

MingHong

浙江鸣鸿精密技术有限公司
Zhejiang MingHong Precision Co. Ltd

SAW BLADE MILLING CUTTER



ZHEJIANG MINGHONG PRECISION TECHNOLOGY CO., LTD

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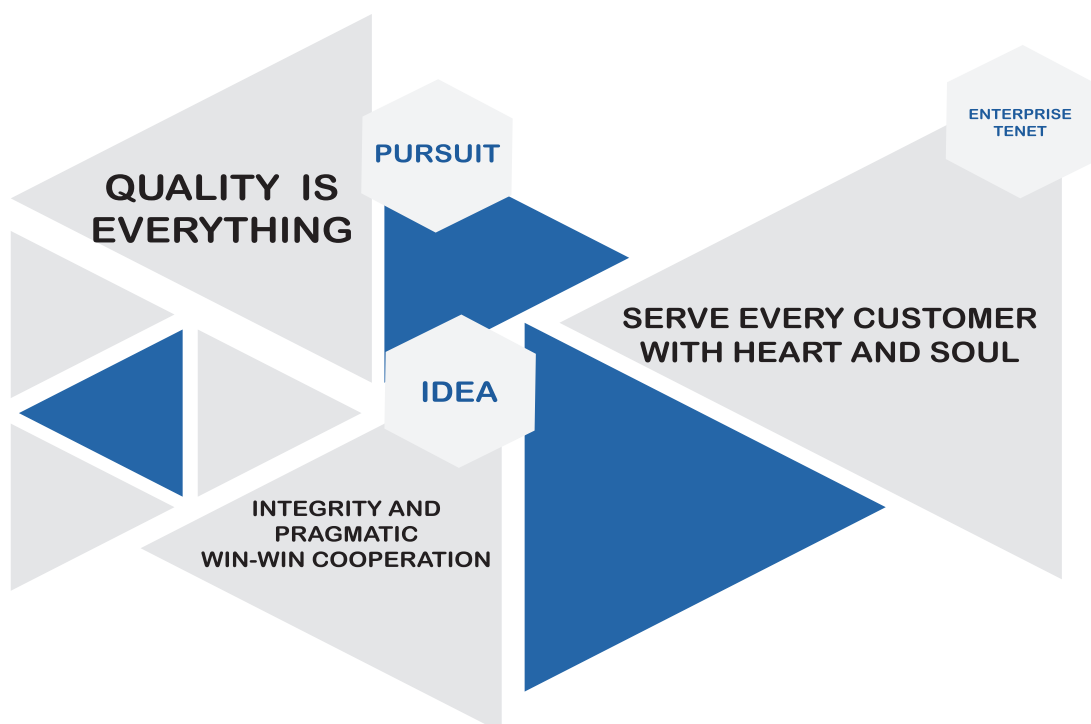
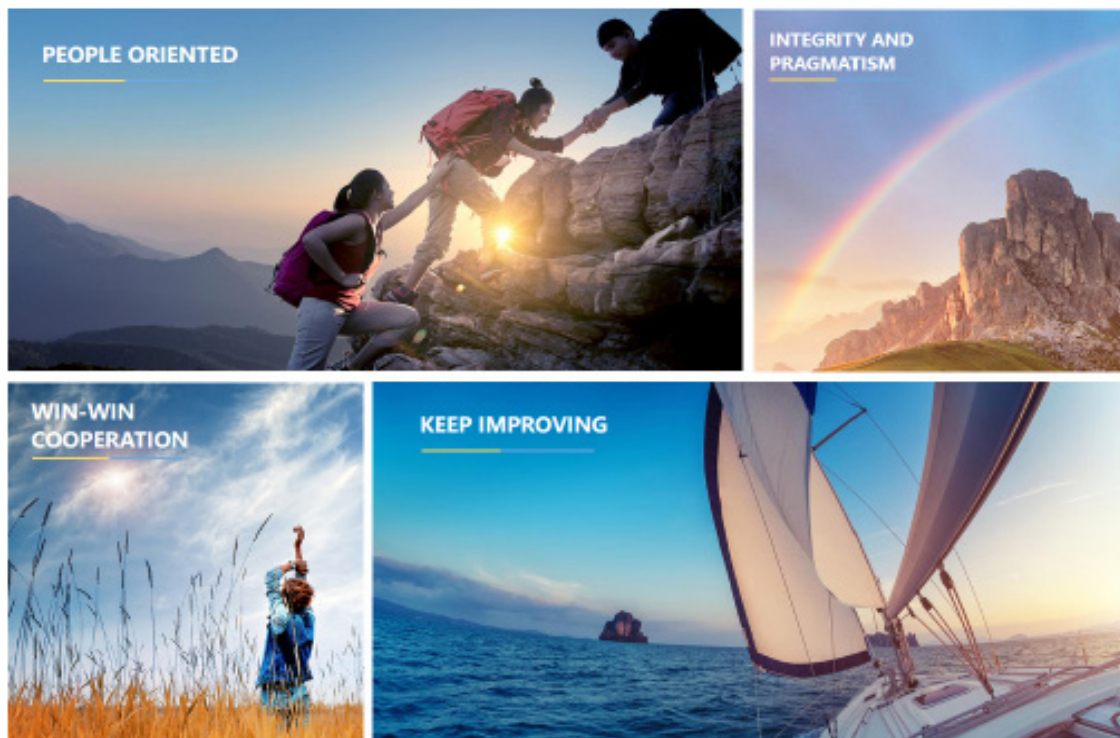
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ABOUT MINGHONG

