

THE NEW CHAIRSIDE



byzz® 11 **EASY** Mill4 Perfit FS

NO NEED FOR SINTERING

Fully sintered zirconium oxide blocks - also for the laboratory

A DREAM C

NEVER BEFORE HAS CHAIRSIDE BEEN SO PRECISE

EASY Mill4

A quantum leap in the chairside sector - super efficient!

The EASY Mill4 redefines chairside restorations, because we have understood what is important in your practice.

- Simplified operation due to easy changing of the blocks thanks to pneumatic clamping devices.
- Automatic tool change.
- Cost savings, as up to five crowns can be produced with one set of grinding tools. In addition, each set of 5 Perfit FS blocks comes with a set of 3 new grinding tools.
- Open workflow and automated data transfer when using byzz® 11 (database) exocad chairside (CAD design) and WorkNC (CAM production).
- Integration of the fully sintered zirconium oxide Perfit FS in ± 50 minutes processing time for a crown (no additional sintering process required!).
- EASY Mill4 includes strategies and special cooling liquid that ensures maximum Perfit FS quality.

The little power pack

- L 37 x W 47,1 x H 42 cm
- 4-axis wet grinding machine.
- Very quiet, only 50 - 58 dB.
- Outstanding price-performance ratio.
- Suitable for all block materials incl. Perfit FS, feldspar ceramics, lithium/glass-based, composites, PMMA ...
- Elegant and compact, space-saving design.
- Heavy weight (45 kg) despite small dimensions for low-vibration grinding / milling.
- Ethernet or USB connection.
- Extensive detection and warning functions.

No sintering furnace required!

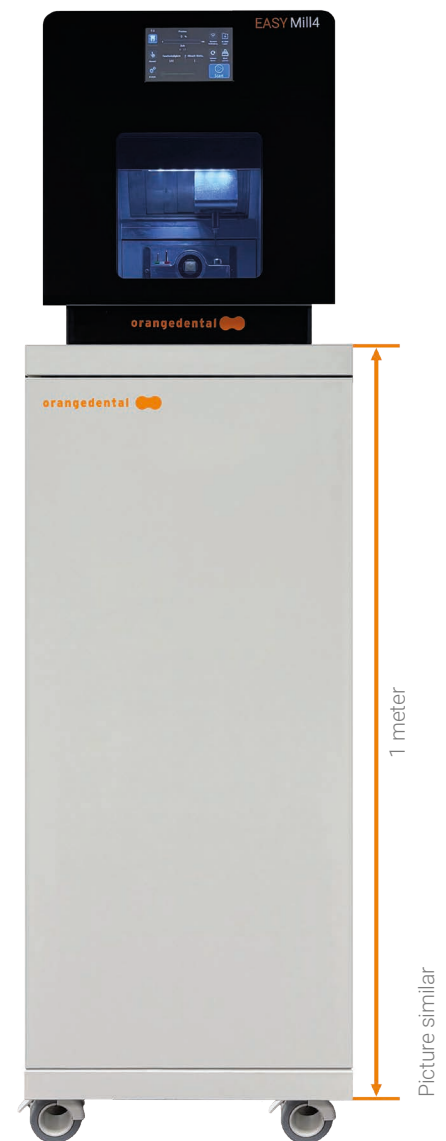
- Reduce your treatment times and concentrate on your patients.



3 unit Bridge



lower 6er molar

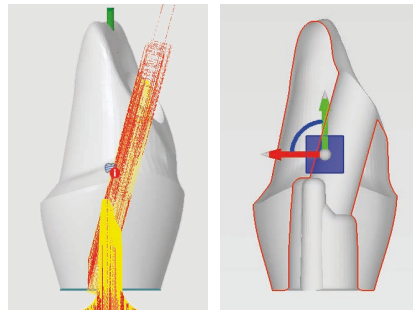


Base cabinet with lockable castors

COMET TRUE

THE NEW CHAIRSIDE CONCEPT - PERFECTLY MATCHED

EASY Mill4

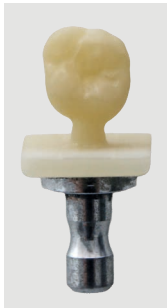


EASY Mill4 can mill angled screw channels

- Up to 3-unit bridges made of sintered zirconium oxide
- Perfit FS up to 40 mm
- All common block materials up to 45 mm



