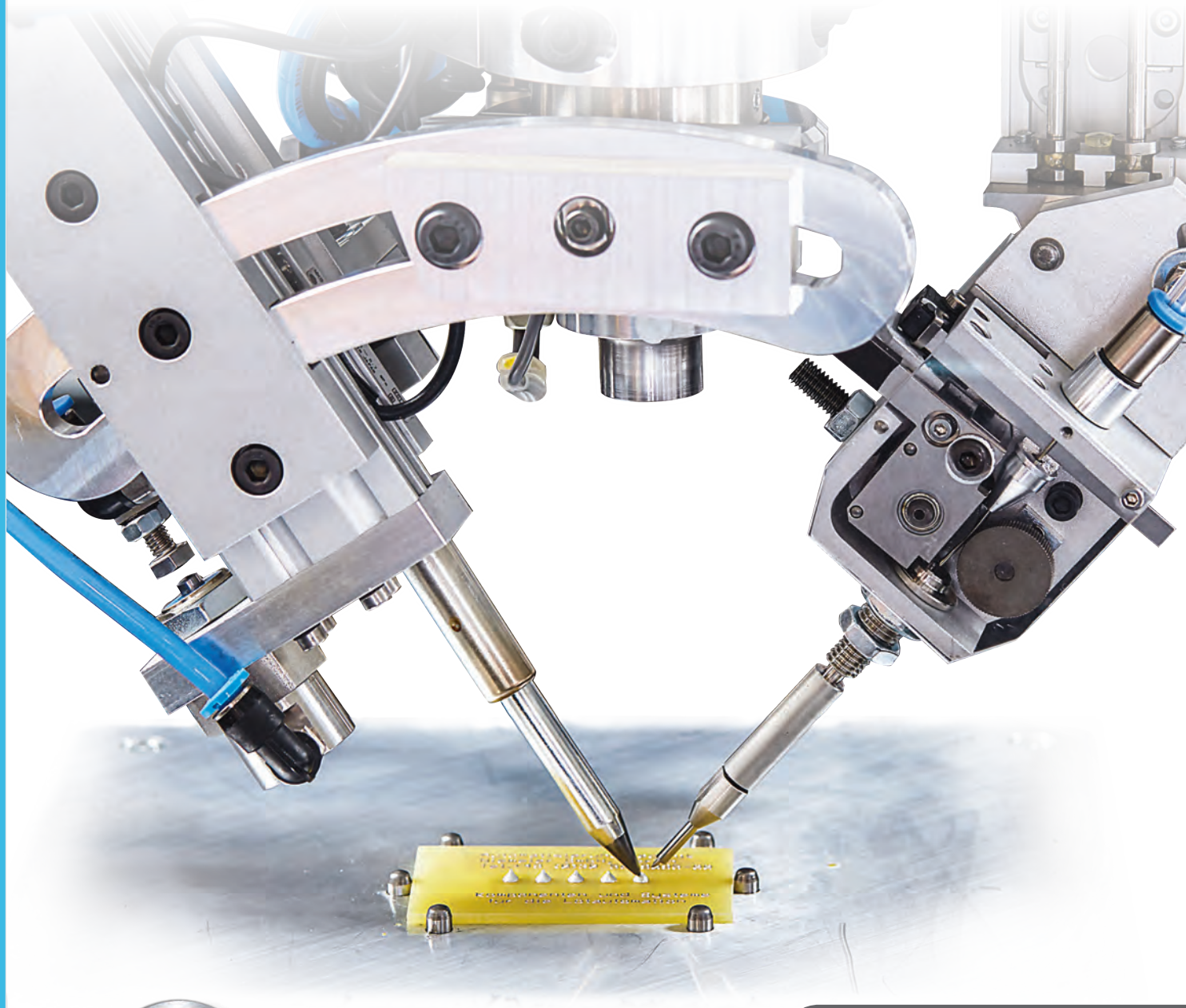
Advanced Automation

by the soldering experts

Highest precision. Superior reliability.
Increased productivity. All from one source.



Weller DEMO

Weller®

CEPELEC
L'architecte de vos ambitions

WTBR 1000
BENCHTOP ROBOT

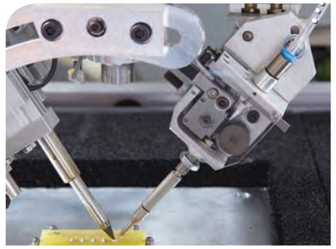
More than half a century of experience in soldering and superiority in innovation, allows us to take our customers to the next step in achieving production excellence. The new WTBR 1000 Benchtop Robot represents a one-of-a-kind synergy of precision, reliability, and productivity of soldering tasks.