Zhejiang Minghong Precision Technology Co., Ltd. is a high-tech enterprise integrating independent research and development and production of high-precision cutting tools, headquartered in Linping District, Hangzhou City, Zhejiang Province, China.

The company is committed to the advancement and development of industry technology, and has more than 10 years of experience in the production of high-precision cutting tools. In 2022, the company officially launched the factory direct sales business to provide global customers with overall solutions for precision cutting tools.

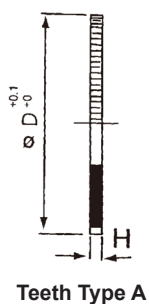
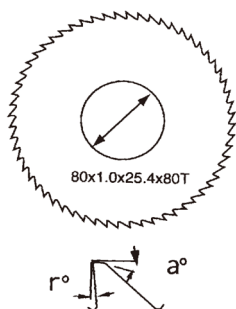
The company's products are widely used in 3C consumer electronics, molds, graphite, automobiles, medical equipment and other processing and manufacturing fields. Customers are located in China, South Korea, Japan, Russia and other countries and regions, and strive to build a dedicated, professional and dedicated modern enterprise.

All the staff of the company adhere to the tenet of strict requirements and innovation, pay attention to every commitment, focus on every detail, keep improving, produce excellent products, and win unanimous praise from many customers.

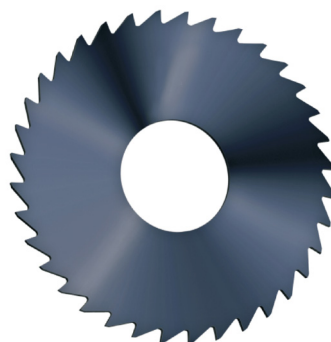


ISO9001 Certification

Solid Carbide Saw Blade Milling Cutter



Teeth Type A

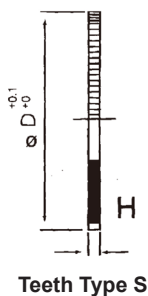
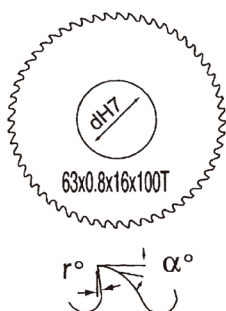


