

KORLOY DENTAL MILLING TOOLS

T ENDMILL SERIES

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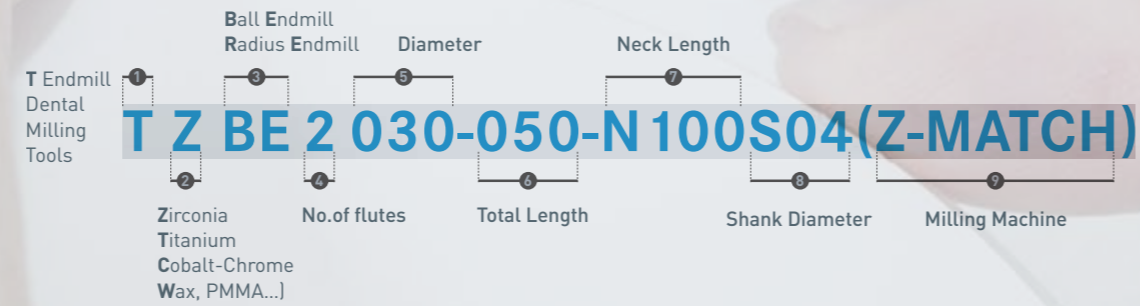
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BR05-EM-02 / 20170820

T ENDMILL Code System

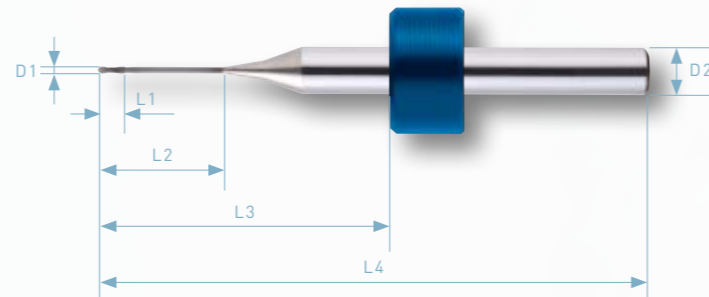


CUSTOM MADE TOOLS

※ Stop rings and other tool resources can be made to order.

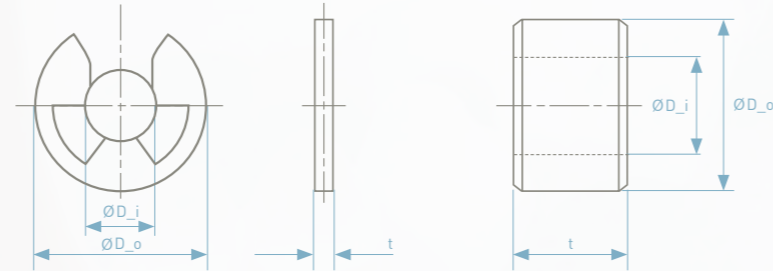
<Data sheet>

Type of machine
Dental material
D1 Cutting diameter
D2 Shank diameter
L1 Cutting length
L2 Neck length
L3 Stop ring position
L4 Overall length



※ Should you make a special order, please complete this form and send it to an adjacent KORLOY sales office.

STOP RING SPECIFICATION



< E type ring >

< Plastic ring >

Type	Stop ring			Shank diameter		
	ϕD_{ol} (mm)	ϕD_{il} (mm)	t(mm)	$\phi 3$	$\phi 4$	$\phi 6$
Plastic ring	$\phi 7.55$	$\phi 3$	4.45	●		
	$\phi 7.7$	$\phi 4$	5.0		●	
	$\phi 10.5$	$\phi 6$	6.5			●
E type ring	$\phi 6.0$	$\phi 2.5$	0.4	●		

※ Stop rings can be made to order when specified sizes are sent to an adjacent KORLOY sales office.

