



BAND SAW BLADES

2020.2



Based on our experience and knowledge in sawing technology we are able to provide you with several tooth forms, cutting angles and types of tooth settings, to secure a wide range of applications and to meet your special demand.

The basis of BUSATEC BI-Metal band saws is a two component material, consisting of a special alloyed steel, highly flexible with a strength of approx. 50 HRC – which is the carrier material-, and a HSS-wire added by an electrode welding process.

By using a special heat treatment process, we improved our band saws to a hardness of approx. 68 HRC.

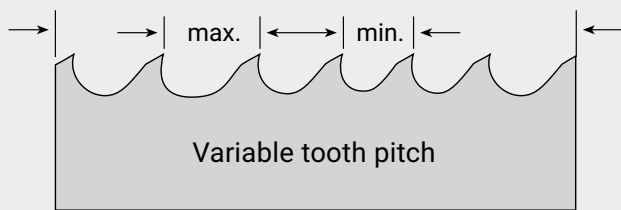


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Correct tooth pitch – optimum performance.

The choice of the right tooth pitch can be decisive to achieve the optimum performance.

Recommendation to cut solid material



Variable tooth pitch Cross section mm	Teeth per inch	
	tpi	Tooth shape
above 550	0,75/1,25	V
380 - 750	1/1,3	V
250 - 550	1,4/2	V
120 - 350	2/3	V
80 - 140	3/4	V
60 - 110	4/6	V
40 - 70	5/7 5/8	V
30 - 60	6/10	V
20 - 40	8/11 8/12	V
up to 25	10/14	V

V = Variable tooth

Recommendation to cut tubes and structurals

The choice of the right tooth has special influence on the cutting result on tubes and structurals. Variable tooth has proven to be the most favourable tooth form.

Tooth pitches selected are depending on wall thickness and outer dimensions of tubes or structurals. The recommendations shown here refer to single cuts.

If two or more tubes or square pipes are cut at a time, choose double wall thickness to select tooth pitch.

Thin wall structurals (0° rake angle)

Wall thickness (S) in mm	Diam. of structural (D) in mm							
	20	40	60	80	100	120	150	
2	14	14	14	14	14	14	14	10/14
3	14	14	14	14	10/14	10/14	10/14	8/11 8/12
4	14	14	10/14	10/14	8/11 8/12	8/11 8/12	8/11 8/12	6/10
5	14	10/14	10/14	8/11 8/12	8/11 8/12	6/10	6/10	6/10
6	14	10/14	8/11 8/12	8/11 8/12	6/10	6/10	5/7 5/8	5/7 5/8
8	14	8/11 8/12	6/10	6/10	5/7 5/8	5/7 5/8	5/7 5/8	5/7 5/8
10	-	6/10	6/10	5/7 5/8	5/7 5/8	5/7 5/8	-	-


Heavy wall structurals (positive rake angle)


Wall thickness (S) in mm	Diam. of structural (D) in mm								
	80	100	120	150	200	300	500	750	
10	-	-	-	4/6	4/6	4/6	3/4	2/3	2/3
15	4/6	4/6	4/6	4/6	4/6	3/4	2/3	2/3	2/3
20	4/6	4/6	4/6	4/6	3/4	3/4	2/3	2/3	2/3
30	4/6	4/6	4/6	3/4	3/4	2/3	2/3	2/3	2/3
50	-	-	3/4	3/4	2/3	2/3	2/3	1,4/2	1,4/2
80	-	-	-	-	2/3	2/3	1,4/2	1,4/2	1,4/2
100	-	-	-	-	-	2/3	1,4/2	1,4/2	1,4/2