Can be customized for production

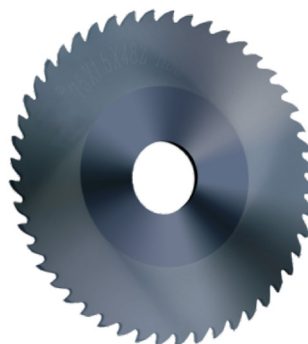
D	H	d	Z
20	0.15-4	5 6 8	6-45
22	0.2-5	5 6 8	8-50
25	0.2-5	6 8 10	10-56
30	0.2-5	6 8 10	10-60
32	0.2-6	6 8 10 12.7	10-60
35	0.2-6	8 10 12.7	10-60
40	0.2-6	8 10 12.7	10-80
45	0.2-8	10 12.7 16	10-80
50	0.2-8	10 12.7 16	10-100
55	0.2-8	12.7 16	24-120
60	0.2-8	12.7 13 16	24-120
63	0.2-8	12.7 13 16	24-120
70	0.3-8	16 22 25.4	28-120

D	H	d	Z
75	0.5-8	16 22 25.4	30-120
80	0.5-8	22 25.4	30-128
85	0.5-8	22 25.4	30-128
90	0.5-8	22 25.4	30-160
95	0.5-8	22 25.4	30-160
100	0.5-8	22 25.4 27	30-160
105	0.8-8	22 25.4 27	30-160
110	0.8-8	22 25.4 27 32	30-180
115	0.8-8	22 25.4 27 32	30-180
120	1-10	22 25.4 27 32	30-240
125	1-10	22 25.4 27	30-240
130	1-10	22 25.4 27 32	32-240
150	1-10	22 25.4 27 32	40-240

Solid Carbide Saw Blade Milling Cutter



Teeth Type S

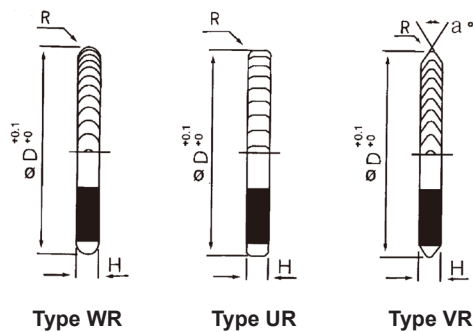


D	H	d	Z
32	0.5-4	6 8 10 12.7 13	10-30
40	0.5-4	8 10 12.7 13	10-40
45	0.5-5	8 10 12.7 13	10-46
50	0.5-5	8 10 12.7 13 16	10-50
55	0.5-5	10 12.7 13 16	10-56
60	0.5-6	12.7 13 16	10-60
63	0.5-6	12.7 13 16	20-60
70	0.5-8	16 22 25.4	20-70
75	0.5-8	16 22 25.4	20-72
80	0.8-8	22 25.4 27	24-80

D	H	d	Z
85	0.8-8	22 25.4 27	30-86
90	0.8-8	22 25.4 27	30-90
95	0.8-8	22 25.4 27	30-90
100	0.8-10	22 25.4 27	30-90
105	0.8-10	22 25.4 27	30-90
110	0.8-10	22 25.4 27 32	36-100
115	1-10	22 25.4 27 32	36-100
120	1-10	22 25.4 27 32	36-100
130	1-10	22 25.4 27 32	40-108
150	1-10	22 25.4 27 32	40-108



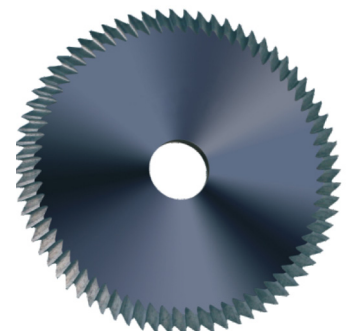
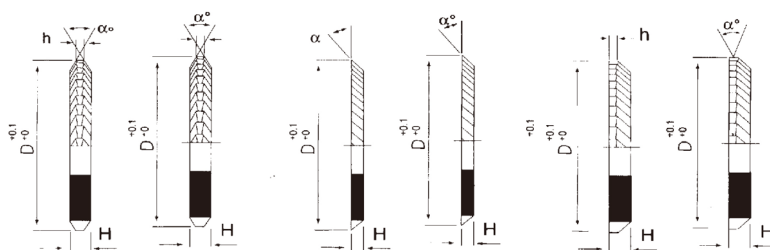
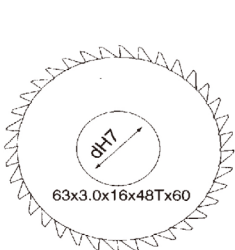
Solid Carbide Convex Radius Saw Blade Milling Cutter



