JJTOOLS

DENTAL CAD/CAM MILLING BURS

Precision tools for digital dental manufacturing











WHERE VARIETY MEETS PRECISION

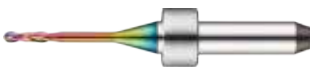
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Carbide Dental End Mills INDEX

TYPE	Compatible Machine	MODEL NO.	SIZE ø(mm)	PAGE	IMAGE	Workpiece
For Titanium & Cobalt Chrome	-	2HRBD	0.6 ~ 3	04		Titanium & Cobalt Chrome
For Zirconia	-	2DBED	0.5 ~ 3	05		Zirconia
For PMMA, PEEK, WAX, ABS	-	2MRBD	0.3 ~ 2	06		PMMA / PEEK / WAX
For Zirconia, E-MAX	-	EDD	0.6 ~ 2.5	07		Zirconia, E-MAX, Ultimate
For Zirconia, E-MAX	-	EDDH	0.6 ~ 2.5	07		Zirconia, E-MAX, Ultimate
ROLAND	DWX 30 DWX 50 DWX 51D DWX 52D DWX 53D DWX 53DC	1ROL	0.6 ~ 3	08		PMMA / PEEK / WAX
		2&3ROL	0.6 ~ 3	08		Zirconia, Ultimate, Non-ferrous
VHF	4AXES Brux Zir EzMill Jensen	1VHF	0.6 ~ 2	09		PMMA / PEEK / WAX
		2&3VHF	0.6 ~ 2	09		Zirconia, Ultimate, Non-ferrous
		2&3VHFD	0.6 ~ 2	09		Zirconia, Ultimate, Non-ferrous
WIELAND	Wieland mini Select Wieland Select	1WIE	0.6 ~ 2.5	10		PMMA / PEEK / WAX
		2&3WIE	0.6 ~ 2.5	10		Zirconia, Ultimate, Non-ferrous
		2&3WIED	0.6 ~ 2.5	10		Zirconia, Ultimate, Non-ferrous
IMES-ICORE	150i 250i 350i(S6) 450i 540i DMG	1IME	0.6 ~ 2.5	11		PMMA / PEEK / WAX
		2&3IME	0.6 ~ 2.5	11		Zirconia, Ultimate, Non-ferrous
		2&3IME	0.6 ~ 2.5	11		Zirconia, Ultimate, Non-ferrous
SIRONA	Inlab MC X5	2SIR	0.5 ~ 2.5	12		PMMA / PEEK / WAX
		2&3SIRD	0.5 ~ 2.5	12		Zirconia, Ultimate, Non-ferrous
		2SIRT	1 ~ 2	12		Titanium & Cobalt Chrome

■ EDP numbers and specifications are subject to change without prior notice for quality improvement.

Carbide Dental End Mills INDEX

TYPE	Compatible Machine	MODEL NO.	SIZE ø(mm)	PAGE	IMAGE	Workpiece
ARUM	5X100 5X300	1ARU	0.6 ~ 2	13		PMMA / PEEK / WAX
		2ARU	1 ~ 2	13		PMMA / PEEK / WAX
		EARU	1 ~ 2.5	13		Zirconia, E-MAX, Ultimate
		2&3ARUD	0.6 ~ 2	14		Zirconia, Ultimate, Non-ferrous
		2ARUT	1 ~ 3	14		Titanium & Cobalt Chrome
ZIRKONZAHN	M1(S6) M5(S3)	1ZIR	0.5 ~ 2	15		PMMA / PEEK / WAX
		2&3ZIR	0.5 ~ 2	15		Zirconia, Ultimate, Non-ferrous
		2&3ZIRD	0.5 ~ 2	15		Zirconia, Ultimate, Non-ferrous
		2ZIRT	2 ~ 3	16		Titanium & Cobalt Chrome
AMANN	Cera Mill	1AMA	0.6 ~ 2.5	16		PMMA / PEEK / WAX
		2&3AMA	0.3 ~ 2.5	16		Zirconia, Ultimate, Non-ferrous
New DOF	CRAFT 5X	2CRA	1 ~ 2	17		PMMA / PEEK / WAX
		2CRAT	0.3 ~ 0.6	17		Zirconia, Ultimate, Non-ferrous
		3CRAT	1 ~ 2	17		Titanium & Cobalt Chrome
		3CRAD	1 ~ 2	18		Zirconia, Ultimate, Non-ferrous
		ECRA	0.6 ~ 2.5	18		Zirconia, E-MAX, Ultimate
New IVOCLAR	PM7	1&2IVO	0.5 ~ 5	19		PMMA / PEEK / WAX
		2IVOD	0.5 ~ 2.5	19		Zirconia, Ultimate, Non-ferrous
		2&4IVOT	0.6 ~ 3	19		Titanium & Cobalt Chrome

■ EDP numbers and specifications are subject to change without prior notice for quality improvement.

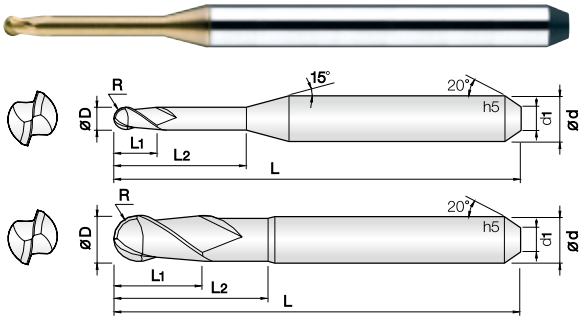


Outstanding Abrasion Resistance & Surface Finishes !

Optimized for Precision Dental Machining

DENTAL SERIES

2HRBD 2 Flutes High Speed Rib Ball End Mills for Titanium & Cobalt-Chrome



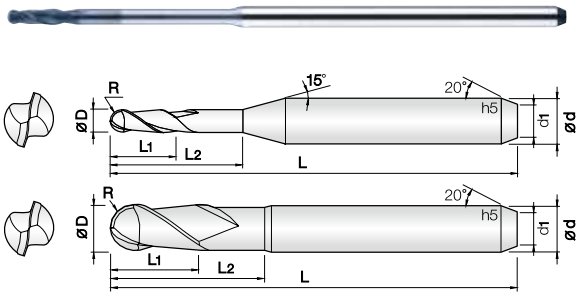
- **Endmills for titanium and cobalt-chrome disk & abutment**
- Si-based PVD coating provides good wear resistance.
- Tight cutting-edge tolerances.
- Excellent surface finish.

2 | WC | TITAN | TISIN Coating | LR ±0.005 (0.3 ~ 1.5R) | LD +0-0.01 (Ø0.6~Ø3) | 30° Helix Angle

