STEEL RESOURCES UNLIMITED, INC.

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STEEL RESOURCES UNLIMITED, INC.

Contents

You produce
We support

We wish that as a buyer or user of wood working blades you have the best possible knowledge and information about your supplier's operations and products. From this brochure you will find a short company presentation and the most common articles from our main product groups. In case you need more information please contact us 1 305 490-2831 / 305 829-0273

Today we focus on supplying blades and services mainly for sawmills, re-sawing industry and panel & board factories. Our main market areas are Finland, North Europe, South America and Africa.

We produce and service bandsaw blades - other products are acquired for our customers from reliable European suppliers.

Our strong points as a supplier lie in our professional personnel, flexible production methods, right quality and ability to deliver on demand.

Bandsaw blades
Choosing blade

When choosing bandsaw blades there are a few important details to consider. Important properties are length, width, thickness, toothform, pitch of teeth and rake angle.

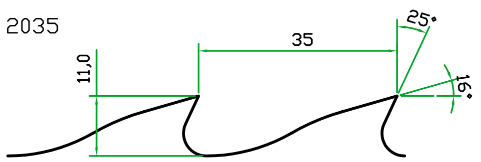
Length of blade is determined by the machine in which it is to be fitted. Recommended blade lengths should be given by the machine manufacturer. Actual blade length is determined by the number of teeth and pitch.

Width of blade is determined by the pulley. Maximum blade width = pulley width + tooth height + 5 mm.

Thickness of the blade is also dermined by the pulley. Blade should not be thicker than one thousandth part of pulley diameter, hence 1200 mm pulley should not have a thicker than 1,20 mm blade.

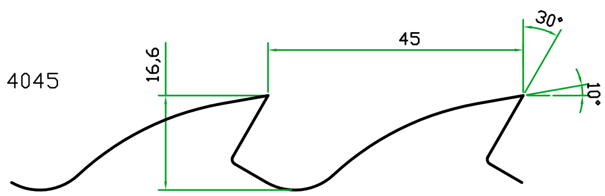
Toothform and pitch Most common toothforms are LS, SB and S.

Toothform LS



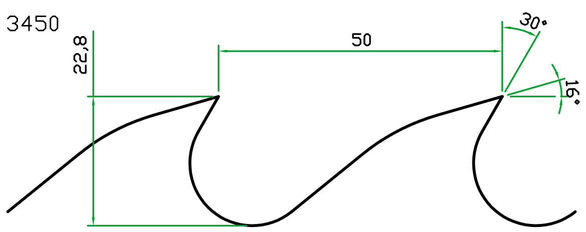
LS-form is commonly used in re-sawing applications for ripping of soft or hard dry wood.

Toothform SB



SB-form is suitable for sawing of large diameter hard- and softwood logs. Commonly used also during the winter with gullet swage.

Toothform S



S-form is commonly used for sawing of large diameter softwood species.

Pitch of teeth To ensure right cut / tooth one should consider cutting and feeding speed, cutting height and nature of the wood to be cut. In ripping of dry wood common pitches are 30–35 mm and in sawing of logs 45–50 mm.

Rake angle For hardwood species 12–25° and for softer species 26–34°.

Clearance angle Bigger feed speeds require bigger clearance angle. Angles of 8-16° are commonly in use.

Kerf In sawing of green unseasoned wood 2 X blade thickness will give sufficient kerf and clearance. For dry wood 0,10–0,20 mm can be reduced from this.

Rules of thumb and calculation formulas to help in blade selection

$$\text{Thickness of blade} = \frac{\text{pulleydiameter}}{1000}$$

$$\text{Tooth height} = \text{bladethickness} * 10$$

$$\text{Pitch of teeth} = \text{toothheight} * 3$$

Feed per tooth determines how much one tooth cuts during sawing. Too small feed per tooth gives dust like sawdust and causes rapid wear of tooth tip. In order to achieve best possible cutting result one should optimize feed and cutting speeds with pitch of teeth.

For band sawing of logs it is recommend to have 0,9–1,4 mm feed per tooth. This usually corresponds to clearance multiplied by two. Bigger values can be used during the winter to improve chip flow.

For re-sawing applications when ripping wood 0,3–0,8 mm feed per tooth is recommended.

$$\text{Feed / tooth} = \frac{\text{pitch (mm)} * \text{feedspeed (mm/s)}}{\text{cuttingspeed (mm/s)}}$$

Gullet fill Gullet filling factor determines the volume of removed wood in relation of total gullet area. Recommended values are 40–80 %.

$$\text{Gullet fill} = \frac{\text{feed/tooth (mm)} * \text{cuttingheight (mm)}}{\text{tootharea (mm}^2\text{)}}$$

Bandsaw blades
Choosing blade

Raw material for bandsaw blades:

Standard Reliable material which was launched already in 1889. Since then material has developed and today it can be used for swage set and tipped blades. Tensile strength is 1450 N/mm². Product code 200.

Multishift Multishift material has been developed to tackle the greater productivity demands of today. As a slightly thinner and stronger material it will give smaller kerf and hold straightness and tension for a longer time. Multishift blades can be swaged but are more suitable for tipping. Tensile strength is 1600 N/mm². Product code 250.

Durashift Durashift material places itself propertyvise between Standard and Multishift materials. Due to it's special chemical composition blades endure bending stresses well. Blades can be swaged or tipped. Tensile strength is 1500 N/mm². Product code 300.

Products we produce:	**Code**
Toothed strip in coils	P
Toothed and tensioned strip in coils	A
Toothed and welded blades	W
Toothed welded and tensioned blades	C
Swage set ready to saw	M
Tipped ready to saw	MS

In tipped blades we use cobalt based alloys to increase cutting edge durability.

Code key:

Material	Type of blade	Width	Thickness	Length	Tooth form

200MS – 180 – 1,47 – 9900 – 4045 R

R = blade runs at the right side of the line
L = blade runs at the left side of the line

Service of bandsaw blades

Bandsaw blades should be serviced at regular intervals. Teeth become dull and blade body looses its tension and straightness due to increased stresses. If service is neglected results can often be seen in the quality of sawn timber. Predetermined blade changes guarantee long blade life with minimal maintenance operations. Normal maintenance operations for bandsaw blades are:

- Cleaning and inspection
- Marking of cracks and damaged teeth
- Repairing of cracks and damaged teeth
- Levelling and tensioning
- Pregrinding, swage setting or tipping if needed
- Sharpening
- Sidegrinding if needed

Depending on the blade to be serviced we use traditional levelling/tensoning machines and dry grinding machines or modern CNC machines and automatic levelling machines. We recommend the use of individually numbered blades at each bandsaw machine. Blade follow up performed with PC or pen and paper is also a good idea.

Maintenance of bandsaw machines is in close relation with blade service. Blade follow-up can often give intiative for machine maintenance also. Since bandsaw blades are the weakest link in the machine between the feeding and receiving devices it is recommended to follow regularly the condition of pulleys and bearings, cleaning felts and scrapers, lubrication devices and blade guides.

Bandsaw blades

Material list below presents the most common thickness / width combinations. All different blade types are available from these materials.

Standard

Width	Thickness	Width	Thickness
50	0,70	130	1,25
50	0,90	150	1,20
60	0,90	150	1,30
60	1,00	155	1,07
70	1,00	155	1,25
75	0,90	155	1,47
75	1,00	180	1,25
80	0,90	180	1,38
80	1,00	180	1,47
80	1,10	180	1,65
90	0,90	205	1,25
90	1,00	205	1,47
90	1,10	205	1,65
100	0,90	205	1,83
100	1,00	230	1,47
100	1,10	230	1,65
100	1,20	230	1,83
110	1,00	260	1,47
110	1,10	260	1,65
120	1,00	260	1,83
120	1,10	310	1,47
120	1,20	310	1,83
130	1,07	310	2,11
130	1,20	360	2,11

Multishift

Width	Thickness	Width	Thickness
80	0,60	180	1,40
50	0,80	200	1,20
80	0,80	200	1,40
100	0,60	200	1,60
100	0,80	230	1,40
100	1,00	230	1,60
130	0,80	260	1,20
130	1,00	260	1,40
150	0,60	260	1,60
150	0,80	280	1,80
150	1,00	310	1,80
150	1,20	360	1,80
180	1,20	360	2,10

Bandsaw blades

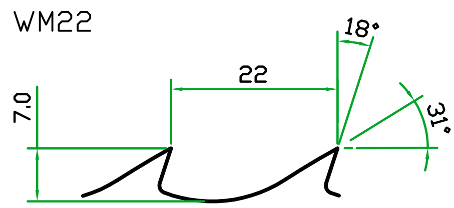
Durashift

Width	Thickness
100	0,80
100	1,00
150	1,20
180	1,47
205	1,47
205	1,65
230	1,47
230	1,65
260	1,65

For mobile bandsaw machines with toothform WM22

50 m coils Standard

Width	Thickness
32	0,90
32	1,07
35	1,07
40	1,07

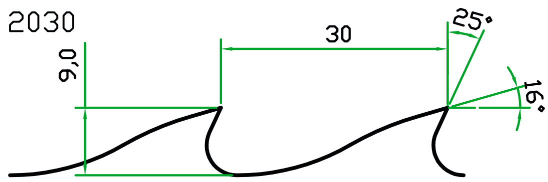


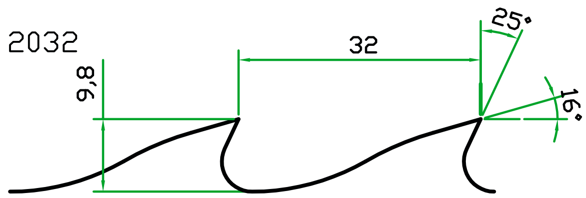
Product types and codes

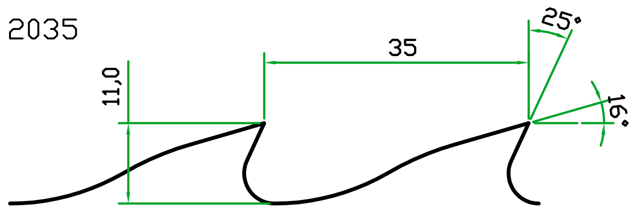
Codes	
P	Toothed strip in coils
A	Toothed and tensioned strip in coils
W	Toothed and welded blades Toothed,
C	welded and tensioned blades Swage
M	set ready to saw
MS	Tipped ready to saw

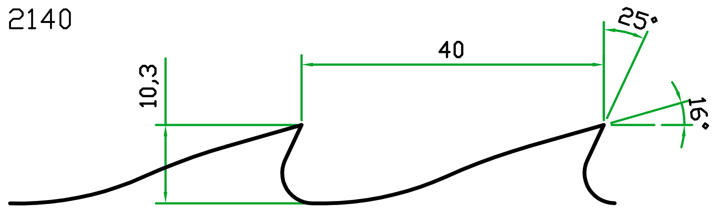
LS – Toothforms

Form-pitch	Tooth height	Rake angle	Clearance angle	Gullet area
2030	9,0	25°	16°	170 mm²
2032	9,8	25°	16°	195 mm²
2035	11,0	25°	16°	235 mm²
2140	10,3	25°	16°	260 mm²
2245	12,0	30°	16°	320 mm²
2350	13,6	30°	16°	435 mm²
2455	15,6	30°	16°	545 mm²
2560	16,1	30°	16°	530 mm²





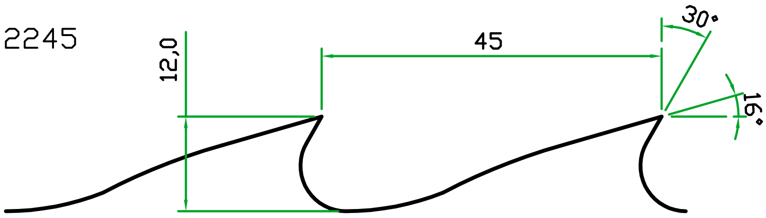




2030
20 = code for toothform
30 = pitch of teeth

LS – Toothforms

2245



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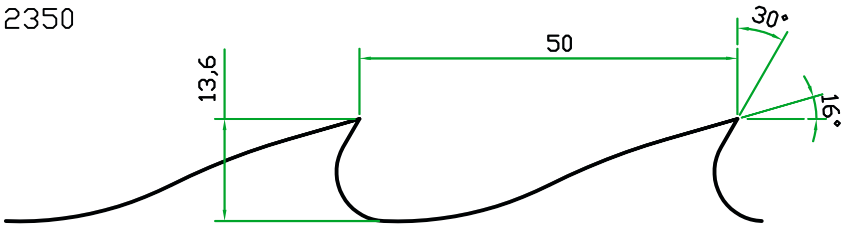

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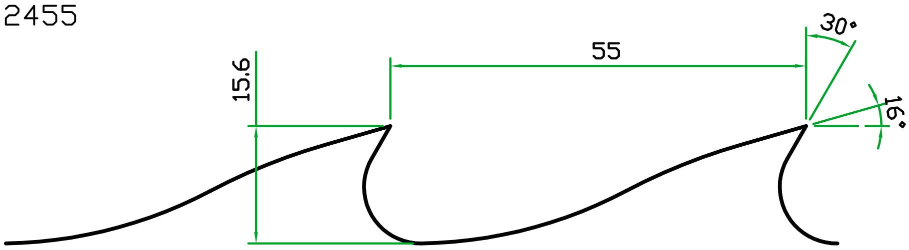

