ROENTGEN USA
GERMAN QUALITY – ENDURING PRECISION

Catalog 2017/2018

ROENTGEN

Over 100 years experience in quality improvement –
you can´t beat it!

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CONTENTS

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BI-ALFA | HM-TITAN | RRR | GRIT | HACKSAW BLADES | SERVICE

Band Saw Blade Catalog

Product overview

ABOUT ROENTGEN

Since its foundation in 1899, ROENTGEN is known for the highest quality, technical innovations and utmost customer service.

Utilizing strict quality controls, constant development work in R&D and a highly precise production with state of the art machinery guarantee the precision and long blade life of ROENTGEN BI-ALFA and HM-TITAN products.

Quality is of the highest priority at ROENTGEN. The production process starts with careful selected raw material, followed by a precise and permanent production monitoring and ends with a thorough final inspection.

Customers worldwide can rely on consistent cutting results of ROENTGEN products.

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More than
100 years experience
– you can‘t beat it!

TECHNIQUE

ROENTGEN USA
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TOOTH PITCHES

The tooth pitch describes the number of teeth per inch. For combi toothing the first figure represents the largest distance between tooth tips and the second figure the smallest distance between tooth tips within one group.

CONSTANT TOOTH PITCH
This tooth pitch has a constant distance from tooth to tooth. It is very suitable for constant cross sections and non-ferrous materials.

COMBI TOOTH PITCH
The combi tooth pitch has different tooth tip distances within one toothing group. The application area of the band saw blade is increased and vibrations are reduced.

RECOMMENDATIONS FOR TOOTH SELECTION

for solid material

Regular Tooth Pitch		Combi (Variable) Tooth Pitch		Roentgen HM-Titan	
Cross section	Toothing	Cross section	Toothing	Cross section	Toothing
< 10 mm	14 tpi	< 25 mm	10/14 tpi	50 -120 mm	3/4 tpi
10 - 30 mm	10 tpi	15 - 40 mm	8/12 tpi	100 - 250 mm	2/3 tpi
30 - 50 mm	8 tpi	25 - 50 mm	6/10 tpi	150 - 400 mm	1.5/2 tpi
50 - 80 mm	6 tpi	35 - 70 mm	5/8 tpi	350 - 600 mm	1.1/1.6 tpi
80 - 120 mm	4 tpi	40 - 90 mm	5/6 tpi	> 500 mm	0.85/1.15 tpi
120 - 200 mm	3 tpi	50 - 120 mm*	4/6 tpi*		
200 - 400 mm	2 tpi	80 - 180 mm*	3/4 tpi*		
300 - 700 mm	1.25 tpi	130 - 350 mm	2/3 tpi		
> 600 mm	0.75 tpi	150 - 450 mm	1.5/2 tpi		
		200 - 600 mm	1.1/1.6 tpi		
		> 500 mm	0.75/1.25 tpi		

*Please note that it is also possible to choose our Combi pitch 4/5

for tubes

Wall thickness S (mm)	Outside diameter D (mm) Toothing Z (tpi)									
	20	40	60	80	100	120	150	200	300	500
2	14	10/14	10/14	10/14	10/14	8/12	8/12	8/12	8/12	5/8
3	14	10/14	10/14	8/12	8/12	8/12	8/12	6/10	6/10	5/8
4	10/14	10/14	8/12	8/12	8/12	6/10	6/10	5/8	5/8	4/6
5	10/14	10/14	8/12	8/12	6/10	6/10	5/8	4/6	4/6	4/6
6	10/14	10/14	8/12	8/12	6/10	5/8	5/8	4/6	4/6	4/6
8	10/14	8/12	8/12	6/10	5/8	5/8	4/6	4/6	4/6	4/6
10	-	8/12	6/10	5/8	4/6	4/6	4/6	4/6	4/6	4/5
12	-	8/12	6/10	4/6	4/6	4/6	4/6	4/6	4/6	4/5
15	-	8/12	6/10	4/6	4/6	4/6	4/6	4/5	4/5	4/5
20	-	-	4/6	4/6	4/6	4/6	4/5	4/5	4/5	3/4
30	-	-	-	4/6	4/6	4/5	4/5	4/5	4/5	2/3
50	-	-	-	-	-	-	4/5	3/4	2/3	2/3
80	-	-	-	-	-	-	-	3/4	2/3	2/3
> 100	-	-	-	-	-	-	-	-	2/3	1.5/2

For thin-walled tubes (up to 8 mm wall thickness) it is advisable to choose a 0° rake angle.

Our application engineers will assist you in selecting the right band saw blades and provide reliable cutting parameters for your specific sawing application.

SET PATTERNS

RAKER SET
This is the most popular set pattern of constant tooth pitches. Teeth are set right-left-straight.

COMBI SET
This set sequence can vary depending on the tooth pitch. After a pattern of left-right set teeth follows always one straight tooth.

GROUP SET
Several consecutive teeth are set to one side, followed by several teeth set to the other side.

WAVY SET
Setting sequence is wavy.

TOOTH FORMS

NORMAL TOOTH (N)
The normal tooth has a cutting angle of 0°. It is suitable for cutting material with a high carbon content (such as cast iron), for material with small cross sections and for thin-wall profiles and tubes.

HOOK TOOTH (H)
The hook tooth has a positive cutting angle of 10°. This tooth form is particularly suitable for cutting solids, thick-walled tubes and all higher alloyed materials.

RP TOOTH (RP)
The RP tooth has a positive cutting angle of 16°. Due to its aggressive cutting characteristics, it is most suitable for cutting exotic alloys and non-ferrous metals.

