>XT KN 60 °</b>		2,0	45,0	T005 44 711 99 T005 44 714 10

### Conical



<b>Type</b>	<b>Ø a</b>	<b>c</b>	<b>Order-no.</b>	
	mm	mm		
<b>XT O</b>		1,0	36,5	T005 44 714 99 T005 44 714 10

### Soldering head

<b>Type</b>	<b>a</b>	<b>b</b>	<b>Order-no.</b>	
	mm	mm		
<b>XT Soldering head + adapter</b>		10,0	4,0	T005 44 731 99
<b>Soldering head</b>		10,0	4,0	T005 44 731 90
<b>XT Soldering head + adapter</b>		20,0	4,0	T005 44 732 99
<b>Soldering head</b>		20,0	4,0	T005 44 732 90
<b>XT Soldering head + adapter</b>		33,0	4,0	T005 44 733 99
<b>Soldering head</b>		33,0	4,0	T005 44 733 90

■ T005XXXXX99 = 1 Piece  
 ■ T005XXXXX10 = 10 Pieces  
 ■ T005XXXXX11 = 100 Pieces




## XT Soldering Tip Series



### Soldering Tips for Soldering irons WP 120 and WXP 120

The XT soldering head is an ideal tool for tin coating, soldering and desoldering different components.

The additional required barrel must be ordered separately.

#### Accessories

Type	a mm	c mm	Order-no.
<b>Measuring tip</b> 	0,5	40,0	T005 44 722 99
<b>XT Adapter M4</b> 		36,0	T005 44 719 99
<b>XT Adapter M5</b> 		36,0	T005 44 720 99

Type		Order-no.
<b>Barrel</b> 	WXP 120 WP 120	T005 87 657 11 T005 87 637 09
<b>Barrel for bent</b> 	WXP 120 WP 120	T005 87 657 66 T005 87 658 02

- T005XXXXX99 = 1 Piece
- T005XXXXX10 = 10 Pieces
- T005XXXXX11 = 100 Pieces



## XTR Soldering Tip Series

Soldering tip with twist lock. For use with robot heating element HER 120 and HERX 120.

Order-no.	Model	Description	Width A	Thickness B	Length L
T005 44 723 99 T005 44 723 10	<b>XTR A</b>	Chisel tip, (1 piece) (10 pieces)	1,6 mm	0,7 mm	36,0 mm
T005 44 724 99 T005 44 724 10	<b>XTR B</b>	Chisel tip, (1 piece) (10 pieces)	2,4 mm	0,8 mm	35,0 mm
T005 44 725 99 T005 44 725 10	<b>XTR C</b>	Chisel tip, (1 piece) (10 pieces)	3,2 mm	0,8 mm	35,0 mm
T005 44 726 99 T005 44 726 10	<b>XTR D</b>	Chisel tip, ( 1 piece) (10 pieces)	4,6 mm	0,8 mm	34,5 mm
T005 44 727 99 T005 44 727 10	<b>XTR E</b>	Chisel tip, (1 piece) (10 pieces)	5,9 mm	1,2 mm	34,5 mm
T005 44 728 99 T005 44 728 10	<b>XTR M</b>	Chisel tip, (1 piece) (10 pieces)	3,2 mm	1,2 mm	39,0 mm

## XHT Soldering Tip Series

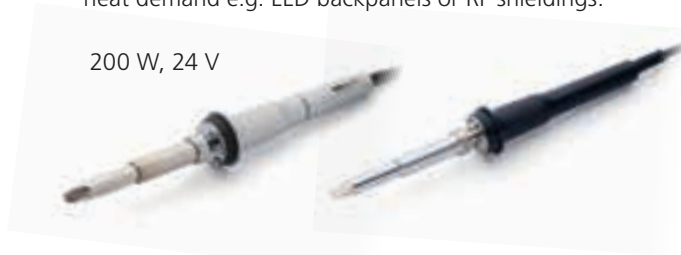
### Soldering Tips for Soldering irons WP 200,WXP 200



#### WXP 200 / WP 200

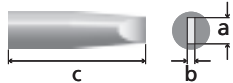
High Power soldering iron. Ideal for applications with highest heat demand e.g. LED backpanels or RF shieldings.

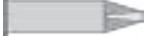
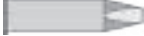
200 W, 24 V

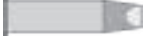
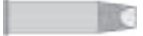


- Interchangeable soldering tips at low prices
- Maximum heat transfer
- Heater with improved sensor position
- Fast reaction time

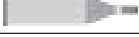
#### Chisel



XHT	Ø a mm	b mm	c mm	Order-no.
<b>XHT C</b> 	3,2	1,2	48,0	T005 44 804 99
<b>XHT D</b> 	5,0	1,2	48,0	T005 44 801 99

Type	Ø a mm	b mm	c mm	Order-no.
<b>XHT E</b> 	7,6	1,5	48,0	T005 44 802 99
<b>XHT F</b> 	9,3	2,0	48,0	T005 44 805 99

#### Accessories

Type	a mm	b mm	c mm	Order-no.
<b>Measuring tip</b> 	1,25	6,0	55,0	T005 44 803 99
<b>Barrel</b>				T005 87 637 25

Further soldering tip dimensions on request.

## LT Soldering Tip Series

Soldering Tips for Soldering irons WP 80, WSP 80, MPR 80 and FE 75, TCP-Soldering irons , LR 21, MLR 21 with adapter

### WSP 80 / WP 80

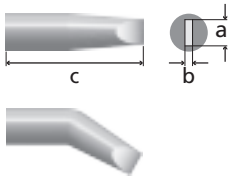


Approved heating technology with effective heat transfer. For all purpose industrial applications. A wide range of soldering tips are available.



- For universal applications
- Effective heat transfer
- Extensive range of soldering tips
- High quality heater core
- Soldering tip with low material use and therefore lower cost

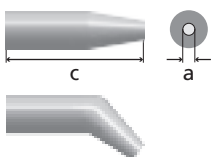
#### Chisel



LT	Ø a mm	b mm	c mm	Order-no.
LT 1SC	0,4	0,15	15,0	T005 44 494 99 T005 44 494 10
LT 1SCNW*	0,3	0,1	15,0	T005 44 497 99
LT A	1,6	0,7	12,5	T005 44 440 99 T005 44 440 10 T005 44 403 11
LT ASL	1,6	0,45	12,5	T005 44 516 99 T005 44 516 11
LT B	2,4	0,8	12,5	T005 44 405 99 T005 44 405 10 T005 44 405 11
LT BSL	2,4	0,45	12,5	T005 44 517 99 T005 44 517 11
LT H	0,8	0,4	12,5	T005 44 437 99 T005 44 437 10 T005 44 412 11
LT HSL	0,8	0,4	12,5	T005 44 518 99 T005 44 518 11
LT C	3,2	0,8	12,5	T005 44 407 99 T005 44 407 10 T005 44 407 11
LT D	4,6	0,8	12,5	T005 44 409 99 T005 44 409 10 T005 44 409 11

Type	Ø a mm	b mm	c mm	Order-no.
LT DLL	4,6	1,2	12,5	T005 44 448 99 T005 44 448 10
LT K	1,2	0,4	20,0	T005 44 438 99 T005 44 438 10 T005 44 413 11
LT L	2,0	1,0	20,0	T005 44 414 99 T005 44 414 10 T005 44 414 11
LT M	3,2	1,2	20,0	T005 44 415 99 T005 44 415 10 T005 44 415 11
LT HX 30°	0,8	0,4	17,5	T005 44 420 99 T005 44 420 11
LT ALX 30°	1,6	0,7	17,5	T005 44 443 99 T005 44 443 10
LT BX 30°	2,4	0,8	17,5	T005 44 442 99 T005 44 442 10
LT AX 30°	1,6	0,8	14,1	T005 44 427 99 T005 44 427 10
LT 4X 30°	1,2	0,4	17,2	T005 44 428 99 T005 44 428 10
LT MX 30°	3,2	1,2	20,0	T005 44 469 99

#### Round



Type	Ø a mm	c mm	Order-no.
LT 1S	0,2	15,0	T005 44 436 99 T005 44 402 10
LT 1SNW*	0,1	15,0	T005 44 496 99
LT 1SA	0,5	15,0	T005 44 488 99
LT 1	0,25	13,0	T005 44 435 99 T005 44 435 10 T005 44 401 11
LT 1LNW*	0,1	25,4	T005 44 498 99

Type	Ø a mm	c mm	Order-no.
LT 1A	0,5	13,0	T005 44 489 99 T005 44 489 10 T005 44 489 11
LT AS	1,6	12,5	T005 44 404 99 T005 44 404 10 T005 44 404 11
LT CS	3,2	12,5	T005 44 411 99 T005 44 411 10
LT 1SLX 30°	0,4	22,0	T005 44 426 99 T005 44 426 10
LT 1X 30°	0,4	13,0	T005 44 425 99 T005 44 425 10

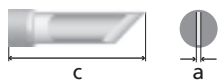
\* none wettable



# Soldering Tips

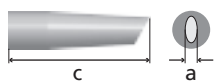
Continuation page 177, further soldering tips for WP 80, WSP 80, MPR 80, FE 75 and TCP irons

## Knife



Type	Ø a mm	c mm	Order-no.
LT KN	2,0	16,5	T005 44 479 99 T005 44 479 10
LT KN5L 45°	2,0	16,5	T005 44 519 99

## Sloped



Type	a mm	c mm	Order-no.
LT 4 45°	1,2	15,0	T005 44 439 99 T005 44 439 10 T005 44 421 11
LT F 45°	1,2	12,5	T005 44 408 99 T005 44 408 10 T005 44 408 11
LT AA 60°	1,6	12,5	T005 44 487 99 T005 44 487 10
LT BB 60°	2,4	17,0	T005 44 444 99 T005 44 444 10
LT BB 45°	2,4	17,0	T005 44 484 99
LT CC 60°	3,2	17,0	T005 44 445 99 T005 44 445 10
LT CC 45°	3,2	17,0	T005 44 485 99

Type	a mm	c mm	Order-no.
LT DD 45°	4,0	20,0	T005 44 478 99 T005 44 478 10
LT DD 45°	4,6	17,0	T005 44 486 99 T005 44 486 10 T005 44 486 11
LT 11CP 45°	1,2	15,0	T005 44 421 71
LT 22CP 45°	2,0	20,0	T005 44 408 73
LT 33CP 45°	3,0	20,0	T005 44 408 77
LT 44CP 45°	4,0	20,0	T005 44 408 81

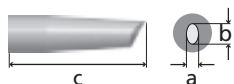
## Conical



Type	Ø a mm	c mm	Order-no.
LT 1L	0,2	25,4	T005 44 423 99 T005 44 423 10 T005 44 423 11
LT 1LNW*	0,1	25,4	T005 44 498 99
LT S	0,4	21,0	T005 44 406 99 T005 44 406 10 T005 44 406 11

Type	Ø a mm	c mm	Order-no.
LT T	0,6	13,0	T005 44 482 99 T005 44 482 10 T005 44 482 11
LT O	0,8	17,0	T005 44 481 99 T005 44 515 10
LT 1LX 35°	0,2	25,4	T005 44 424 99 T005 44 424 10 T005 44 424 11

## Gull Wing



Type	Ø a mm	b mm	c mm	Order-no.
LT GW1	2,3	3,2	17,8	T005 44 410 99 T005 44 410 10 T005 44 410 11
LT GW2	3,5	4,8	17,8	T005 44 511 99 T005 44 511 10

■ T005XXXXX99 = 1 Piece  
 ■ T005XXXXX10 = 10 Pieces  
 ■ T005XXXXX11 = 100 Pieces

\* none wettable

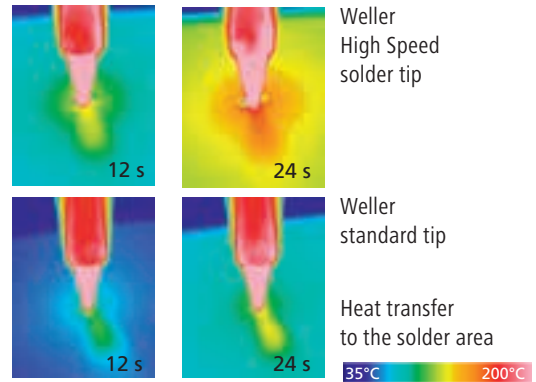
Continuation page 177/178, further soldering tips for WP 80, WSP 80, MPR 80, FE 75 and TCP irons

### High Speed



## High Speed heat transfer

High Speed soldering tips provide enhanced heat transfer to the solder area.



### High Speed



LT	Ø a mm	b mm	c mm	Order-no.
<b>LT 1HS</b> 	0,25		13,0	T005 44 520 99 T005 44 520 10 T005 44 520 11
<b>LT 1SHS</b> 	0,2		15,0	T005 44 521 99 T005 44 521 10 T005 44 52 111
<b>LT ASHS</b> 	1,6		12,5	T005 44 522 99 T005 44 522 10 T005 44 522 11
<b>LT SHS</b> 	0,4		21,0	T005 44 523 99 T005 44 523 10 T005 44 523 11
<b>LT FHS 45°</b> 	1,2		12,5	T005 44 524 99 T005 44 524 10 T005 44 524 11
<b>LT KHS</b> 	1,2	0,4	20,0	T005 44 525 99 T005 44 525 10 T005 44 525 11
<b>LT HXHS 30°</b> 	0,8	0,4	17,5	T005 44 526 99 T005 44 526 10 T005 44 526 11
<b>LT 4HS 45°</b> 	1,2		15,0	T005 44 527 99 T005 44 527 10 T005 44 527 11
<b>LT 1LHS</b> 	0,2		25,4	T005 44 528 99 T005 44 528 10 T005 44 528 11
<b>LT 1LXHS 35°</b> 	0,2		25,4	T005 44 529 99 T005 44 529 10 T005 44 529 11
<b>LT 1XHS 30°</b> 	0,4	13,0		T005 44 530 99 T005 44 530 10

Type	Ø a mm	b mm	c mm	Order-no.
<b>LT 1SLXHS 30°</b> 	0,4		22,0	T005 44 531 99 T005 44 531 10
<b>LT AXHS 30°</b> 	1,6	0,8	14,1	T005 44 532 99 T005 44 532 10
<b>LT 4XHS 30°</b> 	1,2	0,4	17,2	T005 44 533 99 T005 44 533 10
<b>LT OHS</b> 	0,8		17,0	T005 44 534 99 T005 44 534 10
<b>LT THS</b> 	0,6		13,0	T005 44 535 99 T005 44 535 11
<b>LT 1SAHS</b> 	0,5		15,0	T005 44 536 99
<b>LT 1AHS</b> 	0,5		14,0	T005 44 537 99 T005 44 537 10 T005 44 537 11
<b>LT OHS</b> 	1,4		17,0	T005 44 538 99
<b>LT ASLHS</b> 	1,6	0,45	12,5	T005 44 539 99 T005 44 539 11
<b>LT HSLHS</b> 	0,8	0,4	12,5	T005 44 540 99 T005 44 540 11

### Accessories

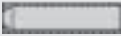
Type	a mm	c mm	Order-no.
<b>Measuring tip MLR 80/ WSP 80</b>	0,5	13,0	T005 44 416 99
<b>Screw M4 external thread</b>	8,0		T005 44 449 99
<b>ET-LT Adapter</b>			T005 87 207 81

- T005XXXXX99 = 1 Piece
- T005XXXXX10 = 10 Pieces
- T005XXXXX11 = 100 Pieces

\* none wettable

## MT-LT Adapter

All TCP, LR 21 soldering irons are delivered with adapter.

Order-no.	Description
T005 44 121 99	MT-LT Adapter for use with LT soldering tip series (see page 87) 
T005 87 207 95	Barrel for MT-LT Adapter

**Caution:** Not qualified for lead free solder bath or other electronic solder.

Soldering tips for high melting solder for WP 80, WSP 80, MPR 80 and FE 75



Order-no.	Model	Description	Width A	Thickness B	Length L
T005 44 430 99 T005 44 430 10	<b>LT H HPB</b>	Chisel tip, (1 piece) (10 pieces)	0,8 mm	0,4 mm	13,5 mm
T005 44 431 99 T005 44 431 10	<b>LT A HPB</b>	Chisel tip, (1 piece) (10 pieces)	1,6 mm	0,7 mm	13,5 mm
T005 44 432 99 T005 44 432 10	<b>LT B HPB</b>	Chisel tip, (1 piece) (10 pieces)	2,4 mm	0,8 mm	13,5 mm
T005 44 483 99	<b>LT D HPB</b>	Chisel tip, (1 piece)	4,6 mm	0,8 mm	13,5 mm

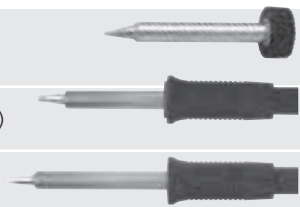
\* for HPB solder = solder with high consumption of lead



- For quick change of hot soldering tips for soldering irons WP 80 / WSP 80.
- If not in use place soldering iron with barrel in the safety rest

## Barrel

Order-no.	Description
T005 87 447 10	Barrel for WSP 80 spare part
T005 87 448 45	Barrel short (40 mm) for WP 80, spare part, (standard for WP 80)
T005 87 448 46	Barrel long (55 mm) for WP 80, spare part



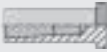

- For WSP 80, WSP 80IG and WP 80, WP 120, WP 120 IG, WXP 120, barrel and screw M4 has to be ordered separately.

## SMD Soldering Tip Series

Order-no.	Model	Description	Width A	Thickness B	Length L
T005 44 501 99	<b>SMT01</b>	for PAD-Cleaning	10,4 mm	0,6 mm	7,1 mm
T005 44 429 99	<b>SMT</b>	for PAD-Cleaning	10,5 mm	0,6 mm	7,5 mm
T005 44 502 99	<b>SMT02</b>	for PAD-Cleaning	16,8 mm	0,6 mm	7,1 mm
T005 44 503 99	<b>SMT03</b>	for PAD-Cleaning	20,8 mm	0,6 mm	7,1 mm
T005 44 467 89	<b>SMT</b>	for PAD-Cleaning	35,0 mm	3,0 mm	4,0 mm
T005 44 504 99	<b>SMT04</b>	for Chip	1,8 mm	3,4 mm	1,8 mm
T005 44 505 99	<b>SMT05</b>	for Chip	1,5 mm	2,3 mm	1,8 mm
T005 44 506 99	<b>SMT06</b>	for Chip	2,5 mm	1,7 mm	1,4 mm
T005 44 507 99	<b>SMT07</b>	for Chip	2,3 mm	4,5 mm	1,8 mm
T005 44 508 99	<b>SMT08</b>	for DIP	4,6 mm	5,1 mm	2,3 mm
T005 44 509 99	<b>SMT09</b>	for DIP	10,4 mm	5,1 mm	2,3 mm
T005 44 510 99	<b>SMT10</b>	for DIP	11,5 mm	6,9 mm	2,3 mm



## SMT Adapter + Tips for LR 21, WP 80, WSP 80, WSP 80FE, WSP 80IG and MPR 80

Order-no.	Model	Description
T005 44 417 99	<b>SMT</b>	SMT Adapter for WSP 80 
SMTA	<b>SMTA</b>	SMT Adapter for LR 21
SMT0504A	<b>SMT0504A</b>	A/1, for components 1,0 x 1,2 mm, 12 x 1,0 mm, 1,2 x 1,2 mm, 1,6 x 0,8 mm
SMT1206D	<b>SMT1206D</b>	D/1, for components 3,2 x 1,6 mm, 3,2 x 2,5 mm
SMT8K	<b>SMT8K</b>	K/2, for components 5,0 x 4,0 mm












■ For use with soldering robot application with heating element HER 80

## LT Soldering Tips with twist lock

Order-no.	Model	Description	Width A	Thickness B	Length L	
T005 44 441 99 T005 44 441 10	<b>LTR A</b>	Chisel tip (1 piece) (10 pieces)	1,6 mm	0,8 mm	17,0 mm	
T005 44 422 99 T005 44 422 10 T005 44 422 71	<b>LTR B</b>	Chisel tip 1,5 mm wetable (1 piece) (10 pieces) (1 piece) none wettable	2,4 mm	0,8 mm	17,0 mm	
T005 44 433 99 T005 44 433 10	<b>LTR C</b>	Chisel tip (1 piece) (10 pieces)	3,2 mm	0,8 mm	17,0 mm	
Special tips on request						

## LHT Soldering Tip Series

### Soldering Tips for Soldering irons WSP 150

Order-no.	Model	Description	Width A	Thickness B		
T005 44 455 99	<b>LHT C</b>	Chisel tip	3,2 mm	1,2 mm		
T005 44 452 99	<b>LHT D</b>	Chisel tip	4,7 mm	1,8 mm		
T005 44 451 99	<b>LHT E</b>	Chisel tip	6,7 mm	1,8 mm		
T005 44 450 99	<b>LHT F</b>	Chisel tip	9,3 mm	1,8 mm		
T005 44 513 99	<b>LHT CX</b>	Chisel tip bent	3,2 mm	1,2 mm		
T005 44 462 99	<b>LHT DX</b>	Chisel tip bent	5,0 mm	2,0 mm		
T005 44 461 99	<b>LHT EX</b>	Chisel tip bent	7,0 mm	2,0 mm		
T005 44 460 99	<b>LHT FX</b>	Chisel tip bent	9,2 mm	2,0 mm		
T005 44 456 99	<b>LHT D 45°</b>	Sloped 45° for solar cell production		1,8 mm		
T005 44 454 99		LHT Screw in tip with outside thread M6				
T005 44 453 99		LHT Measuring tip for thermoelement Ø 0,5 mm				
T005 87 447 95		Box nut WSP 150				

## ET Soldering Tip Series

### Soldering Tips for Soldering irons LR 21



Order-no.	Model	Description	Width A	Thickness B	
4ETS 4ETO	<b>ET S</b> <b>ET O</b>	Longform Conical Longform Conical	Ø 0,4 mm Ø 0,8 mm		
4ETR	<b>ET R</b>	Chisel tip slim	1,6 mm	0,7 mm	
4ETH 4ETA 4ETB 4ETC 4ETD 4ETE	<b>ET H</b> <b>ET A</b> <b>ET B</b> <b>ET C</b> <b>ET D</b> <b>ET E</b>	Chisel tip Chisel tip Chisel tip Chisel tip Chisel tip Chisel tip	0,8 mm 1,6 mm 2,4 mm 3,2 mm 4,6 mm 5,6 mm	0,4 mm 0,7 mm 0,8 mm 0,8 mm 0,8 mm 1,2 mm	
4ETK 4ETL 4ETM	<b>ET K</b> <b>ET L</b> <b>ET M</b>	Chisel tip long Chisel tip long Chisel tip long	1,2 mm 2,0 mm 3,2 mm	0,4 mm 1,0 mm 1,2 mm	
4ETF 4ETBB 4ETCC	<b>ET F</b> <b>ET BB</b> <b>ET CC</b>	Round tip sloped 45° Round tip sloped 45° Round tip sloped 45°	Ø 1,2 mm Ø 2,4 mm Ø 3,2 mm		
4ETP 4ETBS 4ETCS	<b>ET P</b> <b>ET BS</b> <b>ET CS</b>	Round tip blunt Round tip blunt Round tip blunt	Ø 0,8 mm Ø 2,4 mm Ø 3,2 mm		
T005 41 039 99 T005 41 040 99	<b>ET SMD</b> <b>ET SMD</b>	Chip soldering / desoldering tip, component size 2,5 mm x 1,5 mm Chip soldering / desoldering tip, component size 3,8 mm x 1,5 mm			
T005 41 045 99	<b>ET GW</b>	Gullwing tip			
T005 41 703 99		Screw in tip with M5 outside thread			
T005 24 750 99		ET Measuring tip for thermoelement Ø 0,5 mm			
T005 10 311 99		Barrel			

## ET-LT Adapter

Soldering tips of the LT series are used with an adapter in the soldering iron LR 21.

Order-no.	Model	Description	
T005 87 207 81		ET-LT Adaptor with barrel for use with LT series tips with LR 21 and FE 50 soldering irons	
T005 87 207 94		Spare barrel for ET-LT Adapter	

■ T005XXXXX99 = 1 Piece  
 ■ T005XXXXX10 = 10 Pieces  
 ■ T005XXXXX11 = 100 Pieces

## HT Soldering Tip Series

### Soldering Tips for Soldering irons LR 82 and FE 80



Order-no.	Model	Description	Width A	Thickness B	
T005 44 260 99	<b>HT 1</b>	Chisel tip	3,2 mm	1,0 mm	
T005 44 261 99	<b>HT 2</b>	Chisel tip	5,2 mm	1,2 mm	
T005 44 262 99	<b>HT 3</b>	Chisel tip	7,0 mm	1,2 mm	
T005 44 267 99	<b>HT C</b>	Chisel tip long	3,2 mm	1,0 mm	
T005 44 268 99	<b>HT D</b>	Chisel tip long	4,6 mm	1,0 mm	
T005 44 269 99	<b>HT E</b>	Chisel tip long	5,6 mm	1,0 mm	
T005 44 264 99	<b>HT BS</b>	Round tip	Ø 2,4 mm		
T005 44 265 99	<b>HT CS</b>	Round tip	Ø 3,2 mm		
T005 44 266 99	<b>HT DS</b>	Round tip	Ø 5,0 mm		
T005 44 270 99		HT Screw in tip with outside thread M8nde			
T005 44 263 99		HT Measuring tip for thermoelement Ø 0,5 mm			
T005 26 202 99		Barrel			

## WTA Soldering Tip Series

### Tweezer Tips for WTA 50


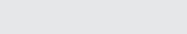
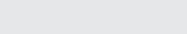
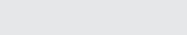
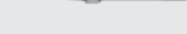
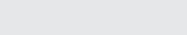


Order-no.	Model	Description	Width A	Thickness B	
T005 44 145 99	<b>WTA 1S</b>	Tip set bent 45°	0,5 mm	0,5 mm	
T005 44 141 99	<b>WTA 1</b>	Tip set bent 45°	1,0 mm	0,5 mm	
T005 44 146 99	<b>WTA 2</b>	Tip set bent 45°	3,0 mm	0,5 mm	
T005 44 147 99	<b>WTA 3</b>	Tip set bent 45°	6,0 mm	0,5 mm	
T005 44 143 99	<b>WTA 4</b>	Tip set bent 45°	12,5 mm	0,5 mm	
T005 44 144 99	<b>WTA 5</b>	Tip set bent 45°	18,5 mm	0,5 mm	
T005 44 152 99	<b>WTA 11</b>	Tip set for vertical use	1,0 mm	0,5 mm	
T005 44 153 99	<b>WTA 12</b>	Tip set for vertical use	3,0 mm	0,5 mm	
T005 44 149 99		WT Measuring tip for thermoelement Ø 0,5 mm			




## PT Soldering Tip Series

### Soldering Tips for TCPS, TCP 12, TCP 24

Order-no.	Model	Description	Width A	Dicke B	
4PTR7	<b>PT R7</b>	Chisel tip slim 370°C	1,6 mm	0,7 mm	
4PTR8	<b>PT R8</b>	Chisel tip slim 425°C	1,6 mm	0,7 mm	
4PTH6	<b>PT H6</b>	Chisel tip 310°C	0,8 mm	0,4 mm	
4PTH7	<b>PT H7</b>	Chisel tip 370°C	0,8 mm	0,4 mm	
4PTH8	<b>PT H8</b>	Chisel tip 425°C	0,8 mm	0,4 mm	
4PTA6	<b>PT A6</b>	Chisel tip 310°C	1,6 mm	0,7 mm	
4PTA7	<b>PT A7</b>	Chisel tip 370°C	1,6 mm	0,7 mm	
4PTA8	<b>PT A8</b>	Chisel tip 425°C	1,6 mm	0,7 mm	
4PTB6	<b>PT B6</b>	Chisel tip 310°C	2,4 mm	0,8 mm	
4PTB7	<b>PT B7</b>	Chisel tip 370°C	2,4 mm	0,8 mm	
4PTB8	<b>PT B8</b>	Chisel tip 425°C	2,4 mm	0,8 mm	
4PTB9	<b>PT B9</b>	Chisel tip 480°C	2,4 mm	0,8 mm	
4PTC7	<b>PT C7</b>	Chisel tip 370°C	3,2 mm	0,8 mm	
4PTC8	<b>PT C8</b>	Chisel tip 425°C	3,2 mm	0,8 mm	
4PTC9	<b>PT C9</b>	Chisel tip 480°C	3,2 mm	0,8 mm	
4PTD7	<b>PT D7</b>	Chisel tip 370°C	4,6 mm	0,8 mm	
4PTD8	<b>PT D8</b>	Chisel tip 425°C	4,6 mm	0,8 mm	
4PTD9	<b>PT D9</b>	Chisel tip 480°C	4,6 mm	0,8 mm	
4PTE8	<b>PT E8</b>	Chisel tip 425°C	5,6 mm	1,2 mm	
4PTE9	<b>PT E9</b>	Chisel tip 480°C	5,6 mm	1,2 mm	
4PTK6	<b>PT K6</b>	Chisel tip long 310°C	1,2 mm	0,4 mm	
4PTK7	<b>PT K7</b>	Chisel tip long 370°C	1,2 mm	0,4 mm	
4PTK8	<b>PT K8</b>	Chisel tip long 425°C	1,2 mm	0,4 mm	
4PTL6	<b>PT L6</b>	Chisel tip long 310°C	2,0 mm	1,0 mm	
4PTL7	<b>PT L7</b>	Chisel tip long 370°C	2,0 mm	1,0 mm	
4PTL8	<b>PT L8</b>	Chisel tip long 425°C	2,0 mm	1,0 mm	
4PTM7	<b>PT M7</b>	Chisel tip long 370°C	3,2 mm	1,2 mm	
4PTM8	<b>PT M8</b>	Chisel tip long 425°C	3,2 mm	1,2 mm	
4PTM9	<b>PT M9</b>	Chisel tip long 480°C	3,2 mm	1,2 mm	
T005 41 307 99	<b>PT MX7</b>	Chisel tip bent, 1 side wettable 370°C	3,2 mm	1,2 mm	
4PTCS7	<b>PT CS7</b>	Round tip 370°C	Ø 3,2 mm		
4PTDS7	<b>PT DS7</b>	Round tip 370°C	Ø 5,0 mm		
4PTS7	<b>PT S7</b>	Round tip long 370°C	Ø 0,4 mm		
4PTS8	<b>PT S8</b>	Round tip long 425°C	Ø 0,4 mm		
4PTO6	<b>PT O6</b>	Round tip long 310°C	Ø 0,8 mm		
4PTO7	<b>PT O7</b>	Round tip long 370°C	Ø 0,8 mm		
4PTO8	<b>PT O8</b>	Round tip long 425°C	Ø 0,8 mm		

Continuation page 186, further soldering tips for TCPS, TCP 12, TCP 24


Order-no.	Model	Description	Width A	Thickness B
4PTF7	<b>PT F7</b>	Round tip sloped 370°C	Ø 1,2 mm	
4PTF8	<b>PT F8</b>	Round tip sloped 425°C	Ø 1,2 mm	
4PTAA7	<b>PT AA7</b>	Round tip sloped 370°C	Ø 1,6 mm	
4PTAA8	<b>PT AA8</b>	Round tip sloped 425°C	Ø 1,6 mm	
4PTAA9	<b>PT AA9</b>	Round tip sloped 480°C	Ø 1,6 mm	
4PTBB7	<b>PT BB7</b>	Round tip sloped 370°C	Ø 2,4 mm	
4PTBB8	<b>PT BB8</b>	Round tip sloped 425°C	Ø 2,4 mm	
4PTBB9	<b>PT BB9</b>	Round tip sloped 480°C	Ø 2,4 mm	
4PTCC7	<b>PT CC7</b>	Round tip sloped 370°C	Ø 3,2 mm	
4PTCC8	<b>PT CC8</b>	Round tip sloped 425°C	Ø 3,2 mm	
4PTCC9	<b>PT CC9</b>	Round tip sloped 480°C	Ø 3,2 mm	
4PTDD7	<b>PT DD7</b>	Round tip sloped 370°C	Ø 5,0 mm	
4PTDD8	<b>PT DD8</b>	Round tip sloped 425°C	Ø 5,0 mm	
4PTDD9	<b>PT DD9</b>	Round tip sloped 480°C	Ø 5,0 mm	

If other soldering tip dimensions are required, please use LT tips with the PT/LT adapter.



- Soldering tips of LT soldering tip series are used with an adapter in soldering iron TCPS, TCP 12 and TCP 24.
- All TCP and LR 21 soldering irons are delivered with the adapter.

## PT-LT Adapter for TCPS, TCP 12, TCP 24

Order-no.	Model	Description	
T005 87 207 86	<b>PT6-LT</b>	PT6-LT-adapter with barrel 310°C	
T005 87 207 87	<b>PT7-LT</b>	PT7-LT-adapter with barrel 370°C	
T005 87 207 88	<b>PT8-LT</b>	PT8-LT-adapter with barrel 425°C	
T005 87 207 89	<b>PT9-LT</b>	PT9-LT-adapter with barrel 480°C	
T005 87 207 94		Spare barrel for PT/LT adapter	

# Soldering Tips

## CT5 Soldering Tip Series

### Soldering Tips for W 61

Order-no.	Model	Description	Width A
4CT5A6	<b>CT5 A6</b>	Chisel tip 310°C	1,6 mm
4CT5A7	<b>CT5 A7</b>	Chisel tip 370°C	1,6 mm
4CT5A8	<b>CT5 A8</b>	Chisel tip 425°C	1,6 mm
4CT5B7	<b>CT5 B7</b>	Chisel tip 370°C	2,4 mm
4CT5B8	<b>CT5 B8</b>	Chisel tip 425°C	2,4 mm
4CT5C6	<b>CT5 C6</b>	Chisel tip 310°C	3,2 mm
4CT5C7	<b>CT5 C7</b>	Chisel tip 370°C	3,2 mm
4CT5C8	<b>CT5 C8</b>	Chisel tip 425°C	3,2 mm
4CT5D7	<b>CT5 D7</b>	Chisel tip 370°C	4,7 mm
4CT5D8	<b>CT5 D8</b>	Chisel tip 425°C	4,7 mm
T005 42 107 99	<b>CT5 AX7</b>	Chisel tip bent 370°C	1,6 mm
T005 42 108 99	<b>CT5 AX8</b>	Chisel tip bent 425°C	1,6 mm
T005 42 117 99	<b>CT5 BX7</b>	Chisel tip bent 370°C	2,4 mm
T005 42 128 99	<b>CT5 CX8</b>	Chisel tip bent 425°C	3,2 mm
T005 42 138 99	<b>CT5 DX8</b>	Chisel tip bent 425°C	5,0 mm



- T005XXXXX99 = 1 Piece
- T005XXXXX10 = 10 Pieces
- T005XXXXX11 = 100 Pieces

## CT6 Soldering Tip Series

### Soldering Tips for W 101

Order-no.	Model	Description	Width A
4CT6C7	<b>CT6 C7</b>	Chisel tip 370°C	3,2 mm
4CT6C8	<b>CT6 C8</b>	Chisel tip 425°C	3,2 mm
4CT6D7	<b>CT6 D7</b>	Chisel tip 370°C	5,0 mm
4CT6D8	<b>CT6 D8</b>	Chisel tip 425°C	5,0 mm
4CT6E7	<b>CT6 E7</b>	Chisel tip 370°C	7,0 mm
4CT6E8	<b>CT6 E8</b>	Chisel tip 425°C	7,0 mm
T005 42 307 99	<b>CT6 CX7</b>	Chisel tip bent 370°C	3,2 mm
T005 42 318 99	<b>CT6 DX8</b>	Chisel tip bent 425°C	5,0 mm



### Welding wedge

Order-no.	Description
T005 11 767 99	Welding wedge Teflon-coated, 50 x 40 x 4 mm (260°C–295°C) for W 101SP with twist lock
T005 11 767 74	Welding wedge PTFE-coated, 50 x 40 x 4 mm for W 201 (260°C – 295°C)

### Adapter

For use with LHT tips (page 183) and soldering iron W 101

Order-no.	Model	Description
T005 61 046 67	<b>CT6-7</b>	Adapter for LHT tips, 370°
T005 61 046 68	<b>CT6-8</b>	Adapter for LHT tips, 425°
T005 61 046 69	<b>CT6-9</b>	Adapter for LHT tips, 480°

## CT2 Soldering Tip Series

### Soldering Tips for W 201

Order-no.	Model	Description	Width A
T005 42 407 99	<b>CT2 E7</b>	Chisel tip 370°C	7,0 mm
T005 42 408 99	<b>CT2 E8</b>	Chisel tip 425°C	7,0 mm
T005 42 417 99	<b>CT2 F7</b>	Chisel tip 370°C	10,0 mm
T005 42 418 99	<b>CT2 F8</b>	Chisel tip 425°C	10,0 mm
T005 42 428 99	<b>CT2 G8</b>	Chisel tip 425°C	11,0 mm
T005 42 507 99	<b>CT2 EX7</b>	Chisel tip bent 370°C	7,0 mm
T005 42 508 99	<b>CT2 EX8</b>	Chisel tip bent 425°C	7,0 mm
T005 42 517 99	<b>CT2 FX7</b>	Chisel tip bent 370°C	10,0 mm
T005 42 518 99	<b>CT2 FX8</b>	Chisel tip bent 425°C	10,0 mm

■ T005XXXXX99 = 1 Piece  
■ T005XXXXX10 = 10 Pieces  
■ T005XXXXX11 = 100 Pieces

## SPI Soldering Tip Series

### Soldering tips for soldering iron SPI 16

Order-no.	Model	Description	Width A
4SPI15 210	<b>SPI15 210</b>	Needle tip	0,4 mm
4SPI15 213	<b>SPI15 213</b>	Needle tip	0,8 mm
4SPI15 212	<b>SPI15 212</b>	Chisel tip	1,2 mm
4SPI15 211	<b>SPI15 211</b>	Chisel tip	2,0 mm

### Soldering tips for soldering iron SPI 27

Order-no.	Model	Description	Width A
4SPI26206	<b>SPI26 206</b>	Chisel tip	1,2 mm
4SPI26200	<b>SPI26 200</b>	Chisel tip	2,0 mm
4SPI26201	<b>SPI26 201</b>	Chisel tip	3,0 mm

### Soldering tips for soldering iron SPI 41





Order-no.	Model	Description	Width A
4SPI40224	<b>SPI40 224</b>	Chisel tip	2,0 mm
4SPI40225	<b>SPI40 225</b>	Chisel tip	3,0 mm
4SPI40220	<b>SPI40 220</b>	Chisel tip	5,0 mm
4SPI40226	<b>SPI40 226</b>	Chisel tip bent	2,0 mm

### Soldering tips for soldering iron SPI 81



Order-no.	Model	Description	Width A
4SPI80234	<b>SPI80 234</b>	Chisel tip	3,0 mm
4SPI80235	<b>SPI80 235</b>	Chisel tip	5,0 mm
4SPI80230	<b>SPI80 230</b>	Chisel tip	7,0 mm
4SPI80231	<b>SPI80 231</b>	Chisel tip	9,5 mm
4SPI80237	<b>SPI80 237</b>	Chisel tip bent	5,0 mm
4SPI80232	<b>SPI80 232</b>	Chisel tip bent	7,0 mm

# Soldering Tips

## Soldering Tips for WP 60

Order-no.	Model	Description	Width A	
T005 16 134 99	<b>60-01-05</b>	Needle tip	Ø 0,5 mm	
T005 16 443 99	<b>60-01-01</b>	Needle tip	Ø 1,0 mm	
T005 16 444 99	<b>60-01-02</b>	Chisel tip	2,4 mm	
T005 16 446 99	<b>60-01-04</b>	Chisel tip	5,0 mm	
T005 16 445 99	<b>60-01-03</b>	Round tip sloped 45°	Ø 2,0 mm	
T005 16 447 99	<b>60-01-52</b>	Hot air nozzle	Ø 4,7 mm	
T005 16 135 99	<b>60-01-06</b>	Knife 45°	5,0 mm	
T005 16 448 99	<b>60-07U</b>	Ejector unit		
T005 16 450 99	<b>60-02</b>	Protective cap for WP 60 (spare part)		


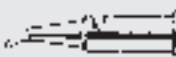




## Soldering Tips for Pyropen Jr.

Order-no.	Model	Description	Width A	
T005 16 165 99	<b>71-01-01</b>	Needle tip	Ø 1,0 mm	
T005 16 166 99	<b>71-01-02</b>	Chisel tip	2,0 mm	
T005 16 161 99	<b>71-01-04</b>	Chisel tip	5,0 mm	
T005 16 167 99	<b>71-01-03</b>	Round tip sloped 45°	Ø 2,0 mm	
T005 16 168 99	<b>71-01-50</b>	Hot air nozzle	Ø 1,5 mm	
T005 16 169 99	<b>71-01-52</b>	Hot air nozzle	Ø 4,7 mm	
T005 16 172 99	<b>71-07U</b>	Ejector unit		

■ T005XXXXX99 = 1 Piece  
 ■ T005XXXXX10 = 10 Pieces  
 ■ T005XXXXX11 = 100 Pieces



## Soldering Tips for Pyropen and Pyropen Piezo

Order-no.	Model	Description	Diameter Ø	Width A	
T005 16 120 99	<b>70-01-01</b>	Needle tip	Ø 1,0 mm		
T005 16 124 99	<b>70-01-05</b>	Needle tip extra slim	Ø 0,5 mm		
T005 16 129 99	<b>70-01-10</b>	Needle tip bent 30°	Ø 1,0 mm		
T005 16 121 99	<b>70-01-02</b>	Chisel tip		3,0 mm	
T005 16 132 99	<b>70-01-13</b>	Chisel tip		5,0 mm	
T005 16 130 99	<b>70-01-11</b>	Chisel tip		7,7 mm	
T005 16 122 99	<b>70-01-03</b>	Round tip sloped	Ø 2,0 mm		
T005 16 123 99	<b>70-01-04</b>	Round tip sloped	Ø 3,0 mm		
T005 16 125 99	<b>70-01-06</b>	Round tip sloped, conical	Ø 2,0 mm		
T005 16 127 99	<b>70-01-08</b>	Round tip sloped 35°	Ø 2,0 mm		
T005 16 140 99	<b>70-01-50</b>	Hot air nozzle	Ø 1,7 mm		
T005 16 141 99	<b>70-01-51</b>	Hot air nozzle	Ø 3,3 mm		
T005 16 142 99	<b>70-01-52</b>	Hot air nozzle	Ø 4,9 mm		
T005 16 143 99	<b>70-01-53</b>	Hot air nozzle	Ø 7,0 mm		
T005 16 151 99	<b>70-07TU</b>	Ejector unit, not for Piezo			
T005 16 150 99	<b>70-07SU</b>	Solder ejector, not for Piezo			
T005 16 159 99	<b>70-01-55</b>	Reflector for heat shrinking	Ø 6,0 mm	18,0 mm	
T005 16 158 99	<b>70-01-54</b>	Reflector for heat shrinking	Ø 8,0 mm	22,0 mm	



# Desoldering Nozzles

## DX Desoldering Nozzle series















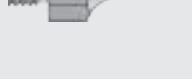


- The DX series tools feature a novel threadless desoldering nozzle fixture system whereby the nozzle is inserted into the head and locked into place by applying a 1/4 turn. This patented feature allows the desoldering nozzles to be quickly and easily exchanged and also improves the rate of thermal transfer from the desoldering head to the desoldering nozzle providing the tools with a faster heat up time and recovery rate. Additionally, because there are no threads in the head to block, maintenance and costs are reduced.

### Desoldering nozzles with threadless fixture system for DSX 80 and DXV 80

Order-no.	Model	Description	Outer Ø	Inner Ø	Nozzle Length	
T005 13 140 00 T005 13 140 10	<b>DX 110</b>	Nozzle (1 piece) (10 pieces)	1,9 mm	0,7 mm	25 mm	
T005 13 141 00 T005 13 141 10	<b>DX 111</b>	Nozzle (1 piece) (10 pieces)	2,5 mm	0,7 mm	25 mm	
T005 13 142 00 T005 13 142 10	<b>DX 112</b>	Nozzle (1 piece) (10 pieces)	2,3 mm	1,0 mm	25 mm	
T005 13 143 00 T005 13 143 10	<b>DX 113</b>	Nozzle (1 piece) (10 pieces)	2,5 mm	1,2 mm	25 mm	
T005 13 150 00 T005 13 150 10	<b>DX 113HM</b>	Nozzle (1 piece) with improved thermal transfer (10 pieces)	2,5 mm	1,2 mm	25 mm	
T005 13 144 00 T005 13 144 10	<b>DX 114</b>	Nozzle (1 piece) (10 pieces)	3,3 mm	1,8 mm	25 mm	
T005 13 145 00 T005 13 145 10	<b>DX 115</b>	Nozzle (1 piece) (10 pieces)	1,9 mm	0,7 mm	29 mm	
T005 13 146 00 T005 13 146 10	<b>DX 116</b>	Nozzle (1 piece) (10 pieces)	2,7 mm	1,2 mm	29 mm	
T005 13 147 00 T005 13 147 10	<b>DX 117</b>	Nozzle (1 piece) (10 pieces)	2,9 mm	1,5 mm	25 mm	
T005 13 148 00 T005 13 148 10	<b>DX 118</b>	Nozzle (1 piece) (10 pieces)	1,5 mm	0,7 mm	23 mm	
T005 13 151 00 T005 13 151 10	<b>DX 119</b>	Needle triplet (1 piece) with unwetable stainless steel tube for removal of solder bridges in connection with hot air pencil (10 pieces)	1,1 mm	0,7 mm	33 mm	
T005 13 152 00 T005 13 152 10	<b>DX 120</b>	Nozzle (1 piece) without inside tube for cleaning SMD pads. (10 pieces)	2,5 mm	1,1 mm	22 mm	
T005 13 153 99		Measuring nozzle	3,3 mm	0,55 mm	21,5 mm	
T005 87 067 94		Conus insert cleaning tool				
T005 13 790 99		Nozzle -Set DX 110 - DX 115				

## DS Desoldering nozzles

### Desoldering nozzles with thread for DS 22, DS 80 and DSV 80

Order-no.	Model	Description	Outer Ø	Inner Ø	Nozzle Length	
T005 13 510 99*	<b>DS 110</b>	Nozzle	1,9 mm	0,7 mm	18 mm	
T005 13 532 99*	<b>DS 110HM</b>	Nozzle with improved heat transfer	1,9 mm	0,7 mm	18 mm	
T005 13 511 99*	<b>DS 111</b>	Nozzle	2,5 mm	0,7 mm	18 mm	
T005 13 512 99*	<b>DS 112</b>	Nozzle	2,3 mm	1,0 mm	18 mm	
T005 13 533 99*	<b>DS 112HM</b>	Nozzle with improved heat transfer	1,9 mm	0,9 mm	18 mm	
T005 13 513 99*	<b>DS 113</b>	Nozzle	2,5 mm	1,2 mm	18 mm	
T005 13 530 99*	<b>DS 113HM</b>	Nozzle with improved heat transfer	2,5 mm	1,2 mm	18 mm	
T005 13 514 99*	<b>DS 114</b>	Nozzle	3,3 mm	1,8 mm	18 mm	
T005 13 515 99*	<b>DS 115</b>	Nozzle	1,9 mm	0,7 mm	24,5 mm	
T005 13 516 99*	<b>DS 116</b>	Nozzle	2,7 mm	1,2 mm	24,5 mm	
T005 13 550 99*	<b>DS 117</b>	Nozzle	2,9 mm	1,5 mm	18 mm	
T005 13 551 99*	<b>DS 118</b>	Nozzle	1,5 mm	0,7 mm	18 mm	
T005 13 527 99*	<b>DS 119</b>	Needle triplet with unwettable stainless steel tube for removal of solder bridges in connection with hot air pencil	1,9 mm	0,7 mm	26 mm	
T005 13 552 99*	<b>DS 120</b>	Nozzle without inside tube, for cleaning SMD pads	2,5 mm	1,1 mm	15,5 mm	
T005 24 749 99*		Measuring nozzle	3,3 mm	0,55 mm	18 mm	
T005 13 770 99*		Nozzle-Set DS 110 - DS 115				

\*Discontinuation

# Desoldering Nozzles



## Cleaning set for DS + DX nozzles

Order-no.	Description	
T005 13 500 99	<b>Cleaning set complete</b> for cleaning desoldering nozzles and for nozzle exchange	
<b>consists of:</b>		
T005 87 488 61	Handle	
T005 13 501 99	Replacement needle set 0,6 mm / 0,9 mm / 1,4 mm / 1,9 mm	
<b>consists of:</b>		
T005 13 502 99	Replacement needle set je 1 x 1,9 mm, 3 x 0,9 mm	
T005 13 503 99	Replacement needle set ,je 1 x 1,9 mm, 3 x 0,5 mm	
<b>Cone Cleaner</b>		
T005 87 067 94	Cone insert – Cleaning tool	



Order-no.	Description
T005 87 658 01	PDN <b>Pliers for changing nozzles</b> <ul style="list-style-type: none"> <li>• For DX, XDS and XDSL nozzles</li> <li>• Simple, safe and fast change of Weller desoldering nozzles.</li> <li>• Especially designed grip for changing the nozzle without damaging the soldering tool.</li> <li>• Ergonomic design for easy handling.</li> <li>• ESD safe soft grip. For all ESD work places.</li> <li>• Save and easy embracement for professional desoldering nozzle change. fachgerechten Wechsel der Entlötdüse</li> <li>• Highest Weller product quality for long lifetime. Made in Germany.</li> <li>• Fast cleaning process saves maintenance costs.</li> </ul>

## XDS Desoldering nozzle series

### Desoldering nozzles for DSX 120, WXDP 120, WXDV 120

Order-no.	Model	Description	Inner Ø	Outer Ø	Nozzle Length
T005 13 250 99 T005 13 250 10	<b>XDS 1</b>	Nozzle (1 piece) (10 pieces)	1,4 mm	2,5 mm	10,5 mm
T005 13 251 99 T005 13 251 10	<b>XDS 2</b>	Nozzle (1 piece) (10 pieces)	3,0 mm	5,3 mm	10,5 mm
T005 13 252 99 T005 13 252 10	<b>XDS 3</b>	Nozzle (1 piece) (10 pieces)	1,0 mm	2,3 mm	10,5 mm
T005 13 253 99 T005 13 253 10	<b>XDS 4</b>	Nozzle (1 piece) (10 pieces)	1,2 mm	2,5 mm	10,5 mm
T005 13 254 99 T005 13 254 10	<b>XDS 5</b>	Nozzle (1 piece) (10 pieces)	1,8 mm	3,3 mm	10,5 mm
T005 13 255 99 T005 13 255 10	<b>XDS 6</b>	Nozzle (1 piece) (10 pieces)	0,7 mm	1,9 mm	16,5 mm
T005 13 256 99 T005 13 256 10	<b>XDS 7</b>	Nozzle (1 piece) (10 pieces)	1,2 mm	2,7 mm	16,5 mm
T005 13 257 99 T005 13 257 10	<b>XDS 8</b>	Nozzle (1 piece) (10 pieces)	1,5 mm	2,9 mm	10,5 mm
T005 13 258 99	<b>XDS 9</b>	Measuring tip (1 piece)			
T005 13 259 99 T005 13 259 10	<b>XDSL 1</b>	Nozzle (1 Stück) (10 Stück)	1,4 mm	2,5 mm	10,5 mm
T005 13 260 99 T005 13 260 10	<b>XDSL 2</b>	Nozzle (1 piece) (10 piece)	3,0 mm	5,3 mm	10,5 mm
T005 13 261 99 T005 13 261 10	<b>XDSL 3</b>	Nozzle (1 Stück) (10 Stück)	1,0 mm	2,3 mm	10,5 mm
T005 13 262 99 T005 13 262 10	<b>XDSL 4</b>	Nozzle (1 piece) (10 Stück)	1,2 mm	2,5 mm	10,5 mm
T005 13 263 99 T005 13 263 10	<b>XDSL 5</b>	Nozzle (1 piece) (10 Stück)	1,8 mm	3,3 mm	10,5 mm
T005 13 264 99 T005 13 264 10	<b>XDSL 6</b>	Nozzle (1 piece) (10 piece)	0,7 mm	1,9 mm	16,5 mm
T005 13 265 99 T005 13 265 10	<b>XDSL 7</b>	Nozzle (1 Stück) (10 piece)	1,2 mm	2,7 mm	16,5 mm
T005 13 266 99 T005 13 266 10	<b>XDSL 8</b>	Nozzle (1 piece) (10 piece)	1,5mm	2,9 mm	10,5 mm

## Maintenance tool for XDS Nozzles




- T005XXXXX99 = 1 Piece
- T005XXXXX10 = 10 Pieces

Order-no.	Description
T005 87 657 73	<b>Cleaning Set complete</b>
T005 87 657 72	Cone Cleaner





# Hot Air Nozzles











## Hot air nozzles for HAP 1, HAP 200 and WXHAP 200

Order-no.	Model	Description	Width A	Thickness B	
T005 87 617 28		Adapter M6 for HAP 200			
T005 87 277 74	<b>F02</b>	Flat nozzle	8,0 mm	1,5 mm	
T005 87 277 73	<b>F04</b>	Flat nozzle	10,5 mm	1,5 mm	
T005 87 277 72	<b>F06</b>	Flat nozzle	12,0 mm	1,5 mm	

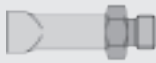


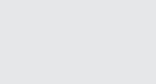




## Hot air nozzles for HAP 1, HAP 200 and WXHAP 200

Order-no.	Model	Description	Diameter D	Distance C	Length C	
T005 87 278 23	<b>R02</b>	Round nozzle	Ø 0,8 mm			 
T005 87 278 21	<b>R04</b>	Round nozzle	Ø 1,2 mm			 
T005 87 278 22	<b>R06</b>	Round nozzle	Ø 3,0 mm			 
T005 87 277 87	<b>R10</b>	Round nozzle long	Ø 2,0 mm		50 mm	 
T005 87 277 86	<b>R08</b>	Round nozzle long bent	Ø 2,0 mm		50 mm	 
T005 87 277 76	<b>FD2</b>	Dual nozzle	Ø 1,5 mm	8 mm		 
T005 87 277 75	<b>FD4</b>	Dual nozzle	Ø 1,5 mm	10 mm		 

## Hot air nozzles for HAP 1, HAP 200 and WXHAP 200 2 sides heated (Type D, Length X =heated side)

Order-no.	Model	Description	Length X	Width Y		
T005 87 277 79	<b>D04</b>	Hot air nozzle, 2 sides heated with pre-heating plate	10,5 mm	10,5 mm		
T005 87 277 82	<b>D06</b>	Hot air nozzle, 2 sides heated with pre-heating plate	13,0 mm	10,0 mm		
T005 87 277 81	<b>D08</b>	Hot air nozzle, 2 sides heated with pre-heating plate	15,0 mm	10,0 mm		
T005 87 277 84	<b>D10</b>	Hot air nozzle, 2 sides heated with pre-heating plate	18,0 mm	10,0 mm		

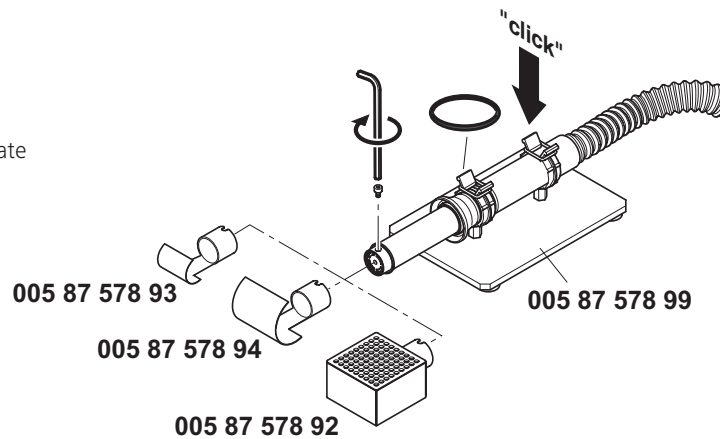
## Hot air nozzles for HAP 1, HAP 200 and WXHAP 200 4 sides heated (Type Q)

Order-no.	Model	Description	Length X	Width Y		
T005 87 277 77	<b>Q02</b>	Hot air nozzle, 4 sides heated	6,0 mm	6,5 mm		
T005 87 277 78	<b>Q04</b>	Hot air nozzle, 4 sides heated	6,0 mm	9,0 mm		
T005 87 277 80	<b>Q06</b>	Hot air nozzle, 4 sides heated with pre-heating plate	15,0 mm	10,0 mm		
T005 87 277 83	<b>Q08</b>	Hot air nozzle, 4 sides heated with pre-heating plate	12,5 mm	15,0 mm		
T005 87 278 12	<b>SK709</b>	Hot air nozzle, 4 sides heated with pre-heating plate	12,0 mm	12,0 mm		
T005 87 277 85	<b>Q10</b>	Hot air nozzle, 4 sides heated with pre-heating plate	18,0 mm	18,0 mm		
T005 87 278 08	<b>R01</b>	Measuring nozzle for calibration				

# Hot Air Nozzles



- The ND and NQ nozzles have an integrated pre-heating plate for pre-heating components by means of contact heat. Air outlet slots are located around the plate with a width of approx. 1 mm for the hot air.



## Hot air nozzles for HAP 3000 (WHA 3000P / V), HAP 2 (WHA 2000) and HAP 3 (WHA 700, WHA 300)

Order-no.	Model	Description	Diameter Ø		
T005 87 368 81	<b>NR04</b>	Round nozzle, without vacuum	Ø 2,5 mm		
T005 87 368 67	<b>NR05</b>	Round nozzle, without vacuum	Ø 4,0 mm		
T005 87 368 70	<b>NR10</b>	Round nozzle, without vacuum	Ø 7,0 mm		
T005 87 507 70	<b>NRV07</b>	Hot air nozzle with vacuum for small components	Ø 7,0 mm		
T005 87 507 72	<b>NRV10</b>	Hot air nozzle with vacuum for small components	Ø 10,0 mm		
T005 87 507 74	<b>NRV12</b>	Hot air nozzle with vacuum for small components	Ø 12 mm		
T005 87 368 82	<b>NR02</b>	Round nozzle, bent without vacuum	Ø 1,7 mm x 45°		
T005 87 507 65	<b>NR06</b>	Round nozzle, bent without vacuum	Ø 6,0 mm x 45°		
T005 87 368 83	<b>DR05</b>	Dual nozzle round, without vacuum	2 x Ø 2,5 mm		





## 2 sides heated (Type ND, Width X = heated side)

Order-no.	Model	Description	Length X	Width Y	
T005 87 368 43	<b>ND05</b>	Hot air nozzle, 2 sides heated	10,7 mm	10,7 mm	 
T005 87 368 42	<b>ND 10</b>	Hot air nozzle, 2 sides heated	14,0 mm	10,0 mm	 
T005 87 368 41	<b>ND 15</b>	Hot air nozzle, 2 sides heated	19,0 mm	12,0 mm	 
T005 87 368 40	<b>ND 20</b>	Hot air nozzle, 2 sides heated	21,5 mm	14,8 mm	 
T005 87 369 32	<b>ND SK535/A</b>	Hot air nozzle, without edge for thin components	8,5 mm	20,0 mm	
T005 87 369 33	<b>ND SK535/B</b>	Hot air nozzle, without edge for thin components	10,5 mm	20,0 mm	
T005 87 507 34	<b>ND SK699</b>	Hot air nozzle, without edge for thin components	12,5 mm	20,0 mm	
T005 87 369 34	<b>ND SK535/C</b>	Hot air nozzle, without edge for thin components	14,0 mm	20,0 mm	

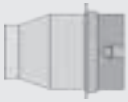





# Hot Air Nozzles

## Four sides heated (Type NQ)

Order-no.	Model	Description	Length X	Width Y	
T005 87 368 39	<b>NQ05</b>	Hot air nozzle, 4 sides heated	10,7 mm	10,7 mm	
T005 87 368 38	<b>NQ15</b>	Hot air nozzle, 4 sides heated	14,5 mm	10,0 mm	
T005 87 368 18	<b>NQ10</b>	Hot air nozzle, 4 sides heated	14,8 mm	14,8 mm	
T005 87 368 37	<b>NQ20</b>	Hot air nozzle, 4 sides heated	15,5 mm	13,0 mm	
T005 87 368 14	<b>NQ25</b>	Hot air nozzle, 4 sides heated	18,0 mm	18,0 mm	
T005 87 507 21	<b>NQ30</b>	Hot air nozzle, 4 sides heated	17,5 mm	23,5 mm	
T005 87 368 07	<b>NQ35</b>	Hot air nozzle, 4 sides heated	20,5 mm	20,5 mm	
T005 87 368 80	<b>NQ</b>	Hot air nozzle, 4 sides heated	24,0 mm	12,0 mm	
T005 87 368 04	<b>NQ40</b>	Hot air nozzle, 4 sides heated	26,0 mm	26,0 mm	
T005 87 368 33	<b>NQ45</b>	Hot air nozzle, 4 sides heated	31,3 mm	31,3 mm	
T005 87 368 91	<b>NQ50</b>	Hot air nozzle, 4 sides heated	36,0 mm	36,0 mm	
T005 87 368 90	<b>NQ55</b>	Hot air nozzle, 4 sides heated	43,0 mm	43,0 mm	

## 4 sides heated (Type NQ) continuation

Order-no.	Model	Description	Length X	Width Y	
T005 87 507 41	<b>NQT 10</b>	Hot air nozzle, 4 sides heated, without protruding edge for thin components	14,8 mm	14,8 mm	
T005 87 507 42	<b>NQT25</b>	Hot air nozzle, 4 sides heated, without protruding edge for thin components	18,0 mm	18,0 mm	
T005 87 507 39	<b>NQT</b>	Hot air nozzle, 4 sides heated, without protruding edge for thin components	22,0 mm	22,0 mm	
T005 87 368 75	<b>NA 20</b>	Measuring nozzle for calibration			

Special tips on request

## Pre heating nozzle for HAP 3




Order-no.	Description
T005 87 578 92	Pre heating nozzle for HAP 3

## Multi rest



Order-no.	Description
T005 15 048 99	Multi rest for nozzle NR, ND NQ

## Rubber insert for CSF heads (spare)

Order-no.	Description	
T005 87 137 99	Ø 4,5 mm, 10 pieces	
T005 87 137 98	Ø 10,0 mm, 10 pieces	

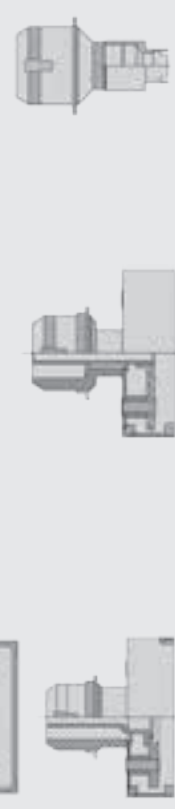
# Hot Air Nozzles



- The patented hot air nozzles of the WQB rework systems, coupled with digital control of the hot air temperature and its flow rate provide an even convective heating of the component. This in turn ensures reatability of the reflow process.