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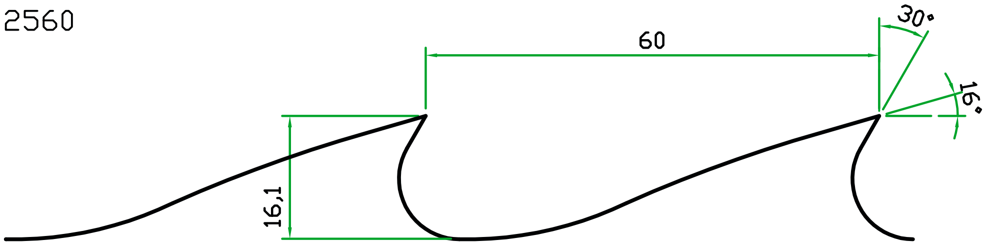
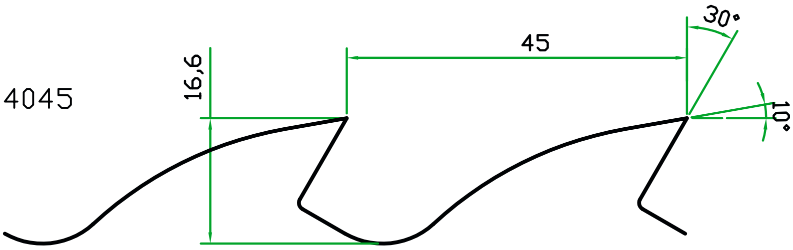


SB – Toothforms

Form-pitch	Tooth height	Rake angle	Clearanc angle	Gullet area
4045	16,6	30°	10°	400 mm²
4140	15,5	27°	15°	360 mm²
4245	15,5	27°	13°	405 mm²
4340	13,0	30°	8°	270 mm²
4445	15,8	28 / 34°	12°	435 mm²
4450	15,8	28 / 34°	12°	450 mm²
4550	20,0	30°	12°	565 mm²
4645	17,8	29°	12°	455 mm²
4650	16,0	31°	10°	425 mm²
4745	14,5	28°	12°	360 mm²
4845	15,5	30°	12°	410 mm²
4850	16,7	30°	12°	470 mm²
4925	8,5	23°	14°	125 mm²

4045



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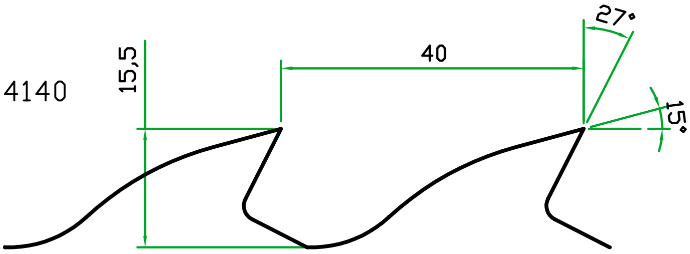

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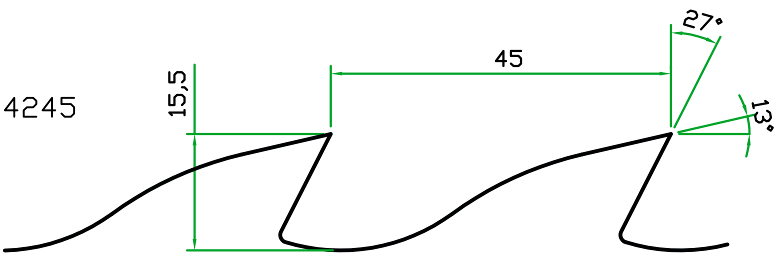

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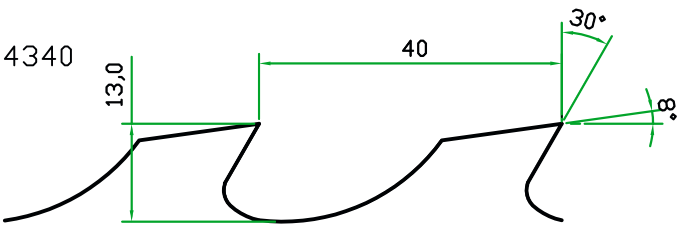

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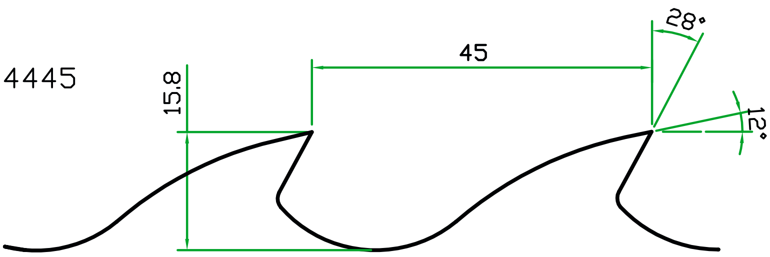

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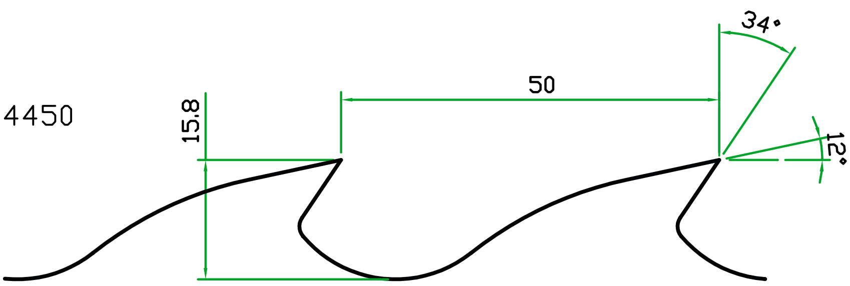

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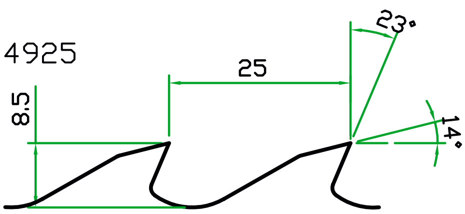
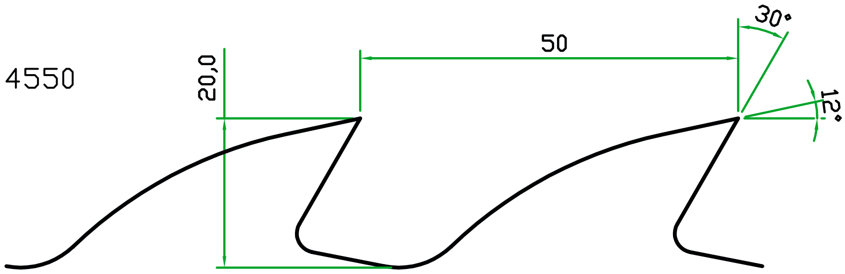


SB – Toothforms

4550



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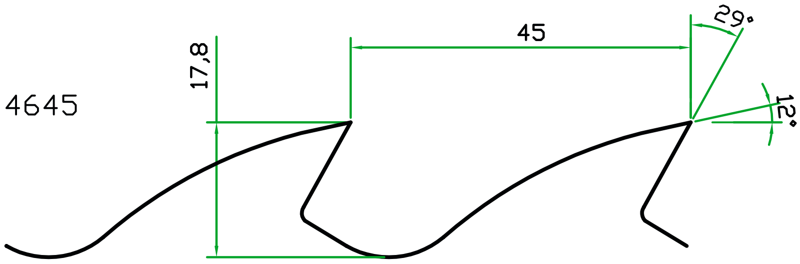

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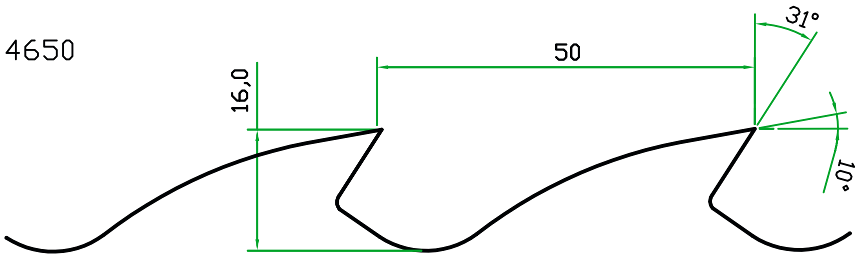

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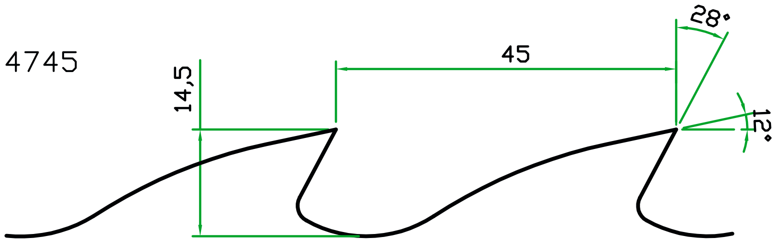

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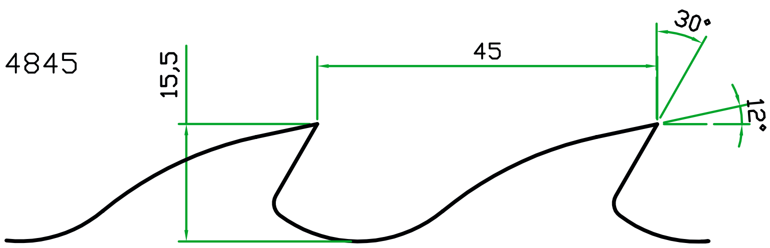

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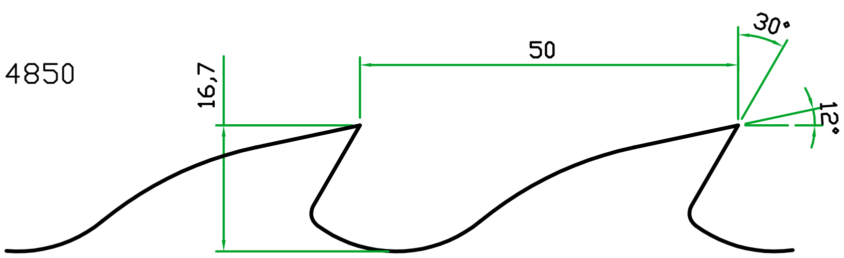
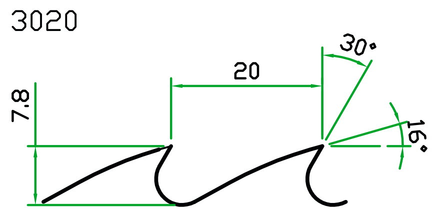
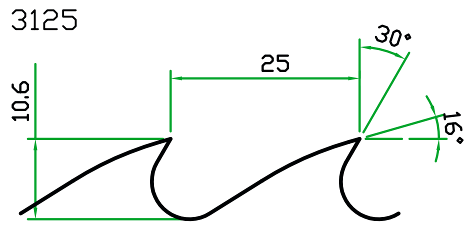
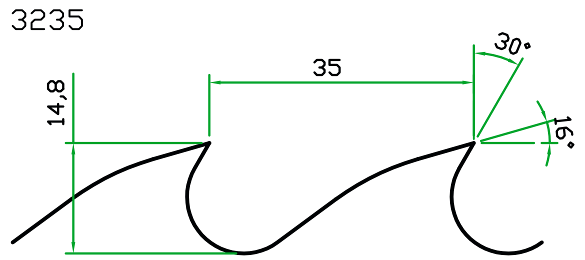


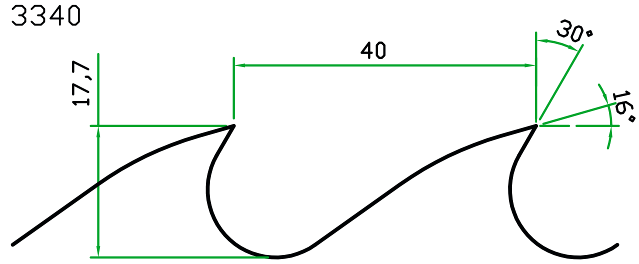
S – Toothforms

Form-pitch	Tooth height	Rake angle	Clearance angle	Gullet area
3020	7,8	30°	16°	90 mm²
3125	10,6	30°	16°	155 mm²
3235	14,8	30°	16°	295 mm²
3340	17,7	30°	16°	415 mm²
3450	22,8	30°	16°	650 mm²
3665	29,0	30°	16°	1035 mm²



