



DATRON  
**Dental End Mills, Dental Materials  
and Accessories**

Solid carbide end mills for all dental CNC milling machines and materials



# A Strong Team - For Your Individuality

## The Basis for Your Success: Our Staff

With more than 200 dedicated and motivated employees, we count over 10,000 worldwide tool customers. As one of the largest suppliers of tool technologies in many different areas, we are able to offer – in addition to our extensive standard product range – customer-specific special solutions. DATRON is your faithful companion throughout the whole process, starting with the initial consultation, going through the design stage and ending with the realization.

## Our Success is Based on Solid Experience

DATRON has developed and supplied carbide tools of the highest quality level for 20 years. As manufacturers of high-quality CNC milling and engraving systems, we have always placed special emphasis in cutting technology. The technological design and quality of CNC tools determine to a large extent the efficiency and quality of CNC machining. We can offer you CNC tools especially optimised for high speed machining resulting from our own development and tests, as well.

## Quality at the Highest Level: The Key to Your Success



# Our Experience and Expertise - Your Advantage and Gain

Due to the use of premium, ultra-fine grain carbides, you get particularly long durability by using DATRON tools. Further performance increase of the tools is achieved through the use of innovative coatings. Production of our tools on the most modern fully automatic grinding machines leads to consistent high

quality and very good price/performance ratio. Continuous quality checks and tests on our in-house milling machines - also under extreme conditions - guarantee the exceptional quality and performance of DATRON tools.

## DATRON Dental End Mills

- For all common dental milling machines and materials
- Highest durability and quality with good price/performance ratio
- Highest surface quality for the indications milled
- Extensive range and 100% availability
- Special end mills and customised end mills
- All end mills are available separately
- Tiered discounts for milling tools in case of single-product orders
- 4% discount for authorised direct bank account debit  
More information on page 85 or call +49(0)6151-1419-406
- Replacement or returns within 6 months  
Replacements or returns only for unused tools in their original packaging. We only charge a restocking fee of 8% of the net value of the goods. Special and customised tools are excluded.
- Delivery in Germany on work days,  
usually within the next 24 hours at no extra charge if ordered until 2:00 pm
- Scheduled deliveries in Germany  
with an additional charge starting at € 25.00
- Represented worldwide



# Represented worldwide - including short delivery times

## DATRON is represented worldwide!

DATRON sells CNC milling tools over 6 national and more than 20 international distributors worldwide. This allows DATRON to offer customers a fast delivery, sometimes within 24 hours.\*

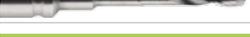


\* Only for selected standard tools

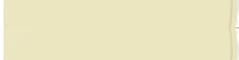
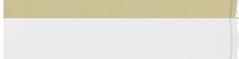


# Table of Contents

<b>DATRON</b>		<b>2-5</b>
<b>DATRON Table of Contents</b>		<b>6-9</b>
<b>Compatibility - to (almost) all Dental Milling Systems</b>		<b>10</b>
<b>DATRON Tool Technology</b>		<b>11</b>
<b>DATRON Coatings</b>		<b>12-13</b>
<b>DATRON List of Symbols and Abbreviations</b>		<b>14</b>
<b>DATRON Customised Tools</b>		<b>15</b>
<b>Your Specifications</b>		<b>16</b>
<b>Your DATRON Dental Team – Who We Are!</b>		<b>17-19</b>
<b>DATRON Milling Tools for Zirconium Oxide</b>		<b>20-26</b>
	Ball nose end mills, double flute, uncoated	<b>20-21</b>
	Ball nose end mills, double flute, diamond, coated	<b>22-23</b>
	Ball nose end mills, double flute, DLC coated	<b>24</b>
	Spherical end mills (Lollipop), double flute, diamond coated	<b>25</b>
	End mills, double flute with sharp edge, uncoated	<b>26</b>
<b>DATRON Milling Tools for Cobalt-chrome/Titanium (Hard Milling)</b>		<b>27-39</b>
	Ball Nose End Mills, Conical, coated	<b>27</b>
	Ball Nose End Mills, coated	<b>28-29</b>
	Spherical End Mills (Lollipop), coated	<b>30</b>
	End Mills double flute, coated, with Toric Cut	<b>31</b>
	End Mills double flute, coated	<b>32</b>
	End Mills four flutes, coated	<b>33</b>
	End Mills with Edge Radius double flute, coated	<b>34</b>
	End Mills with Edge Radius four flutes, coated	<b>35</b>
	End Mills with Double Edge Radius four flutes, coated	<b>36</b>
	Centre Drills, uncoated	<b>37</b>
	Drills, coated	<b>38</b>
	CVD End Mills, single flute, diamond, with sharp edge	<b>39</b>

<b>DATRON Milling Tools for Soft Materials (PMMA, Wax)</b>		<b>40-43</b>
	Micro Ball Nose End Mills, double flute, uncoated	<b>40</b>
	Ball Nose End Mills, single flute, polished, uncoated	<b>41</b>
	Ball Nose End Mills, double flute, uncoated	<b>42-43</b>
<b>DATRON Milling Tools for Composites (High Class)</b>		<b>44-46</b>
	Micro Ball Nose End Mills , double flute, coated	<b>44</b>
	Ball Nose End Mills, double flute, coated	<b>45</b>
	Ball Nose End Mills, four flutes, coated, (with/without Weldon clamping surface)	<b>46</b>
<b>DATRON Milling Tools for DATRON D1 pure</b>		<b>47</b>
	Ball Nose End Mills for Zirconium Oxide and PMMA/Wax	<b>47</b>
<b>DATRON Milling Tools compatible with LAVA milling systems</b>		<b>49</b>
	Ball Nose End Mills, double flute, uncoated for Zirconium Oxide and PMMA	<b>49</b>
	End Mills, double flute with sharp edges, uncoated, for Zirconium Oxide and PMMA	<b>49</b>
<b>DATRON Milling Tools compatible with Charly Robot milling systems</b>		<b>50</b>
	Ball Nose End Mills, double flute, coated for Zirconium Oxide	<b>50</b>
	Ball Nose End Mills, double flute, coated for Zirconium Oxide, with Edge Radius	<b>50</b>
<b>DATRON Milling Tools compatible with Cercon Brain Expert milling systems</b>		<b>51-52</b>
	Ball Nose End Mills, double flute, uncoated for Zirconium Oxide	<b>51</b>
	Ball Nose End Mills, single flute, uncoated for PMMA/Wax	<b>52</b>
<b>DATRON Milling Tools compatible with (open) KAVO milling systems</b>		<b>53</b>
	Ball Nose End Mills, double flute, coated for Zirconium Oxide	<b>53</b>
	Ball Nose End Mills, double flute, uncoated for PMMA/Wax	<b>53</b>
	Ball Nose End Mills, double flute, coated for Composites (High Class)	<b>53</b>

# Table of Contents

<b>DATRON Milling Tools compatible with vhf milling systems</b>		<b>54-55</b>
	Ball Nose End Mills, double flute, uncoated for Zirconium Oxide (S Models)	54
	Ball Nose End Mills, double flute, uncoated for Zirconium Oxide (K Models)	54
	Ball Nose End Mills, double flute, coated for Zirconium Oxide (S Models)	55
	Ball Nose End Mills, double flute, coated for Zirconium Oxide (K Models)	55
<b>DATRON Milling Tools compatible with Amann Girrbach milling systems</b>		<b>56</b>
	Ball Nose End Mills, double flute, coated/uncoated for Zirconium Oxide	56
<b>DATRON Milling Tools compatible with Wieland milling systems (T1)</b>		<b>57-58</b>
	Ball Nose End Mills, double flute, uncoated for PMMA	57
	Ball Nose End Mills, double flute, coated for Zirconium Oxide	57
	Ball Nose End Mills, double flute, coated/uncoated for Zirconium Oxide and PMMA/Wax	58
<b>DATRON DentDiscs</b>		<b>59-68</b>
	DATRON DentZirc opaque	60
	DATRON DentZirc HT	60-62
	DATRON DentTi4	63
	DATRON DentTiAlloy	63
	DATRON DentCoAlloy	64
	DATRON DentModel	65
	DATRON DentBite	65
	DATRON DentWax	66
	DATRON Calibration wax for D1 pure	66
	DATRON DentCryl PMMA color	67
	DATRON DentCryl PMMA cast	67
	DATRON DentCryl PMMA fun	68

<b>DATRON Accessories and Consumable</b>		<b>69-77</b>
	Limit stop rings for systems with direct shank clamping	<b>69</b>
	Insertion tools for limit stop rings	<b>70</b>
	Adapter collets	<b>71</b>
	Polygon clamping systems HSK-E 25	<b>72</b>
	Lubricants and additives	<b>73</b>
	Accessories DATRON D5 Milling/Grinding Machine	<b>74-75</b>
	Accessories DATRON D5 Machine Environment	<b>76</b>
	Accessories DATRON – Cleaning and Maintenance	<b>77</b>
<b>DATRON D5 Milling/Grinding Machine at a Glance</b>		<b>78</b>
<b>DATRON SERVICE D5 Milling/Grinding Machine (Machine Check-up/Maintenance)</b>		<b>79</b>
<b>DATRON D1 pure</b>		<b>80</b>
<b>DATRON D1 pure Accessories</b>		<b>81</b>
<b>Parameter Calculations/Guidelines</b>		<b>82</b>
<b>DATRON Tool Online Shop</b>		<b>83</b>
<b>Fax Orders – Copy, Fill-in, Fax it!</b>		<b>84</b>
<b>4% Discount for each Tool Order</b>		<b>85</b>
<b>Your Notes</b>		<b>86</b>

## Compatibility - to (almost) all Dental Milling Systems

DATRON milling tools can be used – among other – with the following systems. Users with systems listed below are already profiting from DATRON milling tools. Our customers' feedback attests to their high quality, durability and good price/performance ratio.

Should you be using a CAD/CAM system of a manufacturer not listed, please contact us to provide you with a customised solution.

<b>3M Espe</b>	LAVA CNC 240, 400, 500	<b>Laserdenta</b>	OpenMill4, OpenMill5
<b>Amann Girrbach</b>	Ceramill Motion 1, 2 Mikro	<b>MB</b>	Cobra Mill
<b>BZT Dental</b>	Microdental ECO uznd HSC	<b>Pou Chen Group</b>	TDS (Turbo Dent System)
<b>Charly Robot / Charly Dental</b>	2U, 4U, Charly Dental CD04-5, CD05-5, CD 50 HM SD & ADC	<b>Primacon</b>	PFM 24 CC, PFM 24 MediMill, PFM 4024-5D, PFM 24 NGd
<b>DATRON AG</b>	DATRON Dental, D5, D1 pure	<b>R+K CAD/CAM Technologie</b>	Organical Multi, 5X, Desktop 8, Desktop 7C, Desktop 3, Desktop 1
<b>Dental Concept Systems</b>	DC5, DC1	<b>RoboCAM</b>	RoboMill 4, RoboMill 5
<b>Degu Dent</b>	Cercon Brain Expert	<b>Röders</b>	RXD4, RXD5
<b>DMG</b>	U10, U20, (HSC 20, 30, 55, 70, 75, 105)	<b>Roland</b>	MDX-40A, DWX-30, DWX-4, DWX-50
<b>GF Agie Charmilles</b>	Mikron HSM, MILL	<b>vhf</b>	K3, K4, S1, S2
<b>Heiz</b>	DentaCUT-300	<b>Wieland</b>	Zenotec 2100, 3020, 4030, 4820, 6200, 6400, T1, Select
<b>Hint Els</b>	Hi-Cut	<b>Willemin Macodel</b>	308B, 308S, 408B, 408MT, 408MTT, 408S2, 508MT, 508S
<b>imes icore</b>	Coritec 140i, 240i, 250i, 340i, 440i, 450i, 540i, 550i, 650i, 750i, 850i	<b>Wissner</b>	Gamma 202, 303, 605
<b>KAVO</b>	Everest (offene Variante)	<b>Yenadent</b>	D14, D15, D20, D30, D43, D40, DC40



## Quality and Precision "Made in Germany"

Twenty 20 years of experience in manufacturing milling tools on the most modern automatic grinding machines lead to the ever-constant precision and high quality of all DATRON milling tools. Only through permanent quality controls and tests can DATRON AG offer its steady competitive advantage.



## Cost-effectiveness

Through the use of premium carbides in ultra-fine grain quality, tailored to the individual application fields, you achieve extra-high durability with DATRON milling tools while maintaining high quality standards.



## DATRON Technology

The cutting geometry of each individual DATRON tool is the result of DATRON's long-standing expertise in the field of Hsc-milling (high-speed cutting). Continuous development and optimisation are your guarantee for obtaining cutting-edge technology from us.



## Custom Tools Service

DATRON custom tools solve your milling issues!  
We manufacture custom carbide tools following your drawings or specifications according to the usual DATRON quality.

# DATRON Coatings - Harder than Steel

## Diamond Coating

Superior hardness and chemical resistance

The unique properties of multi-layer diamond-coatings offer significant performance potentials which are ideal for machining highly abrasive materials such as zirconium oxide. The combination of a hardness of over 10,000 HV and a coefficient of friction of 0.15 guarantees long durability.



Coating Properties	
Material	Diamond
Micro hardness	10,000 HV
Coefficient of friction	0.15
Max. operating temperature	700 °C
Colour	Dark grey

## DLC Coating

High hardness and coating adhesion

With the DLC coating, an alternative for zirconium machining, characterised by high thermal stability and superior wear resistance, in addition to its high hardness and coating adhesion, has been developed. The particularly thin and smooth layer allows sharp cutting edges and thus guarantees best cutting quality. Very good adhesion and high density round up the material properties of this innovative coating.



Coating Properties	
Micro hardness	5,000 HV
Coefficient of friction	0.15
Max. operating temperature	500 °C
Colour	Black rainbow

## BALINIT® X.CEED Coating

Hardness and high coating adhesion

Hardness, oxidation resistance and thermal stability of BALINIT® X.CEED were optimised for use in hard and high speed machining. Especially for very hard and difficult to machine materials such as CoCr and titanium.

