WIKUS®

Precision at the cutting point

PRECISION

BAND SAW BLADES

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WIKUS – TOP QUALITY „MADE IN GERMANY“

Family-run, reliable, innovative

WIKUS is known for precision, quality and maximum performance.
We are using high-quality raw materials, up-to-date manufacturing methods and continuous quality assurance since 1958 to guarantee highest standards when producing our high-tech band saw blades. At the same time we are setting leading product and technology trends in the market by means of our innovative capacity.

Globally represented, locally acting, technically networked

Agencies as well as distribution and service branches worldwide offer you professional, personal local support.
Global presence and local ties are both important for us.
Supporting local projects in social, cultural and ecological fields is natural for WIKUS and its employees.

WIKUS stands for:

- constantly high quality
- 100 % manufacturing in Germany
- focus on high customer satisfaction
- demand-oriented development by our own Research and Development
- partnership and expertise
- process stability according to DIN EN ISO 9001
- 60 years of experience,
  Europe’s largest band saw blade manufacturer
- sustainability, protection of resources and environment

THE PERFECT SAW BLADE MATCHING YOUR REQUIREMENTS

From international large corporations to local SMEs and distributors – numerous different customers from several sectors trust in the highly efficient solutions offered by WIKUS:

- Steel production / machining including steel trade, forge and steel / metal industry
- Aerospace, automotive, shipping industry
- Plant, mould, machine and tool construction including aluminum plate machining
- Foundries of non-ferrous and steel products
- Energy, such as offshore / petrochemical industry, renewable energy (solar, wind)
- Construction, chemicals, others such as semiconductor, carbon, glass, brick, virgin stone and plastics industry
- etc.

Solutions for a wide application range

With our wide product range for all performance classes and material groups we support you selecting the perfect high performance tool to match your application:

- Solid materials including stone
- Tubes, profiles, girders
- Cylinder heads, engine blocks and chassis components
- Aluminum precision plates
- Non-ferrous mould parts
- Silicon cutting

ECONOMICAL CUTTING FOR YOUR SUCCESS!

Benefit from our solutions multiply – depending on your individual needs. Our additional values:

Reduce your costs

No matter if you want to reduce the costs per cut, search an all-purpose band saw blade to reduce the blade exchanges or need a well-priced band saw blade for basic applications, we offer the perfect solution for each demand.

Increase your productivity

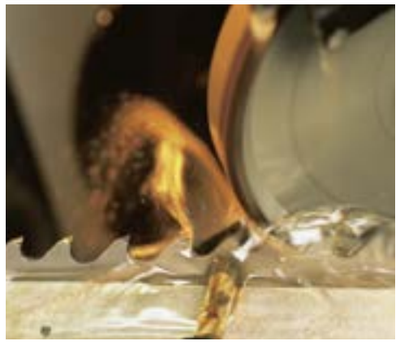
Highest cutting performance when using our band saw blades enables large output even under challenging conditions. High blade life and application fields in mixed operation minimize setup- and downtime.

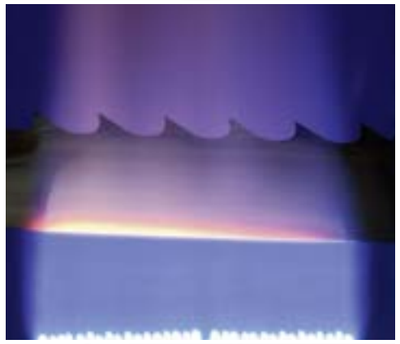
Benefit from our innovative solutions

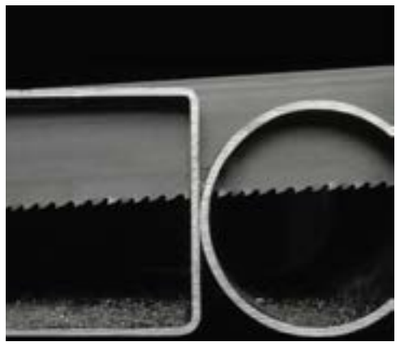
We continuously optimize our product range to offer you an efficient saw blade for each cutting task – even for materials, which are difficult to cut – and to meet changing market demands. Additionally, together with you we develop solutions matched to your individual demand.

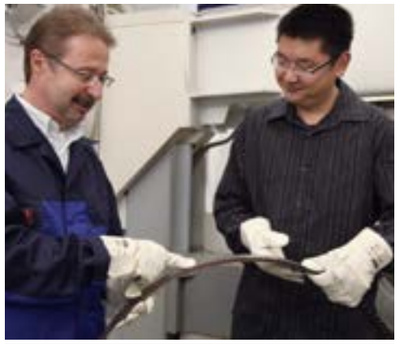
Trust in constantly high quality

Our band saw blades are known for outstanding product quality “Made in Germany”. Latest manufacturing technologies, best raw materials and high process stability ensure reproducibility. We continuously strive for improvement to optimize our manufacturing quality, processes and delivery capacity.









WIKUS GLOBAL SERVICES – LET'S WIN TOGETHER!

Customer satisfaction comes first for us. Additional to our efficient product range we offer extensive service matched to the respective product.

Our consulting service:

- Support when selecting the optimal band saw blade
- Optimization of cutting parameter to increase efficiency
- Fast, reliable support in case of technical challenges
- Sampling and performing cutting tests
- Process optimization regarding the use of band saw blades and machines
- Technical training

Our online services:

ParaMaster® 4.0

Our innovative cutting data program ParaMaster® 4.0 supports you effectively in optimizing your cutting processes.

NEW: now available as **APP**

Your benefit:

- Recommendation of suitable cutting parameter
- Broad data base with more than 150,000 materials, more than 4,000 band sawing machines, extensive applications and much more.
- User-friendly: all information at a glance, intuitive user interface
- Cutting cost analysis shows potential savings

Access is free for WIKUS customers. Please register under **www.paramaster.de**

Blade selector

The blade selector supports you selecting the right band saw blade depending on your customized demand.
www.wikus.com/bladeselector

CLASSIFICATION AS DECISION GUIDANCE

Sawing is a science - a variety of factors and their interplay determine what results you will achieve with sawing.

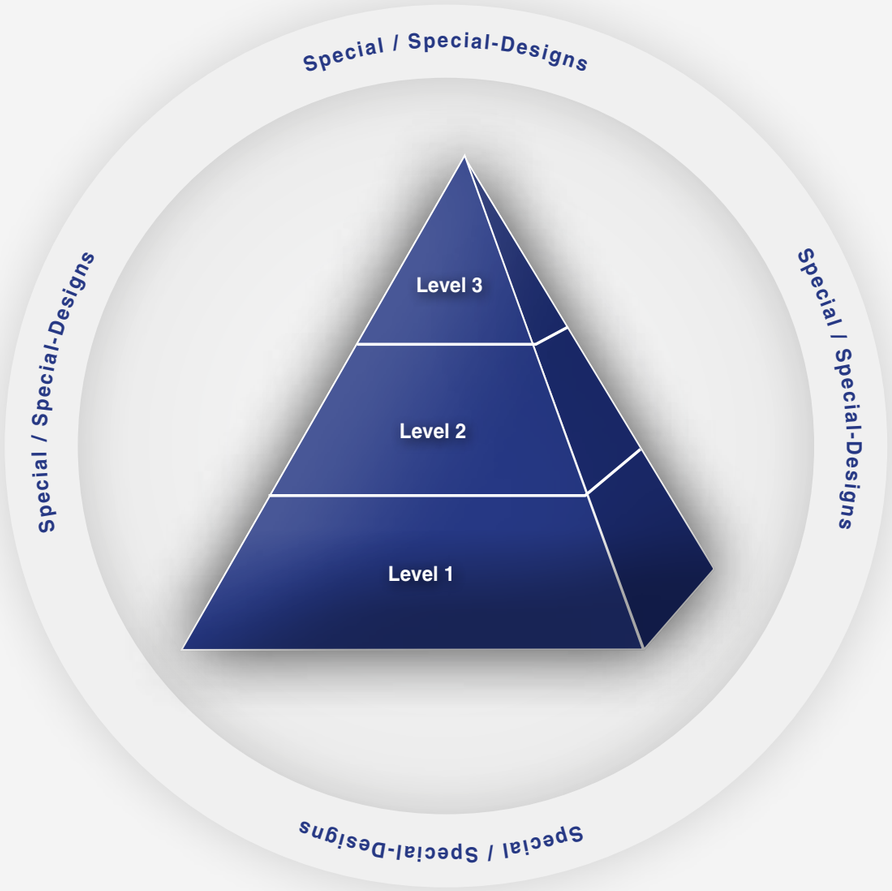
To make it easier for you to select the right products, WIKUS groups its band saw blades into three performance classes:

- **Level 1**
  Standard band saw blades that can be used universally
- **Level 2**
  Band saw blades that offer high performance
- **Level 3**
  High-tech band saw blades that meet the highest standards

The WIKUS product line also includes **special designs** for use in individual applications. But please note that not all special designs are available for every band saw.

Furthermore, WIKUS also offers **special blades**:

- **Special**
  Special products for use in high-performance sawing technology and very special applications



BLADE SELECTOR

ASSORTMENT	BIMETAL						CARBIDE							
APPLICATION														
Nickel-based alloys									FUTURA® 718 [31]					
Duplex and heat-resistant steels														
Titanium, titanium alloys	MARATHON® X3000® [21]		SKALAR® X3000® [22]											
Aluminum bronze			SELEKTA® GS X3000® [23]											
Hardened and tempered steels (over 1000 N/mm²)									FUTURA® VA [30]					
Stainless and acid-resistant steels (austenitic)														
Stainless and acid-resistant steels (ferritic)							DUROSET® [26]							
Nitriding and high-speed steels											TAURUS® [29]			
Cast iron														
Tool steels	VARIO® M42 [11]		SKALAR® M42 [16]						FUTURA® [27]	PROFIDUR® [28]			ARION® FG [34]	
Hardening steels Spring and ball bearing steels		PROFLEX® M42 [14]			ECOFLEX® M42 [18]								ARION® EG [35]	ARION® PG [34]
Carbon and heat-treated steels	MARATHON® M42 [12]		SELEKTA® GS M42 [17]											
Construction, deep-drawing and cutting steels														
Non-ferrous metals							ECODUR® [32]		FUTURA® NE [33]					
Aluminum / aluminum alloys														
Surface hardened components													FUTURA® SN [36]	
CLASSIFICATION	2 Level 2		3 Level 3		1 Level 1		2 Level 2		3 Level 3		1 Level 1		S Special	

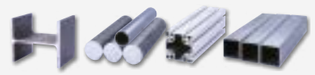
BIMETAL BAND SAW BLADES
CUTTING MATERIAL M42

- The perfect product portfolio for standard and special applications
- The back of the blade is made of alloyed steel that offers excellent continuous operation properties
- Proven cutting material M42 with superior wear resistance in conventional applications
- Coated versions for maximum cutting performance and longer tool life

Sales units:	• Coils in fixed lengths and manufacturing coils of up to 120 m, depending on the width • Welded-to-length band saw blades
Band widths:	6 to 80 mm
Tooth shapes:	S, P, K See page 48 for explanations
Tooth pitches:	**Variable:** 12-16 to 0.7-1.0 teeth per inch (tpi) **Constant:** 4 to 2 teeth per inch (tpi) See page 49 for explanations
Types of tooth set:	SD See page 49 for explanations
Qualities:	**M42:** 68-69 HRC, ca. 980 HV
Special designs:	• **PW** available for article groups: SKALAR® M42, SKALAR® PREMIUM M42, SELEKTA® GS M42, SELEKTA® GS PREMIUM M42 • **PE** available for article groups: VARIO® M42, MARATHON® M42

VARIO® M42 ②

The all-purpose band saw blade for small cross-sections and profiles



Application:	• Thin-walled profiles and small solid materials • All metals up to 1000 N/mm² • Single, layer and bundle cutting
Advantages:	• Consistant high blade-life • High running smoothness in spite of vibrations
Features:	• M42 tooth edge with 0° rake angle • Variable tooth pitch and standard set

Dimensions Width x Thickness mm	Inch	Tooth pitch in tpi 10-14	8-12	6-10	5-8	4-6	3-4
6 x 0.65	1/4 x 0.025	S					
6 x 0.90	1/4 x 0.035	S					
10 x 0.90	3/8 x 0.035	S					
13 x 0.65	1/2 x 0.025	S	S	S			
13 x 0.90	1/2 x 0.035	S	S	S			
20 x 0.90	3/4 x 0.035	S	S	S	S	S	
27 x 0.90	1-1/16 x 0.035	S	S	S	S	S	S
34 x 1.10	1-3/8 x 0.042		S	S	S	S	S
41 x 1.30	1-5/8 x 0.050			S	S	S	S
54 x 1.30	2-1/8 x 0.050			S			
Contact length (mm)		< 20	10-30	20-50	30-60	50-90	80-150

S = Standard tooth

NEW: MARATHON® M42

The all-purpose band saw blade for medium and large cross-sections

Application:
- All metals up to 1000 N/mm²
- Single, layer and bundle cutting

Advantages:
- Less blade exchanges due to wide application range
- Consistant high blade-life
- Calculable measurements thanks to straight cuts

Features:
- M42 tooth edge with positive rake angle
- Variable tooth pitch and standard set

Dimensions Width x Thickness		Tooth pitch in tpi						
mm	Inch	5-8	4-6	3-4	2-3	1.4-2	1.0-1.4	0.75-1.25
27 x 0.90	1-1/16 x 0.035	K	K	K	K			
34 x 1.10	1-3/8 x 0.042	K	K	K	K	K		
38 x 1.30	1-1/2 x 0.050			K				
41 x 1.30	1-5/8 x 0.050	K	K	K	K	K		
54 x 1.30	2-1/8 x 0.050		K	K	K	K		
54 x 1.60	2-1/8 x 0.063		K	K	K	K	K	
67 x 1.60	2-5/8 x 0.063		K	K	K	K	K	K
80 x 1.60	3-1/8 x 0.063			K	K	K	K	K
Contact length (mm)		30-60	50-90	80-150	120-250	250-500	500-800	550-1200

MARATHON® SW M42

Special design for cutting applications with residual stress materials

Application:
- Workpieces with residual stress
- Metal up to 1000 N/mm² tensile strength

Advantages:
- No jamming in the cutting channel

Features:
- Extra wide set and variable tooth pitch
- M42 tooth edge with positive rake angle

Dimensions Width x Thickness		Tooth pitch in tpi						
mm	Inch	5-8	4-6	3-4	2-3	1.4-2	1.0-1.4	0.75-1.25
34 x 1.10	1-3/8 x 0.042		K					
41 x 1.30	1-5/8 x 0.050			K	K			
54 x 1.60	2-1/8 x 0.063			K	K			
67 x 1.60	2-5/8 x 0.063			K	K			
Contact length (mm)		30-60	50-90	80-150	120-250	250-500	500-800	550-1200

K = Hook tooth, Photo below: New MARATHON® M42

NOW EVEN MORE EFFICIENT AND EXTRA HIGH-QUALITY!

