

DENTAL MANUFACTURING UNIT GMBH



# PRODUCT CATALOG 2024

Dental Manufacturing Unit's product catalog for clear aligner production equipment! Our company provides the latest and most innovative solutions for dental professionals seeking to produce high-quality clear aligners.

Our product range includes state-of-the-art equipment and technology designed to streamline the aligner production process and ensure precise and accurate results. Whether you're a seasoned professional or new to the field, our equipment is tailored to meet your specific needs and exceed your expectations.



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# SEPARATOR

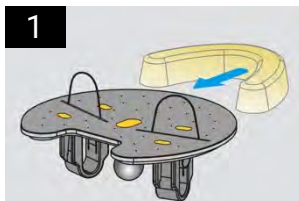
Elevate your results with our simple and time-saving solution. Our product enables comfortable detachment of aligner foils from the model without causing any deformations.



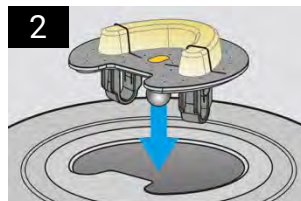
#101234

Introducing our innovative solution for safe and easy separation of aligner foils from the model, compatible with any model and all common thermoformers. With our product, you can separate the aligner foil from the model in less than 10 seconds using a simple lever - no electricity or compressed air required. Our solution is user-friendly and can be used without any special skills or training. Save time and effort with our product and achieve outstanding results.

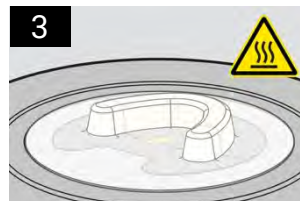
## HOW IT WORKS



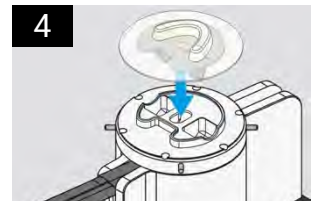
1 Place the tooth model on the vacuum disc under the separation threads and tighten them.



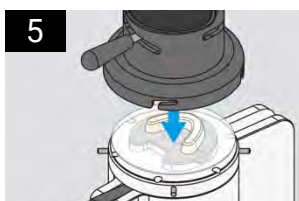
2 Insert the vacuum disk into the thermoforming unit using the adapter ring suitable for your unit.



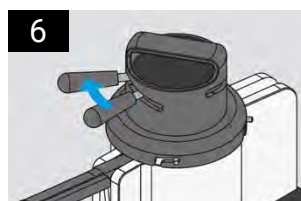
3 Thermoforming: Insert the aligner foil into the thermoforming unit and thermoform the aligner.



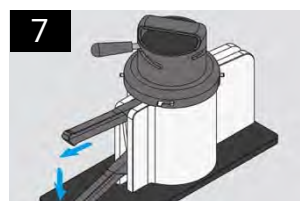
4 After thermoforming, insert the aligner with the vacuum disc into the separator.



5 Place the vacuum lid on the separator and secure it with a rotary motion.



6 Use the lever on the lid to create a vacuum, which is used as counterpressure for the separating process.



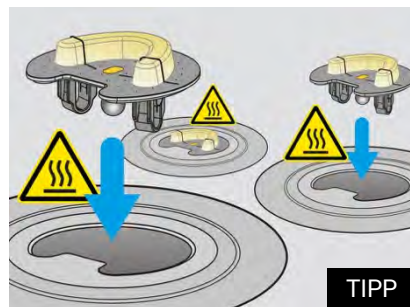
7 Pull the lever towards you and down to separate the tooth model from the aligner foil.



8 Unlock and remove the vacuum lid. Now the separated aligner can be removed and is ready for further processing.

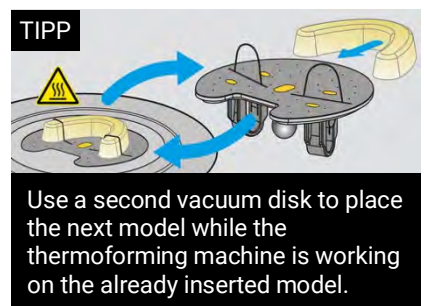
# ADAPTERS

Adapter rings come in different sizes depending on the thermoforming unit and manufacturer. Please select the appropriate one for your device.



