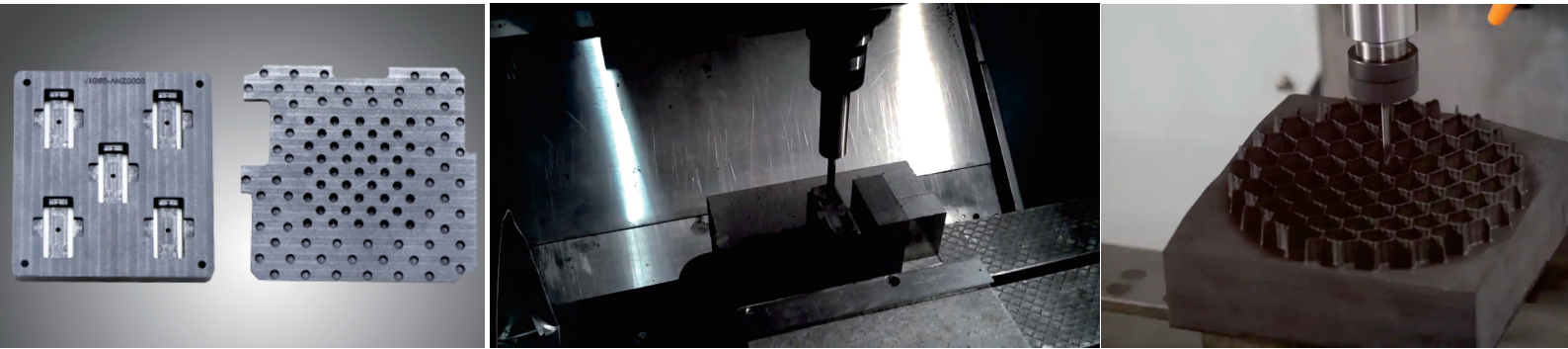


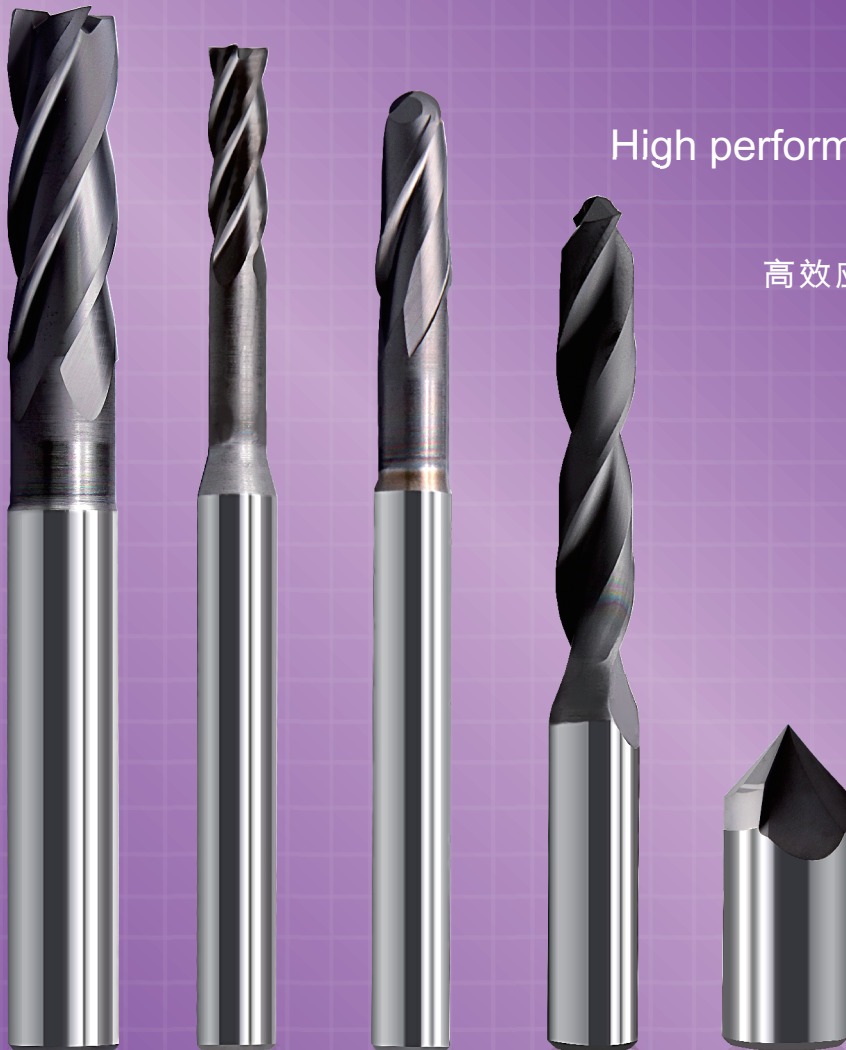


广东优能特五金科技有限公司
Guangdong UNT Cutting Tools Co., Ltd.



EMF石墨专用铣刀

Graphite End Mill Cutter with diamond coating



High performance on Graphite electrode,
3D glass Mold processing.

高效应用于石墨电极，3D玻璃模具制作

www.unt-tools.com

INTRODUCTION

公司简介

广东优能特五金科技有限公司

优能特是一家CNC铣削刀具的大型制造商。

优能特在中国东莞拥有一个9,000平方米的工业园区，进口了35台澳大利亚ANCA数控磨床，5台Walter数控磨床、55个工程师和35个销售员。

我们建立了ISO9001质量控制体系，使用优质稳定的德国硬质合金棒，SWISS SOERLIKON新涂层技术以提高抗氧化性和热硬度。我们进口德国ZOLLER数字测量仪器等精密测试设备，以确保稳定的尺寸精度和优良的表面质量。

我们已经成为知名品牌工具的OEM合作伙伴15年，我们的仓库1500 SQM拥有数百万库存，可在24小时内发货给立铣刀。

优能特切削刀具已分布在欧洲，亚洲，北美和许多其他城市，热销产品包括高性能硬质合金立铣刀EMC /X5070系列，HRC55硬质合金立铣刀，EMF金刚石涂层刀具，螺纹和丝锥，冷却液钻头，超微型立铣刀，用于不锈钢的EMD等，以及各种定制尺寸的CNC铣削工具。

我们拥有提供全方位服务的设计和工程人员，以及Markets销售人员，可以根据您的特定规格构建自定义工具的多层次结构。

我们的目标是帮助每个客户获得最大的利益，建立世界一流的优质切削刀具品牌。

选择好的工具，选择“优能特”精密工具！

Guangdong UNT Cutting Tools Co., Ltd.

UNT' is a big manufacturer of CNC Milling tools.

UNT' owned an industrial park 9,000 SQM in Dongguan China, imported Australian ANCA CNC grinding machines 35 sets, Walter CNC Cutter Grinders 5 sets, and 55 engineer design teams and 30 salesmen.

We established an ISO9001 quality control system, use high-quality and stable German Carbide Rods, SWISS OERLIKON new coating technologies, to improve the oxidation resistance and hot hardness. We import Germany ZOLLER Digital Measuring Instruments, such as precision testing equipment, to ensure stable dimensional accuracy and fine surface quality.

We have been an OEM Partner for Well-known brand tools for 15 years, Our warehouse 1500 SQM with millions of in-stock, ready to shipping end mills in 24 hours.

UNT Cutting tools have been distributed in Europe, Asia, North America, and many other cities, Hot sales products include High-performance Carbide end mills EMC/X5070 series, HRC55 Carbide end mills, EMF Diamond Coated Tools, Thread & tap, Coolant drills, Super-micro end mills, EMD for Stainless steels, etc, and all kinds of custom-sized CNC Milling tools.





We have a full-service design and engineering staff, and Markets sales to build a multilevel of variations of custom tools to your specific specifications.

Our aim is to help every customer achieve maximum benefits, to build a world-class quality cutting tool brand.

Choose the good Tools, Choose "UNT" Precision Tools.



