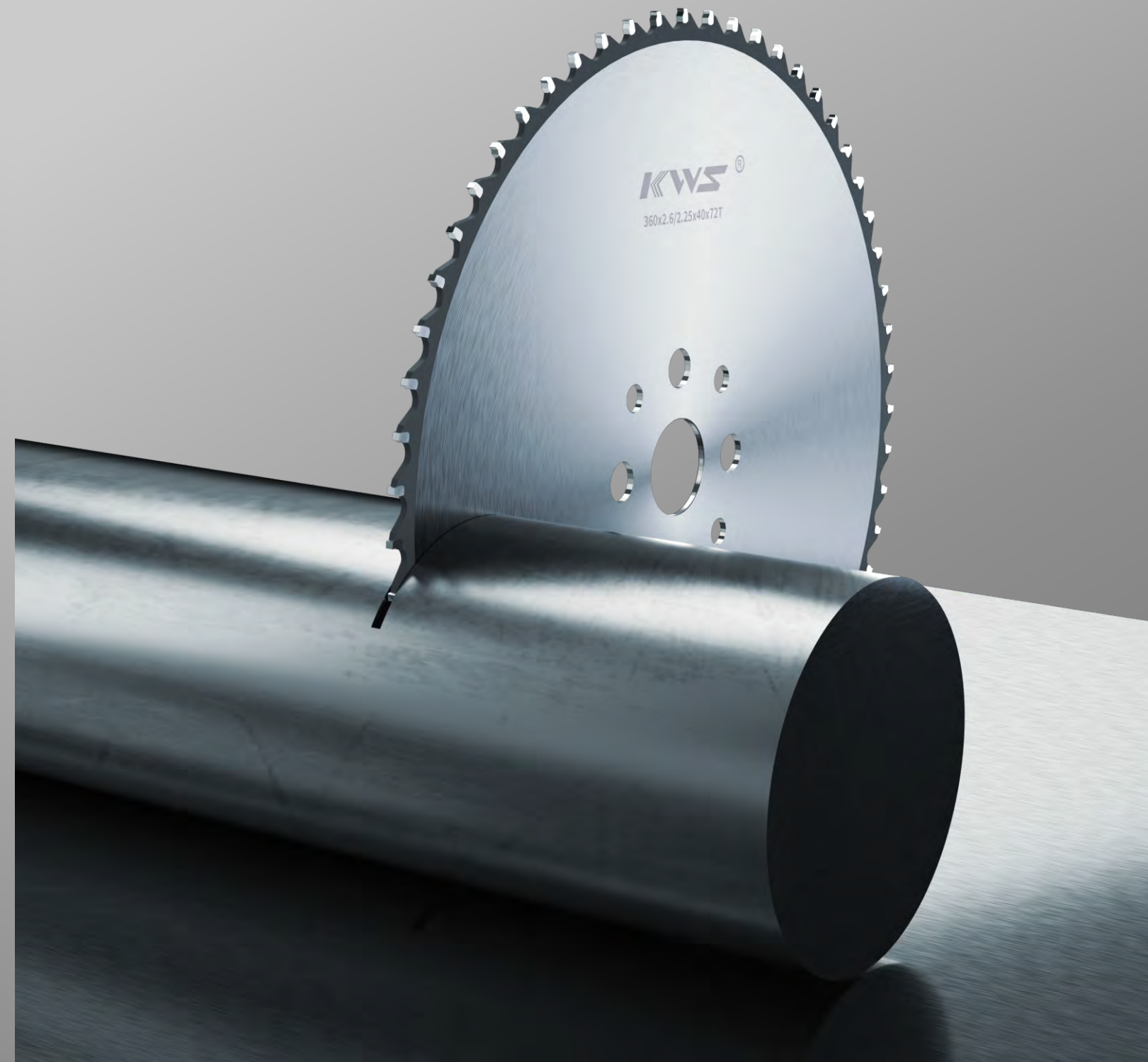
