 **Håkansson
Sågblad AB**

BAND SAW BLADES

MADE IN SWEDEN



ІНЖТЕХСЕРВІС

ПЕРШІ.

Ексклюзивний дистриб'ютор
на території України

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CONTINUOUS DEVELOPMENT SINCE 1890

In 1890 Lars Håkansson, working for one of the leading steel mills in Sweden as hardening master, got a patent for a new heat treating method. After retirement his son Gustaf, took over the responsibility for the hardening department and he became a well-known authority in his field.

In 1944 he joined his brother Bror Håkansson, the founder of Håkansson's Industrier, and a new division was formed – Håkansson Sågblad. The first manufacturer outside of U.S.A specializing in hardedge flexible back band saw blades.

In 1946 Gustaf pioneered hardening of band saw blades with high frequency (induction hardening) and a few years later the True Set Technique™. He was also instrumental in developing milling machines for band saw blades.



WE MAKE CUTTING EASY

We at Håkansson Sågblad manufacture and sell band saw blades and circular saw blades for cutting metal, wood and food. We focus on optimum cutting economy, top quality and great service. Alongside our products we supply advanced expertise and flexible support.

Our experience and know how, from customized development of products to advice and services, ensure valuable reliability and maximum blade life. Every day we deliver products to customers all over the world.

QUALITY POLICY

Our quality policy is to make optimal use of resources to provide products of such quality that our customers' expressed and expected requirements are met. The customer should perceive Håkansson Sågblad as the best possible partner.

This is achieved by:

- producing and marketing products with the appropriate technical level with the intended level of quality, at competitive prices.
- delivering the right products on time.
- each employee always striving to improve the quality of their own work.
- providing staff with accurate information and training so that they can perform their tasks.
- ensuring that good relations exist between the company, its employees and the company's customers.
- promoting good cooperation with all suppliers to ensure high quality levels and reliable delivery times.
- we are ISO 9001 certified

ENVIRONMENTAL POLICY

Håkansson Sågblad focuses on continuous improvement by developing its business with respect to its environmental impact in emissions, waste and resource use. This development is in accordance with applicable environmental laws and requirements, as well as with internal and external expectations.

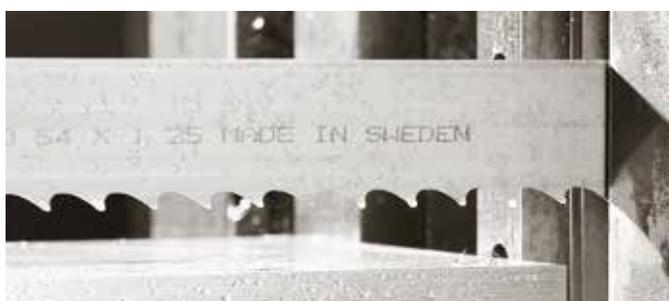
This means:

- that we comply with environmental legislation and care about our good name.
- that continuous improvement takes place in line with quality requirements and customer demands for our products.
- that we take a holistic view regarding the scale of development and investment, with consideration to environmental aspects, economic and technological opportunities.
- that we regularly evaluate business operations from an environmental perspective in order to find improvements.
- we are ISO 14001 certified



ИНЖТЕХЦЕПБІС
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CONTENTS

GENERAL INFORMATION	6
Advantages with Bi-Metal	6
Recommended tooth pitch.....	7
Tooth settings	7
How to clamp	8
Breaking-in a new saw blade	8
CUTTING DATA	10
SAW ADJUSTING	11
PRODUCT INFORMATION	12
Band saw blade.....	12
Allpower®.....	12
Commander™	14
PowerMax™	15
Optimizer™	16
Performer	17
Rapid.....	18
M42 Log™	20
Silco®.....	21
PrimeCut®	22
SeaCut®	22
Band knives	22
Circular saw blades	24
HSS circular saw blade	24
Cermet & Carbide tipped	24

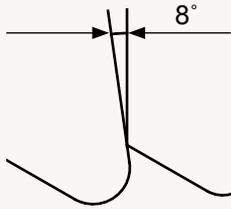
GENERAL INFORMATION

ADVANTAGES WITH BI-METAL

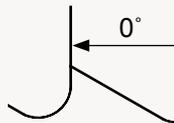
Bi-Metal blades combine the advantages of a high speed cutting edge and the features of a highly fatigue resistant steel in the body of the blade. This contributes to long blade life, faster and more uniform cutting rates.

Håkansson Sägblad world-renowned heat treating experience gives an excellent background to the development of this type of blades.

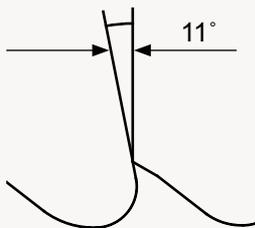
PFV/PG



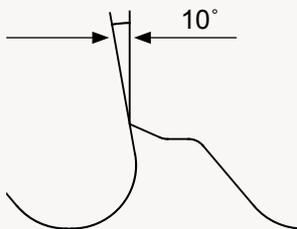
FV



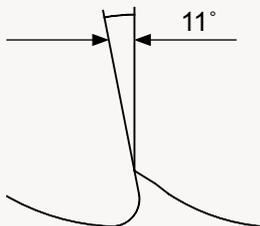
PCV3



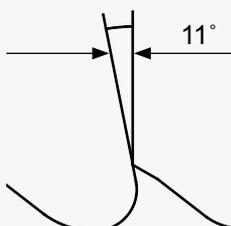
PXV



POV2



POV2 PCV3



M42 Allpower®

This is our most versatile band saw blade. It provides maximum production when cutting a variety of materials, from large profiles and solid materials to non-ferrous metals. Available in both positive and neutral tooth.

M42 Commander™

For tough and demanding production cutting of tool steels, structural steels and difficult to cut materials. With specially designed tooth for optimal chip flow and increased cutting speed when cutting solid materials.