We considerably enhanced our MARATHON® M42!

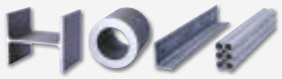
The new process design for manufacturing MARATHON® M42 boosts the blade life and performance of our successful product remarkably. The Superfinishing of the cutting edges increases the blade life and improves the surface quality. The smooth blade surface rests the band guides of the machine and increases the fatigue strength.

All dimensions will gradually be adjusted to the new design.

... and further products of our range will follow this example!

PROFLEX® M42

The perfect band saw blade for profiles



Application:
- Profiles and girders, for metal and steel construction
- Optimal for cutting with interrupted cutting channel

Advantages:
- Durable and resistant in spite of high abrasion and strong vibrations
- Low finishing thanks to cutting edges nearly without burr

Features:
- Extremely sturdy tooth contour and variable tooth pitch with specific step set
- M42 tooth edge with positive rake angle

Dimensions Width x Thickness mm	Inch	Tooth pitch in tpi 12-16	8-11	5-7	4-6	3-4	2-3
20 x 0.90	3/4 x 0.035	P	P	P			
27 x 0.90	1-1/16 x 0.035	P	P	P	P	P	
34 x 1.10	1-3/8 x 0.042		P	P	P	P	P
41 x 1.30	1-5/8 x 0.050		P	P	P	P	P
54 x 1.30	2-1/8 x 0.050			P	P	P	P
54 x 1.60	2-1/8 x 0.063			P	P	P	P
67 x 1.60	2-5/8 x 0.063					P	P
Contact length (mm)		< 20	10-50	40-70	50-90	80-160	150-310

PROFLEX® PREMIUM M42

The hard material coated band saw blade for profiles

Application:
- Profiles and girders, for steel construction and industrial profile cuts
- Optimal for cutting with interrupted cutting channel

Advantages:
- Productivity increase by high cutting rate
- Fewer blade changes due to increased blade-life
- Low finishing thanks to cutting edges nearly withour burr

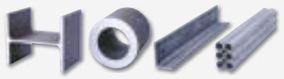
Features:
- Tooth edge and back edge coated with wear protection
- Variable tooth pitch with specific step set

Dimensions Width x Thickness mm	Inch	Tooth pitch in tpi 12-16	8-11	5-7	4-6	3-4	2-3
34 x 1.10	1-3/8 x 0.042				P	P	
41 x 1.30	1-5/8 x 0.050			P		P	P
54 x 1.30	2-1/8 x 0.050					P	
54 x 1.60	2-1/8 x 0.063					P	P
67 x 1.60	2-5/8 x 0.063					P	P
Contact length (mm)		< 20	10-50	40-70	50-90	80-160	150-310

P = Profile tooth, Photo below: PROFLEX® M42

PROFLEX® SW M42

Special design for profiles made of residual stress material



Application:
- Profiles and girders with residual stress
- For steel construction and industrial profile cuts

Advantages:
- No jamming in the cutting channel

Features:
- Extra wide step set and variable tooth pitch
- Extremely sturdy tooth contour
- M42 tooth edge with positive rake angle

Dimensions Width x Thickness mm	Inch	Tooth pitch in tpi 12-16	8-11	5-7	4-6	3-4	2-3
34 x 1.10	1-3/8 x 0.042					P	P
41 x 1.30	1-5/8 x 0.050					P	P
54 x 1.30	2-1/8 x 0.050					P	
54 x 1.60	2-1/8 x 0.063					P	P
67 x 1.60	2-5/8 x 0.063					P	P
Contact length (mm)		< 20	10-50	40-70	50-90	80-160	150-310

PROFLEX® PREMIUM SW M42

The coated special design for residual stress materials

Application:
- Profiles and girders with residual stress
- For steel construction and industrial profile cuts

Advantages:
- Productivity increase by high cutting rate
- No jamming in the cutting channel
- Fewer blade changes due to increased blade-life

Features:
- Tooth edge and back edge covered with wear protection
- Extra wide step set and variable tooth pitch

Dimensions Width x Thickness mm	Inch	Tooth pitch in tpi 12-16	8-11	5-7	4-6	3-4	2-3
41 x 1.30	1-5/8 x 0.050					P	P
54 x 1.30	2-1/8 x 0.050					P	
54 x 1.60	2-1/8 x 0.063					P	P
67 x 1.60	2-5/8 x 0.063					P	P
Contact length (mm)		< 20	10-50	40-70	50-90	80-160	150-310

P = Profile tooth, Photo below: PROFLEX® PREMIUM SW M42

SKALAR® M42

The high performing band saw blade

Application:
- High cutting rate, also continuous operation in industrial production
- All metals with a tensile strength up to 1000 N/mm²

Advantages:
- Short cutting time, lower cutting forces and smoother running
- Fewer blade changes due to increased blade-life

Features:
- Ground contour with specially matched tooth pitch
- M42 cutting edge with extra positive rake angle
- Special set for optimal chip division

Dimensions Width x Thickness mm	Inch	Tooth pitch in tpi 2.5-3.4	1.8-2.5	1.4-1.8	1.2-1.6	1.0-1.4	0.7-1.0
27 x 0.90	1-1/16 x 0.035	K					
34 x 1.10	1-3/8 x 0.042	K	K				
41 x 1.30	1-5/8 x 0.050	K	K	K			
54 x 1.30	2-1/8 x 0.050	K	K	K			
54 x 1.60	2-1/8 x 0.063	K	K	K	K	K	
67 x 1.60	2-5/8 x 0.063			K	K	K	K
80 x 1.60	3-1/8 x 0.063				K	K	K
Contact length (mm)		90-200	200-340	340-530	350-600	500-800	800-2000

SKALAR® PREMIUM M42

High performance and extra blade-life

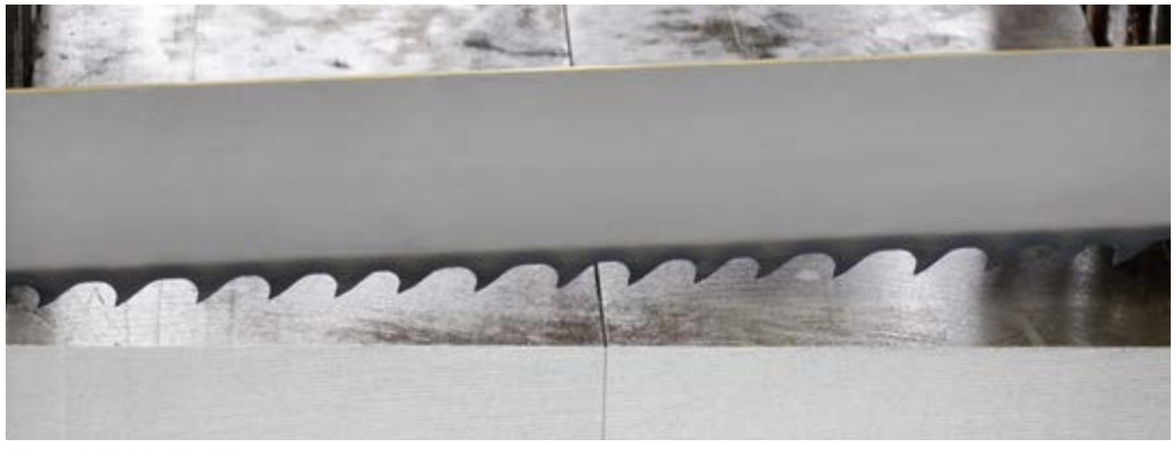
Application:
- High cutting rate, also continuous operation in large sawmills
- All metals with a tensile strength up to 1000 N/mm²

Advantages:
- Long lifetime, smooth running with low vibration
- Reliable and efficient multiple-machine operation

Features:
- Tooth edge with special coating, back edge coating for less friction

Dimensions Width x Thickness mm	Inch	Tooth pitch in tpi 2.5-3.4	1.8-2.5	1.4-1.8	1.2-1.6	1.0-1.4	0.7-1.0
27 x 0.90	1-1/16 x 0.035	K					
34 x 1.10	1-3/8 x 0.042	K	K				
41 x 1.30	1-5/8 x 0.050	K	K				
54 x 1.30	2-1/8 x 0.050	K					
54 x 1.60	2-1/8 x 0.063	K	K	K	K		
67 x 1.60	2-5/8 x 0.063			K	K	K	
80 x 1.60	3-1/8 x 0.063				K	K	K
Contact length (mm)		90-200	200-340	340-530	350-600	500-800	800-2000

K = Hook tooth, Photo below: SKALAR® PREMIUM M42



SELEKTA® GS M42

High performance with Superfinishing

Application:
- Metals up to 1000 N/mm² tensile strength
- High cutting rate with small and large solid material

Advantages:
- Low finishing due to perfect surface quality
- Low material allowance by exact gating
- Short cutting time by high performance

Features:
- Patented performance and surface teeth
- M42 cutting edge with extra positive rake angle

Dimensions Width x Thickness mm	Inch	Tooth pitch in tpi 4-6	3-4	2-3	1.4-2	1.0-1.4	0.7-1.0
27 x 0.90	1-1/16 x 0.035	K	K	K			
34 x 1.10	1-3/8 x 0.042	K	K	K			
41 x 0.90	1-5/8 x 0.035		K	K			
41 x 1.30	1-5/8 x 0.050	K	K	K	K		
54 x 1.30	2-1/8 x 0.050		K	K	K		
54 x 1.60	2-1/8 x 0.063		K	K	K	K	
67 x 1.60	2-5/8 x 0.063				K	K	K
80 x 1.60	3-1/8 x 0.063			K	K	K	K
Contact length (mm)		50-90	90-150	150-250	250-500	500-800	800-2000

NEW: SELEKTA® GS PREMIUM M42

High performance, Superfinishing and extra blade-life

Application:
- For increased cutting rate and blade-life in solid material
- Metals up to 1400 N/mm² tensile strength

Advantages:
- Low finishing due to perfect surface quality
- Low material allowance by exact gating
- Smooth, low vibration and very long running

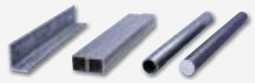
Features:
- Patented performance and surface teeth
- Tooth edge with special coating, back edge coating for less friction

Dimensions Width x Thickness mm	Inch	Tooth pitch in tpi 4-6	3-4	2-3	1.4-2	1.0-1.4	0.7-1.0
34 x 1.10	1-3/8 x 0.042		K	K			
41 x 1.30	1-5/8 x 0.050		K	K			
54 x 1.60	2-1/8 x 0.063			K	K		
67 x 1.60	2-5/8 x 0.063				K		
80 x 1.60	3-1/8 x 0.063					K	
Contact length (mm)		50-90	90-150	150-250	250-500	500-800	800-2000

K = Hook tooth, Photo below: SELEKTA® GS PREMIUM M42

ECOFLEX® M42

The well-priced band saw blade for numerous cutting tasks



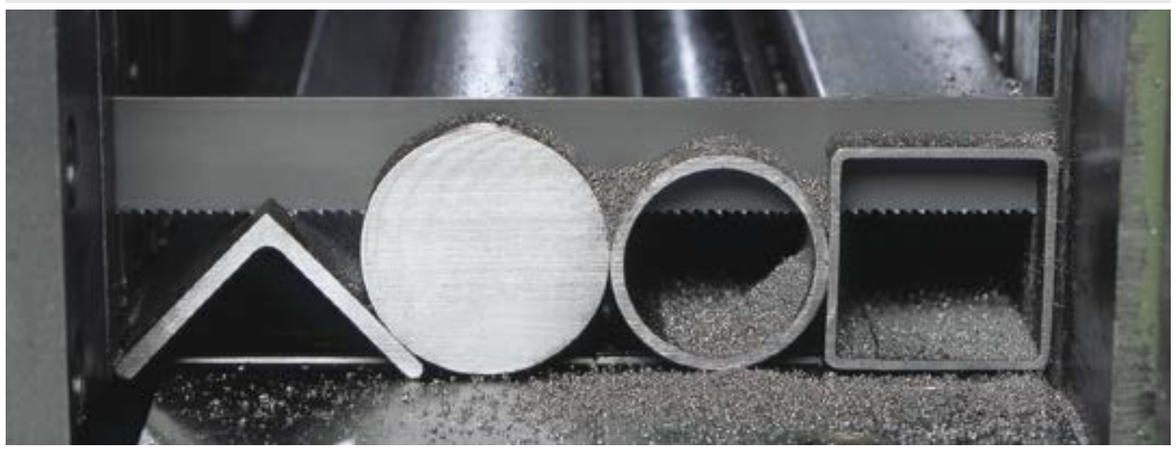
Application:
- Profiles and solid material made of low-alloy steel
- Basic workshop operations
- Materials easy to cut