Unit : mm

Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2HRBD 006 050 645	0.3R X 0.6	0.8	5	45	3.5	6
2HRBD 006 050 650	0.3R X 0.6	0.8	5	50	3.5	6
2HRBD 006 120 645	0.3R X 0.6	0.8	12	45	3.5	6
2HRBD 006 120 650	0.3R X 0.6	0.8	12	50	3.5	6
2HRBD 008 080 645	0.4R X 0.8	1	8	45	3.5	6
2HRBD 008 080 650	0.4R X 0.8	1	8	50	3.5	6
2HRBD 008 120 645	0.4R X 0.8	1	12	45	3.5	6
2HRBD 008 120 650	0.4R X 0.8	1	12	50	3.5	6
2HRBD 010 040 645	0.5R X 1	2	4	45	3.5	6
2HRBD 010 060 645	0.5R X 1	2	6	45	3.5	6
2HRBD 010 080 645	0.5R X 1	2	8	45	3.5	6
2HRBD 010 080 650	0.5R X 1	2	8	50	3.5	6
2HRBD 010 100 645	0.5R X 1	2	10	45	3.5	6
2HRBD 010 100 650	0.5R X 1	2	10	50	3.5	6
2HRBD 010 120 645	0.5R X 1	2	12	45	3.5	6
2HRBD 010 120 650	0.5R X 1	2	12	50	3.5	6
2HRBD 015 100 645	0.75R X 1.5	2.5	10	45	3.5	6
2HRBD 015 100 650	0.75R X 1.5	2.5	10	50	3.5	6
2HRBD 015 120 645	0.75R X 1.5	2.5	12	45	3.5	6
2HRBD 015 120 650	0.75R X 1.5	2.5	12	50	3.5	6
2HRBD 015 140 645	0.75R X 1.5	2.5	14	45	3.5	6
2HRBD 015 140 650	0.75R X 1.5	2.5	14	50	3.5	6
2HRBD 020 050 645	1R X 2	3	5	45	3.5	6
2HRBD 020 080 645	1R X 2	3	8	45	3.5	6
2HRBD 020 120 645	1R X 2	3	12	45	3.5	6
2HRBD 020 120 650	1R X 2	3	12	50	3.5	6
2HRBD 020 140 645	1R X 2	3	14	45	3.5	6
2HRBD 020 140 650	1R X 2	3	14	50	3.5	6
2HRBD 020 160 645	1R X 2	3	16	45	3.5	6
2HRBD 020 160 650	1R X 2	3	16	50	3.5	6
2HRBD 025 120 645	1.25R X 2.5	2.5	12	45	3.5	6
2HRBD 025 120 650	1.25R X 2.5	2.5	12	50	3.5	6
2HRBD 030 080 645	1.5R X 3	4	8	45	3.5	6
2HRBD 030 100 645	1.5R X 3	4	10	45	3.5	6
2HRBD 030 120 645	1.5R X3	4	12	45	3.5	6
2HRBD 030 120 650	1.5R X 3	4	12	50	3.5	6
2HRBD 030 160 645	1.5R X 3	4	16	45	3.5	6
2HRBD 030 160 650	1.5R X 3	4	16	50	3.5	6

2DBED 2 Flutes Diamond Coated Ball End Mills for Zirconia



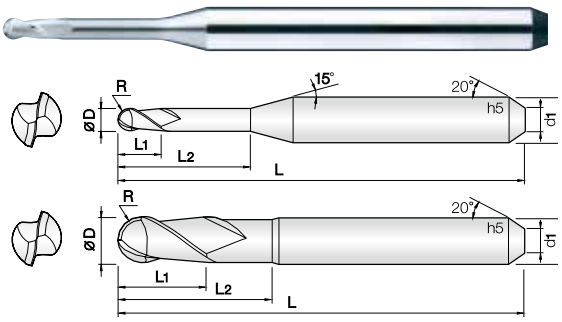
- **Endmills for Zirconia, Ultimate, Non-ferrous and non-metallic materials.**
- High-quality CVD diamond coating provides excellent wear resistance and surface finish.
- A wide range of tools for various workpiece geometries and excellent machining performance.



Unit : mm

Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2DBED 005 050 345	0.25R X 0.5	1.5	5	45	1.2	3
2DBED 005 050 350	0.25R X 0.5	1.5	5	50	1.2	3
2DBED 005 050 445	0.25R X 0.5	1.5	5	45	1.5	4
2DBED 005 050 450	0.25R X 0.5	1.5	5	50	1.5	4
2DBED 005 050 645	0.25R X 0.5	1.5	5	45	3.5	6
2DBED 005 050 650	0.25R X 0.5	1.5	5	50	3.5	6
2DBED 005 120 345	0.25R X 0.5	1.5	12	45	1.2	3
2DBED 005 120 350	0.25R X 0.5	1.5	12	50	1.2	3
2DBED 005 120 445	0.25R X 0.5	1.5	12	45	1.5	4
2DBED 005 120 450	0.25R X 0.5	1.5	12	50	1.5	4
2DBED 005 120 645	0.25R X 0.5	1.5	12	45	3.5	6
2DBED 005 120 650	0.25R X 0.5	1.5	12	50	3.5	6
2DBED 006 050 345	0.3R X 0.6	2	5	45	1.2	3
2DBED 006 050 350	0.3R X 0.6	2	5	50	1.2	3
2DBED 006 050 445	0.3R X 0.6	2	5	45	1.5	4
2DBED 006 050 450	0.3R X 0.6	2	5	50	1.5	4
2DBED 006 050 645	0.3R X 0.6	2	5	45	3.5	6
2DBED 006 050 650	0.3R X 0.6	2	5	50	3.5	6
2DBED 006 120 345	0.3R X 0.6	2	12	45	1.2	3
2DBED 006 120 350	0.3R X 0.6	2	12	50	1.2	3
2DBED 006 120 445	0.3R X 0.6	2	12	45	1.5	4
2DBED 006 120 450	0.3R X 0.6	2	12	50	1.5	4
2DBED 006 120 645	0.3R X 0.6	2	12	45	3.5	6
2DBED 006 120 650	0.3R X 0.6	2	12	50	3.5	6
2DBED 010 160 350	0.5R X 1	6	16	50	1.2	3
2DBED 010 160 355	0.5R X 1	6	16	55	1.2	3
2DBED 010 160 450	0.5R X 1	6	16	50	1.5	4
2DBED 010 160 455	0.5R X 1	6	16	55	1.5	4
2DBED 010 160 650	0.5R X 1	6	16	50	3.5	6
2DBED 010 160 655	0.5R X 1	6	16	55	3.5	6
2DBED 010 180 350	0.5R X 1	6	18	50	1.2	3
2DBED 010 180 355	0.5R X 1	6	18	55	1.2	3
2DBED 010 180 450	0.5R X 1	6	18	50	1.5	4
2DBED 010 180 455	0.5R X 1	6	18	55	1.5	4
2DBED 010 180 650	0.5R X 1	6	18	50	3.5	6
2DBED 010 180 655	0.5R X 1	6	18	55	3.5	6
2DBED 020 160 350	1R X 2	8	16	50	1.2	3
2DBED 020 160 355	1R X 2	8	16	55	1.2	3
2DBED 020 160 450	1R X 2	8	16	50	1.5	4
2DBED 020 160 455	1R X 2	8	16	55	1.5	4
2DBED 020 160 650	1R X 2	8	16	50	3.5	6
2DBED 020 160 655	1R X 2	8	16	55	3.5	6
2DBED 020 200 350	1R X 2	8	20	50	1.2	3
2DBED 020 200 355	1R X 2	8	20	55	1.2	3
2DBED 020 200 450	1R X 2	8	20	50	1.5	4
2DBED 020 200 455	1R X 2	8	20	55	1.5	4
2DBED 020 200 650	1R X 2	8	20	50	3.5	6
2DBED 020 200 655	1R X 2	8	20	55	3.5	6
2DBED 030 200 355	1.5R X 3	10	20	55	1.2	3
2DBED 030 200 455	1.5R X 3	10	20	55	1.5	4
2DBED 030 200 655	1.5R X 3	10	20	55	3.5	6

2MRBD 2 Flutes Rib Ball End Mills for PMMA & PEEK & WAX



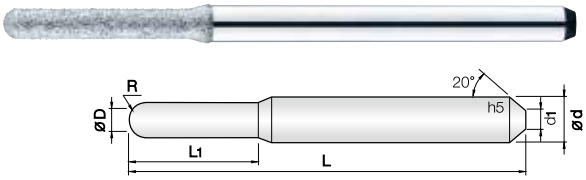
- **Endmills for PMMA, PEEK, WAX, ABS, non-ferrous and non-metallic materials.**
- Controlled runout and tight tolerances help minimize chatter.
- The tungsten carbide substrate provides excellent wear resistance.
- Reinforced edge design for preventing edge chipping.
- The short-flute design provides high rigidity for high-speed, high-feed machining.

