



**Pilana**

METAL

**Bi-Metal  
Band Saw Blades**

*Made in Czech Republic  
since 1934*



**Over 80 years of experience in cutting tools production.** The manufacturing of cutting tools began in Hulin in the year of 1934. Its founder, Josef Studenik, named his company „The First Moravian Factory For Saws and Tools“. Since then, our company is participating in the development of the cutting tools for worldwide applications.

**The most up-to date production of bimetal bandsaw blades.** In line with global trends, in the year of 2012 PILANA METAL built a completely new plant producing bi-metal band saw blades for metal cutting. The production line is equipped with the best European technologies. Only the bimetal coils produced in Western Europe are used for the manufacturing of our tools.

**High and stable quality with quick delivery.** Our technology allows us to guarantee both high quality tools as well as very short delivery times to our customers. Our own welding service, which is a part of the production plant, produces more than 300 welded loops of band saw blades every day.

**We export to the whole world.** Our tools are used in many European countries. Our band saw blades supplied in coils are exported to more than 50 countries worldwide.

**Technical advice!** Try our new tools. Our team is ready to provide all our customers and dealers with full technical support and service. We firmly believe you will be fully satisfied.

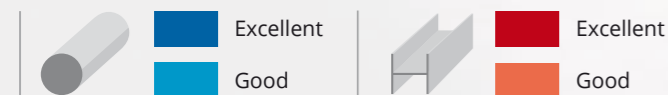


Export regions



# BAND CHOICE CHART

| Material type           | Dimension | UNIVERSAL | MASSVIE   | ALUCUT | PROFILE   | REGULAR | PLUS REGULAR | PLUSCUT | PROFI MASSIVE | GRINDCUT  | TEMPEST   |
|-------------------------|-----------|-----------|-----------|--------|-----------|---------|--------------|---------|---------------|-----------|-----------|
| STRUCTURAL STEELS       | < 70      | Good      | Excellent |        | Excellent | Good    |              |         |               |           |           |
| CASE HARDENING STEELS   | 80 - 350  |           | Excellent |        | Excellent | Good    |              |         |               |           |           |
| FREE MACHINING STEELS   | > 350     |           | Excellent |        |           |         |              | Good    |               |           | Good      |
| UNALLOYED TOOL STEELS   | < 70      | Good      | Excellent |        | Excellent | Good    |              |         |               |           |           |
| SPRING STEELS           | 80 - 350  |           | Excellent |        | Good      | Good    |              |         |               |           |           |
| BALL BEARING STEELS     | > 350     |           | Excellent |        |           |         |              | Good    |               |           | Good      |
| HIGH SPEED STEELS       | < 70      | Good      | Excellent |        | Good      | Good    |              |         |               |           |           |
| COLD-WORK STEELS        | 80 - 350  |           | Excellent |        |           | Good    |              | Good    | Excellent     | Excellent |           |
|                         | > 350     |           | Excellent |        |           |         |              | Good    | Excellent     | Excellent | Excellent |
| NITRIDING STEEL         | < 70      | Good      | Excellent |        | Good      | Good    |              |         |               |           |           |
| HEAT TREATABLE STEELS   | 80 - 350  |           | Excellent |        |           | Good    |              | Good    | Excellent     | Excellent |           |
| HOT-WORK STEELS         | > 350     |           | Excellent |        |           |         |              | Good    | Excellent     | Excellent | Excellent |
| STAINLESS STEELS        | < 70      | Good      | Excellent |        | Good      |         |              |         |               |           |           |
|                         | 80 - 350  |           | Excellent |        |           |         |              | Good    | Excellent     | Excellent | Good      |
|                         | > 350     |           | Excellent |        |           |         |              | Good    | Excellent     | Excellent | Excellent |
| HEAT RESISTANT STEELS   | < 70      | Good      | Excellent |        |           |         |              |         |               |           |           |
| HIGH TEMPERATURE STEELS | 80 - 350  |           | Excellent |        |           |         |              | Good    | Excellent     | Excellent | Good      |
|                         | > 350     |           | Excellent |        |           |         |              | Good    | Excellent     | Excellent | Excellent |
| HIGH-STRENGTH STEEL     | < 70      | Good      | Excellent |        |           |         |              |         |               |           |           |
| TITANIUM AND TI ALLOYS  | 80 - 350  |           | Excellent |        |           |         |              | Good    | Excellent     | Excellent | Good      |
| NICKEL ALLOYS           | > 350     |           | Excellent |        |           |         |              | Good    | Excellent     | Excellent | Excellent |
| CAST STEEL              | < 70      | Good      | Excellent |        |           |         |              |         |               |           |           |
| CAST IRON               | 80 - 350  |           | Excellent |        |           |         |              | Good    | Excellent     | Excellent | Good      |
|                         | > 350     |           | Excellent |        |           |         |              | Good    | Excellent     | Excellent | Good      |
| ALUMINIUM               | < 70      | Good      | Excellent | Good   | Excellent |         |              |         |               |           |           |
| COPPER                  | 80 - 350  |           | Excellent |        |           |         |              | Good    | Excellent     | Excellent |           |
|                         | > 350     |           | Excellent |        |           |         |              | Good    | Excellent     | Excellent | Good      |
| BRASS                   | < 70      | Good      | Excellent |        |           |         |              |         |               |           |           |
| BRONZE                  | 80 - 350  |           | Excellent | Good   | Good      |         |              | Good    | Excellent     | Excellent | Good      |
| RED BRASS               | > 350     |           | Excellent |        |           |         |              | Good    | Excellent     | Excellent | Good      |
| ALUMINIUM BRONZES       | < 70      | Good      | Excellent |        |           |         |              |         | Good          | Excellent |           |
| ALUMINIUM ALLOYS        | 80 - 350  |           | Excellent | Good   | Good      |         |              | Good    | Excellent     | Excellent | Good      |
| HIGH SILICON CONTENT    | > 350     |           | Excellent |        |           |         |              | Good    | Excellent     | Excellent | Good      |



