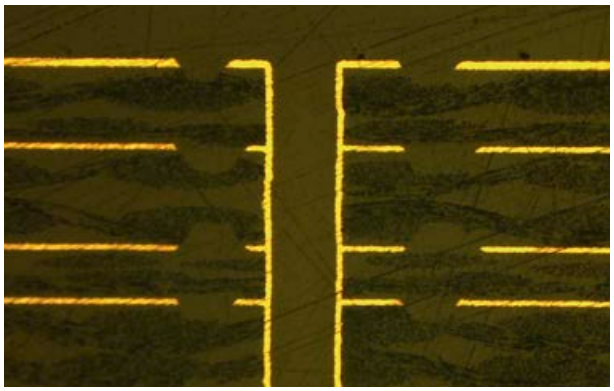
Professional PCB Electroplating Tanks

LPKF Contac RS and LPKF MiniContac RS

LPKF
Laser & Electronics

Professional Quality Through-hole Plating

The LPKF Contac RS and MiniContac RS, professional through-hole plating systems, are ideal for prototyping and small production run printed circuit boards, and their small footprints are perfect for labs and production areas where space is a premium. Both systems feature Reverse Pulse Plating and reliable Blackhole® Technology for direct metallization.



Ideal for plating the most common circuit board materials, including FR4 (G10) and microwave substrates such as RO3000®, RO4000® and TMM® as well as for creating multilayer printed circuit boards.

Easy to Use

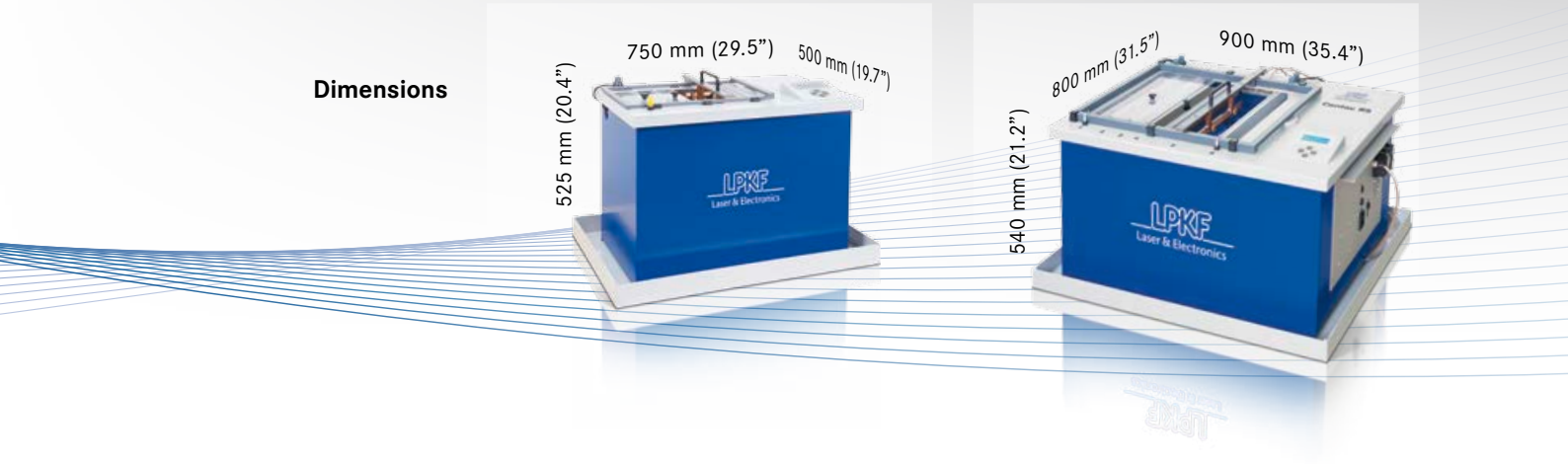
These microprocessor-controlled electroplating tanks feature a hands-on interface with a simple-to-use four-line display and menu-driven interface.

