

Arntez

Passionate
Cutting!

Fact
Book

Band Saw Blades Edition 2016



Welcome!

More than 220 years of experience in the tool production is quite a long time. The world of sawing metals has changed since then.

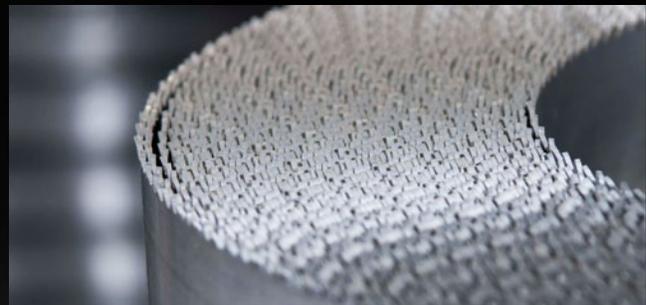
This refers to most band-sawing operations and to the high expectation on quality that ARNTZ saw blades meet today. That's why the world at ARNTZ spins around the technique of sawing metals – faster than ever!

We have a world wide sales team to assist you with your performance, needs and wishes, as our customer.

Of course, you will also find us on the Internet. We improve our customer service – continuously. As important as the technical perfection of ARNTZ products are the customers who use our products. Therefore, we are at your disposal at any time for technical assistance.

A skilled team of specialists will help you, worldwide. Professional answers will support you to select the right band for your application.

And: Additional tips will help to optimize the life of your tool. We solve your sawing problems!



That is what I stand for with my team.



Jan Wilhelm Arntz



Now is the right time to make the cut!

Bi-Metal Band Saw Blades

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Bi-Metal

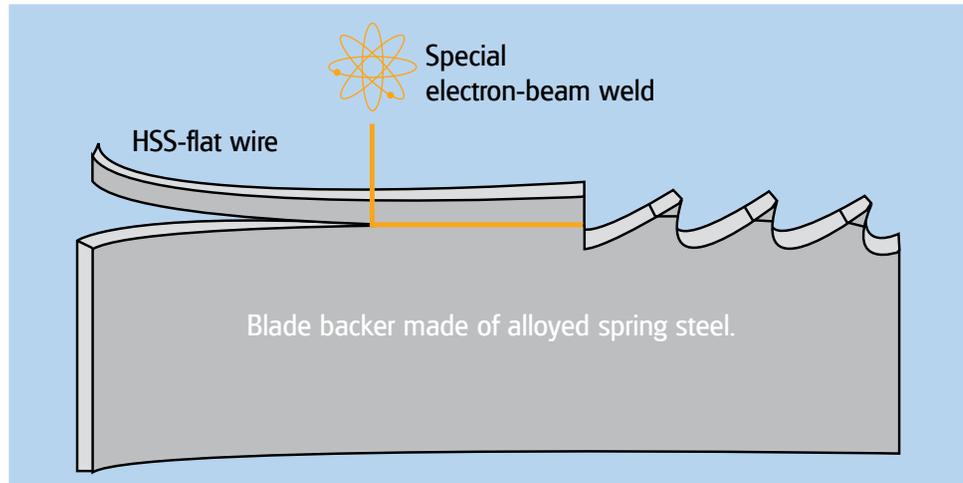
Why so successful?

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.

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.

Perfectly joint:

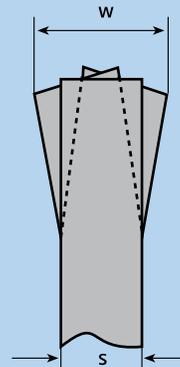
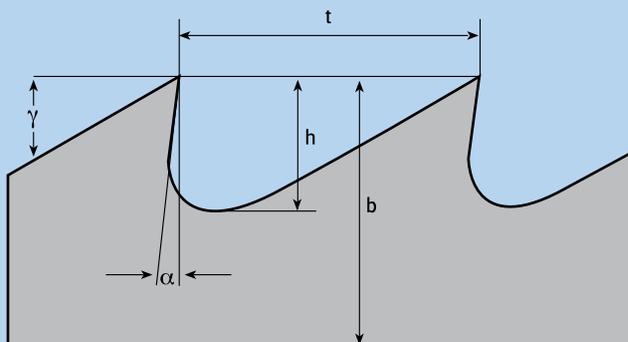
Both materials are undetachably welded together by special electron or laser beam.

All advantages:

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

Band Saw geometry

Terminology?

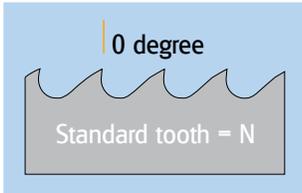


b = width of blade
s = thickness of saw blade
h = gullet depth
t = tooth pitch
 α = rake angle
 γ = clearance angle
w = width of set

Tooth forms

Where performs the right tooth?

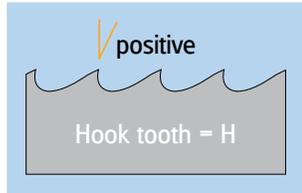
Only correct choice of tooth forms allows efficient cutting with low vibration. Four basic types are available:



Designed for:
 - short chipping materials
 - light wall thickness

Data:
 - rake angle 0°
 - 4 to 18 tpi

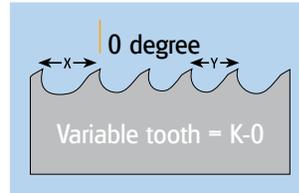
Article groups:
 100, 110, 420



Designed for:
 - long chipping materials
 - large cross sections

Data:
 - positive rake angle
 - 2 to 6 tpi

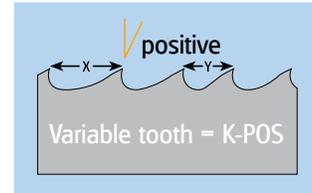
Article groups:
 100, 110, 421, 426



Designed for:
 - low vibration cutting
 - structurals

Data:
 - rake angle 0°
 - variable tooth pitch of
 3/4 to 10/14 tpi

Article groups:
 430 (K-0)



