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Tooth types



tooth design are of great importance.

tes, tooth pitch and

We offer various tooth pitches to solve your cutting problems.

M

This tooth type has ground tooth tips with a chamfered, non-set precutter and two set finishing cutters and is generally manufactured with a positive rake angle. Its particular tooth geometry allows economic cutting of high and highest alloyed steels with



N

With a rake angle of 0°, this tooth type is particularly suited for cutting short chipping, low alloyed materials, solids in small and medium cross sections as well as tubes and profiles.



K/K+

bimetal bandsaw blades.

With a positive rake angle of 10° or 16° (K+), the hook tooth has a large, long-drawn-out chip space. Therefore, it is mostly used for cutting non-ferrous metals, steels with a low content of carbon, Cr-Ni alloys, and primarily bigger cross sections.



Key

Solid





Tubes













Inductive hardened





Beams











Others











Research & Development

Our History

is starting more than 100 years ago -In 1908 the Mesenhöller family started with the production of classical power and hand hacksaw blades in Remscheid, the traditional German toolmaker capital. Over the coarse of years we aquired an excellent reputation in the metal working industries thanks to the known outstanding quality provided to customers all over Europe.

Our highest quality

standards possible are still the hallmark for our precision bandsaw blades produced for our worldwide partners. Today the quality control system certified to DIN EN ISO 9001:2000 standards.

Our products

Production

are exclusively produced with our qualified staff in state-of-art production facilities in Remscheid, Germany.

Our research and development center

has a great emphasis to look ahead into the cutting tasks of tomorrow and merge this into new innovative products for our valued customers. We believe that only today's effort can guarantee tomorrow's success in quality and performance.

Our technical service staff

provides 1st class cutting solutions with their extensive knowledge on machinery and materials.

Our Full Range

of solution providing carbon, bimetal and tungsten carbide products made us not only supplier but also technology partner for professional endusers who believe in our philosophy to make all efforts for the highest product quality possible.









Since 1995

Multicut

Bimetal Sawblade M42



Description

This band saw blade consists of two materials: the tooth tips are made of alloyed HSS (high speed steel) with 8% cobalt while the support band is made of high-alloyed spring band steel. After heat treatment, the wear-resisting tooth tips have a hardness of approx. 67 - 68 HRc. The high speed steel is connected to the support band through state-of-the-art technology.

Recommended use

For cutting all usual types of steel up to a hardness of 45 HRc.

- Coils of 30 m up to approx.
 100 m depending on band width
- welded loops



















| mm | Inches | | 3 | 4 | 6 | 8 | 10 | 14 | 18 | |
|-----------|------------|--|---|---|---|---|----|----|----|--|
| 06 x 0,65 | 1/4 x .025 | | | | K | | Ν | | | |
| 06 x 0,90 | 1/4 x .035 | | | | K | | Ν | Ν | | |
| 10 x 0,65 | 3/8 x .025 | | | | K | Ν | | | | |
| 10 x 0,90 | 3/8 x .035 | | | K | K | Ν | Ν | Ν | | |
| 13 x 0,65 | 1/2 x .025 | | | | K | | Ν | Ν | N | |
| 13 x 0,90 | 1/2 x .035 | | K | K | K | Ν | Ν | Ν | | |
| 20 x 0,90 | 3/4 x .035 | | K | K | K | | | Ν | Ν | |

| mm | Inches | 4/6 | 4 | 5/8 | 6/10 | 8/12 | 10/14 |
|-----------|------------|-----|---|-----|------|------|-------|
| 06 x 0,65 | 1/4 x .025 | | | | | | N |
| 06 x 0,90 | 1/4 x .035 | | | | | | N |
| 10 x 0,65 | 3/8 x .025 | | | | | | N |
| 10 x 0,90 | 3/8 x .035 | | | | | | N |
| 13 x 0,65 | 1/2 x .025 | | | | Ν | Ν | N |
| 13 x 0,90 | 1/2 x .035 | | | | | | Ν |
| 20 x 0,90 | 3/4 x .035 | K | | N | Ν | Ν | N |

Multicut

Bimetal Sawblade M42



Description

This band saw blade consists of two materials: the tooth tips are made of alloyed HSS (high speed steel) with 8% cobalt while the support band is made of high-alloyed spring steel.

After heat treatment, the wear-resisting tooth tips have a hardness of approx.

67 - 68 HRc. The high speed steel is connected to the support band through state-of-the-art technology.

Recommended use

For cutting all usual types of steel up to a hardness of 45 HRc.