Coating Properties	
Material	AlTiN
Micro hardness	3,300 HV
Coefficient of friction	0.40
Max. operating temperature	900 °C
Colour	Blue-grey



## BALINIT® ALCRONA Coating

The all-rounder

Excellent wear resistance, thermal shock resistance and hot hardness: these are the these are the qualities that have been modified significantly in order to improve the proven BALINIT® ALCRONA coating still more. The performance profile of the new layer is increased significantly by optimising process parameters and modifying the layer structure. BALINIT® ALCRONA is the new all-rounder in machining.

Coating Properties	
Material	AlCrN
Micro hardness	3,200 HV
Coefficient of friction	0.35 (dry against Steel)
Max. operating temperature	1.100 °C
Colour	Light grey



# List of Symbols & Abbreviations



Macinable materials



Number of flutes



Solid carbide



Spiral angle



Machining direction



Shank form



Ball nose



Sharp-edged flute



Flute with edge radius



Diamond flute



Spherical end mill (Lollipop)



Cooling (Wet/dry machining)



Point angle



Limit Stop Ring

D1	Flute diameter
D2	Shank diameter
D3	Toric cut diameter
L1	Total length
L2	Flute length
L3	Usable length
$\alpha$	Angle
R	Radius
CT	Coating

# Your Custom End Mill - Copy, Enter Your Data, Send It!

**Do you need a special tool?  
That's no problem at all at DATRON!**

We manufacture special and custom tools from batch size 10 in no time.

Just send us a drawing or enter the desired features into the table below and send it by fax or by e-mail to us. We will let you have a custom quote.

Of course you can also download the data sheet from [www.individualtool.datron.de](http://www.individualtool.datron.de).

By fax: **+49 (0) 61 51 - 14 19 - 39**

By e-mail: **tools@datron.de**



Notes:

Description	Your custom data
End mill similar to item	
D1 Flute diameter	
D2 Shank diameter	
D3 Toric cut diameter	
L1 Total length	
L2 Flute length	
L3 Usable length	
R Radius	
CT Coating	

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# Your DATRON Dental Team - we introduce ourselves!

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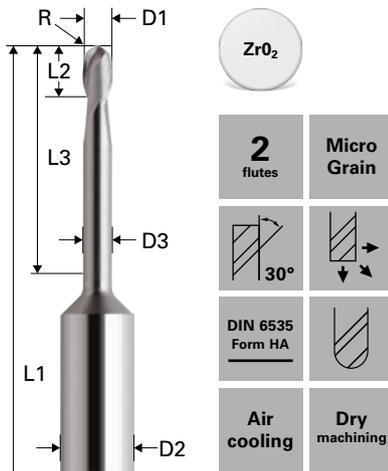
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# Ball Nose End Mill for Zirconium Oxide - Uncoated

ZrO<sub>2</sub>



**End mill type:** Ball nose 180°

**Number of flutes:** Two

**Versions:** Short, Long

**Coating (CT):** None

**Features:** Extremely sharp flutes, as not post-treated

**Indications:** Caps, crowns (anatomic, anatomically reduced), bridges, bars, individual abutments, screwed-retained applications, 3D free-form surfaces

**For users of:** DMG, imes-core, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and other systems

## 3 mm Shank, Short Neck

Item No.	D1 (mm)	D2 (mm)	L1 (mm)	L2 (mm)	R (mm)
00684003	0.30	3.00	39.00	0.45	0.15
00684005	0.50	3.00	39.00	0.80	0.25
00684007	0.70	3.00	39.00	2.00	0.35

## 3 mm Shank, Short Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)
00782004	0.40	3.00	0.35	39.00	0.60	2.00	0.20
00782005	0.50	3.00	0.45	39.00	0.75	4.00	0.25
00782005L	0.50	3.00	0.45	39.00	0.75	10.00	0.25
00782006	0.60	3.00	0.55	39.00	0.90	4.00	0.30
00782008	0.80	3.00	0.75	39.00	1.20	6.00	0.40
00782010	1.00	3.00	0.95	39.00	1.50	6.00	0.50
00782011	1.00	3.00	0.95	39.00	1.50	9.00	0.50
00782012	1.20	3.00	1.15	39.00	1.80	9.00	0.60
00782015	1.50	3.00	1.45	39.00	2.20	9.00	0.75
00782020	2.00	3.00	1.95	39.00	3.00	12.00	1.00

# Ball Nose End Mill for Zirconium Oxide - Uncoated

ZrO<sub>2</sub>

## 3 mm Shank, Long Neck

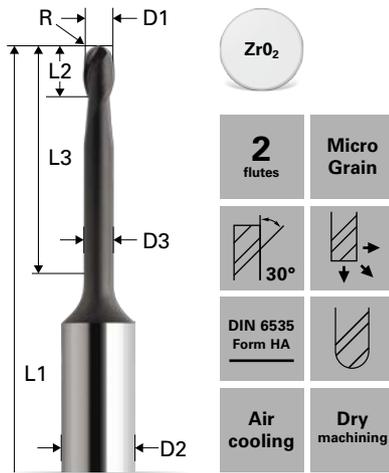
Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)
00782106	<b>0.60</b>	3.00	0.55	48.00	2.50	10.00	0.30
00782108	<b>0.80</b>	3.00	0.75	48.00	3.00	12.00	0.40
0078211K	<b>1.00</b>	3.00	0.95	48.00	4.00	14.00	0.50
00782110	<b>1.00</b>	3.00	0.95	48.00	4.00	18.00	0.50
00782115	<b>1.50</b>	3.00	1.45	48.00	4.00	18.00	0.75
00782120	<b>2.00</b>	3.00	1.95	48.00	4.50	22.00	1.00
00782125	<b>2.50</b>	3.00	2.40	48.00	6.00	20.00	1.25
00782130	<b>3.00</b>	3.00	2.90	48.00	6.00	22.00	1.50

## 6 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)
00782706	<b>0.60</b>	6.00	0.55	50.00	2.50	10.00	0.30
00782708	<b>0.80</b>	6.00	0.75	50.00	3.00	12.00	0.40
00782710	<b>1.00</b>	6.00	0.95	50.00	4.00	18.00	0.50
00782715	<b>1.50</b>	6.00	1.45	50.00	4.00	18.00	0.75
00782720	<b>2.00</b>	6.00	1.95	50.00	4.50	22.00	1.00
00782725	<b>2.50</b>	6.00	2.40	50.00	5.00	25.00	1.25
00782730	<b>3.00</b>	6.00	2.80	50.00	6.00	25.00	1.50

# Ball Nose End Mills for Zirconium Oxide - Diamond Coated

ZrO<sub>2</sub>



**End mill type:** Ball nose 180°

**Number of flutes:** Two

**Versions:** Long, Xtra Long

**Coating (CT):** Diamond

**Features:** Extremely high durability due to its diamond coating

**Indications:** Caps, crowns (anatomic, anatomically reduced), bridges, bars, individual abutments, screwed-retained applications, 3D free-form surfaces

**For users of:** DMG, imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Roland, Wieland, Wissner and other systems

## 3 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00782206	0.60	3.00	0.55	48.00	2.50	10.00	0.30	x
00782208	0.80	3.00	0.75	48.00	3.00	12.00	0.40	x
00782210	1.00	3.00	0.95	48.00	4.00	16.00	0.50	x
00782215	1.50	3.00	1.45	48.00	4.00	18.00	0.75	x
00782220	2.00	3.00	1.95	48.00	4.50	20.00	1.00	x
00782225	2.50	3.00	2.40	48.00	4.50	22.00	1.25	x
00782230	3.00	3.00	2.90	48.00	6.00	25.00	1.50	x

## 3 mm Shank, Long Neck, with Conical Outlet and Differentiated Spin

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
0073380F	0.50	3.00	0.45	48.00	2.50			
0073380G	1.00	3.00	0.95	50.00	1.00	12.20	0.50	x
0073380H	1.50	3.00	1.40	50.00	1.55	18.20	0.75	x
0073380I	3.00	3.00	2.85	50.00	6.65	17.15	1.50	x

# Ball Nose End Mills for Zirconium Oxide - Diamond Coated

ZrO<sub>2</sub>

## 3 mm Shank, Xtra Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
0078221L	1.00	3.00	0.95	48.00	4.00	18.00	0.50	x
0078222L	2.00	3.00	1.95	48.00	4.50	25.00	1.00	x
0078225L	2.50	3.00	2.40	48.00	4.50	25.00	1.25	x

## 4 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00783206	0.60	4.00	0.55	48.00	2.50	10.00	0.30	x
00783210	1.00	4.00	0.95	48.00	4.00	18.00	0.50	x
00783220	2.00	4.00	1.95	48.00	4.50	20.00	1.00	x
00783225	2.50	4.00	2.40	48.00	5.00	22.00	1.25	x

## 6 mm Shank, Long Neck

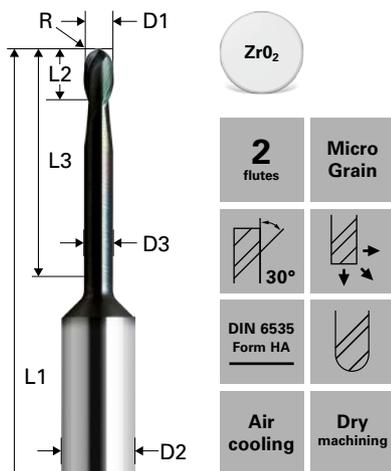
Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00782806	0.60	6.00	0.55	50.00	2.50	10.00	0.30	x
00782808	0.80	6.00	0.75	50.00	3.00	12.00	0.40	x
00782810	1.00	6.00	0.95	50.00	4.00	16.00	0.50	x
00782815	1.50	6.00	1.45	50.00	4.00	18.00	0.75	x
00782820	2.00	6.00	1.95	50.00	4.50	20.00	1.00	x
00782825	2.50	6.00	2.40	50.00	4.50	22.00	1.25	x
00782830	3.00	6.00	2.80	50.00	6.00	25.00	1.50	x

## 6 mm Shank, Xtra Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
0078281L	1.00	6.00	0.95	50.00	4.00	18.00	0.50	x
0078282L	2.00	6.00	1.95	50.00	4.50	25.00	1.00	x
0078285L	2.50	6.00	2.40	50.00	4.50	25.00	1.25	x

# Ball Nose End Mills for Zirconium Oxide - DLC coated

ZrO<sub>2</sub>



**End mill type:** Ball nose 180°

**Number of flutes:** Two

**Versions:** Long

**Coating (CT):** CLD

**Features:** Very sharp flutes and high durability

**Indications:** Caps, crowns (anatomic, anatomically reduced), bridges, bars, individual abutments, screwed-retained applications, 3D free-form surfaces

**For users of:** DMG, imes-core, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and other systems

## 3 mm Shank, Long Neck

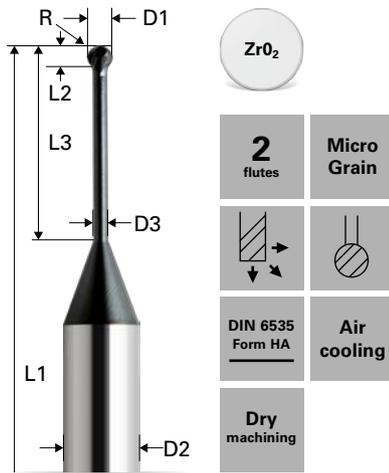
Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00786603	0.30	3.00	0.28	48.00	0.60	2.50	0.15	x
00786606	0.60	3.00	0.55	48.00	2.50	10.00	0.30	x
00786608	0.80	3.00	0.75	48.00	3.00	12.00	0.40	x
00786610	1.00	3.00	0.95	48.00	4.00	16.00	0.50	x
00786615	1.50	3.00	1.45	48.00	4.00	18.00	0.75	x
00786620	2.00	3.00	1.95	48.00	4.50	20.00	1.00	x
00786625	2.50	3.00	2.40	48.00	4.50	22.00	1.25	x
00786630	3.00	3.00	2.90	48.00	6.00	25.00	1.50	x

## 6 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00786703	0.30	6.00	0.28	50.00	0.60	2.50	0.15	x
00786706	0.60	6.00	0.55	50.00	2.50	10.00	0.30	x
00786708	0.80	6.00	0.75	50.00	3.00	12.00	0.40	x
00786710	1.00	6.00	0.95	50.00	4.00	16.00	0.50	x
00786715	1.50	6.00	1.45	50.00	4.00	18.00	0.75	x
00786720	2.00	6.00	1.95	50.00	4.50	20.00	1.00	x
00786725	2.50	6.00	2.40	50.00	4.50	22.00	1.25	x
00786730	3.00	6.00	2.90	50.00	6.00	25.00	1.50	x

# Spherical End Mills (Lollipop) for Zirconium Oxide - Diamond coated

ZrO<sub>2</sub>



**End mill type:** Spherical 270° (Lollipop)

**Number of flutes:** Two

**Versions:** Long

**Coating (CT):** Diamond

**Features:** High machining options for undercuts, without having to tilt the workpiece

**Indications:** Caps, crowns (anatomic, undercut machining, outer contours, inner contours)

**For users of:** DMG, imes-core, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and other systems

## 3 mm Shank, Long Neck

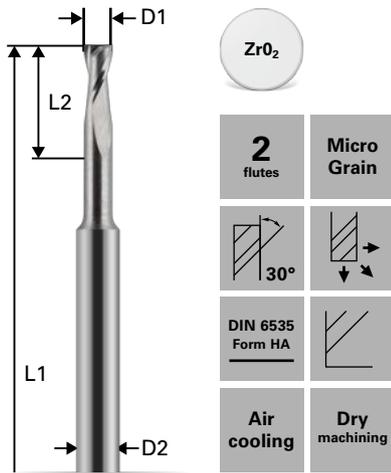
Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L3 (mm)	R (mm)	Sphere (degrees)	CT
00784310	2.00	3.00	1.10	48.00	14.00	1.00	270	x

## 6 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L3 (mm)	R (mm)	Sphere (degrees)	CT
00784610	2.00	6.00	1.10	50.00	14.00	1.00	270	x