M42 PowerMax™

The unique tooth profile is specially developed for pipes, beams, tubes and profiles. The reinforced tooth works extremely well when bundle cutting.

M42 Opimizer™

For production cutting of heavy sections in stainless, titanium and cobalt based materials. Specially designed tooth profile for maximum chip ejection.

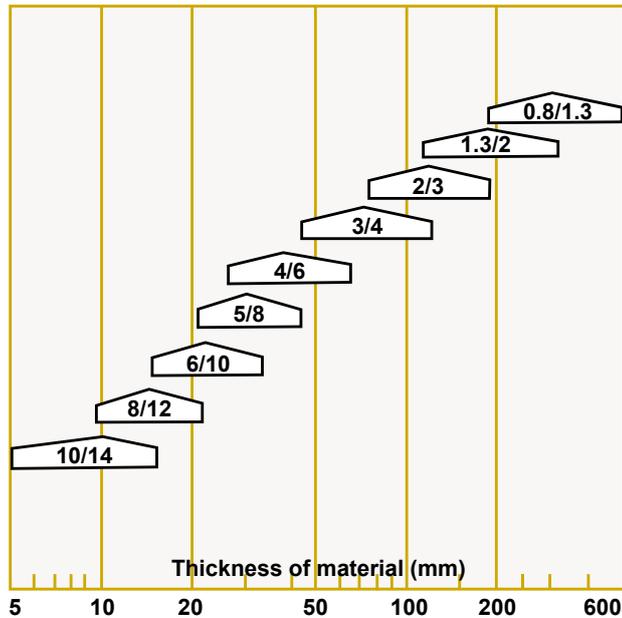
M51 Perfomer

Premium band saw blade for very difficult to cut material. Tooth tips of HSS M51 material. Extra heavy set and deep gullet provides increased cutting rate. High heat and wear resistance.

GENERAL INFORMATION

RECOMMENDED TOOTH PITCH FOR...

SOLID WORK PIECE



The adjoining diagram is a guide to your choice of tooth pitch when cutting solid work pieces.

The very best choice is where the tooth pitch-area is at its widest.

When cutting soft materials such as wood, plastics, aluminum etc. choose a two step coarser tooth pitch.

TOOTH SETTINGS

Raker set (RS)

One tooth is set to the right, the next to the left and the third is straight.

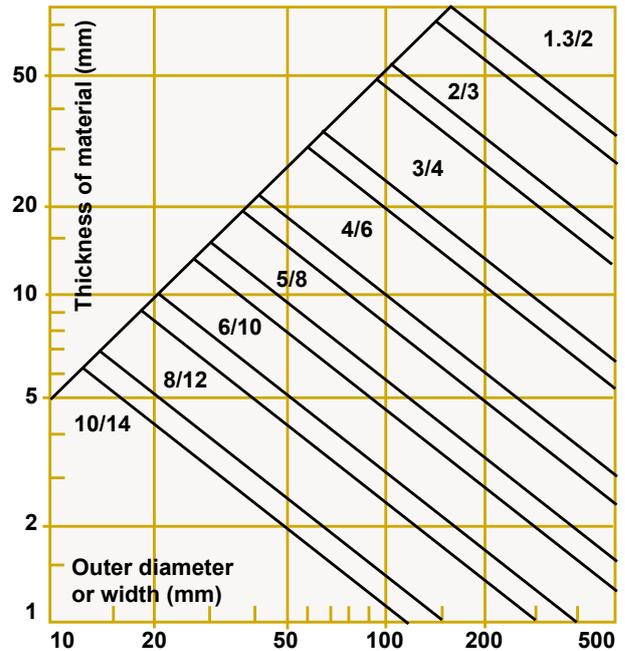
Alternet set (AS)

This setting has one tooth set to the right, the following to the left, the next to the right and so on.

Alternet rake (AR)

A group of AS set teeth is followed by a straight tooth.

PIPES AND PROFILES



The adjoining diagram is a guide to your choice of tooth pitch when cutting pipes and profiles.

The very best choice is in the area, where a line from the outer diameter crosses a line from the thickness of the material.

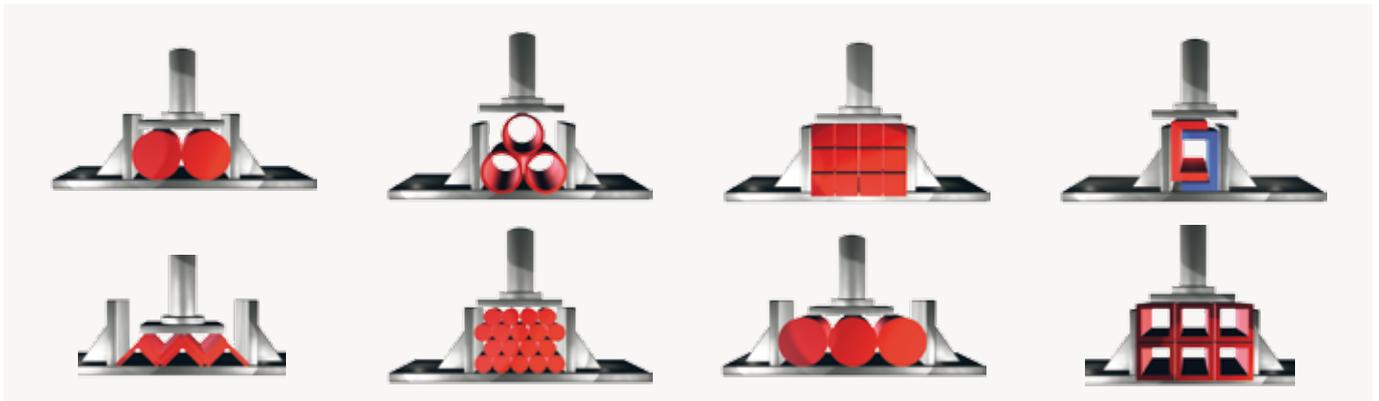
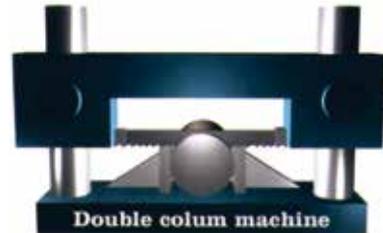
When cutting profiles, choose the tooth pitch, where the line from the width of the profile crosses the line from the material thickness of the profile.



