



CADdent®

High performance through plurality



MILLING



MILLING

A WELL ROUNDED RESULT

WWW.CADDENT.EU



Milling - what is it?

High-quality milling technology plays a decisive role in digital dental technology.

In contrast to the additive process of LaserMelting, in which material is built up layer by layer until a body is formed, milling is referred to as a subtractive process, in which material is removed from a block until the end product emerges: the technical version of sculpture.

It is of crucial importance in dental technology that milling ensures a consistently high production quality and can generate particularly smooth, aesthetic surfaces.

CADdent mills from a variety of different materials, which are always up to date with the latest developments. We thus give our laboratory customers access to the latest technology without having to keep their own material storage.



MILLING

Precision from the dental milling center

In our dental milling center we use multi-axis CAD/CAM-controlled high-tech industrial milling machines. They have been adapted to the special requirements of dental technology works and, thanks to their freedom from vibrations, achieve

the highest reproduction accuracy for an enormous range of products. Whether customized abutments, bridge frameworks, telescopic crowns or bars, we also realize the most complex products with short delivery times.



THE ADVANTAGES OF MILLING TECHNOLOGY

- ✓ EXCELLENT FIT
- ✓ REPRODUCIBLE AT ANY TIME
- ✓ WIDE RANGE OF PRODUCTS
- ✓ HIGH VARIETY OF MATERIALS
- ✓ ACCESS TO THE LATEST MATERIAL DEVELOPMENTS
- ✓ ACCUSTOMED REWORK PROCESSING
- ✓ TIME SAVINGS FOR LUCRATIVE WORK, ANALOG PROCESSES ARE ELIMINATED
- ✓ FAST PRODUCTION AND SHORT DELIVERY TIMES
- ✓ TOP PRICE/PERFORMANCE RATIO



MILLING



Why milling from CADdent?

Laboratory managers and owners must always keep an eye on the economic side in addition to the demands on quality and aesthetics. This triad of requirements can be mastered better with the

support of CADdent, because it is usually time-consuming preparatory work that costs time, ties up staff and is modestly remunerated.

1. CADdent helps to reduce fixed costs

Why buy a cow when you just want a glass of milk?
In-house milling machines mean high investments that have long-term effects as fixed costs for acquisition / depreciation or leasing rates. There

are also maintenance, repair, energy costs and training. CADdent enables the immediate, comprehensive use of the latest technology - to the extent that you need, when you need it.

2. Efficiency and added value increase

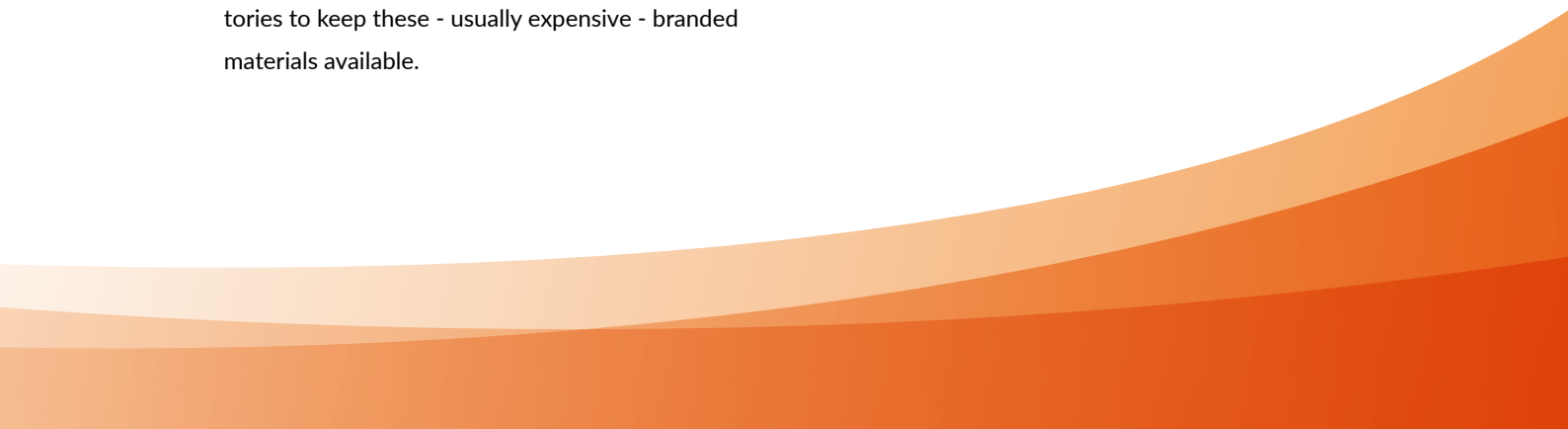
CADdent, just as an extended workbench, enables laboratories to concentrate on their real strengths again: creating customized, high-quality prosthetics with their own signature. Work steps which are time-consuming or require personnel that can

hardly be found are outsourced to CADdent. The result: your working time is used more efficiently because it flows into high-quality, appropriately remunerated products.