Sales units

- Coils of 50 m up to approx.
 100 m depending on band width
- welded loops



















| mm | Inches | 0,75 | 1,25 | 2 | 3 | 4 | 6 | 8 | 10 | 14 |
|-----------|---------------|------|------|---|--------|--------|-------------------|---|----|----|
| 27 x 0,90 | 1 1/16 x .035 | | | Κ | K/N 1) | K/N 1) | K/N ¹⁾ | Ν | Ν | Ν |
| 34 x 1,10 | 1 3/8 x .042 | | K | K | K/N 1) | K/N 1) | Ν | Ν | Ν | |
| 41 x 1,30 | 1 5/8 x .050 | | K | K | K | K | | | | |
| 54 x 1,30 | 2 1/8 x .050 | | K | | | | | | | |
| 54 x 1,60 | 2 1/8 x .063 | | K | K | | | | | | |
| 67 x 1,60 | 2 5/6 x .063 | | K | K | | | | | | |
| 80 x 1,60 | 3 1/8 x .063 | K | K | | | | | | | |

| mm | Inches | 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 |
|-----------|---------------|---------------|-------------|-------|-----|-------------------|-----|-------------------|-----|-----|------|------|-------|
| 27 x 0,90 | 1 1/16 x .035 | | | | K | K/N ¹⁾ | K | K/N ¹⁾ | K | Ν | Ν | Ν | N |
| 34 x 1,10 | 1 3/8 x .042 | | | | K | K/N ¹⁾ | K | K/N 1) | K | Ν | Ν | Ν | |
| 41 x 1,30 | 1 5/8 x .050 | | | K | K | K/N 1) | K | K/N ¹⁾ | | Ν | Ν | | |
| 54 x 1,30 | 2 1/8 x .050 | | K | K | K | K | K | K | | | | | |
| 54 x 1,60 | 2 1/8 x .063 | K | K | K | K | K | K | K | K | | | | |
| 67 x 1,60 | 2 5/6 x .063 | K | K | K | K | K | K | | | | | | |
| 80 x 1,60 | 3 1/8 x .063 | K | K | K | K | | | | | | | | |

1) Tooth profile K or N available

Probeam

Bimetal Sawblade M42



Description

This band saw blade consists of two materials: the tooth tips are made of alloyed HSS (high speed steel) with 8% cobalt while the support band is made of high-alloyed spring band steel.

After heat treatment, the wear-resisting tooth tips have a hardness of approx.

67 - 68 HRc. The high speed steel is connected to the support band through state-of-the-art technology.

Hallmark

Special tooth geometry for cutting of heavy beams and structurals under low vibration

Recommended use

Beams and structurals

- Coils of 50 m up to approx.
 100 m depending on band width
- welded loops

















| mm | Inches | 2/3 | 3/4 | 4/6 | 5/7 | 8/11 | 12/16 |
|-----------|--------------|-----|-----------------|-----|-----|------|-------|
| 20 x 0,90 | 3/4 x .035 | | | | | | Р |
| 27 x 0,90 | 1/16 x .035 | | P1) | Р | Р | Р | |
| 34 x 1,10 | 1 3/8 x .042 | Р | P1) | Р | Р | | |
| 41 x 1,30 | 1 5/8 x .050 | Р | P ¹⁾ | Р | Р | | |
| 54 x 1,30 | 2 1/8 x .050 | Р | Р | | | | |
| 54 x 1,60 | 2 1/8 x .063 | Р | P ¹⁾ | Р | | | |
| 67 x 1,60 | 2 5/8 x .063 | Р | Р | Р | | | |

Alucut

Bimetal Sawblade M42



Description

This band saw blade consists of two materials: the tooth tips are made of alloyed HSS (high speed steel) with 8% cobalt while the support band is made of high-alloyed spring band steel. After heat treatment, the wear-resisting tooth tips have a hardness of approx. 67 - 68 HRc. The high speed steel is connected to the support band through state-of-the-art technology.

Hallmark

Special tooth geometry for cutting of non-ferrous materials.

Recommended use

NE Metalle

- Non-ferrous metals
- · Foundry application

- Coils of 75 m up to approx.
 100 m depending on band width
- welded loops











| mm | Inches | 1,25 | 2 | 3 | 4 |
|-----------|---------------|------|-----------------|-----------------|-----------------|
| 13 x 0,90 | 1/2 x.035 | | | K ¹⁾ | K ¹⁾ |
| 20 x 0,90 | 3/4 x .035 | | | K ¹⁾ | |
| 27 x 0,90 | 1 1/16 x .035 | | K ¹⁾ | K ¹⁾ | K ¹⁾ |
| 27 x 1,10 | 1 1/16 x .042 | | K ¹⁾ | | |
| 34 x 1,10 | 1 3/8 x .042 | K1) | K1) | K1) | |

Procut

Bimetal Sawblade M42



Description

This band saw blade consists of two materials: the tooth tips are made of alloyed HSS (high speed steel) with 8% cobalt while the support band is made of high-alloyed spring band steel. After heat treatment, the wear-resisting tooth tips have a hardness of approx. 67 - 68 HRc. The high speed steel is connected to the support band through state-of-the-art technology.

