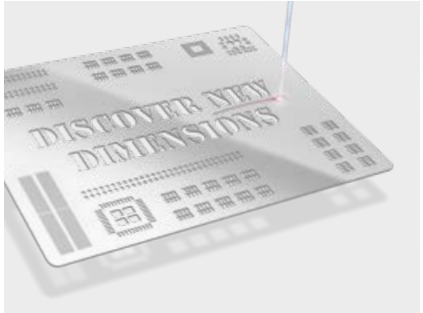
SMT Stencils and Precision Parts

LPKF StencilLaser G 6080, LPKF MicroCut 6080, LPKF PowerCut 6080, LPKF StencilLaser P 6060

- Unrivaled performance
- Longest endurance
- Thicker precision metal parts
- Smaller exact apertures



LPKF
Laser & Electronics

- High precision made of up to 4 mm stainless steel
- Various metals can be cut
- Extremely small apertures in stencil sheets
- Most stable precision
- Outstandingly efficient production
- Custom configurations available
- Best-in-class service

See for yourself: Ask our sales team for help calculating your application

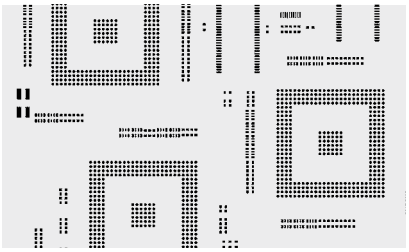
LPKF StencilLaser G 6080 – Maximum Productivity and Reliability

The first choice in the SMT stencil industry:

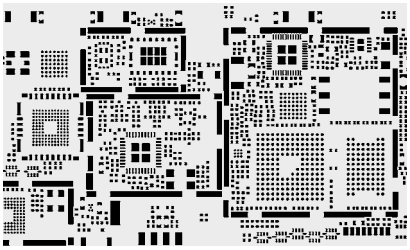
- High speed
- Top-level accuracy
- Optimum results
- Quick change of framed stencils and bare foils

The LPKF StencilLaser G 6080 is the top-of-the-line system for laser cutting of metal foils. It is used in job shops and electronics manufacturing facilities around the world, where it has made its name as the most reliable system in the industry. It unites the experience gained in more than two decades of use of laser technology with the latest findings in control and drive technology as well as ultraprecision machining tools. The system is ready for same-day delivery of step stencils.

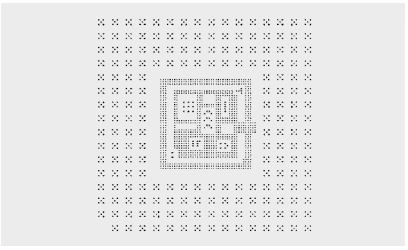
Reference Layouts: Fast Facts



Reference Layout A:
Stainless steel, 150 µm (6 mil) thick
Number of apertures: 14 157
Speed: Up to 23 400 apertures per hour



Reference Layout B:
Stainless steel, 100 µm (4 mil) thick
Number of apertures: 11 676
Speed: Up to 30 200 apertures per hour



Reference Layout C:
Stainless steel, 40 µm (1.6 mil) thick
Number of apertures: 18 000
Speed: Up to 51 200 apertures per hour

Technical data: LPKF StencilLaser G 6080

Laser class	1
Speed	Please refer to: Reference Layouts: Fast Facts
Cutting range (X/Y)	600 mm x 800 mm (23.6” x 31.5”)
Maximum frame size (X/Y/Z)	740 mm x 1800 mm x 40 mm (29.1” x 70.9” x 1.6”)*
Maximum loose sheet size (X/Y)	650 mm x 850 mm (25.6” x 33.5”)
Maximum material thickness	Up to 1 mm (40 mil)
Axial precision	± 2 µm
Power consumption	Max. 2800 VA overall
Dimensions (W x H x D)	1530 mm x 1920 mm x 1625 mm (61” x 75” x 64”)
Weight	Less than 2200 kg (4850 lbs)