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类别 CATEGORY	型号 ITEM	外形 MODEL	描述 DESCRIPTION	页码 PAGE
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	EMF02		石墨加工专用四刃平底铣刀 Graphite End Mill, 4 Flute Miniature with Neck	2
	EMF03		石墨加工专用二刃球形铣刀 Graphite End Mill, 2 Flute Ball Nose with Taper Neck	3
	EMF04		不锈钢专用不等分四刃圆鼻铣刀 Carbide, 4 Flute Corner Radius, Unequal helix/Heavy duty Milling Cutter	4

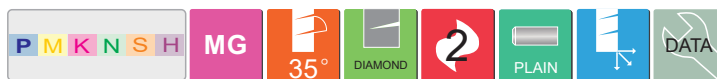
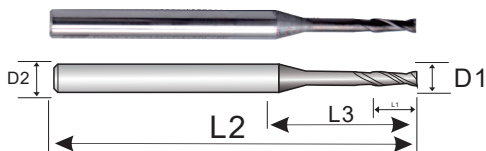
Non-standard sizes are available by special order, include Profile tools.

EMF 石墨加工专用二刃平底铣刀

Graphite End Mill, 2 Flute Miniature with Neck

- ★ EMF系列硬质合金表面具有金刚石涂层, 其硬度可与网状硬质合金相媲美。
- ★ 设计为具有极高的硬度, 可用于加工石墨, 复合材料和高硅铝, 塑料, 木材, 最厚的金刚石涂层, 适用于石墨, 碳纤维和玻璃纤维加工。
- ★ 适合加工高性能的石墨电极和3D玻璃模具。

- EMF series Carbide surface have a diamond coating with a hardness comparable to that of natural diamond.
- Designed to extreme hardness for long life (10-50x) in graphite, composites & high silicon aluminum, plastic, wood, thickest diamond coating, for Graphite, Carbon Fibre and Fibre Glass.
- High performance on Graphite electrode, 3D glass mold processing.



加工材料 Material Description											
碳钢	合金钢	预硬钢	硬化钢	高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	镍钴合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
-HB225	+HB225-325	-HRc30-40	HRc40-45 HRc45-55	HRc55-70	○	●					

● 非常适合 ○ 适合

EMF01 SERIES

Unit:mm

优能特订货代码	刃径	柄径	有效长	刃长	全长	刃数	石墨电极加工	3D玻璃模具加工
UNT EDP NO.	Mill Dia D1	Shank Dia D2	Effective length L3	Flute length L1	O. A. L. L2	Blade n.	Graphite electrode	3D glass mold
EMFC.01.00505003	0.5	4	3	1.5	50	2	☆	★
EMFC.01.00505004	0.5	4	4	1.5	50	2	☆	★
EMFC.01.00505006	0.5	4	6	1.5	50	2	☆	★
EMFC.01.00505008	0.5	4	8	1.5	50	2	☆	★
EMFC.01.00605004	0.6	4	4	1.8	50	2	☆	★
EMFC.01.00605006	0.6	4	6	1.8	50	2	☆	★
EMFC.01.00605008	0.6	4	8	1.8	50	2	☆	★
EMFC.01.00605010	0.6	4	10	1.8	50	2	☆	★
EMFC.01.00605012	0.6	4	12	1.8	50	2	☆	★
EMFC.01.00805005	0.8	4	5	2.5	50	2	☆	★
EMFC.01.00805008	0.8	4	8	2.5	50	2	☆	★
EMFC.01.00805012	0.8	4	12	2.5	50	2	☆	★
EMFC.01.00805016	0.8	4	16	2.5	50	2	☆	★
EMFC.01.01005003	1.0	4	3	3	50	2	☆	★
EMFC.01.01005006	1.0	4	6	3	50	2	☆	★
EMFC.01.01005010	1.0	4	10	3	50	2	☆	★
EMFC.01.01005015	1.0	4	15	3	50	2	☆	★
EMFC.01.01007515	1.0	4	15	3	75	2	☆	★
EMFC.01.01505005	1.5	4	5	5	50	2	☆	★
EMFC.01.01505010	1.5	4	10	5	50	2	☆	★
EMFC.01.01505015	1.5	4	15	5	50	2	☆	★
EMFC.01.01505020	1.5	4	20	5	75	2	☆	★
EMFC.01.02005020	2.0	4	20	6	50	2	☆	★

以上产品未列明细的非标规格尺寸或产品参数, 可根据客户需求定制制作。
Non-standard size or product parameters not listed above, can be customized according to customer needs.