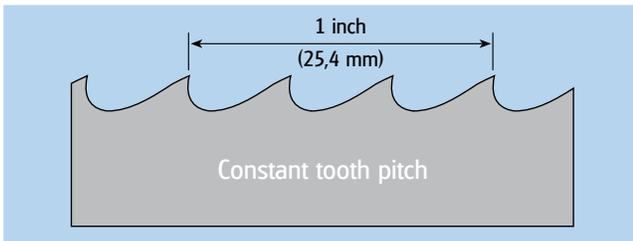
Designed for:
 - low vibration cutting
 - solid materials

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

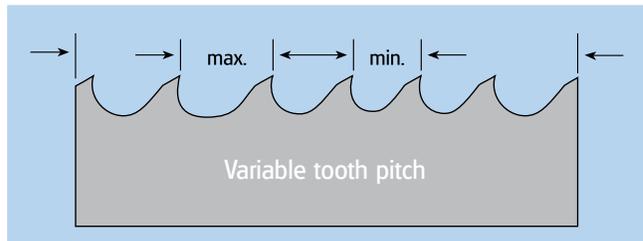
Article groups:
 433, 442, 445 (K-V)
 431, 436, 437 (K-POS)
 434, 438, 531, 537, 544
 (K-PLUS)

Tooth pitch

Constant or variable?



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



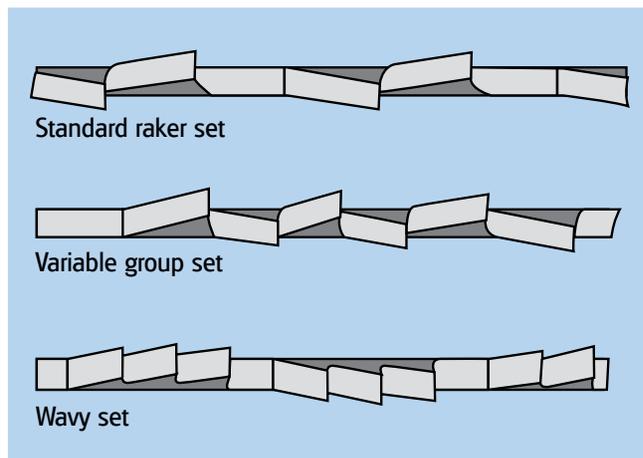
The tooth distances vary within a group of teeth. The smallest and the largest tooth pitch denotes the variable tooth of saw blade.

Tooth set

What groups and waves can cause.

Apart from tooth pitch and tooth form the exact set is essential for the performance of the sawblade. The correct clearance of back is achieved by the specific set for the cutting application. This is to avoid blade pinching, very important in problematic cutting jobs. Width and type of set are tuned to the cutting application: **Standard raker set**

- up to 10 tpi
- tooth forms N, H
- Variable group set**
- 0,75/1,25 to 10/14 tpi
- tooth form K
- Wavy set**
- 14 tpi and above
- tooth form N



Correct tooth pitch – optimum performance.

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

Recommendation to cut solid material

Constant tooth pitch		
Cross section inch	Teeth per inch tpi	Tooth shape
8 - 15	2	H
5 - 8	3	H
3 - 5	4	H/N
1 1/2 - 3	6	H/N
3/4 - 1 1/2	10	N
1/2 - 3/4	14	N
to 1/2	18	N

N = Standard tooth
H = Hook tooth

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

K = Variable tooth

Recommendation to cut tubes and structurals

Thin wall structurals (0° 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. Tooth pitches selected are depending on wall thickness and outer dimensions of tubes or structurals. The recommendations shown here refer to single cuts. If two or more tubes or square pipes are cut at a time, double wall thickness to select tooth pitch.

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

ARNTZ Bi-Metal Band Saw Blades are supplied as endless welded loops to fit your Bandsawing Machine, or in coils:
 1/4" - 1/2" in length of approx. 100' or 250' | 3/4" - 1 1/4" in length of approx. 216' | 1 1/2" in length of approx. 174'
 2" - 3" in length of approx. 150'

Bi-Metal and Carbide Tipped Band Saw Blade

For each cutting operation the right choice.

		Art. Gr.	420	421	430	431	432	433	434	445	442	426	436	437	438	531	544	537	620	630	622	640	650	651
		Product name	STAR	STAR-PLUS	SPRINT	SPRINT-PLUS	SPRINT-MEDIUM	SPRINT-MEDIUM-VS	MAXIMA-SPRINT	PROFLER-SPRINT-VS	TAIFUN-MEDIUM-VS	ALUCUT-PLUS	ALUCUT-SPRINT	TAIFUN-SPRINT	TAIFUN-MAXIMA	SPRINT-PLUS	BLIZZARD-SPRINT	TAIFUN-MAXIMA	TC-BLACK-LINE	TC-RED-LINE	TC-BLACK-LINE-S	VC-BLUE-LINE	VC-SILVER-LINE	VC-SILVER-LINE-N
Page of catalogue			8	8	9	10	11	11	12	13	14	15	15	16	17	18	18	19	21	21	22	23	24	25
Material dimension (mm)																								
- Structural steels	< 70																							
- Case-hardening steels	80 - 350																							
- Free machining steels	> 350																							
- Unalloyed tool steels	< 70																							
- Spring steels	80 - 350																							
- Roller 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	80 - 350																							
with silicon	> 350																							

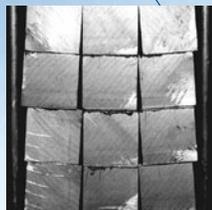
Qualification

■ = very good

■ = good

M42-STAR

Multi purpose blade for small dimension solid steel.



Engineered for:

- Common steel qualities up to 1400 N/mm² tensile strength
- Non ferrous metals
- Cross sections up to approx. 100 mm (4")
- Contour cutting operations

Superior, because:

Tooth tips of HSS M42 / material no. 1.3247

The standard tooth with 0° resp. slightly positive rake angle combined with a standard raker or wavy set is distinguished to cut short chipping materials and smooth and burr-free cuts.

