

PRECISION BAND SAW BLADES



CONTENTS

ABOUT WIKUS			p.	3
BLADE SELECTOR		J	p.	8
BIMETAL BAND SAW	BLADES			
mm	VARIO® M42	(A)	p.	11
m	NEU: MARATHON® M42 / MARATHON® SW M42	A	p.	12
SAMO	PROFLEX® M42 / PROFLEX® PREMIUM M42	(A)	ρ.	14
and and	PROFLEX® SW M42 / PROFLEX® PREMIUM SW M42	(2)	ρ.	15
m	SKALAR® M42 / SKALAR® PREMIUM M42	<u>3</u>	ρ.	16
	SELEKTA® GS M42 / NEU: SELEKTA® GS PREMIUM M42	(A)	ρ.	17
uming	ECOFLEX® M42	▲ I	ρ.	18
mmm	ECOFLEX® NE M42	<u> </u>	ρ.	19
m	MARATHON® X3000®		ρ.	21
my	SKALAR® X3000®	\sim	ρ.	22
	SELEKTA® GS X3000®	<u>(4)</u>	ρ.	23
CARBIDE TIPPED BA	AND SAW BLADES			
	DUROSET® / DUROSET® PREMIUM	(A)	ρ.	26
****	FUTURA® / FUTURA® PREMIUM	3	ρ.	27
m	PROFIDUR®	<u>3</u>	ρ.	28
my	TAURUS® / TAURUS® PREMIUM	▲ I	ρ.	29
	FUTURA® VA / FUTURA® PREMIUM VA	<u>3</u>	ρ.	30
rome	FUTURA® 718	3	ρ.	31
www	ECODUR® / DUROSET® NE	(2)	ρ.	32
rmy	FUTURA® NE / FUTURA® NE RS	(A)	p.	33
mm	ARION® FG / ARION® PG	(A)	ρ.	34
mm	ARION® EG	(A)	p.	35
arrarg	FUTURA® SN / FUTURA® PREMIUM SN	(A)	p.	36
my	TCT®	(A)	ρ.	37
DIAMOND COATED E	BAND SAW BLADES			
NAMES OF PERSONS ASSESSED.	DIAGRIT® K / DIAGRIT® K VA	A	p.	39
CON MINOR WHEN	DIAGRIT® S / DIAGRIT® S VA	A	p.	40
ERROR STREET	DIAGRIT® U / DIAGRIT® U VA	A	p.	41
CARBON STEEL BAN	ND SAW BLADES			
**********	DIAMANT	(p.	43
	EXTRA	(A)	р.	44
****	JET	(A)	ρ.	45
TECHNICAL PRINCIP	PLES / APPLICATIONS	i	э.	46

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 CUTTINGFOR 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

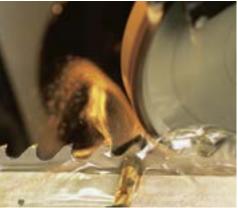
We continuously optimize our product range to offer you an efficient saw blade for each cutting task – even for materials, which are difficult to cut – and to meet changing market demands. Additionally, together with you we develop solutions matched to your individual demand.

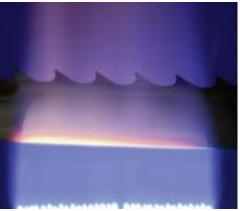


Trust in constantly high quality

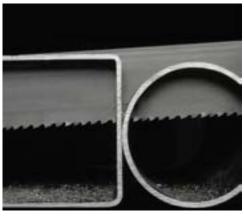
Our band saw blades are known for outstanding product quality "Made in Germany". Latest manufacturing technologies, best raw materials and high process stability ensure reproducibility. We continuously strive for improvement to optimize our manufacturing quality, processes and delivery capacity.





















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.