GENERAL INFORMATION

HOW TO CLAMP

Recommendations for material clamping. The correct clamping of the material will considerably contribute to the performance of the sawing operation. Please note the difference in clamping when using conventional bandsaw and double column horizontal machines.



BREAKING-IN A BAND SAW BLADE

Bi-Metal band saw blade: To achieve a long blade life the breaking-in of the blade is important. A new band saw blade should operate with 50 % of full feed rate, for about 15 minutes. After that the feed rate may be increased slowly up to the full rate.

Carbide tipped band saw blade: This type of blade should operate with 75 % of the cutting speed and 50 % of the feed rate during breaking-in, about 15 minutes. The cutting speed and feed rate can then slowly be increased up to the full rate.



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BI-METAL BAND SAW BLADES

CUTTING DATA

Material	DIN	USA	JIS	Speed m/min	Cutting rate cm ² /min
1.0060	St 60-2	A 572 Gr.65	SM 58	40-70	20-40
1.0401	C15	1016	S 15C	40-70	20-40
1.0503	C45	1045	S 45C	40-74	20-45
1.0570	St 52-3	A 572 Gr.50	SM 490	40-74	20-45
1.1158	Ck25	1025	S25C	40-74	20-45
1.1221	Ck60	1060	S58C	35-74	15-45
1.2080	X210Cr12	D3	SKD 1	15-37	5-18
1.2312	40CrMnMoS 8-6			25-59	10-30
1.2343	X38CrMoV5-1	H11	SKO 6	22-45	10-24
1.2363	X100CrMoV5-1	A2	SKD12	20-42	8-20
1.2379	X155CrVMo12-1	2	SKO 11	15-37	5-18
1.2510	100 MnCrW4	1	SKS 3	26-46	12-24
1.2606	X37CrMoW 5-1	H12	SKD 62	20-46	8-24
1.2714	56 NiCrMoV7	L6	SKT 4	26-46	12-26
1.2842	90 MnCrV 8	2		24-45	12-24
1.3343	s 6-5-2	M2	SKH 51	26-40	12-20
1.3247	S2-20-1-8	M42	SKH 59	26-40	12-20
1.3965	X8CrMnNi 18-8	Nitronic 50		12-32	4-12
1.4006	X10Cr13	410	SUS410	20-34	8-16
1.4028	X20Cr13	420	sus 420J1	26-38	6-20
1.4125	X105CrMo17	440	C SUS 440C	16-37	6-18
1.4301	X5CrNi 18-10	304	sus 304	16-38	6-20
1.4401	X5CrNiMo 17-12-2	316	sus 316	16-36	6-18
1.4462	X2CrNiMoN 22-5-3	2205	SUS 329J3L	16-34	6-14
1.4571	X6 CrNiMoTi17-12 -2	316 Ti	SUS316	16-34	6-14
1.4841	X15CrNiSi 25-20	314	SUH 310	14-32	4-12
1.4864	X12NiCrSi 36-16	330	SUH 330	14-32	4-12
1.4923	X22 CrMoV 12 -1			14-32	4-12
1.4980	X5 NiCrTi 26-15	A286	SUH 660	14-32	4-12
1.5710	36 NiCr6	(X)3140		26-52	12-28
1.5755	31 NiCr14	3415	SNC 815	30-54	14-30
1.6310	20 MnMoNi-5			26-52	12-28
1.6523	20 NiCrMo2	8620	SNCM 220	26-54	14-30
1.6546	40 NiCrMo 2-2	8640	SNCM 240	30-54	10-30
1.6562	40 NiCrMo7	E4340	SNB24-1-5	30-54	10-30
1.6749	23 CrNiMo 7- 4-7			30-54	10-28
1.6985	28 CrMoNiV 4-9			36-58	16-34
1.7147	20 MnCr5	5120	SMnC420H	38-62	18-36
1.7225	42 CrMo4	4140	SCM 440	36-58	16-34
1.7228	50 CrMo4	4150	SCM 445	34-60	16-36
1.7335	13CrMo 4-4	A387 Gr. 12	SFVA F 12	40-64	18-38
1.7707	30 CrMoV9			28-58	16-34
1.8159	50 CrV4	6150	SUP10	32-54	12-30
1.8509	41 CrAlMo 7	A 355 Cl. A	SACM 645	18-45	8-24

GENERAL INFORMATION

SAW ADJUSTING

BEFORE OPERATING THE SAW, CHECK THE FOLLOWING

- Consult our cutting chart for recommended feed and speed.
- Teeth must be pointing in the right direction.
- Check guides of band saw machine, also clearance between the guides and blade.
- Hold material securely.
- Check oil concentration of the coolant.

TENSION METER

Correct band tension is essential for straight cut and prolonged blade life.



RECOMMENDED BAND TENSION

Bi-metal M42	Tension (metric)	Tension (english)
- up to an including 34 mm (1 3/4") in width	1 800 - 2 500 kg/cm ²	25 000 - 35 000 PSI
- from 41 mm (1 1/2") and wider	2 100 - 2 800 kg/cm ²	30 000 - 40 000 PSI
Silco, Silco-Log	1 000 - 1 400 kg/cm ²	15 000 - 20 000 PSI
Primecut and Hoby	1 400 - 1 800 kg/cm ²	20 000 - 25 000 PSI

As a general rule of thumb, the higher end of the tension range should be used when the guide arms are further apart and the lower end of the range when the arms are closer together.