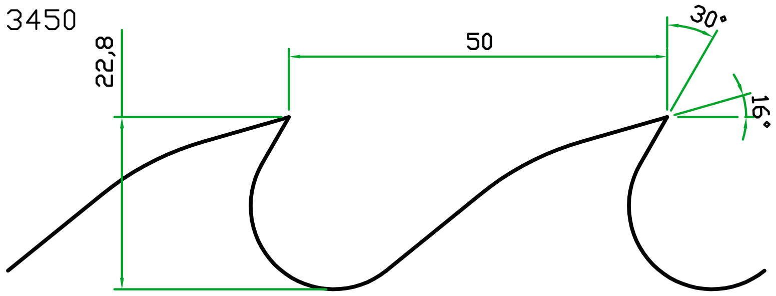






S – Toothforms

3450



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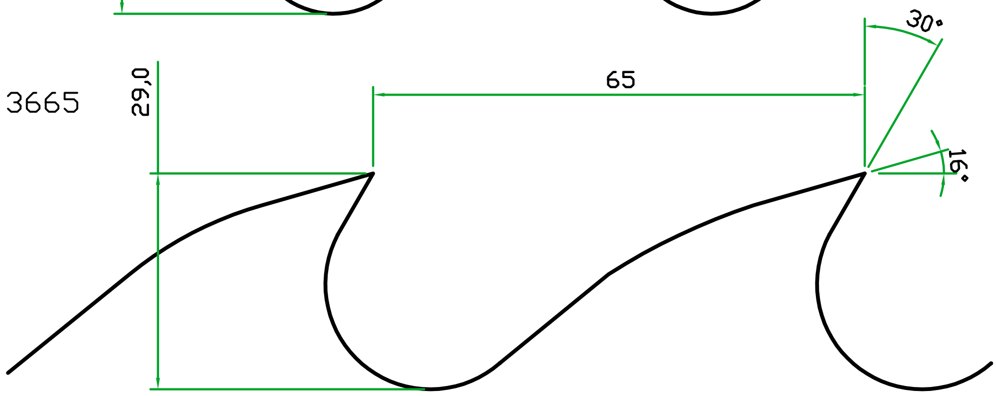
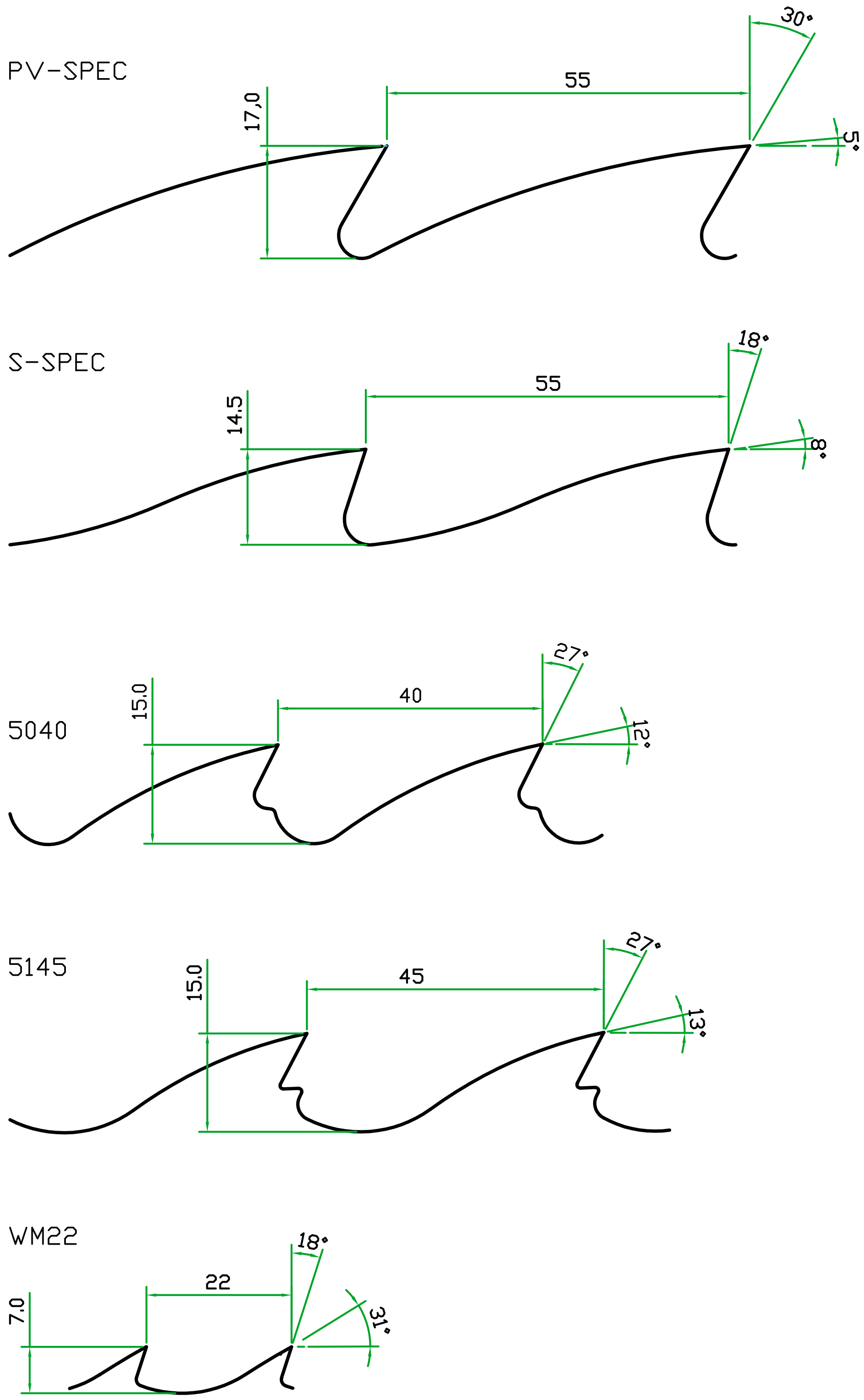


Special toothforms

Form-pitch	Tooth height	Rake angle	Clearance angle	Gullet area
PV-Spec	17,0	30°	5°	395 mm²
S-Spec	14,5	18°	8°	420 mm²
5040	15,0	27°	12°	360 mm²
5145	15,0	27°	13°	425 mm²
WM22	7,0	18°	31°	110 mm²

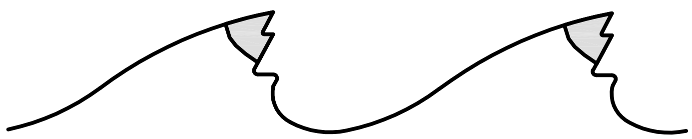


Further information

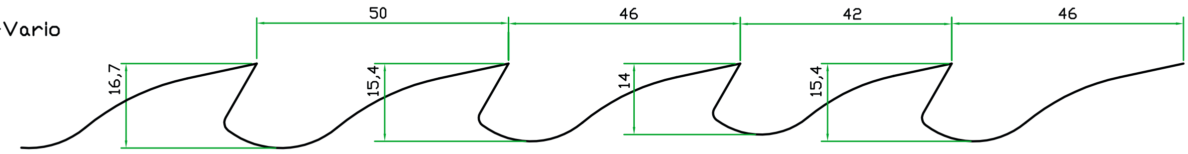
In case you did not find suitable toothform, do contact us. With our CNC controlled machines we can manufacture any possible toothform.

The height of the toothforms in the brochure can be changed during toothing. Then, however, rake and clearance angles are changed also.

5145 Frost



48-Vario



All toothforms

LS – Toothforms

2030
20 = code for toothform
30 = pitch of teeth

Form-pitch	Tooth height	Rake angle	Clearance angle	Form-pitch	Tooth height	Rake angle	Clearance angle
2030	9,0	25°	16°	2348	12,9	30°	16°
2031	9,4	25°	16°	2349	13,2	30°	16°
2032	9,8	25°	16°	2350	13,6	30°	16°
2033	10,2	25°	16°	2351	13,9	30°	16°
2034	10,6	25°	16°	2452	14,6	30°	16°
2035	11,0	25°	16°	2453	15,0	30°	16°
2136	9,0	25°	16°	2454	15,3	30°	16°
2137	9,3	25°	16°	2455	15,6	30°	16°
2138	9,7	25°	16°	2456	16,0	30°	16°
2139	10,0	25°	16°	2457	16,3	30°	16°
2140	10,3	25°	16°	2558	15,4	30°	16°
2241	10,6	30°	16°	2559	15,7	30°	16°
2242	11,0	30°	16°	2560	16,1	30°	16°
2243	11,3	30°	16°	2561	16,4	30°	16°
2244	11,6	30°	16°	2562	16,8	30°	16°
2245	12,0	30°	16°	2563	17,1	30°	16°
2346	12,2	30°	16°	2564	17,4	30°	16°
2347	12,5	30°	16°	2565	17,7	30°	16°

SB – Toothforms

Form-pitch	Tooth height	Rake angle	Clearance angle	Form-pitch	Tooth height	Rake angle	Clearance angle
4035	14,2	30°	10°	4345	13,4	30°	8°
4036	14,6	30°	10°	4348	14,0	30°	8°
4037	14,8	30°	10°	4442	14,0	34°	12°
4038	15,2	30°	10°	4445	15,8	28 / 34°	12°
4039	15,4	30°	10°	4450	15,8	28 / 34°	12°
4040	15,6	30°	10°	4455	17,0	34°	12°
4041	15,8	30°	10°	4458	17,6	34°	12°
4042	16,0	30°	10°	4544	18,5	30°	12°
4043	16,2	30°	10°	4545	18,7	30°	12°
4044	16,4	30°	10°	4550	20,0	30°	12°
4045	16,6	30°	10°	4555	21,0	30°	12°
4128	11,8	28°	15°	4560	22,2	30°	12°
4135	13,9	28°	15°	4645	17,8	29°	12°
4138	15,0	28°	15°	4650	16,0	31°	10°
4140	15,5	27°	15°	4740	13,5	28°	12°
4142	16,0	28°	15°	4745	14,5	28°	12°
4235	12,3	27°	13°	4750	16,2	28°	12°
4236	12,5	27°	13°	4845	15,5	30°	12°
4238	13,0	27°	13°	4850	16,7	30°	12°
4240	13,5	27°	13°	4920	8,0	23°	14°
4245	15,5	27°	13°	4925	8,5	23°	14°
4247	16,0	27°	13°	4930	9,0	23°	14°
4336	12,5	30°	8°				
4340	13,0	30°	8°				

All toothforms

S – Toothforms

Form-pitch	Tooth height	Rake angle	Clearance angle	Form-pitch	Tooth height	Rake angle	Clearance angle
3018	7,1	30°	16°	3449	22,4	30°	16°
3019	7,4	30°	16°	3450	22,8	30°	16°
3020	7,8	30°	16°	3451	23,1	30°	16°
3021	8,1	30°	16°	3452	23,5	30°	16°
3022	8,5	30°	16°	3453	23,8	30°	16°
3023	8,8	30°	16°	3554	25,5	30°	16°
3124	10,3	30°	16°	3555	25,8	30°	16°
3125	10,6	30°	16°	3556	26,2	30°	16°
3126	11,0	30°	16°	3557	26,5	30°	16°
3127	11,3	30°	16°	3558	26,8	30°	16°
3128	11,7	30°	16°	3559	27,2	30°	16°
3129	12,0	30°	16°	3560	27,5	30°	16°
3130	12,4	30°	16°	3561	27,9	30°	16°
3131	12,7	30°	16°	3562	28,2	30°	16°
3232	13,8	30°	16°	3563	28,6	30°	16°
3233	14,1	30°	16°	3664	29,7	30°	16°
3234	14,5	30°	16°	3665	29,0	30°	16°
3235	14,8	30°	16°	3667	30,8	30°	16°
3236	15,2	30°	16°	3668	31,1	30°	16°
3237	15,5	30°	16°	3669	31,5	30°	16°
3238	15,9	30°	16°	3670	31,8	30°	16°
3339	17,3	30°	16°	3771	32,9	30°	16°
3340	17,7	30°	16°	3772	33,3	30°	16°
3341	18,0	30°	16°	3773	33,6	30°	16°
3342	18,4	30°	16°	3774	34,0	30°	16°
3343	18,7	30°	16°	3775	34,3	30°	16°
3344	19,1	30°	16°	3776	34,7	30°	16°
3445	21,1	30°	16°	3777	35,0	30°	16°
3446	21,4	30°	16°	3778	35,4	30°	16°
3447	21,7	30°	16°	3779	35,7	30°	16°
3448	22,1	30°	16°	3780	36,1	30°	16°

Special Toothforms

Form-pitch	Tooth height	Rake angle	Clearance angle
PV-Spec	17,0	30°	5°
S-Spec	14,5	18°	8°
5040	15,0	27°	12°
5145	15,0	27°	13°
5150	16,1	27°	13°
WM22	7,0	18°	31°

Minigangsaw blades

Measurements below present blade types which are commonly in use within the industry. We can also supply blades produced according to measurements given by our customers.

