

CARBIDE SAWBLADE MATERIAL DIA.AND TEETH NUMBER CONTRAST TABLE T.C.T 锯齿切削工件齿数对照

锯片外径 齿数 Diameter No. of Teeth		0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	
250	60																																						
	80																																						
	100																																						
	120																																						
285	60																																						
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	120																																						
315	60																																						
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	100																																						
	120																																						
330	60																																						
	80																																						
	100																																						
	120																																						
360	60																																						
	80																																						
	100																																						
	130																																						
425	60																																						
	80																																						
	100																																						
	120																																						
460	40																																						
	60																																						
	80																																						
	100																																						

常用规格如下表 Description is as below

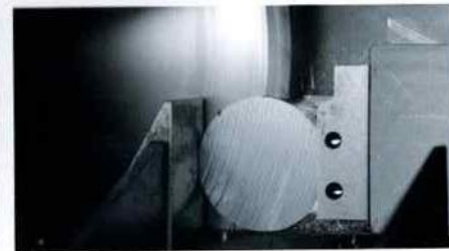
Dimensions in mm	Pin holes	No of teeth	Tooth form
250X2.0X32	4/11/63 4/9/50	60T	Custom tooth with chip breaker
285X2.0X32	4/11/63 4/9/50	72T	
315X2.25X32	4/11/63 4/9/50	80T	
360X2.6X40	2/15/80+4/12/50	80T	
460X2.7X50	4/21/90	60T	

HSS-DMo5 高速钢

HSS-DMo5 HIGH SPEED STEEL

HSS-DMo5 在 AISI 质量体系标准中称为 M2 高速钢材质，硬度为 $64\pm 1\text{HRC}$ 。该高速钢是制造金属圆锯片的标准基本材料，也是国际上使用最为广泛的高速钢材质，具有良好的韧性和高耐磨性，用这种材料生产制成的高速钢锯片对锯切中低抗拉强度 ($\leq 800\text{N/MM}^2$) 的金属工件具有理想的切屑效果，即使在锯切不锈钢领域，仍具有良好的锯切性能。

HSS-DMo5 is called M2 high speed steel material in the AISI quality system standard and has a hardness of $64\pm 1\text{HRC}$. This high-speed steel is the standard basic and the most widely used high-speed steel material for metal circular saw blades. It has good toughness and high wear resistance. HSS saw blades made by this material are used in cutting metal workpieces with low tensile strength ($\leq 800\text{N/MM}^2$) have good cutting performance, even in the field of cutting stainless steel material.



HSS-Co5% 高速钢

HSS-Co5% 高速钢是一种比 HSS-DMo5 更高性能的高速钢材质，含钴 5%。硬度为 $65\pm 1\text{HR}$ 。在 AISI 标准中称为 M35 材质。用这种材料生产的高速钢锯片用于锯切最难锯切的材质，如不锈钢或抗拉强度更高 ($\geq 800\text{N/MM}^2$) 的材质，如钛合金，可以明显提高锯片的使用寿命。

HSS-Co5% HIGH SPEED STEEL

HSS-Co5% material is with higher performance than HSS-DMo5, containing 5% cobalt. The hardness is $65\pm 1\text{HR}$. It is called M35 material in the AISI standard. HSS saw blade made by this material are used to cut the materials that most difficult-to-cut, such as stainless steel or materials with higher tensile strength ($\geq 800\text{N/MM}^2$), and titanium alloy, which can significantly improve the service life of the saw blade.

高速钢圆锯片 (HS5)

切削不同的材料，需要合理的切削线速度和进刀速度，以确保锯片最佳的切削效果和使用寿命。根据我们的经验，作出以下表格，作为参考。

Cutting different steel material, should be with appropriate cutting speed and feeding speed, for ensuring the best cutting performance and life time. We make this sheet based on our summed experience, for the reference.