# TPI CHOICE

## Solid material



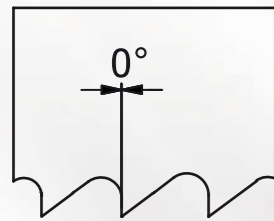
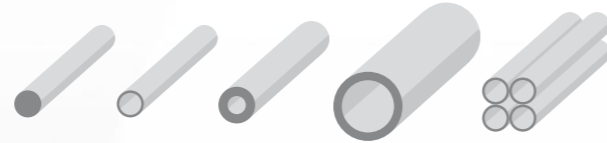
| Constant tooth pitch        |      | Variable tooth Pitch        |           |
|-----------------------------|------|-----------------------------|-----------|
| Material cross section [mm] | TPI  | Material cross section [mm] | TPI       |
| 380 - 700                   | 1,25 | > 550                       | 0,75/1,25 |
| 200 - 400                   | 2    | 300 - 600                   | 1,4/2     |
| 120 - 200                   | 3    | 120 - 350                   | 2/3       |
| 80 - 120                    | 4    | 80 - 160                    | 3/4       |
| 50 - 80                     | 6    | 60 - 110                    | 4/6       |
| 30 - 50                     | 8    | 40 - 70                     | 5/8       |
| 20 - 30                     | 10   | 30 - 60                     | 6/10      |
| 10 - 20                     | 14   | 20 - 40                     | 8/12      |
| < 10                        | 18   | < 20                        | 10/14     |

