

Arntz

Passionate
Cutting!

Edition 2022.1

FactBook

BAND SAW
BLADES

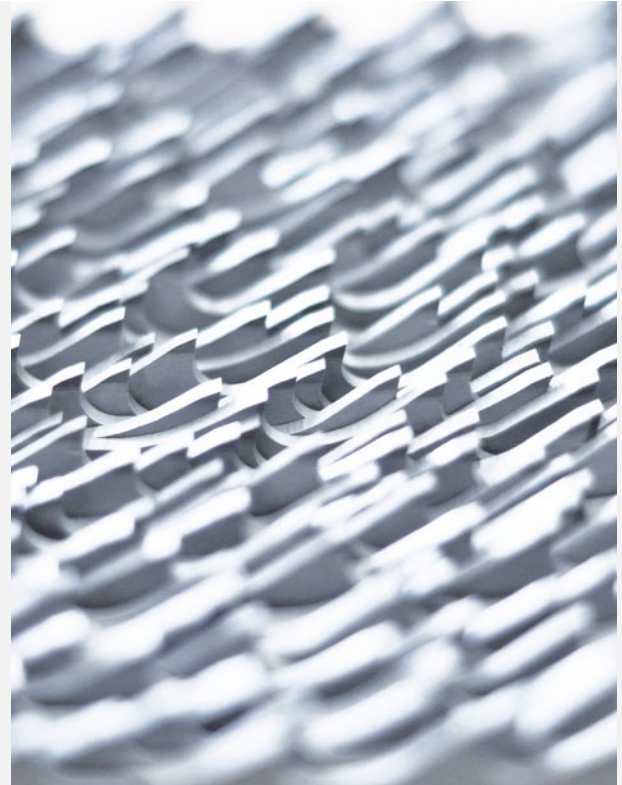
Welcome to ARNTZ

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...

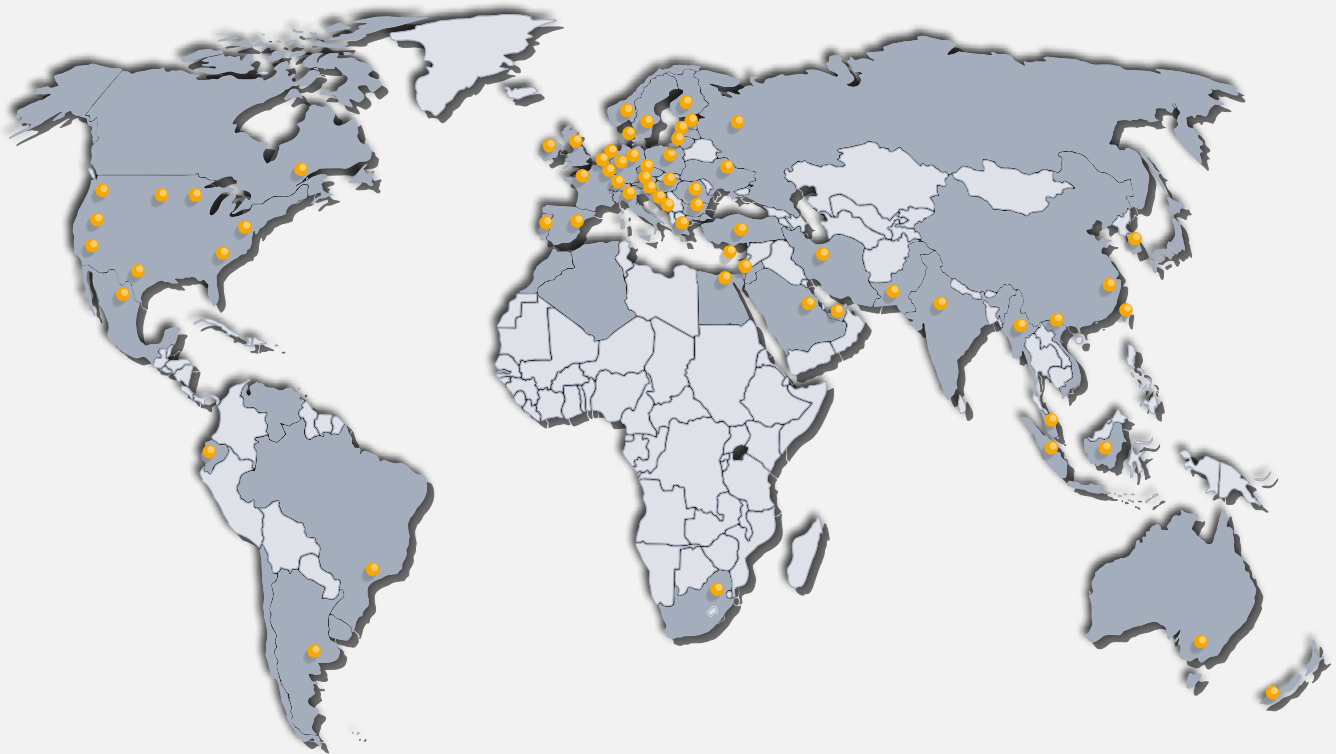


Optimized operating processes and certified quality controls are the foundation of ARNTZ's high-end saw blades. Every single step in the production process goes through our multilayered control system to guarantee our quality standards.