材质 Material	线速度 Cutting speed (m/min)	进刀量 / 齿 Feed speed (mm/Z)
C10, C15, St34, St37, Mild Steel (低碳钢) <500N/mm ²	30~50	0.03~0.06
C20, C40.15Cr3, 16MnCr5, Medium Steel(中碳钢) <800N/mm ²	20~40	0.03~0.04
50CrV4, 14NiCr14, Hard Steel(硬钢) <1200N/mm ²	15~25	0.02~0.03
Stainless Steel 不锈钢	10~30	0.01~0.03
Cast iron 铸铁	30~50	0.04~0.05
Aluminum (solid bar) and alloys 铝(实心)和铝合金	600~900	0.04~0.09
Bronze-Copper 青铜和紫铜	200~300	0.04~0.06
Brass 黄铜	400~600	0.04~0.05
Synthetic materials 合成材料	60~150	0.04~0.08

确定了切割材料和截面后，必须选择正确的齿距，以防产生危险振动，并保证舒畅拍屑，以下均为近似数据，我们对所需齿距作出相应建议。

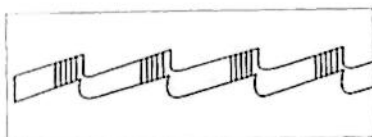
After the material and section to be cut have been confirmed, the pitch must be chosen correctly, which avoid of dangerous vibration and guarantee chip removal smoothly. Below are the approximate data, as our suggestion for your reference.

材质 material	<500N/mm ²	<800N/mm ²	<1200N/mm ²	不锈钢 Stainless steel	青铜 / 纯铜 Bronze and Copper	黄铜 Brass
实心棒 (mm) Solid bar(mm)	齿距 TEEHPITCH					
10~20	8	6	5	5	6	8
20~40	10	8	6	6	8	10
40~60	12	10	8	8	10	12
60~90	14	12	10	10	12	14
90~110	18	16	12	14	16	18
110~130	22	18	14	16	18	20
130~150	24	20	16	18	20	22
管壁厚 (mm) pipe wall Thickness(mm)	齿距 TEEHPITCH					
<1	3	3	3	3	3	4
1~1.5	4	4	3	4	4	5
1.5~2	5	4	4	5	4	6
2~3	6	5	5	5	5	6
>3	8	6	6	6	6	8

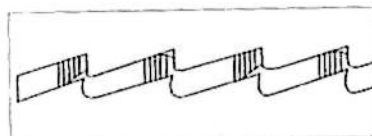
高速钢圆锯片 (HS5)

圆锯片规格和齿数对照表 Size and tooth no

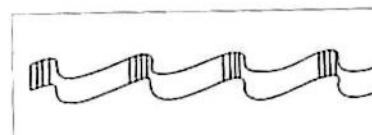
规格 Dimension	齿数 / 齿距 Number of teeth and teeth pitches t=teeth pitch(mm)														
mm	T3	T4	T4.5	T5	T5.5	T6	T7	T8	T9	T10	T11	T12	T14	T16	T18
200x1.0	200	160		128		100		72							
200x1.2	200	160		128		100		72							
200x1.5/1.6/1.8	200	160		128		100		72							
200x2.0/2.5	200	160		128		100		72							
225x1.2	220	180		150		120		90	80						
225x1.5/1.6	220	180		150		120		90	80						
225x1.8/2.0	220	180		150		120		90	80						
225x2.5	220	180		150		120		90	80						
250x1.0	250	200		160		128	110	100		80		64			
250x1.2/1.5/1.6	250	200		160		128	110	100		80		64			
250x2.0	250	200	180	160	140	128	110	100		80		64			
250x2.5	250	200		160		128	110	100		80		64			
250x3.0	250	200		160		128	110	100		80		64			
275x1.6	280	220		180		144	120	110		90		72			
275x2.0/2.5				180		144		110		90		72			
275x3.0	280	220		180		144	120	110		90		72			
300x1.6	300	240	200	200	180	160	140	120	110	100	90	80			
300x2.0/2.5	300	240	200	200	180	160	140	120	110	100	90	80			
300x3.0	300	240	200	200	180	160	140	120	110	100	90	80			
315x1.6	300	240	200	200	180	160	140	120	110	100	90	80			
315x2.0/2.5	300	240	200	200	180	160	140	120	110	100	90	80			
315x3.0	300	240	200	200	180	160	140	120	110	100	90	80			
325x2.0	320	250	220	200	180	170	150	130	110	100		90			
325x2.5	320	250	220	200	180	170	150	130	110	100		90			
325x3.0	320	250	220	200	180	170	150	130	110	100		90			
350x1.8	350	280		220		160	160	140	120	110		90	80		
350x2.0/2.5	350	280		220		160	160	140	120	110		90	80		
350x3.0/3.5	350	280		220		160	160	140	120	110		90	80		
370x2.5		300		220		190	160	140	120	110	100	90	80	70	
370x3.0		300		220		190	160	140	120	110	100	90	80	70	
370x3.5		300		220		190	160	140	120	110	100	90	80	70	
400x2.5		320		250		200	180	160	140	120		100	90	80	70
400x3.0		320		250		200	180	160	140	120		100	90	80	70
400x3.5		320		250		200	180	160	140	120		100	90	80	70
400x4.0		320		250		200	180	160	140	120		100	90	80	70
425x3.0		350		260		200	180	160	140	128		100	90	80	70
425x3.5		350		260		200	180	160	140	128		100	90	80	70
425x4.0		350		260		200	180	160	140	130	120	100	90	80	70
450x2.5				280		240		180		140		120	100	90	80
450x3.0				280		240		180		140		120	100	90	80
450x3.5				280		240		180		140		120	100	90	80
450x4.0				280		240		180		140		120	100	90	80
500x3.0				310		260		200		160		130	110	100	90
500x3.5				310		260		200		160		130	110	100	90
500x4.0				310		260		200		160		130	110	100	90