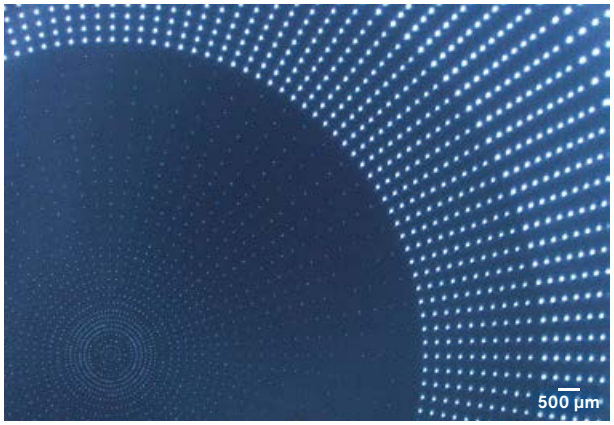
* Maximum stencil length 800 mm/1600 mm (31.5”/63”), with extended option

LPKF MicroCut 6080 –
New Benchmark for Small Apertures

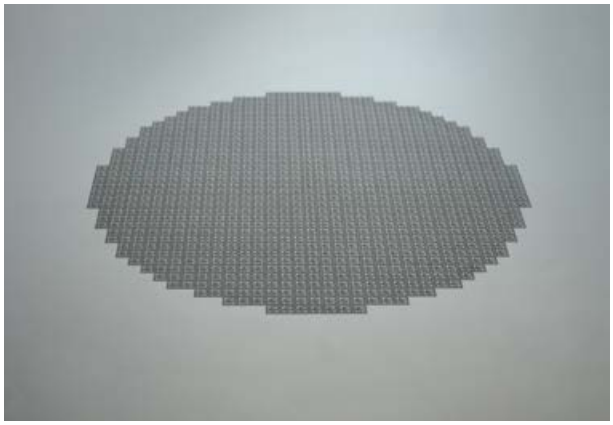
The perfect solution for increasing market requirements:

- Wafer stencils
- Flux stencils
- Filter applications
- High precision, high yield

Based on the proven StencilLaser G 6080 machine base, the MicroCut 6080 offers unique advantages for users, who pay special attention to very small print. The very latest positioning and cutting technology specially tailored to the needs of small aperture applications make it possible to cut exact apertures as small as 18 µm on the laser entry side and 10 µm on the exit side e. g. on 30-µm-thick stainless steel foil. Simple programming and parameter finding make it easy to overcome previously existing process limits to meet increasing market requirements.



33 000 holes/hour (10 µm – 125 µm)



Perfect wafer stencils with UniTense cutting technology

Technical data: LPKF MicroCut 6080

Laser class	1
Speed	Please refer to: Reference Layouts: Fast Facts
Cutting range (X/Y)	600 mm x 800 mm (23.6” x 31.5”)
Maximum frame size (X/Y/Z)	740 mm x 1800 mm x 40 mm (29.1” x 70.9” x 1.6”)*
Maximum loose sheet size (X/Y)	650 mm x 850 mm (25.6” x 33.5”)
Maximum material thickness	Up to 1 mm (40 mil)
Axial precision	± 2 µm
Power consumption	Max. 2800 VA overall
Dimensions (W x H x D)	1530 mm x 1920 mm x 1625 mm (61” x 75” x 64”)
Weight	Less than 2200 kg (4850 lbs)

