Arntz

Passionate Cutting!

Edition 2022

FactBook

BAND SAW BLADES

Welcome to ARNTZ

Your cutting expert for the entire world of metals.

More than 225 years of manufacturing, of tools and 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 address the individual need of our customers and develop optimal solutions close to you. We will assist you from the first question up to the fine-tuning. Even at your site if required.

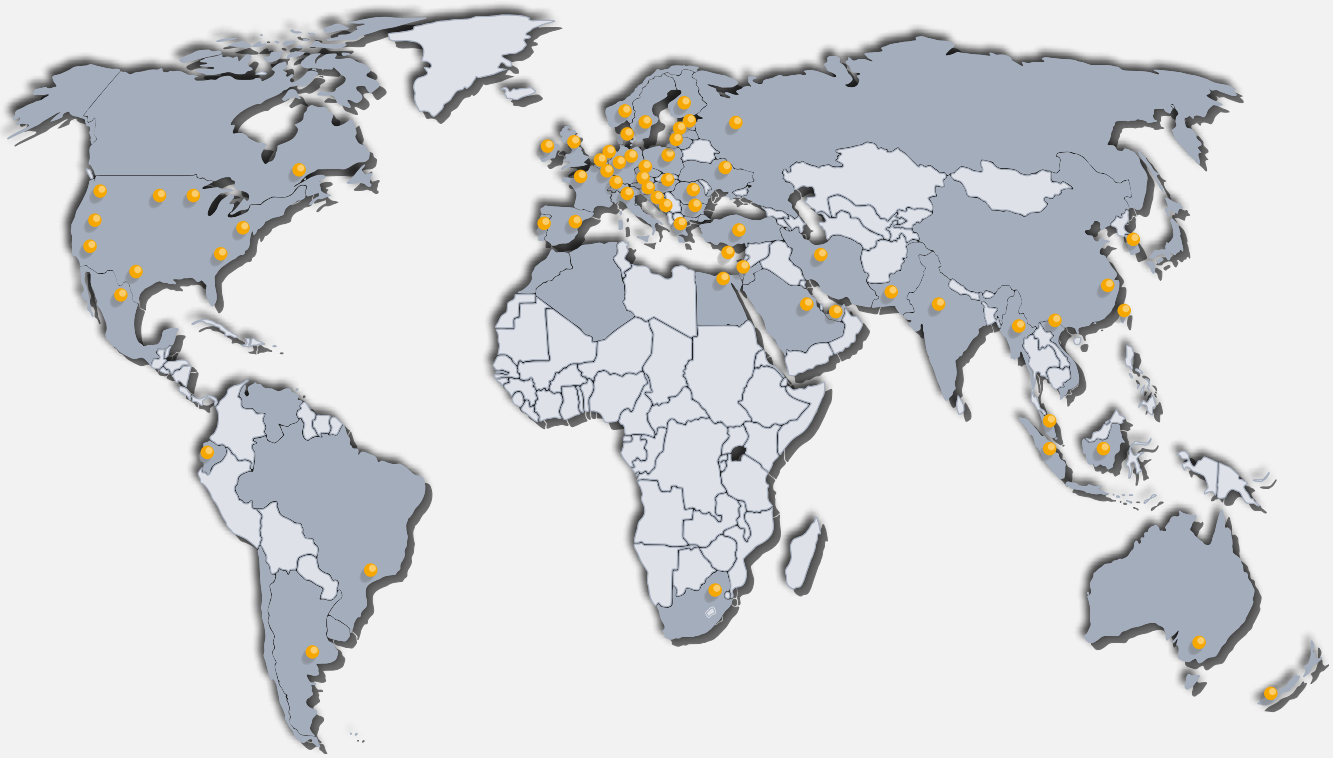
Saw blades from ARNTZ are high-performance tools – economical, precise and perfectly matched to the relevant application. Our actions are guided by our high quality standards and our passion for what we do. We deliver sawing technology „Made in Germany" that you can depend on worldwide – promised!

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	**400 | 420 | 430**
solid material round medium	**402 | 421 | 426 | 436 | 457 557 | 622 | 627 | 643 | 650 662**
solid material round large	**401 | 402 | 431 | 437 | 457 537 | 544 | 557 | 622 | 627 643 | 650**
solid material square large	**401 | 402 | 431 | 437 | 457 537 | 544 | 557 | 622 | 627 643 | 650**
solid material special alloy	**537 | 544 | 557 | 622 | 627 650**
solid material rectangular large	**401 | 431 | 437 | 537 | 544 622 | 627 | 643 | 650**
solid material very large	**401 | 431 | 437 | 537 | 544 622 | 627 | 643 | 650**
sheet panel	**400 | 430**
small round tube standard wall thickness	**400 | 430**
small round tube thin wall thickness	**400 | 430**
round tube standard wall thickness	**400 | 402 | 426 | 430 | 457 557**