Recommendations for using Bi-Metal and Carbide Tipped Band Saw Blades


		Art.-No.	1101	1102	1103	1104	1120	1220	1109	1107	1108	1201	1110	1202	1401	1403	1404	1406	1408
		Product name	PLUTO M42	PLUTO EXTRA M42	MARS M42	MARS EXTRA M42	MARS UNIVERSAL M42	MARS UNIVERSAL M51	MARS PROFIL M42	PLUTO ALU M42	MARS ALU M42	APOLLO EXTRA M51	MARS EXTRA SG M42	APOLLO EXTRA SG M51	TRITON	ORION	ORION SUPER	HYDRA	NEPTUN
Catalogue page			6	6	6	6	7	7	8	8	8	8	9	9	10	10	10	10	11
Material dimension (mm)																			
- Structural steels	< 80																		
	80 - 350																		
	> 350																		
- Case-hardening steels	< 80																		
	80 - 350																		
	> 350																		
- Free machining steels	< 80																		
	80 - 350																		
	> 350																		
- Unalloyed tool steels	< 80																		
	80 - 350																		
	> 350																		
- Spring steels	< 80																		
	80 - 350																		
	> 350																		
- Roller bearing steel	< 80																		
	80 - 350																		
	> 350																		
- High speed steels	< 80																		
	80 - 350																		
	> 350																		
- Cold-work steels	< 80																		
	80 - 350																		
	> 350																		
- Nitride steels	< 80																		
	80 - 350																		
	> 350																		
- Heat treatable steels	< 80																		
	80 - 350																		
	> 350																		
- Hot working steels	< 80																		
	80 - 350																		
	> 350																		
- Stainless steels	< 80																		
	80 - 350																		
	> 350																		
- High temperature steels	< 80																		
	80 - 350																		
	> 350																		
- Heat resistant steels	< 80																		
	80 - 350																		
	> 350																		
- High tensile steels	< 80																		
	80 - 350																		
	> 350																		
- Titanium + titanium alloys	< 80																		
	80 - 350																		
	> 350																		
- Nickel alloys	< 80																		
	80 - 350																		
	> 350																		
- Surface hardened steel shafts	< 80																		
	80 - 350																		
	> 350																		
- Hardened steels up to HRC 62	< 80																		
	80 - 350																		
	> 350																		
- Hardchromed materials	< 80																		
	80 - 350																		
	> 350																		
- Steel castings	< 80																		
	80 - 350																		
	> 350																		
- Cast irons	< 80																		
	80 - 350																		
	> 350																		
- Aluminium	< 80																		
	80 - 350																		
	> 350																		
- Copper	< 80																		
	80 - 350																		
	> 350																		
- Brass	< 80																		
	80 - 350																		
	> 350																		
- Bronze	< 80																		
	80 - 350																		
	> 350																		
- Red brass	< 80																		
	80 - 350																		
	> 350																		
- Aluminium + alloys	< 80																		
	80 - 350																		
	> 350																		
- Aluminium alloys with silicon	< 80																		
	80 - 350																		
	> 350																		

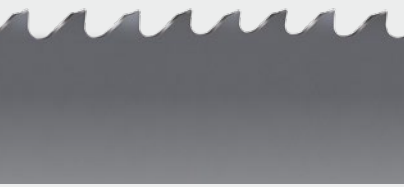
Qualification: ■ = recommended ■ = suitable


PLUTO	Art.-No. 1101 - M42	Dimensions mm	Toothing				
			4	6	10	14	18
	Bi-Metal Band Saw Blades made of HSS M42, material no. 1.3247 • to cut small solid materials of steel and small profiles • strength up to 1400 N/mm ²	6 x 0,9			S-0	S-0	
		10 x 0,9			S-0	S-0	
		13 x 0,65			S-0	S-0	S-0
		13 x 0,9				S-0	
		20 x 0,9				S-0	S-0
		27 x 0,9	S-0	S-0		S-0	
		S-0 = Standard tooth 0°					

PLUTO EXTRA	Art.-No 1102 - M42	Dimensions mm	Toothing		
			3	4	6
	Bi-Metal Band Saw Blades made of HSS M42, material no. 1.3247 • for several materials and cutting purposes • strength up to 1400 N/mm ²	6 x 0,9			K-2
		10 x 0,9		K-2	K-2
		13 x 0,65		K-2	K-2
		13 x 0,9	K-2	K-2	K-2
		20 x 0,9	K-2		
		27 x 0,9	K-2		
K-2 = Claw tooth 10° positive					


MARS	Art.-No. 1103 - M42	Dimensions mm	Toothing			
			5/8	6/10	8/12	10/14
	Bi-Metal Band Saw Blades made of HSS M42, material no. 1.3247 • to cut profiles and tubes of steel • strength up to 1400 N/mm ²	6 x 0,9				V-0
		10 x 0,9				V-0
		13 x 0,65	V-0	V-0	V-0	V-0
		13 x 0,9		V-0	V-0	V-0
		20 x 0,9	V-0	V-0	V-0	V-0
		27 x 0,9	V-0	V-0	V-0	V-0
		34 x 1,1	V-0	V-0	V-0	
		41 x 1,3	V-0	V-0		
V-0 = Vario tooth 0°						


MARS EXTRA	Art.-No. 1104 - M42	Dimensions mm	Toothing				
			0,75/1,25	1,4/2	2/3	3/4	4/6
	Bi-Metal Band Saw Blades made of HSS M42, material no. 1.3247 • for cutting medium to large cross sections of various material types • for aluminum up to stainless steel • strength up to 1400 N/mm ²	20 x 0,9					V-2
		27 x 0,9			V-2	V-2	V-2
		34 x 1,1		V-2	V-2	V-2	V-2
		41 x 1,3		V-2	V-2	V-2	V-2
		54 x 1,3		V-2	V-2	V-2	V-2
		54 x 1,6	V-2	V-2	V-2	V-2	V-2
		67 x 1,6	V-2	V-2	V-2		
		80 x 1,6	V-2	V-2			
		V-0 = Vario tooth 10° positive					


