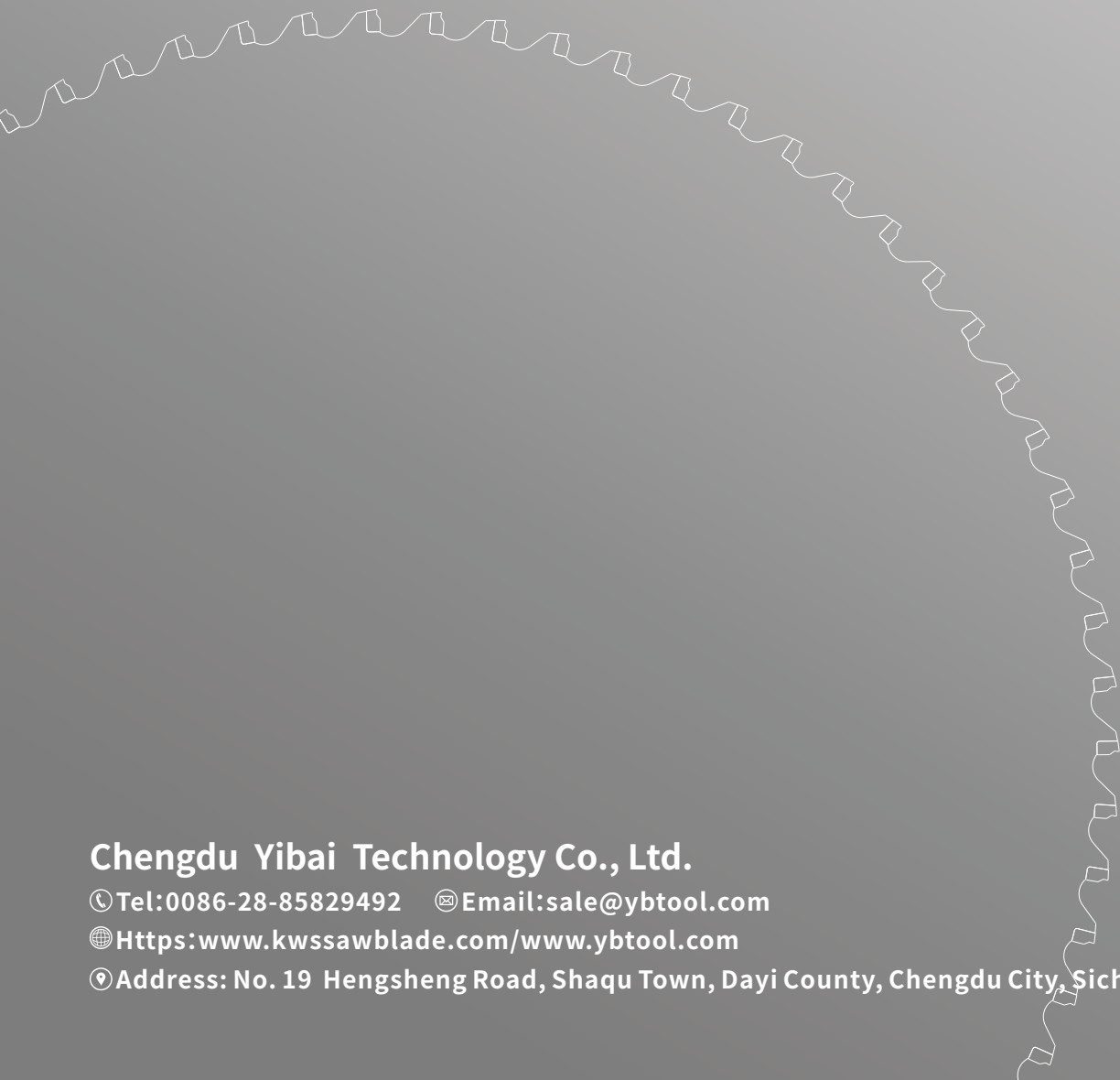




COLD SAW BLADE CATALOG

2023.07



Chengdu Yibai Technology Co., Ltd.

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ISO Certificates



Patents



COMPANY PROFILE

Chengdu Yibai Technology Co., Ltd. is a manufacturer of cutting tools, which is located in Chengdu China. With 'KWS' as its well-known brand, Yibai has been devoting it self into R&D of PCD saw blades, TCT saw blades, cold saw blades, finger joint cutter, drill bits, router bits and spiral cutter head since its establishment in 2002.

