

# Arntz

Passionate  
Cutting!

Fact Edition 2018  
Book  
BAND SAW BLADES



# Welcome to ARNTZ

Our passion and 225 years of experience in manufacturing tools make our band saw blades what they are today:

High-performance professionals for the cutting of the most diverse range of materials – economical, precise and tailor-made to your requirements. Your need for quality is what drives us. For highest efficiency we supply “Made in Germany” products that you can rely on – worldwide.

ARNTZ is dynamic and innovative – these are our guiding principles. As specialists for band saw blades we enthusiastically embrace the new challenges posed by very diverse markets. From across a range of industries we know every last detail about the materials being cut; what chip formation needs to be accounted for, where vibrations occur and which materials require special attention. Alloys and composite materials change with the increasing demands being made on the finished product.

New markets are arising with new materials. ARNTZ’s slimline structure enables us to address your specific requirements quickly and individually, and to work with you to jointly develop optimal results. We will provide full support, from the initial product consultancy to optimizing performance – on-site if necessary.



## Innovative cutting technology...

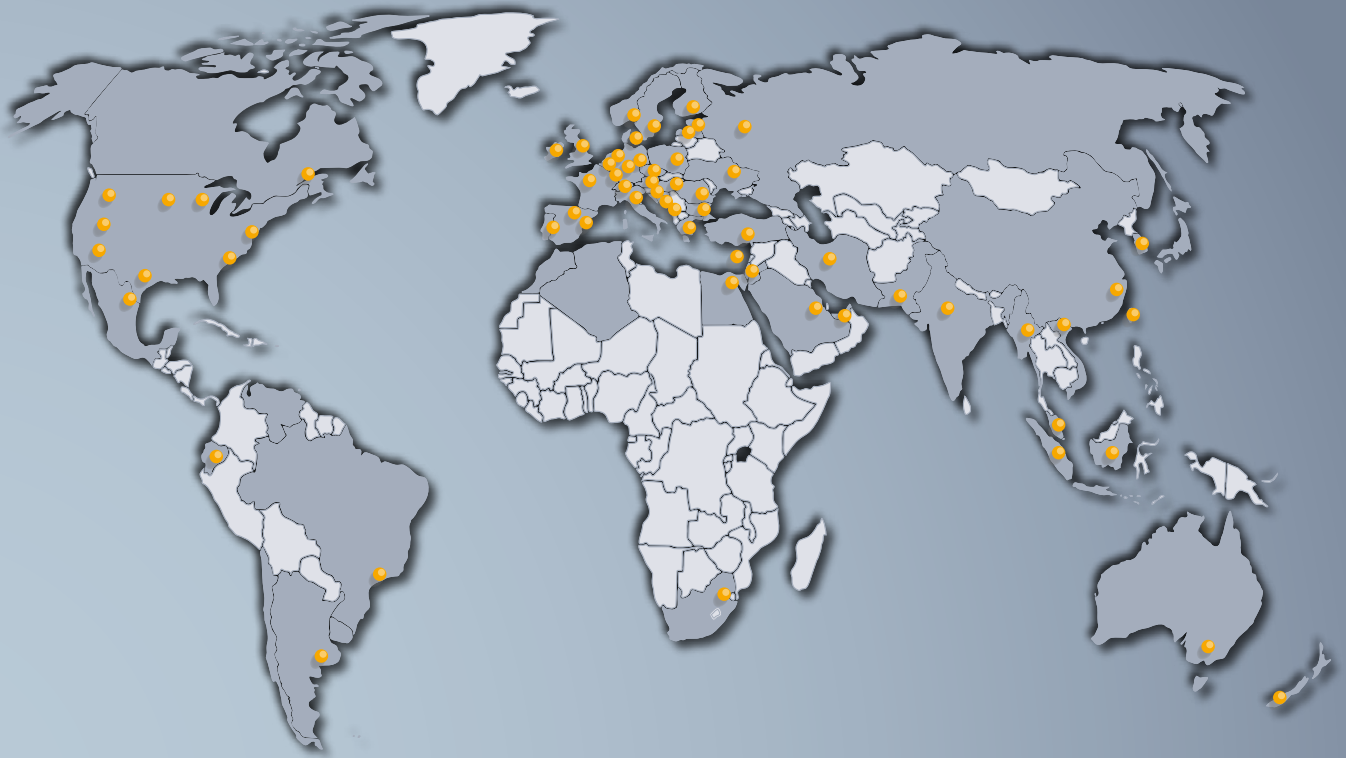


Optimized operating processes and continuous quality controls are the foundation of ARNTZ’s high-end saw blades. Every single step in the production process goes through our multilayered control system to guarantee our quality standards.



Our experienced service technicians provide in-depth expert knowledge that has been adapted to fit your exact requirements. Alongside telephone assistance and on-site support, we also offer training modules targeted to your requirements.

## ...and competent advice.













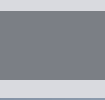











We are on your side – worldwide.






Jan Wilhelm Arntz · CEO

# Explanation of symbols

Article group		Article group	
	solid material round small <b>420   430</b>		round tube heavy walled <b>431   437   531   537</b>
	solid material round medium <b>421   426   434   436   457   620   622   630   643   650</b>		bundle of tubes <b>430   457</b>
	solid material round big <b>431   434   437   438   457   531   537   544   620   622   630   643   650</b>		square tube small <b>420</b>
	solid material square big <b>431   434   437   438   531   537   544   620   622   630   643   650</b>		square tube big <b>457</b>
	solid material special alloy <b>434   438   531   537   544   622   650</b>		aluminium profile <b>436</b>
	solid material rectangular big <b>431   434   437   438   537   544   620   622   630   643   650</b>		standard steel beam <b>457</b>
	solid material very big <b>431   437   537   544   620   622   630   643   650</b>		wide flange steel beam <b>445</b>
	sheet panel <b>430</b>		heavy walled steel beam <b>445</b>
	small round tube standard wall thickness <b>430</b>		U channel steel <b>457</b>
	small round tube thin wall thickness <b>430</b>		L angle steel <b>457</b>
	round tube standard wall thickness <b>426   430   457</b>		surface hardened material <b>651</b>

# Now is the time to make the **right cut!**

	Article group		Description	Page
	uncoated	coated		
<b>Bi-Metal Band Saw Blades</b>	420		M42-STAR	10
	421		M42-STAR-PLUS	10
	426		M42-ALUCUT-PLUS	11
	436		M42-ALUCUT-SPRINT	11
	430		M42-SPRINT	12
	457	857 C-TEC	M42-X-FIT	13
	431	831 C-TEC	M42-SPRINT-PLUS	14
	434		M42-MAXIMA-SPRINT	15
	445	845 C-TEC	M42-PROFILER-SPRINT-VS	16
	437	837 C-TEC	M42-TAIFUN-SPRINT 	17
	438	838 C-TEC	M42-TAIFUN-MAXIMA 	18
	531		M51-SPRINT-PLUS	19
	544		M51-BLIZZARD-SPRINT	19
	537	867 C-TEC	M51-TAIFUN-MAXIMA 	20
	<b>Carbide Tipped Band Saw Blades</b>	620		BLACK-LINE triple chip geometry
630			RED-LINE triple chip geometry	22
622		822 C-TEC	BLACK-LINE-S band saw blade with tooth set	23
643			BLUE-LINE triple chip geometry	24
650		850 C-TEC	SILVER-LINE multi chip geometry	25
651			SILVER-LINE-N multi chip geometry	26
<b>Special Applications</b>		621		STONE-LINE carbide tipped for the construction industry
<b>Carbon Steel Band Saw Blades</b>	100		CS-1 hook tooth (H) + standard tooth (N) positive rake angle and rake angle 0°	28
	110		CS-2-PLUS hook tooth (H) + standard tooth (N) positive rake angle and rake angle 0°	28
<b>Professional Accessories</b>			Tension measuring device, Refractometer, Application toolkit	29

# Bi-Metal

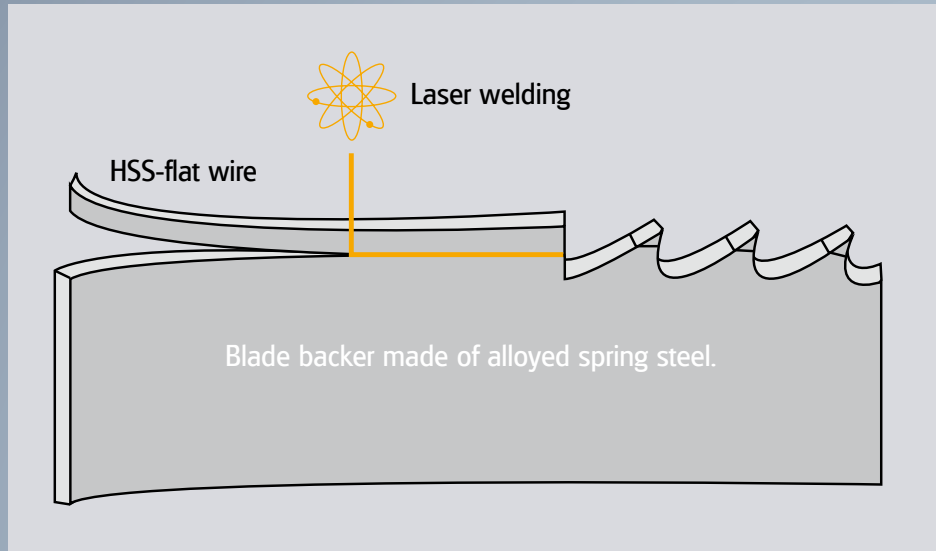
Why so successful?