Material	Article group
round tube heavy walled	**401 | 431 | 437 | 537 | 544**
bundle of tubes	**400 | 402 | 430 | 457 | 557**
square tube small	**420**
square tube large	**402 | 457 | 557**
aluminium profile	**436 | 662**
standard steel beam	**402 | 457 | 557**
wide flange steel beam	**445**
heavy walled steel beam	**445**
U channel steel	**402 | 457 | 557**
L angle steel	**402 | 457 | 557**
surface hardened material	**651**

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

Category	Article group uncoated	Article group coated	Description		Engineered for	Material cross-section	Page
Bi-Metal Band Saw Blades							
Standard Universal use at a good price-performance ratio	430		M42-SPRINT		profile		10
	431		M42-SPRINT-PLUS		solid material		11
	457		M42-X-FIT		mix		12
Professional Professional sawing of large steel profiles and hard materials	445	845 C-TEC	M42-PROFILER		profile		13
	557	857 C-TEC	M51-X-PRO		mix		14
	544		M51-BLIZZARD		solid material		15
Professional Plus High-performance Band Saw Blades	437	837 C-TEC	M42-TAIFUN-SPRINT ground		solid material		16
	537	867 C-TEC	M51-TAIFUN-MAXIMA ground		solid material		17
Other Applications Constant tooth pitch and aluminium	420		M42-STAR	constant tooth pitch			18
	421		M42-STAR-PLUS	constant tooth pitch	solid material		18
	426		M42-ALUCUT-PLUS	constant tooth pitch	aluminium		18
	436		M42-ALUCUT-SPRINT		aluminium		18
Basic The low-cost alternative to our products "made in Germany"	400		M42-BASIC		profile		19
	401		M42-BASIC-PLUS		solid material		20
	402		M42-BASIC-PRO		mix		21
Carbide Tipped Band Saw Blades							
Standard The expert for universal use	627	827 C-TEC	Q-LINE	multi chip geometry	steel, stainless steel and non-ferrous metals		23
	662		CAST-LINE	band saw blade with tooth set	castings, non-ferrous metals		24
Professional Professional sawing of difficult to cut materials and non-ferrous metals	622	822 C-TEC	BLACK-LINE-S	band saw blade with tooth set	hard to cut and abrasive materials		25
	643		BLUE-LINE	triple chip geometry	non-ferrous metals and graphites		26
Professional Plus High-performance sawing	650	850 C-TEC	SILVER-LINE	multi chip geometry	high-alloy steels and non-ferrous metals		27
Other Applications Surface hardened materials and construction materials	651		SILVER-LINE-N	multi chip geo-metry negative	extremely hard or surface hardened materials		28
	621		STONE-LINE-RT	carbide tipped for stones and concretes	construction and insulation materials		29
Carbon Steel Band Saw Blades							
	100		CS-1	flexible band back			30
	110		CS-2-PLUS	spring hardened band back			30
Professional Accessories			Tension measuring device, Refractometer, Application toolkit				31

Bi-Metal

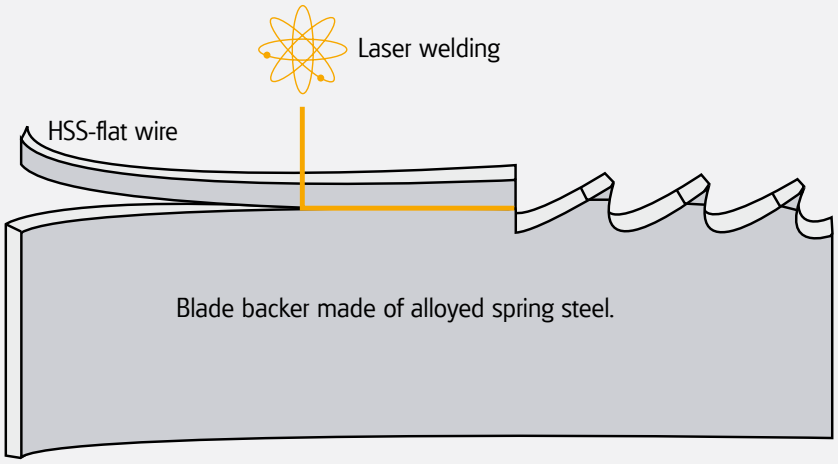
Why so successful?

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:

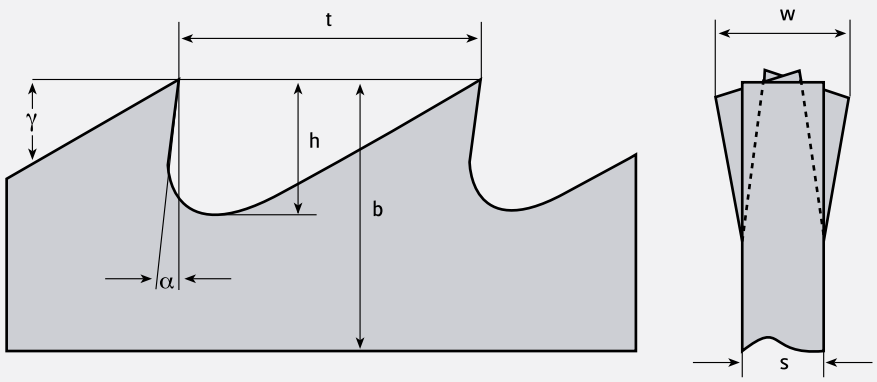
Tooth tips made of hardened HSS-Steel in M 42 or M 51 quality obtained due to well-balanced hardening and fixed structure resulting in high wear resistance.

