Arntz

Passionate Cutting!

Edition 2021

FactBook

BAND SAW BLADES

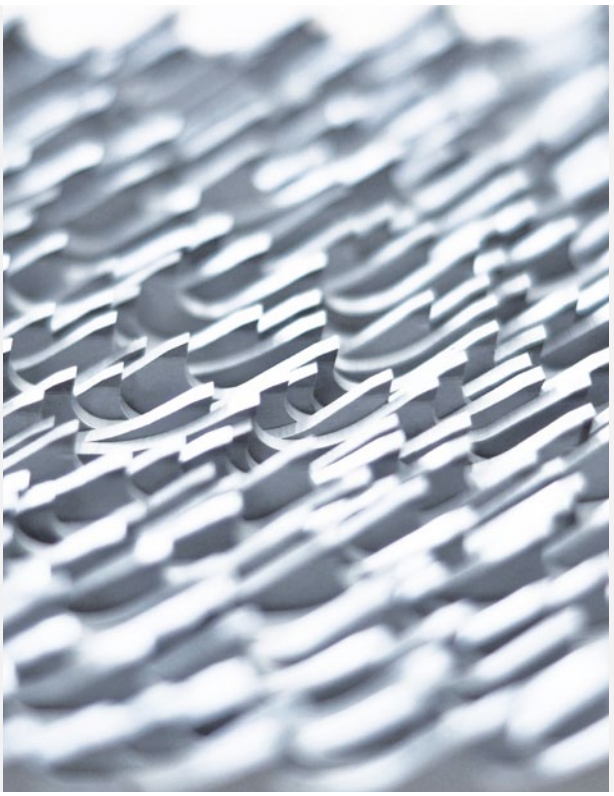
Welcome to ARNTZ

Your cutting expert for the entire world of metals.

225 years of manufacturing, 225 years of tools, 225 years of passion: We are proudly looking back on a long tradition while facing the future with excitement. Complex materials are opening up new markets and alloys are developing along with higher requirements of their products behind. This requires new and innovative cutting solutions. Our specialists are being challenged with the demands of many different markets – daily. We are familiar with the materials and their cross sections – over all industries and down to the detail.

Our operational structures allow us to quickly and individually address the individual need of our customers and develop optimal solutions close to you. We will assist you from the first question up to fine-tuning. Even at your site if required.

Saw blades from ARNTZ are high-performance tools – economical, precise and perfectly matched to the relevant application. Our actions are guided by our high quality standards and our passion for what we do. We deliver sawing technology „Made in Germany" that you can depend on worldwide – promised!

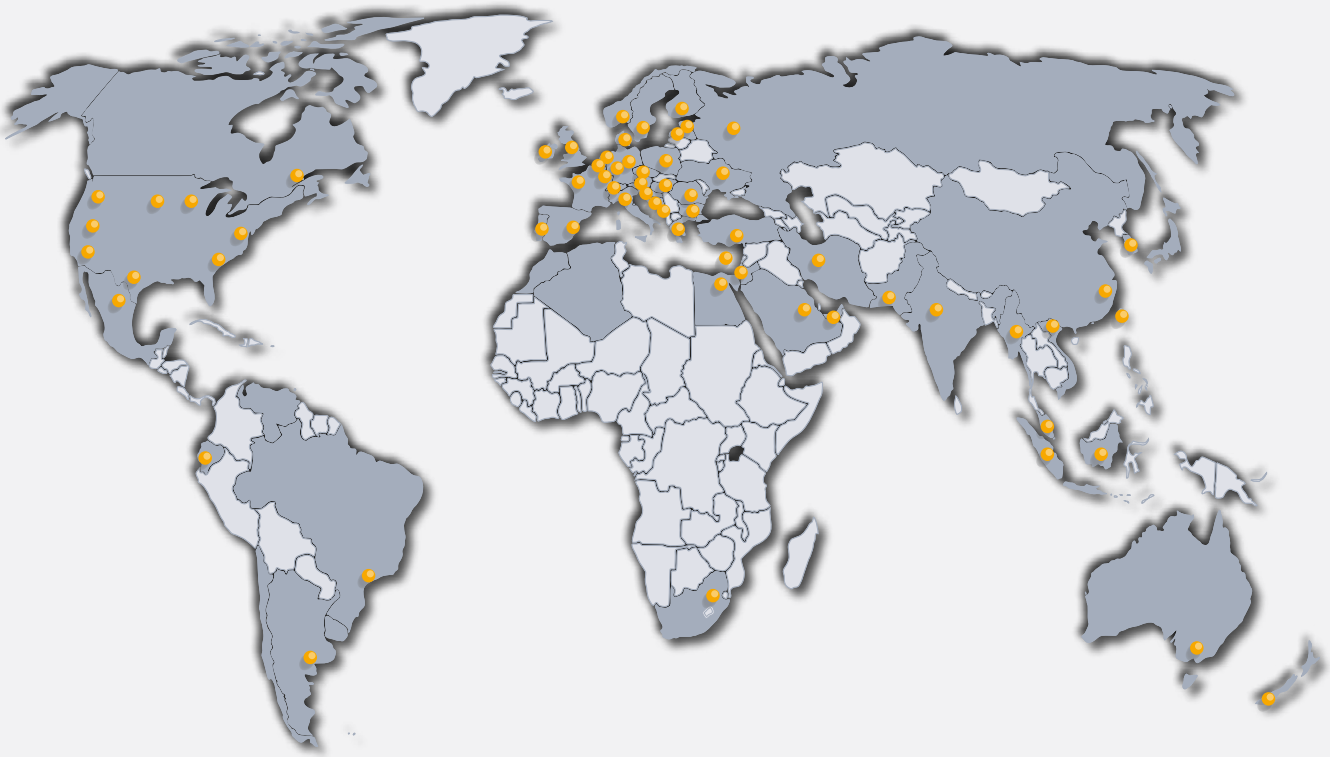


Innovative cutting technology...

