



# Woodworking tools



#### **HISTORY AND PRESENT TIME**

#### **HISTORY**

The tool production in Hulin began in 1934. The firm was founded by Mr. Studeník who named the new company "First Moravian factory for saws and tools". At first the company started producing hand saws, circular saw blades and was gradually enriching the production programme with cutters for wood cutting and other tools for wood working. In the 1960th the production assortment enriched with TCT circular saw blades, gang saw blades, planer knives, machine knives, metal cutting tools and saw bodies.

#### PRESENT TIME

PILANA TOOLS with about 600 workers is in the process of dynamic development and is one of the biggest producers of tools in Europe. The tools are made of the best-quality steel in accordance with DIN and ISO standards. The quality is closely watched at each production stage. For the highest precision the most up-to-date equipment is used: Laser, CNC grinding machines, CNC milling machines, CNC sharpening machines, automatic furnaces and other automatic and semiautomatic machinery.

The constant attention is paid to the production improvement and automation. These measures, together with long-lasting experience and low costs, enable to offer high quality products at competitive prices. PILANA TOOLS regularly exports 80% of its products to over 70 countries world-wide.

> PILANA TOOLS consists of property-joined companies: PILANA TOOLS a.s. PILANA TOOLS Wood Saws spol. s.r.o. PILANA TOOLS Saw Bodies spol. s.r.o. PILANA TOOLS Metal spol. s.r.o. PILANA TOOLS Knives spol. s.r.o.







TCT Saw Blades	
TCT Saw Blades - General Information	4-7
TCT Saw Blades For Multirip Machines	8-13
TCT Multirip Saw Blades for Primarily Wood Processing	14-15
TCT Saw Segments for Flakers	16-17
Heat and Surface Treatment of TCT Saw Blades and Segments	18
TCT Saw Blades HANIBAL	19
TCT Saw Blades for Wood Cutting	20-26
TCT Saw Blades for Wood Cutting / TCT Saw Blades for Miter Saws	25
TCT Saw Blades for Optimising Saws	27
Panel Sizing TCT Saw Blades	28-30
TCT Scoring Saw Blades	31
TCT Panel Sizing Saw Blades	32
TCT Saw Blades and Segments for Hogging Machines	33
Grooving TCT Saw Blades	34
TCT Saw Blades for Electrical Hand Machines	35-36
TCT Saw Blades for Building Materials	37
TCT Saw Blades for Cutting Non-Ferrous Metals and Plastics	38-39
TCT Saw Blades for Metal Cutting / Heat and Surface Treatment of Saw Blades	40
Special TCT Saw Blades and Segments	41
Reduction Rings	42
Servicing TCT Saw Blades	43
Machines for Sharpening of Circular Saw Blades	44
Resistance Brazing Device for Tungsten Carbide Teeth on Circular Saw Blades	45
PCD Tools	
PCD Saw Blades	47
PCD Shank Cutters / PCD Tools Servicing	48





Alloy Saw Blades For Wood Cutting	
Alloy Saw Blades For Wood Cutting	50-55
Band Saw Blades for Wood Cutting Gang Saw Blades	
Recommendations How to Use Band Saw Blades	57
Band Saw Blades for Wood – Joinery Types	59
Band Saw Blades for Wood – up to 50 mm Width	60-61
Semi-Automatic Band Saw Blades Grinder	62
Wide Band Saw Blades for Wood – from 80 mm Width	63
Troubleshooting for Wide Band Saw Blades	64
Machine Gang Saw Blades for Rip Cutting and Tempered	65
Machine Gang Saw Blades Stelitte-Tipped	66
Machine Gang Saw Blades – J-Type	67
Standard Gibs for Gang Saw Blades	68
Industrial Knives	
Planing Knives	70
Serrated Back Knives	71
Carbide Tipped Planing and Serrated Back Knives	72
Reversible Knives	73
Safety Profile Cutter Head	74
Universal Cutter Head and Profile Cutters	75
Flaker Knives for Chipboards	76
Consumable Parts for Ring Flakers	77
Chipper Knives	78
Canter and Slabber Knives	79
Veneer Knives	80
Shredder Knives	81
Granulator Knives	82
Other and Special Knives	83

# **TCT Saw Blades**





Tungsten carbide tipped (TCT) saw blades from Pilana Tools are manufactured from high quality materials with hardness of 43 HRc and their complete saw bodies are laser cut. Expansion slots situated all around the saw body are specially shaped for each cutting application. By these means the expansion slots prevent blade deformation and improve cutting quality in difficult conditions (while centrifugal forcing and heating up of blade). Expansion and low-noise slots should enable high cutting performance. Tungsten carbide tips are purchased only from highly prestigious suppliers and their grade is always suitable for particular cutting application.