Hallmark

A style like Multicut M 42 but with a positive rake angle of the tooth tips. This rake angle leads to an aggressive cut of the bandsaw blade resulting in easier cutting.

Recommended use

For cutting alloyed steel up to a hardness of 45 HRc.

- Coils of 50 m up to approx.
 100 m depending on band width
- welded loops











| mm | Inches | 0,75/1,25 | 1,1/1,6 | 1,5/2 | 2/3 | 3/4 |
|-----------|---------------|-----------|---------|-------|-----|-----|
| 27 x 0,90 | 1 1/16 x .035 | | | | | K+ |
| 34 x 1,10 | 1 3/8 x .042 | | | | K+ | K+ |
| 41 x 1,30 | 1 5/8 x .050 | | | K+ | K+ | K+ |
| 54 x 1,60 | 2 1/8 x .063 | | K+ | K+ | K+ | K+ |
| 67 x 1,60 | 2 5/8 x .063 | K+ | K+ | K+ | K+ | |
| 80 x 1,60 | 3 1/8 x .063 | K+ | K+ | | | |

Nirocut

Bimetal Sawblade M42



Description

This band saw blade is a further development of the JUNIOR bimetal bandsaw blade M 42. Thanks to a downstream grinding process, the band has teeth with very exacting height tolerances. The pre- and finishing cutter geometry results in a better chip division and more reliable free cutting of the blade.

Recommended use

This bandsaw blade is particularly suited for cutting high and highest alloyed steels, such as austenitic steels (for example stainless steels), heat resistant alloys, titanium, nimonic alloy, Hastelloy, and Inconel.

- Coils of approx. 50-100 m depending on band width
- · welded loops











| mm | Inches | 0,75/1,25 | 1,1/1,6 | 1,5/2 | 2/3 | 3/4 |
|-----------|--------------|-----------|---------|-------|-----|-----|
| 34 x 1,10 | 1 3/8 x .042 | | | | M | M |
| 41 x 1,30 | 1 5/8 x .050 | | | M | M | M |
| 54 x 1,60 | 2 1/8 x .063 | M | M | M | M | M |
| 67 x 1,60 | 2 5/8 x .063 | M | M | M | | |
| 80 x 1,60 | 3 1/8 x .063 | M | | | | |

Durocut

Bimetal Sawblade M51



Description

This band saw blade consists of two materials: the tooth tips are made of alloyed HSS (high speed steel) with 10% cobalt and tungsten while the support band is made of high-alloyed spring band steel. After heat treatment, the wear-resisting tooth tips have a hardness of approx. 67 - 68 HRc. The high speed steel is connected to the support band through state-of-the-art technology.

Hallmark

The higher alloyed HSS cutting edge is most wear resistant and allows longest service life.

Recommended use

Universal heavy duty blade designed for large cross sections also on lower alloyed steel grades.

- Coils of 50 m up to approx.
 100 m depending on band width
- welded loops











| mm | Inches | 0,6/0,7 | 0,75/1,25 | 1,1/1,6 | 1,5/2 | 2/3 | 3/4 | 4/5 | 4/6 | |
|------------|---------------|---------|-----------|---------|-------|-----|-----|-----|-----|--|
| 27 x 0,90 | 1 1/16 x .035 | | | | | K | K | K | K | |
| 34 x 1,10 | 1 3/8 x .050 | | | | | K | K | | K | |
| 41 x 1,30 | 1 5/8 x .050 | | | | K | K | K | | K | |
| 54 x 1,60 | 2 1/8 x .063 | | | | K | K | K | | | |
| 67 x 1,60 | 2 5/8 x .063 | | K | K | K | K | | | | |
| 80 x 1,60 | 3 1/8 x .063 | | K | K | | | | | | |
| 100 x 1,60 | 4 x 0.630 | K | | K | | | | | | |

CrNiCut

Bimetal Sawblade M51



Description

This band saw blade consists of two materials: the tooth tips are made of alloyed HSS (high speed steel) with 10% cobalt and tungsten while the support band is made of high-alloyed spring band steel. After heat treatment, the wear-resisting tooth tips have a hardness of approx. 67 - 68 HRc. The high speed steel is connected to the support band through state-of-the-art technology.

Hallmark

The higher alloyed HSS cutting edge is most wear resistant and allows longest service life. A special tooth geometry is specially designed for low vibration cutting of Cr-Ni-Ti-Mo steels grades.

Recommended use

Premium product designed for low vibration cutting of Cr-Ni-Ti-Mo steels grades.