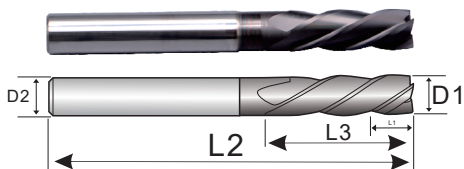
MILL DIA. TOLERANCE (mm) 刃径公差 (mm)	SHANK DIA. TOLERANCE 柄径公差
0 -0.020	H6

EMF 石墨加工专用四刃平底铣刀

Graphite End Mill, 4 Flute Miniature with Neck

- ★ EMF系列硬质合金表面具有金刚石涂层, 其硬度可与网状硬质合金相媲美。
- ★ 设计为具有极高的硬度, 可用于加工石墨, 复合材料和高硅铝, 塑料, 木材, 最厚的金刚石涂层, 适用于石墨, 碳纤维和玻璃纤维加工。
- ★ 适合加工高性能的石墨电极和3D玻璃模具。

- EMF series Carbide surface have a diamond coating with a hardness comparable to that of natural diamond.
- Designed to extreme hardness for long life (10-50x) in graphite, composites & high silicon aluminum, plastic, wood, thickest diamond coating, for Graphite, Carbon Fibre and Fibre Glass.
- High performance on Graphite electrode, 3D glass mold processing.



加工材料 Material Description												
碳钢	合金钢	预硬钢	硬化钢		高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	镍钴合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	High Hardened Steels	High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
	+HB225	+HRC30-40	HRc40-45	HRc45-55	HRc55-70	○	●					

○ 非常合适 ○ 适合

EMF02 SERIES

Unit:mm

优能特订货代码	刃径	柄径	有效长	刃长	全长	刃数	石墨电极加工	3D玻璃模具加工
UNT EDP NO.	Mill Dia D1	Shank Dia D2	Effective length L3	Flute length L1	O. A. L. L2	Flutes	Graphite electrode	3D glass mold
EMFC.02.02005006	2.0	4	6	6	50	4	☆	★
EMFC.02.02005012	2.0	4	12	6	50	4	☆	★
EMFC.02.02005016	2.0	4	16	6	50	4	☆	★
EMFC.02.02007520	2.0	4	20	6	75	4	☆	★
EMFC.02.02007530	2.0	4	30	6	75	4	☆	★
EMFC.02.02010040	2.0	4	40	6	100	4	☆	★
EMFC.02.03005015	3.0	4	15	10	50	4	☆	★
EMFC.02.030050153	3.0	3	15	10	50	4	☆	★
EMFC.02.03005020	3.0	4	20	10	75	4	☆	★
EMFC.02.03007520	3.0	4	20	10	75	4	☆	★
EMFC.02.030075203	3.0	3	20	10	75	4	☆	★
EMFC.02.03007525	3.0	4	25	12	75	4	☆	★
EMFC.02.030075253	3.0	3	25	12	75	4	☆	★
EMFC.02.03010030	3.0	4	30	12	100	4	☆	★
EMFC.02.030100303	3.0	3	30	12	100	4	☆	★
EMFC.02.04005020	4.0	4	20	12	50	4	☆	★
EMFC.02.04007525	4.0	4	25	15	75	4	☆	★
EMFC.02.04007530	4.0	4	30	20	75	4	☆	★
EMFC.02.04010030	4.0	4	30	20	100	4	☆	★
EMFC.02.06007520	6.0	6	20	20	75	4	☆	★
EMFC.02.06007530	6.0	6	30	20	75	4	☆	★
EMFC.02.06010040	6.0	6	40	25	100	4	☆	★
EMFC.02.06015060	6.0	6	60	25	150	4	☆	★
EMFC.02.08007535	8.0	8	35	25	75	4	☆	★
EMFC.02.08010045	8.0	8	45	30	100	4	☆	★
EMFC.02.08011060	8.0	8	60	30	110	4	☆	★
EMFC.02.08015060	8.0	8	60	30	150	4	☆	★
EMFC.02.10010040	10.0	10	40	30	100	4	☆	★
EMFC.02.10010050	10.0	10	50	35	100	4	☆	★
EMFC.02.10012060	10.0	10	60	35	120	4	☆	★
EMFC.02.10015060	10.0	10	60	35	150	4	☆	★
EMFC.02.12007540	12.0	12	40	30	75	4	☆	★
EMFC.02.12010060	12.0	12	60	40	100	4	☆	★
EMFC.02.12015060	12.0	12	60	40	150	4	☆	★
EMFC.02.16015080	16.0	16	80	40	150	4	☆	★
EMFC.02.160180100	16.0	16	100	40	180	4	☆	★