## M42

Material no. 1.3247  
hardness approx.  
68 - 69 HRC

## M51

Material no. 1.3207  
hardness approx.  
69 HRC, with high  
tungsten- and cobalt  
content.



### Flexible:

The blade backer of our Bi-Metal Band Saw Blade consists of a special alloyed spring steel. Highly flexible at a hardness of about 50 HRC. The ideal basis for long fatigue life and excellent cutting performance.

### Hard and wear resistant:

Tooth tips made of hardened HSS-Steel in M 42 or M 51 quality obtained due to well-balanced hardening and fixed structure resulting in high wear resistance.

### Perfectly joint:

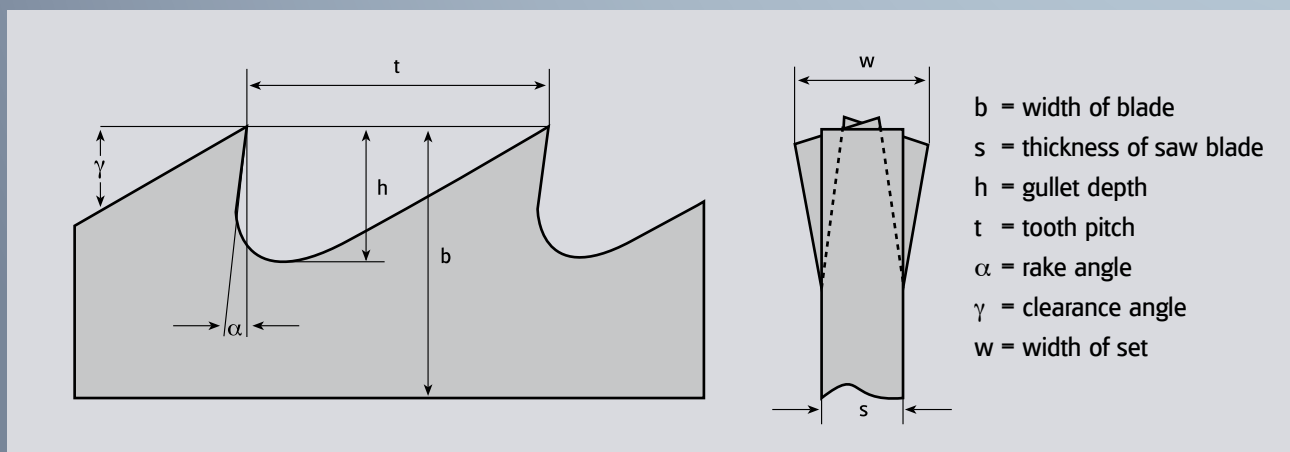
Both materials are undetachably welded together by special electron or laser beam.

### All advantages:

The high quality Bi-Metal band combines the flexibility of the spring steel backing with the enormous wear resistance of high speed steel. Each tooth tip of the finished band is of hardened HSS-steel, extremely durable for best performance.

# Band Saw geometry

Terminology?



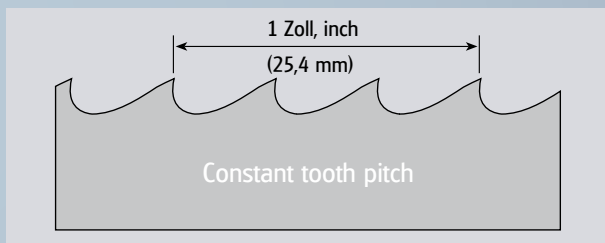
# Tooth forms

Where performs the right tooth?

Only correct choice of tooth forms allows efficient cutting with low vibration. Four basic types are available:

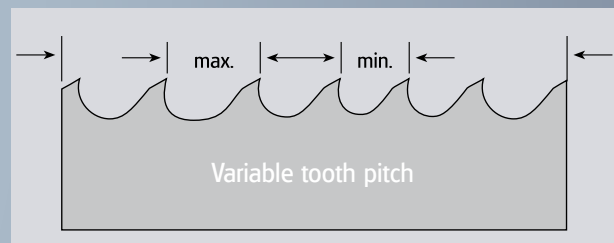
<p>Standard tooth = N</p>	<p>Hook tooth = H</p>	<p>Variable tooth = K-0</p>	<p>Variable tooth = K-VS / K-X / K-POS / K-PLUS</p>
<p><b>Designed for:</b></p> <ul style="list-style-type: none"> <li>• short chipping materials</li> <li>• light wall thickness</li> </ul> <p><b>Data:</b></p> <ul style="list-style-type: none"> <li>• rake angle 0°</li> <li>• 4 to 18 tpi</li> </ul> <p><b>Article groups:</b></p> <p>100, 110, 420</p>	<p><b>Designed for:</b></p> <ul style="list-style-type: none"> <li>• long chipping materials</li> <li>• large cross sections</li> </ul> <p><b>Data:</b></p> <ul style="list-style-type: none"> <li>• positive rake angle</li> <li>• 2 to 6 tpi</li> </ul> <p><b>Article groups:</b></p> <p>100, 110, 421, 426</p>	<p><b>Designed for:</b></p> <ul style="list-style-type: none"> <li>• low vibration cutting</li> <li>• structurals</li> </ul> <p><b>Data:</b></p> <ul style="list-style-type: none"> <li>• rake angle 0°</li> <li>• variable tooth pitch of 3/4 to 10/14 tpi</li> </ul> <p><b>Article group:</b></p> <p>430 (K-0)</p>	<p><b>Designed for:</b></p> <ul style="list-style-type: none"> <li>• low vibration cutting</li> <li>• solid materials</li> </ul> <p><b>Data:</b></p> <ul style="list-style-type: none"> <li>• positive rake angle</li> <li>• variable tooth pitch of 0,75/1,25 to 8/11 tpi</li> </ul> <p><b>Article groups:</b></p> <p>445, 457 (K-VS, K-X) 431, 436, 437 (K-POS) 434, 438, 531, 537, 544 (K-PLUS)</p>

# Tooth pitch



The tooth distance is equally spaced. The number of teeth per inch (25,4 mm) denotes the tooth of the saw blade.

Constant or variable?



The tooth distances vary within a group of teeth. The smallest and the largest tooth pitch denotes the variable tooth of saw blade.

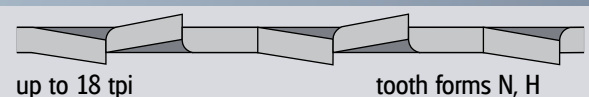
# Tooth set

What groups and waves can cause.

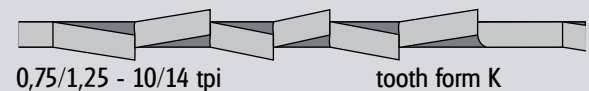
Apart from tooth pitch and tooth form the exact set is essential for the performance of the sawblade. The correct clearance of back is achieved by the specific set for the cutting application.

This is to avoid blade pinching, very important in problematic cutting jobs. Width and type of set are tuned to the cutting application:

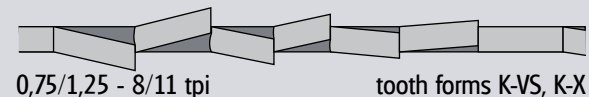
**Standard raker set**



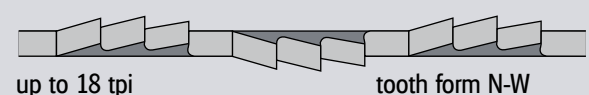
**Standard group set**



**Variable group set**



**Wavy set**



# Correct tooth pitch – optimum performance.

The choice of the right tooth pitch can be decisive to achieve the optimum performance. Choose either standard tooth with constant tooth pitch or variable tooth with unevenly spaced teeth. It is advisable to use variable tooth to reduce vibrations.

## Recommendation to cut solid material

Constant tooth pitch		
Cross section mm	Teeth per inch	
	tpi	Tooth shape
200 - 400	2	H
120 - 200	3	H
80 - 120	4	H/N
40 - 80	6	H/N
20 - 40	10	N
10 - 20	14	N
to 10	18	N

N = Standard tooth H = Hook tooth

Variable tooth pitch		
Cross section mm	Teeth per inch	
	tpi	Tooth shape
from 550	0,75/1,25	K
380 - 750	1/1,3   1/1,5	K
250 - 550	1,4/2	K
120 - 350	2/3	K
80 - 140	3/4	K
60 - 110	4/6	K
40 - 70	5/7   5/8	K
30 - 60	6/10	K
20 - 40	8/11   8/12	K
to 25	10/14	K

K = Variable tooth

## Recommendation to cut tubes and structurals

Thin wall structurals (0° - 7° rake angle)							
Wall thickness (S) in mm	Diam. of structural (D) in mm						
	20	40	60	80	100	120	150
2	14	14	14	14	14	14	10/14
3	14	14	14	14	10/14	10/14	8/11   8/12
4	14	14	10/14	10/14	8/11   8/12	8/11   8/12	6/10
5	14	10/14	10/14	8/11   8/12	8/11   8/12	6/10	6/10
6	14	10/14	8/11   8/12	8/11   8/12	6/10	6/10	5/7   5/8
8	14	8/11   8/12	6/10	6/10	5/7   5/8	5/7   5/8	5/7   5/8
10	-	6/10	6/10	5/7   5/8	5/7   5/8	5/7   5/8	-

The choice of the right tooth has special influence on the cutting result on tubes and structurals. Variable tooth has proven to be the most favourable tooth form. Tooth pitches selected are depending on wall thickness and outer dimensions of tubes or structurals. The recommendations shown here refer to single cuts. If two or more tubes or square pipes are cut at a time, double wall thickness to select tooth pitch.