D	H	d	Z
40	0.3-4	10 13 16	16-46
45	0.3-4	13 16	20-48
50	0.5-4	13 16	24-52
60	0.5-5	13 16	24-64
63	0.5-5	22 25.4	24-64
70	0.5-6	22 25.4	30-72
75	0.5-6	22 25.4	32-80
80	0.6-6	22 25.4	36-90

D	H	d	Z
85	0.6-6	22 25.4	36-90
90	0.6-7	22 25.4 27	40-90
100	0.8-7	22 25.4 27	45-90
110	0.8-7	22 25.4 27	45-90
120	0.8-7	22 25.4 27	48-100
125	0.8-7	22 25.4 27	48-100
130	0.8-7	22 25.4 27 32	50-110
150	0.8-7	22 25.4 27 32	56-118

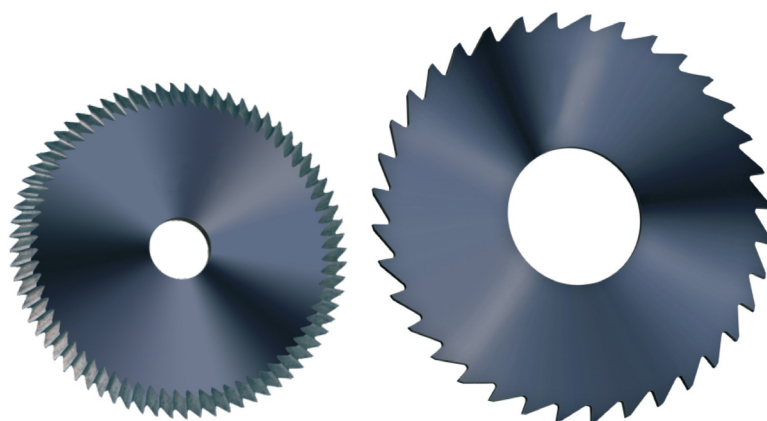
Solid Carbide Angle Saw Blade Milling Cutter



D	H	d	Z
32	H≥1.5	8 10	10-32
40	H≥1.5	10 12.7 13	10-40
45	H≥1.5	10 12.7 13	10-48
50	H≥1.5	12.7 13 16	16-50
55	H≥1.5	12.7 13 16	16-60
60	H≥1.5	12.7 13 16	16-60
63	H≥1.5	12.7 13 16	20-60

D	H	d	Z
70	H≥1.5	12.7 13 16 22 25.4	20-68
75	H≥1.5	16 22 25.4	24-72
80	H≥2	16 22 25.4	24-72
90	H≥2	22 25.4 27	30-80
100	H≥2	22 25.4 27	30-90
110	H≥2.5	22 25.4 27 32	36-100
120	H≥2.5	22 25.4 27 32	36-100

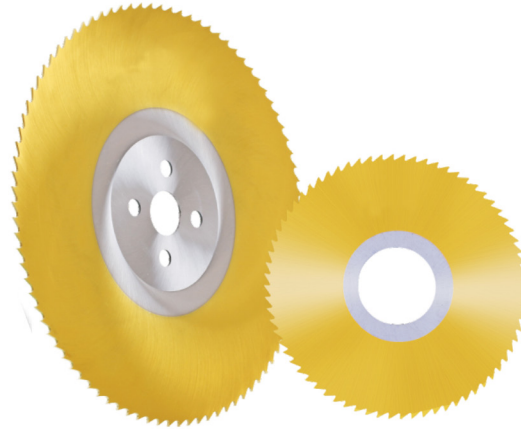
Solid Carbide Grooving Saw Blade Milling Cutter