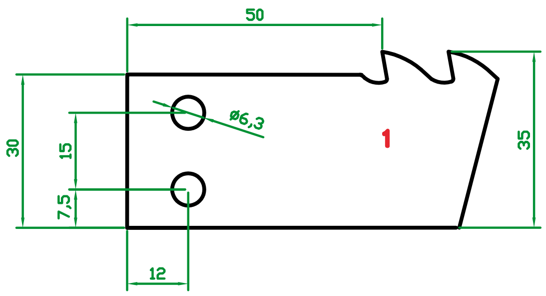
Middle blades

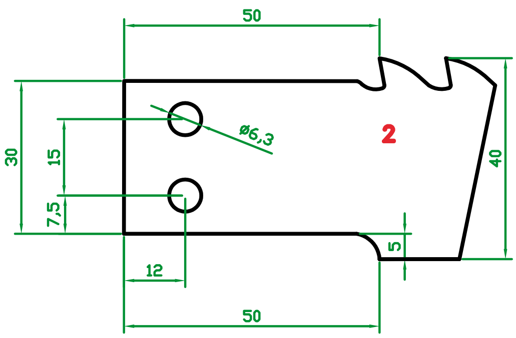
Length	Width	Thickness	Kerf	Pitch	Stellite	Carbide
380	40	0,80	1,25	13	•	•
390	45	0,80	1,25	13	•	•
420	40	0,80	1,25	13	•	•
430	45	0,80	1,25	13	•	•
470	40	0,90	1,40	15	•	•
470	45	0,90	1,35	15	•	•
500	40	0,90	1,40	15	•	•
500	35	0,90	1,40	13	•	•
510	45	0,70	1,20	15	•	•
510	45	0,90	1,50	15	•	•
530	40	0,90	1,40	15	•	•
550	45	0,90	1,40	15	•	•
560	45	0,90	1,35	15	•	•
380	40	0,60	1,05	13	•	•
455	40	0,70	1,15	13	•	•
505	40	0,80	1,25	17	•	•
555	40	0,90	1,35	17	•	•
610	40	1,10	1,60	17	•	•

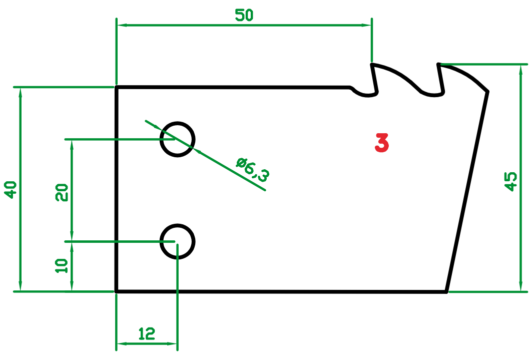
Scrapper blades

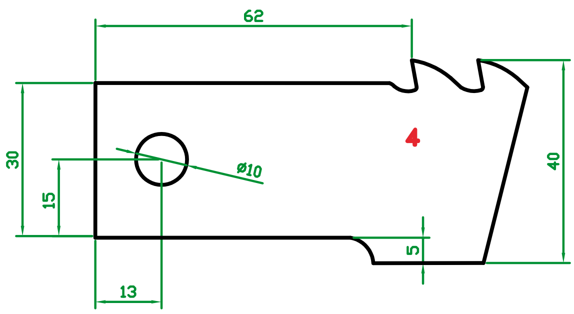
Length	Width	Thickness	Kerf	Pitch	Stellite	Carbide
380	35	2,40	2,90	13	•	•
390	45	2,40	4,20	13	•	•
390	45	3,80	4,20	15	•	•
420	35	2,40	2,90	13	•	•
430	45	2,40	2,90	13	•	•
470	35	2,40	2,90	15	•	•
470	45	2,40	2,90	15	•	•
500	35	2,40	2,90	15	•	•
510	45	2,40	2,90	15	•	•
550	35	2,40	2,90	15	•	•
380	35	2,10	2,60	13	•	•
455	35	2,10	2,60	13	•	•
505	35	2,10	2,60	17	•	•
555	35	2,10	2,60	17	•	•
610	35	2,10	2,60	17	•	•

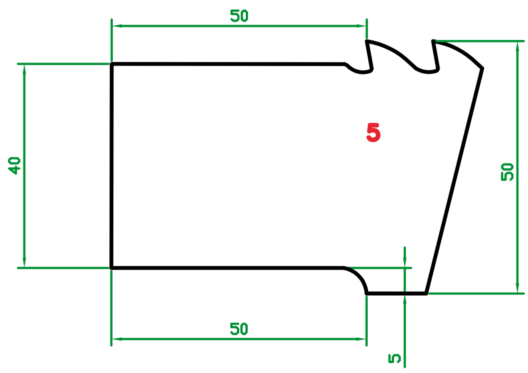
Technical specifications for minigangsaw blades

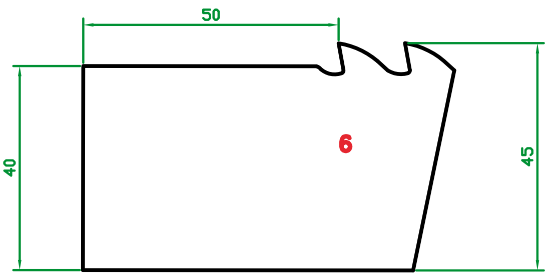


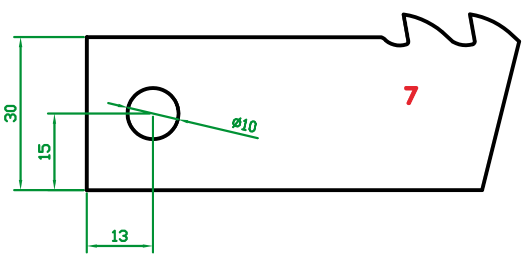


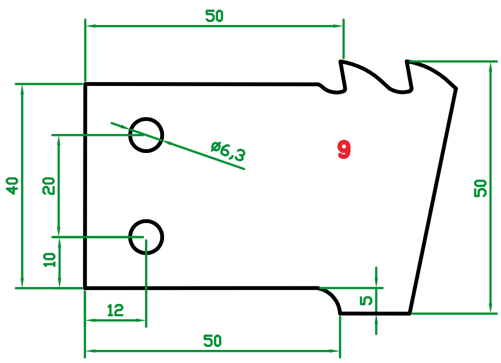


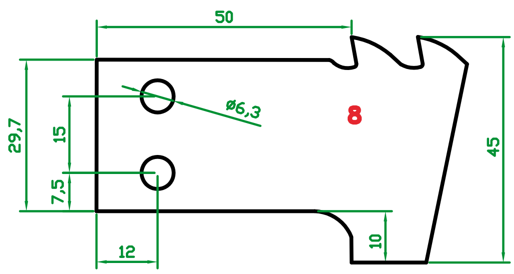


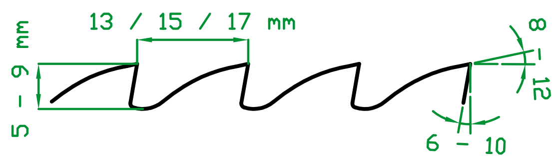








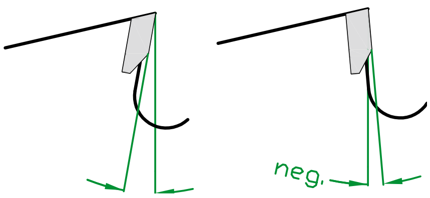




Circular saw blades
Choosing blade

When choosing circular saw blades, a few important details are to be considered. Thickness, diameter, center bore, rake angle, tip type and angles, number of teeth, wiper slots and possible keyways, pinholes and other attachment holes are significant properties of a circular saw blade.

Rake angle

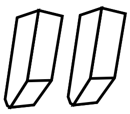


5–8°	Sawing of laminated and veneered boards
5–15°	Cross-cutting, against the feed of work piece
12–25°	Edging of green wood
20°	Ripping of dry or green wood
25–35°	Ripping of green wood

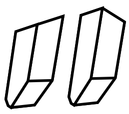
Negative rake angles

N5–10°	Cross-cutting, along the feed of work piece

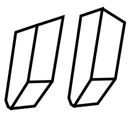
Tip types



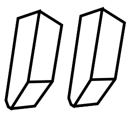
AA Straight teeth. For ripsawing of wood. Especially for multirip and edging blades.



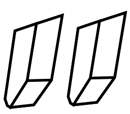
BA Teeth with alternating bevels. For ripping and cross-cutting blades. Most common BA angles are 5°, 10° ja 15°.



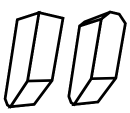
BD As BA but with alternating face. BD grinding is suitable for cutting of veneer and other panels.



CA Teeth with right hand bevels.



DA Teeth with left hand bevels.



EA Trapezoidal teeth. Every other tooth is trapezoidal and every other straight. Suitable for cutting of boards and panels but also for rip sawing in mobile saw blades.

Notice that in circular saw blade sawing the size of cutting angle depends on the working height and blade set up. Blades are usually designed so that there is 10 – 25 mm working height above the material to be cut. If this working height is increased significantly, also rake angle should be modified.

Number of teeth

Blade's diameter and pitch of teeth determine the number of teeth on the blade. Pitch and the number of teeth should be specified so that correct number of teeth are always engaged at cutting work and the optimum cut per tooth is achieved. At least two and no more than four teeth should always cut when processing solid wood. Generally, the thinner the material to be cut the smaller the pitch should be and vise versa. Following table and formulas will help to determine correct number of teeth accurately.

Calculation of cutting data

p = pitch of teeth
S = feed speed in m/min
Sz = feed / tooth in mm
Z = number of teeth
D = diameter of blade in mm
n = blade speed in rpm
V = cutting speed in m/s

$$p = \frac{D*3{,}14}{Z}$$

<u>Feed per tooth [Sz – mm]</u>

To achieve long blade life and good cutting performance, it is important to use correct feed per tooth. Too small feed per tooth causes rapid wear of cutting edge, while too fast feed may cause tool breakage.

$$Sz = \frac{S*1000}{n*Z}$$

Recommended feed/tooth (Sz in mm)

Solid wood	
• cross-cutting	0,10–0,35
• ripping, dry wood	0,10–0,40
• ripping, green wood	0,40–1,20
• presawing/edging	1,50–2,50
Chipboard	0,08–0,25
Plywood	0,08–0,25
MDF	0,08–0,12
Hard fibreboard	0,08–0,12
Veneered board	0,08–0,12
Laminated board	0,08–0,12

<u>Cutting speed [V – m/s]</u>

As a rule you should always choose a blade with the smallest possible diameter to maximize the stability and minimize the kerf. At the same time diameter must also match the speed of the spindle so that the blade runs at its most suitable cutting speed. Carbide tipped blades require relatively high cutting speeds. Recommended speeds vary between 50–70 m/s depending on the blade type.

$$V = \frac{D*3,14*n}{60*1000}$$

Feed speed [S – m/min]

Correct feed speed for a specific blade is determined by the speed of the blade [n], number of teeth [Z] and feed per tooth [Sz].

$$S = \frac{Sz*Z*n}{1000}$$

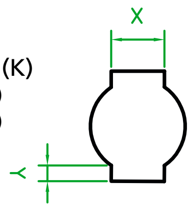
Keyways – pinholes – screw holes – wiper slots

When ordering please indicate the following information also:

Keyways

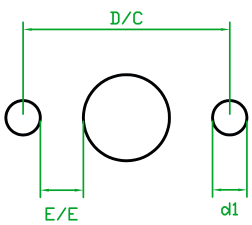
1. Number of keyways (K)
2. Width of keyway (X)
3. Depth of keyway (Y)

For example K=2/20/5



Pinholes

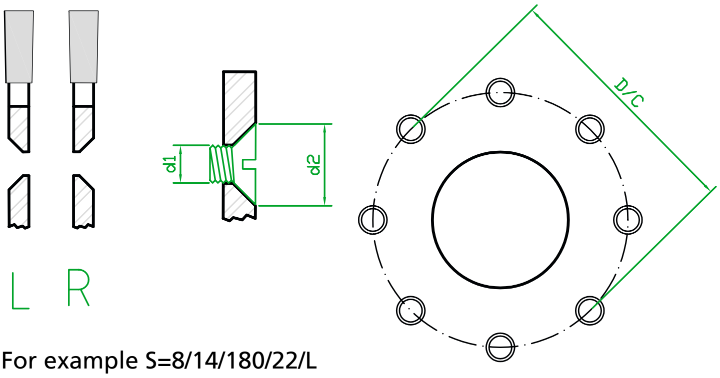
1. Number of pinholes (P)
2. Diameter of pinholes (d1)
3. Pitch circle (D/C) or
4. Hole edge distance from center edge (E/E)



For example P=2/10 D/C 60 or 1/17 E/E 16,5

Screw holes

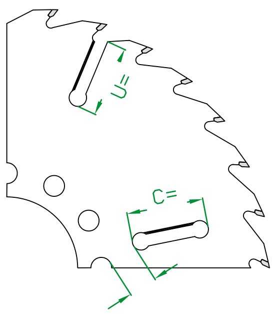
1. Type of sawmill unit
2. Number of screw holes (S)
3. Screw diameter (d1)
4. Pitch circle (D/C)
5. Counter sink diameter (d2)
6. Counter sinking, left or right side, defined by looking at the tip from frontside



For example S=8/14/180/22/L

Wiper slots

1. Number and length of open wiper slots (U)
2. Number and length of closed wiper slots (C)
3. Flange diameter or
4. Wiper slot gullet distance from center bore or hole edge