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 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 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!

ARNETZ

Category	Article group		Description	Engineered for	Material cross-section	Page
	uncoated	coated				
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		12
	557	857 C-TEC	M51-X-PRO	mix		13
	544		M51-BLIZZARD	solid material		14
Professional Plus High-performance Band Saw Blades	437	837 C-TEC	M42-TAIFUN-SPRINT	solid material		15
	537	867 C-TEC	M51-TAIFUN-MAXIMA	solid material		16
Other Applications Constant tooth pitch and aluminium	420		M42-STAR constant tooth pitch			17
	421		M42-STAR-PLUS constant tooth pitch	solid material		17
	426		M42-ALUCUT-PLUS constant tooth pitch	aluminium		17
	436		M42-ALUCUT-SPRINT	aluminium		17
Basic The low-cost alternative to our products "made in Germany"	400		M42-BASIC	profile		18
	401		M42-BASIC-PLUS	solid material		19
	402		M42-BASIC-PRO	mix		20
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		22
	662		CAST-LINE band saw blade with tooth set	castings, non-ferrous metals		23
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		24
	643		BLUE-LINE triple chip geometry	non-ferrous metals and graphites		25
Professional Plus High-performance sawing	650	850 C-TEC	SILVER-LINE multi chip geometry	high-alloy steels and non-ferrous metals		26
Other Applications Surface hardened materials and construction materials	651		SILVER-LINE-N multi chip geometry negative	extremely hard or surface hardened materials		27
	621		STONE-LINE-RT carbide tipped for stones and concretes	construction and insulation materials		28
Tungsten-Carbide-Grit Band Saw Blades						
			TUNGSTEN-CARBIDE-GRIT BAND SAW BLADES Continuous edge and gullated edge			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

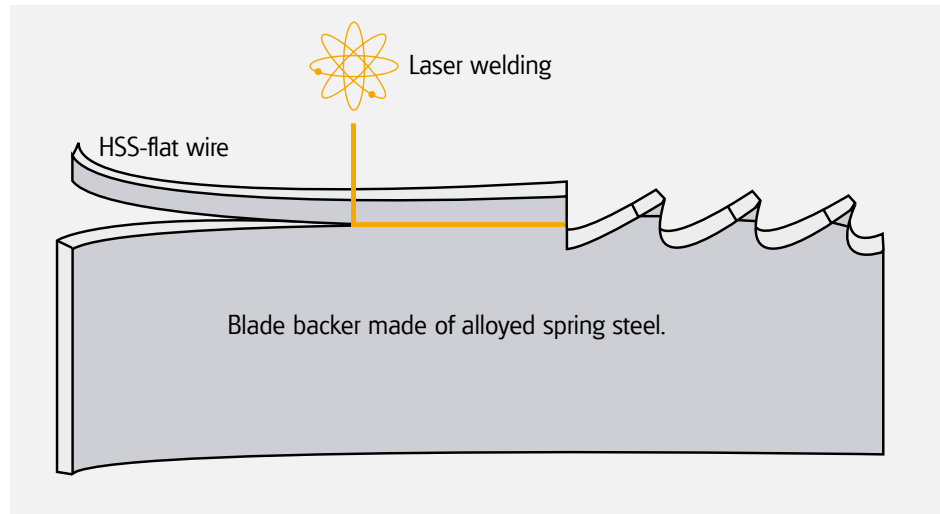
Why so successful?