Heavy wall structurals (positive rake angle)								
Wall thickness (S) in mm	Diam. of structural (D) in mm							
	80	100	120	150	200	300	500	750
10	-	-	-	4/6	4/6	4/6	3/4	2/3
15	4/6	4/6	4/6	4/6	4/6	3/4	2/3	2/3
20	4/6	4/6	4/6	4/6	3/4	3/4	2/3	2/3
30	4/6	4/6	4/6	3/4	3/4	2/3	2/3	2/3
50	-	-	3/4	3/4	2/3	2/3	2/3	1,4/2
80	-	-	-	-	2/3	2/3	1,4/2	1,4/2
100	-	-	-	-	-	2/3	1,4/2	1,4/2

ARNTZ Bi-Metal Band Saw Blades are supplied as endless welded loops to fit your band saw machines, or in coils:

6 - 13 mm in length of approx. 30,5 + 76 m | 20 - 34 mm in length of approx. 100 m | 41 mm in length of approx. 80 m  
54 - 67 mm in length of approx. 90 m | 80 mm in length of approx. 50 m

# Bi-Metal and Carbide Tipped Band Saw Blades

For each cutting operation the right choice.

		Art. gr.	420	421	426	436	430	457	431	434	445	437	438	531	544	537	620	630	622	643	650	651
		Product name	M42-STAR	M42-STAR-PLUS	M42-ALUCUT-PLUS	M42-ALUCUT-SPRINT	M42-SPRINT	M42-X-FIT	M42-SPRINT-PLUS	M42-MAXIMA-SPRINT	M42-PROFILER-SPRINT-VS	M42-TAIFUN-SPRINT	M42-TAIFUN-MAXIMA	M51-SPRINT-PLUS	M51-BLIZZARD-SPRINT	M51-TAIFUN-MAXIMA	BLACK-LINE	RED-LINE	BLACK-LINE-S	BLUE-LINE	SILVER-LINE	SILVER-LINE-N
Page of catalogue			10	10	11	11	12	13	14	15	16	17	18	19	19	20	22	22	23	24	25	26
Material dimension (mm)																						
- Structural steels	< 70																					
	80 - 350																					
	> 350																					
- Case-hardening steels	< 70																					
	80 - 350																					
	> 350																					
- Free machining steels	< 70																					
	80 - 350																					
	> 350																					
- Unalloyed tool steels	< 70																					
	80 - 350																					
	> 350																					
- Spring steels	< 70																					
	80 - 350																					
	> 350																					
- Roller bearing steel	< 70																					
	80 - 350																					
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- High speed steels	< 70																					
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- Cold-work steels	< 70																					
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- Nitride steels	< 70																					
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- Heat treatable steels	< 70																					
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- Hot working steels	< 70																					
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- Stainless steels	< 70																					
	80 - 350																					
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- High temperature steels	< 70																					
	80 - 350																					
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- Heat resistant steels	< 70																					
	80 - 350																					
	> 350																					
- High tensile steels	< 70																					
	80 - 350																					
	> 350																					
- Titanium + titanium alloys	< 70																					
	80 - 350																					
	> 350																					
- Nickel alloys	< 70																					
	80 - 350																					
	> 350																					
- Surface hardened steel shafts	< 70																					
	80 - 350																					
	> 350																					
- Hardened steels up to HRC 62	< 70																					
	80 - 350																					
	> 350																					
- Hardchromed materials	< 70																					
	80 - 350																					
	> 350																					
- Steel castings	< 70																					
	80 - 350																					
	> 350																					
- Cast irons	< 70																					
	80 - 350																					
	> 350																					
- Aluminium	< 70																					
	80 - 350																					
	> 350																					
- Copper	< 70																					
	80 - 350																					
	> 350																					
- Brass	< 70																					
	80 - 350																					
	> 350																					
- Bronze	< 70																					
	80 - 350																					
	> 350																					
- Red brass	< 70																					
	80 - 350																					
	> 350																					
- Aluminium + alloys	< 70																					
	80 - 350																					
	> 350																					
- Aluminium alloys with silicon	< 70																					
	80 - 350																					
	> 350																					

Qualification = very good = good

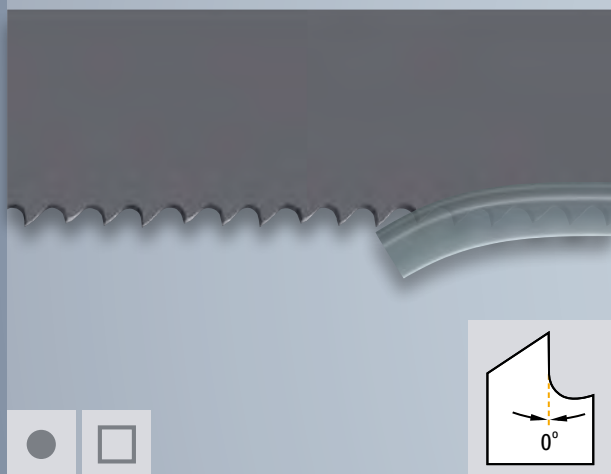
## Article group 420

### M42 STAR

Allrounder for solid, small-dimensional materials.

#### Engineered for:

- Common steel qualities and non ferrous metals
- Short-chipping materials
- Small structurals with thin walls
- Narrow cross sections up to approx. 100 mm (4")
- Contour cutting operations



Dimensions		Tooth				
mm	inch	4	6	10	14	18
6 x 0,90	1/4 x 0,035			N	N	
10 x 0,90	3/8 x 0,035			N	N	
13 x 0,65	1/2 x 0,025			N	N	N
13 x 0,90	1/2 x 0,035				N	
20 x 0,90	3/4 x 0,035	N*			N-W	N-W
27 x 0,90	1 x 0,035	N	N		N-W	
41 x 1,30	1 1/2 x 0,050	N*				

N = Standard tooth W = Wavy set \* Special item

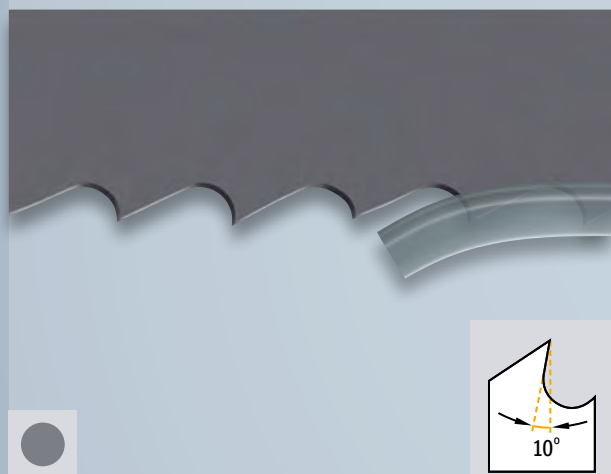
## Article group 421

### M42 STAR-PLUS

The saw blade for medium sized solid materials.

#### Engineered for:

- Small workshop bandsaws
- Common steel qualities and non ferrous metals
- Cross sections over approx. 100 mm (4")



Dimensions		Tooth			
mm	inch	2	3	4	6
6 x 0,90	1/4 x 0,035				H
10 x 0,90	3/8 x 0,035			H	H
13 x 0,65	1/2 x 0,025			H	H
13 x 0,90	1/2 x 0,035		H	H	H
20 x 0,90	3/4 x 0,035		H		
27 x 0,90	1 x 0,035	H	H		

H = Hook tooth

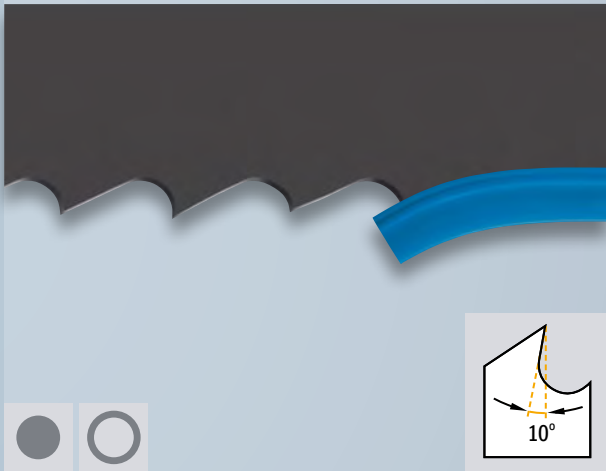
## Article group 426

# M42 ALUCUT-PLUS

For cutting aluminium without pinching.