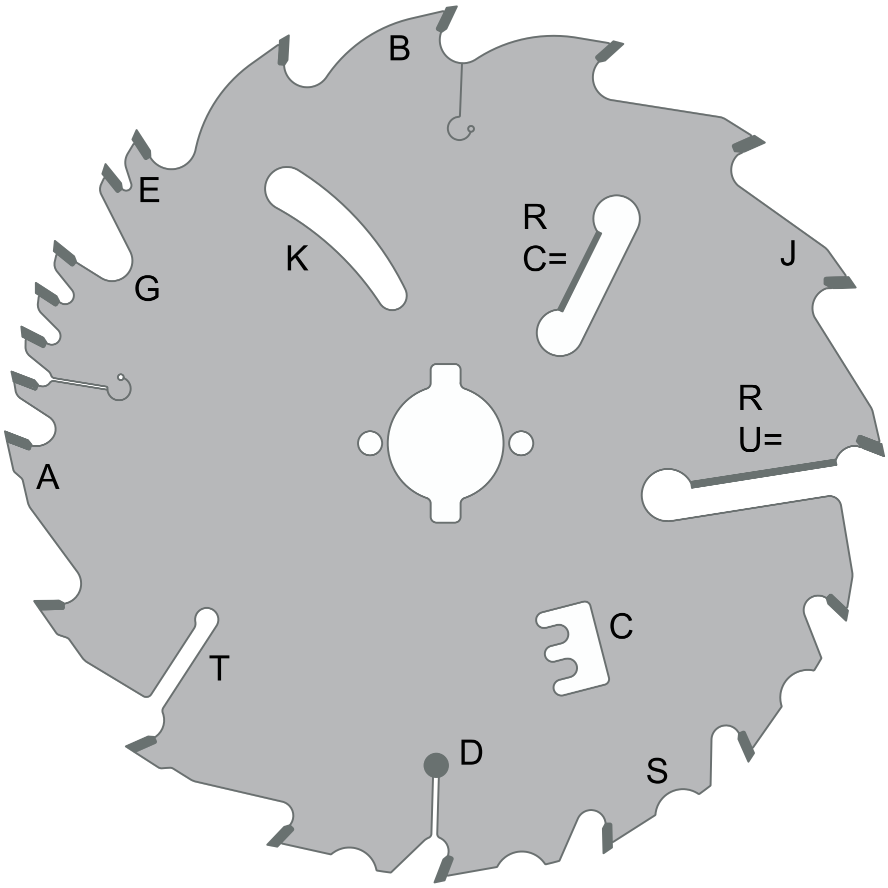
For example U2=65, C2=60

Code key

30 AA **55** J **R** -HM- **556** -4,6 / **3,2** -160, **Z=32**, P=12/11/200, **U2=65**, C2=60

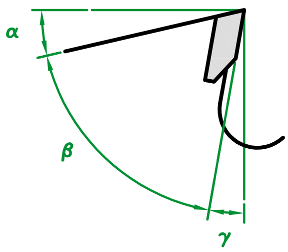
Rake angle (30)
Tip type (AA)
Pitch (55)
Insert teeth (J)
Blade with wiper slots (R)
Carbide tipping (HM)
Blade diameter (556)
Kerf (4,6)
Body thickness (3,2)
Center hole diameter (160)
Number of teeth (Z=32)
Pinholes, 12 holes, 11 mm diameter, 200 mm pitch circle (P=12/11/200)
Open wiper slot, length 65 mm (U2=65)
Closed wiper slot, length 60 mm (C2=60)

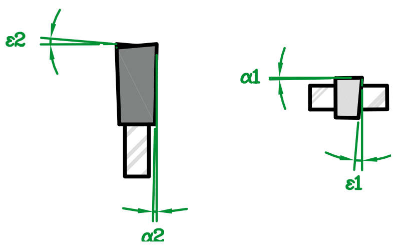
Technical specifications for circular saw blades



Code key

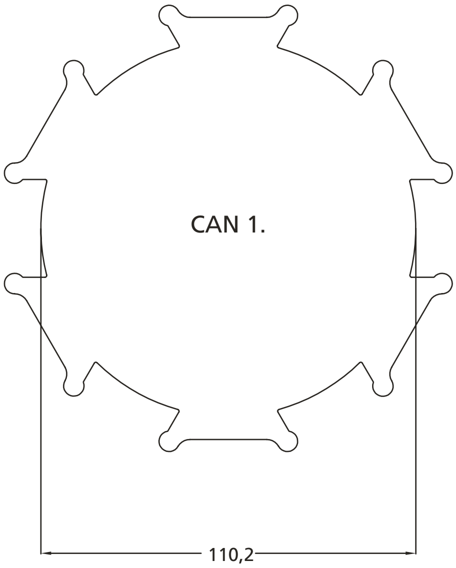
A = Tooth back with step
B = Curved back
C = E-cooling hole / closed wiper slot
D = Coppar rivet
E = Small gullets
F = Adjustable scribing blade
G = Grouped teeth
K = Cooling hole
R = Wiper slot, open & closed
S = Guard teeth
T = Special slot
U = Open wiper slot

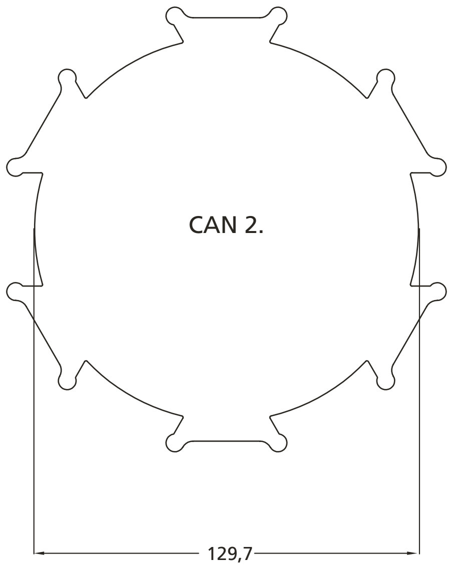


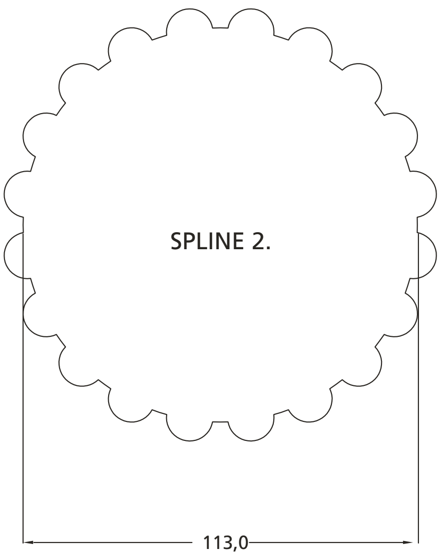


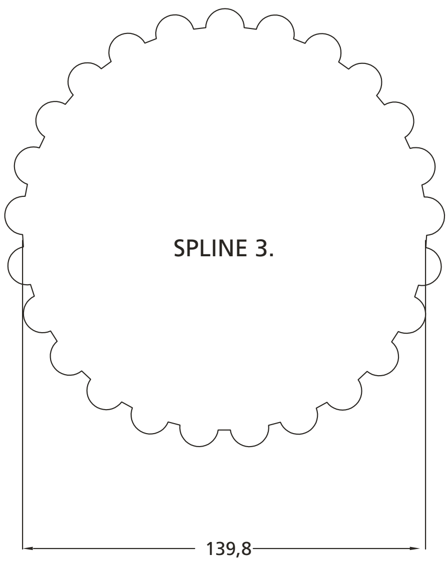
α = Clearance angle
β = Tooth point angle
γ = Rake angle
α1 = Tangential clearance angle
α2 = Radial clearance angle
ε1 = Front bevel angle
ε2 = Back bevel angle

Special center bores for circular saw blades



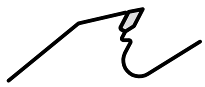




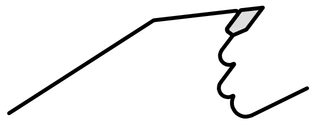


Circular saw blade toothforms

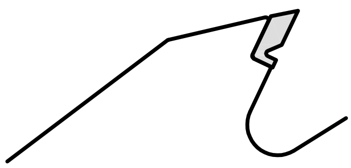
Steptooth Classic 2



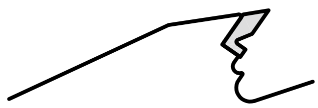
Steptooth Special



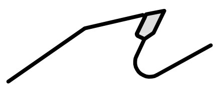
Frost tooth



Frost tooth special

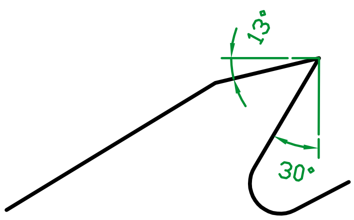


Ripping

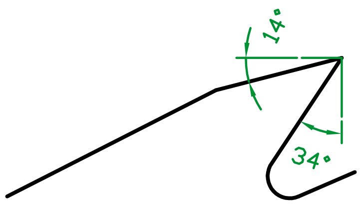


Circular saw blade toothforms

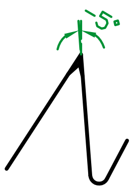
A - toothform



B - toothform



F - toothform



Sawmill blades

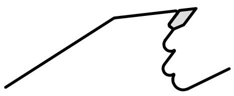
Blades can be manufactured according to your order, the list below represents blade types in common use. All blades are manufactured with carbide or stellite tips.

Different center bores and toothforms can be found from page 29-31.

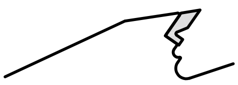
Tooth type	Diameter	Kerf	Thickness	Center bore	Number of teeth	
22AA57AR	540	5,0	3,6	150	30	
25AA57JR	540	4,8	3,6	150	30	
25AA57R	540	4,4	2,8	210	30	
30AA55JR	556	4,4	2,8	160	32	
30AA55JR	556	4,8	3,2	160	32	
30BA50	**700**	**4,2**	**2,8**	**113**	**44**	**stock product**
30BA46	700	3,8	2,6	113	48	
30AA46	700	4,2	2,8	113	36	
30AA55	700	4,2	2,8	113	40	
32BA52	700	4,2	2,8	113	42	
27AA52	700	4,2	2,8	113	42	
28AA52	700	4,2	2,8	113	42	
25EA46	700	4,2	2,8	113	48	
27BA46	700	3,8	2,8	113	48	
26AA46	700	4,2	3,0	113	48	
25BA41	700	4,2	3,0	113	54	
25AA62	708	4,2	2,8	113	36	
26BA44	710	4,2	2,8	113	50	
30BA53	750	4,2	2,8	113	44	
30AA46	820	4,2	2,8	180	56	
26AA54	820	4,2	2,8	180	48	
26AA46	820	4,2	2,8	180	50	
30BA58	1100	4,6	3,4	113	60	
30AA52	1100	4,8	3,4	139,8	66	
30AA58	1100	4,8	3,4	113	60	
30BA58	1100	5,0	3,6	113	60	
28BA54	1200	5,0	3,6	113	70	

Steptooth Classic 2

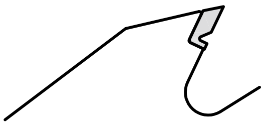
Steptooth Special



Frost tooth special



Frost tooth



Ripping

Hew saw blades

Blades can be delivered also with other dimensions and wiper slots.

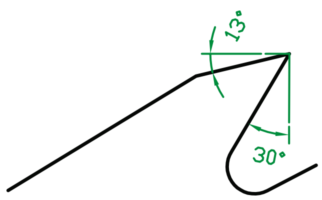
	Tooth type	Diameter	Kerf	Thickness	Center bore	Number of teeth	Wiper slots	Pinholes	Chromium plated
Ripping blades	23AA43BJR	251	3,6	2,4	55	18	U2=55		-
	23AA43BJR	251	3,6	2,4	55	18	U3=55 S=3	P=3/23/142 L - R	-
	27AA46BJR	351	3,6	2,4	70	24	U2=50		Cr
	27AA46BJR	351	3,8	2,6	70	24	U2=50 C2=40		Cr
	25AA37BJR	351	3,6	2,4	70	30	U2=50		Cr
	25AA37BJR	351	3,8	2,6	70	30	U2=50 C2=40		Cr
	27AA46BJR	351	3,6	2,4	70	24	U2=50		-
	27AA46BJR	351	3,8	2,6	70	24	U2=50 C2=40		-
	25AA37BJR	351	3,8	2,6	70	30	U2=50 C2=40		-
	25AA37BJR	351	3,8	2,6	70	30	U=50		-
	27AA52BJR	401	4,2	2,8	99	24	U2=65		
Pre-sawing	25AA33GX	252	4,0	3,5	70	24-2			
	25AA30AJX	345	3,8	2,9	144	36		H=256/10,7 L-R	
	25AA30AJX	345	4,7	3,8	144	36		H=256/10,7 L-R	
	25AA30AJX	345	4,1	3,1	144	36		H=256/10,7 L-R	
	25AA30AJX	345	4,7	3,8	144	36		H=256/10,5 L-R	

Blank blades for mobile sawmills

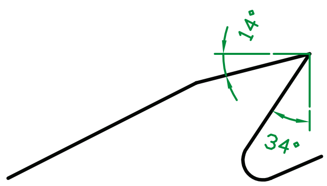
Pretensioned, for spring setting or tipping. Standard centerbore 50 mm with one 17 mm pinhole 16,5 mm E/E.