# End Mills for Zirconium Oxide - Uncoated

ZrO<sub>2</sub>



**End mill type:** End mill with sharp edge

**Number of flutes:** Two

**Versions:** Short

**Coating (CT):** None

**Features:** Very sharp flutes, precise plane face machining, ideal for screw contact surfaces and/or contour machining

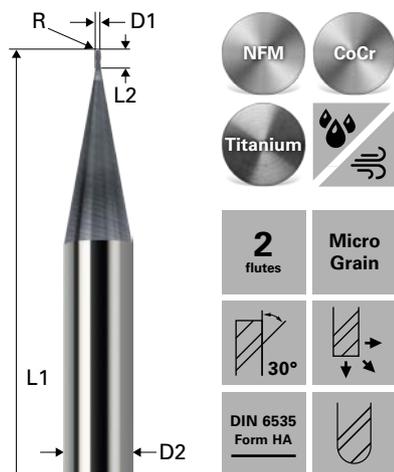
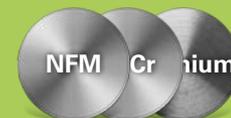
**Indications:** Bars, individual abutments, screwed-retained applications, interface connections (inside/outside), screw contact surfaces

**For users of:** DMG, imes-core, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and other systems

## 3 mm Shank, Short Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)
00781005	0.50	3.00	0.45	39.00	0.75	4.00
00781006	0.60	3.00	0.55	39.00	0.90	4.00
00781007	0.70	3.00	0.65	39.00	1.05	4.00
00781008	0.80	3.00	0.75	39.00	1.20	6.00
00781009	0.90	3.00	0.85	39.00	1.30	6.00
00781010	1.00	3.00	0.95	39.00	1.50	6.00
00781011	1.00	3.00	0.95	39.00	1.50	9.00
00781012	1.20	3.00	1.15	39.00	1.80	9.00
00781015	1.50	3.00	1.45	39.00	2.20	9.00
00781020	2.00	3.00	1.95	39.00	3.00	12.00

# Ball Nose End Mills, Conical, for Cobalt-Chrome/Titanium - Coated



**End mill type:** Ball nose 180° bevelled pointed

**Number of flutes:** Two

**Versions:** Short

**Coating (CT):** BALINIT® X.CEED

**Features:** Voluminous and robust point with short effective length, therefore reduced risk of head fracture  
**Indications:** Surfaces (fissures), edge machining, interdental spaces, internal machining (inside cavities)

**For users of:** DMG, imes-core, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and other systems

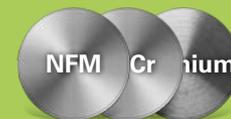
## 3 mm Shank

Item No.	D1 (mm)	D2 (mm)	L1 (mm)	L2 (mm)	R (mm)	CT
0078236K	0.60	3.00	48.00	1.20	0.30	x
0078238K	0.80	3.00	48.00	1.70	0.40	x
0078231K	1.00	3.00	48.00	1.90	0.50	x

## 6 mm Shank

Item No.	D1 (mm)	D2 (mm)	L1 (mm)	L2 (mm)	R (mm)	CT
0078266K	0.60	6.00	50.00	1.20	0.30	x
0078268K	0.80	6.00	50.00	1.70	0.40	x
0078261K	1.00	6.00	50.00	1.90	0.50	x

# Ball Nose End Mills for Cobalt-Chrome/Titanium - Coated



**End mill type:** Ball nose 180°

**Number of flutes:** Two

**Versions:** Short, Long, Xtra Long

**Coating (CT):** BALINIT® X.CEED

**Features:** High coating hardness especially for hardened and difficult to machine materials

**Indications:** Caps, crowns (anatomic, anatomically reduced), bridges, bars, individual abutments, screwed-retained applications, 3D free-form surfaces

**For users of:** DMG, imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Roland, Wieland, Wissner and other systems

## 3 mm Shank, Short Neck

Item No.	D1 (mm)	D2 (mm)	L1 (mm)	L2 (mm)	R (mm)	CT
00684004	0.40	3.00	39.00	1.00	0.20	x
00684010	0.50	3.00	39.00	1.50	0.25	x
00684006	0.60	3.00	39.00	1.80	0.30	x

## 3 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00782303	0.30	3.00	0.28	39.00	0.60	2.50	0.15	x
00782305	0.50	3.00	0.45	39.00	0.75	4.00	0.25	x
00782308	0.80	3.00	0.75	39.00	3.50	8.00	0.40	x
00782310	1.00	3.00	0.95	39.00	3.00	8.00	0.50	x
00782315	1.50	3.00	1.45	39.00	4.00	12.00	0.75	x
00782320	2.00	3.00	1.90	39.00	3.50	14.00	1.00	x
00782325	2.50	3.00	2.40	39.00	4.50	15.00	1.25	x
00782330	3.00	3.00	2.80	39.00	5.50	15.00	1.50	x

# Ball Nose End Mills for Cobalt-Chrome/Titanium - Coated



## 4 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00784408	0.80	4.00	0.75	50.00	3.00	10.00	0.40	x
00784410	1.00	4.00	0.95	50.00	3.50	12.00	0.50	x
00784415	1.50	4.00	1.45	50.00	4.00	14.00	0.75	x
00784420	2.00	4.00	1.90	50.00	4.50	16.00	1.00	x
00784425	2.50	4.00	2.35	50.00	5.00	18.00	1.25	x
00784430	3.00	4.00	2.80	50.00	5.50	22.00	1.50	x

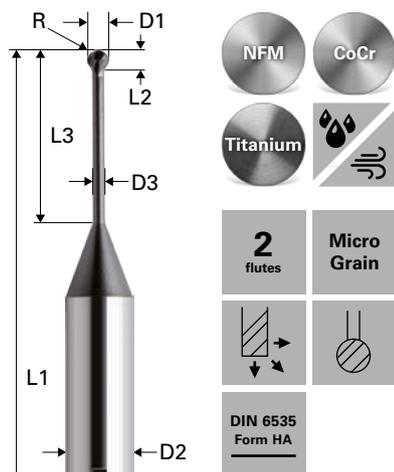
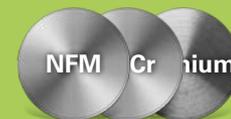
## 6 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00782603	0.30	6.00	0.28	50.00	0.60	2.50	0.15	x
00782608	0.80	6.00	0.75	50.00	3.50	8.00	0.40	x
00782610	1.00	6.00	0.95	50.00	3.00	8.00	0.50	x
00782611	1.00	6.00	0.95	50.00	3.00	10.00	0.50	x
00782615	1.50	6.00	1.45	50.00	4.00	12.00	0.75	x
00782620	2.00	6.00	1.90	50.00	3.50	12.00	1.00	x
00782625	2.50	6.00	2.40	50.00	4.50	14.00	1.25	x
00782630	3.00	6.00	2.80	50.00	5.50	15.00	1.50	x
00782630L	3.00	6.00	2.80	50.00	5.50	17.00	1.50	x

## 6 mm Shank, Xtra Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00783610	1.00	6.00	0.95	50.00	3.00	12.00	0.50	x
00783615	1.50	6.00	1.45	50.00	4.00	16.00	0.75	x
00783620	2.00	6.00	1.95	50.00	3.50	16.00	1.00	x
00783625	2.50	6.00	2.40	50.00	4.50	18.00	1.25	x
00783630	3.00	6.00	2.95	50.00	5.50	22.00	1.50	x

# Spherical End Mills (Lollipop) for Cobalt-Chrome/Titanium - Coated



**End mill type:** Spherical 270° (Lollipop)

**Number of flutes:** Two

**Versions:** Long

**Coating (CT):** BALINIT® X.CEED

**Features:** High machining options for undercuts, without having to tilt the workpiece

**Indications:** Undercut machining, outer contours, inner contours

**For users of:** DMG, imes-core, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and other systems

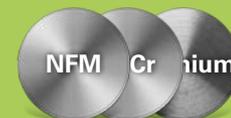
## 3 mm Shank

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L3 (mm)	R (mm)	Sphere (degrees)	CT
00785310	2.00	3.00	1.10	48.00	14.00	1.00	270	x

## 6 mm Shank

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L3 (mm)	R (mm)	Sphere (degrees)	CT
00785610	2.00	6.00	1.10	50.00	14.00	1.00	270	x

# End Mills for Cobalt-Chrome/Titanium - Coated, with Toric Cut



**End mill type:** End mill with sharp edges

**Number of flutes:** Two

**Versions:** Long

**Coating (CT):** BALINIT® X.CEED

**Features:** Very sharp flutes, precise plane face machining, ideal for screw contact surfaces and/or contour machining

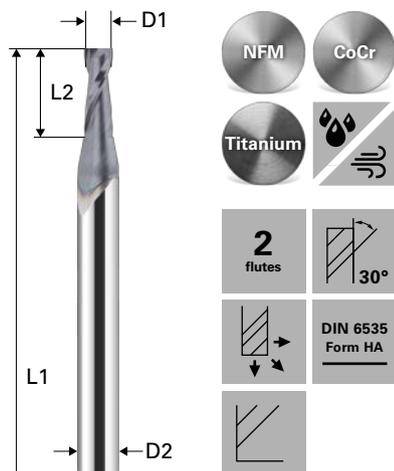
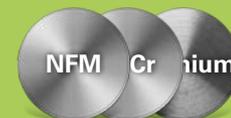
**Indications:** Bars, individual abutments, screwed-retained applications, interface connections (inside/outside), screw contact surfaces

**For users of:** DMG, imes-core, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and other systems .

## 3 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	CT
0078004L	0.40	3.00	48.00	0.50	4.50	x
0078005L	0.50	3.00	48.00	0.60	5.00	x
0078008L	0.80	3.00	48.00	1.00	8.00	x
0078010L	1.00	3.00	48.00	1.20	15.00	x
0078012L	1.20	3.00	48.00	1.40	15.00	x
0078015L	1.50	3.00	48.00	1.80	16.00	x
0078018L	1.80	3.00	48.00	2.20	16.00	x
0078020L	2.00	3.00	48.00	2.40	16.00	x
0078025L	2.50	3.00	48.00	3.00	18.00	x

# End Mills for Cobalt-Chrome/Titanium - Coated



**End mill type:** End mill with sharp edges

**Number of flutes:** Two

**Versions:** Short

**Coating (CT):** BALINIT® X.CEED

**Features:** Very sharp flutes, precise plane face machining, ideal for screw contact surfaces and/or contour machining

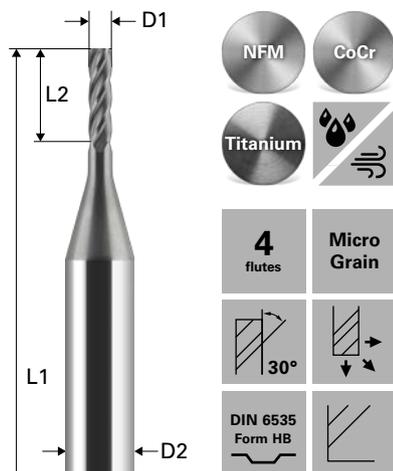
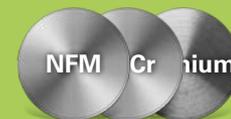
**Indications:** Bars, individual abutments, screwed-retained applications, interface connections (inside/outside), screw contact surfaces

**For users of:** DMG, imes-core, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and other systems

## 3 mm Shank, Short Neck

Item No.	D1 (mm)	D2 (mm)	L1 (mm)	L2 (mm)	CT
0078009K	0.90	3.00	38.00	1.80	x
0078010K	1.00	3.00	38.00	2.00	x
0078011K	1.10	3.00	38.00	2.20	x
0078012K	1.20	3.00	38.00	2.40	x
0078013K	1.30	3.00	38.00	2.60	x
0078014K	1.40	3.00	38.00	2.80	x
0078015K	1.50	3.00	38.00	3.00	x
0078016K	1.60	3.00	38.00	3.20	x
0078017K	1.70	3.00	38.00	3.40	x
0078018K	1.80	3.00	38.00	3.60	x
0078019K	1.90	3.00	38.00	4.00	x
0078020K	2.00	3.00	38.00	6.00	x
0078025K	2.50	3.00	38.00	7.00	x

# End Mills for Cobalt-Chrome/Titanium with Weldon clamping surface (HB) - Coated



**End mill type:** End mill with sharp edges

**Number of flutes:** Four

**Versions:** Long

**Coating (CT):** BALINIT® ALCRONA

**Features:** Sharp flutes, precise plane face machining, ideal for screw contact surfaces and/or contour machining

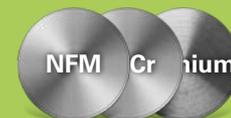
**Indications:** Bars, interface connections, contact surfaces

**For users of:** DMG, imes-core, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and other systems

## 6 mm Shank, Short Neck

Item No.	D1 (mm)	D2 (mm)	L1 (mm)	L2 (mm)	CT
0078402	2.00	6.00	50.00	7.00	x
00784025	2.50	6.00	50.00	8.00	x
0078403	3.00	6.00	57.00	8.00	x
00784035	3.50	6.00	57.00	10.00	x
0078404	4.00	6.00	57.00	11.00	x

# End Mills with Edge Radius for Cobalt-Chrome/Titanium - Coated



**End mill type:** End mill with edge radius

**Number of flutes:** Two

**Versions:** Long

**Coating (CT):** BALINIT® X.CEED

**Features:** Ideal as preliminary tool for screw channels

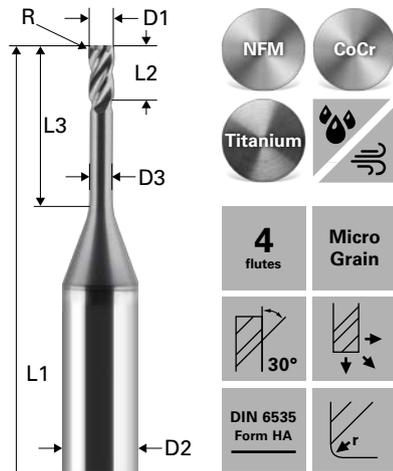
**Indications:** As a preliminary tool for all common indications. Apart from bars, individual abutments, screwed-retained applications, interface connections (inside/outside), screw contact surfaces