- Coils of 50 m up to approx.
 100 m depending on band width
- · welded loops













| mm | Inches | 0,6/0,7 | 0,75/1,25 | 1,1/1,6 | 1,5/2 | 2/3 | 3/4 |
|------------|--------------|---------|-----------|---------|-------|-----|-----|
| 34 x 1,10 | 1 3/8 x .042 | | | | • | M | M |
| 41 x 1,30 | 1 5/8 x .050 | | | | M | M | |
| 54 x 1,60 | 2 1/8 x .063 | | | M | M | M | |
| 67 x 1,60 | 2 5/8 x .063 | | M | M | M | | |
| 80 x 1,60 | 3 1/8 x .063 | | M | M | M | | |
| 100 x 1.60 | 4 x 0.630 | M | | M | | | |

Powercut I Powercut I Black TCT Bandsaw Blade

Powercut I

Powercut I Black





Description

TCT band saw blade with the proven high chrome alloyed tenacious backing material and a carbide tipped, diamond ground tooth edge.

The special Powercut grind creates a tooth design with multi chipping sections for production cutting with lowest vibrations.

Powercut I Black is additionally uniquely coated to generate higher cutting rates and longer service life.

Hallmark

Hallmarks of this high tech blade are best finish, highest cutting rates, heat resistance and long service life.

Recommended use

Designed for universal High Performance Cutting specially for tool, stainless and high speed steels

- · Coils of 50 m and 75 m
- · welded loops













| Powercut I | | | | | | | |
|------------|---------------|-----------|---------|-------|-----|-----|--|
| mm | Inches | 0,85/1,15 | 1,1/1,6 | 1,5/2 | 2/3 | 3/4 | |
| 27 x 0,90 | 1 1/16 x .035 | | | | | Х | |
| 34 x 1,10 | 1 1/3 x .042 | | | | Χ | Χ | |
| 41 x 1,30 | 1 5/8 x .050 | | | Χ | Χ | Х | |
| 54 x 1,30 | 2 1/8 x .050 | X | | Χ | Х | | |
| 54 x 1,60 | 2 1/8 x .063 | X | Х | Χ | Х | | |
| 67 x 1,60 | 2 5/8 x .063 | Χ | Х | Χ | | | |
| 80 x 1,60 | 3 1/8 x .063 | Х | Х | | | | |

| Powercut I | — васк | | | | | | |
|------------|--------------|---|---|---|---|--|--|
| 41 x 1,30 | 1 5/8 x .050 | | Х | Х | Х | | |
| 54 x 1,60 | 2 1/8 x .063 | Х | Χ | Χ | | | |
| 67 x 1.60 | 2.5/8 x .063 | X | | | | | |

Powercut Pro

TCT Bandsaw Blade

Description

TCT band saw blade with the proven high chrome alloyed tenacious backing material and a carbide tipped, diamond ground tooth edge.

The special Powercut grind creates a tooth design with multi chipping sections for production cutting with lowest vibrations.

Powercut I Black is additionally uniquely coated to generate higher cutting rates and longer service life.

Hallmark

Hallmarks of this high tech blade are best finish, highest cutting rates, heat resistance and long service life.

Recommended use

Designed for universal High Performance Cutting specially for tool, stainless and high speed steels

- Coils of 50 m and 75 m
- · welded loops













| 34 x 1,10 | 1 1/3 x .042 | | | | Χ | | |
|-----------|--------------|---|---|---|---|--|--|
| 41 x 1,30 | 1 5/8 x .050 | | | Χ | Χ | | |
| 54 x 1,60 | 2 1/8 x .063 | | | Χ | Χ | | |
| 67 x 1,60 | 2 5/8 x .063 | | X | | | | |
| | 3 1/8 x .063 | Х | | | | | |

Powercut II A Powercut II B TCT Bandsaw Blade



Description

TCT band saw blade with the proven high chrome alloyed tenacious backing material and a carbide tipped, diamond ground tooth edge.

The special Powercut grind creates a tooth design with triple chip sections for production cutting with lowest vibrations.

Hallmark

Hallmarks of this high tech blade are best finish, highest cutting rates, heat resistance and long service life.

Recommended use

Designed for non ferrous castings and foundry applications on vertical machinery and all kind of aluminium cutting.