Advantages:
- Low cost price with 100 % WIKUS quality

Features:
- M42 tooth edge with adapted rake angle
- Variable tooth pitch and standard set

Dimensions Width x Thickness		Tooth pitch in tpi								
mm	Inch	10-14	8-12	6-10	5-8	4-6	3-4	2-3	1.4-2	1.0-1.4
13 x 0.65	1/2 x 0.025	S	S	S						
20 x 0.90	3/4 x 0.035	S	S	S	S	K				
27 x 0.90	1-1/16 x 0.035	S	S	S	S	K	K			
34 x 1.10	1-3/8 x 0.042		S	S	S	K	K	K		
41 x 1.30	1-5/8 x 0.050					K	K	K		
54 x 1.60	2-1/8 x 0.063					K	K	K	K	
67 x 1.60	2-5/8 x 0.063						K	K	K	K
Contact length (mm)		< 20	10-30	20-50	30-60	50-90	90-150	150-250	250-500	500-800

S = Standard tooth, K = Hook tooth



ECOFLEX® NE M42

The well-priced band saw blade for non-ferrous metals

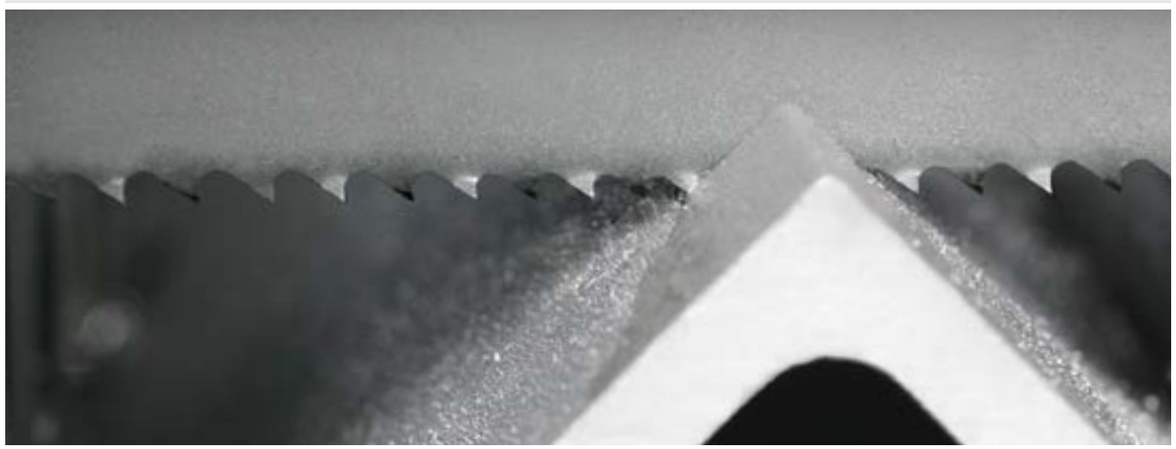
Application:
- Non-ferrous metals
- Cutting applications with manual feed
- Contour and radius cuts

Advantages:
- Low effort
- No jamming in the cutting channel
- Low cost price

Features:
- M42 tooth edge with positive rake angle
- Constant tooth pitch and wide set
- Easy to resharpen

Dimensions Width x Thickness		Tooth pitch in tpi		
mm	Inch	4	3	2
20 x 0.90	3/4 x 0.035		K	
27 x 0.90	1-1/16 x 0.035	K	K	K
34 x 1.10	1-3/8 x 0.042		K	
Contact length (mm)		80-120	120-200	200-400

K = Hook tooth



BIMETAL BAND SAW BLADES
CUTTING MATERIAL X3000®

- The perfect product portfolio for standard and special applications
- The back of the blade is made of alloyed steel that offers excellent continuous operation properties
- Modified cutting material X3000® (exclusive to WIKUS) with high hardness and excellent toughness
- High cutting edge stability
- For materials that are difficult to machine and special alloys

Sales units:	• Coils in fixed lengths and manufacturing coils of up to 120 m, depending on the width • Welded-to-length band saw blades
Band widths:	27 to 100 mm
Tooth shapes:	K See page 48 for explanations
Tooth pitches:	**Variable:** 5-8 to 0.7-1.0 teeth per inch (tpi) See page 49 for explanations
Types of tooth set:	SD See page 49 for explanations
Qualities:	**X3000®:** approx. 70 HRC, approx. 1000 HV (for steels and non-ferrous metals up to 45 HRC)
Special designs:	**PW** available for article groups: SKALAR® X3000®, SELEKTA® GS X3000®

MARATHON® X3000®

The special band saw blade for high-tensile materials

Application:	• High-alloy austenitic materials • Metal as of 1000 N/mm² tensile strength • Scaled forging ingots
Advantages:	• Perfect blade-life in spite of high abrasion • Low material loss due to plane cutting
Features:	• Tooth edge made of the cutting material X3000® with positive rake angle • High cutting edge stability and high wear resistance • Variable tooth pitch and standard set

Dimensions Width x Thickness		Tooth pitch in tpi				
mm	Inch	5-8	4-6	3-4	2-3	1.4-2
27 x 0.90	1-1/16 x 0.035	K	K	K		
34 x 1.10	1-3/8 x 0.042		K	K	K	
41 x 1.30	1-5/8 x 0.050		K	K	K	
54 x 1.60	2-1/8 x 0.063		K	K	K	K
67 x 1.60	2-5/8 x 0.063			K	K	K
Contact length (mm)		30-60	50-90	90-150	150-250	250-500

K = Hook tooth

SKALAR® X3000®

The powerful band saw blade for high-tensile materials

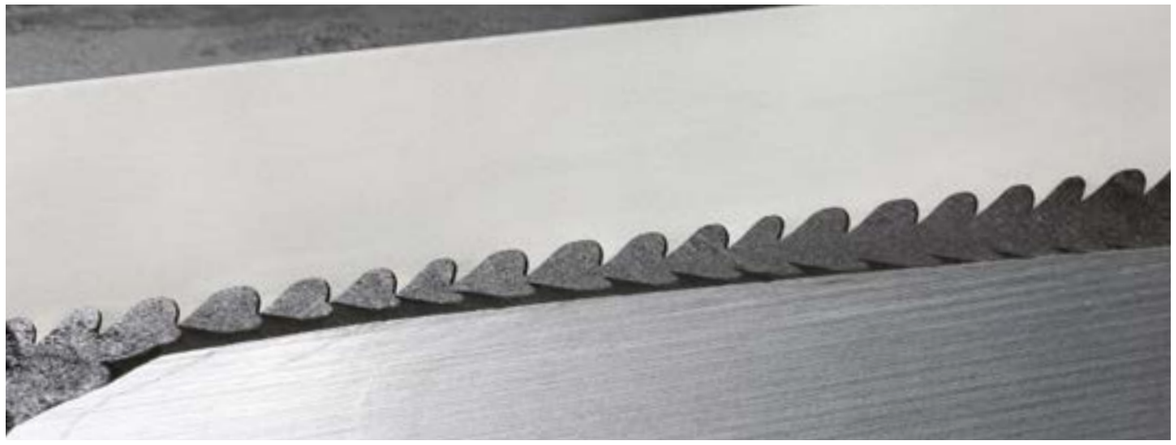
Application:
- Outstanding cutting rate with high-alloy austenitic materials
- Electroslag remelted material, material as of 1000 N/mm² tensile strength
- Continuous operation in large sawmills

Advantages:
- High efficiency by excellent cutting performance
- Fewer blade changes due to increased blade-life
- Lower cutting forces and smoother running

Features:
- Ground contour with specially matched tooth pitch
- Tooth edge made of the cutting material X3000® with positive rake angle
- Special set for optimal chip division

Dimensions Width x Thickness		Tooth pitch in tpi					
mm	Inch	2.5-3.4	1.8-2.5	1.4-1.8	1.2-1.6	1.0-1.4	0.7-1.0
27 x 0.90	1-1/16 x 0.035	K					
34 x 1.10	1-3/8 x 0.042	K	K				
41 x 1.30	1-5/8 x 0.050	K	K	K			
54 x 1.30	2-1/8 x 0.050		K	K			
54 x 1.60	2-1/8 x 0.063	K	K	K	K	K	
67 x 1.60	2-5/8 x 0.063		K	K	K	K	K
80 x 1.60	3-1/8 x 0.063			K	K	K	K
100 x 1.60	4 x 0.063						K
Contact length (mm)		90-200	200-340	340-530	350-600	500-800	800-2000

K = Hook tooth



SELEKTA® GS X3000®

High performance with Superfinishing for materials difficult to cut

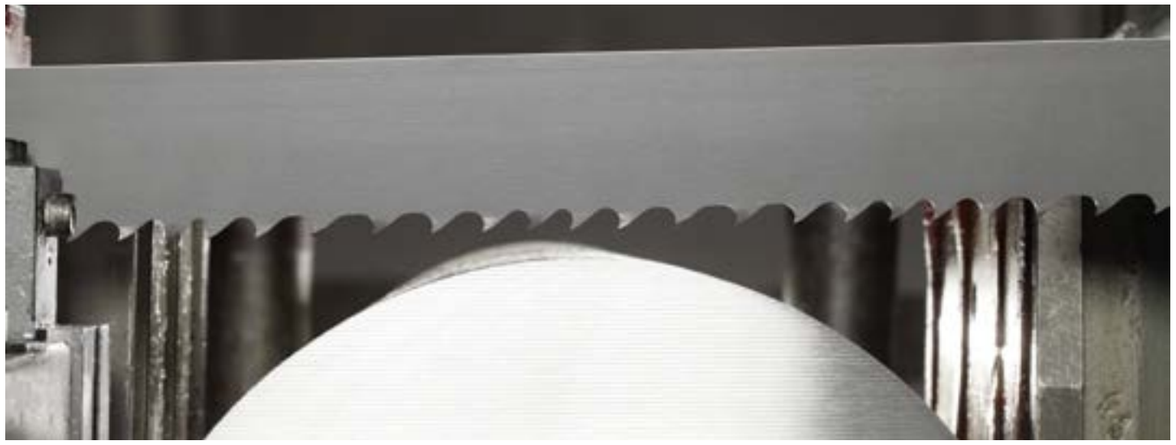
Application:
- Rust- and acid-resistant steels and alloys (austenitic)
- Duplex and heat-resistant steels
- For outstanding demands in surface quality and gating

Advantages:
- Excellent productivity by short cutting times
- Fewer blade changes due to increased blade-life
- Perfect surfaces for low finishing

Features:
- Tooth edge made of the cutting material X3000® with positive rake angle
- High cutting edge stability and high wear resistance
- Patented performance and surface teeth

Dimensions Width x Thickness		Tooth pitch in tpi					
mm	Inch	4-6	3-4	2-3	1.4-2	1.0-1.4	0.7-1.0
27 x 0.90	1-1/16 x 0.035	K	K	K			
34 x 1.10	1-3/8 x 0.042	K	K	K			
41 x 1.30	1-5/8 x 0.050	K	K	K	K		
54 x 1.30	2-1/8 x 0.050			K	K		
54 x 1.60	2-1/8 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	3-1/8 x 0.063			K		K	K
Contact length (mm)		50-90	90-150	150-250	250-500	500-800	800-2000

K = Hook tooth



CARBIDE TIPPED BAND SAW BLADES

- Available in specially ground and / or set tooth geometries
- Excellent results in every application thanks to the different degrees of hardness and compositions of the carbides used
- Very high cutting performance for increased machine productivity
- Coated premium blades for maximum cutting performance
- Long running times and extremely high performance from our high-tech products by choosing the right substrate

Sales units:	• Coils of up to a max. of 50 m • Welded-to-length band saw blades
Band widths:	13 to 100 mm
Tooth shapes:	S, K, T, TSN See page 48 for explanations
Tooth pitches:	**Variable:** 3-4 to 0.7-1.0 teeth per inch (tpi) **Constant:** 4 to 1.25 teeth per inch (tpi) See page 49 for explanations
Types of tooth set:	SD See page 49 for explanations
Special designs:	**PW** available for article groups: DUROSET®, DUROSET® PREMIUM, FUTURA®, FUTURA® PREMIUM, FUTURA® VA, FUTURA® PREMIUM VA

APPLICATION RANGE FOR CARBIDE TIPPED BAND SAW BLADES

We classify our product range of carbide-tipped band saw blades into four groups to facilitate selection of the right band saw blade:

1. Structural, case-hardened, tempering and tool steels, also in mixed operation

All-purpose band saw blades to be used flexibly for a wide application range

2. Rust- and acid-resistant steels as well as special alloys

Special band saw blades for materials, which are difficult to cut, tough and tending to strain-hardening such as nick-el-base and titanium alloys.