Yibai's facility including 12 Buildings covering more than 50000m² with annual output of more than 1 million pieces. Yibai has setup automatic production line with famous machines that from worldwide (automatic rate above 90%) like Mitsubishi Laser cutting, Gerling Automatic welding.

With more than 20 R&D personnels continuous hard work, Yibai is working closely with customers to improve its quality. So far, we have got more than 40 national patents. The company has become one of the few manufacturers in the saw blade industry to obtain ISO 9001 , 45001 , 14001 system certification.

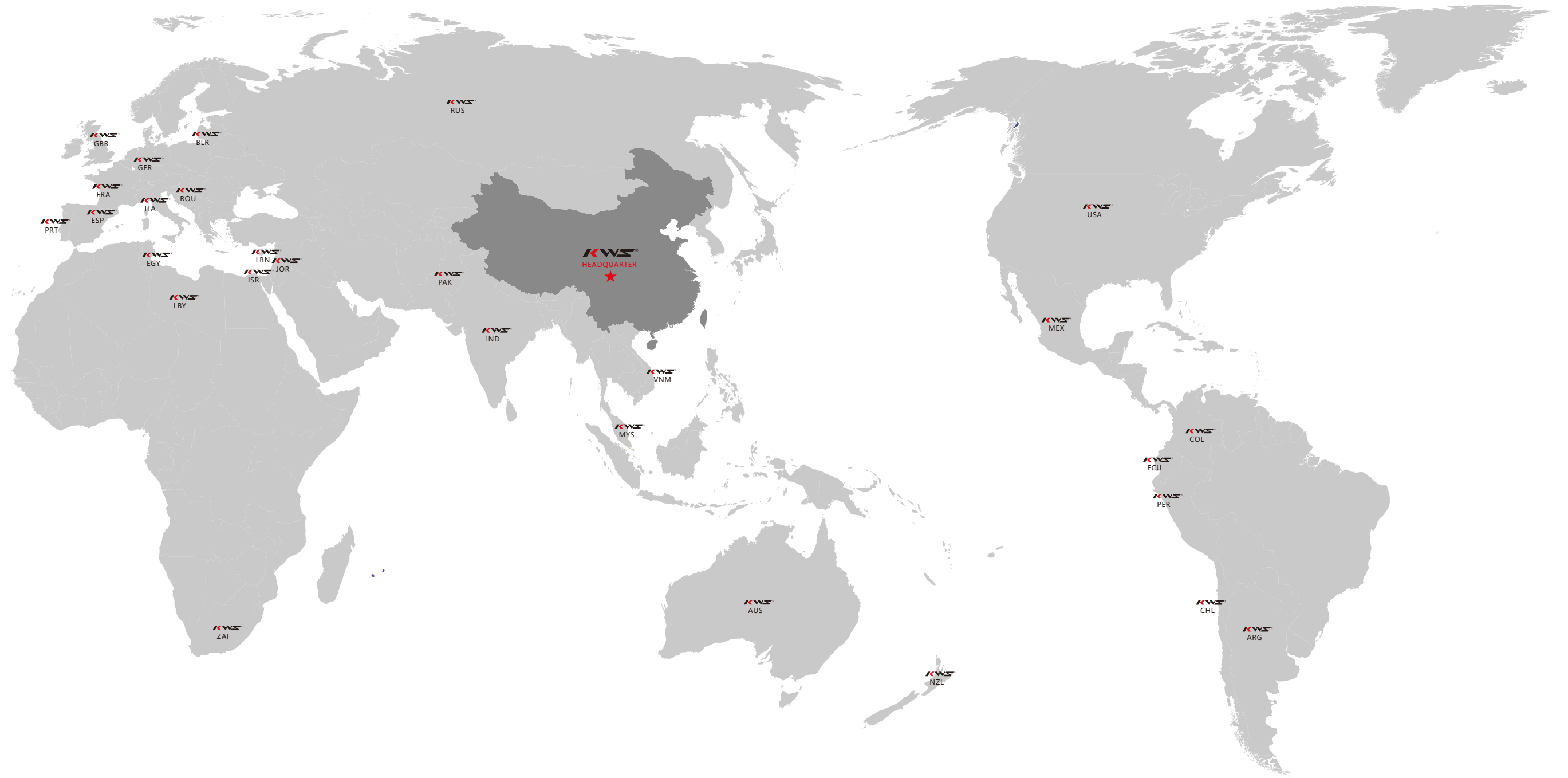
Till now, KWS products have been exported to more than 88 countries and awarded high reputation. Meanwhile Yibai has more than 100 chain stores nationwide for better service.

