SILADENT digital

.e series

SilaMill e5

The universal all-rounder for CAD / CAM entrants.

Innovation in dental technology.

Your compressed air-free entry into digital manufacturing.

CAD/CAM made easy - the SilaMill e5 gives you an easy and flexible start to digital manufacturing.

SilaMill e5 – benchmark for modern labs

The SilaMill e5 redefines precision and efficiency in digital dental technology. This powerful milling system has been specially developed for dry processing and enables dental restorations to be produced at the highest level.

Thanks to the absence of compressed air and the patented AIRTOOL, you benefit from low operating costs and flexible placement in the laboratory. The intuitive CAM software makes it easy to get started with digital production and ensures first-class results for every application.

Optimize your workflow with the SilaMill e5 and rely on future technology.

5	Axles
1	Disc
6	Blocks
17	Tools

Grinding + Milling

incl. CAM Software

Compact all-rounder

The SilaMill e5 offers you maximum flexibility when processing a wide range of materials and indications.

With space for 17 tools, the ability to process one blank and up to six blocks in different sizes, the e5 covers an impressive range of applications - from crowns and bridges to implants and drilling templates.

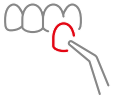
The SilaMill e5 is your reliable partner for high-quality and versatile dental restorations in your laboratory.

Areas of use: **Materials & Indications**

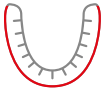
- Composites
- PMMA
- Wax
- Zirconia
- CoCr
- CoCr SLM*


Crowns & Bridges


Inlays & Onlays

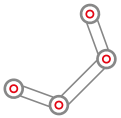

Veneers

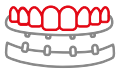

Abutments


Occlusal splints


Primarycrowns


Screwed crowns

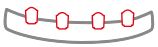

Implant bar


Full denture

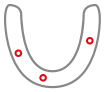

Denture frameworks


Secondary Crowns


Screw-retained bridge


Model plates


Model tooth die


Surgery guide

* Sintered metal from laser-melting manufacturing

CA - free thanks to AIRTOOL

The e5 sets new standards with its freedom from compressed air: neither an external compressed air connection nor a built-in compressor are required. This is made possible by the patented AIRTOOL.

Due to the high speeds of the high frequency spindle, the turbine blades of the AIRTOOL generate a powerful air flow, removes chips and dust from the workpiece. These are then efficiently extracted. This keeps the working environment clean and free of material residue at all times.

Technical Data

GENERAL

Fields of application	Dry machining
Materials	Composites, plastics/wax, zirconia, CoCr sintered metals • Discs, height 10–40 mm, diameter 98.5 mm • Blocks up to 40 × 20 × 20 mm (block holder required)
Indications	Crowns, bridges, inlays, onlays, veneers, occlusal splints, full dentures, denture frameworks, implant bars, abutments, screw retained crowns, screw retained bridges, surgery guides, primary crowns, secondary crowns, model plates, model tooth dies
Holder systems	Holder for 98.5 mm discs (integrated) · holder for 110 mm discs (optional) · block holder (optional) · Ivotion1 accessory kit (optional)

BASE SYSTEM

Construction	Machine bed made of solid cast aluminum body
Housing	White high-gloss lacquer finish · upward opening lift door to the workroom
Number of axes	5
Linear axes X-/Y-/Z	Precision ball screws · motors with resolution < 1 µm · ground precision guides made of high-alloyed steel · repetition accuracy ± 0.003 mm
Rotary axis A-axis	Backlash-free tension shaft gear with highest angular accuracy · rotation angle: 360°, infinite
Rotary axis B-axis	Backlash-free tension shaft gear with highest angular accuracy · rotation angle: ± 35°
Control unit	Control electronics with continuous path progression and dynamic pre-calculation hardware-based real-time operating system with standardized instruction set · FPGA-integrated processor · updateable hardware · real-time path and ramp calculation via dedicated hardware engines in the FPGA · four-quadrant control of the motors for particularly smooth running multiple digital I/Os for controlling the peripherals · integrated inverter for synchronous and asynchronous motors, electronic gate detection · Ethernet and USB interface
Lighting	RGB LED lighting with status indication

SPINDLE

General	High-frequency spindle with electromechanical tool change
Speed	Up to 60,000 rpm
Power	Peak power (Pmax): 800 watts · nominal power (S6): 400 watts · continuous power (S1): 300 watts
Bearing	2-fold hybrid ceramic ball bearing
Collet	For tools with 3 mm shank diameter and max. 40 mm total length

AUTOMATION

Tool change	Tool magazine for 16 tools plus one AIRTOOL · length measurement and tool breakage monitoring via precision measuring key · access via front-door, safety-locked

PROCESSING MODES

Dry	Compressed air-free operation through use of AIRTOOLs · hose connection for external suction unit on the back of the housing · 24 V switch output for controlling suction units

CONNECTION REQUIREMENTS

Compressed air	–
Power supply	100–240 volts · 50/60 Hz, 500 watts
Extraction system	Extraction filter class M, 2,500 l/min extraction capacity at 200 hPa
Data	10/100/1000 MBit/s BaseT port (auto-sensing) Ethernet via RJ-45 socket

ENVIROMENTAL CONDITIONS

Operating temperature	Between 10 °C and 35 °C
Air moisture	Max. 80 % (relative), non-condensing

APPROVALS

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

DIMENSIONS & WEIGHTS

Dimensions	(W/D/H) 472 × 484 × 734 mm with closed door · 472 × 567 × 734 mm with open door
Footprint	(W/D) 387 × 370 mm
Weight	43 kg

SCOPE OF DELIVERY

CAM Software	DENTALCAM software included
Accessories	Spindle service set · calibration set incl. stirrup measuring screw · tool magazine insert (1 piece) Torx wrench set · torque driver 1.5 Nm · AIRTOOL for PMMA/wax · drill bit (tool positions) cleaning brush and microfiber cloth · Administrated Tool Board for tool storage · power cable · Ethernet cable

Subject to changes and errors.

Innovation in dental technology.

SILADENT

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