3. Non-ferrous metals

Band saw blades for a multitude of foundry applications are used for, amongst others, cutting of aluminum cast parts, aluminum ingots and plate cutting up to all other non-ferrous metals.

4. Special applications

In addition to the above-mentioned potential solutions we offer the optimal band saw blade for special applications, such as as:

- **high-performance cutting**
- **edge-zone hardened steels**
- **mineral building materials**

With regard to further special requirements we invite you to get in touch with our specialists of the Technical Support for recommending the optimal band saw blade and suitable cutting parameter.

DUROSET® 2

The sturdy all-round band saw blade

Application:
- All steels, suitable for forged and scaled surfaces
- Solid material and thick-walled tubes

Advantages:
- Increased productivity of the machinery
- Sturdy design for increased wear resistance

Features:
- Set tooth geometry with positive rake angle, variable tooth pitch
- Optimised sectional chip division

Dimensions Width x Thickness		Tooth pitch in tpi				
mm	Inch	2.5-3.4	1.8-2.5	1.4-1.8	1.0-1.4	0.7-1.0
27 x 0.90	1-1/16 x 0.035	K	K			
34 x 1.10	1-3/8 x 0.042	K	K			
41 x 1.30	1-5/8 x 0.050	K	K	K		
54 x 1.30	2-1/8 x 0.050	K	K			
54 x 1.60	2-1/8 x 0.063		K	K		
67 x 1.60	2-5/8 x 0.063			K	K	
80 x 1.60	3-1/8 x 0.063				K	K
100 x 1.60	4 x 0.063					K
Contact length (mm)		90-200	200-340	340-530	500-800	800-2000

DUROSET® PREMIUM 2

The sturdy all-round band saw blade coated with hard material

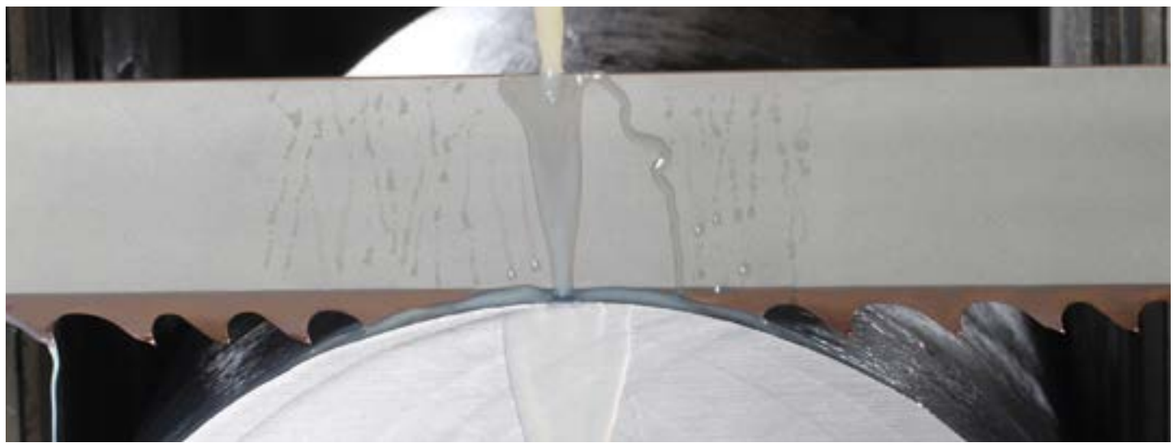
Application:
- All steels, suitable for forged and scaled surfaces
- Solid material and thick-walled tubes

Advantages:
- Higher blade-life with even shorter cutting time
- Creating capacity potentials in case of bottlenecks

Features:
- Special hard material coating for steel cutting
- Extra back edge coating for lower friction

Dimensions Width x Thickness		Tooth pitch in tpi				
mm	Inch	2.5-3.4	1.8-2.5	1.4-1.8	1.0-1.4	0.7-1.0
34 x 1.10	1-3/8 x 0.042		K			
41 x 1.30	1-5/8 x 0.050		K	K		
54 x 1.60	2-1/8 x 0.063		K	K		
67 x 1.60	2-5/8 x 0.063			K	K	
80 x 1.60	3-1/8 x 0.063				K	K
Contact length (mm)		90-200	200-340	340-530	500-800	800-2000

K = Hook tooth, Photo below: DUROSET® PREMIUM



FUTURA® 3

The high-performance bestseller band saw blade

Application:
- Structural, case-hardened, tempering and tool steels
- Serial sections

Advantages:
- Outstanding cutting performance for increased productivity
- High blade-life thanks to optimal chip division

Features:
- Ground trapezoid tooth with positive rake angle
- Patented chip division

Dimensions Width x Thickness		Tooth pitch in tpi						
mm	Inch	3-4	2-3	1.7-2	1.4-2	1.2-1.6	1.0-1.4	0.85-1.15
27 x 0.90	1-1/16 x 0.035	T						
34 x 1.10	1-3/8 x 0.042	T	T					
41 x 1.30	1-5/8 x 0.050	T	T	T	T			
54 x 1.30	2-1/8 x 0.050		T		T			
54 x 1.60	2-1/8 x 0.063		T	T	T	T	T	T
67 x 1.60	2-5/8 x 0.063		T		T	T	T	T
80 x 1.60	3-1/8 x 0.063				T		T	T
Contact length (mm)		90-150	130-250	200-300	250-400	350-600	500-800	700-1200

FUTURA® PREMIUM 3

The high-performance bestseller band saw blade coated with hard material

Application:
- Structural, case-hardened, tempering and tool steels
- Serial sections

Advantages:
- For extension of machine capacity in case of bottlenecks
- Reliable even in shift work without manpower
- Reduction of noise emission

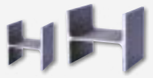
Features:
- Special hard material coating for steel cutting
- Extra back edge coating for lower friction

Dimensions Width x Thickness		Tooth pitch in tpi						
mm	Inch	3-4	2-3	1.7-2	1.4-2	1.2-1.6	1.0-1.4	0.85-1.15
34 x 1.10	1-3/8 x 0.042	T	T					
41 x 1.30	1-5/8 x 0.050	T	T	T	T			
54 x 1.30	2-1/8 x 0.050		T		T			
54 x 1.60	2-1/8 x 0.063		T	T	T	T	T	
67 x 1.60	2-5/8 x 0.063		T		T	T	T	T
80 x 1.60	3-1/8 x 0.063				T		T	T
Contact length (mm)		90-150	130-250	200-300	250-400	350-600	500-800	700-1200

T = Trapezoid tooth, Photo below: FUTURA® PREMIUM

PROFIDUR® 3

The coated professional for profiles



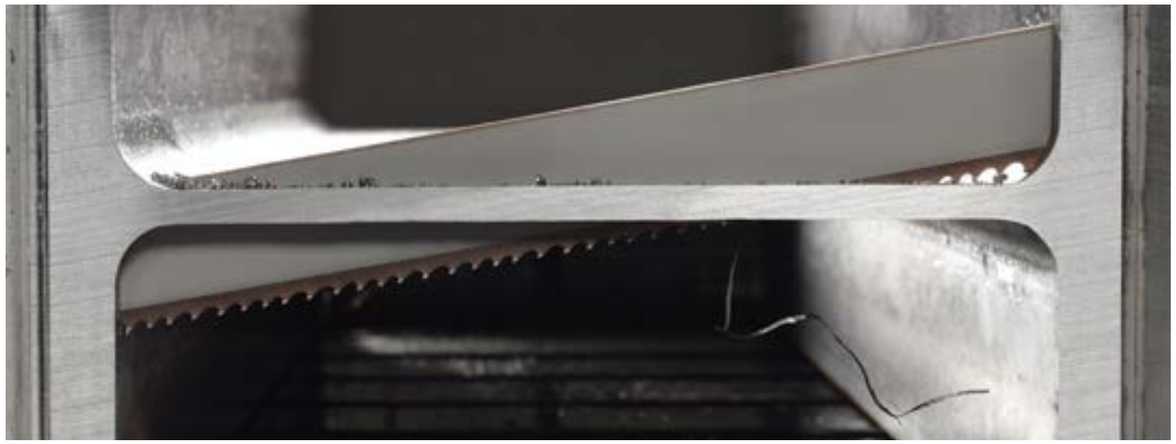
Application:
- Girders and profiles
- Perfectly for industrial steel construction

Advantages:
- Capacity increase by maximum cutting performance and blade-life
- Low-burr and precise cuts
- Considerable reduction of noise emission

Features:
- Patented tooth geometry for interrupted cutting channel
- Sturdy carbide-tipped tooth edges coated with hard material

Dimensions Width x Thickness mm	Inch	Tooth pitch in tpi 3-4	2-3
54 x 1.30	2-1/8 x 0.050		T
54 x 1.60	2-1/8 x 0.063	T	T
67 x 1.60	2-5/8 x 0.063		T
Contact length (mm)		90-150	150-270

T = Trapezoid tooth



TAURUS® 1

The low-cost band saw blade for starters with great features

Application:
- All steels and non-ferrous metals
- Solid material

Advantages:
- Low-cost carbide-tipped band saw blade for manifold use
- Low finishing thanks to good surface quality
- Usable also for machines without carbide-package

Features:
- Innovative tooth geometry
- Proven carbide cutting material

Dimensions Width x Thickness mm	Inch	Tooth pitch in tpi 3-4	2-3	1.7-2	1.4-2	1.0-1.4	0.7-1.0
27 x 0.90	1-1/16 x 0.035	T					
34 x 1.10	1-3/8 x 0.042	T	T				
41 x 1.30	1-5/8 x 0.050	T	T	T	T		
54 x 1.60	2-1/8 x 0.063	T	T	T	T		
67 x 1.60	2-5/8 x 0.063	T	T		T	T	
80 x 1.60	3-1/8 x 0.063				T	T	T
Contact length (mm)		90-150	130-250	200-300	250-500	500-800	800-2000

TAURUS® PREMIUM 1

The starter band saw blade coated with hard material

Application:
- All steels
- Solid material

Advantages:
- Perfect cutting performance and outstanding surface
- Long lifetime reduces downtime
- Low vibration and smooth running

Features:
- Carbide-tipped tooth edges coated with hard material
- Extra back edge coating for lower friction

Dimensions Width x Thickness mm	Inch	Tooth pitch in tpi 3-4	2-3	1.7-2	1.4-2	1.0-1.4	0.7-1.0
34 x 1.10	1-3/8 x 0.042	T	T				
41 x 1.30	1-5/8 x 0.050	T	T	T	T		
54 x 1.60	2-1/8 x 0.063		T	T	T		
67 x 1.60	2-5/8 x 0.063				T	T	
Contact length (mm)		90-150	130-250	200-300	250-500	500-800	800-2000

T = Trapezoid tooth, Photo below: TAURUS®

FUTURA® VA

The high-performance bestseller for stainless steels

Application:
- All rust- and acid-resistant steels, titanium and titanium alloys
- Serial sections

Advantages:
- Optimal chip formation and perfect surface quality
- Good cutting performance for reduced cutting time
- Good blade-life reduces setup and downtime

Features:
- Tooth edges made of specific carbide
- Ground trapezoid tooth with extra positive rake angle
- Optimal chip division for tough and high-strength materials

Dimensions Width x Thickness		Tooth pitch in tpi				
mm	Inch	3-4	2-3	1.4-2	1.0-1.4	0.85-1.15
34 x 1.10	1-3/8 x 0.042	T	T			
41 x 1.30	1-5/8 x 0.050	T	T	T		
54 x 1.30	2-1/8 x 0.050	T	T	T		
54 x 1.60	2-1/8 x 0.063		T	T		
67 x 1.60	2-5/8 x 0.063			T	T	T
80 x 1.60	3-1/8 x 0.063					T
Contact length (mm)		90-150	130-250	250-500	500-800	700-1200

FUTURA® PREMIUM VA

The high-performance bestseller with hard material coating for stainless steels

Application:
- All rust- and acid-resistant steels, titanium and titanium alloys
- Serial sections

Advantages:
- Outstanding cutting performance to bridge bottlenecks
- Guarantee for cutting larger stainless steel cross-sections
- Smooth and low vibration running

Features:
- Special hard material coating for cutting stainless steels
- Extra back edge coating for lower friction

Dimensions Width x Thickness		Tooth pitch in tpi				
mm	Inch	3-4	2-3	1.4-2	1.0-1.4	0.85-1.15
41 x 1.30	1-5/8 x 0.050	T	T	T		
54 x 1.60	2-1/8 x 0.063		T	T		
67 x 1.60	2-5/8 x 0.063			T	T	
80 x 1.60	3-1/8 x 0.063				T	T
Contact length (mm)		90-150	130-250	250-500	500-800	700-1200