MASTER TOOTH (M)
Two different cutting angles, 10° and 16°, are available. This special development consists of ground tooth tips and is composed by a chamfered pre-cutter and a pair of lower finishing cutters. The MASTER tooth is especially suitable for cutting stainless steel and other high alloyed materials.

PROFILE TOOTH
The reinforced design of the profile tooth withstands the vibrations that occur when cutting beams and tubes. This effect is supported by the reduced cutting angle of 6°.

APPLICATION AREAS

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EXPLANATION OF ICONS
Due to the variety of our band saw blades, we are able to cover a wide range of applications. The following icons indicate which band saw blade fits best to your individual cutting job.

- Square tubes
- Angle
- Plate
- Thick-walled tubes and solid bars
- Aereated concrete
- WS Wide set
- Square tubes in bundles
- Bundled angles
- Plates
- Small round solids
- Wall and floor tiles
- 16° Rake angle
- Thin-walled tubes
- Profiles
- Bundled solids
- Round solids
- Graphite/Carbon
- A C B Set pattern
- Thick-walled tubes
- Bundled beams
- T-, I- and L-Beams
- Square solids
- Engine block
- Round tubes in bundles
- Bundled channels
- Tires
- Foundry cutting

BI-ALFA
COBALT M42

The ROENTGEN bi-alfa cobalt band saw blade has HSS-M42 cutting tips. The high wear resistance of the band saw blade results from the very hard and evenly distributed carbides in the tooth tips, formed during the hardening and tempering process. The martensitic structure of the tooth tips and the high cobalt content create excellent heat resistance and toughness reducing wear rates at high sawing speeds. With a high chromium backing, the saw blade can withstand the considerable flexing stresses, tension and blade guide pressure.

HOOK TOOTH

TOOTH FORM

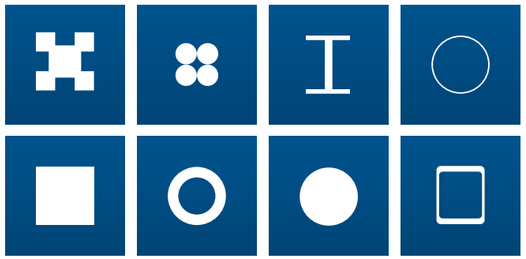
The hook tooth has a positive cutting angle of 10°. This tooth form is particularly suitable for cutting solid, thick-walled tubes and all higher-grade alloy material.

NORMAL TOOTH

TOOTH FORM

The normal tooth has a cutting angle of 0°. It is suitable for cutting material with a high carbon content (such as cast iron), for material with small cross sections and for thin-walled profiles and tubes.

APPLICATION AREAS



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BI-ALFA
COBALT M42

Teeth per inch / Constant tooth pitch (Normal tooth)

	3	4	6	8	10	14	18	
6 x 0.6								1/4 x .025
6 x 0.9					■	■		1/4 x .035
10 x 0.6				■				3/8 x .025
10 x 0.9				■	■	■		3/8 x .035
13 x 0.6					■	■	■	1/2 x .025
13 x 0.9				■	■	■		1/2 x .035
20 x 0.9						■	■	3/4 x .035
27 x 0.9	■	■	■	■	■	■		1 x .035
34 x 1.1	■	■	■	■	■			1 1/4 x .042
41 x 1.3								1 1/2 x .050
54 x 1.3								2 x .050
54 x 1.6								2 x .063
67 x 1.6								2 5/8 x .063
80 x 1.6								3 1/8 x .063

Band saw blade width x thickness (mm) — width x thickness (inch)

Teeth per inch / Constant tooth pitch (Hook tooth)

	1.25	2	3	4	6	
6 x 0.6					■	1/4 x .025
6 x 0.9					■	1/4 x .035
10 x 0.6					■	3/8 x .025
10 x 0.9				■	■	3/8 x .035
13 x 0.6					■	1/2 x .025
13 x 0.9			■	■	■	1/2 x .035
20 x 0.9			■	■	■	3/4 x .035
27 x 0.9		■	■	■	■	1 x .035
34 x 1.1	■	■	■	■	■	1 1/4 x .042
41 x 1.3	■	■	■	■		1 1/2 x .050
54 x 1.3	■					2 x .050
54 x 1.6	■	■				2 x .063
67 x 1.6	■	■				2 5/8 x .063
80 x 1.6						3 1/8 x .063

Band saw blade width x thickness (mm) — width x thickness (inch)

Teeth per inch / Combi tooth pitch (Normal tooth)

	0.75/1.25	1.1/1.6	1.5/2	2/3	3/4	4/5	4/6	5/6	5/8	6/10	8/12	10/14	
6 x 0.6												■	1/4 x .025
6 x 0.9												■	1/4 x .035
10 x 0.6												■	3/8 x .025
10 x 0.9												■	3/8 x .035
13 x 0.6										■	■	■	1/2 x .025
13 x 0.9										■		■	1/2 x .035
20 x 0.9									■	■	■	■	3/4 x .035
27 x 0.9					■		■		■	■	■	■	1 x .035
34 x 1.1			■		■		■		■	■	■		1 1/4 x .042
41 x 1.3					■		■		■	■			1 1/2 x .050

Band saw blade width x thickness (mm) — width x thickness (inch)

Teeth per inch / Combi tooth pitch (Hook tooth)

	0.75/1.25	1.1/1.6	1.5/2	2/3	3/4	4/5	4/6	5/6	5/8	6/10	8/12	10/14	
20 x 0.9							■						3/4 x .035
27 x 0.9				■	■	■	■	■					1 x .035
34 x 1.1			■	■	■	■	■	■					1 1/4 x .042
41 x 1.3			■	■	■	■	■						1 1/2 x .050
54 x 1.3			■	■	■	■	■						2 x .050
54 x 1.6	■	■	■	■	■	■	■	■					2 x .063
67 x 1.6	■	■	■	■	■								2 5/8 x .063
80 x 1.6	■	■	■	■									3 1/8 x .063

Band saw blade width x thickness (mm) — width x thickness (inch)

BI-ALFA
PROFILE

The ROENTGEN bi-alfa Profile and Profile WS band saw blades provide outstanding performance on vibration-susceptible cuts. Vibration during cutting of tubes, beams and profiles is often damaging to a conventional band saw blade, which lowers blade life and cut area considerably. For these demanding applications, ROENTGEN offers the perfect solution with Profile and Profile WS!