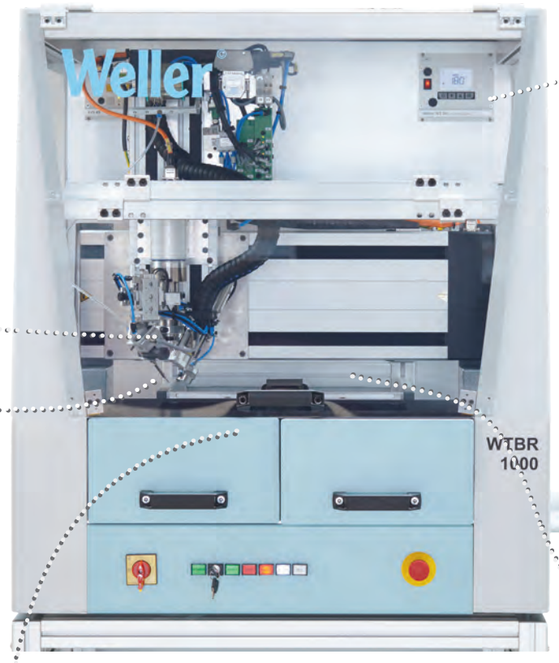
PRECISION



LED illuminated camera enables high-precision soldering with superior quality control



"On point" solder feeder next to the iron smoothly pulls the solder wire through the tube



Robust, sturdy construction protects the unit from disruptive movement or vibration



WT 1H soldering station: the brain behind the robot: 150 W, precise temperature control and stability.

RELIABILITY



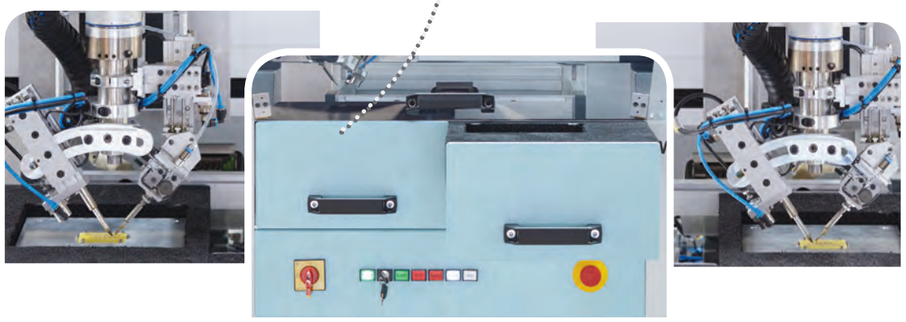
Easy to learn and use software



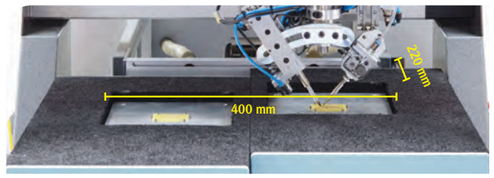
Safety cover fully encloses the integrated fume extraction system, protecting the user, workpiece, and equipment



PRODUCTIVITY



Double drawer system for continuous production



Working area allows maximum flexibility (Drawer height 100 mm)

ADVANTAGES AT A GLANCE

Highest soldering precision and superior reliability

- The WTBR 1000 is equipped with Weller's high performance Technology Line soldering tools, ensuring consistent quality of solder joints.
- The solder feeder is designed to be in close proximity to the workpiece (PCB), pulling the wire rather than pushing it through the feeder tube.
- The robust and sturdy construction ensures that no sudden movements or vibrations negatively affect the workpiece, the components or the tools.

Maximizing productivity, lowering cost

- A double drawer system allows continuous production thereby providing much higher process throughput, improving productivity and offering flexibility.
- The WTBR 1000 allows up to 50% cost saving versus hand soldering.