3. All options are available

Technical developments in connection with the different personal preferences of the practitioners require an ever wider range of available materials. Own production equipment also requires laboratories to keep these - usually expensive - branded materials available.

CADdent is a partner who can always offer this variety in the most current versions due to high production quantities. A competitive advantage that costs you nothing.





MILLING

Cobalt-chrome (CoCr) - robust material for large works

Our branded material **CADtools Cobalt-chrome** guarantees by the processing in our high-precise, vibration-free industrial milling machines an exact fit in the highest delivery quality. The material is free of nickel and beryllium and allows a delivery condition almost as polished.



Indications	Crown	Inlay / Onlay / Veneer	Bridge up to 16 units
Cobalt-chrome (CoCr)	✓	✓	✓
Titanium	✓	✓	✓



Titanium

- homogeneous, light and robust

Frameworks milled from our brand material **CADtools Titanium** (titanium alloy) are exceptionally homogeneous and light in their specific properties. They also impress with their high load resistance.

By processing in our industrial milling machines, we guarantee you every time an exact fit and optimal surfaces.

Our titanium materials are biocompatible and very well tolerated.

Primary telescopic	Secondary telescopic	Superstructure on implants	Bar	Abutment
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓



MILLING

Customized abutments - high-precision fit and maximum aesthetics

Abutments are a key component of a customized implant structure as a connection between the dental implant and the visible tooth crown. The range of possibilities is enormous. We mill custom abutments, directly screw-retained bridges and bars as well as occlusal screw-retained works according to your ideas and needs.



We also support you in several ways:

- Our free library for superstructures will help you with the design
- On request, we can also help with the design

You can choose the material between cobalt-chrome (CoCr) and titanium as well as between different manufacturers such as **Straumann®** or **CAMLOG®**.





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Data/model delivery	Diameter	Custom titanium milled	Custom CoCr milled	Provisional titanium laser *	Provisional CoCr laser *
Camlog	3.3, 3.8, 4.3, 5.0 / 6.0	✓	-	✓	✓
Dentsply Sirona® - AstraTech™	3.5 / 4.0, 4.5 / 5.0	✓	✓	✓	✓
Dentsply Sirona® - Frialit 2	3.4, 3.8, 4.5, 5.5	✓	✓	✓	✓
Nobel Biocare® - Brånemark	3.5, 4.1, 5.1	✓	✓	✓	✓
Nobel Biocare® - Multi Unit	4.1 / 4.8, 6.0	✓	✓	-	-
Nobel Biocare® - NobelActive™	3.5, 4.3 / 5.0	✓	✓	✓	✓
Nobel Biocare® - NobelReplace®	3.5, 4.3, 5.0, 6.0	✓	✓	✓	✓
Straumann® - Bone Level	3.3, 4.1 / 4.8	✓	✓	4.1 / 4.8	✓
Straumann® - synOcta®	4.8, 6.5	✓	✓	-	-
Zimmer Biomet 3i™ - Aussenhex (external)	3.4, 4.1, 5.0, 6.0	✓	✓	-	-
Zimmer Biomet 3i™ - Certain®	3.4, 4.1, 5.0, 6.0	✓	✓	✓	✓
Zimmer® Tapered Screw - Vent®	3.5, 4.5, 5.7	✓	✓	✓	✓

* only with supply of digital files



Original CAMLOG customized abutments

Data delivery	Diameter	Custom milled titanium	Custom milled CoCr
CAMLOG®	3.3, 3.8, 4.3, 5.0/6.0	✓	✓
CONELOG®	3.3, 3.8, 4.3, 5.0	✓	✓
iSy	3.8/4.4/5.0	✓	✓



MILLING

Zirconia - all-ceramic for the highest demands

In dental milling technology zirconium dioxide has proven to be a fascinating material for several reasons. Firstly, due to its extreme stability. Metal frameworks are not necessary, even for restorations with up to 16 units. On the other hand, the translucent aesthetics is convincing. All-ceramic crowns, inlays, bars or bridges made of zirconia look particularly natural. On top of that, it is allergy-friendly and extraordinary well tolerated.

CADdent offers a particularly large variety of materials for zirconium dioxide and always gives laboratories access to the latest technology without their own storage costs.

In mid-2020, the company launched its own zirconia, which is manufactured together with a partner for the special requirements of customers. This material (CADtools Zirkon) convinces with excellent quality at an unbeatable price.

Our branded materials from **Ivoclar (IPS e.max® ZirCAD), Katana™** and **CADtools** fascinate with

- excellent fit
- extreme stability
- high breaking strength
- convincing aesthetics
- biocompatibility
- wide variety of materials



Benefit from our selection of materials for zirconium dioxide - one of the largest in Europe. Our motto: „The right product for every indication“.



MILLING



Indications	Crown	Inlay / Onlay / Veneer	Bridge up to 3 units
Zirconia opaque	✓	✓	✓
Zirconia translucent	✓	✓	✓
Zirconia multilayer	✓	✓	✓
Zirconia 3D	✓	✓	✓
Zirconia custom-shaded	✓	✓	✓



Bridge up to 16 units	Primary telescopic	Superstructure on implants	Bar
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓



MILLING



Indications	Crown
Lithium disilicate	✓
Leucite ceramic	✓
Resin nano-ceramic	✓

Glass / hybrid ceramics are highly innovative materials which are based on the natural aesthetics of the tooth.