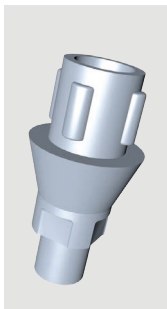
• Inlay



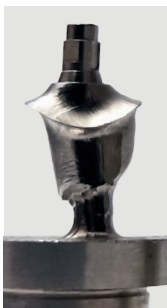
• Crown



- On a titanium adhesive base, e.g. Straumann® Variobase®



- Prefabricated blank in Ti



- Milled pre-fabricated abutment

FUSSEN by orangedental



- Intraoral 3D scanner
- Super-fast scanning times
- Wireless or wired
- Extremely high edge accuracy



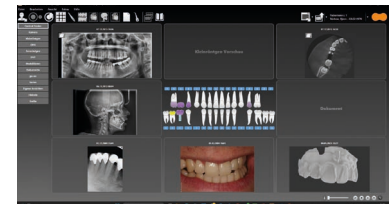
- Optional with CART
- Touchscreen
- Power PC inside
- UPS battery

byzz® 11 Workflow

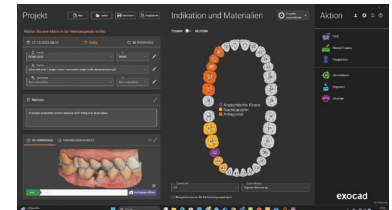


The open patient software

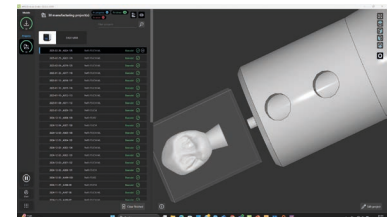
- From the patient in PMS via byzz directly to the scanner



- Scan data is stored directly with the patient's records



- Design/modelling of teeth in exocad

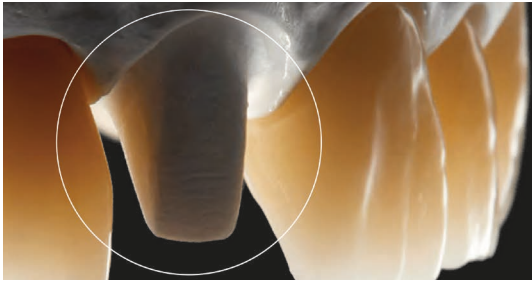


- Automatic milling path calculation in WorkNC



Perfit FS can be made thinner!

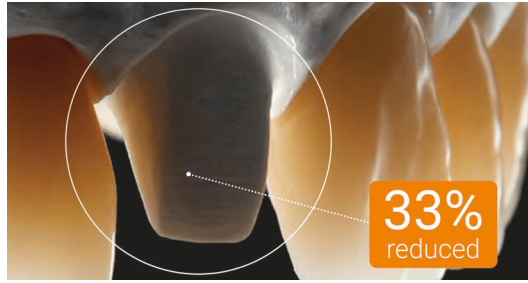
Thanks to its extreme fracture toughness and optimal hardness, Perfit FS can be grinded much thinner. Minimally invasive, as up to 33% of tooth substance can be preserved.



Glass ceramic (ZLS¹, Ls22²)