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

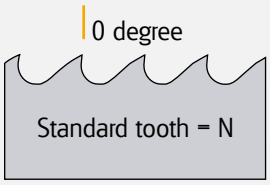


b = width of blade
s = thickness of saw blade
h = gullet depth
t = tooth pitch
α = rake angle
γ = clearance angle
w = width of set

Tooth forms

Where performs the right tooth?

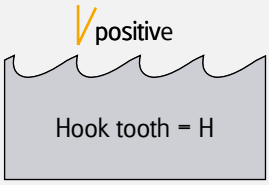
Only the correctly selected tooth form allows efficient cutting with low vibration. Four basic types are available:



Designed for:
- short chipping materials
- light wall thickness

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

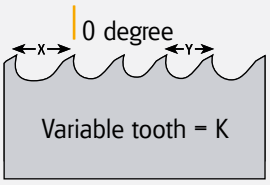
Article groups:
100, 110, 420



Designed for:
- long chipping materials
- large cross sections

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

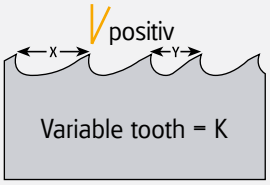
Article groups:
100, 110, 421, 426



Designed for:
- low vibration cutting
- structurals

Data:
- rake angle 0°
- variable tooth pitch of 5/8 to 10/14 tpi

Article group:
400, 430 (K-0)

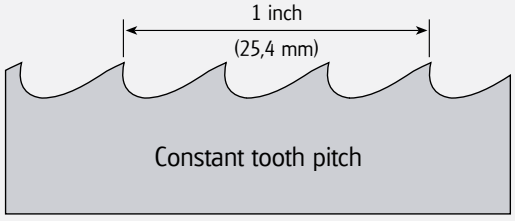


Designed for:
- low vibration cutting
- solid materials

Data:
- positive rake angle
- variable tooth pitch of 0,75/1,25 to 12/16 ZpZ

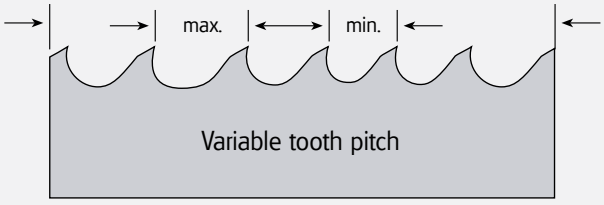
Article groups:
401, 431, 436, 437 (K-POS)
402, 445, 457, 557 (K-P, K-VS, K-X)
537, 544 (K-PLUS)

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?



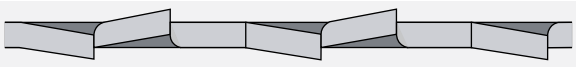
The tooth distances vary within a group of teeth. The smallest and the largest tooth pitch denotes the variable toothing of the saw blade.

Tooth set

What groups and waves can cause.

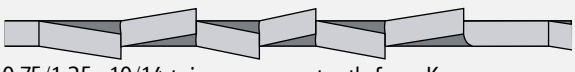
Beside the tooth pitch and the tooth form, the exact setting is essential for the performance of the sawblade. The correct clearance results from the corresponding setting. It avoids blade pinching, which is especially important in problematic steels. Width and type of set are precisely tailored to the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

Standard raker set



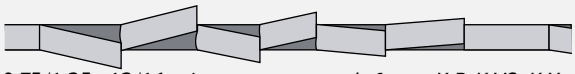
3 - 18 tpi — tooth forms N, H

Standard group set



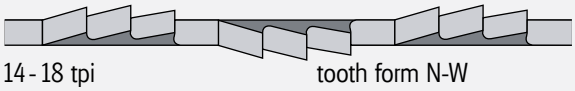
0,75/1,25 - 10/14 tpi — tooth form K

Variable group set



0,75/1,25 - 12/16 tpi — tooth forms K-P, 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	Teeth per inch
mm	tpi
from 550	0,75/1,25
380 - 750	1/1,3
250 - 550	1,4/2
120 - 350	2/3
80 - 140	3/4
60 - 110	4/6
40 - 70	5/7 | 5/8
30 - 60	6/10
20 - 40	8/11 | 8/12
to 25	10/14