#### **List of Carbide Tip Grades:**

#### 

Grades of tips			
K 01	К 10	К 20	K 30
Hardness [HV 30]	Hardness [HV 30]	Hardness [HV 30]	Hardness [HV 30]
1900 - 2200	1700 – 1800	1600 – 1700	1300 – 1400
Tips of K01 grade are very resist- ible against abrasion. Powdered grain (micro grain) is very fine. Its grade is applicable for cutting hard materials. For example MDF, chip- board, HDF, double sidelaminated- chipboard etc.	Tips with optimum combination of fine-grained structure and material hardness applicable for universal usage. Best for cutting wood, plas- tics, non – ferrous metals, plywood, plaster boards etc.	Tips containing higher percentage of cobalt binding material enables better tooth tenacity and therefore higher resistance while hitting other material types (i.e. branch knots, dirt, steel chips etc.). Tips are applicable for cut- ting along the grain of natural woods.	High percentage of cobalt binding material with lower hardness enables K30 tips high tenacity and resistance against breaking. This grade is best applicable for cutting in extreme conditions (i.e. cutting frozen wood).

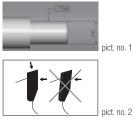
#### Hardness

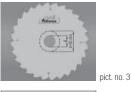
Another very important characteristic of saw blade is its stability and tensioning. Therefore we put maximum effort to reach the best results possible while testing our blades on special and modern machines. All the information acquired is applied in practise.

The last but not least important parameter is sharpening of carbide tips. Ideal cutting edge simply guarantees quality cutting. New automatic sharpening machines together with best quality grinding discs enable us to improve high sharpness quality of our saw blades.

# INSTRUCTIONS HOW TO USE SAW BLADES CORRECTLY

We recommend to follow the below rules in order to reach the best cutting results.





pict. no. 4

- Machine must be in good condition without vibrations.
- Flanges used to tighten the saw blades must be of the same diameter (about1/3 of the blade size).
- Flanges must be clean and it is important to check their side run out.
- Check the spindle of machine. It must be absolutely straight (picture 1).
- Tips must always be sharpened with the original angles.
- See the most appropriate way on picture 2.
- If rebored by over 20mm, the blade loses its original attributes and its stability (picture 3).
- It is needed to grind the top of chip limiters together with tip grinding andkeep the oversize as picture 4.



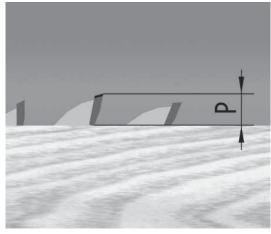
#### **Tooth Geometry of TCT Saw Blades**

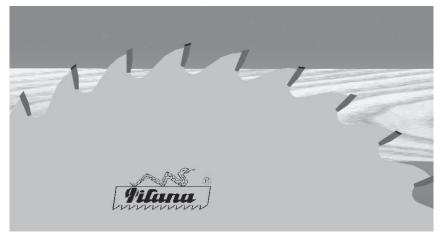
FZ	flat tooth		TFZ	triple chip tooth alternating with flat tooth
FZ N	flat tooth with negative hook angle		TFZ N	triple chip tooth alternating with flat
LFZ	flat tooth with chip limiter		IFZ N	tooth with negative hook angle
WZ	alternate top bevel	MŃ	DHZ	hollow face tooth (flat tooth alternates with inverted "V" tooth)
WZ N	alternate top bevel with negative hook angle	$\Pi$ $\Pi$	DHZ N	hollow face tooth (flat tooth alternates with inverted "V" tooth), negative
LWZ	alternate top bevel with chip limiter			hook angle
TZ	triple chip tooth		KON	conical tooth

#### Saw Blade Alignment on a Table Saw

We advise you to use precise measuring instruments when mounting your saw blade. Mount your saw blade onto the arbor. Adjust the arbor to its maximum height. Verify that the saw blade is parallel to the miter gauge slots. Adjust as needed. This step is necessary to obtain crosscuts with the maximum in quality finish and for setting up the fence for ripping.