The above tension ranges are supplied as guide for normal average cutting conditions. Insufficient blade tension can affect the cutting efficiency of the blade.

TACHOMETER

Digital tachometer showing the band speed in feet/min as well as m/min.

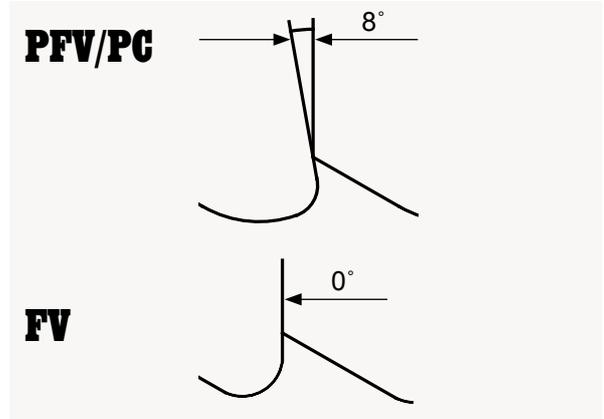


REFRACTOMETER

Proper concentration of the cooling lubricants is of utmost importance for the cutting result.

BI-METAL BAND SAW BLADE

ALLPOWER®

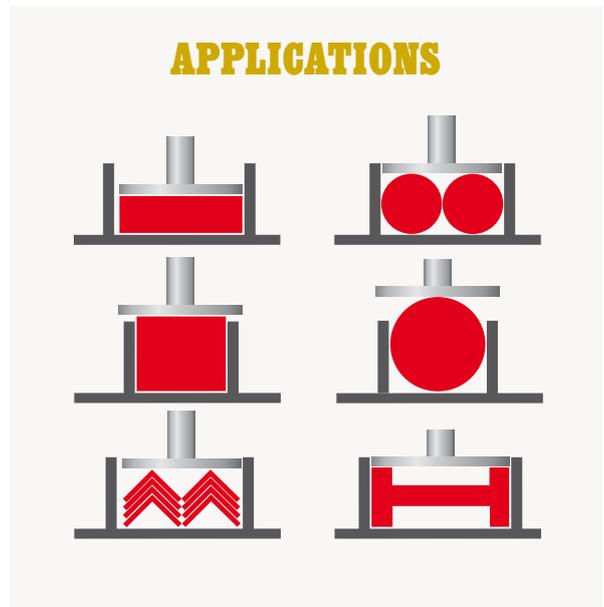


M42 ALLPOWER®

A VERSATILE BLADE

- Our most popular allround blade
- Suitable for production as well as non-production cutting
- Produced from HSS M42 edge and known for its consistency
- The popular choice from workshops to heavy industrial cutting
- A large variety of pitches available
- Tooth set AR

APPLICATIONS



SPECIFICATIONS

	3	4	6	2/3	3/4	4/6	5/8	6/10	8/12	10/14	
10 x 0.9		●								○	3/8 x .035
12 x 0.6	●	●	●					○	○	○	1/2 x .025
12 x 0.9	●	●								○	1/2 x .035
19 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

● Positive tooth

○ Neutral tooth



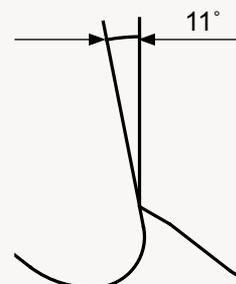
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BI-METAL BAND SAW BLADE COMMANDER™



PCV3



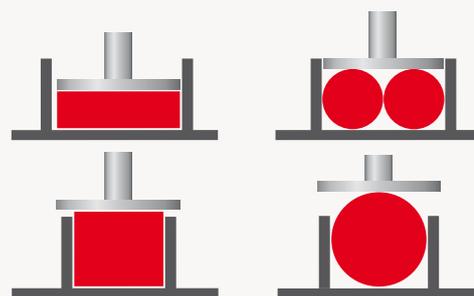
M42 COMMANDER™ WHEN HIGH PRODUCTION IS REQUIRED

- The suitable choice where high production is required
- Specially designed for optimal chip flow and increased cutting rate
- High wear resistance
- Produced from HSS M42 edge suitable for solid and tough materials
- Tooth set AR

SPECIFICATIONS

	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 1.6	●	●	●	2 x .063

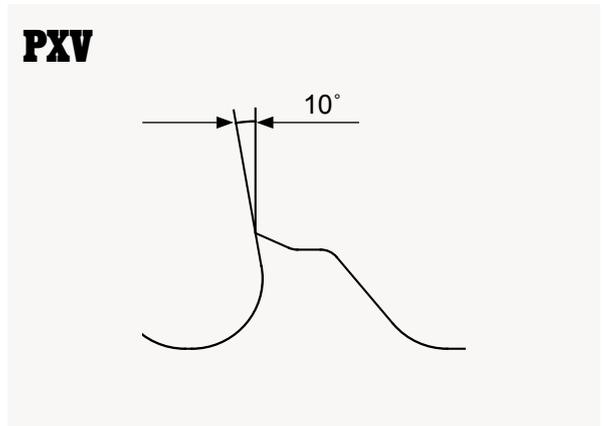
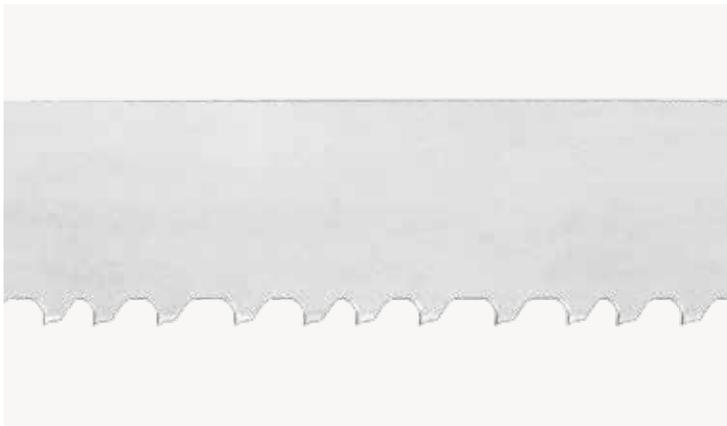
APPLICATIONS



