

# Arnitz

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...

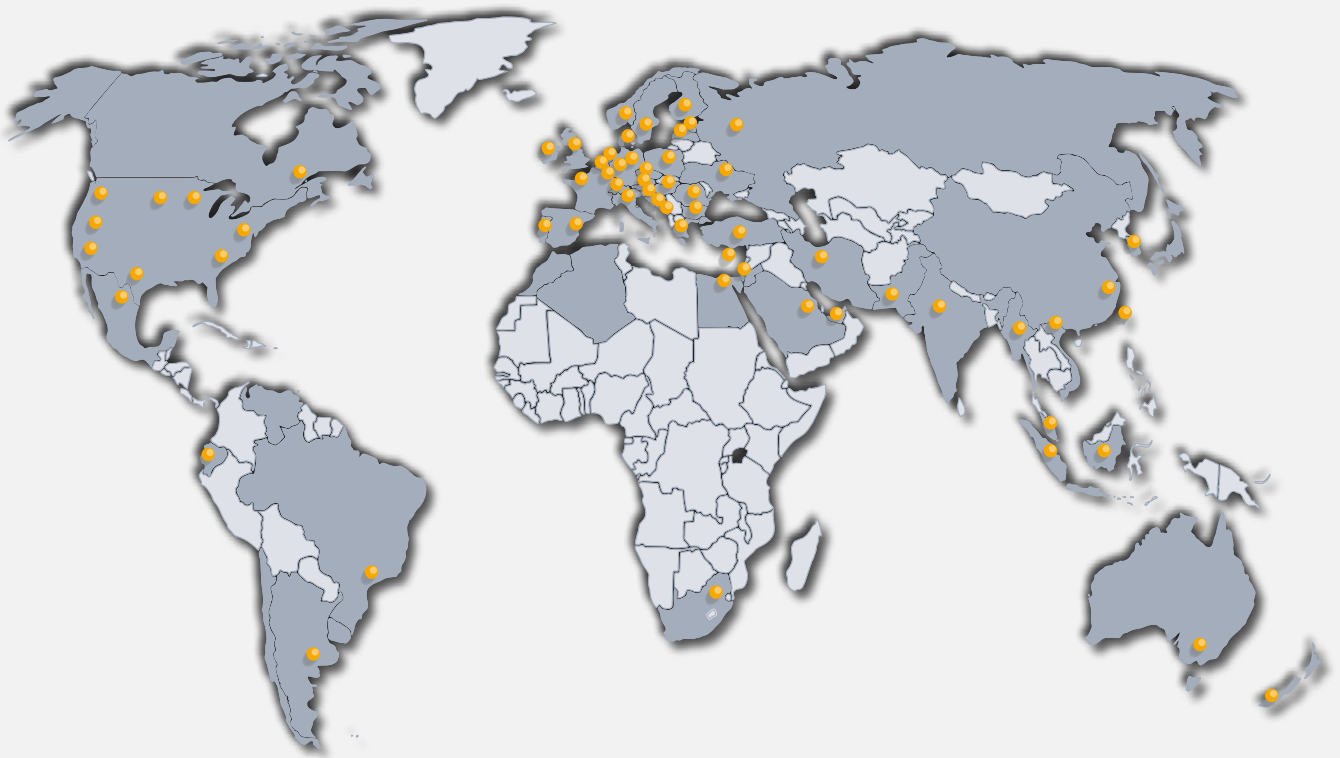


Optimized operating processes and continuous quality controls are the foundation of ARNTZ's high-end saw blades. Every single step in the production process goes through our multilayered control system to guarantee our quality standards.