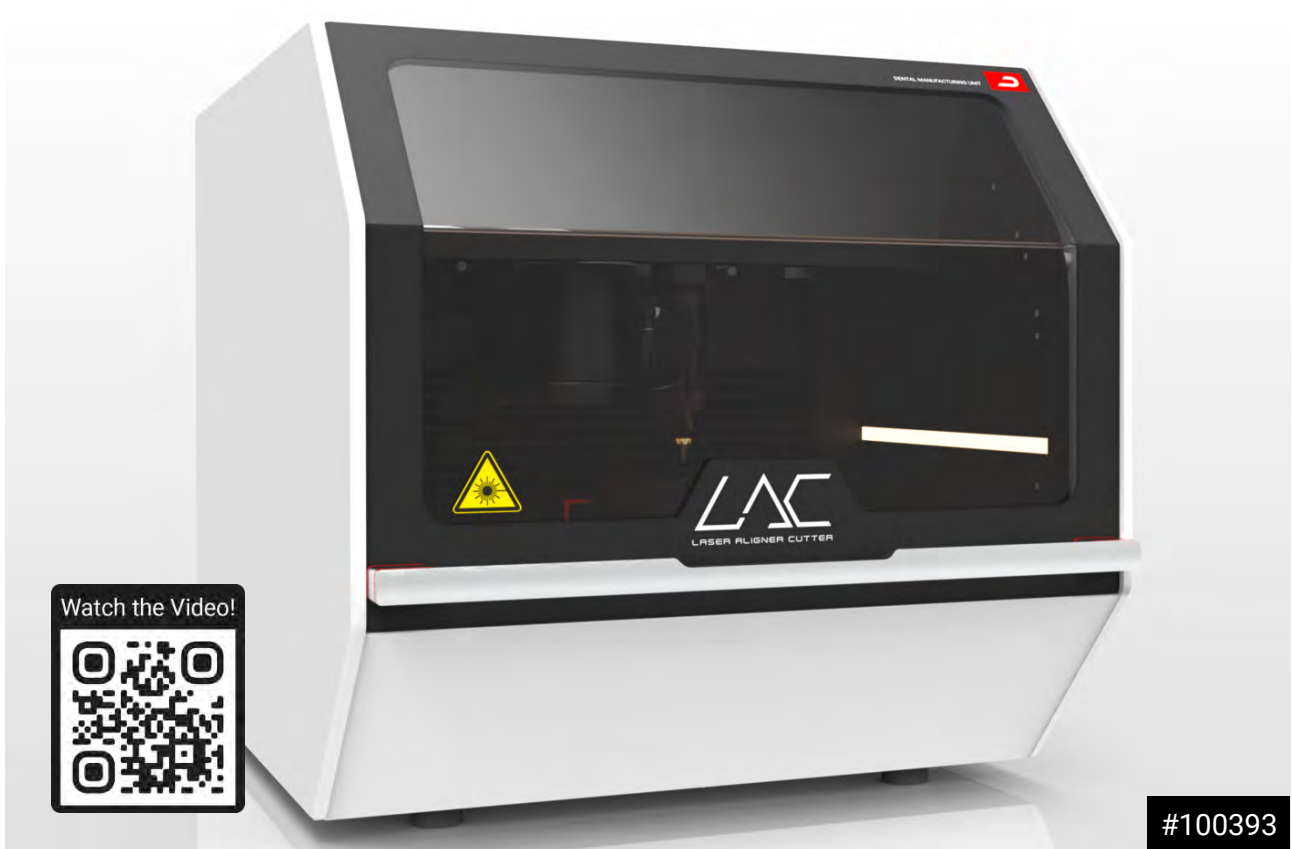
You can also produce several aligners simultaneously by using more vacuum discs and by equipping additional thermoforming units with adapters.

# SPARE PARTS



# LAC - LASER ALIGNER CUTTER

With LAC, you'll enjoy improved efficiency and ultimately resulting in higher quality outcomes. Don't miss out on this opportunity to streamline your processes.



Introducing LAC - Laser Aligner Cutter, the fully automatic cutting solution for clear aligners. With a process time of just one minute. Our product provides excellent cut and edge quality, without the need for post-processing like polishing. LAC is compatible with any 3D printing model and all common thermoformers, making it a versatile and essential tool for orthodontic practices.

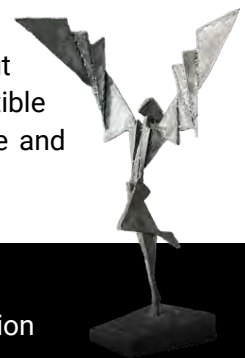
LAC also offers digital interfaces to the best suppliers such as Dental Axess (Xflow/Xplan) and ArcadLab; data compatibility to all major vendors like 3Shape, OnyxCeph or ORTH'UP".

Our integrated control system with web interface allows for easy monitoring and control of the cutting process. Additionally, our camera-based Aligner to Trimline matching ensures precise cutting every time, eliminating any guesswork.

**WIKARUS**  
Business Award for Innovation

LAC is the most innovative clear aligner laser cutting solution on the market.

That is why the Dental Manufacturing Unit was awarded the WIKARUS trophy and first place at the WIKARUS 2022 Business Award for Innovation.



## TECH SPECS

**Aligner**

Process time (Aligner cut)	approx. 60-90s
Aligner foils diameter	ø120-125mm
Aligner foils height	0,25-1mm
Repeat accuracy	±0,1mm

**Interfaces**

Hardware Interface	Gigabit Ethernet (IEEE 802.3)
Software Interface	Import of universal aligner data (model as STL and trim line as PTS, CSV or XYZ file)

**Laser**

Laser type	CO <sup>2</sup>
Laser power	20W
Wavelength	9,3µm
Laser class of product	Class 1
Cooling	Air-cooled

**Suction Unit (requirements)**

Connection diameter	ø50mm
Air flow rate (unimpeded)	240m <sup>3</sup> /h
Filter	<ul style="list-style-type: none"> <li>• Prefilter mat G4,</li> <li>• HEPA filter H13,</li> <li>• Activated carbon</li> </ul>

**Power**

Voltage	Single-phase 110-230, 50/60Hz
Power consumption	900W

**General**

W / L / H (opened)	620x880x640mm (980mm)
Weight	78kg
Noise level	65db(A)



Purchase a LAC - Laser Aligner Cutter and enjoy a massive 50% discount on the Separator!