Recommended Cutting Conditions

Co-Cr / Ti

Dia.	Application	ap(mm)	ae(mm)	Rpm(rev/min)	Feed(mm/min)
$\phi 3.0$	Roughing	0.12	0.70	10500	1150
$\phi 2.5$	Semi-Finishing	0.08	0.53	11500	850
$\phi 2.0$	Semi-Finishing	0.08	0.42	14500	850
$\phi 1.5$	Finishing	0.04	0.32	19000	850
$\phi 1.0$	Finishing	0.02	0.07	28500	850
$\phi 0.6$	Finishing	0.02	0.07	28500	850

Zirconium

Dia.	Application	ap(mm)	ae(mm)	Rpm(rev/min)	Feed(mm/min)
$\phi 3.0$	Roughing	0.50	1.50	23500	1600
$\phi 2.5$	Semi-Finishing	0.30	1.25	28000	1200
$\phi 2.0$	Semi-Finishing	0.30	1.00	35000	1200
$\phi 1.0$	Finishing	0.10	0.20	38000	1050
$\phi 0.6$	Finishing	0.10	0.20	63500	630

Glass-Ceramic

Dia.	Application	ap(mm)	ae(mm)	Rpm(rev/min)	Feed(mm/min)
$\phi 3.0$	Roughing	0.15	0.02	48000	2400
$\phi 2.0$	Semi-Finishing	0.10	0.02	51000	2000
$\phi 1.5$	Finishing	0.10	0.01	52000	1500
$\phi 1.0$	Finishing	0.05	0.01	53000	1350

These data above may vary slightly, depending on the equipment and the workpiece shape you have.

T ENDMILL Specification

Endmills for Co-Cr / Ti Machining

Type	No. of flutes	Dia. (mm)	Neck length (mm)	Overall length (mm)	Shank dia. (mm)	Stop ring	Coating	Workpiece
Ball Radius	2F	$\phi 0.3$ ~ $\phi 3.0$	~20	40~	$\phi 3$ ~ $\phi 6$	Customized	TiAlN or Non Coating	Ti Co-Cr

Endmills for Zirconium Machining

Type	No. of flutes	Dia. (mm)	Neck length (mm)	Overall length (mm)	Shank dia. (mm)	Stop ring	Coating	Workpiece
Ball Radius	2F	$\phi 0.3$ ~ $\phi 3.0$	~20	40~	$\phi 3$ ~ $\phi 6$	Customized	Dia. or Non Coating	Zirconium PMMA WAX Resin

Endmills for Glass-Ceramic Machining

Type	No. of flutes	Dia. (mm)	Neck length (mm)	Overall length (mm)	Shank dia. (mm)	Stop ring	Coating	Workpiece
Ball Radius	-	$\phi 0.3$ ~ $\phi 3.0$	~20	40~	$\phi 3$ ~ $\phi 6$	Customized	-	Glass-Ceramic

T ENDMILL SERIES

KORLOY Dental Milling Tools

KORLOY DENTAL MILLING TOOLS

KORLOY T ENDMILL

Dental prosthetics must be harmless to the human body and requires special workpiece materials to also be corrosion-resistant. Precision tools are required to machine small and extremely small parts. In order to meet these demands we provide customized solutions ideal for machining various dental prosthetics based on our 50 years expertise on grades and forming.



Dental Solution?

The T Endmill is the key to boosting your productivity considering its high accuracy and quality performance. This dental milling tool will lead the dental implant market which has been rapidly growing due to the aging population and recent advances in medical technology.