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

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

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



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

Category	Article group		Description	Material	Page
	uncoated	coated			

### Bi-Metal Band Saw Blades

Standard	430		M42-SPRINT		10
	431		M42-SPRINT-PLUS		11
	457		M42-X-FIT		12
	420		M42-STAR constant tooth pitch		14
	421		M42-STAR-PLUS constant tooth pitch		14
	426		M42-ALUCUT-PLUS		15
	436		M42-ALUCUT-SPRINT		15
Professional	445	845 C-TEC	M42-PROFILER		12
	557	857 C-TEC	M51-X-PRO		13
	544		M51-BLIZZARD		16
Professional Plus	437	837 C-TEC	M42-TAIFUN-SPRINT		17
	537	867 C-TEC	M51-TAIFUN-MAXIMA		18

### Carbide Tipped Band Saw Blades

Professional	620		BLACK-LINE triple chip geometry		20
	622	822 C-TEC	BLACK-LINE-S band saw blade with tooth set		21
Professional Plus	643		BLUE-LINE triple chip geometry		22
	650	850 C-TEC	SILVER-LINE multi chip geometry		23
	651		SILVER-LINE-N multi chip geometry		24

### Other Applications

	621		STONE-LINE-RT carbide tipped for stones and concretes		25
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### Carbon Steel Band Saw Blades

	100		CS-1 flexible band back		26
	110		CS-2-PLUS spring hardened band back		26

### Professional Accessories

			Tension measuring device, Refractometer, Application toolkit		27
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# Bi-Metal

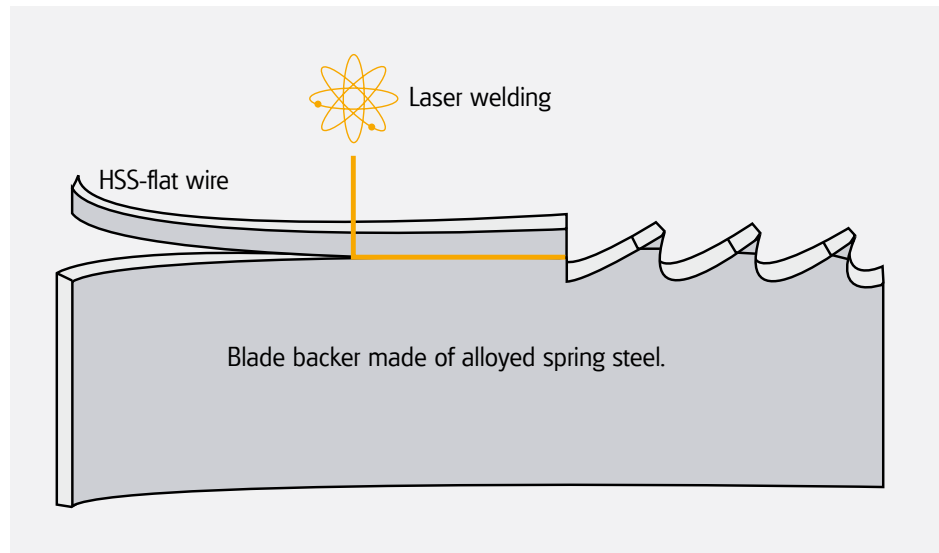
Why so successful?

## 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:

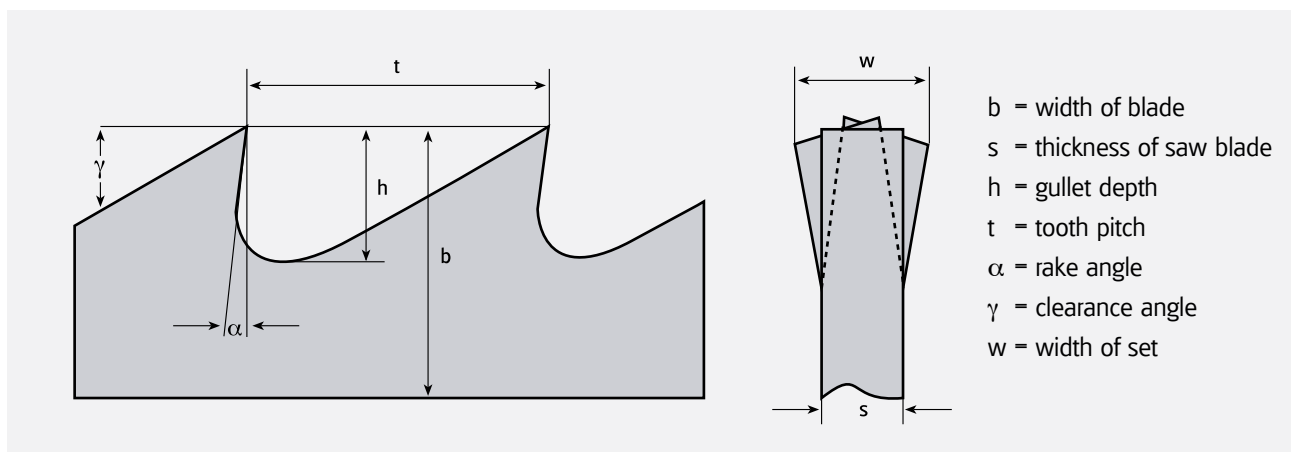
Tooth tips made of hardened HSS-Steel in M42 or M51 quality obtained due to well-balanced hardening and fixed structure resulting in high wear resistance.