Dimension		Teeth per inch				
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
20 x 0,90	3/4 x 0,035	N*	N*		N-W*	
27 x 0,90	1 x 0,035	N	N		N-W*	
41 x 1,30	1 1/2 x 0,050	N*				

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

M42-STAR-PLUS

The band for larger solid bars.

Engineered for:

- Common steel qualities up to 1400 N/mm² tensile strength
- Non ferrous metals
- Cross sections up to approx. 100 mm (4")

Superior, because:

Tooth tips of HSS M42 / material no. 1.3247

The hook tooth with a positive rake angle combined with a raker set, for easy tooth penetration and chip formation on larger cross sections. Cuts long chipping and tough materials without a problem. The STAR-PLUS Bi-Metal band cuts smooth and accurate.



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

H = Hook tooth

M42-SPRINT

The Structural-Professional for light and medium wall thicknesses.

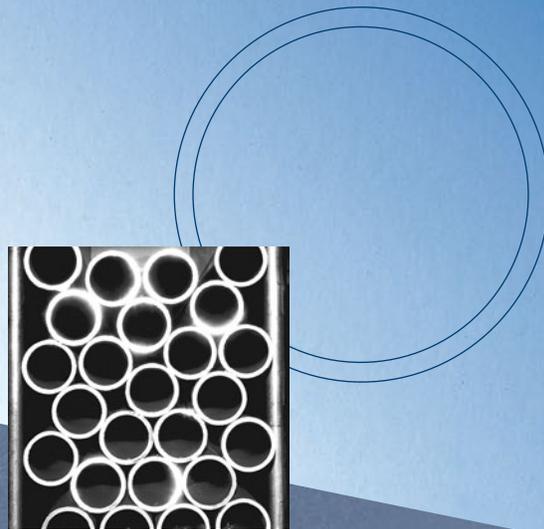
Superior, because:

Tooth tips of HSS M42 / material no. 1.3247

The variable tooth with 0° rake angle with a special group set cuts even lightest sections with less vibrations. Short chipping materials are cut without a problem. The M42-SPRINT Bi-Metal band for long life and low cost cutting.

Engineered for:

- Common steel qualities up to 1400 N/mm²
- Non ferrous structurals
- Single and bundle cuts
- Tubes and structurals with light or medium walls
- Sheet metal on vertical band saw machines



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

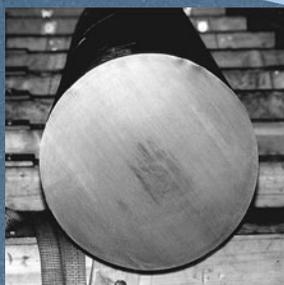
K = Variable tooth * = Special item

M42-SPRINT-PLUS

Strong in workpieces of medium to large dimensions.

Engineered for:

- Common steel qualities up to 1400 N/mm²
- Non ferrous metals
- Single and bundle cuts
- Solid material of medium to large dimensions
- Heavy wall tubes



Superior, because:

Tooth tips made of HSS M42 / material no. 1.3247
 The variable tooth with a positive rake angle with a special group set cuts solid materials as well as heavy wall structurals and tubing at fast cutting rates, with a smooth surface.

Dimension		Variable 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
67 x 1,60	2 5/8 x 0,063	K	K	K		
80 x 1,60	3 x 0,063	K	K			

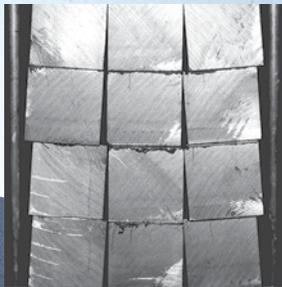
K = Variable tooth

M42-SPRINT-MEDIUM

The multi purpose blades for various applications.

Engineered for:

- Small and medium scissor-arm machines
- Soft and medium hard steels up to approx. 1100 N/mm²
- Solid steel bars



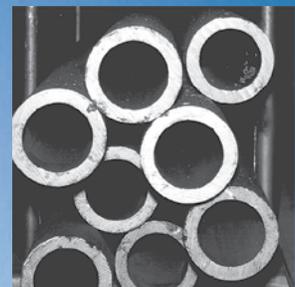
Superior, because:

Tooth tips off HSS M42 / material no. 1.3247
 The variable tooth with a slightly positive rake angle combined with a group set controls the chipping on lighter general purpose machines, increases blade life and grants smoothest cut surfaces.

M42-SPRINT-MEDIUM-VS

Engineered for:

- Small and medium scissor-arm machines
- Beams and profiles
- Single- and bundle cutting



Superior, because:

Tooth tips of HSS M42 / material no. 1.3247
 The new designed special HL variable tooth with a slightly positive rake angle combined with a special group set controls the chipping on lighter general purpose machines, increases blade life and grants smoothest cut surfaces.

Dimension		Variable tooth	
mm	inch	2/3	3/4
34 x 1,10	1 1/4 x 0,042	K	K
41 x 1,30	1 1/2 x 0,050	K	K

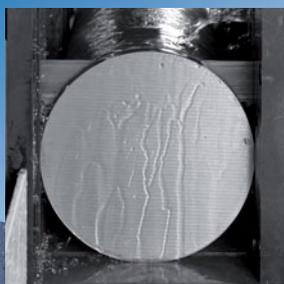
K = Variable tooth

Dimension		Variable tooth				
mm	inch	2/3	3/4	4/6	5/7	8/11
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			
54 x 1,60	2 x 0,063	K	K	K		
67 x 1,60	2 5/8 x 0,063	K	K			

K = Reinforced variable tooth

M42-MAXIMA-SPRINT

Outstanding on tough alloys and difficult materials.