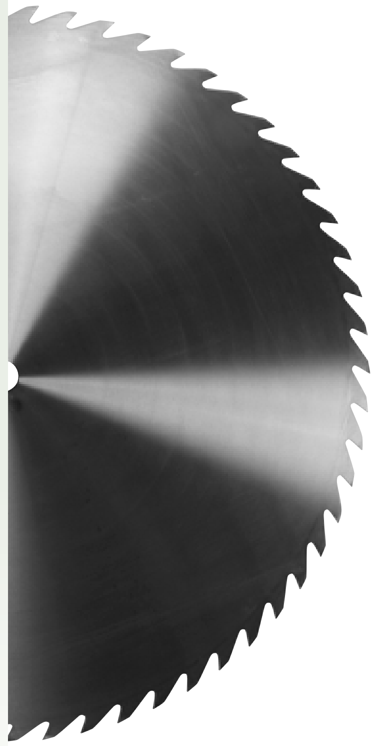
Diameter	Thickness	Number of teeth	Toothform	In Stock
800	3,0	46 / 60	A - B	
900	3,0	46 / 60	A - B	
950	3,2	60 / 70	A - B	•
950	3,6	60 / 70	A - B	•
1000	3,2	60 / 70	A - B	
1000	3,6	60 / 70	A - B	•
1000	4,0	60 / 70	A - B	•
1050	3,2	42 / 60 / 70	A - B	
1100	3,6	60 / 70	A - B	•
1100	4,0	60 / 70	A - B	•
1200	3,6	50 / 60 / 70	A - B	
1200	4,0	50 / 60 / 70	A - B	

A - hammasmuoto
A - toothform



B - hammasmuoto
B - toothform





Blades which are kept in stock have B-toothform.

Product codes

1810	standard
1850	chromium plated
1811	standard blade for spring setting
1851	chromium plated blade for spring setting

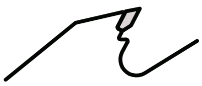
Blades which are intended for spring setting are pre set and the back of the tooth has a bevel.

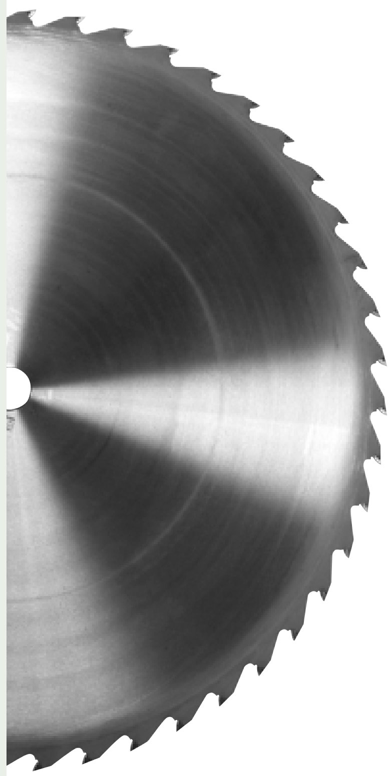
Ripping blades for mobile sawmills

Tensioned, carbide or stellite tipped. The blades are produced with chipbreaker toothform. Standard centerbore 50 mm with one 17 mm pinhole 16,5 mm E/E.

Tooth type	Diameter	Kerf	Thickness	Number of teeth	Stellite	Carbide	In stock
30BA46	700	4,5	3,2	48	•	•	
30BA49	750	4,6	3,0	48	•	•	
30BA52	800	4,5	3,2	48	•	•	
30BA50	900	4,4	3,0	56	•	•	
30BA60	900	4,4	3,0	48	•		•
30BA50	950	4,6	3,2	60	•	•	
30BA60	950	4,6	3,2	50	•	•	
30BA50	1000	4,6	3,2	62	•	•	
30BA60	1000	4,6	3,2	52	•		•
30BA50	1100	5,0	3,6	68	•	•	
30BA60	1100	5,0	3,6	56	•		•
30BA50	1200	5,0	3,6	72	•	•	
30BA60	1200	5,0	3,6	72	•	•	

Porrashammas Classic 2
Steptooth Classic 2





Cross cutting blades for paper and pulp industry

Straight blades 1811–1851

Diameter	Thickness	Number of teeth	Toothform
1100	3,6	120	F
1150	3,6	120	F
1200	3,6	120	F
1250	3,6	74 / 120	F
1300	4,0	120	F
1350	4,0	120	F
1400	4,5	120	F
1500	5,0	96 / 120	F
1600	5,5	120	F
1650	5,5	120	F
1700	5,5	110 / 120	F
1800	5,5	110 / 120	F
2000	6,5	120 / 140	F

Tapered blades 1812–1852

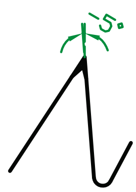
Diameter	Thickness	Number of teeth	Toothform
1300	3,5 / 4,5	120	F
1400	3,5 / 4,5	120	F
1500	4,5 / 5,5	96 / 120	F
1600	5,0 / 6,0	120	F
1700	5,0 / 6,0	110 / 120	F
1800	5,0 / 6,0	110 / 120	F
2000	5,5 / 6,5	120 / 140	F

Product codes

1811	standard
1851	chromium plated
1812	conical blade
1852	chromium plated conical blade

Possibility for chromium treatment up to 1500 mm in diameter.

F – hammasmuoto
F – toothform



All blade bodies

Pretensioned, for spring setting or tipping. For ripping or cross cutting, according to toothform.

Diameter	Thickness	Number of teeth Ripping	Number of teeth Cross cutting	Weight [kg]	RPM r / min = 50 m / s
400	1,8	60	80	1,8	2390
450	2,0	60	80	2,5	2120
500	2,2	60	80	3,1	1910
550	2,2	60	80	3,9	1735
600	2,4	42, 60	80	5,1	1590
650	2,4	60	80	5,9	1470
700	2,6	60	80	6,9	1365
750	2,8	44, 60	80	9,0	1270
800	3,0	60	80	11,0	1195
850	3,0	80	80	13,0	1125
900	3,0	46, 60	80	15,0	1060
950	3,2	60, 70	80	17,0	1005
1000	3,2	60, 70	120, 90	19,0	955
1050	3,2	42, 60, 70	120, 90	20,0	910
1100	3,6	60, 70	120	24,0	870
1150	3,6	60, 70	120	28,0	830
1200	3,6	50, 60, 70	120	30,0	795
1250	3,6	60, 70	74, 120	34,0	765
1300	4,0	60, 70	120	41,0	735
1350	4,0	52, 60, 70	120	45,0	705
1400	4,5	60, 70	120	53,0	680
1500	4,5	56, 60, 70	96, 120	65,0	635
1600	5,0	60, 70	120	73,0	595
1650	5,0	58, 60, 70	120	82,0	580
1700	5,5	60, 70	110, 120	92,0	560
1800	5,5	60, 70	110, 120	115,0	530
2000	6,5	70	120, 140	165,0	475

Product codes

1810	standard
1850	chromium plated
1811	standard blade for spring setting
1851	chromium plated for spring setting

Blades which are intended for spring setting are pre set and the back of the tooth has a bevel.

Chipper canter blades

With carbide or Stellite tipping

Ari – pre-sawing

Tooth type	Outer diameter	Kerf	Thickness	Inner diameter	Number of teeth	Screw holes
XXAA35	660	4,0	3,0 - 7,0	460	60	12 / 13 / 530 R-L
XXAA35	660	4,7	3,7 - 7,0	460	60	12 / 13 / 530 R-L

post-sawing

Tooth type	Outer diameter	Kerf	Thickness	Inner diameter	Number of teeth	t Screw holes
XXAA38	588	8,0	7,0	460	48	6 / 13 / 495
XXAA33	630	8,4	7,0	460	60	6 / 13 / 530

pre-sawing

Tooth type	Outer diameter	Kerf	Thickness	Inner diameter	Number of teeth	t Screw holes
XXAA32	735	5,0	3,6 - 7,0	460	72	12 / 28 / 520 R-L

All chipper canter blades are produced with recessed teeth for highest strength and beveled gullets for best chip flow.

Blades can be delivered with AA or BA grinding and with any rake angle. Recommended rake angles vary from 12 to 28 degrees.

pre-sawing

Tooth type	Outer diameter	Kerf	Thickness	Inner diameter	Number of teeth	Screw holes
XXAA38	730	4,1	3,2 - 7,0	520	60	12 / 13 / 590 R-L
XXAA38	725	4,1	3,2 - 7,0	520	60	12 / 13 / 590 R-L
XXAA33	725	4,1	3,2 - 7,0	520	70	12 / 13 / 590 R-L

pre-sawing

Tooth type	Outer diameter	Kerf	Thickness	Inner diameter	Number of teeth	Screw holes
XXAA41	625	4,0	3,2 - 6,0	440	48	16 / 16 / 505 R-L
XXAA41	625	4,0	3,2 - 6,0	440	48	16 / 16 / 545 R-L
XXAA41	625	4,0	3,2 - 6,0	480	48	16 / 16 / 545 R-L
XXAA43	650	4,0	3,2 - 6,0	480	48	16 / 16 / 545 R-L
XXAA43	660	4,8	4,0 - 6,0	480	48	16 / 16 / 545 R-L
XXAA44	670	4,0	3,2 - 6,0	480	48	16 / 16 / 545 R-L
XXAA35	710	4,4	3,4 - 6,0	560	64	16 / 16 / 605 R-L
XXAA35	715	4,4	3,4 - 6,0	560	64	16 / 16 / 605 R-L
XXAA31	715	4,5	3,6 - 6,0	560	72	18 / 16 / 605 R-L
XXAA38	720	4,0	3,2 - 6,0	560	60	16 / 16 / 605 R-L
XXAA38	720	4,0	3,2 - 6,0	560	60	18 / 16 / 605 R-L

Universal blades – Ripping – Cross cutting

15BA16...

Universal blade which is designed for ripping and cross cutting of hard and soft wood. Also suitable for sawing of thin boards

Diameter	Kerf	Thickness	Center bore	Number of teeth	Info	Availability
160	2,4	1,6	20	30	-	
180	2,4	1,6	30	36	-	
250	2,8	2,0	30	50	-	
300	2,8	2,0	30	60	P=2/10/60	
315	3,2	2,2	30	60	P=2/10/60	X
350	3,2	2,2	30	72	P=2/10/60	O

20BA19...

Universal blade which is intended for ripping in medium to heavy sections. Can also be used for cross cutting.

Diameter	Kerf	Thickness	Center bore	Number of teeth	Info	Availability
150	2,0	1,4	30	24	-	
180	2,4	1,6	30	30	-	
200	2,0	1,4	30	32	-	X
200	2,4	1,6	30	32	-	X
225	2,0	1,4	30	36	-	
250	2,8	2,0	30	40	P=2/7/42	X
250	3,2	2,2	15,9	40	-	O
250	3,2	2,2	20	40	P=2/7/42	O
250	3,2	2,2	22	40	P=2/10/32	O
250	3,2	2,2	30	40	P=2/7/42 + 2/10/60	X
300	2,4	1,6	30	48	-	X
300	2,8	2,0	20	48	-	O
300	2,8	2,0	25	48	-	O
300	2,8	2,0	30	48	P=2/7/42 + 2/10/60	X
300	3,2	2,2	30	48	P=2/7/42 + 2/10/60	X
315	3,2	2,2	30	48	-	X
350	2,8	2,0	30	56	P=2/10/60	O
350	3,2	2,2	30	56	P=2/10/60	X
350	3,5	2,5	30	56	P=2/10/60	X
400	3,5	2,5	30	64	P=2/10/60	X
450	3,2	2,2	30	72	P=1/9/54	
500	4,0	2,8	30	80	-	

X = stock product
O = short delivery time

Good cutting results depend on choosing the right blade. As a rule of thumb thin materials should be cut with a blade which has small pitch and thicker materials with a larger tooth pitch.

At least two and no more than four teeth should be engaged at cutting work at any time.

Tip type BA is recommended for ripsawing of hard wood and AA is suitable for softer wood species.

20BA19X...

Very thin ripping blade with hub. Note that cutting height is limited to 15 % of blade diameter. State position of hub when ordering, left or right side.

Diameter	Kerf	Thickness	Center bore	Number of teeth	Info	Availability
150	1,5	1,0	30	24	H=104/2,0/R-L	
200	1,5	1,0	15,9	32	H=140/2,0/R	
200	1,5	1,0	30	32	H=140/2,0/R	
225	1,5	1,0	30	36	H=157/2,2/L	
250	1,5	1,0-2,2	20	40	H=175/2,2/L	
250	1,5	1,0	25	40	H=160/2,0/R	
250	1,5	1,0	25	40	H=186/2,0/R	
250	1,5	1,0	25	40	H=190/2,2/R	
250	1,5	1,0	30	40	H=175/2,2/R-L	
300	1,5	1,0	30	48	H=220/2,2/R	
300	1,5	1,0	45	48	H=210/2,2/L K=1/10/8	
300	1,5	1,0	45	48	H=200/2,2/R	
300	1,5	1,0	50	48	H=268/2,2/R	
300	1,5	1,0	70	48	H=210/2,2/R	
300	1,8	1,1	30	48	H=210/2,2/R	
350	1,5	1,0	30	60	H=245/2,5/R	
350	1,8	1,2	25	56	H=244/2,5/R	
350	1,8	1,2	30	56	H=244/2,5/L	
350	1,8	1,2	30	56	H=245/2,5/R	
350	1,8	1,2	40	56	H=244/2,5/R	

20BA26A...

Blade which is intended for ripping in medium sections.

Diameter	Kerf	Thickness	Center bore	Number of teeth	Info	Availability
180	2,8	2,0	40	22	-	
200	2,6	1,8	40	24	-	
225	3,2	2,2	40	28	-	
230	2,4	1,6	50	28	-	
250	2,8	2,0	40	30	P=2/7/42	
275	2,8	2,0	50	34	-	
300	3,2	2,2	30	36	P=2/10/60	O
300	3,2	2,2	80	36	K=2/20/5	O
300	3,2	2,2	85	36	K=1/20/10	O
300	3,2	2,2	90	36	K=2/15/7,5	O
350	3,2	2,2	30	42	P=2/10/60	O
350	3,5	2,5	30	42	-	O
350	3,5	2,5	85	42	-	O
400	3,2	2,2	30	48	P=2/10/60	
450	4,0	2,8	30	56	P=2/10/59,6	

X = stock product
O = short delivery time

Universal blades – Ripping – Cross cutting

20AA30A...