T = Trapezoid tooth, Photo below: FUTURA® PREMIUM VA

FUTURA® 718

The best band saw blade for nickel-base alloys

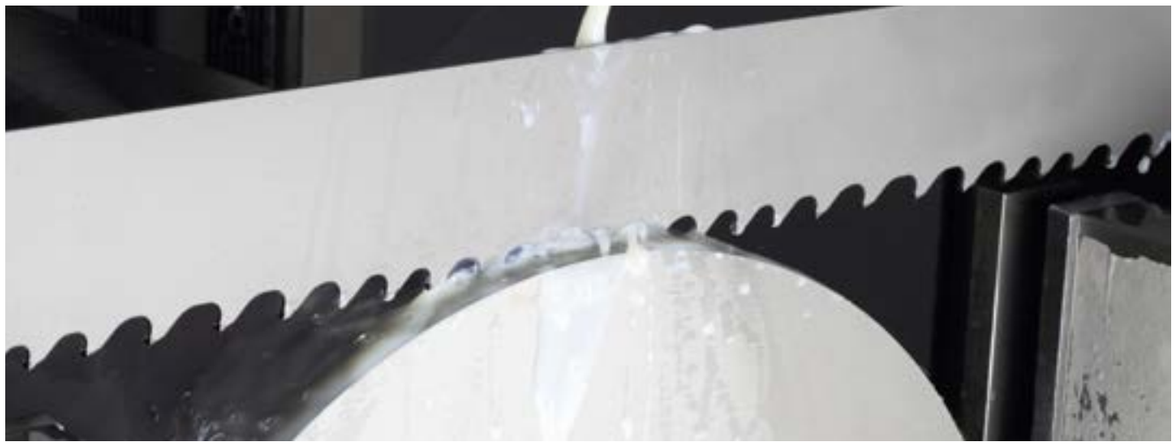
Application:
- Solid material of steels, which are difficult to cut
- Nickel-base alloys
- Heat-resistant, highly heat resisting and Duplex steels

Advantages:
- Outstanding cutting performance even with materials, which are extremely difficult to cut
- Perfect blade-life in spite of highly abrasive materials
- Low material loss by excellent ingating
- Excellent cutting surface quality reduces finishing

Features:
- Tooth edges made of optimal carbide for high-strength tough materials
- Perfectly ground trapezoid teeth with optimal geometry
- Backing material with special shape forming

Dimensions Width x Thickness		Tooth pitch in tpi		
mm	Inch	2-3	1.4-2	1.0-1.4
41 x 1.30	1-5/8 x 0.050	T	T	
54 x 1.30	2-1/8 x 0.050	T	T	
54 x 1.60	2-1/8 x 0.063	T	T	
67 x 1.60	2-5/8 x 0.063	T	T	T
80 x 1.60	3-1/8 x 0.063			T
Contact length (mm)		130-250	250-500	500-800

T = Trapezoid tooth



ECODUR® 2

The low-cost band saw blade for non-ferrous foundries

Application:
- For cutting gates and risers on non-ferrous castings
- Aluminum and aluminum alloys in solid material or profiles
- Copper and copper alloys in solid material or profiles

Advantages:
- Productivity increase due to short cutting times
- Low finishing due to perfect surface quality

Features:
- Tooth edges made of specific carbide to prevent abrasive wear
- Ground trapezoid tooth with positive rake angle
- Patented chip division for performance and cutting surface quality

Dimensions Width x Thickness		Tooth pitch in tpi			
mm	Inch	3-4	2-3	1.4-2	0.85-1.15
13 x 0.80	1/2 x 0.032	T			
20 x 0.90	3/4 x 0.035	T			
27 x 0.90	1-1/16 x 0.035	T	T		
34 x 1.10	1-3/8 x 0.042	T	T	T	
41 x 1.30	1-5/8 x 0.050	T	T	T	
54 x 1.30	2-1/8 x 0.050		T	T	
54 x 1.60	2-1/8 x 0.063	T	T	T	T
67 x 1.60	2-5/8 x 0.063			T	
Contact length (mm)		90-150	130-250	250-500	700-1200

DUROSET® NE 2

The set special design for non-ferrous metals

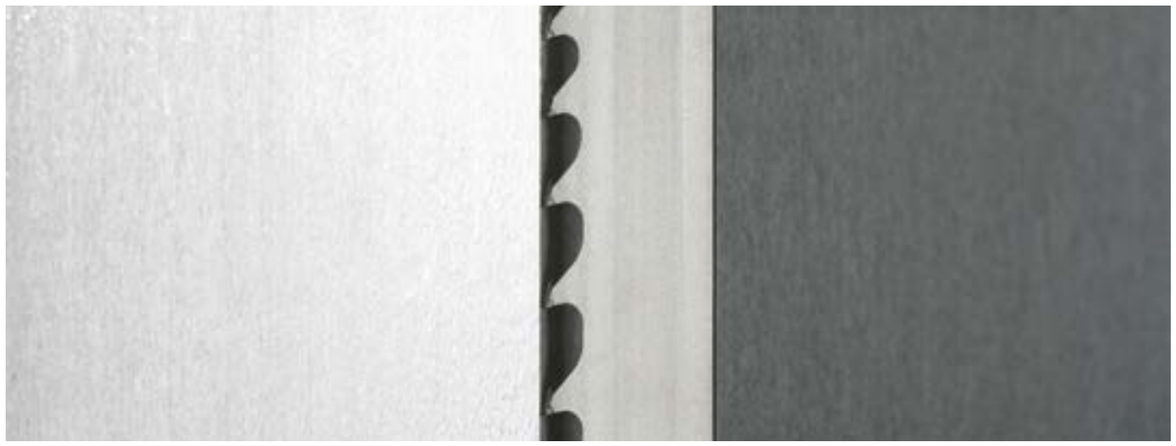
Application:
- Contour and radius cuts on non-ferrous metals
- Automatic and especially manual feed

Advantages:
- High cutting performance increases productivity
- High blade-life even with deviating conditions

Features:
- Extra wide set
- Ground trapezoid tooth with positive rake angle
- Tooth edges made of specific carbide to prevent abrasion

Dimensions Width x Thickness		Tooth pitch in tpi	
mm	Inch	3	2
20 x 0.90	3/4 x 0.035	K	
27 x 0.90	1-1/16 x 0.035	K	
34 x 1.10	1-3/8 x 0.042	K	K
Contact length (mm)		120-200	200-400

T = Trapezoid tooth, K = Hook tooth, Photo below: ECODUR®



FUTURA® NE 3

The high-performance bestseller for non-ferrous metals

Application:
- Aluminum mould and die castings, aluminum ingots and aluminum milling products
- Copper and copper alloys

Advantages:
- Short clock rates and outstanding productivity due to high cutting performance
- Low material allowance by optimal surface quality
- Process reliability by high resistance against abrasion

Features:
- Tooth edges made of specific carbide to prevent abrasion
- Ground trapezoid tooth with positive rake angle
- Optimal chip division for performance and surface quality

Dimensions Width x Thickness		Tooth pitch in tpi				
mm	Inch	3-4	2-3	1.4-2	0.85-1.15	0.7-1.0
27 x 0.90	1-1/16 x 0.035	T				
34 x 1.10	1-3/8 x 0.042		T	T		
41 x 1.30	1-5/8 x 0.050		T	T		
54 X 1.30	2-1/8 x 0.050			T		
54 x 1.60	2-1/8 x 0.063			T	T	T
67 x 1.60	2-5/8 x 0.063			T		
80 x 1.60	3-1/8 x 0.063				T	T
Contact length (mm)		90-150	130-250	250-500	700-1200	800-2000

FUTURA® NE RS 3

The high-performance bestseller with reduced kerf loss for non-ferrous metals

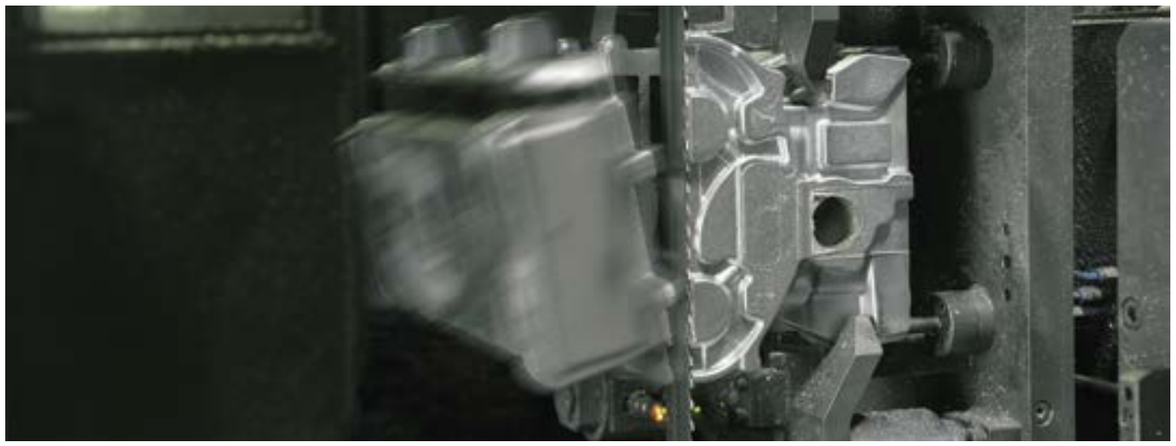
Application:
- Cutting of aluminum ingots, aluminum plate production

Advantages:
- Extreme cutting performance by reduced cutting volume
- Optimised ingot output by reduced offcut
- Perfect cutting surface for lower finishing

Features:
- Special grinding for reduced kerf width
- Ground trapezoid tooth with positive rake angle
- Optimal chip division for performance and surface quality

Dimensions Width x Thickness		Tooth pitch in tpi				
mm	Inch	3-4	2-3	1.4-2	0.85-1.15	0.7-1.0
41 x 1.30	1-5/8 x 0.050			T		
54 x 1.30	2-1/8 x 0.050			T		
54 x 1.60	2-1/8 x 0.063				T	T
80 x 1.10	3-1/8 x 0.042			T		T
Contact length (mm)		90-150	130-250	250-500	700-1200	800-2000

T = Trapezoid tooth, Photo below: FUTURA® NE



ARION® FG

The premium class of band sawing

Application:
- Solid materials, structural, case-hardened and tempering steels
- Large-scale production and mass cuts on heavy duty sawing machines

Advantages:
- Utmost productivity by maximum cutting performance
- Low material loss by thin-cutting technology
- Excellent efficiency by high blade-life
- Precise flatness of the cutting surface

Features:
- Carbide-tipped tooth edge with extremely wear-resistant hard material coating
- Ground trapezoid tooth (FUTURA® geometry)
- Thin-cutting technology with extraordinary blade stability

Dimensions Width x Thickness		Tooth pitch in tpi				
mm	Inch	3-4	2-3	1.4-2	1.0-1.4	0.7-1.0
54 x 1.10	2-1/8 x 0.042		T	T		
67 x 1.10	2-5/8 x 0.042	T	T	T		
80 x 1.10	3-1/8 x 0.042		T	T	T	
100 x 1.10	4 x 0.042		T	T	T	T
Contact length (mm)		90-150	130-250	250-500	500-800	800-2000

ARION® PG

High-performance for tubes and profiles

Application:
- Thick-walled tubes and profiles, structural, case-hardened and tempering steels
- Large-scale and mass production on heavy-duty sawing machines

Advantages:
- Extremely straight and low-burr cutting surfaces
- Maximum productivity with interrupted cutting channel
- Low material loss by thin-cutting technology
- Outstanding efficiency by high blade-life

Features:
- Newly developed coated cutting material
- Extremely sturdy, ground trapezoid tooth (PROFIDUR® geometry)
- Thin-cutting technology with extremely high blade stability

Dimensions Width x Thickness		Tooth pitch in tpi				
mm	Inch	3-4	2-3	1.4-2	1.0-1.4	0.7-1.0
54 x 1.10	2-1/8 x 0.042	T	T			
67 x 1.10	2-5/8 x 0.042	T	T			
Contact length (mm)		90-150	130-250	250-500	500-800	800-2000

T = Trapezoid tooth, Photo below: ARION® FG

ARION® EG

High performance and excellent surface quality

Application:
- Solid materials on heavy-duty sawing machines
- Large-scale and mass production for steel trade
- Structural, case-hardened and tempering steels

Advantages:
- Excellent surface quality
- Utmost productivity by maximum cutting performance
- Lower material loss thanks to thin-cutting technology
- Outstanding efficiency due to high blade-life

Features:
- Carbide-tipped tooth edge with extremely wear-resistant hard material coating
- Ground trapezoid tooth (ECODUR® geometry)
- Thin-cutting technology with extremely high blade stability

Dimensions Width x Thickness		Tooth pitch in tpi				
mm	Inch	3-4	2-3	1.4-2	1.0-1.4	0.7-1.0
54 X 1.10	2-1/8 x 0.042	T	T			
67 X 1.10	2-5/8 x 0.042	T	T	T		
80 x 1.10	3-1/8 x 0.042		T	T	T	
100 x 1.10	4 x 0.042		T	T	T	T
Contact length (mm)		90-150	130-250	250-500	500-800	800-2000

T = Trapezoid tooth

FUTURA® SN

The specialist for „hard shell and soft core“

Application:
- Surface hardened components and hard chrome plated workpieces
- Through hardened steels up to 65 HRC, Manganese high carbon steel

Advantages:
- Hardened materials machined by cutting
- Good cutting rates and good surface quality
- Increased efficiency due to high blade-life

Features:
- Optimised special geometry with negative rake angle
- Ground trapezoid tooth without set

Dimensions Width x Thickness mm	Inch	Tooth pitch in tpi 3-4	2-3
27 x 0.90	1-1/16 x 0.035	TSN	
34 x 1.10	1-3/8 x 0.042	TSN	TSN
41 x 1.30	1-5/8 x 0.050	TSN	TSN
54 x 1.60	2-1/8 x 0.063		TSN
67 x 1.60	2-5/8 x 0.063		TSN
Contact length (mm)		20-150	130-200