OUR SAW BLADES ARE PRODUCED AT OUR FACILITIES IN SWEDEN IN ACCORDANCE WITH ISO-9001 AND ISO-14001

BI-METAL BAND SAW BLADE

POWERMAX™



M42 POWERMAX™

WITH A UNIQUE

TOOTH DESIGN

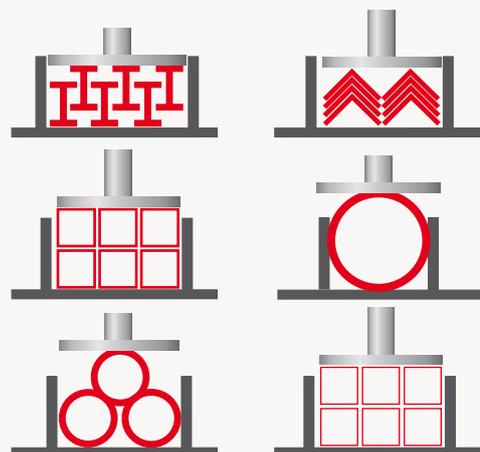
- A completely different type of blade with a unique tooth design and setting pattern
- Results in high performance for interrupted cuts in structural steels like tubes, profiles and beams
- Shock resistant, reduces vibrations, noise level and tooth breakage
- Specially suitable for bundle cutting in one or multiple layers
- Tooth set AR

SPECIFICATIONS

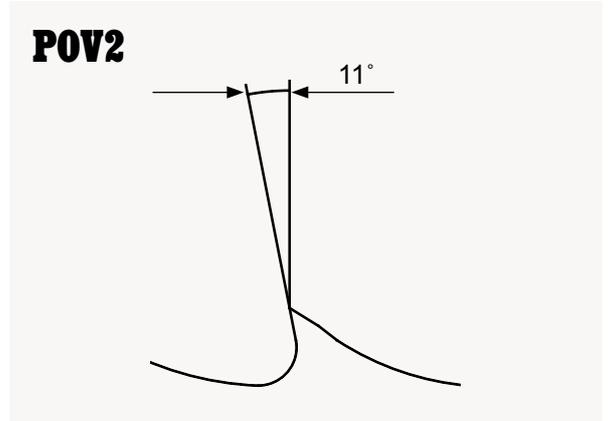
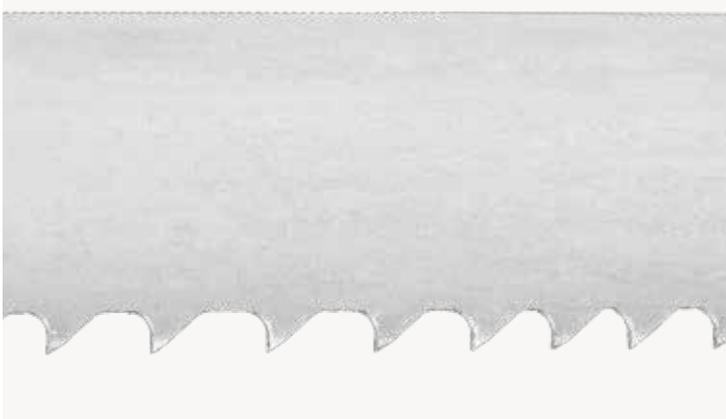
	1.3/2	2/3	3/4	4/6	5/7	8/11	
27 x 0.9			●	●	●	●	1 x .035
34 x 1.1		●	●	●	●	●	1 1/4 x .042
41 x 1.3	●	●	●	●	●		1 1/2 x .050
54 x 1.6	●	●	●	●			2 x .063
67 x 1.6	●	●	●				2 5/8 x .063



APPLICATIONS



BI-METAL BAND SAW BLADE OPTIMIZER™



M42 OPTIMIZER™ FOR TOUGH AND DEMANDING PRODUCTION

- Specially designed tooth for improved chip flow
- For tough and demanding production cutting
- Fast cutting of wide cross sections of ferrous and non-ferrous metals
- High heat and wear resistance
- Increased blade life when sawing in material that can work harden if not consistently penetrated
- Tooth set AR

SPECIFICATIONS

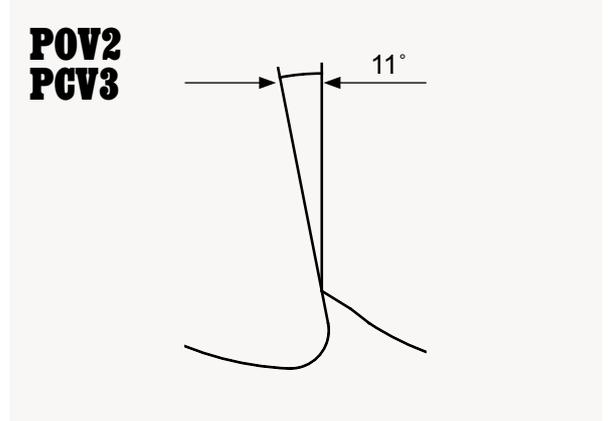
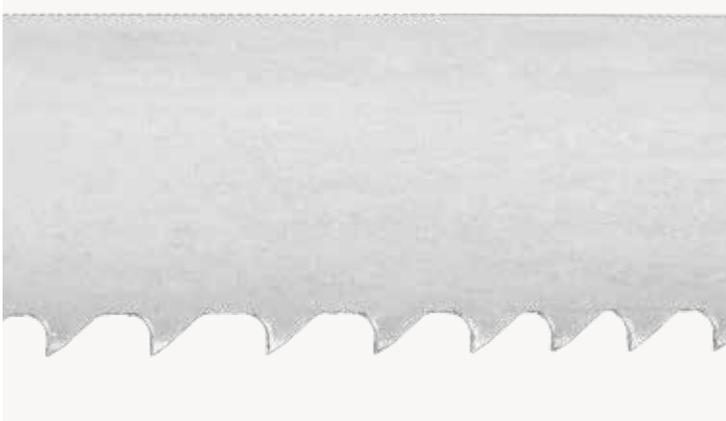
	1.25	0.8/1.3	1.3/2	
34 x 1.1	●			1 1/4 x .042
41 x 1.3	●		●	1 1/2 x .050
54 x 1.6	●	●	●	2 x .063
67 x 1.6	●	●	●	2 5/8 x .063