MARS UNIVERSAL	Art.-No 1120 - M42	Dimensions mm	Toothing				
			2/3	3/4	4/6	5/7	8/11
 <p>Bi-Metal Band Saw Blades with tooth tips made of HSS M42, material no. 1.3247</p> <ul style="list-style-type: none"> • universal application for steel beams, profiles and tubes • mixed materials 		20 x 0,9			V-7		V-7
		27 x 0,9		V-7	V-7	V-7	V-7
		34 x 1,1	V-7	V-7	V-7	V-7	
		41 x 1,3	V-7	V-7	V-7		
		54 x 1,3		V-7	V-7		
		54 x 1,6	V-7	V-7	V-7		
		67 x 1,6	V-7	V-7			
		V-7 = Vario tooth 5 - 7° positive					


MARS UNIVERSAL	Art.-No. 1220 - M51	Dimensions mm	Toothing		
			2/3	3/4	4/6
 <p>Bi-Metal Band Saw Blades with powerful tooth tips made of HSS M51</p> <ul style="list-style-type: none"> • universal application for steel beams, profiles and tubes • mixed materials 		34 x 1,1		V-7	V-7
		41 x 1,3	V-7	V-7	
		54 x 1,3		V-7	
		54 x 1,6	V-7	V-7	
		67 x 1,6	V-7	V-7	V-7
		V-7 = Vario tooth 5 - 7° positive			







MARS PROFIL	Art.-No. 1109 - M42	Dimensions mm	Toothing	
			2/3	3/4
 <p>Bi-Metal Band Saw Blades made of HSS M42, material no. 1.3247</p> <ul style="list-style-type: none"> • for cutting medium and large structural steels, tubes and profiles with clamping • special set and tooth profile reduces tooth chipping • ideal for interrupted cutting 		34 x 1,1		V-4
		41 x 1,3	V-4	V-4
		54 x 1,6	V-4	V-4
		67 x 1,6	V-4	V-4
		V-4 = Vario tooth 5 - 7° positive with special setting		

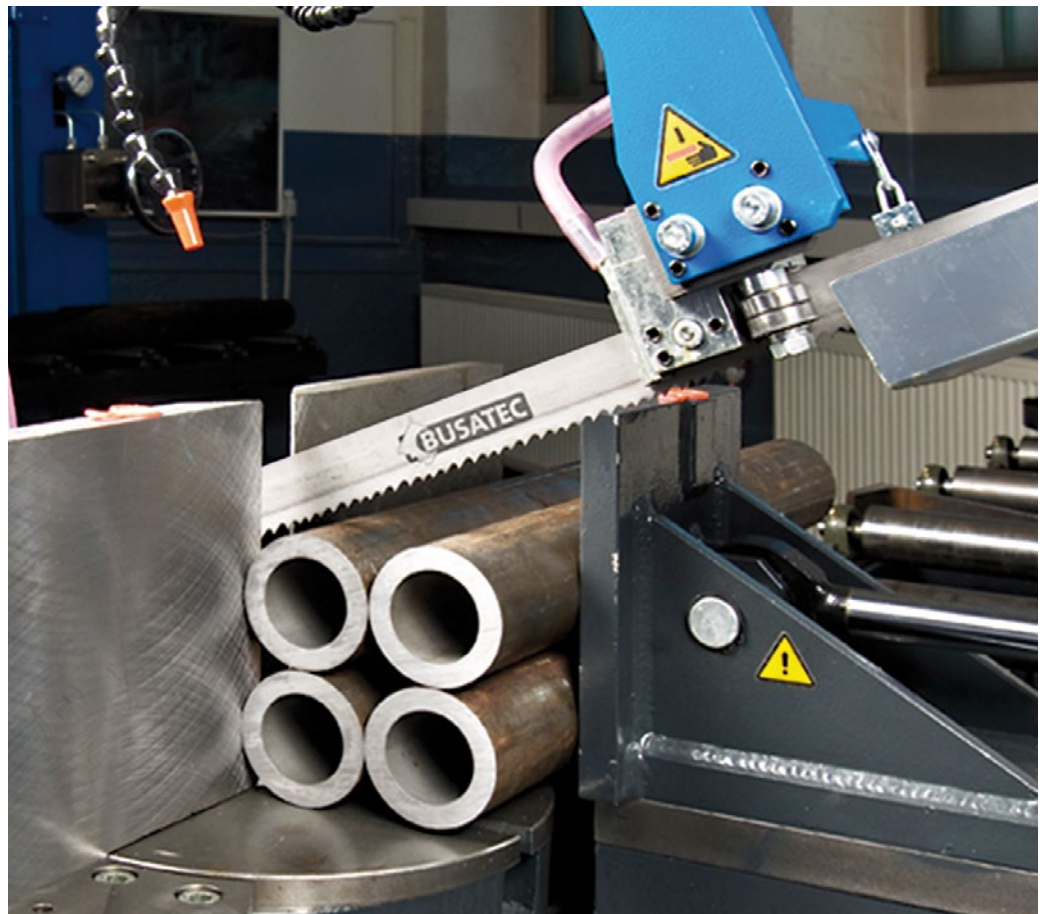
PLUTO ALU	Art.-No. 1107 - M42	Dimensions mm	Toothing		
			3	4	6
 <p>Bi-Metal Band Saw Blades made of HSS M42, material no. 1.3247</p> <ul style="list-style-type: none"> • special design in combination with extreme sharp cutting edges • developed for cutting aluminum • standard tooth pitch 		10 x 0,9		K-2	K-2
		13 x 0,65		K-2	K-2
		13 x 0,9	K-2	K-2	K-2
		20 x 0,9	K-2		
		27 x 0,9	K-2		
		K-2 = Claw tooth 10° positive			