以上产品未列明细的非标规格尺寸或产品参数, 可根据客户需求订制制作。
Non-standard size or product parameters not listed above, can be customized according to customer needs.

MILL DIA. TOLERANCE (mm) 刃径公差 (mm)	SHANK DIA. TOLERANCE 柄径公差
0 -0.020	H6

EMF 石墨加工专用二刃球形铣刀

Graphite End Mill, 2 Flute Ball Nose with Taper Neck

- ★ EMF系列硬质合金表面具有金刚石涂层, 其硬度可与网状硬质合金相媲美。
- ★ 设计为具有极高的硬度, 可用于加工石墨, 复合材料和高硅铝, 塑料, 木材, 最厚的金刚石涂层, 适用于石墨, 碳纤维和玻璃纤维加工。
- ★ 适合加工高性能的石墨电极和3D玻璃模具。

- EMF series Carbide surface have a diamond coating with a hardness comparable to that of natural diamond.
- Designed to extreme hardness for long life (10-50x) in graphite, composites & high silicon aluminum, plastic, wood, thickest diamond coating, for Graphite, Carbon Fibre and Fibre Glass.
- High performance on Graphite electrode, 3D glass mold processing.



加工材料 Material Description											
碳钢	合金钢	预硬钢	硬化钢	高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	镍钴合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	High Hardened steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
-HB225	+HB225-325	-HRC30-40	HRC40-45	HRC45-55	HR655-70	○	●				

● 非常适合 ○ 适合

EMF03 SERIES

Unit:mm

优能特订货代码	球半径	有效长	柄径	刃长	全长	刃数	石墨电极加工	3D玻璃模具加工
UNT EDP NO.	Radius R	Effective length L3	Shank Dia D2	Flute length L1	O. A. L. L2	Flutes	Graphite electrode	3D glass mold
EMFC.03.00605004	R0.3	4	4	1.2	50	2	☆	★
EMFC.03.00605006	R0.3	6	4	1.2	50	2	☆	★
EMFC.03.00605008	R0.3	8	4	1.2	50	2	☆	★
EMFC.03.00805006	R0.4	6	4	1.6	50	2	☆	★
EMFC.03.00805008	R0.4	8	4	1.6	50	2	☆	★
EMFC.03.00805010	R0.4	10	4	1.6	50	2	☆	★
EMFC.03.01005008	R0.5	8	4	2	50	2	☆	★
EMFC.03.01005010	R0.5	10	4	2	50	2	☆	★
EMFC.03.01005012	R0.5	12	4	2	50	2	☆	★
EMFC.03.01006015	R0.5	15	4	2	60	2	☆	★
EMFC.03.01006020	R0.5	20	4	2	60	2	☆	★
EMFC.03.01505010	R0.75	10	4	3	50	2	☆	★
EMFC.03.01505015	R0.75	15	4	3	50	2	☆	★
EMFC.03.01507520	R0.75	20	4	3	75	2	☆	★
EMFC.03.01507525	R0.75	25	4	3	75	2	☆	★
EMFC.03.02005010	R1	10	4	4	50	2	☆	★
EMFC.03.02005015	R1	15	4	4	50	2	☆	★
EMFC.03.02007520	R1	20	4	4	75	2	☆	★
EMFC.03.02007525	R1	25	4	4	75	2	☆	★
EMFC.03.02007530	R1	30	4	4	75	2	☆	★
EMFC.03.02010040	R1	40	4	4	100	2	☆	★
EMFC.03.03005015	R1.5	15	4	6	50	2	☆	★
EMFC.03.03006015	R1.5	15	4	6	60	2	☆	★
EMFC.03.030060153	R1.5	15	3	6	60	2	☆	★
EMFC.03.03007525	R1.5	25	4	6	75	2	☆	★
EMFC.03.030075253	R1.5	25	3	6	75	2	☆	★
EMFC.03.04005020	R2	20	4	10	50	2	☆	★
EMFC.03.04006020	R2	20	4	8	60	2	☆	★
EMFC.03.04007525	R2	25	4	8	75	2	☆	★
EMFC.03.04010040	R2	40	4	8	100	2	☆	★
EMFC.03.06006012	R3	12	6	12	60	2	☆	★
EMFC.03.06007530	R3	30	6	12	75	2	☆	★
EMFC.03.06010040	R3	40	6	12	100	2	☆	★
EMFC.03.06015060	R3	60	6	12	150	2	☆	★
EMFC.03.08007530	R4	30	8	16	75	2	☆	★
EMFC.03.08010045	R4	45	8	16	100	2	☆	★
EMFC.03.08015060	R4	60	8	16	150	2	☆	★
EMFC.03.10010040	R5	40	10	20	100	2	☆	★
EMFC.03.10015060	R5	60	10	20	150	2	☆	★
EMFC.03.12010050	R6	50	12	25	100	2	☆	★
EMFC.03.12015060	R6	60	12	25	150	2	☆	★