Optimized operating processes and certified 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

	Material	Article group
	solid material round small	**420 | 430**
	solid material round medium	**421 | 426 | 436 | 457 | 557 620 | 622 | 643 | 650**
	solid material round large	**431 | 437 | 457 | 537 | 544 557 | 620 | 622 | 643 | 650**
	solid material square large	**431 | 437 | 457 | 537 | 544 557 | 620 | 622 | 643 | 650**
	solid material special alloy	**537 | 544 | 557 | 622 | 650**
	solid material rectangular large	**431 | 437 | 537 | 544 | 620 622 | 643 | 650**
	solid material very large	**431 | 437 | 537 | 544 | 620 622 | 643 | 650**
	sheet panel	**430**
	small round tube standard wall thickness	**430**
	small round tube thin wall thickness	**430**
	round tube standard wall thickness	**426 | 430 | 457 | 557**

	Material	Article group
	round tube heavy walled	**431 | 437 | 537 | 544**
	bundle of tubes	**430 | 457 | 557**
	square tube small	**420**
	square tube large	**457 | 557**
	aluminium profile	**436**
	standard steel beam	**457 | 557**
	wide flange steel beam	**445**
	heavy walled steel beam	**445**
	U channel steel	**457 | 557**
	L angle steel	**457 | 557**
	surface hardened material	**651**

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

Bi-Metal

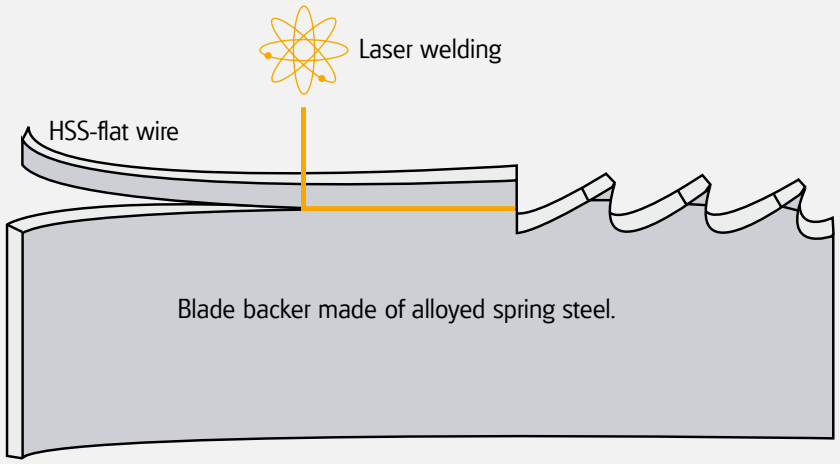
Why so successful?

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.

Perfectly joint:

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

Hard and wear resistant:

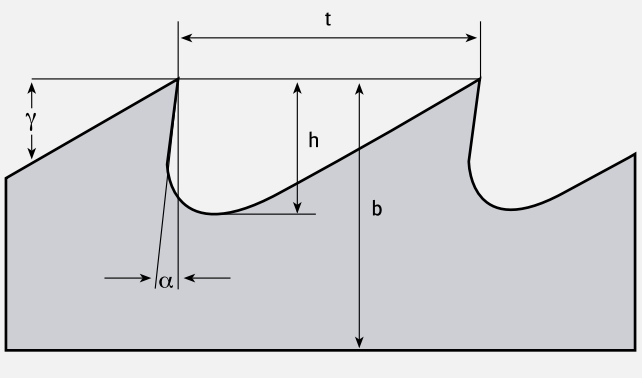
Tooth tips made of hardened HSS-Steel in M 42 or M 51 quality obtained due to well-balanced hardening and fixed structure resulting in high wear resistance.

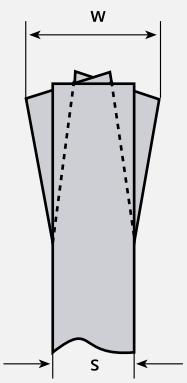
All advantages:

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

Band Saw geometry

Terminology



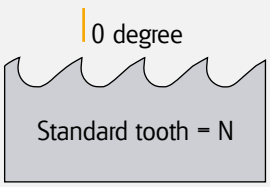


b = width of blade
s = thickness of saw blade
h = gullet depth
t = tooth pitch
α = rake angle
γ = clearance angle
w = width of set

Tooth forms

Where performs the right tooth?