MARS ALU	Art.-No. 1108 - M42	Dimensions mm	Toothing	
			2/3	3/4
 <p>Bi-Metal Band Saw Blades made of HSS M42, material no. 1.3247</p> <ul style="list-style-type: none"> • special design in combination with extreme sharp cutting edges • developed for cutting aluminum • variable tooth pitch 		27 x 0,9	V-2	V-2
		34 x 1,1	V-2	V-2
		V-2 = Vario tooth 10° positive		

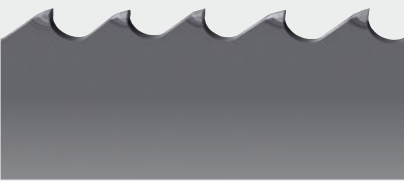
APOLLO EXTRA	Art.-No. 1201 - M51	Dimensions mm	Toothing						
			0,75/1,25	1/1,3	1,4/2	2/3	3/4	4/6	5/8
 <p>Bi-Metal Band Saw Blades made of HSS M51, material no. 1.3207</p> <ul style="list-style-type: none"> • to cut solid steel up to 1700 N/mm² strength • developed to cut difficult materials 		27 x 0,9				V-3	V-3	V-3	V-3
		34 x 1,1				V-3	V-3	V-3	
		41 x 1,3			V-3	V-3	V-3		
		54 x 1,6		V-3	V-3	V-3			
		67 x 1,6	V-3	V-3	V-3	V-3			
		80 x 1,6	V-3	V-3	V-3				
	V-3 = Vario tooth 15° positive								


MARS EXTRA SG	Art.-No. 1110 - M42	Dimensions mm	Toothing			
			0,75/1,25	1,4/2	2/3	3/4
 	Bi-Metal Band Saw Blades made of HSS M42, material no. 1.3247, with specially ground vario tooth <ul style="list-style-type: none"> • for production cutting of medium to large cross sections of various material types • precise ground tooth tips for smooth surface finish and long blade life 	27 x 0,9			V-2	V-2
		34 x 1,1		V-2	V-2	V-2
		41 x 1,3		V-2	V-2	V-2
		54 x 1,3		V-2	V-2	V-2
		54 x 1,6	V-2	V-2	V-2	V-2
		67 x 1,6	V-2	V-2	V-2	
		80 x 1,6	V-2	V-2		
V-2 = Vario tooth 10° positive ground teeth						


APOLLO EXTRA SG	Art.-No. 1202 - M51	Dimensions mm	Toothing				
			0,75/1,25	1/1,3	1,4/2	2/3	3/4
 	Bi-Metal Band Saw Blades made of HSS M51, material no. 1.3207, with specially ground vario tooth <ul style="list-style-type: none"> • developed for high-alloyed and tough solid materials up to 1700 N/mm² strength • precise ground tooth tips for smooth surface finish and long blade life • extreme positive rake angle 	27 x 0,9				V-3	V-3
		34 x 1,1				V-3	V-3
		41 x 1,3			V-3	V-3	V-3
		54 x 1,6		V-3	V-3	V-3	
		67 x 1,6	V-3	V-3	V-3	V-3	
		80 x 1,6	V-3	V-3	V-3		
V-3 = Vario tooth 15° positive, ground teeth							





TRITON	Art.-No. 1401	Dimensions mm	Toothing					
			0,75/1,25	1/1,5	1,4/2	2/3	3	3/4
 <p>Carbide tipped Band Saw Blades with triple chip geometry</p> <ul style="list-style-type: none"> • for difficult to cut and abrasive materials such as stainless steel, special alloys, titanium alloys, aluminum bronze and ampco 		27 x 0,9				V	K	V
		34 x 1,1				V		V
		41 x 1,3			V	V		V
		54 x 1,3			V	V		
		54 x 1,6	V	V	V	V		V
		67 x 1,6	V	V	V	V		
V = Vario tooth positive K = Claw tooth positive								

ORION	Art.-No. 1403	Dimensions mm	Toothing					
			0,75/1,25	1/1,5	1,4/2	2/3	3/4	
 <p>Carbide tipped premium Band Saw Blades with multi chip geometry fullfilling the highest requirement of tools</p> <ul style="list-style-type: none"> • designed for high efficiency cutting in solid steel and non ferrous alloys 		27 x 0,9				V	V	
		34 x 1,1			V	V	V	
		41 x 1,3			V	V	V	
		54 x 1,3			V	V		
		54 x 1,6	V	V	V	V	V	
		67 x 1,6	V	V	V	V		
V = Vario tooth positive								