Preparation



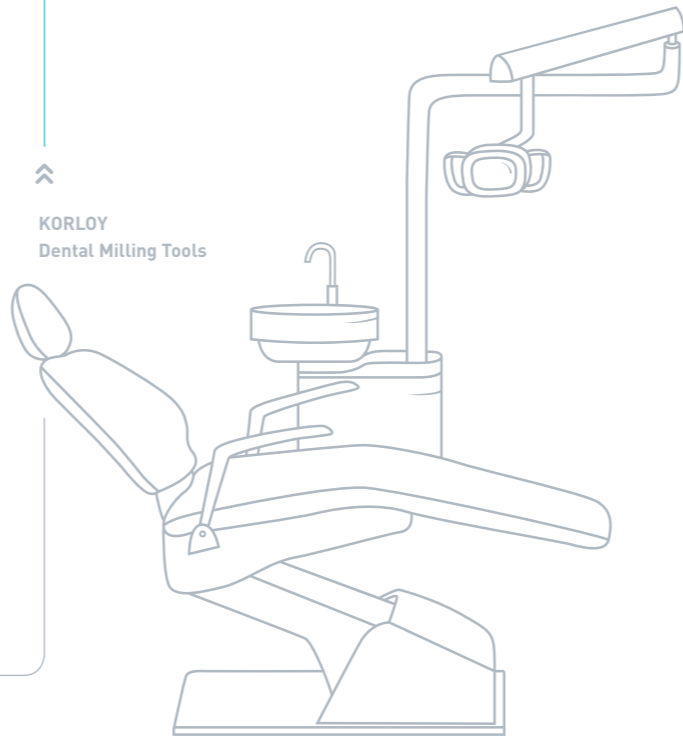
Scanners and software



Who We Serve with the T ENDMILL

- » Customers who need custom tools and technical support according to prosthetic materials such as Zirconium, Co-Cr, Ti, Glass-Ceramic, PMMA, WAX, etc.
- » Customers who need custom dental milling tools with different effective lengths, Shank diameters, stop ring points, etc.
- » Customers who want higher productivity without the need to replace tools

KORLOY Dental Milling Tools



Endmills for Co-Cr & Ti Machining

KORLOY coated endmills show advanced performance in machining metallic materials like Co-Cr & Ti thanks to their excellent wear resistance and minimized cutting force. Ultrafine substrate and TiAlN coated layers have been applied as well as corner design for low cutting loads.



- Features**
- The ultra-fine substrate offers excellent wear resistance
 - The coating technology offering low friction and high welding resistance
 - Cutting edge design for low cutting loads

Finishing



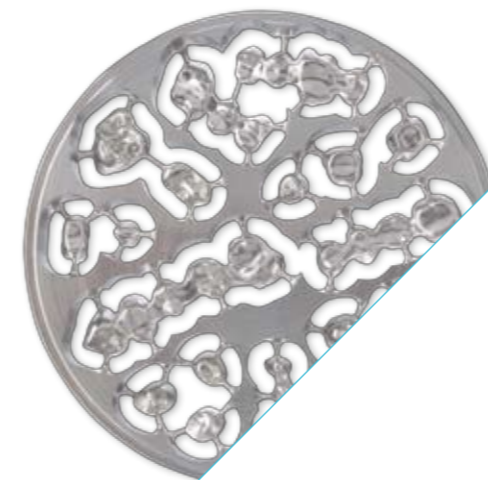
Service and Training



Endmills for Zirconium Machining

The T Endmill TZ Series is ideally suited for machining zirconium, aluminum oxide ceramic, hybrid resin and PMMA which demands high wear resistance and high speed applicability on cutting tools. Our technology leverages a CVD diamond coating that has extremely high hardness and purity.

- Features**
- A high-purity diamond coating
 - Improved resistance to wear and flaking thanks to the coating's exceptional adhesion to the substrate
 - High precision gained through the ball's one-pass grinding



Endmills for Glass-Ceramic Machining

KORLOY electroplated diamond tools excel in machining glass-ceramics, and other materials due to their concentrated abrasive grains and exceptional performance. These tools make good use of a single layer of diamond powder electroplated on the shank surface.

- Features**
- Use of natural diamond abrasive grains
 - Uniformly distributed grains
 - A high quality coating and its strong adhesion to the substrate



Material Selection



Milling

VHF K3,K4
TZBE2020-035-N160S03(VHF)



VHF S1,S2
TZBE2020-040-N200S03(VHF)



Wieland Mini
TZBE2025-035-N200S03(WIELAND)



Wieland Select
TZBE2025-040-N200S03(WIELAND)



DOF
TZBE2020-044-N200S03(DOF)



E type ring

MANIX
TZBE2020-050-N200S04(MANIX)



Plastic ring

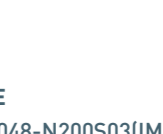
CHARLY
TZFE2030-0385-N060S03(CHARLY)



SIRONA
TZBE2025-044-N240S03(SIRONA)



YENA
TZBE2020-045-N160S04(YENA)



IMES ICORE
TZBE2025-048-N200S03(IMESICORE)



IMES ICORE
TZBE2025-050-N200S06(IMESICORE)