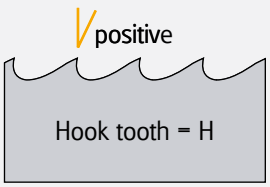
Only the correctly selected tooth form allows efficient cutting with low vibration. Four basic types are available:



Designed for:
- short chipping materials
- light wall thickness

Data:
- rake angle 0°
- constant tooth pitch of 4 to 18 tpi

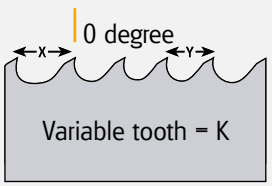
Article groups:
100, 110, 420



Designed for:
- long chipping materials
- large cross sections

Data:
- positive rake angle
- constant tooth pitch of 3 to 6 tpi

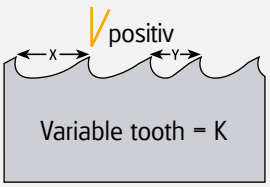
Article groups:
100, 110, 421, 426



Designed for:
- low vibration cutting
- structurals

Data:
- rake angle 0°
- variable tooth pitch of 3/4 to10/14 tpi

Article group:
430 (K-0)

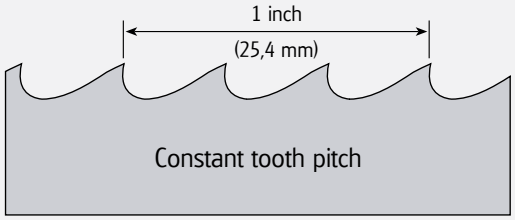


Designed for:
- low vibration cutting
- solid materials

Data:
- positive rake angle
- variable tooth pitch of 0,75/1,25 to 8/11 ZpZ

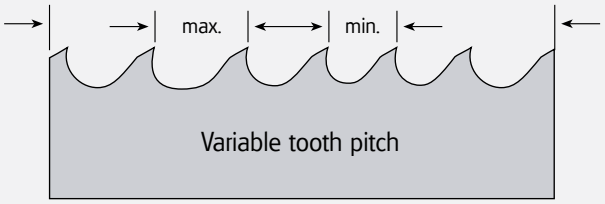
Article groups:
445, 457, 557 (K-VS, K-X)
431, 436, 437 (K-POS)
537, 544 (K-PLUS)

Tooth pitch



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

Constant or variable?



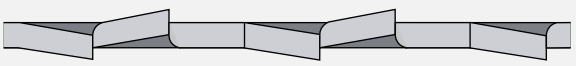
The tooth distances vary within a group of teeth. The smallest and the largest tooth pitch denote the variable toothing of the saw blade.

Tooth set

What groups and waves can cause.

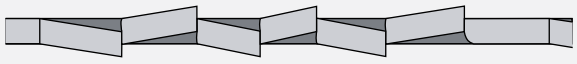
Beside the tooth pitch and the tooth form, the exact setting is essential for the performance of the sawblade. The correct clearance results from the corresponding setting. It avoids blade pinching, which is especially important in problematic steels. Width and type of set are precisely tailored to the cutting application.

Standard raker set



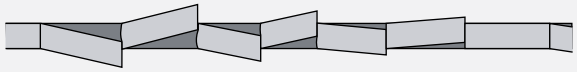
3 - 18 tpi — tooth forms N, H

Standard group set



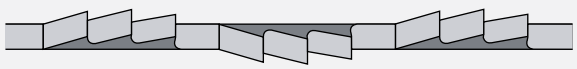
0,75/1,25 - 10/14 tpi — tooth form K

Variable group set



0,75/1,25 - 8/11 tpi — tooth forms K-VS, K-X

Wavy set



14 - 18 tpi — tooth form N-W

Correct tooth pitch – optimum performance.

The choice of the right tooth pitch is decisive to achieve the optimum performance. Choose between the standard tooth with constant tooth pitch or the combination tooth with variable tooth pitch. The varibale tooth is recommended for low-vibration sawing in problematic workpieces.

Recommendation to cut solid material

Variable tooth pitch		
Cross section inch	Teeth per inch tpi	Tooth shape
from 21	0,75/1,25	K
15 - 30	1/1,3	K
10 - 21	1,4/2	K
5 - 13	2/3	K
4 - 7	3/4	K
3 - 6	4/6	K
2 - 3	5/7 | 5/8	K
1 - 2	6/10	K
3/4 - 1	8/11 | 8/12	K
to 1	10/14	K
K = Variable tooth		

Recommendation to cut tubes and structurals

Thin wall structurals (0° – 7° rake angle)							
Wall thickness inch	Diam. of structural inches 3/4	1 1/2	2 1/2	3	4	5	6
1/16	14	14	14	14	14	14	10/14
1/8	14	14	14	14	10/14	10/14	8/11 | 8/12
3/16	14	14	10/14	10/14	8/11 | 8/12	8/11 | 8/12	6/10
7/32	14	10/14	10/14	8/11 | 8/12	8/11 | 8/12	6/10	6/10
1/4	14	10/14	8/11 | 8/12	8/11 | 8/12	6/10	6/10	5/7 | 5/8
29/93	14	8/11 | 8/12	6/10	6/10	5/7 | 5/8	5/7 | 5/8	5/7 | 5/8
3/8	-	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. The required tooth pitch is depending on the wall thickness and dimensions of the structurals. The recommendations shown here refer to single cuts. When two or more structurals are cut at the same time, double the wall thickness needs to be considered.

Heavy wall structurals (positive rake angle)								
Wall thickness inch	Diam. of structural inches 3	4	5	6	8	12	20	30
3/8	-	-	-	4/6	4/6	4/6	3/4	2/3
9/16	4/6	4/6	4/6	4/6	4/6	3/4	2/3	2/3
3/4	4/6	4/6	4/6	4/6	3/4	3/4	2/3	2/3
1	4/6	4/6	4/6	3/4	3/4	2/3	2/3	2/3
2	-	-	3/4	3/4	2/3	2/3	2/3	1,4/2
3	-	-	-	-	2/3	2/3	1,4/2	1,4/2
4	-	-	-	-	-	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:

1/4" - 1/2" in length of approx 100' or 250' | 3/4" - 1 1/4" in length of approx 216'
1 1/2" in length of approx 174' | 2" - 3" in length of approx 150'

Bi-Metal and Carbide Tipped Band Saw Blades

For each cutting operation the right choice.

