al dente
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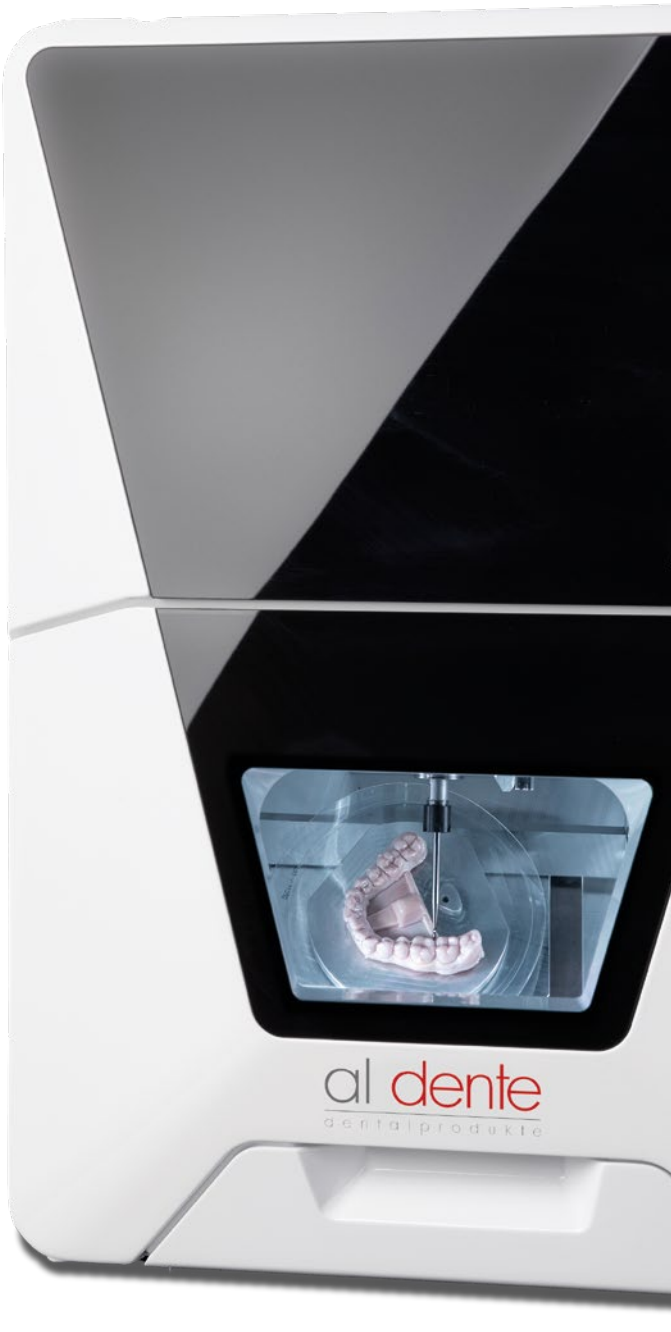
Showcase

ProSplint e3



Optimize your Workflow.

Maximum productivity: speed up your splint output with the al dente ProSplint e3.

The basic idea behind the e3 ProSplint is to automate the precise milling of thermoformed splints for a significant increase in efficiency in the production of aligner splints.

The absence of compressed air and the simple tool guidance ensure flexibility in the set-up. The outstanding efficiency of the e3 ProSplint lies in its production speed. A thermoforming splint of remarkable quality is produced in less than 60 seconds. Thanks to this speed, series of splints can be produced easily without the need for time-consuming reworking.

The ProSplint e3 enables a new level of level of automation and efficiency in the production of thermoformed splints.

Efficiency attained by **simplicity.**

Sophisticated and compact system
for your optimized splint production.

Simple tool assembly

Tool-free insertion of the model.

The ProSplint e3 perfectly embodies the philosophy: „As complicated as necessary, as simple as possible." Its automated process for producing thermoforming splints is streamlined to the essentials, ensuring a seamless transition from manual work to automation.