Intended for ripping in medium to heavy sections. Can also be used for multirip sawing of dry planed timber. Tip type BA is recommended for hardwoods.

Diameter	Kerf	Thickness	Center bore	Number of teeth	Info	Availability
180	2,8	2,0	15,9	18	-	
200	2,8	2,0	30	20	-	
250	2,4	1,6	30	24	-	X
250	3,2	2,2	30	24	P=2/7/42	O
300	3,2	2,2	25,4	30	-	O
300	3,2	2,2	30	30	P=2/10/60	O
350	2,8	2,0	30	36	-	O
350	3,5	2,5	25	36	-	O
350	3,5	2,5	25,4	36	-	O
350	3,5	2,5	30	36	P=2/10/60	O
400	3,5	2,5	30	40	P=2/10/60	
450	4,0	2,8	30	44	-	O
500	4,0	2,8	30	50	-	
610	4,4	3,0	30	60	-	

20BA30A...

Diameter	Kerf	Thickness	Center bore	Number of teeth	Info	Availability
180	2,0	1,4	30	18	-	
200	2,0	1,4	30	20	-	
225	3,2	2,2	30	22	-	
250	2,2	1,6	30	24	P=2/7/42	O
250	2,4	1,4	30	24	-	O
250	3,2	2,2	15,9	24	-	O
250	3,2	2,2	30	24	P=2/7/42	O
300	3,2	2,2	30	30	P=2/10/60	O
315	3,2	2,2	30	32	P=2/10/60	
350	3,5	2,5	25	36	-	O
350	3,5	2,5	25,4	36	-	O
350	3,5	2,5	30	36	P=2/10/60	O
400	3,5	2,5	30	40	P=2/10/60	
450	4,0	2,8	30	44	-	O
500	4,0	2,8	30	50	-	
560	4,4	3,0	30	56	-	
610	4,4	3,0	30	60	-	

X = stock product
O = short delivery time

Universal blades – Ripping – Cross cutting

20AA39A...

Intended for ripping of soft wood of heavy sections. Can also be used for multirip sawing of dry timber.

Diameter	Kerf	Thickness	Center bore	Number of teeth	Info	Availability
200	3,2	2,2	30	16	-	
225	2,8	2,0	30	18	-	O
250	3,2	2,2	30	20	P=2/7/42	O
280	3,2	2,2	30	22	-	
300	3,2	2,2	25,4	24	-	O
300	3,2	2,2	30	24	P=2/10/60	X
350	3,5	2,5	30	28	P=2/10/60	X
400	3,5	2,5	30	32	P=2/10/60	X
450	4,0	2,8	30	36	-	X
500	4,0	2,8	30	40	-	X
500	4,0	2,8	30	40	P=2/10/60	O
560	4,4	3,0	30	44	-	
610	4,4	3,0	30	48	-	O

20BA39A...

BA-tip type for harder wood species.

Diameter	Kerf	Thickness	Center bore	Number of teeth	Info	Availability
200	2,4	1,6	30	16	-	
225	2,8	2,0	30	18	-	O
250	3,2	2,2	15,9	20	-	O
250	3,2	2,2	30	20	P=2/7/42	O
280	3,2	2,2	30	22	-	
300	3,2	2,2	15,9	24	-	O
300	3,2	2,2	25	24	-	O
300	3,2	2,2	30	24	-	O
350	3,5	2,5	30	28	P=2/10/60	O
400	3,5	2,5	30	32	P=2/10/60	X
450	4,0	2,8	30	36	-	O
500	4,0	2,8	30	40	-	O
560	4,4	3,0	30	44	-	
610	4,4	3,0	30	48	-	O

X = stock product
O = short delivery time

Cross cutting blades

N05BA...

Negative rake angle is needed when cross cutting along the feed of the work piece to achieve best possible surface finnish and to prevent self feeding.

Diameter	Kerf	Thickness	Center bore	Number of teeth	Copper rivets	Chromium plated
400	3,5	2,5	30	64	•	-
400	3,5	2,5	30	80	•	-
400	3,5	2,5	30	96	•	-
450	4,0	2,8	30	72	•	-
450	4,0	2,8	30	90	•	-
450	4,0	2,8	30	108	•	-
500	4,0	2,8	30	80	•	-
500	4,0	2,8	30	100	•	-
500	4,0	2,8	30	120	•	-
560	4,4	3,0	30	110	•	-

10BA...

Universal cross cutting blades which are intended for cutting of chipboards, plasterboards and MDF boards and also for solid wood in medium sections.

Diameter	Kerf	Thickness	Center bore	Number of teeth	Copper rivets	Chromium plated
400	3,5	2,5	30	64	•	-
400	3,5	2,5	30	80	•	-
400	3,5	2,5	30	96	•	-
450	4,0	2,8	30	72	•	-
450	4,0	2,8	30	90	•	-
450	4,0	2,8	30	108	•	-
500	4,0	2,8	30	80	•	-
500	4,0	2,8	30	100	•	-
500	4,0	2,8	30	120	•	-
560	4,4	3,0	30	88	•	-
560	4,4	3,0	30	110	•	-
610	4,4	3,0	30	96	•	-

12BD...

Tip type BD, teeth with alternating bevels and alternating face quarantee a premium surface finnish when cross cutting boards or solid wood.

Diameter	Kerf	Thickness	Center bore	Number of teeth	Copper rivets	Chromium plated
400	4,0	2,8	30	96	•	Cr
400	4,0	2,8	30	108	•	Cr
400	4,0	2,8	30	120	•	Cr
450	4,2	3,2	30	108	•	Cr
450	4,2	3,2	30	120	•	Cr
450	4,2	3,2	30	140	•	Cr
500	4,2	3,2	30	120	•	Cr
500	4,2	3,2	30	132	•	Cr
500	4,2	3,2	30	160	•	Cr
560	4,2	3,2	30	140	•	Cr
560	4,2	3,2	30	160	•	Cr
560	4,2	3,2	30	180	•	Cr

The tooth pitch of cross cutting blades depends on the thickness of the material to be cut. As a rule of thumb thin materials should be cut with a blade which has a small pitch and thicker materials with a larger tooth pitch. At least two and no more than six teeth should be engaged at cutting work at any time.

Tip type BA is recommended for cross cutting blades in order to achieve the best possible quality in cutting.

08BA/EA10

Intended for cutting of double-sided laminated boards and cross cutting of wood in small sections.
For highly abrasive materials tip type EA is recommended. Maximum cutting height is 30 mm. Sawed surface finish is good due to small pitch of teeth.

Diameter	Kerf	Thickness	Center bore	Number of teeth	Copper rivets	Chromium plated
150	2,0	1,4	15,9	48	-	-
150	2,8	2,0	15,9	48	-	-
180	2,0	1,4	30	56	-	-
180	2,8	2,0	15,9	56	-	-
200	2,0	1,4	30	64	-	-
200	2,8	2,0	30	64	-	-
220	3,2	2,2	30	72	-	-
225	3,2	2,2	30	72	-	-
250	2,4	1,6	30	80	-	-
250	3,2	2,2	30	80	•	-
300	2,4	1,6	30	96	-	-
300	3,2	2,2	30	96	•	-
305	3,0	2,2	25,4	100	•	-
350	2,8	2,0	30	108	-	-
350	3,5	2,5	30	108	•	-
400	3,5	2,5	30	120	•	-
450	4,0	2,8	30	144	•	-

08BA/EA13

Intended for cutting of single-sided laminated boards and cross cutting of wood in small sections.
For highly abrasive materials tip type EA is recommended. Maximum cutting height is 40 mm. Sawed surface finish is good due to small pitch of teeth.

Diameter	Kerf	Thickness	Center bore	Number of teeth	Copper rivets	Chromium plated
150	2,8	2,0	40	36	-	-
180	2,8	2,0	30	42	-	-
200	2,8	2,0	30	48	-	-
225	3,2	2,2	30	54	-	-
250	3,2	2,2	30	60	•	-
300	3,2	2,2	30	72	•	-
350	3,5	2,5	30	84	•	-
400	3,5	2,5	30	96	•	-
450	4,0	2,8	30	108	•	-
500	4,0	2,8	30	120	•	-
560	4,4	3,0	30	132	•	-
610	4,4	3,0	30	144	•	-

Cross cutting blades

10BA16

Intended for cutting of non-laminated and single-sided laminated boards and cross cutting of wood in medium sections. Maximum cutting height is 50 mm.

Diameter	Kerf	Thickness	Center bore	Number of teeth	Copper rivets	Chromium plated
250	3,2	2,2	30	50	-	-
300	3,2	2,2	30	60	-	-
350	3,5	2,5	30	72	-	-
400	3,5	2,5	30	80	-	-
450	4,0	2,8	30	90	-	-
500	4,0	2,8	30	100	-	-

10BA19

Intended for cutting of chipboards, plasterboards and MDF boards also for wood in medium sections. Larger blades are also suitable for trimming applications.

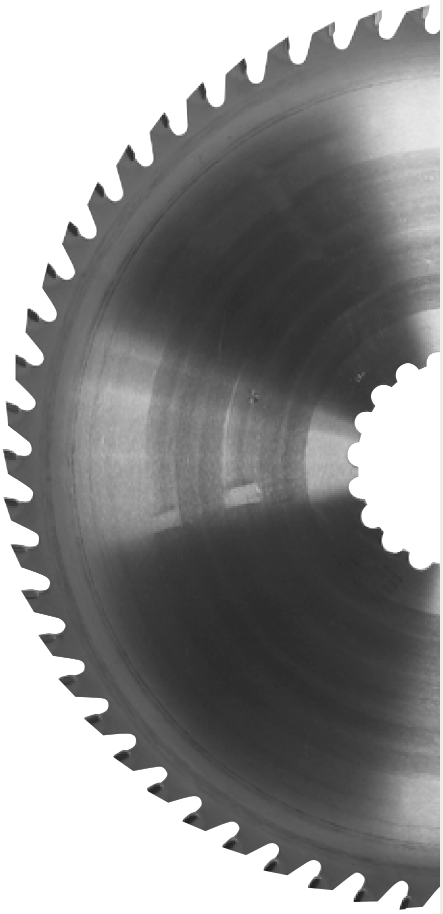
Diameter	Kerf	Thickness	Center bore	Number of teeth	Copper rivets	Chromium plated
150	2,8	2,0	30	24	-	-
180	2,8	2,0	30	30	-	-
200	2,8	2,0	30	32	-	-
225	3,2	2,2	30	36	-	-
250	3,2	2,2	30	40	-	-
300	3,2	2,2	30	48	-	-
350	3,5	2,5	30	56	-	-
400	3,5	2,5	30	64	-	-
450	4,0	2,8	30	72	•	-
500	4,0	2,8	30	80	•	-
610	4,4	3,0	30	96	•	-
650	4,4	3,0	30	108	•	-
700	4,4	3,0	30	110	•	-

Edger blades

All edger blades are manufactured from first class rawmaterials which guarantee durability during winter and summer. Edger blades can be delivered with other cutting angles and blade thicknesses. Chromium plating is also possible.

With carbide or Stellite tipping

Tooth type	Diameter	Kerf	Thickness	Center bore	Number of teeth	Wiper slots	Pinholes
12BA(15)26	500	5,0	3,5	SPL 2	60		
27EA30	450	5,0	3,6	80	44		1 / 16 / 112
27AA39R	450	5,2	3,8	80	36	U2, C2	1 / 16 / 112
22BA(05)27R	400	5,0	3,6	146	46	U2, C2	6 / 13 / 172
22AA27HJR	400	5,0	3,8	146	46	U2, C2	6 / 13 / 172
22BA(05)31R	400	5,0	3,6	72	40	U2, C2	4 / 14 / 140
22AA31AJ	350	5,2	3,8	150	36		2 / 12 / 170,4
22BA(05)20AJ	350	5,0	3,6	150	56		2 / 12 / 170,4
22BA(05)30AJ	350	5,0	3,6	150	36		2 / 12 / 170,4



Multi-rip Saw Blades

Multix multirip saw blade with wiper slots or wiper slots and guard teeth.

20AA30AR...

Intended for sawing of hard or soft woods with moderate feeding speeds. Choose AR for green and RS for dried wood.

Diameter	Kerf	Thickness	Center bore	Number of teeth	Info	Availability
225	2,8	2,0	60	24	U2=35 P=3/10,5/74	
225	2,8	2,0	80	24	U2=35 K=2/20/5	
250	2,8	2,0	60	24	U2=50 P=3/10,5/74	
250	2,8	2,0	70	24	U2=50 K=2/20/5	
250	2,8	2,0	80	24	U3=25 K=2/20/5	

20AA30RS...

Diameter	Kerf	Thickness	Center bore	Number of teeth	Info	Availability
180	1,6	1,1	60	18	U2=25 P=3/10,5/74	
200	2,0	1,4	59,96	20	U2=30 P=3/10,5/74	
200	2,0	1,4	60	20	U2=30 P=3/10,5/74	O
225	1,6	1,1	60	24	U2=35 K=2/20/11	O
250	2,0	1,4	60	24	U2=35 P=3/10,5/74	
300	2,8	2	70	30	U2=60 K=2/21/5	

20AA39AR...