Your benefit:

NEW: now available as APP

- · 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



High-tech band saw blades that meet the highest standards

• Level 3



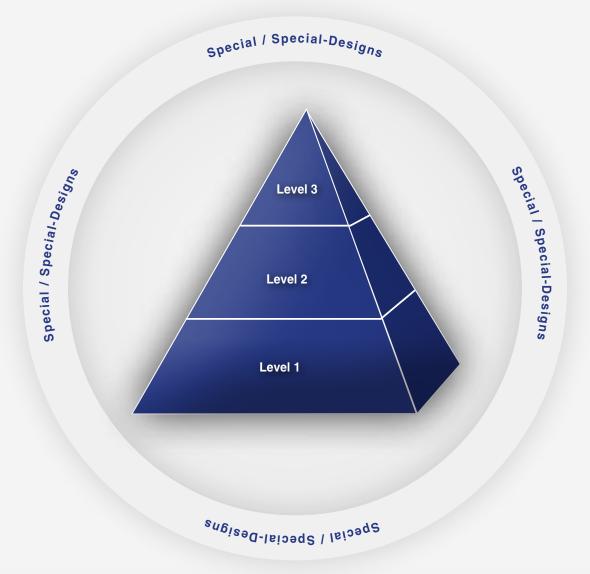
The WIKUS product line also includes special designs for use in individual applications. But please note that not all special designs are available for every band saw.

Furthermore, WIKUS also offers special blades:

Special



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



BLADE SELECTOR

ASSORTMENT			ВІМЕ	TAL			
APPLICATION	•●•■	□оН∧		□оН∧	.0.	□оН∧	
Nickel-based alloys							
Duplex and heat-resistant steels							
Titanium, titanium alloys	MARATHO	DN® X3000®		?® X3000®			
Aluminum bronze	_	21	_	GS X3000®			
Hardened and tempered steels (over 1000 N/mm²)							
Stainless and acid-resistant steels (austenitic)							
Stainless and acid-resistant steels (ferritic)							
Nitriding and high-speed steels							
Cast iron							
Tool steels	VARIO® M42		SKALA	\R® M42			
Hardening steels Spring and ball bearing steels	11 MARATHON® M42	PROFLEX® M42	-	6 N® GS M42		EX® M42	
Carbon and heat-treated steels	12		1	7			
Construction, deep-drawing and cutting steels							
Non-ferrous metals							
Aluminum / aluminum alloys							
Surface hardened components							
CLASSIFICATION		2		3	1		
	Lev	vel 2	Lev	rel 3	Lev	rel 1	

CARBIDE										
●■ □oH∧		□оН∧		□оН∧		□оН∧				
	FUTURA® 718									
		RA® VA								
DUROSET® 26										
			_	IRUS® 29						
	FUTURA®	PROFIDUR®			ARION® FG 34 ARION® EG 35	ARION® PG				
]					
ECODUR®		RA® NE								
					_	RA® SN				
Level 2		rel 3		vel 1		ecial				

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 (A)

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

	nsions Fhickness						
mm	Inch	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 le	ength (mm)	< 20	10-30	20-50	30-60	50-90	80-150

S = Standard tooth



NEW: MARATHON® M42 (A)





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 le	ength (mm)	30-60	50-90	80-150	120-250	250-500	500-800	550-1200

MARATHON® SW M42 (A)

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

	nsions Fhickness	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 le	ength (mm)	30-60	50-90	80-150	120-250	250-500	500-800	550-1200

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





PROFLEX® M42 (A)

The perfect band saw blade for profiles

4000

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

PROFLEX® PREMIUM M42 (A)

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

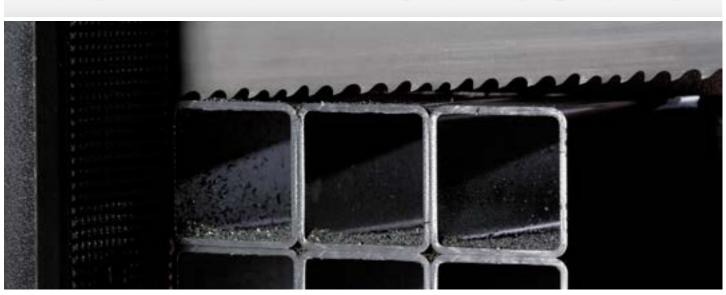
· Low finishing thanks to cutting edges nearly withour burr

Features: • Tooth edge and back edge coated with wear protection

· Variable tooth pitch with specific step set

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

P = Profile tooth, Photo below: PROFLEX® M42



PROFLEX® SW M42 (A)





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

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

PROFLEX® PREMIUM SW M42 (A)



The coated special design for residual stress materials

Application: · Profiles and girders with residual stress

For steel construction and industrial profile cuts

· Productivity increase by high cutting rate Advantages:

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

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



SKALAR® M42 (A)

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

	nsions	Tooth pitch in tpi						
	Thickness							
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	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 le	ength (mm)	90-200	200-340	340-530	350-600	500-800	800-2000	

SKALAR® PREMIUM M42 (A)

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

	nsions 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						
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 le	ength (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

Patented performance and surface teeth Features:

M42 cutting edge with extra positive rake angle

	nsions Fhickness	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 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 le	ength (mm)	50-90	90-150	150-250	250-500	500-800	800-2000		

NEW: SELEKTA® GS PREMIUM M42 (A)



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

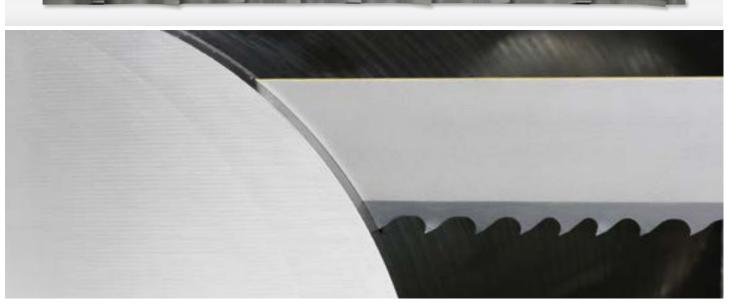
· Smooth, low vibration and very long running

· Patented performance and surface teeth Features:

Tooth edge with special coating, back edge coating for less friction

	nsions Thickness	Tooth pitch in tpi							
mm	Inch	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 le	ength (mm)	50-90	90-150	150-250	250-500	500-800	800-2000		

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



ECOFLEX® M42 (A)

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

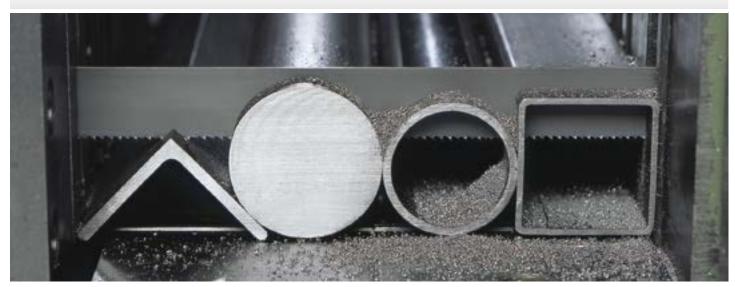
Features:

M42 tooth edge with adapted rake angle

· Variable tooth pitch and standard set

	nsions 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 le	ength (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 (A)





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

	nsions Fhickness	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
Cares arms.	Welded-to-length band saw blades
	- 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® (A)





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

	nsions Fhickness	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 le	ength (mm)	30-60	50-90	90-150	150-250	250-500

K = Hook tooth



SKALAR® X3000® (A)



The powerful band saw blade for high-tensile materials



· Outstanding cutting rate with high-alloy austenitic materials Application:

• 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

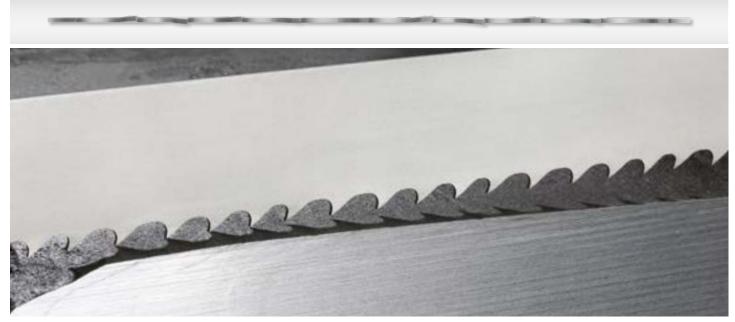
Features: · Ground contour with specially matched tooth pitch

Tooth edge made of the cutting material X3000[®] with positive rake angle

Special set for optimal chip division

	nsions Fhickness	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® (A)







 Rust- and acid-resistant steels and alloys (austenitic) Application:

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

Tooth edge made of the cutting material X3000[®] with positive rake angle

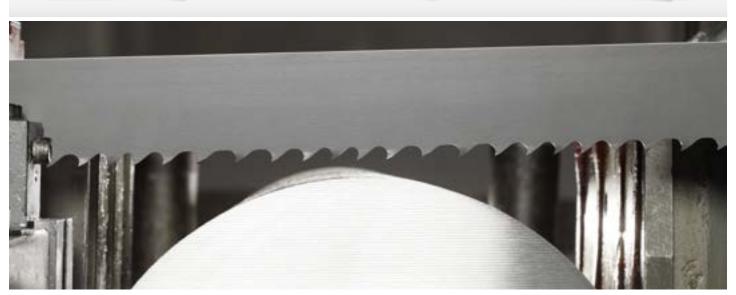
High cutting edge stability and high wear resistance

Patented performance and surface teeth

	nsions 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	К		
80 x 1.60	3-1/8 x 0.063			K		K	K		
Contact le	ength (mm)	50-90	90-150	150-250	250-500	500-800	800-2000		

K = Hook tooth

Features:



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
	TOTOTIK WI, TOTOTIK TILLINIOW W

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 nickel-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® (A)

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

	nsions 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 le	ength (mm)	90-200	200-340	340-530	500-800	800-2000

DUROSET® PREMIUM (A)

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

	nsions			Tooth pitch in tpi		
Width x	Thickness					
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 le	ength (mm)	90-200	200-340	340-530	500-800	800-2000

K = Hook tooth, Photo below: DUROSET® PREMIUM



FUTURA® (A)

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	Т						
34 x 1.10	1-3/8 x 0.042	Т	Т					
41 x 1.30	1-5/8 x 0.050	Т	Т	Т	Т			
54 x 1.30	2-1/8 x 0.050		Т		Т			
54 x 1.60	2-1/8 x 0.063		T	Т	T	Т	T	Т
67 x 1.60	2-5/8 x 0.063		Т		Т	Т	T	Т
80 x 1.60	3-1/8 x 0.063				T		T	Т
Contact le				200-300	250-400	350-600	500-800	700-1200

FUTURA® PREMIUM (A)

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

	nsions 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	Т	Т					
41 x 1.30	1-5/8 x 0.050	Т	T	T	Т			
54 x 1.30	2-1/8 x 0.050		Т		Т			
54 x 1.60	2-1/8 x 0.063		Т	T	Т	Т	T	
67 x 1.60	2-5/8 x 0.063		T		Т	Т	T	Т
80 x 1.60	3-1/8 x 0.063				T		T	T
Contact le	ength (mm)	90-150	130-250	200-300	250-400	350-600	500-800	700-1200

T = Trapezoid tooth, Photo below: FUTURA® PREMIUM



PROFIDUR® (A)

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

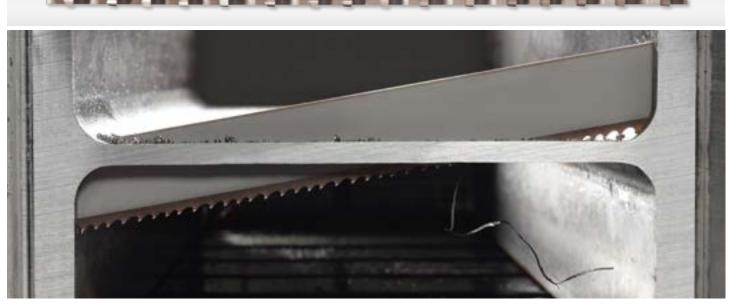
• Considerable reduction of noise emission

Features: • Patented tooth geometry for interrupted cutting channel

• Sturdy carbide-tipped tooth edges coated with hard material

	nsions Thickness	Tooth pitch in tpi			
mm	Inch	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	Т	T		
67 x 1.60	2-5/8 x 0.063	T			
Contact le	ngth (mm)	90-150	150-270		

T = Trapezoid tooth



TAURUS® (A)



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

	nsions Fhickness	Tooth pitch in tpi					
mm	Inch	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	Т					
34 x 1.10	1-3/8 x 0.042	Т	Т				
41 x 1.30	1-5/8 x 0.050	Т	Т	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	Т	Т		T	Т	
80 x 1.60	3-1/8 x 0.063				T	Т	Т
Contact le	ength (mm)	90-150	130-250	200-300	250-500	500-800	800-2000