Sales units

- · Coils of 50 m and 75 m
- welded loops









| Powercut II A | | | | | | | | | | |
|---------------|--------------|---|---|-----------|---------|-------|-----|--|--|--|
| mm | Inches | 2 | 3 | 0,85/1,15 | 1,1/1,6 | 1,5/2 | 2/3 | | | |
| 20 x 0,90 | 3/4 x .035 | | Х | | | | | | | |
| 27 x 0,90 | 1 1/16 x.035 | | X | | | | Χ | | | |
| 34 x 1,10 | 1 3/8 x.042 | Х | X | | | Χ | Χ | | | |
| 41 x 1,30 | 1 5/8 x.050 | | | | | Х | Х | | | |
| 54 x 1,30 | 2 1/8 x.050 | | | Χ | | Χ | | | | |
| 54 x 1.60 | 2 1/8 x.063 | | | X | X | Х | | | | |

Powercut II B

| mm | Inches | 0,85/1,15 | 1,1/1,6 | 1,5/2 | 2/3 | |
|-----------|--------------|-----------|---------|-------|-----|--|
| 27 x 0,90 | 1 1/16 x.035 | | | | Χ | |
| 34 x 1,10 | 1 3/8 x.042 | | | X | Χ | |
| 41 x 1,30 | 1 5/8 x.050 | | | X | Χ | |
| 54 x 1,30 | 2 1/8 x.050 | X | | X | | |
| 54 x 1,60 | 2 1/8 x.063 | X | Χ | Х | | |

Powercut III Powercut III Black

TCT Bandsaw Blade

Powercut III







Description

TCT band saw blade with the proven high chrome alloyed tenacious backing material and a carbide tipped, diamond ground tooth edge.

The special Powercut grind creates a tooth design with multi chipping sections for production cutting with lowest vibrations.

Powercut III Black is additionally uniquely coated to generate higher cutting rates and longer service life.

Hallmark

Hallmarks of this high tech blade are best finish, highest cutting rates, heat resistancy and long service life.

Recommended use

Designed for hardened and tempered materials with hardness between 50-65 HRc for example Induction hardened piston rods etc.

Sales units

- · Coils of 50 m and 75 m
- welded loops







| Powercut I | II | | | |
|------------|---------------|-----|-----|--|
| mm | Inches | 2/3 | 3/4 | |
| 27 x 0,90 | 1 1/16 x .035 | | Х | |
| 34 x 1,10 | 1 3/8 x .042 | X | Х | |
| 41 x 1.30 | 1 5/8 x .050 | X | Х | |

Powercut III - Black

| mm | Inches | 3/4 |
|-----------|--------------|-----|
| 34 x 1,10 | 1 3/8 x .042 | Х |
| 41 x 1,30 | 1 5/8 x .050 | X |

Original Swedish Carbon steel Flexback



Description

Carbon band saw blades Original Swedish steel (flexback) with hardened tooth tips (approx. 64-65 HRc) and flexible backing material. The pin-point structure ensures evenly distributed carbides and thus high resistance to wear.

Recommended use

Non-ferrous materials, non-alloyed and low alloyed steels as well as plastics and wood.

- Coils of 30 m up to approx.
 100 m depending on band width
- welded loops



















| mm | Inches | 2 | 3 | 4 | 6 | 8 | 10 | 14 | 18 | 24 |
|-----------|-------------|---|---|-------------------|-------------------|---|----|----|----|----|
| 06 x 0,65 | 1/4 x .025 | | | K | N/K ¹⁾ | Ν | Ν | Ν | Ν | Ν |
| 08 x 0,65 | 5/16 x .025 | | | | $N/K^{1)}$ | Ν | Ν | Ν | Ν | Ν |
| 10 x 0,65 | 3/8 x .025 | | K | K | $N/K^{1)}$ | Ν | Ν | Ν | Ν | Ν |
| 13 x 0,65 | 1/2 x .025 | | K | K | $N/K^{1)}$ | Ν | N | Ν | Ν | Ν |
| 16 x 0,80 | 5/8 x .032 | | K | N/K ¹⁾ | Ν | N | Ν | Ν | Ν | Ν |
| 20 x 0,80 | 3/4 x .032 | | K | K | Ν | N | Ν | Ν | Ν | Ν |
| 25 x 0,90 | 1 x .035 | K | K | N/K ¹⁾ | Ν | Ν | Ν | Ν | | Ν |

17 Carbon Steel Bandsaw Blades

Swedish Special Steel Hardback



Description

Specially developed steel (higher alloyed tool steel) with a tooth tip hardness of approx. 64-65 HRc and hardened and tempered backing material. Therefore increased cutting rates and better edge retention.

Recommended use

Better quality compared with the original Swedish steel quality, therefore suited for universal workshop use.