## 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

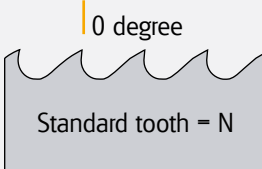
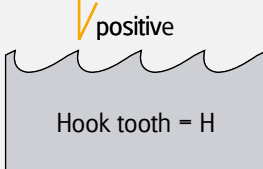
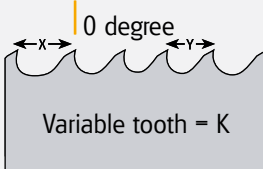
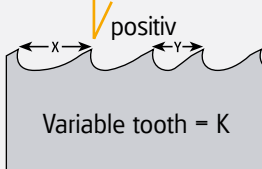
## Terminology



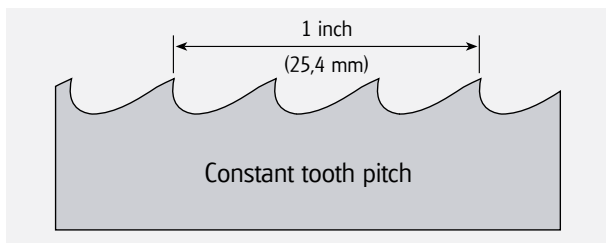
# Tooth forms

## Where performs the right tooth?

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

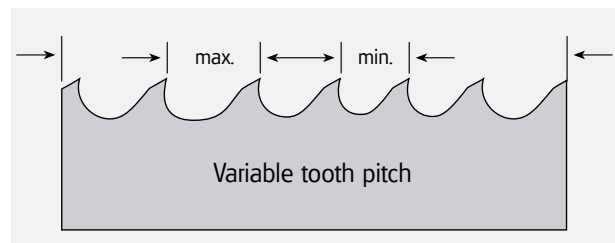
Standard tooth = N	Hook tooth = H	Variable tooth = K	Variable tooth = K
			
<b>Designed for:</b> <ul style="list-style-type: none"> <li>• short chipping materials</li> <li>• light wall thickness</li> </ul>	<b>Designed for:</b> <ul style="list-style-type: none"> <li>• long chipping materials</li> <li>• large cross sections</li> </ul>	<b>Designed for:</b> <ul style="list-style-type: none"> <li>• low vibration cutting</li> <li>• structurals</li> </ul>	<b>Designed for:</b> <ul style="list-style-type: none"> <li>• low vibration cutting</li> <li>• solid materials</li> </ul>
<b>Data:</b> <ul style="list-style-type: none"> <li>• rake angle 0°</li> <li>• constant tooth pitch of 4 to 18 tpi</li> </ul>	<b>Data:</b> <ul style="list-style-type: none"> <li>• positive rake angle</li> <li>• constant tooth pitch of 3 to 6 tpi</li> </ul>	<b>Data:</b> <ul style="list-style-type: none"> <li>• rake angle 0°</li> <li>• variable tooth pitch of 3/4 to 10/14 tpi</li> </ul>	<b>Data:</b> <ul style="list-style-type: none"> <li>• positive rake angle</li> <li>• variable tooth pitch of 0,75/1,25 to 8/11 ZpZ</li> </ul>
<b>Article groups:</b> 100, 110, 420	<b>Article groups:</b> 100, 110, 421, 426	<b>Article group:</b> 430 (K-0)	<b>Article groups:</b> 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 tothing of the saw blade.