2 | WC | GTAC Coating | PMMA | PEEK | WAX | R ±0.005 (0.15 ~ 1R) | D +0-0.01 (Ø0.3~Ø2) | 30° Helix Angle

Unit : mm

Order Number		Diameter	Length of cut	Effective Length	Overall Length	Shank Dia	Shank Dia
Non coated	Coated	R × D	L1	L2	L	d1	d
2MRBD 003 140 450	2MRBDD 003 140 450	0.15R X 0.3	1	14 (2.5°)	50	1.5	4
2MRBD 006 050 450	2MRBDD 006 050 450	0.3R X 0.6	2	5	50	1.5	4
2MRBD 006 050 650	2MRBDD 006 050 650	0.3R X 0.6	2	5	50	3.5	6
2MRBD 006 100 450	2MRBDD 006 100 450	0.3R X 0.6	2	10	50	1.5	4
2MRBD 006 100 650	2MRBDD 006 100 650	0.3R X 0.6	2	10	50	3.5	6
2MRBD 010 140 455	2MRBDD 010 140 455	0.5R X 1	6	14	55	1.5	4
2MRBD 010 140 655	2MRBDD 010 140 655	0.5R X 1	6	14	55	3.5	6
2MRBD 010 160 450	2MRBDD 010 160 450	0.5R X 1	6	16	50	1.5	4
2MRBD 010 160 455	2MRBDD 010 160 455	0.5R X 1	6	16	55	1.5	4
2MRBD 010 160 655	2MRBDD 010 160 655	0.5R X 1	6	16	55	3.5	6
2MRBD 020 160 455	2MRBDD 020 160 455	1R X 2	8	16	55	1.5	4
2MRBD 020 160 655	2MRBDD 020 160 655	1R X 2	8	16	55	3.5	6
2MRBD 020 180 450	2MRBDD 020 180 450	1R X 2	8	18	50	1.5	4
2MRBD 020 180 650	2MRBDD 020 180 650	1R X 2	8	18	50	3.5	6
2MRBD 020 200 455	2MRBDD 020 200 455	1R X 2	8	20	55	1.5	4
2MRBD 020 200 655	2MRBDD 020 200 655	1R X 2	8	20	55	3.5	6

EDD Carbide Electroplated Diamond End Mills



- **Endmills for Zirconia, E-MAX, Ultimate, Non-ferrous and non-metallic materials.**
- Suitable for machining fully sintered zirconia, ceramics, and glass.
- Wear resistance is excellent by applying diamond particle with nickel plating.
- Precision processing is available with less bending on the tool with carbide material.

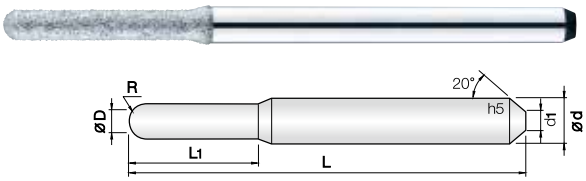
WC | Electro Deposition DIA. | R ±0.03 | D +0.03

0.3 ~ 1.25R Ø0.6~Ø2.5

Unit : mm

Order Number	Diameter R × D	Length of cut L1	Overall Length L	Shank Dia d1	Shank Dia d
EDD 006 060 340	0.3R X 0.6	6	40	1.6	3
EDD 006 060 350	0.3R X 0.6	6	50	1.6	3
EDD 006 060 440	0.3R X 0.6	6	40	2	4
EDD 006 060 450	0.3R X 0.6	6	50	2	4
EDD 006 060 640	0.3R X 0.6	6	40	4.2	6
EDD 006 060 650	0.3R X 0.6	6	50	4.2	6
EDD 010 100 340	0.5R X 1	10	40	1.6	3
EDD 010 100 350	0.5R X 1	10	50	1.6	3
EDD 010 100 440	0.5R X 1	10	40	2	4
EDD 010 100 450	0.5R X 1	10	50	2	4
EDD 010 100 640	0.5R X 1	10	40	4.2	6
EDD 010 100 650	0.5R X 1	10	50	4.2	6
EDD 015 080 450	0.75R X 1.5	8	50	2	4
EDD 015 120 450	0.75R X 1.5	12	50	2	4
EDD 015 120 650	0.75R X 1.5	12	50	4.2	6
EDD 015 150 650	0.75R X 1.5	15	50	4.2	6
EDD 020 120 340	1R X 2	12	40	1.6	3
EDD 020 120 350	1R X 2	12	50	1.6	3
EDD 020 120 440	1R X 2	12	40	2	4
EDD 020 120 450	1R X 2	12	50	2	4
EDD 020 120 640	1R X 2	12	40	4.2	6
EDD 020 120 650	1R X 2	12	50	4.2	6
EDD 025 150 340	1.25R X 2.5	15	40	1.6	3
EDD 025 150 350	1.25R X 2.5	15	50	1.6	3
EDD 025 150 440	1.25R X 2.5	15	40	2	4
EDD 025 150 450	1.25R X 2.5	15	50	2	4
EDD 025 150 640	1.25R X 2.5	15	40	4.2	6
EDD 025 150 650	1.25R X 2.5	15	50	4.2	6

EDDH Electroplated Diamond End Mills



- **Endmills for Zirconia, E-MAX, Ultimate, Non-ferrous and non-metallic materials.**
- Milling process is suitable for completely sintered zirconia, ceramic and glass.
- Wear resistance is excellent by applying diamond particle with nickel plating.
- Strong adhesion between the diamond particles and the substrate supports effective machining.

STEEL | Electro Deposition DIA. | R ±0.03 | D +0.03

0.3 ~ 1.25R Ø0.6~Ø2.5

Unit : mm

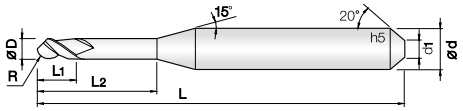
Order Number	Diameter R × D	Length of cut L1	Overall Length L	Shank Dia d1	Shank Dia d
EDDH 006 060 340	0.3R X 0.6	6	40	1.6	3
EDDH 006 060 350	0.3R X 0.6	6	50	1.6	3
EDDH 006 060 440	0.3R X 0.6	6	40	2	4
EDDH 006 060 450	0.3R X 0.6	6	50	2	4
EDDH 006 060 640	0.3R X 0.6	6	40	4.2	6
EDDH 006 060 650	0.3R X 0.6	6	50	4.2	6
EDDH 010 100 340	0.5R X 1	10	40	1.6	3
EDDH 010 100 350	0.5R X 1	10	50	1.6	3
EDDH 010 100 440	0.5R X 1	10	40	2	4
EDDH 010 100 450	0.5R X 1	10	50	2	4
EDDH 010 100 640	0.5R X 1	10	40	4.2	6
EDDH 010 100 650	0.5R X 1	10	50	4.2	6
EDDH 015 080 450	0.75R X 1.5	8	50	2	4
EDDH 015 120 450	0.75R X 1.5	12	50	2	4
EDDH 015 120 650	0.75R X 1.5	12	50	4.2	6
EDDH 015 150 650	0.75R X 1.5	15	50	4.2	6
EDDH 020 120 340	1R X 2	12	40	1.6	3
EDDH 020 120 350	1R X 2	12	50	1.6	3
EDDH 020 120 440	1R X 2	12	40	2	4
EDDH 020 120 450	1R X 2	12	50	2	4
EDDH 020 120 640	1R X 2	12	40	4.2	6
EDDH 020 120 650	1R X 2	12	50	4.2	6
EDDH 025 150 340	1.25R X 2.5	15	40	1.6	3
EDDH 025 150 350	1.25R X 2.5	15	50	1.6	3
EDDH 025 150 440	1.25R X 2.5	15	40	2	4
EDDH 025 150 450	1.25R X 2.5	15	50	2	4
EDDH 025 150 640	1.25R X 2.5	15	40	4.2	6
EDDH 025 150 650	1.25R X 2.5	15	50	4.2	6

1ROL

1 Flute Rib Ball End Mills for PMMA & PEEK & WAX

Compatible Machine
DWX 30, 50, 51D, 52D, 53D, 53DC





1 | WC | PMMA | PEEK | WAX | R ±0.01 (0.3 ~ 1.5R) | D +0-0.01 (Ø0.6~Ø3) | 30° Helix Angle

- Endmills for PMMA, PEEK, WAX, A.B.S, non-ferrous and non-metallic materials.