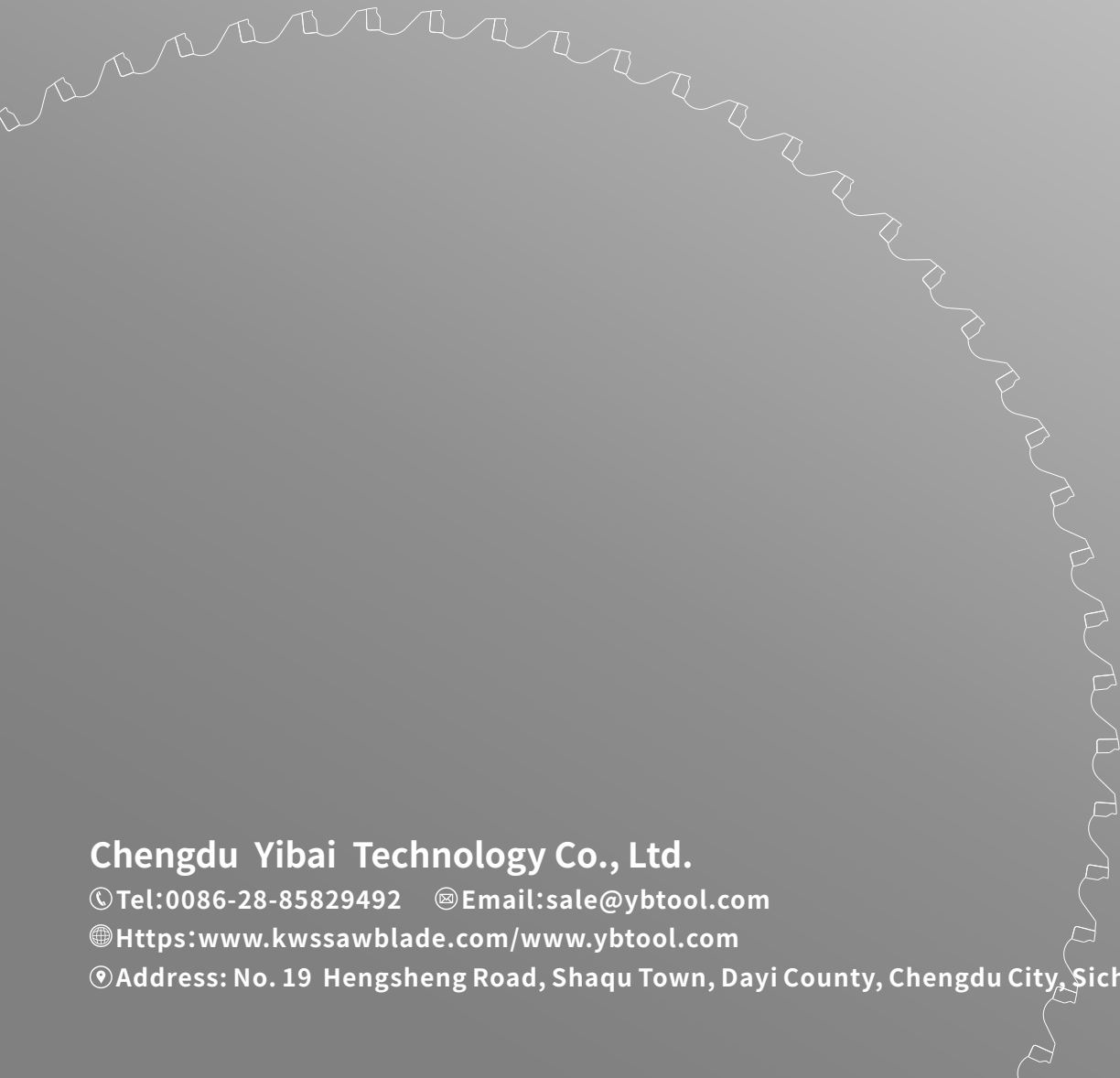