Art. gr.	430	431	457	445	557	420	421	426	436	544	437	537	620	622	643	650	651
Product name	M42-SPRINT	M42-SPRINT-PLUS	M42-X-FIT	M42-PROFILER	M51-X-PRO	M42-STAR	M42-STAR-PLUS	M42-ALUCUT-PLUS	M42-ALUCUT-SPRINT	M51-BLIZZARD	M42-TAIFUN-SPRINT	M51-TAIFUN-MAXIMA	BLACK-LINE	BLACK-LINE-S	BLUE-LINE	SILVER-LINE	SILVER-LINE-N
Page of catalogue	10	10	11	11	12	13	13	14	14	15	16	17	19	20	21	22	23
Material dimension (inch)																	
- Structural steels	‹ 2.75																
- Case-hardening steels	3 - 13																
- Free machining steels	› 13																
- Unalloyed tool steels	‹ 2.75																
- Spring steels	3 - 13																
- Ball bearing steel	› 13																
- High speed steels	‹ 2.75																
- Cold-work steels	3 - 13																
	› 13																
- Nitride steels	‹ 2.75																
- Heat treatable steels	3 - 13																
- Hot working steels	› 13																
- Stainless steels	‹ 2.75																
	3 - 13																
	› 13																
- High temperature steels	‹ 2.75																
- Heat resistant steels	3 - 13																
	› 13																
- High tensile steels	‹ 2.75																
- Titanium + titanium alloys	3 - 13																
- Nickel alloys	› 13																
- Surface hardened steel shafts	‹ 2.75																
- Hardened steels up to HRC 62	3 - 13																
- Hardchromed materials	› 13																
- Steel castings	‹ 2.75																
- Cast irons	3 - 13																
	› 13																
- Aluminium	‹ 2.75																
- Copper	3 - 13																
	› 13																
- Brass	‹ 2.75																
- Bronze	3 - 13																
- Red brass	› 13																
- Aluminium + alloys	‹ 2.75																
- Aluminium alloys with silicon	3 - 13																
	› 13																

Qualification: = very good = good

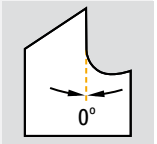
Article group 430 Standard

M42-**SPRINT**

The fabrication 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	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
27 x 0,90	1 x 0,035	K	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		

K = Variable tooth

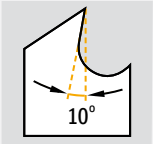
Article group 431 Standard

M42-**SPRINT-PLUS**

Perfect for materials of medium to large dimensions.

Engineered for:

- production band saw machines
- all-purpose use for steels and non-ferrous metals
- tensile strengths of up to 43 HRC
- 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		
80 x 1,60	3 x 0,063	K	K			

K = Variable tooth

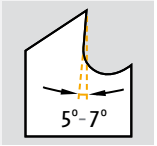
Article group 457 Standard

M42-**X-FIT**

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

Engineered for:

- steel beams, profiles and tubes
- mixed materials



Dimensions		Tooth				
mm	inch	2/3	3/4	4/6	5/7	8/11
20 x 0,90	3/4 x 0,035			K		K
27 x 0,90	1 x 0,035		K	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		
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	K			

K = Variable tooth

Article group 445 845 C-TEC Professional

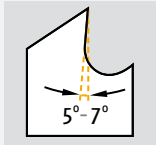
M42-**PROFILER**

Robust performance for steel construction.

Engineered for:

- large cross-section steel beams
- structurals with residual stress

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



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

K = Variable tooth

Article group 557 857 C-TEC

Professional

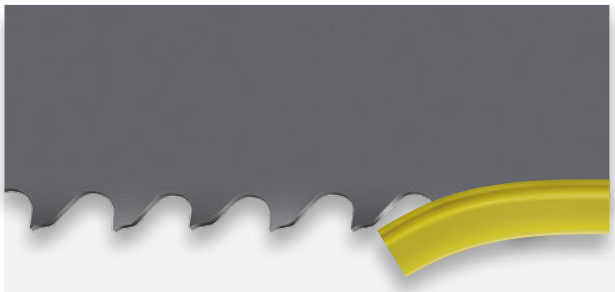
M51-**X-PRO**

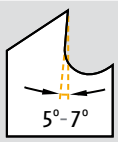
The pro with particularly wear-resistant teeth.
For sawing processes using minimal lubrication.
Powerful at high cutting speeds and feeds.

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

Engineered for:

- steel beams, profiles and pipes
- mixed cross-sections





Dimensions		Tooth					
mm	inch	2/3		3/4		4/6	
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 1,30	2 x 0,050			K	C-TEC		
54 x 1,60	2 x 0,063	K	C-TEC	K	C-TEC		
67 x 1,60	2 5/8 x 0,063	K	C-TEC	K	C-TEC	K	

K = Variable tooth

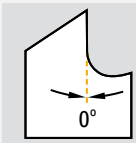
Article group 420 Standard

M42-**STAR**

Allrounder for solid, small-dimensioned materials.