ORION SUPER	Art.-No. 1404	Dimensions mm	Toothing		
			1,4/2	2/3	3/4
 <p>Carbide tipped Band Saw Blades with multi chip geometry and negative rake angle</p> <ul style="list-style-type: none"> • perfect for cutting hardchrome piston rods and surface hardened materials 		27 x 0,9		V-N	V-N
		34 x 1,1		V-N	V-N
		41 x 1,3	V-N	V-N	V-N
		54 x 1,6	V-N	V-N	V-N
V-N = Vario tooth negative					

HYDRA	Art.-No. 1406	Dimensions mm	Toothing					
			0,75/1,25	1,4/2	2/3	3	3/4	
 <p>Carbide tipped Band Saw Blades with special geometry</p> <ul style="list-style-type: none"> • for difficult to cut and abrasive non-ferrous materials such as titanium alloys, stainless steel, metals with high residual stress, graphite 		20 x 0,9				K-S		
		27 x 0,9			V-S	K-S	V-S	
		34 x 1,1		V-S	V-S		V-S	
		41 x 1,3		V-S	V-S		V-S	
		54 x 1,3		V-S	V-S			
		54 x 1,6	V-S	V-S	V-S			
		67 x 1,6	V-S	V-S				
		80 x 1,6	V-S	V-S				
V-S = Vario tooth with setting K-S = Claw tooth with setting								

NEPTUN	Art.-No. 1408	Dimensions mm	Toothing					
			0,65/0,95	0,75/1,25	1,4/2	2/3	3	3/4
	Carbide tipped Band Saw Blades with triple chip geometry and tooth tips made of wear resistant carbide • for difficult to cut and abrasive non ferrous materials such as copper alloys, aluminum alloys, graphite, sand cast aluminum and aluminum bronze	20 x 0,9					K	
		27 x 0,9				V	K	V
		34 x 1,1			V	V	K	V
		41 x 1,3			V	V		V
		54 x 1,3			V	V		
		54 x 1,6		V	V	V		
		67 x 1,6			V			
		80 x 1,6	V	V				
		V = Vario tooth positive K = Claw tooth positive						

CERES	Art.-No. 1415	Dimensions mm	Toothing
			2/3
	Carbide tipped Band Saw Blades with special geometry • for cutting pore or lightweight concrete, perforated bricks, porous bricks („Poroton“), insulation materials	27 x 0,9	V
		V = Vario tooth positive	





BUSATEC NANO-LINE

Band Saw Blades with Special Coating

CARBIDE TIPPED

Dimensions mm	Toothing				
	0,75/1,25	1/1,5	1,4/2	2/3	3/4

Art.-No. 2403

ORION NANO

Multi Chip geometry
with TiAlN-Coating

41 x 1,30			V	V	V
54 x 1,30			V	V	
54 x 1,60	V	V	V	V	V
67 x 1,60	V	V	V	V	
80 x 1,60	V		V		

V = Vario tooth positive

Art.-No. 2406

HYDRA NANO

Special geometry with setting,
with TiAlN-Coating

41 x 1,30			V-S	V-S	V-S
54 x 1,30			V-S	V-S	
54 x 1,60	V-S		V-S	V-S	
67 x 1,60	V-S		V-S		
80 x 1,60	V-S		V-S		

V-S = Vario tooth positive **with setting**

BI-METAL

Dimensions mm	Toothing				
	0,75/1,25	1/1,3	1,4/2	2/3	3/4

Art.-No. 2120 - M51

MARS UNIVERSAL NANO

41 x 1,30				V-7	V-7
54 x 1,30					V-7
54 x 1,60				V-7	V-7
67 x 1,60				V-7	V-7

V-7 = Vario tooth 5 - 7° positive

Art.-No. 2109 - M42

MARS PROFIL NANO

41 x 1,30				V-4	V-4
54 x 1,60				V-4	V-4
67 x 1,60				V-4	V-4

V-4 = Vario tooth 5 - 7° positive with special setting

Art.-No. 2110 - M42

MARS EXTRA SG NANO

Special ground teeth

41 x 1,30			V-2	V-2	V-2
54 x 1,30			V-2	V-2	V-2
54 x 1,60	V-2		V-2	V-2	V-2
67 x 1,60	V-2		V-2	V-2	
80 x 1,60	V-2		V-2		

V-2 = Vario tooth 10° positive

Art.-No. 2202 - M51

APOLLO EXTRA SG NANO

Special ground teeth

41 x 1,30			V-3	V-3	V-3
54 x 1,60		V-3	V-3	V-3	
67 x 1,60	V-3	V-3	V-3	V-3	
80 x 1,60	V-3	V-3	V-3		

V-3 = Vario tooth 15° positive

Available as endless welded loops and coils.



Tension measuring device

Wrong tension of band can be the reason for crooked cuts or can cause blade breakage. Therefore, the band tension should be checked at regular intervals. The Busatec tension meter shows direct readout of tension from 0 - 60.000 PSI or 0 - 4.500 kg/cm². Detailed instructions explain how to select and control the right band saw tension.