COLD SAW BLADE CATALOG

2024.07



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 itself into R&D of PCD saw blades, TCT saw blades, cold saw blades, finger joint cutters, drill bits, router bits and spiral cutter heads 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 set up automatic production lines 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.

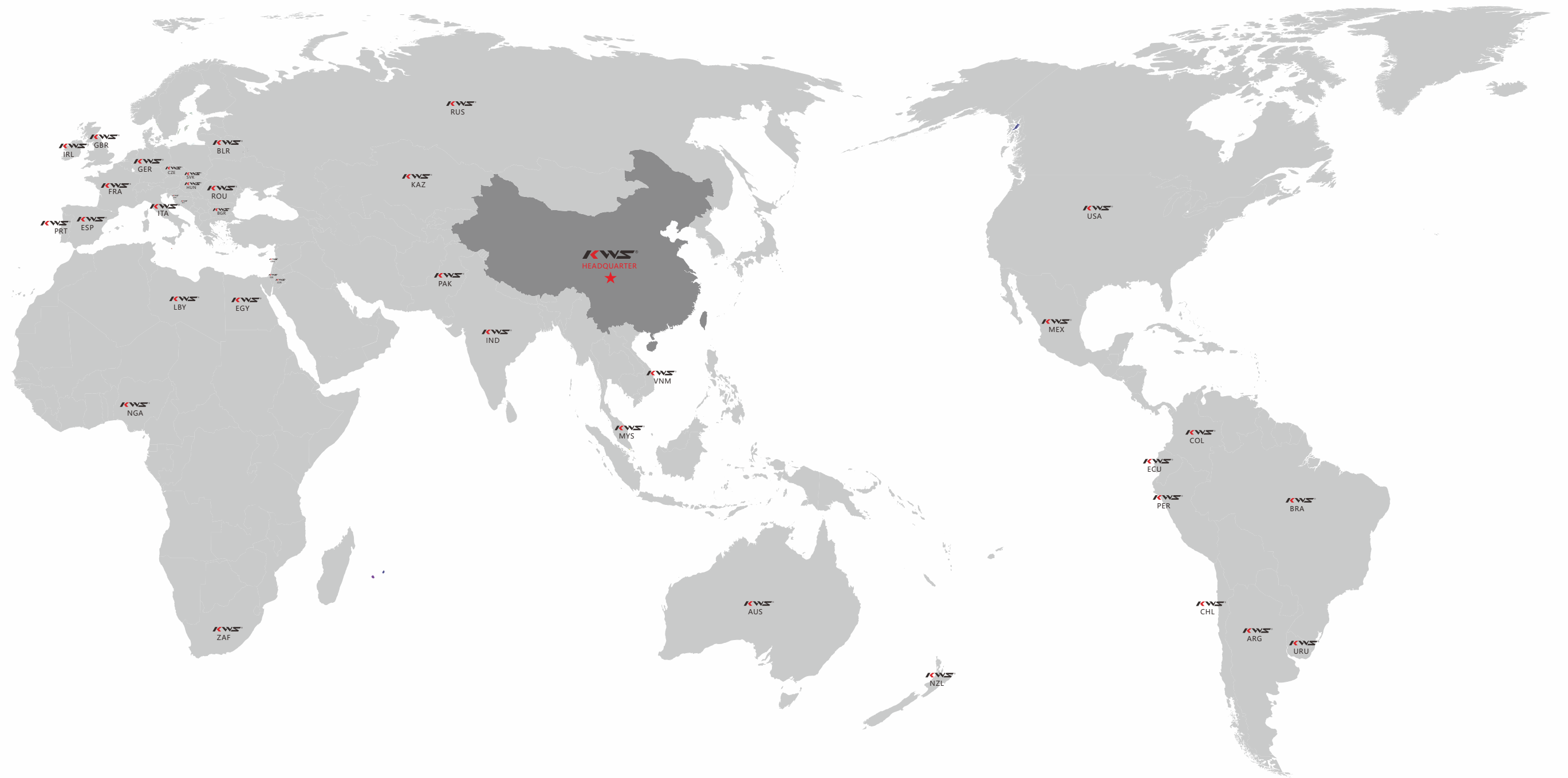
Till now, KWS products have been exported to more than 88 countries and awarded high reputation. Meanwhile Yibai has more than 100 chain stores nationwide for better service.

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 based on Win-Win conditions.