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:

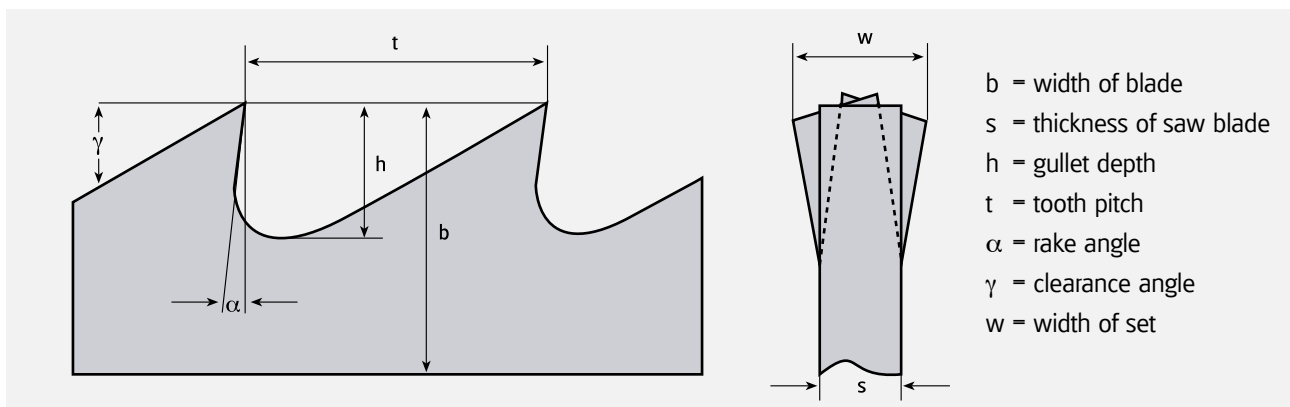
Tooth tips made of hardened HSS-Steel in M42 or M51 quality obtained due to well-balanced hardening and fixed structure resulting in high wear resistance.

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

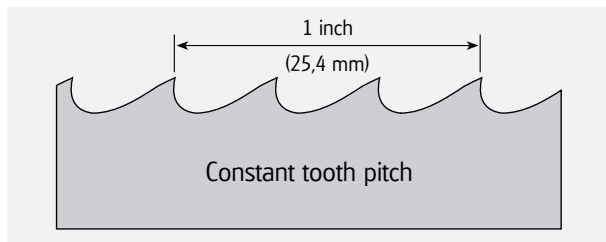
Where performs the right tooth?

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

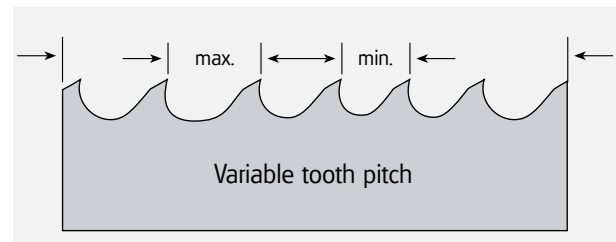
<p>Standard tooth = N</p>	<p>Hook tooth = H</p>	<p>Variable tooth = K</p>	<p>Variable tooth = K</p>
<p>Designed for:</p> <ul style="list-style-type: none"> • short chipping materials • light wall thickness <p>Data:</p> <ul style="list-style-type: none"> • rake angle 0° • constant tooth pitch of 4 to 18 tpi <p>Article groups:</p> <p>100, 110, 420</p>	<p>Designed for:</p> <ul style="list-style-type: none"> • long chipping materials • large cross sections <p>Data:</p> <ul style="list-style-type: none"> • positive rake angle • constant tooth pitch of 3 to 6 tpi <p>Article groups:</p> <p>100, 110, 421, 426</p>	<p>Designed for:</p> <ul style="list-style-type: none"> • low vibration cutting • structurals <p>Data:</p> <ul style="list-style-type: none"> • rake angle 0° • variable tooth pitch of 5/8 to 10/14 tpi <p>Article groups:</p> <p>400, 430 (K-0)</p>	<p>Designed for:</p> <ul style="list-style-type: none"> • low vibration cutting • solid materials <p>Data:</p> <ul style="list-style-type: none"> • positive rake angle • variable tooth pitch of 0,75/1,25 to 12/16 ZpZ <p>Article groups:</p> <p>401, 431, 436, 437 (K-POS) 402, 445, 457, 557 (K-P, K-VS, K-X) 537, 544 (K-PLUS)</p>

Tooth pitch

Constant or variable?



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



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.

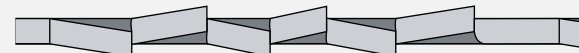
Standard raker set



3 - 18 tpi

tooth forms N, H

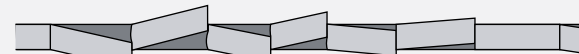
Standard group set



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 variable 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
from 21	0,75/1,25
15 - 30	1/1,3
10 - 21	1,4/2
5 - 13	2/3
4 - 7	3/4
3 - 6	4/6
2 - 3	5/7 5/8
1 - 2	6/10
3/4 - 1	8/11 8/12
to 1	10/14

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' | 3" in length of approx 131'
 1 1/2" in length of approx 174' | 2" - 2 5/8" in length of approx 150'