Engineered for:

- common steel qualities and non ferrous metals
- short-chipping materials
- small structurals with thin walls
- narrow cross sections up to approx. 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-W	N-W
27 x 0,90	1 x 0,035	N	N		N-W	

N = Standard tooth W = Wavy set

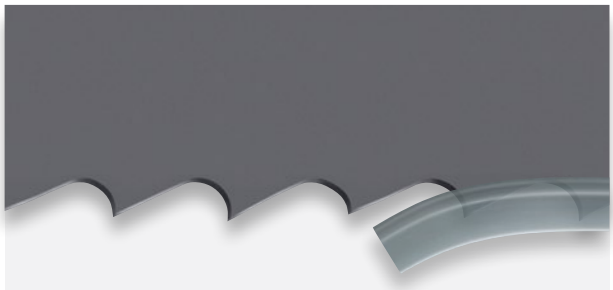
Article group 421 Standard

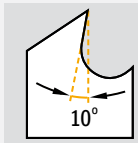
M42-**STAR-PLUS**

The saw blade for medium sized solid materials.

Engineered for:

- small workshop bandsaws
- common steel qualities and non ferrous metals
- cross sections over approx. 4"





Dimensions		Tooth		
mm	inch	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 = Hook tooth

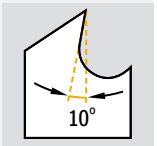
Article group 426 Standard

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

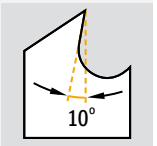
Article group 436 Standard

M42-**ALUCUT-SPRINT**

Easy cutting of light-weight 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 544

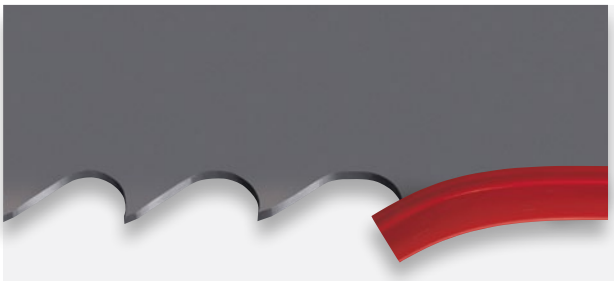
Professional

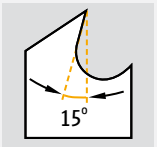
M51-**BLIZZARD**

Extra wear resistant teeth made of powder metallurgical HSS-steel

Engineered for:

- hard and tough materials up to 50 HRC
- stainless steel
- copper and copper based alloys
- titanium and titanium based alloys
- thick walled structurals





Dimensions		Tooth						
mm	inch	0,75/1,25	1/1,3	1,4/2	2/3	3/4	4/6	5/8
27 x 0,90	1 x 0,035				K	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	K		
54 x 1,60	2 x 0,063		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 with special geometry

Article group 437 837 C-TEC

Professional Plus

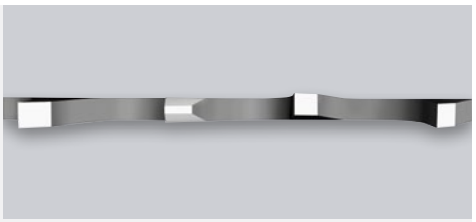
M42-**TAIFUN-SPRINT**

Excellent for use on high-performance band saw machines.

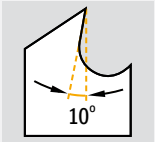
Also coated available C-TEC for extremely increased feet rates, significantly reduced cutting times and maximized blade life.

Engineered for:

- tensile strengths of up to 43 HRC
- stainless steel
- all-purpose use for steels and non-ferrous metals
- thick walled structurals



The borazon-ground tooth tips produce an excellent cutting surface, perfect 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	C-TEC	K	C-TEC
54 x 1,30	2 x 0,050			K	C-TEC	K	C-TEC	K	C-TEC
54 x 1,60	2 x 0,063	K	C-TEC	K	C-TEC	K	C-TEC	K	C-TEC
67 x 1,60	2 5/8 x 0,063	K	C-TEC	K	C-TEC	K	C-TEC		
80 x 1,60	3 x 0,063	K	C-TEC	K	C-TEC				

K = Variable tooth

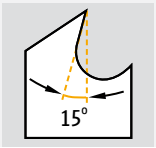
M51-TAIFUN-MAXIMA

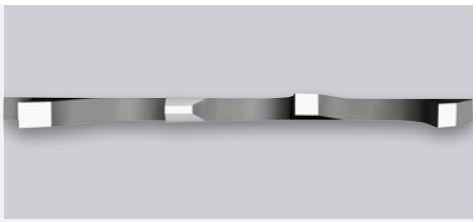
Extremely wear-resistant, ground teeth for the most difficult cutting conditions.

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

Engineered for:

- tensile strengths of up to 50 HRC
- stainless steel
- heat resistant duplex steel
- nickel based alloys
- aluminium alloys
- titanium based alloys