## Hot air nozzle for WQB 4000SOPS

Order-no.	Nozzle housing inside	Nozzle housing outside	
T005 87 479 47	7,6 x 7,99 mm	8,6 x 8,9 mm	
T005 87 479 43	6,5 x 6,5 mm	7,5 x 7,5 mm	
T005 87 479 45	8,5 x 8,5 mm	9,5 x 9,5 mm	
T005 87 479 61	8,5 x 10,6 mm	9,5 x 11,6 mm	
T005 87 549 67	10,0 x 10,0 mm	11,0 x 11,0 mm	
T005 87 478 48	12,0 x 12,0 mm	13,0 x 13,0 mm	
T005 87 479 04	13,5 x 13,5 mm	14,3 x 14,3 mm	
T005 87 479 35	15,5 x 15,5 mm	16,5 x 16,5 mm	
T005 87 478 93	15,0 x 11,0 mm	16,0 x 12,0 mm	
T005 87 548 36	18,5 x 10,0 mm	19,5 x 11,0 mm	
T005 87 479 77	15,5 x 23,5 mm	16,5 x 24,5 mm	
T005 87 478 33	18,0 x 18,0 mm	20,0 x 20,0 mm	
T005 87 547 70	21,0 x 21,0 mm	23,0 x 23,0 mm	
T005 87 548 20	22,0 x 22,0 mm	24,0 x 24,0 mm	
T005 87 477 64	25,0 x 25,0 mm	27,0 x 27,0 mm	
T005 87 479 93	27,0 x 23,0 mm	29,0 x 25,0 mm	
T005 87 478 50	27,0 x 27,0 mm	29,0 x 29,0 mm	
T005 87 479 27	29,0 x 29,0 mm	31,0 x 31,0 mm	
T005 87 479 99	28,0 x 32,0 mm	30,0 x 34,0 mm	
T005 87 479 06	33,0 x 33,0 mm	35,0 x 35,0 mm	
T005 87 548 87	35,0 x 35,0 mm	37,0 x 37,0 mm	
T005 87 477 53	37,0 x 37,0 mm	39,0 x 39,0 mm	
T005 87 478 71	39,5 x 39,5 mm	41,5 x 41,5 mm	
T005 87 478 74	42,0 x 42,0 mm	44,0 x 44,0 mm	
T005 87 549 03	45,0 x 11,0 mm	47,0 x 13,0 mm	
T005 87 477 63	46,0 x 46,0 mm	48,0 x 48,0 mm	
T005 87 479 16	47,0 x 47,0 mm	49,0 x 49,0 mm	
T005 87 479 41	49,0 x 49,0 mm	51,0 x 51,0 mm	
T005 87 479 85	57,0 x 18,5 mm	59,0 x 20,0 mm	



Special sizes on request



# Electric Screwdriver

“Power is nothing without control...”



## Flexible solutions

- Wide accessory program - analog or digital power units, torque tester, tool connection cables as well as a large bit portfolio

**Operational safety and environment pollution**

- Noise level as of standard conversations (below emission level in hospitals during day duty)
- Ergonomic unit
- Light and compact
- ESD safe
- No emission
- No harmful carbon dust due to brushless motor

**Low running costs**

- Brushless, maintenance free motor
- Compatible units
- Analog and digital power units, clutch systems or electronic screwdrivers - all tools are compatible and for different applications

# Electric Srewdriver



**WTS A**

■ Digital Power Unit



**WTS D**

■ Digital Power Unit



Photo similar

**WBTS12L**



Photo similar

**WBTS35L**



Photo similar

**WTBS35ECL**



Photo similar

**WBTS12P**



Photo similar

**WBTS35P**

## Accessories

■ WAH12



■ WCAB5M



■ WAH35



■ WCAB5MS



■ WBAL



■ WTT5



## Technical data



**WTS A**



**WTS D**

Mains supply voltage	100 - 240 VAC	
Speed control	from 60% to 100% of nominal speed	
Display	no	LED
Operation panel	Simply rotary dial adjustment	Text display
Torque range display	no	yes
Order-No.	T005 39 016 99	T005 39 006 99



Photo similar  
**WBT S12L**



Photo similar  
**WBT S35L**



Photo similar  
**WBT S35ECL**



Photo similar  
**WBT S12P**



Photo similar  
**WBT S35P**

Rotational speed	650 UpM	800 UpM	800 UpM	650 UpM	800 UpM
Start	Lever start	Lever start	Lever start	Push to start	Push to start
Torque range	0,05 - 1,2Nm	0,5 - 3,5 Nm	0,5 - 3,5 Nm	0,05 - 1,2Nm	0,5 - 3,5Nm
For use with 1/4" bits	1/4"	1/4"	1/4"	1/4"	1/4"
Brushless, maintenance free motor	yes	yes	yes	yes	yes
Right and left rotation	yes	yes	yes	yes	yes
Low noise	<55dBA	<55dBA	<55dBA	<55dBA	<55dBA



## WTS A

- Simply rotary dial adjustment
- Soft start capability  
- ramp from 0 to 2 sec.
- ESD compliant housing



Order-No.	Model	Description
T005 39 016 99	<b>WTS A</b>	Analogue Power Unit

## WTS D

- Easy operation with text display and simple programming, multiple languages
- Soft start capability - ramp from 0 to 2 sec.
- Suitable for complex tightening applications
- ESD compliant housing



Order-No.	Model	Description
T005 39 006 99	<b>WTS D</b>	Digital Power Unit, recommended ECL Electric Screwdriver

## WBTS12L Electric Screwdriver

- Lever start
- Torque setting via clutch spring compression



Order-No.	Model	Description
T005 39 091 99	<b>WBTS12L</b>	Electric Screwdriver with lever start and 8-pin interface cable, connecting cable 2,5 m

## WBTS35L Electric Screwdriver

- Lever start
- Torque setting via clutch spring compression



Order-No.	Model	Description
T005 39 093 99	<b>WBTS35L</b>	Electric Screwdriver with lever start and 8-pin interface cable, connecting cable 2,5 m

## WBTS35ECL Electric Screwdriver

- Lever start
- Torque setting via digital controller



Order-No.	Model	Description
T005 39 095 99	<b>WBTS35ECL</b>	Electric Screwdriver with lever start and 8-pin interface cable, connecting cable 2,5 m

## WBTS12P Electric Screwdriver

- Push to start
- Torque setting via clutch spring compression



Order-No.	Model	Description
T005 39 092 99	<b>WBTS12P</b>	Electric Screwdriver push to start and 8-pin interface cable, connecting cable 2,5 m

## WBTS35P Electric Screwdriver

- Push to start
- Torque setting via clutch spring compression



Order-No.	Model	Description
T005 39 094 99	<b>WBTS35P</b>	Electric Screwdriver push to start and 8-pin interface cable, connecting cable 2,5 m

## WAH12 Angle head

- Especially for tight work spaces



Order-No.	Model	Description
T005 87 677 01	<b>WAH12</b>	90° Angle head for WBTS12L

## WAH35 Angle head

- Especially for tight work spaces



Order-No.	Model	Description
T005 87 677 02	<b>WAH35</b>	90° Angle head for WBTS35L

## WBAL Balancer

- Working load limit from 0,4 to 1,0 kg



Order-No.	Model	Description
T005 87 677 03	<b>WBAL</b>	Balancer



## WCAB5M Connecting cable

- Flexible connecting cable

Order-No.	Model	Description
T005 87 677 04	<b>WCAB5M</b>	Connecting cable 5 m, 8-pin



## WCAB5MS Connecting cable

- Flexible connecting cable with twist

Order-No.	Model	Description
T005 87 677 05	<b>WCAB5MS</b>	Connecting cable with twist 5 m, 8-pin



## WTT5 Torque tester

- Tester for screwdriver calibration
- 3 units of torque measurements
- Automatic shut down
- 2 Display mode selectable
- Battery powered or power supply

Order-No.	Model	Description
T005 87 677 06	<b>WTT5</b>	Torque tester from 0,2 until 5 Nm

# Suitable Bits and Drive

## Phillips®-Bits

■ 1/4" Hex Insert Bits - Limited Clearance



Order-No.	Point Size	Overall Length		Turned Length (A)		Turned OD (B)	
		Inch	mm	Inch	mm	Inch	mm
446-0X	0	1	25	7/16	11	0,108	4,06
446-1X	1	1	25	7/16	11	0,108	4,06
446-2X	2	1	25	7/16	11	0,108	4,06

## Pozidriv® Bits

■ 1/4" Hex Insert Bits



Order-No.	Point Size	Overall Length		Turned Length (A)		Turned OD (B)	
		Inch	mm	Inch	mm	Inch	mm
440-1-PZDX	1	1	25				
440-2-PZDX	2	1	25				
440-215-PZDX	2	1 1/2	38				
440-22-PZDX	2	2	51				
440-3-PZDX	3	1	25				
440-4-PZDX	4	1 1/4	32				
446-1-PZDX *	1	1	25	7/16	11	0,18	4,6
446-2-PZDX *	2	1	25	7/16	11	0,18	4,6

## Slotted Bits

- 1/4" Hex Insert Bits - Limited Clearance



Order-No.	Screw Size	Length		Blade Thickness		Blade Width	
		Inch	mm	Inch	mm	Inch	mm
445-000X	1F-2R	1	25	,021	,53	,125	3,2
445-00X	2F-3R	1	25	,025	,64	,140	3,6
445-0X	3F-4R	1	25	,030	,76	,154	3,9
445-10X	4F-5R	1	25	,034	,86	,185	4,7
445-20X	5F-6R	1	25	,036	,91	,216	5,5
445-30X	6F-7R	1	25	,038	,97	,248	6,3

## Torx® Bits

- 1/4" Hex Insert Bits



Order-No.	Point Size	Overall Length	
		Inch	mm
440-TX-05X	T-5	1	25
440-TX-06X	T-6	1	25
440-TX-07X	T-7	1	25
440-TX-08X	T-8	1	25
440-TX-09X	T-9	1	25
440-TX-10X	T-10	1	25
440-TX-15X	T-15	1	25
440-TX-20X	T-20	1	25
440-TX-25X	T-25	1	25
440-TX-27X	T-27	1	25
440-TX-30X	T-30	1	25
440-TX-40X	T-40	1	25

## Socket Head Bits

■ 1/4" Hex Insert Bits - Metric



Order-No.	Point Size	Overall Length	
		Inch	mm
185-1.5MM	1,5 mm	1	25
185-2MM	2,0 mm	1	25
185-2.5MM	2,5 mm	1	25
185-3MM	3,0 mm	1	25
185-4MM	4,0 mm	1 5/16	33
185-5MM	5,0 mm	1 5/16	33
185-6MM	6,0 mm	1 5/16	33
185-7MM	7,0 mm	1 1/4	32
185-8MM	8,0 mm	1 1/4	32
185-9MM	9,0 mm	1 1/4	32
185-10MM	10,0 mm	1 1/4	32

## Bit Holder

■ Hex Drive for 1/4" Hex Inserts



Order-No.	Size	Overall Length mm
M-490-2	2	51 Magnetic
M-490-NR	2 31/32	75 Magnetic; No lock ring
M-490	2 31/32	75 Magnetic
M-497	3 3/32	Magnetic; 3/8" (9,5 mm) reduced dia.

## Slotted Drive

■ 1/4" Hex Power Drive



Order-No.	Screw Size	Length		Blade Thickness		Blade Width / Body Ø	
		Inch	mm	Inch	mm	Inch	mm
320-000X	1F-2R	1 15/16	49	,022	,56	,122	3,10
326-000X	1F-2R	2 3/4	70	,022	,56	,122	3,10
320-00X	2F-3R	1 15/16	49	,026	,66	,134	3,40
326-00X	2F-3R	2 3/4	70	,026	,66	,134	3,40
320-0X	3F-4R	1 15/16	49	,030	,76	,151	3,84
326-0X	3F-4R	2 3/4	70	,030	,76	,151	3,84
320-1X	4F-6R	1 15/16	49	,034	,86	,187	4,75
326-1X	4F-5R	2 3/4	70	,034	,86	,187	4,75
320-20X	5F-6R	1 15/16	49	,036	,91	,215	5,46
326-20X	5F-6R	2 3/4	70	,036	,91	,215	5,46
320-2X	5F-6R	1 15/16	49	,036	,91	,250	6,35
326-2X	5F-6R	2 3/4	70	,036	,91	,250	6,35



## Socket Head Drive

■ 1/4" Hex Power Drive - Metric



Order-No.	Point Size	Overall Length	
		Inch	mm
AM-1.5MM	1,5 mm	1 15/16	49
AM-2MM	2,0 mm	1 15/16	49
AM-2.5MM	2,5 mm	1 15/16	49
AM-3MM	3,0 mm	1 15/16	49
AM-3MM-3	3,0 mm	3	76
AM-3MM-4	3,0 mm	4	102
AM-4MM	4,0 mm	1 15/16	49
AM-5MM	5,0 mm	1 15/16	49
AM-5MM-4	5,0 mm	4	102
AM-6MM	6,0 mm	1 15/16	49
AM-6MM-4	6,0 mm	4	102
AM-7MM	7,0 mm	1 15/16	49
AM-8MM	8,0 mm	1 15/16	49
AM-10MM	10,0 mm	1 15/16	49

## Pozidriv®-Drive

■ 1/4" Hex Power Drive



Order-No.	Size	Overall Length		Body Ø		Turned Length	
		Inch	mm	Inch	mm	Inch	mm
491-PZDX	1	1 15/10	49	3/10	4,6	1 1/4	32
491-A-PZDX	1	2 3/4	70	3/16	48	2	51
492-PZDX	2	1 15/16	49	1/4	6,4	1 1/4	32
492-A-PZDX	2	2 3/4	70	1/4	6,4	2	51
493-PZDX	3	1 15/16	49	5/16	7,9	1	25
493-A-PZDX	3	2 3/4	70	5/16	7,9	1 3/4	44

## Torx® Drive

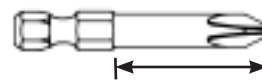
■ 1/4" Hex Power Drive



Order-No.	Driver Size	Body Ø mm	Overall Length	
			Inch	mm
49-TX-05	T5	3,0	1 15/16	49
49-A-TX-05	T-5	3,0	2 3/4	70
49-TX-06	T-6	3,0	1 15/16	49
49-A-TX-06	T-6	3,0	2 3/4	70
49-TX-07	T-7	3,0	1 15/16	49
49-A-TX-07	T-7	3,0	2 3/4	70
49-A-TX-08	T-8	3,0	2 3/4	70
49-TX-09	T-9	3,0	1 15/16	49
49-A-TX-09	T-9	3,0	2 3/4	70
49-TX-10	T-10	3,8	1 15/16	49
49-A-TX-10	T-10	3,8	2 3/4	70
49-TX-15	T-15	3,8	1 15/16	49
49-A-TX-15	T-15	3,8	2 3/4	70
49-TX-20	T-20	4,3	1 15/16	49
49-A-TX-20	T-20	4,3	2 3/4	70
49-TX-25	T 25	4,0	1 15/16	49
49-B-TX-25	T-25	4,9	3 1/2	89
49-TX-27	T-27	5,5	1 15/16	49
49-B-TX-27	T 27	5,5	3 1/2	89
49-TX-30	T-30	6,0	1 15/16	49
49-B-TX-30	T-30	6,0	3 1/2	89
49-TX-40	T 40	7,8	1 15/16	49
49-B-TX-40	T-40	7,8	3 1/2	89

## Phillips® Drive

■ 1/4" Hex Power Drive



Order-No.	Point Size	Overall Length		Body Ø		Turned Length	
		Inch	mm	Inch	mm	Inch	mm
4910X	0	1 15/16	49	1/8	3,2	1 1/4	32
4910-AX	0	2 3/4	70	1/8	3,2	2	51
491X	1	1 15/16	49	3/16	4,8	1 1/4	32
491-AX	1	2 3/4	70	3/16	4,8	2	51
492X	2	1 15/16	49	1/4	6,4	1 1/4	32
492-AX	2	2 3/4	70	1/4	6,4	2	51
493X	3	1 15/16	49	5/16	7,9	1	25
493-AX	3	2 3/4	70	5/16	7,9	1 3/4	44



# Dispensers, Syringes Adapters, Needles

Less is more ...





### Easy handling

- reduced sources of errors due to manual control
- dispensing time via potentiometer
- protection against pollution
- vacuum technology for drop stop



### Easy equipment selection

- the adequate dispenser for every application
- 2 versions of dispenser, 1 or 2 channel
- tremendous economy of consumables
- quick overview and selection of accessories

## KDS824A

- Shot time duration adjustable from 0,01 to 99,99 seconds
- Vacuum feature prevents dripping
- Electrically actuated foot pedal
- One channel without time controlled air



Order No.	Model	Description
T0053163699	<b>KDS824A</b>	Deluxe Shot Meter 230V/120V

## KDS834A

- Hot time duration adjustable from 0,01 to 99,99 seconds
- Vacuum feature prevent dripping
- Electrically actuated foot pedal



Order No.	Model	Description
T0053165699	<b>KDS834A</b>	Economy Shot Meter 230V/120V

## KDS806V

- Basic ON-OFF function
- Foot actuated for excellent ergonomics
- Works on compressed air input only, no electricity required
- 0-100 PSI regulator and gauge
- Vacuum feature prevents dripping



Order No.	Model	Description
KDS806V	<b>KDS806V</b>	Foot Valve with Vacuum

## Vacuum Pick-up wand

### KDS301

- Attaches to the air accessory port of the KDS824A
- A finger control on the wand allows an easily pick up of small components
- Comes with three sizes of conductive suction cups KDS260S (3,2 mm), KDS260M (6,3 mm), KDS260L (9,5 mm)



Order No.	Model	Description
KDS301	<b>KDS301</b>	Vacuum Pick-up Wand

### Spare Parts Suction Cups KDS301

Order No.	Model	Description
KDS260S	<b>KDS260S</b>	Suction Cup Small 3,2 mm for KDS301
KDS260M	<b>KDS260M</b>	Suction Cup Medium 6,3 mm for KDS301
KDS260L	<b>KDS260L</b>	Suction Cup Large 9,5 mm for KDS301



# Syringe Adapters



- Unique design works with all manufacturer's syringes
- 360° swivel on adapter head for ease of motion
- Use with single component, two part, self-leveling and non-self-leveling materials

## Syringe Adapters

### Metal Adapters Assemblies (universal)

- Metal syringe adapter with 6" (2 m) air line and fitting
- Plugs directly into any shot meters
- Fittes all syringes usual in trade



Order No.	Size	Airline Diameter		Pack quantity
		Inch	mm	
KDS805S6	5CC	3/32"	2,4	1
KDS810S6	10CC	3/32"	2,4	1

## Miscellaneous Accessories



Order No.	Description
KDS816	Syringe Holder Stand

## Needles



### Stainless Steel Plastic Hub Dispensing Needles

Order No.	Description	Gauge	Inside Ø		Outside Ø		Length		Colour	Pack quantity
			Inch	mm	Inch	mm	Inch	mm		
KDS1412P	Threaded Hub Needle	14	0,067	1,70	0,083	2,11	1/2	12,70	dark green	50
KDS141P	Threaded Hub Needle	14	0,067	1,70	0,083	2,11	1	25,40	dark green	50
KDS1512P	Threaded Hub Needle	15	0,060	1,52	0,072	1,83	1/2	12,70	orange	50
KDS1612P	Threaded Hub Needle	16	0,053	1,35	0,064	1,63	1/2	12,70	purple	50
KDS161P	Threaded Hub Needle	16	0,053	1,35	0,064	1,63	1	25,40	purple	50
KDS16112P	Threaded Hub Needle	16	0,053	1,35	0,064	1,63	1 1/2	38,10	purple	50
KDS1712P	Threaded Hub Needle	17	0,045	1,14	0,060	1,52	1/2	12,70	white	50
KDS1812P	Threaded Hub Needle	18	0,038	0,97	0,050	1,27	1/2	12,70	pink	50
KDS181P	Threaded Hub Needle	18	0,038	0,97	0,050	1,27	1	25,40	pink	50
KDS1912P	Threaded Hub Needle	19	0,032	0,81	0,042	1,07	1/2	12,70	brown	50
KDS191P	Threaded Hub Needle	19	0,032	0,81	0,042	1,07	1	25,40	brown	50
KDS2012P	Threaded Hub Needle	20	0,026	0,66	0,035	0,89	1/2	12,70	yellow	50
KDS201P	Threaded Hub Needle	20	0,026	0,66	0,035	0,89	1	25,40	yellow	50
KDS2112P	Threaded Hub Needle	21	0,023	0,58	0,032	0,89	1/2	12,70	green	50
KDS2212P	Threaded Hub Needle	22	0,019	0,48	0,028	0,71	1/2	12,70	black	50
KDS221P	Threaded Hub Needle	22	0,019	0,48	0,028	0,71	1	25,40	black	50
KDS2312P	Threaded Hub Needle	23	0,017	0,43	0,025	0,64	1/2	12,70	light blue	50
KDS2512P	Threaded Hub Needle	25	0,012	0,30	0,020	0,51	1/2	12,70	blue	50
KDS3012P	Threaded Hub Needle	30	0,006	0,15	0,012	0,30	1/2	12,70	lavender	50
KDS660	Pieces Needle Kit									500
KDSSAMPLEPACK	Needle Sample Pack									5

Packages 1.000 pcs. on request



## Tapered Tip Needles

Order No.	Description	Gauge	Inside Ø		Colour	Pack quantity
			Inch	mm		
KDS14TNP	Taper Tip Needle	14	0,063	1,60	salmon	50
KDS16TNP	Taper Tip Needle	16	0,048	1,22	grey	50
KDS18TNP	Taper Tip Needle	18	0,034	0,86	green	50
KDS20TNP	Taper Tip Needle	20	0,024	0,61	pink	50
KDS22TNP	Taper Tip Needle	22	0,017	0,43	blue	50

## Miscellaneous Accessories

Order No.	Description	Pack quantity
KDS825	Panel Mount Coupler	1
KDS900	Male Connector large Barb	5
KDS901	Female Connector for KDS301	1
TAL332CH	Air-line for syring adapter	1
APC5132CM	Air-line for KDS301	1

---

**Erem Tools Precision Made in Switzerland 232 – 233**



<b>Tweezers</b>	<b>234 – 257</b>
Erem impresses	236 – 237
Special applications	238 – 239
Tweezers with pointed tips	240 – 247
Tweezers with flat round tips	248
Tweezers with ergonomic handles	249
SMD tweezers	250 – 252
Locking gripping tweezers	253
Wafer tweezers	254 – 255
Cutting tweezers	255
Stripping tweezers	256
Extraction tweezers	257



<b>Cutters</b>	<b>258 – 299</b>
Erem impresses	262 – 263
Choosing the right tool	264 – 269
Special applications	270 – 271
Series 600 Micro cutters	272 – 275
Series 2400 MagicSense cutters	276 – 279
Series 500 Medium cutters	280 – 285
Series 800 Maxi cutters	286 – 289
Tungsten-carbide cutters	290 – 293
Special applications	294 – 295
Pneumatic side cutters and tip cutters	296 – 297
Distance cutters	298 – 299



<b>Pliers</b>	<b>300 – 313</b>
Erem pliers	302 – 307
Stripping pliers	308 – 309
Forming pliers	310 – 313



<b>Special tools</b>	<b>314 – 323</b>
IC and SMD tools	316 – 317
Fibre optic tools	318 – 319
Vacuum micromanipulator	320 – 323



<b>Kits</b>	<b>324 – 332</b>
-------------	------------------

# Tweezers

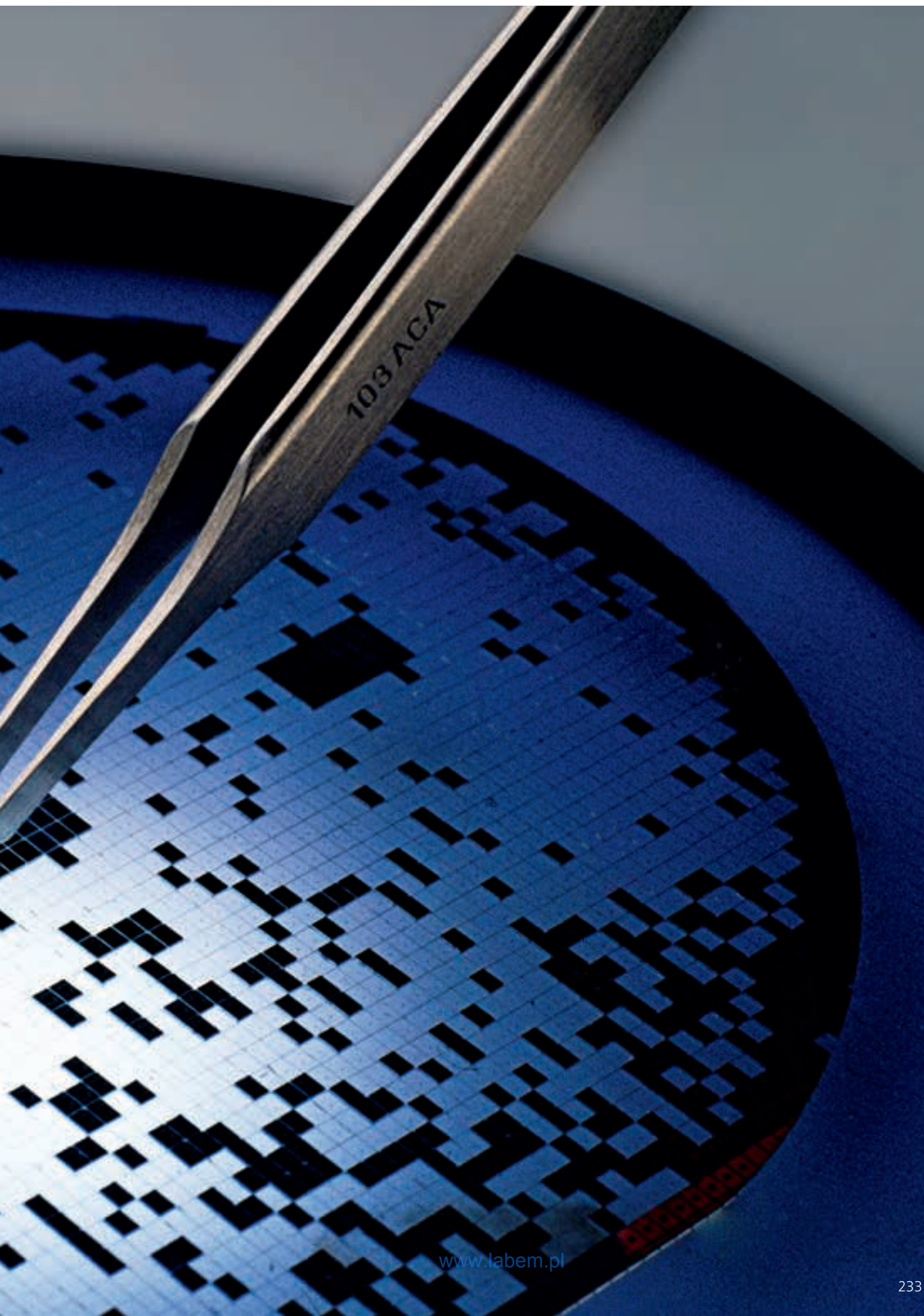
## Precision Made in Switzerland

The quality and performance of our Erem precision tools are the product of more than 40 years of development and know-how. Made in Switzerland, Erem tools are the result of constant product development and innovation to meet customer demands and the requirements of modern manufacturing techniques.

Constantly changing market developments encourage Erem to design and manufacture forward looking tools for applications in the fields of electronics, aviation / aero-space, biology, medical accessories, the watch industry and telecommunications.

Erem tools enjoy the deserved high reputation of Swiss precision manufacture and our expertise, combined with ease of use and operator comfort make them an ideal partner in global manufacturing processes.







# Tweezers

Erem manufacture a wide range of tweezers.

The combination of expert manufacture, symmetry and balance give Erem tweezers their renowned reputation for precision and the highest quality.

- Pointed tips for precision work
- Ergonomically shaped handles prevent hand fatigue
- Large selection of matching SMD tweezers and cutting tweezers for individual applications





Erem manufactures a wide range of precision tweezers. The range covers tweezers made from hardened steel, stainless steel, non-magnetic acid resistant stainless steel, titanium, brass, nickel silver and nickel-plated tweezers. Tweezer tips can be serrated or smooth metal, or made from synthetic ESD safe material to prevent damage to fragile surfaces.

In addition to SMD and stripping tweezers, the range includes special gripping tweezers, which enable particularly fine wires or insulated optical fibres to be held and manipulated.

Erem can make to order tweezers for specialised applications. The combination of precision-manufactured, symmetrical tips and perfect balance make Erem tweezers outstanding high-precision tools of the highest quality.

## Material

The choice of which tweezers to use will depend as much on the material it is made from as the function it carries out:

### Hardened steel

Tweezers made from hardened steel are typified by their particularly hard tips, which ensure great durability. The tweezers are magnetic and the material is not non-rusting.



### Stainless steel

Tweezers made from stainless steel have robust tips and are non-rusting. The material is less hard than hardened steel.

Stainless-steel tweezers have the identification letter „S“ in their order numbers.

### Erem special stainless steel

This alloy is non-magnetic. The tweezers are non-rusting, acid-proof and heat-resistant up to 300°C (512°F).

Tweezers made from special stainless steel tweezers have the identification letter „SA“ in their order numbers.

### Titanium

Titanium tweezers are light weight and resistant to high temperatures.

## Coating

Only Erem offers tweezers with a special Pyroplast coating.



### Advantages:

- Heat-resistant up to 500°C (932°F), almost twice as high as Teflon® or Cralon
- No capillary effect on tips, e.g. while soldering (non-stick property)
- No contamination caused by positive or negative charge
- Water-resistant
- Radiation-resistant
- Thickness of coating 60-80 µ

The Pyroplast coating is not available on all Erem tweezers.

It is made to order and requires a minimum order quantity.

Please contact your nearest sales office for more information.

## Ergonomic

Erem has developed a series of tweezers with ergonomic handles to reduce the risk of Repetitive Strain Injuries (RSI) to the hands.

The identification letter in the order number is „E“.



### Erem also offers two further innovative tweezers with ergonomically shaped handles:

- E15AGW cutting tweezers with hardened cutting edges for increased service life
- EOODSA precision tweezers with straight strong tips which are inside-serrated for secure handling



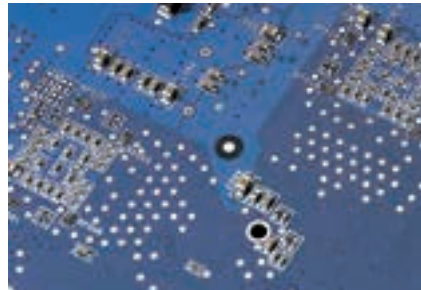
### Advantages:

- Ergonomically shaped handles reduce Carpal Tunnel Syndrome (CTS) and early hand fatigue
- Two-color, thermally insulated soft-grip handles made from soft foam material ensure high user comfort
- Manufactured from non-magnetic, acid-proof and stainless steel alloy
- ESD-safe

# Special applications

The quality and performance of Erem precision tweezers are the result of more than 40 years of development and know-how.

Erem is one of the leaders in the development of high-precision tools for a wide variety of applications in electronics, aeronautical engineering, light engineering, telecommunications, laboratory technology, medicine and the jewelry, watchmaking and goldsmith industries.



## Tweezers for biology and laboratory applications



Erem micro-tweezers are suitable for use in biology (e.g. model 5MBS, 5FSA or M5S).

These tweezers with very pointed tips enable confined spaces to be accessed and offer excellent visibility when performing precision work and when working under a microscope.

High precision tweezers are particularly suitable for analysis applications and the handling of tissues, fine threads and other very small objects.

## Tweezers for use in the jewelry industry

These stainless steel tweezers with Teflon® coated tips (e.g. type 2ASASLT) are particularly suited for use in the jewelry industry. They are robust and the Teflon® coated tips are non stick.

Titanium tweezers type like 3CTA are also ideal for this application. Their lightweight maintains fingertip control over extended working periods and their resistance to high temperatures allows them to be used where gas flames might be encountered.



## Tweezers for use in light engineering and dental applications



Erem offers special gripping pliers for applications in light engineering. The lockable gripping tweezers type 940AS can withstand a tensile force of 5 kg and can securely hold small wires.

The stainless steel construction allows the tweezers to be sterilised in an autoclave.

# Tweezers

## Precision tweezers: Pointed tips straight




- For applications in microelectronics, jewelry-making, watchmaking, medicine and laboratory technology
- Suitable for delicate standard applications and precision work on small components or wires
- For all models with the suffix SA or SASL in the order number: Special stainless steel, non-magnetic, non-rusting, acid-proof, heat-resistant
- For all models with the suffix S in the order number: Stainless steel, robust tips, non-rusting, non-reflecting surface




 **80 mm/3.150 Inch**



Model		Description
<b>M5S</b>	6 g 0.21 oz.	Micro-tweezers, very pointed tips, e.g. for precision work under a microscope.

 **108 mm/4.252 Inch**




Model		Description
<b>ACSA</b>	16 g 0.56 oz.	Precision tweezers with serrated finger grips for secure handling. For precise bending and holding of components or wires.
<b>20AS</b>	12 g 0.42 oz.	Precision tweezers with serrated finger grips and inside-serrated tips for secure handling. Guide pin to avoid overlapping of tips. For precise bending and holding of components or wires.



## Precision tweezers: Pointed tips straight


 **110 mm/4.331 Inch**



Model		Description
<b>3CS</b>	11 g 0.39 oz.	Precision tweezers with long tips for precision work on printed-circuit boards.
<b>3CSA</b>	11 g 0.39 oz.	Precision tweezers, standard model for delicate work.
<b>3CSASL</b>	11 g 0.39 oz.	Same as 3CSA, but economy model.
<b>3CTA</b>	8 g 0.28 oz.	Model same as 3CSA, but made from titanium: non-magnetic, very heat-resistant and very light.
<b>53CSA</b>	11 g 0.39 oz.	Precision tweezers with anti-crush feature. Prevents damage to sensitive components. Tweezers relieved at front for secure handling.
..		

 **120 mm/4.724 Inch**



Model		Description
<b>3SA</b>	14 g 0.49 oz.	Precision tweezers with pointed tips for work in microelectronics.
<b>3SASL</b>	14 g 0.49 oz.	Same as 3SA, but economy model.
<b>1SA</b>	14 g 0.49 oz.	Precision tweezers with pointed tips for standard applications..
<b>1SASL</b>	14 g 0.49 oz.	Same as 1SA, but economy model.
<b>OOSA</b>	20 g 0.71 oz.	Precision tweezers with pointed tips. Very robust. Suitable for standard applications, e.g. for assembly in electronics.




# Tweezers

## Precision tweezers: Pointed tips straight


 120 mm/4.724 Inch



Model		Description
<b>OOSASL*</b>	20 g 0.71 oz.	Same as OOSA, but economy model.
<b>OOCSA</b>	18 g 0.64 oz.	Model same as OOSA, but with shorter tips.
<b>OOBSA</b>	20 g 0.71 oz.	Model same as OOSA, but with serrated finger grips for secure handling.
<b>OODSA</b>	20 g 0.71 oz.	Model same as OOSA, but with serrated finger grips and inside-serrated tips for secure handling.
<b>64SA</b>	17 g 0.60 oz.	Precision tweezers with pointed tips and serrated finger grips for secure handling.
<b>11N</b>	17 g 0.60 oz.	Precision tweezers with medium-pointed tips for use on soft components. Nickel-silver, non-magnetic.
<b>AAZ*</b>	16 g 0.56 oz.	Precision tweezers with medium-pointed tips, nickel-plated. Suitable for electronic assembly tasks.

 125 mm/4.921 Inch




Model		Description
<b>AAS</b>	16 g 0.56 oz.	Precision tweezers with fine but robust tips.
<b>AASA</b>	16 g 0.56 oz.	Precision tweezers with fine but robust tips for standard applications.
<b>AASASL*</b>	16 g 0.56 oz.	Same as AASA, but economy model.

\*Not available in North America  
[www.labem.pl](http://www.labem.pl)

## Precision tweezers: Pointed tips straight


 125 mm/4.921 Inch



Model		Description
<b>AM</b>	17 g 0.60 oz.	Precision tweezers made from brass. The soft metal protects sensitive components against damage. No sparks.

 130 mm/5.118 Inch




Model		Description
<b>249SA</b>	20 g 0.71 oz.	Precision tweezers with pointed synthetic tips (PPS) and serrated finger grips for secure handling. Volume resistance 16 Ω/cm. Heat-resistant up to 250°C (480°F). Resistant to acids and molten soldering tin. Water-repellent.



<b>249CER*</b>	24 g 0.84 oz.	Same as 249SA, but with ceramic tips. Heat-resistant up to 900°C (1500°F).
----------------	------------------	--

 140 mm/5.512 Inch




Model		Description
<b>RRS</b>	30 g 1.05 oz.	Precision tweezers with strong tips for heavy-duty applications.



<b>SSSA</b>	11 g 0.39 oz.	Precision tweezers with long, narrow grips and low tension, responds to minimal pressure. The long grips allow precision work close to heat sources.
-------------	------------------	--


 150 mm/5.906 Inch



Model		Description
<b>29SA</b>	26 g 0.92 oz.	Reverse-action tweezers with wide, rounded tips. For holding parts by reverse clamping action. Insulated handles, e.g. for protecting against heat.

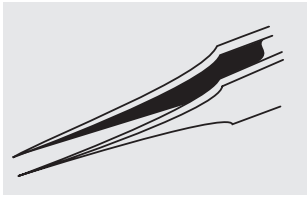
 160 mm/6.299 Inch



Model		Description
<b>21SA</b>	23 g 0.81 oz.	Precision tweezers with medium-pointed tips and serrated finger grips and inside-serrated tips for secure handling. Very robust. The long grips allow precision work close to heat sources.

# Tweezers

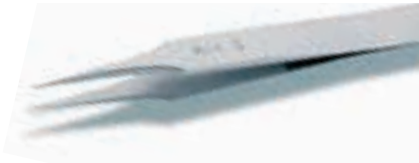
## Precision tweezers: Pointed tips straight relieved




- For precision work e.g. under a microscope
- Relieved shape facilitates excellent access to the most confined spaces
- For all models with the suffix SA or SASL in the order number: Special stainless steel, non-magnetic, non-rusting, acid-proof, heat-resistant
- For all models with the suffix S in the order number: Stainless steel, robust tips, non-rusting, non-reflecting surface




 **90 mm/3.543 Inch**



Model		Description
<b>M4AS*</b>	9 g 0.32 oz.	Micro-tweezers, very pointed tips, e.g. for working under a microscope.

 **110 mm/4.331 Inch**




Model		Description
<b>4SA</b>	13 g 0.46 oz.	Precision tweezers with very pointed tips.
<b>4SASL</b>	13 g 0.46 oz.	Same as 4SA, but economy model.

\*Not available in North America  
[www.fabem.pl](http://www.fabem.pl)

## Precision tweezers: Pointed tips straight relieved


 **115 mm/4.528 Inch**



Model		Description
<b>5MBS*</b>	12 g 0.42 oz.	Precision tweezers with extremely pointed tips (~ 0.03 x 0.07 mm/.002 Inch) for use in dissection procedures and working under a microscope. For use on soft materials only.
<b>5FSA*</b>	12 g 0.42 oz.	Precision tweezers with extremely pointed tips (~ 0.05 x 0.1 mm/.003 Inch) for use in dissection procedures and working under a microscope. For use on soft materials only.
<b>5SA</b>	12 g 0.42 oz.	Precision tweezers with very pointed tips, suitable for very fine wires.
<b>5SASL</b>	12 g 0.42 oz.	Same as 5SA, but economy model.
<b>2SA</b>	16 g 0.56 oz.	Precision tweezers with medium-pointed tips.
<b>2SASL</b>	16 g 0.56 oz.	Same as 2SA, but economy model.

 **120 mm/4.724 Inch**

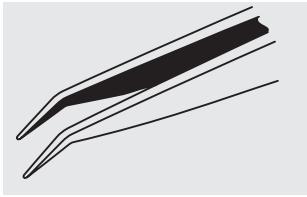


Model		Description
<b>258SA</b>	15 g 0.53 oz.	Precision tweezers with pointed synthetic tips (PPS) and serrated finger grips for secure handling. Volume resistance 16 Ω/cm. Heat-resistant up to 250°C (480°F). Resistant to acids and molten soldering tin. Water-repellent.

\*Not available in North America  
[www.labem.pl](http://www.labem.pl)

# Tweezers

## Precision tweezers: Pointed tips bent




- For applications in biology, medicine, laboratory technology and microelectronics
- Bent shape facilitates access to confined spaces
- For all models with the suffix SA or SASL in the order number: Special stainless steel, non-magnetic, non-rusting, acid-proof, heat-resistant
- For all models with the suffix S in the order number: Stainless steel, robust tips, non-rusting, non-reflecting surface




 **110 mm/4.331 Inch**



Model		Description
<b>3CBS</b>	15 g 0.53 oz.	Precision tweezers, curved 40°, with pointed tips, for precision work such as assembly on printed-circuit boards.

 **115 mm/4.528 Inch**




Model		Description
<b>5CSA</b>	12 g 0.42 oz.	Precision tweezers, curved 30°, relieved. Pointed tips. Relieved shape at front of handle provides excellent visibility of the area to be worked on.
<b>5BSA</b>	12 g 0.42 oz.	Precision tweezers, curved 30°, relieved. Pointed tips. Relieved shape at front of handle provides excellent visibility of the area to be worked on.
<b>51SA</b>	12 g 0.42 oz.	Precision tweezers, curved 30°, relieved. Very pointed tips. Relieved shape at front of handle provides excellent visibility of the area to be worked on.

## Precision tweezers: Pointed tips bent


 115 mm/4.528 Inch



Model		Description
<b>51SASL</b>	12 g 0.42 oz.	Same as 51SA, but economy model.
<b>5ASA</b>	12 g 0.42 oz.	Precision tweezers, lightly curved 15°, relieved. Very pointed tips, e.g. for installing small components.
<b>5ASASL</b>	12 g 0.42 oz.	Same as 5ASA, but economy model.


 120 mm/4.724 Inch



Model		Description
<b>7SA</b>	15 g 0.53 oz.	Precision tweezers, curved, relieved, with pointed tips. Excellent handling in confined spaces.
<b>7SASL</b>	15 g 0.53 oz.	Same as 7SA, but economy model.


 140 mm/5.512 Inch



Model		Description
<b>65ASA</b>	11 g 0.39 oz.	Precision tweezers, curved 50°. Very pointed tips. For working with extra-small chips and other miniature components.

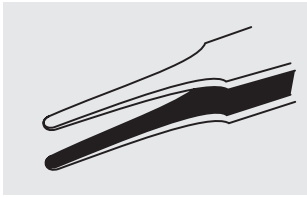
 150 mm/5.906 Inch



Model		Description
<b>24SA</b>	22 g 0.78 oz.	Precision tweezers, curved 40°, with robust pointed tips. Serrated finger grips and inside-serrated tips for secure handling. Guide pin to avoid overlapping of tips. Ideally suitable for soldering and assembly jobs.
<b>30SA</b>	26 g 0.92 oz.	Reverse-action tweezers, curved 30°, with robust pointed tips. Fibreglass handles for protection against heat. Reverse clamping action for comfortably holding parts. Particularly suitable for soldering and assembly jobs.

# Tweezers

## Precision tweezers: Flat round tips straight




- Suitable for all standard gripping applications and assembly jobs on printed-circuit boards, e.g. in the goldsmith and jewelry industries
- For all models with the suffix SA or SASL in the order number: Special stainless steel, non-magnetic, non-rusting, acid-proof, heat-resistant



 120 mm/4.724 Inch



Model		Description
<b>2ASA</b>	15 g 0.53 oz.	Precision tweezers with flat rounded tips for gripping small components. Tip width 2 mm/.078 Inch.
<b>2ASASL</b>	15 g 0.53 oz.	Same as 2ASA, but economy model.
<b>2ASASLT*</b>	16 g 0.56 oz.	Same as 2ASA, but with Teflon®-coated tips for non-stick holding of self-adhesive parts.
<b>2ASARU</b>	16 g 0.56 oz.	Same as 2ASA, but with coated tips for non-stick holding of self-adhesive parts.
<b>25SA</b>	15 g 0.53 oz.	Precision tweezers with flat, round tips slightly wider than the 2ASARU model. Serrated finger grips for secure handling. For standard gripping jobs.
<b>52ASA</b>	15 g 0.53 oz.	Precision tweezers with pointed, rounded and flexibly movable tips. Prevents damage to sensitive components.

\*Not available in North America  
[www.labem.pl](http://www.labem.pl)


## Precision tweezers with ergonomic handles

- This series offers models with thin shaped tips to suit every application
- Ergonomically shaped handles reduce hand fatigue and facilitates comfortable working
- Thermally insulated, soft foam handles, ESD-safe
- For all models with the suffix SA in the order number: Special stainless steel, non-magnetic, non-rusting, acid-proof, heat-resistant



 120 mm/4.724 Inch



Model		Description
<b>E5SA</b>	25 g 0.88 oz.	Ergonomic precision tweezers with straight, very pointed tips for gripping fine wires.
<b>E3CSA</b>	25 g 0.88 oz.	Ergonomic precision tweezers with long, straight and pointed tips, e.g. for assembly jobs on printed-circuit boards.
<b>EOOSA</b>	30 g 1.05 oz.	Ergonomic precision tweezers with straight, strong tips for standard applications. Very robust.
<b>EOODSA</b>	30 g 1.05 oz.	Model same as EOOSA, but with inside-serrated tips.
<b>E7SA</b>	28 g 0.99 oz.	Ergonomic precision tweezers with curved strong tips, e.g. for working in confined spaces.
<b>E2ASA</b>	28 g 0.99 oz.	Ergonomic precision tweezers with straight, flat and rounded tips for simple gripping jobs. Tip width 2 mm/.078 Inch.
<b>E15AGW</b>	30 g 1.05 oz.	Cutting tweezers, carbon-steel tips.



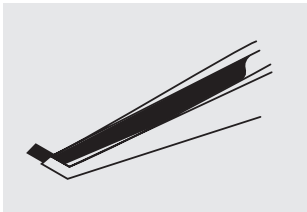
# Tweezers

## SMD tweezers

- High-quality precision tweezers for SMD jobs with different designs (chip, MELFs, mini MELFs)
- Blunted edges prevent damage to printed-circuit boards




## SMD tweezers – Angled tips



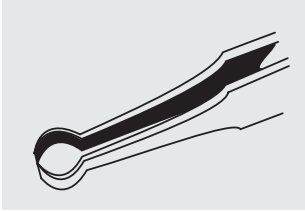
- Suitable for perfect handling of chips and miniature components
- Suitable for assembling SMD printed-circuit boards or ceramic substrates
- Bent shape facilitates optimum access to confined spaces and provides excellent visibility of the area to be worked on
- For all models with the suffix CA in the order number: Special stainless steel, non-magnetic, non-rusting, acid-proof, heat-resistant

 115 mm/4.528 Inch



Model		Description
<b>102ACA</b>	15 g 0.53 oz.	SMD tweezers, angled 45°, with pointed tips for vertical application.
<b>102ACAX</b>	14 g 0.49 oz.	Model same as 102ACA, but reverse clamping action for easy holding.
<b>103ACA</b>	15 g 0.53 oz.	SMD tweezers, angled 45°, with slightly wider tips for vertical application.


## SMD tweezers – Round tips straight



- Suitable for gripping and holding round components and wires
- Blunted edges prevent damage to printed-circuit boards
- For all models with the suffix SA in the order number: Special stainless steel, non-magnetic, non-rusting, acid-proof, heat-resistant


### 110 mm/4.331 Inch



Model		Description
<b>39SA</b>	15 g 0.53 oz.	SMD tweezers with round tips, dia. 0.3 mm/.011 Inch. Serrated finger grips for secure handling. For gripping small wires and cylindrical components.
<b>40SA</b>	15 g 0.53 oz.	SMD tweezers with round tips, dia. 0.4 mm/.015 Inch. Serrated finger grips for secure handling. For gripping small wires and cylindrical components.

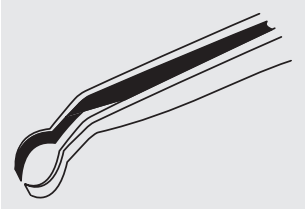
### 120 mm/4.724 Inch



Model		Description
<b>150SAMF</b>	13 g 0.46 oz.	SMD tweezers with round, very narrow tips, dia. 1.2 – 2.5 mm/.047 – .098 Inch. Serrated finger grips for secure handling. For gripping cylindrical components, mini MELFs, etc.
<b>150SAD</b>	13 g 0.46 oz.	SMD tweezers with round tips, dia. 1.5 – 3 mm/.059 – .118 Inch. Serrated finger grips for secure handling. For gripping cylindrical components, mini MELFs, etc.
<b>150SA</b>	13 g 0.46 oz.	SMD tweezers with round tips, dia. 1.5 – 3 mm/.059 – .118 Inch. Serrated finger grips for secure handling. For gripping cylindrical components.
<b>151SA</b>	13 g 0.46 oz.	SMD tweezers with round tips, dia. 3 – 6 mm/.118 – .236 Inch. Serrated finger grips for secure handling. For gripping cylindrical components.

# Tweezers


## SMD tweezers – Round tips bent



- Suitable for gripping fine wires and cylindrical components
- Blunted edges prevent damage to printed-circuit boards
- For all models with the suffix SA in the order number: Special stainless steel, non-magnetic, non-rusting, acid-proof, heat-resistant

 115 mm/4.528 Inch



Model		Description
<b>32BSA</b>	17 g 0.60 oz.	SMD tweezers, angled 45°, with round tips, dia. 5 mm/.197 Inch.
<b>32BSA20*</b>	17 g 0.60 oz.	SMD tweezers, angled 45°, with round tips, dia. 2 mm/.078
<b>32BSA25</b>	17 g 0.60 oz.	MD tweezers, angled 45°, with round tips, dia. 2.5 mm/.098 Inch.
<b>150SAMB</b>	13 g 0.46 oz.	MD tweezers, angled 40°, with round tips, dia. 1.2 – 2.5 mm/ .047 – .098 Inch. Serrated finger grips for secure handling.

\*Not available in North America  
[www.laben.pl](http://www.laben.pl)


## Locking Gripping Tweezers

- Gripping tweezers enable the user to hold and manipulate particularly fine wires with a diameter from 0.3 mm/.011 Inch or insulated optical fibres with a diameter of between 1.5 mm/.059 Inch and 5 mm/.197 Inch
- Suitable as a ligature clamp in dentistry
- Can be disinfected and sterilized



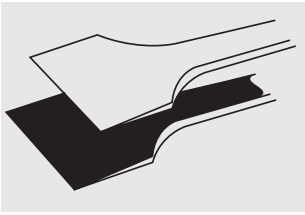
 **120 mm/4.724 Inch**



Model		Description
<b>940AS*</b>	17 g 0.60 oz.	Gripping tweezers with locking mechanism. The ring-shaped tip provides for secure handling up to a tensile force of 5 kg.

# Tweezers

## Wafer tweezers




- Suitable for 3" to 6" wafers
- Serrated finger grips for secure handling
- Wafer tweezers are available to order in various sizes and coatings
- For all models with the suffix SA in the order number: Special stainless steel, non-magnetic, non-rusting, acid-proof, heat-resistant



A = Paddle width  
B = Paddle depth


 **125 mm/4.921 Inch**



Dimensions in mm/Inch				
Model		A	B	Description
<b>91SA</b>	15 g 0.53 oz.	12 .472	7 .276	Standard wafer tweezers for 3" and 4" wafers.

 **130 mm/5.118 Inch**




Dimensions in mm/Inch				
Model		A	B	Description
<b>600ASA</b>	23 g 0.81 oz.	19,5 .768	8 .315	Wafer tweezers with flat lower paddle and 6 upper fingers for protecting wafers against damage. For 6" wafers.
<b>608ASA</b>	23 g 0.81 oz.	30 1.181	8,5 .276	Model same as 600ASA, but 30 mm/1.181 Inch wide.
<b>600JSA</b>	24 g 0.84 oz.	20 .787	8 .315	Wafer tweezers with free-floating Teflon® upper paddle for secure, damage-free gripping. For 4" – 6" wafers.

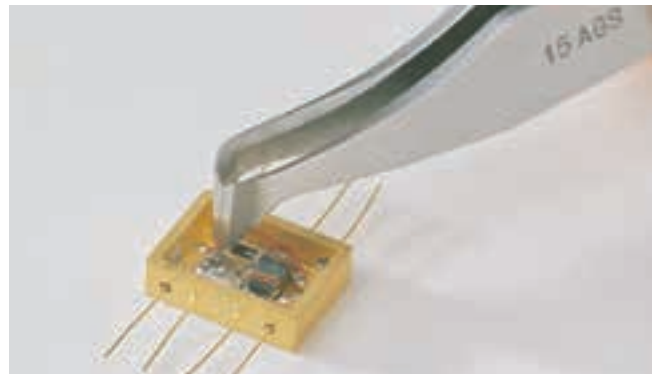
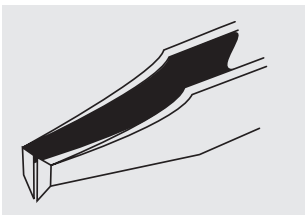
## Wafer tweezers

 150 mm/5.906 Inch



Model		Dimensions in mm/Inch		Description
		A	B	
<b>141SAP</b>	30 g 1.05 oz.	30 1.181	8 .315	Wafer tweezers with polyester tips for protecting Si, GaAs or Ti wafers against damage. For 4" – 6" wafers.


## Cutting tweezers



- Suitable for cutting fine, soft wires and small components
- Delivers high-precision cuts
- Hardened cutting edges for long service life
- For all models with the suffix S in the order number: Stainless steel, robust tips, non-rusting, non-reflecting surface

 115 mm/4.528 Inch



Model		Description
<b>15AGS</b>	21 g 0.74 oz.	Cutting tweezers with narrow oblique head. For soft wires up to dia. 0.25 mm/.010 Inch.
<b>15AGW</b>	26 g 0.92 oz.	SCutting tweezers with narrow oblique head. For soft wires up to dia. 0.25 mm/.010 Inch.

# Tweezers

## Stripping tweezers




- Suitable for stripping fine wires with PVC or Teflon® insulation
- Non-reflecting surface
- Please send a wire sample when ordering



 120 mm/4.724 Inch



Model		Description
<b>29Y30*</b>	22 g 0.78 oz.	Miniature stripping tweezers, dia. 0.25 mm/.010 Inch (AWG 30). Stainless steel. Serrated finger grips for secure handling.
<b>29Y32*</b>	22 g 0.78 oz.	Miniature stripping tweezers, dia. 0.2 mm/.007 Inch (AWG 32). Stainless steel. Serrated finger grips for secure handling.
<b>29Y34*</b>	22 g 0.78 oz.	Miniature stripping tweezers, dia. 0.16 mm/.006 Inch (AWG 34). Stainless steel. Serrated finger grips for secure handling.
<b>29Y36*</b>	22 g 0.78 oz.	Miniature stripping tweezers, dia. 0.13 mm/.005 Inch (AWG 36). Stainless steel. Serrated finger grips for secure handling.
<b>29Y40*</b>	22 g 0.78 oz.	Miniature stripping tweezers, dia. 0.08 mm/.003 Inch (AWG 40). Stainless steel. Serrated finger grips for secure handling.

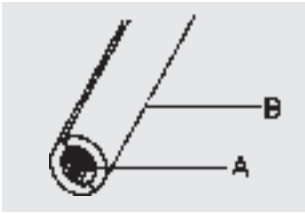
 120 mm/4.724 Inch



Model		Description
<b>29W30</b>	28 g 0.99 oz.	Stripping tweezers with synthetic fibre handle. For wires of dia. 0.25 – 0.3 mm/.010 – .011 Inch (AWG 30 – 28). For standard and Teflon® insulation.
<b>XB29W301</b>		Spare blade for 29W30

\*Not available in North America  
[www.laben.pl](http://www.laben.pl)

## Extraction tweezers




A = Outside diameter of pin  
B = Inside diameter of pin



- Suitable for extracting contacts from the rear of a plug connector

 120 mm/4.724 Inch



Dimensions in mm/Inch				
Model		Ø A	Ø B	Description
<b>024C</b>	15 g 0.53 oz.	12 .472	7 .276	Extraction tweezers for Sub-D connectors. Stainless steel.



## Side Cutters and Tip Cutters

Erem offers a wide range of precision side and tip cutters for almost every application

- Special tool steel is hardened with an unique Swiss technology
- This particular hardening process guarantees high durability



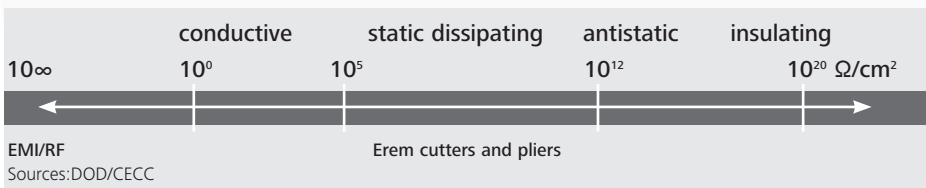


# Side Cutters and Tip Cutters



## ESD-safe

The interchangeable foam-cushion handles are ESD-safe and are fitted as standard on all Erem cutters and pliers.