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	12	13	14	15	16	17	17	17	17	18	19	20	22	23	24	25	26	27
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

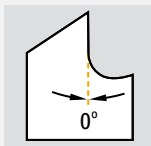
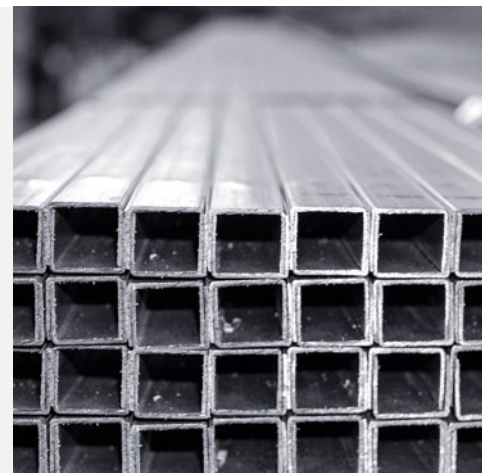
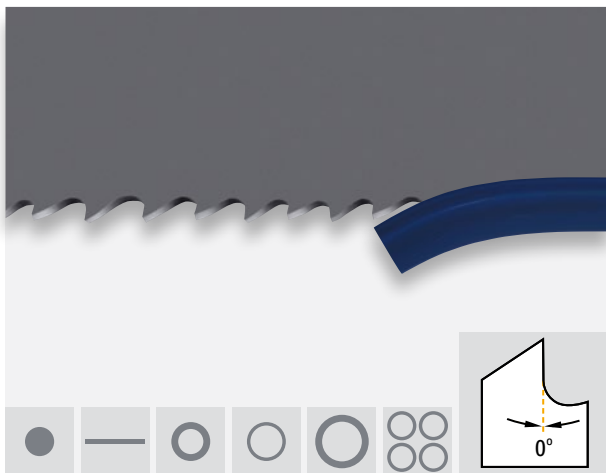
Standard

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

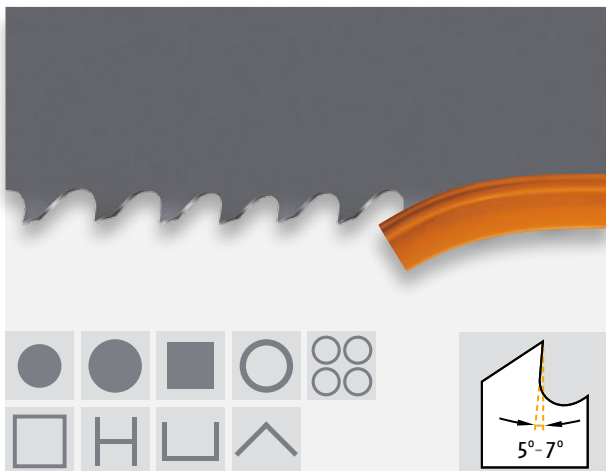
Standard

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	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	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
54 x 1,60	2 x 0,063	K	C-TEC	K
67 x 1,60	2 5/8 x 0,063	K	C-TEC	K

K = Variable tooth

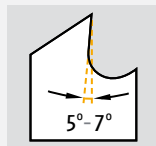
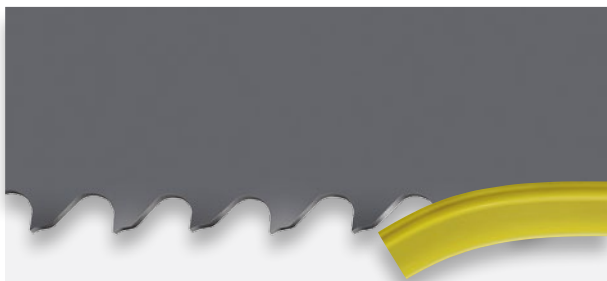
M51-X-PRO

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

K = Variable tooth

Article group 544

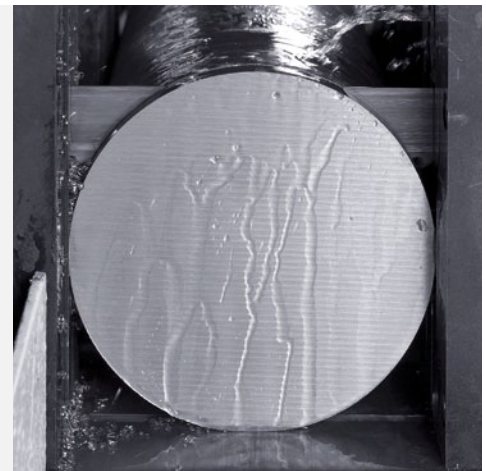
Professional

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

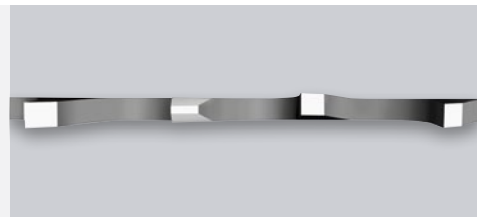
M42-TAIFUN-SPRINT

Excellent for use on high-performance band saw machines.