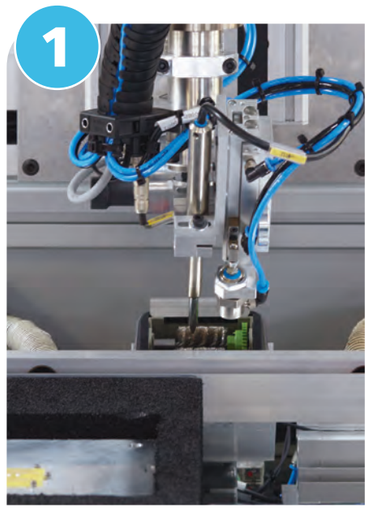
Easy to learn and use software

- The WTBR 1000 is operated with easy to learn and use software, enabling operators to start using the unit comfortably and quickly.
- It is easy to switch from one operator to another, with minimum time lost and without unnecessary training expenses.

Fully-enclosed system offers triple protection

- Being a fully-enclosed system, with integrated fume extraction, the WTBR 1000 Benchtop Robot allows our customers to achieve the highest level of safety: protecting the operator, the workpiece (PCB) and the machine.
- The fully-enclosed system provides a complete and CE-compliant solution to the customer.

AUTOMATED SOLDERING
STEP-BY-STEP



Move to cleaning position

The soldering head moves to the cleaning position and cleans the tip in the tip cleaner.



Move to working position

The soldering head leaves the cleaning position and moves to the working position.



Pre-tin tip / Preheat joint / Solder

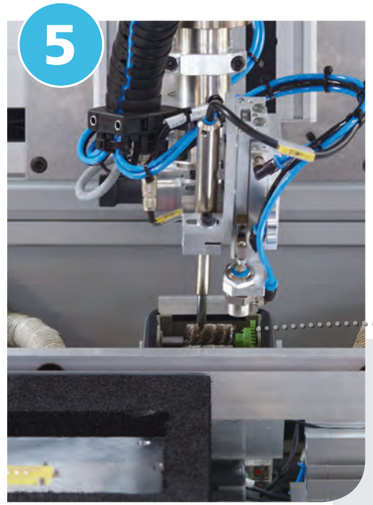
Uniquely WELLER®: a small, precise amount of solder wire is **smoothly pulled, not pushed** (as is conventional practice) onto the hot soldering tip to create a good thermal bridge for the soldering process:

- The tip is in direct contact with the components to be soldered
- The temperature and force applied to the joint is controlled
- While heating, solder is added
- Programmed parameters precisely control the entire soldering process, including the solder wire's speed and quantity



Remove solder supply while heating

The wire feeder is quickly retracted from the solder joint while the heat continues to be applied.



Remove heat source

The soldering tip retracts from the solder joint and is ready for the next soldering task.

Cleaning tool process

1. The brushes start rotating
2. Soldering tip moves down into the brushes, then moves sideways across the brushes (user defined)
3. The tip remains for a period of time in the brushes (user defined)
4. The soldering tip retracts out of the brushes
5. The brushes stop rotating



TRIPLE PROTECTION
MORE SAFETY, LESS DOWNTIME



Integrated fume extraction system protects operator, workpiece, and equipment

The increased production of fine dust and hazardous vapors by soldering processes brings forth the need to protect technical systems and components, which are increasingly particle-sensitive, from contamination. And even more important: soldering byproducts are extremely dangerous to the operators, leading to respiratory and cardiovascular diseases. That is why we integrated a high performance and energy-efficient Weller fume extraction system into the WTBR 1000.

It retains or absorbs particles and gases preventing these from damaging the workpiece (PCB) and sensitive machine parts. Especially the camera lens is highly sensitive to damages caused by particles and gases.That means less wearout and less downtime negatively influencing manufacturing efficiency. Ultimately, the operators are fully protected from any exposure to hazardous substances.

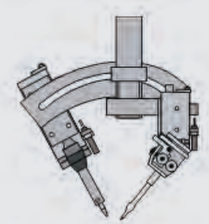
POWERFUL TOOLS
MORE PRECISION, MORE DURABILITY



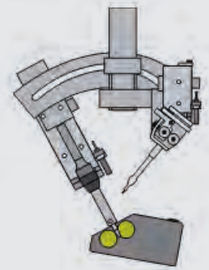
Integrated soldering tools ensuring consistency

We equipped the WTBR 1000 with our finest Technology Line tools which allow you to obtain the best possible soldering results:

- The powerful 150 W soldering station: WT 1H
- The long-lasting iron specially designed for automation: HER 120 heating element with 120 W power and XTR tips



Solder feeder retracts to allow enough space for tip cleaning



Metal brushes clean soldering tips

INTEGRATED. EASY.
CUSTOMIZABLE.