## Internal patented Erem Magic Spring

- Reduce costs by long life
- Constant spring force
- Guarantees more than 1 million operations

## High precision screw joint

- Smooth jaw action with no play
- Smooth cutting operation with no jaw overlapping

Erem Cut: Options for semi flush, full flush or super flush cuts

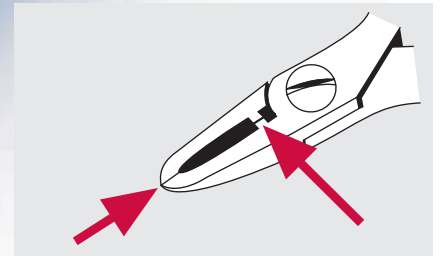


## Ergonomically shaped handles

for high comfort,  
better grip and added safety

## EMOS maximum opening stop

limits the cutting-edge tips from opening more than 5 mm/.197 Inch. The limited extent to which the handles can open prevent user hand fatigue.



## Erem cutting-edge protection for tip cutters

All tip cutters are fitted with a special stop system which prevents the cutting edges from overlapping.



## Safety device for holding wire scraps

This safety device for side cutters holds wire scraps securely after cutting. Available on most Series 500, 600 and 2400 cutters (oval head). Order suffix „W“, e.g. 595EW.

## Induction-hardened cutting edges in Rockwell hardness 63 – 65 HR

for exceptionally long life

## Erem Technology

### Special tool steel

Erem electronics tools are made from bright steel. They are not drop forged. The special tool steel is made using an unique Swiss processing technique.

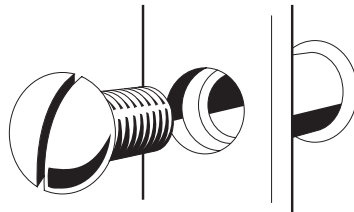
⊕ The bright tool steel gives additional strength and toughness to the tools pro-moting a long service life.



### The internal patented Erem Magic Spring

The Magic Spring system used in Erem precision tools is unique. It is integral to the cutting head and provides a constant closing and re-opening force. It is guaranteed for 1 million operations.

⊕ The Magic Spring system is highly reliable, makes the tools easy to use and reduces operator fatigue.



### High precision screw joint

This self locking screw joint system gives a smooth cutting and opening action and ensures that there is no blade overlap or play.

⊕ Precision cutting and reduced shock to components.

### EMOS maximum opening stop

The unique EMOS (**E**rem **M**aximum **O**pening **S**top) system prevents the tips from opening more than 5 mm/.197 Inch. It reduces user fatigue by preventing excessive hand spread.

⊕ Comfortable and fatigue free working.

## Handle

### Erem cutters and pliers with ergonomic handles

**W**ork **R**elated **U**pper **L**imb **D**isorder (WRULD) can be caused by positional fatigue or nerve damage brought about by the repeated use of non-ergonomic hand tools, otherwise known as **R**epetitive **S**train **I**njuries (RSI).

WRULDS is a direct consequence of insufficient ergonomics in manufacturing processes and working practices. To reduce the factors which cause WRULDS, Erem has developed a range of tools with ergonomic handles (Series 2400 Magic-Sense).

The handle shape and special materials ensure a soft feel, operating comfort and safety. The specially shaped handles ensure that the gripping pressure is evenly spread over the entire palm of the hand. The thumb and fingers automatically find their best position. The effort that has to be exerted by the user is reduced, thereby reducing hand fatigue.

The anti-slip surface provides excellent grip. The material is highly resistant to perspiration, water, oil and chemicals. The handles are ESD-safe and are easily interchangeable.



## Erem Cut

### Cut shape

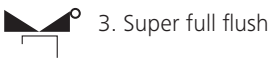
There are three blade options, which determine the shape left on a lead after cutting. (see also P. 35)



1. Semi-flush



2. Flush



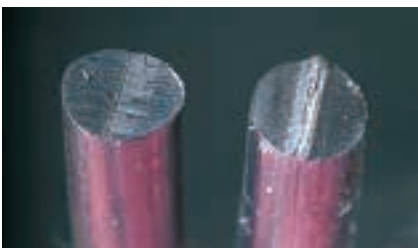
3. Super full flush

### Cutting edge

Erem cutters are noted for their ease of use, one of the reasons for this is the ability of the blade to cut equally well over its full length. This promotes operator comfort and reduces fatigue.

Semi-flush cutters offer the best performance and the longest service life. Super full flush cutters leave a flat wire end with minimal effort and prevent components from being subjected to load.

+ High level of user comfort thanks to special cutting edge.



+ **Erem cut Super full flush: perfect flush cut** Standard cut „Super full flush“

### Rockwell hardness

The cutting blades of Erem cutters are hardened to Rockwell 63-65 HRC by an induction heating process. Continuous process control ensures that the blades achieve the correct level of hardening and are not embrittled.

+ This level of hardening plus the high-grade tool steel used in the manufacture of the tools and continuous process control promote an exceptionally long service life.

## Erem Service

### Re-sharpening

Erem is your service partner. All Erem side and tip cutters except those with carbide insert blades can be re-sharpened up-to three times. Carriage charges will apply.

+ The re-sharpened tool is as good as new, its life is extended and costs are reduced.

### Replacement parts

Erem cutters and pliers and their component parts are warranted against manufacturing defects. Magic springs, precision joint components are available as spare parts.

+ The warranty and availability of spares guarantee long service life.



### ESD-safe

The ergonomic, interchangeable molded handles are ESD-safe and are fitted as standard on all Erem cutters and pliers.

# Choosing the right tool

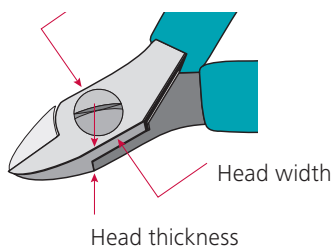
## Selection criteria

Erem offers a wide selection of precision side and tip cutters for virtually any application.

When choosing the right cutter, it is important to take

- Size
  - Cut
  - Head shape
  - Cutting capacity
- into consideration.

## Size

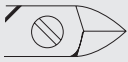

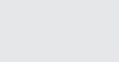







Erem offers the right head size to suit every application. There are three main sizes:

**Micro, Medium and Maxi.**

Each head size is available in different head shapes.

## Classification of cutter heads

Micro	Medium		Maxi
			
Series 600	Series 2400 MagicSense	Series 500	Series 800
			
<b>Size</b> Head width 9.0 mm/.354 Inch Head thickness 6.0 mm/.236 Inch	Head width 11.0 mm/.433 Inch Head thickness 6.0 mm/.236 Inch	Head width 11.0 mm/.433 Inch Head thickness 6.5 mm/.256 Inch	Head width 13.5 mm/.531 Inch Head thickness 7.5 mm/.295 Inch
Miniature cutter for applications in microelectronics and for fine wires. Offers a large variety of head shapes for very good access even to hard-to-reach areas.	Medium-size cutter. Combines robustness, visibility and accessibility. Large variety of head shapes for precision working in hard-to-reach areas. The Series 2400 MagicSense offers an optimised ergonomic shape and an improved grade of hardness.		The strongest and most robust head size for general cutting applications in electronics, cuts large wire diameters.

## Cut

There are three blade options, which determine the shape left on a lead after cutting.



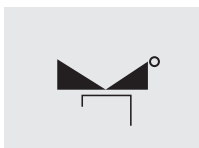
### Semi-flush

This cut leaves a pyramidal tip at the end of the wire. It is particularly suitable for standard jobs where the final shape does not play a significant role. Cutters with this cut are suitable for both soft copper wires and very hard wires such as stainless steel.



### Flush

This cut leaves a much smaller tip at the end of the wire than the semi-flush cut – without reducing the cutting capacity. The cutting edges are finer than on semi-flush cutters. The effort exerted when cutting is less and the load on the component is reduced. Flush wire ends reduce the effort needed to fit components on printed-circuit boards. Erem guarantees precise cutting even after frequent use.



### Super full flush

Only Erem offers you a super full flush cut. This cut provides absolutely flush wire ends. No rework is needed. Cutters with this cut are absolutely precision-ground and sharpened. The effort exerted when cutting is low, as is the load on the component caused by the cut. Soldering tags in soldering-bath procedures are prevented. Cutters of this type are used in microelectronics, space travel or medical technology. These cutters are suitable for soft wires.



**Erem cut Super**  
**full flush: perfect**  
**flush cut**

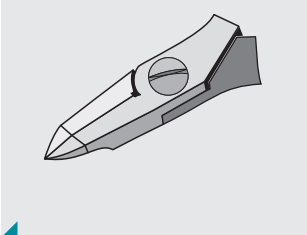
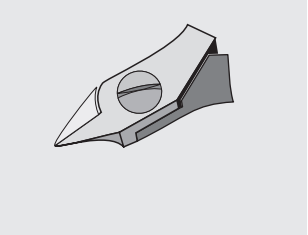
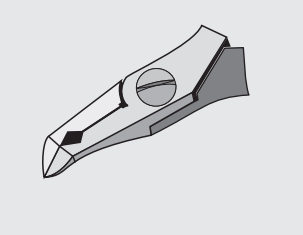
Standard cut  
„Super full flush“



# Choosing the right tool

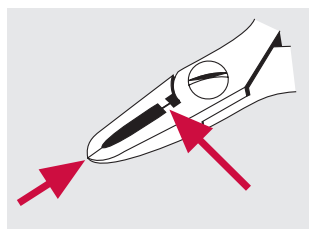
## Head shape

Erem offers the right head shape to suit your application. The head shapes differ in terms of shape and design. There are six basic shapes:

Shape	Tip cutter Straight relieved head	Tip cutter Pointed relieved head	Tip cutter Angled narrow head
<b>Visibility and accessibility</b> Cutting at the outermost tip of the cutter			
	This head is suitable for horizontal and vertical cuts. The long tips facilitate cutting in hard-to-reach areas.	This is the narrowest head shape. The underside is relieved and facilitates optimum access even to extremely hard-to-reach areas.	The angled head provides for precise cuts at different working angles.
<b>Series 600 Micro</b>	670E*, 670EP*, 670EPF* (P. 265)	622NB, 632NCF, 676E, 776E (P. 264)	
<b>Series 2400 MagicSense</b>	2470E (P. 269)		2475E, 2482E (P. 269)
<b>Series 500 Medium</b>	570E, 573E** (P. 275)	592E, 792E (P. 274)	555E, 572E, 582E (P. 53) 575E, 593AE (P. 273)
<b>Series 800 Maxi</b>		884E (P. 278)	

\* Very short head

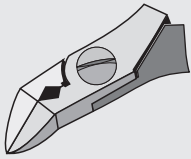
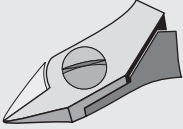
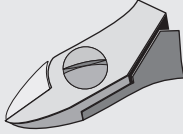
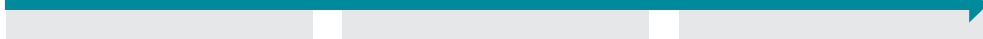
\*\* Straight head for vertical working



### Erem cutting-edge protection for tip cutters

Erem tip cutters are equipped with cutting-edge protection. A special stop system prevents the cutting edges from overlapping.
























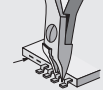
























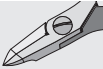


Tip cutter Angled wide head	Side cutter Tapered head	Side cutter Oval head	
			
			<p><b>High cutting capacity</b></p>
<p>The angled head provides for precise cuts at different working angles.</p>	<p>The jaws of the cutter have straight edges and taper to a point. This head shape allows access to difficult to reach areas but reduces the cutting capacity in comparison to the same size oval head cutter.</p>	<p>This is the most widely used head shape, it is robust and size for size offers the highest cutting capacity.</p>	<p>Cutting over the full length of the cutter</p>
<p>622NA (P. 264)</p>	<p>612N, 622N, 632N (P. 263)</p>		
<p>2403E, 2404E (P. 48)</p>	<p>2477E (P. 268)</p>	<p>2412E, 2422E, 2432E (P. 267)</p>	
<p>503E, 504E (P. 52)</p>	<p>577E, 595E (P. 272)</p>	<p>512E, 512N, 522N, 532N, 599E (P. 271)</p>	
	<p>886E (P. 278)</p>	<p>812N, 822N, 896E (P. 277)</p>	

Erem offers carbide cutters (see P. 39) for cutting high-hardness wire (piano wire).

# Choosing the right tool

## Wire quality

-  Piano wire, stainless spring steel wire, material 1.4310, tensile strength 2000–2400 MPa
-  Hard wire, stainless steel wire, material 1.4301, tensile strength 1800 MPa
-  Medium-hard wire, stainless steel wire, material 1.4301, tensile strength 800 MPa
-  Soft wire, copper, aluminium, tensile strength 250 MPa

Model		Cut	Cutting capability	
			mm	0,03 0,1 0,2 0,3 0,4 0,5 0,6 0,7 0,8 0,9 1,0 1,1 1,2 1,3 1,4 1,5 1,6 1,7 1,8 1,9 2,0
			Inch	.0001 .003 .007 .011 .015 .019 .023 .027 .031 .035 .039 .043 .047 .051 .055 .059 .062 .066 .070 .074 .078
	<b>612N</b>	 Semi-flush		
	<b>622N</b>	 Flush		
	<b>632N</b>	 Super full flush		
	<b>622NA</b>	 Flush		
	<b>622NB</b>	 Flush		
	<b>676E</b>	 Flush		
	<b>776E</b>	 Super full flush		
	<b>632NCF</b>	 Super full flush	<b>Only for soft materials: silicone, rubber, etc.</b>	
	<b>670E</b>	 Flush		
	<b>670EP</b>	 Flush		For micro-package contacts
	<b>670EPF</b>	 Flush	<b>Only for micro pitches under 0.5 mm / .019 Inch</b>	
<b>Series 2400 MagicSense</b>			mm	0,03 0,1 0,2 0,3 0,4 0,5 0,6 0,7 0,8 0,9 1,0 1,1 1,2 1,3 1,4 1,5 1,6 1,7 1,8 1,9 2,0
			Inch	.0001 .003 .007 .011 .015 .019 .023 .027 .031 .035 .039 .043 .047 .051 .055 .059 .062 .066 .070 .074 .078
	<b>2412E</b>	 Semi-flush		
	<b>2422E</b>	 Flush		
	<b>2432E</b>	 Super full flush		
	<b>2477E</b>	 Flush		
	<b>2403E</b> 30°	 Flush		
	<b>2404E</b> 30°	 Flush		
	<b>2482E</b> 45°	 Flush		
	<b>2475E</b> 45°	 Flush		
	<b>2470E</b>	 Flush		



Model		Cut	Cutting capability																							
Series 500 Medium			mm	0,03	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1,0	1,1	1,2	1,3	1,4	1,5	1,6	1,7	1,8	1,9	2,0		
			Inch	.0001	.003	.007	.011	.015	.019	.023	.027	.031	.035	.039	.043	.047	.051	.055	.059	.062	.066	.070	.074	.078		
	<b>512N</b>	Semi-flush																								
	<b>512E</b>	Semi-flush																								
	<b>522N</b>	Flush																								
	<b>599E</b>	Flush																								
	<b>532N</b>	Super full flush																								
	<b>595E</b>	Flush																								
	<b>577E</b>	Flush																								
	<b>503E</b>	Flush																								
	<b>504AE</b>	Flush																								
	<b>555E</b>	35°  Flush																								
	<b>572E</b>	40°  Flush																								
	<b>582E</b>	45°  Flush																								
	<b>582EW</b>	Flush																								
	<b>593AE</b>	30°  Flush																								
	<b>575E</b>	45°  Flush																								
	<b>592E</b>	Flush																								
	<b>792E</b>	Super full flush																								
	<b>570E</b>	Flush																								
	<b>573E</b>	Flush																								
			For vertical cutting																							
Series 800 Maxi			mm	0,03	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1,0	1,1	1,2	1,3	1,4	1,5	1,6	1,7	1,8	1,9	2,0		
			Inch	.0001	.003	.007	.011	.015	.019	.023	.027	.031	.035	.039	.043	.047	.051	.055	.059	.062	.066	.070	.074	.078		
	<b>812N</b>	Semi-flush																								
	<b>896E</b>	Semi-flush																								
	<b>822N</b>	Flush																								
	<b>886E</b>	Flush																								
	<b>884E</b>	Flush																								
Tungsten-carbide cutters			mm	0,03	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1,0	1,1	1,2	1,3	1,4	1,5	1,6	1,7	1,8	1,9	2,0		
			Inch	.0001	.003	.007	.011	.015	.019	.023	.027	.031	.035	.039	.043	.047	.051	.055	.059	.062	.066	.070	.074	.078		
	<b>622TX</b>	Flush																								
	<b>599T</b>	Semi-flush																								
	<b>599TF</b>	Flush																								
	<b>595T</b>	Semi-flush																								
	<b>595TF</b>	Flush																								
	<b>2476TX1</b>	Flush																								
	<b>576TX1</b>	Flush																								
	<b>2476 TX</b>	Flush																								
	<b>576TX</b>	Flush																								
	<b>503ET</b>	30°  Semi-flush																								
	<b>503ETF</b>	30°  Semi-flush																								

## Side cutters for use in medical device manufacturing



The 632NCF miniature side cutter is ideally suitable for soft material such as silicone tubes in medical device applications, precision connector seals or miniature rubber seals.

The miniature cutter is also the ideal tool for cutting soft synthetic parts, e.g. in the manufacture of hearing aids.

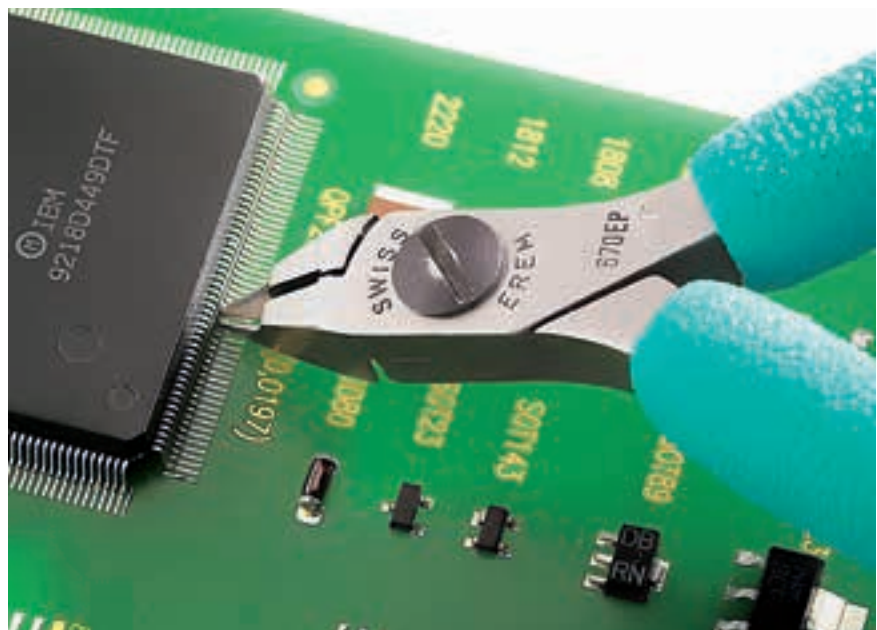
The cutting edges of the 632NCF side cutter are precision-ground to an extremely high level. This enables the cutter to deliver a razor-like full-flush cut.

## Tip cutters to remove fine pitch SMD ICs

A simple method to remove SMD ICs is to cut each of the individual leads to remove the device and then reflow the joint with a soldering iron and remove the component lead from the board.

The solder left on the board can then be removed with a desoldering tool or desolder braid and a new component fitted.

The 670EP and 670EPF have fine pointed tapered and relieved heads that are able to fit between individual leads and cut them without causing damage to the printed circuit.



## Tungsten-carbide cutter for the preparation of cardio-vascular stents

A stent is a vascular-wall prop. It is a lattice-shaped tube made of stainless steel or nickel-titanium. It serves to hold open constricted coronary blood vessels and improves the flow of blood through the vessels.

It is important in stent manufacture that the cut end of any wire in the lattice is as flat as possible, otherwise it will be necessary rework the stents.

These side cutters have fine polished carbide cutting blades to accurately cut the lattice and reduce the need for rework.



## High precision side cutter for cutting stainless wires



The 599TFO has wear resistant tungsten carbide cutting edges and all round capability. It is able to cut Vectran™ braided wires, fibre optics, Kevlar® and small stainless steel braids and wires.

A further application lies in telecommunications, i.e. working on fibre-optic cables, Kevlar® silks and piano wires.

# Side Cutters and Tip Cutters

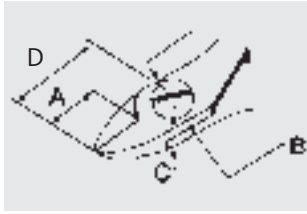
## Series 600 Micro

- Miniature cutters
- Offers a wide variety of head shapes for access in difficult to reach areas
- Suitable for SMD and leads (670EP, 670EPF)
- Made from high grade tool steel with cutting edges hardened to 63-65HRC
- Non reflecting surface, ESD safe, resharpenable





## Series 600 Micro



A = length of cutting edges  
 B = head width  
 C = head thickness  
 D = head length



Tip cutter Straight short relieved head	Tip cutter Pointed relieved head	Side cutter Tapered head	Side cutter Oval head
← Visibility and accessibility		Robustness, high cutting capacity →	

### Side cutter – oval head



**110 mm/4.331 Inch**  
**48 g/1.69 oz.**

- This is the most widely used head shape.
- Fits for all cutting applications where easy access is given
- It is robust and size for size offers the highest cutting capacity.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter		
		A	B	C	D	Hard wire	Medium hardness	Copper wire
<b>612N</b>	 Semi-flush	9 .354	9 .354	6 .236	15 .590	0.5 .019	0.8 .031	1.3 .051
<b>622N</b>	 Flush	9 .354	9 .354	6 .236	15 .590	–	0.8 .031	1.3 .051
<b>632N</b>	 Super full flush	9 .354	9 .354	6 .236	15 .590	–	0.7 .027	1.3 .051





# Side Cutters and Tip Cutters


## Series 600 Micro

### Side cutter – tapered head





 **110 mm/4.331 Inch**  
 **48 g/1.69 oz**

- The jaws of the cutter have straight edges and taper to a point.
- This head shape allows access to difficult to reach areas but reduces the cutting capacity in comparison to the same size oval head cutter.





Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
622NA	 Flush	9	9	6	15	0.7	1.0
		.354	.354	.236	.590	.027	.039

### Tip cutter – pointed relieved head



 **110 mm/4.331 Inch**  
 **48 g/1.69 oz.**

- This is the narrowest head shape.
- The underside is relieved and facilitates optimum access even to extremely hard-to-reach areas.



Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
622NB	 Flush	9	9	6	15	0.6	0.8
		.354	.354	.236	.590	.023	.031
676E	 Flush	9	9	6	15	Model same as 622NB, but with short, robust head	
776E	 Super full flush	9	9	6	15	0.6	0.8
		.354	.354	.236	.590	.023	.031
632NCF	 Super full flush	9	9	6	15	For soft material such as small silicone tubes, miniature rubber seals or for cutting soft synthetic parts	
		.354	.354	.236	.590		

## Series 600 Micro






### Tip cutter – straight short relieved head



 **110 mm/4.331 Inch**  
 **48 g/1.69 oz.**

■ Suitable for cutting SMD and micro-package contacts.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
<b>670E</b>	 Flush	9 .354	9 .354	6 .236	18 .709	0.5 .019	0.8 .031
<b>670EP</b>	 Flush	9 .354	9 .354	6 .236	18 .709	0.4 .015	0.6 .023
<b>670EPF*</b>	 Flush	9 .354	9 .354	6 .236	18 .709	Model same as 670EP, but smaller version <b>only</b> for micro pitches under 0.5 mm/.019 Inch (see also P. 40)	

\*Not available in North America

# Side Cutters and Tip Cutters

## Series 2400 MagicSense

- Medium-size cutter
- Combines robustness, visibility and accessibility.
- Large variety of head shapes for precision working in hard-to-reach areas.
- The optimised ergonomic shape of the Series 2400 MagicSense prevents hand fatigue
- Improved induction-hardened cutting edges up to 64 – 65 HRC for an extremely long service life
- Cutting edges made from special tool steel
- Non-reflecting surface, ESD-safe and resharpenable





## Series 2400 MagicSense



A = length of cutting edges  
 B = head width  
 C = head thickness  
 D = head length



Tip cutter Straight long relieved head	Tip cutter Angled narrow head	Tip cutter Angled wide head	Side cutter Tapered head	Side cutter Oval head
← Visibility and accessibility			→ Robustness, high cutting capacity	

### Side cutter – oval head



**130 mm/5.118 Inch**  
**70 g/2.47 oz.**

- This is the most widely used head shape.
- Fits for all cutting applications where easy access is given
- It is robust and size for size offers the highest cutting capacity.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter		
		A	B	C	D	Hard wire	Medium hardness	Copper wire
<b>2412E</b>	 Semi-flush	12 .472	11 .433	6 .236	19 .748	0.5 .019	1.0 .039	1.6 .062
<b>2422E</b>	 Flush	12 .472	11 .433	6 .236	19 .748	–	1.0 .039	1.6 .062
<b>2432E</b>	 Super full flush.	12 .472	11 .433	6 .236	19 .748	–	0.8 .039	1.6 .062

Wire quality, see P. 38


Optional: Safety device for wire scraps. Order suffix „W“, e.g. 2412W

# Side Cutters and Tip Cutters


## Series 2400 MagicSense

### Side cutter – tapered head






 **127 mm/5.999 Inch**  
 **70 g/2.47 oz.**

- The jaws of the cutter have straight edges and taper to a point.
- This head shape allows access to difficult to reach areas but reduces the cutting capacity in comparison to the same size oval head cutter.



Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
2477E	 Flush	12	11	6	19	1.0	1.3
		.472	.472	.433	.236	.039	.051

### Tip cutter – angled wide head



 **127 mm/5.118 Inch**  
 **70 g/2.47 oz.**  
 **30°**

- The angled head provides for precise cuts at different working angles.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
2403E	 Flush	9	11	6	19	1.0	1.6
		.354	.433	.236	.748	.039	.062
						Wide, robust head, fine cut	
2404E	 Flush	9	11	6	20	0.8	1.3
		.354	.433	.236	.787	.031	.051
						Model same as 2403E, but with pointed rounded head	

## Series 2400 MagicSense

### Tip cutter – angled narrow head



**135 mm/5.315 Inch**  
**72 g/2.54 oz.**  
**45°**

■ The angled head provides for precise cuts at different working angles.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
2482E	 Flush	6	11	6	26	0.6	1.2
		.236	.433	.236	1.024	.023	.047
Suitable for working on printed-circuit boards, component connections, can be used in both 90° and 180° applications							
2475E	 Flush	4	11	6	22	0.4	0.6
		.157	.433	.236	.866	.015	.023
Suitable for fine cutting work on hybrid circuits of miniature components							

### Tip cutter – straight long relieved head



**140 mm/5.512 Inch**  
**72 g/2.54 oz.**

■ This head is suitable for horizontal and vertical cuts.  
 ■ The long tips facilitate cutting in hard-to-reach areas.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
2470E	 Flush	4	11	6	29	0.4	0.6
		.157	.433	.236	1.142	.015	.023



Safety device for wire scraps **only** possible on 2412EW, 2422EW, 2432EW, 2477EW, 2482EW models.

# Side Cutters and Tip Cutters

## Series 500 Medium

- Medium size, robust, precision cutters
- Wide range of head shapes
- Manufactured from high grade tool steel
- Cutting edges hardened to Rockwell 63-65 HRC
- Non reflecting surface, ESD safe and resharpenable





## Series 500 Medium



A = length of cutting edges  
 B = head width  
 C = head thickness  
 D = head length



Tip cutter Straight long relieved head	Tip cutter Pointed relieved head	Tip cutter Angled narrow head	Tip cutter Angled wide head	Side cutter Tapered head	Side cutter Oval head
← Visibility and accessibility			→ Robustness, high cutting capacity		

### Side cutter – oval head



**115 mm/4.527 Inch**  
**67 g/2.36 oz.**

- This is the most widely used head shape.
- Fits for all cutting applications where easy access is given
- It is robust and size for size offers the highest cutting capacity.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter		
		A	B	C	D	Hard wire	Medium hardness	Copper wire
<b>512N</b>	 Semi-flush	12 .472	11 .433	6.5 .256	19 .748	0.5 .019	1.0 .039	1.6 .062
<b>512E</b>	 Semi-flush	12 .472	11 .433	6.5 .256	19 .748	Model same as 512N, but with burnished head		
<b>522N</b>	 Flush	12 .472	11 .433	6.5 .256	19 .748	–	1.0 .039	1.6 .062
<b>599E</b>	 Flush	10 .472	11 .433	6.5 .256	17 .669	–	1.0 .039	1.6 .062
<b>532N</b>	 Super full flush	12 .472	11 .433	6.5 .256	19 .748	–	0.8 .039	1.6 .062

Wire quality, see P. 38 Optional: Safety device for wire scraps. Order suffix „W“, e.g. 512NW.





# Side Cutters and Tip Cutters



## Series 500 Medium

### Side cutter – tapered head






 **115 mm/4.527 Inch**  
 **67 g/2.36 oz.**

- The jaws of the cutter have straight edges and taper to a point.
- This head shape allows access to difficult to reach areas but reduces the cutting capacity in comparison to the same size oval head cutter.



Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
595E	 Flush	12	11	6.5	19	1.0	1.3
		.472	.433	.256	.748	.039	.051
						Tapered head	
577E	 Flush	10	11	6.5	17	1.0	1.3
		.472	.433	.256	.669	.039	.051
						Tapered, short head	

### Tip cutter – angled wide head



 **110 mm/4.331 Inch**  
 **67 g/2.36 oz.**  
 **30°**

- The angled head provides for precise cuts at different working angles.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
503E	 Flush	9	11	6.5	19	1.0	1.6
		.354	.433	.256	.748	.039	.062
						Wide, robust head	
504AE	 Flush	9	11	6.5	19	0.8	1.3
		.354	.433	.256	.748	.031	.051
						Model same as 503E, but with pointed rounded head	



## Series 500 Medium

### Tip cutter – angled narrow head



**120 mm/4.724 Inch**  
**68 g/2.40 oz.**  
**35°**

- The angled head provides for precise cuts at different working angles.
- Narrow, robust head, suitable for working with high cutting force in confined areas.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
555E	 Flush	6	11	6.5	24	0.6	1.3
		.236	.433	.256	.945	.023	.051



**115 mm/4.527 Inch**  
**68 g/2.40 oz.**  
**40°**

- Relieved cutting edge for easy access.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
572E	 Flush	6	11	6.5	21	0.6	1.3
		.236	.433	.256	.827	.023	.051



**115 mm/4.527 Inch**  
**68 g/2.40 oz.**  
**40°**

- Suitable for working on printed-circuit boards, component connections, can be used in both 90° and 180° applications.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
582E	 Flush	6	11	6.5	26	0.6	1.3
		.236	.433	.256	1.024	.023	.051



**115 mm/4.527 Inch**  
**67 g/2.36 oz.**  
**45°**

- Model same as 582E, but with safety device for wire scraps.




Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
582EW	 Flush	6	11	6.5	26	0.6	1.3
		.236	.433	.256	1.024	.023	.051

# Side Cutters and Tip Cutters


## Series 500 Medium

### Tip cutter – angled narrow head






 **115 mm/4.527 Inch**  
 **68 g/2.40 oz.**  
 **30°**


- Ideal rework tool, suitable for cutting DIL contacts at front and rear and densely printed circuit boards.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
593AE	 Flush	4	11	6.5	26	0.4	1.0
		.157	.433	.256	1.024	.015	.039





 **110 mm/4.331 Inch**  
 **67 g/2.36 oz.**  
 **45°**

- Suitable for fine cutting work on hybrid circuits or miniature components.



Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
575E	 Flush	4	11	6.5	22	0.2	0.6
		.157	.433	.256	.866	.007	.023

### Tip cutter – pointed relieved head



 **115 mm/4.527 Inch**  
 **67 g/2.36 oz.**

- This is the narrowest head shape.
- The underside is relieved and facilitates optimum access even to extremely hard-to-reach areas.



Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
592E	 Flush	12	11	6.5	19	0.4	0.8
		.472	.433	.256	.748	.015	.031
792E	 Super full flush	12	11	6.5	19	0.4	0.6
		.472	.433	.256	.748	.015	.023

## Series 500 Medium




### Tip cutter – straight long relieved head





 **120 mm/4.724 Inch**  
 **67 g/2.36 oz.**


- This head is suitable for horizontal and vertical cuts.
- The long tips facilitate cutting in hard-to-reach areas.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
570E	 Flush	4	11	6.5	29	0.6	1.2
		.157	.433	.256	1.142	.023	.047
		For cutting at extreme tips					

### Tip cutter – straight head for vertical use



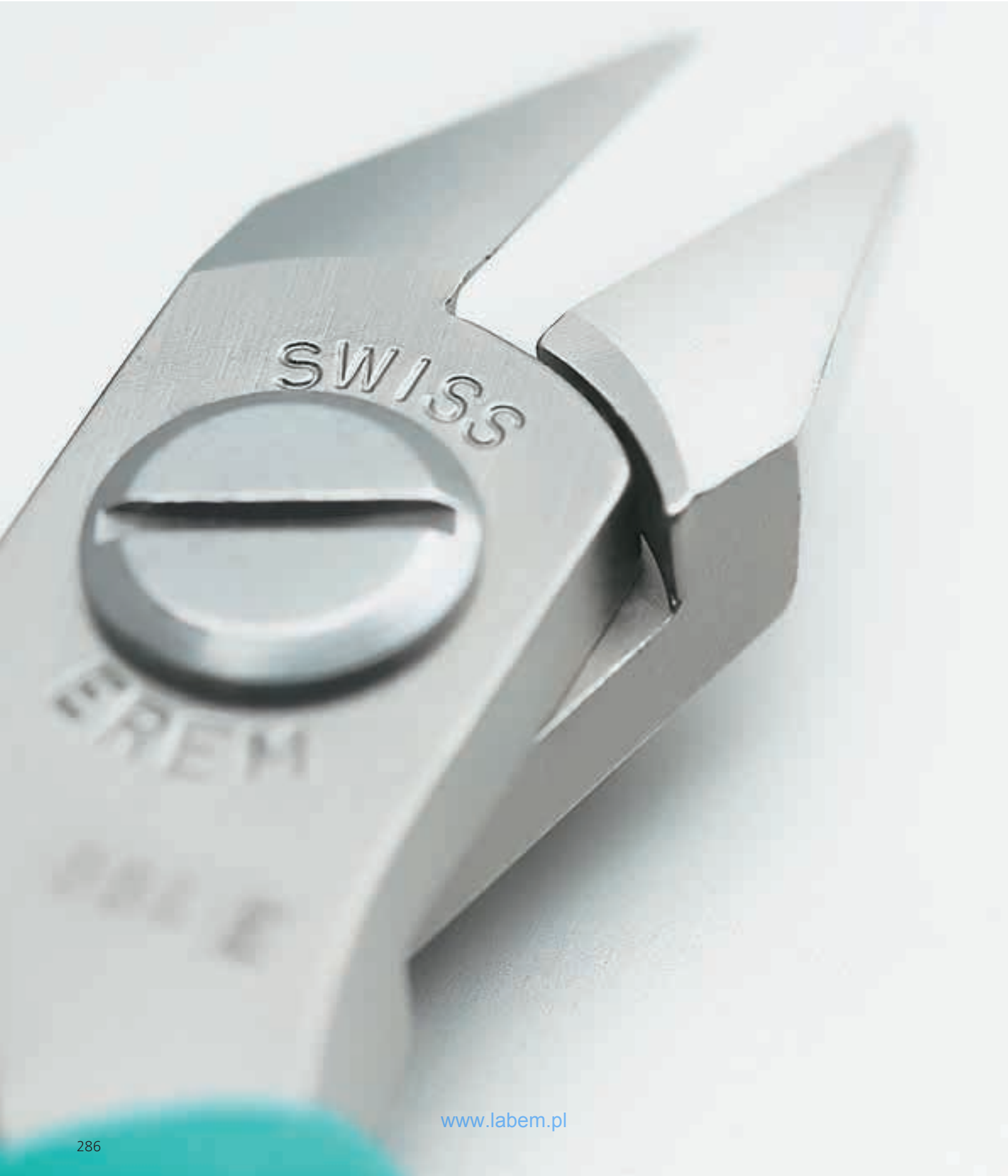
 **120 mm/4.724 Inch**  
 **67 g/2.36 oz.**

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
573E	 Flush	4	11	6.5	29	0.4	0.6
		.157	.433	.256	1.142	.015	.023

# Side Cutters and Tip Cutters

## Series 800 Maxi

- Maxi-sized cutter for general cutting applications in electronics
- Made from high grade tool steel, cutting edges hardened to Rockwell 63-65 HRC
- Cuts large wire diameters
- Non-reflecting surface, ESD-safe and resharpenable





## Series 800 Maxi



A = length of cutting edges  
 B = head width  
 C = head thickness  
 D = head length



Tip cutter Pointed relieved head	Side cutter Tapered head	Side cutter Oval head
← Visibility and accessibility		→ Robustness, high cutting capacity

### Side cutter – oval head



**120 mm/4.724 Inch**  
**67 g /2.36 oz.**

- This is the most widely used head shape.
- Fits for all cutting applications where easy access is given
- It is robust and size for size offers the highest cutting capacity.



Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter		
		A	B	C	D	Hard wire	Medium hardness	Copper wire
812N	 Semi-flush	15 .590	13.5 .531	7.5 .295	21 .827	0.6 .023	1.2 .047	1.8 .070
896E	 Semi-flush	15 .590	13,5 .531	7,5 .295	21 .827	∅ 0,6 .023	∅ 1,2 .047	∅ 1,8 .070
822N	 Flush	15 .590	13.5 .531	7.5 .295	21 .827	–	1.2 .047	1.8 .070

# Side Cutters and Tip Cutters


## Series 800 Maxi

### Side cutter – tapered head





 **120 mm/4.724 Inch**  
 **83 g/2.93 oz.**

- The jaws of the cutter have straight edges and taper to a point.
- This head shape allows access to difficult to reach areas but reduces the cutting capacity in comparison to the same size oval head cutter.


Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
886E	 Flush	15	13.5	7.5	21	1.0	1.8
		.590	.531	.295	.827	.039	.070

### Tip cutter – pointed relieved head



 **120 mm/4.724 Inch**  
 **81 g/2.86 oz.**

- This is the narrowest head shape.
- The underside is relieved and facilitates optimum access even to extremely hard-to-reach areas.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
884E	 Flush	15	13.5	7.5	21	0.8	1.6
		.590	.531	.295	.827	.031	.062



## Series 800 Maxi





# Side Cutters and Tip Cutters

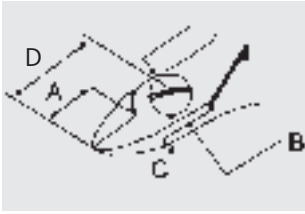
## Tungsten-carbide cutters

- Medium sized precision cutters
- Wear resistant tungsten carbide edged cutting blades
- Manufactured from high grade tool steel
- Suitable for cutting hard and tough wires e.g. piano wire, nickel and diode leads
- Non reflecting surface, ESD safe and resharpenable





## Tungsten-carbide cutters



A = length of cutting edges  
 B = head width  
 C = head thickness  
 D = head length



Tip cutter Pointed relieved head	Tip cutter Angled wide head	Side cutter Tapered head	Side cutter Oval head
← Visibility and accessibility		→ Robustness, high cutting capacity	

### Side cutter – oval head



**115 mm/4.527 Inch**  
**67 g/2.36 oz.**

- This is the most widely used head shape.
- Fits for all cutting applications where easy access is given
- It is robust and size for size offers the highest cutting capacity.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter			
		A	B	C	D	Piano wire	Hard wire	Medium hardness	Copper wire
<b>622TX</b>	 Flush	8	9	6	15	0.2	0.4	0.6	1.2
		.315	.354	.236	.590	.007	.015	.023	.047
Miniature cutter									
<b>599T</b>	 Semi-flush	12	11	6.5	19	0.6	0.8	1.0	1.5
		.472	.433	.256	.748	.023	.031	.039	.059
<b>599TF</b>	 Flush	12	11	6.5	19	0.6	0.8	1.0	1.5
		.472	.433	.256	.748	.023	.031	.039	.059



# Side Cutters and Tip Cutters

## Tungsten-carbide cutters







### Side cutter – tapered head



 **115 mm/4.527 Inch**  
 **67 g/2.36 oz.**

- The jaws of the cutter have straight edges and taper to a point.
- This head shape allows access to difficult to reach areas but reduces the cutting capacity in comparison to the same size oval head cutter.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter			
		A	B	C	D	Piano wire	Hard wire	Medium hardness	Copper wire
<b>595T</b>	 Semi-flush	12	11	6.5	19	0.4	0.6	0.8	1.5
		.472	.433	.256	.748	.015	.023	.031	.059
<b>595TF</b>	 Flush	12	11	6.5	19	0.4	0.6	0.8	1.5
		.472	.433	.256	.748	.015	.023	.031	.059
<b>2476TX1</b>	 Flush	11	11	6	19	0.3	0.4	0.5	1.0
		.433	.433	.236	.748	.011	.015	.019	.039
Series 2400 MagicSense model (Length: 130 mm / 5.118 Inch)									
<b>576TX1</b>	 Flush	11	11	6.5	19	0.3	0.4	0.5	1.0
		.433	.433	.256	.748	.011	.015	.019	.039

## Tungsten-carbide cutters

### Tip cutter – pointed relieved head



**115 mm/4.527 Inch**  
**67 g/2.36 oz.**

- This is the narrowest head shape.
- The underside is relieved and facilitates optimum access even to extremely hard-to-reach areas.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter			
		A	B	C	D	Piano wire	Hard wire	Medium hardness	Copper wire
<b>2476TX</b>	 Flush	11	11	6	19	0.1	0.2	0.3	1.0
		.433	.433	.236	.748	.003	.007	.011	.039
Series 2400 MagicSense model									
<b>576TX</b>	 Flush	11	11	6.5	19	0.1	0.2	0.3	1.0
		.433	.433	.256	.748	.003	.007	.011	.039

### Tip cutter – angled wide head



**110 mm/4.331 Inch**  
**67 g/2.36 oz.**  
**30°**

- The angled head provides for precise cuts at different working angles.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter			
		A	B	C	D	Piano wire	Hard wire	Medium hardness	Copper wire
<b>503ET</b>	 Semi-flush	9	11	6.5	19	0.4	0.6	0.8	1.2
		.354	.433	.256	.748	.015	.023	.031	.047
<b>503ETF</b>	 Flush	9	11	6.5	20	0.4	0.6	0.8	1.2
		.354	.433	.256	.787	.015	.023	.031	.047

# Side Cutters and Tip Cutters

## Special applications



A = length of cutting edges  
 B = head width  
 C = head thickness  
 D = head length



## Special applications – Special tool steel, ESD-safe



**120 mm/4.724 Inch**  
**100 g/3.53 oz.**

■ Side cutter with compound action.

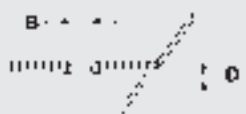
Model	Cut	Dimensions in mm/Inch			Max. cutting capability in mm/Inch Diameter Copper wire	
		A	B	C	Max. D	Max. B
<b>147A</b>	 Semi-flush	12 .472	10.5 .413	7.5 .295	1.8 .070	For cutting hard wires with minimal effort
<b>147AT</b>	 Semi-flush	12 .472	10.5 .413	7.5 .295	1.8 .070	Model same as 147A, but with cutting edges made from tungsten carbide, model on request



**115 mm/4.527 Inch**  
**79 g/2.79 oz.**

■ Side cutter, suitable for cutting printed-circuit boards.

Model	Cut	Max. cutting capability in mm/Inch	
		Max. D	Max. B
<b>1884EPCM</b>	 Flush	1.5 .059	2.0 .078



\*Not available in North America

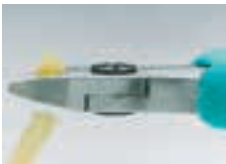
## Special applications



**110 mm/4.331 Inch**  
**48 g/1.69 oz.**

■ Side cutter, suitable for precision cuts on soft materials, e.g. small silicone tubes in medical applications, precision connector seals, miniature rubber seals, soft synthetic parts.

Model	Cut	Dimensions in mm/Inch		
		A	B	C
<b>632NCF</b>	 Super full flush	9 .354	9 .354	6 .236



**115 mm/4.527 Inch**  
**67 g/2.36 oz.**

■ Side cutter, suitable for cutting Kevlar® silks.

Model	Dimensions in mm/Inch			
	A	B	C	D
<b>599FO</b>	12 .472	11 .433	6.5 .256	19 .748



**115 mm/4.527 Inch**  
**67 g/2.36 oz.**

■ Side cutter with cutting edges made from tungsten carbide.

Model	Cut	Dimensions in mm/Inch				
		A	B	C	D	
<b>599TFO</b>	 Semi-flush	12 .472	10.5 .413	6.5 .256	19 .748	Model same as 599FO, but with cutting edges made from tungsten carbide. Suitable for cutting Kevlar® silks, Vectran™-sheathed wires, optical fibres and small stainless wires

# Side Cutters and Tip Cutters



## Pneumatic side cutters and tip cutters

- Pneumatic cutter
- Handy, light and precise
- Extremely versatile thanks to a selection of different cutting heads
- Easily interchangeable cutting heads
- Suitable for cutting conventional components, soft metals or small plastic parts



## Pneumatic side cutters and tip cutters

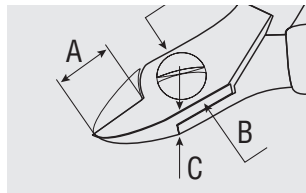


 **130 mm/5.118 Inch**  
 **130 g/4.59 oz.**

- Pneumatic-cutter housing

Model	Dimensions in mm/Inch Diameter	
	D	
<b>1500 BSF</b>	28	Requires 4 – 6 bar oil-free clean compressed air


## Cutting heads for 1500BSF



A = length of cutting edges  
 B = head width  
 C = head thickness

## Side cutter – oval head



 **35 g/1.16 oz.**

- This is the standard head shape.
- It is used for all cutting jobs in easy-to-reach areas.
- The oval head provides for a high cutting capacity and is characterised by its robustness.

Model	Cut	Dimensions in mm/Inch			Max. cutting capability in mm/Inch Diameter Copper wire
		A	B	C	
<b>1512N</b>	 Semi-flush	10 .394	10.5 .413	6.5 .256	1.6 .062
<b>1522N</b>	 Flush	10 .394	10.5 .413	6.5 .256	1.6 .062


## Pneumatic side cutters and tip cutters

### Side cutter – tapered head



 **35 g/1.16 oz.**

- The edges of the cutter head are straight and taper to a point, allowing access to hard to reach areas.


Model	Cut	Dimensions in mm/Inch			Max. cutting capability in mm/Inch Diameter Copper wire
		A	B	C	
1522NA	 Flush	9	10.5	6.5	1.4
		.354	.413	.256	.055

### Side cutter – pointed relieved head



 **32 g/1.12 oz.**

- This is the narrowest head shape.
- The underside is relieved and facilitates optimum access even to extremely hard-to-reach areas.


Model	Cut	Dimensions in mm/Inch			Max. cutting capability in mm/Inch Diameter Copper wire
		A	B	C	
1522NB	 Flush	9	10.5	6.5	1.2
		.354	.413	.256	.047

### Tip cutter – angled head



 **38 g/1.34 oz.**  
 **30°**

- The angled head provides for precise cuts at different working angles.

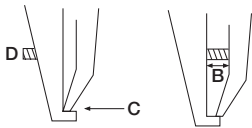
Model	Cut	Dimensions in mm/Inch			Max. cutting capability in mm/Inch Diameter Copper wire
		A	B	C	
1503E	 Flush	12	10.5	6.5	1.2
		.472	.413	.256	.047



# Side Cutters and Tip Cutters

## Distance cutters

- Erem distance cutters are available with fixed and variable cutting lengths
- The tips are polished so as to prevent board damage
- For cutting wires to the right length and for fixing components

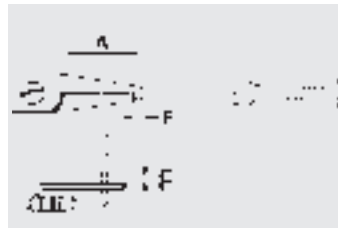


The protective stop screw D improves the performance of Erem distance cutters:

- Clearance B larger than the wire diameter = cut wire is ejected.
- Clearance B smaller than the wire diameter = cut wire is held.

Adjust protective stop screw D so that cutting edge C does not hit the opposite side.

This increases the lifetime of the cutting edge.



A = jaw length  
E = width of tips  
F = cutting length

## Fixed cutting length (F)





**120 mm/4.724 Inch**  
 **67 g/2.36 oz.**




- Special tool steel
- ESD-safe
- Fixed cutting length (= F)
- Reduces mechanical shock on components

Model	Cut	Dimensions in mm/Inch			Max. cutting capability in mm/Inch Diameter	
		A	E	F	Copper wire	
<b>530E06**</b>	 Flush	20 .787	3 .118	0.6 .023	1.2 .047	Cuts copper wire to a length of 0.6 mm/.023 Inch
<b>530E08</b>	 Flush	20 .787	3 .118	0.8 .031	1.2 .047	Cuts copper wire to a length of 0.8 mm/.031 Inch
<b>530E10</b>	 Flush	20 .787	3 .118	1.0 .039	1.2 .047	Cuts copper wire to a length of 1.0 mm/.039 Inch
<b>530E12*</b>	 Flush	20 .787	3 .118	1.2 .047	1.2 .047	Cuts copper wire to a length of 1.2 mm/.047 Inch
<b>530E13*</b>	 Flush	20 .787	3 .118	1.3 .051	1.2 .047	Cuts copper wire to a length of 1.3 mm/.051 Inch
<b>530E15</b>	 Flush	20 .787	3 .118	1.5 .059	1.2 .047	Cuts copper wire to a length of 1.5 mm/.059 Inch




## Distance cutters

Model	Cut	Dimensions in mm/Inch			Max. cutting capability in mm/Inch Diameter	
		A	E	F	Copper wire	
<b>530E18*</b>	 Flush	20 .787	3 .118	1.8 .070	1.2 .047	Cuts copper wire to a length of 1.8 mm/.070 Inc
<b>530E20*</b>	 Flush	20 .787	3 .118	2.0 .078	1.2 .047	Cuts copper wire to a length of 2.0 mm/.078 Inch





 **120 mm/4.724 Inch**  
 **67 g/2.36 oz.**  
 **45°**

- Special tool steel
- ESD-safe
- Fixed length distance cutter
- Tapered 45°


Model	Cut	Dimensions in mm/Inch			Max. cutting capability in mm/Inch Diameter	
		A	E	F	Copper wire	
<b>549E</b>	 Flush	20 .787	3 .118	1.5 .059	1.2 .047	Cuts wire to a length of 1.5 mm/.059 Inch
<b>549E10*</b>	 Flush	20 .787	3 .118	1.0 .039	1.2 .047	Cuts wire to a length of 1.0 mm/.039 Inch
<b>549E12*</b>	 Flush	20 .787	3 .118	1.2 .047	1.2 .047	Cuts wire to a length of 1.2 mm/.047 Inch

## Variable cutting length (V)



 **120 mm/4.724 Inch**  
 **70 g/2.47 oz.**


- Special tool steel
- ESD-safe
- Variable cutting length (= V)
- With protective stop screw

Model	Cut	Dimensions in mm/Inch			Max. cutting capability in mm/Inch Diameter	
		A	E	V	Copper wire	
<b>530E15A*</b>	 Flush	20 .787	4.5 .177	1.2 – 6 .047 – .236	1.2 .047	Variable cutting length from 1.2 mm to 6 mm/ .047 to .236 Inch



 **115 mm/4.527 Inch**  
 **70 g/2.47 oz.**

- Special tool steel
- ESD-safe
- Variable cutting length (= V)
- With protective stop screw
- Interchangeable plastic stop protects the printed-circuit board against damage

Model	Cut	Dimensions in mm/Inch			Max. cutting capability in mm/Inch Diameter	
		A	E	V	Copper wire	
<b>573EB</b>	 Flush	20 .787	4.5 .177	0 – 5 0 – .197	0.8 .031	Variable cutting length from 0 mm to 5 mm/ 0 to .197 Inch

\*Not available in North America

# Pliers

Good grip due to precise produced tips even at the thinnest part

- The choice of materials used for production of the pliers and a special hardening process is very important.







## Erem pliers, stripping pliers, forming pliers

- Gripping and bending pliers with standard and ergonomic handles
- MagicSense – moulded handle for increase comfort
- Wide variety of head shapes
- Special tool steel, non-reflecting surface, ESD-safe

### Internal patented Erem Magic Spring

- lange Lebensdauer
- Constant spring force
- Guarantees more than 1 million operations

### High precision screw joint

- Smooth jaw action with no play
- Smooth cutting operation with no jaw overlapping

### Precision ground jaws





### Ergonomically shaped handles

for high comfort,  
better grip and added safety

### EMOS maximum opening stop

limits the cutting-edge tips from opening more than 5 mm/.197 Inch. The limited extent to which the handles can open prevent user hand fatigue.



### ESD-safe

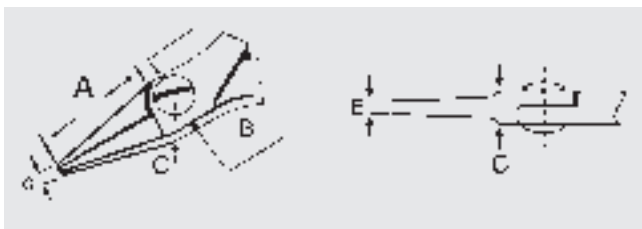
The interchangeable foam-cushion handles are ESD-safe and are fitted as standard on all Erem cutters and pliers.

	conductive	static dissipating	antistatic	insulating
$10^\infty$	$10^0$	$10^5$	$10^{12}$	$10^{20}$ W/cm <sup>2</sup>
←————— Erem cutters and pliers —————→				
EMI/RF Sources: DOD/CECC				

# Pliers

## Erem Pliers



- Pliers for miniature and standard electronics
- Special tool steel, non-reflecting surface, ESD-safe
- High grade tool steel




- A = jaw length
- B = head width
- C = head thickness
- E = width of tips
- G = total height of both tips

## Round nose pliers



 **120 mm/4.724 Inch**  
 **62 g/2.18 oz.**



- Round nose pliers with very precise, smooth jaws.
- Suitable for forming, bending, laying and feeding in wires.

Model	Shape	Dimensions in mm/Inch				
		A	B	C	E $\varnothing$	G
543E*		23	9	6.5	0.8	1.6
		.905	.354	.256	.031	.062


\*Order as 543 in North America

## Needle nose pliers





 **120 mm/4.724 Inch**  
 **62 g/2.18 oz.**

- Needle nose pliers with very precise, smooth and rounded jaws.
- Suitable for forming, bending, laying and feeding in wires.


Model	Shape	Dimensions in mm/Inch				
		A	B	C	E	G
547		23	9	6.5	0.9	1.2
		.905	.354	.256	.035	.047

## Erem pliers Flat nose pliers





 **120 mm/4.724 Inch**  
 **67 g/2.36 oz.**

- Flat nose pliers with smooth jaws and precision-machined edges.
- Suitable for gripping flat workpieces.


Model	Shape	Dimensions in mm/Inch				
		A	B	C	E	G
542E*		23	9	6.5	2.4	1.4
		.905	.354	.256	.094	.055

\*Order as 542 in North America



 **125 mm/4.921 Inch**  
 **67 g/2.36 oz.**


- Flat nose pliers with replaceable nylon jaws.
- Nylon jaws prevent nicking and scratching.
- Suitable for forming precious metals and component connections.

Model	Shape	Dimensions in mm/Inch				
		A	B	C	E	G
531E*		23	9	6.5	5	3
		.905	.354	.256	.197	.118


\*Order as 531 in North America

## Chain nose pliers





 **120 mm/4.724 Inch**  
 **67 g/2.36 oz.**


- Chain nose pliers with narrow half-round jaws.
- For securely handling components.

Model	Shape	Dimensions in mm/Inch				
		A	B	C	E	G
544E*		23	9	6.5	1	1.4
		.905	.354	.256	.039	.055

\*Order as 544 in North America



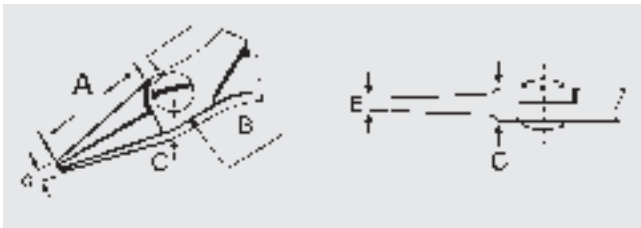
 **120 mm/4.724 Inch**  
 **67 g/2.36 oz.**

Model	Shape	Dimensions in mm/Inch					
		A	B	C	E	G	
544D		23	9	6.5	1	1.4	Inside-serrated jaws for secure handling
		.905	.354	.256	.039	.055	



## Series 2400 MagicSense pliers



- Pliers for miniature and standard electronics
- Optimized ergonomically shaped handles for increased comfort
- Special tool steel, non-reflecting surface, ESD-safe




- A = jaw length
- B = head width
- C = head thickness
- E = width of tips
- G = total height of both tips

## Needle nose pliers



 **146 mm/5.748 Inch**  
 **72 g/2.54 oz.**

- Needle nose pliers with very precise, smooth and rounded jaws.



Model	Shape	Dimensions in mm/Inch				
		A	B	C	E	G
2411P		33.5	11	6	1	1.2
		1.319	.433	.236	.039	.047
2411PD		35.5	11	6	1	1.2
		1.319	.433	.236	.039	.047

Model same as 2411P, but with inside-serrated jaws for secure handling


## Series 2400 MagicSense pliers

### Flat nose pliers





 **146 mm/5.748 Inch**  
 **72 g/2.54 oz.**

- Flat nose pliers with smooth jaws and precision-machined edges.
- Suitable for gripping flat workpieces.


Model	Shape	Dimensions in mm/Inch				
		A	B	C	E	G
2442P		33.5	11	6	3.4	1.2
		1.319	.433	.236	.139	.047

### Round nose pliers



 **146 mm/5.748 Inch**  
 **72 g/2.54 oz.**

- Round nose pliers with very precise, smooth jaws.
- Suitable for bending wires.

Model	Shape	Dimensions in mm/Inch				
		A	B	C	E $\varnothing$	G
2443P		33.5	11	6	0.8	1.6
		1.319	.433	.236	.031	.062

# Stripping pliers



## High precision stripping pliers

- Robust, high-precision tools for use in electronics and aeronautical engineering
- The required diameter is set by means of screws
- Screwdriver and key are included
- Interchangeable blades
- ESD-safe
- Special designs also available on request



## Front stripping



 **120 mm/4.724 Inch**  
 **75 g/2.65 oz.**

- Suitable for all types of insulation and optical fibres.
- Integral side cutting blade.





A = jaw length  
 E = width of tips  
 G = total height of both tips  
 H = length of cutting blade

Model	Dimensions in mm/Inch				Wire diameter
	A	E	G	H	
<b>510AE</b>	21 .827	5 .197	4 .157	7 .276	0.25 mm – 1.02 mm (AWG 30 – 18) .010 Inch – .040 Inch

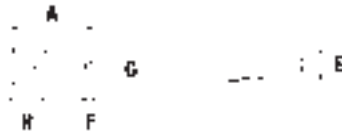
## High precision stripping pliers

### Front stripping



 **120 mm /4.724 Inch**  
 **80 g/2.82 oz**

- Unique precision for damage-free stripping of fine wires.
- Suitable for all types of insulation, Teflon®, Tefzel and optical fibres.



A = jaw length  
 E = width of tips  
 F = depth of interchangeable blade  
 G = total height of both tips  
 H = length of cutting blade

Model	Dimensions in mm/Inch					Wire diameter
	A	E	F	G	H	
552E	23	6.5	1	11	9	0.06 mm – 0.6 mm (AWG 42 – 24)
	.905	.256	.039	.433	.354	.002 Inch – .023 Inch

### Side stripping



 **120 mm /4.724 Inch**  
 **80 g/2.82 oz**

- Unique precision for damage-free stripping of fine wires.
- Suitable for all types of insulation, Teflon®, Tefzel and optical fibres.