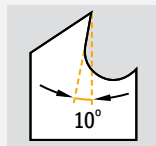
Also coated available **C-TEC** for extremely increased feed rates, significantly reduced cutting times and maximized blade life.

Engineered for:

- tensile strengths of up to 43 HRC
- 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	G-TEC	K	G-TEC	K	G-TEC
54 x 1,30	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	K	G-TEC
67 x 1,60	2 5/8 x 0,063	K	G-TEC	K	G-TEC	K	G-TEC		
80 x 1,60	3 x 0,063	K	G-TEC	K	G-TEC				

K = Variable tooth

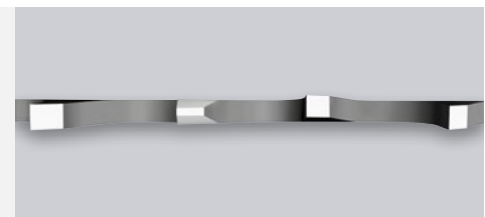
M51-TAIFUN-MAXIMA

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

Also coated available **C-TEC** for extremely increased feed 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 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
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. 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

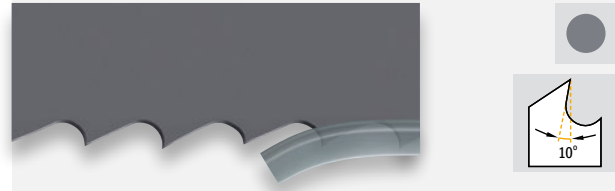
Article group 421

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. 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

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

Article group 400

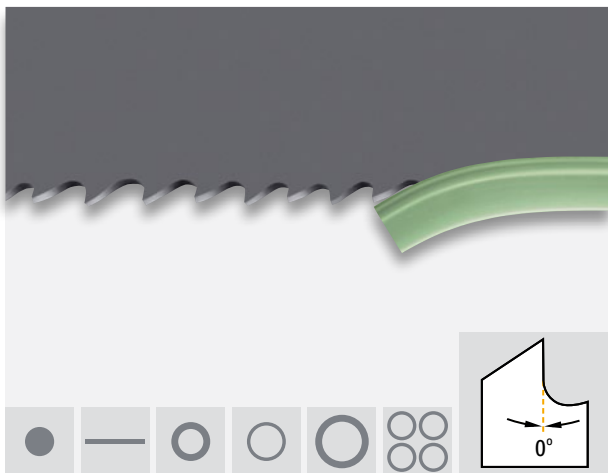
Basic

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

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 43 HRC
- 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

Article group 402

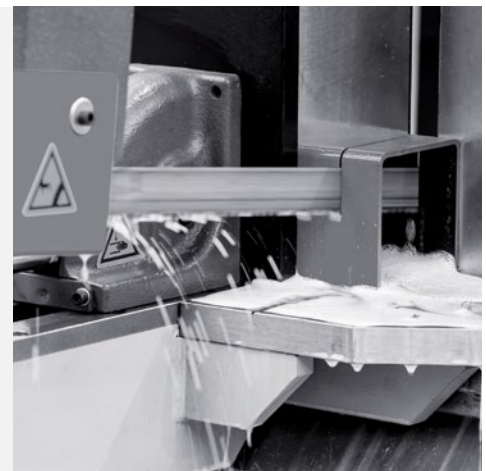
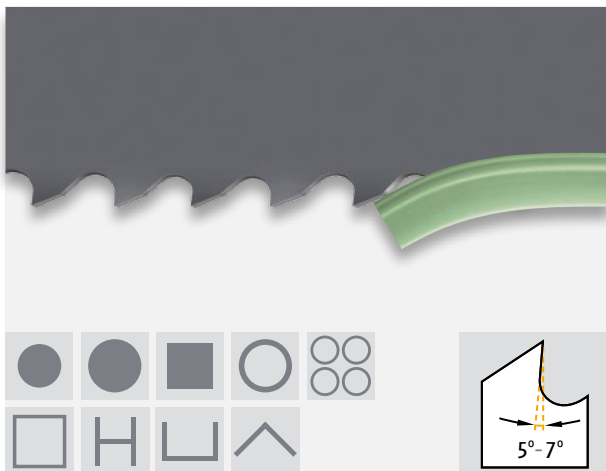
Basic