## Cutting recommendation for steel tubes and profiles



| Wall thickness (mm) | Outer diameter [mm] |       |       |       |       |      |      |      |      |       |
|---------------------|---------------------|-------|-------|-------|-------|------|------|------|------|-------|
|                     | 20                  | 40    | 60    | 80    | 100   | 120  | 150  | 200  | 300  | 500   |
| 2                   | 14                  | 14    | 10/14 | 10/14 | 10/14 | 8/12 | 8/12 | 8/12 | 6/10 | 6/10  |
| 3                   | 14                  | 10/14 | 10/14 | 10/14 | 8/12  | 8/12 | 8/12 | 6/10 | 6/10 | 5/8   |
| 4                   | 10/14               | 10/14 | 10/14 | 8/12  | 8/12  | 8/12 | 6/10 | 6/10 | 5/8  | 5/8   |
| 5                   | 10/14               | 10/14 | 8/12  | 8/12  | 8/12  | 6/10 | 6/10 | 5/8  | 5/8  | 4/6   |
| 6                   | 10/14               | 8/12  | 8/12  | 8/12  | 6/10  | 6/10 | 5/8  | 5/8  | 4/6  | 4/6   |
| 8                   | 10/14               | 8/12  | 6/10  | 6/10  | 5/8   | 5/8  | 5/8  | 4/6  | 4/6  | 4/6   |
| 10                  |                     | 6/10  | 6/10  | 5/8   | 5/8   | 5/8  | 4/6  | 4/6  | 4/6  | 4/6   |
| 15                  |                     | 6/10  | 5/8   | 5/8   | 5/8   | 4/6  | 4/6  | 4/6  | 4/6  | 4/6   |
| 20                  |                     |       | 4/6   | 4/6   | 4/6   | 4/6  | 4/6  | 4/6  | 4/6  | 4/6   |
| 30                  |                     |       |       | 4/6   | 4/6   | 4/6  | 4/6  | 3/4  | 3/4  | 3/4   |
| 50                  |                     |       |       |       |       | 3/4  | 3/4  | 3/4  | 2/3  | 2/3   |
| 80                  |                     |       |       |       |       |      | 3/4  | 2/3  | 2/3  | 2/3   |
| 100                 |                     |       |       |       |       |      |      | 2/3  | 2/3  | 1,4/2 |

## M 42 UNIVERSAL



**IDEAL BAND SAW BLADE FOR SMALL SOLID MATERIAL AND MEDIUM WALL- THICKNESS TUBES**

### Application:

- Profiles with thin or medium wall thickness
- Short-chipping material
- Single as well as bundle cutting
- Carbon and alloyed steels
- Non-ferrous metals

### Characteristics:

- 0° rake angle
- Variable TPI
- M42 HSS teeth tips
- Hardness up to 68 HRC
- Excellent life time expectancy

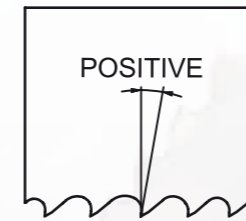
| Dimensions | TPI - teeth per inch |      |      |       |
|------------|----------------------|------|------|-------|
|            | 5/8                  | 6/10 | 8/12 | 10/14 |
| mm         |                      |      |      |       |
| 6 x 0,90   |                      |      |      | V-O   |
| 10 x 0,90  |                      |      |      | V-O   |
| 13 x 0,65  | V-O                  | V-O  | V-O  | V-O   |
| 13 x 0,90  | V-O*                 | V-O  | V-O  | V-O   |
| 20 x 0,90  | V-O                  | V-O  | V-O  | V-O   |
| 27 x 0,90  | V-O                  | V-O  | V-O  | V-O   |
| 34 x 1,10  | V-O                  | V-O  | V-O  | V-O*  |
| 41 x 1,30  | V-O                  | V-O  |      |       |

V-O = variable teeth with 0° rake angle

\* On request

The lifetime expectancy of band saw blade can be significantly increased by controlled break-in/running-in procedure. Please set the cutting speed to 80% and feed to 50% for first 20 minutes.