Engineered for:

- Pure aluminium and aluminium alloys
- Solid material and structurals
- Materials with residual stress and a tendency to become pinched



Dimensions		Tooth		
mm	inch	3	4	6
10 x 0,90	3/8 x 0,035		H	H
13 x 0,65	1/2 x 0,025		H	H
13 x 0,90	1/2 x 0,035	H	H	H
20 x 0,90	3/4 x 0,035	H		
27 x 0,90	1 x 0,035	H		

H = Hook tooth

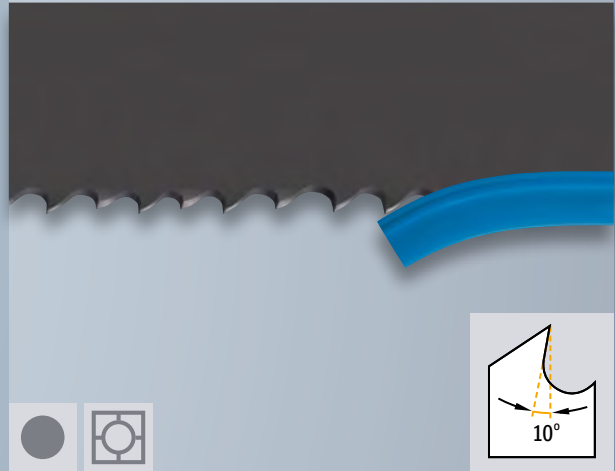
## Article group 436

# M42 ALUCUT-SPRINT

Easy cutting though light metals.

Engineered for:

- Pure aluminium and aluminium alloys
- Solid material and structurals



Dimensions		Tooth	
mm	inch	2/3	3/4
27 x 0,90	1 x 0,035	K	K
34 x 1,10	1 1/4 x 0,042	K	K

K = Variable tooth

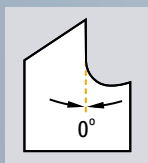
Article group 430

## M42 SPRINT

The structural professional for light and medium wall thicknesses.

Engineered for:

- Structurals with light or medium walls
- Short chipping materials
- Sheet metal on vertical band saw machines



Dimensions		Tooth					
mm	inch	3/4	4/6	5/8	6/10	8/12	10/14
6 x 0,90	1/4 x 0,035						K
10 x 0,90	3/8 x 0,035						K
13 x 0,65	1/2 x 0,025			K*	K	K	K
13 x 0,90	1/2 x 0,035				K	K	K
20 x 0,90	3/4 x 0,035		K	K	K	K	K
27 x 0,90	1 x 0,035	K	K	K	K	K	K
34 x 1,10	1 1/4 x 0,042	K	K	K	K	K	
41 x 1,30	1 1/2 x 0,050	K	K	K	K		
54 x 1,60	2 x 0,063		K*	K*			

K = Variable tooth

\* = Special item

Article group 457 857 C-TEC

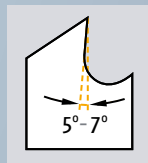
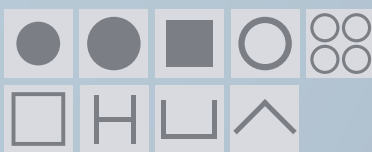
## M42 X-FIT

The multi-purpose blade for small and medium cross-sections.

Also coated available **C-TEC** for extremely increased feed rates, significantly reduced cutting times and maximized blade life.

Engineered for:

- Profiles and beams
- Mixed cross-sections including solids



Dimensions		Tooth				
mm	inch	2/3	3/4	4/6	5/7	8/11
20 x 0,90	3/4 x 0,035					K-V
27 x 0,90	1 x 0,035		K-X	K-X	K-V	K-V
34 x 1,10	1 1/4 x 0,042	K-V	K-X	K-X	K-V	
41 x 1,30	1 1/2 x 0,050	K-X* G-TEC*	K-V G-TEC	K-X*		
54 x 1,30	2 x 0,050		K-X			
54 x 1,60	2 x 0,063	K-X* G-TEC*	K-X G-TEC			
67 x 1,60	2 5/8 x 0,063	K-X* G-TEC*	K-X G-TEC			

K-X = Reinforced aggressive variable tooth

K-V = Reinforced variable tooth

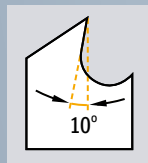
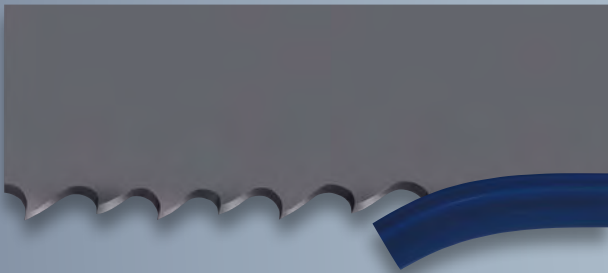
\* Availability expected in 01/18

Article group 431 **831 C-TEC**

## M42 SPRINT-PLUS

Perfect for materials of medium to large dimensions.

Also coated available **C-TEC** for extremely increased feed rates, significantly reduced cutting times and maximized blade life.



Engineered for:

- Production band saw machines
- All-purpose use for steels and non-ferrous metals
- Tensile strengths of up to 1400 N/mm<sup>2</sup>
- Thick walled structurals



Dimensions		Tooth				
mm	inch	0,75/1,25	1,4/2	2/3	3/4	4/6
20 x 0,90	3/4 x 0,035					K
27 x 0,90	1 x 0,035			K	K	K
34 x 1,10	1 1/4 x 0,042		K	K	K	K
41 x 1,30	1 1/2 x 0,050		K	K	K	K
54 x 1,30	2 x 0,050		K	K	K	K*
54 x 1,60	2 x 0,063	K	K	K	K	K
67 x 1,60	2 5/8 x 0,063	K	K	K	K	
80 x 1,60	3 x 0,063	K	K	K		

K = Variable tooth

\* = Special item

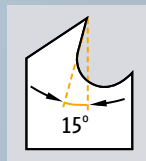
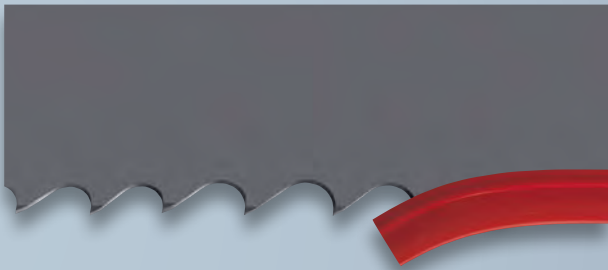
Article group 434

## M42 MAXIMA-SPRINT

Excellent for tough materials and alloys.

Engineered for:

- Long chipping steels
- Stainless steel
- Titanium based alloys
- Special bronzes
- Copper based alloys
- Nickel based alloys
- Exotic alloys, difficult to cut
- Solid material of medium dimensions



Dimensions		Tooth		
mm	inch	1/1,3	2/3	3/4
27 x 0,90	1 x 0,035			K
34 x 1,10	1 1/4 x 0,042		K*	K
41 x 1,30	1 1/2 x 0,050		K	K*
54 x 1,30	2 x 0,050		K*	
54 x 1,60	2 x 0,063	K	K*	K*
67 x 1,60	2 5/8 x 0,063	K		

K = Variable tooth

\*Special item

Article group 445 **845 C-TEC**

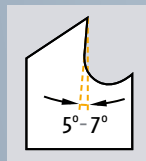
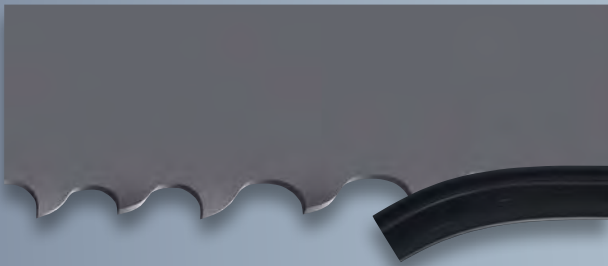
## M42 PROFILER-SPRINT-VS

Robust performance for steel construction.

Also coated available **C-TEC** for extremely increased feed rates, significantly reduced cutting times and maximized blade life.

Engineered for:

- Large cross-section steel beams
- Structurals with residual stress



Dimensions		Tooth			
mm	inch	2/3		3/4	
34 x 1,10	1 1/4 x 0,042			K-V	
41 x 1,30	1 1/2 x 0,050	K-V	C-TEC	K-V	C-TEC
54 x 1,60	2 x 0,063	K-V	C-TEC	K-V	C-TEC
67 x 1,60	2 5/8 x 0,063	K-V	C-TEC	K-X	C-TEC

K-X = Reinforced aggressive variable tooth with wide setting  
 K-V = Reinforced variable tooth with wide setting

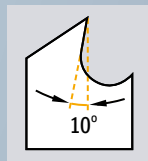
2018 reengineered geometry

Article group 437 837 C-TEC

## M42 TAIFUN-SPRINT

Excellent for use on high-performance band saw machines.