Easy Process and Simple Chemistry

The through-hole plating process starts with a pre-treatment of the circuit boards. They are cleaned, degreased, pre-treated, and activated. A galvanic bath adds the copper coat and after another rinse and cleaning step, the boards are ready for soldering.

Choose the Right Tank for the Right Application

	LPKF MiniContac RS	LPKF Contac RS
Substrate size	230 mm (9”) × 330 mm (13”)	460 mm (18.1”) × 330 mm (13”)
Plating and tinning	Copper	Copper + Tin
Dimensions	750 mm (29.5”) × 500 mm (19.7”) × 525 mm (20.4”)	900 mm (35.4”) × 800 mm (31.5”) × 540 mm (21.2”)



- High quality through-hole plating for production or the lab
- Uniform copper deposition with Reverse Pulse Plating (RPP)
- No special chemical knowledge needed

The LPKF MiniContac RS uses only four easy-to-change baths to complete a plating process. The LPKF Contac RS offers two additional baths: a rinsing bath and a bath for tin plating. No chemical knowledge or background is required to operate either system.

Galvanic Through-hole Plating, Step-by-step

The LPKF Contac RS and MiniContac RS are identical in all but scale to professional PCB electroplating systems. LPKF uses a step-by-step menu-driven system to walk a user through every step of the process nearly automatically in approximately 90 – 120 minutes.

Three simple steps

1. Washing and degreasing: In the first cycle of baths absolutely all contaminants are cleared away.

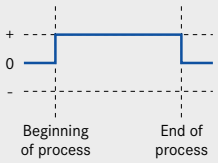
2. Activator application: A carbon activator is applied to the printed circuit board.

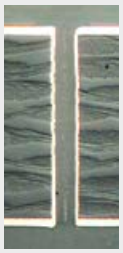
3. Electroplating: The LPKF electroplating sequence includes full digital control. The user simply has to load the PCB and the computer controls the rest of the process.

Advantage of Reverse Pulse Plating

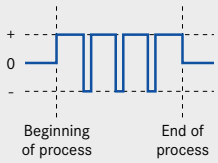
Both systems feature Reverse Pulse Plating, which assures consistent, even coverage of conductor on the plated surface. This is especially useful for through-holes with high aspect ratios.

Typical electroplating
Typical electroplating uses current flowing in one single direction to perform the copper deposition.





Reverse Pulse Plating
With Reverse Pulse Plating, the electroplating process is punctuated by brief current reversals, preventing dimensional copper build-up that can cause trouble with high aspect ratio holes.



Technical Data	LPKF Contac RS	LPKF MiniContac RS
Activator	Carbon	Carbon
Max. substrate size	460 mm x 330 mm (18.1” x 13”)	230 mm x 330 mm (9” x 13”)
Max. board size	430 mm x 290 mm (16.9” x 11.4”)	200 mm x 290 mm (7.8” x 11.4”)
Hole diameter	> 0.2 mm (8 mil)	> 0.2 mm (8 mil)
Number of plated holes	Unlimited	Unlimited
Max. number of layers	8	8
Max. resistance	<10 mΩ	<10 mΩ
Environmental compatibility	Good	Good
Processing reliability	Very good	Very good
Process duration	Approx. 90 – 120 min	Approx. 90 – 120 min
Substrate types	FR4, RO3000®, RO4000®, TMM® *	FR4, RO3000®, RO4000®, TMM® *
Power supply	115/230 V, 50 – 60Hz, max. 1.5 kW	115/230 V, 50 – 60Hz, 0.6 kW
Ambient temperature	18 – 25 °C (64.4 – 77 °F)	18 – 25 °C (64.4 – 77 °F)
Dimensions (W x H x D)	900 mm x 540 mm x 800 mm (35.4” x 21.2” x 31.5”)	750 mm x 525 mm x 500 mm (29.5” x 20.4” x 19.7”)
Chemical tinning	Yes	No
Reverse pulse plating	Yes	Yes
Weight	85 kg (187.4 lbs) unfilled; 150 kg (330.7 lbs) filled	42 kg (92.6 lbs) unfilled; 71 kg (156.5 lbs) filled

* Further materials upon request.

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Photos may also show optional accessories.

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