FUTURA® PREMIUM SN

The specialist with hard material coating for hardest cases

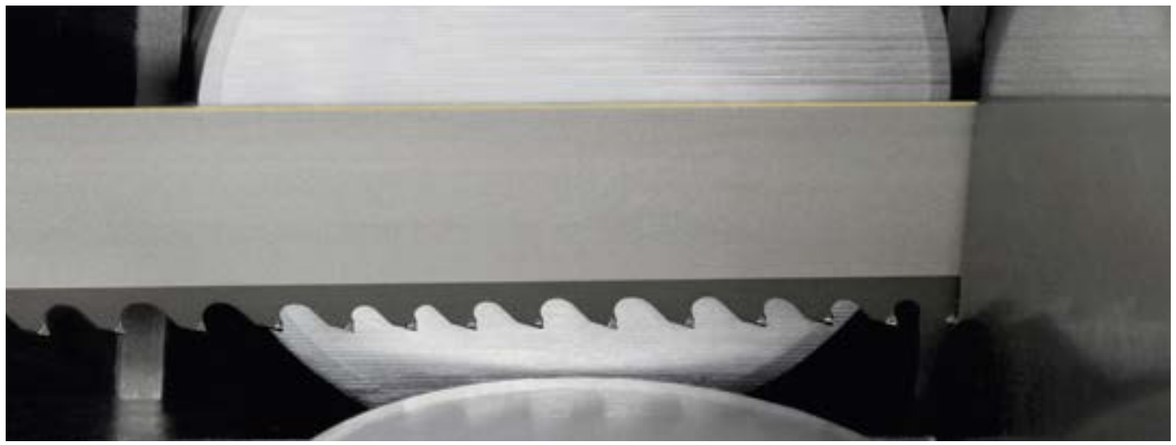
Application:
- Edge-zone hardened and hard chrome plated workpieces
- Through hardened steels up to 65 HRC, Manganese steel

Advantages:
- Considerable increase of blade-life
- High cutting performance for efficiency increase
- Excellent surface quality

Features:
- Carbide-tipped tooth edges coated with high-strength hard material
- Optimised special geometry with negative rake angle
- Extra back edge coating for lower friction

Dimensions Width x Thickness mm	Inch	Tooth pitch in tpi 3-4	2-3
27 x 0.90	1-1/16 x 0.035	TSN	
34 x 1.10	1-3/8 x 0.042	TSN	TSN
41 x 1.30	1-5/8 x 0.050	TSN	TSN
Contact length (mm)		20-150	130-200

TSN = Tooth shape TSN, Photo below: FUTURA® PREMIUM SN



TCT®

The band saw blade for mineral materials

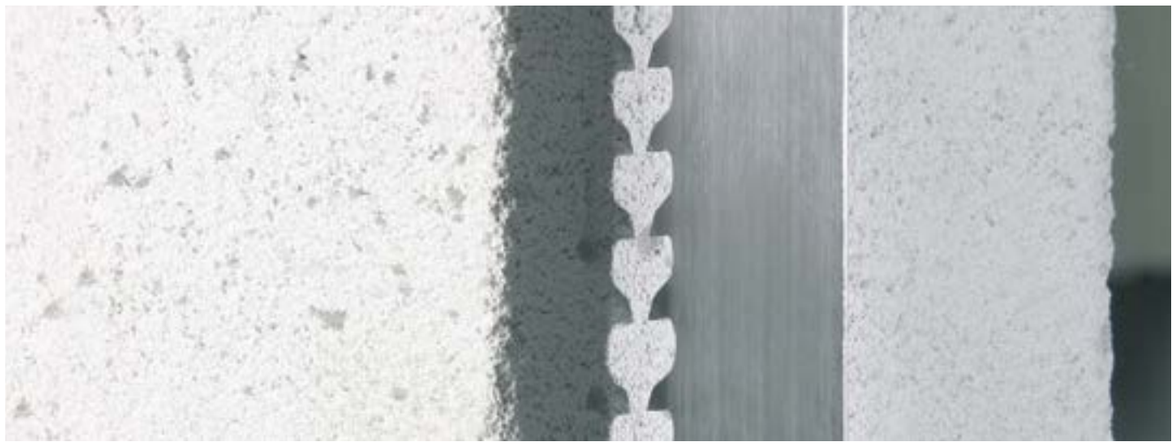
Application:
- Gas concrete, graphite
- Insulation materials such as glass and rock wool
- Glass and carbon fibre reinforced plastic

Advantages:
- Excellent stability against abrasive wear
- Usable without cooling lubricant

Features:
- Carbide-tipped tooth edges with excellent wear resistance
- Precisely set tooth geometry
- Constant tooth pitch

Dimensions Width x Thickness mm	Inch	Tooth pitch in tpi 4	3	2	1.25
13 x 0.80	1/2 x 0.032	S			
20 x 0.80	3/4 x 0.032	S	K		
27 x 0.90	1-1/16 x 0.035	S, K	S, K	S, K	
34 x 1.10	1-3/8 x 0.042		S, K	K	
41 x 1.30	1-5/8 x 0.050		K	K	K
Contact length (mm)		80-120	120-200	200-400	300-800

S = Standard tooth, K = Hook tooth



DIAMOND COATED BAND SAW BLADES

- As the hardest material known to man, diamonds are capable of cutting any material, as well as alloys.
- The unique properties of the backing materials developed for WIKUS are perfectly suited for standing up to the stress these extremely high cutting speeds cause.
- Due to the rather unique applications of DIAGRIT®, we generally recommend that you contact us for advice on grain sizes to coordinate combinations of grain size and diameter of the blade to suit your application.
- The backing material of our complete DIAGRIT® program will be adapted to stainless special steel.

Sales units:	Welded-to-length band saw blades
Band widths:	10 to 100 mm
Diamond coating:	Continuous (K), segmented (S), intermittent (U), with 6 to 30 mm pitch
Grain sizes:	D64, D91, D126, D151, D181, D252, D301, D356, D426, D501, D601, D711
Areas of application:	Glass, graphite, high-fired graphite, ceramic, silicon, concrete materials, carbon fibre reinforced plastic, sintered materials, virgin stone
Option:	Alternative band dimensions upon request

DIAGRIT® K

The continuously diamond coated band saw blade

Application:
- Glass, graphite, high-fired graphite, ceramic, silicon
- Concrete materials, carbon fibre reinforced plastic, sintered materials, virgin stone
- Small workpiece dimensions

Advantages:
- No chipping on the contour edges
- Low finishing due to very good cutting surfaces

Features:
- Continuous diamond coating on the band edge
- Backing material made of alloyed tempering steel

Dimensions Width x Thickness		Dimensions Width x Thickness		Dimensions Width x Thickness	
mm	Inch	mm	Inch	mm	Inch
10 x 0.50	3/8 x 0.020	27 x 0.70	1-1/16 x 0.028	50 x 0.90	2 x 0.035
13 x 0.65	1/2 x 0.025	27 x 0.90	1-1/16 x 0.035	67 x 0.70	2-5/8 x 0.028
16 x 0.50	5/8 x 0.020	34 x 1.10	1-3/8 x 0.042	80 x 0.90	3-1/8 x 0.035
20 x 0.50	3/4 x 0.020	41 x 0.50	1-5/8 x 0.020	80 x 1.10	3-1/8 x 0.042
20 x 0.80	3/4 x 0.032	41 x 0.80	1-5/8 x 0.032	100 x 0.90	4 x 0.035
27 x 0.50	1-1/16 x 0.020	41 x 1.30	1-5/8 x 0.050	100 x 1.10	4 x 0.042

DIAGRIT® K VA

The continuously diamond coated band saw blade with stainless backing material

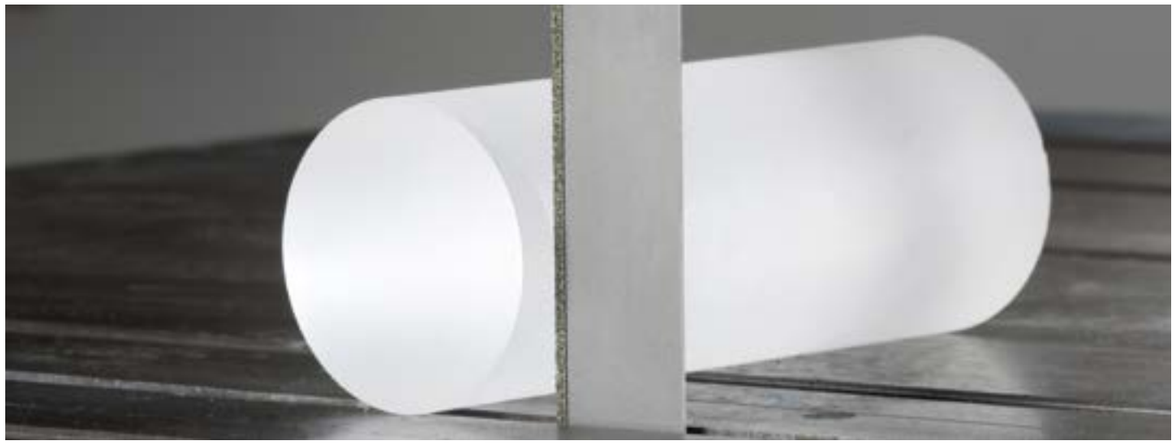
Application:
- Glass, graphite, high-fired graphite, ceramic, silicon
- Concrete materials, carbon fibre reinforced plastic, sintered materials, virgin stone
- Small workpiece dimensions

Advantages:
- Oil-free cooling lubricant usable
- No corrosion of backing material during longer downtime
- No chipping on the contour edges
- Low finishing thanks to very good cutting surfaces

Features:
- Continuous diamond coating on the band edge
- Backing material made of stainless special steel

Dimensions Width x Thickness		Dimensions Width x Thickness		Dimensions Width x Thickness	
mm	Inch	mm	Inch	mm	Inch
13 x 0.50	1/2 x 0.020	41 x 0.50	1-5/8 x 0.020	80 x 1.10	3-1/8 x 0.042
20 x 0.50	3/4 x 0.020	41 x 0.80	1-5/8 x 0.032	100 x 1.10	4 x 0.042
27 x 0.50	1-1/16 x 0.020	60 x 0.50	2-1/3 x 0.020		

Alternative band dimensions upon request



DIAGRIT® S

The segmented diamond coated band saw blade

Application:
- Glass, graphite, high-fired graphite, ceramic, silicon
- Concrete materials, carbon fibre reinforced plastic, sintered materials, virgin stone
- Medium workpiece dimensions

Advantages:
- Higher cutting rate
- Individual coating geometry
- Low finishing thanks to good cutting surfaces

Features:
- Segmented diamond coating on the band edge
- Backing material made of alloyed tempering steel

Dimensions Width x Thickness		Dimensions Width x Thickness		Dimensions Width x Thickness	
mm	Inch	mm	Inch	mm	Inch
10 x 0.50	3/8 x 0.020	27 x 0.70	1-1/16 x 0.028	50 x 0.90	2 x 0.035
13 x 0.65	1/2 x 0.025	27 x 0.90	1-1/16 x 0.035	67 x 0.70	2-5/8 x 0.028
16 x 0.50	5/8 x 0.020	34 x 1.10	1-3/8 x 0.042	80 x 0.90	3-1/8 x 0.035
20 x 0.50	3/4 x 0.020	41 x 0.50	1-5/8 x 0.020	80 x 1.10	3-1/8 x 0.042
20 x 0.80	3/4 x 0.032	41 x 0.80	1-5/8 x 0.032	100 x 0.90	4 x 0.035
27 x 0.50	1-1/16 x 0.020	41 x 1.30	1-5/8 x 0.050	100 x 1.10	4 x 0.042

DIAGRIT® S VA

The segmented diamond coated band saw blade with stainless backing material

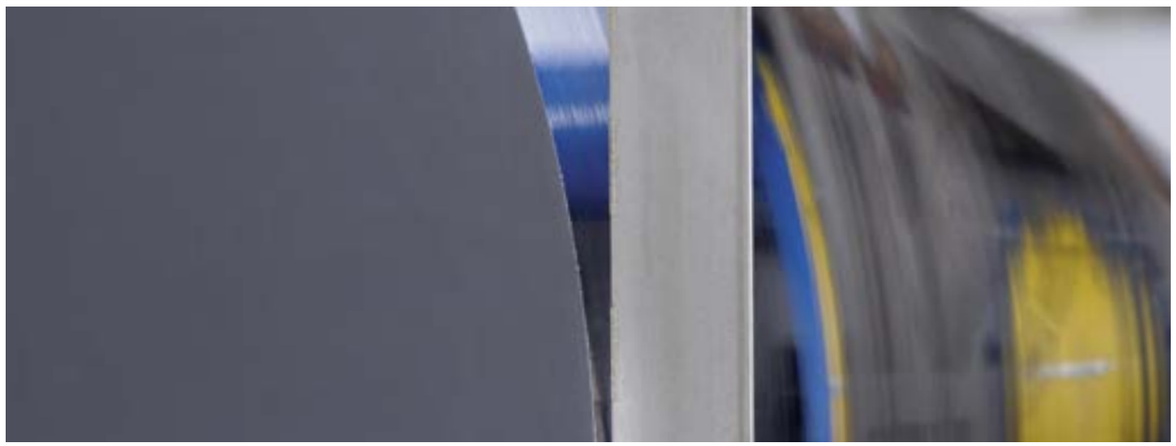
Application:
- Glass, graphite, high-fired graphite, ceramic, silicon
- Concrete materials, carbon fibre reinforced plastic, sintered materials, virgin stone
- Medium workpiece dimensions