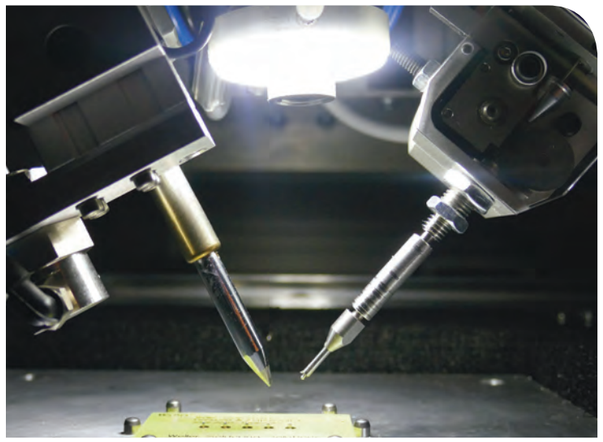


WTBR 1000 software: quick and easy

The WTBR 1000 is operated by an easy to learn and use software to program special, customized settings for the operator's application. We tailored a special training method which will enable your operator to promptly start using the system unit. This also allows you to switch from one operator to another with minimum downtime and without having to spend additional resources for expensive training sessions.

Monitor and computer included

TRACEability qualified



LED camera for superior process control and quality illumination

The integrated camera enables magnified, real-time and accurate inspection of process steps, facilitating high-precision soldering and superior quality control. It also facilitates teaching-in processes.

The integrated LED lights are designed to ensure superior quality illumination, the optimum contrast between light and dark areas needed to provide high quality images, as well as lower energy consumption.

ON POINT, SMOOTH-PULLING
SOLDER FEEDER

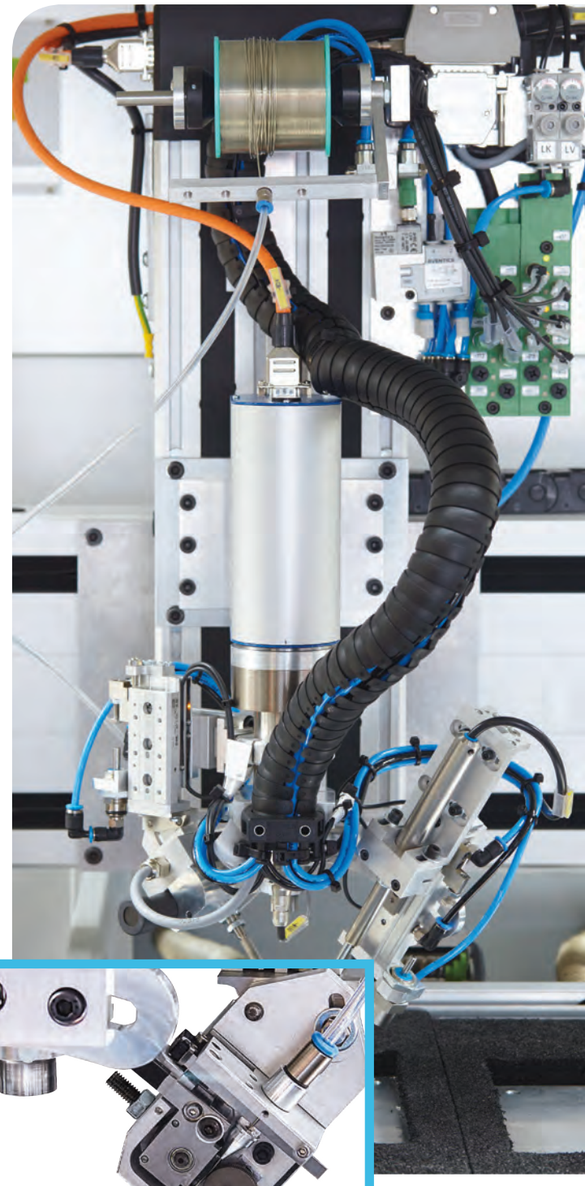
Weller®

The newly designed, short distance feeder unit with wire pull system ensures the highest accuracy

The complete feed unit is built close to the soldering tip and the soldering points to be processed. The solder wire is smoothly pulled from the remote solder wire coil through a tube. This guarantees the smallest possible tolerance deviations and the highest solder joint quality.