* Maximum stencil length 800 mm/1600 mm (31.5”/63”), with extended option

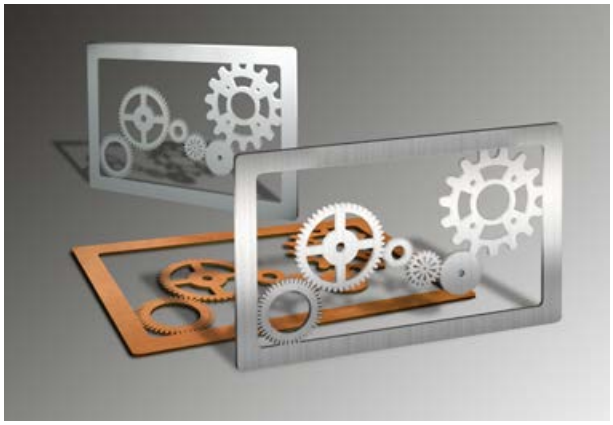
LPKF PowerCut 6080 – Cutting Thick Sheets With Micron Accuracy

Capable of handling a wide range of materials:

- Aluminum
- Nickel
- Tungsten
- Molybdenum
- Tantalum
- Stainless steel
- Copper
- Al_2O_3

The LPKF PowerCut offers power and efficiencies for micromachining mechanical parts from metal sheets up to 4 mm (150 mil) in thickness – with an accuracy known from SMT stencil production. Thus, the PowerCut system establishes a class of its own for the production of micro-parts. It delivers superior precision. This means perfect dimensional accuracy, small radii, optimally sharp edges, smooth and clean surfaces, and steep cutting walls. Users profit from material savings thanks to the thin cutting channels required by the laser. If desired, the PowerCut 6080 can also be used to process standard SMT stencils of a thickness greater than 80 µm.

Up to 4-mm-thick stainless steel – low taper/sharp edges



Machining of various metals, such as stainless steel, copper and aluminum

Technical data: LPKF PowerCut 6080

Laser class	1
Speed	Depends on the application and material
Cutting range (X/Y)	600 mm x 800 mm (23.6” x 31.5”)
Maximum frame size (X/Y/Z)	740 mm x 1800 mm x 40 mm (29.1” x 70.9” x 1.6”)
Maximum loose sheet size (X/Y)	650 mm x 850 mm (25.6” x 33.5”)
Maximum material thickness	Up to 4 mm (150 mil)
Axial precision	± 2 µm
Power consumption	Approx. 3500 VA overall
Dimensions (W x H x D)	1530 mm x 1920 mm x 1625 mm (61” x 75” x 64”)
Weight	Less than 2200 kg (4850 lbs)

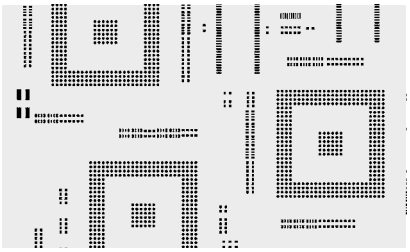
LPKF StencilLaser P 6060 – Economic Flexibility

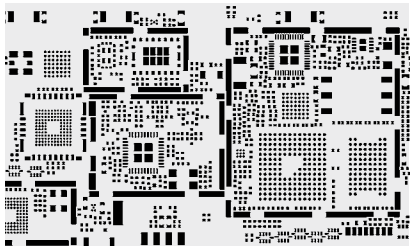
Stencils at the push of a button:

- Perfect SMT stencils
- Simple operation
- Fits into tight places
- Easy setup
- Framed and frameless stencils

The StencilLaser P 6060 system can cut all stencils that are used in the industry, both framed and frameless, without requiring any changeover. It is the most affordable system on the market today and it's all backed by LPKF's cutting technology and 20-plus years of experience. Available service packages guaranty worry-free production all over the globe.

The data for both reference layouts shown are available to you at any time. LPKF welcomes you to watch a live demonstration at one of our world-wide facilities, and encourages you to be present when processing samples.