Yibai spares no efforts to provide professional quality products & service to our clients constantly. We sincerely hope to develop long term cooperation with all customers base on Win-Win conditions.

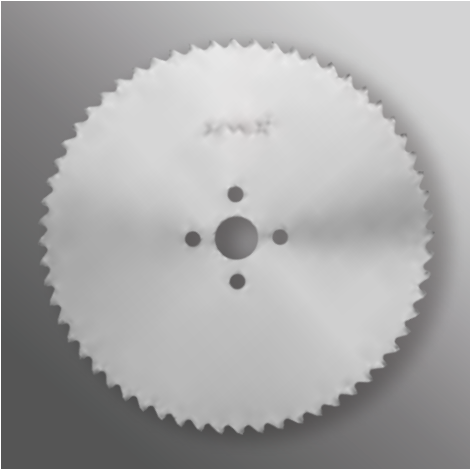


Company Culture

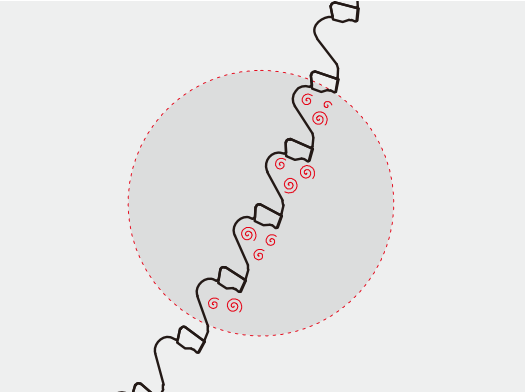




 Cold saw blade to cut medium & low carbon steel



·Tooth Shape·



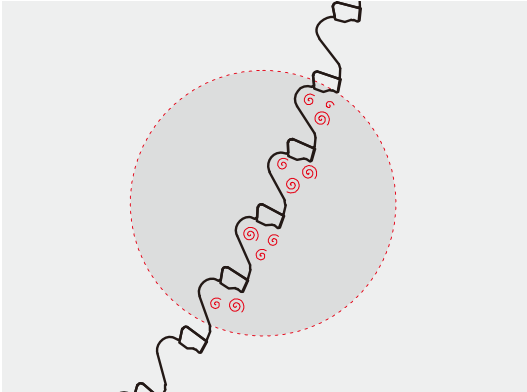
·Features·

- 1. Cermet-tipped teeth
- 2. Special angle design
- 3. Perfect straight cutting
- 4. Mirror-like cutting surface
- 5. High durability

 Cold saw to cut high carbon steel



·Tooth Shape·



·Features·

- 1. Customized steel plate with rare alloy
- 2. Cermet-tipped teeth
- 3. Special angle design
- 4. Perfect straight cutting
- 5. Mirror-like cutting surface
- 6. high durability

 Technical Specifications

Application	Cutting medium & low carbon steel
Equipment	High-precision cold saw machine
Cutting Speed	V=100-130m/min
Cutting Amount	Tube FZ = 0.03mm-0.06mm Bar FZ = 0.04mm-0.09mm
Cutting Material	C≤0.45% carbon steel
Tips	Cermet alloy

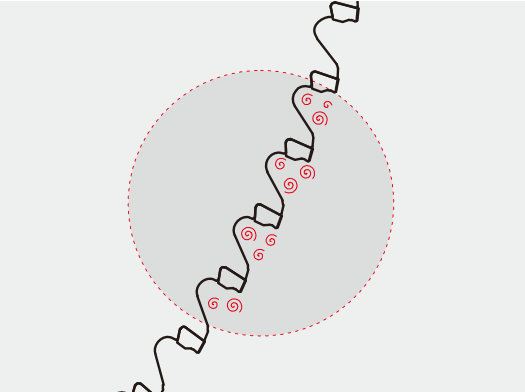
 Technical Specifications

Application	Cutting high carbon steel
Equipment	High-precision cold saw machine
Cutting Speed	V=70-100m/min
Cutting Amount	Tube FZ=0.03mm-0.06mm Bar FZ=0.04mm-0.07mm
Cutting Material	C≤0.75% carbon steel, alloy steel
Tips	Cermet alloy