**For users of:** DMG, imes-core, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and other systems

## 3 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
0078010R	1.00	3.00	48.00	1.20	15.00	0.10	x
0078012R	1.20	3.00	48.00	1.40	15.00	0.10	x
0078015R	1.50	3.00	48.00	1.80	16.00	0.15	x
0078018R	1.80	3.00	48.00	2.20	16.00	0.18	x
0078020R	2.00	3.00	48.00	2.40	16.00	0.20	x
0078025R	2.50	3.00	48.00	3.00	18.00	0.25	x

# End Mills for Cobalt-Chrome/Titanium - Coated



**End mill type:** End mill with edge radius

**Number of flutes:** Four

**Versions:** Long

**Coating (CT):** BALINIT® X.CEED

**Features:** Roughing tool with high chip volume, ideal as preliminary tool in order to achieve high material removal

**Indications:** As roughing or preliminary tool for all common indications

**For users of:** DMG, imes-core, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and other systems

## 6 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
0078620	2.00	6.00	1.80	50.00	4.00	12.00	0.20	x
0078620A	2.00	6.00	1.80	50.00	4.00	16.00	0.20	x
0078623	3.00	6.00	2.70	50.00	4.00	14.00	0.30	x
0078623A	3.00	6.00	2.70	50.00	4.00	18.00	0.30	x
0078624	4.00	6.00	3.70	50.00	5.00	16.00	0.40	x

# End Mills with Double Edge Radius for Cobalt-Chrome/Titanium - Coated



**End mill type:** End mill with double edge radius

**Number of flutes:** Four

**Versions:** Long

**Coating (CT):** BALINIT® X.CEED

**Features:** Roughing tool with high chip volume, ideal as preliminary tool in order to achieve high material removal. The double edge radius allows higher approach ramps. Less initial attrition

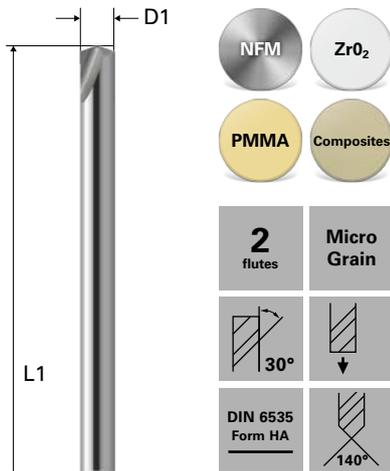
**Indications:** As roughing or preliminary tool for all common indications

**For users of:** DMG, imes-core, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and other systems

## 6 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00786203	3.00	6.00	2.80	50.00	3.00	12.00	0.60	x
00786203A	3.00	6.00	2.80	50.00	3.00	16.00	0.60	x
00786204	4.00	6.00	3.80	50.00	4.00	14.00	0.80	x
00786204A	4.00	6.00	3.80	50.00	4.00	16.00	0.80	x

# Centre Drills - Uncoated



**End mill type:** Centre drills 140°

**Number of flutes:** Two

**Versions:** Short

**Coating (CT):** None

**Features:** Preliminary centring tool for drilling process, excluding shifting of the drill

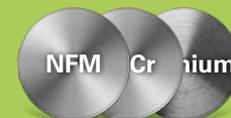
**Indications:** All work requiring precise drilling

**For users of:** All milling systems admitting 3 mm Shanks.

## 3 mm Shank

Item No.	D1 (mm)	D2 (mm)	L1 (mm)
0078701	1.00	3.00	48.00
0078702	2.00	3.00	48.00
0078703	3.00	3.00	48.00

# Drills for Cobalt-Chrome/Titanium - Coated



**End mill type:** Drills 155°

**Number of flutes:** Two

**Versions:** Long

**Coating (CT):** BALINIT® X.CEED

**Features:** High drill length, allows drilling through without need to turn the tool; alignment differences are therefore excluded

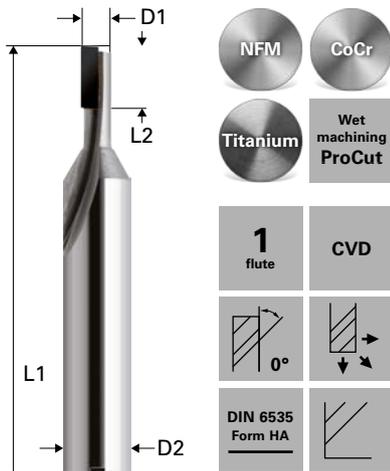
**Indications:** All work requiring precise drilling

**For users of:** All milling systems admitting 3 mm Shanks and drilling strategy or programming

## 3 mm Shank

Item No.	D1 (mm)	D2 (mm)	L1 (mm)	L2 (mm)	CT
0078708	0.80	3.00	48.00	7.00	x
0078709	0.90	3.00	48.00	9.00	x
0078710	1.00	3.00	48.00	11.00	x
0078711	1.10	3.00	48.00	11.00	x
0078712	1.20	3.00	48.00	13.00	x
00787125	1.25	3.00	48.00	13.00	x
0078713	1.30	3.00	48.00	13.00	x
0078714	1.40	3.00	48.00	15.00	x
0078715	1.50	3.00	48.00	16.00	x
0078716	1.60	3.00	48.00	16.00	x
0078717	1.70	3.00	48.00	16.00	x
0078718	1.80	3.00	48.00	17.00	x
0078719	1.90	3.00	48.00	17.00	x
0078720	2.00	3.00	48.00	20.00	x
0078722	2.25	3.00	48.00	20.00	x
0078725	2.50	3.00	48.00	20.00	x
0078727	2.75	3.00	48.00	20.00	x
0078730	3.00	3.00	48.00	20.00	x

# CVD Diamond Single Flute End Mills for Cobalt-Chrome/Titanium



**End mill type:** Single flute end mill, diamond, 90°

**Number of flutes:** One

**Versions:** Short

**Coating (CT):** None

**Features:** The diamond single flute end mill is manufactured with a CVD process and is ideal for microscopically smooth and ultra fine surface finishing. Extremely high durability at low depths

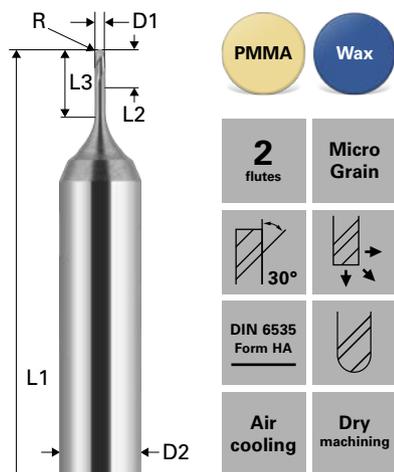
**Indications:** Surface machining

**For users of:** DMG, imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and other systems

6 mm Shank

Item No.	D1 (mm)	D2 (mm)	L1 (mm)	L2 (mm)
00781203	3.00	6.00	50.00	5.00

# Micro Ball Nose End Mills for PMMA/Wax - Uncoated



<b>PMMA</b>	<b>Wax</b>
<b>2 flutes</b>	<b>Micro Grain</b>
<b>DIN 6535 Form HA</b>	
<b>Air cooling</b>	<b>Dry machining</b>

**End mill type:** Micro ball nose 180°

**Number of flutes:** Two

**Versions:** Short

**Coating (CT):** None

**Features:** Stable micro-machining without adhesions in chip removal channels with low depth

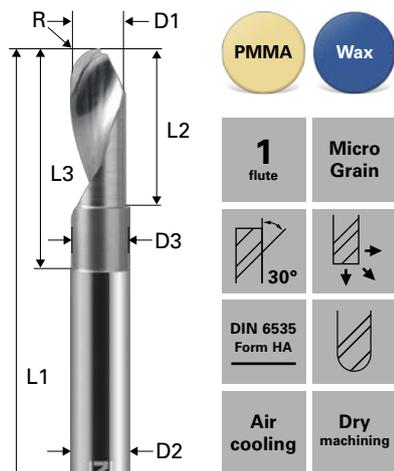
**Indications:** Copings, crowns (anatomic, anatomically reduced), fissures, 3D free-form surfaces

**For users of:** DMG, imes-core, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and other systems

## 3 mm Shank, Short Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)
00782004	0.40	3.00	0.35	39.00	0.60	2.00	0.20
00782005	0.50	3.00	0.45	39.00	0.75	4.00	0.25
00782005L	0.50	3.00	0.45	39.00	0.75	10.00	0.25
00782006	0.60	3.00	0.55	39.00	0.90	4.00	0.30
00782008	0.80	3.00	0.75	39.00	1.20	6.00	0.40
00782010	1.00	3.00	0.95	39.00	1.50	6.00	0.50
00782011	1.00	3.00	0.95	39.00	1.50	9.00	0.50
00782012	1.20	3.00	1.15	39.00	1.80	9.00	0.60
00782015	1.50	3.00	1.45	39.00	2.20	9.00	0.75
00782020	2.00	3.00	1.95	39.00	3.00	12.00	1.00

# Ball nose end mill for PMMA/Wax - Polished, uncoated



**End mill type:** Ball nose 180°

**Number of flutes:** One

**Versions:** Long

**Coating (CT):** None

**Features:** Polished extremely sharp flutes, burr-free and clean machining without adhesions in chip removal channels

**Indications:** Copings, crowns (anatomic, anatomically reduced), surface machining (fissures), short-term temporary dentures, 3D free-form surfaces

**For users of:** DMG, imes-core, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and other systems

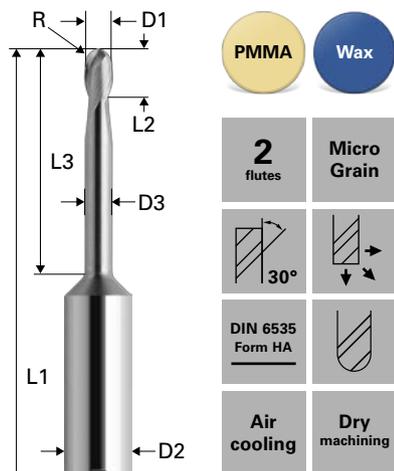
## 3 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)
0068181E	1.00	3.00	0.95	50.00	4.00	12.00	0.50
0068182E	2.00	3.00	1.95	50.00	6.00	20.00	1.00
0068183E	3.00	3.00	2.95	50.00	8.00	21.00	1.50

## 6 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)
0068191E	1.00	6.00	0.95	50.00	4.00	12.00	0.50
0068191S	1.50	6.00	1.45	50.00	5.00	12.00	0.75
0068192E	2.00	6.00	1.95	50.00	6.00	20.00	1.00
0068192S	2.50	6.00	2.45	50.00	7.00	20.00	1.25
0068193E	3.00	6.00	2.95	50.00	8.00	21.00	1.50
0068194E	4.00	6.00	3.95	50.00	10.00	21.00	2.00
0068195E	5.00	6.00	4.95	50.00	12.00	22.00	2.50
0068196E	6.00	6.00	5.95	50.00	14.00	22.00	3.00

# Ball Nose End Mills for PMMA/Wax - Uncoated



<b>PMMA</b>	<b>Wax</b>
<b>2 flutes</b>	<b>Micro Grain</b>
<b>DIN 6535 Form HA</b>	
<b>Air cooling</b>	<b>Dry machining</b>

**End mill type:** Ball nose 180°

**Number of flutes:** Two

**Versions:** Long

**Coating (CT):** None

**Features:** Polished flutes, burr-free and clean machining without adhesions in chip removal channels

**Indications:** Copings, crowns (anatomic, anatomically reduced), surface machining (fissures), short-term temporary dentures, 3D free-form surfaces

**For users of:** DMG, imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Roland, Wieland, Wissner and other systems

## 3 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)
00782406	0.60	3.00	0.55	48.00	2.50	10.00	0.30
00782408	0.80	3.00	0.75	48.00	3.50	12.00	0.40
00782410	1.00	3.00	0.95	48.00	4.00	16.00	0.50
00782415	1.50	3.00	1.45	48.00	4.50	18.00	0.75
00782420	2.00	3.00	1.95	48.00	5.50	20.00	1.00
00782425	2.50	3.00	2.40	48.00	6.00	25.00	1.25

# Ball Nose End Mills for PMMA/Wax - Uncoated



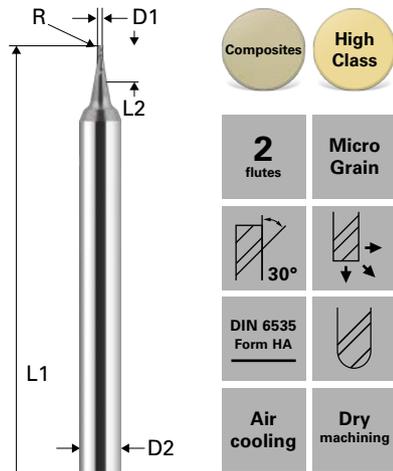
## 4 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)
00783406	<b>0.60</b>	4.00	0.55	48.00	2.50	10.00	0.30
00783410	<b>1.00</b>	4.00	0.95	48.00	4.00	18.00	0.50
00783420	<b>2.00</b>	4.00	1.95	48.00	5.50	20.00	1.00
00783425	<b>2.50</b>	4.00	2.40	48.00	6.00	22.00	1.25

## 6 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)
00782906	<b>0.60</b>	6.00	0.55	50.00	2.50	10.00	0.30
00782908	<b>0.80</b>	6.00	0.75	50.00	3.00	12.00	0.40
00782910	<b>1.00</b>	6.00	0.95	50.00	4.00	16.00	0.50
00782915	<b>1.50</b>	6.00	1.45	50.00	4.00	18.00	0.75
00782920	<b>2.00</b>	6.00	1.95	50.00	4.50	20.00	1.00
00782925	<b>2.50</b>	6.00	2.40	50.00	5.00	25.00	1.25
00782930	<b>3.00</b>	6.00	2.90	50.00	6.00	25.00	1.50

# Micro Ball Nose End Mills for Composites (High-Class) - Coated



<b>Composites</b>	<b>High Class</b>
<b>2 flutes</b>	<b>Micro Grain</b>
<b>DIN 6535 Form HA</b>	
<b>Air cooling</b>	<b>Dry machining</b>