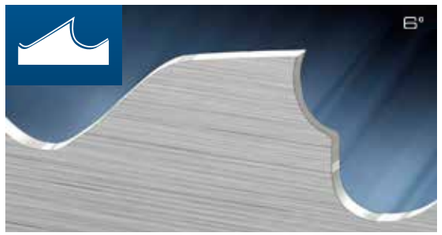
The reinforced back of the tooth increases the overall strength of the tooth to withstand vibrations during interrupted cutting and protects the band saw blade against tooth strippage. The tooth tip consists of proven HSS M42, which has good mechanical features. Bi-alfa Profile is the band saw blade giving the best results when cutting round and square tubes as well as beams.

PROFILE TOOTH

TOOTH FORM

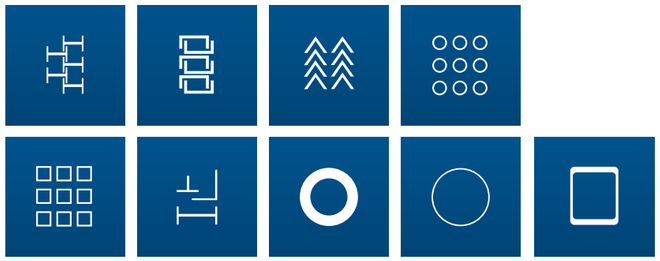
PROFILE TOOTH - PIPE

TOOTH FORM



The profile tooth withstands due to a reinforced tooth the vibrations during cutting of beams and tubes. This effect is intensified by the reduced cutting angle of 6°.

APPLICATION AREAS



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BI-ALFA
PROFILE

Teeth per inch

	3/4	4/6	5/7	8/11	12/16	
13 x 0.6				■		
20 x 0.9				■	■	3/4 x .035
27 x 0.9	■	■	■	■	■	1 x .035
34 x 1.1	■	■	■	■		1 1/4 x .042
41 x 1.3	■	■	■			1 1/2 x .050
54 x 1.6	■					2 x .063
67 x 1.6	■					2 5/8 x .063
Band saw blade width x thickness (mm)						width x thickness (inch)

Teeth per inch / Pipe

	3/4	4/6	5/7	8/11	12/16	
13 x 0.6						
20 x 0.9						3/4 x .035
27 x 0.9						1 x .035
34 x 1.1	■					1 1/4 x .042
41 x 1.3	■					1 1/2 x .050
54 x 1.6	■					2 x .063
Band saw blade width x thickness (mm)						width x thickness (inch)

BI-ALFA
PROFILE WS

The ROENTGEN bi-alfa Profile and Profile WS band saw blades provide outstanding performance on vibration-susceptible cuts. Vibration during cutting of tubes, beams and profilesis is often damaging to a conventional band saw blade, which lowers blade life and cut area considerably. For these demanding applications, ROENTGEN offers the perfect solution with Profile and Profile WS!

The reinforced tooth increases the strength to withstand vibrations during interrupted cutting and protects the band saw blade against tooth strippage along a row of cutting edges.

A special set pattern reduces vibrations during cutting and therefore increases the blade life. The tooth tip consists of proven HSS-M42, which has good mechanical features.

Bi-alfa Profile WS has been specially developed for cutting profiles and beams, which are under tension. During the cutting operation this stress is relieved and thus requires a particularly large kerf in order to prevent the blade from binding in the cutting channel.

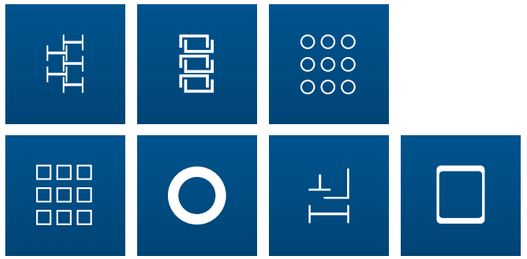
PROFILE TOOTH

TOOTH FORM

WS

The profile tooth withstands vibration during cutting of beams and tubes due to a reinforced tooth. This effect is intensified by the reduced cutting angle of 6°.

APPLICATION AREAS



Teeth per inch

	2/3	3/4	4/6	
34 x 1.1	■	■		1 1/4 x .042
41 x 1.3	■	■		1 1/2 x .050
54 x 1.3	■	■		2 x .050
54 x 1.6	■	■		2 x .063
67 x 1.6	■	■	■	2 5/8 x .063
Band saw blade width x thickness (mm)				width x thickness (inch)

BI-ALFA
COBALT WS

The ROENTGEN bi-alfa cobalt WS Profile band saw blade is produced with a HSS-M42 cutting edge. The saw blade benefits from wider set to create a larger kerf. The larger cutting channel helps to prevent blade binding.

HOOK TOOTH

TOOTH FORM

WS

The Hook tooth has a positive cutting angle of 10°. This tooth form is especially suitable for cutting solid, thick-walled tubes and all higher alloyed materials.