Engineered for:

- Long chipping steels
- Stainless steels
- Titanium base alloys
- Special bronze
- Copper alloys
- Nickel base alloys
- Exotic, difficult to cut alloys
- Solid material of medium sections

Superior, because:

Tooth tips of HSS M42 / material no. 1.3247

The special designed variable tooth with an extremely positive rake angle cuts aggressively in tough materials. Reduced cutting forces and easy chip formation.

Dimension		Variable tooth		
mm	inch	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
41 x 1,30	1 1/2 x 0,050		K	K
54 x 1,30	2 x 0,050		K	
54 x 1,60	2 x 0,063	K	K	K

K = Variable tooth

M42-PROFILER-SPRINT-VS

Outstanding performance for heavy fabricators.

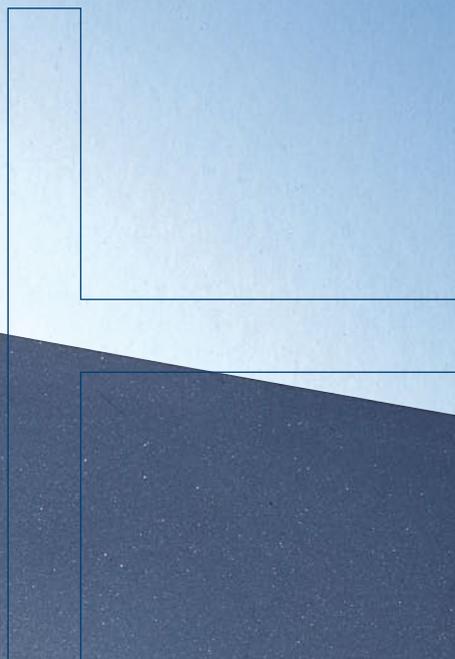
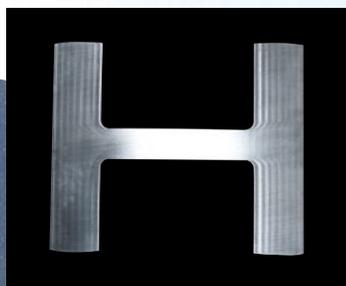
Engineered for:

- Medium to large H-beams
- Angles and similar shapes

Superior, because:

Tooth tips of HSS M42 / material no. 1.3247

The designed special HL variable tooth with slightly positive rake angle and heavy group set shows excellent performance on H-beams and similar shapes. The PROFILER-SPRINT-VS avoids pinching in beams with inside tension, or in poorly supported profiles. For 90° and miter cutting.



Dimension		Variable 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	K	K
54 x 1,60	2 x 0,063	K	K	
67 x 1,60	2 5/8 x 0,063	K	K	

K = Reinforced variable tooth

M42-TAIFUN-MEDIUM-VS

NEW!

The universal multi-purpose talent with even more bite.



Engineered for:

- Steels up to 1400 N/mm² tensile strength
- Steel profiles
- All structural steel beams

Superior, because:

Precision **borazon-ground** tooth tips made of HSS M42 / material no. 1.3247
 Strengthened HL variable tooth with slightly positive rake for the angled, burr-free chipping of profiles. The special tooth geometry with group set enables exact band guidance with reduced vibration during use. This guarantees excellent, clean cutting surfaces and a long tool life.

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

K = Reinforced variable tooth

M42-ALUCUT-PLUS

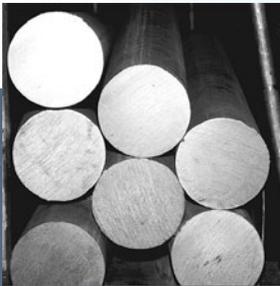
Easy cuts in light metals.

Engineered for:

- Pure aluminium and aluminium alloys
- All dimensions

Superior, because:

Tooth tips made of HSS M42 / material no. 1.3247
The positive hook tooth with a standard raker set performs at all dimensions. Smooth cuts and tool life that convinces.



M42-ALUCUT-SPRINT

Pinch-free through aluminium.

Engineered for:

- Pure aluminium and aluminium alloys
- Materials that tend to pinching
- Larger sections and heavy wall structurals

Superior, because:

Tooth tips made of HSS M42 / material no. 1.3247
The variable teeth with positive rake angle and a variable group set avoids blade pinching and cuts larger workpieces with low vibration. ALUCUT-SPRINT for increased blade life, low cost per cut and good surface finish.



Dimension		Teeth per inch			
mm	inch	2	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		

H = Hook tooth

Dimension		Variable 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-TAIFUN-SPRINT

Cuts excellent in special alloys and materials of difficult machinability.



Engineered for:

- Steels up to 1400 N/mm² tensile strength
- Stainless steels
- Heat resistant steels
- Titanium alloys



Dimension		Variable 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	K	K
54 x 1,30	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	
80 x 1,60	3 x 0,063	K	K		

K = Variable tooth

Superior, because:

Precision **borazon-ground** tooth tips made of HSS M42 / material no. 1.3247

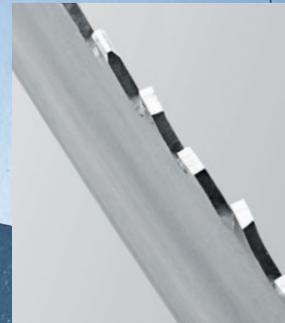
The variable tooth with ground multi chip geometry, positive rake angle and group set. Perfectly divided chips and excellent band guidance. Sharpest cutting edges grant reduced cutting forces and great cutting accuracy.

M42-TAIFUN-MAXIMA

Perfect cuts in tough materials and alloys.

Engineered for:

- Steels up to 1400 N/mm² tensile strength
- Long chipping materials
- Titanium alloys, special bronzes
- Stainless steels
- Copper alloys, nickel-based alloys



Superior, because:

Precision **borazon-ground** tooth tips made of HSS M 42 / material no. 1.3247

The variable teeth with extremely positive rake angle in connection with the ground tooth geometry and a variable group set generate a superior chip distribution. Chamfered raker teeth grant excellent band guidance with lowest vibration. Cleanest cutting edges and highest performance are the result.