Model	Model	Model	Model
MH40X0.2-0.4	MH63X0.2-0.4	MH80X0.3-0.5	MH110X0.5-0.7
MH40X0.5-1.1	MH63X0.5-1.1	MH80X0.6-1	MH110X0.8-1.1
MH40X1.2-1.5	MH63X1.2-1.5	MH80X1.1-1.5	MH110X1.2-1.5
MH40X1.6-2	MH63X1.6-2	MH80X1.6-2	MH110X1.6-2
MH40X2.1-2.5	MH63X2.1-2.5	MH80X2.1-2.5	MH110X2.1-2.5
MH40X2.6-3	MH63X2.6-3	MH80X2.6-3	MH110X2.6-3
MH40X3.1-3.5	MH63X3.1-3.5	MH80X3.1-3.5	MH110X3.1-3.5
MH40X3.6-4	MH63X3.6-4	MH80X3.6-4	MH110X3.6-4
MH40X4.1-4.5	MH63X4.1-4.5	MH80X4.1-4.5	MH110X4.1-4.5
MH40X4.6-5	MH63X4.6-5	MH80X4.6-5	MH110X4.6-5
MH50X0.2-0.4	MH70X0.2-0.4	MH90X0.4-0.6	MH125X0.5-0.7
MH50X0.5-1.1	MH70X0.5-1	MH90X0.7-1	MH125X0.8-1.1
MH50X1.2-1.5	MH70X1.1-1.5	MH90X1.1-1.5	MH125X1.2-1.5
MH50X1.6-2	MH70X1.6-2	MH90X1.6-2	MH125X1.6-2
MH50X2.1-2.5	MH70X2.1-2.5	MH90X2.1-2.5	MH125X2.1-2.5
MH50X2.6-3	MH70X2.6-3	MH90X2.6-3	MH125X2.6-3
MH50X3.1-3.5	MH70X3.1-3.5	MH90X3.1-3.5	MH125X3.1-3.5
MH50X3.6-4	MH70X3.6-4	MH90X3.6-4	MH125X3.6-4
MH50X4.1-4.5	MH70X4.1-4.5	MH90X4.1-4.5	MH125X4.1-4.5
MH50X4.6-5	MH70X4.6-5	MH90X4.6-5	MH125X4.6-5
MH60X0.2-0.4	MH75X0.2-0.4	MH100X0.5-0.7	MH150X0.6-0.8
MH60X0.5-1.1	MH75X0.5-1	MH100X0.8-1.1	MH150X0.9-1.2
MH60X1.2-1.5	MH75X1.1-1.5	MH100X1.2-1.5	MH150X1.3-1.5
MH60X1.6-2	MH75X1.6-2	MH100X1.6-2	MH150X1.6-2
MH60X2.1-2.5	MH75X2.1-2.5	MH100X2.1-2.5	MH150X2.1-2.5
MH60X2.6-3	MH75X2.6-3	MH100X2.6-3	MH150X2.6-3
MH60X3.1-3.5	MH75X3.1-3.5	MH100X3.1-3.5	MH150X3.1-3.5
MH60X3.6-4	MH75X3.6-4	MH100X3.6-4	MH150X3.6-4
MH60X4.1-4.5	MH75X4.1-4.5	MH100X4.1-4.5	MH150X4.1-4.5
MH60X4.6-5	MH75X4.1-5	MH100X4.6-5	MH150X4.6-5