Unit : mm

Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
1ROL 006 060 S04	0.3R X 0.6	2	6	50	2	4
1ROL 006 140 S04	0.3R X 0.6	2	14	50	2	4
1ROL 010 160 S04	0.5R X 1	6	16	50	2	4
1ROL 010 200 S04	0.5R X 1	6	20	50	2	4
1ROL 020 200 S04	1R X 2	8	20	50	2	4
1ROL 030 200 S04	1.5R X 3	10	20	50	2	4

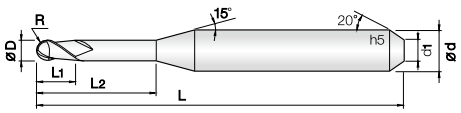
2&3ROL

2&3 Flutes Diamond Coated Ball End Mills for Zirconia

Compatible Machine
DWX 30, 50, 51D, 52D, 53D, 53DC







2 | 3 | WC | ZrO_2 | NANO DIA. Coating | R ±0.01 (0.3 ~ 1.5R) | D +0-0.01 (Ø0.6~Ø3) | 30° Helix Angle

- Endmills for Zirconia, Ultimate, Non-ferrous and non-metallic materials.

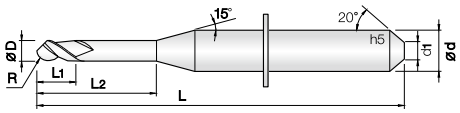
Unit : mm

Order Number		Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2ROL 006 060 S04		0.3R X 0.6	2	6	50	2	4
2ROL 006 140 S04		0.3R X 0.6	2	14	50	2	4
2ROL 010 160 S04	3ROL 010 160 S04	0.5R X 1	6	16	50	2	4
2ROL 010 200 S04	3ROL 010 200 S04	0.5R X 1	6	20	50	2	4
2ROL 020 200 S04	3ROL 020 200 S04	1R X 2	8	20	50	2	4
2ROL 030 200 S04	3ROL 030 200 S04	1.5R X 3	10	20	50	2	4

1VHF 1 Flute Rib Ball End Mills for PMMA & PEEK & WAX

Compatible Machine
(4AXES, Brux Zir, EzMill, Jensen)





1 | WC | PMMA | PEEK | WAX | R ±0.01 (0.3 ~ 1R) | D +0-0.01 (Ø0.6~Ø2) | 30° Helix Angle

- Endmills for PMMA, PEEK, WAX, A.B.S, non-ferrous and non-metallic materials.

Unit : mm

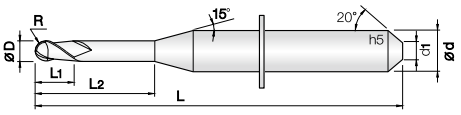
Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
1VHF 006 070 S03	0.3R X 0.6	2	7	35	1.6	3
1VHF 006 110 S03	0.3R X 0.6	2	11	35	1.6	3
1VHF 010 160 S03	0.5R X 1	5	16	35	1.6	3
1VHF 020 170 S03	1R X 2	8	17	35	1.6	3

2&3VHF 2&3 Flutes Rib Ball End Mills for Zirconia

Compatible Machine
(4AXES, Brux Zir, EzMill, Jensen)







2 | 3 | WC | ZrO_2 | R ±0.01 (0.3 ~ 1R) | D +0-0.01 (Ø0.6~Ø2) | 30° Helix Angle

- Endmills for Zirconia, Ultimate, non-ferrous and non-metallic materials.

Unit : mm

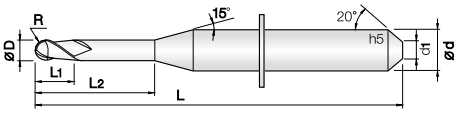
Order Number		Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2VHF 006 070 S03		0.3R X 0.6	2	7	35	1.6	3
2VHF 006 110 S03		0.3R X 0.6	2	11	35	1.6	3
2VHF 010 160 S03	3VHF 010 160 S03	0.5R X 1	5	16	35	1.6	3
2VHF 020 170 S03	3VHF 020 170 S03	1R X 2	8	17	35	1.6	3

2&3VHFD 2&3 Flutes Diamond Coated Ball End Mills for Zirconia

Compatible Machine
(4AXES, Brux Zir, EzMill, Jensen)







2 | 3 | WC | ZrO_2 | NANO DIA. Coating | R ±0.01 (0.3 ~ 1R) | D +0-0.01 (Ø0.6~Ø2) | 30° Helix Angle

- Endmills for Zirconia, Ultimate, non-ferrous and non-metallic materials.

Unit : mm

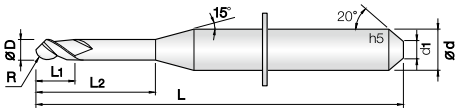
Order Number		Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2VHFD 006 070 S03		0.3R X 0.6	2	7	40	1.6	3
2VHFD 006 110 S03		0.3R X 0.6	2	11	40	1.6	3
2VHFD 010 170 S03	3VHFD 010 170 S03	0.5R X 1	5	17	40	1.6	3
2VHFD 020 170 S03	3VHFD 020 170 S03	1R X 2	8	17	40	1.6	3

1WIE

1 Flute Rib Ball End Mills for PMMA & PEEK & WAX

Compatible Machine
Wieland mini, Select





1 | WC | PMMA | PEEK | WAX | R ±0.01 (0.3 ~ 1.25R) | D +0-0.01 (Ø0.6~Ø2.5) | 30° Helix Angle

- Endmills for PMMA, PEEK, WAX, A.B.S, non-ferrous and non-metallic materials.

Unit : mm

Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
1WIE 006 070 335	0.3R X 0.6	2	7	35	1.6	3
1WIE 006 070 340	0.3R X 0.6	2	7	40	1.6	3
1WIE 007 070 335	0.35R X 0.7	2	7	35	1.6	3
1WIE 007 070 340	0.35R X 0.7	2	7	40	1.6	3
1WIE 010 160 335	0.5R X 1	5	16	35	1.6	3
1WIE 010 170 340	0.5R X 1	5	17	40	1.6	3
1WIE 020 170 335	1R X 2	8	17	35	1.6	3
1WIE 020 170 340	1R X 2	8	17	40	1.6	3
1WIE 025 200 335	1.25R X 2.5	10	20	35	1.6	3
1WIE 025 200 340	1.25R X 2.5	10	20	40	1.6	3

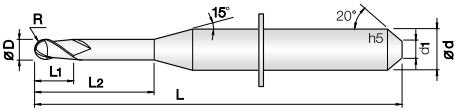
2&3WIE

2&3 Flutes Rib Ball End Mills for Zirconia

Compatible Machine
Wieland mini







2 | 3 | WC | ZrO_2 | R ±0.01 (0.3 ~ 1.25R) | D +0-0.01 (Ø0.6~Ø2.5) | 30° Helix Angle

- Endmills for Zirconia, Ultimate, non-ferrous and non-metallic materials.