Designed for efficiency, the e3 redefines simplicity without sacrificing functionality. Changing tools is effortless, thanks to an intuitive mounting system.

In addition, models are pre-printed with a base that integrates automatically into the software. This allows them to be clicked into the machine in just seconds.

Material leavings produced during the milling process are neatly collected in a drawer, keeping the workspace clean. Once the milling is finished, the splint can be easily removed from the model by hand, completing a truly user-friendly process.

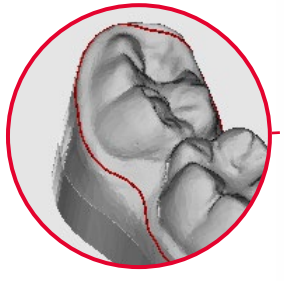
TrimCAM Software

Strategy selection

For defining the correct strategy parameters for diverse sheets and material strenghts.

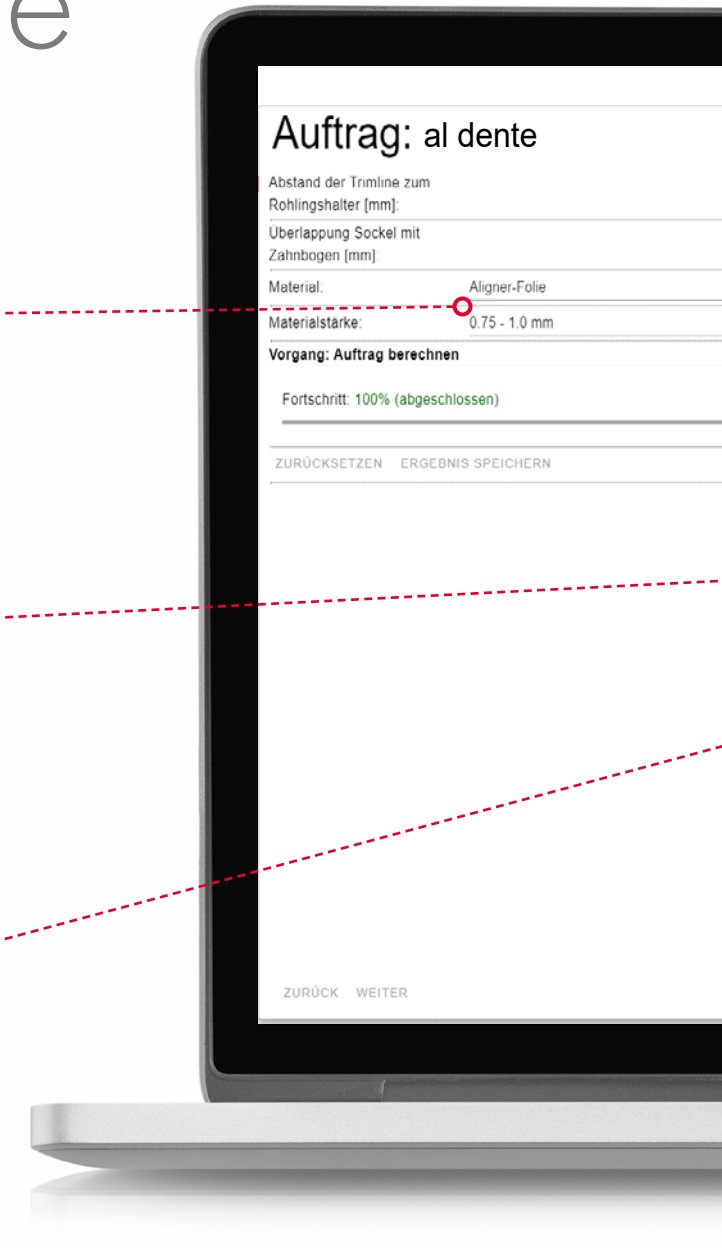
Trimline Generation

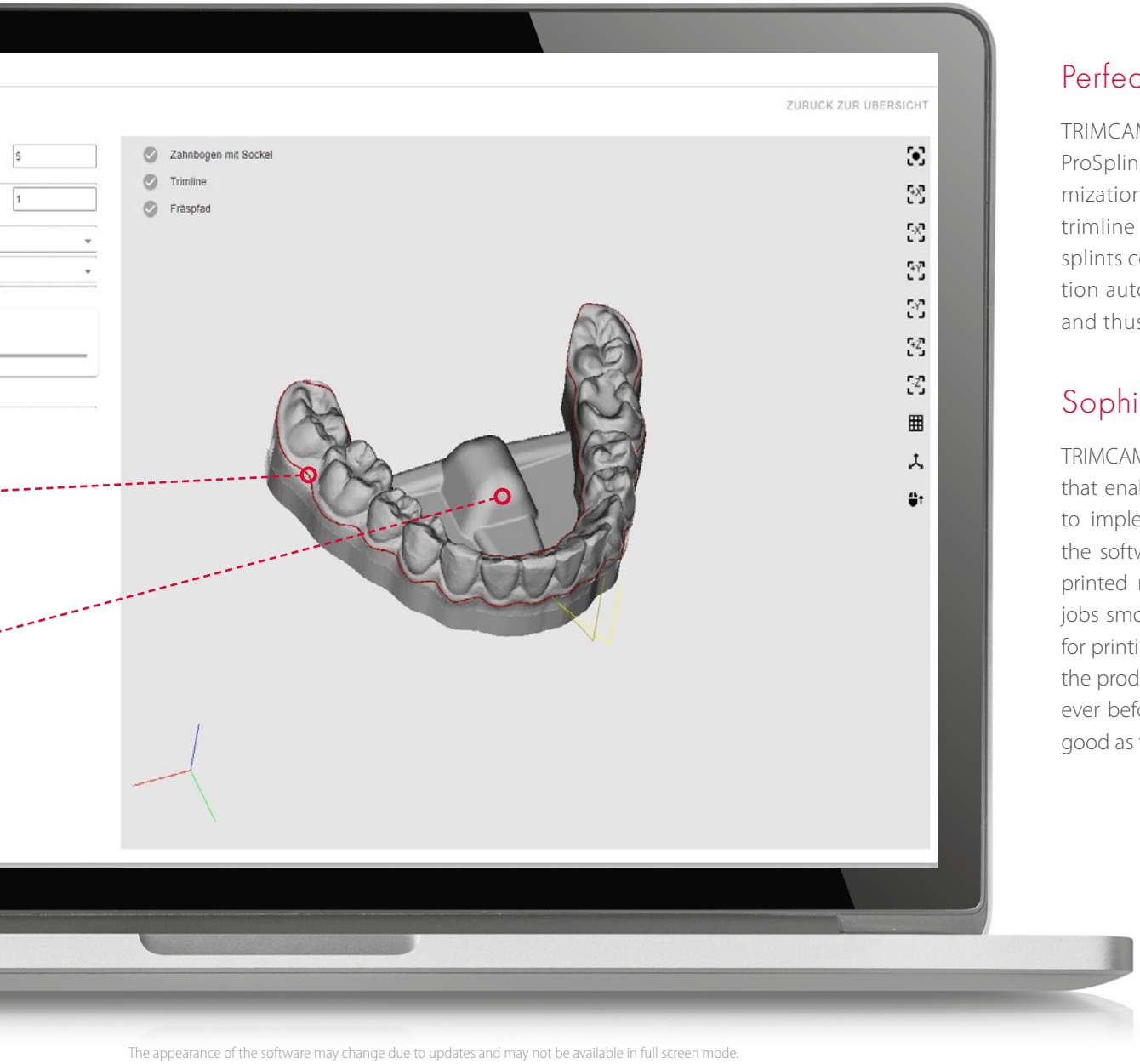
The trimline is determined automatically by the software, but can also be easily adjusted manually.