## M 42 MASSIVE



**SPECIALLY DESIGNED FOR MEDIUM AND LARGE CROSS - SECTION CUTTING OF SOLID MATERIAL**

### Application:

- Excellent for solid rods and blocks cutting
- Single as well as bundle cutting
- Carbon steels
- Alloyed steels
- Non-ferrous metals

### Characteristics:

- Positive rake angle
- Variable TPI
- M42 HSS teeth tips
- Hardness up to 68 HRC
- Excellent life time expectancy

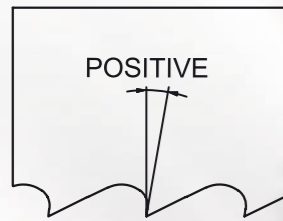
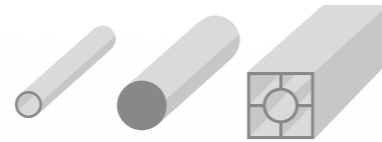
| Dimensions | TPI - teeth per inch |         |       |       |       |       |
|------------|----------------------|---------|-------|-------|-------|-------|
|            | 0,75/1,25            | 1,1/1,6 | 1,4/2 | 2/3   | 3/4   | 4/6   |
| mm         |                      |         |       |       |       |       |
| 20 x 0,90  |                      |         |       |       |       | V-POS |
| 27 x 0,90  |                      |         |       | V-POS | V-POS | V-POS |
| 34 x 1,10  |                      |         | V-POS | V-POS | V-POS | V-POS |
| 41 x 1,30  |                      |         | V-POS | V-POS | V-POS | V-POS |
| 54 x 1,30  |                      | V-POS*  | V-POS | V-POS | V-POS | V-POS |
| 54 x 1,60  | V-POS                | V-POS*  | V-POS | V-POS | V-POS | V-POS |
| 67 x 1,60  | V-POS                | V-POS*  | V-POS | V-POS | V-POS |       |

V-POS = variable teeth with positive rake angle

\* On request

The lifetime expectancy of band saw blade can be significantly increased by controlled break-in/running-in procedure. Please set the cutting speed to 80% and feed to 50% for first 20 minutes.

## M 42 ALUCUT



### SPECIALLY DESIGNED FOR EASY ALUMINIUM CUTTING

#### Application:

- Aluminium and aluminium alloys
- Non-ferrous metals
- Solid material and profiles
- Material with residual stress and tendency to jamming

#### Characteristics:

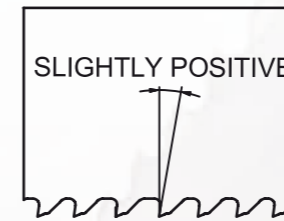
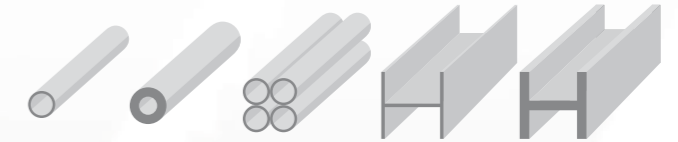
- Positive rake angle
- Variable/constant TPI
- M42 HSS teeth tips
- Hardness up to 68 HRC
- Prevents jamming

| Dimensions | TPI - teeth per inch |      |      |     |       |       |
|------------|----------------------|------|------|-----|-------|-------|
|            | 2H                   | 3H   | 4H   | 6H  | 2/3   | 3/4   |
| mm         |                      |      |      |     |       |       |
| 10 x 0,90  |                      |      | POS  | POS |       |       |
| 13 x 0,90  |                      | POS  | POS  | POS |       |       |
| 20 x 0,90  |                      | POS  | POS* |     |       |       |
| 27 x 0,90  | POS                  | POS  | POS  |     | V-POS | V-POS |
| 34 x 1,10  | POS                  | POS  |      |     | V-POS | V-POS |
| 41 x 1,30  | POS*                 | POS* |      |     | V-POS | V-POS |

POS = regular teeth with positive rake angle  
 V-POS = variable teeth with positive rake angle  
 \* On request

The lifetime expectancy of band saw blade can be significantly increased by controlled break-in/running-in procedure. Please set the cutting speed to 80% and feed to 50% for first 20 minutes.