Refractometer

The correct concentration of cooling liquid is important for optimum life time of Busatec Band Saw Blades. To check directly during operation the right concentration of liquid it is recommended to use the Busatec-Refractometer.



Application toolkit

Making sure your blade runs under perfect conditions.

Featuring: Tension measuring device, refractometer, tachometer, accessories and more.



BREAK-IN PROCEDURES FOR LONG BLADE LIFE.

Like all HSS tools, Busatec Band Saw Blades should be adhered to a special break-in procedures for extended blade life, less blade changes and best payback of your tool cost. Overload of the razor-sharp tooth tips should be avoided at the start of cutting operation. Aggressive cutting with a new blade will lead to premature tooth breakages. Correct break-in will control the gentle rounding of cutting edges.

Bi-Metal Band Saw Blades

Starting feed should be half of final feed rate at the recommended cutting speed for the first 300 - 500 cm² cut surface. After that, feed rate should be gradually increased for maximum cutting rate. Should vibrations or noises occur at the beginning of the cutting operation, cutting speed should slightly be adjusted.

Carbide Tipped Band Saw Blades

For break-in procedure during the first 30 minutes we recommend following parameters:

Material diameter up to 600 mm	Cutting speed = 30 m/min
	Feed = 5 mm/min
Material diameter over 600 mm	Cutting speed = 25 m/min
	Feed = 3 mm/min

Only when the Band Saw Blades are cutting without any vibrations, cutting speed and feed can be increased step by step to the maximum.

The Band Saw Blades are working perfectly when no vibrations will appear.