A = jaw length  
 E = width of tips  
 F = depth of interchangeable blade  
 G = total height of both tips  
 H = length of cutting blade

Model	Dimensions in mm/Inch					Wire diameter
	A	E	F	G	H	
552S	21	6.5	6.7	11	9	0.06 mm – 0.6 mm (AWG 42 – 24)
	.827	.256	.264	.433	.354	.002 Inch – .023 Inch

# Forming pliers

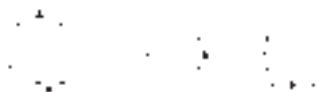
## Forming pliers for passive components

- Safe bending, forming and preparation of component connections
- High grade tool steel
- Non-reflecting surface
- ESD-safe



 **120 mm/4.724 Inch**  
 **70 g/2.47 oz.**

- Suitable for component connections, U-shape.



A = jaw length  
 D = height of tips  
 E = width of tips  
 F = length of forming tool

Model	Dimensions in mm/Inch				Max. connection diameter		
	A	D	E	F	Diodes	Capacitors	Resistors
554E*	13 .512	10 .394	10 .394	10 .394	0.65 mm .025 Inch	0.7 mm .027 Inch	1/2 W

\*Order as 554 in North America



 **120 mm/4.724 Inch**  
 **70 g/2.47 oz.**

- Suitable for component connections, U-shape, axial forming.
- Narrow head shape.



A = jaw length  
 D = height of tips  
 E = width of tips  
 F = length of forming tool

Model	Dimensions in mm/Inch				Max. connection diameter		
	A	D	E	F	Diodes	Capacitors	Resistors
554A	23 .905	5.6 .220	2.5 .098	4.5 .177	0.65 mm .025 Inch	0.7 mm .027 Inch	1/2 W

## Forming pliers for passive components



**120 mm/4.724 Inch**  
**70 g/2.47 oz.**

- Suitable for secure assembly.
- Forms the two opposing Us in one operation.



A = jaw length  
 D = height of tips  
 E = width of tips  
 F = length of forming tool

Model	Dimensions in mm/Inch	Max. connection diameter		
		Diodes	Capacitors	Resistors
554TX	A D E F	0.65 mm	0.7 mm	1/2 W
	.787 .256 .256 .157	.025 Inch	.027 Inch	



**120 mm/4.724 Inch**  
**67 g/2.36 oz.**

- For cutting and bending components into two operations to a predefined length.



A = jaw length  
 D = height of tips  
 E = width of tips  
 F = length of forming tool

Model	Dimensions in mm/Inch	Max. connection diameter		
		Diodes	Capacitors	Resistors
50788	A D E F	0.65 mm	0.7 mm	1/2 W
	.905 .157 .118	.025 Inch	.027 Inch	



**120 mm/4.724 Inch**  
**67 g/2.36 oz.**

- For cutting and bending different types of components with two outputs.



A = jaw length  
 D = height of tips  
 E = width of tips  
 F = length of forming tool



Model	Dimensions in mm/Inch	Max. connection diameter		
		Diodes	Capacitors	Resistors
50789Z	A D E F	0.65 mm	0.7 mm	1/2 W
	.905 .130 .138	.025 Inch	.027 Inch	

# Forming pliers


## High precision forming tools for active components

- Safe bending, forming and preparation of component connections, specially for integrated components and power transistors
- High grade tool steel
- Non-reflecting surface
- ESD-safe





 **120 mm/4.724 Inch**  
 **85 g/3.00 oz.**


- Suitable for bending flat components, contacts, power transistors, Triac connections to a right angle.

Model	Dimensions in mm/Inch	
	K max.	M
500103A* 	15 .590	3 – 12 .118 – .472



 **120 mm/4.724 Inch**  
 **85 g/3.00 oz.**

- Suitable for cutting and bending Series TO components, diodes and mechanical parts to a right angle.
- Easily adjustable with interchangeable cutting edges.

Model	Dimensions in mm/Inch	
	K max.	M
500210E 	11 .433	3.8 – 15 .149 – .590

\*Not available in North America

## High precision forming tools for active components



**120 mm/4.724 Inch**  
**85 g/3.00 oz.**

- 3 connections, suitable for bending components of Series TO 126, 218, 220 and power transistors through 90° in two rows.
- Adjusted by means of a screw.

Model	Dimensions in mm/Inch	Dimensions in mm/Inch		
		K max.	M	I
500104A		13	3.5 – 15	2.54
		.512	.138 – .590	.100

## High precision forming pliers for Flat Packs, Quads



**120 mm /4.724 Inch**  
**100 g/3.53 oz.**

- Suitable for bending flat components, contacts, power transistors, Triac connections to a right angle.

Model	Dimensions in mm/Inch	Dimensions in mm/Inch		
		A	K max.	M
80013C		17	13	2.8
		.669	.512	.110

## High precision forming pliers for DIL pins



**120 mm/4.724 Inch**  
**98 g/3.46 oz.**

- Suitable for cutting and bending DIL pins through 90° in one operation.
- Up to max. 20 DIL pins.

Model	Dimensions in mm/Inch	Dimensions in mm/Inch	
		E	F
8091C		25	0.9
		.984	.035



## Special tools

### IC and SMD tools, Fibre optic tools, Vacuum micromanipulator

- IC and SMD tools with precise fine adjustment for inserting, extracting, straightening and cutting IC and SMD components
- High-precision tools for optical fibres for professional stripping, suitable for cutting Kevlar® silks, Vectran™-sheathed wires, etc.
- Vacuum system for precise handling of tiny SMD components and silicon wafers, suitable for assembly and laboratory work





# IC and SMD tools

## IC and SMD tools

- IC and SMD tools for inserting, extracting, straightening and cutting IC and SMD components
- Non-reflecting surface
- ESD-safer






## Inserting and extracting



 **120 mm/4.724 Inch**

- One screwdriver included for fine adjustments.

Model	Dimensions in mm/Inch			
	E	505C	505BGC	505BG
505C	20	Pins: 14 + 6	28	28
505BGC	.787			
505BG	36	Width: 300	300	.600
	1.417			
	36			
	1.417			

## Straightening



 **130 mm/5.118 Inch**  
 **120 g/4.24 oz.**

- Practical straightening tool, suitable for straightening contacts, DIL/IC connections.
- Up to 16 connections possible.

Model	Dimensions in mm/Inch		
	A	E	G
808G	23	42	1
	.905	1.653	.039

## IC and SMD tools

### Cutting



**110 mm/4.331 Inch**  
**48 g/1.69 oz.**

- High-precision tip cutter.
- For connections of SMD micro-packages up to 0.25 mm/.010 Inch, also for pitches smaller than 1/20".
- For  $\mu$  pitches below 0.5 mm/.019 Inch, you will need the 670EPF model.
- Please send component when ordering.

Model	Cut	Dimensions in mm/Inch		
		A	D	E
670EP	 Flush			
		10 .394	3 .118	2 .079



**115 mm/4.527 Inch**  
**67 g/2.36 oz.**

- High-precision tip cutter, bent.
- Practical rework tool.
- For cutting DIL contacts directly on the component.
- Ideal for densely printed boards.

Model	Cut	Dimensions in mm/Inch	
		A	D
593AE	 Flush		
		20 .787	4 .157

### Kit for SMD work



- For SMD assembly and repair applications.
- 6-piece tool kit with monitored discharging ESD handles.
- Special tool steel, non-reflecting surface, resharpenable (cutter).
- High-quality precision tweezers, non-magnetic.
- In an ESD-safe plastic case.

Model	Description
<b>3900KC</b>	Kit for SMD work
<b>contents:</b>	
<b>51SA</b>	Precision tweezers with very pointed tips, bent 30°, relieved; length 115 mm/4.527 Inch
<b>102ACA</b>	SMD tweezers with angled tips and blunted edges, suitable for vertical working with small components; length 115 mm/4.527 Inch
<b>103ACA</b>	SMD tweezers with angled tips and blunted edges for vertical working with small components; length 115 mm/4.527 Inch
<b>150SAMB</b>	SMD tweezers with bent tips 40°, serrated finger grips for gripping small cylindrical parts, dia. 1.2 – 2.5 mm/.047 – .108 Inch; length 120 mm/4.724 Inch
<b>150SAMF</b>	SMD tweezers with straight tips and serrated finger grips for gripping small cylindrical parts, dia. 1.2 – 2.5 mm/.047 – .108 Inch; length 120 mm/4.724 Inch
<b>670EP</b>	High-precision tip cutter for connections of SMD micro-packages up to 0.25 mm/.010 Inch

# Fibre optic tools



## High precision tools for optical fibres

- Suitable for simple and precise stripping of optical fibres
- High grade tool steel
- Non-reflecting surface
- ESD-safe



### Side stripping



 **120 mm /4.724 Inch**  
 **80 g/2.82 oz.**

- Suitable for all types of insulation, Teflon®, Tefzel and optical fibres.
- Unlimited stripping length thanks to side stripping.
- Diameter is set by means of two screws.
- Replaceable cutting blade.





- A = jaw length
- E = width of tips
- F = depth of interchangeable blades
- G = total height of both tips
- H = length of cutting blade

Model	Dimensions in mm/Inch					Wire diameter
	A	E	F	G	H	
552S	21	6.5	6.7	11	9	0.06 mm – 0.60 mm (AWG 42 – 24)
	.827	.256	.264	.433	.354	.002 Inch – .023 Inch

### Holding / gripping



 **120 mm/4.724 Inch**  
 **20 g/0.71 oz.**



- Stainless-steel tweezers with synthetic tips (PPS).
- Non-reflecting surface.
- Non-magnetic.

Model	Description
249SA	Precision tweezers with pointed synthetic tips (PPS) to protect optical fibres and serrated finger grips for secure handling. Volume resistance 16 Ω/cm. Heat-resistant up to 250°C (480°F). Resistant to acids and molten soldering tin. Water-repellent.

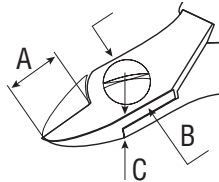
## High precision tools for optical fibres

### Cutting



 **115 mm/4.527 Inch**  
 **67 g/2.36 oz.**



■ Side cutter, suitable for cutting Kevlar® silks, Vectran™-sheathed wires, optical fibres and small stainless wires.




A = length of cutting edges  
 B = head width  
 C = head thickness

Model	Dimensions in mm/Inch		
	A	B	C
<b>599FO</b>	15 .590	10.5 .413	6.5 .256



 **115 mm/4.527 Inch**  
 **67 g/2.36 oz.**

■ Side cutter, suitable for cutting Kevlar® silks, Vectran™-sheathed wires, optical fibres and small stainless wires.

Model	Cut	Dimensions in mm/Inch		
		A	B	C
<b>599TFO</b>	 Semi-flush	15 .590	10.5 .413	6.5 .256

# Vacuum micromanipulator

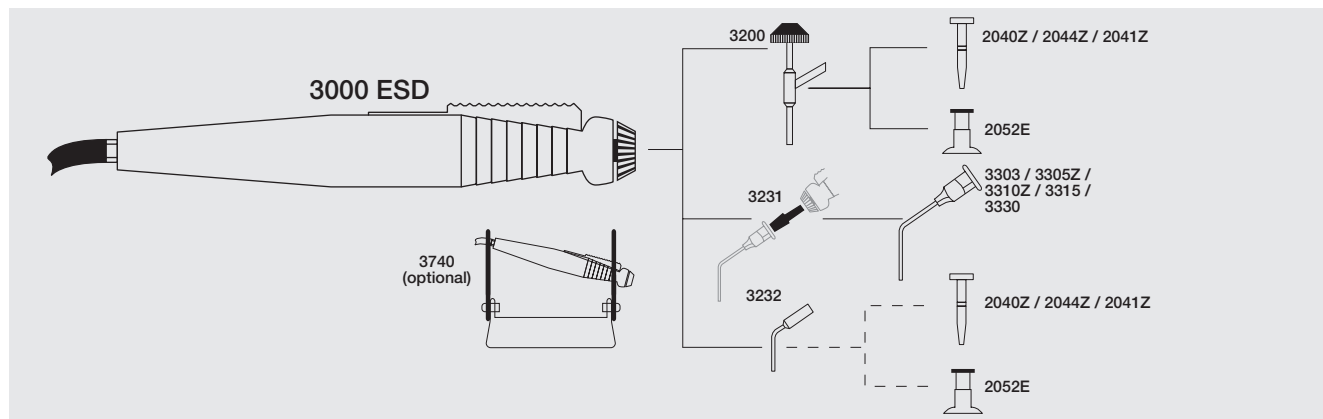
## Vacuum micromanipulator

- Professional vacuum system for precise handling of tiny SMD components and silicon wafers
- Suitable for assembly and laboratory work





### Advantages of the vacuum micromanipulator:

- Easy picking up of components or silicone wafers
- Immediate set-down/release of parts
- Full 360° rotating system
- Direct axial switch for vacuum
- Ergonomic shape reduces hand and wrist fatigue
- ESD-safe



### Handle



 **140 mm/5.512 Inch**  
 **35 g/1.23 oz.**

- Ergonomic handle with axial switch, serrated finger grip for secure handling.

Model	Dimensions in mm/Inch	
<b>3000ESD*</b>	Dia. 10 mm .394 Inch	Handle

\*Not available in North America

[www.labem.pl](http://www.labem.pl)




## Inserts for 3000ESD housing

### Adapters

Model			Description
<b>3200*</b>	 25 mm .984 Inch	15 g 0.53 oz.	Stainless-steel adapter, rotatable through 360°, straight suction tip for direct working or as an adapter for suction tips or suction cups
<b>3231*</b>	 5 mm .197 Inch	5 g 0.17 oz.	Adapter fix, for working with Series 3300 suction tips
<b>3232*</b>	 15 mm total .590 Inch	3 g 0.10 oz.	Adapter fix, for direct working or as an adapter for suction tips 20442/20412 or suction cup 2052E

### Suction tips, straight

- Polyethylene suction tip.
- For working with 3200 or 3232 adapter.

Model		Outside diameter	Inside diameter
<b>2044Z*</b>		1.3 mm .051 Inch	0.9 mm .035 Inch
<b>2041Z*</b>		2.0 mm .078 Inch	1.4 mm .055 Inch

\*Not available in North America






# Vacuum micromanipulator

## Inserts for 3000ESD housing


### Suction needles

- Stainless-steel suction needle.
- Bent 45°.
- For working with 3200 or 3232 adapter.

Model		Outside diameter	Inside diameter
3303*		0.30 mm .011 Inch	0.16 mm .006 Inch
3305Z*		0.50 mm .020 Inch	0.25 mm .019 Inch
3310Z*		1.0 mm .039 Inch	0.65 mm .025 Inch

### Suction cups

- Silicone suction cup.
- For working with 3200 or 3232 adapter.

Model		Diameter
2052E*		4.5 mm .177 Inch

## Inserts for 3000ESD housing

### Accessories

Model	Description
<b>3714Z*</b>	Diaphragm pump 230 V, 5 l/min, max. vacuum -250 mbar
<b>3008ESD*</b>	Tube, flexible, 1.8 m/70.866 Inch, ESD-safe
<b>3717*</b>	Filter for tube 3008ESD
<b>3740*</b>	Table holder for 3000ESD (without accessories)

## Vacuum kit



- Complete accessories for easy pick-up and immediate set-down of components or silicon wafers.
- Set for laboratory work.
- In an ESD-safe plastic case.

Model	Description
<b>3000KCESD*</b>	Vacuum kit
	<b>contents:</b>
<b>3000ESD</b>	Handle
<b>3200</b>	Adapter, rotatable through 360°
<b>3231</b>	Adapter fix
<b>3305Z, 3310Z, 3315</b>	Suction needles
<b>2052E</b>	Suction cup, dia. 4.5 mm / .177 Inch
<b>KDS 260L</b>	Suction cup, dia. 9.5 mm / .374 Inch
<b>3740</b>	Table holder
<b>3714Z</b>	Diaphragm pump 230 V
<b>3008ESD</b>	Tube, flexible
<b>3717</b>	Filter
<b>102ACA</b>	SMD tweezers, 115 mm / 4.527 Inch, with bent tips and blunted edges. For vertical working with small components. Stainless steel, non-reflecting surface, non-magnetic.

\*Not available in North America

# Kits

## Swiss high precision tools in a kit

- Large selection of tool kits with high-quality precision tools
- Optimum combination of suitable precision tools for many applications, e.g. in microelectronics, medicine or biology
- Precision tools in an ESD-safe plastic case with padded foam inlay





## Swiss high precision tools in a kit

### Erem Toolset Universal



- For use in electronics assembly, the watchmaking industry, medicine or dentistry.
- 11-piece tool kit with monitored discharging ESD handles.
- Special tool steel, non-reflecting surface, resharpenable (cutter).
- High-quality precision tweezers, non-magnetic, for assembly work in electronics and light engineering.
- Precision screwdriver with hardened, durable tips, for precision working in confined areas.
- In an ESD-safe plastic case.

Model	Description	
<b>3600KU*</b>	Erem Toolset Universal	
<b>contents:</b>		
<b>XP600</b>	Precision-screwdriver set for electronics	4 regular screwdrivers: 1.5 x 60 mm/.059 x 2.362 Inch, 2.0 x 60 mm/.078 x 2.362 Inch, 2.5 x 60 mm/.098 x 2.362 Inch, 3.0 x 60 mm/.118 x 2.362 Inch, 2 Phillips screwdrivers No. 0 and No. 00
<b>2412E</b>	Series 2400 MagicSense side cutter, semi-flush, oval head	Robust head for universal use, hard wire 0.5 mm/.019 Inch, medium hardness 1.0 mm/.039 Inch, Cu 1.6 mm/.066 Inch
<b>2442P</b>	Series 2400 MagicSense flat nose pliers	With smooth jaws, precision-machined edges, e.g. for gripping flat workpieces
<b>622NB</b>	Tip cutter, flush, relieved, long, fine head	Miniature cutter for excellent access, flush, medium hardness 0.6 mm/.023 Inch, Cu 0.8 mm/.031 Inch
<b>AASA</b>	Precision tweezers	Pointed tips straight, special stainless steel, non-magnetic
<b>2ASASL</b>	Precision tweezers	With flat rounded tips, tip widths 2 mm/.078 Inch, special stainless steel, non-magnetic

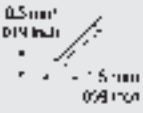

\*Not available in North America

## Swiss high precision tools in a kit

### Erem Toolset SMD



- For SMD assembly and repair applications.
- 6-piece tool kit with monitored discharging ESD handles.
- Special tool steel, non-reflecting surface, resharpenable (cutter).
- High-quality precision tweezers, non-magnetic, for SMD work.
- In an ESD-safe plastic case.

Model	Description		
<b>3900KC</b>	Erem Toolset SMD		
<b>contents:</b>			
<b>51SA</b>	Precision tweezers		With very pointed tips, angled 30°, relieved
<b>102ACA</b>	SMD precision tweezers		Tip width 0.5 mm/.019 Inch, angled 45°
<b>103ACA</b>	SMD precision tweezers		Tip width 1 mm/.039 Inch, angled 45°
<b>150SAMB</b>	SMD precision tweezers		With round tips, dia. 1.2 mm – 2.5 mm/.047 Inch – .098 Inch, angled 40°, serrated finger grips for gripping cylindrical components
<b>150SAMF</b>	SMD precision tweezers		With round, very narrow tips, dia. 1.2 mm – 2.5 mm/.047 Inch – .098 Inch, serrated finger grips
<b>670EP</b>	Miniature tip cutter, flush, relieved head		For SMD and micro-package contacts up to 0.25 mm/.010 Inch

## Swiss high precision tools in a kit

### Erem 2400 MagicSense



- For use in electronics, PCB assembly, wire and connection handling.
- 3-piece tool kit.
- MagicSense moulded handle with soft touch for increased comfort and grip.
- Induction-hardened cutting edges in Rockwell hardness 64-65 HRC, high grade of hardness for exceptionally long life.
- High grade tool steel, non-reflecting surface, ESD-safe, resharpenable.
- In an ESD-safe plastic case.

Model	Description	
<b>2400KMS*</b>	Erem 2400 MagicSense	
<b>contents:</b>		
<b>2412E</b>	Series 2400 MagicSense side cutter, semi-flush, oval head	Robust head for universal use, hard wire 0.5 mm/.019 Inch, medium hardness 1.0 mm/.039 Inch, Cu 1.6 mm/.062 Inch
<b>2482E</b>	Series 2400 MagicSense tip cutter, flush, narrow head	Angled 45°, ideally suitable for working on printed-circuit boards, component connections, can be used in both 90° and 180° applications
<b>2411P</b>	Series 2400 MagicSense needle nose pliers	Smooth, rounded jaws

## Swiss high precision tweezers in a kit

### Erem Tweezers Prime Selection



- High-quality precision tweezers for use in microelectronics, light engineering, laboratory work, biology and medicine.
- 3-piece tweezer kit.
- Special stainless steel, non-magnetic, non-rusting, acid-proof.
- In an ESD-safe plastic case.

Model	Description
<b>3300TPS*</b>	Erem Tweezers Prime Selection
<b>contents:</b>	
<b>3SA</b>	Precision tweezers With pointed tips straight
<b>2ASA</b>	Precision tweezers With flat rounded tips for gripping smaller components, tip width 2 mm/.078 Inch
<b>7SA</b>	Precision tweezers Curved, relieved, with pointed tips

\*Not available in North America



## Swiss high precision tweezers in a kit

### Erem SMD Tweezers – Universal



- High-quality precision tweezers for SMD work with assorted shapes of chip, SOT, MELFs, mini MELFs, flatpacks.
- 4-piece tweezer kit.
- Blunted edges prevent PCB damage.
- Special stainless steel, non-magnetic, non-rusting, acid-proof.
- In an ESD-safe plastic case.

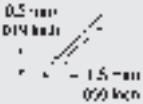
Model	Description
<b>3400TSMDU*</b>	Erem SMD Tweezers – Universal
<b>contents:</b>	
<b>103ACA</b>	SMD precision tweezers Angled 45°, tip width 0.5 mm/.019 Inch
<b>150SAMF</b>	SMD precision tweezers With round tips, angled 40°, serrated finger grips for secure handling, for gripping cylindrical components
<b>102ACAX</b>	SMD precision tweezers With angled pointed tips for vertical use, reverse clamping action for easy handling
<b>7SA</b>	Precision tweezers Curved, relieved, with pointed tips

## Swiss high precision tweezers in a kit

### Erem Premium Tweezers



- High-quality precision tweezers for microelectronics, light engineering and SMD work.
- 5-piece tweezer kit.
- Blunted edges prevent PCB damage.
- Special stainless steel, non-magnetic, non-rusting, acid-proof.
- In an ESD-safe plastic case.

Model	Description	
<b>3500TP*</b>	Erem Premium Tweezers	
<b>contents:</b>		
<b>3SA</b>	Precision tweezers	With pointed tips straight
<b>2ASA</b>	Precision tweezers	With flat rounded tips for gripping small components, tip width 2 mm/.078 Inch
<b>7SA</b>	Precision tweezers	Curved, relieved, with pointed tips
<b>102ACA</b>	SMD precision tweezers	Tip width 0.5 mm/.019 Inch, angled 45°
		
<b>15AGW</b>	Cutting tweezers	With narrow oblique head, for soft wires, hardened cutting edges for increased service life

\*Not available in North America

## Swiss high precision tools in a kit

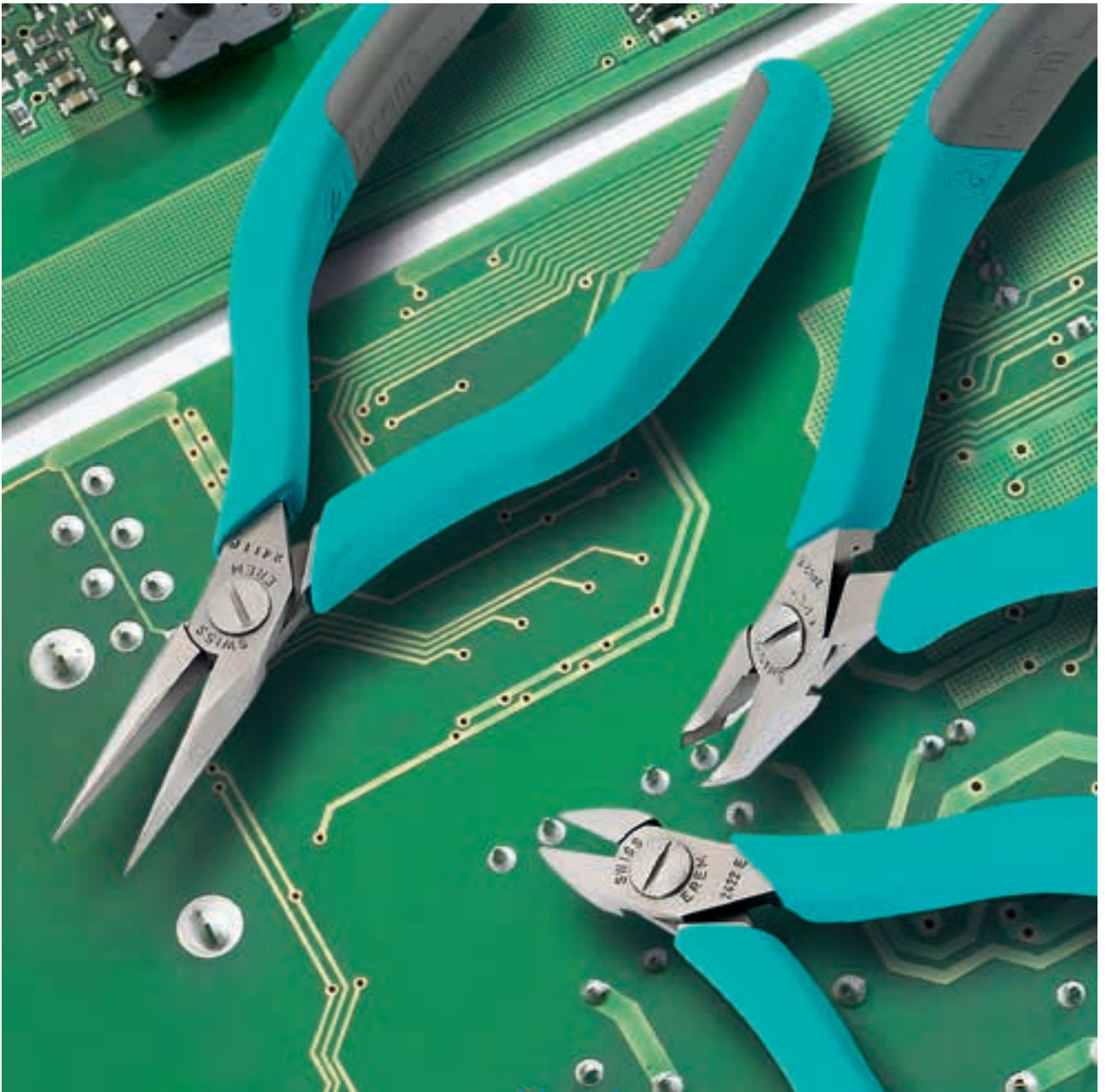
### Vacuum kit



- Complete accessories for easy pick-up and immediate set-down of components or silicon wafers.
- Set for laboratory work.
- In an ESD-safe plastic case.

Model	Description	
<b>3000KCESD*</b>	Vacuum kit	
<b>contents:</b>		
<b>3000ESD</b>	Handle	Size: 400 x 320 x 150 mm/15.748 x 12.598 x 5.905 Inch, 2.2 kg, with axial switch, ergonomic, serrated finger grip
<b>3200</b>	Adapter, rotatable through 360°	Stainless-steel adapter, rotatable through 360°, straight suction tip for direct working or as an adapter for section tips or suction cups
<b>3231</b>	Adapter fix	For working with 3300 suction tips
<b>3305Z, 3310Z, 3315</b>		Suction needles, 45°, stainless steel For working 3231 adapter
<b>2052E</b>	Suction cup, dia. 4.5 mm/.177 Inch, silicone	For working with 3200 or 3232 adapter
<b>KDS 260L</b>	Suction cup, dia. 9.5 mm/.374 Inch	
<b>3740</b>	Table holder	
<b>3714Z</b>	Diaphragm pump	230 V, 5 l/min, max. vacuum -250 mbar
<b>3008ESD</b>	Tube, flexible,	1.8 m, ESD-safe
<b>3717</b>	Filter	for tube 3008ESD
<b>102ACA</b>	SMD tweezers	115 mm/4.527 Inch, with curved tips and blunted edges, for vertical working with small components, stainless steel, non-reflecting surface, non-magnetic

\*Not available in North America



# Knives, Shearcutters, Screwdriver, Kits





# Knives & Blades

## Knives



Order No.	Description	Size	
		Inch	mm
<b>XN100</b>	Knife, Light duty for soft material	5 <sup>13</sup> / <sub>16</sub>	148
<b>XN200</b>	Knife, Medium duty for hard material	5 <sup>3</sup> / <sub>4</sub>	146
<b>XN210</b>	Knife, Heavy duty plastic handle for coars jobs	5 <sup>7</sup> / <sub>16</sub>	137
<b>XNS100</b>	Light and medium duty knife set contains 10 assorted blades: XN100, XN200, XNB103 (2 pcs.), XNB105 (2 pcs.), XNB101, XNB203, XNB205 (2 pcs.), XNB201		

## Blades for XN100



Order No.	Description	Pack quantity
<b>XNB101</b>	Blade, Standard	5
<b>XNB103</b> <b>XNB103B</b>	Blade, Fine pointed Blade, Fine pointed	5 100
<b>XNB105</b>	Blade, Stencil	5

## Blades for XN200 and XN210



Order No.	Description	Pack quantity
<b>XNB201</b>	Blade, Chisel	5
<b>XNB203</b>	Blade, General purpose	5
<b>XNB205</b>	Blade, Pointed	5

## Shearcutter – general purpose

■ Cutting copper wire to 0,8 mm diameter



Order No.	Description	Size	
		Inch	mm
<b>170M</b>	Shearcutter, red handles	5	127
<b>175M</b>	Shearcutter with safety clips, red handles	5	127

## Sheet metal Snip



Order No.	Description	Size	
		Inch	mm
<b>86NCG</b>	Snip, electronic	6 1/2	165

## Wire Stripper & Cutters



Order No.	Description	Size	
		Inch	mm
<b>100XV</b>	Wire Stripper & Cutter, adjustable	5	127
<b>101SNV</b>	Wire Stripper & Cutter, spring-opening	5	127



# Screwdriver & Nutdriver Sets

## Mini Screwdriver Set with Slotted/Phillips Screwdrivers



Order No.	Description
M60	Mini Screwdriver Set with Slotted/Phillips Screwdrivers (7 pcs.)

## Offset Ratches Screwdriver Set



Order No.	Description
XL75	Offset Ratches Screwdriver Set

## Screwdriver Set for slotted Screws – Inch Size



Order No.	Description	Length		Colour
		Inch	mm	
<b>PS88</b>	<b>Screwdriver Set for Slotted Screws – Inch Size</b>			
consists of:				
P3321*	Screwdriver, Midget 3/32" (2,38 mm)	3 1/2	89	green
P181*	Screwdriver, Midget 1/8" (3,18 mm)	3 1/2	89	red
P5321*	Screwdriver, Midget 5/32" (3,97 mm)	3 1/2	89	black
P3161*	Screwdriver, Midget 3/16" (4,76 mm)	3 1/2	89	orange
P141	Screwdriver, Midget 1/8" (3,18 mm)	3 1/2	89	amber
P0*	Screwdriver, Philips Nr. 0	3 1/2	89	blue
P1*	Screwdriver, Philips Nr. 1	3 1/2	89	brown
P2*	Screwdriver, Philips Nr. 2	3 1/2	89	amber
TA2*	Torque amplifier handle			black

## Screwdriver Set for Hex Socket Screws – Inch Size



Order No.	Description	Length	
		Inch	mm
<b>PS89</b>	<b>Screwdriver Set for Hex Socket Screws – Inch Size</b>		
consists of:			
P18*	Screwdriver, Midget, Hex, 0,028" (0,71 mm)	3 1/2	89
P19*	Screwdriver, Midget, Hex, 0,035" (0,89 mm)	3 1/2	89
P20*	Screwdriver, Midget, Hex, 0,050" (1,27 mm)	3 1/2	89
P21*	Screwdriver, Midget, Hex, 1/16" (1,59 mm)	3 1/2	89
P22*	Screwdriver, Midget, Hex, 5/64" (1,98 mm)	3 1/2	89
P23*	Screwdriver, Midget, Hex, 3/32" (2,38 mm)	3 1/2	89
P764*	Screwdriver, Midget, Hex, 7/64" (2,78 mm)	3 1/2	89
P24*	Screwdriver, Midget, Hex, 1/8" (3,18 mm)	3 1/2	89
TA2*	Torque amplifier handle, black		

# Screwdriver & Nutdriver Sets

## Compact Convertible Hex Socket Screwdriver Set – Metric Size



Order No.	Description	Length	
		Inch	mm
<b>PS90MM</b>	<b>Compact Convertible Hex Socket Screwdriver Set – Metric Size</b>		
consists of:			
P71*	Screwdriver, Midget, Hex, 1,27 mm	3 1/2	89
P72*	Screwdriver, Midget, Hex, 1,5 mm	3 1/2	89
P73*	Screwdriver, Midget, Hex, 0,89 mm	3 1/2	89
P74*	Screwdriver, Midget, Hex, 2,5 mm	3 1/2	89
P75*	Screwdriver, Midget, Hex, 3 mm	3 1/2	89
P76*	Screwdriver, Midget, Hex, 4 mm	3 1/2	89
P77*	Screwdriver, Midget, Hex, 5 mm	3 1/2	89
P78*	Screwdriver, Midget, Hex, 0,89 mm	3 1/2	89
TA2*	Torque amplifier handle, black		

## Nutdriver Set – Inch Sizes



Order No.	Description	Length		Colour
		Inch	mm	
<b>PS120</b>	<b>Nutdriver Set – Inch Size</b>			
consists of:				
P3*	Nutdriver, Midget, 3/32" (2,38 mm)	3 1/2	89	blue
P4*	Nutdriver, Midget, 1/18" (3,18 mm)	3 1/2	89	red
P5*	Nutdriver, Midget, 5/32" (3,97 mm)	3 1/2	89	amber
P6*	Nutdriver, Midget, 3/16" (4,76 mm)	3 1/2	89	black
P7*	Nutdriver, Midget, 7/32" (5,56 mm)	3 1/2	89	brown
P8*	Nutdriver, Midget, 1/4" (6,35 mm)	3 1/2	89	rred
P9*	Nutdriver, Midget, 9/32" (7,14 mm)	3 1/2	89	orange
P10*	Nutdriver, Midget, 5/16" (7,94 mm)	3 1/2	89	amber
P11*	Nutdriver, Midget, 11/32" (8,73 mm)	3 1/2	89	green
P12*	Nutdriver, Midget, 3/8" (9,53 mm)	3 1/2	89	blue
TA2*	Torque amplifier handle			black

\*Discontinued

## Compact Convertible Nutdriver Set – Metric Sizes



Order No.	Description	Length	
		Inch	mm
<b>PS121MM</b>	<b>Compact Convertible Nutdriver Set – Metric Size</b>		
consists of:			
P3MM*	Nutdriver, Midget, 3 mm (0,118")	3 1/2	89
P35MM*	Nutdriver, Midget, 3,5 mm (0,138")	3 1/2	89
P4MM*	Nutdriver, Midget, 4 mm (0,157")	3 1/2	89
P45MM*	Nutdriver, Midget, 4,5 mm (0,177")	3 1/2	89
P5MM*	Nutdriver, Midget, 5 mm (0,197")	3 1/2	89
P55MM*	Nutdriver, Midget, 5,5 mm (0,217")	3 1/2	89
P6MM*	Nutdriver, Midget, 6 mm (0,236")	3 1/2	89
P7MM*	Nutdriver, Midget, 7 mm (0,276")	3 1/2	89
P8MM	Nutdriver, Midget, 8 mm (0,315")	3 1/2	89
P10MM	Nutdriver, Midget, 10 mm (0,394")	3 1/2	89
TA2*	Torque amplifier handle, black		

# Series 99 Service Kits & Sets



Order No.	Description
<b>99MP</b>	<b>Multi-purpose Tool Kit, Roll Kit</b>
consists of:	
991X	Regular Handle
994	T-Handle
99X5	Extension, 4"
99820	Blade, Screwdriver, Phillips No. 0
99821	Blade, Screwdriver, Phillips No. 1
99822	Blade, Screwdriver, Phillips No. 2
996	Blade, Nutdriver, 3/16"
997	Blade, Nutdriver, 7/32"
998	Blade, Nutdriver, 1/4"
998M	Blade, Nutdriver, magnetic, 1/4"
999	Blade, Nutdriver, 9/32"
9910	Blade, Nutdriver, 5/16"
9911	Blade, Nutdriver, 11/32"
9912	Blade, Nutdriver, 3/8"
9914	Blade, Nutdriver, 7/16"
9916	Blade, Nutdriver, 1/2"
9920	Blade, Screwdriver, Allen Hex Type, 0,050"
9921	Blade, Screwdriver, Allen Hex Type, 1/16"
9922	Blade, Screwdriver, Allen Hex Type, 5/64"
9923	Blade, Screwdriver, Allen Hex Type, 3/32"
99764	Blade, Screwdriver, Allen Hex Type, 7/64"
9924	Blade, Screwdriver, Allen Hex Type, 1/8"
99964	Blade, Screwdriver, Allen Hex Type, 9/64"
9925	Blade, Screwdriver, Allen Hex Type, 5/32"
9926	Blade, Screwdriver, Allen Hex Type, 3/16"
9961	Blade, Bristol 6-flute Multiple Spline, 0,048"
9962	Blade, Bristol 6-flute Multiple Spline, 0,060"
9963	Blade, Bristol 4-flute Multiple Spline, 0,069"
9964	Blade, Bristol 6-flute Multiple Spline, 0,072"
9965	Blade, Bristol 4-flute Multiple Spline, 0,076"
9966	Blade, Bristol 6-flute Multiple Spline, 0,096"
9967	Blade, Bristol 6-flute Multiple Spline, 0,111"
9968	Blade, Bristol 6-flute Multiple Spline, 0,145"
9969	Blade, Bristol 6-flute Multiple Spline, 0,183"
99125	Blade, Screwdriver, Slotted, 1/8"
99811	Blade, Screwdriver, Slotted, 3/16"
99250	Blade, Screwdriver, Slotted, 1/4"
99312	Blade, Screwdriver, Slotted, 5/16"
9938	Reamer, 1/8" x 3/8"

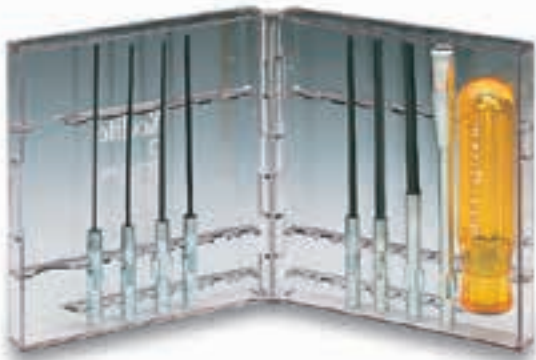


Order No.	Description
<b>99SPC</b>	<b>Personal Computer Repair Kit</b>
consists of:	
E1	IC-Inserter
X1	IC-Extractor
T1	Tweezer
R1	Gripping Tool
99820	Blade, Screwdriver, Phillips No. 0
99821	Blade, Screwdriver, Phillips No. 1
9910XTD	Torx Blade No. 10
9915XTD	Torx Blade No. 15
996	Blade, Nutdriver, 3/16"
998	Blade, Nutdriver, 1/4"
99811	Blade, Screwdriver, Slotted, 3/16"



Order No.	Description
<b>99PS40</b>	<b>Allen Hex Type Screwdriver Set – Inch Size</b>
consists of:	
991X	Regular Handle
99X5	Extension 4"
9920	Blade, Screwdriver, Allen Hex Type, 0,050"
9921	Blade, Screwdriver, Allen Hex Type, 1/16"
9922	Blade, Screwdriver, Allen Hex Type, 5/64"
9923	Blade, Screwdriver, Allen Hex Type, 3/32"
99764	Blade, Screwdriver, Allen Hex Type, 7/64"
9924	Blade, Screwdriver, Allen Hex Type, 1/8"
99964	Blade, Screwdriver, Allen Hex Type, 9/64"
9925	Blade, Screwdriver, Allen Hex Type, 5/32"
9926	Blade, Screwdriver, Allen Hex Type, 3/16"

# Series 99 Service Kits & Sets

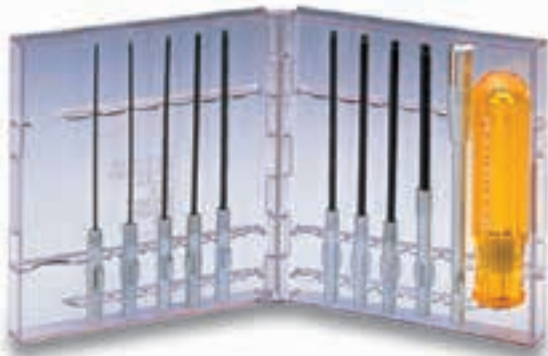


**Order No.**      **Description**

**99PS41MM      Allen Hex Type Screwdriver Set – Metric Size**

consists of:

991X	Regular Handle
99X5	Extension 4"
9971MM	Blade, Screwdriver, Allen Hex Type, 1,27 mm
9972MM	Blade, Screwdriver, Allen Hex Type, 1,5 mm
9973MM	Blade, Screwdriver, Allen Hex Type, 2 mm
9974MM	Blade, Screwdriver, Allen Hex Type, 2,5 mm
9975MM	Blade, Screwdriver, Allen Hex Type, 3 mm
9976MM	Blade, Screwdriver, Allen Hex Type, 4 mm
9977MM	Blade, Screwdriver, Allen Hex Type, 5 mm



**Order No.**      **Description**

**99PS40BP      Ballpoint Allen Hex Socket Type Screwdriver Set – Inch**

consists of:

991X	Extension 4"
99X5	Verlängerung, 102 mm
9920BP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 0,05"
9921BP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 1/16"
9922BP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 5/64"
9923BP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 3/32"
99764BP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 7/64"
9924BP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 1/8"
99964BP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 9/64"
9925BP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 5/32"
9926BP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 3/16"



**Order No.**      **Description**

**99PS41MMBP Ballpoint Allen Hex Socket Type Screwdriver Set – Metric Size**

consists of:

991X	Regular Handle
99X5	Extension 4"
9971MMBP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 1,27 mm
9972MMBP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 1,5 mm
9973MMBP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 2 mm
9974MMBP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 2,5 mm
9975MMBP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 3 mm
9976MMBP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 4 mm
9977MMBP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 5 mm



**Order No.**      **Description**

**99PS50 Screwdriver & Nutdriver Set**

consists of:

991X	Regular Handle
99X5	Extension 4"
99821	Blade, Screwdriver, Phillips No. 0
99822	Blade, Screwdriver, Phillips No. 1
996	Blade, Nutdriver, 3/16"
997	Blade, Nutdriver, 7/32"
998	Blade, Nutdriver, 1/4"
999	Blade, Nutdriver, 9/32"
9910	Blade, Nutdriver, 5/16"
9911	Blade, Nutdriver, 11/32"
9912	Blade, Nutdriver, 3/8"
99811	Blade, Screwdriver, Slotted, 3/16"
99250	Blade, Screwdriver, Slotted, 1/4"



# Series 99 Service Kits & Sets

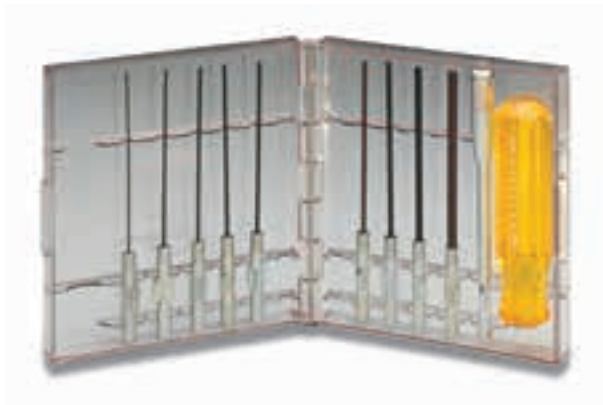


**Order No.**      **Description**

**99PS51MM      Interchangeable Shank, Nutdriver Set – Metric Size**

consists of:

991X	Regular Handle
99X5	Extension 4"
994MM	Blade, Nutdriver, 4 mm
9945MM	Blade, Nutdriver, 4,5 mm
995MM	Blade, Nutdriver, 5 mm
9955MM	Blade, Nutdriver, 5,5 mm
996MM	Blade, Nutdriver, 6 mm
997MM	Blade, Nutdriver, 7 mm
998MM	Blade, Nutdriver, 8 mm
999MM	Blade, Nutdriver, 9 mm
9910MM	Blade, Nutdriver, 10 mm
9911MM	Blade, Nutdriver, 11 mm



**Order No.**      **Description**

**99PS60      Bristol Multiple Spline Socket Screwdriver Set**

consists of:

991X	Regular Handle
99X5	Extension 4"
9961	Blade, Bristol 6-flute Multiple Spline, 0,048"
9962	Blade, Bristol 6-flute Multiple Spline, 0,060"
9963	Blade, Bristol 4-flute Multiple Spline, 0,069"
9964	Blade, Bristol 6-flute Multiple Spline, 0,072"
9965	Blade, Bristol 4-flute Multiple Spline, 0,076"
9966	Blade, Bristol 6-flute Multiple Spline, 0,096"
9967	Blade, Bristol 6-flute Multiple Spline, 0,111"
9968	Blade, Bristol 6-flute Multiple Spline, 0,145"
9969	Blade, Bristol 6-flute Multiple Spline, 0,183"



Order No.	Description
<b>99XTD7</b>	<b>Torx Screwdriver Tool Set</b>
consists of:	
991X	Regular Handle
9910XTD	Torx Blade No. 10
9915XTD	Torx Blade No. 15
9920XTD	Torx Blade No. 20
9925XTD	Torx Blade No. 25
9927XTD	Torx Blade No. 27
9930XTD	Torx Blade No. 30

**Single Tools for Service Kits and Set**

Order No.	Description
99831	Screwdriver, Pozidriv No. 1
99832	Screwdriver, Pozidriv No. 2
996XTD	Torx Blade No. 6
998XTD	Torx Blade No. 8

# Tool Cases



Final appearance may vary

Order No.	Description	Order No.	Description
<b>T0044130000</b>	<b>TCE150ST Tool Case synthetic material with special tools out of Apex Tools product lines – Metric Size</b>		
consists of:			
991X	Regular Handle	99250	Blade, Screwdriver, Slotted, 1/4"
994R	T-Ratching Handle	99312	Blade, Screwdriver Slotted, 5/16"
99X5	Extension 4"	9938	Reamer, 1/8" x 3/8"
9971MM	Blade, Screwdriver, Allen Hex, 1,27 mm	Erop330	Tip Cutter, 130 mm, 40°
9972MM	Blade, Screwdriver, Allen Hex, 1,5 mm	542E	Flat Nose Plier
9973MM	Blade, Screwdriver, Allen Hex, 2 mm	543E	Round Nose Plier
9974MM	Blade, Screwdriver, Allen Hex, 2,5 mm	2211P	Needle Nose Plier
9975MM	Blade, Screwdriver, Allen Hex, 3 mm	170M	Shearcutter, red handles
9976MM	Blade, Screwdriver, Allen Hex, 4 mm	812N	Side Cutter
9977MM	Blade, Screwdriver, Allen Hex, 5 mm	612N	Side Cutter
994MM	Blade, Nutdriver, 4 mm	86CG	Snip electronic
9945MM	Blade, Nutdriver, 4,5 mm	SX101	Phillips Screwdriver, Stubby No.1
995MM	Blade, Nutdriver, 5 mm	SX102	Phillips Screwdriver, Stubby No.2
9955MM	Blade, Nutdriver, 5,5 mm	XST101	Phillips Screwdriver, Super-tru-tip No.1
996MM	Blade, Nutdriver, 6 mm	0056103699	Soldering Iron W61, 60W
997MM	Blade, Nutdriver, 7 mm	0051304199	DS7N Desoldering head for W 61
998MM	Blade, Nutdriver, 8 mm	XL75	Offset Ratches, Screwdriver Set
999MM	Blade, Nutdriver, 9 mm	103S	Wire Stripper & Cutter, Cam Stop Adjustable
99820	Blade, Screwdriver, Phillips No.0	0016100402	Hand File Cut 2, 100 mm
99821	Blade, Screwdriver, Phillips No.1	AC16C	Wrench, 150 mm
99822	Blade, Screwdriver, Phillips No.2	0054002599	RL 60/40 - 100 solder
99811	Blade, Screwdriver, Slotted, 3/16"	0060403504	Y35CM Ultralock, Measuring Tape 5 m



**Order No. Description**

**TC100ST Tool Case with USA Standard Assortment – Inch Size**

consists of:

991X	Regular Handle
991R	Ratching Handle
994R	T-Ratching Handle
99X5	Extension 4"
99X10	Extension 7"
9961	Blade, Bristol 6-flute Multiple Spline, 0,048"
9962	Blade, Bristol 6-flute Multiple Spline, 0,060"
9963	Blade, Bristol 4-flute Multiple Spline, 0,069"
9964	Blade, Bristol 6-flute Multiple Spline, 0,072"
9965	Blade, Bristol 4-flute Multiple Spline, 0,076"
9966	Blade, Bristol 6-flute Multiple Spline, 0,096"
9967	Blade, Bristol 6-flute Multiple Spline, 0,111"
9968	Blade, Bristol 6-flute Multiple Spline, 0,145"
9969	Blade, Bristol 6-flute Multiple Spline, 0,183"
9920	Blade, Screwdriver, Allen Hex Type, 0,050"
9921	Blade, Screwdriver, Allen Hex Type, 1/16"
9922	Blade, Screwdriver, Allen Hex Type, 5/64"
9923	Blade, Screwdriver, Allen Hex Type, 3/32"
99764	Blade, Screwdriver, Allen Hex Type, 7/64"
9924	Blade, Screwdriver, Allen Hex Type, 1/8"
99964	Blade, Screwdriver, Allen Hex Type, 9/64"
9925	Blade, Screwdriver, Allen Hex Type, 5/32"
9926	Blade, Screwdriver, Allen Hex Type, 3/16"
99125	Blade, Screwdriver, Slotted, 1/8"
99811	Blade, Screwdriver, Slotted, 3/16"
99250	Blade, Screwdriver, Slotted, 1/4"
99312	Blade, Screwdriver, Slotted, 5/16"
99820	Blade, Screwdriver, Phillips No.0
99821	Blade, Screwdriver, Phillips No.1
99822	Blade, Screwdriver, Phillips No.2
9938	Reamer, 1/8" x 3/8"
42H	Seizer, Straight Nose, Serrated jaw
46CG	Wrench, adjustable, 6"
50CG	Plier, adjustable, 6"
51CG	Plier, Long Nose, 7"
53CG	Plier, adjustable, 4"
54CG	Plier, diagonal, 4"
66CG	Plier, diagonal, 6"

**Order No. Description**

57CG	Plier, Needle Nose, 16"
59CG	Plier, Special Purpose, 8"
86CG	Electronic Snip, cushion grip, 6,5"
103S	Wire Stripper & Cutter, Cam Stop Adjustable
M60	Mini Screwdriver Set (7 pcs.)
XL75	Offset Ratches, Screwdriver Set
600	4-way Pocket Tool Screwdriver/Nutdriver
SB1	Convertible Blade
R3323	Screwdriver, Round Blade, Pocket Clip Style, 3/32" x 3"
R181	Screwdriver, Round Blade, Pocket Clip Style, 1/8" x 2"
R184	Screwdriver, Round Blade, Regular, 1/8" x 2"
R3164	Screwdriver, Round Blade, Regular, 3/16" x 4"
R3166	Screwdriver, Round Blade, Regular, 3/16" x 6"
R144	Screwdriver, Round Blade, Regular, 1/4" x 4"
R146	Screwdriver, Round Blade, Regular, 1/4" x 6"
SX101	Screwdriver, Phillips, Stubby No.1
XST100	Screwdriver, Phillips, Super-tru-tip No.0
XST101	Screwdriver, Phillips, Super-tru-tip No.1
XST102	Screwdriver, Phillips, Super-tru-tip No.2
S3161	Screwdriver, Square Blade, Stubby, 3/8"
S5161	Screwdriver, Square Blade, Stubby, 5/16"
S388	Screwdriver, Square Blade, Regular, 3/8"
S5166	Screwdriver, Square Blade, Regular, 5/16"
P18	Screwdriver, Allen Hex Type, 0,028"
P19	Screwdriver, Allen Hex Type, 0,035"
HS6	Nutdriver, Hollow, 3/16"
HS8	Nutdriver, Hollow, 1/4"
HS10	Nutdriver, Hollow, 5/16"
HS11	Nutdriver, Hollow, 11/32"
HS12	Nutdriver, Hollow, 3/8"
HS14	Nutdriver, Hollow, 7/16"
HS16	Nutdriver, Hollow, 1/2"
HS18	Nutdriver, Hollow, 9/16"
998M	Blade, Nutdriver, 1/4", magnetic
9910M	Blade, Nutdriver, 5/16", magnetic
PS120	Nutdriver Set

# Tool Cases



Order No.	Description
-----------	-------------

**TCMB100ST Tool Case with Tools – Inch Size**

consists of:

991X	Regular Handle
991R	Ratching Handle
994R	T-Ratching Handle
99X5	Extension 4"
99X10	Extension 7"
9961	Blade, Bristol 6-flute Multiple Spline, 0,048"
9962	Blade, Bristol 6-flute Multiple Spline, 0,060"
9963	Blade, Bristol 4-flute Multiple Spline, 0,069"
9964	Blade, Bristol 6-flute Multiple Spline, 0,072"
9965	Blade, Bristol 4-flute Multiple Spline, 0,076"
9966	Blade, Bristol 6-flute Multiple Spline, 0,096"
9967	Blade, Bristol 6-flute Multiple Spline, 0,111"
9968	Blade, Bristol 6-flute Multiple Spline, 0,145"
9969	Blade, Bristol 6-flute Multiple Spline, 0,183"
9920	Blade, Screwdriver, Allen Hex Type, 0,050"
9921	Blade, Screwdriver, Allen Hex Type, 1/16"
9922	Blade, Screwdriver, Allen Hex Type, 5/64"
9923	Blade, Screwdriver, Allen Hex Type, 3/32"
99764	Blade, Screwdriver, Allen Hex Type, 7/64"
9924	Blade, Screwdriver, Allen Hex Type, 1/8"
99964	Blade, Screwdriver, Allen Hex Type, 9/64"
9925	Blade, Screwdriver, Allen Hex Type, 5/32"
9926	Blade, Screwdriver, Allen Hex Type, 3/16"
99125	Blade, Screwdriver, Slotted, 1/8"
99811	Blade, Screwdriver, Slotted, 3/16"
99250	Blade, Screwdriver, Slotted, 1/4"
99312	Blade, Screwdriver, Slotted, 5/16"
99820	Blade, Screwdriver, Phillips No.0
99821	Blade, Screwdriver, Phillips No.1
99822	Blade, Screwdriver, Phillips No.2
9938	Reamer 1/8" x 3/8"
42H	Seizer, Straight Nose, Serrated jaw
46CG	Wrench, adjustable, 6"
50CG	Plier, adjustable, 6"
51CG	Plier, Long Nose, 7"
53CG	Plier, adjustable, 4"
54CG	Plier, diagonal, 4"
66CG	Plier, diagonal, 6"
57CG	Plier, Needle-Nose, 16"

Order No.	Description
-----------	-------------

59CG	Plier, Special Purpose, 8"
86CG	Electronic Snip, cushion grip, 6,5"
103S	Wire Stripper & Cutter, Cam Stop Adjustable
K22	Electricians' knife
M60	Mini Screwdriver Set (7 pcs.)
XL75	Offset Ratches, Screwdriver Set
600	4-way Pocket Tool Screwdriver/Nutdriver
SB1	Convertible Blade
R3323	Screwdriver, Round Blade, Pocket Clip Style, 3/32" x 3"
R181	Screwdriver, Round Blade, Pocket Clip Style, 1/8" x 2"
R184	Screwdriver, Round Blade, Regular, 1/8" x 2"
R5325	Screwdriver, Round Blade, Regular, 5/32"
R3164	Screwdriver, Round Blade, Regular, 3/16" x 4"
R3166	Screwdriver, Round Blade, Regular, 3/16" x 6"
R144	Screwdriver, Round Blade, Regular, 1/4" x 4"
R146	Screwdriver, Round Blade, Regular, 1/4" x 6"
SX101	Screwdriver, Phillips, Stubby No.1
XST100	Screwdriver, Phillips, Super-tru-tip No.0
XST101	Screwdriver, Phillips, Super-tru-tip No.1
XST102	Screwdriver, Phillips, Super-tru-tip No.2
S3161	Screwdriver, Square Blade, Stubby, 3/8"
S5161	Screwdriver, Square Blade, Stubby, 5/16"
S388	Screwdriver, Square Blade, Regular, 3/8"
S5166	Screwdriver, Square Blade, Regular, 5/16"
P18	Screwdriver, Allen Hex Type, 0,028"
P19	Screwdriver, Allen Hex Type, 0,035"
HS6	Nutdriver, Hollow, 3/16"
HS8	Nutdriver, Hollow, 1/4"
HS10	Nutdriver, Hollow, 5/16"
HS11	Nutdriver, Hollow, 11/32"
HS12	Nutdriver, Hollow, 3/8"
HS14	Nutdriver, Hollow, 7/16"
HS16	Nutdriver, Hollow, 1/2"
HS18	Nutdriver, Hollow, 9/16"
998M	Blade, Nutdriver, 1/4", magnetic
9910M	Blade, Nutdriver, 5/16", magnetic
PS120	Nutdriver Set

## Offset Ratchet Screwdriver Set



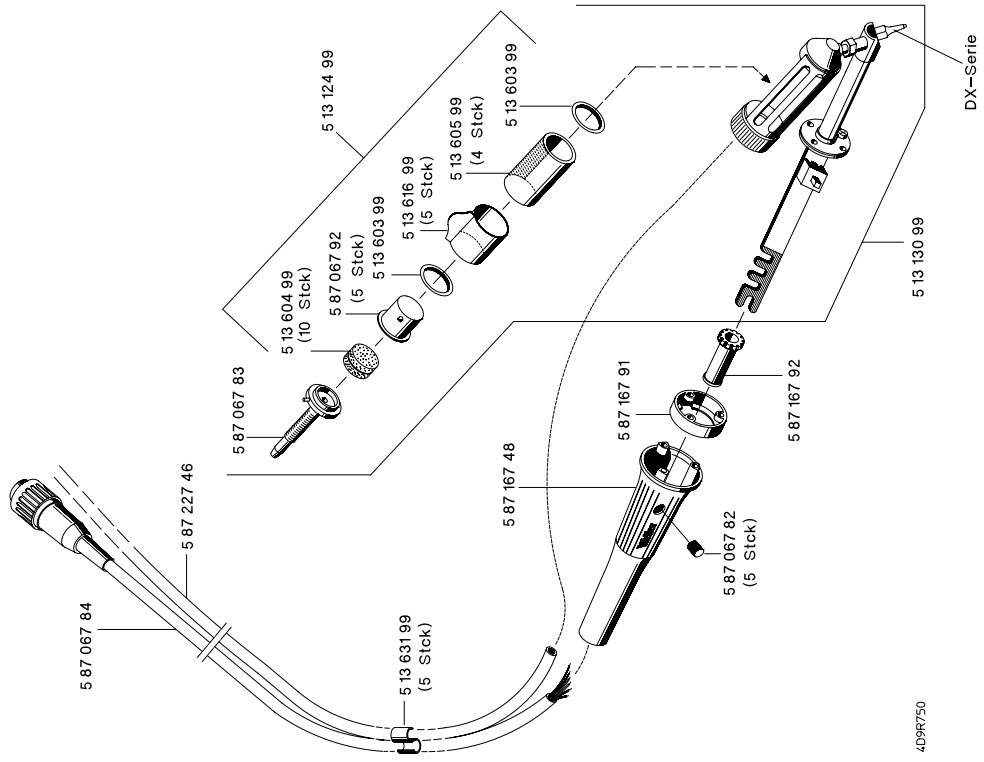
Order No.	Description
<b>XL70</b>	<b>Offset Ratchet Screwdriver Set</b>
consists of:	
XL3	Allen Hex Screw Bit 0,050" (1,27 mm)
XL4	Allen Hex Screw Bit 1/16" (1,54 mm)
XL5	Allen Hex Screw Bit 5/64" (1,98 mm)
XL6	Allen Hex Screw Bit 3/32" (2,38 mm)
XL7	Allen Hex Screw Bit 7/64" (1,54 mm)
XL8	Allen Hex Screw Bit 1/8" (3,17 mm)
XL9	Allen Hex Screw Bit 9/64" (3,57 mm)
XL10	Allen Hex Screw Bit 5/32" (3,97 mm)
XL12	Allen Hex Screw Bit 3/16" (4,76 mm)
XL14	Allen Hex Screw Bit 7/32" (5,56 mm)
XL16	Allen Hex Screw Bit 1/4" (6 mm)
XL17	Slotted Screw Bit 1/4" (6 mm)
XL18	Allen Hex Screw Bit 5/16" (7,94 mm)
XL20	Phillips Screw Bit No. 1
XL21	Phillips Screw Bit No. 2
XL24	Adapter bit
XL25	Slotted Screw Bit 3/16" (4,76 mm)
XL27	Offset Ratchet, reversible
XL50X	Screwdriver Extension