TAURUS® PREMIUM (A)



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

	nsions Thickness	Tooth pitch in tpi					
mm	Inch	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	Т	T				
41 x 1.30	1-5/8 x 0.050	Т	T	Т	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	Т	
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

	nsions 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	Т	Т		
54 x 1.30	2-1/8 x 0.050	T	T	Т		
54 x 1.60	2-1/8 x 0.063		Т	Т		
67 x 1.60	2-5/8 x 0.063			Т	T	Т
80 x 1.60	3-1/8 x 0.063					Т
Contact le	enath (mm)	90-150	130-250	250-500	500-800	700-1200

FUTURA® PREMIUM VA (A)

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

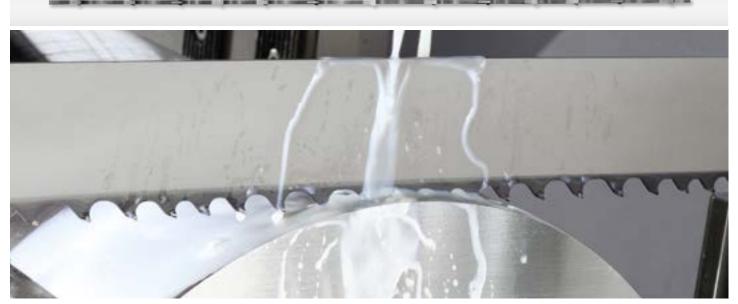
· Smooth and low vibration running

Features: • Special hard material coating for cutting stainless steels

• Extra back edge coating for lower friction

	ensions 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	Т	Т	Т		
54 x 1.60	2-1/8 x 0.063		T	T		
67 x 1.60	2-5/8 x 0.063			T	Т	
80 x 1.60	3-1/8 x 0.063				Т	Т
Contact length (mm)		90-150	130-250	250-500	500-800	700-1200

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



FUTURA® 718 (A)

Features:

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

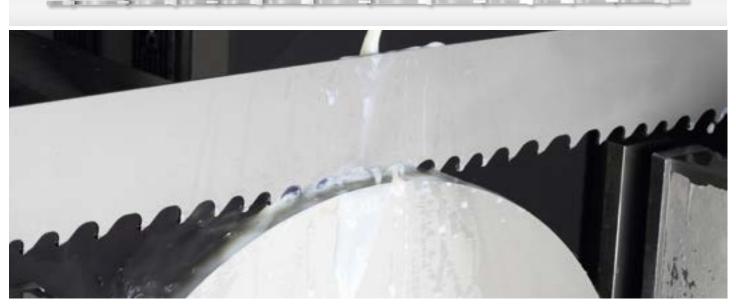
· Tooth edges made of optimal carbide for high-strength tough materials

· Perfectly ground trapezoid teeth with optimal geometry

· Backing material with special shape forming

	nsions 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	Т	Т	
54 x 1.30	2-1/8 x 0.050	Т	Т	
54 x 1.60	2-1/8 x 0.063	Т	Т	
67 x 1.60	2-5/8 x 0.063	Т	Т	Т
80 x 1.60	3-1/8 x 0.063			Т
Contact length (mm)		130-250	250-500	500-800

T = Trapezoid tooth





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

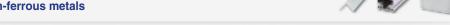
· Ground trapezoid tooth with positive rake angle

· Patented chip division for performance and cutting surface quality

	nsions Fhickness	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	Т		
34 x 1.10	1-3/8 x 0.042	T	Т	Т	
41 x 1.30	1-5/8 x 0.050	T	Т	Т	
54 x 1.30	2-1/8 x 0.050		Т	Т	
54 x 1.60	2-1/8 x 0.063	T	Т	Т	Т
67 x 1.60	2-5/8 x 0.063			Т	
Contact length (mm) 90-150			130-250	250-500	700-1200

DUROSET® NE

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

	nsions Fhickness	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	К			
Contact le	ngth (mm)	120-200	200-400		

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



FUTURA® NE (A)

Features:

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 qualityProcess reliability by high resistance against abrasion

