
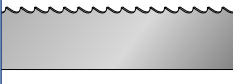
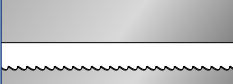

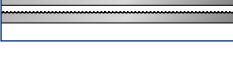



When selecting a WIKUS band saw blade you may use the following points as check list.

## Selecting the right band saw blade

### 1. Band length

The band dimension individually depends on the used cutting machine. You will find further information in the rear of this catalogue or in the operation instructions for your machine.

Band width and smallest radius	
	20 mm - r = 140
	16 mm - r = 95
	13 mm - r = 65
	10 mm - r = 40
	8 mm - r = 30
	6 mm - r = 16
	4 mm - r = 8
	3 mm - r = 3

### 2. Band width

With horizontal machines the band width is specified by the manufacturer. Vertical band saw machines allow higher variations of the band width. However, the general rule is the wider the band saw blade the higher its stability.

In case of contour cuts the smallest radius to be cut is the limiting factor for the band width.

### 3. Cutting edge material

WIKUS offers four main groups of cutting edge materials:

#### Carbon steel

Hardness: approx. 850 HV  
Tempering resistance: approx. 200°C

#### High-speed steel

Hardness: approx. 1000 HV  
Tempering resistance: approx. 600°C

#### Carbide

Hardness: approx. 1600 HV  
Tempering resistance: approx. 800°C

#### Diamond

Hardness: approx. 9000 HV

The machinability of the material to be cut determines the cutting edge material.

Our technical service team will gladly help you with the selection.

For extensive product recommendation we need detailed information, please see pages 61 and 62.

#### Constant tooth pitch

Tooth pitch	Contact length
24 tpi	up to 6 mm
18 tpi	up to 10 mm
14 tpi	up to 15 mm
10 tpi	15 - 30 mm
8 tpi	30 - 50 mm
6 tpi	50 - 80 mm
4 tpi	80 - 120 mm
3 tpi	120 - 200 mm
2 tpi	200 - 400 mm
1,25 tpi	300 - 800 mm
0,75 tpi	700 - 3000 mm

#### Variable tooth pitch

Tooth pitch	Contact length
10-14 tpi	up to 30 mm
8-12 tpi	20 - 50 mm
6-10 tpi	25 - 60 mm
5-8 tpi	35 - 80 mm
4-6 tpi	50 - 100 mm
4-5 tpi	70 - 120 mm
3-4 tpi	80 - 150 mm
2-3 tpi	120 - 350 mm
1,4-2 tpi	250 - 600 mm
0,75-1,25 tpi	500 - 1200 mm
0,55-0,75 tpi	1000 - 3000 mm

#### Cutting of tubes and profiles

Wall thickness s [mm]	Tooth pitch Tz (tpi) Outer diameter D of the tube [mm]																	
	20	40	60	80	100	120	150	200	300	400	500	600	700	800	900	1000	1500	
2	14	14	14	14	14	14	10-14	10-14	8-12	8-12	6-10	6-10	5-8	5-8	5-8	5-8	5-8	5-8
3	14	14	10-14	10-14	10-14	10-14	8-12	8-12	6-10	6-10	5-8	5-8	5-8	4-6	4-6	4-6	4-6	4-6
4	14	14	10-14	10-14	8-12	8-12	8-12	8-12	5-8	5-8	4-6	4-6	4-6	4-6	4-6	4-6	4-6	3-4
5	14	10-14	10-14	10-14	8-12	8-12	8-12	6-10	5-8	5-8	4-6	4-6	4-6	4-6	3-4	3-4	3-4	3-4
6	14	10-14	10-14	8-12	8-12	8-12	8-12	5-8	5-8	4-6	4-6	4-6	3-4	3-4	3-4	3-4	3-4	3-4
8	14	10-14	8-12	8-12	8-12	6-10	6-10	5-8	4-6	4-6	4-6	3-4	3-4	3-4	3-4	3-4	2-3	2-3
10		8-12	6-10	6-10	6-10	5-8	5-8	4-6	4-6	4-6	3-4	3-4	3-4	3-4	2-3	2-3	2-3	2-3
12		8-12	6-10	6-10	5-8	5-8	4-6	4-6	4-6	3-4	3-4	3-4	3-4	2-3	2-3	2-3	2-3	2-3
15		8-12	6-10	5-8	5-8	4-6	4-6	4-6	3-4	3-4	3-4	2-3	2-3	2-3	2-3	2-3	2-3	2-3
20			6-10	5-8	4-6	4-6	4-6	3-4	3-4	3-4	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3
30				4-6	4-6	4-6	3-4	3-4	3-4	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	1,4-2
50						3-4	3-4	3-4	2-3	2-3	2-3	2-3	2-3	2-3	2-3	1,4-2	1,4-2	1,4-2
75								2-3	2-3	2-3	2-3	2-3	1,4-2	1,4-2	1,4-2	1,4-2	1,4-2	1,4-2
100									2-3	2-3	1,4-2	1,4-2	1,4-2	1,4-2	1,4-2	1,4-2	1,4-2	0,75-1,25
150										2-3	1,4-2	1,4-2	1,4-2	1,4-2	1,4-2	0,75-1,25	0,75-1,25	0,75-1,25
200											1,4-2	1,4-2	1,4-2	1,4-2	0,75-1,25	0,75-1,25	0,75-1,25	0,75-1,25
250												1,4-2	1,4-2	1,4-2	0,75-1,25	0,75-1,25	0,75-1,25	0,75-1,25
300													1,4-2	1,4-2	0,75-1,25	0,75-1,25	0,75-1,25	0,75-1,25
350														0,75-1,25	0,75-1,25	0,75-1,25	0,55-0,75	0,55-0,75
400															0,75-1,25	0,75-1,25	0,55-0,75	0,55-0,75
450																0,75-1,25	0,55-0,75	0,55-0,75
500																		0,55-0,75

If you have to cut two or more tubes lying side by side please use this table in consideration of the double wall thickness s.

#### 4. Tooth pitch

At WIKUS you may choose between constant and variable tooth pitch. Here the contact length of the blade in the work piece is decisive. To give you a better overview you will also find the upper and lower limit in both given tables.

#### 5. Tooth shape

Our different tooth shapes have been optimally combined with our cutting edge materials and band dimensions by our technologists.

- **Raker tooth (S)**  
for short-chipping and brittle materials
- **Skip tooth (L)**  
for flexible materials (aluminium and wood)

- **Hook tooth (K)**  
for long-chipping, tough materials
- **Tooth shape (HV)**  
particularly for brittle and annealed materials with large cross-sections
- **Tooth shape (VA)**  
particularly for tough and long-chipping materials with large cross-sections
- **Profile tooth (P)**  
for hollow profiles, angle profiles and beams
- **Trapezoid tooth (T)**  
for high cutting rates and best surface quality
- **Tooth shape (TSN)**  
particularly for induction hardened and chrome coated shafts

#### 6. Type of tooth set

Our product range offers every type of tooth set that is important for you.

##### Carbon steel band saw blades

- SD, WS, RL, GS

##### Bimetal band saw blades

- SD, GS

##### Carbide coated band saw blades

- SD

Our carbide tipped band saw blades FUTURA, FUTURA PLUS and FUTURA SN as well as all **coated band saw blades** are not set.

Further information concerning tooth shapes, tooth pitches and types of tooth set can be found on the next page.