- Coils of 30 m up to approx.
 100 m depending on band width
- · welded loops



















| mm | Inches | 3 | 4 | 6 | 8 | 10 | 14 | 18 | 24 |
|-----------|-------------|---|-------------------|-------------------|---|----|----|----|----|
| 06 x 0,65 | 1/4 x .025 | | K | $N/K^{1)}$ | Ν | Ν | Ν | Ν | Ν |
| 08 x 0,65 | 5/16 x .025 | | | $N/K^{1)}$ | N | N | N | N | N |
| 10 x 0,65 | 3/8 x .025 | | K | N/K ¹⁾ | Ν | N | N | N | N |
| 13 x 0,65 | 1/2 x .025 | K | K | $N/K^{1)}$ | Ν | Ν | N | Ν | N |
| 16 x 0,80 | 5/8 x .032 | K | $N/K^{1)}$ | Ν | Ν | N | N | N | N |
| 20 x 0,80 | 3/4 x .032 | K | K | K | Ν | Ν | Ν | | Ν |
| 25 x 0,90 | 1 x .035 | K | N/K ¹⁾ | N/K ¹⁾ | Ν | Ν | Ν | Ν | |

Technique 18

Tooth pitch recommendation Solid Material









| D | tpi | D | tpi | |
|--------------|------|--------------|-----------|--|
| < 10 mm | 14 | < 25 mm | 10/14 | |
| 10 - 30 mm | 10 | 15 – 40 mm | 8/12 | |
| 30 - 50 mm | 8 | 25 – 50 mm | 6/10 | |
| 50 - 80 mm | 6 | 35 – 70 mm | 5/8 | |
| 80 – 120 mm | 4 | 40 – 90 mm | 5/6 | |
| 120 – 200 mm | 3 | 50 – 120 mm | 4/6 | |
| 200 – 300 mm | 2 | 80 – 150 mm | 3/4 | |
| 300 – 700 mm | 1,25 | 130 – 350 mm | 2/3 | |
| > 600 mm | 0,75 | 150 – 450 mm | 1,5/2 | |
| | | 200 – 600 mm | 1,1/1,6 | |
| | | > 500 mm | 0.75/1.25 | |

| D | tpi | |
|------------------------------|---------------|--|
| 50 – 120 mm | 3/4 | |
| 100 – 250 mm | 2/3 | |
| 150 - 40 0 mmsten | Carbide5/2TCT | |
| 350 – 600 mm | 1,1/1,6 | |
| > 500 mm | 0,85/1,15 | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Tooth pitch recommendation Tubes and Profiles



Wall thickness

| S (mm) | 20 | 40 | 60 | 80 | 100 | 120 | 150 | 200 | 300 | 500 |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 2 | 14 | 10/14 | 10/14 | 10/14 | 10/14 | 8/11P | 8/11P | 8/11P | 8/11P | 5/7P |
| 3 | 14 | 10/14 | 10/14 | 8/11P | 8/11P | 8/11P | 8/11P | 5/7P | 5/7P | 5/7P |
| 4 | 10/14 | 10/14 | 8/11P | 8/11P | 8/11P | 5/7P | 5/7P | 5/7P | 5/7P | 4/6P |
| 5 | 10/14 | 10/14 | 8/11P | 8/11P | 5/7P | 5/7P | 5/7P | 4/6P | 4/6P | 4/6P |
| 6 | 10/14 | 8/11P | 8/11P | 5/7P | 5/7P | 5/7P | 5/7P | 4/6P | 4/6P | 4/6P |
| 8 | 10/14 | 8/11P | 8/11P | 5/7P | 5/7P | 5/7P | 4/6P | 4/6P | 4/6P | 4/6P |
| 10 | | 8/11P | 5/7P | 5/7P | 4/6P | 4/6P | 4/6P | 4/6P | 4/6P | 4/6P |
| 12 | | 8/11P | 5/7P | 4/6P |
| 15 | | 8/11P | 5/7P | 4/6P |
| 20 | | | 4/6P | 3/4P |
| 30 | | | | 4/6P | 4/6P | 4/5P | 4/6P | 4/6P | 4/6P | 2/3P |
| 50 | | | | | | | 4/6P | 3/4P | 2/3P | 2/3P |
| 80 | | | | | | | | 3/4P | 2/3P | 2/3P |
| >100 | | | | | | | | | 2/3P | 1,5/2 |
| | | | | | | | | | | |

Break-in Procedures

Life-time of band saw blades mainly depends on a controlled break-in.

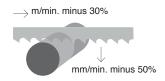
We recommend the following break-in procedure:

1st step

Select the correct speed Vc (m/min) and cutting rate Vz (cm /min) based on cutting conditions chart

2nd step

You start with 70% of the regular cutting speed and 50% of the regular cutting rate.



3rd step

If vibrations still occur, change the speed carefully until the vibrations stop. A permanent chip formation is important during the whole cutting process.

4th step

After cutting approx. 400-600 cm2 or at least 15 minutes real cutting time for tubes and profiles you can first slowly turn up to the final speed and then up to the normal cutting rate.