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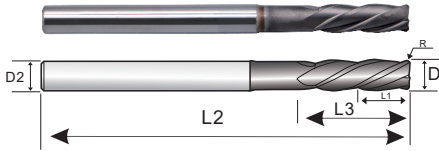
MILL DIA. TOLERANCE (mm) 刃径公差 (mm)	SHANK DIA. TOLERANCE 柄径公差
0 -0.020	H6

EMF 石墨加工专用二刃/四刃圆角铣刀

Graphite End Mill, 2/4 Flute Corner Radius with Taper Neck

- ★ EMF系列硬质合金表面具有金刚石涂层, 其硬度可与网状硬质合金相媲美。
- ★ 设计为具有极高的硬度, 可用于加工石墨, 复合材料和高硅铝, 塑料, 木材, 最厚的金刚石涂层, 适用于石墨, 碳纤维和玻璃纤维加工。
- ★ 适合加工高性能的石墨电极和3D玻璃模具。

- EMF series Carbide surface have a diamond coating with a hardness comparable to that of natural diamond.
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- High performance on Graphite electrode, 3D glass mold processing.



加工材料 Material Description											
碳钢	合金钢	预硬钢	硬化钢	高硬钢	铜	石墨	铸铁	铝	不锈钢	钛	镍钴合金
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
-HB225	+HB225-325	-HRC30-40	HRc40-45	HRc45-55							