APPLICATION AREAS

TL

BI-ALFA
COBALT WS

Teeth per inch

	2/3	3/4	4/6	
27 x 0.9		■	■	1 x .035
34 x 1.1	■	■	■	1 1/4 x .042
41 x 1.3	■	■	■	1 1/2 x .050
54 x 1.3		■		2 x .050
54 x 1.6	■	■	■	2 x .063
67 x 1.6	■	■		2 5/8 x .063
Band saw width x thickness (mm)				width x thickness (inch)

BI-ALFA
COBALT WS ALU

The ROENTGEN bi-alfa cobalt WS ALU band saw blade features a wide kerf and an aggressive cutting angle. This facilitates a more efficient chip flow, reduces binding and clogging and promotes longer blade life for all non-ferrous metals.

HOOK TOOTH

TOOTH FORM

WS

The hook tooth has a positive cutting angle of 10°. This tooth form is particularly suitable for cutting solid, thick-walled tubes and all higher-grade alloy material.

APPLICATION AREAS

Teeth per inch

	1.25	2	3	4	
13 x 0.9			■	■	1/2 x .035
20 x 0.9			■		3/4 x .035
27 x 0.9		■	■	■	1 x .035
27 x 1.1		■			1 x .042
34 x 1.1	■	■	■		1 1/4 x .042
41 x 1.3			■		1 1/2 x .050
Band saw blade width x thickness (mm)					width x thickness (inch)

BI-ALFA
COBALT RP

The ROENTGEN bi-alfa cobalt RP band saw blade is produced with HSS-M42 cutting tips. The cutting angle of 16° offers a more aggressive cutting performance.

RP TOOTH

TOOTH FORM

The RP tooth has a positive cutting angle of 16°. Due to its aggressive cutting characteristics, it is most suitable for cutting high-end and exotic alloys and for non-ferrous metals.

APPLICATION AREAS

BI-ALFA
COBALT RP

Teeth per inch

	0.75/1.25	1.1/1.6	1.5/2	2/3	3/4	
27 x 0.9					■	1 x .035
34 x 1.1				■	■	1 1/4 x .042
41 x 1.3			■	■	■	1 1/2 x .050
54 x 1.3			■	■		2 x .050
54 x 1.6		■	■	■	■	2 x .063
67 x 1.6	■	■	■	■		2 5/8 x .063
80 x 1.6	■	■				3 1/8 x .063
Band saw blade width x thickness (mm)						width x thickness (inch)

BI-ALFA
MASTER

The ROENTGEN bi-alfa Master band saw blade is CBN precision ground with a chamfered high tooth (A), which optimizes blade guidance throughout the cutting. This ensures perpendicular cuts. A pair of set lower finishing teeth provides the necessary cutting clearance.

This tooth geometry with HSS-M42 tooth tips and very narrow height tolerances ensures uniform chip loads.

MASTER-TOOTH

TOOTH FORM

This special development consists of ground tooth tips: chamfered pre-cutter and lower finishing tooth tips. The Master-Tooth is particularly suitable for cutting exotic alloys.

APPLICATION AREAS

BI-ALFA
MASTER

Teeth per inch

	1.5/2	2/3	3/4	
27 x 0.9			■	1 x .035
34 x 1.1		■	■	1 1/4 x .042
41 x 1.3	■	■	■	1 1/2 x .050
Band saw blade width x thickness (mm)				width x thickness (inch)

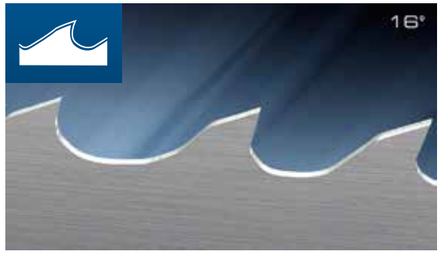
BI-ALFA
RP MASTER

The ROENTGEN bi-alfa RP-Master band saw blade is CBN precision ground with a chamfered high tooth (A), which optimizes blade guidance throughout the cutting. This ensures a perpendicular cut.

The ground finishing teeth (B, C, D and E) provide the necessary cutting clearance to give a clean and smooth cut surface. This geometry ensures uniform tooth loads and chip removal. This in combination with the aggressive cutting angle of 16°, improves the cutting performance of the band saw blade.

MASTER TOOTH

TOOTH FORM



This special development consists of ground tooth tips: chamfered pre-cutter and lower finishing tooth tips. The Master-Tooth is particularly suitable for cutting exotic alloys.

APPLICATION AREAS

BI-ALFA
RP MASTER

Teeth per inch

	0.75/1.25	1.1/1.6	1.5/2	2/3	3/4	
34 x 1.1				■	■	1 1/4 x .042
41 x 1.3			■	■	■	1 1/2 x .050
54 x 1.3			■	■		2 x .050
54 x 1.6		■	■	■	■	2 x .063
67 x 1.6	■	■	■			2 5/8 x .063
80 x 1.6	■	■				3 1/8 x .063
Band saw blade width x thickness (mm)						width x thickness (inch)

BI-ALFA
COBALT M51

The ROENTGEN bi-alfa cobalt M51 band saw blade has an alloyed steel backing with high chromium content together with a HSS-M51 cutting edge. Due to the cobalt and tungsten content of the cutting tips, the blade has high thermal and mechanical wear resistance.

HOOK TOOTH

TOOTH FORM

The hook tooth has a positive cutting angle of 10°. This tooth form is particularly suitable for cutting solid, thick-walled tubes and all higher-grade alloy material.