APPLICATIONS



BI-METAL BAND SAW BLADE

PERFORMER

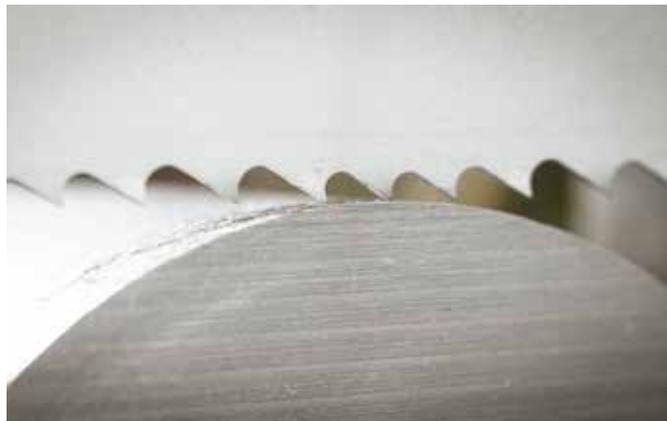


M51 PERFORMER A HIGHER TOUGHNESS

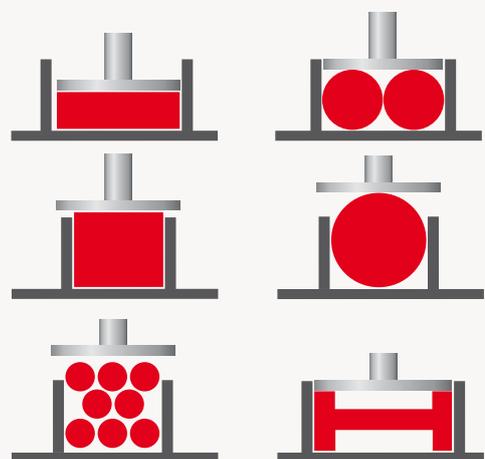
- M51 HSS tooth
- Extra heavy set
- High wear and heat resistance
- Long and reliable tool life
- High shock resistance
- For difficult to cut materials
- Higher cutting rate
- Tooth set AR

SPECIFICATIONS

	0.8/1.3	1.3/2	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 1.6	●	●	●			2 x .063
67 x 1.6	●	●	●			2 5/8 x .063
80 x 1.6	●	●				3 1/8 x .063



APPLICATIONS



CARBIDE TIPPED BAND SAW BLADE

RAPID



RAPID CT10

- Carbide tipped band saw blade for cutting tool steels, high speed steels and stainless steels
- The unique tooth geometry results in better chip separation, low noise and high cutting rates
- For faster cutting and excellent finish

SPECIFICATIONS

	0.85/1.5	1.1/1.6	1.5/2	2/3	3/4
27 x 0.9					●
34 x 1.1				●	●
41 x 1.3			●	●	●
54 x 1.3			●	●	
54 x 1.6	●	●	●	●	
67 x 1.6	●	●	●		
80 x 1.6	●	●			

RAPID CT20

- Carbide tipped band saw blade with unique setting
- For cutting materials with residual stress
- Reduces vibrations in older machines
- Suitable for bundle cutting

SPECIFICATIONS

	0.8/1.2	1.1/1.6	1.5/2	2/3
34 x 1.1				●
41 x 1.3			●	●
54 x 1.3			●	●
54 x 1.6			●	●
67 x 1.6	●	●	●	
80 x 1.6	●	●		



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CARBIDE TIPPED BAND SAW BLADE

RAPID



RAPID CT30

- Carbide tipped band saw blade developed for cutting non-ferrous materials and especially aluminum
- The fatigue resistant alloyed steel backing withstands the severe mechanical stress due to the high cutting speeds and feeds
- For high productivity and long blade life

SPECIFICATIONS

	2	3	0.85/1.5	1.1/1.6	1.5/2	2/3
19 x 0.9		●				
27 x 0.9		●				●
34 x 1.1	●	●			●	●
41 x 1.3					●	●
54 x 1.3			●		●	
54 x 1.6			●	●	●	

RAPID CT40

- Carbide tipped band saw blade with special design developed for cutting hardened and tempered or induction hardened materials
- For cutting materials with hardness between 50-60 HRc

SPECIFICATIONS

	2/3	3/4
27 x 0.9		●
34 x 1.1	●	●
41 x 1.3	●	●
54 x 1.6	●	

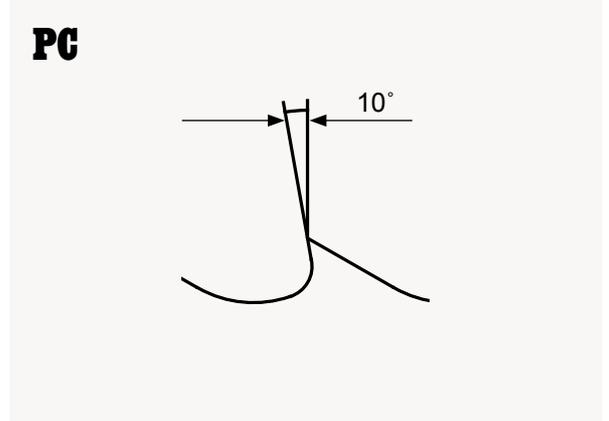


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WOOD BAND SAW BLADE

M42 LOG™/ SILCO LOG®



M42 LOG™ A LONGER RUN TIME

- For portable sawmills
- The suitable choice where high production is required
- Specially designed for optimal chip flow and increased cutting rate
- High wear resistance
- HSS edge for longer run time between regrinding
- Tooth set RS