Unit : mm

Order Number		Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2WIE 006 070 335		0.3R X 0.6	2	7	35	1.6	3
2WIE 007 070 335		0.35R X 0.7	2	7	35	1.6	3
2WIE 010 160 335	3WIE 010 160 335	0.5R X 1	5	16	35	1.6	3
2WIE 020 170 335	3WIE 020 170 335	1R X 2	8	17	35	1.6	3
2WIE 025 200 335	3WIE 025 200 335	1.25R X 2.5	10	20	35	1.6	3

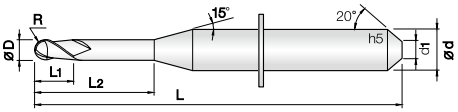
2&3WIED

2&3 Flutes Diamond Coated Ball End Mills for Zirconia

Compatible Machine
Wieland Select







2 | 3 | WC | ZrO_2 | NANO DIA. Coating | R ±0.01 (0.3 ~ 1.25R) | D +0-0.01 (Ø0.6~Ø2.5) | 30° Helix Angle

- Endmills for Zirconia, Ultimate, non-ferrous and non-metallic materials.

Unit : mm

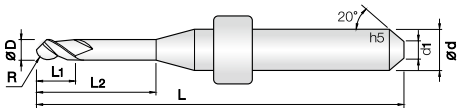
Order Number		Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2WIED 006 070 340		0.3R X 0.6	2	7	40	1.6	3
2WIED 007 070 340		0.35R X 0.7	2	7	40	1.6	3
2WIED 010 170 340	3WIED 010 170 340	0.5R X 1	5	17	40	1.6	3
2WIED 020 170 340	3WIED 020 170 340	1R X 2	8	17	40	1.6	3
2WIED 025 200 340	3WIED 025 200 340	1.25R X 2.5	10	20	40	1.6	3

1IME

1 Flute Rib Ball End Mills for PMMA & PEEK & WAX

Compatible Machine
250i, 350i(S6), 450i, 540i, DMG





1 | WC | PMMA | PEEK | WAX | R ±0.01 | D +0-0.01 | 30° Helix Angle

0.3 ~ 1.25R Ø0.6~Ø2.5

- Endmills for PMMA, PEEK, WAX, A.B.S, non-ferrous and non-metallic materials.

Unit : mm

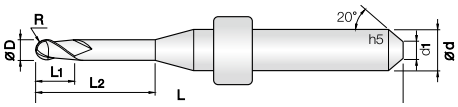
Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
1IME 006 070 S03	0.3R X 0.6	2	7	48	1.6	3
1IME 006 070 S06	0.3R X 0.6	2	7	53	4.2	6
1IME 0065 120 S03	0.325R X 0.65	2	12	48	1.6	3
1IME 0065 120 S06	0.325R X 0.65	2	12	53	4.2	6
1IME 010 160 S03	0.5R X 1	2	16	48	1.6	3
1IME 010 160 S06	0.5R X 1	2	16	53	4.2	6
1IME 020 200 S03	1R X 2	8	20	48	1.6	3
1IME 020 200 S06	1R X 2	8	20	53	4.2	6
1IME 025 200 S03	1.25R X 2.5	9	20	48	1.6	3
1IME 025 200 S06	1.25R X 2.5	9	20	53	4.2	6

2&3IME

2&3 Flutes Diamond Coated Ball End Mills for Zirconia

Compatible Machine
(150i, 250i)





2 | 3 | WC | ZrO_2 | NANO DIA. Coating | R ±0.01 | D +0-0.01 | 30° Helix Angle

0.3 ~ 1.25R Ø0.6~Ø2.5

- Endmills for Zirconia, Ultimate, non-ferrous and non-metallic materials.

Unit : mm

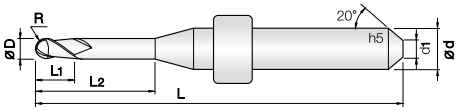
Order Number		Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2IME 006 070 S03		0.3R X 0.6	2	7	48	1.6	3
2IME 0065 120 S03		0.325R X 0.65	2	12	48	1.6	3
2IME 010 160 S03	3IME 010 160 S03	0.5R X 1	2	16	48	1.6	3
2IME 020 200 S03	3IME 020 200 S03	1R X 2	8	20	48	1.6	3
2IME 025 200 S03	3IME 025 200 S03	1.25R X 2.5	9	20	48	1.6	3

2&3IME

2&3 Flutes Diamond Coated Ball End Mills for Zirconia

Compatible Machine
(350i, 450i, 540i, DMG)





2 | 3 | WC | ZrO_2 | NANO DIA. Coating | R ±0.01 | D +0-0.01 | 30° Helix Angle

0.3 ~ 1.25R Ø0.6~Ø2.5

- Endmills for Zirconia, Ultimate, non-ferrous and non-metallic materials.

Unit : mm

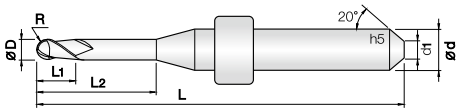
Order Number		Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2IME 006 070 S06		0.3R X 0.6	2	7	53	4.2	6
2IME 0065 120 S06		0.325R X 0.65	2	12	53	4.2	6
2IME 010 160 S06	3IME 010 160 S06	0.5R X 1	2	16	53	4.2	6
2IME 020 200 S06	3IME 020 200 S06	1R X 2	8	20	53	4.2	6
2IME 025 200 S06	3IME 025 200 S06	1.25R X 2.5	9	20	53	4.2	6

2SIR

2 Flutes Rib Ball End Mills for PMMA & PEEK & WAX

Compatible Machine
Inlab MC X5





2 | WC | PMMA | PEEK | WAX | R ±0.01 | D +0-0.01 | 30° Helix Angle

0.25 ~ 1.25R Ø0.5~Ø2.5

- Endmills for PMMA, PEEK, WAX, A.B.S, non-ferrous and non-metallic materials.

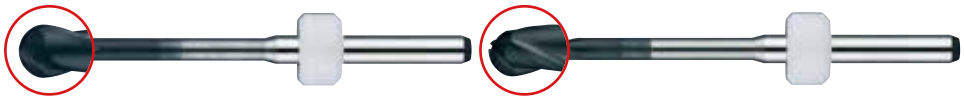
Unit : mm

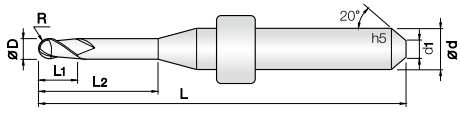
Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2SIR 005 060 342	0.25R X 0.5	0.8	6	42	2	3
2SIR 010 170 343	0.5R X 1	2.7	17	43	2	3
2SIR 025 250 344	1.25R X 2.5	5	25	44	2	3

2&3SIRD

2&3 Flutes Diamond Coated Ball End Mills for Zirconia

Compatible Machine
Inlab MC X5





2 | 3 | WC | ZrO_2 | NANO DIA. Coating | R ±0.01 | D +0-0.01 | 30° Helix Angle

0.25 ~ 1.25R Ø0.5~Ø2.5

- Endmills for Zirconia, Ultimate, non-ferrous and non-metallic materials.