Recommendation to cut tubes and structurals

Thin wall structurals (0° – 7° rake angle)							
Wall thickness	Diam. of structural (D) in mm						
(S) 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	Diam. of structural (D) in mm							
(S) 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. group	430	431	457	445	557	544	437	537	420	421	426	436	400	401	402	627	662	622	643	650	651
		Product name	M42-SPRINT	M42-SPRINT-PLUS	M42-X-FIT	M42-PROFILER	M51-X-PRO	M51-BLIZZARD	M42-TAIFUN-SPRINT	M51-TAIFUN-MAXIMA	M42-STAR	M42-STAR-PLUS	M42-ALUCUT-PLUS	M42-ALUCUT-SPRINT	M42-BASIC	M42-BASIC-PLUS	M42-BASIC-PRO	Q-LINE	CAST-LINE	BLACK-LINE-S	BLUE-LINE	SILVER-LINE	SILVER-LINE-N
Page of catalogue			10	11	12	13	14	15	16	17	18	18	18	18	19	20	21	23	24	25	26	27	28
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

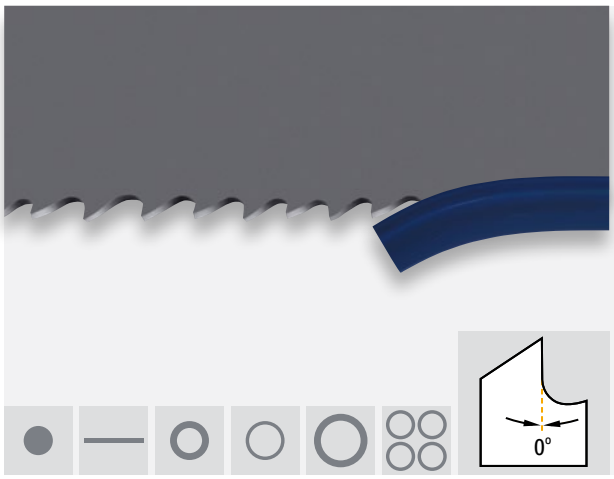
Standard

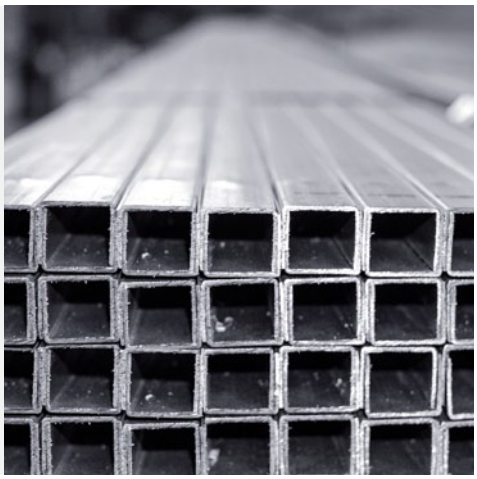
M42-**SPRINT**

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

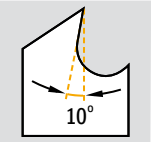
Standard

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/mm²
- 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

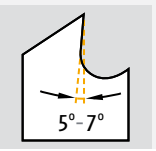
Standard

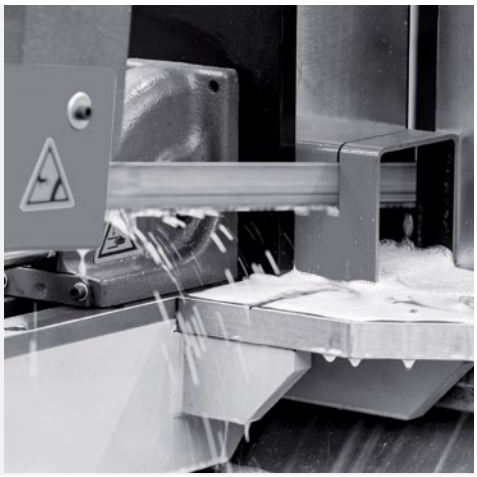
M42-**X-FIT**

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	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

M42-**PROFILER**

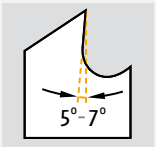
Robust performance for steel construction.

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

HH



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

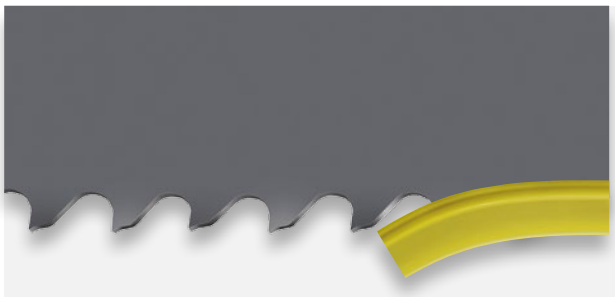
M51-**X-PRO**

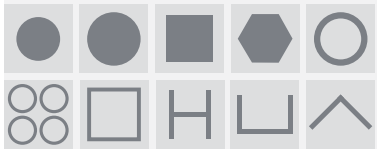
The pro with particularly wear-resistant teeth.
For sawing processes using minimal lubrication.
Powerful at high cutting speeds and feeds.