⊙ 非常适合 ○ 适合

EMF04/05 SERIES

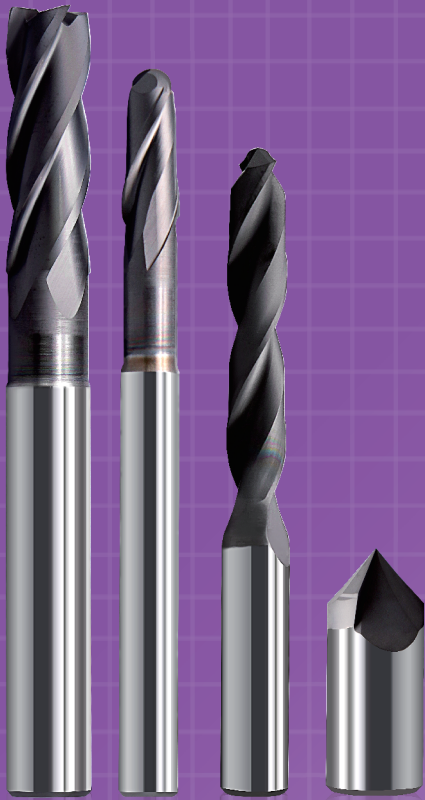
Unit:mm

优能特订货代码	R角	刃径	有效长	柄径	刃长	全长	刃数	石墨电极加工	3D玻璃模具加工
UNT EDP NO.	Corner Radius R	Mill Dia D2	Effective length L3	Shank Dia D2	Flute length L1	O. A. L. L2	Flutes	Graphite electrode	3D glass mold
EMFC.04.0100105010	0.1	1.0	10	4	3	50	2	☆	★
EMFC.04.0150105015	0.1	1.5	15	4	5	50	2	☆	★
EMFC.04.0200105015	0.1	2.0	15	4	6	50	2	☆	★
EMFC.04.0200105020	0.1	2.0	20	4	6	50	2	☆	★
EMFC.04.0200205015	0.2	2.0	15	4	6	50	2	☆	★
EMFC.04.0200205020	0.2	2.0	20	4	6	50	2	☆	★
EMFC.05.0300105015	0.1	3.0	15	4	10	50	4	☆	★
EMFC.05.0300205015	0.2	3.0	15	4	10	50	4	☆	★
EMFC.05.0300505015	0.5	3.0	15	4	10	50	4	☆	★
EMFC.05.0300505020	0.5	3.0	20	4	8	50	4	☆	★
EMFC.05.0300507520	0.5	3.0	20	4	12	75	4	☆	★
EMFC.05.0300510030	0.5	3.0	30	4	12	100	4	☆	★
EMFC.05.0301007520	1.0	3.0	20	4	20	75	4	☆	★
EMFC.05.0301010030	1.0	3.0	30	4	30	100	4	☆	★
EMFC.05.0400205020	0.2	4.0	20	4	12	50	4	☆	★
EMFC.05.0400207530	0.2	4.0	30	4	12	75	4	☆	★
EMFC.05.0400505020	0.5	4.0	20	4	12	50	4	☆	★
EMFC.05.0400507530	0.5	4.0	30	4	12	75	4	☆	★
EMFC.05.0400510035	0.5	4.0	35	4	12	100	4	☆	★
EMFC.05.0401005020	1.0	4.0	20	4	20	50	4	☆	★
EMFC.05.0401007530	1.0	4.0	30	4	30	75	4	☆	★
EMFC.05.0401010035	1.0	4.0	35	4	35	100	4	☆	★
EMFC.05.0600307530	0.3	6.0	30	6	20	75	4	☆	★
EMFC.05.0600310040	0.3	6.0	40	6	25	100	4	☆	★
EMFC.05.0600507530	0.5	6.0	30	6	20	75	4	☆	★
EMFC.05.0600510040	0.5	6.0	40	6	25	100	4	☆	★
EMFC.05.0600515060	0.5	6.0	60	6	25	150	4	☆	★
EMFC.05.0601007530	1.0	6.0	30	6	30	75	4	☆	★
EMFC.05.0601010040	1.0	6.0	40	6	40	100	4	☆	★
EMFC.05.0601015060	1.0	6.0	60	6	60	150	4	☆	★
EMFC.05.0800507535	0.5	8.0	35	8	25	75	4	☆	★
EMFC.05.0800510045	0.5	8.0	45	8	30	100	4	☆	★
EMFC.05.0800515060	0.5	8.0	60	8	30	150	4	☆	★
EMFC.05.0801010045	1.0	8.0	45	8	45	100	4	☆	★
EMFC.05.0801015060	1.0	8.0	60	8	60	150	4	☆	★
EMFC.05.1000510045	0.5	10.0	45	10	35	100	4	☆	★
EMFC.05.1000515065	0.5	10.0	65	10	35	150	4	☆	★
EMFC.05.1001010045	1.0	10.0	45	10	45	100	4	☆	★
EMFC.05.1001015065	1.0	10.0	65	10	65	150	4	☆	★
EMFC.05.1200510050	0.5	12.0	50	12	40	100	4	☆	★
EMFC.05.1200515070	0.5	12.0	70	12	40	150	4	☆	★
EMFC.05.1201010050	1.0	12.0	50	12	50	100	4	☆	★
EMFC.05.1201015070	1.0	12.0	70	12	70	150	4	☆	★

以上产品未列明细的非标规格尺寸或产品参数, 可根据客户需求订制制作。

Non-standard size or product parameters not listed above, can be customized according to customer needs.

MILL DIA. TOLERANCE (mm) 刃径公差 (mm)	SHANK DIA. TOLERANCE 柄径公差
0 -0.020	H6



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