APPLICATION AREAS

BI-ALFA
COBALT M51

Teeth per inch

	2/3	3/4	4/5	4/6	
27 x 0.9	■	■	■	■	1 x .035
34 x 1.1				■	1 1/4 x .042
41 x 1.3		■		■	1 1/2 x .050
54 x 1.6		■			2 x .063
67 x 1.6	■				2 5/8 x .063
Band saw blade width x thickness (mm)					width x thickness (inch)

BI-ALFA
COBALT M51 SUPREME

The ROENTGEN bi-alfa cobalt M51 Supreme band saw blade has an alloyed steel backing with high chromium content together with a HSS-M51 cutting edge. The cutting angle of 16° offers a more aggressive cutting performance improving chip flow. Due to the cobalt and tungsten content of the cutting tips, the blade has high thermal and mechanical wear resistance.

RP TOOTH

TOOTH FORM

The RP tooth has a positive cutting angle of 16°. Due to its aggressive cutting characteristics, it is most suitable for cutting high-end and exotic alloys and for non-ferrous metals.

APPLICATION AREAS

BI-ALFA
COBALT M51
SUPREME

Teeth per inch

	0.6/0.7	0.75/1.25	1.1/1.6	1.5/2	2/3	3/4	
34 x 1.1					■	■	1 1/4 x .042
41 x 1.3				■	■		1 1/2 x .050
54 x 1.3				■	■		2 x .050
54 x 1.6			■	■	■		2 x .063
67 x 1.6		■	■	■			2 5/8 x .063
80 x 1.6		■	■				3 1/8 x .063
100 x 1.6	■						4 x .063
Band saw blade width x thickness (mm)							width x thickness (inch)

BI-ALFA
MASTER SUPREME

High-alloyed materials are extremely demanding on all cutting tools. The Roentgen Master Supreme provides a cost effective solution for these difficult applications. M51 cutting tips together with a special tooth geometry provides the perfect solution for high alloyed and exotic materials.

Master Supreme is especially suited to cut large cross sections, therefore it is the ideal solution for steel service centers and forges.

ROENTGEN MASTER SUPREME
Precise perpendicular cut with excellent surface finish on the most difficult-to-cut-materials.

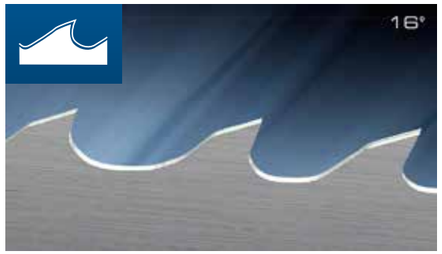
The doubled-sided chamfered pre-cutter ensures absolute straight cutting, while a pair of higher set finishing teeth keeps the cutting channel open. Resulting in a clean and smooth cutting surface.

HIGH EFFICIENCY
HSS-M51 tooth tips allow to cut materials with a hardness of up to 50 HRc (1600 N/mm²). Together with an aggressive cutting angle of 16°, it is the ideal combination to cut high alloyed and exotic materials on larger cross sections.

LONGER BLADE LIFE
The high heat and mechanical wear resistance of HSS-M51 cutting tips ensure excellent blade life, when cutting high alloyed and exotic materials.

MASTER-TOOTH

TOOTH FORM



This special development consists of ground tooth tips: chamfered pre-cutter and lower finishing tooth tips. The Master-Tooth is particularly suitable for cutting exotic alloys.

APPLICATION AREAS

Teeth per inch

	0.6/0.7	0.75/1.25	1.1/1.6	1.5/2	2/3	3/4	
34 x 1.1					■	■	1 1/4 x .042
41 x 1.3				■	■		1 1/2 x .050
54 x 1.3				■	■		2 x .050
54 x 1.6			■	■	■		2 x .063
67 x 1.6		■	■	■			2 5/8 x .063
80 x 1.6		■	■				3 1/8 x .063
100 x 1.6	■	■					4 x .063
Band saw blade width x thickness (mm)							width x thickness (inch)

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HM-TITAN
MU

The high performance band saw blade Roentgen HM-Titan MU was developed to cut a variety of different materials. The special designed tooth geometry enables a better chip separation with low noise and high cutting rates. Reduced cutting times combined with an excellent finish are ensured.

HOOK TOOTH
TOOTH FORM

APPLICATION AREAS

HM-TITAN
MU

Teeth per inch

	0.85/1.15	1.1/1.6	1.5/2	1,8/2,2	2/3	3/4	
27 x 0.9						■	1 x .035
34 x 1.1					■	■	1 1/4 x .042
41 x 1.3			■		■	■	1 1/2 x .050
54 x 1.3			■		■	■	2 x .050
54 x 1.6	■	■	■		■	■	2 x .063
67 x 1.6	■	■	■	■			2 5/8 x .063
80 x 1.6		■					3 1/8 x .063

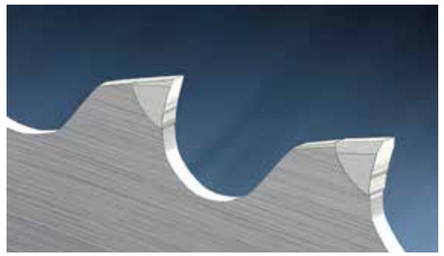
Band saw blade width x thickness (mm) — width x thickness (inch)

HM-TITAN
ALU2

The high performance band saw blade ROENTGEN HM-Titan ALU2 is designed for cutting non-ferrous metals, especially aluminum.

Due to the improved bending fatigue strength of the high-alloyed backing strip, the band saw blade withstands the extreme blade speeds and feeds during these cutting applications and therefore offers a high productivity and blade life.