Company Culture

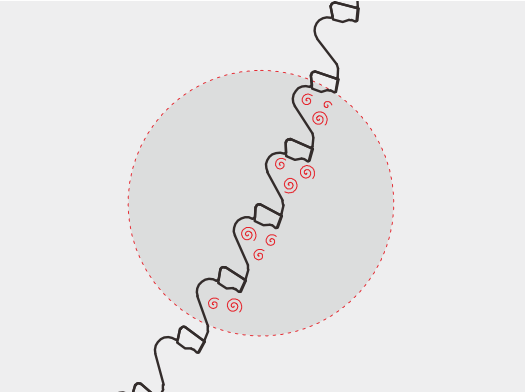




 Cold saw blade to cut medium & low carbon steel



·Tooth Shape·





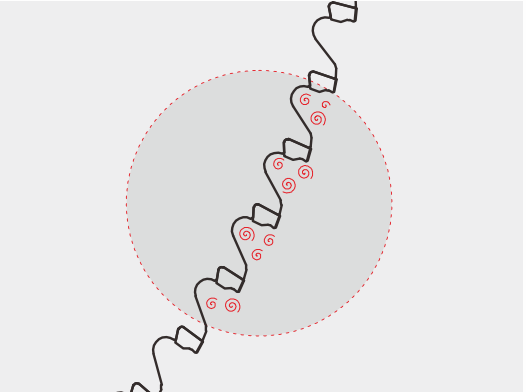
·Features·

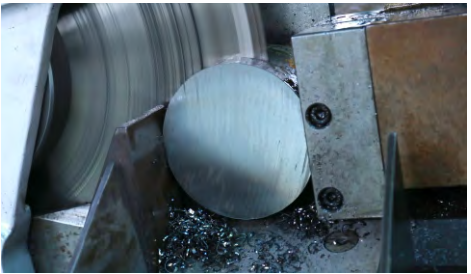
- 1. Cermet-tipped teeth
- 2. Special angle design
- 3. Perfect straight cutting
- 4. Mirror-like cutting surface
- 5. High durability

 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

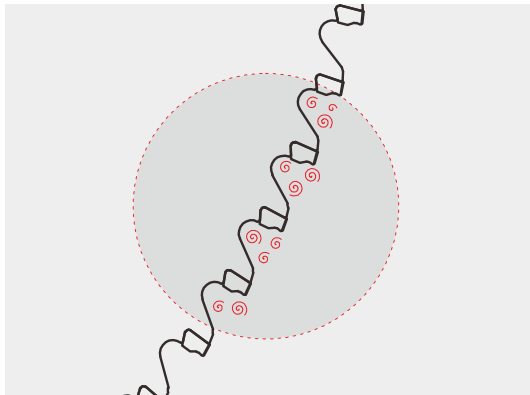
 Technical Specifications

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·



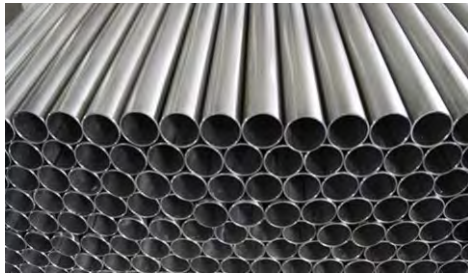
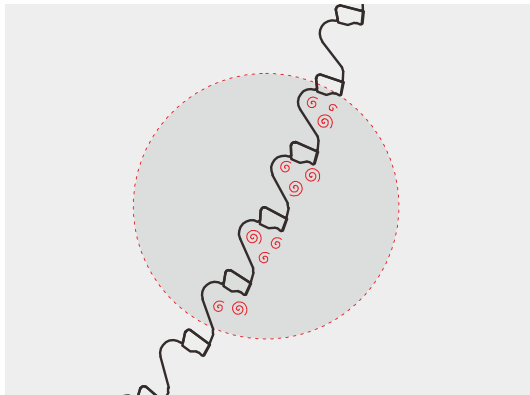
·Features·

- 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. Carbide-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