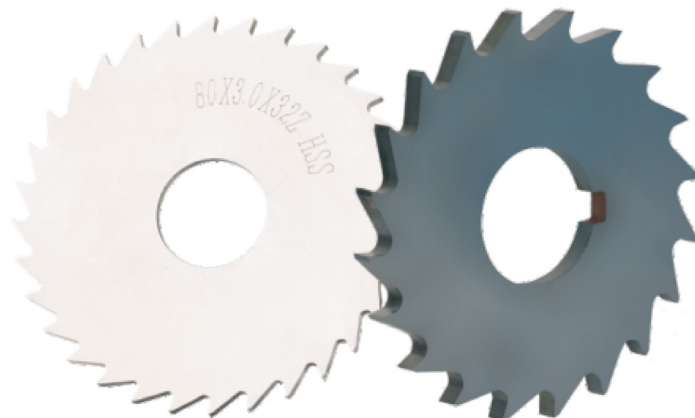


Cobalt-Enhanced Solid Carbide Saw Blade Cutter for Stainless Steel



Model	Model	Model
MH60X0.3-0.8	MH80X6.5-7	MH125X4.5-5
MH60X1-1.2	MH80X7.5-8	MH125X5.5-6
MH60X1.5	MH100X0.6-0.8	MH125X6.5-7
MH60X2	MH100X1-1.2	MH150X0.8-1.2
MH60X2.5	MH100X1.5	MH150X1.5
MH60X3	MH100X2	MH150X2
MH60X4	MH100X2.5-3	MH150X2.5-3
MH75X0.5-1	MH100X3.5-4	MH150X3.5-4
MH75X1.5	MH100X4.5-5	MH150X4.5-5
MH75X2	MH100X5.5-6	MH150X5.5-6
MH75X2.5-3	MH100X6.5-7	MH150X6.5-7
MH75X3.5-4	MH110X0.8-1.2	MH160X1-1.2
MH75X4.5-5	MH110X1.5	MH160X1.5
MH75X5.5-6	MH110X2	MH160X2
MH75X6.5-7	MH110X2.5-3	MH160X2.5-3
MH75X7.5-8	MH110X3.5-4	MH160X3.5-4
MH80X0.5-0.8	MH110X4.5-5	MH160X4.5-5
MH80X1	MH110X5.5-6	MH160X5.5-6
MH80X1.5	MH110X6.5-7	MH200X1.5
MH80X2	MH125X0.8-1.2	MH200X2
MH80X2.5-3	MH125X1.5	MH200X2.5-3
MH80X3.5-4	MH125X2	MH200X3.5-4
MH80X4.5-5	MH125X2.5-3	MH200X4.5-5
MH80X5.5-6	MH125X3.5-4	MH200X5.5-6

Super Tough Nitriding-Coated Grooving Saw Blade Cutter



Model	Model	Model	Model
MH40X0.2-0.8	MH75X1.5	MH100X3.5-4	MH150X2.5
MH40X1-1.5	MH75X2	MH100X4.5-5	MH150X3
MH40X2	MH75X2.5	MH100X5.5-6	MH150X3.5-4
MH40X2.5-3	MH75X3	MH100X7	MH150X4.5-5
MH40X3.5-4	MH75X3.5-4	MH100X8	MH150X5.5-6
MH40X4.5-5	MH75X4.5-5	MH110X0.8-1.2	MH150X6.5-7
MH50X0.5-0.8	MH75X5.5-6	MH110X1.5	MH150X7.5-8.5
MH50X1-1.5	MH75X6.5-7	MH110X2	MH160X1-1.2
MH50X2	MH75X7.5-8.5	MH110X2.5	MH160X1.5
MH60X0.3-0.4	MH80X0.5-0.8	MH110X3	MH160X2
MH60X0.5-0.8	MH80X1-1.2	MH110X3.5-4	MH160X2.5
MH60X1-1.2	MH80X1.5	MH110X4.5-5	MH160X3
MH60X1.5	MH80X2	MH110X5.5-6	MH160X3.5-4
MH60X2	MH80X2.5	MH110X7	MH160X4.5-5
MH60X2.5	MH80X3	MH110X8	MH160X5.5-6
MH60X3	MH80X3.5-4	MH120-0.8-1.2	MH200X1
MH60X3.5-4	MH80X4.5-5	MH125X1.5	MH200X1.5
MH60X4.5-5	MH80X5.5-6	MH125X2	MH200X2
MH63X0.5-0.8	MH80X6.5-7	MH125X2.5	MH200X2.5
MH63X1-1.2	MH80X8	MH125X3	MH200X3
MH63X1.5	MH100X0.5-0.6	MH125X3.5-4	MH200X3.5-4
MH63X2	MH100X0.8-1.2	MH125X5	MH200X4.5-5
MH63X3	MH100X1.5	MH125X5.5-6	MH200X5.5-6
MH75X0.5	MH100X2	MH150X1-1.2	MH200X6.5-7
MH75X0.6-0.8	MH100X2.5	MH150X1.5	MH200X7.5-8.5
MH75X1-1.2	MH100X3	MH150X2	MH200X9-10