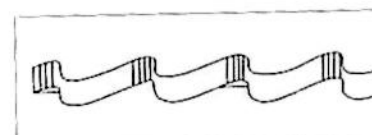
直角齿 用于一般的切削加工及软金属的切削。
TEETH(A): is the tooth sharp used in case of small tooth pitch ($T < 3\text{mm}$) or to cut brass alloy, jewellery and screw slotting.



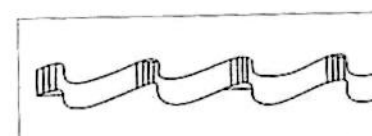
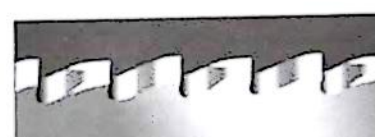
直角齿 (倒角) 用于一般的切削加工及软金属的切削。
左右间隔三分之一倒角。
TEETH(AW): Designed for machining work, such as slotting, with thin saw blade.



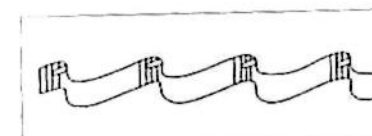
曲背齿 用于薄壁金属管类的锯切, 尤其适用于薄型管材锯切。
TEETH(B): for cutting very thin tubes, which is not necessary to break the chips, so it is suitable for such application.



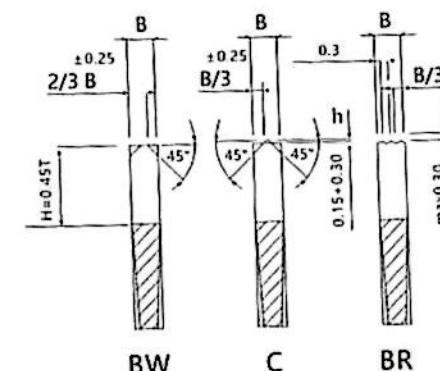
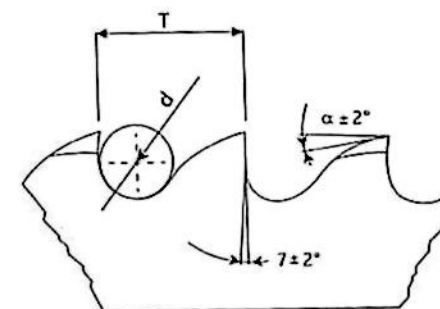
曲背齿 (倒角) 圆弧齿在右间隔三分之一倒角, 用于薄壁金属管类锯切, 尤其适用于薄型钢管材和型材的锯切。
TEETH(Bw): is primarily used for cutting pipes and sections, the tooth is alternately bevelled at 45° , breaks the chip in two and guarantees good chip evacuation.



高低齿 主要用于棒料锯切和厚壁锯切 ($> 3\text{mm}$)
TEETH(C): is used for cutting solid material and thick pipe ($> 3\text{mm}$)



Br 齿 这种锯齿非常适合切圆形管材, 尤其是有 PVD 涂层的锯片, 即使在更高速的切割状态下, 亦能最大限度减少毛刺, 保持切割面光滑。
TEETH(BR): it has double the number of cutting edges and guarantees a higher number of cuts and a better finish to the section. It also improves tool durability by about 20% because it reduces the removed section per each single sharpening.