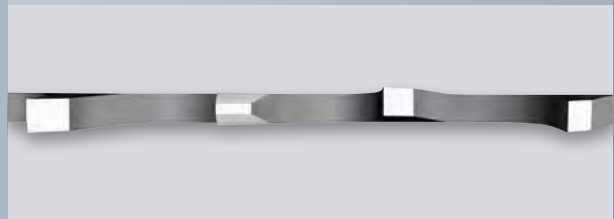
Also coated available **C-TEC** for extremely increased feed rates, significantly reduced cutting times and maximized blade life.



Engineered for:

- Stainless steel
- All-purpose use for steels and non-ferrous metals
- Tensile strengths of up to 1400 N/mm<sup>2</sup>
- Thick walled structurals

The borazon-ground tooth tips produce an excellent cutting surface, perfectly angular cutting and long tool life.



Dimensions		Tooth			
mm	inch	0,75/1,25	1,4/2	2/3	3/4
27 x 0,90	1 x 0,035			K	K
34 x 1,10	1 1/4 x 0,042		K	K	K
41 x 1,30	1 1/2 x 0,050		K	C-TEC	K
54 x 1,30	2 x 0,050		K	C-TEC	K
54 x 1,60	2 x 0,063	K	K	C-TEC	K
67 x 1,60	2 5/8 x 0,063	K	K	C-TEC	K
80 x 1,60	3 x 0,063	K	K	C-TEC	

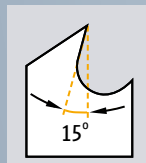
K = Variable tooth

Article group 438 838 C-TEC

## M42 TAIFUN-MAXIMA

Perfect for cutting tough materials and alloys.

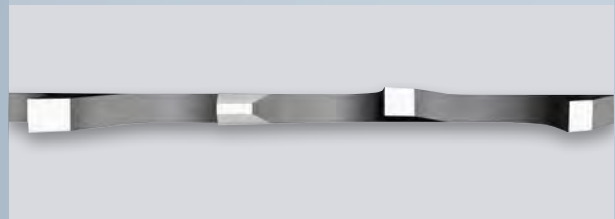
Also coated available **C-TEC** for extremely increased feed rates, significantly reduced cutting times and maximized blade life.



Engineered for:

- Long chipping materials
- Stainless steel
- Titanium alloys
- Special bronzes
- Copper alloys
- Nickel based alloys
- Exotic alloys, difficult to cut

The borazon-ground tooth tips produce an excellent cutting surface, perfectly angular cutting and long tool life.



Dimensions		Tooth		
mm	inch	1/1,3	2/3	3/4
27 x 0,90	1 x 0,035			K
34 x 1,10	1 1/4 x 0,042		K*	K
41 x 1,30	1 1/2 x 0,050		K C-TEC	K*
54 x 1,30	2 x 0,050		K*	
54 x 1,60	2 x 0,063	K C-TEC	K*	K*
67 x 1,60	2 5/8 x 0,063	K C-TEC		

K = Variable tooth

\* = Special item

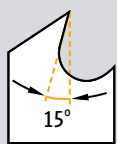
## Article group 531

# M51 SPRINT-PLUS

Wear resistant teeth for difficult to cut materials of medium dimensions.

Engineered for:

- Hard and tough materials up to 1700 N/mm<sup>2</sup> tensile strength
- Stainless steel
- Nickel based alloys
- Titanium and special bronzes
- Thick walled structurals



Dimensions		Tooth		
mm	inch	2/3	3/4	4/6
27 x 0,90	1 x 0,035	K	K	K
34 x 1,10	1 1/4 x 0,042	K	K	K
41 x 1,30	1 1/2 x 0,050	K	K	
54 x 1,60	2 x 0,063	K		
67 x 1,60	2 5/8 x 0,063	K		

K = Variable tooth

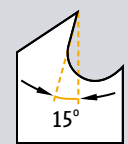
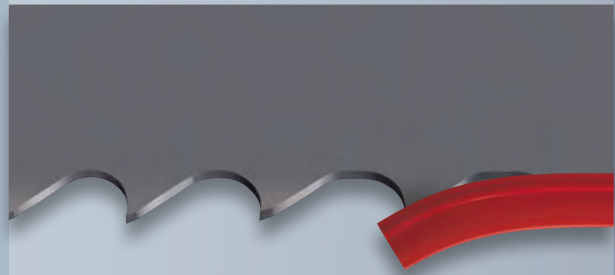
## Article group 544

# M51 BLIZZARD-SPRINT

For extra wear resistant cutting, made of powder metallurgical hardened steel for large cross-sections and demanding alloys.

Engineered for:

- Steels of the highest tensile strength
- Long chipping materials
- Stainless steel
- Titanium based alloys
- Nickel based alloys
- Special bronzes



Dimensions		Tooth		
mm	inch	0,75/1,25	1/1,3	1,4/2
41 x 1,30	1 1/2 x 0,050			K
54 x 1,60	2 x 0,063		K	K
67 x 1,60	2 5/8 x 0,063	K	K	K
80 x 1,60	3 x 0,063	K	K	K*

K = Variable tooth with special geometry

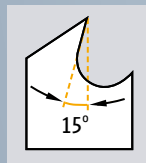
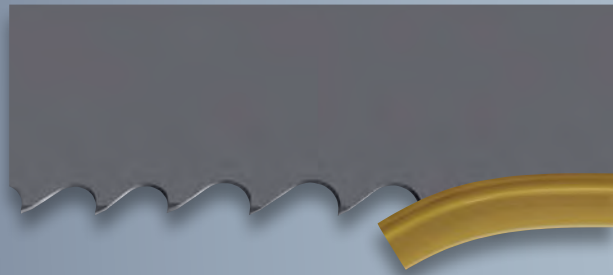
\* = Special item

Article group 537 867 C-TEC

## M51 TAIFUN-MAXIMA

Extremely wear-resistant, ground teeth for the most difficult cutting conditions.

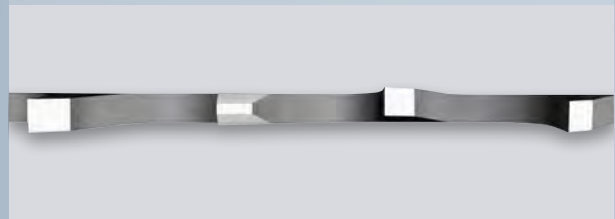
Also coated available **C-TEC** for extremely increased feed rates, significantly reduced cutting times and maximized blade life.



Engineered for:

- Hard and tough materials up to 1700 N/mm<sup>2</sup> tensile strength
- Stainless steel
- Nickel based alloys
- Titanium and special bronzes
- Thick walled structurals

The borazon-ground tooth tips produce an excellent cutting surface, perfectly angular cutting and long tool life.

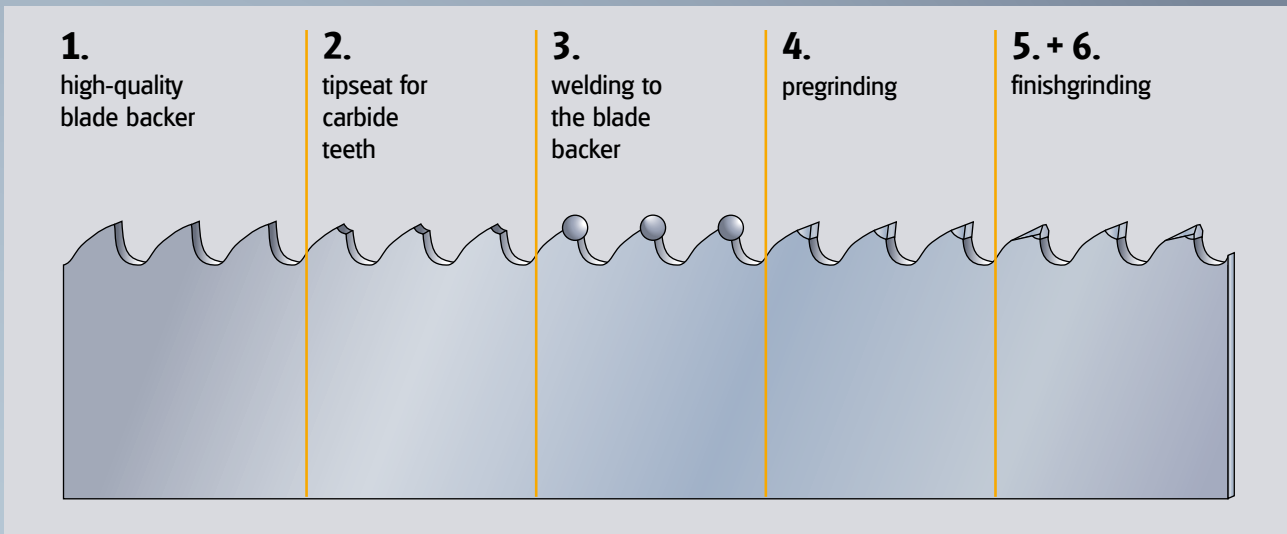


Dimensions		Tooth						
mm	inch	0,75/1,25	1/1,3		1,4/2		2/3	3/4
27 x 0,90	1 x 0,035						K	K
34 x 1,10	1 1/4 x 0,042						K	K
41 x 1,30	1 1/2 x 0,050				K	C-TEC	K	C-TEC
54 x 1,60	2 x 0,063		K	C-TEC	K	C-TEC	K	C-TEC
67 x 1,60	2 5/8 x 0,063	K	K	C-TEC	K	C-TEC	K	C-TEC
80 x 1,60	3 x 0,063	K	K	C-TEC	K*			

K = Variable tooth

\* = Special item

## Why so successful?



### Flexible:

The blade backer for Carbide Band Saw Blades is made of special alloyed spring steel.