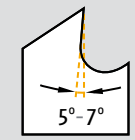
Also coated available **C-TEC** for extremely increased feed rates, significantly reduced cutting times and maximized blade life.

Engineered for:

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







Dimensions		Tooth					
mm	inch	2/3		3/4		4/6	
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	C-TEC	K	
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

M51-**BLIZZARD**

Extra wear resistant teeth made of powder metallurgical HSS-steel.

Engineered for:

- hard and tough materials up to 1700 N/mm²
- 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

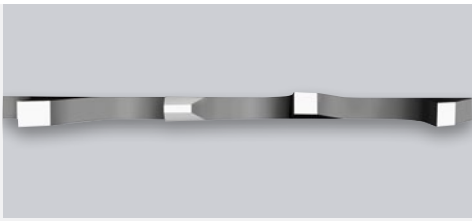
M42-TAIFUN-SPRINT

Excellent for use on high-performance band saw machines.

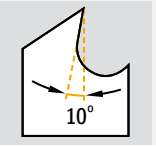
Also coated available C-TEC for extremely increased feed rates, significantly reduced cutting times and maximized blade life.

Engineered for:

- tensile strengths of up to 1400 N/mm²
- stainless steel
- all-purpose use for steels and non-ferrous metals
- thick walled structurals



The borazon-ground tooth tips ensure an excellent cutting surface, perfectly angular cuts and long blade 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

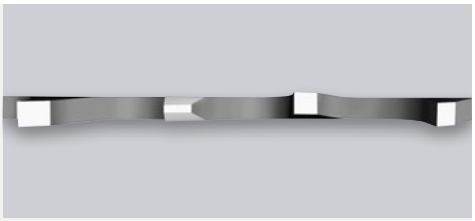
M51-TAIFUN-MAXIMA

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

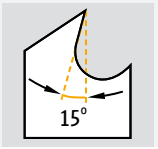
Also coated available C-TEC for extremely increased feed rates, significantly reduced cutting times and maximized blade life.

Engineered for:

- tensile strengths of up to 1700 N/mm²
- stainless steel
- heat resistant duplex steel
- nickel based alloys
- aluminium alloys
- titanium based alloys



The borazon-ground tooth tips ensure an excellent cutting surface, perfectly angular cuts and long blade 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				

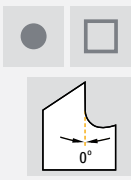
K = Variable tooth

Article group 420 Other Applications

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
- 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	

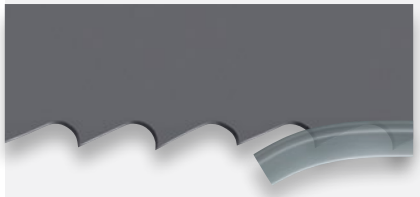
N = Standard tooth W = Wavy set

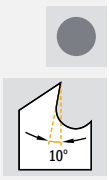
Article group 421 Other Applications

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





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		

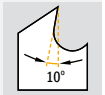
H = Hook tooth

Article group 426 Other Applications

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 pinch



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		

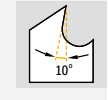
H = Hook tooth

Article group 436 Other Applications

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

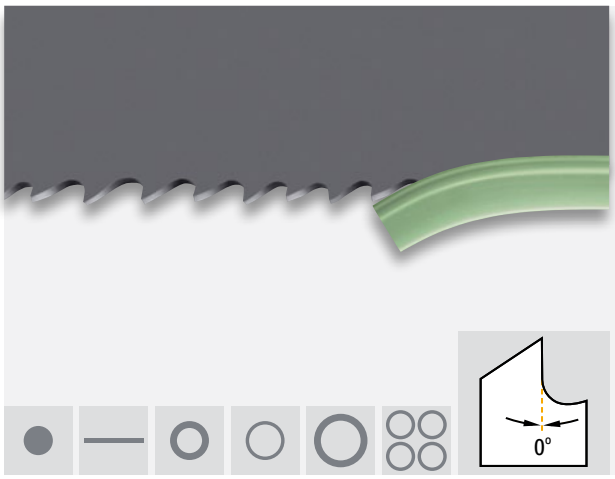
K = Variable tooth

M42-**BASIC**

The profil expert for thin and medium wall thicknesses and small dimensions of working pieces.

Engineered for:

- structurals with light or medium walls
- short chipping materials
- sheet metal on vertical band saw machines



Dimensions		Tooth				
mm	inch	4/6	5/8	6/10	8/12	10/14
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	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
34 x 1,10	1 1/4 x 0,042		K	K	K	K

K = Variable tooth

Article group 401

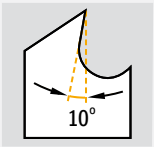
Basic

M42-**BASIC-PLUS**

Great for material in medium and large dimensions.