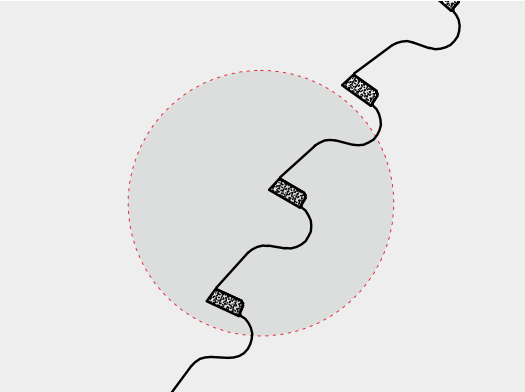
Technical Specifications

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

 Dry cutting saw blade



·Tooth Shape·



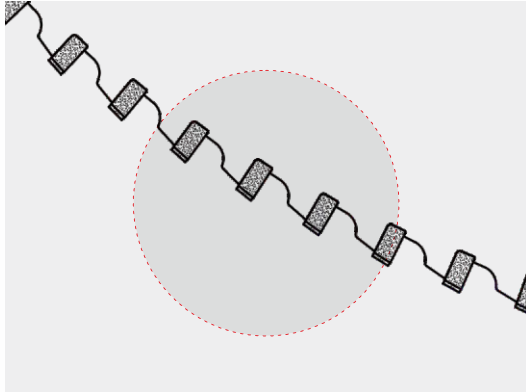
·Features·

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

 Flying saw



·Tooth Shape·



·Features·

- 1. High production line speed
- 2. Smooth cutting ends
- 3. Long service life

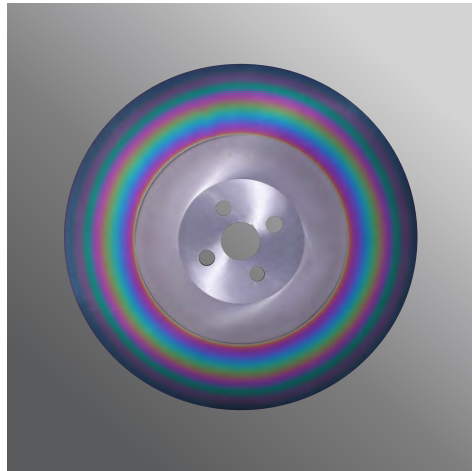
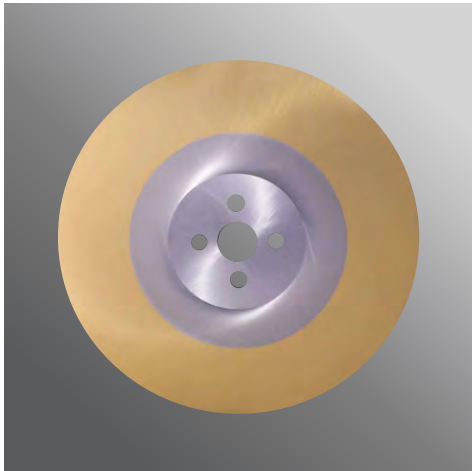
 Technical Specifications

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

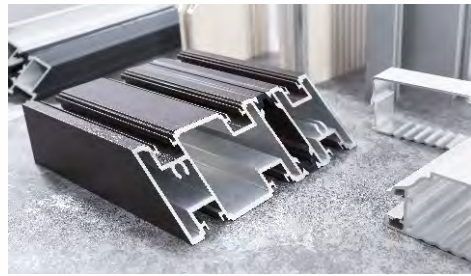
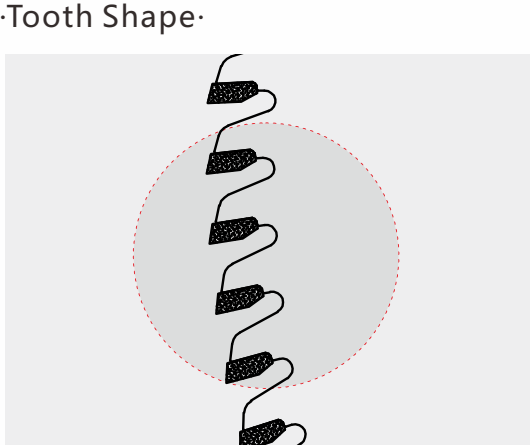
Application	For cutting pipe with a flying saw machine
Machine	Cold flying saw, Copy milling flying saw
Cutting Speed	N=300-500rpm
Cutting Amount	Fz=0.02-0.04mm
Tips	TCT + PVD coating

HSS Saw Blade



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

PCD Aluminum Saw Blade



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

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

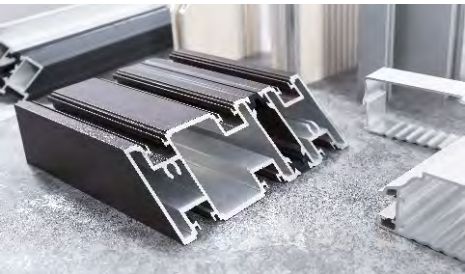
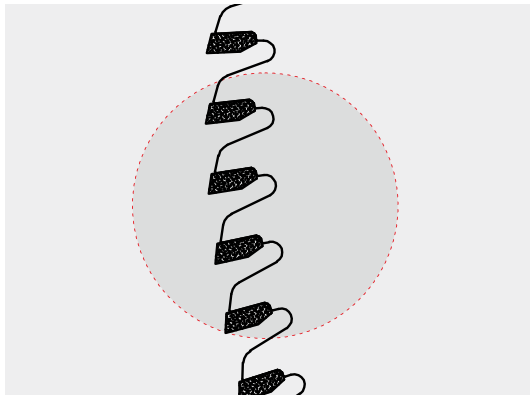
Technical Specifications

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

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 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

Installation Guide



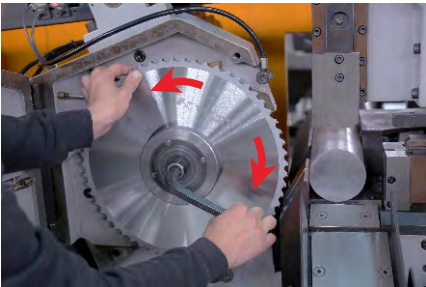
1 A. Saw blade must be mounted at the correct direction
B. Always clean the surface of the plate before mounting to the arbor of machine



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.

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
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.