## M 42 PROFILE



### BAND SAW BLADE FOR SMOOTH TUBES CUTTING

#### Application:

- Tubes, beams, profiles
- Single as well as bundle cutting
- Carbon steels
- Alloyed steels

#### Characteristics:

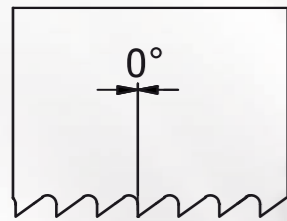
- Slightly positive rake angle
- Variable TPI
- M42 HSS teeth tips
- Hardness up to 68 HRC
- Excellent life time expectancy

| Dimensions | TPI - teeth per inch |       |       |       |       |
|------------|----------------------|-------|-------|-------|-------|
|            | 2/3                  | 3/4   | 4/6   | 5/7   | 8/11  |
| mm         |                      |       |       |       |       |
| 20 x 0,90  |                      |       |       | V-POS | V-POS |
| 27 x 0,90  |                      | V-POS | V-POS | V-POS | V-POS |
| 34 x 1,10  | V-POS                | V-POS | V-POS | V-POS | V-POS |
| 41 x 1,30  | V-POS                | V-POS | V-POS | V-POS | V-POS |
| 54 x 1,30  |                      | V-POS |       |       |       |
| 54 x 1,60  | V-POS                | V-POS | V-POS |       |       |
| 67 x 1,60  | V-POS                | V-POS |       |       |       |

V-POS = variable teeth with positive rake angle

The lifetime expectancy of band saw blade can be significantly increased by controlled break-in/running-in procedure. Please set the cutting speed to 80% and feed to 50% for first 20 minutes.

## M 42 REGULAR



**BAND SAW BLADE FOR SMALL CROSS-SECTION SOLIDS AND TUBES**

### Application:

- Tubes, beams and profiles
- Single as well as bundle cutting
- Structural steels, unalloyed steels, carbon steels
- Non-ferrous metals, HSS steels, spring steels

### Characteristics:

- M42 HSS tooth tips
- 0° rake angle
- Regular teeth with constant TPI
- Hardness up to 68 HRC
- Suitable for manual feed

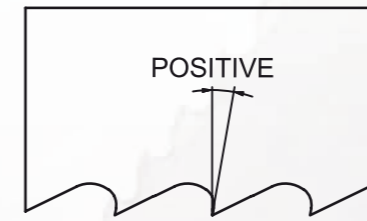
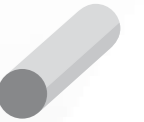
| Dimensions | TPI - teeth per inch |   |    |    |    |
|------------|----------------------|---|----|----|----|
|            | 4                    | 6 | 10 | 14 | 18 |
| mm         |                      |   |    |    |    |
| 6 x 0,90   |                      |   | N  | N  |    |
| 10 x 0,90  |                      |   | N  | N  |    |
| 13 x 0,65  |                      |   | N  | N  | N  |
| 13 x 0,90  |                      |   | N* | N* | N* |
| 20 x 0,90  | N                    |   | N  | N  | N  |
| 27 x 0,90  | N                    | N | N  | N  | N  |

N = regular teeth with 0° rake angle

\* On request

The lifetime expectancy of band saw blade can be significantly increased by controlled break-in/running-in procedure. Please set the cutting speed to 80% and feed to 50% for first 20 minutes.

## M42 REGULAR PLUS



**BAND SAW BLADE FOR LARGE CROSS-SECTIONS**

### Application:

- Large cross sections above 100mm
- Carbon steels, non-ferrous metals
- Manual feed machines

### Characteristics:

- M42 HSS tooth tips
- Positive rake angle
- Regular teeth with constant TPI
- Hardness up to 68 HRC