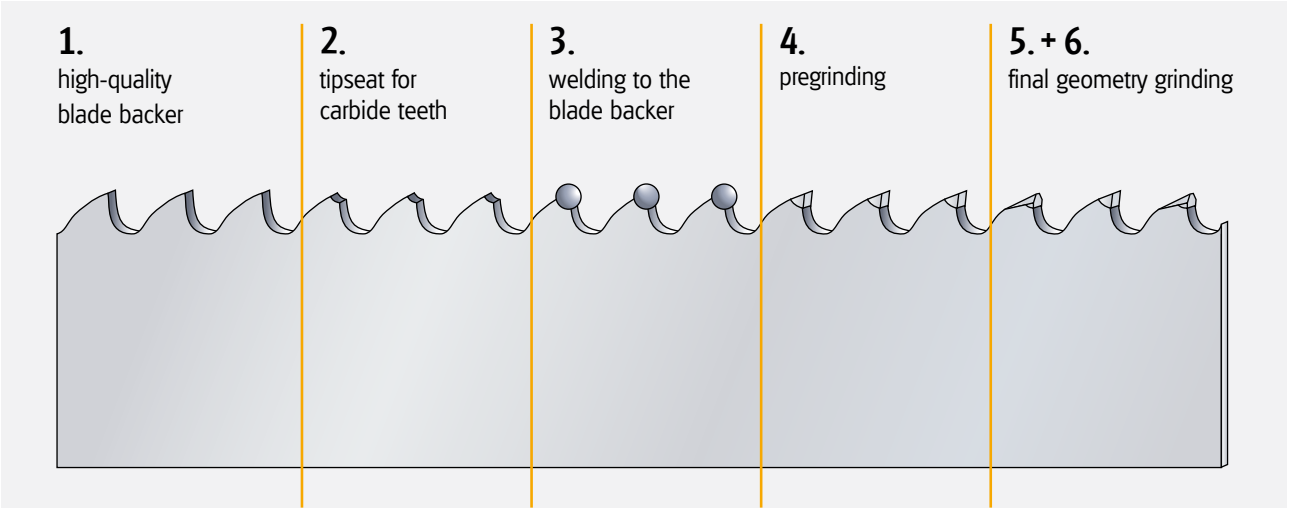


The borazon-ground tooth tips produce an excellent cutting surface, perfect angular cutting and long tool life.

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	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	C-TEC	K	C-TEC	K	C-TEC	K	C-TEC		
80 x 1,60	3 x 0,063	K	C-TEC	K	C-TEC	K	C-TEC				

K = Variable tooth

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:

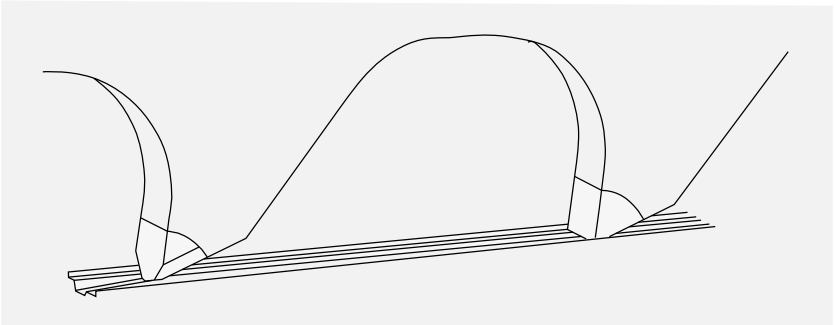
Carbide tooth tips are welded to the backer in a special procedure.

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 are required.

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

The coils have a length of approx. 164'

Article group 620

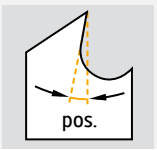
Professional

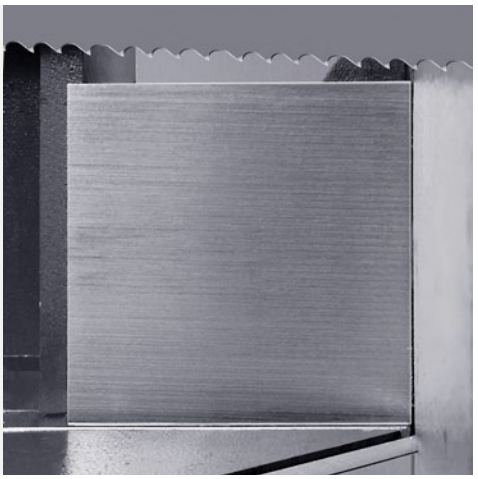
BLACK-LINE

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

Engineered for:

- all-purpose use for construction steel, low-alloy steel, cast iron, 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		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

Professional

BLACK-LINE-S

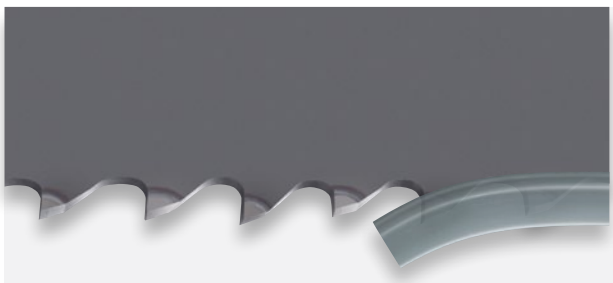
Carbide tipped band saw blade with set tooth for abrasive materials, difficult to cut.

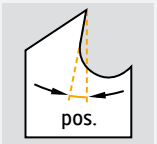
Also coated available **C-TEC** for extremely increased feet rates, significantly reduced cutting times and maximized blade life.

For difficult to cut metals such as stainless steels, tool steels, work hardening metals and nickel base alloys. All blade dimensions and tpi's are available as well in **MV** (Maximized Value) execution. The wavy ground back edge creates a rocking blade motion for a better tooth penetration, faster cutting rates and increased blade life. Available only in customized welded loops.