Dimension		Variable tooth		
mm	inch	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
41 x 1,30	1 1/2 x 0,050		K	K
54 x 1,30	2 x 0,050		K	
54 x 1,60	2 x 0,063	K	K	K

K = Variable tooth

M51-SPRINT-PLUS

Extra wear resistant teeth for hard steels and alloys of medium dimensions.



Engineered for:

- Steels up to 1700 N/mm² tensile strength
- Austenetic stainless steels
- Nickel-based alloys
- Titanium and special bronzes
- Solid material of medium dimensions
- Heavy wall tubing

Superior, because:

Tooth tips made of HSS M51 / material no. 1.3207
The extremely positive variable tooth with special strong tooth forms. High heat and wear resistance of HSS M51 tooth tips increases band life on all hard and problematic steels.

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

K = Variable tooth

BLIZZARD-SPRINT

Strong in large cross sections and difficult to cut alloys.

Engineered for:

- Larger cross sections
- Steels with high tensile strength
- Long chipping steels
- Stainless steels
- Titanium alloys
- Nickel alloys
- Special bronzes

Superior, because:

The precisely produced teeth in combination with an optimum hardness of tooth tips of 68-69 HRC. Extreme positive rake angle together with variable group set lead to smooth and perfect cutting surface. Short cutting times and outstanding blade life are the benefits from BLIZZARD-SPRINT.



Dimension		Variable tooth			
mm	inch	0,75/1,25	1/1,3	1/1,5	1,4/2
41 x 1,30	1 1/2 x 0,050				K
54 x 1,60	2 x 0,063	K		K	K
67 x 1,60	2 5/8 x 0,063	K	K		K
80 x 1,60	3 x 0,063	K	K		K

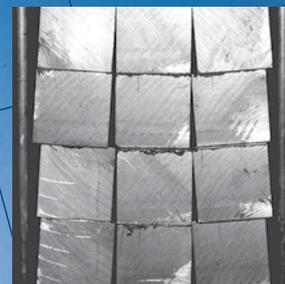
K = Variable tooth with special geometry

M51-TAIFUN-MAXIMA

Extremely wear-resistant and ground teeth for hardest steels and alloys of medium dimensions.

Engineered for:

- Steels up to 1700 N/mm² tensile strength
- Exotic and difficult to cut alloys
- Nickel-based super alloys
- Titanium alloys, special bronzes
- Stainless steels



Superior, because:

Precision **borazon-ground** tooth tips made of HSS M51 / material no. 1.3207

The variable tooth with extremely positive rake angle in connection with the ground tooth geometry and a variable group set generate a superior chip distribution. Champered raker teeth grant excellent band guidance at lowest vibration. Tooth tip hardness of approx. HRC 69 increases the life time for better cost-effectiveness.

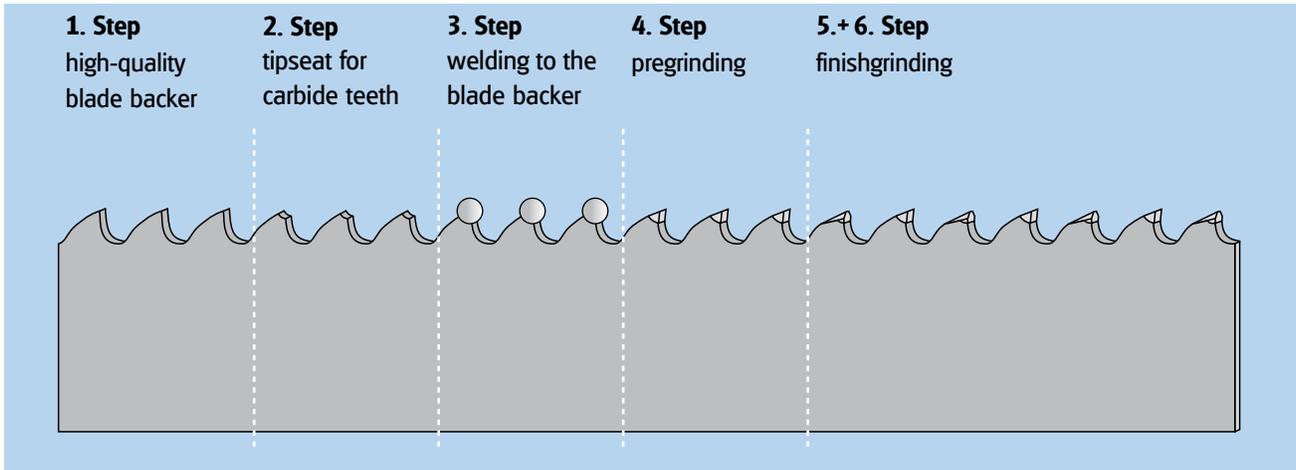


Dimension		Variable tooth					
mm	inch	0,75/1,25	1/1,3	1/1,5	1,4/2	2/3	3/4
27 x 0,90	1 x 0,035					K	K
34 x 1,10	1 1/4 x 0,042					K	K
41 x 1,30	1 1/2 x 0,050				K	K	K
54 x 1,60	2 x 0,063	K		K	K	K	
67 x 1,60	2 5/8 x 0,063	K	K		K	K	
80 x 1,60	3 x 0,063	K	K		K		

K = Variable tooth

Carbide

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 special high-grade carbide.

Perfectly joint:

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

Band Saw geometry

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

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

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



Correct operation:

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

Carbide Tipped Band Saw Blades are supplied as endless welded loops, or in coils:
The coils have a length of approx. 164'

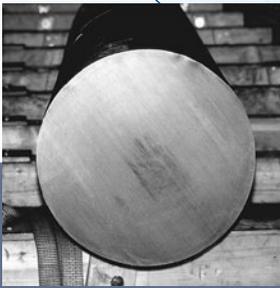
TC-BLACK-LINE

Carbide Tipped Band Saw Blades with triple chip tooth geometry

To cut solid steels.