1 100ess reliability by high resistance against abrasion

Tooth edges made of specific carbide to prevent abrasion

Ground trapezoid tooth with positive rake angle

· Optimal chip division for performance and surface quality

Dime	ensions	Tooth pitch in tpi						
Width x	Thickness							
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 le	ength (mm)	90-150	130-250	250-500	700-1200	800-2000		

FUTURA® NE RS (A)

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

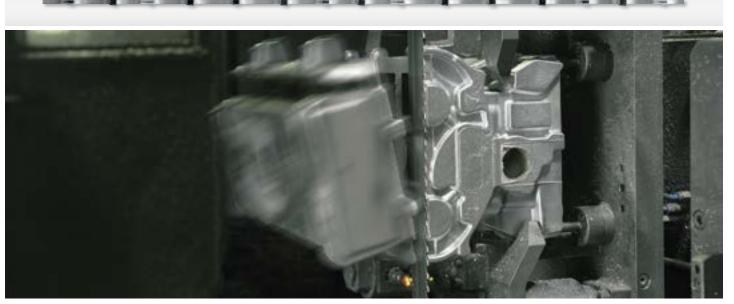
Features: • Special grinding for reduced kerf width

• Ground trapezoid tooth with positive rake angle

· Optimal chip division for performance and surface quality

	ensions 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			Т		
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 le	ength (mm)	90-150	130-250	250-500	700-1200	800-2000

T = Trapezoid tooth, Photo below: FUTURA® NE



ARION® FG

Features:

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

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		Т	Т		
67 x 1.10	2-5/8 x 0.042	Т	Т	Т		
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



Application:

High-performance for tubes and profiles

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				
wylatn x i	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	T	1.1.2	1.0 1.1	0.7 1.0
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

Features:

High performance and excellent surface quality



· Solid materials on heavy-duty sawing machines Application:

· 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

· 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	Т		
80 x 1.10	3-1/8 x 0.042		T	T	Т	
100 x 1.10	4 x 0.042		T	Т	Т	Т
Contact length (mm)		90-150	130-250	250-500	500-800	800-2000

T = Trapezoid tooth

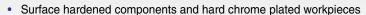


FUTURA® SN (A)

Application:

Features:

The specialist for "hard shell and soft core"



· 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

Optimised special geometry with negative rake angle

· Ground trapezoid tooth without set

Dimensions Width x Thickness		Tooth pitch in tpi		
mm	Inch	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 (A)

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		Tooth pitch in tpi		
mm	Inch	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





Features:

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

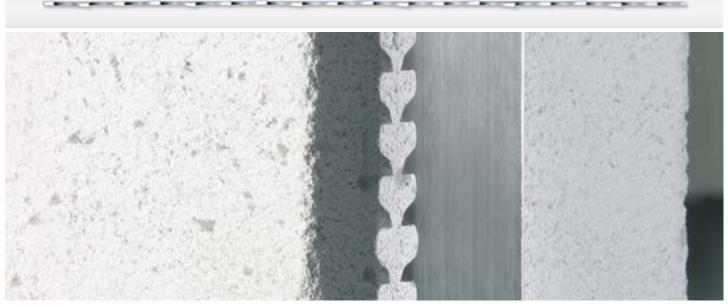
Carbide-tipped tooth edges with excellent wear resistance

Precisely set tooth geometry

· Constant tooth pitch

	nsions Thickness		Tooth pitch in tpi						
mm	Inch	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 (A)

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			nsions 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 (A)

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

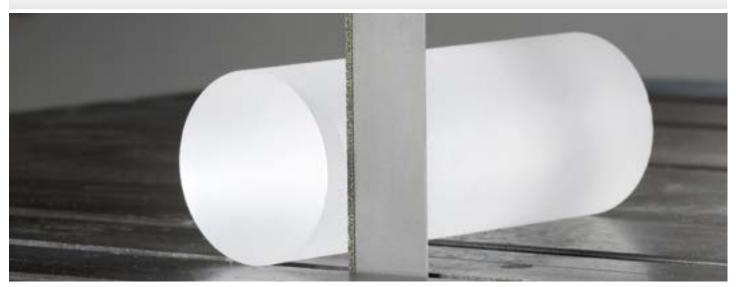
No chipping on the contour edges

· Low finishing thanks to very good cutting surfaces

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

	nsions Thickness		nsions 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 (A)