# Index Exploded Drawings

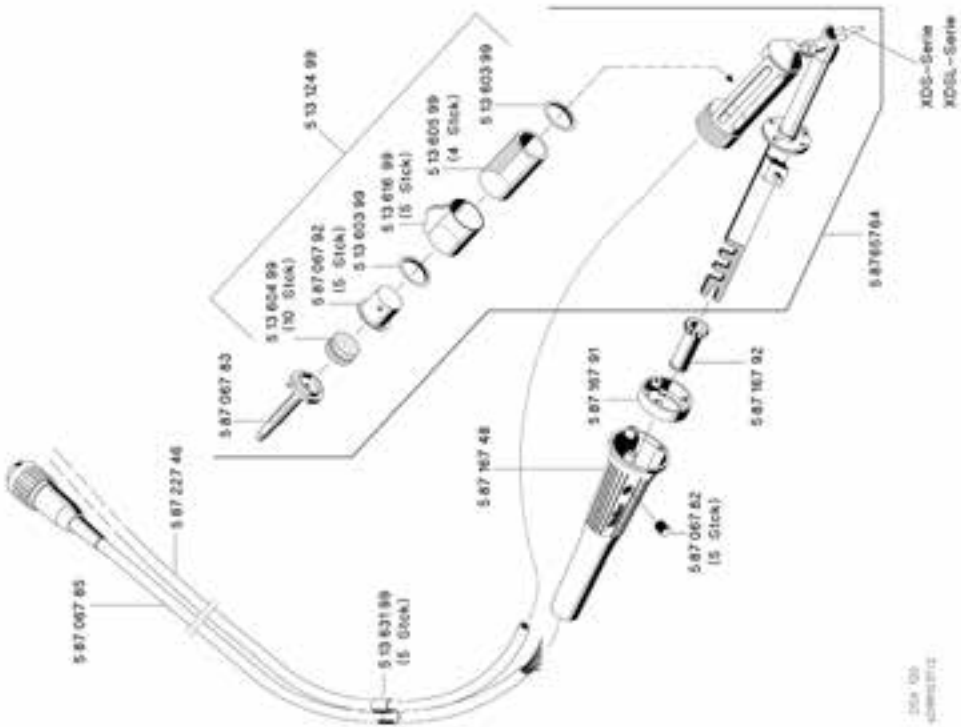
Model	Page
DSX 80 .....	353
DSX 120 .....	353
DXV 80.....	354
DSXV 80.....	354
FE 25 .....	355
FE 50 .....	355
FE 50M.....	356
FE 75 .....	356
FE 80 .....	357
HAP 200.....	357
LR 21 .....	358
MPR 80.....	358
PUD 151R.....	359
Pyropen + Pyropen Piezo.....	359
Pyropen JR.....	360
W 61 / W 101.....	360
WD 1 / WD 1000.....	361
WD 1M / WD 1000M .....	361
WD 2 / WD 2000.....	362
WD 2M.....	363
WD 3M.....	362
WDD 161V .....	363
WDD 81V .....	364
WDH 10T / 20T .....	364
WFE.....	365
WFE 2ES .....	366
WFE 2S.....	365
WFE 4S.....	367
WFE P.....	366
WHA 900.....	367
WHA 3000P.....	368
WHA 3000V .....	368
WHP 1000.....	369
WHP 3000.....	369
WMD 1S.....	370
WMD 3 / WMD 3K2 .....	370
WMRT .....	371
WP 65 .....	371
WP 80 .....	372
WP 120 .....	372
WP 200 .....	373
WR 2 .....	372
WR 3M.....	374
WS 51.....	374
WS 81.....	375
WSD 81 .....	376
WSD 81i .....	377
WSD 121 .....	377
WSD 151 .....	378
WSD 161 .....	378
WSF 81D .....	379
WSP 80.....	379
WTA 50 .....	380

Model	Page
WTCP 51 .....	380
WX 1 .....	381
WX 2 .....	381
WXA 2.....	382
WXD 2.....	382
WXDP 120.....	383
WXDV 120 .....	383
WXP 65 .....	384
WXP 120 .....	384
WXP 200 .....	385

## DSX 80

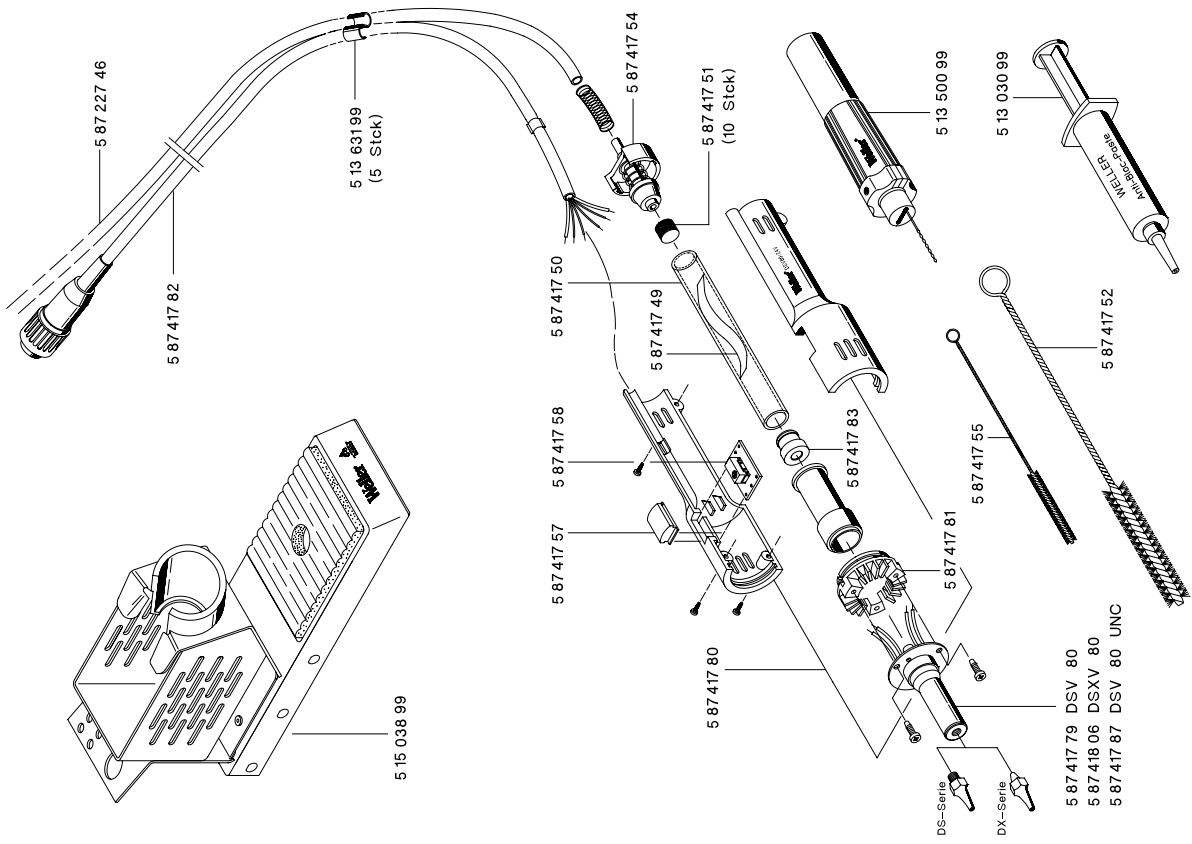


## DSX 120



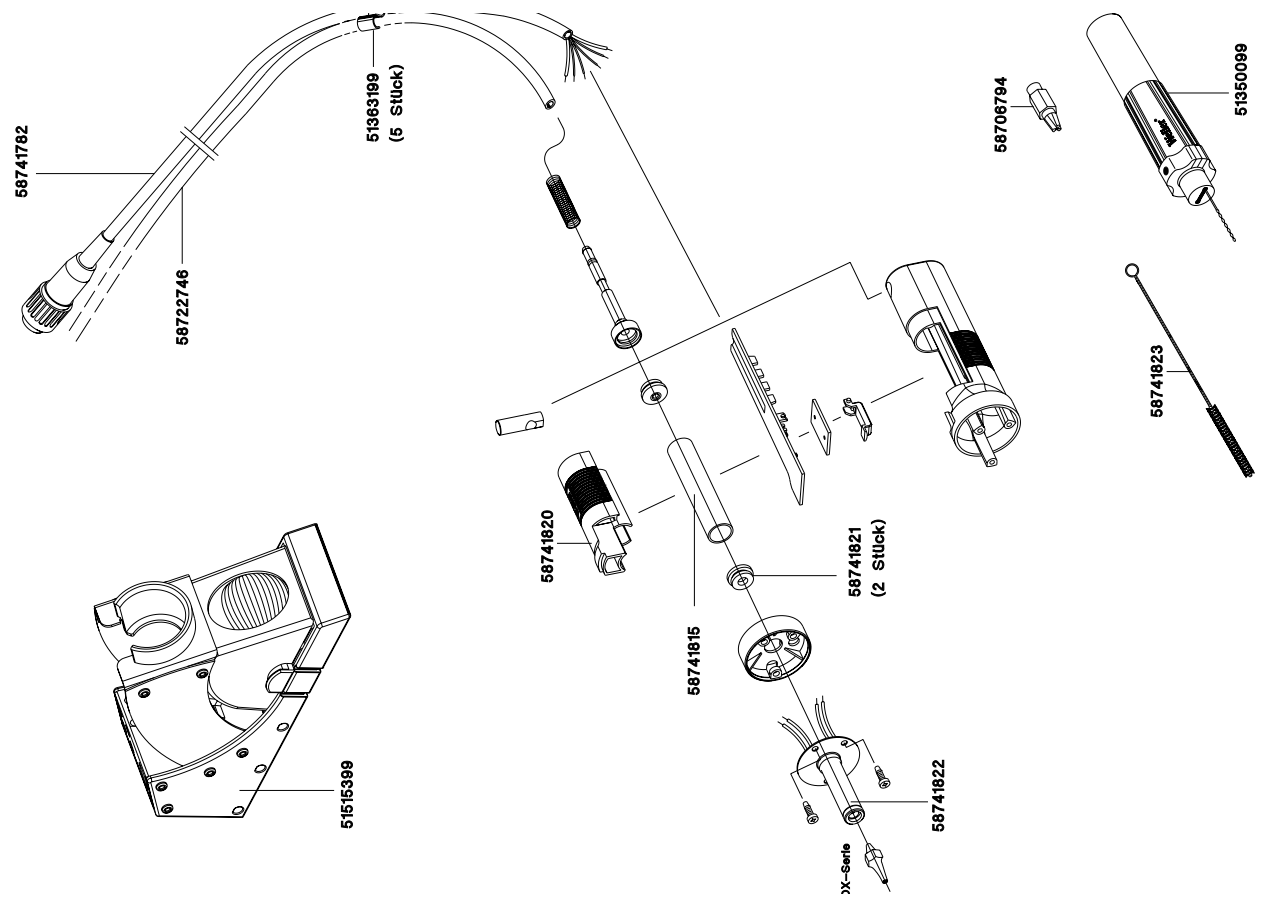


## DSXV 80

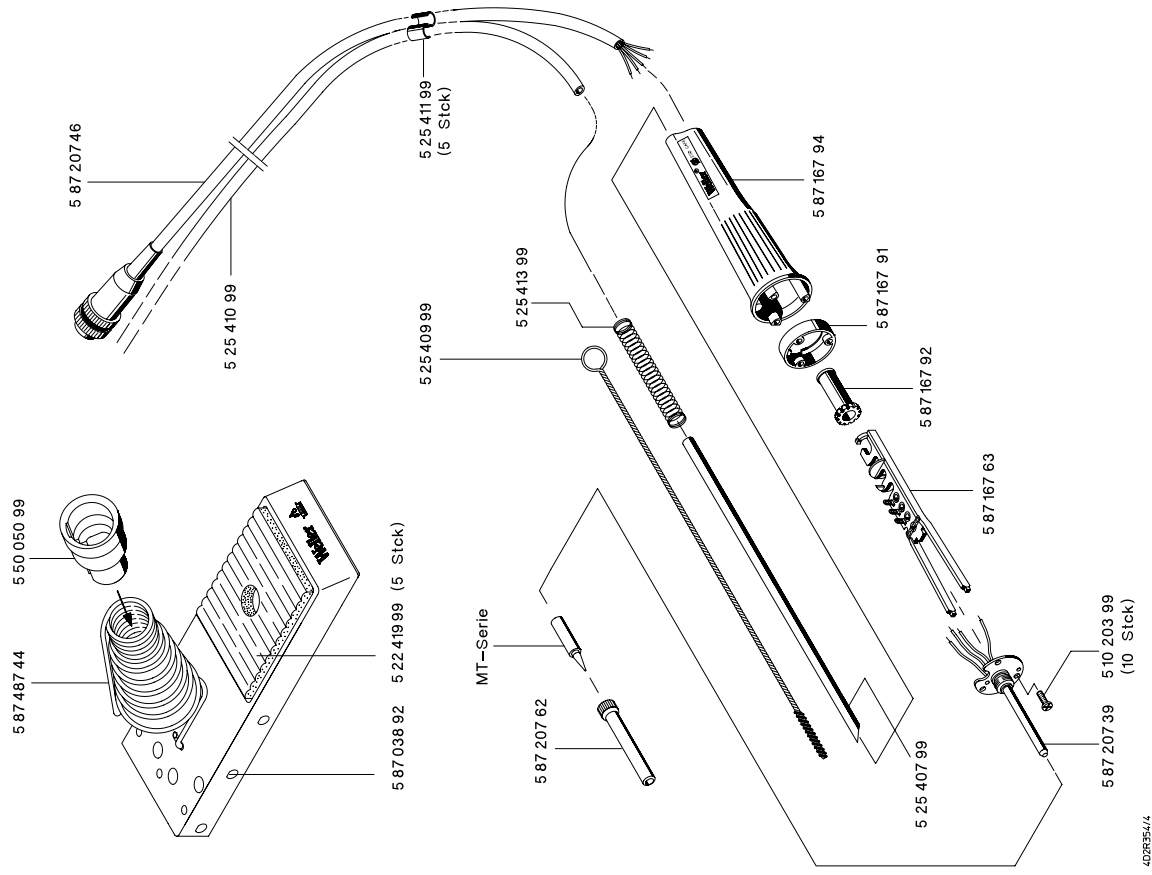


4D2R605/3

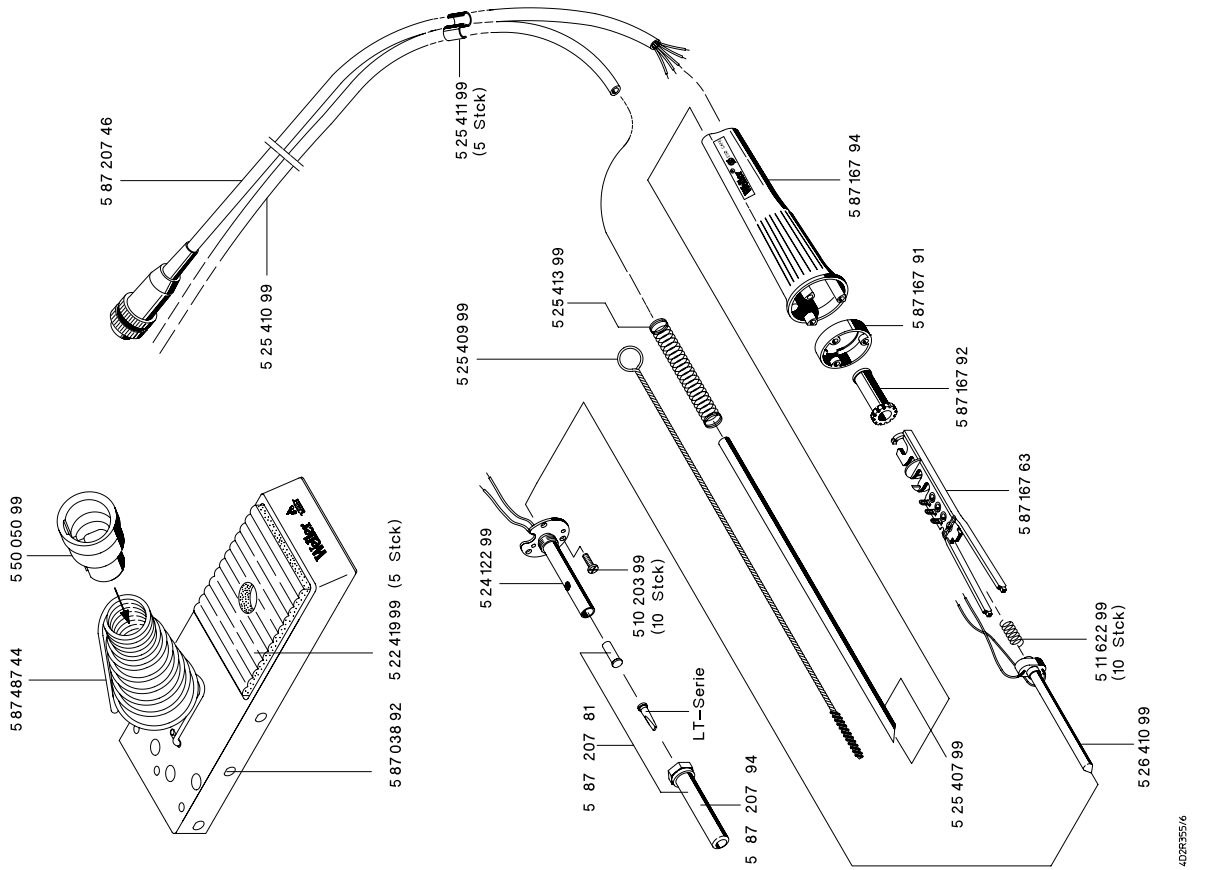
## DXV 80



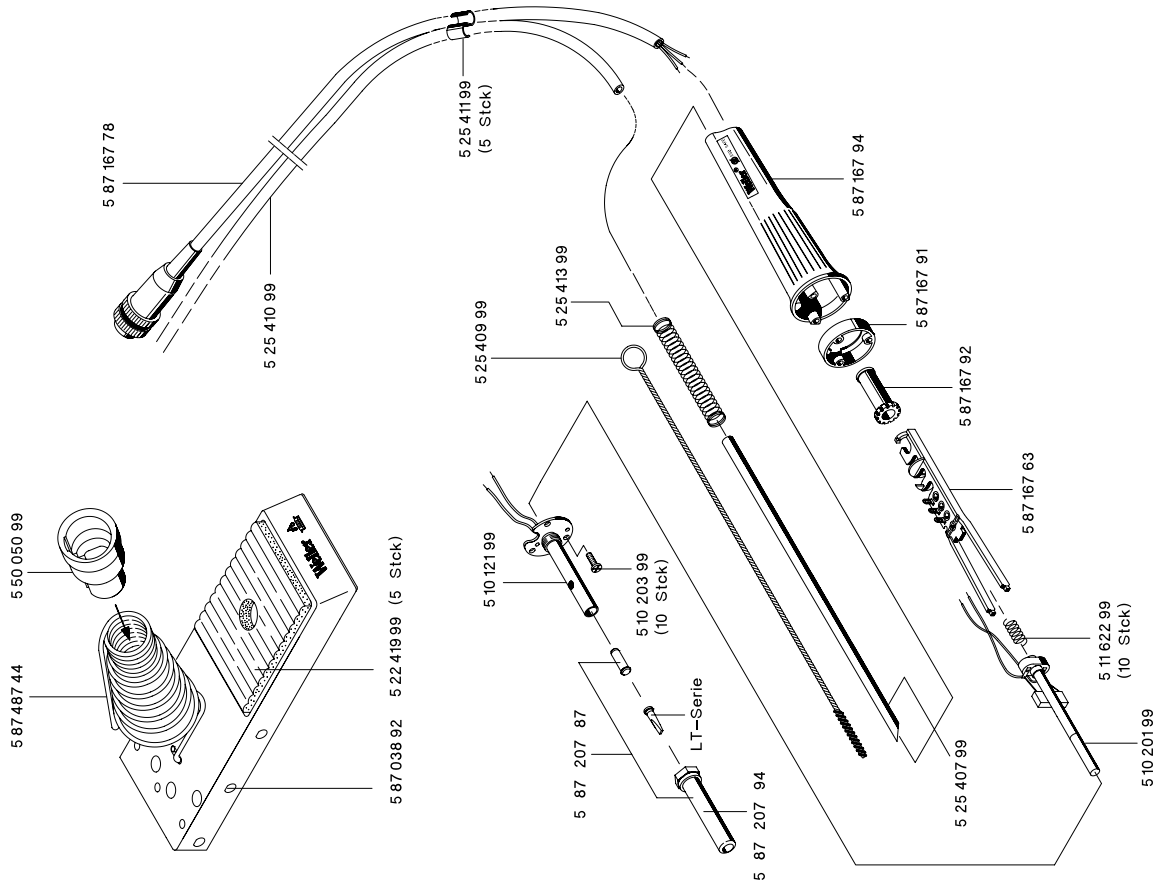
# FE 25



# FE 50

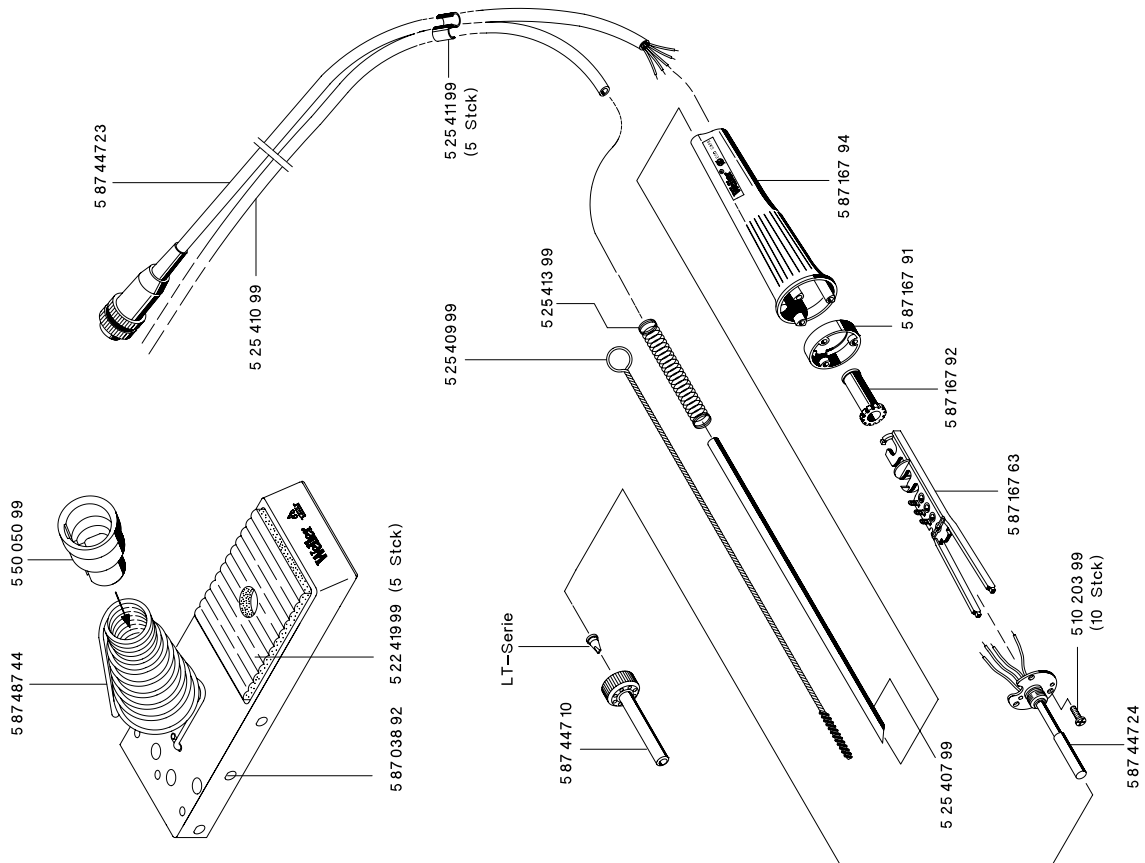


## FE 50M



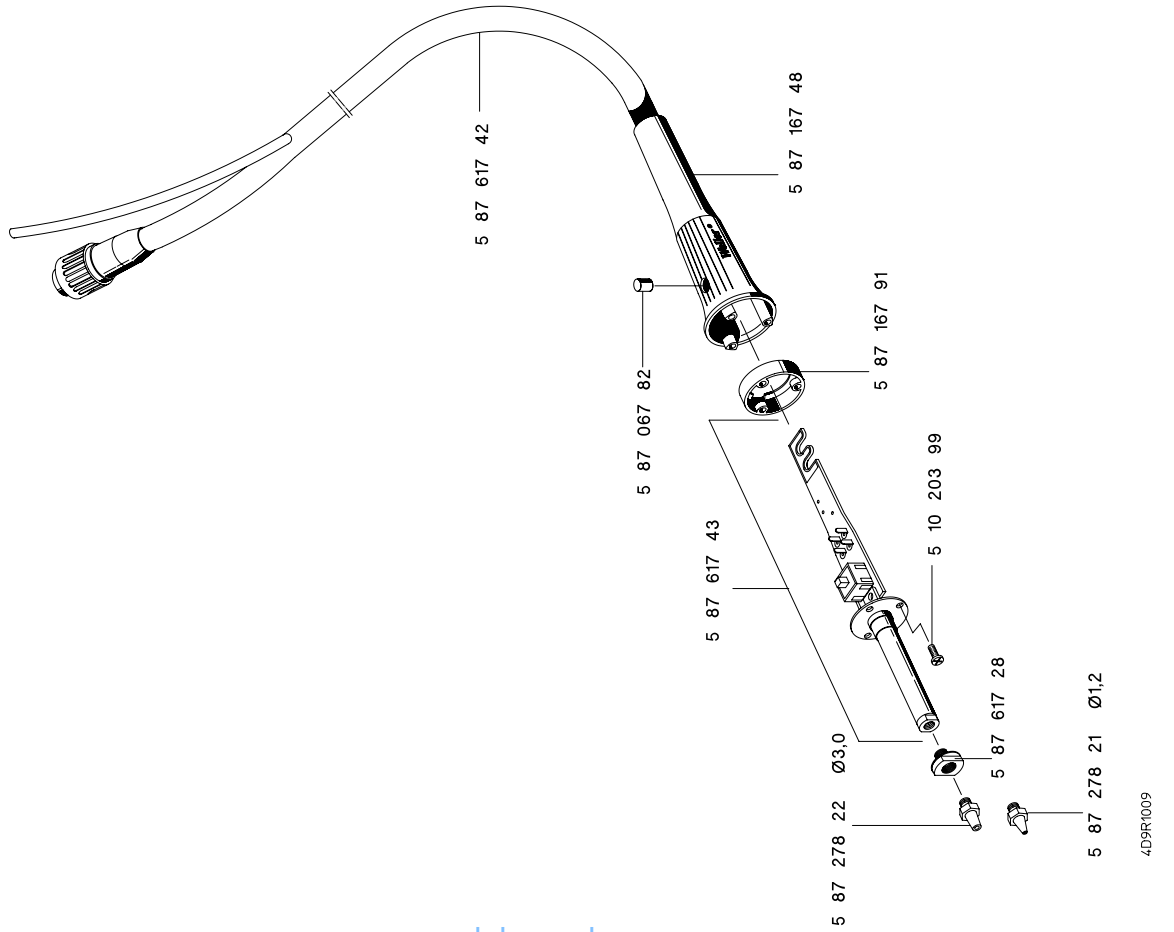
409R56/4

## FE 75



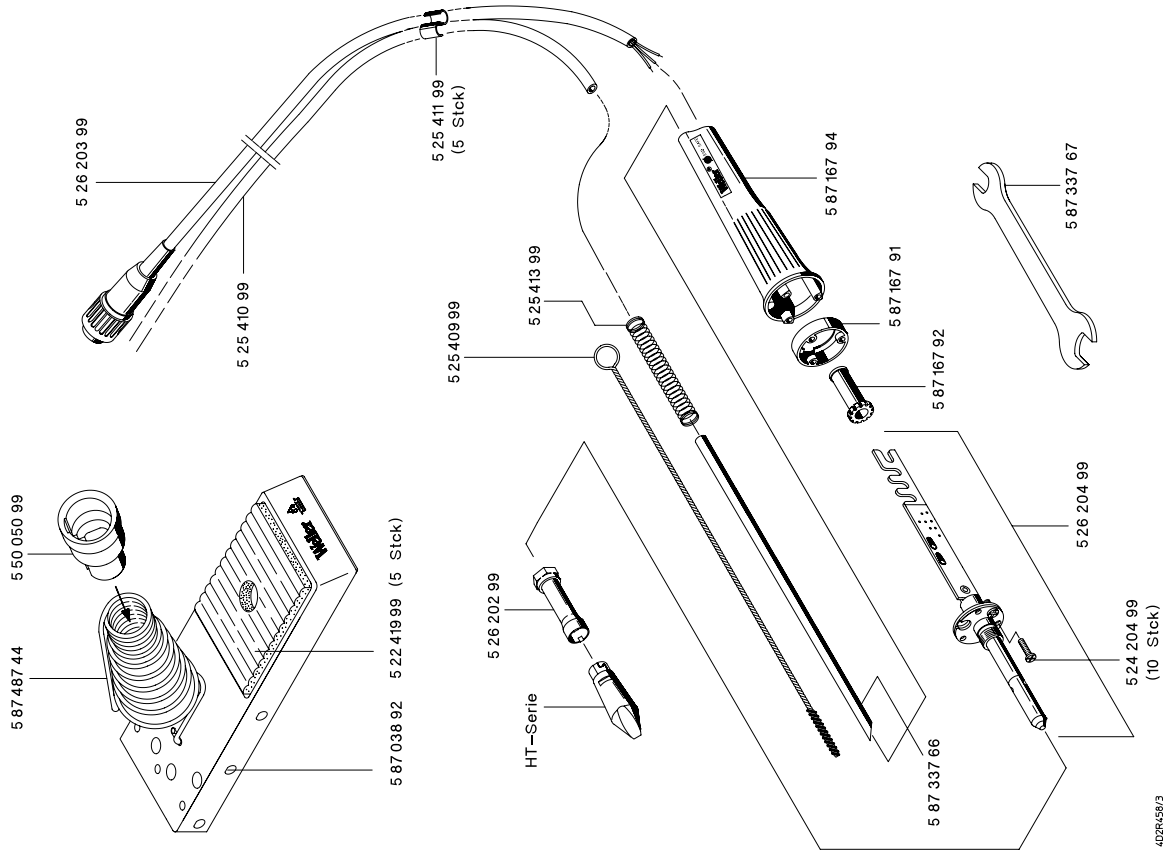
409R55/3

# HAP 200

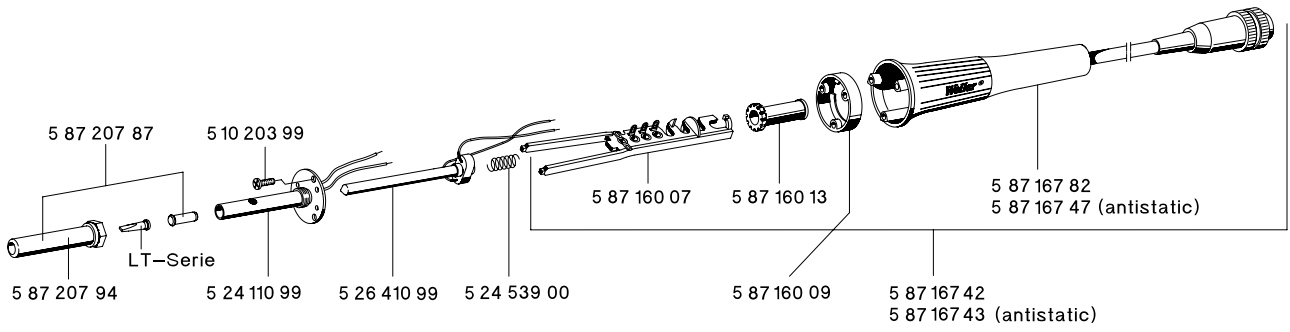


4DSR1009

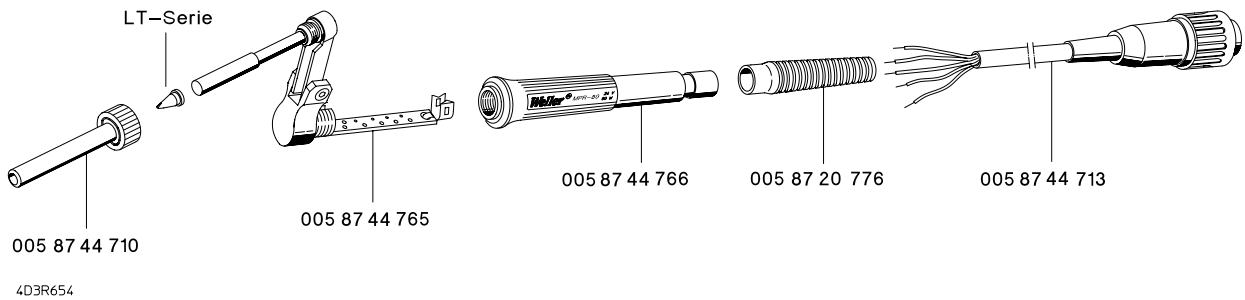
# FE 80



4DSR458/3

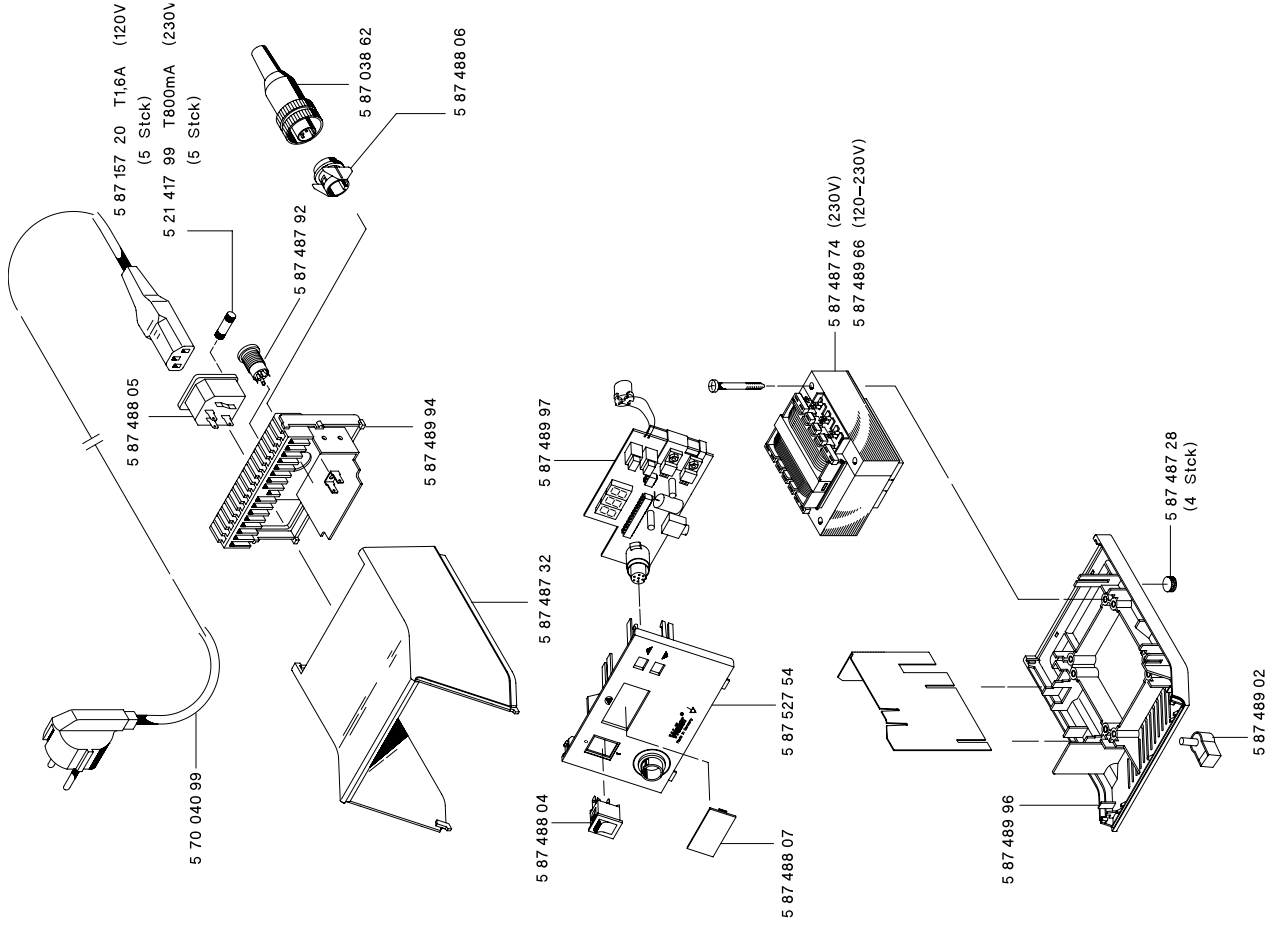


**LR 21**

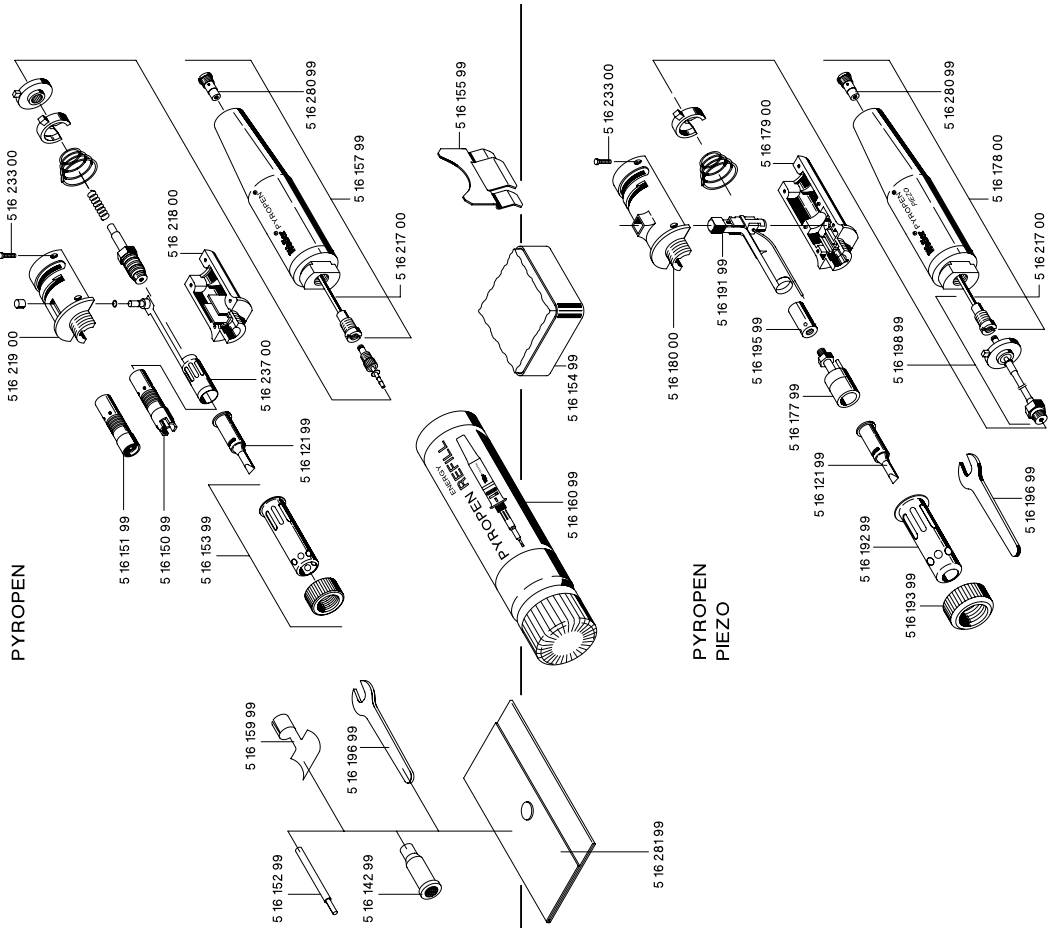


**MPR 80**

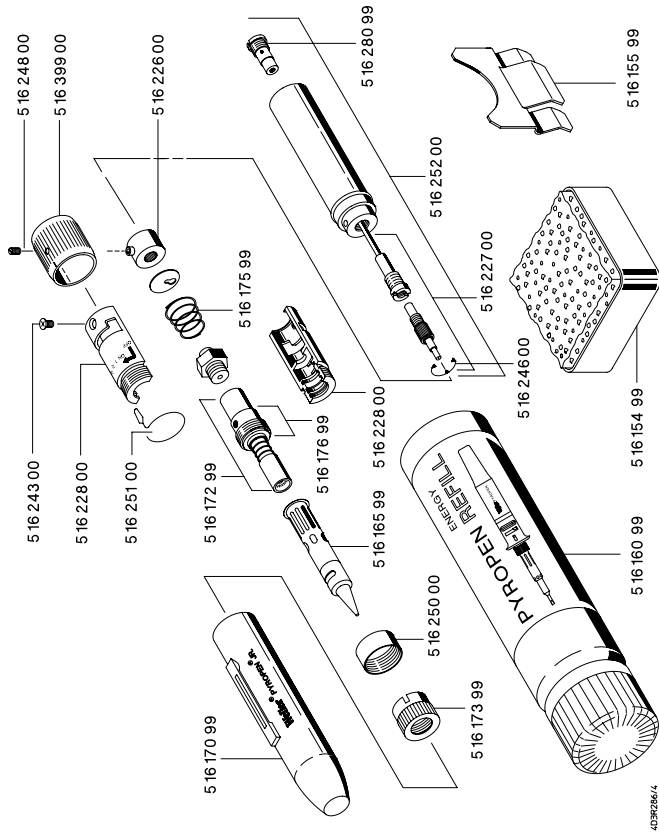
## PUD 151R



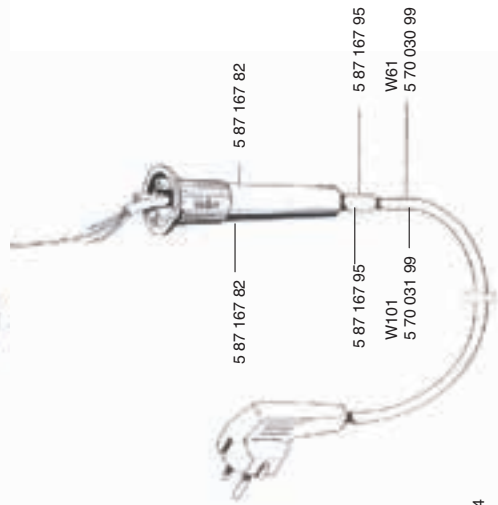
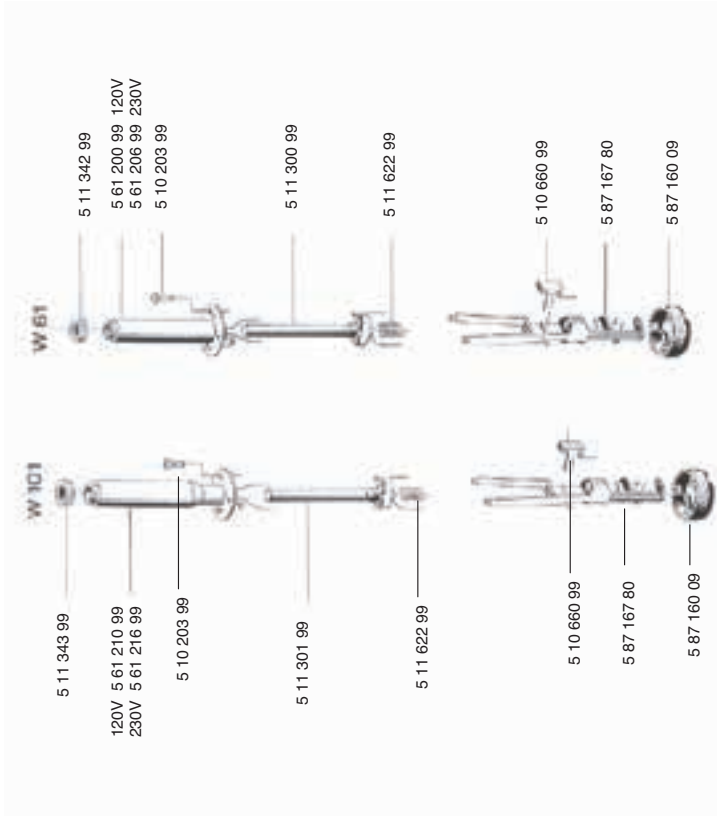
## Pyropen + Pyropen Piezo



## Pyropen JR.



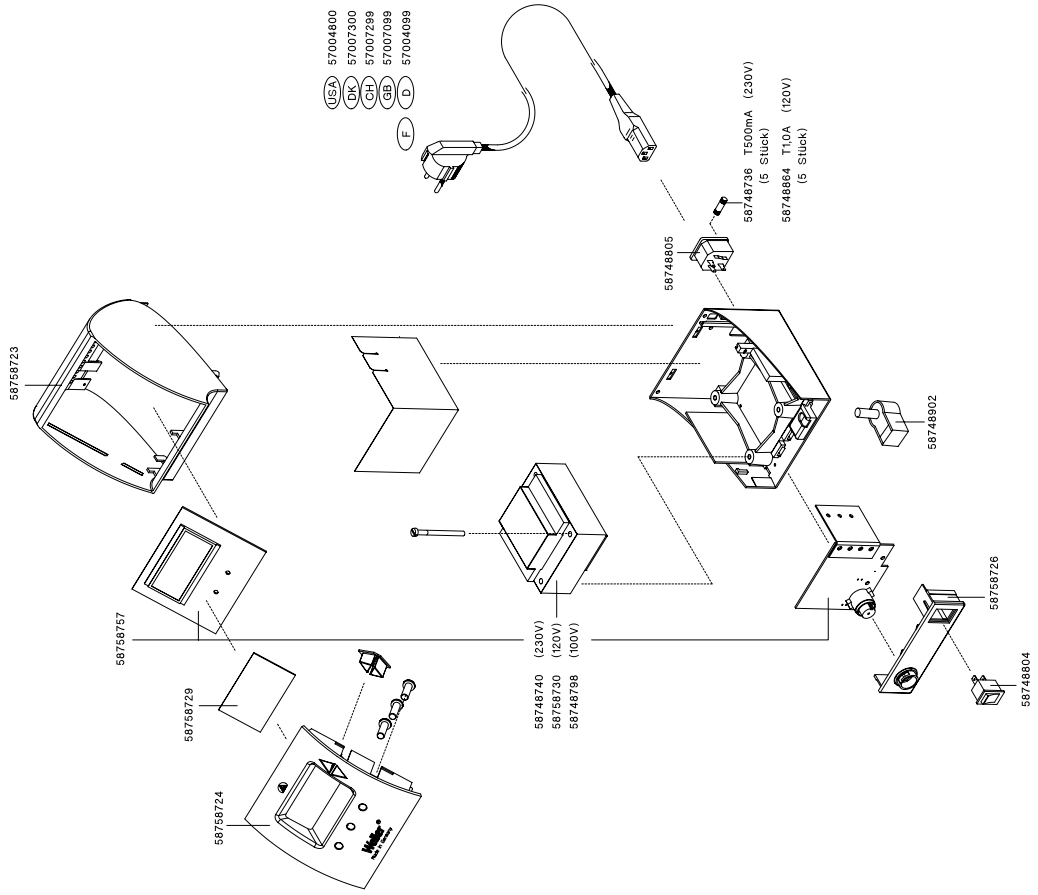
## W 61, W 101



4D9R048/4

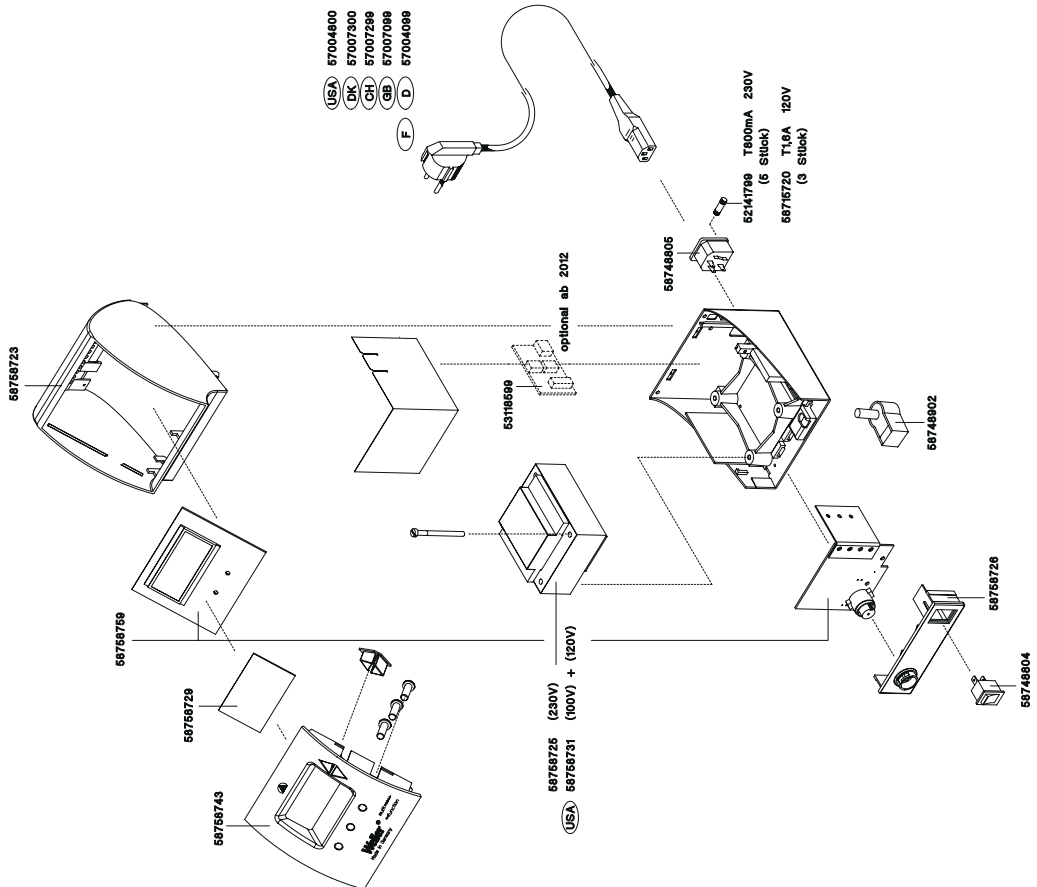
## WD 1 / WD 1000

Since 3. Quarter 2007



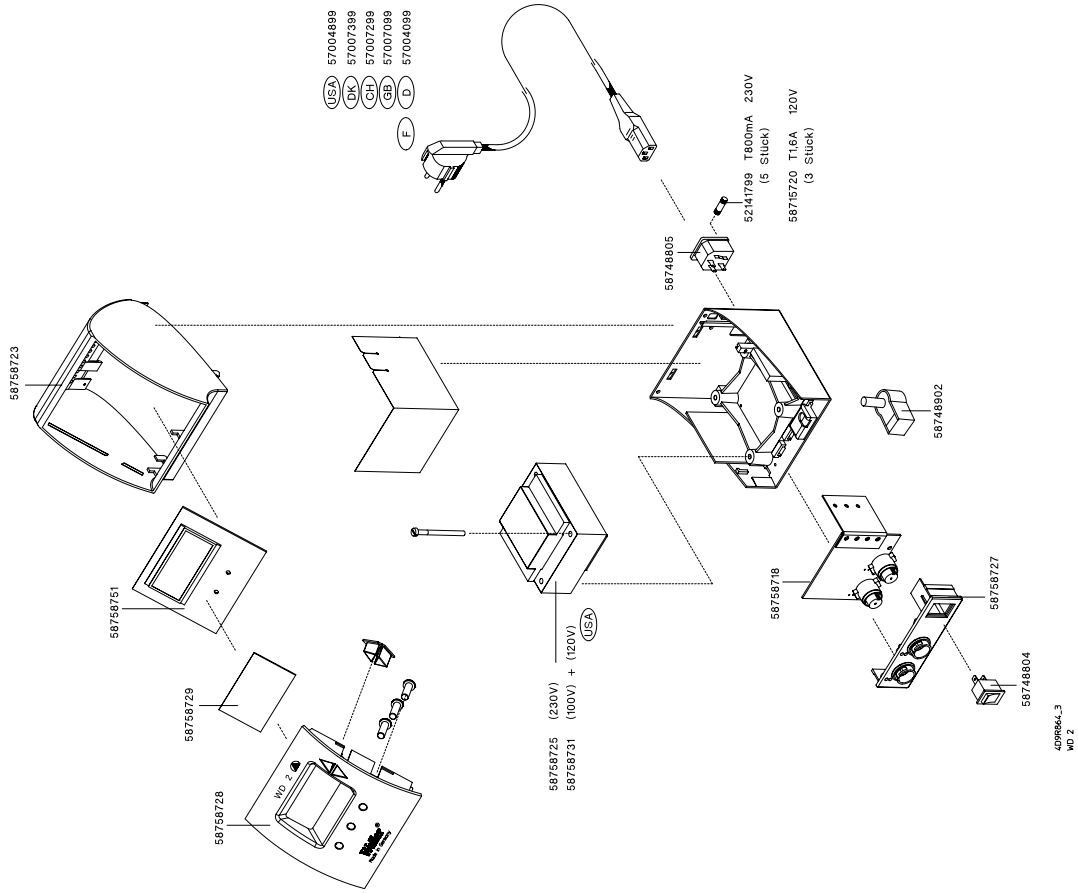
## WD 1M / WD 1000M

Since 3. Quarter 2007

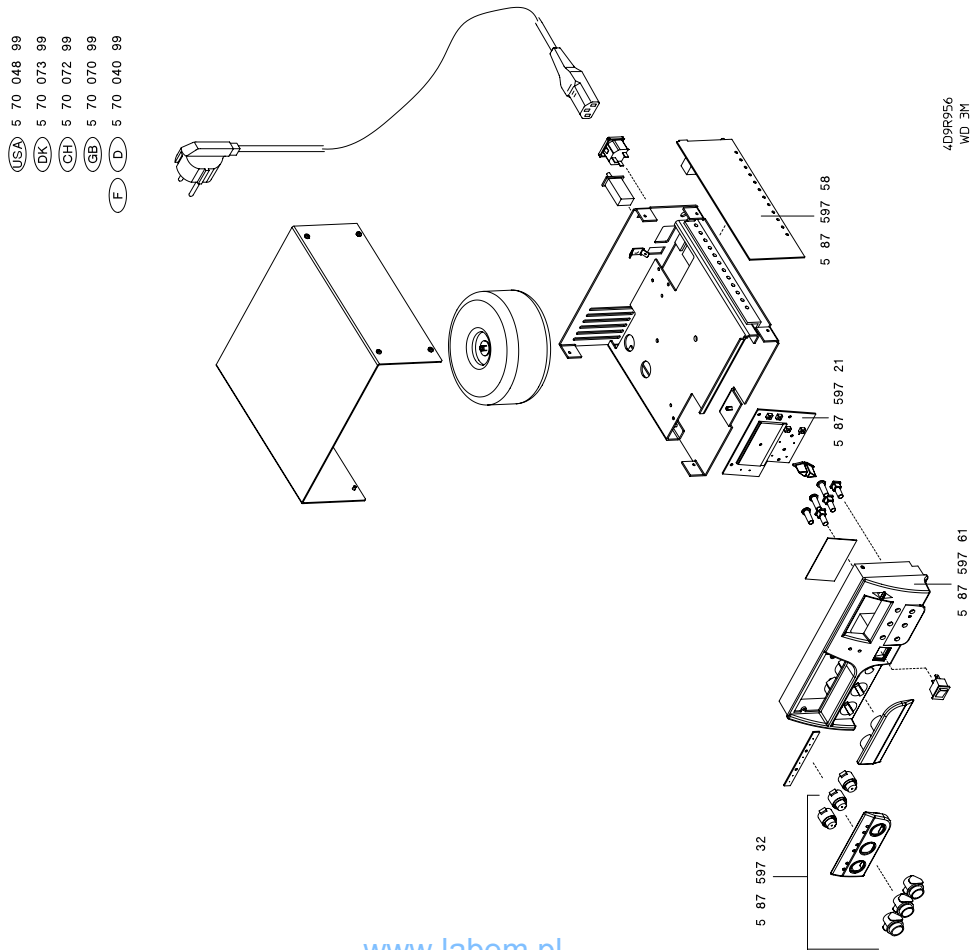




## WD 2 / WD 2000 Since 3. Quarter 2007

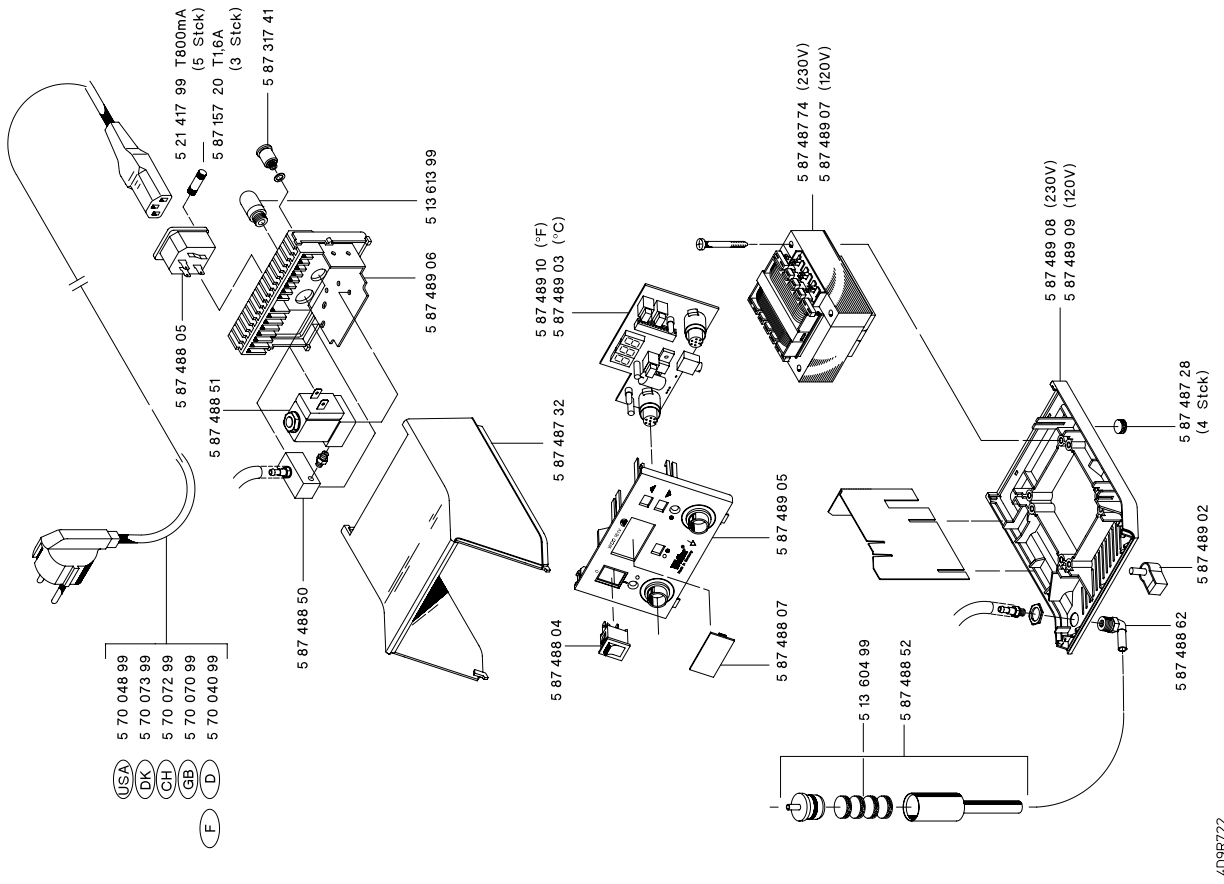


## WD 3M



# WDD 161V

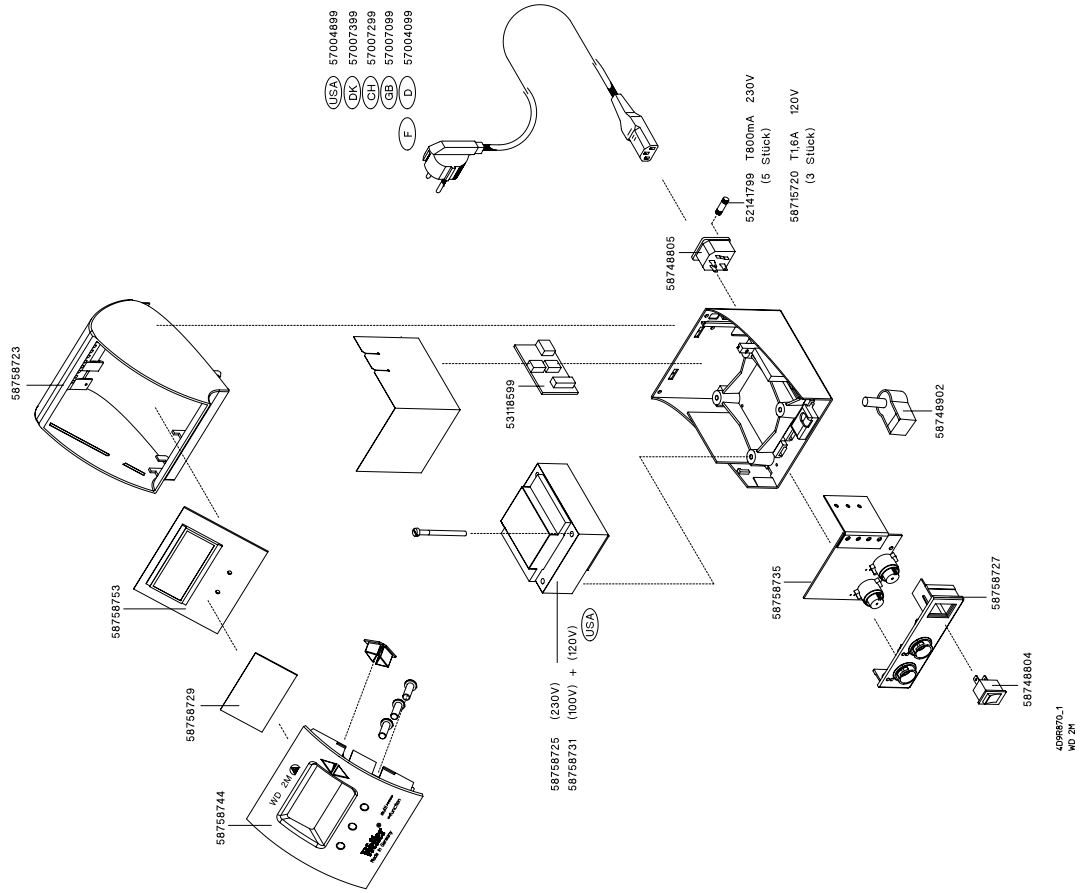
- (USA)
- (DK)
- (CH)
- (GB)
- (D)
- (F)