 Cold saw to cut pipes



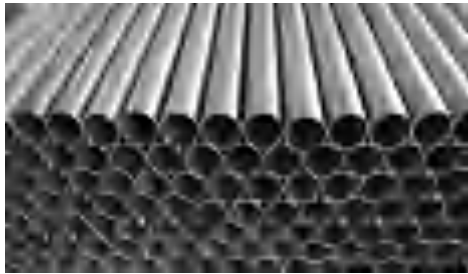
·Tooth Shape·



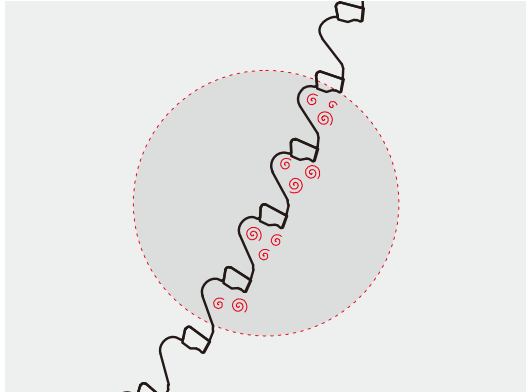
·Features·

- 1. Special anti-vibration teeth
- 2. Special angle design
- 3. Low resonance of the cutting material
- 4. High impact resistance
- 5. Reliable performance

 Cold saw to cut stainless steel



·Tooth Shape·



·Features·

- 1. Cermet-tipped teeth with PVD coating for high wear resistance
- 2. Sharp & clean cutting
- 3. High durability

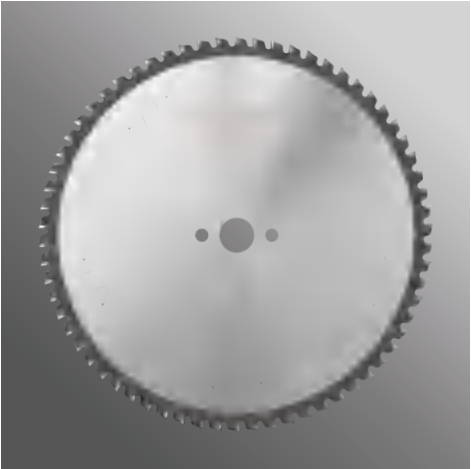
 Technical Specifications

Application	Cutting pipes
Equipment	High-precision cold saw machine
Cutting Amount	FZ=0.04mm--0.07mm
Cutting Material	Tubular materials (stainless steel excluded)
Tips	Cermet alloy

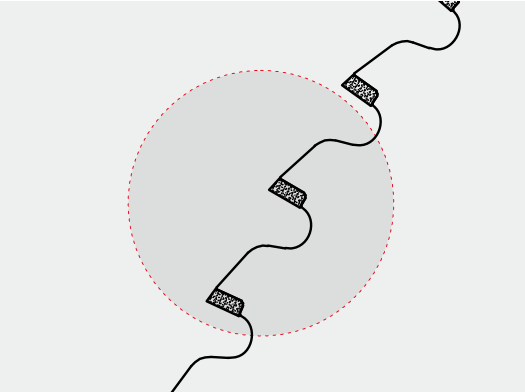
 Technical Specifications

Application	Cutting stainless steel
Equipment	High-precision cold saw machine
Cutting Amount	FZ=0.03mm--0.05mm
Cutting Material	Stainless steel
Tips	TCT + PVD coating