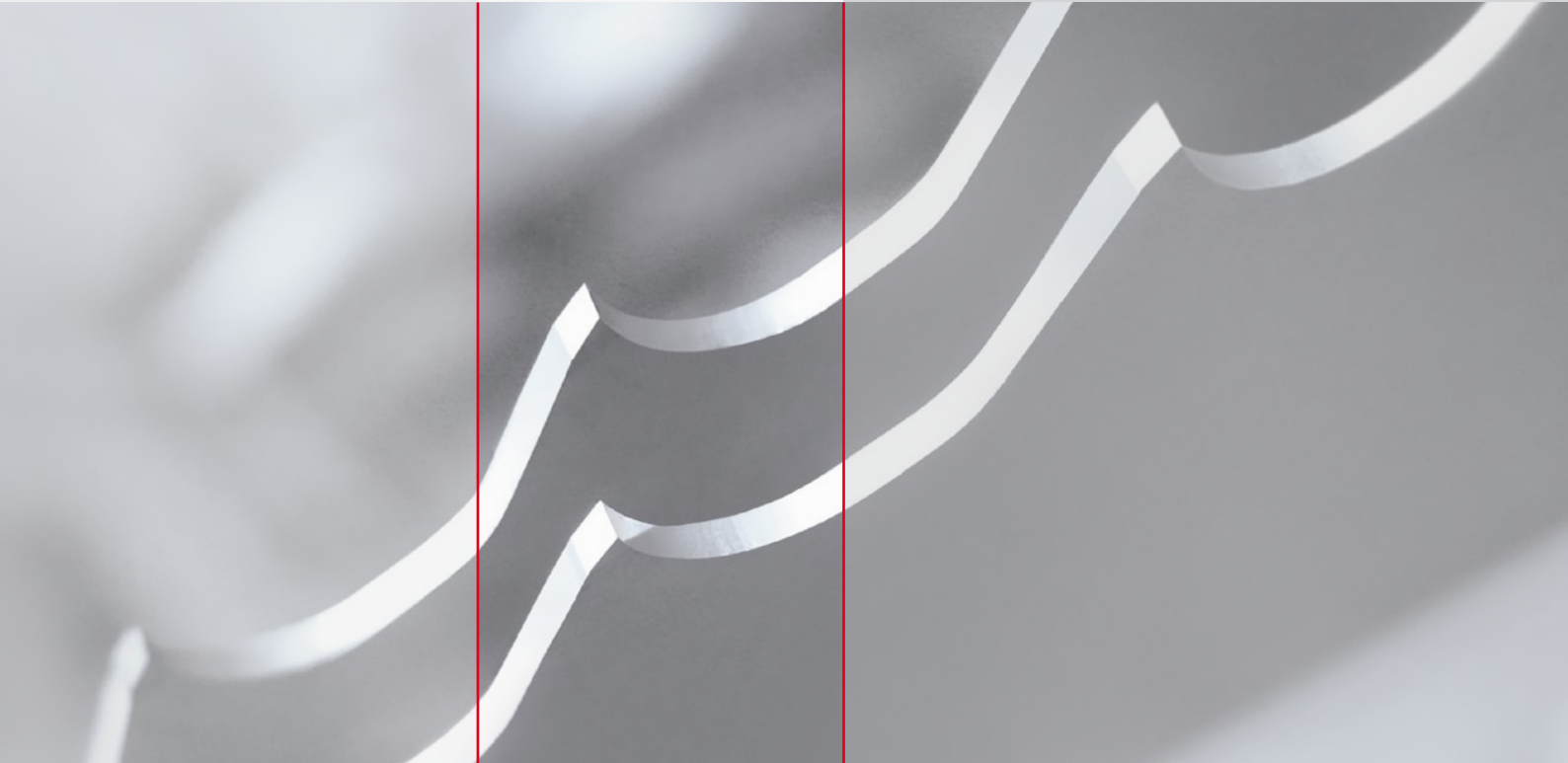
Material groups	Material specification DIN	Material no.	Cutting speed V_c (m/min)	Cooling fluids	
			Bi-Metal	Cutting oil	Emulsion
Structural steels	St 37 – 2	1.0037	80-100		x
	St 50 – 2	1.0050	60-85		x
	St 60 – 2	1.0060	50-70		x
Case-hardening steels	C 10	1.0301	80-100	x	
	14 NiCr 14	1.5752	40-55	x	
	21 NiCrMo 2	1.6523	50-60	x	
	16 MnCr 5	1.7131	40-60	x	
Free machining steels	9 S 20	1.0711	80-120		x
	45 S 20	1.0727	80-120		x
Heat treatable steels	C 45	1.0503	60-70		x
	40 Mn 4	1.1157	60-70		x
	36 NiCr 6	1.5710	60-70		x
	34 CrNiMo 6	1.6582	50-65		x
	42 CrMo 4	1.7225	50-65		x
Ball bearing steels	100 Cr 6	1.3505	35-50		x
	100 CrMn 6	1.3520	35-50		x
Spring steels	65 Si 7	1.5028	45-60		x
	50 CrV 4	1.8159	45-60		x
Unalloyed tool steels	C 125 W	1.1663	40-60		x
	C 75 W	1.1750	40-60		x
Cold-work tool steels	125 Cr 1	1.2002	40-50	x	x
	X 210 Cr 12	1.2080	30-40	x	x
	X 155 CrVMo 12 1	1.2379	30-40	dry	
	X 42 Cr 13	1.2083	35-45	x	x
	X 165 CrV 12	1.2201	30-45	x	x
	100 CrMo 5	1.2303	30-50	x	x
	X 32 CrMoV 3 3	1.2365	45-60	x	x
	45 WCrV 7	1.2542	40-50	x	x
	Hot-work tool steels	56 NiCrMoV 7	1.2714	40-50	x
High speed steels	S 6-5-2-5 (E Mo5 Co5)	1.3243	35-45		x
	S 2-10-1-8 (M 42)	1.3247	35-45		x
	S 6-5-2 (DMo5)	1.3343	35-45		x
Valve steels	X 45 CrSi 9 3	1.4718	30-45	x	x
	X 45 CrNiW 18 9	1.4873	30-40	x	x
High temperature steels	X 20 CrMoV 12 1	1.4922	10-30	x	x
	X 5 NiCrTi 26 15	1.4980	10-30	x	x
Heat resistant steels	X 10 CrSi 6	1.4712	15-25	x	x
	X 10 CrAl 18	1.4742	15-25	x	x
	X 15 CrNiSi 25 20	1.4841	15-25	x	x
Stainless steels	X 5 CrNi 18 10 (V2A)	1.4301	30-40	x	x
	X 6 CrNiMoTi 17 12 2 (V4A)	1.4571	30-40	x	x
Steel castings	GS-38	1.0420	40-60		x
	GS-60	1.0558	40-60		x
Cast irons	GG-15	0.6015	30-60	dry	
	GG-30	0.6030	30-60	dry	
	GGG-50	0.7050	30-60	dry	
	GTW-40	0.8040	30-60	dry	
	GTS-65	0.8165	30-60	dry	
Copper	KE-Cu	2.0050	100-400	x	x
	Elektrolyt-Copper		100-400	x	x
Brass (copper-zinc alloys)	CuZn 10	2.0230	100-400		x
	CuZn 31 Si 1	2.0490	100-400		x
Aluminium bronze (copper-aluminium alloys)	CuAl 8	2.0920	35-50		x
	CuAl 10 Fe 3 Mn 2	2.0936	35-50		x
Bronze (copper-tin alloys)	CuSn 6	2.1020	80-150		x
	CuSn 6 Zn 6	2.1080	80-150		x
Red brass (copper-cast alloys)	CuSn 10 Zn	2.1086	50-100		x
	CuSn 5 ZnPb	2.1096	50-100		x
Nickel base alloys	NiCr 20 TiAl	2.4631	10-25	x	x
	NiCr 22 FeMo	2.4972	10-25	x	x
Aluminium and aluminium alloys	Al 99.5	3.0255	80-800		x
	AlMgSiPb	3.0615	80-800		x
	G-AlSi 5 Mg	3.2341	80-800		x
Titanium and titanium alloys	Ti Grade 1	3.7025	10-20	x	x
	TiAl 6 V 4	3.7164	10-20	x	x
Thermoplastic plastics	PVC		100-400	dry	
	Teflon, Hostalen		100-400	dry	
Plastics with fibre inlays	Resitex		50-300	dry	
	Novotex		50-300	dry	