T = 齿距 - Pitch
P = 齿高 - Tooth height
B = 厚度 - Thickness
d = 容屑槽直径 - Gullet diameter
 α = 切削角 - Cutting angle
 β = 排屑角 - Clearance angle

高速钢圆锯片 (HS5)

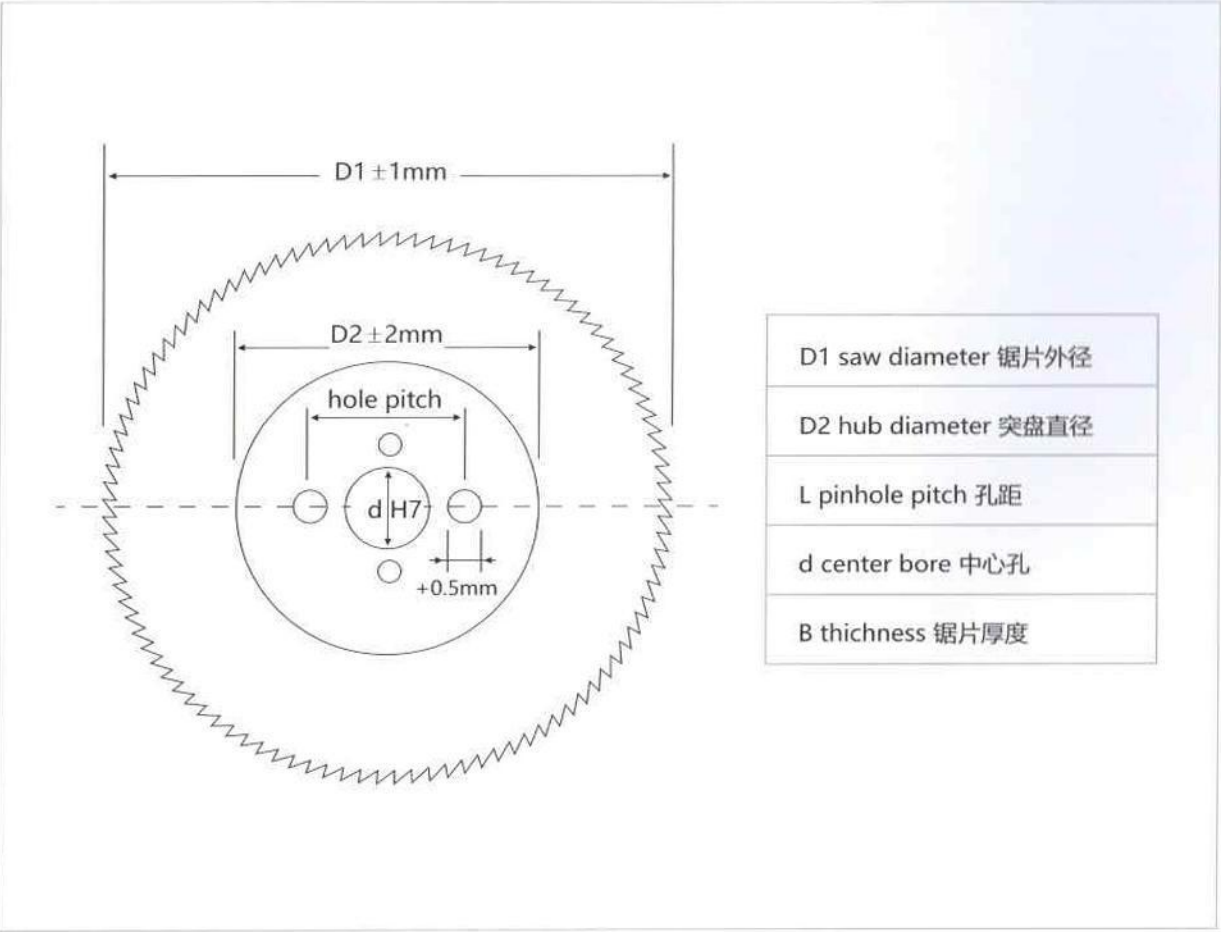
圆锯片规格

Hss saw blade standard size

规格 Dimension	mm	175	200	225	250	275	300	315	325	350	370	400	425	450	500
内孔 Borehole	mm	32	32/40	32/40	32/40	32/40	32/40	32/40	32/40	32/40/50	40/50	32/40/50	40/50	40/50	40/50

平面图

Plan



安装示意图

Installation diagram