HOOK TOOTH
TOOTH FORM



APPLICATION AREAS

Teeth per inch

	2	3	0.85/1.15	1.1/1.6	1.5/2	2/3	
13 x 0.9		■					1/2 x .035
20 x 0.9		■					3/4 x .035
27 x 0.9		■				■	1 x .035
34 x 1.1	■	■			■	■	1 1/4 x .042
41 x 1.3					■	■	1 1/2 x .050
54 x 1.3					■		2 x .050
54 x 1.6			■	■	■		2 x .063
80 x 1.6			■				3 1/8 x .063
Band saw blade width x thickness (mm)							width x thickness (inch)

HM-TITAN
ALU3

The high performance band saw blade ROENTGEN HM-Titan ALU3 is designed for cutting non-ferrous metals, especially aluminum. It is the best blade for cutting slabs and plates.

Due to improved bending fatigue strength of the high-alloyed backing strip, the band saw blade withstands the extreme blade speeds and feeds during these cutting applications and therefore offers a high productivity and blade life.

The unique tooth geometry satisfies even the highest demands with regard to the surface finish.

HOOK TOOTH
TOOTH FORM

APPLICATION AREAS

HM-TITAN
ALU3

Teeth per inch

	0.85/1.15	1.1/1.6	1.5/2	2/3	
27 x 0.9				■	1 x .035
34 x 1.1			■	■	1 1/4 x .042
41 x 1.3		■	■	■	1 1/2 x .050
54 x 1.3	■		■		2 x .050
54 x 1.6	■	■	■		2 x .063
67 x 1.6		■			2 5/8 x .063
80 x 1.6	■				3 1/8 x .063
Band saw blade width x thickness (mm)					width x thickness (inch)

Teeth per inch

	2	3	
27 x 0.9		■	1 x .035
34 x 1.1	■	■	1 1/4 x .042
41 x 1.3			1 1/2 x .050
54 x 1.3			2 x .050
54 x 1.6			2 x .063
67 x 1.6			2 5/8 x .063
80 x 1.6			3 1/8 x .063
Band saw blade width x thickness (mm)			width x thickness (inch)

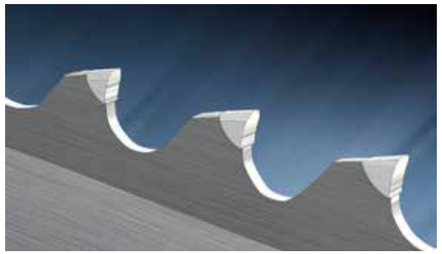
HM-TITAN
FORTE C

The high-performance ROENTGEN HM-Titan forteC band saw blade benefits from carbide tips secured by electronic controlled welding.

The special coating over the tooth tips allows a significantly higher cutting performance along with an increased blade life.

The HM-Titan forteC has an immediate contribution to efficiency and productivity right from the beginning as a break-in procedure at lower cutting parameters is not necessary.

HOOK TOOTH
TOOTH FORM



HM-Titan
in operation:

APPLICATION AREAS

HM-TITAN
FORTE C

Teeth per inch

	0.85/1.15	1.1/1.6	1.5/2	1,8/2,2	2/3	3/4	
34 x 1.1					■		1 1/4 x .042
41 x 1.3			■		■	■	1 1/2 x .050
54 x 1.3			■		■		2 x .050
54 x 1.6			■		■		2 x .063
67 x 1.6	■	■		■			2 5/8 x .063
80 x 1.6		■					3 1/8 x .063
Band saw blade width x thickness (mm)							width x thickness (inch)

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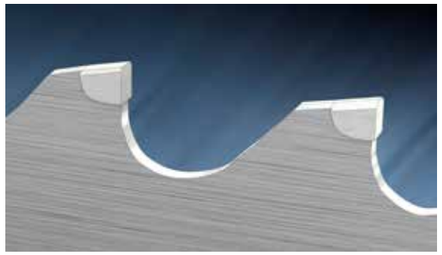
HM-TITAN
B0

The high-performance ROENTGEN HM-Titan B0 carbide tipped band saw blade has been designed to cut hardened and tempered or induction-hardened materials with a hardness higher than 50 HRc.

NORMAL TOOTH

TOOTH FORM



APPLICATION AREAS

HM-TITAN
B0

Teeth per inch

	2/3	3/4	
27 x 0.9		■	1 x .035
34 x 1.1	■	■	1 1/4 x .042
41 x 1.3	■	■	1 1/2 x .050
54 x 1.3	■	■	2 x .050
54 x 1.6	■	■	2 x .063
Band saw blade width x thickness (mm)			width x thickness (inch)

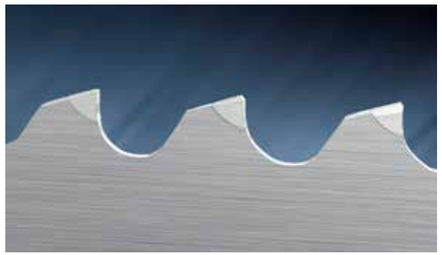
HM-TITAN
MUSN

The Roentgen HM-Titan MUSN carbide tipped band saw blade has been designed to cut hardened and tempered or induction-hardened materials with a hardness higher than 50 HRc.

HM-Titan MUSN is especially suitable on heavy-duty sawing machines and workpieces of high hardness.

TOOTH FORM NEGATIVE

TOOTH FORM



APPLICATION AREAS

HM-TITAN
MUSN

Teeth per inch

	1.5/2	2/3	3/4	
34 x 1.1			■	1 1/4 x .042
41 x 1.3	■	■	■	1 1/2 x .050
Band saw blade width x thickness (mm)				width x thickness (inch)

HM-TITAN
SET

The ROENTGEN HM-Titan SET is ideal for cutting materials with residual stress.

