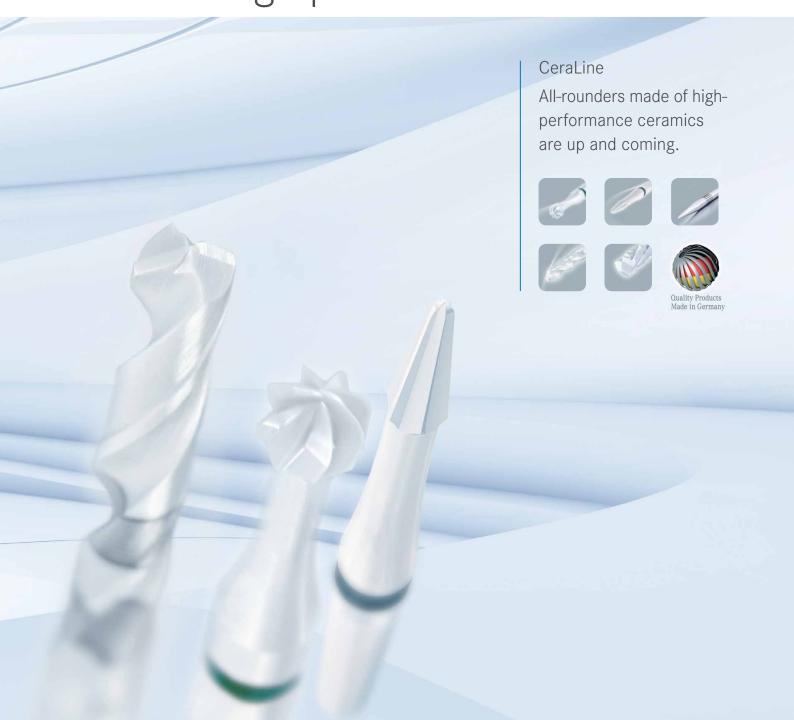


# **Cera**Line – Instruments made of high-performance ceramics.













#### A multi talent on the advance

Thanks to its outstanding properties, ceramic has proved invaluable in a vast range of applications for decades. Ceramic materials are not only established in the dental field, for example for implant abutments, but also in orthopaedics, for example for ball shaped heads used in hip surgery. Ceramics are also successfully used for industrial components that are particularly prone to wear – such as axes and plain bearings – as well as in chemistry and electrical engineering.

All these are perfect reasons for making use of the impressive advantages of this material.

#### **Outstanding properties**

Thanks to its excellent properties, ceramic comes up to even the highest expectations. It is highly resistant to pressure, to wear and tear and to aggressive chemical substances. The favourable electric and magnetic characteristics of ceramics are used in a variety of applications. The ceramic instruments contained in Komet's CeraLine series are made of special, high performance ceramics composed of zircon-dioxide ceramic partly stabilized by yttrium and aluminium ceramic. The mixture of these two established materials provides CeraLine with an above-average bending strength of 2,000 MPa.

In comparison, the bending strength of zirconium oxide ceramic which is used, amongst other things, for the manufacture of root posts, is 1,200 MPa. It is this special mixture that allows this material to be used in the manufacture of rotary cutting instruments.

The HIP production process (Hot-Isostatic-Pressing) further densifies the material.

#### Biocompatible

Ceramic is distinguished by its great biocompatibility. The ceramic material is resistant to corrosion.

Treatment with CeraLine instruments protects the patient from material related exposure. The ceramic instruments provided by Komet ideally complement the strategy of a completely metal-free implantation.

#### Attention:

Always use brushes with non-metal bristles (e.g. 9873) for cleaning all CeraLine instruments. Metal bristles may cause metal abrasion which might settle in the pores of the sintered ceramic material.

This may lead to black discoloration of the ceramic.



# The future belongs to ceramics.

### Instruments made of high-performance ceramics.

The modern Komet ceramic instruments are a revolution in dentistry and allow the dentist to work on bones with the utmost sensitivity.

These pioneering instruments in white are another prime example of the innovative power of the brand Komet and illustrate, once again, the legendary Komet quality.

The most outstanding features of these new ceramic instruments include reduced vibration, pleasantly smooth operation and continuous substance removal. Whether used in implantology or jaw surgery – these instruments for working on bones are a whole new experience!









### CeraBur | K1SM

### Round bur for the preparation of cavities.

#### Indications:

- Tactile excavation under complete control
- Special design to allow smooth operation almost without vibrations

Studies carried out by the University of Münster and the Queen Mary University of London confirm the outstanding quality of the CeraBur K1SM. The study conducted by the University of Münster furnished proof of the excellent performance of the CeraBur K1SM.\*

The study prepared by the Queen Mary University of London showed that the service life of the K1SM is three times as long as that of a round tungsten carbide bur.\*\*

#### Recommendations for use:

 Use at: O<sub>opt.</sub> 1,500 rpm with spray cooling

#### Enthusiastic operators confirm:

"The instrument is extremely durable. It cuts through soft, decayed dentin with absolute ease while hardly touching hard, healthy dentin!"