### Extremely durable:

The tooth tips consist of wear resistant high-grade carbide.

### Perfectly joint:

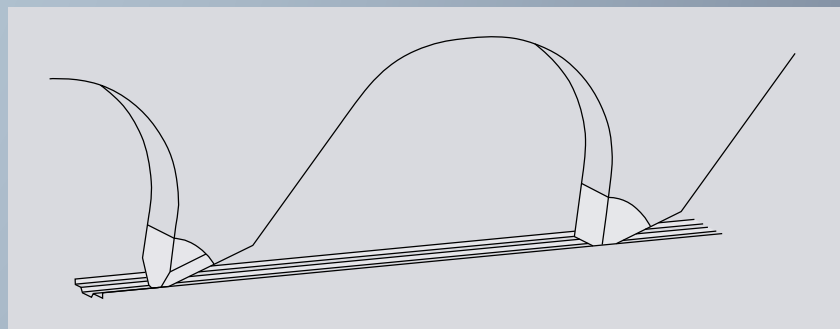
Carbide tooth tips are welded to the backer in a special procedure.

### Band Saw geometry:

Also in the ARNTZ production program: high performance Carbide Band Saw Blades.

The welded carbide tips are available in different tooth geometries. These geometries grant optimal formation of chips and best cutting results.

The different tooth geometries provide clean and smooth cuts at minimum vibration.



### Correct operation:

To achieve optimum performance with Carbide Band Saw Blades, suitable band saw machines for Carbide Band Saw Blades have to be used.

Carbide Tipped Band Saw Blades are supplied as endless welded loops or in coils:

27 - 80 mm in length of approx. 50 m

## Article group 620

### BLACK-LINE

Carbide tipped band saw blades with triple chip geometry for cutting **steels**.

Engineered for:

- All-purpose use for construction steel, low-alloy steel and cast iron
- Solid material in medium and large dimensions



Dimensions		Tooth					
mm	inch	0,75/1,25	1/1,5	1,4/2	2/3	3	3/4
27 x 0,90	1 x 0,035				K	H	K
34 x 1,10	1 1/4 x 0,042				K		K
41 x 1,30	1 1/2 x 0,050			K	K		K
54 x 1,30	2 x 0,050			K	K		
54 x 1,60	2 x 0,063	K	K	K	K		
67 x 1,60	2 5/8 x 0,063	K	K	K	K		

K = Variable tooth H = Hook tooth

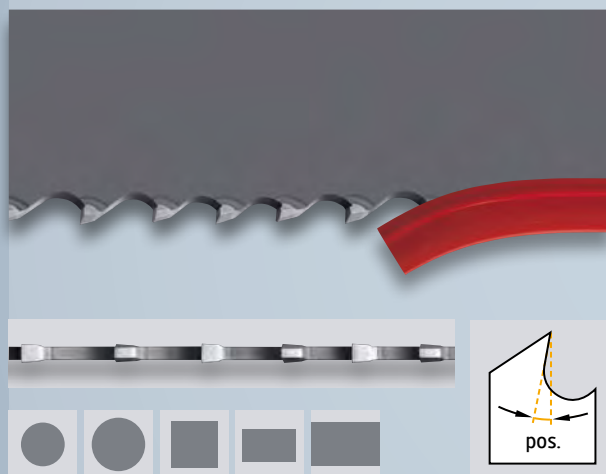
## Article group 630

### RED-LINE

Carbide tipped band saw blades with triple chip tooth geometry for cutting **non-ferrous metals**.

Engineered for:

- All-purpose use for aluminium, copper and bronze
- Solid material in medium and large dimensions



Dimensions		Tooth					
mm	inch	0,75/1,25	1/1,5	1,4/2	2/3	3	3/4
27 x 0,90	1 x 0,035				K	H	K
34 x 1,10	1 1/4 x 0,042				K		K
41 x 1,30	1 1/2 x 0,050			K	K		K
54 x 1,30	2 x 0,050			K	K		
54 x 1,60	2 x 0,063	K	K	K	K		
67 x 1,60	2 5/8 x 0,063	K	K	K	K		

K = Variable tooth H = Hook tooth

Article group 622 822 C-TEC

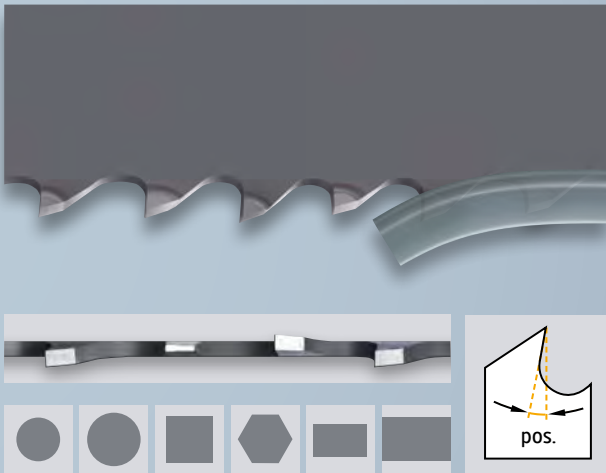
## BLACK-LINE-S

Carbide tipped band saw blade with set tooth for abrasive materials, difficult to cut.

Also coated available **C-TEC** for extremely increased feed rates, significantly reduced cutting times and maximized blade life.

Engineered for:

- Titanium alloys
- Metals with high residual stress
- Stainless steels
- Special alloys
- Abrasive non-ferrous metals and graphite



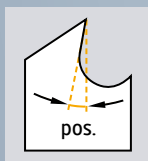
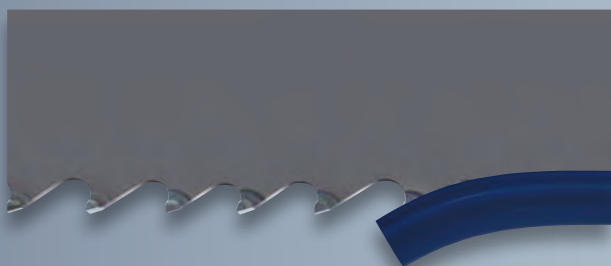
Dimensions		Tooth				
mm	inch	0,75/1,25	1,4/2	2/3	3	3/4
20 x 0,90	3/4 x 0,035				H	
27 x 0,90	1 x 0,035			K	H	K
34 x 1,10	1 1/4 x 0,042		K	K		K
41 x 1,30	1 1/2 x 0,050		K C-TEC	K C-TEC		K
54 x 1,30	2 x 0,050		K C-TEC	K C-TEC		
54 x 1,60	2 x 0,063	K	K C-TEC	K C-TEC		
67 x 1,60	2 5/8 x 0,063	K	K C-TEC			
80 x 1,60	3 x 0,063	K	K C-TEC			

K = Variable tooth

Article group 643

## BLUE-LINE

Carbide tipped band saw blades with special chip geometry for cutting non-ferrous metals and graphite.



Engineered for:

- Aluminium alloys
- Aluminium bronzes
- Copper alloys
- Sand cast aluminium and cast magnesium
- Graphite



Dimensions		Tooth				
mm	inch	0,75/1,25	1,4/2	2/3	3	3/4
20 x 0,90	3/4 x 0,035				H	
27 x 0,90	1 x 0,035			K	H	K
34 x 1,10	1 1/4 x 0,042		K	K	H	K
41 x 1,30	1 1/2 x 0,050		K	K		K
54 x 1,30	2 x 0,050		K	K		
54 x 1,60	2 x 0,063	K	K	K		
67 X 1,60	2 5/8 x 0,063		K			
80 x 1,60	3 x 0,063	K				

K = Variable tooth H = Hook tooth

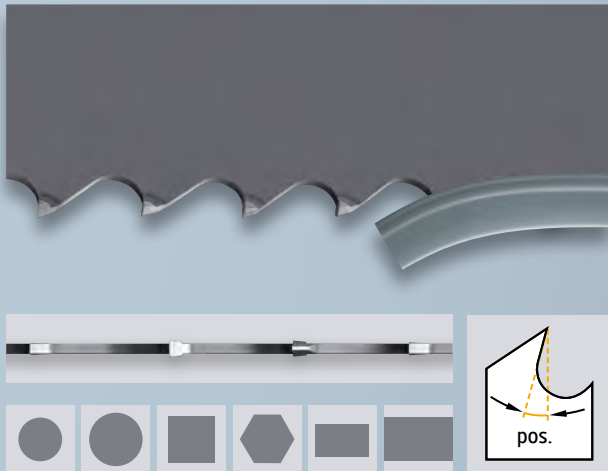
Reengineered geometry

Article group 650 850 C-TEC

## SILVER-LINE

Carbide tipped band saw blades with patented multi chip tooth geometry for cutting high-alloy steels and non-ferrous metals.

Also coated available **C-TEC** for extremely increased feed rates, significantly reduced cutting times and maximized blade life.