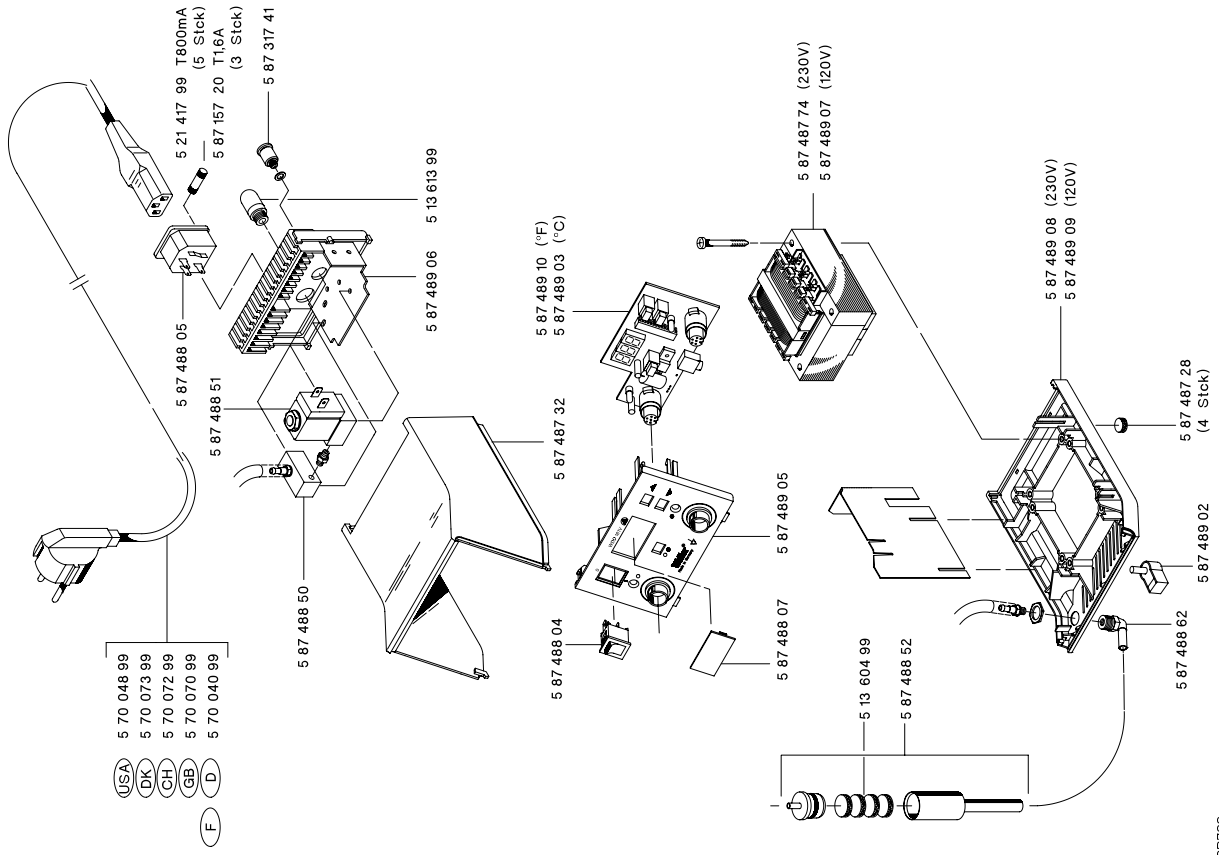
4D9R722

# WD 2M

Since 3. Quarter 2007

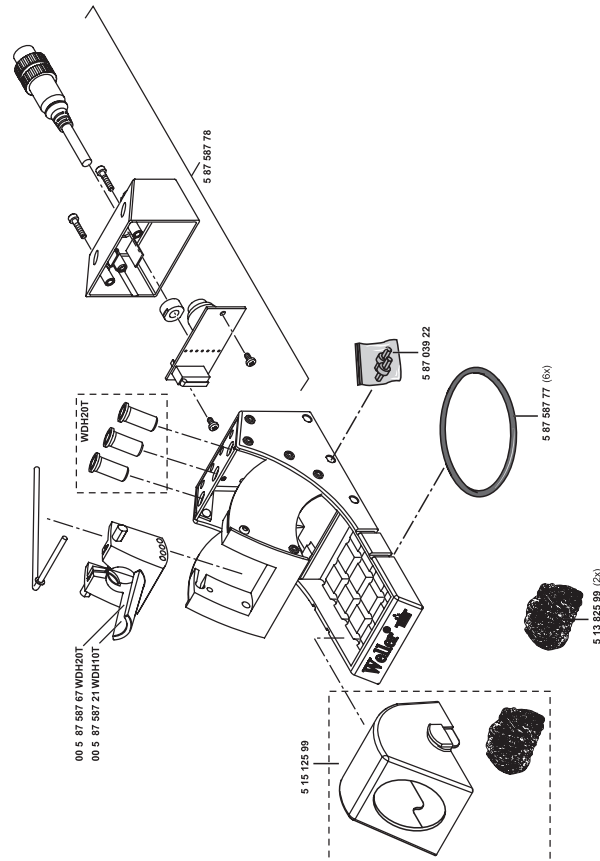


## WDD 81V

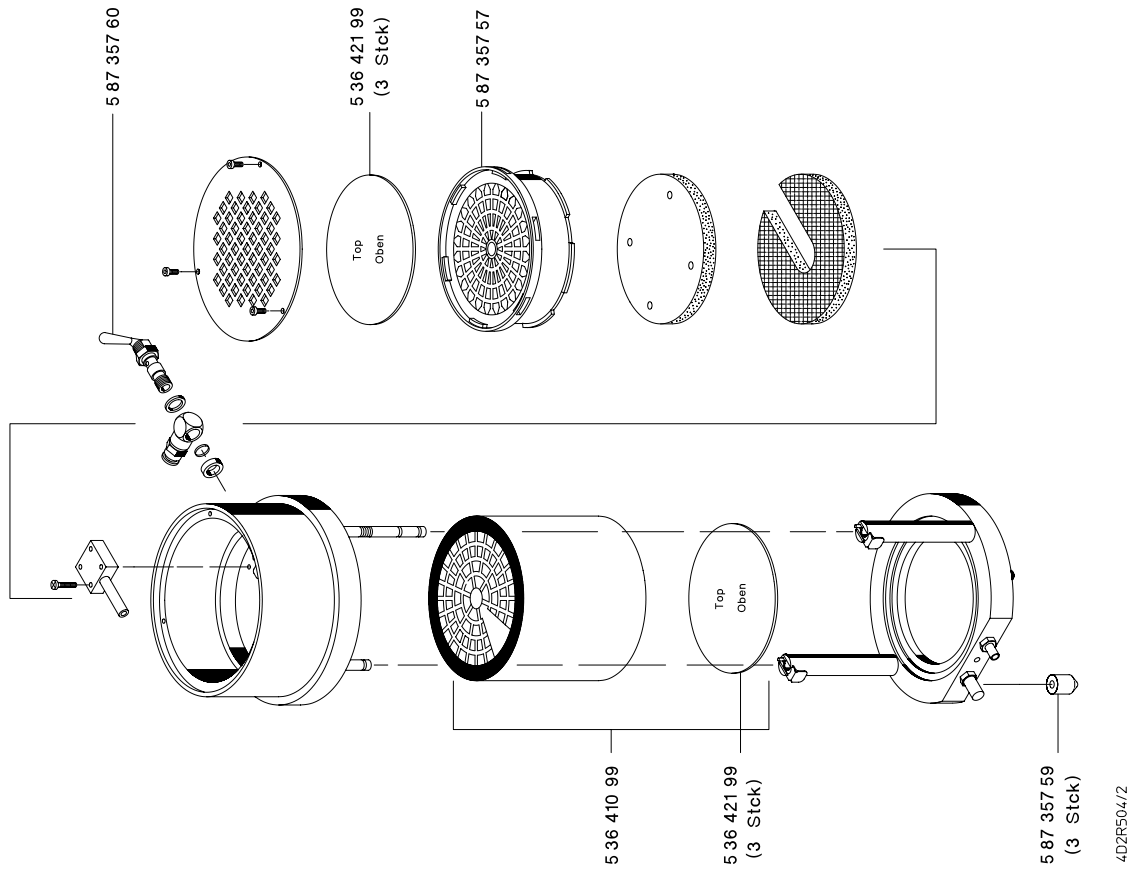


4D9R7Z2

## WDH 10T / 20T

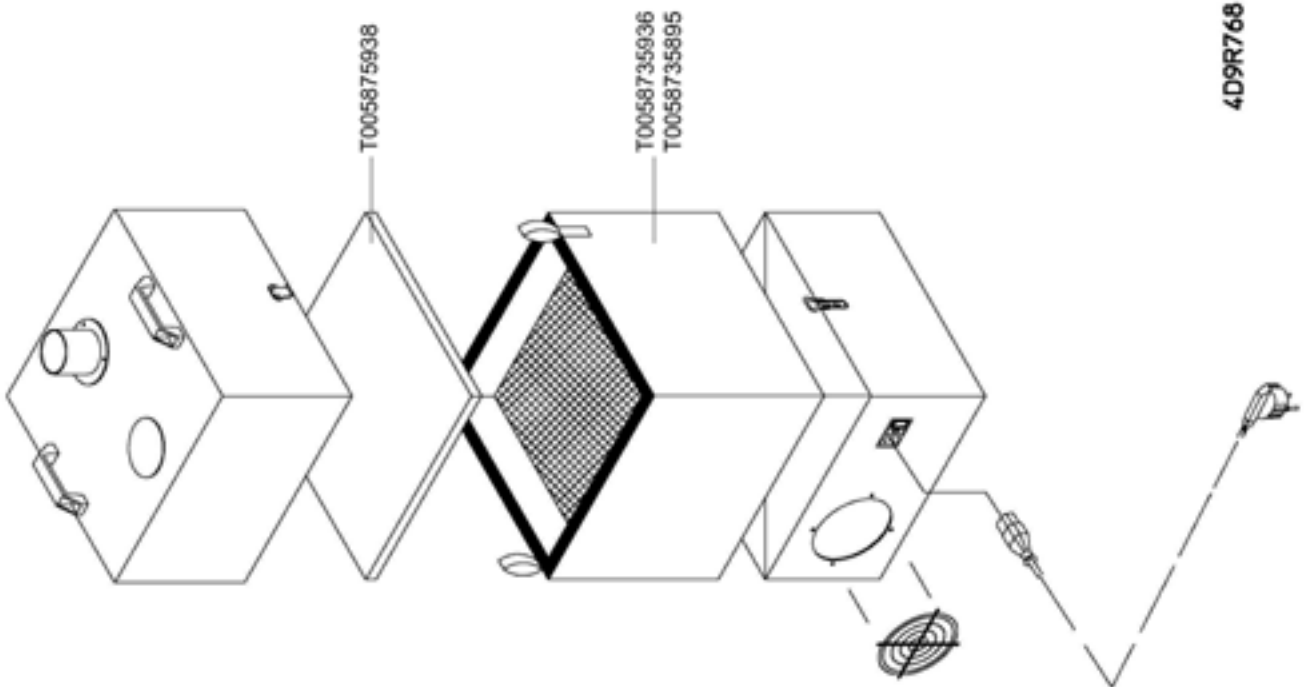


## WFE



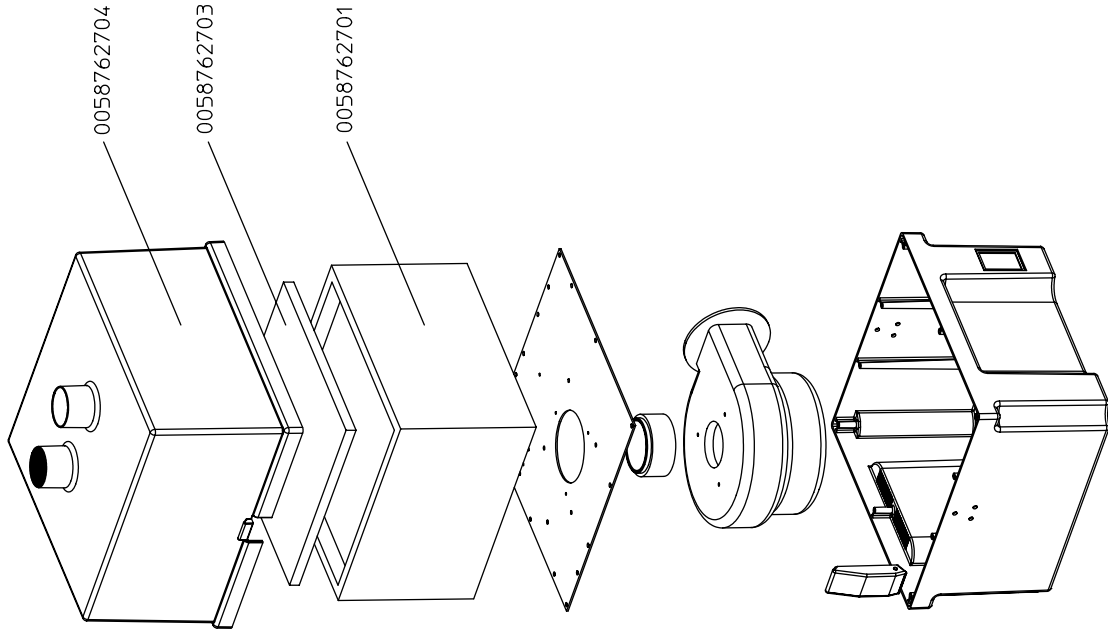
4D2R504/2

## WFE 2S



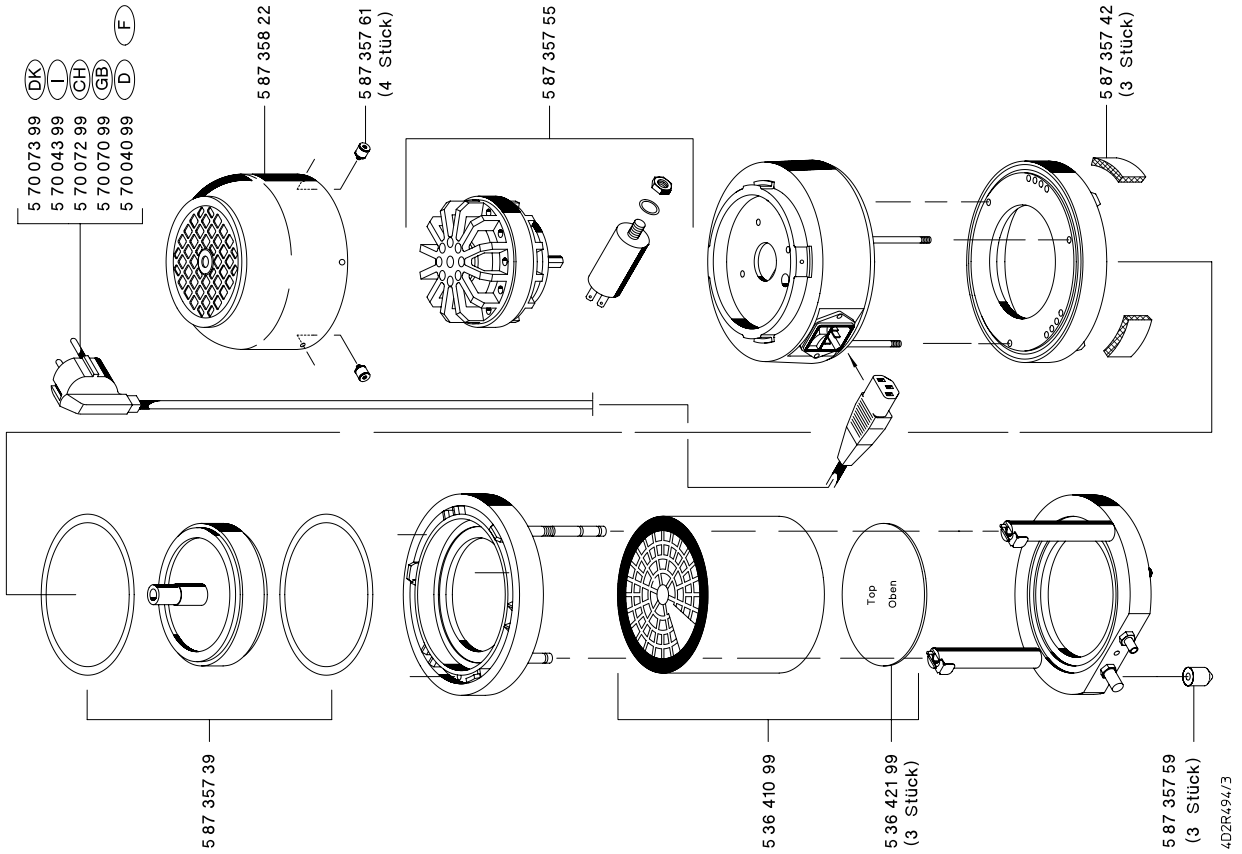
4D9R768

## WFE 2ES



4D9R927

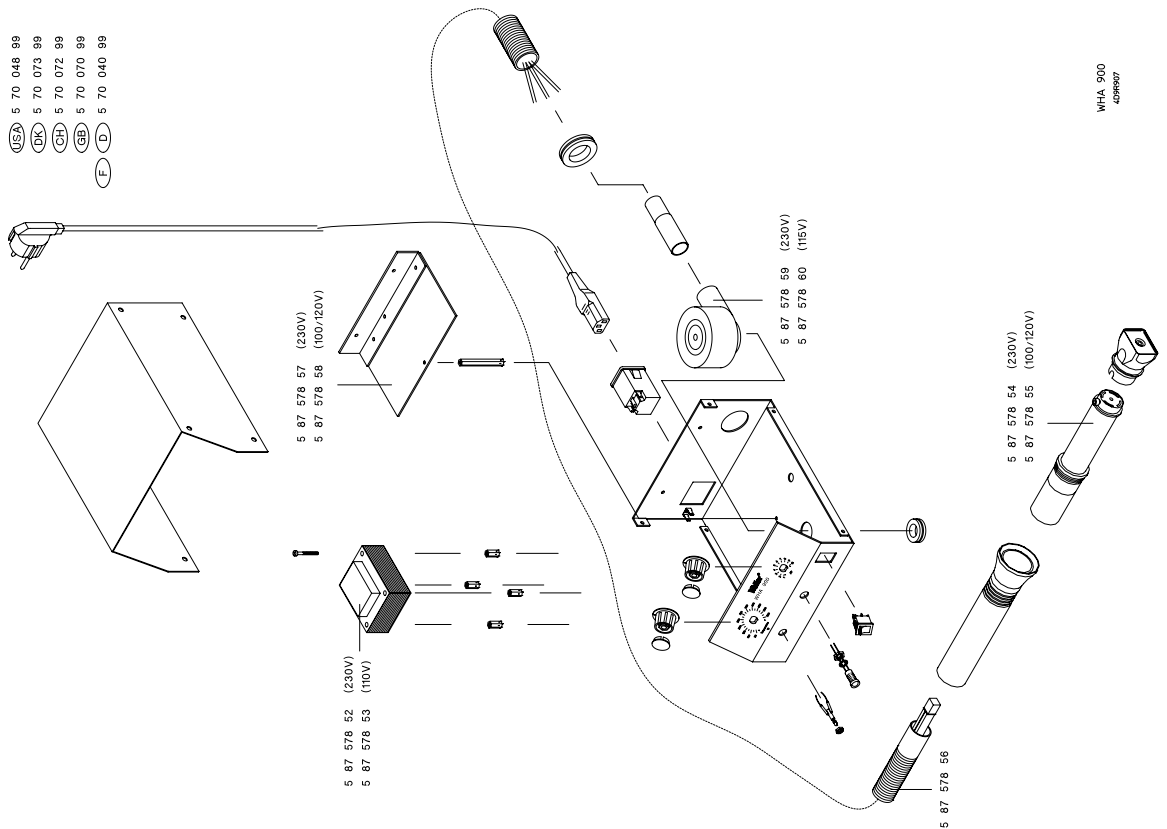
## WFE P



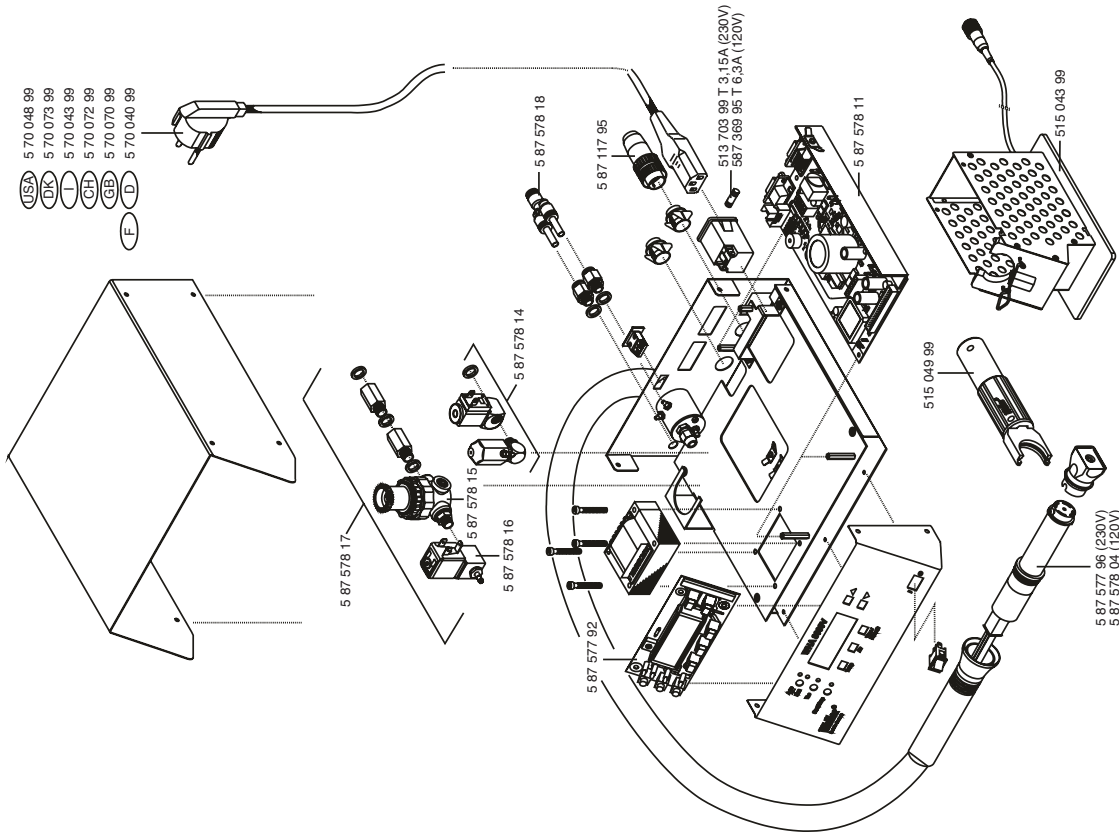
## WFE 4S



## WHA 900

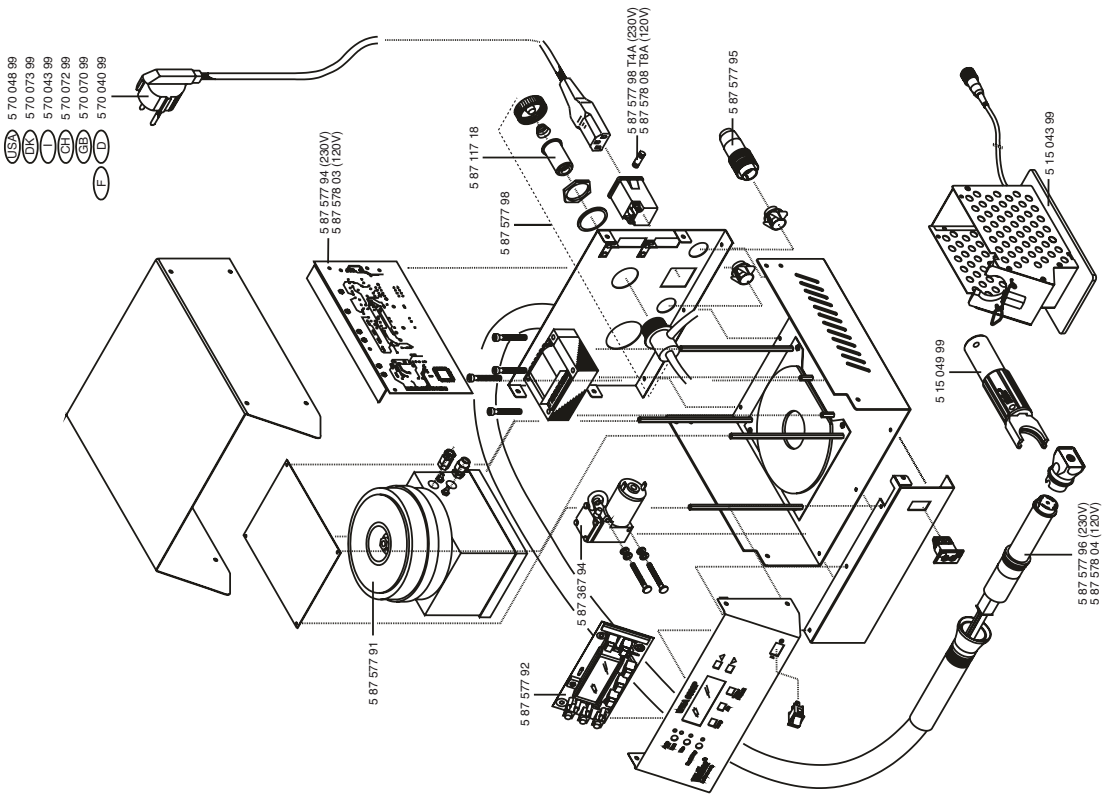


## WHA 3000V



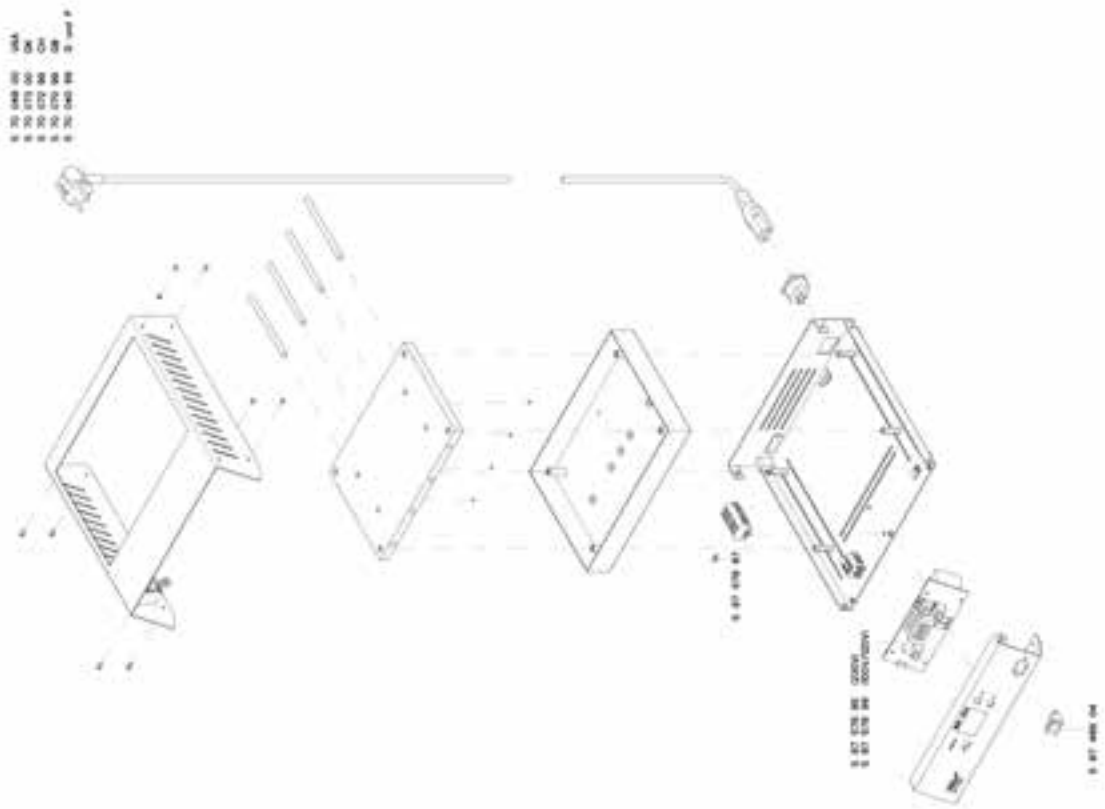
4D9R832

## WHA 3000P

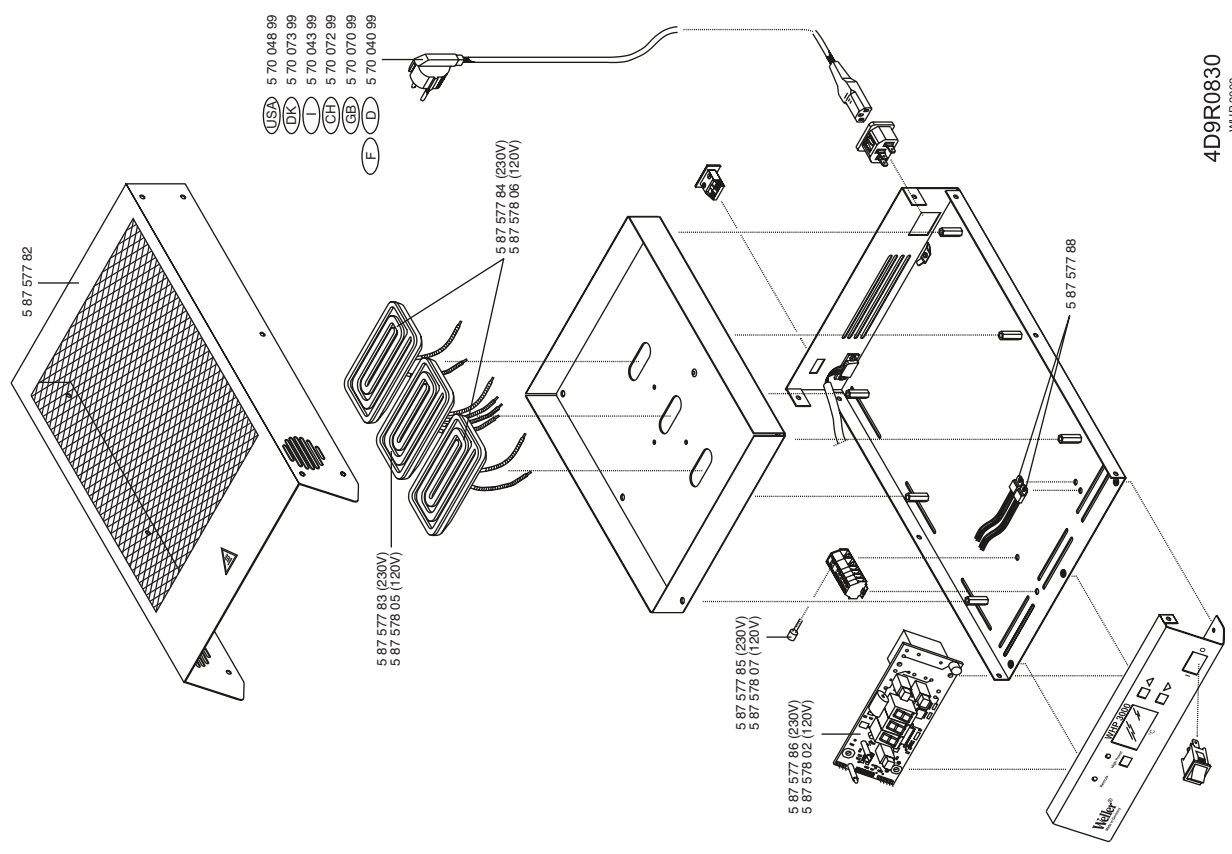


4D9R0829  
WHA.3000P

## WHP 1000

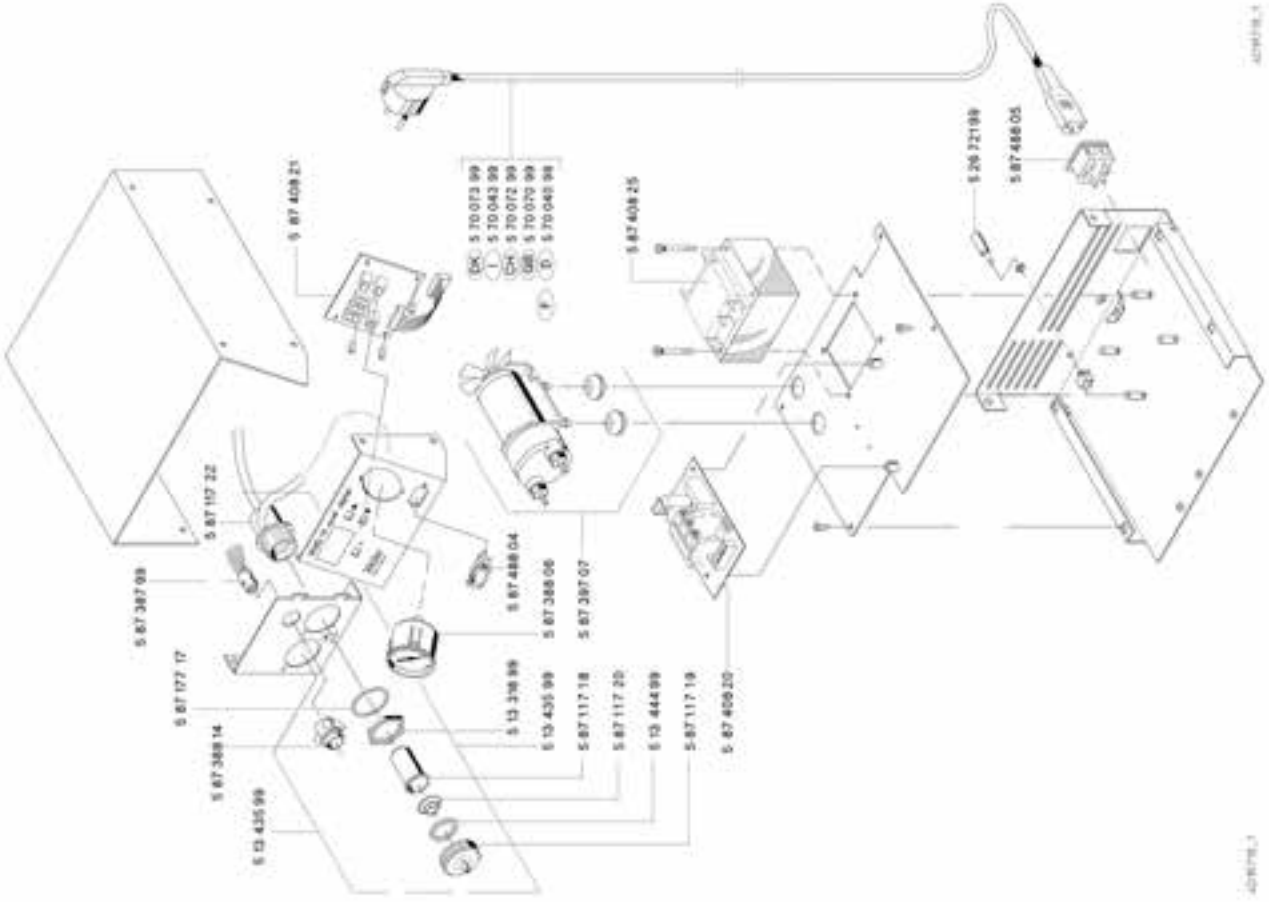


## WHP 3000

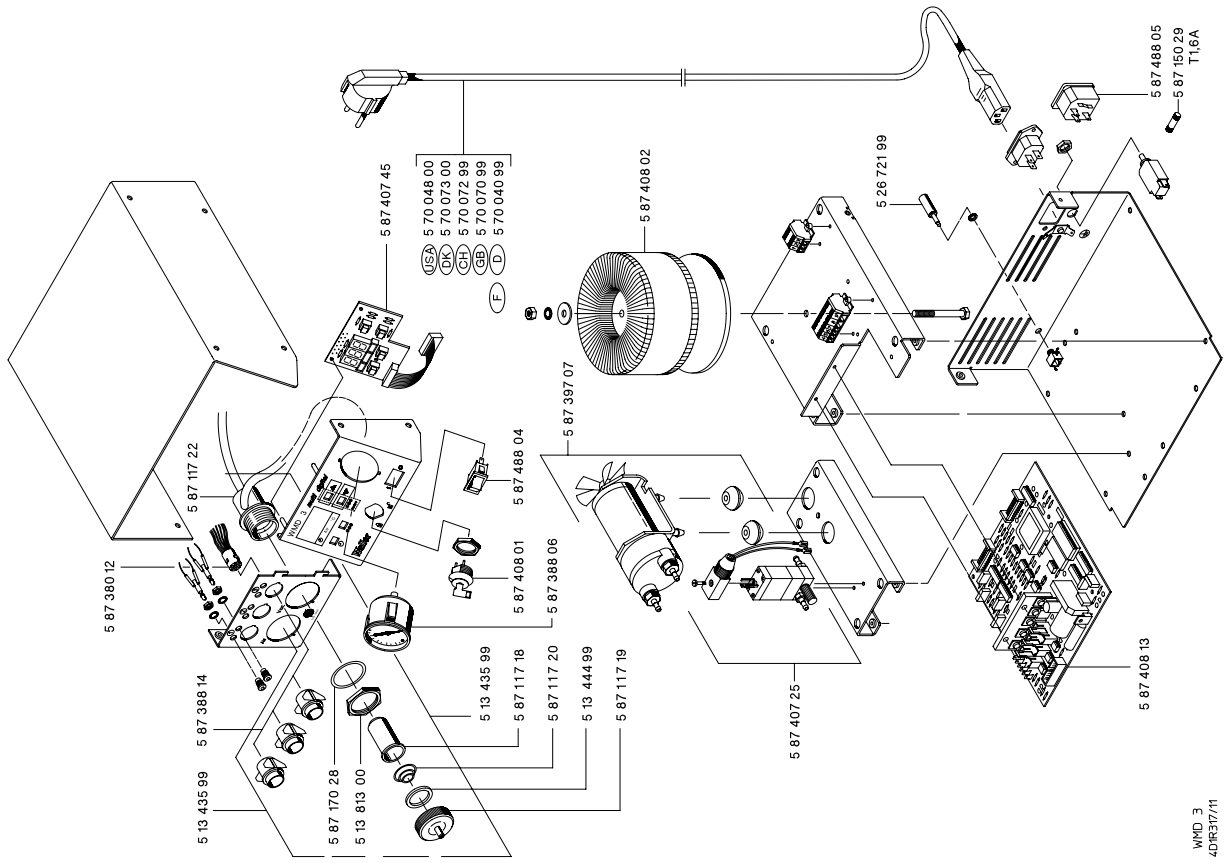




## WMD 1S

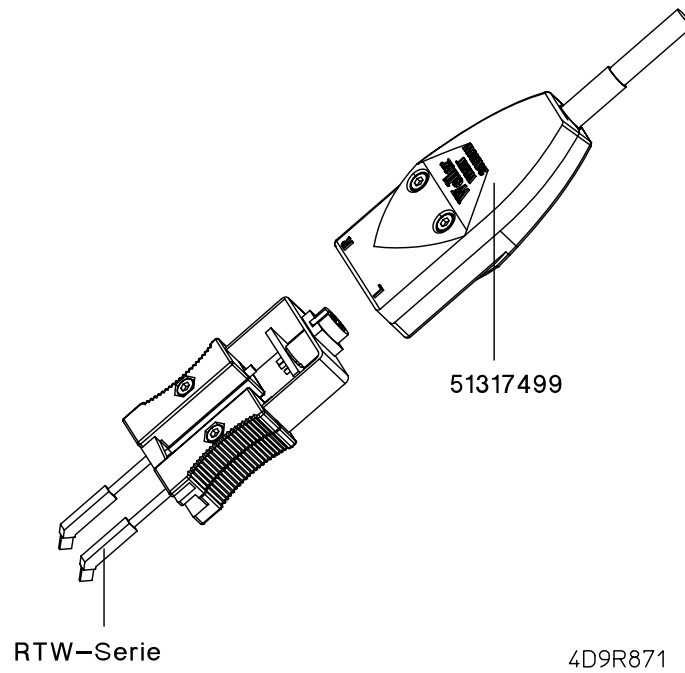


## WMD 3 / WMD 3K2

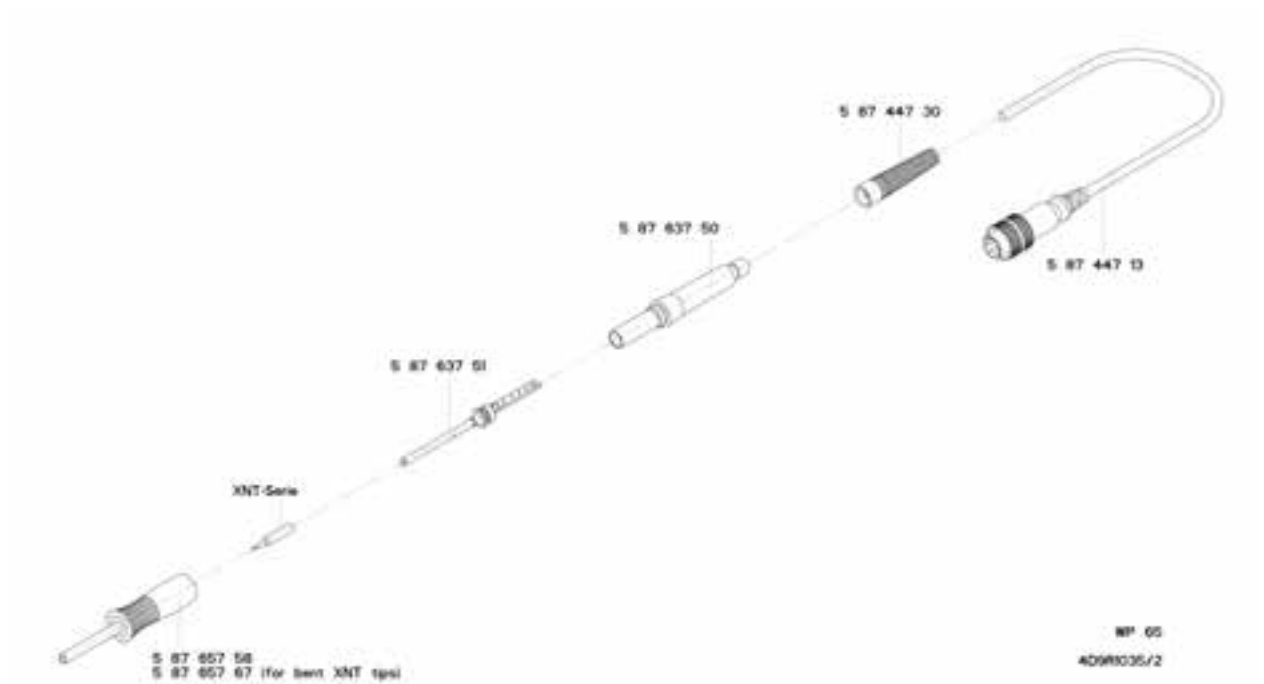


WMD 3  
4DR317/1

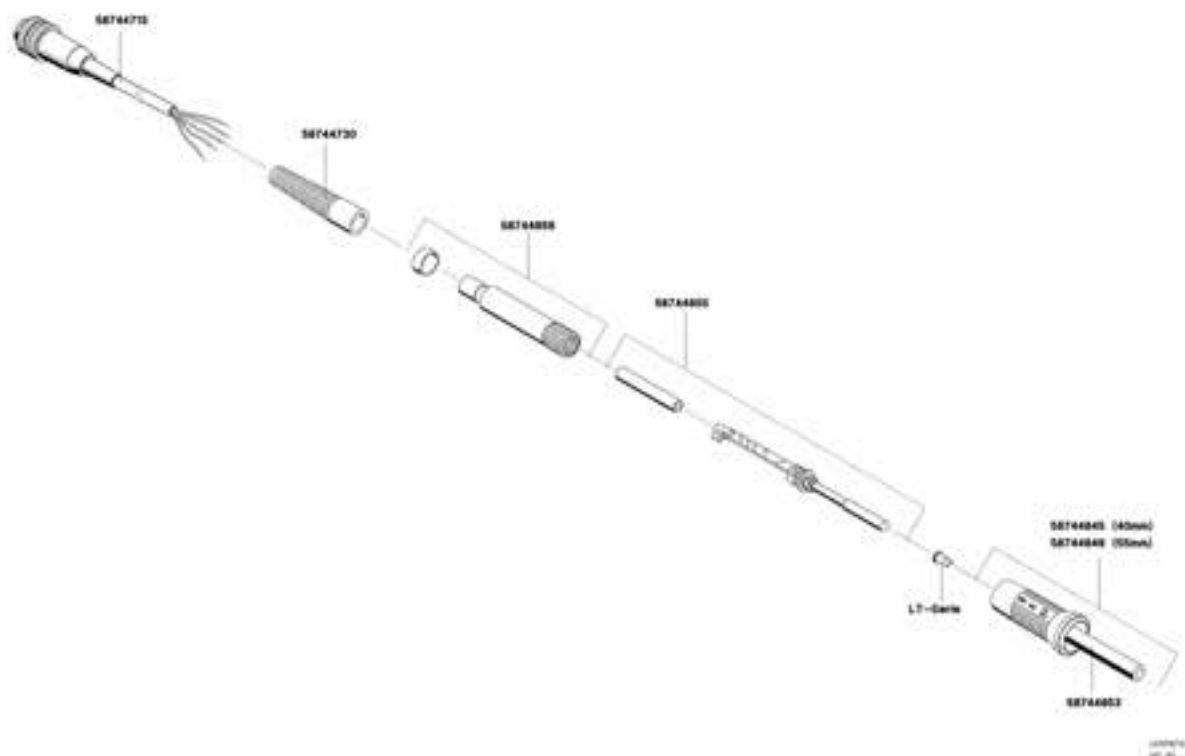
## WMRT



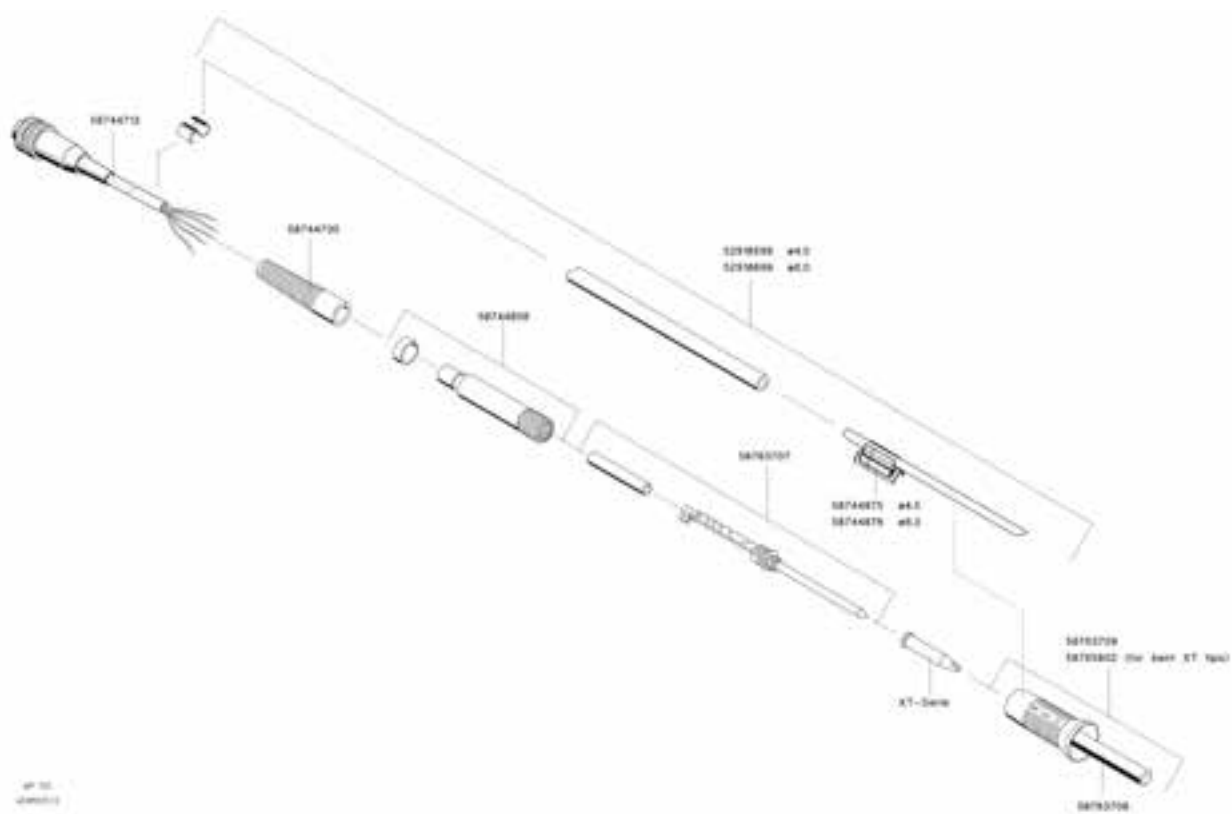
## WP 65



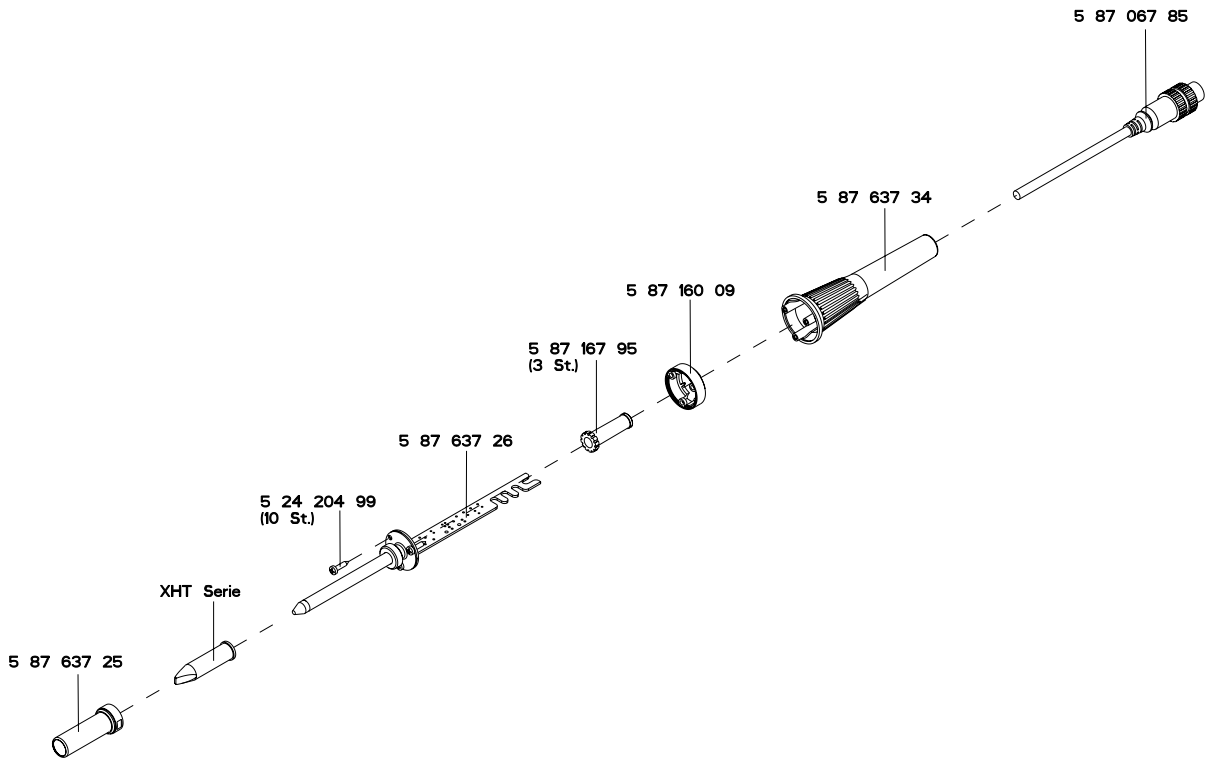
## WP 80



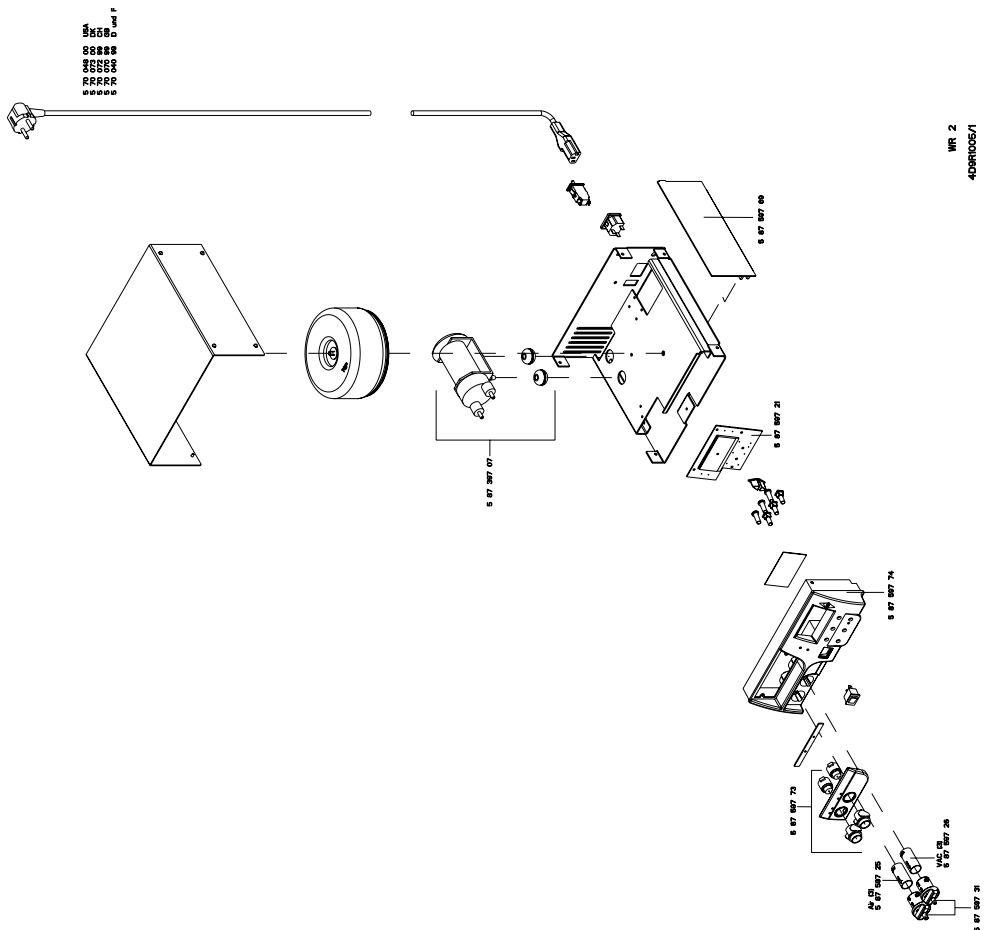
## WP 120



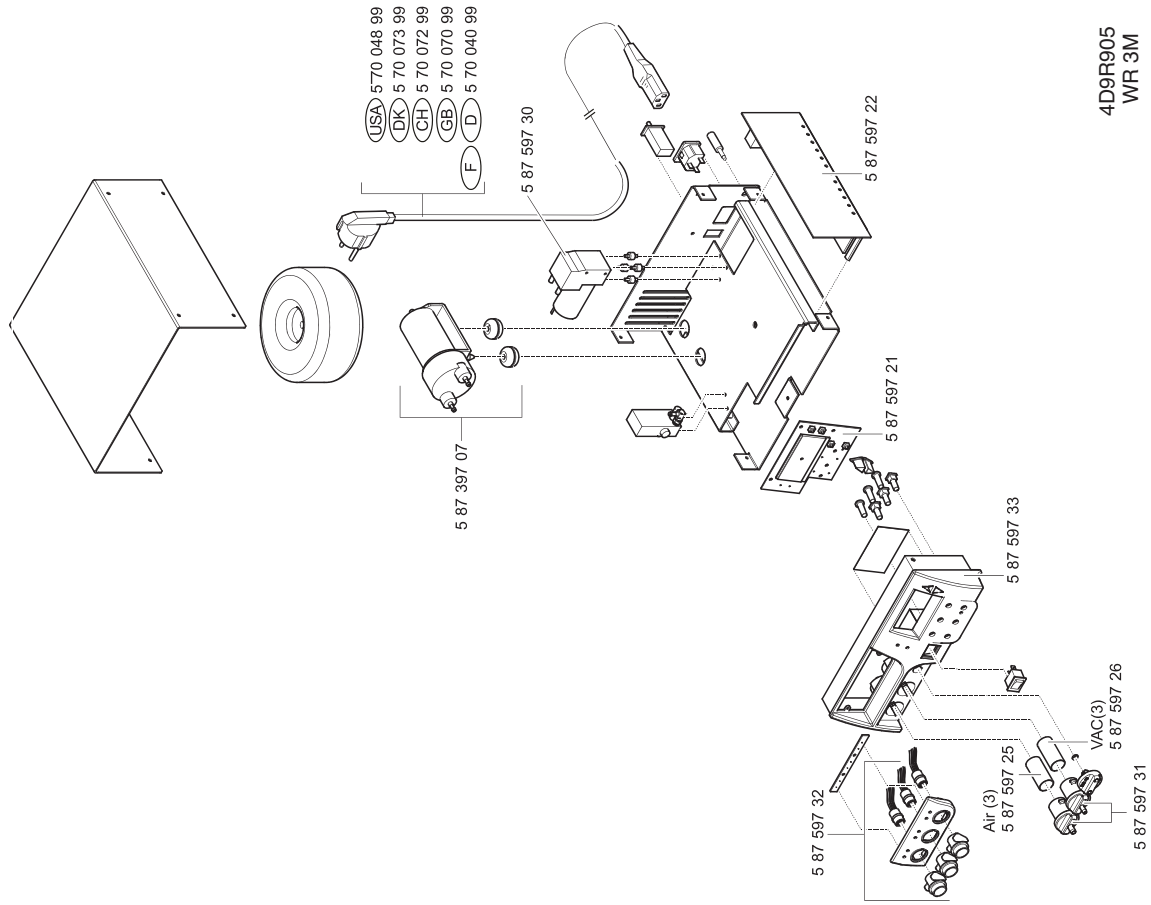
## WP 200



## WR 2

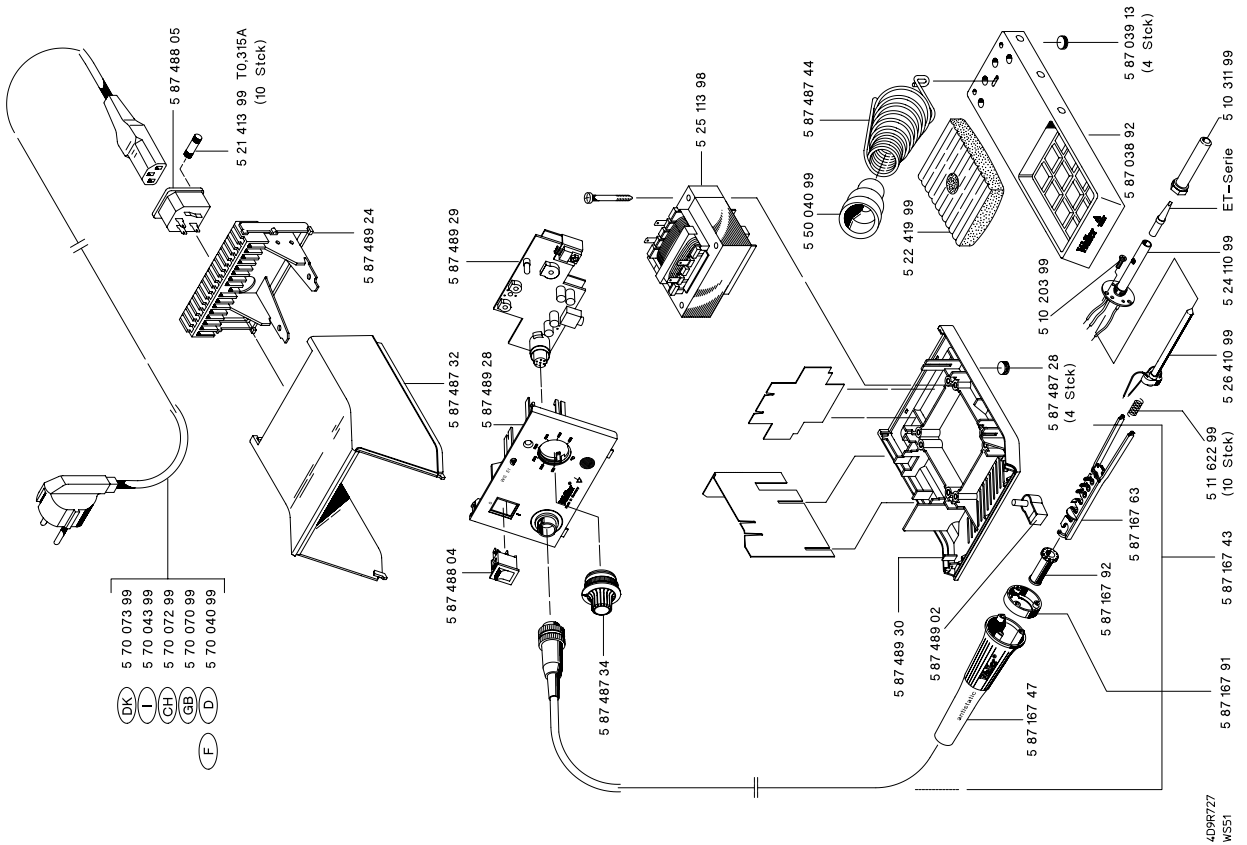


## WR 3M



4D9R905  
WR 3M

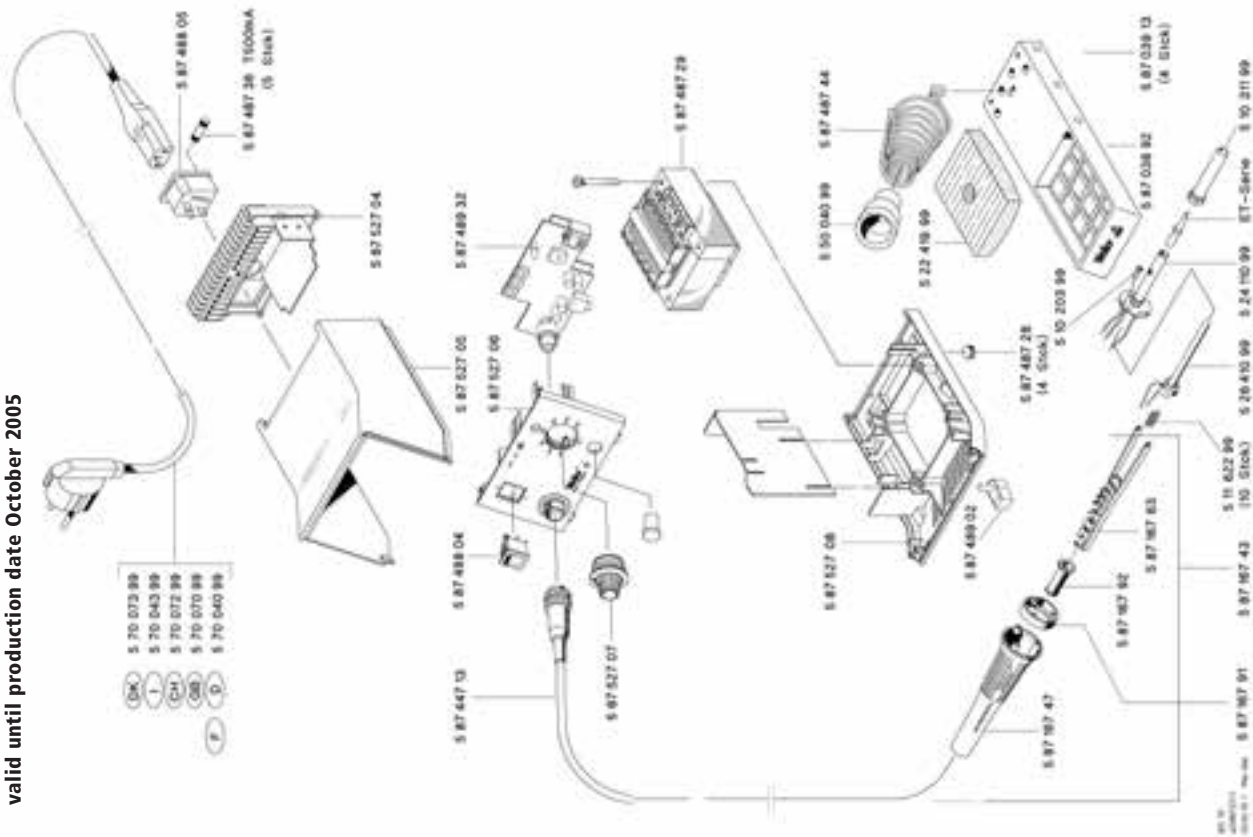