 Cold saw for manual device



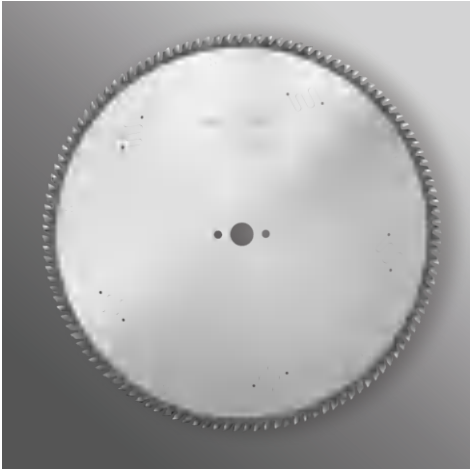
·Tooth Shape·



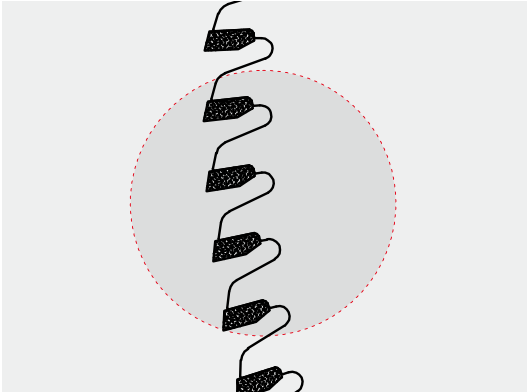
·Features·

- 1. Lost cost
- 2. Convenient and flexible cutting
- 3. High cutting performance
- 4. High cutting efficiency

 TCT Aluminum Saw Blade



·Tooth Shape·



·Features·

- 1. Special silence line design
- 2. Low cutting noise
- 3. Smooth cutting without burrs
- 4. High durability

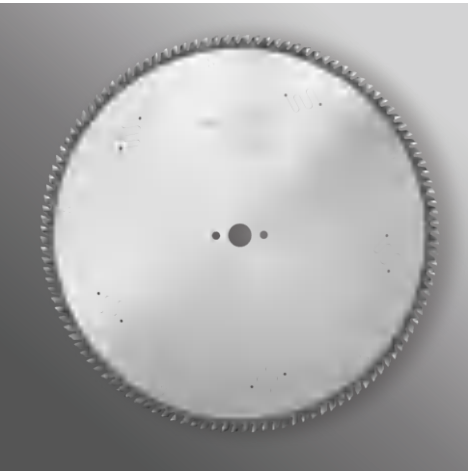
 Technical Specifications

Application	Cutting various middle & low carbon steel
Equipment	Portable circular saw
Cutting Speed	N=700rpm-1300rpm
Cutting Material	Channel steel, angle steel, rectangular tube, steel rod, copper and copper alloys, aluminium and aluminium alloys etc. (stainless steel excluded)
Tips	Cermet tipped

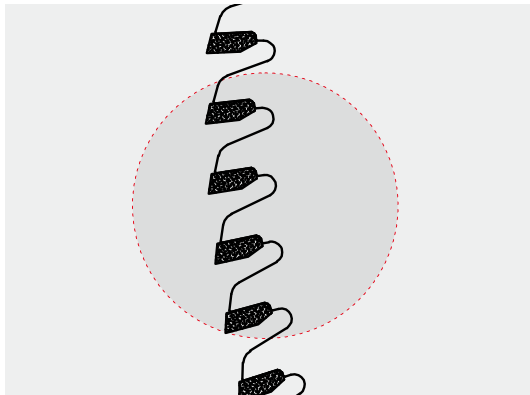
 Technical Specifications

Application	Cutting all kinds of aluminium materials
Equipment	Manual device, mitre saw, and CNC center etc.
Cutting Speed	N=2800rpm-3200rpm
Cutting Material	Plastic steel, aluminium profile, aluminium bar, and non-ferrous metal, etc.
Tips	Tungsten carbide tipped