The parameters of the required solder wire quantity can be programmed and controlled simply and quickly via the software wire feeder features:

› Dynamic feeding speed
› Wire pull system
› Short distance feeder to solder joint
› Smallest tolerances for wiring
› Closed loop speed control
› Stopage detection
› Precise programmable soldering quantity
› Easy coil change
› Use of up to 500 g coils



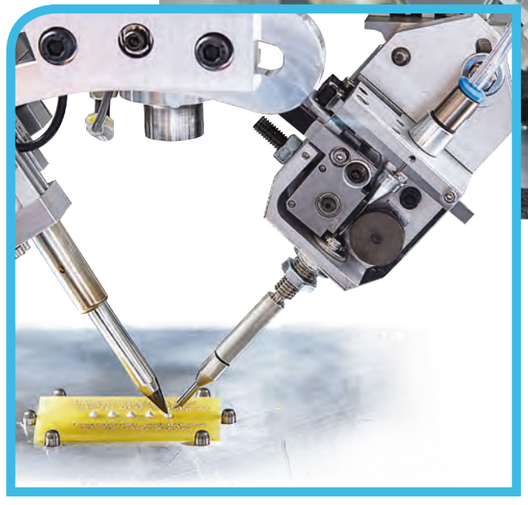
Weller DEMO

See the robot in action!

Schedule a FREE DEMO with our Weller experts

to learn more about the WTBR 1000 Benchtop Robot

For more information,
please contact our experts
robotics@weller-tools.com



UNSHAKEABLE CONSTRUCTION

Weller®



The robust and sturdy construction delivers precise solder joints every time.

Sudden movements and vibrations do not affect the workpiece, components or tools.

Technical Data for WTBR 1000 BENCHTOP ROBOT

Dimensions (mm)	1100 x 900 x 950
Dimensions (inches)	43.3 x 35.4 x 37.4
Two drawer working area (mm)	400 x 220 x 100 (each drawer 200 x 220 x 100)
Two drawer working area (inches)	15.75 x 8.66 x 3.9 (each drawer 7.9 x 8.66 x 3.9)
Two drawers (mm)	600 x 460 x 100 (each drawer 300 x 460 x 100)
Two drawers (inches)	23.6 x 18.11 x 3.9 (each drawer 11.8 x18.11 x 3.9)
Accuracy	20 µm
Speed	Max. 200 mm/s (7.9 in/s)

Power supply	200–230VAC / 50–60Hz, 100–120V / 50–60Hz
Weight	205 kg (451 lbs)
Enclosure	Integrated
Solder wire diameters	0,5 – 1,5 mm (0.02 - 0.06 in)
Solder wire feeder speed	2-32 mm/s (0.08 - 1,25 in/s)
Soldering tool (standard)	WT1 H with HER 120
CE	yes
Fume Extraction	yes (Weller LL150)
ESD safe	yes

Technical Data for WT1 H

Dimensions L x W x H	150 x 130 x 101 mm 5.91 x 5.12 x 3.98 inches
Fuse	230V (mA) T800 / 120V (A) T1,6
Weight	1.9 kg
Mains supply	230 V / 50 Hz, 120 V / 60 Hz
Power consumption	150 W
Safety class	I. Antistatic housing III. Soldering tool
Temperature range l/min 5– 60	50 °C – 450 °C / 550 °C
Temperature accuracy	± 9 °C / ± 17 °F

Technical Data for LL 150 Extraction Unit

Dimensions W x D x H	340 x 340 x 640 mm 13,4 x 13,4 x 24,01 inches
Weight	18 kg / 39.7 lbs.
Voltage	100 – 240 V, 60 Hz
Heating output	175 VA
Max. vacuum	2300 Pa
Capacity l/min	140 m³ / h
Filter type	Particle filter H13, wide band gas filter (50% activated carbon + 50% Chemisorb) pre-filter class F7
Noise level (distance 1 m) dB(A)	< 50 dB (A)
ESD-safe	yes

Kits	Order numbers
WTBR 1000 Camera/LED 230 V	T0051398599
WTBR 1000 Camera/LED 120V	WTBR1000FTLCA