Engineered for:

- production band saw machines
- all-purpose use for steels and non-ferrous metals
- tensile strengths of up to 1400 N/mm²
- thick walled structurals



Dimensions		Tooth				
mm	inch	1/1,3	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
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	K
67 x 1,60	2 5/8 x 0,063	K	K	K	K	

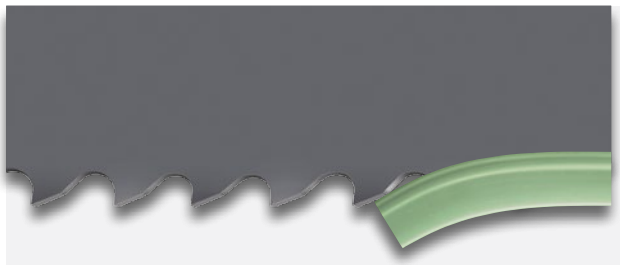
K = Variable tooth

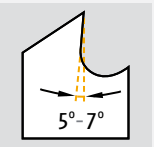
M42-**BASIC-PRO**

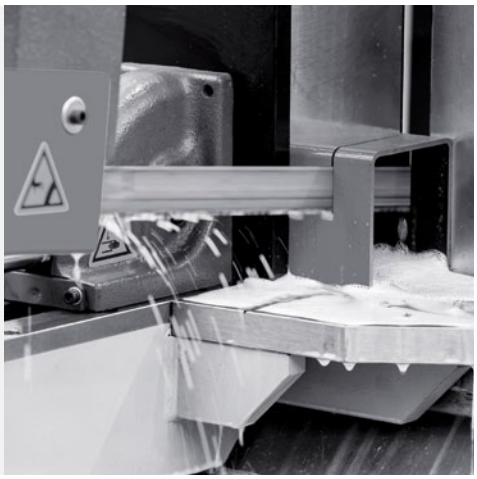
The multi-purpose blade for small and medium profiles and solid material.

Engineered for:

- steel beams, profiles and tubes
- mixed materials





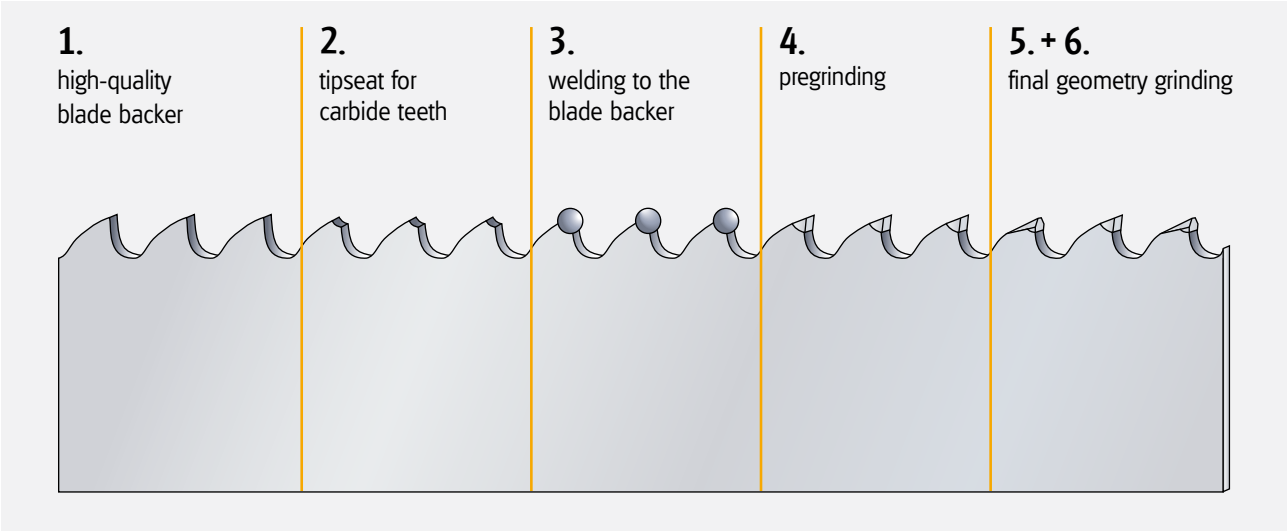


Dimensions		Tooth					
mm	inch	2/3	3/4	4/6	5/7	8/11	12/16
20 x 0,90	3/4 x 0,035				K	K	K
27 x 0,90	1 x 0,035		K*	K	K	K	K
34 x 1,10	1 1/4 x 0,042		K*	K*	K*		
41 x 1,30	1 1/2 x 0,050	K*	K*	K*	K*		
54 x 1,60	2 x 0,063	K*	K*	K*			
67 x 1,60	2 5/8 x 0,063	K*	K*				

K = Variable tooth

* available 2022

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:

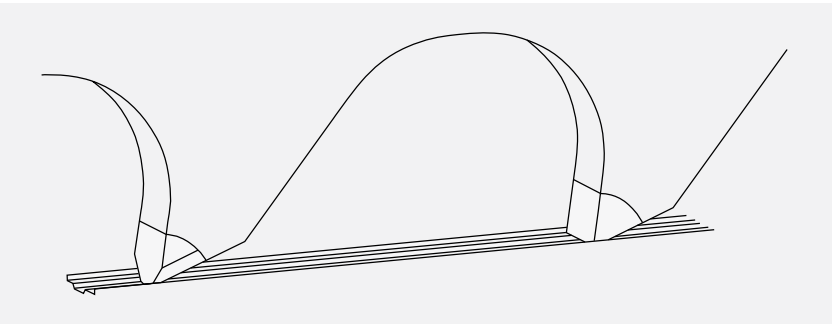
Carbide tooth tips are welded to the backer in a special procedure.