 PCD Aluminum Saw Blade



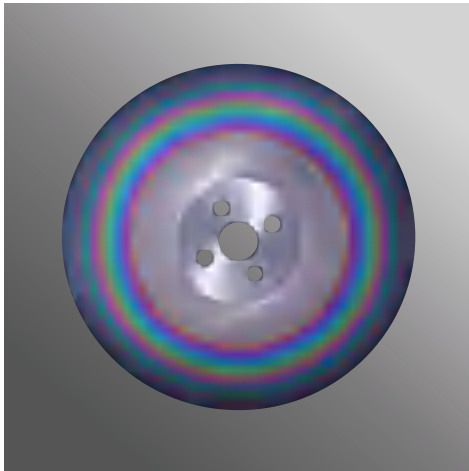
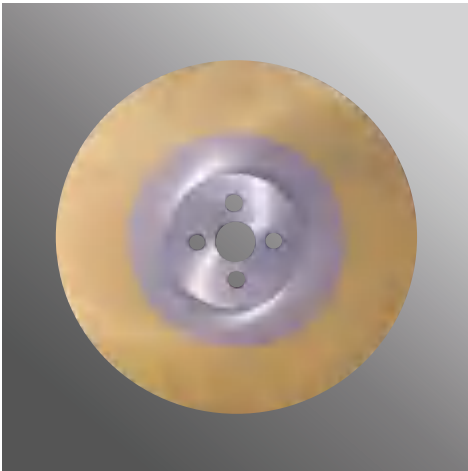
·Tooth Shape·



·Features·

- 1. Special silence line design
- 2. Low cutting noise
- 3. Smooth cutting without burrs
- 4. High durability

 HSS Saw Blade



·Features·

- 1. High service life
- 2. Low friction coefficient
- 3. Reduced side pick-up
- 4. High hardness and temperature resistance

 Technical Specifications

Application	Cutting all kinds of aluminium materials
Equipment	Mitre saw, and CNC center etc.
Cutting Speed	N=2800rpm-3200rpm
Cutting Material	Plastic steel, aluminium profile, aluminium bar, and non-ferrous metal, etc.
Tips	Polycrystalline diamond tipped

 Technical Specifications

Application	Cutting thin walled tubes, profiles and stainless steel.
Equipment	Manual, semi-automatic, automatic, flying saw, pipe cutting machine
Cutting Speed	60-200m/min
Coating	VAPO, TiN, AlTiN...
Diameters	180mm-600mm

Installation Guide



1 A. Saw blade must be mounted at the correct direction
B. Always clean the surface of the plate before mounting to the arbor of machine



2 The flange must be free from scratches and wiped clean.



3 The cover of flange must be free from scratches and wiped clean.



4 When locking, the saw blade and flange must be in different direction to get rid of the gaps between them.



5 The length of workpiece should not be shorter than 20mm. Otherwise, the saw blade will be broken.

Safety Use & Maintenance Guide

1. The machine must be in good condition, free of vibration.
2. The flanges to secure the blade should be of the same diameter, or at least 1/3 of the blade's diameter. The flanges must be parallel to each other.
3. The spindle must be perfectly straight and with an H7 standard tolerance.
4. Before installation of the blade, the flange, spindle and blade must be cleaned. Uninstall the blade and clean it again after continuous use.
5. Before cutting process, make sure the blade is correctly locked and the size is in line with the machine's requirement.
6. The blade must be sharpened as soon as it becomes dull. When the tips' thickness is less than 0.5 mm, throw away the blade.
7. The maximum re-boring size must not exceed 20 mm based on the original bore size. Otherwise, the overall performance of the blade will be affected negatively.

Cutting Amount & Cutting Speed

Cutting Amount Per Tooth (fz)

$Fz \text{ (mm/blade)} = F / (N * Z)$
Fz: the amount of cut per tooth
F: feed speed (mm/min)
N: Equipment spindle speed (rpm)
Z: number of teeth

Recommended Parameters

Bar Fz=0.04~0.07 (mm/blade)
Pipe Fz=0.03~0.05 (mm/blade)

Cutting Speed - Saw Blade Linear Speed (V)

$V \text{ (m/min)} = \pi * D * N / 1000$
V: cutting linear speed (m/min)
D: outer diameter (mm)
N: Equipment spindle speed (rpm)

Recommended Parameters

Medium and low carbon steel V=100~130 (m/min)
High carbon, alloy steel V=70~100 (m/min)

Guidance

Specification

Pin Hole/pin Hole				Bore
4/9/50	4/11/63			32.00
4/11/63	4/11/90	2/12/65	2/15/80	40.00
4/11/90	4/16/80	4/21/90		50.00

Diameter (mm)	Teeth No.	Cutting Range(mm)																																					
		0	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	160	165	170	175	180	200		
250	54																																						
	60																																						
	72																																						
285	60																																						
	72																																						
	80																																						
360	60																																						
	80																																						
	100																																						
425	60																																						
	80																																						
	100																																						
460	40																																						
	60																																						
	80																																						
560	60																																						
	80																																						
	100																																						
630	60																																						
	72																																						
	100																																						

Tips

- 1.The cold saw blades are resharpenable.
- 2.The unique design of tooth shape ensures premium cutting performance.
- 3.Different tooth angles are designed for different cutting applications.
- 4.KWS provides tooth-resharpening services.