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

Backing material made of alloyed tempering steel

Features: • Segmented diamond coating on the band edge

Dimensions Width x Thickness			ensions 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 (A)

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

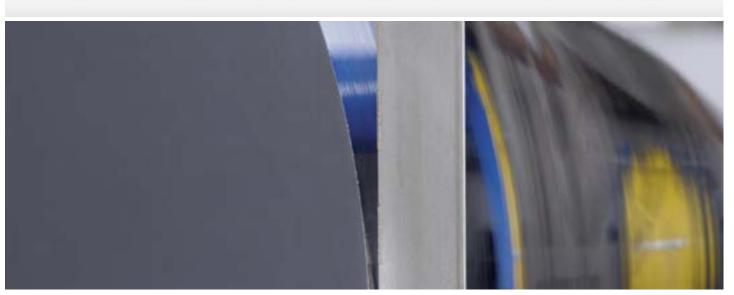
· Individual coating geometry

Features: • Segmented diamond coating on the band edge

Backing material made of stainless special steel

Dimensions Width x Thickness			nsions 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 (A)

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

	nsions Thickness	Pitch T	Dimensions Pitch T Dimensions Width x Thickness 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 (A)

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

Dimer	nsions	Pitch T	Dimensions Pitch T		Dimensions		Pitch T	
Width x T	Thickness	Width >		Width x Thickness		Width x 7	hickness	
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 (2)

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)

	nsions		Tooth pitch in tpi								
Width x	Γhickness				SD					/S	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.





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.





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

Dime	nsions	Tooth pitch in tpi						
Width x	Thickness	SD	· · · · · · · · · · · · · · · · · · ·					
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

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





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

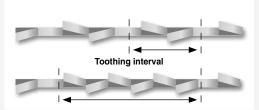




TYPES OF TOOTH SET

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.

Wavy set (WS)



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

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.

TOOTH PITCH (Tz)

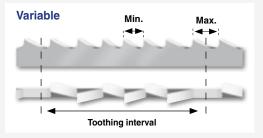
Tooth pitch refers to the number of teeth per inch (tpi). 1 inch equates to 25.4 mm.

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







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

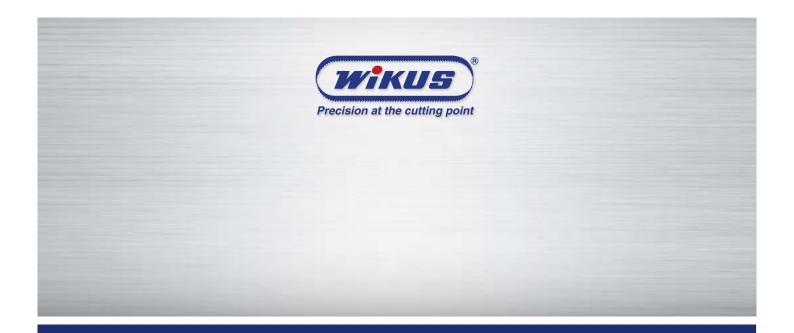
- Determine the right cutting speed and feed rate (using the WIKUS bimetal cutting data slide rule, for instance) based on the material to be cut and its dimensions.
- Important: Use a new blade with approx. 100 % of the cutting speed (m/min) and approx. 50 % of the feed rate (mm/min)

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





WIKUS-Sägenfabrik Wilhelm H. Kullmann GmbH & Co. KG

Melsunger Str. 30 34286 Spangenberg, Germany

Phone: +49 5663 500-0 Fax: +49 5663 500-57

www.wikus.com info@wikus.com





© WIKUS-Sägenfabrik.

All rights reserved. Not to be reproduced in part or in whole. No responsibility is taken for the accuracy of this information. Despite the fact that WIKUS takes great care in assembling and constantly reviewing its data, the company assumes no liability or guarantees for the completeness, correctness or up to datedness of the information provided. Pictures may differ from the original. The product range may change after the brochure has been printed. The trademarks designated with the "®" are registered trademarks by WIKUS-Sägenfabrik Wilhelm H. Kullmann GmbH & Co. KG unless otherwise indicated. These trademarks are protected in Germany, the European Union and many other countries worldwide. Printed in Germany. 2017-08-29

Innovative precision tools designed and manufactured in Spangenberg, Germany