Advantages:
- Oil-free cooling lubricant usable
- No corrosion of backing material during longer downtime
- Higher cutting rate
- Individual coating geometry

Features:
- Segmented diamond coating on the band edge
- Backing material made of stainless special steel

Dimensions Width x Thickness		Dimensions Width x Thickness		Dimensions Width x Thickness	
mm	Inch	mm	Inch	mm	Inch
13 x 0.50	1/2 x 0.020	41 x 0.50	1-5/8 x 0.020	80 x 1.10	3-1/8 x 0.042
20 x 0.50	3/4 x 0.020	41 x 0.80	1-5/8 x 0.032	100 x 1.10	4 x 0.042
27 x 0.50	1-1/16 x 0.020	60 x 0.50	2-1/3 x 0.020		

Alternative band dimensions upon request



DIAGRIT® U

The toothed diamond coated band saw blade

Application:
- Glass, graphite, high-fired graphite, ceramic, silicon
- Concrete materials, carbon fibre reinforced plastic, sintered materials, virgin stone
- Large workpiece dimensions

Advantages:
- Large gullet for material chipping
- Individual segment geometry (special tooth)
- Short cutting time due to excellent cutting rate

Features:
- Protruding segments with diamond coating in different distances
- Backing material made of alloyed tempering steel

Dimensions Width x Thickness		Pitch T	Dimensions Width x Thickness		Pitch T	Dimensions Width x Thickness		Pitch T
mm	Inch	mm	mm	Inch	mm	mm	Inch	mm
10 x 0.50	3/8 x 0.020	6	27 x 0.70	1-1/16 x 0.028	30	54 x 1.10	2-1/8 x 0.042	20
13 x 0.50	1/2 x 0.020	8	27 x 0.90	1-1/16 x 0.035	12	67 x 1.60	2-5/8 x 0.063	30
13 x 0.65	1/2 x 0.025	8	34 x 1.10	1-3/8 x 0.042	20	80 x 1.10	3-1/8 x 0.042	12
16 x 0.50	5/8 x 0.020	8	41 x 0.50	1-5/8 x 0.020	20	100 x 0.90	4 x 0.035	12
20 x 0.80	3/4 x 0.032	8	41 x 0.80	1-5/8 x 0.032	20	100 x 1.10	4 x 0.042	12
27 x 0.50	1-1/16 x 0.020	12	41 x 1.30	1-5/8 x 0.050	20	100 x 1.10	4 x 0.042	30
27 x 0.70	1-1/16 x 0.028	12	50 x 0.90	2 x 0.035	20			

DIAGRIT® U VA

The toothed diamond coated band saw blade with stainless backing material

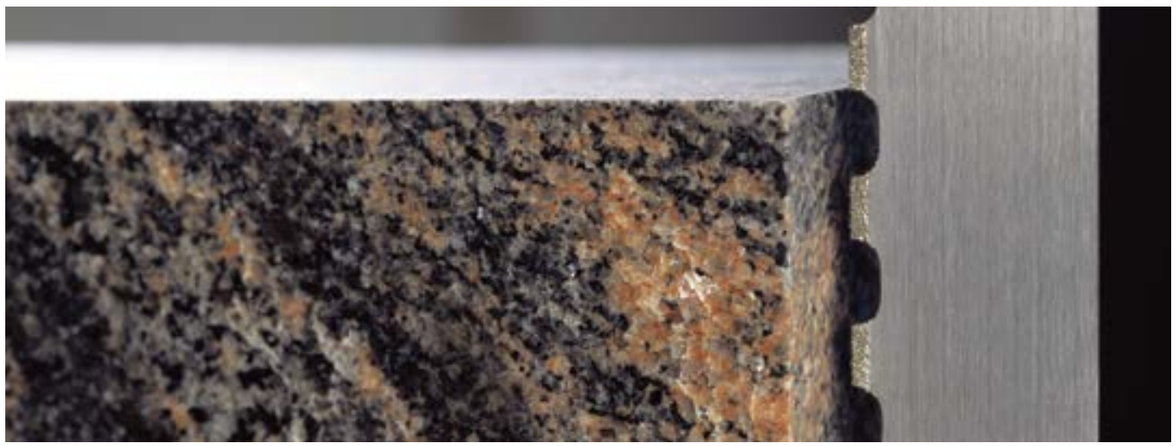
Application:
- Large workpiece dimensions
- Concrete materials, carbon fibre reinforced plastic, sintered materials, virgin stone
- Glass, graphite, high-fired graphite, ceramic, silicon

Advantages:
- Oil-free cooling lubricant usable
- No corrosion of backing material during longer downtime
- Large gullet for material chipping
- Short cutting time due to excellent cutting rate

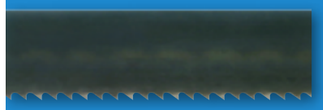
Features:
- Protruding segments with diamond coating in different distances
- Backing material made of stainless special steel

Dimensions Width x Thickness		Pitch T	Dimensions Width x Thickness		Pitch T	Dimensions Width x Thickness		Pitch T
mm	Inch	mm	mm	Inch	mm	mm	Inch	mm
13 x 0.50	1/2 x 0.020	8	41 x 0.50	1-5/8 x 0.020	20	80 x 1.10	3-1/8 x 0.042	12
20 x 0.50	3/4 x 0.020	8	41 x 0.80	1-5/8 x 0.032	20	80 x 1.10	3-1/8 x 0.042	30

Alternative band dimensions upon request



CARBON STEEL BAND SAW BLADES

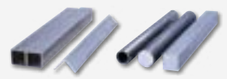


- Well-suited for tasks that include everything from basic workshop operations to machining of composite materials
- Hardened tooth tips and an extremely flexible blade body ensure high reliability

Sales units:	• Coils in fixed lengths and manufacturing coils of up to 120 m, depending on the width • Welded-to-length band saw blades
Band widths:	5 to 25 mm
Tooth shapes:	L, S, K See page 48 for explanations
Tooth pitches:	**Constant:** 24 to 3 teeth per inch (tpi) See page 49 for explanations
Types of tooth set:	SD, WS, GS See page 49 for explanations

DIAMANT

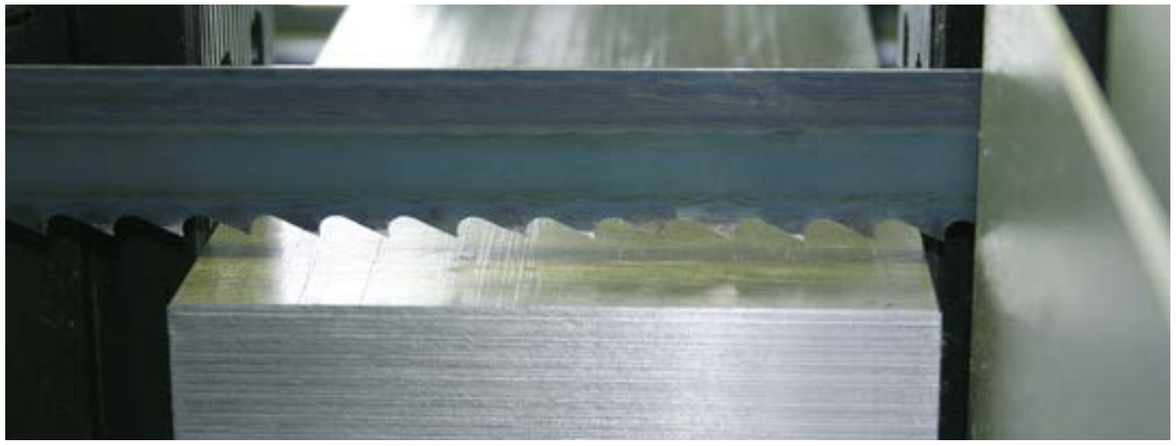
The band saw blade with increased blade stability



Application:	• Solid material, tubes and profiles up to medium cross-section • Unalloyed steels with low strength, wood, non-ferrous metals • Suitable for workshop use
Advantages:	• Superior straightness and surface quality • Well-priced band saw blade • Easy to weld
Features:	• Hardened tooth tips • Quenched and tempered backing material made of flexible carbon steel • Tooth shape: standard tooth (0°) and hook tooth (positive rake angle)

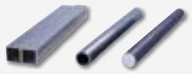
Dimensions Width x Thickness		Tooth pitch in tpi									
					SD				WS		GS
mm	Inch	18	14	10	8	6	4	3	24	14	4
5 x 0.40	3/16 x 0.016		S						S		
5 x 0.65	3/16 x 0.025	S	S	S					S		
6 x 0.40	1/4 x 0.016					K					
6 x 0.65	1/4 x 0.025	S	S	S	S	S, K	K		S		K
8 x 0.65	5/16 x 0.025	S	S	S	S	S, K	K		S		K
10 x 0.65	3/8 x 0.025	S	S	S	S	S, K	K	K	S		
13 x 0.65	1/2 x 0.025		S	S	S	S, K	S, K	K	S		
16 x 0.50	5/8 x 0.020		S		S						
16 x 0.65	5/8 x 0.025			S	S	S, K	S, K	K		S	
16 x 0.80	5/8 x 0.032			S		K	K	K		S	
20 x 0.80	3/4 x 0.032			S	S	K	K	K		S	
25 x 0.90	1 x 0.035			S		S, K	S, K	S, K			

S = Standard tooth, K = Hook tooth
Please use the table on page 46 to determine the contact length.



EXTRA

The domestic use band saw blade



Application:
- Solid material, tubes and profiles with small cross-section
- Unalloyed steels with lower strength, wood, non-ferrous metals
- Suitable for home handyman and small workshops

Advantages:
- Well-priced band saw blade
- Easy to weld

Features:
- Hardened tooth tips
- Backing material made of flexible carbon steel
- Tooth shape: standard and skip tooth with rake angle 0°

Dimensions Width x Thickness		Tooth pitch in tpi		
mm	Inch	6	4	3
8 x 0.65	5/16 x 0.025		L	
10 x 0.65	3/8 x 0.025	S	S, L	L
13 x 0.65	1/2 x 0.025	S	S, L	L
16 x 0.80	5/8 x 0.032	S	S	L
20 x 0.80	3/4 x 0.032	S	S, L	L

L = Skip tooth, S = Standard tooth
Please use the table on page 46 to determine the contact length.

JET

The special band saw blade for friction cutting

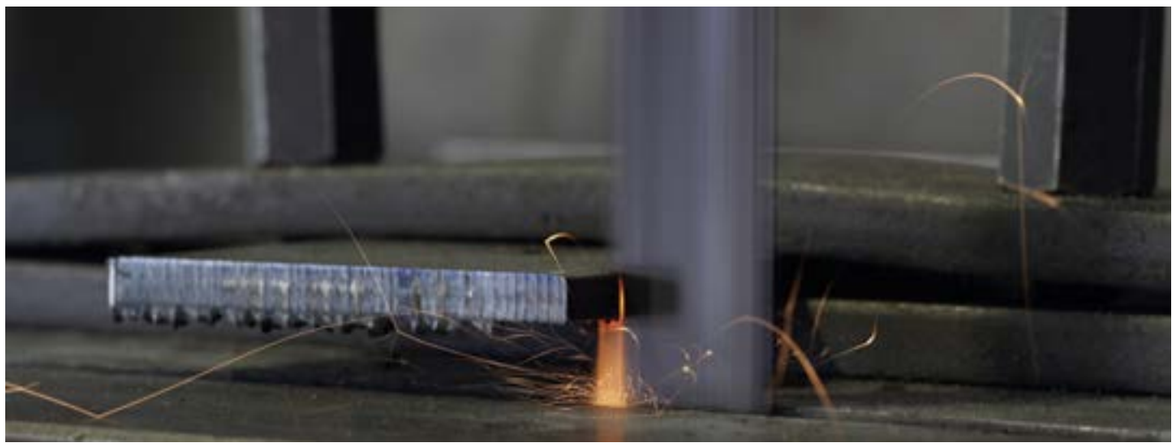
Application:
- Steels up to 30 mm thickness
- Composite materials
- Tyres

Advantages:
- Sturdy band saw blade for very high cutting speed
- High thermal wear resistance

Features:
- Hardened tooth tips with high silicon content
- Backing material made of flexible carbon steel
- Tooth shape: standard tooth with 0° rake angle

Dimensions Width x Thickness		Tooth pitch in tpi				
		SD		RL		GS
mm	Inch	14	10	8	6	4
10 x 0.65	3/8 x 0.025	S				
16 x 0.80	5/8 x 0.032		S			
20 x 0.80	3/4 x 0.032	S				
25 x 0.90	1 x 0.035	S	S	S	S	S

S = Standard tooth
Please use the table on page 46 to determine the contact length.



BLADE SELECTION

1. Band length

The dimensions of the band will depend on what band saw machine you are using – you will find an interactive overview of the most popular band saw machines and appropriate dimensions of WIKUS band saw blades on our website: www.wikus.com.