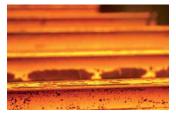
19 Technique

Cutting rates

| Material | DIN | USA | JIS | Size r | nm | Size m | nm | Size mm | | |
|----------|---------------------|-------------|-------------|------------|----------|--------------|----------|--------------|----------|--|
| | | | | 27 x 0,9 – | 34 x 1,1 | 41 x 1,3 – 5 | 54 x 1,6 | 67 x 1,6 – 8 | 80 x 1,6 | |
| | | | | ø 50 – 3 | 50 cm | ø 100 – 5 | 500 cm | ø 400 – 20 | 000 cm | |
| | | | | Vc (m/cm) | Vz (cm²) | Vc (m/cm) | Vz (cm²) | Vc (m/cm) | Vz(cm²) | |
| 1.0060 | St 60-2 | A 572 Gr.65 | SM 58 | 65 - 70 | 35 - 40 | 60 - 65 | 40 – 45 | 40 - 50 | 20 – 30 | |
| 1.0401 | C15 | 1016 | S 15C | 65 - 70 | 35 - 40 | 60 - 65 | 40 - 45 | 40 - 50 | 20 - 30 | |
| 1.0503 | C45 | 1045 | S 45C | 68 – 74 | 40 – 45 | 65 – 70 | 45 – 50 | 40 – 55 | 20 – 35 | |
| 1.0570 | St52-3 | A572 Gr.50 | SM 490 | 68 – 74 | 40 – 45 | 65 – 70 | 45 – 50 | 40 – 55 | 20 – 35 | |
| 1.1158 | Ck25 | 1025 | S25C | 68 – 74 | 40 – 45 | 60 – 70 | 45 – 50 | 40 – 55 | 20 – 30 | |
| 1.1221 | Ck60 | 1060 | S58C | 68 – 74 | 40 – 45 | 60 - 70 | 40 – 45 | 35 – 45 | 15 – 25 | |
| 1.2080 | X210 Cr 12 | D3 | SKD 1 | 33 – 37 | 10 – 18 | 25 – 35 | 15 – 20 | 15 – 20 | 05 – 10 | |
| 1.2312 | 40CrMnMoS 8-6 | | | 49 – 53 | 22 – 30 | 45 – 50 | 28 – 32 | 25 – 30 | 10 – 15 | |
| 1.2343 | X38 CrMoV 5-1 | H11 | SKD 6 | 41 – 45 | 18 – 24 | 36 – 40 | 22 – 26 | 22 – 30 | 10 – 20 | |
| 1.2363 | X100 CrMoV 5-1 | A2 | SKD 12 | 38 – 42 | 15 – 20 | 30 – 36 | 18 – 22 | 20 – 26 | 08 – 14 | |
| 1.2379 | X155 CrVMo 12-1 | D2 | SKD 11 | 33 – 37 | 10 – 18 | 25 – 35 | 15 – 20 | 15 – 20 | 05 – 10 | |
| 1.2510 | 100 MnCrW 4 | O1 | SKS 3 | 42 – 46 | 18 – 24 | 36 – 42 | 22 – 26 | 26 – 30 | 12 – 18 | |
| 1.2606 | X37 CrMoW 5-1 | H12 | SKD 62 | 42 – 46 | 18 – 24 | 36 – 42 | 22 – 26 | 20 – 28 | 08 – 16 | |
| 1.2714 | 56 NiCrMoV 7 | L6 | SKT 4 | 42 – 46 | 20 – 26 | 40 – 45 | 25 – 30 | 26 – 34 | 12 – 18 | |
| 1.2842 | 90 MnCrV 8 | O2 | | 42 – 45 | 18 – 24 | 36 – 42 | 24 – 28 | 24 - 32 | 12 – 18 | |
| 1.3343 | S6-5-2 | M2 | SKH 51 | 36 – 40 | 16 – 20 | 30 – 35 | 16 – 20 | 26 – 30 | 12 – 18 | |
| 1.3247 | S20-20-1-8 | M42 | SKH 59 | 36 – 40 | 16 – 20 | 30 – 35 | 16 – 20 | 26 – 30 | 12 – 18 | |
| 1.3965 | X8 CrMnNi 18–8 | Nitronic 50 | | 30 – 32 | 8 – 12 | 26 – 28 | 12 – 18 | 12 – 18 | 04 – 08 | |
| 1.4006 | X10Cr 13 | SUS410 | 410 | 32 – 34 | 12 – 16 | 30 – 34 | 16 – 22 | 20 – 26 | 08 – 14 | |
| 1.4028 | X20 Cr 13 | 420 | SUS 420J1 | 36 – 38 | 15 – 20 | 32 – 36 | 18 – 22 | 26 – 30 | 06 – 10 | |
| 1.4125 | X105 CrMo 17 | 440 C | SUS 440 C | 34 – 37 | 12 – 18 | 28 – 32 | 16 – 18 | 16 – 22 | 06 – 10 | |
| 1.4301 | X5 CrNi 18-10 | 304 | SUS 304 | 36 – 38 | 15 – 20 | 32 – 36 | 18 – 22 | 16 – 22 | 06 – 10 | |