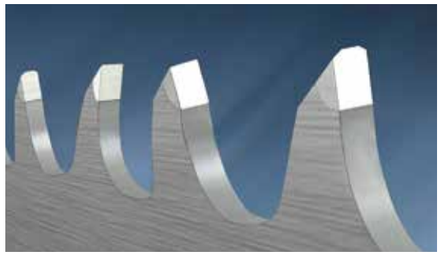
The special set pattern prevents the saw blade from binding in materials with large cross sections.

IT IS RECOMMENDED USING HM-TITAN SET FOR CUTTING:

- All kind of materials with residual stress
- Titanium and Titanium alloys
- Ni-, Co, or Cr-based alloys
- Long cross sections

HOOK TOOTH

TOOTH FORM



APPLICATION AREAS

HM-TITAN
SET

Teeth per inch

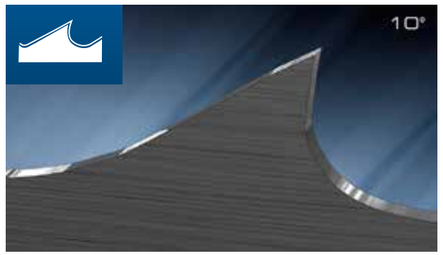
	0.85/1.15	1.1/1.6	1.5/2	2/3	3/4	
34 x 1.1				■		1 1/4 x .042
41 x 1.3			■	■		1 1/2 x .050
54 x 1.3			■	■	■	2 x .050
54 x 1.6			■	■	■	2 x .063
67 x 1.6	■	■	■			2 5/8 x .063
80 x 1.6	■	■				3 1/8 x .063
Band saw blade width x thickness (mm)						width x thickness (inch)

RRR

The ROENTGEN RRR flexback carbon band saw blade has a pin-point carbide structure of 30 - 50 grains per 100 µm². The presence of hard iron carbides produces outstanding tooth edge wear resistance, together with high flex strength in the backing steel material.

HOOK TOOTH

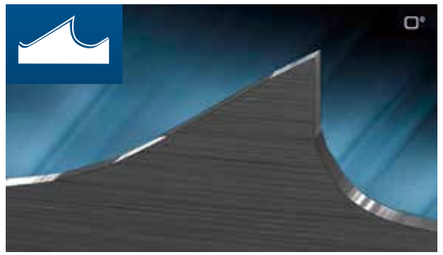
TOOTH FORM



The hook tooth has a positive cutting angle of 10°.

NORMAL TOOTH

TOOTH FORM



The normal tooth has a cutting angle of 0°.

APPLICATION AREAS

RRR

Teeth per inch / Constant tooth pitch (Normal tooth)

	2	3	4	6	8	10	14	18	24	
6 x 0.65				■	■	■	■	■	■	1/4 x .025
8 x 0.65				■	■	■	■	■	■	5/16 x .025
10 x 0.65				■	■	■	■	■	■	3/8 x .025
13 x 0.65				■	■	■	■	■	■	1/2 x .025
16 x 0.80			■	■	■	■	■			5/8 x .032
20 x 0.80				■	■	■	■	■		3/4 x .032
25 x 0.90				■	■	■	■			1 x .035
Band saw blade width x thickness (mm)										width x thickness (inch)

Teeth per inch / Constant tooth pitch (Hook tooth)

	2	3	4	6	8	10	14	18	24	
6 x 0.65				■						1/4 x .025
8 x 0.65			■	■						5/16 x .025
10 x 0.65		■	■	■						3/8 x .025
13 x 0.65			■	■						1/2 x .025
16 x 0.80		■	■							5/8 x .032
20 x 0.80			■							3/4 x .032
25 x 0.90	■	■	■							1 x .035
Band saw blade width x thickness (mm)										width x thickness (inch)

RRR
PLUS

ROENTGEN RRR-Plus hardback carbon band saw blades have a pin-point carbide structure of 30 – 50 grains per 100 µm² and precision milled tooth profiles. A special heat treatment process increases the tensile strength of the steel backing material and the wear resistance of the tooth edge. These features result in a premium quality, long-life carbon band saw blade.

HOOK TOOTH

TOOTH FORM

The hook tooth has a positive cutting angle of 10°.

NORMAL TOOTH

TOOTH FORM

The normal tooth has a cutting angle of 0°.

APPLICATION AREAS

Teeth per inch / Constant tooth pitch (Normal tooth)

	3	4	6	8	10	14	18	24	
6 x 0.65			■	■	■	■	■	■	1/4 x .025
8 x 0.65			■	■	■	■	■	■	5/16 x .025
10 x 0.65			■	■	■	■	■	■	3/8 x .025
13 x 0.65			■	■	■	■	■	■	1/2 x .025
16 x 0.80		■	■	■	■	■		■	5/8 x .032
20 x 0.80			■	■	■	■	■		3/4 x .032
25 x 0.90		■	■	■	■	■			1 x .035
Band saw blade width x thickness (mm)									width x thickness (inch)

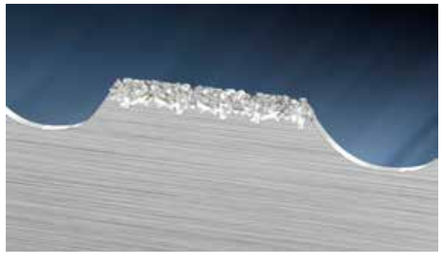
Teeth per inch / Constant tooth pitch (Hook tooth)

	3	4	6	8	10	14	18	24	
6 x 0.65		■	■						1/4 x .025
8 x 0.65			■						5/16 x .025
10 x 0.65		■	■						3/8 x .025
13 x 0.65	■	■	■						1/2 x .025
16 x 0.80		■							5/8 x .032
20 x 0.80	■	■							3/4 x .032
25 x 0.90		■	■						1 x .035
Band saw blade width x thickness (mm)									width x thickness (inch)

GRIT
SEGMENTED

The ROENTGEN Grit band saw blade is coated with a high quantity of multi-faceted carbide grains, galvanized on a highly flexible backing strip. The facets of the grains create an extreme number of cutting edges, giving a smooth surface finish. ROENTGEN offers a variety of different grain sizes and blade dimensions.