Diameter	Kerf	Thickness	Center bore	Number of teeth	Info	Availability
225	1,6	1,1	70	18	U2=35 K=2/20/7	
225	2,0	1,4	70	18	U2=35 K=2/20/7	
250	2,5	1,8	70	20	U2=50 K=2/20/5	
250	2,8	2,0	70	20	U2=50 K=2/20/7	
300	2,5	1,8	70	24	U2=60 K=2/12/8	
350	3,5	2,5	75	28	U2=70 K=2/12/8	

20AA39RS...

Diameter	Kerf	Thickness	Center bore	Number of teeth	Info	Availability
180	2,0	1,4	50	14	U2=25	O
180	2,0	1,4	59,96	14	U2=25 P=3/10,5/74	O
180	2,0	1,4	60	14	U2=25 P=3/10,5/74	O
180	2,0	1,4	70	14	U2=25	O
180	2,5	1,8	40	14	U2=30	X
180	2,5	1,8	50	14	U2=30 P=3/10,5/64	O
200	2,0	1,4	60	16	U2=30 P=3/10,5/74	X
200	2,5	1,8	40	16	U2=30	X
200	2,5	1,8	45	16	U2=30	O
200	2,5	1,8	50	16	U2=30	O
200	2,5	1,8	60	16	U2=30 P=3/10,5/74	X
225	2,5	1,8	60	18	U2=35 P=3/10,5/74	X
240	2,8	2,0	70	20	U2=35 P=3/10,5/74	
250	1,6	1,1	60	20	U2=35 P=3/10,5/74	
280	3,2	2,2	70	22	U2=50 K=2/13/5	
300	3,2	2,2	60	24	U2=60 K=2/20/6,5	
350	2,8	2,0	30	28	U2=70	

X = stock product
O = short delivery time

Multi-rip Saw Blades

20AA49AR...

Intended for sawing of green or dry soft woods with high cutting heights and feeding speeds.

Diameter	Kerf	Thickness	Center bore	Number of teeth	Info	Availability
300	3,2	2,2	70	20	U2=60 K=2/13/5	
300	3,2	2,2	70	20	U2=60 K=2/22/8	
350	3,5	2,5	70	24	U2=70 K=2/2/13/5	O
350	3,5	2,5	70	24	U2=70 K=2/20/7	O
400	4,0	2,8	70	24	U2=70 C2=40 K=2/20/7	

20AA49RS...

Diameter	Kerf	Thickness	Center bore	Number of teeth	Info	Availability
225	1,6	1,1	60	16	U2=35 P=3/10,5/74	O
225	2,0	1,4	60	16	U2=35 P=3/10,5/74	X
225	2,5	1,8	60	16	U2=35 P=3/10,5/74	X
225	2,8	2,0	60	16	U2=35 P=3/10,5/74	X
240	2,5	1,6	60	16	U2=35 P=3/10,5/74	
250	2,5	1,8	80	16	U2=35	O
250	3,2	2,2	70	16	U2=50 K=2/20/7	O
250	3,2	2,2	80	16	U2=50 K=2/12/5	O
280	3,2	2,2	90	18	U2=50 K=2/13/5	X
300	3,2	2,2	60	20	U2=60 K=2/20/5	X
300	3,2	2,2	70	20	U2=60 K=2/20/7	X
300	3,2	2,2	80	20	U2=60 K=2/20/5+2/15/5	O
300	3,2	2,2	80	20	U2=60 K=2/2/12/5	X
315	2,5	1,8	70	20	U2=60 K=2/20/5	
350	3,5	2,5	70	24	U2=70 K=2/20/7	O
400	4,0	2,8	30	28	U2=70	

X = stock product
O = short delivery time

Multi-rip Saw Blades Blue Line

Coated multirip saw blades with small kerf.

	Diameter	Kerf	Thickness	Center bore	Number of teeth	Info	Availability
20AA28A...	180	1,6	1,1	60	20	Blu P=3/10,5/74	O
	180	1,8	1,6	60	20	Blu P=3/10,5/74	O
	180	2,0	1,4	60	20	Blu P=3/10,5/74	O
20AA31AR...	200	1,6	1,1	60	20	Blu U2=30 P=3/10,5/74	
	200	1,8	1,2	60	20	Blu U2=30 P=3/10,5/74	O
	200	2,0	1,4	60	20	Blu U2=30 P=3/10,5/74	O
20AA29AR...	225	1,6	1,1	60	24	Blu U2=30 P=3/10,5/74	
	225	1,8	1,2	60	24	Blu U2=30 P=3/10,5/74	O
	225	2,0	1,4	60	24	Blu U2=30 P=3/10,5/74	O
	225	1,6	1,1	70	24	Blu U2=30 K=2/20/5	X
	225	1,8	1,2	70	24	Blu U2=30 K=2/20/5	
	225	2,0	1,4	70	24	Blu U2=30 K=2/20/5	
20AA22AR...	250	1,6	1,1	60	36	Blu U2=35 P=3/10,5/74	O
	250	1,8	1,2	60	36	Blu U2=35 P=3/10,5/74	O
	250	2,0	1,4	60	36	Blu U2=35 P=3/10,5/74	O
20AA28AR...	250	1,6	1,1	60	28	Blu U2=35 P=3/10,5/74	O
	250	1,8	1,2	60	28	Blu U2=35 P=3/10,5/74	O
	250	2,0	1,4	60	28	Blu U2=35 P=3/10,5/74	O
	250	1,6	1,1	70	28	Blu U2=35 K=2/20/5	O
	250	1,8	1,2	70	28	Blu U2=35 K=2/20/5	O
	250	2,0	1,4	70	28	Blu U2=35 K=2/20/5	O

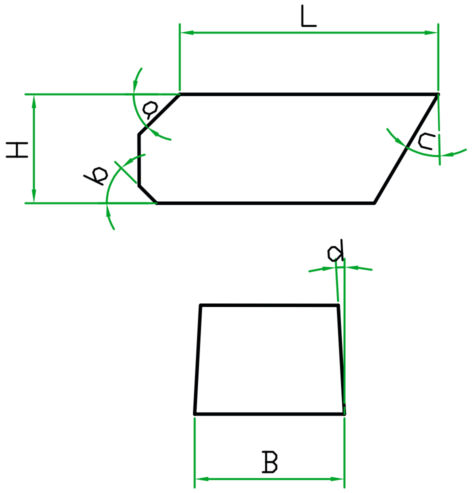
X = stock product
O = short delivery time

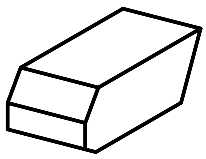
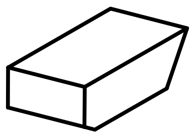
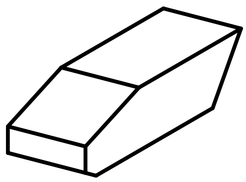
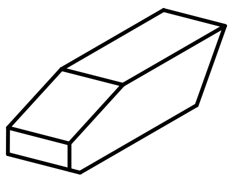
Chromium plated multirip blades

	Diameter	Kerf	Thickness	Center bore	Number of teeth	Info		Availability
20BA26AJ...	225	2,5	1,6	60	28	Cr	P=3/10,5-74	
	225	3,2	2,2	60	28	Cr	P=3/10,5/74	
	250	2,8	2,0	60	30	Cr	P=3/10,5/74	
	250	3,2	2,2	60	30	Cr	P=3/10,5/74	X
20BA19AJ...	225	3,2	2,2	60	36	Cr	P=3/10,5/74	
	250	3,2	2,2	60	40	Cr	P=3/10,5/74	X
20SPEC29BL...	225	3,0	2,0	59,96	24	Cr	P=3/10,5/74	
	225	3,0	2,0	60	24	Cr	P=3/10,5/74	
20SPEC18BL...	225	3,0	2,0	59,96	40	Cr	P=3/10,5/74	
20SPEC28BL...	250	3,0	2,0	59,96	28	Cr	P=3/10,5/74	
20SPEC22BL...	250	3,0	2,0	60	36	Cr	P=3/10,5/74	
20SPEC20BL...	250	3,0	2,0	59,96	40	Cr	3/10,5/74	

X = stock product
O = short delivery time

Stellite teeth for tipping



Drawing	Dimensions			Angles				
	L	B	H	a	b	c	d	
11136	11 11 11	5,5 5,5 4,7	4 mm 3 mm 4 mm	45° 45° 45°	45° 45° 45°	30° 30° 30°	3° 3° 3°	
11109	11 11 11	5,5 5,5 4,7	4 mm 3 mm 3 mm	---- ---- ----	45° 45° 45°	37° 37° 37°	3° 3° 3°	
11355	13	5,5	4 mm	30°	45°	40°	3°	
11349	13	4,9	4 mm	30°	45°	40°	3°	

Deliveries straight from our stock, the smallest delivery quantity is 1000 pcs.

Quality; Deloro Stellite® number 12
Intended for sawing of wood in all conditions.

carbide saw tips

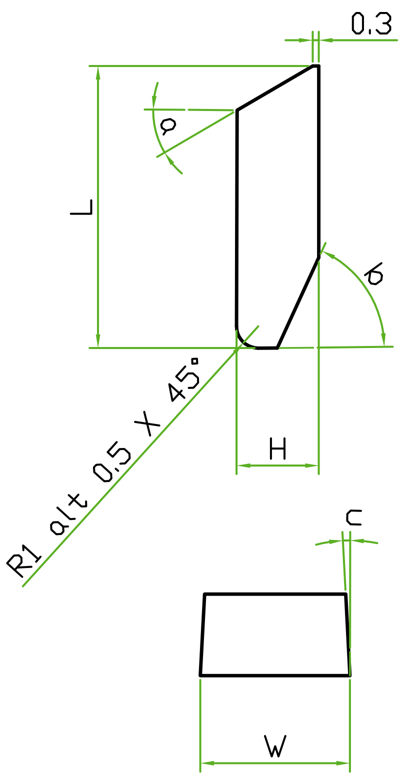
Grade property data

Measurements below represent only a few common tip types. Contact us for more options.

The smallest delivery quantity is 1000 pcs.

Working material	Recommended grade	Hardness	[g/cm³] Density
frozen wood	DH45	87,1	14,41
soft wood	DH40	89,1	14,35
hard wood	DH20	92,3	14,80
wood based boards	DC03	93,8	15,25

Type and drawing	Dimensions					Angles		
	L	W Min	W Max	H	R1	a	b	c
SW 167	5,5	1,3	4,5	1,8	0,6	25°	54°	5°
SW 064	6,5	1,0	7,0	2,0	0,6	25°	54°	---
SW 024	8,0	1,4	10,0	2,3	0,5	25°	71,6°	5°
SW 052	10,5	1,5	14,5	3,0	0,8	30°	65°	3°
SW 111	10,7	1,0	17,0	3,5	0,5 X 45°	30°	65°	3°
SW 160	13,0	1,7	24,0	4,0	0,5 X 45°	35°	75°	5°



Tools and supplies for saw doctors

1551

1552

1553

	Product code
Cross setting watch	130
Cross setting watch with extension	130-0
Spring setting tool	1555
Straight edge rule for diameter, 150 mm	1550-150
Straight edge rule for diameter, 200 mm	1550-200
Straight edge rule for diameter, 300 mm	1550-300
Straight edge rule for diameter, 400 mm	1550-400
Straight edge rule for diameter, 500 mm	1550-500
Straight edge rule for diameter, 600 mm	1550-600
Straight edge rule for diameter, 700 mm	1550-700
Straight edge rule for diameter, 800 mm	1550-800
Straight edge rule for diameter, 900 mm	1550-900
Straight edge rule for diameter, 1000 mm	1550-1000
Straight edge rule for diameter, 1250 mm	1550-1250
Form rule for radius, 400 mm	1554-400
Form rule for radius, 420 mm	1554-420
Form rule for radius, 480 mm	1554-480
Tensioning ruler for band saw blades, 102 mm - R4000 mm	1558-102-R4000
Tensioning ruler for band saw blades, 152 mm - R4600 mm	1558-152-R4600
Tensioning ruler for band saw blades, 203 mm - R5200 mm	1558-203-R5200
Tensioning ruler for band saw blades, 203 mm - R6800 mm	1558-203-R6800
Tensioning ruler for band saw blades, 203 mm - R10800 mm	1558-203-R10800
Tensioning ruler for band saw blades, 254 mm - R5800 mm	1558-254-R5800
Back edge rule	1559-1000-85-0,4
Armstrong back gauge, 0,90 m or 1,2 m	
Carbide burr, 6 mm	A0616
Carbide burr, 6 mm, with grooves	A06RC
Borazon burr, 6 mm, with grooves	A06RB
Carbide burr, 8 mm	A0820
Carbide burr, 10 mm	A1020
Roundhead hammer, 1,0 kg	1551-1,0
Roundhead hammer, 1,7 kg	1551-1,7
Cross hammer, 1,0 kg	1552-1,0
Cross hammer, 1,7 kg	1552-1,7
Crosshead and flat hammer, 1,0 kg	1553-1,0
Crosshead and flat hammer, 1,7 kg	1553-1,7
Straightening anvil, 50 kg	