The overlap of saw blade teeth over the cutting material must be equal to the height of tungsten tip (see picture No. 5). The number of teeth cutting simultaneously must be between 2–3 (see picture No. 6)





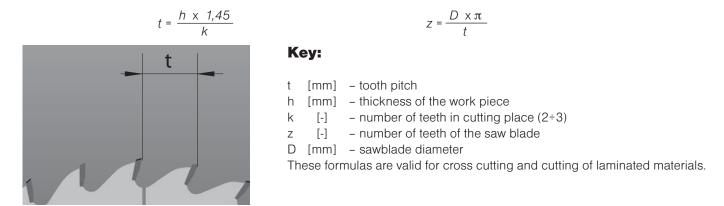
Pict. no. 5

Pict. no. 6



Tab. 1

Here are some useful formulas how to calculate the choice of correct saw blades:



Tab No. 1 shows the maximum RPM of circular saw blade on basis to the diameter of the blade itself. RPM referring to cutting speed 100 m/sec. These are the maximum recommended RPM by the machine builder. When exceeding this limit, the blade will loose its characteristics and danger implied to user may occur.

				Recomm	nended RPM	l [1/min]				
ØD	Cutting sp	beed vC [m/	sec]							
[mm]	10	20	30	40	50	60	70	80	90	100
100	1910	3820	5730	7640	9550	11460	13370	15280	17190	19100
150	1270	2550	3820	5100	6370	7640	8920	10190	11500	12730
200	960	1910	2870	3820	4780	5730	6690	7640	8600	9550
250	760	1530	2290	3060	3820	4590	5350	6110	6880	7640
300	640	1270	1910	2550	3180	3820	4460	5100	5740	6370
350	550	1090	1640	2180	2730	3280	3820	4370	4900	5460
400	480	960	1430	1910	2390	2870	3340	3820	4300	4780
450	430	850	1270	1700	2120	2550	2970	3400	3820	4250
500	380	760	1150	1530	1910	2290	2680	3060	3440	3820
550	350	690	1040	1390	1740	2080	2430	2780	3120	3470
600	320	640	960	1270	1590	1910	2230	2550	2880	3180
650	290	590	880	1180	1470	1760	2060	2350	2640	2940
700	270	550	820	1090	1360	1640	1910	2180	2450	2730
750	250	510	760	1020	1270	1530	1780	2040	2290	2550
800	240	480	720	950	1190	1430	1670	1910	2150	2390

Tab 1 can by efficiently used with Tab 2

$$v_c = \frac{D \times \pi \times n}{1000 \times 60}$$

$$n = \frac{1000 \times 60 \times v_c}{D \times \pi}$$

$$s = \frac{S_Z \times n \times Z}{1000}$$

Recom	mended values of	feed/tooth
Material type Hard		Feed speed sz (mm/tooth)
	Cutting along the grain	0,2 - 0,3

Soft woods	Cutting along the grain	0,2 - 0,3
Soft woods	Cutting across the grain	0,1 - 0,2
Hard woods		0,06 - 0,15
Chipboard		0,1 - 0,25
Plywood		0,05 - 0,12
Laminated boards		0,05 - 0,1
Non-ferrous metals and plastics		0,02 - 0,05

## Legenda:

VC	[m/s]	<ul> <li>cutting speed</li> </ul>
D	[mm]	- diameter of saw blade
n	[1/min]	<ul> <li>recommended RPM</li> </ul>
s	[m/min]	<ul> <li>feed speed</li> </ul>
Z	[-]	<ul> <li>number of teeth</li> </ul>
sz[	mm/tooth]	<ul> <li>feed speed/tooth</li> </ul>