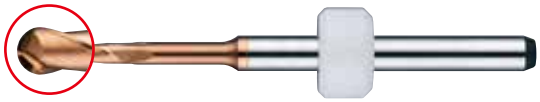
Unit : mm

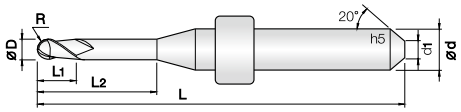
Order Number		Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2SIRD 005 050 342		0.25R X 0.5	1	5	42	2	3
2SIRD 010 180 343	3SIRD 010 180 343	0.5R X 1	3	18	43	2	3
2SIRD 025 250 344	3SIRD 025 250 344	1.25R X 2.5	5	25	44	2	3

2SIRT

2 Flutes Rib Ball End Mills for Titanium & Cobalt-Chrome

Compatible Machine
Inlab MC X5





2 | WC | TITAN | TISIN Coating | R ±0.01 | D +0-0.01 | 30° Helix Angle

0.5 ~ 1R Ø1~Ø2

- Endmills for titanium and cobalt-chrome disk & abutment

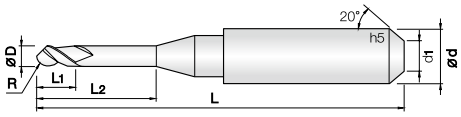
Unit : mm

Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2SIRT 010 080 338	0.5R X 1	3.3	8	38	2	3
2SIRT 020 120 339	1R X 2	4.5	12	39	2	3

1ARU 1 Flute Rib Ball End Mills for PMMA & PEEK & WAX

Compatible Machine
5X100





1 | WC | PMMA | PEEK | WAX | R ±0.01 (0.3 ~ 1R) | D +0-0.01 (Ø0.6~Ø2) | 30° Helix Angle

- **Endmills for PMMA, PEEK, WAX, A.B.S, non-ferrous and non-metallic materials.**

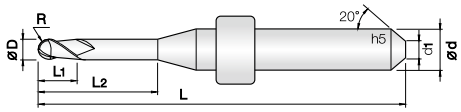
Unit : mm

Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
1ARU 006 130 063	0.3R X 0.6	2	13	63	4.2	6
1ARU 010 160 063	0.5R X 1	6	16	63	4.2	6
1ARU 020 200 063	1R X 2	8	20	63	4.2	6

2ARU 2 Flutes Rib Ball End Mills for PMMA & PEEK & WAX

Compatible Machine
5X100





2 | WC | PMMA | PEEK | WAX | R ±0.01 (0.5 ~ 1R) | D +0-0.01 (Ø1~Ø2) | 30° Helix Angle

- **Endmills for PMMA, PEEK, WAX, A.B.S, non-ferrous and non-metallic materials.**

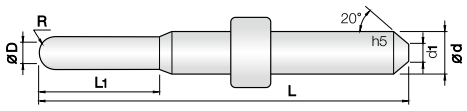
Unit : mm

Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2ARU 010 100 444	0.5R X 1	2	10	44	3	4
2ARU 015 140 447	0.75R X 1.5	3	14	47	3	4
2ARU 020 180 450	1R X 2	6	18	50	3	4

EARU Electro Deposited Diamond End Mill for Zirconia & Ultimate

Compatible Machine
5X100





- **Endmills for Zirconia, E-MAX, Ultimate, Non-ferrous and non-metallic materials.**
- Suitable for machining fully sintered zirconia, ceramics, and glass.
- Nickel-bonded diamond particles provide excellent wear resistance.
- Precision processing is available with less bending on the tool with carbide material

WC | Electro Deposition DIA. | R ±0.03 (0.5 ~ 1.25R) | D ±0.03 (Ø1~Ø2.5)

Unit : mm

Order Number	Diameter R × D	Length of cut L1	Overall Length L	Shank Dia d1	Shank Dia d
EARU 010 100 445	0.5R X 1	10	44.5	3	4
EARU 015 100 445	0.75R X 1.5	10	44.5	3	4
EARU 020 130 445	1R X 2	13	44.5	3	4
EARU 025 130 445	1.25R X 2.5	13	44.5	3	4

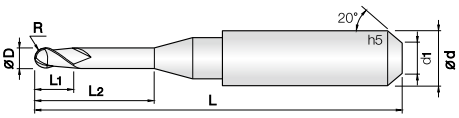
2&3ARUD

2&3 Flutes Diamond Coated Ball End Mills for Zirconia

Compatible Machine
5X100







2 | 3 | WC | ZrO_2 | NANO DIA. Coating | R ±0.01 (0.3 ~ 1R) | D +0-0.01 (Ø0.6~Ø2) | 30° Helix Angle

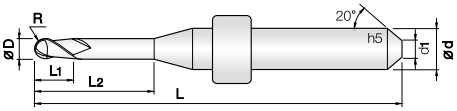
- Endmills for Zirconia, Ultimate, non-ferrous and non-metallic materials.

Unit : mm

Order Number		Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2ARUD 006 130 063		0.3R X 0.6	2	13	63	4.2	6
2ARUD 010 160 063	3ARUD 010 160 063	0.5R X 1	6	16	63	4.2	6
2ARUD 020 200 063	3ARUD 020 200 063	1R X 2	8	20	63	4.2	6







Compatible Machine
5X300

Unit : mm

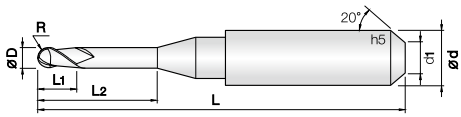
Order Number		Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2ARUD 006 100 445		0.3R X 0.6	1.6	10	45	3	4
2ARUD 010 160 450	3ARUD 010 160 450	0.5R X 1	2	16	50	3	4
2ARUD 020 180 450	3ARUD 020 180 450	1R X 2	6	18	50	3	4

2ARUT

2 Flutes Rib Ball End Mills for Titanium & Cobalt-Chrome

Compatible Machine
5X100





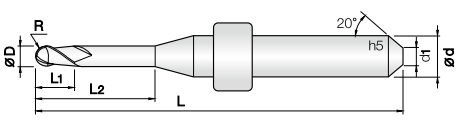
2 | WC | TITAN | TISIN Coating | R ±0.01 (0.5 ~ 1.5R) | D +0-0.01 (Ø1~Ø3) | 30° Helix Angle

- Endmills for titanium and cobalt-chrome disk & abutment

Unit : mm

Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2ARUT 010 080 S06	0.5R X 1	2	8	50	4.2	6
2ARUT 015 100 S06	0.75R X 1.5	3	10	50	4.2	6
2ARUT 020 120 S06	1R X 2	6	12	50	4.2	6
2ARUT 030 120 S06	1.5R X 3	8	12	50	4.2	6





Compatible Machine
5X300

Unit : mm

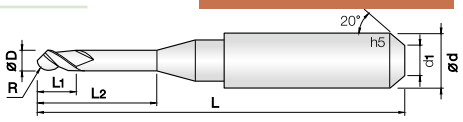
Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2ARUT 015 100 443	0.75R X 1.5	4	10	43	3	4
2ARUT 020 120 444	1R X 2	6	12	44	3	4

1ZIR

1 Flute Rib Ball End Mills for PMMA & PEEK & WAX

Compatible Machine
M1(S6), M5(S3)





1 | WC | PMMA | PEEK | WAX | R ±0.01 (0.25 ~ 1R) | D +0-0.01 (Ø0.5~Ø2) | 30° Helix Angle

- Endmills for PMMA, PEEK, WAX, A.B.S, non-ferrous and non-metallic materials.

Unit : mm

Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
1ZIR 005 050 S03	0.25R X 0.5	3	5	57	1.2	3
1ZIR 005 050 S06	0.25R X 0.5	3	5	50	4.2	6
1ZIR 010 160 S03	0.5R X 1	8	16	57	1.2	3
1ZIR 010 120 S06	0.5R X 1	6	12	50	4.2	6
1ZIR 020 180 S03	1R X 2	10	18	57	1.2	3
1ZIR 020 180 S06	1R X 2	10	18	50	4.2	6

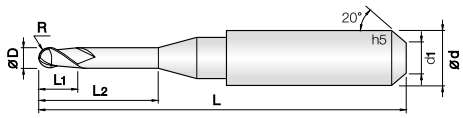
2&3ZIR

2&3 Flutes Ball End Mills for Zirconia

Compatible Machine
M1, M5







2 | 3 | WC | ZrO_2 | R ±0.01 (0.25 ~ 1R) | D +0-0.01 (Ø0.5~Ø2) | 30° Helix Angle

- Endmills for Zirconia, Ultimate, non-ferrous and non-metallic materials.