Engineered for:

- Titanium
- Stainless steels
- Nickel alloys
- Heat resistance steels
- Exotic, difficult to cut alloys
- Solid materials in medium and large sections



Superior, because:

Carbide tips welded to the blades back by latest technologies. Carbide teeth precision ground in triple chip geometry for fastest cutting rates at minimum vibration.

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

K = Variable tooth H = Hook tooth

TC-RED-LINE

Carbide Tipped Band Saw Blades with triple chip tooth geometry

To cut non ferrous metals.



Engineered for:

- Pure aluminium & alloys
- Aluminium bronze & ampco
- Copper & copper alloys
- Brass
- Sand contained aluminium and magnesium castings



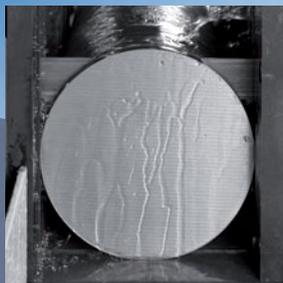
Dimension		Variable tooth					
mm	inch	0,75/1,25	1/1,5	1,4/2	2/3	3	3/4
27 x 0,90	1 x 0,035				K	H	
34 x 1,10	1 1/4 x 0,042				K		K
41 x 1,30	1 1/2 x 0,050			K	K		K
54 x 1,30	2 x 0,050			K	K		
54 x 1,60	2 x 0,063	K	K	K	K		
67 x 1,60	2 5/8 x 0,063	K	K	K			

K = Variable tooth H = Hook tooth

TC-BLACK-LINE-S **NEW!**

Carbide tipped band saw blade with set tooth and special chip geometry

For difficult to cut, abrasive materials.



Engineered for:

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

Superior, because:

The carbide tipped, precision ground teeth with setting and special chip geometry are welded in a special process to ensure low vibration cutting without pinching with high-performance machinability and optimum tool life.

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

K = Variable tooth

VC-BLUE-LINE **NEW!**

Carbide tipped band saw blade with special chip geometry

For non-ferrous metals and graphite.



Engineered for:

- Aluminium alloys
- Aluminium bronze
- Copper alloys
- Sand cast aluminium and sand cast magnesium
- Graphite

Superior, because:

The carbide tipped, wear-resistant, precision ground teeth with multi chip geometry are welded in a special process to ensure low noise, low vibration cutting with high-performance machinability, optimum tool life and smooth cutting surfaces.

Dimension		Variable 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	
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		
54 x 1,30	2 x 0,050			K		
54 x 1,60	2 x 0,063		K			
67 x 1,60	2 5/8 x 0,063		K			
80 x 1,60	3 x 0,063	K				

K = Variable tooth H = Hook tooth

VC-SILVER-LINE

Carbide Tipped Band Saw Blades with multi chip tooth geometry

To cut solid steels and non-ferrous alloys.

Engineered for:

- Solid bars in medium and large sections
- Stainless steels
- Special alloys
- Heatresistant steels
- Heat-treated steels
- Cold working steels
- Alloyed steels up to 1900 N/mm² tensile strength
- Aluminium-silicon alloys
- Copper-nickel alloys
- Titanium
- Ampco
- Zirconium



Superior, because:

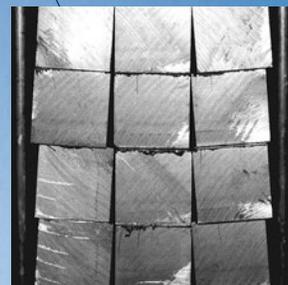
Carbide tips welded to the blade back with latest technologies and precise ground tooth tips with multi chip geometry allow fastest cutting rates and vibration free operation with optimum tool life.

Dimension		Variable 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	K	K
54 x 1,30	2 x 0,050			K	K	
54 x 1,60	2 x 0,063	K	K	K	K	
67 x 1,60	2 5/8 x 0,063	K	K	K		
80 x 1,60	3 x 0,063	K		K		

K = Variable tooth

VC-SILVER-LINE-N

Carbide Tipped Band Saw Blades with multi chip tooth geometry, negative rake
For cutting extremely hard steels.



Engineered for:

- Induction hardened piston rods
- Surface hardened steels
- Hardchromed materials
- Hardened steels up to HRC 62
- High manganese alloyed steels

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

K = Variable tooth

TUNGSTEN-CARBIDE-GRIT BAND SAW BLADES

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

Engineered for:

- Composite materials
- Hardened steel
- Cast iron
- Graphite and carbon
- Reinforced plastics
- Fiberglass
- Ceramics

Superior, because:

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

Continuous Edge

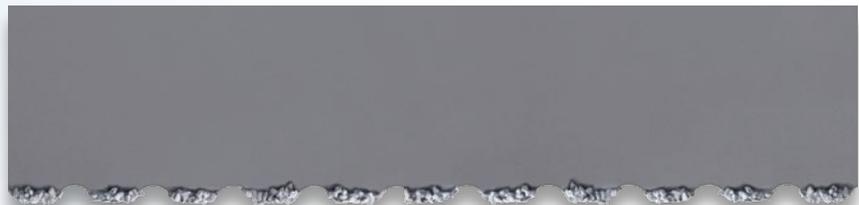
Use Continuous edge for material less than 1/4" thick or for hard materials with a tendency to fracture, crack, or chip easily.



Width x Gauge		Coarse	Medium Coarse	Medium	Extra Fine
mm	inch				
6,0 x 0,51	1/ x 0,20				
10,0 x 0,89	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		Short Tooth Coarse	Deep Gullet Coarse	Coarse	Medium Coarse	Medium
mm	inch					
6,0 x 0,51	1/ x 0,20					
10,0 x 0,89	3/8 x 0,025					
12,5 x 0,51	1/2 x 0,020					
12,5 x 0,64	1/2 x 0,025					
19,0 x 0,81	3/4 x 0,032					
25,0 x 0,89	1 x 0,035					
32,0 x 0,89	1 1/4 x 0,035					
32,0 x 1,07	1 1/4 x 0,042					
38,0 x 1,07	1 1/2 x 0,042					

Select finer grit for finer finish; Use coarser grit for faster cutting.