## Constant or variable?



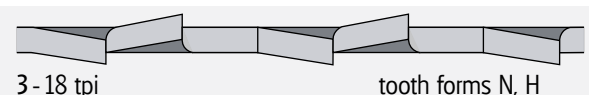
The tooth distances vary within a group of teeth. The smallest and the largest tooth pitch denote the variable tothing of the saw blade.

# 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.

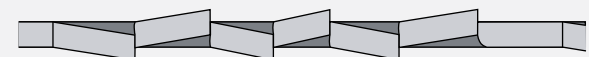
Standard raker set



3 - 18 tpi

tooth forms N, H

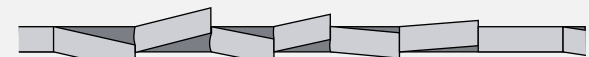
Standard group set



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 variable tooth is recommended for low-vibration sawing in problematic workpieces.

## Recommendation to cut solid material

Variable tooth pitch		
Cross section mm	Teeth per inch	
	tpi	Tooth shape
from 550	0,75/1,25	K
380 - 750	1/1,3	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. 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 (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 40 m



# 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	11	12	12	13	14	14	15	15	16	17	18	20	21	22	23	24
Material dimension (mm)																			
- Structural steels	< 70		■		■			■							■				
- Case-hardening steels	80 - 350			■	■	■	■		■				■		■				
- Free machining steels	> 350			■									■		■				
- Unalloyed tool steels	< 70		■		■			■	■										
- Spring steels	80 - 350			■	■		■		■				■		■				
- Ball bearing steel	> 350			■									■		■				
- High speed steels	< 70		■		■			■	■										
- Cold-work steels	80 - 350			■	■		■		■				■		■				
	> 350			■								■	■	■					■
- Nitride steels	< 70		■		■			■	■										
- Heat treatable steels	80 - 350			■	■		■		■				■						■
- Hot working steels	> 350			■									■	■	■				■
- Stainless steels	< 70		■		■								■		■				■
	80 - 350			■	■		■						■		■				■
	> 350			■									■		■				■
- High temperature steels	< 70		■		■								■		■				■
- Heat resistant steels	80 - 350			■	■		■						■		■				■
	> 350			■									■	■	■				■
- High tensile steels	< 70		■		■								■		■				■
- Titanium + titanium alloys	80 - 350			■	■		■						■		■				■
- Nickel alloys	> 350			■									■		■				■
- Surface hardened steel shafts	< 70																		■
- Hardened steels up to HRC 62	80 - 350																		■
- Hardchromed materials	> 350																		■
- Steel castings	< 70		■		■			■	■						■				■
- Cast irons	80 - 350			■	■		■		■				■		■				■
	> 350			■									■		■				■
- Aluminium	< 70		■					■	■	■	■								
- Copper	80 - 350			■					■	■	■		■						■
	> 350			■									■						■
- Brass	< 70		■					■	■										■
- Bronze	80 - 350			■					■				■						■
- Red brass	> 350			■									■						■
- Aluminium + alloys	< 70		■									■							■
- Aluminium alloys with silicon	80 - 350			■								■		■					■
	> 350			■								■		■					■

Qualification: ■ = very good ■ = good

Article group 430

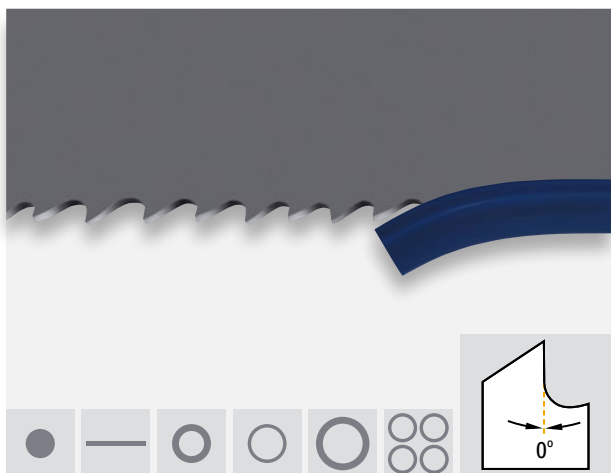
Standard

## 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 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		
80 x 1,60	3 x 0,063	K	K			