Model Numbers

Cold Saw Blade

NO	Size	D	d	B	Z	NO	Size	D	d	B	Z
01	250*32*2.0*54	250	32	2.0	54	23	360*40*2.6*120	360	40	2.6	120
02	250*32*2.0*60	250	32	2.0	60	24	380*40*2.6*60	380	40	2.6	60
03	250*32*2.0*72	250	32	2.0	72	25	380*40*2.6*72	380	40	2.6	72
04	250*32*2.0*80	250	32	2.0	80	26	380*40*2.6*80	380	40	2.6	80
05	250*32*2.0*100	250	32	2.0	100	27	380*40*2.6*100	380	40	2.6	100
06	250*32*2.0*120	250	32	2.0	120	28	400*50*2.6*60	400	50	2.6	60
07	255*25.4*2.0*48	255	25.4	2.0	48	29	425*50*2.7*60	425	50	2.7	60
08	285*32*2.0*54	285	32	2.0	54	30	425*50*2.7*80	425	50	2.7	80
09	285*32*2.0*60	285	32	2.0	60	31	425*50*2.7*100	425	50	2.7	100
10	285*32*2.0*80	285	32	2.0	80	32	460*50*2.7*60	460	50	2.7	60
11	285*32*2.0*100	285	32	2.0	100	33	460*50*2.7*72	460	50	2.7	72
12	285*32*2.0*120	285	32	2.0	120	34	460*50*2.7*80	460	50	2.7	80
13	315*32*2.25*60	315	32	2.25	60	35	460*50*2.7*100	460	50	2.7	100
14	315*32*2.25*72	315	32	2.25	72	36	460*50*2.7*120	460	50	2.7	120
15	315*32*2.25*80	315	32	2.25	80	37	485*50*2.7*60	485	50	2.7	60
16	315*32*2.25*100	315	32	2.25	100	38	485*50*2.7*72	485	50	2.7	72
17	315*32*2.25*120	315	32	2.25	120	39	485*50*2.7*80	485	50	2.7	80
18	355*25.4*2.2*66	355	25.4	2.2	66	40	485*50*2.7*100	485	50	2.7	100
19	360*40*2.6*60	360	40	2.6	60	41	560*50*3.0*60	560	50	3.0	60
20	360*40*2.6*72	360	40	2.6	72	42	630*80*3.4*72	630	80	3.4	72
21	360*40*2.6*80	360	40	2.6	80	43	630*80*3.4*80	630	80	3.4	80
22	360*40*2.6*100	360	40	2.6	100	44	630*80*3.4*100	630	80	3.4	100

Model Numbers

TCT Aluminum Saw Blade

NO	Size	D	d	B	Z
01	255*25.4*2.8*100	255	25.4	2.8	100
02	255*25.4*2.8*120	255	25.4	2.8	120
03	255*30*2.8*100	255	30	2.8	100
04	255*30*2.8*120	255	30	2.8	120
05	305*25.4*3.0*120	305	25.4	3.0	120
06	305*30*3.0*100	305	30	3.0	100
07	305*30*3.0*120	305	30	3.0	120
08	355*25.4*3.2*120	355	25.4	3.2	120
09	355*30*3.2*120	355	30	3.2	120
10	400*25.4*3.2*120	400	25.4	3.2	120
11	400*30*3.8*120	400	30	3.8	120
12	400*30*4.0*84	400	30	4.0	84
13	405*25.4*3.2*120	405	25.4	3.2	120
14	405*25.4*3.5*120	405	25.4	3.5	120
15	405*30*3.5*120	405	30	3.5	120
16	405*30*3.8*120	405	30	3.8	120