Unit : mm

Order Number		Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2ZIR 005 050 S03		0.25R X 0.5	3	5	57	1.2	3
2ZIR 005 050 S06		0.25R X 0.5	3	5	50	4.2	6
2ZIR 010 160 S03	3ZIR 010 160 S03	0.5R X 1	8	16	57	1.2	3
2ZIR 010 120 S06	3ZIR 010 120 S06	0.5R X 1	6	12	50	4.2	6
2ZIR 020 180 S03	3ZIR 020 180 S03	1R X 2	10	18	57	1.2	3
2ZIR 020 180 S06	3ZIR 020 180 S06	1R X 2	10	18	50	4.2	6

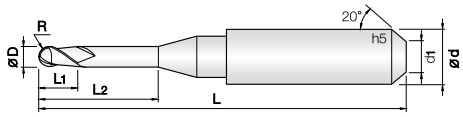
2&3ZIRD

2&3 Flutes Diamond Coated Ball End Mills for Zirconia

Compatible Machine
M1, M5







2 | 3 | WC | ZrO_2 | NANO DIA. Coating | R ±0.01 (0.25 ~ 1R) | D +0-0.01 (Ø0.5~Ø2) | 30° Helix Angle

- Endmills for Zirconia, Ultimate, non-ferrous and non-metallic materials.

Unit : mm

Order Number		Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2ZIRD 005 050 S03		0.25R X 0.5	3	5	57	1.2	3
2ZIRD 005 050 S06		0.25R X 0.5	3	5	50	4.2	6
2ZIRD 010 160 S03	3ZIRD 010 160 S03	0.5R X 1	8	16	57	1.2	3
2ZIRD 010 120 S06	3ZIRD 010 120 S06	0.5R X 1	6	12	50	4.2	6
2ZIRD 020 180 S03	3ZIRD 020 180 S03	1R X 2	10	18	57	1.2	3
2ZIRD 020 180 S06	3ZIRD 020 180 S06	1R X 2	10	18	50	4.2	6

CAD/CAM Milling Burs by Machine Manufacturer

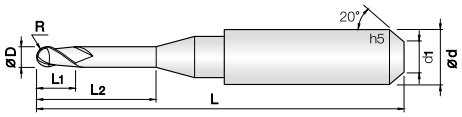
ZIRKONZAHN TYPE

2ZIRT

2 Flutes Rib Ball End Mills for Titanium & Cobalt-Chrome

Compatible Machine
M1





2 | WC | TITAN | TISIN Coating | R ±0.01 (1 ~ 1.5R) | D +0-0.01 (Ø2~Ø3) | 30° Helix Angle

- Endmills for titanium and cobalt-chrome disk & abutment

Unit : mm

Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2ZIRT 020 180 S06	1R X 2	3	18	50	4.2	6
2ZIRT 030 180 S06	1.5R X 3	4	18	50	4.2	6

CAD/CAM Milling Burs by Machine Manufacturer

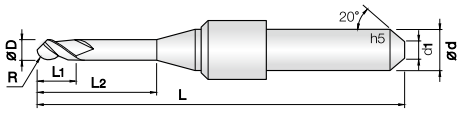
AMANN TYPE

1AMA

1 Flute Rib Ball End Mills for PMMA & PEEK & WAX

Compatible Machine
Cera Mill





1 | WC | PMMA | PEEK | WAX | R ±0.01 (0.3 ~ 1.25R) | D +0-0.01 (Ø0.6~Ø2.5) | 30° Helix Angle

- Endmills for PMMA, PEEK, WAX, A.B.S, non-ferrous and non-metallic materials.

Unit : mm

Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
1AMA 006 070 S03	0.3R X 0.6	2	7	47	1.6	3
1AMA 010 170 S03	0.5R X 1	6	17	47	1.6	3
1AMA 025 170 S03	1.25R X 2.5	9	17	47	1.6	3

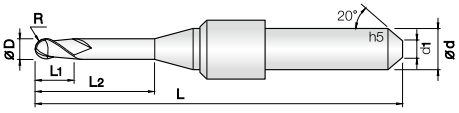
2&3AMA

2&3 Flutes Diamond Coated Ball End Mills for Zirconia

Compatible Machine
Cera Mill







2 | 3 | WC | ZrO_2 | NANO DIA. Coating | R ±0.01 (0.3 ~ 1.25R) | D +0-0.01 (Ø0.3~Ø2.5) | 30° Helix Angle

- Endmills for Zirconia, Ultimate, non-ferrous and non-metallic materials.

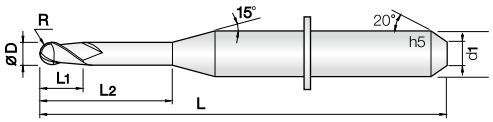
Unit : mm

Order Number		Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2AMA 003 140 S03		0.15R X 0.3	1.2	14 (2.5)	47	1.6	3
2AMA 006 070 S03		0.3R X 0.6	2	7	47	1.6	3
2AMA 006 120 S03		0.3R X 0.6	2	12	47	1.6	3
2AMA 010 170 S03	3AMA 010 170 S03	0.5R X 1	6	17	47	1.6	3
2AMA 025 170 S03	3AMA 025 170 S03	1.25R X 2.5	9	17	47	1.6	3

2CRA 2 Flutes Rib Ball End Mills for PMMA & PEEK & WAX

Compatible Machine
CRAFT 5X





2 | WC | PMMA | PEEK | WAX | R ±0.01 (0.5 ~ 1R) | D +0-0.01 (Ø1~Ø2) | 30° Helix Angle

- Endmills for PMMA, PEEK, WAX, A.B.S, non-ferrous and non-metallic materials.

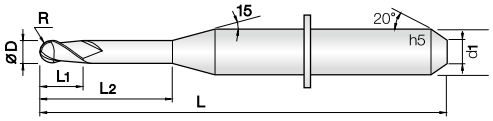
Unit : mm

Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2CRA 010 160 S04	0.5R X 1	3	16	39	2.5	4
2CRA 020 160 S04	1R X 2	6	16	39	2.5	4

2CRAT 2 Flutes Ball End Mills for Zirconia

Compatible Machine
CRAFT 5X





2 | WC | ZrO_2 | TISIN Coating | R ±0.01 (0.15 ~ 0.3R) | D +0-0.01 (Ø0.3~Ø0.6) | 30° Helix Angle

- Endmills for Zirconia, Ultimate, non-ferrous and non-metallic materials.