K = Variable tooth

## Article group 457

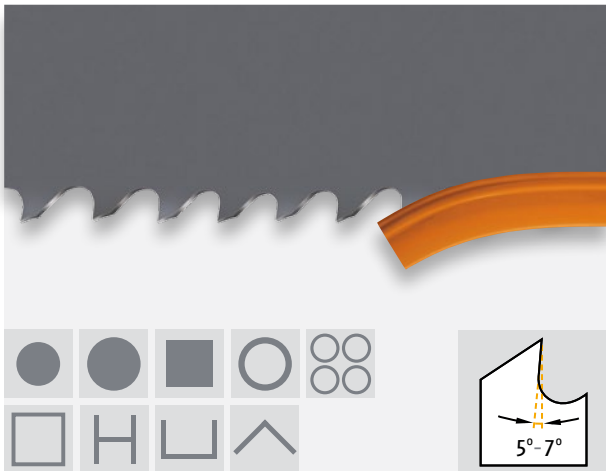
Standard

### 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 feed 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

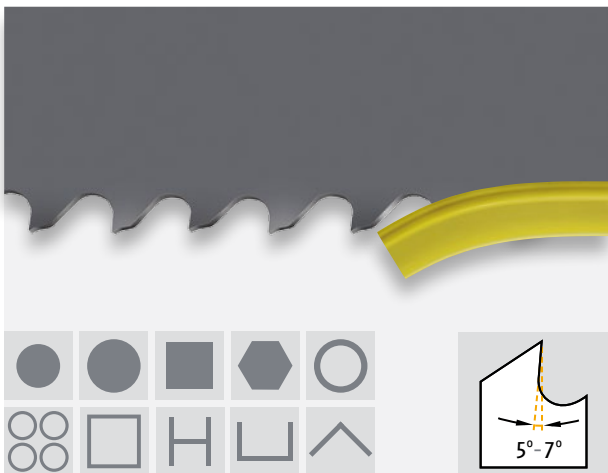
## M51-X-PRO

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 feed 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

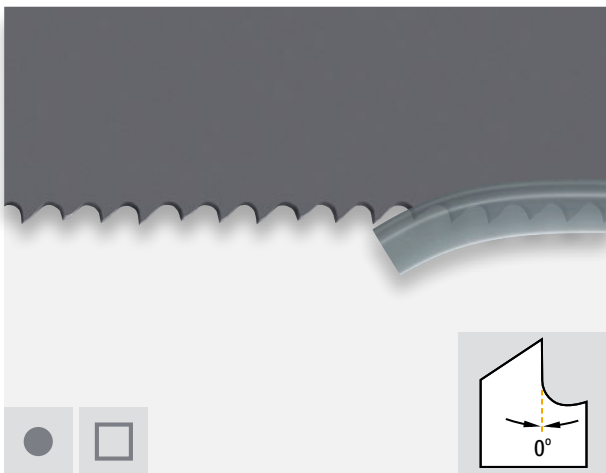
Standard

### 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. 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-W	N-W
27 x 0,90	1 x 0,035	N	N		N-W	