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	C-TEC	
54 x 1,30	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	C-TEC	K	C-TEC						
80 x 1,60	3 x 0,063	K	C-TEC	K	C-TEC						

K = Variable tooth H = Hook tooth

Article group 643

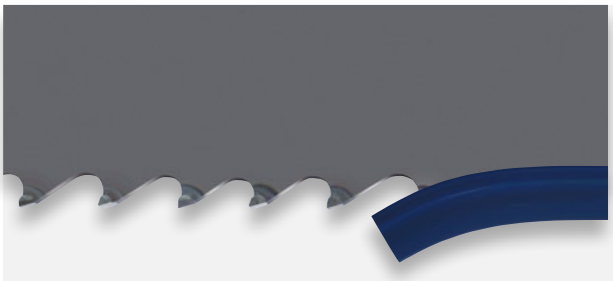
Professional Plus

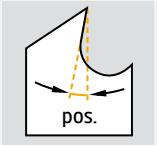
BLUE-LINE

Carbide tipped band saw blades with triple 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	0,65/0,95	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				

K = Variable tooth H = Hook tooth

Reengineered geometry

Article group 650 850 C-TEC

Professional Plus

SILVER-LINE

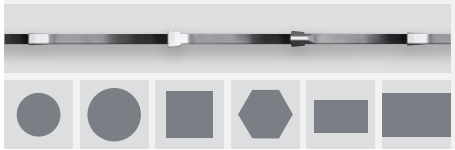
Carbide tipped band saw blades with patented multi chip tooth geometry forcutting high-alloy steels and non-ferrous metals.

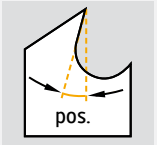
Also coated available **C-TEC** for extremely increased feet rates, significantly reduced cutting times and maximized blade life.

For difficult to cut metals such as stainless steels, tool steels, work hardening metals and nickel base alloys. All blade dimensions and tpi's are available as well in **MV** (Maximized Value) execution. The wavy ground back edge creates a rocking blade motion for a better tooth penetration, faster cutting rates and increased blade life. Available only in customized welded loops.

Engineered for:

- stainless steel
- heat resistant steels
- cold and hot working steels
- hardened steel up to 54 HRC
- 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	C-TEC
54 x 1,30	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	K	C-TEC	K	C-TEC
67 x 1,60	2 5/8 x 0,063	K	C-TEC	K	C-TEC	K	C-TEC	K	C-TEC		
80 x 1,60	3 x 0,063	K	C-TEC			K	C-TEC				

K = Variable tooth

Patent-no. 102 53 711

Article group 651

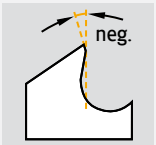
Professional Plus

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 62 HRC
- hard chromium plated materials
- manganiferrous alloyed steels



Dimensions		Tooth		
mm	inch	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	K	K
54 x 1,60	2 x 0,063	K	K	K

K = Variable tooth

Patent-no. 102 53 711

Article group 621

STONE-LINE-RT

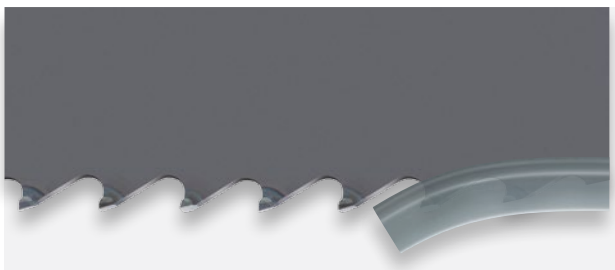
The universal band saw blade for all construction and insulation materials of small and large dimensions running on brick band saw machines.

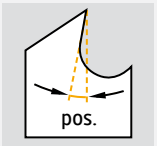
The new variable tooth pitch ensures notably low-vibration and quiet sawing processes and assures supreme quietness. The results are clean and smooth cuts of the best quality.

Thanks to its long blade life and increased durability, our further developed, precision-ground tooth geometry is particularly convincing in hard building materials.

Engineered for:

- pore or lightweight concrete
- perforated brick
- porous bricks ("Poroton")
- insulation material





Dimensions		Tooth
mm	inch	2/3
27 x 0,90	1 x 0,035	K

K = Variable tooth

Grit Edge Band Saw Blades for cutting special abrasive and hard materials…

Tungsten Carbide Grit Band Saw Blades with a hardness up to 2000 HV. Cuts with minimal vibrations. Very smooth finish. Long blade life.

Engineered for:
- composite materials
- hardened steel
- cast iron
- graphite and carbon
- reinforced
- plastics
- fiberglass
- ceramics

Continuous Edge

Use Continuous edge for material less than 1/4" thick or for hard materials with a tendency to fracture, crack, or chip easily.

Width x Gauge mm	inch	Coarse	Medium Coarse	Medium	Extra Fine
6,0 x 0,51	1/4 x 0,020				
10,0 x 0,64	3/8 x 0,025				
12,5 x 0,51	1/2 x 0,020				
12,5 x 0,64	1/2 x 0,025				
19,0 x 0,81	3/4 x 0,032				
25,0 x 0,89	1 x 0,035				
32,0 x 0,89	1 1/4 x 0,035				
32,0 x 1,07	1 1/4 x 0,042				
38,0 x 1,07	1 1/2 x 0,042				

Gulleted Edge

Gulleted Edge recommended for use in Super Alloys, Fiberglass, Honeycomb, Foamed Glass, Hardened Steel, Graphite Composites, Cast Iron Pipe etc.

Width x Gauge mm	inch	Short Tooth Coarse	Deep Gullet Coarse	Coarse	Medium Coarse	Medium
6,0 x 0,51	1/4 x 0,020					
10,0 x 0,64	3/8 x 0,025					
12,5 x 0,51	1/2 x 0,020					
12,5 x 0,64	1/2 x 0,025					
19,0 x 0,81	3/4 x 0,032					
25,0 x 0,89	1 x 0,035					
32,0 x 0,89	1 1/4 x 0,035					
32,0 x 1,07	1 1/4 x 0,042					
38,0 x 1,07	1 1/2 x 0,042					

Select finer grit for finer finish; Use coarser grit for faster cutting. When the blade slows down in cut, turn blade inside out and continue cutting for up to an additional 25 % life.