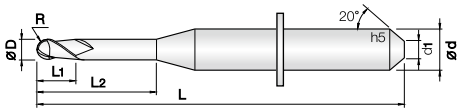
Unit : mm

Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2CRAT 003 150 S04	0.15R X 0.3	1	15	37.5	2.5	4
2CRAT 006 080 S04	0.3R X 0.6	1.5	8	37.5	2.5	4

3CRAT 3 Flutes Rib Ball End Mills for Titanium & Cobalt-Chrome

Compatible Machine
CRAFT 5X





3 | WC | TITAN | TISIN Coating | R ±0.01 (0.5 ~ 1R) | D +0-0.01 (Ø1~Ø2) | 30° Helix Angle

- Endmills for titanium and cobalt-chrome disk & abutment

Unit : mm

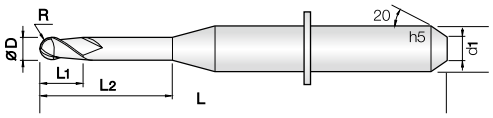
Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
3CRAT 010 100 S04	0.5R X 1	2	10	32.5	2.5	4
3CRAT 015 100 S04	0.75R X 1.5	3	10	32.5	2.5	4
3CRAT 020 100 S04	1R X 2	5	10	32.5	2.5	4

3CRAD

3 Flutes Diamond Coated Ball End Mills for Zirconia

Compatible Machine
CRAFT 5X





3 | WC | ZrO_2 | NANO DIA. Coating | R ±0.01 (0.5 ~ 1R) | D +0-0.01 (Ø1~Ø2) | 30° Helix Angle

- Endmills for Zirconia, Ultimate, non-ferrous and non-metallic materials.

Unit : mm

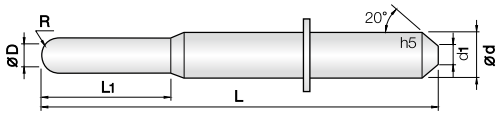
Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
3CRAD 010 160 S04	0.5R X 1	3	16	39	2.5	4
3CRAD 020 160 S04	1R X 2	6	16	39	2.5	4

ECRA

Electro Deposited Diamond End Mills for Glass Ceramic

Compatible Machine
CRAFT 5X





WC | Electro Deposition DIA. | R ±0.01 (0.3 ~ 1.25R) | D +0-0.01 (Ø0.6~Ø2.5)

- Endmills for Zirconia, E-MAX, Ultimate, Non-ferrous and non-metallic materials.

Unit : mm

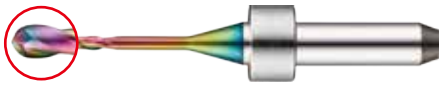
Order Number	Diameter R × D	Length of cut L1	Overall Length L	Shank Dia d1	Shank Dia d
ECRA 006 080 S04	0.3R X 0.6	8	29.5	2.5	4
ECRA 010 100 S04	0.5R X 1	10	29.5	2.5	4
ECRA 020 120 S04	1R X 2	12	33.5	2.5	4
ECRA 025 130 S04	1.25R X 2.5	13	33.5	2.5	4

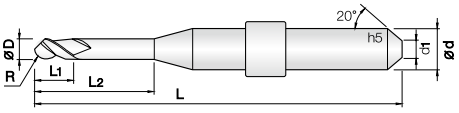
1&2IVO

1&2 Flute Rib Ball & Flat End Mills for PMMA & PEEK & WAX

Compatible Machine
PM7







1 | 2 | WC | PMMA | PEEK | WAX | G-TAC Coating | R ±0.01 (0.25 ~ 1.25R) | D +0-0.01 (Ø0.5~Ø5) | 30° Helix Angle

- Endmills for PMMA, PEEK, WAX, A.B.S, non-ferrous and non-metallic materials.

Unit : mm

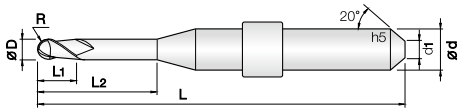
Order Number		Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
Non coated	Coated						
1IVO 005 067 649	1IVOC 005 067 649	0.25R X 0.5	1.2	6.7	49	4.5	6
1IVO 015 150 649	1IVOC 015 150 649	1.5	6	15	49	4.5	6
1IVO 025 250 659	1IVOC 025 250 659	1.25R X 2.5	5	25	59	4.5	6
1IVO 050 250 659	1IVOC 050 250 659	2.5R X 5	16	25	59	4.5	6
2IVO 010 100 652	2IVOC 010 100 652	0.5R X 1	2.5	10	52	4.5	6

2IVOD

2 Flutes Diamond Coated Ball End Mills for Zirconia

Compatible Machine
PM7





2 | WC | ZrO_2 | NANO DIA. Coating | R ±0.01 (0.25 ~ 1.25R) | D +0-0.01 (Ø0.5~Ø2.5) | 30° Helix Angle

- Endmills for Zirconia, Ultimate, non-ferrous and non-metallic materials.

Unit : mm

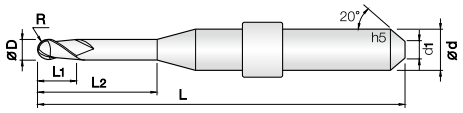
Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2IVOD 005 075 653	0.25R X 0.5	2.5	7.5	53	4.5	6
2IVOD 010 145 653	0.5R X 1	4	14.5	53	4.5	6
2IVOD 025 200 653	1.25R X 2.5	6	20	53	4.5	6

2&4IVOT

2&4 Flutes Rib Ball End Mills for Titanium & Cobalt-Chrome

Compatible Machine
PM7





2 | 4 | WC | TITAN | TISIN Coating | R ±0.01 (0.3 ~ 1.5R) | D +0-0.01 (Ø0.6~Ø3) | 30° Helix Angle

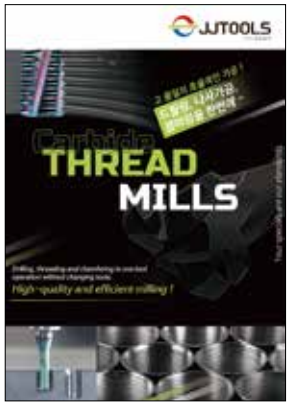
- Endmills for titanium and cobalt-chrome disk & abutment

Unit : mm

Order Number	Diameter R × D	Length of cut L1	Effective Length L2	Overall Length L	Shank Dia d1	Shank Dia d
2IVOT 006 140 640	0.3R X 0.6	1.3	14	40	4.5	6
2IVOT 010 085 645	0.5R X 1	3	8.5	45	4.5	6
2IVOT 015 100 645	0.75R X 1.5	3.6	10	45	4.5	6
4IVOT 030 160 645	1.5R X 3	5.5	16	45	4.5	6















Where Variety Meets Precision

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공구 사용시 주의사항

- 공구가 사용중 파손되어 상해의 위험이 있으므로 보호안경 등 안전장비를 착용하고 사용해 주십시오
- 공구의 목적 외에 다른 용도로 사용하거나 전용장비가 아닌 장비에 장착하지 마시고 임의로 연삭, 변경하지 마십시오
- 제품 날부분의 손상을 방지하기 위해 가능한 비접촉 측정을 권고합니다.
- 공구의 체결이 정확히 되었는지 확인한 후 사용해 주십시오.
- 사용시 고열로 인한 스파크가 발생할 수 있습니다.
- 화재나 폭발 등 위험 인자를 제거하고 사용하십시오
- 제품 사용 전과 후에도 공구와 가공물의 치수를 반드시 확인해 주십시오
- 공구가 마모되거나 손상된 경우 사용을 중지해 주십시오
- 비정상적인 진동, 소음이 발생할 경우 시스템을 중지하고 진동, 소음의 원인을 확인하여 제거 하십시오.

Precautions When Using Tools

- Wear safety equipment such as protective eyewear to prevent the risk of injury in case the tool breaks during use.
- Do not use the tool for purposes other than its intended use, or install it on equipment that is not designed for it. Do not grind or modify it arbitrarily.
- To prevent damage to the cutting edge, it is recommended to use non-contact measurements whenever possible.
- Ensure proper attachment of the tool before use.
- Sparks may be generated due to high heat during use.
- Eliminate potential fire or explosion hazards before using.
- Before and after use, always check the dimensions of the tool and the workpiece.
- Discontinue use if the tool is worn or damaged.
- If abnormal vibration or noise occurs, stop the system and identify and eliminate the cause of the vibration or noise.

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ISO 9001 / ISO 14001

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