N = Standard tooth W = Wavy set

## Article group 421

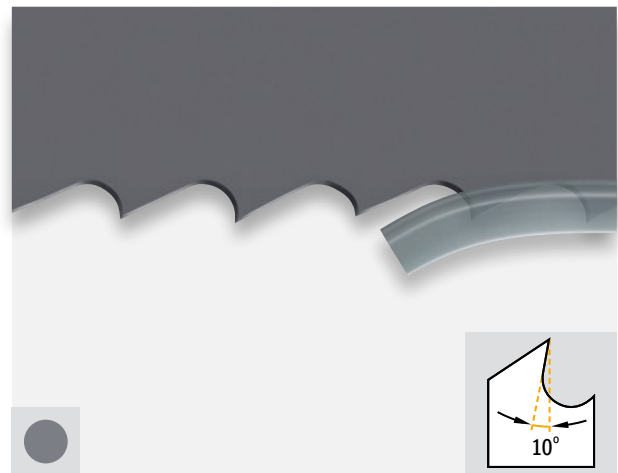
Standard

### 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. 100 mm (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

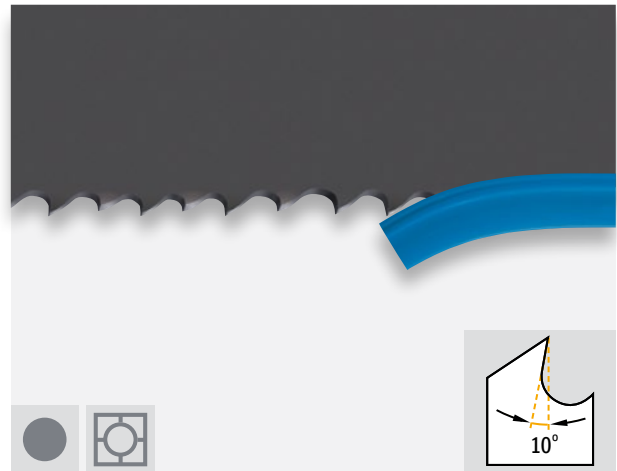
Standard

# 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 1700 N/mm<sup>2</sup>
- 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

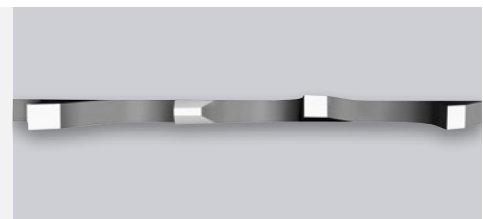
## M42-TAIFUN-SPRINT

Excellent for use on high-performance band saw machines.

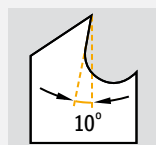
Also coated available **C-TEC** for extremely increased feet rates, significantly reduced cutting times and maximized blade life.

Engineered for:

- tensile strengths of up to 1400 N/mm<sup>2</sup>
- 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

Article group 537 867 C-TEC

Professional Plus

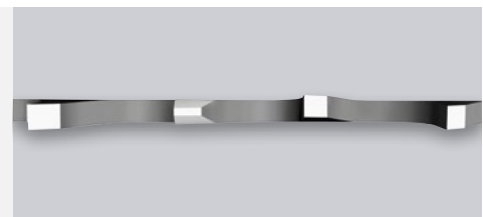
## M51-TAIFUN-MAXIMA

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:

- tensile strengths of up to 1700 N/mm<sup>2</sup>
- stainless steel
- heat resistant duplex steel
- nickel based alloys
- aluminium alloys
- titanium based alloys

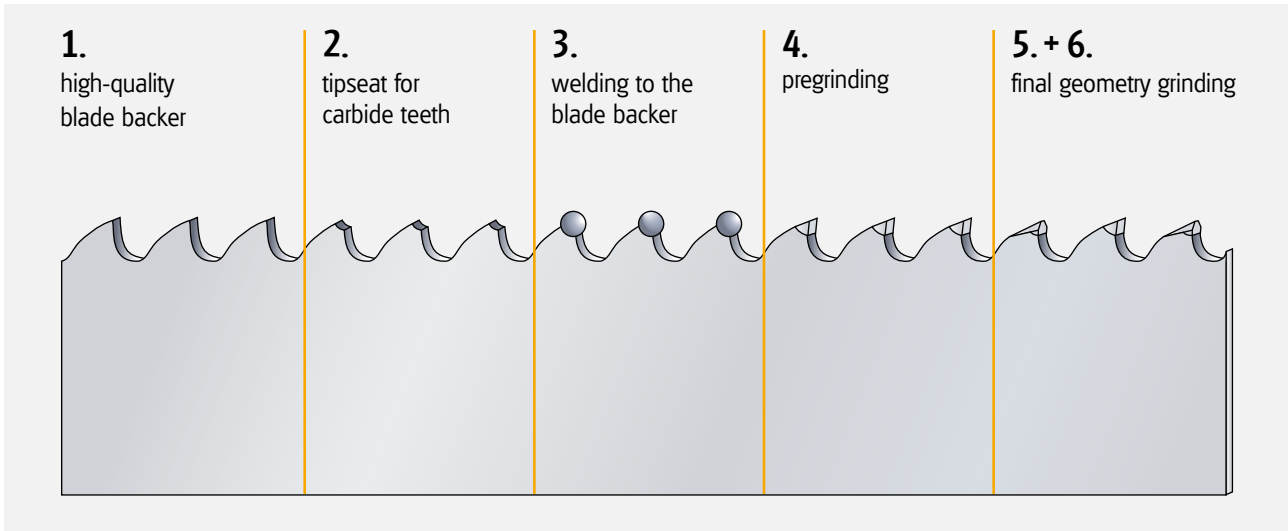


The borazon-ground tooth tips produce an excellent cutting surface, perfect angular cutting and long tool life.