**End mill type:** Micro ball nose 180°

**Number of flutes:** Two

**Versions:** Short

**Coating (CT):** BALINIT® ALCRONA

**Features:** Robust design due to short flutes

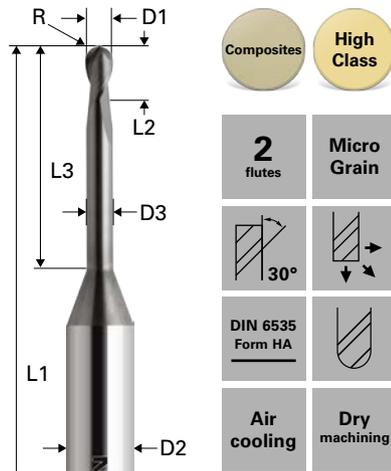
**Indications:** Fissures, 3D free-form surfaces

**For users of:** DMG, imes-core, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and other systems

## 3 mm Shank, Short Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00684004	0.40	3.00		39.00	1.20		0.20	x
00684005	0.50	3.00		39.00	0.80		0.25	x
00684006	0.60	3.00		39.00	1.80		0.30	x
00684008	0.80	3.00		39.00	2.40		0.40	x

# Ball Nose End Mills for Composites (High-Class) - Coated



**End mill type:** Ball nose 180°

**Number of flutes:** Two

**Versions:** Long

**Coating (CT):** BALINIT® ALCRONA

**Features:** High durability with strongly abrasive materials

**Indications:** Copings, crowns (anatomic), bridges, bars, individual Abutments, screwed-retained applications, short- and long-term temporary dentures, 3D free-form surfaces

**For users of:** DMG, imes-core, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and other systems

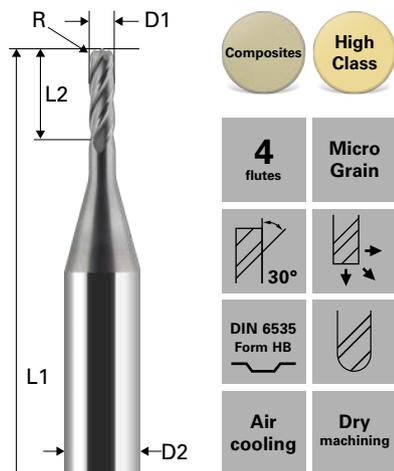
## 3 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00782508	0.80	3.00	0.75	43.00	3.50	12.00	0.40	x
00782510	1.00	3.00	0.95	43.00	4.00	16.00	0.50	x
00782515	1.50	3.00	1.45	48.00	4.50	16.00	0.75	x
00782520	2.00	3.00	1.95	48.00	5.50	18.00	1.00	x
00782525	2.50	3.00	2.40	43.00	6.00	20.00	1.25	x
00782530	3.00	3.00	2.80	43.00	6.00	25.00	1.50	x

## 6 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00783008	0.80	6.00	0.75	50.00	3.50	12.00	0.40	x
00783010	1.00	6.00	0.95	50.00	4.00	14.00	0.50	x
00783015	1.50	6.00	1.45	50.00	4.50	16.00	0.75	x
00783020	2.00	6.00	1.95	50.00	5.50	18.00	1.00	x
00783025	2.50	6.00	2.40	50.00	4.50	20.00	1.25	x
00783030	3.00	6.00	2.80	50.00	6.00	22.00	1.50	x

# Ball Nose End Mills for Composites with Weldon Clamping Surface (HB) - Coated



<b>Composites</b>	<b>High Class</b>
<b>4 flutes</b>	<b>Micro Grain</b>
30°	
<b>DIN 6535 Form HB</b>	
<b>Air cooling</b>	<b>Dry machining</b>

**End mill type:** Ball nose 180°

**Number of flutes:** Four

**Versions:** Long, Xtra Long

**Coating (CT):** BALINIT® ALCRONA

**Features:** Roughing tool with high material removal when working with highly abrasive materials

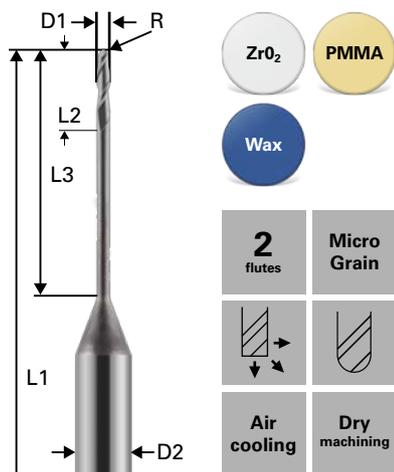
**Indications:** As roughing or preliminary tool for all common indications, 3D free-form surfaces

**For users of:** DMG, imes-core, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and other systems

## 6 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	L1 (mm)	L2 (mm)	R (mm)	CT
0078542	2.00	6.00	57.00	6.00	1.00	x
0078543	3.00	6.00	57.00	8.00	1.50	x
0078543A	3.00	6.00	57.00	20.00	1.50	x
0078543B	3.00	6.00	50.00	20.00	1.50	x
0078544	4.00	6.00	57.00	11.00	2.00	x
0078544A	4.00	6.00	57.00	20.00	2.00	x

# DATRON D1 pure - Ball Nose End Mills for Zirconium-Oxide and PMMA/Wax



Depending on the material, we offer tool packages especially for the D1 pure that allow you to achieve ideal results in the production of restorations in individual materials. You can order these end mills in different units (also available per piece).

## 3 mm Shank

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00783906	0.60	4.00	0.55	36.00	2.50	10.00	0.30	x
00783910	1.00	4.00	0.95	44.00	4.00	18.00	0.50	x
00783920	2.00	4.00	1.90	46.00	4.50	20.00	1.00	x
00783106	0.60	4.00	0.55	36.00	2.50	10.00	0.30	
00783110	1.00	4.00	0.95	44.00	4.00	18.00	0.50	
00783120	2.00	4.00	1.90	46.00	4.50	20.00	1.00	
00783425	2.50	4.00	2.40	48.00	5.00	22.00	1.25	

## Tool packages D1 pure

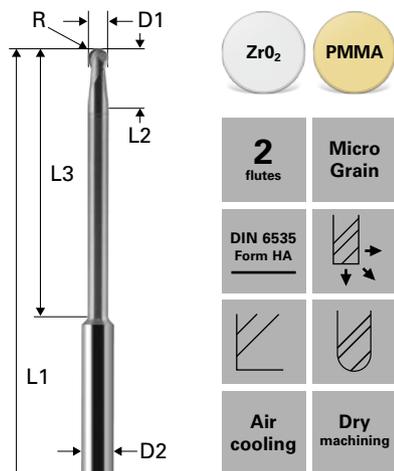
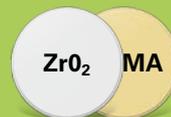
Item No.	Description
0A32302A	<b>DENTAL tool package D1 pure Zirconium Oxide for DATRON Dental CAM, consisting of:</b> 2x 00783906, 3x 00783910, 4x 00783920
0A32302	<b>DENTAL tool package D1 pure PMMA/wax for DATRON Dental CAM, consisting of:</b> 2x 00783106, 3x 00783110, 3x 00783120, 3x 00783425
0A32302B	<b>DENTAL tool package D1 pure for soft materials for DATRON Dental CAM, consisting of:</b> 1x 00783906, 2x 00783910, 3x 00783920, 1x 00783106, 2x 00783110, 3x 00783120, 2x 00783425

## We are compatible - DATRON milling tools for external systems

Especially designed for use in external dental systems, DATRON has developed a comprehensive portfolio of special tools leading to excellent milling results in combination with DATRON Dental materials.



# DATRON Milling Tools compatible with LAVA milling systems - Uncoated for Zirconium Oxide/PMMA/Wax



**End mill type:** Ball nose 180° / end mill (Barcode Eraser) 90°

**Number of flutes:** Two  
**Versions:** According to system requirements

**Coating (CT):** None

**Features:** High durability due to special solid carbide, sharp flutes

**Indications:** All machinable indications

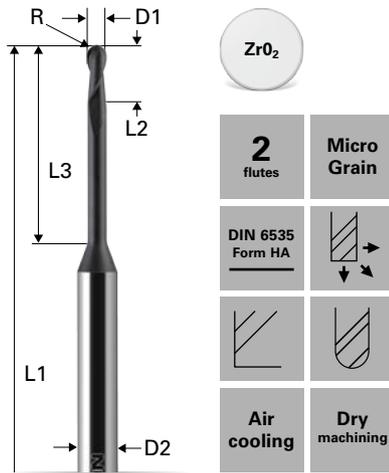
## 3 mm Shank

Item No.	Type)	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R
0078380B	1/2	2.00	3.00	1.95	50.00	2.00	25.00	1.00
0078380E	3	1.00	3.00	0.95	50.00	3.00	25.00	0.50
0078380A	4/5	2.00	3.00	1.60	39.00	2.00	16.00	1.00
0078380D	6	1.00	3.00	0.80	39.00	3.00	16.00	0.50
0078025	7	2.50	3.00		39.00	5.00		



# DATRON Milling Tools compatible with Charly Robot milling systems - Coated for Zirconium Oxide

ZrO<sub>2</sub>



- End mill type:** Ball nose 180° / end mill with 90° edge radius
- Number of flutes:** Two
- Versions:** According to system requirements
- Coating (CT):** Diamond
- Features:** High durability due to extreme diamond coating
- Indications:** All machinable indications

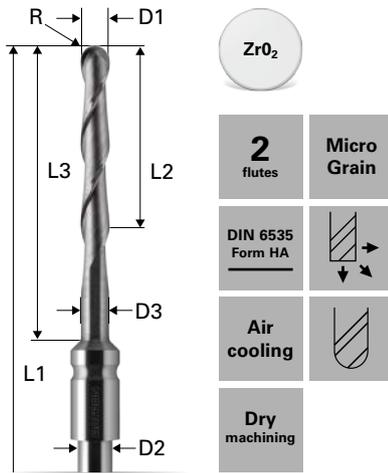
## 3 mm Shank

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00782005	0.50	3.00	0.45	39.00	0.75	4.00	0.25	
00782005L	0.50	3.00	0.45	39.00	0.75	10.00	0.25	
00782208A	0.80	3.00	0.75	39.00	3.00	12.00	0.40	x
00782210A	1.00	3.00	0.95	39.00	4.00	14.00	0.50	x
00782215A	1.50	3.00	1.40	39.00	4.00	14.00	0.75	x
00782333	3.00	3.00	2.70	39.00	4.00	14.00	0.30	x



# DATRON Milling Tools compatible with Cercon Brain Expert milling systems - Uncoated for Zirconium Oxide

ZrO<sub>2</sub>



**End mill type:** Ball nose 180°

**Number of flutes:** Two

**Versions:** According to system requirements

**Coating (CT):** None

**Features:** High durability due to special solid carbide, sharp flutes

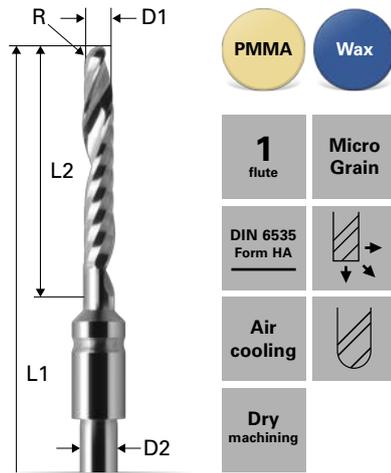
**Indications:** All machinable indications

## 3 mm Shank

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)
0073380L	3.00	3.50	2.90	55.00	20.00	30.00	1.50
0073380K	2.00	3.50	1.90	55.00	10.00	20.00	1.00
0073380J	1.00	3.50	0.90	55.00	10.00	20.00	0.50
00733825	0.50	3.50	0.45	55.00	2.00	10.00	0.25



# DATRON Milling Tools compatible with Cercon Brain Expert milling systems - Uncoated for PMMA/Wax



<b>PMMA</b>	<b>Wax</b>
<b>1</b> flute	<b>Micro Grain</b>
DIN 6535 Form HA	
<b>Air cooling</b>	
<b>Dry machining</b>	

**End mill type:** Single flute end mill with ball nose 180°

**Number of flutes:** One

**Versions:** According to system requirements

**Coating (CT):** None

**Features:** High durability due to special solid carbide, sharp flutes

**Indications:** All machinable indications

## 3,5 mm Shank

Item No.	D1 (mm)	D2 (mm)	L1 (mm)	L2 (mm)	R (mm)
0073380X	3.00	3.50	50.00	20.00	1.50
0073380Y	2.00	3.50	50.00	12.00	1.00
0073380Z	1.00	3.50	50.00	8.00	0.50
00733815	0.50	3.50	50.00	2.00	0.25



# DATRON Milling Tools compatible with open KAVO milling systems - Coated/uncoated for ZrO<sub>2</sub>, PMMA/Wax and High-Class



**End mill type:** Ball nose 180°

**Number of flutes:** Two

**Versions:** Short, Long

**Coating (CT):** Without, Diamond and BALINIT® ALCRONA

**Features:** High durability, in part due to special solid carbide, in part due to extreme coatings

**Indications:** All machinable indications, 3D free form surfaces

## 6 mm Shank, Short & Long Neck without Coating for PMMA/Wax

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00782705A	0.50	6.00	0.40	48.00	1.00	2.50	0.25	
00782910A	1.00	6.00	0.90	54.00	1.50	16.00	0.50	
00782920A	2.00	6.00	1.90	54.00	3.00	20.00	1.00	

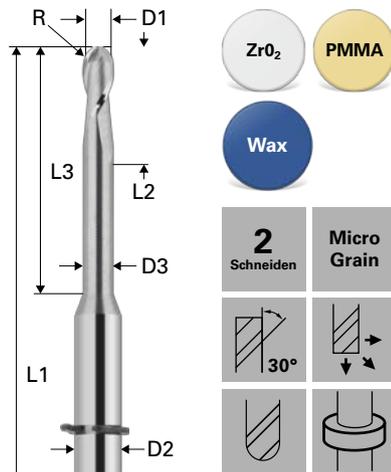
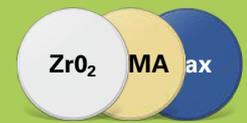
## 6 mm Shank, Long Neck with Diamond Coating for ZrO<sub>2</sub>