Set 4547.204 Contains two instruments of each size 010, 014, 018, and 023 Also available in shank 205 (Set 4547.205)

#### Hint:

The minimally invasive potential and caries removal effectiveness of the CeraBur K1SM may be increased by using it in combination with Carisolv Gel Technology. A minimally invasive approach saves time, reduces possible risks and facilitates a more direct approach to the endpoint in complex caries situations.\*

# CARISOLV® System

More information and references: www.carisolvsystem.com Rubicon Life Science International Kundenservice on +46 31 77 80 68 20 or customer@rubiconlifescience.se

\*Private lecturer Dr. Till Dammaschke, Dr. Aleksandra Vesnić, Prof. Dr. Edgar Schäfer, Westfälische Wilhelms-Universität, Poliklinik für Zahnerhaltung, Münster; In vitro comparison of ceramic burs and conventional tungsten carbide burs in dentin caries excavation; Quintessence International, Volume 39,

Issue 6 (June 2008), Pages 495 - 499

\*\* Mr. Nawar Al-Zebari, Queen Mary University of London; Cutting efficiency and longevity of novel ceramic and conventional burs; 07/2014

 $<sup>^{\</sup>star} www.carisolvsystem.com$ 





#### Hint:

We also recommend our self-limiting PolyBur for excavation in the vicinity of the pulp. The blades of the PolyBur blunt automatically on hard, healthy dentin.



**P1**.204.014/018/023 Utility model, patents DE 10 2008 010 049 · EP 2 260 787\* \*pending





# CeraBur | K59

### Fissure bur.

#### Indications:

- For controlled, tactile detection of caries
- Optimum geometry for opening fissures in the process of extended fissure sealing
- Optimum design for triangularly shaped carious lesions
- For selective removal of carious material

#### Recommendations for use:

• Use at: ⊕opt. 160,000 rpm with spray cooling











# CeraTip | KT

### 

#### Indications:

The CeraTip is suitable for use in various sectors of mucosa surgery, such as:

- Exposing intra-osseous implant sites (fig. 1)
- Dilation of the sulcus following a crown core preparation (fig. 2)
- Exposing deep cavities in the neck of the tooth
- Exposing impacted teeth
- Papillectomy/Removal of hyperplastic gingiva

#### Recommendations for use:

- Work gently in intermittent mode at an optimum speed of O<sub>opt.</sub> 300,000 - 450,000 rpm.
   Work with low pressure.
- Use without cooling to allow the tip
   of the instrument to generate the kind
   of heat during rotation that is required
   to cause thermal coagulation, i.e. to
   model the gingiva with a minimum of
   bleeding.















# CeraDrill | K210L16/L19/L20

### Pilot drill for use in implantology.

#### Indications:

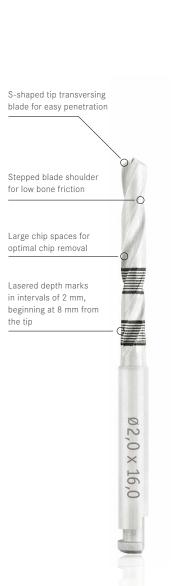
- For initial preparation of an implant site
- For determination of position, direction and depth

#### Recommendations for use:

- Drilling with the CeraDrill pilot drills
  K210 should be carried out in intermittent mode using low contact pressure and constant exterior cooling with sterile physiological saline solution up to the required depth.
- Optimum speed: O<sub>opt.</sub> 800 1,000 rpm in the green contra-angle, Reduction at least 10 : 1
- Make sure that the drill does not jam.
   Do not use as a lever.









Utility model, patents
DE 10 2006 042 762
EP 1 539 018\*
\*pending







## CeraBur | K157 & K160A

### Bone cutters for oral surgery.

#### Indications:

- For the restoration of alveolar ridges – smoothing of sharp bone edges
- For the extraction of bones, e.g. from the retromolar zone for autologous bone transplantation
- For osteotomy when exposing impacted teeth
- For surgical preparation of teeth apical ectomy
- For root amputation

#### Recommendations for use:

- The CeraBone cutters are to be used in intermittent mode using low contact pressure and constant exterior cooling with sterile physiological saline solution
- Optimum speed:
   Opti 3,000 6,000 rpm
   in the green contra-angle,
   Reduction: at least 10: 1
- K157.314.016: 🗘 opt. 80,000 rpm
- Make sure that the cutter does not jam. Do not use as a lever.





Komet Dental

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