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	G-TEC	K	G-TEC	K	G-TEC
54 x 1,60	2 x 0,063			K	G-TEC	K	G-TEC	K	G-TEC		
67 x 1,60	2 5/8 x 0,063	K	G-TEC	K	G-TEC	K	G-TEC	K	G-TEC		
80 x 1,60	3 x 0,063	K	G-TEC	K	G-TEC	K	G-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:

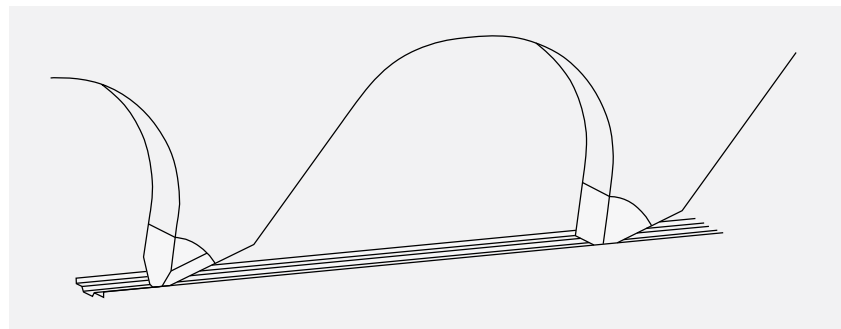
Carbide tooth tips are welded to the backer in a special procedure.

## 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:

27–80 mm in length of approx. 50 m

Article group 620

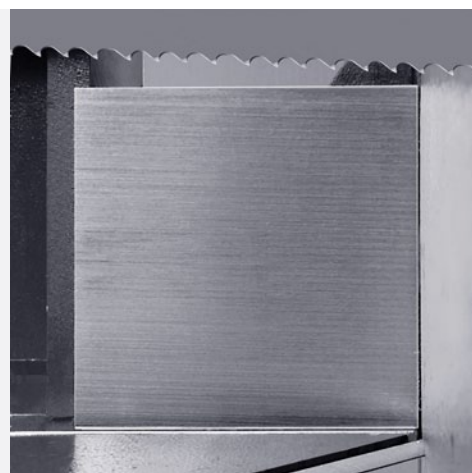
Professional

## 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



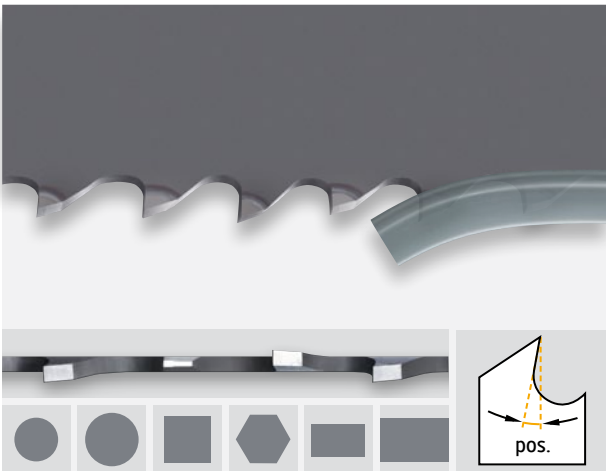
## BLACK-LINE-S

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.