Cutting Amount & Cutting Speed

Cutting Amount Per Tooth (fz)

$F_z \text{ (mm/blade)} = F / (N \cdot Z)$
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)

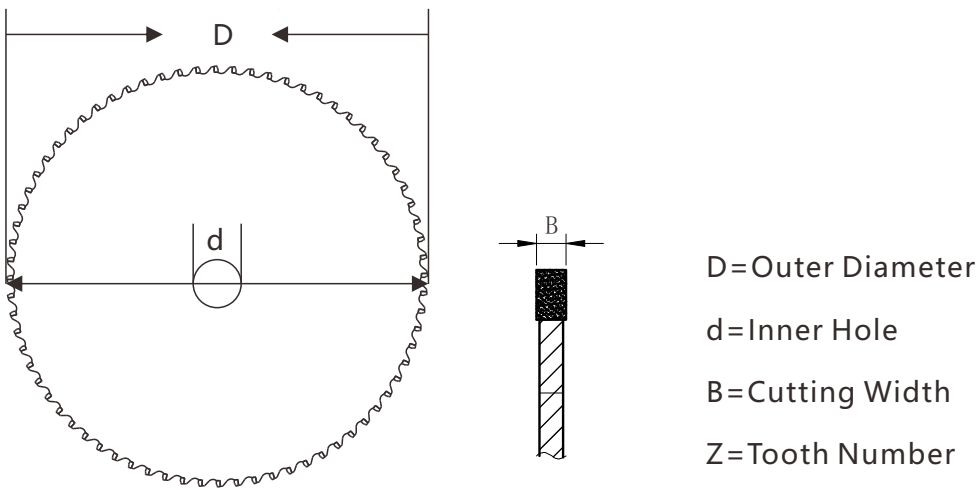
Cutting Speed - Saw Blade Linear Speed (V)

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

Recommended Parameters

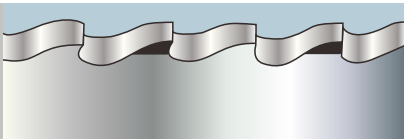
Medium and low carbon steel V=100~130 (m/min)
High carbon, alloy steel V=70~100 (m/min)

Explanation of abbreviations

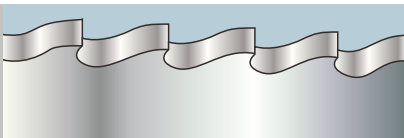


HSS Saw Blade Tooth Shape

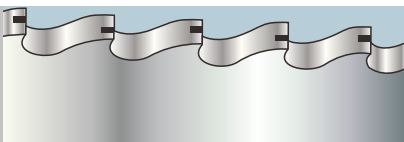
Bw is the standard tooth shape for the pipe cutting.



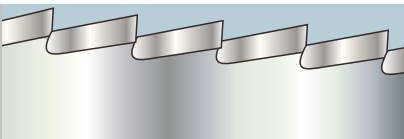
B is to be used for blades with thin thickness(<1,3mm) as an alternative of BW.



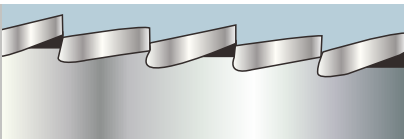
Br is the best tooth shape to cut pipe on automatic machines.



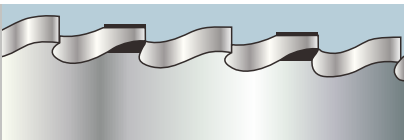
A is the tooth shape used in case of small tooth pitch(T<3mm) or to cut brass alloy, jewellery and screw slotting.



Aw add to the A the bevel that allow to optimize the chip shredding.



HZ is used in the solid cutting or to cut thick(>3mm) pipes.



Model Numbers

Cold Saw Blade

NO	Size	D	d	B	Z
01	250*32*2.0*54	250	32	2.0	54
02	250*32*2.0*60	250	32	2.0	60
03	250*32*2.0*72	250	32	2.0	72
04	250*32*2.0*80	250	32	2.0	80
05	250*32*2.0*100	250	32	2.0	100
06	250*32*2.0*120	250	32	2.0	120
07	285*32*2.0*54	285	32	2.0	54
08	285*32*2.0*60	285	32	2.0	60
09	285*32*2.0*80	285	32	2.0	80
10	285*32*2.0*100	285	32	2.0	100
11	285*32*2.0*120	285	32	2.0	120
12	315*32*2.25*60	315	32	2.25	60
13	315*32*2.25*72	315	32	2.25	72
14	315*32*2.25*80	315	32	2.25	80
15	315*32*2.25*100	315	32	2.25	100
16	315*32*2.25*120	315	32	2.25	120
17	360*40*2.6*60	360	40	2.6	60
18	360*40*2.6*72	360	40	2.6	72
19	360*40*2.6*80	360	40	2.6	80
20	360*40*2.6*100	360	40	2.6	100
21	360*40*2.6*120	360	40	2.6	120