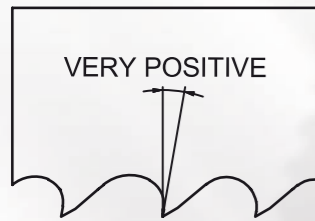
| Dimensions | TPI - teeth per inch |      |      |     |
|------------|----------------------|------|------|-----|
|            | 2                    | 3    | 4    | 6   |
| mm         |                      |      |      |     |
| 6 x 0,90   |                      |      |      | POS |
| 10 x 0,90  |                      |      | POS  | POS |
| 13 x 0,65  |                      |      |      | POS |
| 13 x 0,90  |                      | POS  | POS  | POS |
| 20 x 0,90  |                      | POS  | POS  |     |
| 27 x 0,90  | POS                  | POS  | POS  | POS |
| 34 x 1,10  | POS*                 | POS* | POS* |     |

POS = regular teeth with positive rake angle

\* On request

The lifetime expectancy of band saw blade can be significantly increased by controlled break-in/running-in procedure. Please set the cutting speed to 80% and feed to 50% for first 20 minutes.

## M42 PLUSCUT



### BAND SAW BLADE WITH EXTRA POSITIVE RAKE ANGLE

#### Application:

- Large cross-sections solids
- Long-chipping materials
- Stainless and acid resistant steels
- Titanium alloys
- Special bronzes
- Nickel base alloys

#### Characteristics:

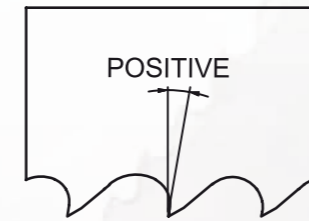
- Extra positive rake angle
- Variable TPI
- M42 HSS teeth tips
- Hardness up to 68 HRC

| Dimensions | TPI - teeth per inch |        |        |
|------------|----------------------|--------|--------|
|            | 1,4/2                | 2/3    | 3/4    |
| 27 x 0,90  |                      |        | V-POS+ |
| 34 x 1,10  |                      | V-POS+ | V-POS+ |
| 41 x 1,30  |                      | V-POS+ | V-POS+ |
| 54 x 1,60  | V-POS+               | V-POS+ | V-POS+ |

V-POS+ = variable teeth with a strongly positive rake angle

The lifetime expectancy of band saw blade can be significantly increased by controlled break-in/running-in procedure. Please set the cutting speed to 80% and feed to 50% for first 20 minutes.

## M51 MASSIVE PROFI



### SPECIALLY DESIGNED FOR CUTTING SOLID MATERIALS OF LARGE CROSS-SECTIONS

#### Application:

- Excellent for solid rods cutting
- Single as well as bundle cutting
- Stainless steels
- Highly Alloyed steels
- Titanium and nickel-based alloys

#### Characteristics:

- Positive rake angle
- Variable TPI
- M51 HSS teeth tips
- Hardness up to 69 HRC
- Extra-long lifetime expectancy

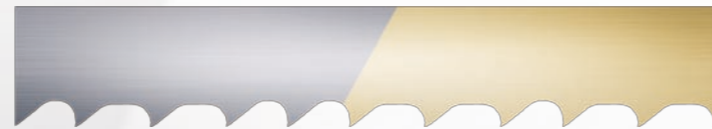
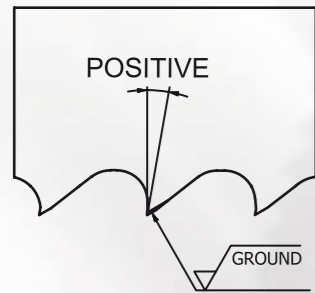
| Dimensions | TPI - teeth per inch |        |       |       |
|------------|----------------------|--------|-------|-------|
|            | 1,4/2                | 2/3    | 3/4   | 4/6   |
| 27 x 0,90  |                      | V-POS  | V-POS | V-POS |
| 34 x 1,10  |                      | V-POS  | V-POS | V-POS |
| 41 x 1,30  | V-POS                | V-POS  | V-POS | V-POS |
| 54 x 1,60  | V-POS                | V-POS  | V-POS | V-POS |
| 67 x 1,60  |                      | V-POS* |       |       |

V-POS = variable teeth with positive rake angle

\* On request

The lifetime expectancy of band saw blade can be significantly increased by controlled break-in/running-in procedure. Please set the cutting speed to 80% and feed to 50% for first 20 minutes.