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00782807A	0.70	6.00	0.60	54.00	2.00	10.00	0.35	x
00782810A	1.00	6.00	0.90	54.00	1.50	18.00	0.50	x
00782820A	2.00	6.00	1.90	54.00	3.00	20.00	1.00	x

## 6 mm Shank, Long Neck with BALINIT® ALCRONA Coating for High-Class

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
0073404	1.00	6.00	0.95	50.00	4.00	16.00	0.50	x
0073404A	1.00	6.00	0.95	50.00	4.00	19.00	0.50	x
0073404B	2.50	6.00	2.40	50.00	4.50	16.00	1.25	x
0073404C	2.50	6.00	2.40	50.00	4.50	19.00	1.25	x

# DATRON Milling Tools compatible with VHF milling systems - Uncoated for Zirconium Oxide and PMMA/Wax



**End mill type:** Ball nose 180°

**Number of flutes:** Two

**Versions:** Short, Long

**Coating (CT):** None

**Features:** Extremely sharp flutes, as not post-treated

**Indications:** Caps, crowns (anatomic, anatomically reduced), bridges, bars, individual abutments, screwed-retained applications, 3D free-form surfaces

## 3 mm Shank, Short Neck

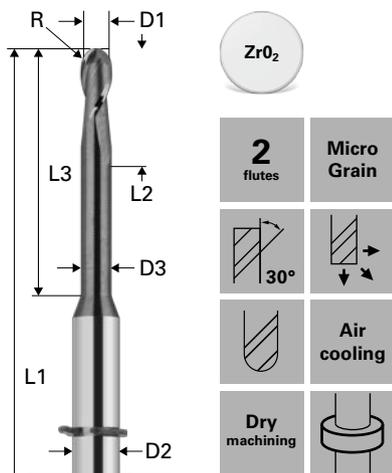
Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)
00782135	0.60	3.00	0.55	35.00	1.20	3.00	0.30
00782136	1.00	3.00	0.95	35.00	2.00	16.00	0.50
00782137	2.00	3.00	1.95	35.00	3.00	16.00	1.00

## 3 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)
00782128	0.60	3.00	0.55	40.00	1.20	3.00	0.30
00782129	1.00	3.00	0.95	40.00	2.00	16.00	0.50
00782131	2.00	3.00	1.95	40.00	4.00	16.00	1.00

# DATRON Milling Tools compatible with VHF milling systems - Coated for Zirconium Oxide

ZrO<sub>2</sub>



**End mill type:** Ball nose 180°

**Number of flutes:** Two

**Versions:** Short, Long

**Coating (CT):** DLC, Diamond

**Features:** Very high durability due to Diamond Coating (resp. DLC)

**Indications:** Caps, crowns (anatomic, anatomically reduced), bridges, bars, individual abutments, screwed-retained applications, 3D free-form surfaces

## 3 mm Shank, Short Neck

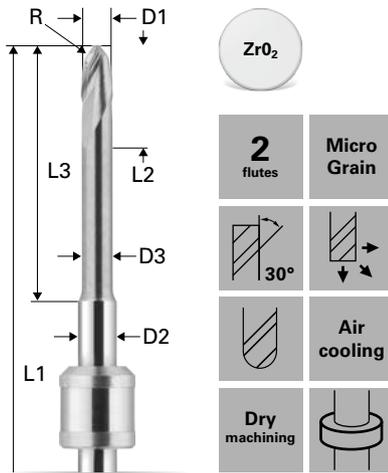
Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00782121	0.60	3.00	0.55	35.00	1.20	5.00	0.30	DLC
00782122	1.00	3.00	0.95	35.00	2.00	16.00	0.50	DLC
00782123	2.00	3.00	1.95	35.00	4.00	16.00	1.00	DLC

## 3 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00782132	0.60	3.00	0.55	40.00	1.20	3.00	0.30	Diamond
00782133	1.00	3.00	0.95	40.00	2.00	16.00	0.50	Diamond
00782134	2.00	3.00	1.95	40.00	4.00	16.00	1.00	Diamond

# DATRON Milling Tools compatible with Amann Girrbach milling systems - Coated/uncoated for Zirconium Oxide

ZrO<sub>2</sub>



**End mill type:** Ball nose 180°

**Number of flutes:** Two

**Versions:** Long

**Coating (CT):** None, Diamond

**Features:**

Very long durability, resulting in part from the use of special carbide and in part from extreme coatings.

**Indications:**

Caps, crowns (anatomic, anatomically reduced), bridges, bars, individual abutments, screwed-retained applications, 3D free-form surfaces

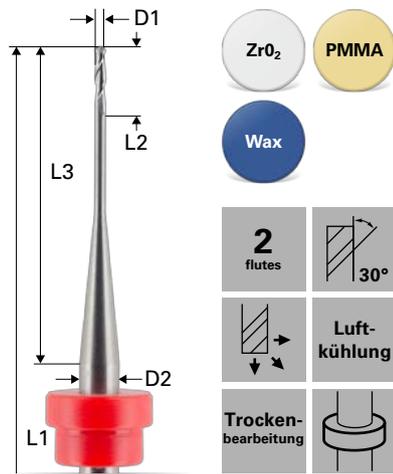
## 3 mm Shank, Long Neck, without Coating

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
0073383U	0.60	3.00	0.55	47.00	2.00	14.00	0.30	
0073383V	1.00	3.00	0.95	47.00	2.00	16.00	0.50	
0073383W	2.50	3.00	2.45	47.00	4.00	18.50	1.25	

## 3 mm Shank, Long Neck, Diamond Coating

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
0073383X	0.60	3.00	0.55	47.00	2.00	14.00	0.30	Diamond
0073383Y	1.00	3.00	0.95	47.00	2.00	16.00	0.50	Diamond
0073383Z	2.50	3.00	2.45	47.00	4.00	18.50	1.25	Diamond

# DATRON Milling Tools compatible with Wieland T1 milling systems - Coated/uncoated for Zirconium Oxide and PMMA/Wax



**End mill type:** Ball nose 180°

**Number of flutes:** two

**Versions:** According to system requirements

**Coating (CT):** Diamond, none

**Features:** Very long durability, resulting in part from the use of special carbide and in part from diamond coatings.

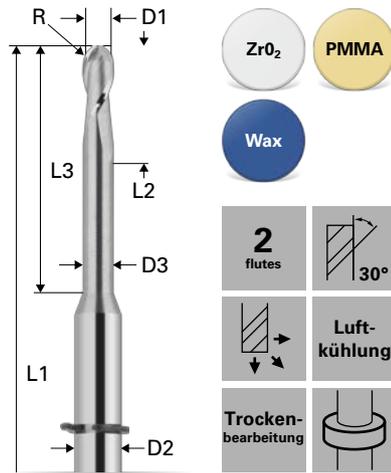
**Indications:** All machinable indications

## 3,4 mm Shank, Long Neck

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00781803	0.30	3.40		48.00	1.50	25.00	0.15	
00781806	0.60	3.40		48.00	4.00	25.00	0.30	
00781810	1.00	3.40	0.95	48.00	4.00	14.00	0.50	
00781824	2.40	3.40	2.15	48.00	5.00	25.00	1.20	
00781910	1.00	3.40	0.95	48.00	4.00	14.00	0.50	Diamond
00781924	2.40	3.40	2.15	48.00	5.00	25.00	1.20	Diamond

# DATRON Milling Tools compatible with Wieland select milling systems

## Coated/uncoated for Zirconium Oxide and PMMA/Wax



**End mill type:** Ball nose 180°

**Number of flutes:** two

**Versions:** According to system requirements

**Coating (CT):** Diamond, none

**Features:** Very long durability, resulting in part from the use of special carbide and in part from diamond coatings.

**Indications:** All machinable indications

### 3,4 mm Shank, Long Neck\*

Item No.	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	R (mm)	CT
00785803	0.30	3.00	0.25	40.00	0.60	2.50	0.15	
00785807	0.70	3.00	0.65	40.00	2.00	9.00	0.35	
00782129	1.00	3.00	0.95	40.00	2.00	16.00	0.50	
00785825	2.50	3.00	2.45	40.00	5.00	20.00	1.25	
00785707	0.70	3.00	0.65	40.00	2.00	9.00	0.35	x
00782133	1.00	3.00	0.95	40.00	2.00	16.00	0.50	x
00785725	2.50	3.00	2.45	40.00	5.00	20.00	1.25	x

## DATRON DentDiscs - High type-variety in top quality for your lab success

The extensive range of DATRON DentDiscs offers high quality milling blanks in the 98.5 mm diameter standard size for all indications. DATRON DentDiscs achieve perfect results in combination with DATRON dental milling machines and DATRON Dental milling tools.

The same as DATRON Dental milling tools, DATRON DentDiscs can also be used successfully with machines from other vendors.





## DATRON DentZirc opaque

With DATRON DentZirc opaque, we offer you an extra strong zirconium oxide with a 3-point flexural strength of  $1300 \pm 100$  MPa. DentZirc opaque is ideal for the production of abutments on adhesive basis as well as crowns and bridges. These isostatically pressed milling blanks provide a classic white material that can be colored directly and individually and enhanced with all ceramic veneers.

### DATRON DentZirc opaque

Item No.	Thickness (mm)	Diameter (mm)	Colour
MD156114	14	98.5	white
MD156118	18	98.5	white
MD156120	20	98.5	white
MD156125	25	98.5	white

## DATRON DentZirc HT

With DATRON DentZirc HT, we offer pre-shaded highly translucent zirconium oxide blanks (individually isostatically pressed) for top aesthetic crowns and bridges for monolithic or ceramic veneering. DentZirc HT offers an extremely high translucency factor. Due to pre-shading, restorations can be manufactured reliably following the VITA Classical shade guide. With its standard 98.5 mm diameter, DATRON DentZirc HT can be machined on all open CAD/CAM systems.

### DATRON DentZirc HT

Item No.	Thickness (mm)	Diameter (mm)	Colour*
MD151114	14	98.5	A1
MD151118	18	98.5	A1
MD151120	20	98.5	A1
MD151125	25	98.5	A1
MD151214	14	98.5	A2
MD151218	18	98.5	A2
MD151220	20	98.5	A2
MD151225	25	98.5	A2
MD151314	14	98.5	A3
MD151318	18	98.5	A3
MD151320	20	98.5	A3
MD151325	25	98.5	A3

\* The colours indicated are compatible with the Vita Classical shade guide.



## DATRON DentZirc HT

Item No.	Thickness (mm)	Diameter (mm)	Colour*
MD1513514	14	98.5	A3.5
MD1513518	18	98.5	A3.5
MD1513520	20	98.5	A3.5
MD1513525	25	98.5	A3.5
MD151414	14	98.5	A4
MD151418	18	98.5	A4
MD151420	20	98.5	A4
MD151425	25	98.5	A4
MD152114	14	98.5	B1
MD152118	18	98.5	B1
MD152120	20	98.5	B1
MD152125	25	98.5	B1
MD152214	14	98.5	B2
MD152218	18	98.5	B2
MD152220	20	98.5	B2
MD152225	25	98.5	B2
MD152314	14	98.5	B3
MD152318	18	98.5	B3
MD152320	20	98.5	B3
MD152325	25	98.5	B3
MD152414	14	98.5	B4
MD152418	18	98.5	B4
MD152420	20	98.5	B4
MD152425	25	98.5	B4
MD153114	14	98.5	C1
MD153118	18	98.5	C1
MD153120	20	98.5	C1
MD153125	25	98.5	C1

\* The colours indicated are compatible with the Vita Classical shade guide.



## DATRON DentZirc HT

Item No.	Thickness (mm)	Diameter (mm)	Colour*
MD153214	14	98.5	C2
MD153218	18	98.5	C2
MD153220	20	98.5	C2
MD153225	25	98.5	C2
MD153314	14	98,5	C3
MD153318	18	98,5	C3
MD153320	20	98,5	C3
MD153325	25	98,5	C3
MD153414	14	98,5	C4
MD153418	18	98,5	C4
MD153420	20	98,5	C4
MD153425	25	98,5	C4
MD154214	14	98.5	D2
MD154218	18	98.5	D2
MD154220	20	98.5	D2
MD154225	25	98.5	D2
MD154314	14	98.5	D3
MD154318	18	98.5	D3
MD154320	20	98.5	D3
MD154325	25	98.5	D3
MD154414	14	98.5	D4
MD154418	18	98.5	D4
MD154420	20	98.5	D4
MD154425	25	98.5	D4
MD155114	14	98.5	white
MD155118	18	98.5	white
MD155120	20	98.5	white
MD155125	25	98.5	white

\* The colours indicated are compatible with the Vita Classical shade guide.



## DATRON DentTiA4

High-quality pure grade 4 titanium DATRON DentTi4 milling blanks are characterized by extraordinary material properties and have been especially developed for dental indications such as crowns and bridges in the anterior and posterior regions. This special grade 4 titanium material has been created for ceramic veneers suitable for titanium. This is the only way to achieve best aesthetic results. DentTi4 grade 4 titanium is a very tool-friendly product, obviously biocompatible and appropriate for veneering with all standard titanium burn-on alloys.

### DATRON DentTi4

Item No.	Thickness (mm)	Diameter (mm)	Colour
MD121110	10	98.5	
MD121112	12	98.5	
MD121114	14	98.5	
MD121118	18	98.5	

## DATRON DentTiAlloy

Our high-quality DATRON DentTiAlloy titanium grade 5 alloy (Ti Al6 V4) features excellent material properties, allowing you to manufacture up to 14-unit bridges. With its mechanical and physical attributes – especially when it comes to strength – it is ideal for the production of implant structures and tertiary structures. This industrially manufactured dental material guarantees consistent manufacturing quality with excellent biocompatibility.