The brand materials processed by us **IPS e. max[®] CAD** (lithium disilicate glass ceramic), **VITA VITABLOCS[®] TriLux^e** (leucite ceramic) and **3M[™] Lava[™] Ultimate** (resin nanoceramic) are:

- very aesthetic
- antagonist-friendly
- particularly ideal for inlays, onlays and veneers

Glass / hybrid ceramics

- highest aesthetics
- and natural chewing sensation

Inlay / Onlay / Veneer	Bridge up to 3 units	Primary telescopic	Secondary telescopic
✓	✓	✓	✓
✓	-	✓	✓
✓	-	✓	✓

Depending on the individual situation, it is possible to veneer restorations in a highly aesthetic way, as well as to manufacture them in full shape and shade them.

Due to their homogeneous microstructure, hybrid ceramics are both chipping-resistant and abrasion-friendly compared to natural tooth structure. They also convey a very natural chewing sensation.



MILLING

Plastics

- the economic alternative

Indications	Crown	Inlay / Onlay / Veneer	Bridge up to 16 units	Primary telescopic
PMMA	✓	✓	✓	✓
Plastic multilayer	✓	✓	✓	✓
PEEK	✓	✓	✓	✓
Memory effect	-	-	-	-
Polycarbonate	-	-	-	-

Our branded materials from **Vita CAD-Temp®**, **CADtools PMMA** and **Whitepeaks CopraPeek** are the metal-free alternatives for temporary restorations, basic care components or full dentures.

These modern plastics are characterized by their high biocompatibility and have long been convincing due to their good shape stability and durability, as well as their aesthetics thanks to the use of multilayer blanks.

Superstructure on implants	Partial framework	Splint
✓	-	✓
✓	-	-
✓	✓	-
-	-	✓
-	-	✓



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Partial framework in PEEK - Innovation for maximum design freedom

PEEK - the abbreviation for polyether ether ketone - is a relatively young material. The plastic material is particularly resistant: it is insensitive to almost all organic and inorganic chemicals and to high-energy electromagnetic waves (such as X-rays). Its melting temperature is 335 ° Celsius. PEEK has a degree of elasticity similar to human bone and it is very insensitive to abrasion. Once polished, the surface is very smooth, which means that it has little tendency to discolouration and hardly allow plaque to be deposited. It is X-ray transparent and, due to its flexibility, also very break-resistant.

A milled upper and lower jaw partial framework made of PEEK is characterized by its perfect fit as well as interesting conditions - regardless of the number of clasps. Our branded material PEEK stands for high durability and, as a biocompatible high-performance plastic, represents an alternative for metal allergy patients.



MILLING



Splints - the highest standard in terms of comfort and hygiene

Modern materials and our precise milling technique enable high stability and the best compatibility with bite splints or sport splints. The surfaces are also so homogeneously designed that plaque accumulation is significantly more difficult. We use the right material for the diffe-

rent therapeutic approaches - e.g. **CADtools PMMA Clear** transparent, **CADdent® PMMA** in different colors, **Zirkonzahn® Temp Premium Flexible** (also suitable for SnapOn splints), **dentona® optimill memosplint** with thermo-elastic flexibility and memory effect.

Wax - a new interpretation of tradition

CAD / CAM and old school are not mutually exclusive. With your data we mill precise frameworks from technically advanced wax.



Our CADdent® Wax

- can be burned out almost residue-free for the production in lost-wax casting through press and overpress technique
- thanks to its low expansion coefficient, even large restorations are practicable

Indications	Crown	Inlay / Onlay / Veneer	Bridge up to 16 units	Primary telescopic	Secondary telescopic	Superstructure on implants
Wax	✓	✓	✓	✓	✓	✓



MILLING

Service

At CADdent you have a number of extra services that can make your life easier. Our customer care

team will be happy to provide you with details and requirements at any time.

Standby

Time is money: you benefit from an unbeatable price and leave us an additional working day of production time.

OneDay

No-one else can hardly promise you something like that! If you choose the OneDay option and send in your data by 9:00 a.m. (zirconia) or 12:00 a.m. (CoCr and titanium), your order will be dispatched the same day.

Express Service Milling

For urgent orders, which arrive after the deadline and should be produced the same day. However, prior telephone consultation is required.

Goodwill insurance

Insure your work against impression errors and inconveniences with this all-round carefree package: in the event of damage, we will produce the affected structure again.





Scan / design service

Based on the model you send in, which we scan for you, or on the basis of the transmitted scan data (intraoral scan or model scan), our experienced CAD specialists create your desired design and implement it in the appropriate material.

Guarantee

If a product does not meet our high quality standards due to material or processing defects, we will of course replace it free of charge.



Customized abutment /
abutment screw



Crown and bridge in cobalt-chrome
(CoCr) / titanium / zirconia /
glass, hybrid ceramics

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from technician to technician

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