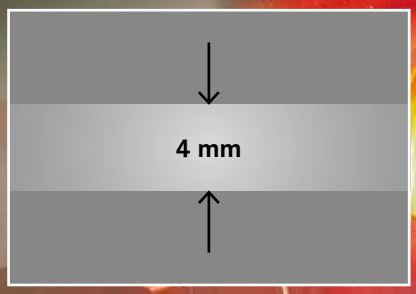


Reference layout A:
Stainless steel, 150 µm (6 mil) thick
Number of apertures: 14 157
Speed: Up to 7700 apertures per hour

Reference layout B:
Stainless steel, 100 µm (4 mil) thick
Number of apertures: 11 676
Speed: Up to 10 400 apertures per hour

Technical data: LPKF StencilLaser P 6060

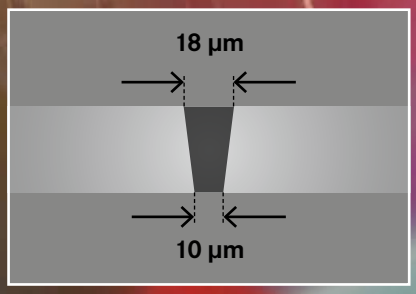
Laser class	1
Speed	Please refer to: Reference Layouts
Cutting range (X/Y)	600 mm x 600 mm (23.6" x 23.6")
Maximum frame size (X/Y/Z)	740 mm x 950 mm x 40 mm (29.1" x 37.4" x 1.6")
Maximum loose sheet size (X/Y)	650 mm x 850 mm (25.6" x 33.5")
Maximum material thickness	Up to 200 µm (7.9 mil) standard / up to 600 µm (23.6 mil) optional
Axial precision	± 2 µm
Power consumption	Max. 1500 VA overall
Dimensions (W x H x D)	1400 mm x 1400 mm x 1450 mm (55" x 55" x 57")
Weight	Less than 1200 kg (2645 lbs)

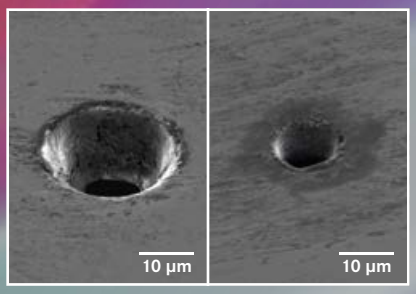


Precision cuts in up to 4-mm-thick metal sheets (4-mm-stainless steel) – low taper/sharp edges

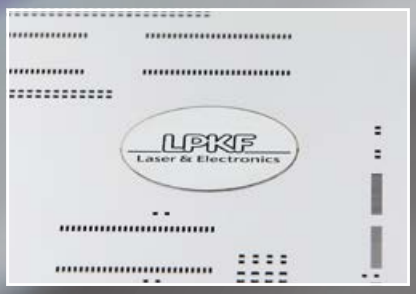
Pushing the Limits

Innovative variants of the high-end LPKF StencilLaser G 6080 laser system set new benchmarks in two dimensions: Extremely small openings of the highest quality enable new stencil applications and precision parts to be manufactured with the highest precision from stainless steel sheets up to a thickness of 4 mm.





Entry side 18 µm, exit side 10 µm (30 µm stainless steel). 33 000 holes/hour (10 µm – 125 µm).



Step stencil (step depth 50 µm)

100 % Assured LPKF Quality!

Comprehensive Service and Support From a Single Source

You Know Your Goal – We Help You Achieve it

LPKF is renowned for worldwide leadership in designing easy-to-use, world-class laser products specifically tailored to customer needs. From this leadership vantage point, LPKF is uniquely able to provide customers with worldwide premium customer support.

Basic Service

- Fast response time for minimizing downtime of your machine
- Qualified support via e-mail and phone
- Remote support free of charge

Classic Service

- Probability of failure decreases significantly
- Preventive maintenance secures your investment
- Easy planning with scheduled maintenance
- Basic package included

Premium Service

- Full service and complete cost control
- Highest uptime of your machine
- Warranty up to 10 years possible
- Basic and Classic package included

LPKF Laser & Electronics AG sells and markets products and provides support in more than 50 countries. Find your local representative at **www.lpkf.com**.

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