### DATRON DentTiAlloy

Item No.	Thickness (mm)	Diameter (mm)	Colour
MD122110	10	98.5	
MD122112	12	98.5	
MD122114	14	98.5	
MD122118	18	98.5	



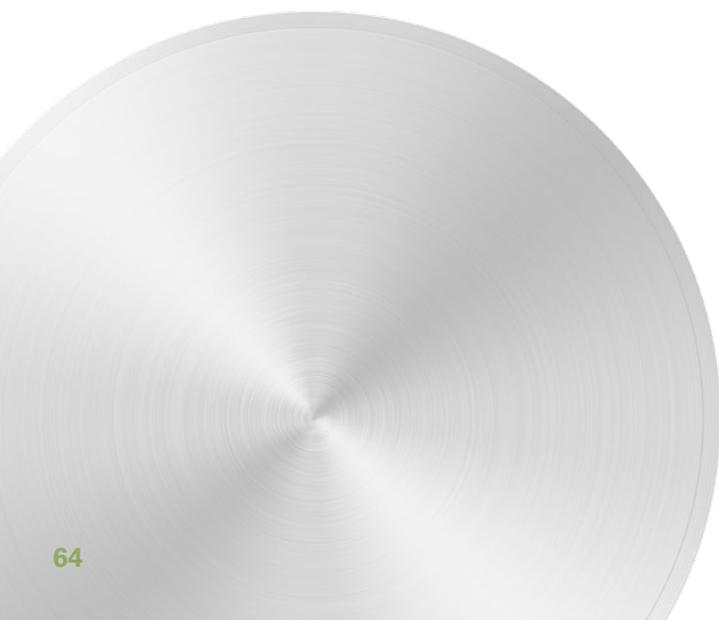
## DATRON DentCoAlloy

DATRON DentCoAlloy is a nickel and beryllium-free milling blank on CoCr basis. No special ceramic veneers are necessary when machining, i.e. DentCoAlloy can be veneered with all standard NEM ceramic veneers. Thanks to a special heat treatment during production, DATRON DentCoAlloy features excellent material properties. This universal dental material is soft and can be cut easily and reliably with all open CAD/CAM system due to its particularly homogeneous structure.

DATRON DentCoAlloy milling blanks are characterized by their high corrosion resistance and biocompatibility and are fully laserable.

### DATRON DentCoAlloy

Item No.	Thickness (mm)	Diameter (mm)	Colour
MD110108	8	98.3	
MD110110	10	98.3	
MD110112	12	98.3	
MD1101135	13.5	98.3	
MD110115	15	98.3	
MD110118	18	98.3	
MD110120	20	98.3	
MD110124	24	98.3	





## DATRON DentModel

DATRON DentModel polyurethane blanks are especially designed for the production of physical work models based on digital impressions. DentModel offers much higher abrasion resistance compared to plaster models. Swelling caused by water vapor jets is ruled out. Due to the high edge stability of DentModel, fine preparation edges can be preserved even in case of frequent restoration insertion and removal.

### DATRON DentModel

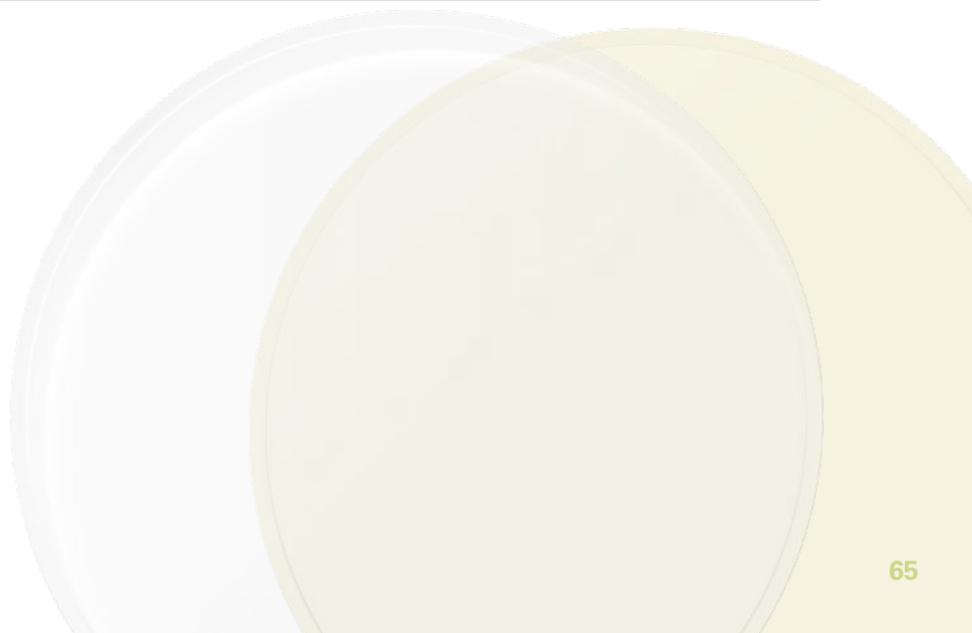
Item No.	Thickness (mm)	Diameter (mm)	per package
0695952	15	98.5	16
0695951	20	98.5	12
0695950	25	98.5	10

## DATRON DentBite

DATRON DentBite milling blanks are 100% made of polyamide. The standard 98.5 mm diameter of DentBite allows its use with all open milling systems. Thanks to the certification according to Medical Devices Act it is especially optimized for the production of orthodontic splints.

### DATRON DentBite

Item No.	Thickness (mm)	Diameter (mm)	Colour
MD160114	14	98.5	transparent
MD160118	18	98.5	transparent





## DATRON DentWax

DATRON DentWax is a synthetic milling wax, appropriate for the production of crown and bridge structures to be further processed using casting due to its high edge stability. DentWax can be used with all open milling systems and burns without leaving residues due to its material properties. The 10-mm thick DentWax blanks are perfectly suited to calibrate your DATRON D1 pure. But they can be also used for the production of crown and bridge structures.

### DATRON DentWax

Item No.	Thickness (mm)	Diameter (mm)	Colour
WX140115	15	98.5	blue
WX140120	20	98.5	blue

### DATRON calibration wax for D1 pure

Item No.	Thickness (mm)	Diameter (mm)	Colour
WX140110	10	98.5	green



## DATRON DentCryl color

With our DATRON DentCryl color (100% polymethyl methacrylate), we offer milling blanks with high material homogeneity ideally suited for the production of crowns and bridges as long-term temporaries due to their balanced combination of fracture strength, elasticity and excellent abrasion resistance. DATRON DentCryl color discs have a diameter of 98.5 mm and can be used with all open milling systems. Indications milled from DentCryl color can be customized with all conventional veneering materials and be fixed with all provisional cements.

DATRON DentCryl color is certified for use in the mouth cavity and can remain inside the mouth until the final implementation of permanent dentures.

### DATRON DentCryl PMMA color

Item No.	Thickness (mm)	Diameter (mm)	Colour*
MD131215	15	98.5	A2
MD131315	15	98.5	A3
MD132115	15	98.5	B1
MD131220	20	98.5	A2
MD131320	20	98.5	A3
MD132120	20	98.5	B1

## DATRON DentCryl cast

DATRON DentCryl cast is a PMMA material (100% polymethyl methacrylate) consisting of a millable filler-free acrylic polymer to be used instead of modeling wax. DentCryl cast is suitable for milling embeddable cast objects when manufacturing primary crowns in the telescope technique, for crown and bridge structures in the full casting technique and the press ceramic technique. The fitting accuracy of indications made of DentCryl cast can be checked directly inside the patient's mouth before the final restoration is made. DentCryl cast can be machined with all open milling systems and burns without leaving residues.

### DATRON DentCryl PMMA cast

Item No.	Thickness (mm)	Diameter (mm)	Colour
PM136114	14	98,5	blue
PM136118	18	98,5	blue

\* The colours indicated are compatible with the Vita Classical shade guide.



## DATRON DentCryl fun

DATRON's DentCryl fun material (100% polymethyl methacrylate) is a PMMA, which consists of a millable filler-free acrylic polymer. With DATRON DentCryl fun, you can let your imagination run wild and make jewellery or figures on your own.

DATRON DentCryl fun has a fluorescent effect and glows in the dark.

### DATRON DentCryl fun

Item No.	Thickness (mm)	Diameter (mm)	Colour
PM136214	14	98	green
PM136218	18	98	green

# Limit Stop Rings - for direct shank clamping systems

Some systems only have the ability to clamp milling tools directly into the rotating spindle. This is called direct shank clamping. Stop rings are necessary in these cases. By means of these rings, the length of the milling tool may be determined mechanically by the user outside of the spindle.



Item No.	D1 (mm)	D2 (mm)	Material
0068000	3.00	7.55	Synthetic
0068000Y	4.00	10.50	Brass*
0068002H	6.00	15.00	Brass*
0068002J	6.00	18.00	Brass*
0068002	6.00	10.50	Brass*
0068002C	3.00	6.90	Brass*

\*all Brass rings can be re-used!

# Insertion Tools for Limit Stop Rings

Insertion aids are necessary in order to fit stop rings accurately into milling tools. With the help of such equipment, you can always fit the right ring into the appropriate tool without difficulties.

A plastic hammer is recommended to drive the rings home.

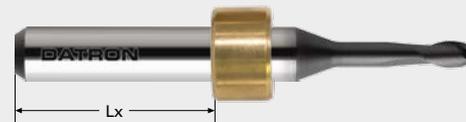


Item No.	Description
0068180B	Limit Stop Insertion Tool for 3 mm Shanks
0068180C	Limit Stop Insertion Tool for 4 mm und 6 mm Shanks*
0068180	Limit Stop Insertion Tool for 6 mm Shank Tools

## User Instructions for Item No. 0068180C

Depending on the shank clamping length needed (see measure Lx in figure), the measure can be adjusted exactly with the help of the accompanying adjusting washers, allowing the ring to be driven home accordingly.

- 15 mm shank clamping length** = receptacle + lid + adjusting washer 1 mm
- 20 mm shank clamping length** = receptacle + lid + adjusting washer 4 mm and 2 mm
- 25 mm shank clamping length** = receptacle + lid + all adjusting washers



\* The insertion tools consists of several parts (lower section, upper section, receptacle and adjusting washers). This allows you to drive the ring home effortlessly after measuring the correct distance.

# DATRON Adapter Collets

DATRON's adapter collets allow using different tool shanks with a single spindle collet. For each tool in the changing station that has a different tool shank, an adapter collet is required. The adapters are reusable due to pre-clamping. An appropriate adapter insertion tool is required for defined opening.



Item No.	D1 (mm)	D2 (mm)
0068336	3.00	6.00
0068336I*	3.00	6.00
0068336C	3.00	8.00
0068350D	4.00	6.00
0068336D	4.00	8.00
0068337D	Adapter insertion tool for 6 and 8 mm collets	

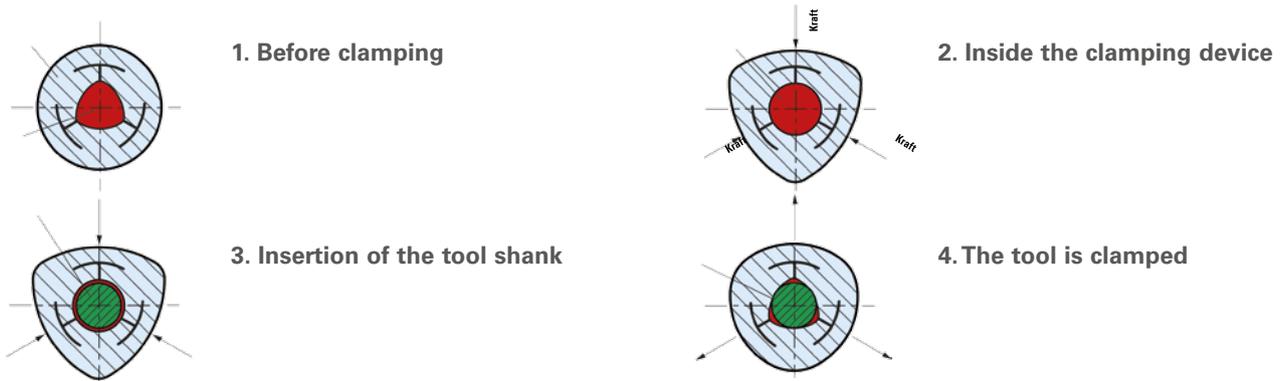
\* Item 0068336I ist special for systems normally working with 6 mm shanks. The outer ring has a 10,50 mm Ø and therefore fits inside the tool magazine of the machine.

# Polygon HSK-E 25 Clamping Systems - for highest process reliability

HSK-E collets are designed for accurate and safe operation at high speeds. The precise concentricity of less than 3 µm is an added bonus to promote the quality standard of individual tasks. Increased tool durability is guaranteed through the use of HSK-E inserts. A special clamping fixture is required to use HSK-E collets.



Item No.	D1 (mm)	D2 (mm)	L1 (mm)	L2 (mm)	Type
0068300G	3.00	20.00	40.00	25.00	HSK-E 25
0068300N	3.00	20.00	40.00	25.00	HSK-E 25 (vulcanised for wet machining)
0068301G	4.00	20.00	40.00	25.00	HSK-E 25
0068303G	6.00	20.00	40.00	25.00	HSK-E 25
0068303N	6.00	20.00	40.00	25.00	HSK-E 25 (vulcanised for wet machining)



# Lubricants and spindle additives

Lubricants/emulsions are essential for special machining of different materials. Durability of tool is highly increased with such media. Reduced spindle power consumption is responsible for further cost reductions, resulting from the reduction of cutting and friction forces between tool and workpiece.



Item No.	Description	Packaging
0069266B	DATRON ProCut 200	10 l
0069266D	DATRON ProCut 200	5 l
0069266Y	Betronol MFV 1463 F, Coolant additive for disilicate machining	1 l
0074923Y	Measuring cup for filling of Betronol	1 piece
0069266X	Antifrogen-N for spindle cooling unit	10 l



In order to profit always from the full benefits of the DATRON D5, there are some essential accessories and wear parts. This is the only way to keep the added value of your machine at a constant high operative level.