M42-BASIC-PRO

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

Engineered for:

- steel beams, profiles and tubes
- mixed materials

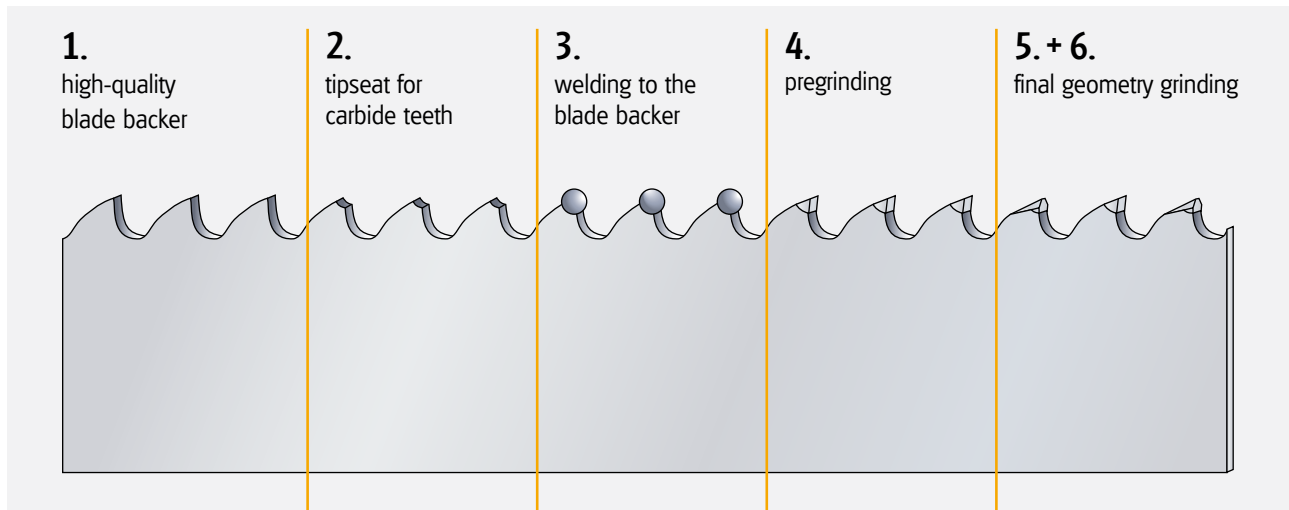


Dimensions		Tooth					
mm	inch	2/3	3/4	4/6	5/7	8/11	12/16
20 x 0,90	3/4 x 0,035				K	K	K
27 x 0,90	1 x 0,035		K*	K	K	K	K
34 x 1,10	1 1/4 x 0,042		K*	K*	K*		
41 x 1,30	1 1/2 x 0,050	K*	K*	K*	K*		
54 x 1,60	2 x 0,063	K*	K*	K*			
67 x 1,60	2 5/8 x 0,063	K*	K*				

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:

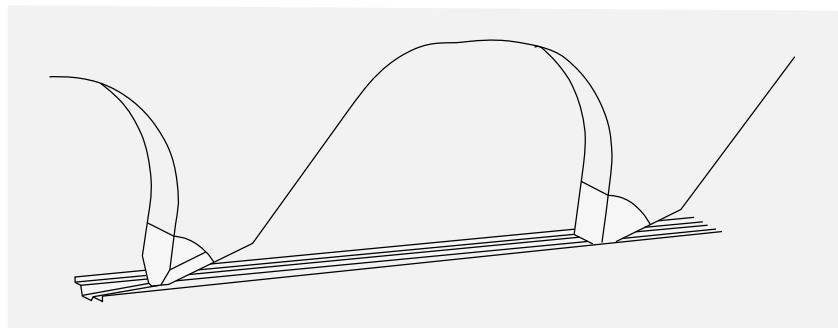
Carbide tooth tips are welded to the backer in a special procedure.