Band Saw geometry:

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

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

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



Correct operation:

Carbide Tipped Band Saw Blades must be used on band saw machines that are particularly suitable for this purpose in order to achieve optimum performance.

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

27 – 80 mm in length of approx. 50 m

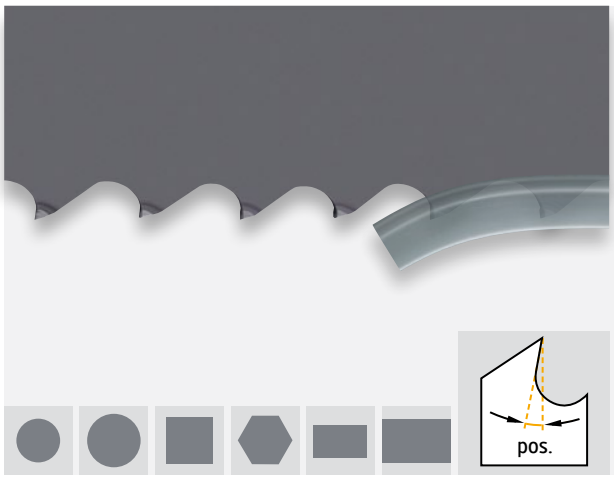
Q-LINE

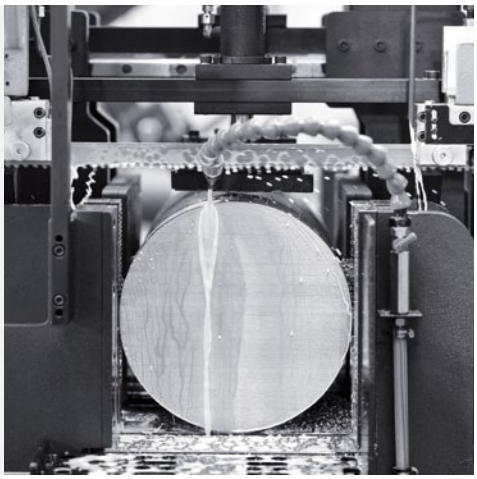
The multi-chip geometry ensures optimal chip division in the sawing process. This leads to a long service life and prevents tooth breakages.

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

Engineered for:

- standard steel
- stainless steel
- non-ferrous metals





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	
34 x 1,10	1 1/4 x 0,042					K		K		K	C-TEC
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

Article group 662

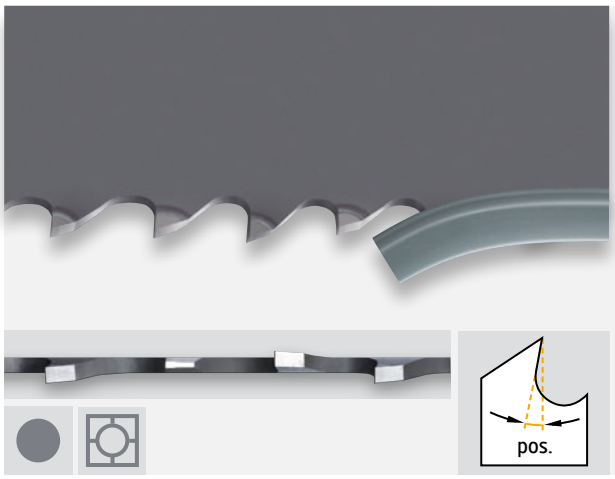
Standard

CAST-LINE

Carbide tipped band saw blade with set tooth.
The expert in castings especially
for sawing jobs in non-ferrous foundries.

Engineered for:

- castings made out of aluminum and bronze



Dimensions		Tooth
mm	inch	3
13 x 0,9	1/2 x 0,035	H*
20 x 0,9	3/4 x 0,035	H
27 x 0,9	1 x 0,035	H

H = Hook tooth

* unset

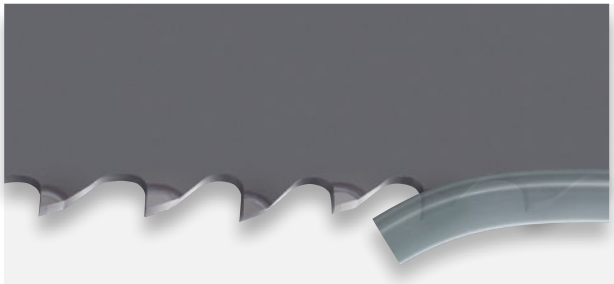
BLACK-LINE-S

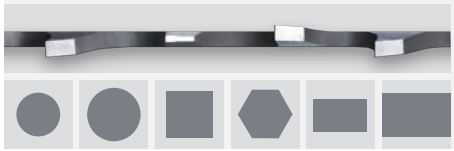
Carbide tipped band saw blade with set tooth for abrasive materials, difficult to cut.