SPECIFICATIONS

Pitch mm

	19 mm 3/4"	22 mm 7/8"	25 mm 1"	12,5 mm 2"	
27 x 0.9			●	●	1 x .035
34 x 0.9		●			1 1/4 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

SILCO LOG®

- Our most popular saw blade for portable sawmills
- Carbon steel with hardened teeth
- Produced from the best raw material with high silicon content
- Tooth set RS

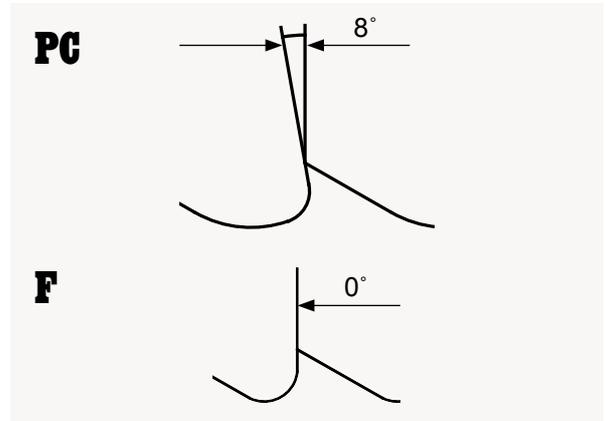
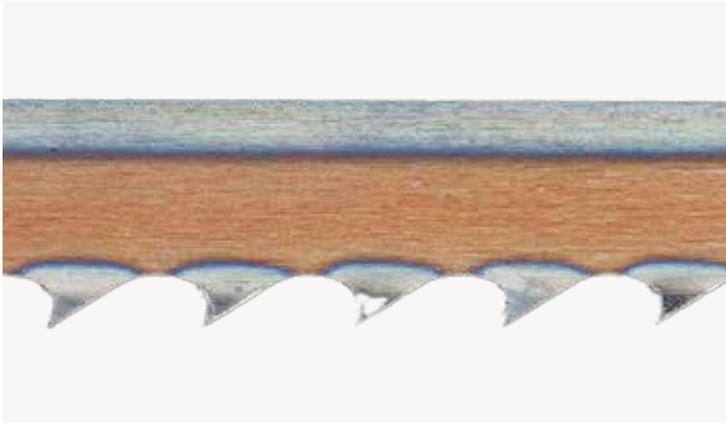
SPECIFICATIONS

Pitch mm

	19 mm 3/4"	22 mm 7/8"	25 mm 1"	
25 x 1.07	●			1 x .042
31 x 1.07	●	●		1 1/4 x .042
31 x 1.14	●	●		1 1/4 x .045
38 x 1.07		●	●	1 1/2 x .042
45 x 1.32			●	1 3/4 x .052
51 x 1.07			●	2 x .042
51 x 1.32			●	2 x .052

WOOD BAND SAW BLADE

SILCO®



SILCO®

- Suitable for cutting wood, aluminum, brass, bronze, cast iron, copper, lead, zinc, graphite, fibreglass, plastic, cork and other non-ferrous metals
- Manufactured from high silicon steel
- High quality, flexibility and performance make the blade ideal for friction cutting
- Hardened tooth tip/flexible back
- Tooth set AR

SPECIFICATIONS

	2	3	4	6	8	10	14	18	
4 x 0.63						○			3/16 x .025
6 x 0.63			●	●	○	○	○	○	1/4 x .025
10 x 0.63		●	●	●	○	○	○		3/8 x .025
12 x 0.63		●	●	●	○	○	○	○	1/2 x .025
16 x 0.63			●						5/8 x .025
16 x 0.81		●	●			○			5/8 x .032
19 x 0.63		●							3/4 x .025
19 x 0.81		●	●	●		○	○		3/4 x .032
25 x 0.90	●	●	●	○		○			1 x .035
31 x 1.07		●							1 1/4 x .042

● Positive tooth

○ Neutral tooth

SILCO HOBBY

- Extra flexible blade
- Specially designed for small bandsaw machines with small diameter wheels
- Tooth set AR

SPECIFICATIONS

	4	6	14	
6 x 0.36	●	●	●	1/4 x .014
10 x 0.36	●	●		3/8 x .014
16 x 0.36	●	●		5/8 x .014

FOOD BAND SAW BLADE

PRIMECUT[®]/SEACUT[®]/BAND KNIVES



PRIMECUT[®]

- For cutting all types of fresh or frozen meat, incl bones
- Manufactured from best strip steel available
- Special sharp tooth that easily cuts through all types of meat and bones
- Minimum of material waste
- Longer blade life

SEACUT[®]

- For cutting frozen fish
- Manufactured from best strip steel available
- Special sharp tooth that easily cuts through all types of frozen fish
- Minimum of material waste
- Longer blade life

BAND KNIVES

- For cutting soft and fibrous type of material. It produces a smooth finish without tearing or producing ragged edges
- For cutting cellulose sponge, bread, cake, rubber, seals, gaskets, leather, soft aluminum, corrugated stock, buffing wheels
- For cutting same material as wavy edge. Faster cutting performance, but somewhat rougher finish