## M51 GRINDCUT (+ TiN\*\*)



### GROUND-TEETH PROFILE FOR THE BEST CUTTING RESULTS

#### Application:

- Excellent for solid rods cutting
- Single as well as bundle cutting
- Stainless steels
- Highly Alloyed steels
- Titanium and nickel-based alloys

#### Characteristics:

- Positive rake angle
- Variable TPI
- M51 HSS teeth tips
- Hardness up to 69 HRC
- Extra-long lifetime expectancy
- Ground teeth

| Dimensions | TPI - teeth per inch |        |        |       |        |
|------------|----------------------|--------|--------|-------|--------|
|            | 0,75/1,25            | 1/1,5  | 1,4/2  | 2/3   | 3/4    |
| mm         |                      |        |        |       |        |
| 27 x 0,90  |                      |        |        | V-POS | V-POS  |
| 34 x 1,10  |                      |        |        | V-POS | V-POS  |
| 41 x 1,30  |                      |        | V-POS  | V-POS | V-POS* |
| 54 x 1,60  |                      | V-POS  | V-POS  | V-POS |        |
| 67 x 1,60  | V-POS                | V-POS* | V-POS* |       |        |

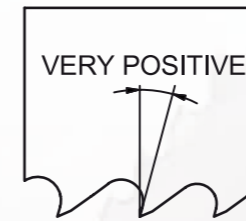
V-POS = variable tooth pitch with positive rake angle

\* On request

\*\* Optional TiN coating on request

The lifetime expectancy of band saw blade can be significantly increased by controlled break-in/running-in procedure. Please set the cutting speed to 80% and feed to 50% for first 20 minutes.

## M51 TEMPEST



### PREMIUM BAND SAW BLADE FOR SUPER-ALLOYS CUTTING

#### Application:

- Excellent for solid rods cutting
- Stainless steels
- Highly Alloyed steels
- Titanium and nickel-based alloys
- Special bronzes

#### Characteristics:

- Extra positive rake angle
- Variable TPI
- M51 HSS teeth tips
- Hardness up to 69 HRC
- Extra-long lifetime expectancy

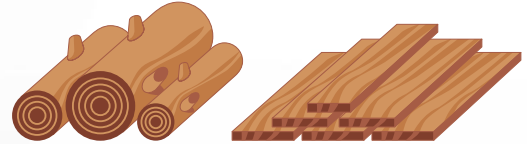
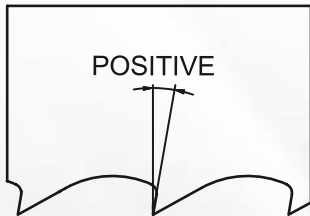
| Dimensions | TPI - teeth per inch |        |        |        |
|------------|----------------------|--------|--------|--------|
|            | 0,75/1,25            | 1/1,3  | 1/1,5  | 1,4/2  |
| mm         |                      |        |        |        |
| 41 x 1,30  |                      |        |        | V-POS+ |
| 54 x 1,60  |                      |        | V-POS+ | V-POS+ |
| 67 x 1,60  | V-POS+               | V-POS+ |        | V-POS+ |

V-POS+ = variable teeth with a strongly positive rake angle

The lifetime expectancy of band saw blade can be significantly increased by controlled break-in/running-in procedure. Please set the cutting speed to 80% and feed to 50% for first 20 minutes.



## WOODCUT



### BIMETAL BAND SAW BLADE FOR WOOD CUTTING

#### Application:

- Cutting of hard, exotic or frozen wood

| Dimensions | TPI   |
|------------|-------|
| mm         | 22,2  |
| 34 x 0,90  | 10/30 |
| 34 x 1,10  | 10/30 |
| 41 x 1,10  | 10/30 |
| 54 x 1,10  | 10/30 |

10/30 = 10° rake angle, 30° clearance angle

#### Characteristics:

- Tooth tips made from High Speed Steel (HSS)
- Band body is made from flexible steel
- Unique cutting performance and long life time expectancy



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