Precautions for Using Saw Blade Milling Cutters

Solid carbide saw blade milling cutters offer many advantages. However, due to the inherently lower toughness of carbide compared to high-speed steel (HSS), improper milling process selection or poor machine tool accuracy can easily lead to edge chipping. How can we leverage its strengths while mitigating its weaknesses to fully utilize its benefits? This hinges on proper usage. The thinner the solid carbide saw blade milling cutter, the more sensitive it becomes to vibration and tensile stress during operation. Significant radial or axial runout can easily cause damage. Therefore, the milling machine must operate under optimal conditions: high machine accuracy, rigid tool shank, smooth transmission, constant feed per tooth, and sufficient cooling. Specific requirements include:

- **Clamping with Large Flanges:** As long as the milling depth is not compromised, use as large a flange as possible to clamp both sides of the blade onto the tool shank. This minimizes vibration and avoids lateral pressure. Typically, the flange diameter should be no less than 1/3 of the saw blade's outer diameter.
- **Optimizing Cutting Parameters:**
 - Select appropriate cutting speed (Vc) and feed per tooth (Sz). Under the same conditions, solid carbide saw blades can generally use a higher Vc than HSS blades, but the feed per tooth (Sz) should be lower.
 - Sz is typically set between 0.005–0.025 mm/tooth, with exact parameters determined by factors such as machine accuracy, spindle speed, material properties, cutter diameter, thickness, number of teeth, and cutting depth.

The table on the right (from international technical literature) lists recommended cutting speeds (Vc in meters/minute) for solid carbide saw blade milling cutters when machining different materials. Once the cutter's outer diameter (D in mm) and Vc are known, the spindle speed (n in revolutions/minute) can be calculated using:

$$n \text{ (r/min)} = \frac{Vc \times 1000}{\pi \times D}$$

Given the feed per tooth Sz (mm/tooth) and the number of milling cutter teeth (z), the feed rate (Vf) can be calculated as follows:

$$Vf \text{ (mm/min)} = Sz \times Z \times n$$

Workpiece Material	Vc m/min
Carbon Steel / Mild Steel	70-160
Quenched Steel	50-80
Cast Iron	110-130
Stainless Steel	80-150
Brass	200-350
Aluminum Alloy	250-400
Titanium Alloy	20-60

Guidelines for Selecting Specifications & Dimensions

• Selecting Outer Diameter

The outer diameter is generally determined based on the milling depth and can be selected by referencing the table provided. However, when the installation space for the saw blade milling cutter is limited, the outer diameter may be appropriately reduced.

• Selecting Inner Diameter and Tooth Count

Once the outer diameter is selected, the corresponding inner diameter can be found in the following table.

- Tooth count:

- A higher number of teeth improves surface finish and suits materials requiring high precision, but reduces feed rate and productivity.
- A lower number of teeth allows faster feed rates and higher productivity, though surface finish may be slightly compromised.
- For thinner milling cutters, a higher tooth count is recommended to ensure longer tool life.

• Thickness Specifications

The minimum manufactured thickness is related to the outer diameter. The starting value in the thickness range provided in the following table typically represents the thinnest feasible dimension for a given outer diameter (e.g., 70mm outer diameter).

• Custom Specifications

Special specifications can be proposed by the customer and will be supplied upon confirmation by the manufacturer.

Cutting Depth (mm)	3	5	8	10	12	15	20	30
Milling Cutter Diameter (mm)	40	50	63	70	75	80	100	125



MingHong

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