NO	Size	D	d	B	Z
17	450*30*4.0*100	450	30	4.0	100
18	450*30*4.0*120	450	30	4.0	120
19	500*30*4.0*84	500	30	4.0	84
20	500*30*4.0*100	500	30	4.0	100
21	500*30*4.4*120	500	30	4.4	120
22	500*32*4.4*120	500	32	4.4	120
23	500*80*4.4*120	500	80	4.4	120
24	550*30*4.4*120	550	30	4.4	120
25	550*30*4.4*144	550	30	4.4	144
26	550*30*4.6*120	550	30	4.6	120
27	550*30*4.6*144	550	30	4.6	144
28	550*32*4.4*120	550	32	4.4	120
29	550*32*4.6*120	550	32	4.6	120
30	600*30*4.8*144	600	30	4.8	144
31	600*38*4.8*144	600	38	4.8	144

PCD Aluminum Saw Blade

NO	Size	D	d	B	Z
01	250*30*5.0*48	250	30	5	48
02	250*30*6.0*48	250	30	6	48
03	250*40*8.0*40	250	40	8	40
04	250*40*8.0*40	250	40	8	40
05	250*40*10.0*40	250	40	10	40
06	300*30*5.0*72	300	30	5	72
07	300*30*6.0*72	300	30	6	72
08	350*30*5.0*80	350	30	5	80
09	350*30*6.0*80	350	30	6	80
10	420*30*4.0*108	420	30	4	108
11	450*30*4.0*120	450	30	4	120
12	450*32*4.2*120	450	32	4.2	120
13	500*25.4*3.8*120	500	25.4	3.8	120
14	500*25.4*4.4*120	500	25.4	4.4	120

NO	Size	D	d	B	Z
15	500*30*3.8*120	500	30	3.8	120
16	500*30*4.4*120	500	30	4.4	120
17	500*32*4.4*120	500	32	4.4	120
18	500*80*3.8*120	500	80	3.8	120
19	500*80*4.4*120	500	80	4.4	120
20	550*30*4.4*120	550	30	4.4	120
21	550*30*4.4*144	550	30	4.4	144
22	550*30*4.4/4.0*120	550	30	4.4/4.0	120
23	550*30*4.4/4.0*144	550	30	4.4/4.0	144
24	550*32*4.4*120	550	32	4.4	120
25	600*30*4.2*144	600	30	4.2	144
26	600*30*4.8*144	600	30	4.8	144
27	600*38*4.8*144	600	38	4.8	144

Model Numbers

HSS Saw Blade

NO	D	d	B	Z
01	160	32	1.2/1.6/2.0	80/100/120/160
02	175	32	1.6/2.0	64/90/110/140/180
03	200	32	1.2/1.6/1.8/2.0	72/100/128/160/200
04	225	32/40	1.2/1.6/2.0/2.5	64/80/90/120/150/180/220
05	250	32/40	1.2/1.6/2.0/2.5	64/80/100/110/128/160/240
06	275	32/40	1.2/1.6/2.0/2.5/3.0/	72/78/110/120/144/180/220/280
07	300	32/38/40	1.6/2.0/2.5/3.0	80/90/100/110/120/140/240/320
08	315	32/40	2.0/2.5/3.0	72/80/90/120/140/160/200/250/320
09	325	32/40	2.0/2.5/3.0	90/100/110/130/150/250/320
10	350	32/40/50	2.0/2.5/3.0/3.5	80/90/110/160/180/220/280/350
11	370	32/40/50	2.0/2.5/3.0/3.5	70/80/90/100/110/120/140/160/190/220/300
12	400	32/40/50	2.5/3.0/3.5/4.0/4.5	70/80/90/100/160/180/200/250/320
13	425	32/40/50	2.5/3.0/3.5/4.0	70/80/100/110/120/130/140/260/350
14	450	40/50	2.5/3.0/3.5/4.0	80/90/100/120/140/180/240/280
15	500	40/50	3.0/3.5	90/100/110/130/160/200/260/310
16	525	50	3.0/3.5	90/104/120/140/164/210/270/330
17	550	50/80	3.5/4.0	100/110/120/150/180/220/300/360
18	560	50/80	3.5/4.0	100/110/130/140/170/220/80/340
19	600	50/80	3.5/4.0	100/120/130/160/190/240/320/380
20	630	50/80	3.0/3.5	100/120/130/160/190/240/320/380