Tab. no. 2

											р				
ТҮР	TYPE OF SAW BLADE		qir-ifluM	Cutt	Cutting along and across the grain	cross	Pan	Panel sizing	Scoring	Grooving	Electrical har machines	miter saws	For aluminium and plastic		For electrica hand machine
Our type Recommended O Applicable	icable	Cutting speed v <sub>c</sub> [m/sec]	64'5 64'1 64	80-40 80-20 33:1	81-13 81-16 81-50 81-50 81-32 81-32	81 83-32 83-22 81-11	81-76 11-76	00 88 -13 84 -11	60 60	65 63	16 16	18	81-78 11-78 11-78	11-78	88 88
Machined material	Tooth geometry	~	FZ	FZ	ZM	MZ N FMZ FEZ	TFZ L	ZHO MZ L	ZJ DHZ N	EZ KON	TFZ L WZ	MSS ZM	TFZ N TFZ P		ZT ZW
	Cutting along the grain	60 -100	•	•	•	•				•	•				
2011 W00dS	Cutting across the grain	60 -100			•	•				0	•	•			
	Cutting along the grain	50 - 85	•	•	•	•				•	•				
	Cutting across the grain	50 - 85		•	•	•				0	•	•			
Voncor	Cutting along the grain	60 -100			•	•				Ū	•				
AGLIGG	Cutting across the grain	60 -100			•	•				•	•	•			
	Cutting along the grain	50 - 85			• • •	•				•	•				
	Cutting across the grain	50 - 85			• • • •	•				0	•	•			
Compressed woods		40 - 65			•				•	•					
Soft wood- based panels		60 -100			•					•					
MDF boards		50 - 80					•	•	•	•	•				
THard wood- based panels		50 - 80					•	•	•	•	•				
Chipboard		50 - 80					•	•	•	•	•				
Veneered chipboards		50 - 80			•	•	•	•	•	0	•				
Chipboards surface covered with PVC foils	vith PVC foils	60 - 80					•	•	•	•	•				
Chipboards surface covered with melamine foils	vith melamine foils	60 - 80					•	•	•		•				
Agglomerated cement- bonded boards	d boards	30 -70				0									0
Plaster boards		40 - 65			•										
Foam silicate building materials	S	40 - 60													•
Sandwich materials, acrylic glass	ass	20 - 70												•	
Laminated boards from paper and textile	and textile	45 - 70			•	•									
Plastics		20 - 60				•							•	•	
Hard rubber		5 - 15											•	•	
Aluminium profiles and non-ferrous metals	errous metals	30 - 70											•	•	



# **TCT Saw Blades For Multirip Machines**

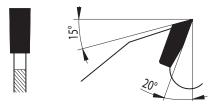
multirip sawing of massive natural woods

machine

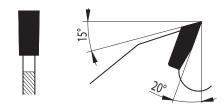
natural solid - longitudinal cuts of soft and hard wood

multirip saw, for single shaft, double shaft and splitting









In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

#### 94 FZ +2

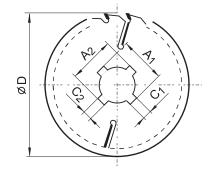
Material:

Usage:

Machne:

- » Universal rip saw blades for longitudinal cutting of all types of wood, dry and wet, with a standard quality of the cutting edge and a lower height of the cut
- » Usage: for multirip machines for primary processing of wood and pallet production

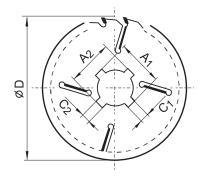
D	S	s	d	z	h <sub>max</sub>	d <sub>p max</sub>	•/0	Opening	C1xA1	C2xA2
250	3,6	2,5	70,80	16+2	50	130	•	70	13x80	20x83
300	4,0	2,8	70,80	18+2	70	130	•	75	13x80	20x83
315	4,0	2,8	80	18+2	80	130		80	14x90	22x93
350	4,0	2,8	70,75,80	20+2	100	135	•			
400	4,0	2,8	70,80	24+2	110	185	•			



#### 94.1 FZ +2+2

- » Universal rip saw blades for longitudinal cutting of all types of wood, dry and wet, with a standard quality of the cutting edge
- » Usage: for multirip machines for primary processing of wood and pallet production

D	S	s	d	z	h <sub>max</sub>	<b>d</b> <sub>p max</sub>	•/0	Opening	C1xA1	C2xA2
250	3,2	2,2	70,80	16+2+2	65	105	٠	70	13x80	20x83
300	3,2	2,2	70,80	18+2+2	85	120		75	13x80	20x83
300	3,2	2,2	30	24+2+2	85	120	•	80	14x90	22x93
315	3,2	2,2	70,80	18+2+2	90	120	•			
350	3,6	2,5	70,75,80	20+2+2	110	120	•			
400	4,0	2,8	30	18+2+2	120	145	•			
400	4,0	2,8	70,80	24+2+2	120	145	•			
450	4,4	3,2	70,80	20+2+2	140	160	•			
450	4,4	3,2	30	28+2+2	140	160	•			
500	4,4	3,2	30	22+2+2	155	180	•			
500	4,4	3,2	70	28+2+2	155	180	•			



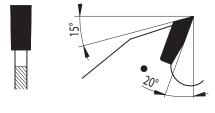
#### The central bore of all saw blades can be enlarged up to: $d_{max} = d_{p max} - 30 \text{ mm}$