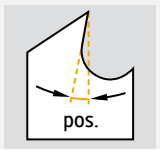
Also coated available C-TEC for extremely increased feed rates, significantly reduced cutting times and maximized blade life.

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	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

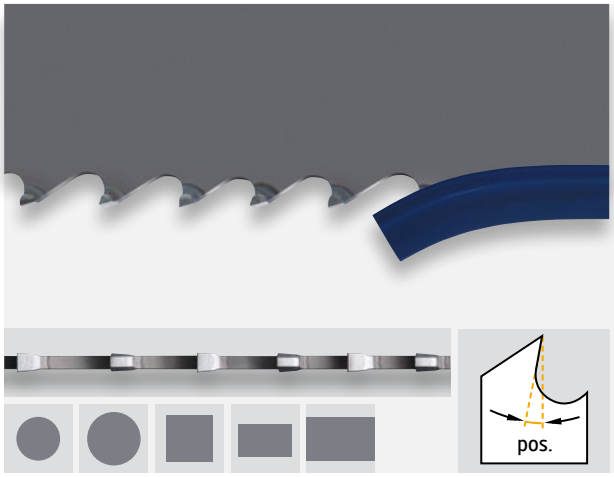
Professional

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

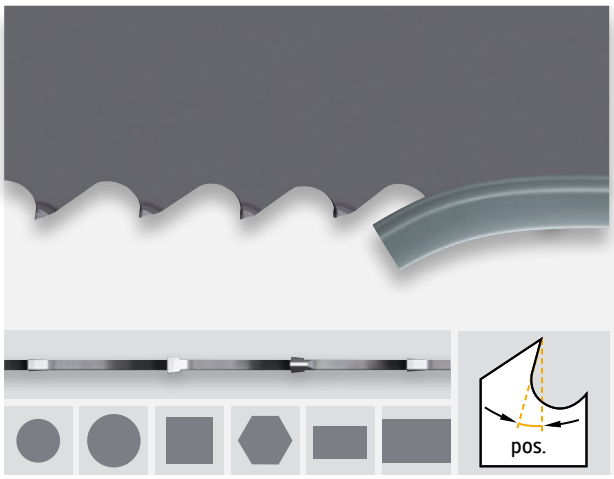
SILVER-LINE

Carbide tipped band saw blades with 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/mm²
- 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	C-TEC	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

Article group 651

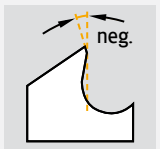
Other Applications

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

Article group 621

Other Applications

STONE-LINE-RT

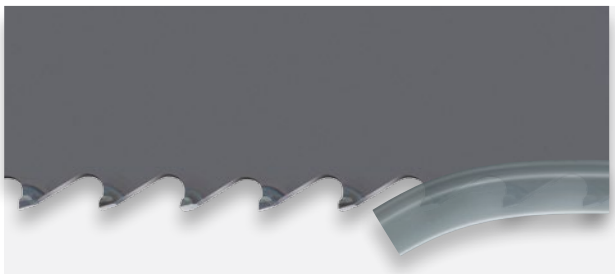
The universal band saw blade for all construction and insulation materials of small and large dimensions running on brick band saw machines.

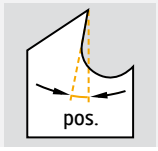
The new variable tooth pitch ensures notably low-vibration and quiet sawing processes and assures supreme quietness. The results are clean and smooth cuts of the best quality.

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

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

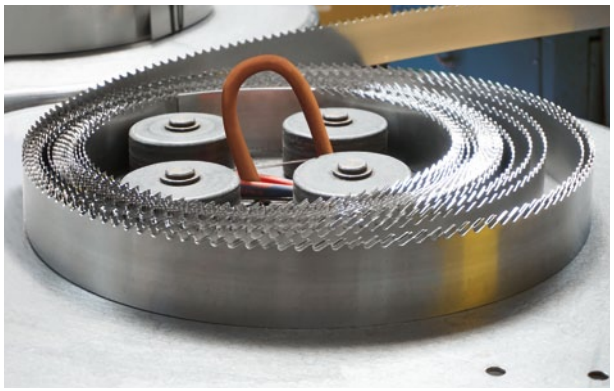
Article group 110

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 the cutting operation. Aggressive cutting with a new blade will lead to premature tooth breakages. Correct break-in will control the gentle rounding of the 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^2 cutting surface. After that, feed rate should be gradually increased to the maximum cutting rate. In case vibrations or noises should occur at the beginning of the cutting operation, the 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 vibration appears.

Arntz
Passionate Cutting!

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

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

Phone +1 843.873-7850
Fax +1 843.873-7890
Toll-free +1 800.845-3816

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

www.arntz.de

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