When the blade slows down in cut, turn blade inside out and continue cutting for up to an additional 25 % life.

Kerf (for Continuous and Gulleted Edge)

Width x Gauge mm	inch	Short Tooth Coarse	Deep Gullet Coarse	Coarse	Medium Coarse	Medium	Extra Fine
6,0 x 0,51	1/ x 0,20	-	-	-	-	0.042	-
10,0 x 0,89	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, Molybdenum, 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

Blue indicates coolant recommended

Carbon Steel Band Saw Blades

Article group 100

CS-1

Flexible back in pin-point execution with hardened teeth.
Hook tooth (H) and Standard tooth (N)

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

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

Article group 110

CS-2-Plus

Special hard back with hardened teeth.
Hook tooth (H) and Standard tooth (N)

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

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



Technical recommendation

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





Tension measuring device

Wrong tension of band can be the reason for crooked cuts or can cause blade breakage. Therefore, the band tension should be checked at regular intervals. The ARNTZ tension meter shows direct readout of tension from 0-60.000 PSI or 0-4.500 kg/cm². Detailed instructions explain how to select and control the right band saw tension.

Refractometer

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



Break-in procedures: For long blade life.

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

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

Bi-Metal Band Saw Blades

Starting feed should be half of final feed rate at the recommended cutting speed for the first 46,5 – 77,5 in² cut surface (see table on page 30). After that, feed rate should be gradually increased for maximum cutting rate. Should vibrations or noises occur at the beginning of the cutting operation, cutting speed should slightly be adjusted.

Carbide Tipped Band Saw Blades

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

Material diameter up to 24"	Cutting speed	=	100 SFPM
	Feed	=	0,2"/min.
Material diameter over 24"	Cutting speed	=	80 SFPM
	Feed	=	0,12"/min.

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

Technical recommendations

For Bi-Metal Band Saw Blades

Material group	Material specification DIN	Material no.	Cutting speed feet per min.		Cooling fluids	
			Bi-Metal	Cutting oil	Emulsion	
Structural steels	St 37 - 2	1.0037	260-330		x	
	St 50 - 2	1.0050	200-280		x	
	St 60 - 2	1.0060	160-230		x	
Case-hardening steels	C 10	1.0301	260-330	x		
	14 NiCr 14	1.5752	130-180	x		
	21 NiCrMo 2	1.6523	160-200	x		
	16 MnCr 5	1.7131	130-200	x		
Free-machining steels	9 S 20	1.0711	260-390		x	
	45 S 20	1.0727	260-390		x	
Heat treatable steels	C 45	1.0503	200-230		x	
	40 Mn 4	1.1157	200-230		x	
	36 NiCr 6	1.5710	200-230		x	
	34 CrNiMo 6	1.6582	160-215		x	
	42 CrMo 4	1.7225	160-215		x	
Ball bearing steels	100 Cr 6	1.3505	115-160		x	
	100 CrMn 6	1.3520	115-160		x	
Spring steels	65 Si 7	1.5028	150-200		x	
	50 CrV 4	1.8159	150-200		x	
Unalloyed tool steels	C 125 W	1.1663	130-200		x	
	C 75 W	1.1750	130-200		x	
Cold-work tool steels	125 Cr 1	1.2002	130-160	x	x	
	X 210 Cr 12	1.2080	100-130	x	x	
	X 155 CrVMo 12 1	1.2379	100-130	dry		
	X 42 Cr 13	1.2083	115-150	x	x	
	X 165 CrV 12	1.2201	100-150	x	x	
	100 CrMo 5	1.2303	100-160	x	x	
	X 32 CrMoV 3 3	1.2365	150-200	x	x	
	45 WCrV 7	1.2542	130-160	x	x	
	56 NiCrMoV 7	1.2714	130-160	x	x	
Hot-work tool steels	S 6-5-2-5 (E Mo5 Co5)	1.3243	115-150		x	
	S 2-10-1-8 (M 42)	1.3247	115-150		x	
	S 6-5-2 (DMo5)	1.3343	115-150		x	
Valve steels	X 45 CrSi 9 3	1.4718	100-150	x	x	
	X 45 CrNiW 18 9	1.4873	100-130	x	x	
High temperature steels	X 20 CrMoV 12 1	1.4922	35-100	x	x	
	X 5 NiCrTi 26 15	1.4980	35-100	x	x	
Heat resistant steels	X 10 CrSi 6	1.4712	50-80	x	x	
	X 10 CrAl 18	1.4742	50-80	x	x	
	X 15 CrNiSi 25 20	1.4841	50-80	x	x	
Stainless steels	X 5 CrNi 18 10 (V2A)	1.4301	100-130	x	x	
	X 6 CrNiMoTi 17 12 2 (V4A)	1.4571	100-130	x	x	
Steel castings	GS-38	1.0420	130-200		x	
	GS-60	1.0558	130-200		x	
Cast irons	GG-15	0.6015	100-200	dry		
	GG-30	0.6030	100-200	dry		
	GGG-50	0.7050	100-200	dry		
	GTW-40	1.8040	100-200	dry		
	GTS-65	1.8165	100-200	dry		
Copper	KE-Cu	2.0050	330-1300	x	x	
	Elektrolyt-Copper		330-1300	x	x	
Brass (copper-zinc alloys)	CuZn 10	2.0230	330-1300		x	
	CuZn 31 Si 1	2.0490	330-1300		x	
Aluminium Bronze (copper-aluminium alloys)	CuAl 8	2.0920	115-160		x	
	CuAl 10 Fe 3 Mn 2	2.0936	115-160		x	
Bronze (copper-TiN alloys)	CuSn 6	2.1020	260-500		x	
	CuSn 6 Zn 6	2.1080	260-500		x	
Red brass (copper-cast alloys)	CuSn 10 Zn	2.1086	160-330		x	
	CuSn 5 ZnPb	2.1096	160-330		x	
Nickel base alloys	NiCr 20 TiAl	2.4631	35-80	x	x	
	NiCr 22 FeMo	2.4972	35-80	x	x	
Aluminium and aluminium alloys	Al 99.5	3.0255	260-2600		x	
	AlMgSiPb	3.0615	260-2600		x	
	G-AlSi 5 Mg	3.2341	260-2600		x	
Titanium and titanium alloys	Ti Grade 1	3.7025	35-65	x	x	
	TiAl 6 V 4	3.7164	35-65	x	x	
Thermoplastic plastics	PVC		330-1300	dry		
Plastics with fibre inlays	Teflon, Hostalen		330-1300	dry		
	Resitex		160-975	dry		
	Novotex		160-975	dry		