Printed Model Base

The mount for the milling process is already taken into account when the model is printed and inserted by the software.





Perfect harmony

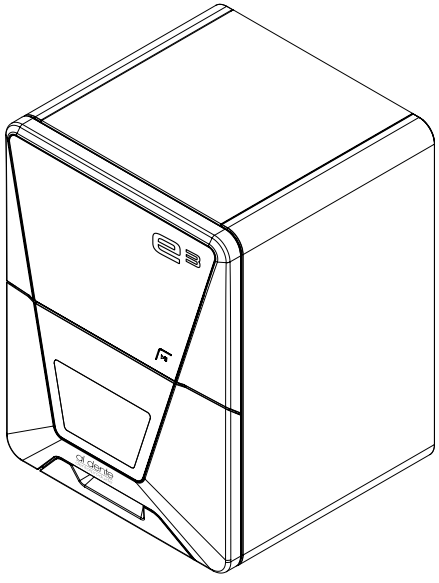
TRIMCAM is the software supplement to ProSplint e3 and continues the workflow optimization approach. Thanks to its AI-supported trimline generation, it makes the production of splints considerably easier. This intelligent function automatically detectthe optimum trimline and thus minimizes time and effort.

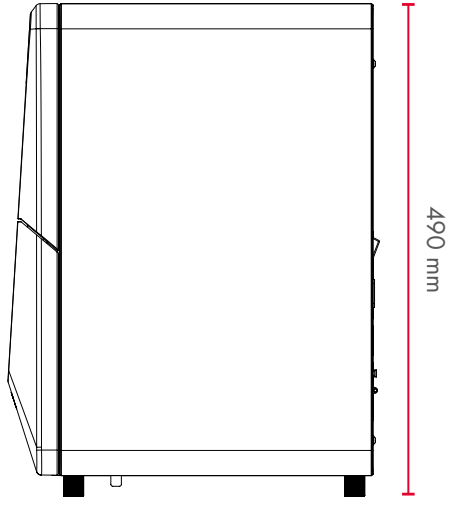
Sophisticated efficiency

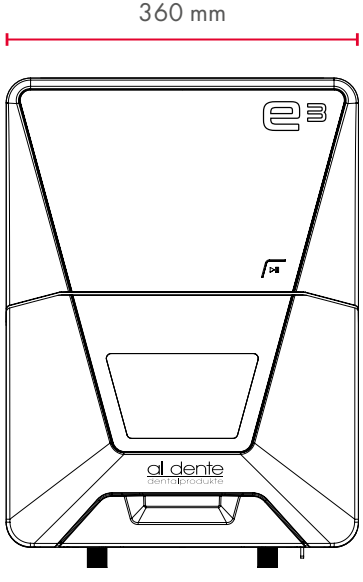
TRIMCAM is characterized by intuitive operation that enables a seamless transition from planning to implementation. In addition to ease of use, the software automatically adds the support for printed models to make the change of milling jobs smooth. The software outputs open .stl files for printing the model and base. TRIMCAM makes the production of thermoforming rails easier than ever before - because a machine can only be as good as the software you use to control it.

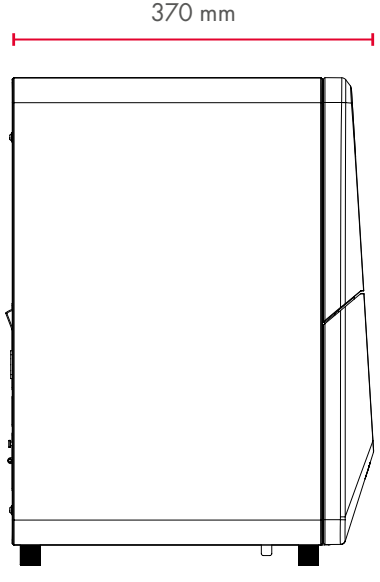
The appearance of the software may change due to updates and may not be available in full screen mode.