For Carbide Band Saw Blades (for cutting steel)

Material group	Material specifications DIN	Material no.	Cutting speed V _c (m/min)	Recommended tooth pitch Material dimensions			
				75 - 140 mm	100 - 350 mm	300 - 550 mm	≥ 540 mm
Structural steels	St 37/42	1.0037/1.0042	100-130	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	St 52/60	1.0050/1.0060	90-120	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Case-hardening steels	C10/C15	1.0301/1.0401	110-140	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	16 MnCr 5	1.7131	80-100	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	20 CrMo 5	1.7264	80-100	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	21 NiCrMo 2	1.6523	70-90	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Nitride steels	34 CrAlNi 7	1.8550	45-60	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	34 CrAlMo 5	1.8507	45-60	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Free machining steels	9 S 20	1.0711	100-160	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Heat treatable steels	C 35/45	1.0501/1.0503	90-120	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	42 CrMo 4	1.7225	70-90	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	34 CrNiMo 6	1.6582	70-90	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Ball bearing steels	100 Cr 6	1.3505	70-90	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	100 CrMo 7 3	1.3536	65-85	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Spring steels	65 Si 7	1.5028	65-85	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	50 CrV 4	1.8159	65-85	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Unalloyed tool steels	C 125 W	1.1663	65-80	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	C 80 W 1	1.1525	70-85	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Cold-work tool steels	125 Cr 1	1.2002	65-80	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	X 210 Cr 12	1.2080	40-50	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	X 155 CrVMO 12 1	1.2379	40-50	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	90 MnCrV 8	1.2842	45-55	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Hot-work tool steels	40 CrMnMo 7	1.2311	70-90	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	X 40 CrMoV 5 1	1.2344	60-80	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	56 NiCrMoV 7	1.2714	50-70	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	40 CrMnNiMo 8 6 4	1.2738	35-50	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
High speed steels	S 6-5-2	1.3343	50-60	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	S 3-3-2	1.3333	55-65	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	S 2-10-1-8	1.3247	45-60	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	S 10-4-3-10	1.3207	45-60	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	S 18-0-1	1.3355	45-60	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Stainless steels	X 5 CrNi 18 10	1.4301	70-80	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	X 6CrNiMoTi 17 12 2	1.4571	65-75	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	X 20 Cr 13	1.4021	80-100	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Valve steels	X 45 CrSi 9 3	1.4718	50-60	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	X 45 CrNiW 18 9	1.4873	40-50	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
High temperature steels	X 12 CrCoNi 21 20	1.4971	30-40	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	X 20 CrMoWV 12 1	1.4935	80-100	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Heat resistant steels	X 15 CrNiSi 25 20	1.4841	30-40	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	X 12 NiCrSi 36 16	1.4864	30-40	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Special alloys	NiCr 19 NbMo	2.4668	20-30	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	NiMo 30	2.4810	22-35	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	NiCr 13 Mo 6 Ti 3	2.4662	20-30	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	NiCo 20 Cr 20 MoTi	2.4650	22-35	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	X 8 CrNiAlTi 20 20	1.4847	22-35	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Heat treated steels 1000 - 1200 N/mm ² 1200 - 1400 N/mm ² 1400 - 1600 N/mm ²			35-50	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
			30-45	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
			25-35	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Hardened steels 50 HRC 55 HRC 60 HRC			15-20	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
			10-15	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
			8-12	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Steel castings	GS-38	1.0420	70-100	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	GS-60	1.0558	60-85	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Cast irons	GG-30	0.6030	60-80	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	GGG-50	0.7050	55-75	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K

For Carbide Band Saw Blades (for cutting non ferrous metals)

Material group	Material specifications DIN	Material no.	Cutting speed V _c (m/min)	Recommended tooth pitch Material dimensions			
				75 - 140 mm	100 - 350 mm	300 - 550 mm	≥ 540 mm
Aluminium and aluminium alloys	Al 99,5	3.0255	bis zu 3000	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	AlMg 1	3.3315	bis zu 3000	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	AlMg 3	3.3535	bis zu 3000	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	AlMg 4,5Mn	3.3547	bis zu 3000	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	AlMgSi 1	3.2315	bis zu 3000	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Copper	KE-Cu	2.0050	100-200	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	E-Cu	2.0060	100-200	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Brass (copper-zinc alloys)	CuZn 39 Pb 3	2.0401	150-250	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	VuZn 31 Si	2.0230	150-250	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Bronze	CuSn 6	2.1020	90-130	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Red brass	CuSn 5 ZnPb	2.1096	90-130	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	CuSn 10 Zn	2.1086	90-130	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Aluminium-bronze	CuAl 8	2.0920	60-80	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	CuAl 8 Fe 38	2.0920.60	52-65	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	CuAl 10 Ni 5 Fe 4	2.0966	50-70	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
Titanium and titanium alloys	Ti Grade 1	3.7025	80-100	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K
	TiAl 6 V 4	3.7164	60-90	3/4 K	3 ZpZ 2/3 K	1,4/2 K	0,75/1,25 K



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