## WS 51 consists of PU 81 and soldering iron valid from production date November 2005



4D9R727  
WS51

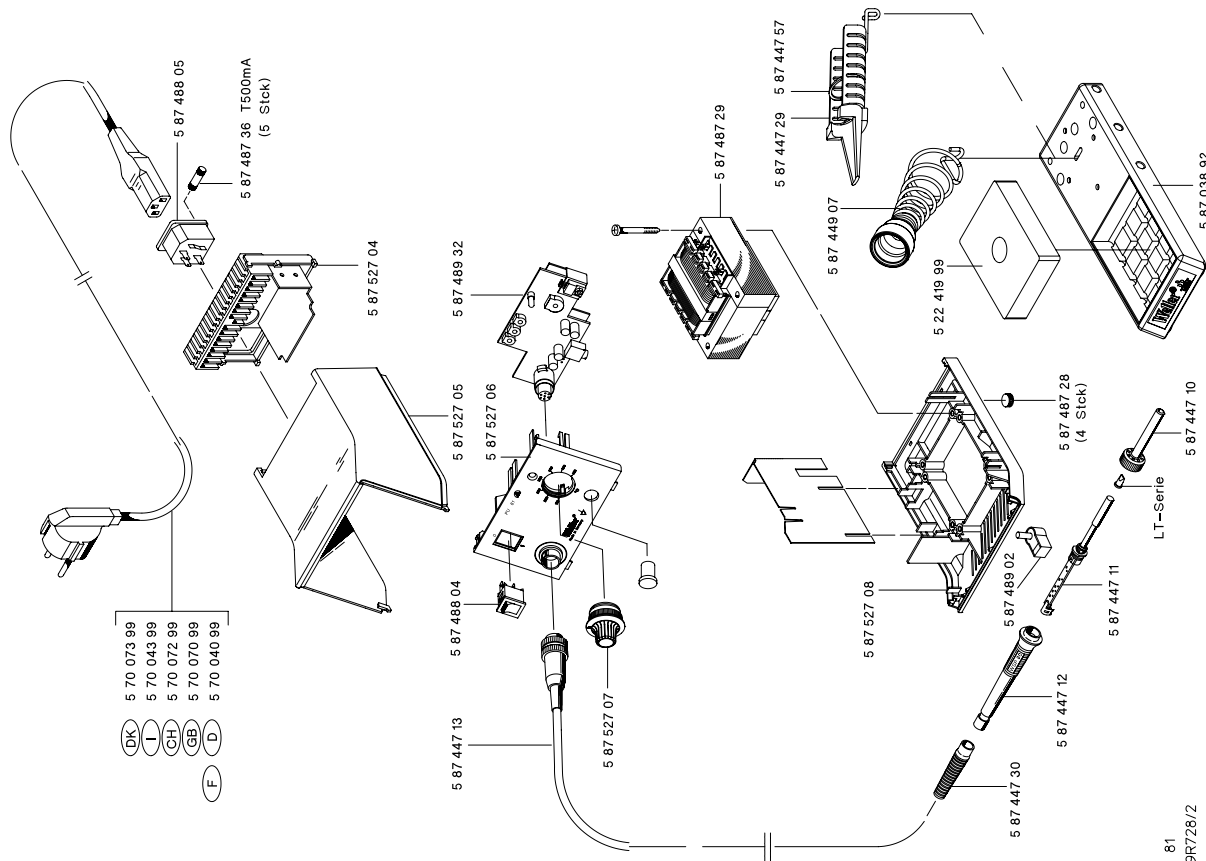
## WS 51

valid until production date October 2005



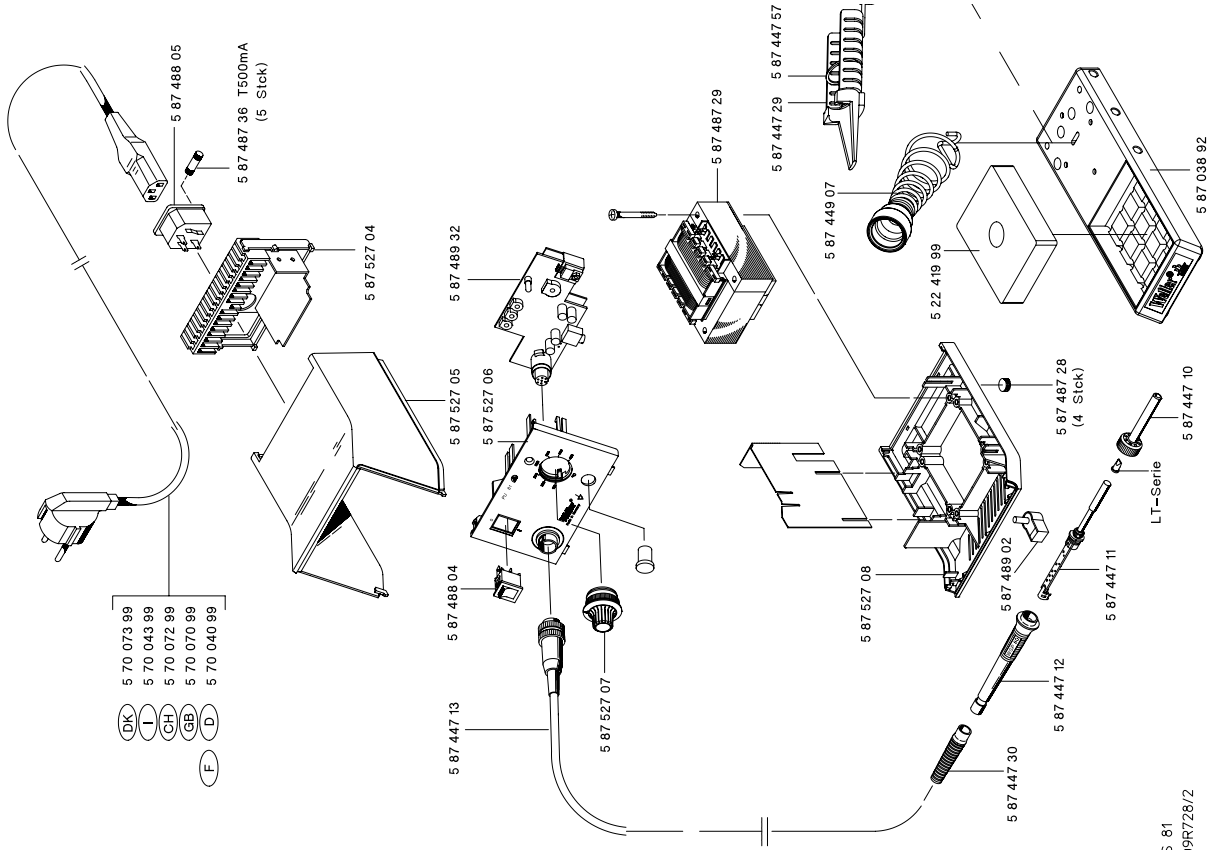
## WS 81

valid until production date October 2005



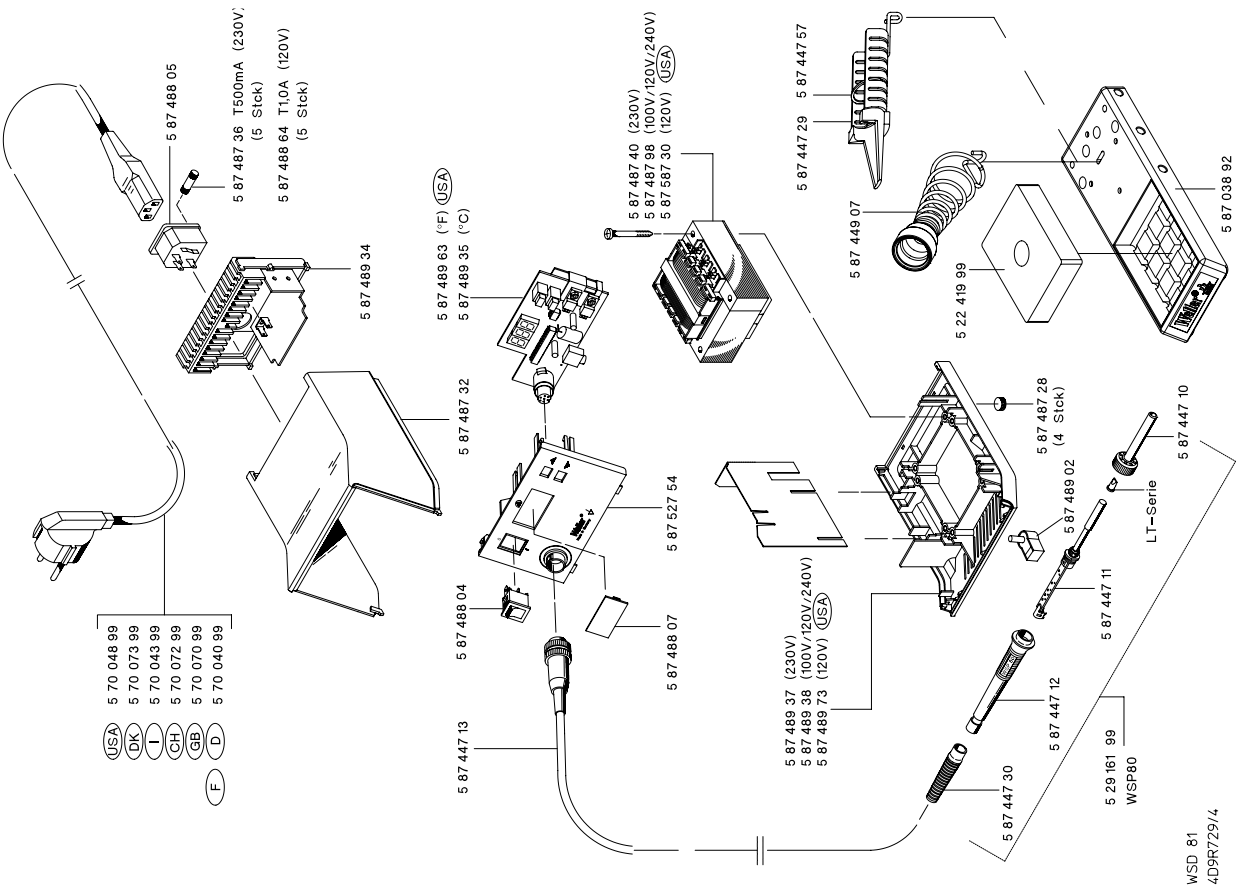
# Exploded Drawings

**WS 81** consists of PU 81 and soldering iron WSP 80  
 valid from production date November 2005



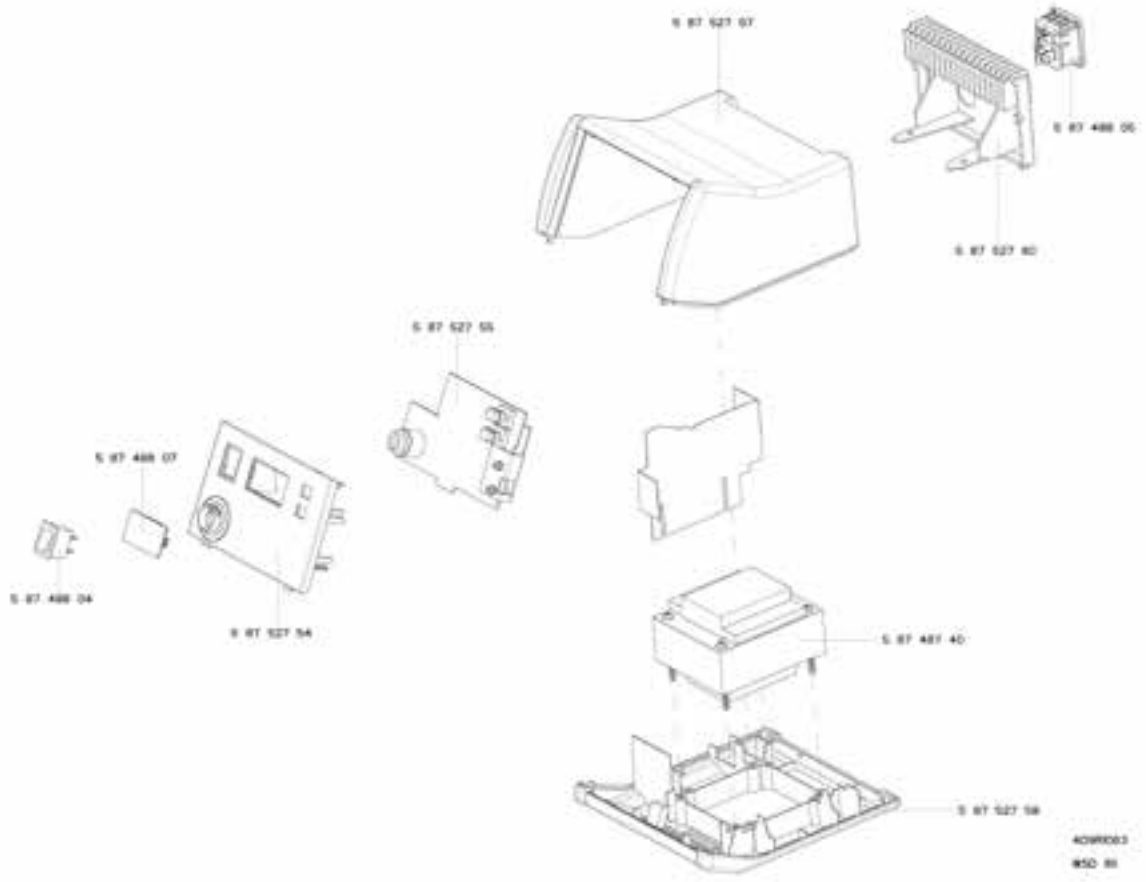
WS 81  
4D9R728/2

**WSD 81**

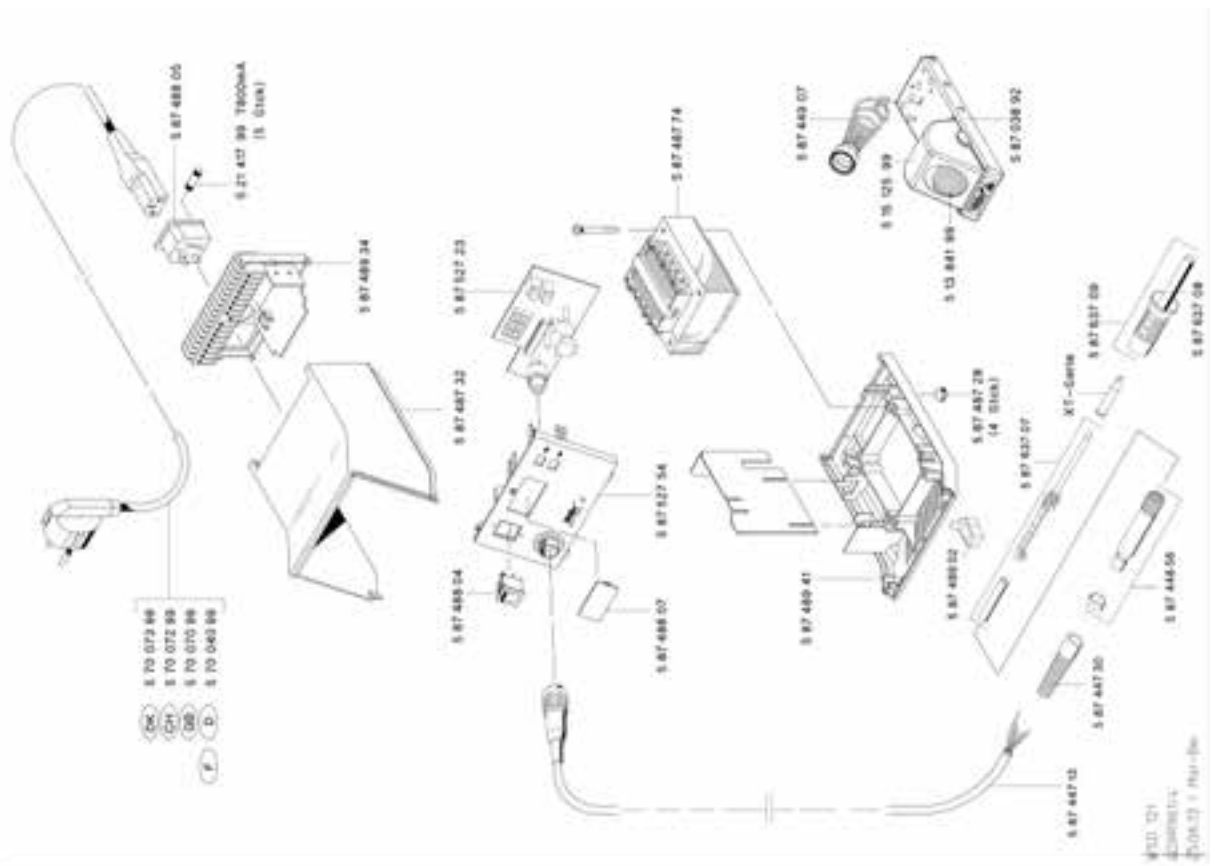


WSD 81  
4D9R729/4

## WSD 81i

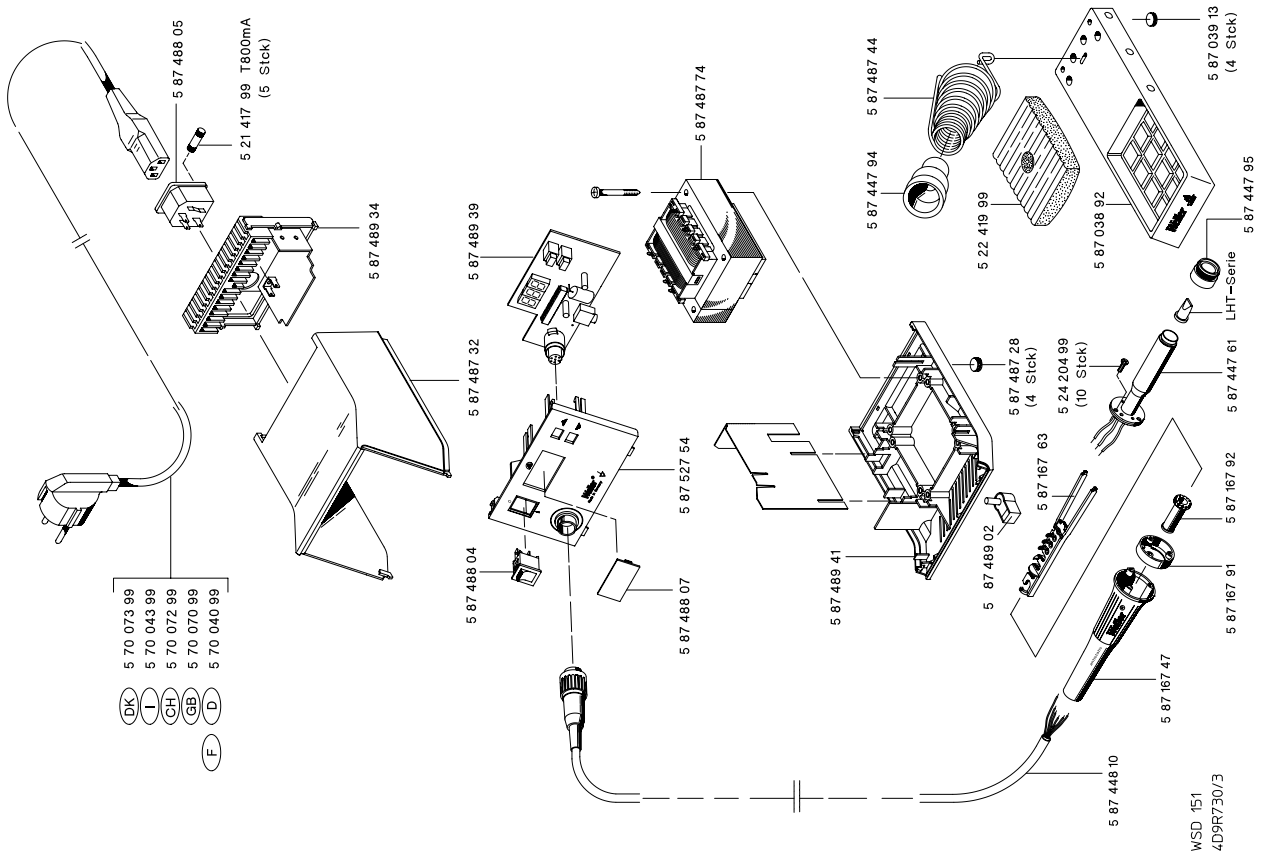


## WSD 121

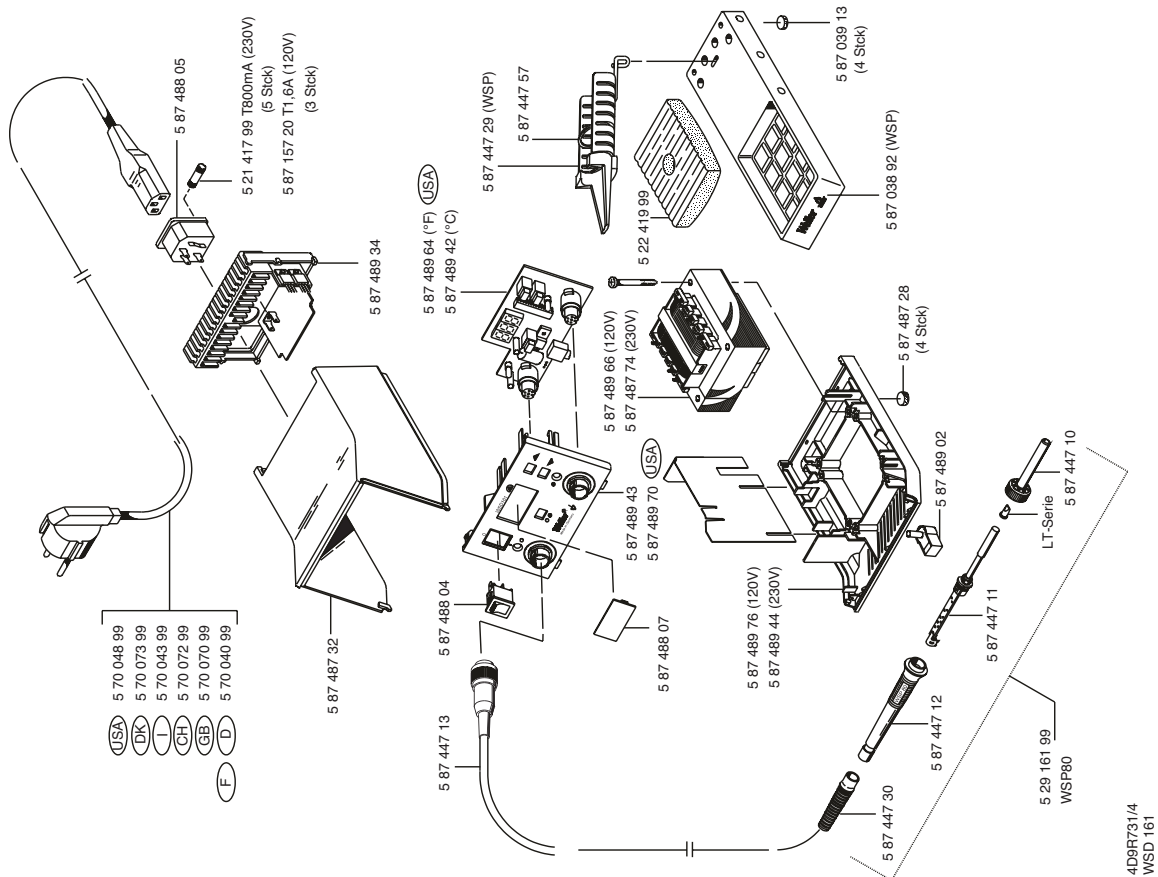




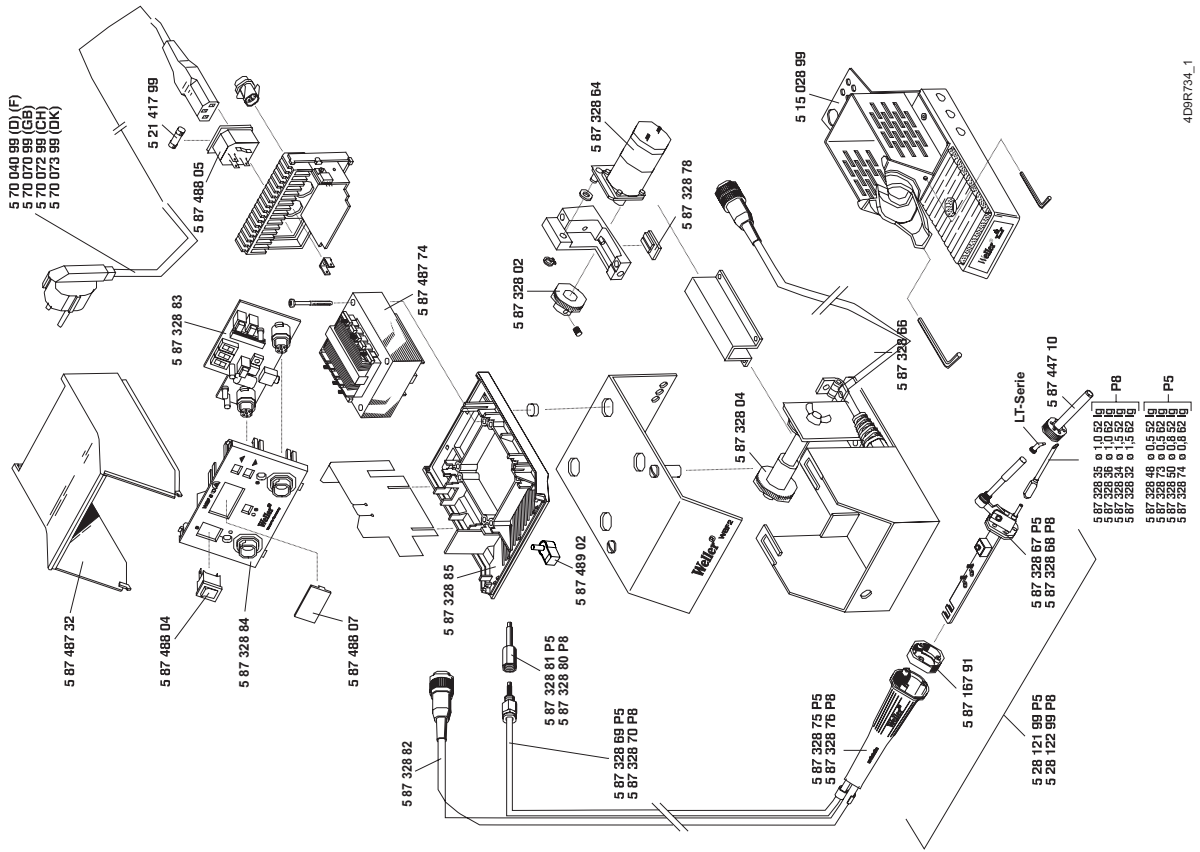
## WSD 151



## WSD 161

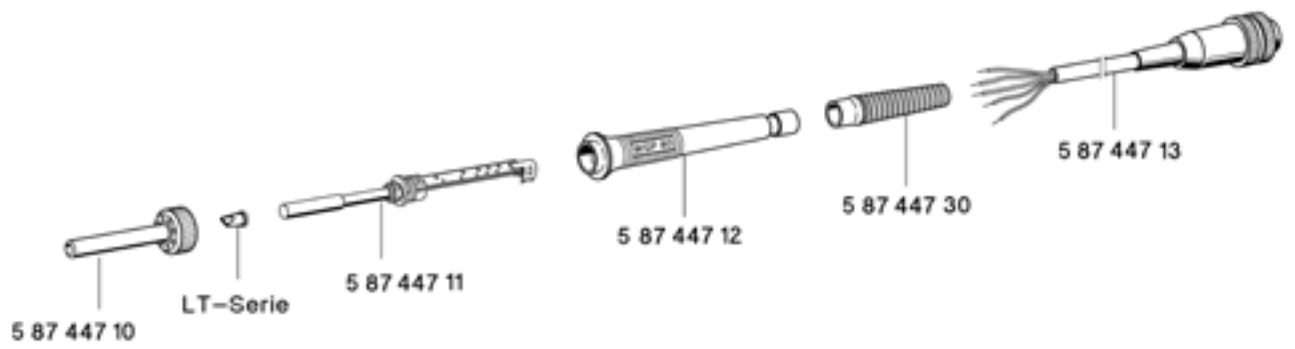


# WSF 81D

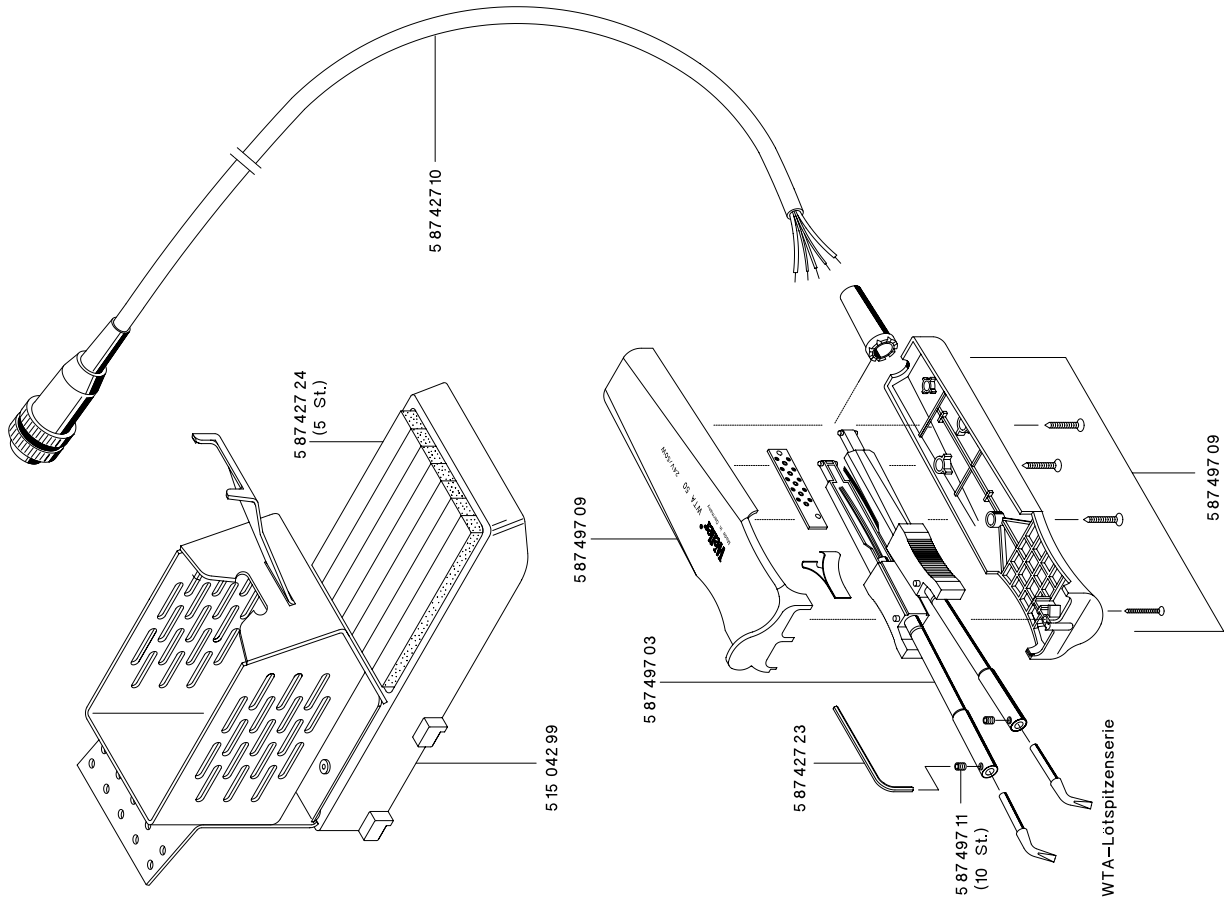


4D9R734\_1

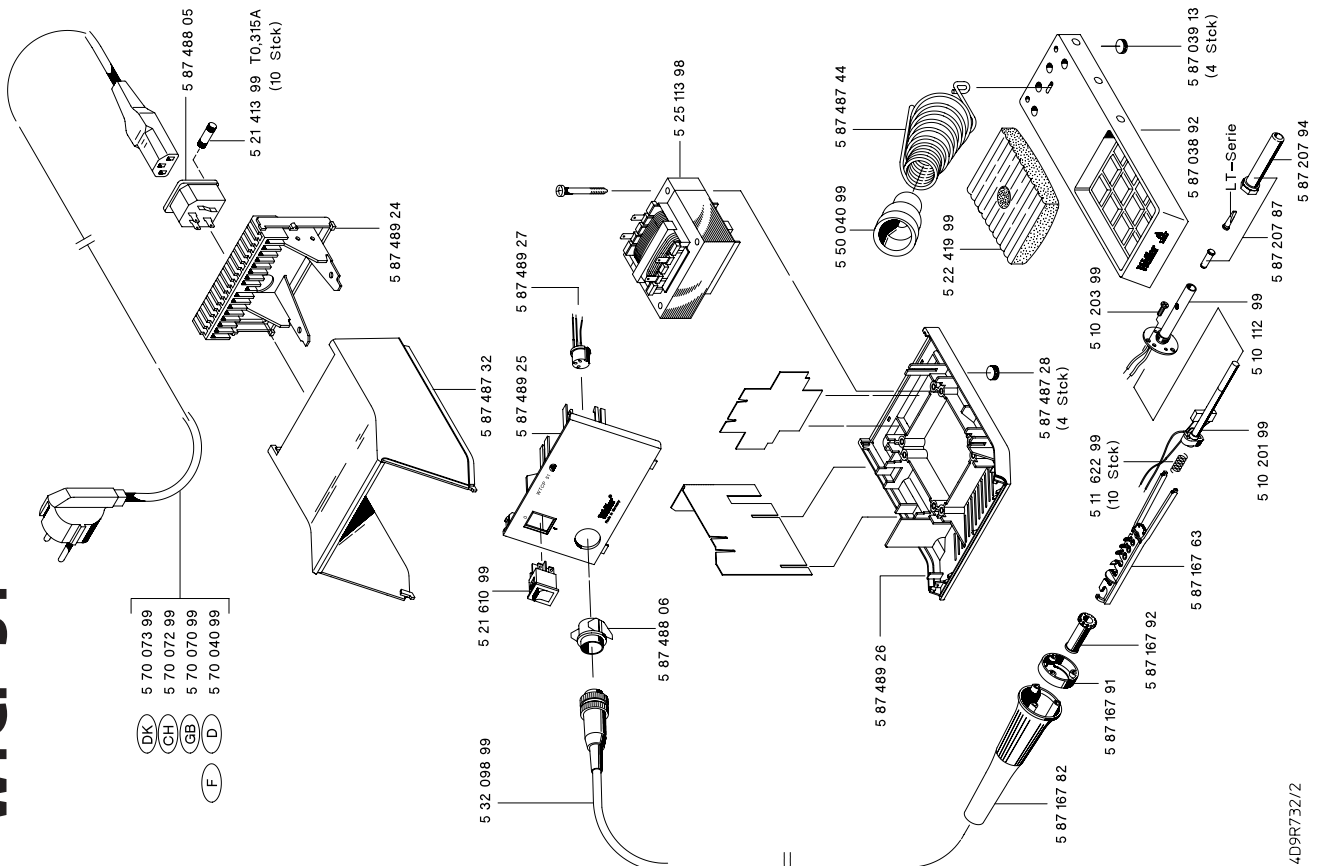
# WSP 80



## WTA 50

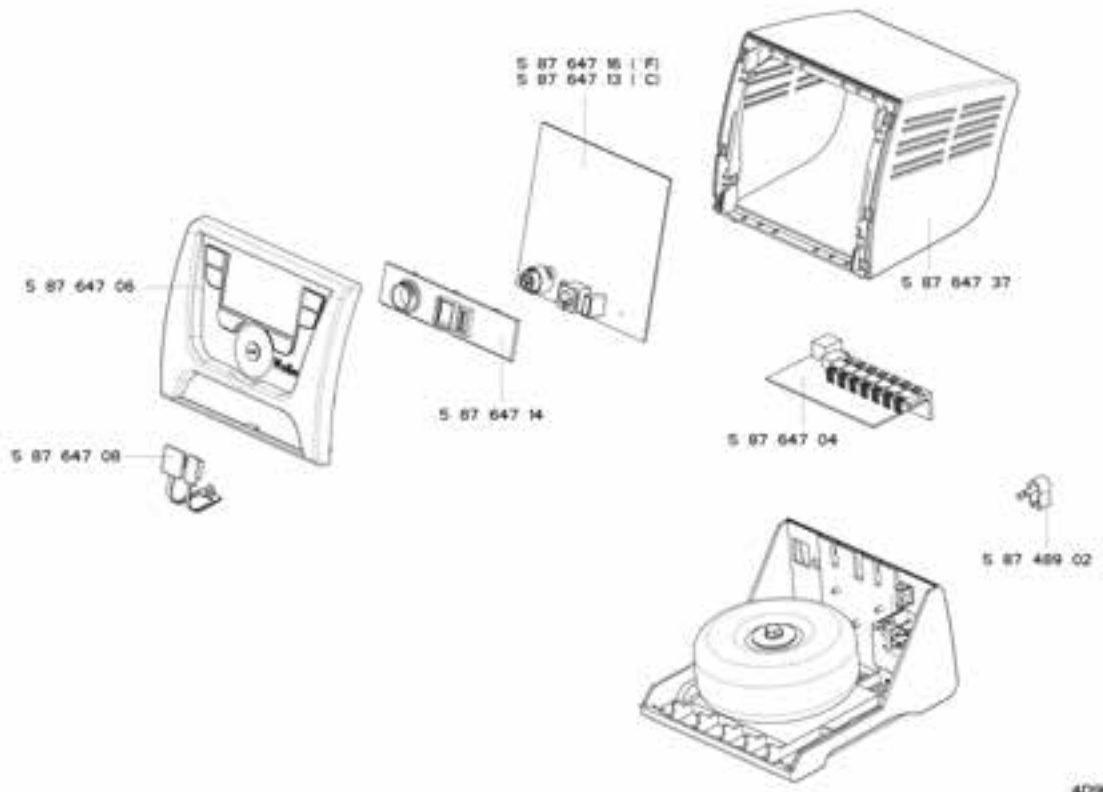


## WTCP 51

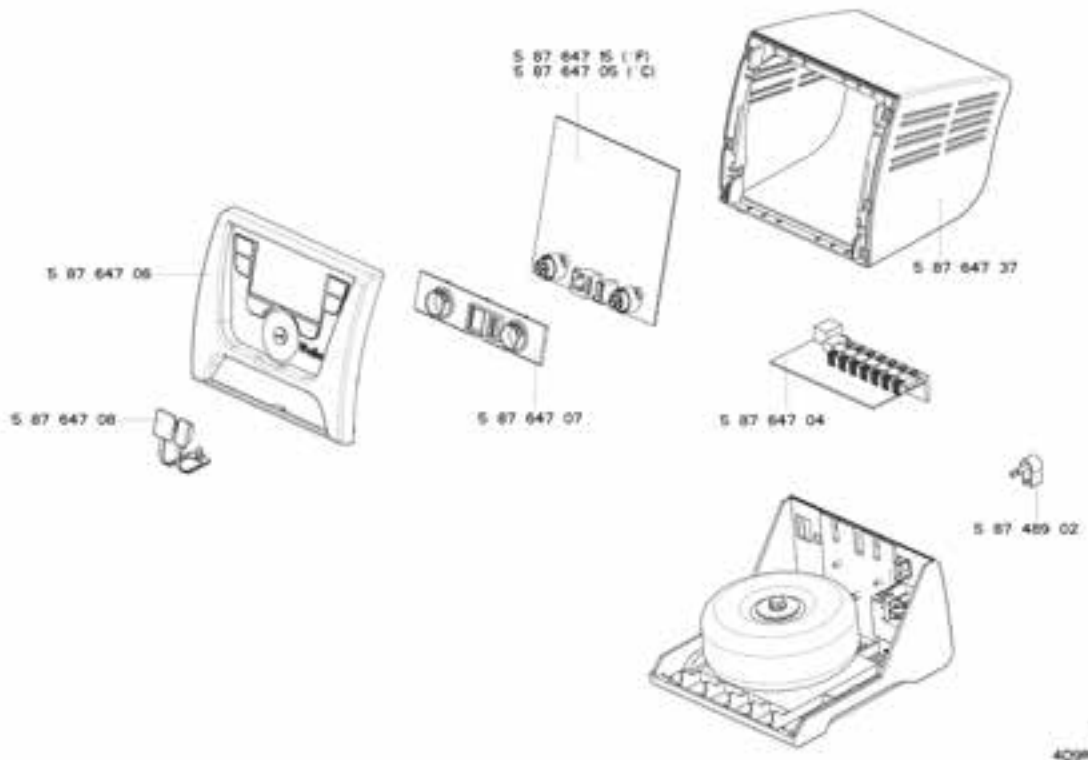


- 5 70 073 99
  - 5 70 072 99
  - 5 70 070 99
  - 5 70 040 99
- (DK) (CH) (GB) (D) (F)

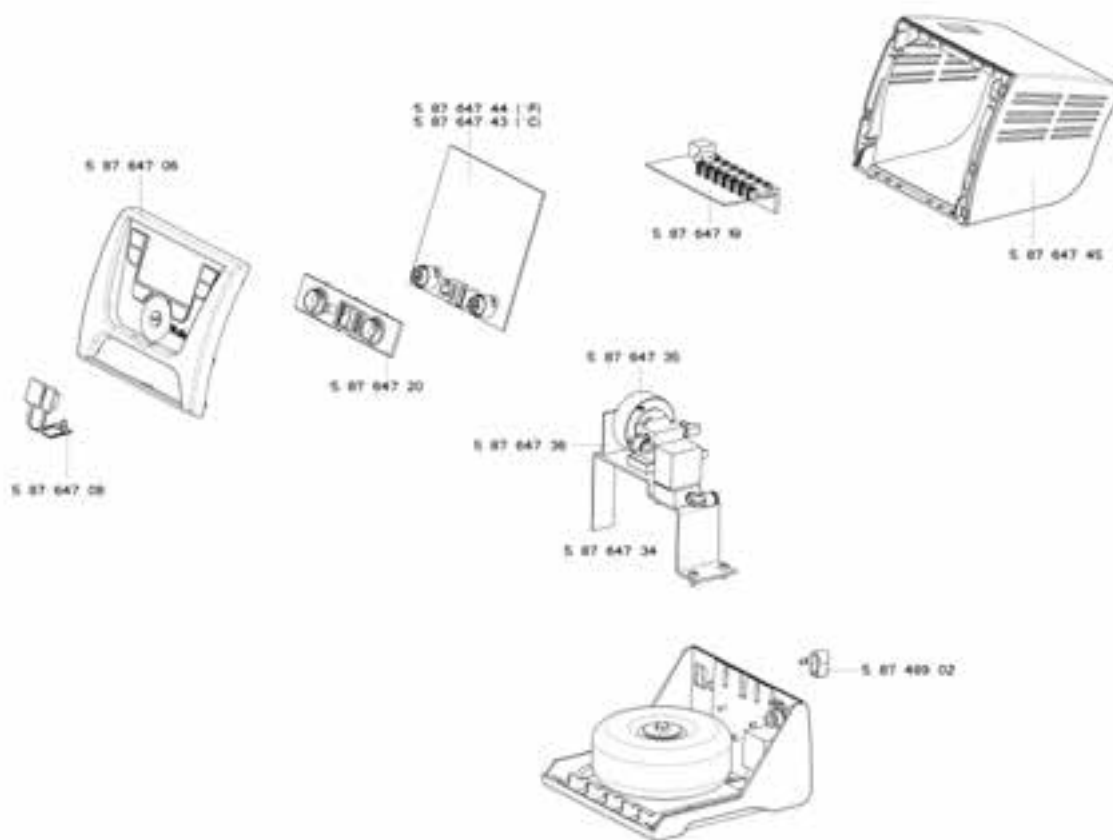
## WX 1



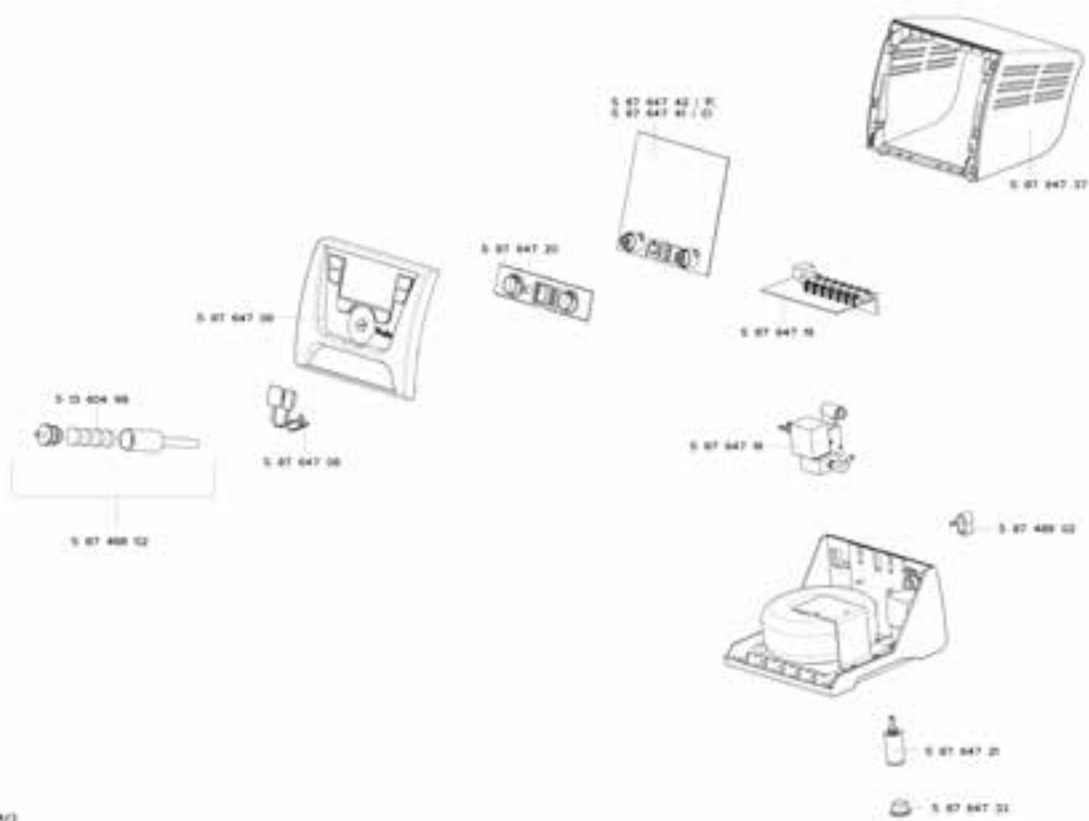
## WX 2



## WXA 2

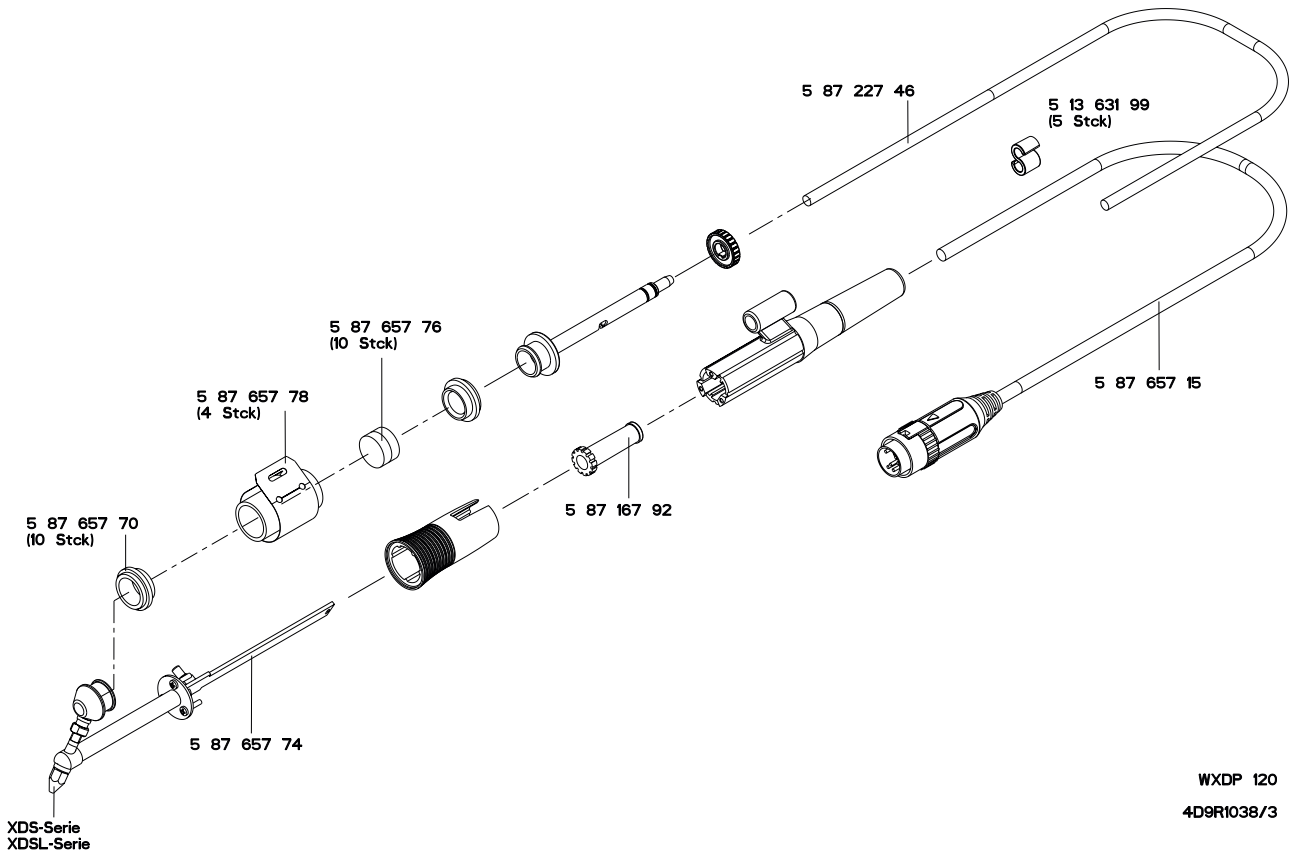


## WXD 2

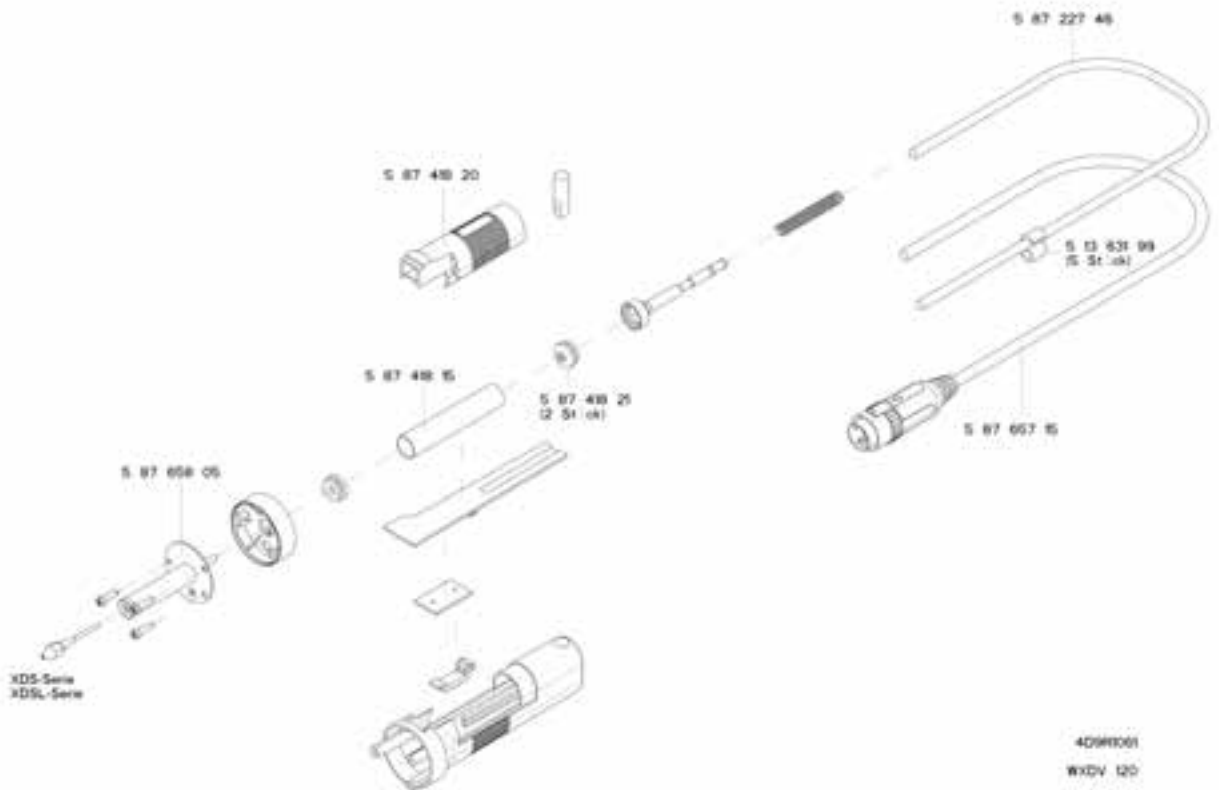


WXD 2  
ADM004(2)