Engineered for:

- Stainless steel
- Heat resistant steels
- Cold and hot working steels
- Hardened steel up to 1900 N/mm<sup>2</sup>
- Nickel based alloys
- Aluminium-silicon alloys
- Copper-nickel alloys
- Titanium and titanium alloys
- Exotic, hard to cut alloys



Dimensions		Tooth						
mm	inch	0,75/1,25	1/1,5	1,4/2	2/3	3/4		
27 x 0,90	1 x 0,035				K	K		
34 x 1,10	1 1/4 x 0,042			K	K	K		
41 x 1,30	1 1/2 x 0,050			K	C-TEC	K	C-TEC	K
54 x 1,30	2 x 0,050			K	C-TEC	K	C-TEC	
54 x 1,60	2 x 0,063	K	K	C-TEC	K	C-TEC	K	C-TEC
67 x 1,60	2 5/8 x 0,063	K	K	C-TEC	K	C-TEC	K	C-TEC
80 x 1,60	3 x 0,063	K			K	C-TEC		

K = Variable tooth

Patent no. 102 53 711

# CARBIDE

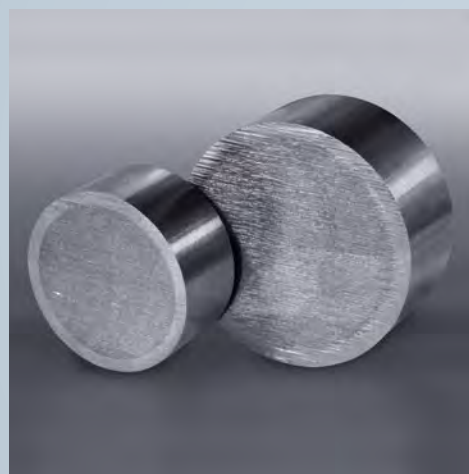
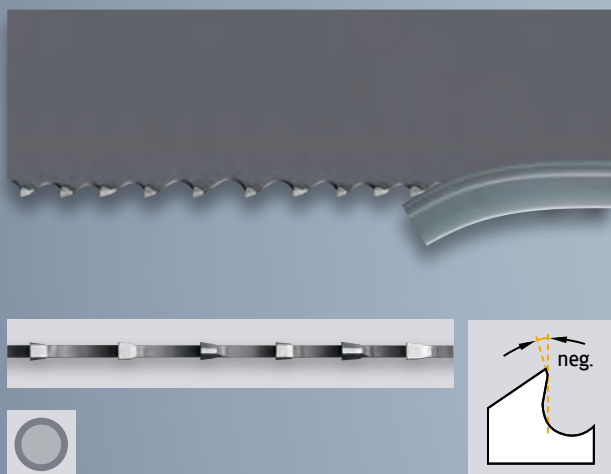
Artikelgruppe 651

## SILVER-LINE-N

Carbide tipped band saw blades with multi chip tooth geometry, negative rake angle for cutting extremely hard or surface hardened materials.

Engineered for:

- Induction hardened piston rods
- Steels hardened up to 63 HRC
- Hard chromium plated materials
- Manganiferous alloyed steels



Dimensions		Tooth	
mm	inch	2/3	3/4
27 x 0,90	1 x 0,035	K	K
34 x 1,10	1 1/4 x 0,042	K	K
41 x 1,30	1 1/2 x 0,050	K	K
54 x 1,60	2 x 0,063	K	

K = Variable tooth

Patent no. 102 53 711

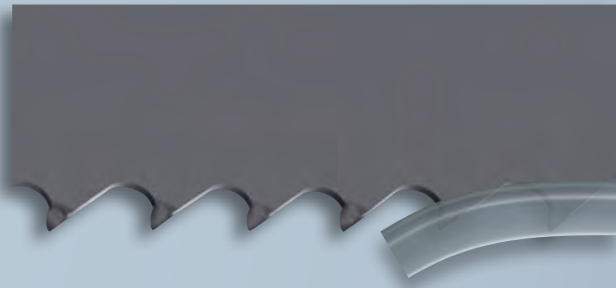
Artikelgruppe 621

## STONE-LINE

Carbide tipped band saw blades for the construction industry.

Engineered for:

- light-weight building materials such as porous concrete / gas concrete (brand examples: Ytong, Porit, Greisel)
- abrasive building materials, perforated bricks and insulating boards (dry cutting) (Brand examples: Poroton, Multipor, Styropor, Styrodur)



Dimensions		Tooth
mm	inch	
27 x 0,90	1 x 0,035	3
H = Hook tooth		H

# Carbon Steel Band Saw Blades

## Article group 100

### CS-1

Flexible band back in pin-point quality with hardened teeth. Suitable for everyday workshop purposes.

Dimensions		Tooth per inch									
mm	inch	3	4	4	6	6	8	10	14	18	24
6 x 0,65	1/4 x 0,025			H		H	N	N	N	N	N
10 x 0,65	3/8 x 0,025	H	N	H	N	H	N	N	N	N	N
13 x 0,65	1/2 x 0,025	H	N	H	N	H	N	N	N	N	N
16 x 0,80	5/8 x 0,032	H	N	H	N		N	N	N	N	
20 x 0,80	3/4 x 0,032	H	N	H	N	H	N	N	N	N	N
25 x 0,90	1 x 0,035	H	N		N		N	N	N		

N = Standard tooth 0° H = Hook tooth 10°

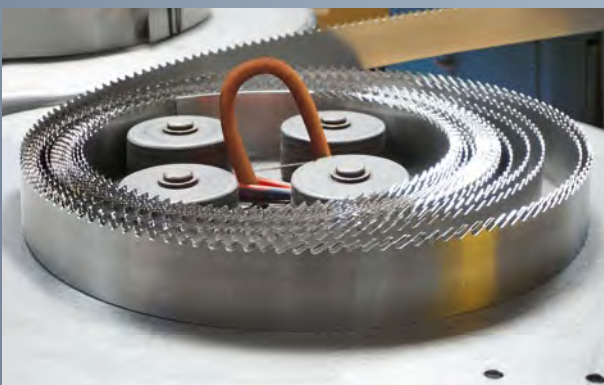
## Article group 110

### CS-2-PLUS

Spring hardened band back with hardened teeth. For increased wear resistance and long tool life.

Dimensions		Tooth per inch									
mm	inch	3	4	4	6	6	8	10	14	18	24
6 x 0,65	1/4 x 0,025			H	N	H	N	N	N	N	N
8 x 0,65	5/16 x 0,025			H	N	H	N	N	N	N	N
10 x 0,65	3/8 x 0,025	H		H	N	H	N	N	N	N	N
13 x 0,65	1/2 x 0,025	H	N	H	N	H	N	N	N	N	N
16 x 0,80	5/8 x 0,032	H		H		H		N	N	N	N
20 x 0,80	3/4 x 0,032	H	N	H	N	H	N	N	N	N	N
25 x 0,90	1 x 0,035	H	N	H	N	H	N	N			

N = Standard tooth 0° H = Hook tooth 10°



## Professional Accessories

### Tension measuring device

Wrong tension of band can be the reason for crooked cuts or can cause blade breakage. Therefore, the band tension should be checked at regular intervals. Detailed instructions explain how to select and control the right band saw tension.



### Refractometer

The correct concentration of cooling liquid is important for optimum life time of ARNTZ Band Saw Blades. To check directly during operation the right concentration of liquid it is recommended to use the ARNTZ-Refractometer.



### Application toolkit

Making sure your blade runs under perfect conditions. Featuring: Tension measuring device, refractometer, tachometer, accessories and more.



## Break-in procedures: For long blade life.

Like all HSS tools, ARNTZ Band Saw Blades should be adhered to a special break-in procedure for extended blade life, less blade changes and best payback of your tool cost.

Overload of the razor-sharp tooth tips should be avoided at the start of cutting operation. Aggressive cutting with a new blade will lead to premature tooth breakages. Correct break-in will control the gentle rounding of cutting edges.

### Bi-Metal Band Saw Blades

Starting feed should be half of final feed rate at the recommended cutting speed for the first 300-500 cm<sup>2</sup> cut surface (see table on page 30). After that, feed rate should be gradually increased for maximum cutting rate. Should vibrations or noises occur at the beginning of the cutting operation, cutting speed should be slightly adjusted.

### Carbide Tipped Band Saw Blades

For break-in procedure during the first 30 minutes we recommend following parameters:

Material diameter up to 600 mm	Cutting speed = 30 m/min
	Feed = 5 mm/min

Material diameter over 600 mm	Cutting speed = 25 m/min
	Feed = 3 mm/min

Only when the Band Saw Blades are cutting without any vibrations, cutting speed and feed can be increased step by step to the maximum. The Band Saw Blades are working perfectly when no vibrations will appear.