Kerf (for Continuous and Gulleted Edge)

Width x Gauge mm	inch	Short Tooth Coarse	Deep Gullet Coarse	Coarse	Medium Coarse	Medium	Extra Fine
6,0 x 0,51	1/4 x 0,020	–	–	–	–	0.042	–
10,0 x 0,64	3/8 x 0,025	–	–	–	0.056	0.047	–
12,5 x 0,51	1/2 x 0,020	–	–	–	0.051	0.042	–
12,5 x 0,64	1/2 x 0,025	–	–	–	0.056	0.047	–
19,0 x 0,81	3/4 x 0,032	–	–	0.076	0.054	0.054	–
25,0 x 0,89	1 x 0,035	–	0.079	0.079	0.066	–	0.050
32,0 x 0,89	1 1/4 x 0,035	–	0.079	0.079	–	–	–
32,0 x 1,07	1 1/4 x 0,042	–	0.086	–	–	–	–
38,0 x 1,07	1 1/2 x 0,042	0.086	–	–	–	–	–

Recommended Blade Speed

Material	Blade	SFPM
Aircraft and Sheet Stainless	Med. Coarse	150– 500
Aircraft Tooling and Molding Compounds	Medium	200–1000
Beryllium	Coarse	150– 600
Cable and Wire Rope	Medium	1200–3000
Carbon & Graphite	Coarse	1000–4000
Cement Lined Steel and Cast Iron Pipe	Med. Coarse	120– 500
Compressed Perlite Molding Compounds	Coarse	400–1600
Fiber Reinforced Cement	Med. Coarse	800–1500
Fiberglass Honeycomb	Medium	4000–6000
Fiberglass Reinforced Plastics (polymers, epoxies, melamine, phenolics)	Medium	1000–3000
Foamed Glass	Med. Coarse	1000–3000
Friction Materials	Med. Coarse	1000–3000
Glass	Extra Fine	500–1000
Graphite Composites	Medium	1500–3000
Green Unfired Ceramics	Medium	200–1200
Grey Cast Iron	Coarse	150– 300
Hasteloys	Coarse	120– 300
High-Temp Nickel and Iron Base Super Alloys	Coarse	150– 401
Low Density Ceramics	Medium	500–1500
Nitride Case Hardened and Induction Hardened Steels	Med. Coarse	150– 300
Sintered Tungsten, Molybdenium, Iron and Stainless	Med. Coarse	125– 700
Soapstone, Chalk, Lava, Slate, and Coal	Coarse	150– 600
Syntactic Foam	Med Coarse	300– 700
Titanium	Coarse	150– 400
Tool Steel (HrC 42-65)	Coarse	150– 200
Welds and Met-Lab Specimens	Med. Coarse	125– 300
White and High Alloy Cast Iron	Coarse	150– 350
Wire Reinforced Rubber	Coarse	1200–3000

Dark grey indicates coolant recommended

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		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		H	N	H	N	N	N	N	N
16 x 0,80	5/8 x 0,032	H*		H	N		N	N	N	N	N*
20 x 0,80	3/4 x 0,032	H		H	N	H	N	N	N	N	N
25 x 0,90	1 x 0,035	H	N	H*	N		N	N	N		

N = Standard tooth 0° H = Hook tooth 10° * = Special item

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*		H*		N*	N*	N*	N*
8 x 0,65	5/16 x 0,025		N*	H*					N*		
10 x 0,65	3/8 x 0,025	H*		H*		H*	N*	N*	N*	N*	
13 x 0,65	1/2 x 0,025	H*		H*	N*	H*	N*	N*	N*	N*	N
16 x 0,80	5/8 x 0,032	H*						N*	N*	N*	
20 x 0,80	3/4 x 0,032	H		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° * = Special item

Technical recommendation

For technical recommendations regarding feeds and speed in usage ARNTZ Bi-Metal Band Saw Blades please call us for our **ARNTZ Bi-Metal Feed + Speed Slide Chart**

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 frequently. 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 the right concentration of liquid while operating 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 46,5 – 77,5 in^2 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 24“	Cutting speed	= 100 SFPM
	Feed	= 0,2“/min.
Material diameter over 24“	Cutting speed	= 80 SFPM
	Feed	= 0,12“/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.

Arntz
Passionate Cutting!

ARNTZ, INC.
320 International Circle
Summerville, SC 29483
USA

Phone (843) 873-7850
Fax (843) 873-7890
Toll-free (800) 845-3816

sales@arntz-usa.com
www.arntz.us

Head office

ARNTZ GmbH + Co. KG
Lenneper Straße 35
42855 Remscheid
GERMANY

Phone +49(0)2191.9986-01
Fax +49(0)2191.9986-199

info@arntz.de
www.arntz.de

ARNTZ Sägetechnik GmbH
Industriering 17
04626 Schmölln
GERMANY

Phone +49(0)34491.353-0
Fax +49(0)34491.353-50

sln@arntz.de
www.arntz.de

ARNTZ Nederland B.V.
Televisieweg 35
1322 AJ Almere
NETHERLANDS

Phone +31(0)36.5365483
Fax +31(0)36.5364558

info@arntz-nl.com
www.arntz-nl.com

www.arntz.us

EXPERIENCE TRADITION
225 years
Arntz
1793-2018
INNOVATION