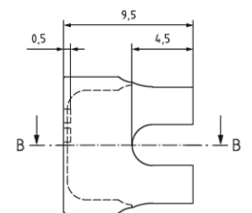
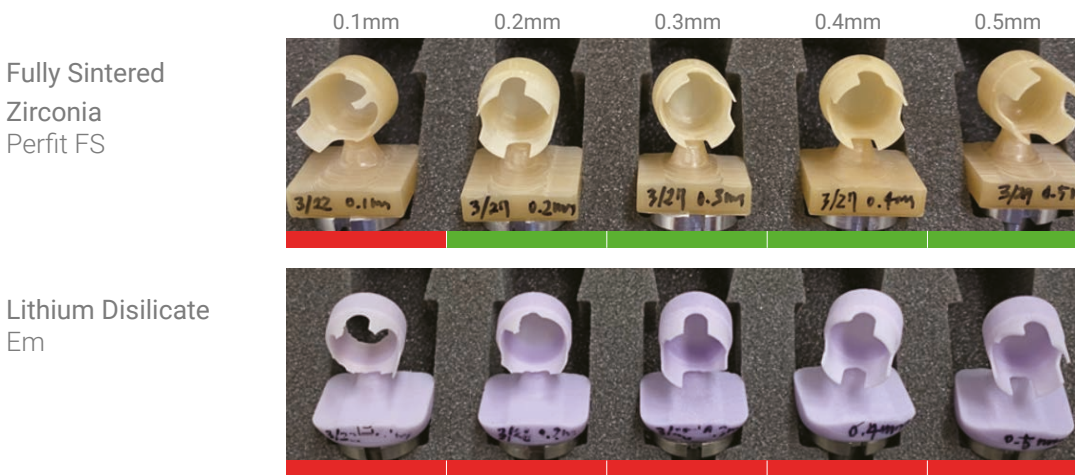
1) Zirconium oxide-reinforced lithium disilicate

2) Lithium disilicate



Perfit FS (ZrO₂)

Grinding results according to the Merlon test...



All four 4.5 mm long slats must be present after grinding (marked in green).

(ISO/DIS 18675 Dentistry - Machinable ceramic blanks 2020) conducted by Vatech

Perfit FS (patented) in comparison

Flexural strength, fracture toughness, hardness and indication (EASY Mill4 can grind all of them)

(I = Inlay, C = Crown, PC = Partial Crown, O = Onlay, V = Veneer, B = Bridge, MC = Metal Crown)

	Glaskeramik (Feldspat)	Lithium-Disilikat-GK	verst. Lithiumsilikat-GK	Zirkonoxid-Keramik	Perfit FS
flexural strength (MPa)	300	530	420	850 - 1200	500
fracture toughness	1,9	2,11	1,6	3,6 - 5,1	6,9
indication	I, O, C	I, O, V, PC, C, B	I, O, V, PC, C	I, O, V, PC, C, B	I, O, V, PC, C, B
bridge in the molar region	No	Up to 2nd premolar	No	Yes - depends on manufacturer spec.	Yes
sintering	No	No	No	Yes	No
crystallisation	No	Yes	Yes	No	No
color/gloss/correction burn	optional	optional	optional	optional	optional



5 new Perfit FS blocks including
3 new grinders



Grinder with 2,0mm, 1,0mm and
0,6 mm Diameter

Manufacturer-validated materials:

- VITA®
- Ceramir® CAD/CAM
- Merz Dental®
- and others coming soon

The world's first chairside grindable, fully sintered zirconia block

- flexural strength >500 MPa (3-point bending test).
- Light transmission >44 % (1,0 mm thickness, with spectrophotometer).
- Sizes I10 / I12 / C14 / C16 / B32 / B40 (I = Inlay, C = Crown, B = Bridge)



Many indications and cost-effective!

Work examples from master craftsmen, with kind permission by Josef Schweiger, M.Sc. from Munich



Painting and glazing is possible ...



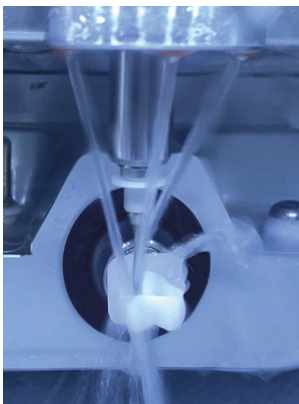
... or glossy only by polishing



QUALITY IN A SQUARE – EASY Mill4

Easy Mill4 sets new standards

- Optimised cooling with 3 special nozzles from different angles.
- Powerful pump with high performance and automatic flow check.
- Special coolant and the specially developed 10 litre tank with special filters.
- Colour-coded grinding tools for easy handling and avoiding mix-ups.
- Automatic tool change of the 3 different grinding tools.
- Automatic calibration of all tools.
- Pneumatic tool-free clamping of the material blocks!!!
- Developed and designed by the renowned MB Maschinen GmbH founded in 1990.