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:

|| The coils have a length of approx. 164' ||

Article group 627 827 C-TEC

Standard

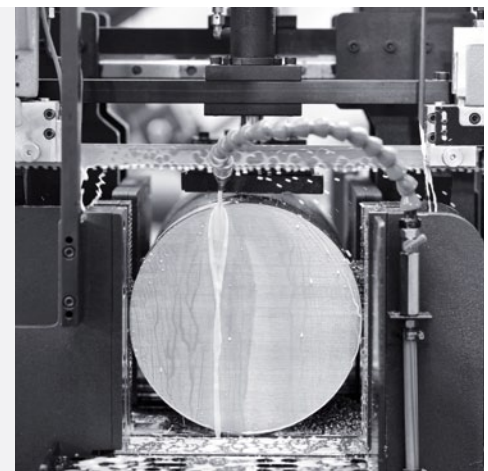
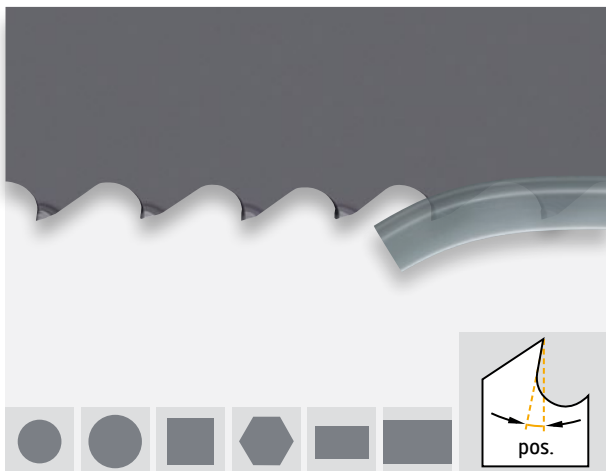
Q-LINE

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

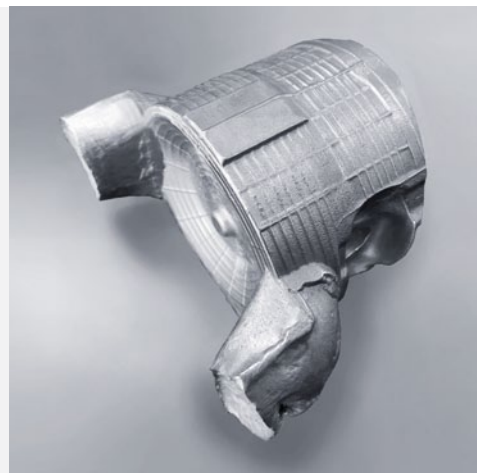
Standard

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	
13 x 0,9	1/2 x 0,035	3
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.

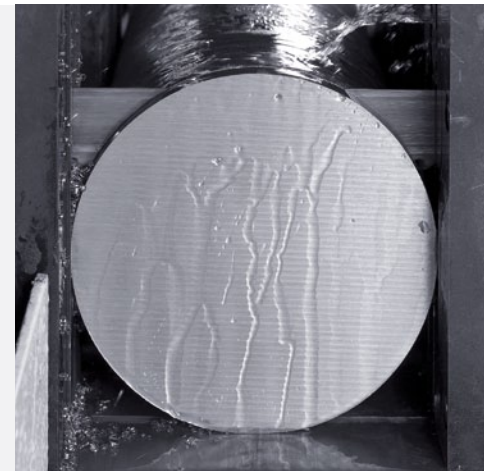
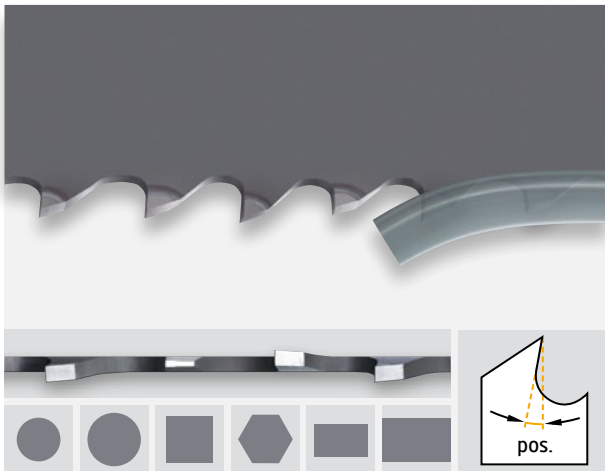
Also coated available **C-TEC** for extremely increased feed rates, significantly reduced cutting times and maximized blade life.



For difficult to cut metals such as stainless steels, tool steels, work hardening metals and nickel base alloys. All blade dimensions and tip'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

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.