Dimensions









Technical Support
support@aldente.de
+49 (0) 53 21 | 80 031

Innovative

Tool-free fixing of the thermoforming sheet in seconds

Automatic trimline detection

Machine design optimized for low weight

Modular machine design for service-optimized maintenance

Economical

Sustainable operation thanks to the absence of compressed air

Environmentally friendly shipping by parcel service possible thanks to the low machine weight

Excellent price-performance ratio enables entry into CNC production

Very simple operation via the TRIMCAM software supplied - no license fees

Reliable

100% developed and manufactured in Germany

Best production results and long service life thanks to the exclusive use of high-quality industrial components

Fast & Precise

Powerful 800 watt spindle with 60,000 rpm

Sturdy aluminum construction

Complete processing of aligners in under 60 seconds

Independent

Quick and easy cutting of splints from different material manufacturers

TRIMCAM software with open interface to planning software

e3 ProSplint

Specifications

GENERAL

Application	Dry milling
Materials	Thermoforming Sheets/Models
Indikationen	Splints
Haltersysteme	Mount for tool-free model attachment

BASE SYSTEM

Structure	Sturdy aluminum construction
Body	High-gloss white lacquer finish · upward-opening lift door to the work area
Axles	3+1
Linear axles	X-axis: rack and pinion drive · Y/Z-axis: trapezoidal thread spindles · motor resolution 10 µm · max. axial play 0.06 mm
B axle (turning)	Angle of rotation: 360°, infinite
Control electronics	Control electronics with continuous trajectory and dynamic pre-calculation · Hardware-based real-time operating system with standardized instruction set · FPGA-integrated processor · updateable hardware · real-time path calculation and real-time ramp calculation via dedicated hardware engines in the FPGA · four-quadrant control of the motors for particularly multiple digital I/Os for controlling the peripherals · integrated inverter for synchronous and asynchronous motors inverter for synchronous and asynchronous motors, electronic lead detection · Ethernet and USB interface
Lighting	RGB LED lighting with status indicator

SPINDLE

General	High-frequency spindle with mechanical tool change
RPM	up to 60.000 RPM
Power	Output power (Pmax): 800 watts - Continuous power (S1): 450 watts
Mounting	2-fold hybrid ceramic ball bearing
Collet Chuck	Collet chuck type ER8 for holding a tool with 3 mm shank diameter

PROCESSING MODES

Dry	Compressed air-free operation without suction

CONNECTION REQUIREMENTS

Pressure Air	–
Voltage	100–240 Volt · 50/60 Hz, 320 Watt
Suction	–
Data	10/100/1000 MBit/s BaseT port (automatic detection) Ethernet via RJ-45 socket

ENVIROMENTAL REQUIREMENTS

Temperature	between 10 °C and 35 °C
Air Humidity	max. 80 % (relative), non-condensing

CERTIFICATIONS

All Models	CE
North America	UL 61010-1, CAN/CSA C22.2 No. 61010-1

DIMENSIONS & WEIGHT

Dimensions	(W/D/H) 360 × 370 × 490 mm with door closed · 360 × 420 × 490 mm with door open
Base Spacing	(B/T) 286 × 268 mm
Weight	25 kg

SCOPE OF DELIVERY

CAM-Software	TRIMCAM software for aligner fabrication included in the scope of delivery
Assessories	Calibration set incl. micrometer screw · Torx screwdriver · Torque screwdriver 1.5 Nm · Cleaning brush Cleaning brush and microfiber cloth · Radius cutter (2 pcs) · Clamping wrench · Open-end wrench Power cable · Ethernet network cable

al dente
dentalprodukte

MADE
IN
GERMANY

al dente dentalprodukte GmbH

Borsigstraße 1, 38644 Goslar
Germany
+49 (0) 53 21 / 80 031
info@aldente.de

www.aldente.de

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