Optimum cooling with 3 special nozzles



Colour-coded grinding tools

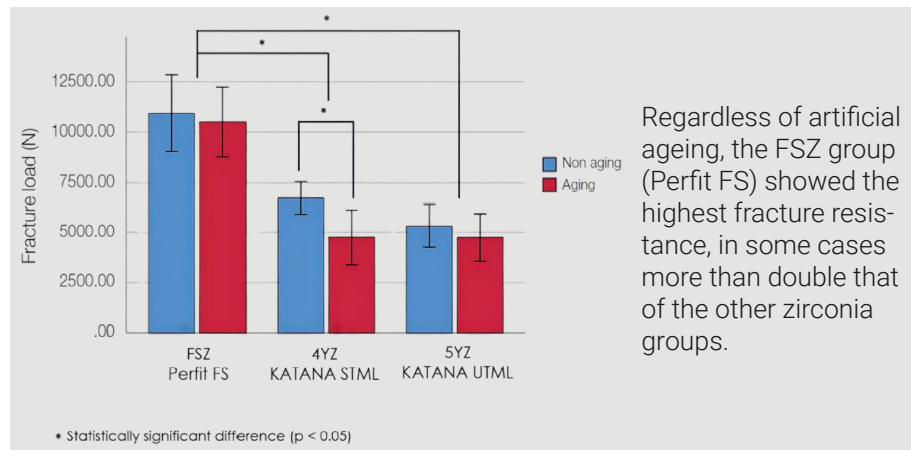
Support is our strength

- The orangedental 365-day hotline, the 5-person MB technical team, the 16-person OD technical team, and 9 dental technicians ensure fast and exceptional service, training, and webinars.



STUDY: When does the crown break?

(Breaking load comparison of fully sintered zirconium oxides)



Source: Comparative analysis on intaglio surface trueness, wear volume loss of antagonist, and fracture resistance of full-cotour monolithic zirconia crown for single-visit dentistry under simulated mastication - Yong-Kyu Kim, Hyung-In Yoon, Dae-Joon Kim, Jung-Suk Han, Journal of Advanced Prosthodontics . 2022, <https://jap.or.kr/pdf/10.4047/jap.2022.14.2.122>

Precision



Optimal edge shot, significantly lower bacterial invasion.

Technical specifications

X-axis	90 mm
Y-axis Max. block size / max. travel distance	45 / 75 mm
Z-axis	55 mm
A-axis	360°
Recirculating ball spindle (long-term lubricated)	Ø 16 x 5 mm
Pneumatic clamping system	6,3 bar
Repeat accuracy	0,008 mm
Automatic tool length measurement	+/- 0,005 mm
Minimum input value	0,001 mm
Stepper system with closed control loop	1,1 Nm
Encoder	1.000 p/r
HF spindle	1.000 ~ 60.000 U/min., 400 Watt
HFS max. tool diameter	Ø 4,0 mm
Number of tools in the tool changer	3 pieces
Flushing medium tank	10 litres
Flushing pump	0,5 l/min.
CNC control	PC-Basis WIN CE6
Maximum connected load	1,2 kVA
Current fuse	1x10 A
Electrical connection	230V / 50/60Hz
Max. power supply fluctuations	+/- 5 %
Noise level (depending on material)	50 - 58 dB (A)
Compressed air connection	>20 l/min at 6,5 bar
Other connections Ethernet or USB connection	Ethernet or USB connection
Machine weight	45 kg
Required floor space	500 x 600 mm (wooden), 420 mm x 500 mm (metal)
Machine dimensions	L 370 x W 471 x H 420 mm

THE NEW CHAIRSIDE

**HIGHEST PRECISION AND ACCURACY OF FIT
IN JUST ONE SESSION!**

Don't do - Delegate!

Your staff will be able to perform this workflow after a short familiarisation period
(except for the dental part)



Scan me!