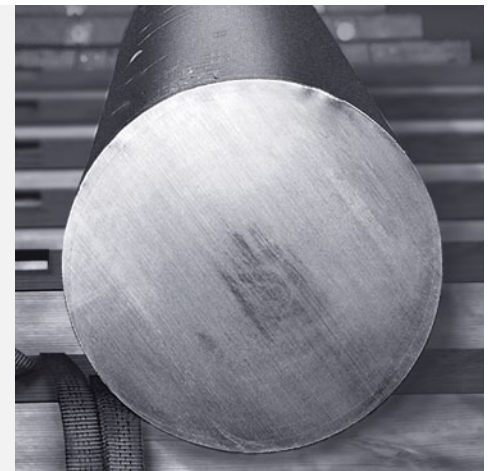
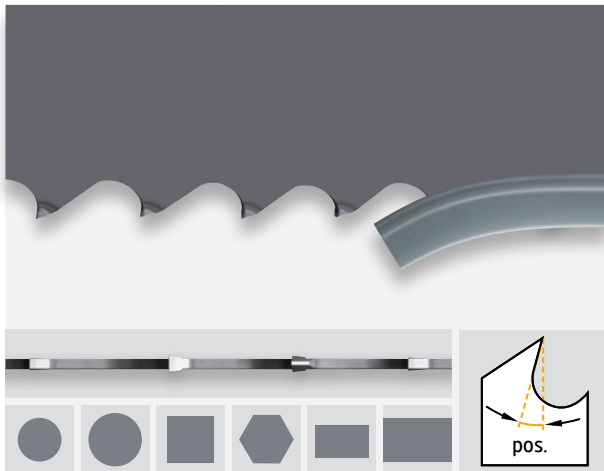
Also coated available **C-TEC** for extremely increased feed rates, significantly reduced cutting times and maximized blade life.



For difficult to cut metals such as stainless steels, tool steels, work hardening metals and nickel base alloys. All blade dimensions and tip'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	C-TEC	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	K
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	

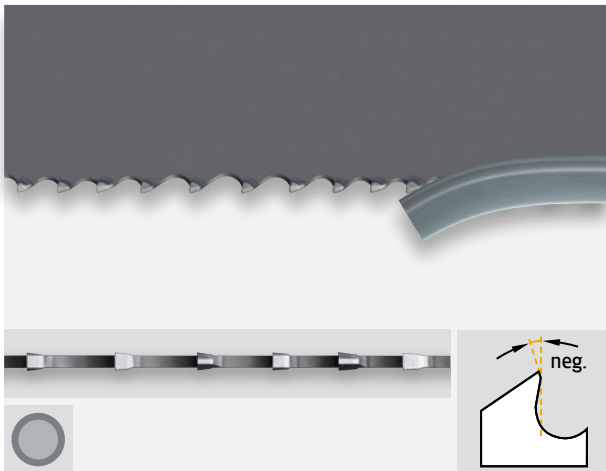
K = Variable tooth

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

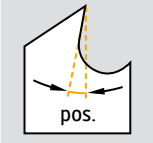
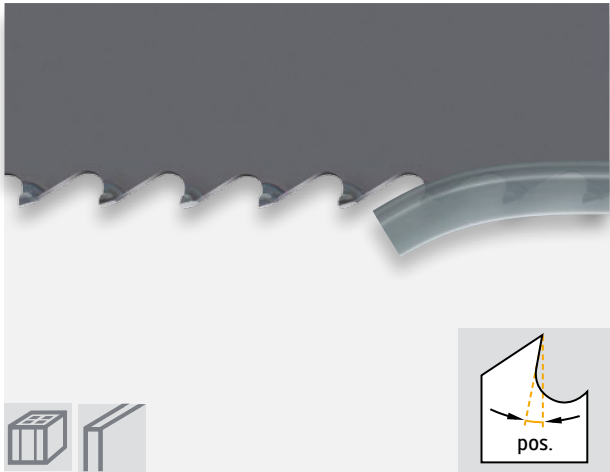
The universal band saw blade for all construction and insulation materials of small and large dimensions running on brick band saw machines.

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.

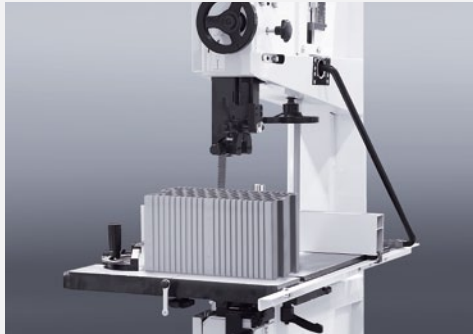
Engineered for:

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



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

K = Variable tooth



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

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				

Gulletted Edge

Gulletted 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 fine grit to cut thinner sections or extremely hard materials for a fine finish. The much more aggressive coarser grit should be selected for more abrasive, thicker materials. When the blade slows down, it can be reversed to extend its life by an additional 25%.

Tungsten Carbide Grit Band Saw Blades with a hardness up to 2000HV. 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

Kerf (for Continuous and Gulletted 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
Hastelloys	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

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

Technical recommendation

For technical recommendations regarding feeds and speed rates when using ARNTZ Bi-Metal Band Saw Blades, please contact 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 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 cm² 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 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 vibration appears.

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