2. Band width

- The wider the band saw blade, the more stability it will have
- Horizontal machines: band width specified by the manufacturer
- Vertical band saw machines: higher variations in band width are possible, please see the manufacturer's information
- Contour cuts: the smallest radius to be cut is the limiting factor for the band width

3. Cutting edge material

WIKUS offers four main groups of cutting edge materials:

- **Bimetal (HSS)**
- **Carbide**
- **Diamond**
- **Carbon steel**

The machinability of the material to be cut determines what cutting material you should choose.

4. Tooth pitch

The length of engagement of the saw blade in the workpiece represents the most important parameter for choosing the tooth pitch.
The material to be sawed and the type of saw blade used also play a role in selecting the right pitch.

You will find the different engagement lengths listed with upper and lower limits in the tables on the individual products that WIKUS offers. We specify our recommended tooth pitch here.
The table to the side is used to determine the appropriate tooth pitch for carbon steel band saw blades when cutting solid material at a constant pitch.

When cutting pipes, the outside diameter and wall thickness are the defining parameters for choosing the right tooth pitch.
Please refer to our recommendations in the table shown opposite.

Constant tooth pitch	Contact length (mm)	
tpi	from	to
24		6
18		10
14		15
10	15	30
8	30	50
6	50	80
4	80	120
3	120	200
2	200	400

5. Tooth shape

The combination of our various tooth shapes, cutting-edge materials and band saw dimensions allows for the highest possible cutting performance.

6. Types of tooth set

For a more detailed description, please turn the page.

s	Cutting of tubes **Outer diameter of the tube** (mm) / Tooth pitch Tz in tpi																
mm	20	40	60	80	100	120	150	200	300	400	500	600	700	800	900	1000	1500
2	14	14	14	14	14	14	10-14	10-14	8-12	8-12	6-10	6-10	5-8	5-8	5-8	5-8	5-8
3	14	14	10-14	10-14	10-14	10-14	8-12	8-12	6-10	6-10	5-8	5-8	5-8	4-6	4-6	4-6	4-6
4	14	14	10-14	10-14	8-12	8-12	8-12	8-12	5-8	5-8	4-6	4-6	4-6	4-6	4-6	4-6	3-4
5	14	10-14	10-14	10-14	8-12	8-12	8-12	6-10	5-8	5-8	4-6	4-6	4-6	4-6	3-4	3-4	3-4
6	14	10-14	10-14	8-12	8-12	8-12	8-12	5-8	5-8	4-6	4-6	4-6	3-4	3-4	3-4	3-4	3-4
8	14	10-14	8-12	8-12	8-12	6-10	6-10	5-8	4-6	4-6	4-6	3-4	3-4	3-4	3-4	2-3	2-3
10		8-12	6-10	6-10	6-10	5-8	5-8	4-6	4-6	4-6	3-4	3-4	3-4	3-4	2-3	2-3	2-3
12		8-12	6-10	6-10	5-8	5-8	4-6	4-6	4-6	3-4	3-4	3-4	3-4	2-3	2-3	2-3	2-3
15		8-12	6-10	5-8	5-8	4-6	4-6	4-6	3-4	3-4	3-4	2-3	2-3	2-3	2-3	2-3	2-3
20			6-10	5-8	4-6	4-6	4-6	3-4	3-4	3-4	2-3	2-3	2-3	2-3	2-3	2-3	2-3
30				4-6	4-6	4-6	3-4	3-4	3-4	2-3	2-3	2-3	2-3	2-3	2-3	2-3	1.4-2
50						3-4	3-4	3-4	2-3	2-3	2-3	2-3	2-3	2-3	1.4-2	1.4-2	1.4-2
75								2-3	2-3	2-3	2-3	2-3	1.4-2	1.4-2	1.4-2	1.4-2	1.4-2
100									2-3	2-3	1.4-2	1.4-2	1.4-2	1.4-2	1.4-2	1.4-2	1.4-2
150										2-3	1.4-2	1.4-2	1.4-2	1.4-2	1.0-1.4	1.0-1.4	1.0-1.4
200											1.4-2	1.4-2	1.4-2	1.0-1.4	1.0-1.4	1.0-1.4	0.75-1.25
250												1.4-2	1.0-1.4	1.0-1.4	1.0-1.4	0.75-1.25	0.75-1.25
300													1.0-1.4	1.0-1.4	0.75-1.25	0.75-1.25	0.75-1.25
350														1.0-1.4	0.75-1.25	0.75-1.25	0.7-1.0
400															0.75-1.25	0.75-1.25	0.7-1.0
450																0.7-1.0	0.7-1.0
500																	0.7-1.0

s = Wall thickness
If you need to cut two or more tubes that are lying side by side, please use this table that takes the double wall thickness into consideration (s).

TOOTH SHAPES

Skip tooth (L)

Rake angle: 0°, for:

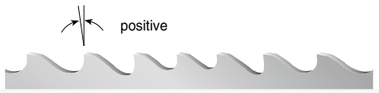
- flexible materials (aluminum and wood)
- only available from the tool steel assortment

Standard tooth (S)

Rake angle: 0°, for:

- short-chipping materials
- steels with a high carbon content
- tool steel and cast iron
- materials with small cross-sections
- thin-walled profiles

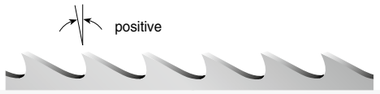
Profile tooth (P)



Rake angle: positive, for:

- hollow and angle profiles
- steel beams
- bundle and layer cuts
- applications that are susceptible to vibrations

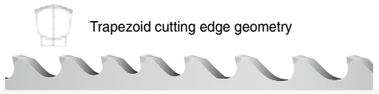
Hook tooth (K)



Rake angle: positive, for:

- universal use
- non-ferrous metals and steels
- profiles and solid materials

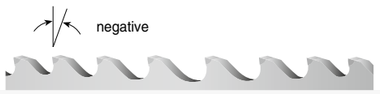
Trapezoid tooth (T)



Rake angle: positive, for:

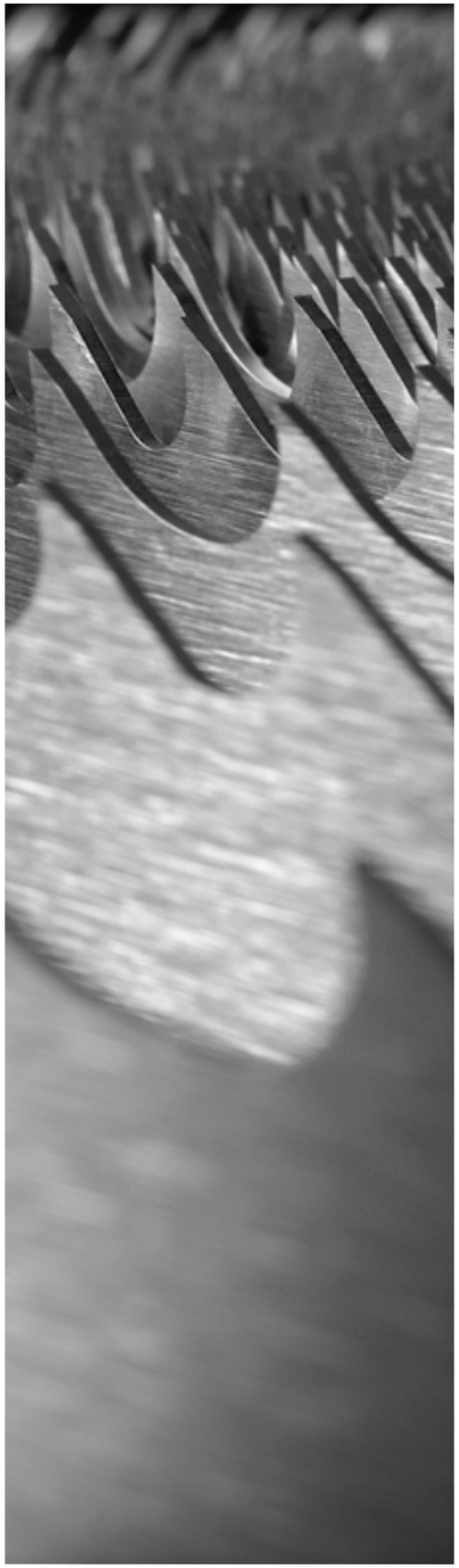
- high cutting performance
- optimal surface finishes

Tooth shape TSN (Trapezoid tooth)



Rake angle: negative, especially for:

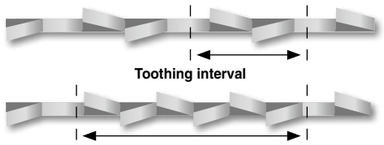
- surface-hardened shafts
- hardened steels up to 62 HRC, hard manganese steels, hard-chrome plated workpieces
- diameters of up to 300 mm



TYPES OF TOOTH SET

The free-cutting action of the band saw blade is achieved by means of the tooth set, where the teeth protrude alternately left and right beyond the blade body.

Standard set (SD)



All-purpose set for cutting thicknesses of more than 5 mm with steels, castings and hard non-ferrous metals.
Constant tooth pitch: set sequence is left/right/straight.
Variable tooth pitch: one tooth in each toothing interval is unset, the remaining teeth in the interval are recurrently set left/right or in the reverse order.

Group set (GS)

For band saw blades in the tooth pitch range of 4-18 tpi, improved surface quality is obtained using the group set.

Wavy set (WS)

We recommend wavy set for material dimensions of up to 5 mm, like sheets, thin-walled tubes and profiles.

TOOTH PITCH (T_Z)

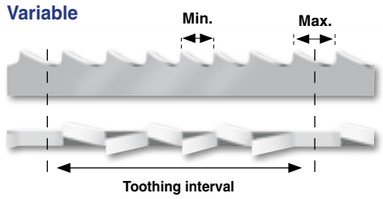
Tooth pitch refers to the number of teeth per inch (tpi). 1 inch equates to 25.4 mm.

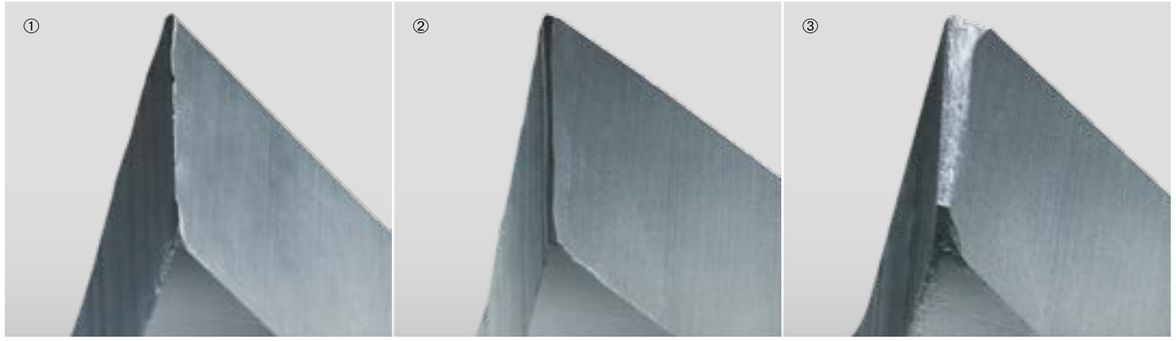
A distinction is made between constant tooth pitches with a uniform tooth distance, 2 tpi for example, and variable tooth pitches with different tooth distances within one toothing interval.

Variable tooth pitches, for instance 2-3 tpi, can be characterized by two measures: 2 tpi stands for the maximum tooth distance and 3 tpi stands for the minimum tooth distance in the toothing interval.

Constant

Variable





BREAKING IN YOUR BAND SAW BLADES

Sharp cutting edges that have extremely small edge radii are the ideal prerequisites for high cutting ability and a long service life. This is ensured by breaking in the blades properly. See pictures above:

1. New cutting edge with a very small edge radius
2. Proper breaking in of the band saw blade creates a stable cutting edge
3. Excessive strain due to improper breaking in leads to micro-breakages of the cutting edge

Before you use them for the first time:

- Band tension should be about 300 N/mm²
- Check and adjust the oil content of the cooling lubricant by using a hand refractometer
- The recommended oil content of the cooling lubricant can be found in the cutting data slide rule or in ParaMaster® 4.0

BIMETAL BAND SAW BLADES

- Determine the right cutting speed and feed rate (using the WIKUS bimetal cutting data slide rule, for instance) based on the material to be cut and its dimensions.
- Important: Use a new blade with approx. 100 % of the cutting speed (m/min) and approx. 50 % of the feed rate (mm/min)

CARBIDE BAND SAW BLADES

- Determine the right cutting speed and feed rate (using the WIKUS carbide cutting data slide rule, for instance) based on the material to be cut and its dimensions.
- Important: Use a new blade with approx. 75 % of the cutting speed (m/min) and approx. 50 % of the feed rate (mm/min)
- Very important: band saw blades can be prone to vibration and vibration noise - Help: To resolve this issue, reduce the cutting speed (m/min) once again

- With small workpiece dimensions, approx. 300 cm² of the material should be cut to break in the blade.
- With large workpiece dimensions, we recommend breaking in over a period of about 15 min.
- After breaking in, slowly increase the cutting speed (m/min) to the determined value and then gradually increase the feed rate (mm/min) to the value that you determined before.

The cutting data slide rule that WIKUS has developed for bimetal and carbide band saw blades can be of practical assistance. Or use ParaMaster® 4.0, the online cutting data program from WIKUS that features a wide variety of different functions. More information can be found on page 6 or register directly under www.paramaster.de

Precision at the cutting point

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