NO	Size	D	d	B	Z
22	380*40*2.6*60	380	40	2.6	60
23	380*40*2.6*72	380	40	2.6	72
24	380*40*2.6*80	380	40	2.6	80
25	380*40*2.6*100	380	40	2.6	100
26	400*50*2.6*60	400	50	2.6	60
27	425*50*2.7*60	425	50	2.7	60
28	425*50*2.7*80	425	50	2.7	80
29	425*50*2.7*100	425	50	2.7	100
30	460*50*2.7*60	460	50	2.7	60
31	460*50*2.7*72	460	50	2.7	72
32	460*50*2.7*80	460	50	2.7	80
33	460*50*2.7*100	460	50	2.7	100
34	460*50*2.7*120	460	50	2.7	120
35	485*50*2.7*60	485	50	2.7	60
36	485*50*2.7*72	485	50	2.7	72
37	485*50*2.7*80	485	50	2.7	80
38	485*50*2.7*100	485	50	2.7	100
39	560*50*3.0*60	560	50	3.0	60
40	630*80*3.4*72	630	80	3.4	72
41	630*80*3.4*80	630	80	3.4	80
42	630*80*3.4*100	630	80	3.4	100



Model Numbers

Flying saw

NO	Size	D	d	B	Z
01	250*3.2*64T	250		3.2	64
02	250*3.2*72T	250		3.2	72
03	250*3.2*80T	250		3.2	80
04	300*3.2*52T	300		3.2	52
05	300*3.2*64T	300		3.2	64
06	300*3.2*72T	300		3.2	72
07	300*4.0*52T	300		4.0	52
08	300*4.0/3.2*64T	300		4.0	64
09	300*4.0*72T	300		4.0	72
10	355*3.5*64T	355		3.5	64
11	355*3.5*72T	355		3.5	72
12	355*3.5*84T	355		3.5	84
13	380*4.0*52T	380		4.0	52
14	380*4.0*64T	380		4.0	64
15	380*4.0*72T	380		4.0	72
16	350*50*2.8*100T	350	50	2.8	100
17	350*50*2.8*110T	350	50	2.8	110
18	350*50*2.8*120T	350	50	2.8	120
19	350*50*2.8*140T	350	50	2.8	140
20	400*50*3.6*110T	400	50	3.6	110
21	400*50*3.6*120T	400	50	3.6	120
22	400*50*3.6*130T	400	50	3.6	130

NO	Size	D	d	B	Z
23	400*50*3.6*140T	400	50	3.6	140
24	450*50*2.8*120T	450	50	2.8	120
25	450*50*3.6*120T	450	50	3.6	120
26	450*50*3.6*130T	450	50	3.6	130
27	450*50*3.6*140T	450	50	3.6	140
28	450*50*2.8*160T	450	50	2.8	160
29	500*50*3.6*120T	500	50	3.6	120
30	500*50*3.6*130T	500	50	3.6	130
31	500*50*3.6*140T	500	50	3.6	140
32	500*50*3.6*170T	500	50	3.6	170
33	550*(80/90/140)*3.6*120T	550	(80/90/140)	3.6	120
34	560*(80/90/140)*3.6*120T	560	(80/90/140)	3.6	120
35	560*(80/90/140)*3.6*140T	560	(80/90/140)	3.6	140
36	560*(80/90/140)*3.6*170T	560	(80/90/140)	3.6	170
37	600*(80/90/140)*3.6*120T	600	(80/90/140)	3.6	120
38	600*(80/90/140)*3.6*140T	600	(80/90/140)	3.6	140
39	600*(80/90/140)*3.6*170T	600	(80/90/140)	3.6	170
40	600*(80/90/140)*3.6*180T	600	(80/90/140)	3.6	180
41	650*80*3.6*150T	650	80	3.6	150
42	650*80*3.6*170T	650	80	3.6	170
43	690*80*3.6*150T	690	80	3.6	150

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



Model Numbers

Dry Cutting Saw Blade

NO	Size	D	d	B	Z
01	110*22.23*1.6*28T	110	22.23	1.6	28
02	145*22.23*1.8*36T	145	22.23	1.8	36
03	255*25.4*2.0*48T	255	25.4	2.0	48
04	305*25.4*2.2*66T	305	25.4	2.2	66