For Carbide Band Saw Blades

for cutting steel

Material group	Material specifications DIN	Material no.	Cutting speed	Recommended tooth pitch				
				Material dimensions				
			Feet per min.	3 - 6	6 - 12	12 - 20	≥ 20	
Structural steels	St 37/42	1.0037/1.0042	330-425	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	St 52/60	1.0050/1.0060	295-390	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Case-hardening steels	C10/C15	1.0301/1.0401	360-460	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	16 MnCr 5	1.7131	260-330	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	20 CrMo 5	1.7264	260-330	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	21 NiCrMo 2	1.6523	230-295	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Nitrate steels	34 CrAlNi 7	1.8550	150-200	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	34 CrAlMo 5	1.8507	150-200	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Free-Machining steels	9 S 20	1.0711	330-525	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Heat treatable steels	C 35/45	1.0501/1.0503	295-390	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	42 CrMo 4	1.7225	230-295	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	34 CrNiMo 6	1.6582	230-295	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Ball bearing steels	100 Cr 6	1.3505	230-295	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	100 CrMo 7 3	1.3536	215-280	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Spring steels	65 Si 7	1.5028	215-285	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	50 CrV 4	1.8159	215-285	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Unalloyed tool steels	C 125 W	1.1663	215-260	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	C 80 W 1	1.1525	230-280	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Cold-work tool steels	125 Cr 1	1.2002	215-260	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	X 210 Cr 12	1.2080	130-160	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	X 155 CrVMO 12 1	1.2379	130-160	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	90 MnCrV 8	1.2842	150-180	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	40 CrMnMo 7	1.2311	230-295	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Hot-work tool steels	X 40 CrMoV 5 1	1.2344	200-260	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	56 NiCrMoV 7	1.2714	160-230	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	40 CrMnNiMo 8 6 4	1.2738	115-160	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	S 6-5-2	1.3343	160-200	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
High speed steels	S 3-3-2	1.3333	180-215	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	S 2-10-1-8	1.3247	150-200	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	S 10-4-3-10	1.3207	150-200	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	S 18-0-1	1.3355	150-200	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	X 5 CrNi 18 10	1.4301	230-260	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Stainless steels	X 6CrNiMoTi 17 12 2	1.4571	215-250	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	X 20 Cr 13	1.4021	260-330	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	X 45 CrSi 9 3	1.4718	160-200	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Valve steels	X 45 CrNiW 18 9	1.4873	130-160	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	X 12 CrCoNi 21 20	1.4971	100-130	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
High temperature steels	X 20 CrMoWV 12 1	1.4935	260-330	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	X 15 CrNiSi 25 20	1.4841	100-130	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Heat resistant steels	X 12 NiCrSi 36 16	1.4864	100-130	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	NiCr 19 NbMo	2.4668	65-100	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Special alloys	NiMo 30	2.4810	70-130	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	NiCr 13 Mo 6 Ti 3	2.4662	65-100	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	NiCo 20 Cr 20 MoTi	2.4650	70-115	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	X 8 CrNiAlTi 20 20	1.4847	70-115	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	Heat treated steels							
1000 - 1200 N/mm ²			115-160	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
1200 - 1400 N/mm ²			100-150	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
1400 - 1600 N/mm ²			80-115	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Hardened steels								
	50 HRC			50-65	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K
	55 HRC			35-50	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K
60 HRC			25-40	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Steel castings	GS-38	1.0420	230-330	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	GS-60	1.0558	215-280	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
Cast irons	GG-30	0.6030	200-260	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	
	GGG-50	0.7050	180-250	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K	

For Carbide Band Saw Blades

for cutting non ferrous metals

Material group	Material specifications DIN	Material no.	Cutting speed	Recommended tooth pitch			
				Material dimensions			
			Feet per min.	3 - 6	6 - 12	12 - 20	≥ 20
Aluminium and aluminium alloys	Al 99,5	3.0255	up to 9,000	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K
	AlMg 1	3.3315	up to 9,000	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K
	AlMg 3	3.3535	up to 9,000	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K
	AlMg 4.5Mn	3.3547	up to 9,000	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K
	AlMgSi 1	3.2315	up to 9,000	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K
Copper	KE-Cu	2.0050	330-650	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K
	E-Cu	2.0060	330-650	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K
Brass (copper-zinc alloys)	CuZn 39 Pb 3	2.0401	500-800	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K
	VuZn 31 Si	2.0230	500-800	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K
Bronze	CuSn 6	2.1020	295-425	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K
Red brass	CuSn 5 ZnPb	2.1096	295-425	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K
	CuSn 10 Zn	2.1086	295-425	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K
Aluminium-bronze	CuAl 8	2.0920	200-260	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K
	CuAl 8 Fe 38	2.0920.60	170-215	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K
	CuAl 10 Ni 5 Fe 4	2.0966	160-230	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K
Titanium and titanium alloys	Ti Grade 1	3.7025	260-330	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K
	TiAl 6 V 4	3.7164	200-295	3/4 K	3 tpi 2/3 K	1,4/2 K	0,75/1,25 K



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