| 1.4401 | X5 CrNiMo 17-12-2 | 316 | SUS 316 | 34 – 36 | 14 – 18 | 28 – 32 | 16 – 18 | 16 – 22 | 06 – 10 | |
| 1.4462 | X2 VrNiMoN 22-5-3 | 2205 | SUS 329J3L | 32 – 34 | 10 – 14 | 28 – 32 | 16 – 20 | 16 – 22 | 06 – 10 | |
| 1.4571 | X6 CrNiMoTi 17-12-2 | 316 Ti | SUS 316 | 32 – 34 | 10 – 14 | 28 – 32 | 16 – 20 | 16 – 22 | 06 – 10 | |
| 1.4841 | X15 CrNiSi 25-20 | 314 | SUH 310 | 28 – 32 | 8 – 12 | 26 – 30 | 12 – 16 | 14 – 20 | 04 – 08 | |
| 1.4864 | X12 NiCrSi 36-16 | 330 | SUH 330 | 28 – 32 | 8 – 12 | 26 – 30 | 12 – 16 | 14 – 20 | 04 – 08 | |
| 1.4923 | X22 CrMoV 12-1 | | | 28 – 32 | 8 – 12 | 26 - 30 | 12 – 16 | 14 – 20 | 04 – 08 | |
| 1.4980 | X5 NiCrTi 26-15 | A286 | SUH 660 | 28 – 32 | 8 – 12 | 26 – 30 | 12 – 16 | 14 – 20 | 04 – 08 | |
| 1.5710 | 36 NiCr 6 | (X)3140 | | 48 – 52 | 22 – 28 | 44 – 48 | 28 – 32 | 26 – 34 | 12 – 18 | |
| 1.5755 | 31 NiCr 14 | 3415 | SNC 815 | 50 – 54 | 24 – 30 | 46 – 52 | 30 – 36 | 30 – 36 | 14 – 20 | |
| 1.6310 | 20 MnMoN i–5 | | | 48 – 52 | 22 – 28 | 44 – 48 | 28 – 32 | 26 – 34 | 12 – 18 | |
| 1.6523 | 20 NiCrMo 2 | 8620 | SNCM 220 | 50 – 54 | 24 – 30 | 44 – 50 | 30 – 34 | 26 – 34 | 14 – 20 | |
| 1.6546 | 40 NiCrMo 2–2 | 8640 | SNCM 240 | 50 – 54 | 24 – 30 | 44 – 50 | 30 – 34 | 30 – 34 | 10 – 18 | |
| 1.6562 | 40 NiCrMo 7 | E4340 | SNB24-1-5 | 50 – 54 | 24 – 30 | 44 – 50 | 30 – 34 | 30 – 34 | 10 – 18 | |
| 1.6749 | 23 CrNiMo 7-4-7 | | | 50 – 54 | 24 – 28 | 44 – 50 | 28 – 32 | 30 – 34 | 10 – 16 | |
| 1.6985 | 28 CrMoNiV 4-9 | | | 54 – 58 | 28 – 34 | 48 – 54 | 32 – 38 | 36 – 40 | 16 – 22 | |
| 1.7147 | 20 MnCr 5 | SMnC420H | 5120 | 58 – 62 | 28 – 36 | 52 – 56 | 32 – 38 | 38 – 46 | 18 – 26 | |
| 1.7225 | 42 CrMo 4 | 4140 | SCM 440 | 54 – 58 | 28 – 34 | 48 – 54 | 32 – 38 | 36 – 40 | 16 – 22 | |
| 1.7228 | 50 CrMo 4 | 4150 | SCM 445 | 56 – 60 | 30 – 36 | 52 – 56 | 34 – 40 | 34 – 40 | 16 – 20 | |
| 1.7335 | 13 CrMo 4–4 | SFVA F 12 | A387 Gr. 12 | 62 – 64 | 32 – 38 | 56 – 60 | 36 – 44 | 40 – 46 | 18 – 26 | |
| 1.7707 | 30 CrMoV 9 | <u> </u> | | 54 – 58 | 28 – 34 | 44 – 50 | 28 – 34 | 28 – 34 | 16 – 20 | |
| | | | | | | | | | | |
| 1.8159 | 50 CrV 4 | 6150 | SUP10 | 52 – 54 | 24 – 30 | 52 – 48 | 32 – 38 | 32 – 40 | 12 – 20 | |

Above cutting chart refers to average settings. Figures might differ depending on blade type, band saw machine type, condition of the material to be cut (surface, heat treatment, standard, ...) and the required cutting specification (tolerances, service life, ...). Please notice that the ultimate service life can only be achieved after correct beak-in. If your material is not listed please do not hesitate to contact us for further information.













For further information please contact us

or your local distributor

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