NO	Size	D	d	B	Z
05	305*25.4*2.2*80T	305	25.4	2.2	80
06	355*25.4*2.2*66T	355	25.4	2.2	66
07	400*25.4*3.2*72T	400	25.4	3.2	72
08	455*25.4*3.6*84T	455	25.4	3.6	84

PCD Aluminum Saw Blade

NO	Size	D	d	B	Z
01	250*30*5.0*48T	250	30	5.0	48
02	250*30*6.0*48T	250	30	6.0	48
03	300*30*5.0*72T	300	30	5.0	72
04	300*30*6.0*72T	300	30	6.0	72
05	350*30*3.5*120T	350	30	3.5	120
06	350*30*3.8*66T	350	30	3.8	66
07	350*30*5.0*80T	350	30	5.0	80
08	350*30*6.0*80T	350	30	6.0	80
09	400*32*3.8*120T	400	32	3.8	120
10	405*25.4*3.5*100T	405	25.4	3.5	100
11	420*30*4.0*108T	420	30	4.0	108
12	450*30*4.0*120T	450	30	4.0	120

NO	Size	D	d	B	Z
15	450*32*4.2*120T	450	32	4.2	120
16	500*25.4*4.4*120T	500	25.4	4.4	120
17	500*30*4.4*120T	500	30	4.4	120
18	500*32*4.4*120T	500	32	4.4	120
19	500*80*4.4*120T	500	80	4.4	120
20	510*25.4*3.5*120T	510	25.4	3.5	120
21	510*25.4*3.6*144T	510	25.4	3.6	144
22	550*30*4.4*120T	550	30	4.4	120
23	550*30*4.4*144T	550	30	4.4	144
24	550*80*4.4*144T	550	80	4.4	144
25	600*30*4.8*144T	600	30	4.8	144
26	600*38*4.8*144T	600	38	4.8	144

Model Numbers

TCT Aluminum Saw Blade

NO	Size	D	d	B	Z
01	160*32*5.0*30T	160	32	5.0	30
02	160*32*6.5*30T	160	32	6.5	30
03	160*32*8.0*30T	160	32	8.0	30
04	160*32*10.0*30T	160	32	10	30
05	200*32*5.0*36T	200	32	5.0	36
06	200*32*6.5*36T	200	32	6.5	36
07	250*32*10.0*40T	250	32	10	40
08	250*32*13.0*40T	250	32	13	40
09	255*25.4*2.8*100	255	25.4	2.8	100
10	255*25.4*2.8*120	255	25.4	2.8	120
11	255*30*2.8*100	255	30	2.8	100
12	255*30*2.8*120	255	30	2.8	120
13	305*25.4*3.0*120	305	25.4	3.0	120
14	305*30*3.0*100	305	30	3.0	100
15	305*30*3.0*120	305	30	3.0	120
16	355*25.4*3.2*120	355	25.4	3.2	120
17	355*30*3.2*120	355	30	3.2	120
18	400*25.4*3.2*120	400	25.4	3.2	120
19	400*30*3.8*120	400	30	3.8	120
20	400*30*4.0*84	400	30	4.0	84
21	405*25.4*3.2*120	405	25.4	3.2	120

NO	Size	D	d	B	Z
22	405*25.4*3.5*120	405	25.4	3.5	120
23	405*30*3.5*120	405	30	3.5	120
24	405*30*3.8*120	405	30	3.8	120
25	450*30*4.0*100	450	30	4.0	100
26	450*30*4.0*120	450	30	4.0	120
27	500*30*4.0*84	500	30	4.0	84
28	500*30*4.0*100	500	30	4.0	100
29	500*30*4.4*120	500	30	4.4	120
30	500*32*4.4*120	500	32	4.4	120
31	500*80*4.4*120	500	80	4.4	120
32	550*30*4.4*120	550	30	4.4	120
33	550*30*4.4*144	550	30	4.4	144
34	550*30*4.6*120	550	30	4.6	120
35	550*30*4.6*144	550	30	4.6	144
36	550*32*4.4*120	550	32	4.4	120
37	550*32*4.6*120	550	32	4.6	120
38	600*30*4.8*144	600	30	4.8	144
39	600*38*4.8*144	600	38	4.8	144
40	700*30*5.0*60T	700	30	5.0	60
41	800*30*6.5*144T	800	30	6.5	144
42	1020*100*7.0*120T	1020	100	7.0	120