# SUPPORT & DEVICE UPDATES

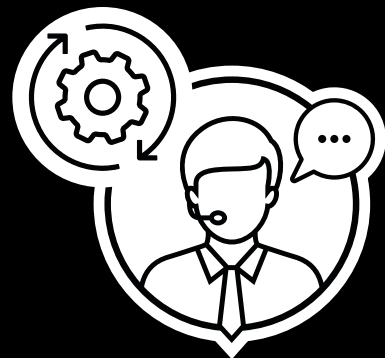
#SP1002

With our Technical Support and Device Software Updates package, you can rest assured that your software will continue to perform at its best and you'll have access to our team of experts.

## Technical Support and Device Software Updates package

With this package, you'll receive 12 months of continuous software updates, including access to the latest version of LAC firmware and ongoing service packs. These updates will keep your device software up-to-date and provide new features and enhancements to improve your overall experience.

In addition to software updates, you'll also have access to our live technical support. Our certified DMU technicians are available to assist you with any issues you may encounter. We understand the importance of quick remedy, which is why we offer remote support from our DMU technicians to help you resolve your issues efficiently.



Mechanical maintenance, repair activities or device replacement are not included in this package.

# SUCTION UNIT

To ensure a clean and safe working environment and achieve high-quality cutting results, the LAC Suction Unit, which is specifically designed to match the LAC, is indispensable.



The LAC Suction Unit ensures optimal airflow, which is essential for achieving perfect cutting and edging quality.

With its three-stage filter system, including a pre-filter mat (G4), HEPA filter (H13), and activated carbon cassette, the LAC Suction Unit effectively captures harmful pollutants, ensuring purified air for a healthier workspace.

Say goodbye to harmful emissions and hello to a healthier and safer work environment with the LAC Suction Unit.

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## Power

Voltage	Single-phase
	110-230, 50/60Hz
Power consumption	700W

## General

W / L / H	390x430x630mm
Weight	35kg
Noise level	56db(A)

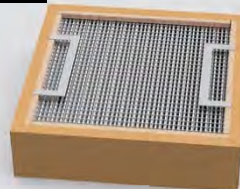
# SPARE PARTS

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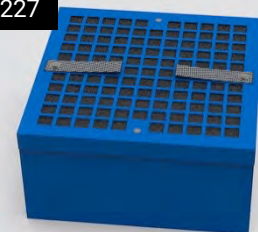
Pre-Filter G4 [Set of 10 pcs]  
up to 300 cuts/filter

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HEPA-Filter H13  
up to 2000 cuts/filter

#101227



Activated Carbon Filter 3m<sup>2</sup>  
up to 10000 cuts/filter

Replacing the filter elements is crucial for a clean and high-quality cut and edge. The LAC - Laser Aligner Cutter web interface informs you when it is reasonable to change the respective filter element.

# TRIMLINE GENERATOR

Trimline automatically finds the appropriate cutting line fully automatically.  
Open the model STL file, generate cutting line, export, done!



LAC Trimline Generator analyzes the dental arch and finds the appropriate cutting line fully automatically. You can choose between a straight or a shell cut. Individual line points can be edited as required. The software is compatible with any STL 3D file used for 3D printing. With just one click, the PTS file matching the 3D model is exported. LAC Trimline Generator is the missing piece of the treatment planning puzzle.

## LICENSE MODELS

Decide between the flexible subscription license or the lifetime license.

### TRIMLINE GENERATOR Full Purchase

- Single payment
- Updates included
- Lifetime usage

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### TRIMLINE GENERATOR Annual Charge

- Yearly payment
- Updates included

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## SYSTEM REQUIREMENTS

**Supported operating system:** Microsoft Windows 10 (64-bit) or higher

**CPU:** Intel x86 architecture with 64-bit support (x86-64) or comparable with at least 2.00 GHz clock speed

**RAM:** At least 4 GB of RAM

**GPU:** Standard Intel HD Graphics 620 or equivalent sufficient

**Other:** 100MB hard drive space for installation

# COUNT ON OUR PARTNER NETWORK

Our partner network is a group of companies and individuals who are authorized to resell our products and services to their own customers.

Our resellers are carefully vetted to ensure they have the knowledge and resources to provide top-notch support and service to their customers. By working with our resellers, we are able to provide our customers with more localized support and a wider range of solutions. We are proud to have such a dedicated group of partners and look forward to continued growth and success together.



Thank you for choosing Dental Manufacturing Unit as your trusted partner in clear aligner production.