# Technical recommendations

## For Bi-Metal Band Saw Blades

Material groups	Material specification DIN	Material no.	Cutting speed V <sub>c</sub> (m/min)		Cooling fluids	
			Bi-Metal	Cutting oil	Emulsion	
Structural steels	St 37 – 2	1.0037	80-100		x	
	St 50 – 2	1.0050	60-85		x	
	St 60 – 2	1.0060	50-70		x	
Case-hardening steels	C 10	1.0301	80-100	x		
	14 NiCr 14	1.5752	40-55	x		
	21 NiCrMo 2	1.6523	50-60	x		
	16 MnCr 5	1.7131	40-60	x		
Free machining steels	9 S 20	1.0711	80-120		x	
	45 S 20	1.0727	80-120		x	
Heat treatable steels	C 45	1.0503	60-70		x	
	40 Mn 4	1.1157	60-70		x	
	36 NiCr 6	1.5710	60-70		x	
	34 CrNiMo 6	1.6582	50-65		x	
	42 CrMo 4	1.7225	50-65		x	
Ball bearing steels	100 Cr 6	1.3505	35-50		x	
	100 CrMn 6	1.3520	35-50		x	
Spring steels	65 Si 7	1.5028	45-60		x	
	50 CrV 4	1.8159	45-60		x	
Unalloyed tool steels	C 125 W	1.1663	40-60		x	
	C 75 W	1.1750	40-60		x	
Cold-work tool steels	125 Cr 1	1.2002	40-50	x	x	
	X 210 Cr 12	1.2080	30-40	x	x	
	X 155 CrVMo 12 1	1.2379	30-40	dry		
	X 42 Cr 13	1.2083	35-45	x	x	
	X 165 CrV 12	1.2201	30-45	x	x	
	100 CrMo 5	1.2303	30-50	x	x	
	X 32 CrMoV 3 3	1.2365	45-60	x	x	
	45 WCrV 7	1.2542	40-50	x	x	
	56 NiCrMoV 7	1.2714	40-50	x	x	
High speed steels	S 6-5-2-5 (E Mo5 Co5)	1.3243	35-45		x	
	S 2-10-1-8 (M 42)	1.3247	35-45		x	
	S 6-5-2 (DMo5)	1.3343	35-45		x	
Valve steels	X 45 CrSi 9 3	1.4718	30-45	x	x	
	X 45 CrNiW 18 9	1.4873	30-40	x	x	
High temperature steels	X 20 CrMoV 12 1	1.4922	10-30	x	x	
	X 5 NiCrTi 26 15	1.4980	10-30	x	x	
Heat resistant steels	X 10 CrSi 6	1.4712	15-25	x	x	
	X 10 CrAl 18	1.4742	15-25	x	x	
	X 15 CrNiSi 25 20	1.4841	15-25	x	x	
Stainless steels	X 5 CrNi 18 10 (V2A)	1.4301	30-40	x	x	
	X 6 CrNiMoTi 17 12 2 (V4A)	1.4571	30-40	x	x	
Steel castings	GS-38	1.0420	40-60		x	
	GS-60	1.0558	40-60		x	
Cast irons	GG-15	0.6015	30-60	dry		
	GG-30	0.6030	30-60	dry		
	GGG-50	0.7050	30-60	dry		
	GTW-40	0.8040	30-60	dry		
	GTS-65	0.8165	30-60	dry		
Copper	KE-Cu	2.0050	100-400	x	x	
	Elektrolyt-Copper		100-400	x	x	
Brass (copper-zinc alloys)	CuZn 10	2.0230	100-400		x	
	CuZn 31 Si 1	2.0490	100-400		x	
Aluminium bronze (copper-aluminium alloys)	CuAl 8	2.0920	35-50		x	
	CuAl 10 Fe 3 Mn 2	2.0936	35-50		x	
Bronze (copper-TiN alloys)	CuSn 6	2.1020	80-150		x	
	CuSn 6 Zn 6	2.1080	80-150		x	
Red brass (copper-cast alloys)	CuSn 10 Zn	2.1086	50-100		x	
	CuSn 5 ZnPb	2.1096	50-100		x	
Nickel base alloys	NiCr 20 TiAl	2.4631	10-25	x	x	
	NiCr 22 FeMo	2.4972	10-25	x	x	
Aluminium and aluminium alloys	Al 99.5	3.0255	80-800		x	
	AlMgSiPb	3.0615	80-800		x	
	G-AlSi 5 Mg	3.2341	80-800		x	
Titanium and titanium alloys	Ti Grade 1	3.7025	10-20	x	x	
	TiAl 6 V 4	3.7164	10-20	x	x	
Thermoplastic plastics	PVC		100-400	dry		
	Teflon, Hostalen		100-400	dry		
Plastics with fibre inlays	Resitex		50-300	dry		
	Novotex		50-300	dry		

## For Carbide Band Saw Blades

for cutting steel

Material group	Material specifications DIN	Material no.	Cutting speed	Recommended tooth pitch Material dimensions				
				V <sub>c</sub> (m/min)	75 - 140 mm	100 - 350 mm	300 - 550 mm	≥ 540 mm
Structural steels	St 37/42	1.0037/1.0042	100-130	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	St 52/60	1.0050/1.0060	90-120	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Case-hardening steels	C10/C15	1.0301/1.0401	110-140	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	16 MnCr 5	1.7131	80-100	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	20 CrMo 5	1.7264	80-100	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	21 NiCrMo 2	1.6523	70-90	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Nitrate steels	34 CrAlNi 7	1.8550	45-60	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	34 CrAlMo 5	1.8507	45-60	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Free machining steels	9 S 20	1.0711	100-160	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Heat treatable steels	C 35/45	1.0501/1.0503	90-120	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	42 CrMo 4	1.7225	70-90	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	34 CrNiMo 6	1.6582	70-90	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Ball bearing steels	100 Cr 6	1.3505	70-90	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	100 CrMo 7 3	1.3536	65-85	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Spring steels	65 Si 7	1.5028	65-85	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	50 CrV 4	1.8159	65-85	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Unalloyed tool steels	C 125 W	1.1663	65-80	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	C 80 W 1	1.1525	70-85	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Cold-work tool steels	125 Cr 1	1.2002	65-80	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	X 210 Cr 12	1.2080	40-50	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	X 155 CrWMO 12 1	1.2379	40-50	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	90 MnCrV 8	1.2842	45-55	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Hot-work tool steels	40 CrMnMo 7	1.2311	70-90	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	X 40 CrMoV 5 1	1.2344	60-80	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	56 NiCrMoV 7	1.2714	50-70	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	40 CrMnNiMo 8 6 4	1.2738	35-50	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
High speed steels	S 6-5-2	1.3343	50-60	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	S 3-3-2	1.3333	55-65	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	S 2-10-1-8	1.3247	45-60	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	S 10-4-3-10	1.3207	45-60	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	S 18-0-1	1.3355	45-60	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Stainless steels	X 5 CrNi 18 10	1.4301	70-80	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	X 6CrNiMoTi 17 12 2	1.4571	65-75	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	X 20 Cr 13	1.4021	80-100	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Valve steels	X 45 CrSi 9 3	1.4718	50-60	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	X 45 CrNiW 18 9	1.4873	40-50	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
High temperature steels	X 12 CrCoNi 21 20	1.4971	30-40	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	X 20 CrMoWV 12 1	1.4935	80-100	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Heat resistant steels	X 15 CrNiSi 25 20	1.4841	30-40	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	X 12 NiCrSi 36 16	1.4864	30-40	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Special alloys	NiCr 19 NbMo	2.4668	20-30	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	NiMo 30	2.4810	22-35	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	NiCr 13 Mo 6 Ti 3	2.4662	20-30	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	NiCo 20 Cr 20 MoTi	2.4650	22-35	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	X 8 CrNiAlTi 20 20	1.4847	22-35	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Heat treated steels	1000 - 1200 N/mm <sup>2</sup>		35-50	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	1200 - 1400 N/mm <sup>2</sup>		30-45	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	1400 - 1600 N/mm <sup>2</sup>		25-35	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Hardened steels	50 HRC		15-20	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	55 HRC		10-15	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	60 HRC		8-12	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Steel castings	GS-38	1.0420	70-100	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	GS-60	1.0558	60-85	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Cast irons	GG-30	0.6030	60-80	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	GGG-50	0.7050	55-75	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	

## For Carbide Band Saw Blades

for cutting non ferrous metals

Material group	Material specifications DIN	Material no.	Cutting speed	Recommended tooth pitch Material dimensions				
				V <sub>c</sub> (m/min)	75 - 140 mm	100 - 350 mm	300 - 550 mm	≥ 540 mm
Aluminium and aluminium alloys	Al 99,5	3.0255	up to 3000	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	AlMg 1	3.3315	up to 3000	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	AlMg 3	3.3535	up to 3000	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	AlMg 4.5Mn	3.3547	up to 3000	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	AlMgSi 1	3.2315	up to 3000	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Copper	KE-Cu	2.0050	100-200	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	E-Cu	2.0060	100-200	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Brass (copper-zinc alloys)	CuZn 39 Pb 3	2.0401	150-250	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	VuZn 31 Si	2.0230	150-250	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Bronze	CuSn 6	2.1020	90-130	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Red brass	CuSn 5 ZnPb	2.1096	90-130	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	CuSn 10 Zn	2.1086	90-130	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Aluminium-bronze	CuAl 8	2.0920	60-80	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	CuAl 8 Fe 38	2.0920.60	52-65	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	CuAl 10 Ni 5 Fe 4	2.0966	50-70	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Titanium and titanium alloys	Ti Grade 1	3.7025	80-100	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	TiAl 6 V 4	3.7164	60-90	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	

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