TOOTH FORM



APPLICATION AREAS

GRIT
SEGMENTED

	Segmented	Segment distance in mm	
6 x 0.50	■	8	1/4 x .020
10 x 0.65	■	12	3/8 x .025
13 x 0.50	■	12	1/2 x .020
13 x 0.65	■	12	1/2 x .025
20 x 0.80	■	12	3/4 x .032
25 x 0.90	■	12	1 x .035
32 x 0.90	■	14	1 1/4 x .035
32 x 1.10	■	14	1 1/4 x .042
38 x 1.10	■	14	1 1/2 x .042
Band saw blade width x thickness (mm)			width x thickness (inch)

GRIT CONTINUOUSLY

The ROENTGEN Grit band saw blade is coated with a high quantity of multi-faceted carbide grains, galvanized on a highly flexible backing strip. The facets of the grains create an extreme number of cutting edges, giving a smooth surface finish. ROENTGEN offers a variety of different grain sizes and blade dimensions.

TOOTH FORM

APPLICATION AREAS

GRIT
CONTINUOUSLY

Continously gritted		
6 x 0.50	■	1/4 x .020
10 x 0.65	■	3/8 x .025
13 x 0.50	■	1/2 x .020
13 x 0.65	■	1/2 x .025
20 x 0.80	■	3/4 x .032
25 x 0.90	■	1 x .035
32 x 0.90	■	1 1/4 x .035
32 x 1.10	■	1 1/4 x .042
Band saw blade width x thickness (mm)		width x thickness (inch)

POWER HACKSAW BLADES

The high-performance power hacksaw blades which are available in various qualities such as 2-iks, Moly and Moly7 are suitable for cutting material from simple carbon steel up to chromium nickel steel. In addition the break-proof bimetal blade bi-alfa is available.

For further information concerning dimension and toothing please visit:
www.roentgen-saw.com/us/power-hacksaw-blades

2-IKS | MOLY | MOLY7 | BI-ALFA

HAND HACKSAW BLADES

Hand hacksaw blades manufactured of best high-speed steel or as bimetal blade are available for highest requirements.

For further information concerning dimension and toothing please visit:
www.roentgen-saw.com/us/hand-hacksaw-blades

BI-ALFA | DURAX | 2-IKS | MOLY

SERVICE
BREAK-IN PROCEDURE

The blade life can be increased significantly by following the recommended break-in procedure.

A new saw blade benefits from a short period of cutting at reduced band speed and cutting feed rate. The break-in rates should be set at 70% of band speed and 50% of feed. After approximately 60 – 90 sq. in. cross sectional area has been cut, the band speed should be gradually increased to maximum, followed by the feed rate.

ROENTGEN CUTTING SOLUTION

The optimal cutting speed and the correct feed in combination with the correct choice of band saw blade are preconditions for a long life and cutting quality of our products.

The ROENTGEN Cutting Solution program evaluates the online input data of a determined cutting job and offers immediate recommended cutting parameters, which will result in the economic use of Roentgen band saw blades. Sign up today!

SAFETY INSTRUCTIONS

ROENTGEN band saw blades supplied in welded loops are under tension.
Great care is necessary when unpacking and preparing the blade for mounting on the sawing machine.

- wear safety glasses
- wear work gloves
- wear safety boots

For detailed safety instructions, please be referred to the machine manufacturers operating instructions or contact ROENTGEN.

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SERVICE
ACCESSORIES

BAND SAW BLADE TENSION GAUGE

Cutting performance and the straightness of the cut depend on the correct blade tension. The ROENTGEN tension gauge measures the blade tension on the machine.

Tension values are displayed in N/mm² and it enables to make a simple and quick check. A tension of 300 N/mm2 (43,000 PSI) is recommended for ROENTGEN band saw blades. Off-square cutting due to low tension or blade breakage due to high tension can be avoided.

Product information

REFRACTOMETER

The oil content of the lubricant has an important effect on the life of ROENTGEN band saw blades due to a reduced wear of tooth tips and cutting edges respectively.

The mix ratio of cooling lubricant can be read in % off a scale visible through an eyepiece.

Product information

PORTABLE FEED MEASURING DEVICE

A constant feed rate is required to achieve high durability of the band saw blade, and a high cutting performance.

The Roentgen VM – 500 allows a fast and precise measurement of the feed rate during the sawing process. A wrong or incorrect feed rate will be digitally displayed directly and can be adjusted.

The Roentgen VM – 500 is ready to use in a few seconds; is safely stored in a aluminum case.

Product information

WEDGE TO PREVENT KERF CLOSING

Steel wedge to prevent blade jamming.

Product information

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ROENTGEN USA

GERMAN QUALITY – ENDURING PRECISION

ROENTGEN USA, L.L.C.
3725 North 25th Avenue
Schiller Park, IL, 60176
USA

Phone: +001 - (847) 787 - 0135
Fax: +001 - (847) 787 - 0138
Toll free: +001 - 800 - 815 - 3750

sales@roentgen-usa.com
www.roentgen-usa.com