Straight edge



Wavy edge



Scallop edge



SPECIFICATIONS

	3	4	
12 x 0.50	●	●	1/2 x .020
12 x 0.60	●	●	1/2 x .024
16 x 0.50	●	●	5/8 x .020
16 x 0.56	●	●	5/8 x .022
16 x 0.60	●	●	5/8 x .024
19 x 0.50	●	●	3/4 x .020
19 x 0.56	●	●	3/4 x .022
19 x 0.60	●	●	3/4 x .024

Other dimensions available upon request

SPECIFICATIONS

	3	
16 x 0.36	●	5/8 x .014
16 x 0.40	●	5/8 x .016

Other dimensions available upon request

SPECIFICATIONS

Width x thickn mm	Width x thickn inch
10 x 0.45	3/8 x .018
15 x 0.50	5/8 x .018
20 x 0.50	3/4 x .018
25 x 0.50	1 x .018

CIRCULAR SAW BLADE

HSS CIRCULAR SAW BLADE



We produce blades as well as regrind all kinds of HSS blades in our new grinders. We stock sizes from 63 to 620 mm, any tooth shape such as BW, C or variable pitch. The blades are available with six different

coatings, the standard TiN to TiAlN coating. Cutting angles can be adjusted for cutting specified materials. Ask us for advice and suggestion on choice of blades.

CERMET & CARBIDE TIPPED CIRCULAR SAW BLADE

- High quality Cermet and coated Carbide tipped circular saw blades for all types of steel cutting
- Saw blades for one-time use, so called throw-away blades
- Wide product range containing all common dimensions on the market in diameters 250 - 460 mm
- Available with Cermet or coated Carbide tipped teeth
- A large variety of pitches
- We support you in selecting the right product for your application

POWER HACK SAW BLADES

We provide power hack saw blades in most common dimensions and pitches.



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DATA HSS CIRCULAR SAW BLADE

HSS-DMo5 (M2 - W.Nr. 1.3343) / HSS / E-Co 5 % (M35 - W.Nr. 1.3243)

Number and shape of teeth

Diameter	Bore	Thick-ness	Hub	T 1.5 A	T 2.5 A	T 3 Bw	T 4 Bw	T 4.5 Bw	T 5 Bw	T 5.5 Bw	T 6 C	T 7 C	T 8 C	T 9 C	T 10 C	T 12 C	T 14 C	T 16 C	T 18 C
160	32	1.2	75																
	32	1.5	75	340	200	160	128	110	100	90	80	70	64	56					
	32	2.0	75																
175	32	1.2	75																
	32	1.5	75	360	220	180	140	120	110	100	90	80	70	60					
	32	2.0	75																
200	32	1.0	100																
	32	1.2	100																
	32	1.5/1.6	90	420	250	200	160	140	130	120	100	90	80	70	60				
	32	1.8	90																
	25.4/32	2.0	90																
	32	2.5	90																
210	32	2.0	90	440	260	210	160	144	130	120	110	94	80	74	66				
	32	1.2	100																
225	32	1.5/1.6	90																
	32/40	1.8	90	470	280	220	180	160	140	128	120	100	90	80	70	60			
	32/40	1.9/2.0	90																
	32	2.5	90																
250	32	1.0	100																
	32	1.2	100																
	32	1.5/1.6	100	520	320	250	200	180	160	140	128	110	100	890	80	66			
	25.4/32/40	2.0	100																
	25.4/32/40	2.5	100																
	32	3.0	100																
275	32	1.2	100																
	32	1.6	100																
	32/40	2.0	100		340	280	220	200	180	160	140	120	110	96	90	70	60		
	25.4/32/40	2.5	100																
	32/40	3.0	100																
300	32/40	1.6	100																
	32/40	2.0	100		380	300	220	210	180	170	160	140	120	104	90	80	68		
	32/38/40	2.5	100																
	32/40	3.0	100																
315	32/40	1.6	120																
	32/40	2.0	100																
	32/40	2.5	100		400	300	240	220	200	180	160	140	120	110	100	80	70	60	
	32/40	3.0	100																
	32/40	3.5	100																
325	32/40	2.0	120																
	32/40	2.5	120		410	320	250	220	200	190	170	150	128	110	100	80	72	64	
	40	3.0	120																
350	32/40/50	1.8	120																
	32/40/50	2.0	120																
	32/40/50	2.5	120		440	350	280	240	220	200	180	160	140	120	110	90	80	70	60
	32/40/50	3.0	120																
	32/40/50	3.5	120																
370	40/50	2.5	120																
	32/40/50	3.0	120			380	280	260	220	210	190	160	140	120	110	96	80	70	64
	40	3.5	120																
400	40/50	2.5	120																
	40/50	3.0	120				310	280	250	230	200	180	160	140	120	100	90	80	70
	40/50	3.5	120																
	50	4.0	120																
425	40/50	2.5	120																
	40/50	3.0	120				320	300	260	240	220	190	160	150	130	110	96	84	70
	50	3.5	120																
	50	4.0	120																
450	40/50	2.5	130																
	40/50	3.0	130																
	40/50	3.5	130				350	320	280	260	230	200	180	160	140	120	100	90	80
	40/50	4.0	130																
500	40/50	3.0	130																
	40/50	3.5	130				380	350	310	280	260	220	200	170	160	130	110	100	90
	40/50	4.0	130																
	40/50	5.0	130																
525	50	3.5	140																
	50	4.0	140				410	360	330	300	270	230	200	180	164	130	110	104	90
550	50/90/140	4.0	140/200/225																
	50/90/140	5.0	140/200/225				430	380	340	310	290	250	220	190	170	140	120	110	90
570	50	4.0	180																
	50	5.0	180				450	400	360	320	300	260	220	200	180	150	120	110	100
600	50/90/140	4.0	200/225																
	50/90/140	5.0	200/225				460	420	380	340	320	270	240	210	190	160	130	120	100
620	140	4.0	225																
	140	5.0	225				480	430	390	350	320	280	240	220	190	160	140	120	110



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