Accessories	Order numbers
HER 120 Heating Element	T0058763730N
Positioning tube Di=0,7mm complete	T0051398799
Positioning tube Di=1,0mm complete	T0051398899
Positioning tube Di=1,2mm complete	T0051398999
Positioning tube Di=1,5mm complete	T0051399099
Positioning tube Di=2,0mm complete	T0051399199
Needles for positioning tube Di=0,7mm; 1PU=10pcs.	T0051399299
Needles for positioning tube Di=1,0mm; 1PU=10pcs.	T0051399399
Needles for positioning tube Di=1,2mm; 1PU=10pcs.	T0051399499
Needles for positioning tube Di=1,5mm; 1PU=10pcs.	T0051399599
Needles for positioning tube Di=2,0mm; 1PU=10pcs.	T0051399699
Nozzle mounting for needle	T0051399799
Solder wire feeder Mosquito A25 connection cable	T0051399899
Tip Cleaner COP 24V + brushes	T0051399999
Kit for soldering tip cleaner with stainless steel brushes	T0051400099
Bench for WTBR1000	T0051400199
Holder with arm	T0051400299
Pre-Filter F7 for LL150	150-4000
Spare Part Filter H13 for LL150 Extraction Unit	150-2012-LN

SOLDERING TIPS
AND HEATING ELEMENT

The Weller XTR Tips Series are designed especially for automated soldering applications, with a unique anti-rotation tab which ensures precise positioning of the tip. Their one-of-a-kind design also ensures stable heat delivery, guaranteeing repeatable soldering steps.

Only Weller original tips can be precisely paired with Weller heating elements, enabling the production of highest quality solder joints. By using genuine Weller parts, our customers can maximize productivity and cost savings.

Solder tips XTR

Model	a	b	c	VPE	Order no.
XTR A	1.6	0.7	36.5	1	T005 44 72399
XTR B	2.4	0.8	36	1	T005 44 724 99
XTR C	3.2	0.8	36	1	T005 44 725 99
XTR D	4.6	0.8	345	1	T005 44 726 99
XTR E	5.9	1.2	345	1	T005 44 727 99
XTR M	3.2	1.2	395	1	T005 44 728 99

Heating element



HER 120

Heating Element 120 Watts for Soldering Robot Application

Special application for use in soldering robots
Order no. T0058763730N

PRECISION TOOLS

Weller® Erem®

Take the advantage of using the Weller Erem high precision tools, manufactured in Switzerland. The quality and performance of Erem precision pliers, cutters, and tweezers are the result of more than 40 years of development and expertise.



Erem pliers

Needle nose pliers with very precise, smooth, rounded jaws.
Order no. 2411P



Erem cutter

Side cutter with oval head.
Order no. 2432E



Erem tweezers

Cutting tweezers with narrow oblique head. For soft wires up to dia. 0.25 mm/.010 Inch.
Order number: 15AGW



Erem tweezers

Precision tweezers with pointed tips. Very robust. Suitable for standard applications, e.g. for assembly in electronics.
Order no. OODSA

WSW SOLDERING WIRE
PROTECTS THE TIP

Weller®

Excellent melting properties for copper and nickel. Very fast, homogeneous wetting, even on difficult surfaces. Reduced Fe leaching. Soldering tip life times can be extended by up to 30% by the microalloy. Good wetting properties of the soldering tip in low temperatures. Better flow properties and low flux splatter.

To guarantee maximum flexibility with soldering wire, Weller can supply a range of alloys and fluxes as well as various wire diameters.

Alloys
- SAC alloy: tin / silver / copper

Flux
- Mildly activated flux (NoClean) M1
- Halogen-free flux L0

Diameters
- 0,5 mm, 0,8 mm, 1,0 mm, 1,2 mm, 1,6 mm

Type	WSW SAC M1	WSW SAC L0
Alloy	Sn3.0Ag0.5Cu	Sn3.0Ag0.5Cu
Temperature	217-221°C	217-221°C
Flux J-STD 004	M1	L0
Flux content	3.5%	3.5%
Weight	500 gr	500 gr
Diameter	**Order no.**	**Order no.**
0,5 mm	T005 13 864 99	T005 13 870 99
0,8 mm	T005 13 863 99	T005 13 869 99
1,0 mm	T005 13 862 99	T005 13 868 99
1,2 mm	T005 13 861 99	T005 13 867 99
1,6 mm	T005 13 860 99	T005 13 866 99



Use WSW Solder wire, proven ideal for robotic soldering. The high flux content and superior chemistry dramatically reduces the need for pre-fluxing of the workpiece.

CEPELEC
L'architecte de vos ambitions

Mail : cepelec@cepelec.com
Tel. : 04 76 49 00 37

See the robot in action!

Schedule a FREE DEMO with our Weller experts

to learn more about the WTBR 1000 Benchtop Robot



For more information,
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