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	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

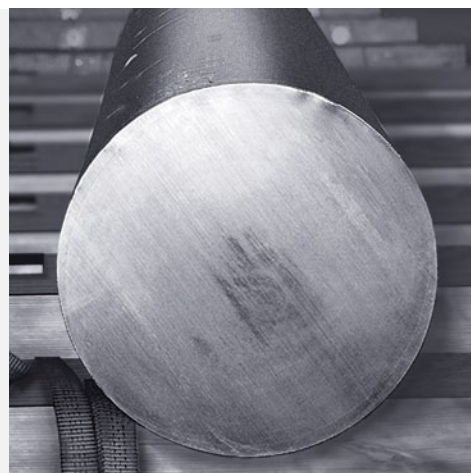
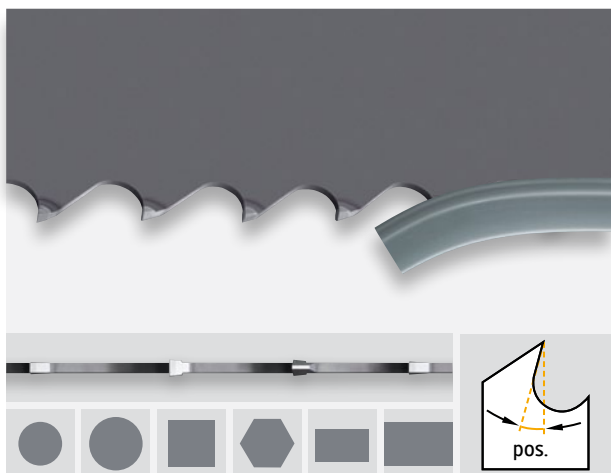
## SILVER-LINE

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	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

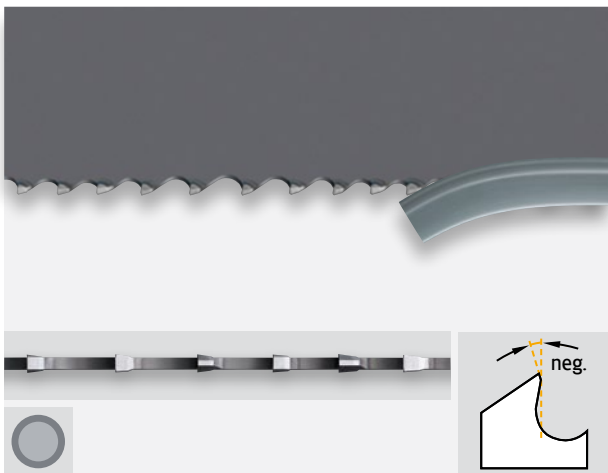
Professional Plus

## 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

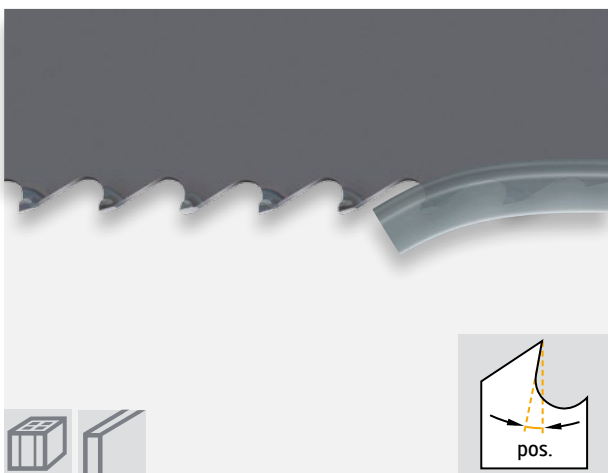
The universal band saw blade for all construction and insulation materials of small and large dimensions running on brick band saw machines.

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	
27 x 0,90	1 x 0,035	2/3 K

K = Variable tooth



# 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		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

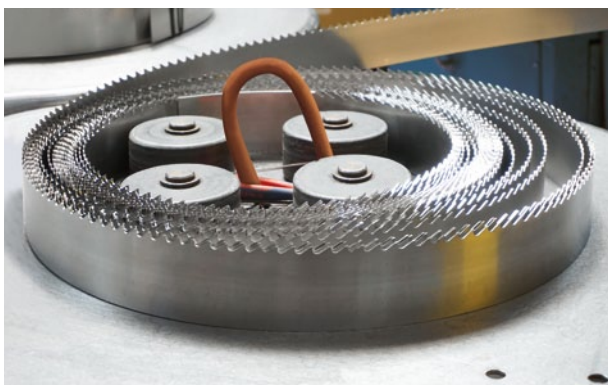
## Article group 110

### 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





### 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 300 – 500 cm<sup>2</sup> cut surface. 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.

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