0198088



0198901



0A34103

## DATRON D5 Blank Holders and Accessories

Item No.	Description
0A34103	Blank holder (unit for clamping blanks)
0071604P	Mounting screws for bland holder 0A34103
07020358	Upper distance ring (necessary when using 8 mm blanks)
07014981	Spacer ring (necessary when using 8 mm blanks)
0069890A	Clamping ring black*
0069890B	Clamping ring red*
07020847	Clamping ring yellow*
0198088	Torque Screwdriver
0198901	Quick measuring gauge T-59113 (Fino High Praeci Caliper)

\* Rubber rings lose shape and elasticity over time. Therefore it is necessary to replace clamping rings consistently every 3 months or after 100 h of operation with new ones, regardless of their hours of operation. Constant clamping or frequent loading and unloading of the rings, as well as contact with strong cleaning agents, lead to their instability and therefore, the impossibility of their being used further.

# Accessories for DATRON D5 milling/grinding machine



0A34104

## DATRON D5 Accessories for Wet Machining

Item No.	Description
0A34104	Holder for e.Max block (disilicate)
0198030	Allen wrench (for e.Max holder locking screw)
0071601A	Locking screw for e.Max holder
0069995B	Filter insert for emulsion-collecting container, 1 pack = 6 pieces

# Accessories for DATRON D5/Dental Machine Environment

Machine vacuum cleaners are available in various performance classes and are only used for dry machining of common dental materials. The given suction power is fully kept up to a distance of 6 metres. These vacuum cleaners come complete and are directly applicable. The necessary collection tray and connection tube are included.

The fully automatic fire extinguishing system can be purchased with the milling machine or as a retrofit option. It is essential when the milling system machines titanium without operator or supervision, for example in case of night operation. The extinguishing system includes an extinguishing system control FB703, a safety cabinet for argon extinguishing media containers and a butterfly flame protection valve.



## DATRON Vacuum Cleaners

Item No.	Description
0A32204	Vacuum Cleaner Type RE115 with three-phase connector CEE (power 1,220 m <sup>3</sup> /h, vacuum 18 mbar, supply Ø120 mm)
0A32202	Vacuum Cleaner Type RE120 with three-phase connector CEE (power 1,170 m <sup>3</sup> /h, vacuum 36 mbar, supply Ø120 mm)

## DATRON D5-Extinguishing System for Unmanned Titanium machining

Item No.	Description
0A34010	D5-extinguishing system including installation, putting into operation and training

## DATRON D5-Weight Balance Platform

Item No.	Description
0A34105	Special professional weight balance platform for D5 system (WxHxD: 795 mm x 1,120 mm x 15 mm)

# Accessories for DATRON D5 Milling/Grinding Machine - cleaning and maintenance



In order to profit always from the full benefits of the DATRON D5, there are some essential accessories and wear parts. This is the only way to keep the added value of your machine constantly operating at a high level.



## DATRON D5 Cleaning Accessories

Item No.	Description
0068338H	Cleaning pin for spindle
0695046	Cleaning set (contains 0069659A/ B/ C)
0069659A	Dust brush, short, without handle
0069659B	Dust brush, long, with handle
0069659C	Dust brush, angled, long, with handle

## DATRON D5 Maintenance Accessories

Item No.	Description
0074921E	Hand lever grease gun, 500 ml, with "Dynalub 510" cartridge
0077107Z	Dynalub 510 high-performance grease, 400 g cartridge

# DATRON D5 - the compact milling/grinding machine<sup>1</sup>!

The DATRON D5 is a high-performance milling-grinding machine<sup>1</sup> especially developed for use in dental applications with the smallest footprint.

The machine includes, among other features:

- Integrated touch control panel
- Rotary swivel axis for 5-axis simultaneous machining
- Cooling device for spindle and drive
- 7 or 15 station tool changer with tool length sensor and tool breakage detection
- Chip container and connection nozzle for suction
- Integrated automation with 8x blank changer (optional)
- Minimum Quantity Cooling Lubrication System for metal machining (optional)
- Flood cooling for glass ceramics grinding (optional)

Further information at:

[www.dentalcam.com](http://www.dentalcam.com)



<sup>1</sup> with „wet machining“ option



reddot design award  
winner 2010



Designpreis  
Deutschland  
2011

NOMINIERT

# DATRON D5 Service - completely worry-free production!

## Our Services

- Service Hotline: +49 (0)6151-1419-153
- Putting into operation and on-site repairs
- Decentralised service centres
- Spare parts shipment with high availability of parts
- Maintenance and machine overhauls
- Software updates and upgrades
- Logistic support
- Remote maintenance
- On-site process support
- Warranty extension



## DATRON Maintenance Contract

An individually tailored maintenance contract will help you to reach your production goals safely and reliably.

- Maintenance at a fixed price
- On-site response time on work days within 24 hours
- Increased machine availability
- Machine precision check
- 15% discount on applicable travel and hourly rates
- Increased Hotline availability (Monday to Friday, 7 am - 7 pm, Saturday 9 am - 3 pm, CET)
- Fixed price: 738.00 € per maintenance plus travel costs and material
- Your savings: 160.00 € per maintenance as compared to standard maintenance without a contract

## DATRON Machine Check

**We take care of (almost) everything!**

A periodical function check increases the availability of your machine system. We offer a monthly function check of your DATRON dental milling machine by our specialised staff.

The function check includes:

- Automation (blank magazine, workpiece handling, etc.)
- Tool changer positions
- Vacuum-cleaning
- High frequency spindle
- Cooling/lubricating system
- Machine geometry and accuracy

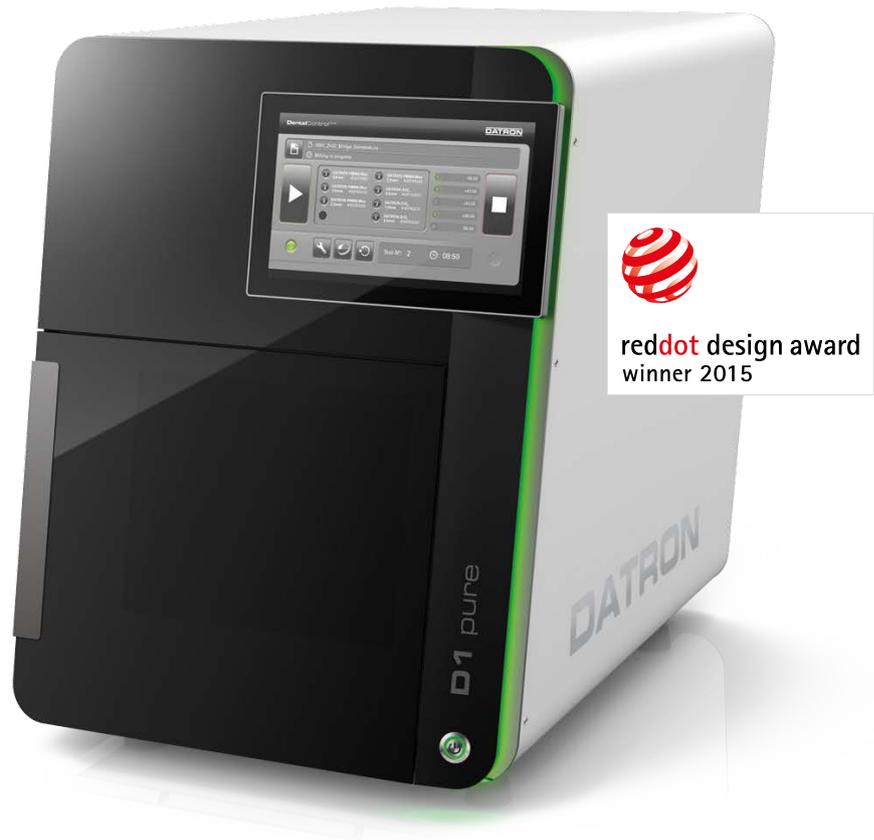
The monthly workload is approximately 2.5 hours at a **fixed price of € 250.00** plus travel and transport costs incurred.

# DATRON D1 pure - Maximum performance using the smallest space

Our compact and easy to use dental milling machine provides dental laboratories and dentists with new opportunities for cost-effective work and sets new standards in the implementation of all dental indications in soft materials. As your reliable partner with long-standing global experience, you will get from us the complete process for the production of high quality dentures, everything from a single source.

Advantages at a glance:

- Machine auto-calibration
- Undercut milling by rotary/swivel axis
- Precise 450 W spindle
- Automatic length measuring
- Easy operation with integrated 9" touch screen
- Compact table-top milling machine with a small footprint
- Perfect suction of material dusts
- Easy commissioning



## DATRON D1 pure - Accessories

The D1 pure is supplied with a starter kit for machine maintenance. Should you wish to substitute individual components due to wear/loss, you can reorder them individually.

In addition, there are a number of accessory components that allow you to achieve the maximum potential during the milling process.

We will be happy to provide you with detailed information at:

**Tel.: +49 (0) 61 51-14 19 - 550**



# Calculation Parameters/Standards - Formulae for calculation of milling parameters

Formula	Parameter
Cutting speed $V_c = \frac{\pi * d * n}{1000}$	$V_c$ = Cutting speed (mm/min) $d$ = Tool diameter (mm) $n$ = Number of revolutions (rpm)
Feed speed $V_f = f_n * n * z$	$V_f$ = Feed speed (mm/min) $f_n$ = Tooth feed (mm/min) $n$ = Number of revolutions (rpm) $z$ = Number of teeth (-)
Cutting capacity $P_c = \frac{Q}{V_{sp}}$	$P_c$ = Cutting capacity (kW) $Q$ = Chip volume per time unit (cm <sup>3</sup> /min) $V_{sp}$ = Special chip volume per time unit (cm <sup>3</sup> /min/kW)
Chip volume per time unit $Q = a_e * a_p * v_f$	$Q$ = Chip volume per time unit (cm <sup>3</sup> /min) $a_e$ = radial working engagement (mm) $a_p$ = Cutting depth (mm) $v_f$ = Feed speed (mm/min)

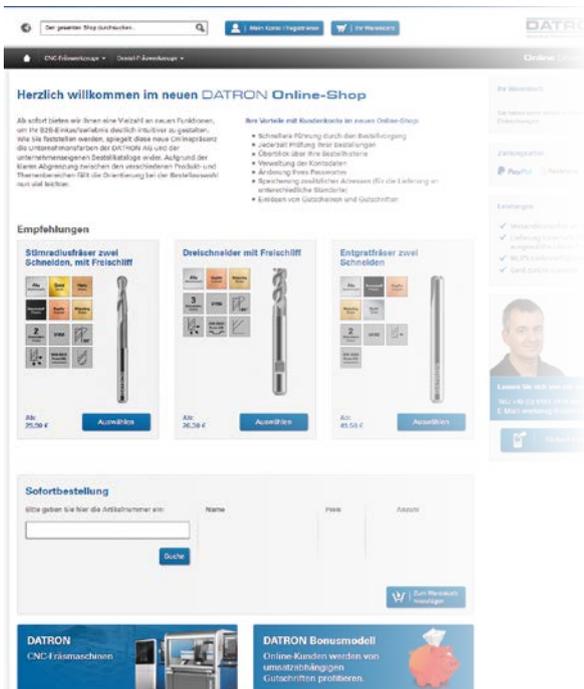
Cutting speed and feed rate are probably the most important factors in machining, as these parameters strongly influence production time. Cutting speed means the speed with which the rotating tool moves directly on its flutes through the workpiece, the dental prosthesis, removing a chip. It is expressed typically in metres per minute. The choice of the cutting speed depends largely on the composition and strength of the material to be machined, the toughness and hardness of the milling tool and the required and desired dimensional accuracy and surface finish. The higher the cutting speed, the smoother and finer the machined surface. However, in parallel with increasing cutting speeds, the wear of the used milling tool also grows.

We are constantly working on improvements. To make your B2B shopping experience still more intuitive we have recently introduced a number of new features at our Online Shop.

Register with your contact details and get the following benefits with your account:

- Faster guidance throughout the checkout process
- Review your orders at any time
- Review of your order history
- Account information management
- Changing of password
- Storage of additional addresses (for delivery to different locations)
- Redemption of coupons and credits

## **DATRON** Online-Shop



Do you have further questions about the DATRON Online Shop?

We will be happy to help you by calling:

**+49 (0)6151-1419-111**

or scan the depicted QR code with your smartphone to go straight to the DATRON Online Shop:

[www.datronshop.de](http://www.datronshop.de)





# 4% discount for each tool order - just copy, complete, send & save

## Direct bank debit service gives you benefits!

- You save time and money, because there is no need to fill in transfer forms nor to take them to the bank, send them by mail or submit them via electronic banking.
- The debit to your account will of course only be done after the invoice has been issued. You will be advised by a note on the invoice that the amount is debited from your account.
- You take no risks and may object individual debits at any time. You may revoke the authorisation given to us without notice at any time.
- The debit authorization is valid for all tool deliveries, accessories and service products and services. Exclusion of a specific field is not possible.
- Invoices for machines are not included in direct debit: their payment is always done via an invoice.
- Only for customers with a bank account in Germany
- Amount of orders limited to € 300.00 net for new customers (first order)
- Special conditions for bank debit
  - 4% discount on tool deliveries
  - 0% discount on service products and services

Do you have further questions? We will be happy to answer them at any time. Just call (06151-1419-0). Otherwise, we have everything ready for you. Just complete the debit authorisation, sign it and return it to us. We will be happy to receive it via fax (06151-1419-39) as an advance, but we kindly ask for your understanding for also needing to receive the original by mail for legal reasons.

### Debit authorisation:

I/we hereby grant a revocable authorisation to the company DATRON AG to collect the amounts of my/our invoices when due by debiting my/our account. Sufficient coverage is provided. I/we am/are aware that no obligation for payment exists on part of the bank if my/our account does not have sufficient fund coverage.

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BIC: \_\_\_\_\_

Street: \_\_\_\_\_

Account Holder: \_\_\_\_\_

Post Code/City: \_\_\_\_\_

Contact: \_\_\_\_\_

.....  
Place, Date

.....  
Company stamp/legally binding signature



# www.dentaltools.datron.de



## Order now:

Ordering hotline: **+49 (0) 61 51 - 14 19 - 111**



## Fax:

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## E-Mail

[tools@datron.de](mailto:tools@datron.de)



## Or in our Online-Shop:

[www.datronshop.de](http://www.datronshop.de)

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