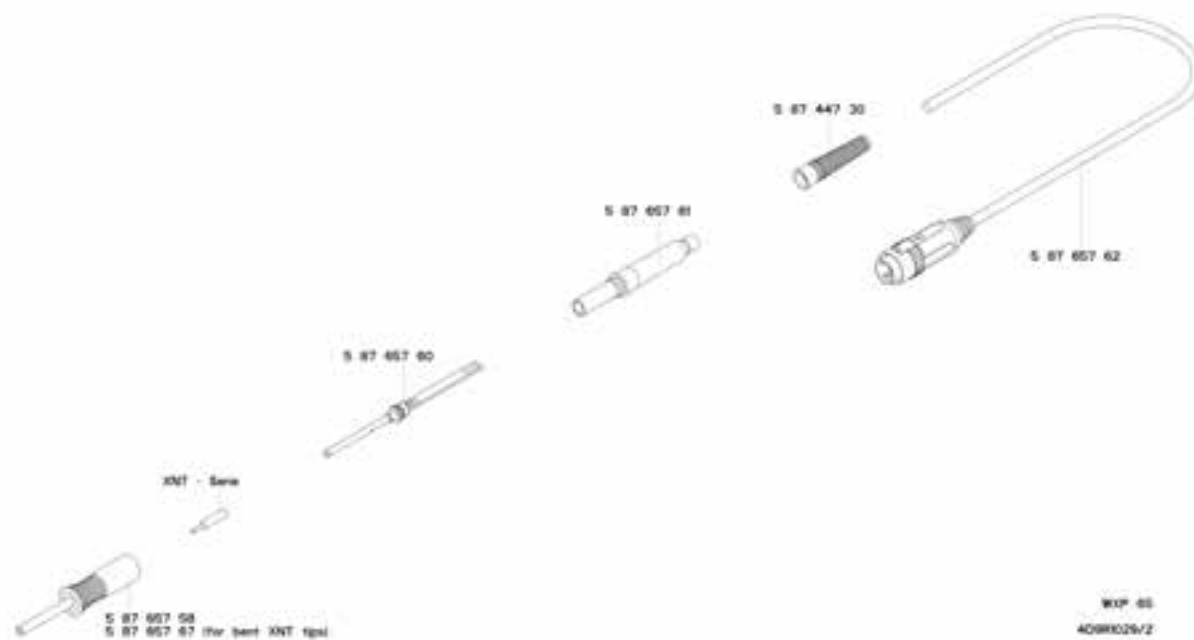
## WXDP 120



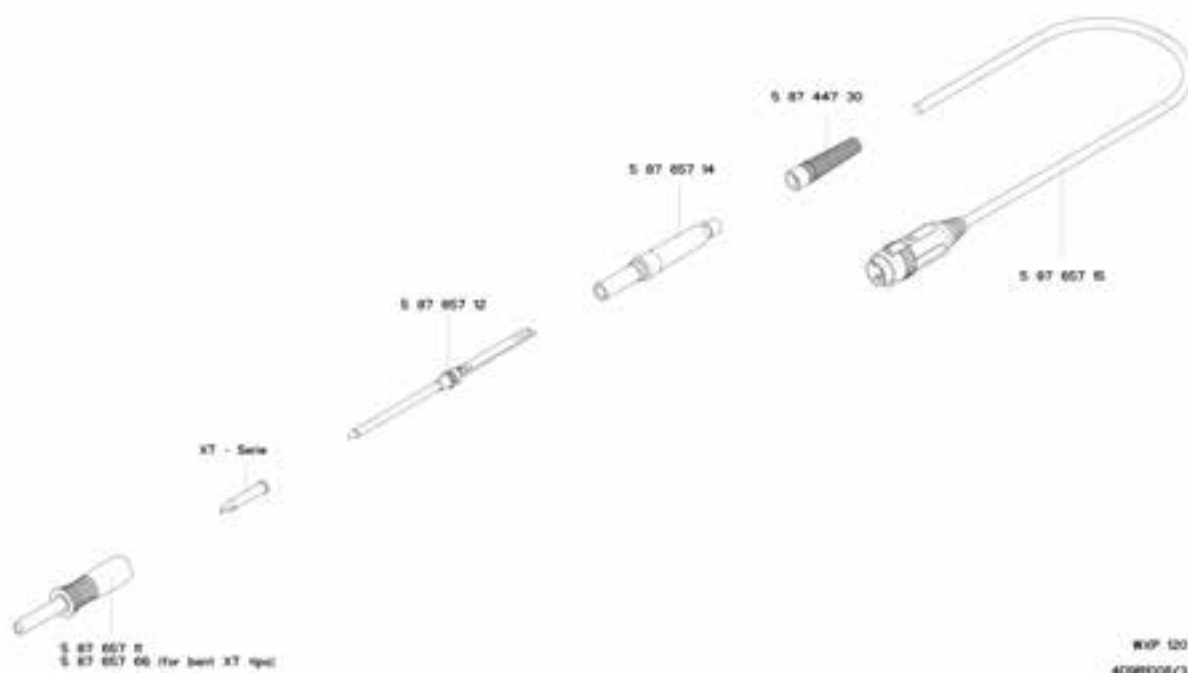
## WXDV 120



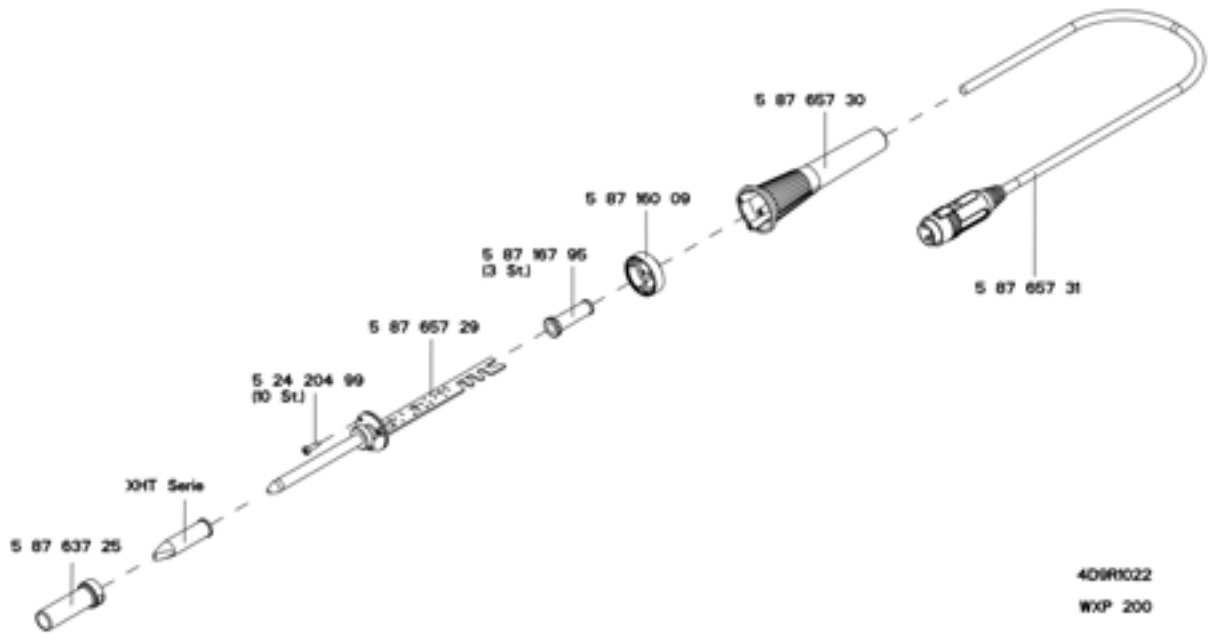
## WXP 65



## WXP 120



## WXP 200





# Numerical Index

Order No.	Page
185-1.5MM	216
185-10MM	216
185-10MM	216
185-2.5MM	216
185-2MM	216
185-3MM	216
185-4MM	216
185-5MM	216
185-6MM	216
185-7MM	216
185-8MM	216
185-9MM	216
320-000X	217
320-00X	217
320-0X	217
320-1X	217
320-20X	217
320-2X	217
326-000X	217
326-00X	217
326-0X	217
326-1X	217
326-20X	217
326-2X	217
440-1-PZDX	217
440-215-PZDX	217
440-22-PZDX	217
440-2-PZDX	217
440-3-PZDX	217
440-4-PZDX	217
440-TX-05X	215
440-TX-06X	215
440-TX-07X	215
440-TX-08X	215
440-TX-09X	215
440-TX-10X	215
440-TX-15X	215
440-TX-20X	215
440-TX-25X	215
440-TX-27X	215
440-TX-30X	215
440-TX-40X	215
445-000X	215
445-00X	215
445-0X	215
445-10X	215
445-20X	215
445-30X	215
446-0X	214
446-1-PZDX	214
446-1X	214
446-2-PZDX	214
446-2X	214
4910-AX	220
4910X	220
491-A-PZDX	218
491-AX	220
491-PZDX	218
491X	220
492-A-PZDX	218
492-AX	220
492-PZDX	218
492X	220
493-A-PZDX	218
493-AX	220
493-PZDX	218
493X	220
49-A-TX-05	219
49-A-TX-06	219
49-A-TX-07	219
49-A-TX-08	219
49-A-TX-09	219
49-A-TX-10	219
49-A-TX-15	219
49-A-TX-20	219
49-B-TX-25	219
49-B-TX-27	219
49-B-TX-30	219
49-B-TX-40	219
49-TX-05	219
49-TX-06	219

Order No.	Page
49-TX-07	219
49-TX-08	219
49-TX-09	219
49-TX-10	219
49-TX-15	219
49-TX-20	219
49-TX-25	219
49-TX-27	219
49-TX-30	219
49-TX-40	219
4CT5A6	188
4CT5A7	188
4CT5A8	188
4CT5B7	188
4CT5B8	188
4CT5C6	188
4CT5C7	188
4CT5C8	188
4CT5D7	188
4CT5D8	188
4CT6C7	189
4CT6C8	189
4CT6D7	189
4CT6D8	189
4CT6D9	189
4CT6E7	189
4CT6E8	189
4ETA	184
4ETB	184
4ETBB	184
4ETBS	184
4ETC	184
4ETCC	184
4ETCS	184
4ETD	184
4ETDS	184
4ETE	184
4ETF	184
4ETH	184
4ETK	184
4ETL	184
4ETM	184
4ETO	184
4ETP	184
4ETR	184
4ETS	184
4PTA6	186
4PTA7	186
4PTA8	186
4PTAA7	187
4PTAA8	187
4PTAA9	187
4PTB6	186
4PTB7	186
4PTB8	186
4PTB9	186
4PTBB7	187
4PTBB8	187
4PTBB9	187
4PTC7	186
4PTC8	186
4PTC9	186
4PTCC7	187
4PTCC8	187
4PTCC9	187
4PTCS7	186
4PTD7	186
4PTD8	186
4PTD9	186
4PTDD7	187
4PTDD8	187
4PTDD9	187
4PTDS7	186
4PTE8	186
4PTE9	186
4PTF7	187
4PTF8	187
4PTH6	186
4PTH7	186
4PTH8	186
4PTK6	186

Order No.	Page
4PTK7	186
4PTK8	186
4PTL6	186
4PTL7	186
4PTL8	186
4PTM7	186
4PTM8	186
4PTM9	186
4PTO6	186
4PTO7	186
4PTO8	186
4PTR7	186
4PTR8	186
4PTS7	186
4PTS8	186
4SPI15210	191
4SPI15211	191
4SPI15212	191
4SPI15213	191
4SPI26200	191
4SPI26201	191
4SPI26206	191
4SPI40220	191
4SPI40224	191
4SPI40225	191
4SPI40226	191
4SPI80230	191
4SPI80231	191
4SPI80232	191
4SPI80234	191
4SPI80235	191
4SPI80237	191
6966EK	71
AM-1.5MM	218
AM-10MM	218
AM-2.5MM	218
AM-2MM	218
AM-3MM	218
AM-3MM-3	218
AM-3MM-4	218
AM-4MM	218
AM-5MM	218
AM-5MM-4	218
AM-6MM	218
AM-6MM-4	218
AM-7MM	218
AM-8MM	218
APC5132CM	229
KDS1412P	227
KDS141P	227
KDS14TNP	228
KDS1512P	227
KDS16112P	227
KDS1612P	227
KDS161P	227
KDS16TNP	228
KDS1712P	227
KDS1812P	227
KDS181P	227
KDS18TNP	228
KDS1912P	227
KDS191P	227
KDS2012P	227
KDS201P	227
KDS20TNP	228
KDS2112P	227
KDS2212P	227
KDS221P	227
KDS22TNP	228
KDS2312P	227
KDS2512P	227
KDS260L	225
KDS260M	225
KDS260S	225
KDS301	225
KDS3012P	227
KDS660	227
KDS805S6	226
KDS806V	224
KDS810S6	226
KDS816	226

Order No.	Page
KDS825	229
KDS900	229
KDS901	229
KDSSAMPLEPACK	227
M-490	216
M-490-2	216
M-497	216
NT1	170
NT1S	170
NT1SC	170
NT1X	170
NT4	170
NT6	170
NTA	170
NTAX	170
NTB	170
NTC	170
NTD	170
NTGW	170
NTH	170
NTK	170
NTMS	170
PS100A	92
PS2001A	92
PS200A	92
SA21A	92
SA21A1	92
SM15748BK	97
SMT0504A	182
SMT1206D	182
SMT8K	182
SMTA	182
T0051000199	150
T0051005399	150
T0051005571	150
T0051031199	184
T0051170699	90
T0051170799	90
T0051170899	90
T0051170999	90
T0051176799	189
T0051301099	96
T0051301199	96
T0051301299	96
T0051301399	93
T0051301799	93
T0051302699	96
T0051302799	96
T0051302899	96
T0051303199	95, 96
T0051312099	39, 51, 69
T0051312599	131
T0051314000	194
T0051314100	194
T0051314200	194
T0051314300	194
T0051314400	194
T0051314500	194
T0051314600	194
T0051314700	194
T0051314800	194
T0051315000	194
T0051315100	194
T0051315200	194
T0051315399	194
T0051317199	158
T0051317399	141
T0051317499	141
T0051317799	141
T0051317899	141
T0051318099	50, 155
T0051318299	155
T0051318399	154
T0051319099	50, 53, 61, 154
T0051319899	157
T0051320199	60, 157
T0051320299	157
T0051320499	155
T0051320599	155
T0051325010	197
T0051325099	197

Order No.	Page	Order No.	Page	Order No.	Page	Order No.	Page
T0051325110	197	T0051388199	95	T0052616299	130, 149	T0053313199	147
T0051325199	197	T0051388299	95	T0052620299	185	T0053313399	158
T0051325210	197	T0051388399	95	T0052702899	86	T0053315199	130, 148
T0051325299	197	T0051388499	95	T0052702999	86	T0053316499	89
T0051325310	197	T0051388599	95	T0052704099	90	T0053316599	89
T0051325399	197	T0051388699	95	T0052704299	90	T0053316699	89
T0051325410	197	T0051388799	95	T0052704399	90	T0053316799	88
T0051325499	197	T0051388899	95	T0052711599	68, 69, 158	T0053334699	70, 76, 77
T0051325510	197	T0051500699	137	T0052711699	159	T0053336699	70, 76, 78
T0051325599	197	T0051502099	130	T0052711799	52, 159	T0053338699	77, 78, 79, 87
T0051325610	197	T0051502699	88	T0052711899	158	T0053355699	77
T0051325699	197	T0051502799	28, 69	T0052711999	159, 67	T0053359699	78
T0051325710	197	T0051502899	39	T0052712099	159	T0053364699	79, 87
T0051325799	197	T0051507699	136	T0052811699	39	T0053364899	86
T0051325899	197	T0051508099	136	T0052812199	39	T0053366699	49, 50, 51
T0051325910	197	T0051508699	136	T0052812299	39	T0053368399	50
T0051325999	197	T0051512199	16, 18, 19, 24,	T0052812699	131	T0053368699	50
T0051326010	197		26, 51, 53, 60, 61	T0052820699	38, 39	T0053370699	76, 81
T0051326099	197	T0051512499	94, 96	T0052822699	38, 39	T0053371699	87
T0051326110	197	T0051512699	96	T0052910999	85	T0053377699	49, 53, 59, 61, 66, 68
T0051326199	197	T0051512799	96	T0052916199	28, 29, 146	T0053378699	68
T0051326210	197	T0051514799	37	T0052916399	147	T0053380699	53
T0051326299	197	T0051515299	137	T0052916699	130, 148	T0053400699	23, 24, 25
T0051326310	197	T0051515399	50, 155	T0052917099	28, 147	T0053402670	24
T0051326399	197	T0051515599	72	T0052917199	140	T0053402699	24
T0051326410	197	T0051515699	131	T0052918099	24, 50, 53, 146	T0053415699	23
T0051326499	197	T0051516199	24, 37, 50, 144	T0052918199	146	T0053417699	15, 18, 19, 33
T0051326510	197	T0051516799	137	T0052918499	50, 51	T0053418699	18
T0051326599	197	T0051516899	136	T0052918599	131	T0053419699	18
T0051326610	197	T0051516999	17, 141	T0052918699	131	T0053420699	15, 16, 17, 33
T0051326699	197	T0051517199	17, 18, 140	T0052918799	149	T0053425699	66, 67
T0051350099	196	T0051517299	60, 157	T0052918999	147	T0053426699	60, 59
T0051350199	196	T0051605999	42	T0052919099	140	T0053427699	19
T0051350299	196	T0051606099	42	T0052919399	27, 51, 144	T0053428699	60
T0051350399	196	T0051607599	43	T0052919499	144	T0053429699	60
T0051350499	156	T0051608799	43	T0052919799	37	T0053430699	67
T0051351099	195	T0051612099	193	T0052919899	37	T0053631699	134
T0051351199	195	T0051612199	193, 42	T0052919999	145	T0053631999	134
T0051351299	195	T0051612299	193	T0052920099	145	T0053632199	133
T0051351399	195	T0051612399	193	T0052920199	16, 18, 143	T0053632299	133
T0051351499	195	T0051612499	193	T0052920299	60, 143	T0053632399	133
T0051351599	195	T0051612599	193	T0052920399	17, 18, 140	T0053632499	134
T0051351699	195	T0051612799	193	T0052920499	140	T0053632699	135
T0051352799	195	T0051612999	193	T0052920599	145	T0053632999	134
T0051353099	195	T0051613099	193	T0052920699	145	T0053633899	135
T0051353299	195	T0051613299	193	T0052920799	144	T0053634399	135
T0051353399	195	T0051613499	43, 192	T0052921199	19, 142	T0053634499	133
T0051355099	195	T0051613599	43, 193	T0052921299	142	T0053635299	130
T0051355199	195	T0051614099	193	T0052921499	131	T0053638699	128
T0051355299	195	T0051614199	193	T0052921599	26, 61, 142	T0053640299	128
T0051360499	154	T0051614299	43, 193	T0052921699	142	T0053640799	132
T0051377099	195	T0051614399	193	T0053118099	84	T0053641099	132
T0051379099	194	T0051615099	193	T0053118499	84	T0053641400	134
T0051382499	94	T0051615199	193	T0053118599	25	T0053641599	135
T0051382599	94	T0051615699	42	T0053119099	79, 83, 84, 87	T0053642199	132
T0051382799	94, 96	T0051615899	193	T0053119199	79, 84, 87, 115	T0053650699	109
T0051383299	85	T0051615999	42, 193	T0053124699	85	T0053651689	109
T0051383599	88	T0051616099	42, 43	T0053163699	224	T0053657199	108, 112
T0051384099	94	T0051616199	192	T0053165699	224	T0053657299	107, 112
T0051384199	94	T0051616599	192	T0053171670	71	T0053657399	108, 109,
T0051384799	83	T0051616699	192	T0053171699	71		112, 113, 115
T0051386099	95	T0051616799	192	T0053210599	31	T0053657499	107, 108,
T0051386199	95	T0051616899	192	T0053220699	31		109, 112, 119
T0051386299	95	T0051616999	192	T0053222499	31	T0053657599	120
T0051386399	95	T0051617299	192	T0053222699	31	T0053657699	118
T0051386499	95	T0051644399	192	T0053250699	29	T0053657799	115
T0051386599	95	T0051644499	192	T0053252699	29	T0053657899	114
T0051386699	95	T0051644599	192	T0053252699	29	T0053657999	113
T0051386799	95	T0051644699	192	T0053260699	28	T0053658099	114
T0051386899	95	T0051644799	43, 192	T0053262699	28	T0053658899	110
T0051386999	95	T0051644899	192	T0053266671	36, 37	T0053658999	110
T0051387099	95	T0051645099	43, 192	T0053266699	69	T0053659099	123
T0051387299	95	T0052474999	195	T0053268699	69	T0053659199	116
T0051387399	95	T0052475099	184	T0053276699	28	T0053659299	117
T0051387499	95	T0052503199	91	T0053277670	27	T0053659399	115
T0051387599	95	T0052503299	91	T0053278670	33	T0053659899	114
T0051387699	95	T0052509899	97	T0053293699	41	T0053660699	106
T0051387799	95	T0052510699	149	T0053295699	23, 26, 27	T0053661699	106
T0051387899	95	T0052512599	131	T0053296699	26	T0053663699	107
T0051387999	95	T0052541000	130	T0053297699	26	T0053665699	107
T0051388099	95	T0052609899	97	T0053312599	146	T0053666699	111

# Numerical Index

Order No.	Page	Order No.	Page	Order No.	Page	Order No.	Page
T005366799	111	T0054441411	177	T0054448710	178	T0054453899	179
T0053670699	129	T0054441499	177	T0054448799	178	T0054453911	179
T0053900699	210, 209	T0054441510	177	T0054448899	177	T0054453999	179
T0053901699	209, 21	T0054441511	177	T0054448910	177	T0054454011	179
T0053909199	211	T0054441599	177	T0054448911	177	T0054454099	179
T0053909299	211	T0054441699	179	T0054449410	177	T0054460199	165
T0053909399	211	T0054441799	182	T0054449499	177	T0054460299	165
T0053909499	211	T0054442011	177	T0054449699	177	T0054460399	164
T0053909599	211	T0054442099	177	T0054449799	177	T0054460499	164
T0054103999	184	T0054442171	178	T0054449899	177	T0054460599	164
T0054104099	184	T0054442210	182	T0054450199	181	T0054460699	164
T0054104599	184	T0054442271	182	T0054450299	181	T0054460799	165
T0054130799	186	T0054442299	35, 182	T0054450399	181	T0054460899	164
T0054170399	184	T0054442311	178	T0054450499	181	T0054460999	164
T0054210799	188	T0054442399	178	T0054450599	181	T0054461099	165
T0054210899	188	T0054442410	178	T0054450699	181	T0054461199	164
T0054211799	188	T0054442499	178	T0054450799	181	T0054461299	164
T0054212899	188	T0054442510	177	T0054450899	181	T0054461399	165
T0054213899	188	T0054442599	177	T0054450999	181	T0054462499	165
T0054230799	189	T0054442610	177	T0054451099	181	T0054462599	165
T0054231899	189	T0054442699	177	T0054451110	178	T0054465199	167
T0054240799	190	T0054442710	177	T0054451199	178	T0054465299	166
T0054240899	190	T0054442799	177	T0054451399	183	T0054465399	166
T0054241799	190	T0054442810	177	T0054451611	177	T0054465499	166
T0054241899	190	T0054442899	177	T0054451611	177	T0054465699	167
T0054242899	190	T0054443010	180	T0054451699	177	T0054466699	166
T0054250799	190	T0054443099	180	T0054451711	177	T0054466799	166
T0054250899	190	T0054443110	180	T0054451711	177	T0054466899	166
T0054251799	190	T0054443199	180	T0054451799	177	T0054470110	172
T0054251899	190	T0054443210	180	T0054451811	177	T0054470199	172
T0054412199	180	T0054443299	180	T0054451811	177	T0054470210	172
T0054414199	185	T0054443310	182	T0054451899	177	T0054470299	172
T0054414399	185	T0054443399	35, 182	T0054451999	178	T0054470310	172
T0054414499	185	T0054443510	177	T0054451999	178	T0054470399	172
T0054414599	185	T0054443599	177	T0054452010	179	T0054470410	172
T0054414699	185	T0054443699	177	T0054452011	179	T0054470499	172
T0054414799	185	T0054443710	177	T0054452099	179	T0054470510	172
T0054414999	185	T0054443799	177	T0054452110	179	T0054470599	172
T0054415299	185	T0054443810	177	T0054452111	179	T0054470610	172
T0054415399	185	T0054443899	177	T0054452199	179	T0054470699	172
T0054426099	185	T0054443910	178	T0054452210	179	T0054470710	172
T0054426199	185	T0054443999	178	T0054452211	179	T0054470799	172
T0054426299	185	T0054444010	177	T0054452299	179	T0054470810	172
T0054426399	185	T0054444099	177	T0054452310	179	T0054470899	172
T0054426499	185	T0054444110	182	T0054452311	179	T0054470910	172
T0054426599	185	T0054444199	35, 182	T0054452399	179	T0054470999	172
T0054426699	185	T0054444210	177	T0054452410	179	T0054471010	172
T0054426799	185	T0054444299	177	T0054452411	179	T0054471099	172
T0054426899	185	T0054444310	177	T0054452499	179	T0054471110	173
T0054426999	185	T0054444399	177	T0054452510	179	T0054471199	173
T0054427099	185	T0054444410	178	T0054452511	179	T0054471210	173
T0054440111	177	T0054444499	178	T0054452599	179	T0054471299	173
T0054440311	177	T0054444510	178	T0054452610	179	T0054471310	172
T0054440410	177	T0054444599	178	T0054452611	179	T0054471399	172
T0054440411	177	T0054444810	177	T0054452699	179	T0054471410	173
T0054440499	177	T0054444899	177	T0054452710	179	T0054471499	173
T0054440510	177	T0054444999	179	T0054452711	179	T0054471510	172
T0054440511	177	T0054445099	183	T0054452799	179	T0054471599	172
T0054440599	177	T0054445199	183	T0054452810	179	T0054471610	172
T0054440610	178	T0054445299	183	T0054452811	179	T0054471699	172
T0054440611	178	T0054445399	183	T0054452899	179	T0054471710	172
T0054440699	178	T0054445499	183	T0054452910	179	T0054471799	172
T0054440710	177	T0054445599	183	T0054452911	179	T0054471810	172
T0054440711	177	T0054445699	183	T0054452999	179	T0054471899	172
T0054440799	177	T0054446099	183	T0054453010	179	T0054471999	174
T0054440810	178	T0054446199	183	T0054453099	179	T0054472099	174
T0054440811	178	T0054446299	183	T0054453110	179	T0054472299	174
T0054440873	178	T0054446789	181	T0054453199	179	T0054472310	175
T0054440877	178	T0054446999	177	T0054453210	179	T0054472399	175
T0054440881	178	T0054447810	178	T0054453299	179	T0054472499	175
T0054440899	178	T0054447899	178	T0054453310	179	T0054472599	175
T0054440910	177	T0054447910	178	T0054453399	179	T0054472699	175
T0054440911	177	T0054447999	178	T0054453410	179	T0054472799	175
T0054440999	177	T0054448199	178	T0054453499	179	T0054472899	175
T0054441010	178	T0054448210	178	T0054453510	179	T0054473010	172
T0054441011	178	T0054448211	178	T0054453511	179	T0054473099	172
T0054441099	178	T0054448299	178	T0054453599	179	T0054473190	173
T0054441110	177	T0054448399	180	T0054453699	179	T0054473190	173
T0054441199	177	T0054448499	178	T0054453710	179	T0054473199	173
T0054441211	177	T0054448610	178	T0054453711	179	T0054473290	173
T0054441311	177	T0054448699	178	T0054453799	179	T0054473299	173

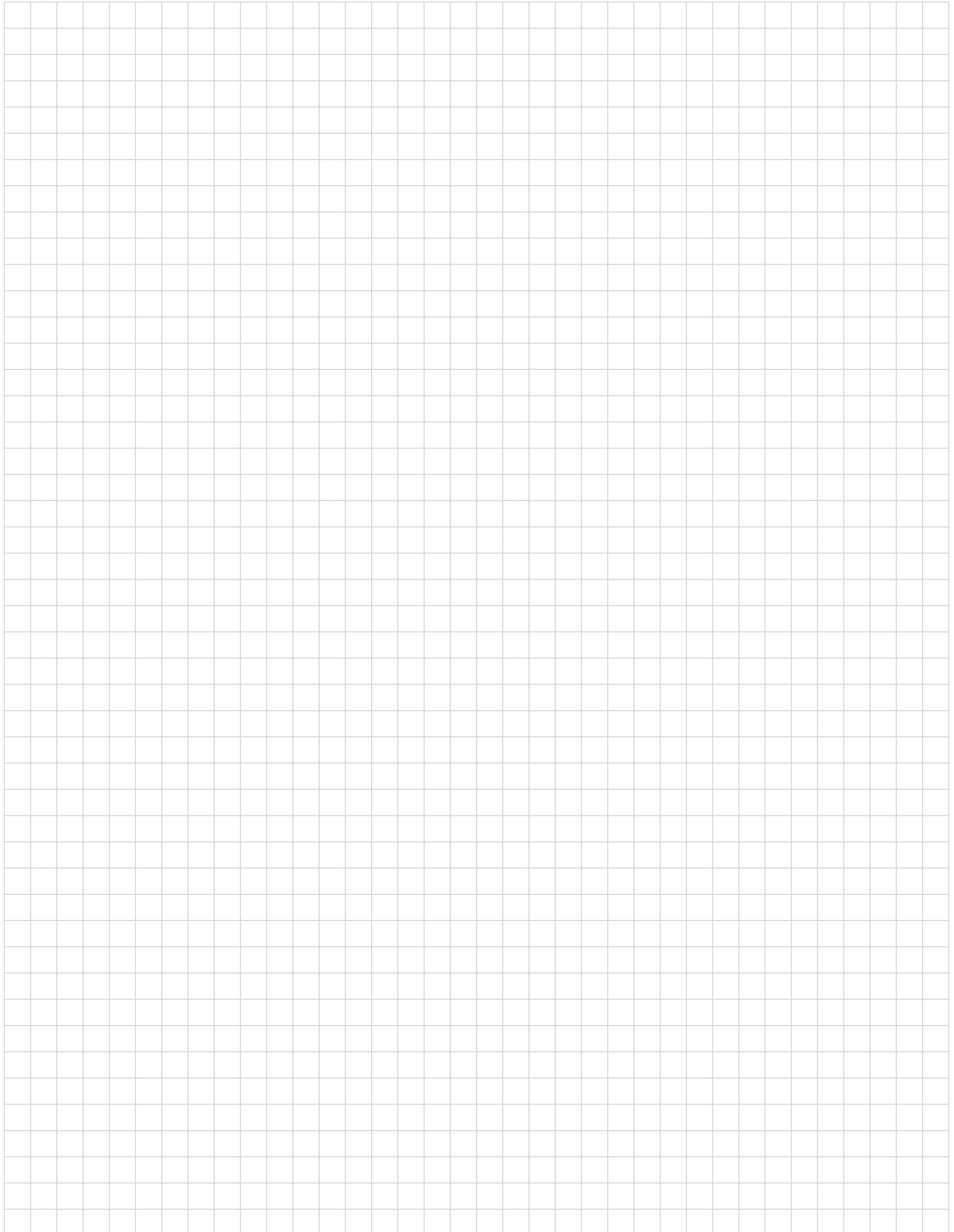
Order No.	Page	Order No.	Page	Order No.	Page	Order No.	Page
T0054473390	173	T0054489299	169	T0058735855	125	T0058751710	171
T0054473399	173	T0054489310	169	T0058735856	125	T0058751717	171
T0054474010	172	T0054489399	169	T0058735860	123	T0058751880	41
T0054474099	172	T0054489410	169	T0058735863	125	T0058754770	204
T0054474110	172	T0054489499	169	T0058735864	125	T0058754820	204
T0054474199	172	T0054489510	169	T0058735865	135	T0058754836	204
T0054474210	172	T0054489599	169	T0058735866	135	T0058754873	82,89
T0054474299	172	T0054489610	169	T0058735869	125	T0058754887	204
T0054474310	172	T0054489699	169	T0058735870	125	T0058754903	204
T0054474399	172	T0054489710	169	T0058735871	125	T0058754924	82,89
T0054474410	172	T0054489799	169	T0058735879	121	T0058754948	83
T0054474499	172	T0054489810	169	T0058735895	122	T0058754967	204
T0054474510	172	T0054489899	169	T0058735909	115	T0058754970	83
T0054474599	172	T0054489910	169	T0058735915	117	T0058755741	89
T0054480199	176	T0054489999	169	T0058735924	123	T0058755745	89
T0054480299	176	T0054490010	169	T0058735936	122	T0058755782	83
T0054480399	176	T0054490099	169	T0058735937	122	T0058757898	71
T0054480499	176	T0054490110	169	T0058735938	122	T0058761728	198
T0054480599	176	T0054490199	169	T0058736804	202	T0058761730	73
T0054485010	168	T0054490210	169	T0058736807	202	T0058761731	73
T0054485099	168	T0054490299	169	T0058736814	202	T0058761732	72,73
T0054485110	168	T0054490310	169	T0058736818	202	T0058762036	118
T0054485199	168	T0054490399	169	T0058736833	202	T0058762701	122
T0054485210	169	T0056103699	151	T0058736837	202	T0058762703	123
T0054485299	169	T0056104667	189	T0058736838	202	T0058762724	14
T0054485310	168	T0056104668	189	T0058736839	202	T0058762746	119
T0054485399	168	T0056104669	189	T0058736840	201	T0058762747	114
T0054485410	169	T0056104699	151	T0058736841	201	T0058762750	121
T0054485499	169	T0056105699	151	T0058736842	201	T0058762753	120
T0054485510	168	T0056109399	90	T0058736843	201	T0058762755	118
T0054485599	168	T0056109699	151	T0058736867	200	T0058762756	118
T0054485610	168	T0056400599	152	T0058736870	200	T0058762757	116
T0054485699	168	T0056402199	152	T0058736875	203	T0058762758	116
T0054485710	168	T0056403799	153	T0058736880	202	T0058762763	113
T0054485799	168	T0056405399	153	T0058736881	200	T0058762765	119
T0054485810	168	T0058706794	156, 194, 196	T0058736882	200	T0058762766	120
T0054485899	168	T0058713798	72, 83, 203	T0058736883	200	T0058762767	119
T0054485910	168	T0058713799	72, 83, 203	T0058736890	202	T0058762768	118
T0054485999	168	T0058720781	179, 184	T0058736891	202	T0058762769	119
T0054486010	168	T0058720786	187	T0058738850	51, 69	T0058762770	112
T0054486099	168	T0058720787	187	T0058744710	181	T0058762771	121
T0054486199	169	T0058720788	187	T0058744713	35	T0058762774	120
T0054486210	168	T0058720789	187	T0058744738	35	T0058762808	119
T0054486299	168	T0058720794	184, 187	T0058744795	183	T0058762810	135
T0054486310	168	T0058720795	180	T0058744845	181	T0058763709	174
T0054486399	168	T0058725034	91	T0058744846	181	T0058763725	176
T0054486410	168	T0058725722	91	T0058744875	131	T0058763730	35
T0054486499	168	T0058725726	91	T0058744876	131	T0058763732	37
T0054487210	169	T0058725729	91	T0058747753	204	T0058764726	14
T0054487299	169	T0058725732	91	T0058747763	204	T0058765711	143, 174
T0054487310	168	T0058725736	91	T0058747764	204	T0058765740	35
T0054487399	168	T0058725742	91	T0058747833	204	T0058765758	142, 169
T0054487410	168	T0058727772	198	T0058747848	204	T0058765798	131
T0054487499	168	T0058727773	198	T0058747850	204	T0058765799	131
T0054487510	169	T0058727774	198	T0058747871	204	T0058765801	51, 156, 196
T0054487599	169	T0058727775	198	T0058747874	204	T0058767701	212
T0054488010	169	T0058727776	198	T0058747893	204	T0058767702	212
T0054488099	169	T0058727777	199	T0058747904	204	T0058767703	212
T0054488110	168	T0058727778	199	T0058747906	204	T0058767704	213
T0054488199	168	T0058727779	199	T0058747916	204	T0058767705	213
T0054488210	168	T0058727780	199	T0058747927	204	T0058767706	213
T0054488299	168	T0058727781	199	T0058747935	204	TAL332CH	229
T0054488310	168	T0058727782	199	T0058747941	204	WLSK200	93
T0054488399	168	T0058727783	199	T0058747943	204	WLSK200T18	93
T0054488410	168	T0058727784	199	T0058747945	204	WLSK200T38	93
T0054488499	168	T0058727785	199	T0058747947	204	WPB1	95
T0054488510	168	T0058727786	198	T0058747961	204		
T0054488599	168	T0058727787	198	T0058747977	204		
T0054488610	168	T0058727808	199	T0058747985	204		
T0054488699	168	T0058727821	198	T0058747993	204		
T0054488710	168	T0058727822	198	T0058747999	204		
T0054488799	168	T0058727823	198	T0058748861	196		
T0054488810	169	T0058735050	135	T0058748990	29		
T0054488899	169	T0058735427	118	T0058750721	202		
T0054488910	169	T0058735757	132	T0058750739	203		
T0054488999	169	T0058735835	124	T0058750741	203		
T0054489010	169	T0058735836	124, 133	T0058750742	203		
T0054489099	169	T0058735837	124, 133	T0058750765	200		
T0054489110	169	T0058735838	124, 133	T0058750770	200		
T0054489199	169	T0058735840	117	T0058750772	200		
T0054489210	169	T0058735845	115	T0058750774	200		

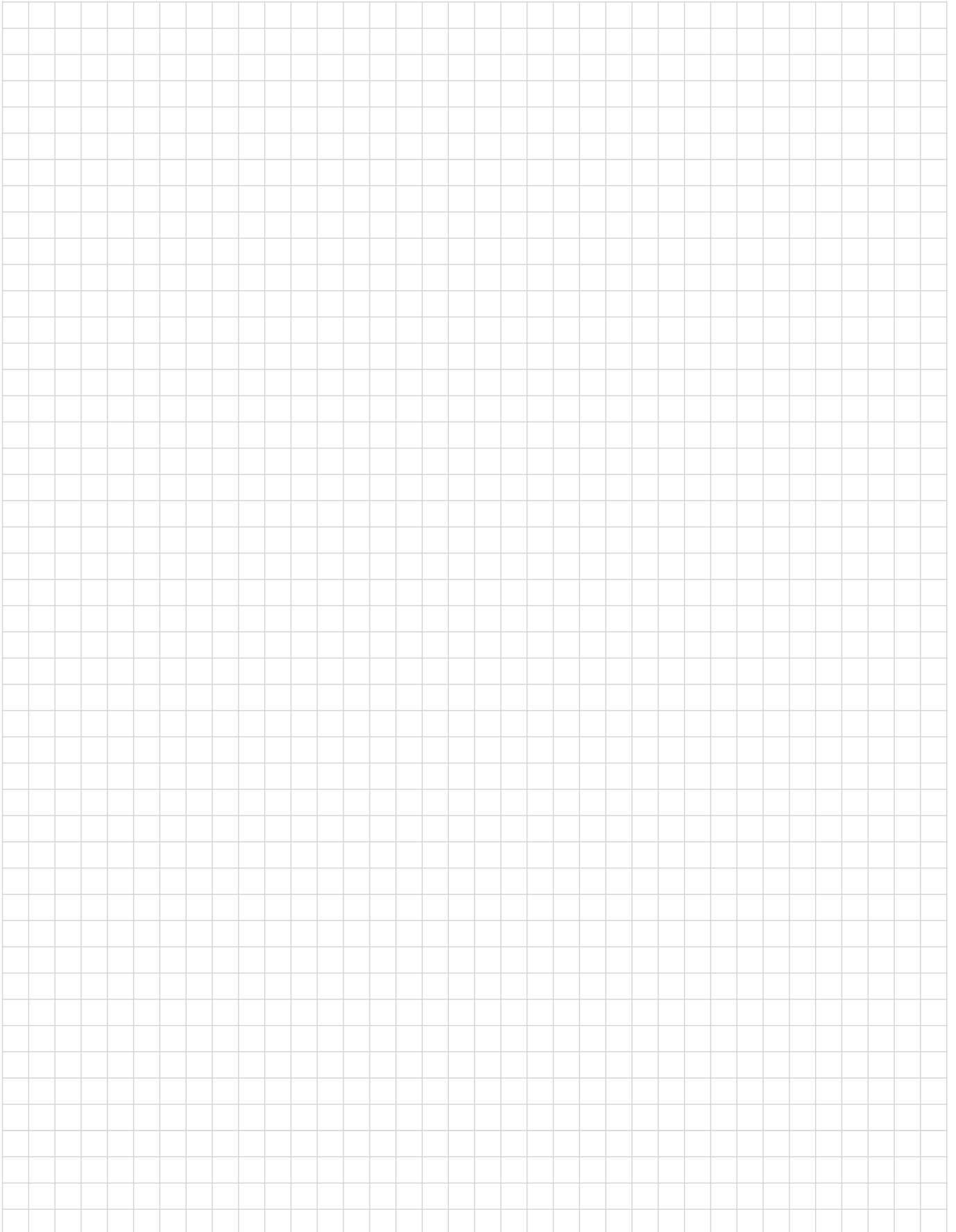
Order No.	Page
547	304
3200	321, 323, 332
3231	321, 323, 332
3232	321
3303	322
3315	323, 332
3717	323, 332
3740	323, 332
50788	311
024C	257
102ACA	317, 323, 327, 331, 332, 250
102ACAX	250, 230,
103ACA	250, 317, 327, 330
11N	242
1415AP	255
147A	294
147AT	294
1500BSF	296
1503E	297
150SA	251
150SAD	251
150SAMB	317, 327, 352
150SAMF	251, 317, 327, 330
1512N	296
151SA	251
1522N	296
1522NA	297
1522NB	297
15AGS	255
15AGW	255
1884EPCM	294
15A	241
15ASL	241
2041Z	321
2044Z	321
2052E	322, 323, 332
20AS	240
21SA	243
2400KMS	328
2403E	278
2404E	278
2411P	306, 328
2411PD	306
2412E	326, 328, 377
2422E	277
2432E	277
2442P	307, 326
2443P	307
2470E	279
2475E	279
2476TX	293
2476TX1	292
2477E	278
2482E	328, 279
249CER	243
249SA	243
24SA	247
258SA	245
25SA	248
29W30	256
29Y30	256
29Y32	256
29Y34	256
29Y36	256
29Y40	256
2ASA	329, 331
2ASARU	248
2ASASL	248, 326
2ASASLT	248
2SA	245
2SASL	245
3000ESD	320
3000KCESD	323, 332
3008ESD	323, 332
30SA	247
32BSA	252
32BSA20	252
32BSA25	252
3300TPS	329
3305Z	322, 323

Order No.	Page
3310Z	322, 323, 332
3400TSMDU	330
3500TP	331
3600KU	326
3714Z	323, 332
3900KC	317, 327
39SA	251
3CBS	246
3CS	241
3CSA	241
3CSASL	241
3CTA	241
3SA	329, 331, 241
3SASL	241
40SA	251
4SA	244
4SASL	244
500103A	312
500104A	313
500210E	312
503E	282
503ET	293
503ETF	293
504AE	282
505C	316
50789Z	311
510AE	308
512E	281
512N	281
51SA	246, 317, 327
51SASL	247
522N	281
52ASA	248
530E06	298
530E08	298
530E10	298
530E12	298
530E13	298
530E15	298
530E15	298
530E18	298
530E20	298
531E	305
532N	281
53CSA	241
542E	305
543E	304
544D	305
544E	305
549E	299
549E10	299
549E12	299
552E	309
552S	309, 318
554A	310
554E	310
554TX	311
555E	283
570E	285
572E	283
573E	285
573EB	299
575E	284
576TX	293
576TX1	292
577E	282
582E	283
582EW	283
592E	284
593AE	284
595E	282
595T	292
595TF	292
599E	281
599FO	295, 319
599T	291
599TF	291
599TFO	295, 319
5ASA	247
5ASASL	247
5BSA	246

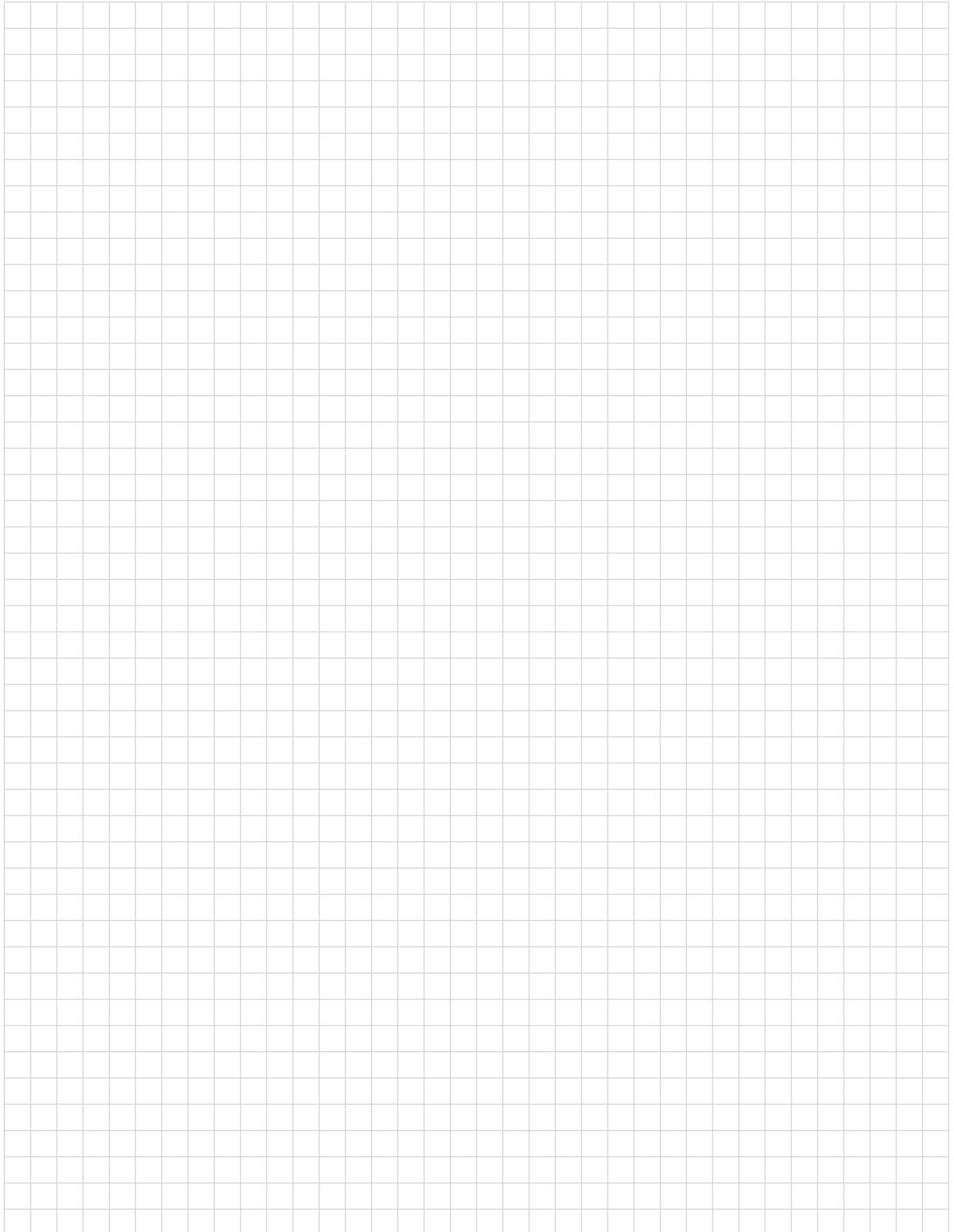
Order No.	Page
5CSA	246
5FSA	245
5MBS	245
5SA	245
5SASL	245
600ASA	254
600JSA	254
608ASA	254
612N	273
622N	273
622NA	274
622NB	274, 326
622TX	291
632N	273
632NCF	274, 295
64SA	242
65ASA	247
670E	275
670EP	275, 317, 327
670EPF	275
676E	274
776E	274
792E	274
7SA	247, 329, 330, 331
7SASL	247
80013C	313
808G	316
809IC	313
812N	287
822N	287
884E	288
886E	288
896E	287
91SA	254
940AS	253
AAS	242
AASA	242, 326
AASASL	242
AAZ	242
ACSA	240
AM	243
E15AGW	249
E2ASA	249
E3CSA	249
E5SA	249
E7SA	249
EOODSA	249
EOOSA	249
KDS260L	225
M4AS	244
M5S	240
OOBSA	242
OOCSA	242
OODSA	242
OOSA	242
OOSASL	242
RRS	243
SSSA	243
XB29W301	256
XP600	326

Order No.	Page	Order No.	Page	Order No.	Page	Order No.	Page
600	349, 350	9920XTD	347	P3	340	XN100	336
994	342, 346, 348	9921BP	344	P3161	339	XN200	336
996	342, 343, 345	9922BP	344	P3321	339, 34	XN210	336
997	342	9923BP	344	P35MM	341	XNB101	336
998	345	9924BP	344	P3MM	341	XNB103	336
999	342, 345	9925BP	344	P4	340	XNB103B	336
9910	342, 345	9925XTD	347	P45MM	341	XNB105	336
9911	342, 345	9926BP	344	P4MM	341	XNB201	336
9912	342, 345	9927XTD	347	P5	340	XNB203	336
9914	342	9930XTD	347	P5321	339	XNB205	336
9916	342	9945MM	346, 348	P55MM	341	XNS100	336
9920	342	994MM	346, 348	P5MM	341	XST100	349, 350
9921	342, 343, 349, 350	994R	348, 349, 350	P6	340	XST101	348, 349, 350
9921	342, 343, 349, 350	9955MM	346, 348	P6MM	341	XST102	349, 350
9922	342, 343, 349, 350	995MM	346, 348	P7	340		
9922	342, 343, 349, 350	996MM	346, 348	P71	340		
9923	342, 343, 349, 350	996XTD	347	P72	340		
9923	342, 343, 349, 350	9971MM	344, 348	P73	340		
9924	342, 343, 349, 350	9971MMBP	345	P74	340		
9924	342, 343, 349, 350	9972MM	344, 348	P75	340		
9925	342, 343, 349, 350	9972MMBP	345	P76	340		
9926	342, 343, 349, 350	9973MM	344, 348	P764	339		
9938	348, 349, 350	9973MMBP	345	P77	340		
9961	342, 346, 349, 350	9973MMBP	345	P78	340		
9962	346, 349, 350	9974MM	344, 348	P7MM	341		
9963	346, 349, 350	9974MMBP	345	P8	340		
9964	346, 349, 350	9975MM	344, 348	P8MM	341		
9965	346, 349, 350	9975MMBP	345	P9	340		
9966	346, 349, 350	99764BP	344	PS120	340, 349, 350		
9967	346, 349, 350	9976MM	344, 348	PS121MM	341		
9968	346, 349, 350	9976MMBP	345	PS88	339		
9969	346, 349, 350	9977MM	344, 348	PS89	339		
99125	349, 350	9977MMBP	345	PS90MM	340		
99250	345	9977MM	346, 348	R1	343		
99312	348, 349, 350	998M	349	R144	349, 350		
99312	348, 349, 350	998MM	346, 348	R146	349, 350		
99764	342, 343, 349, 350	998XTD	347	R181	349, 350		
99764	342, 343, 349, 350	99964BP	344	R184	349, 350		
99811	343, 345, 348, 349, 350	999MM	346, 348	R3164	349, 350		
99820	342, 343, 348, 349, 350	99MP	342	R3166	349, 350		
99821	342, 343, 345, 348, 349, 350	99PS40	343	R3323	349, 350		
99822	342, 345, 348, 349, 350	99PS40	343	R5325	350		
99831	347	99PS40BP	344	S3161	349, 350		
99832	347	99PS41MM	344	S388	349, 350		
99964	342, 343, 349, 350	99PS41MMBP	345	S5161	349, 350		
100XV	337	99PS50	345	S5166	349, 350		
101S	337	99PS51MM	346	SB1	349, 350		
101SNV	337	99PS60	346	SX101	348, 349, 350		
103S	348, 349, 350	99SPC	343	SX102	348		
170M	337, 348	99X10	349, 350	T0016100402	348		
175M	337	99X5	342, 343, 344, 345, 346, 348, 349, 350	T0044130000	348		
2211P	348	99XTD7	347	T0051304199	348		
42H	349, 350	AC16C	348	T0054002599	348		
46CG	349, 350	E1	343	T0056103699	348		
50CG	349, 350	Erop330	348	T0060403504	348		
51CG	349, 350	HS10	349, 350	T1	343		
53CG	349, 350	HS11	349, 350	TA2	339, 340, 341		
542E	348, 305	HS12	349, 350	TC100ST	349		
543E	348, 304	HS14	349, 350	TCMB100ST	350		
54CG	349, 350	HS16	349, 350	X1	343		
57CG	349, 350	HS18	349, 350	XL10	351		
59CG	349, 350	HS6	349, 350	XL12	351		
612N	348, 273	HS8	349, 350	XL14	351		
66CG	349, 350	M60	338, 349, 350	XL16	351		
812N	348, 287	P0	339	XL17	351		
86CG	348, 349, 350	P1	339	XL18	351		
86NCG	337	P10	340	XL20	351		
9910M	346, 349, 350	P10MM	341	XL21	351		
9910MM	346	P11	340	XL24	351		
9910XTD	343, 347	P12	340	XL25	351		
9911MM	346	P141	339	XL27	351		
9915XTD	343, 347	P18	339, 349, 350	XL3	351		
991R	349, 350	P181	339	XL4	351		
991X	342, 343, 344, 345, 346, 347, 348, 349, 350	P19	339, 349, 350	XL5	351		
9920BP	344	P2	339	XL50X	351		
		P20	339	XL6	351		
		P21	339	XL7	351		
		P22	339	XL70	351		
		P23	339	XL75	338		
		P24	339	XL8	351		
				XL9	351		









#### **GERMANY**

Weller Tools GmbH  
Carl-Benz-Straße 2  
74354 Besigheim

Tel: +49 (0)7143 580-0  
Fax: +49 (0)7143 580-108

#### **GREAT BRITAIN**

Apex Tool Group (UK Operations) Ltd  
4th Floor Pennine House  
Washington, Tyne & Wear  
NE37 1LY

Tel: +44 (0) 191 419 7700  
Fax: +44 (0) 191 417 9421

#### **FRANCE**

Apex Tool Group S.N.C.  
25 Avenue Maurice Chevalier B.P. 46  
77832 Ozoir-la-Ferrière Cedex

Tel: +33 (0) 1.64.43.22.00  
Fax: +33 (0) 1.64.43.21.62

#### **ITALY**

Apex Tool S.r.l.  
Viale Europa 80  
20090 Cusago (MI)

Tel: +39 (02)9033101  
Fax: +39 (02 )90394231

#### **SWITZERLAND**

Apex Tool Switzerland Sàrl  
Rue de la Roselière 12  
1400 Yverdon-les-Bains

Tel: +41 (0) 24 426 12 06  
Fax: +41 (0) 24 425 09 77

#### **CHINA**

Apex Tool Group  
A-8 Building  
No. 38 Dongsheng Road  
Heqing Industrial Park, Pudong  
Shanghai 201201

Tel: +86 (21)60880288  
Fax: +86 (21)60880289

#### **USA**

Apex Tool Group, LLC  
1000 Lufkin Road  
Apex, NC 27539-8160

Tel: +1 (800)476-3030 Ext.  
Fax: +1 (800)387-2640

#### **CANADA**

Apex Tools – Canada  
5925 McLaughlin Rd.  
Mississauga, Ontario L5R 1B8

Tel: +1 (905) 501-4785  
Fax: +1 (905) 501-4786

#### **AUSTRALIA**

Apex Tools Australia  
P.O. Box 366  
519 Nurigong Street  
Albury, N.S.W. 2640

Tel: +61 (2)6058-0300  
Fax: +61 (2)6021-7403

#### **SOUTH EAST ASIA**

Apex Power Tools India Pvt Ltd  
Gala No. 1, Plot No. 5  
S.No. 234, 235 & 245  
India Land Global Industrial Park.  
(Next to Tata Johnson Control)  
Taluka- Mulsi , Phase –I  
Hinjawadi Pune (411057)  
Maharashtra, India

toolsindia@apextoolgroup.com

# Weller®

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Soldering & Desoldering Stations](#) category:*

*Click to view products by [Apex Tool Group](#) manufacturer:*

Other Similar products are found below :

[GS1116](#) [BH-010](#) [T0058768747](#) [CA0202](#) [CA0201](#) [MFR-CA3](#) [WXD2N](#) [Q-7100-9000](#) [T0058757898](#) [WXD2010N](#) [T0058768762](#) [145-2000-ESDN](#) [T0058758721N](#) [WTL1000-1](#) [700-3051-ESD](#) [0051514699N](#) [0051512199N](#) [T0058768725N](#) [MT-688](#) [202485](#) [ZD-415R](#) [ZD-415R-H](#) [WELPB102](#) [HR-2550A](#) [T130-1.0I](#) [T0051011299N](#) [857DW+](#) [ECC92420EU](#) [850A+](#) [ECC168808EU](#) [BST-S-120](#) [9SS-968B-HG](#) [5SS-554-POT](#) [5SS-553-POT](#) [5SS-554-H](#) [5SS-553-H](#) [5PK-366NA-T](#) [5SS-552-POT](#) [5SS-551-POT](#) [5SS-552-H](#) [5SS-551-H](#) [508-366A-T](#) [508-366D-T](#) [5SS-331N1-H](#) [5SI-131-H](#) [5SI-131-3.2D](#) [5SI-131-I](#) [CVC-7CN0004P](#) [CVC-8CH0010S](#) [CV-H5-DSHP](#)