D - blade diameter [mm], S - tooth width [mm], s - body thickness [mm], d - bore [mm], z - number of teeth, H<sub>max</sub> - maximum cut height [mm], d<sub>p max</sub> - max. bore diameter [mm], d<sub>max</sub> - max. rebore diameter [mm],  $\bullet$  - in stock,  $\bigcirc$  - made to customer's request





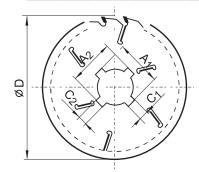




# 94.1 FZ +2+2+2

- » Universal rip saw blades for longitudinal cutting of all types of wood, dry and wet, with a standard quality of the cutting edge
- » 6 wiper slots enable excellent saw stability even when cutting very long round wood or prisms
- » Usage: for multirip machines for primary processing of wood and pallet production

D	S	s	d	z	h <sub>max</sub>	<b>d</b> <sub>p max</sub>	•/0	Opening	C1xA1	C2xA2
400	4,0	2,8	30	24+2+2+2	130	125		80	14x90	22x93
450	4,4	3,2	30	20+2+2+2	140	130				
450	4,4	3,2	80	28+2+2+2	155	130				
500	4,4	3,2	30	22+2+2+2	180	130				
500	4,4	3,2	80	28+2+2+2	180	130				
550	5,0	3,5	30	24+2+2+2	195	150				
550	5,0	3,5	30	32+2+2+2	195	150				
600	5,0	3,5	30	26+2+2+2	210	170				
600	5,0	3,5	30	34+2+2+2	210	170				





In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

## 5394.2 LFZ

#### **Characteristics:**

- » longitudinal cuts of soft and hard woods
- » trimming saw, multi rip, joining saw
- » saw blade geometry includes a chip thickness limiter

D	В	b	d	z	h <sub>max</sub>	d <sub>p max</sub>	•/0
250	3,2	2,2	30	18+3	60	115	•
300	3,2	2,2	30	18+3	75	130	•
350	3,6	2,5	30	20+2+2	100	105	•
400	4,0	2,8	30	24+2+2	120	120	•

The central bore of all saw blades can be enlarged up to:  $d_{max} = d_{p max} - 30 \text{ mm}$ 

D - blade diameter [mm], S - tooth width [mm], s - body thickness [mm], d - bore [mm], z - number of teeth,  $H_{max}$  - maximum cut height [mm],  $d_{p max}$  - max. bore diameter [mm],  $d_{max}$  - max. rebore diameter [mm],  $\bullet$  - in stock,  $\bigcirc$  - made to customer's request

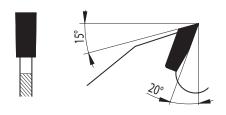




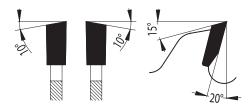
# 94.1 FZ - MASSIVE

- » Extra- strong rip saw blades for longitudinal cutting of all types of wood, dry and wet, with a standard quality of the cutting edge. They are designed for extreme cutting conditions thanks to the very stable and massive saw body, which eliminates the arising side strain
- » Usage: for multirip machines

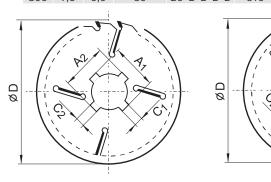
D	S	s	d	z	h <sub>max</sub>	<b>d</b> <sub>p max</sub>	•/0	Opening	C1xA1	C2xA2
315	4,0	2,8	70,80	18+2+2	90	120		70	13x80	20x83
350	4,0	2,8	70,75,80	20+2+2	110	120		75	13x80	20x83
400	4,2	3,0	30	20+2+2	120	145		80	14x90	22x93
450	5,0	3,5	30	20+2+2	140	160		00	14700	22,000
500	5,0	3,5	30	22+2+2+2	180	130				
550	5,5	3,5	30	24+2+2+2	195	150				
600	6,2	4,0	30	26+2+2+2	210	170				
700	6,5	4,5	30	28+2+2+2	240	210				
800	7,5	5,0	30	26+2+2+2+2	310	170				







In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.



# 94.1 FZ - MASSIVE plus

- » Extra- strong rip saw blades for longitudinal cutting of all types of wood, dry and wet, with a standard quality of the cutting edge. They are designed for extreme cutting conditions thanks to the very stable and massive saw body, which eliminates the arising side strain
- » Usage: for multirip machines

D	S	s	d	z	h <sub>max</sub>	d <sub>p max</sub>	•/0
300	5,0	3,5	30	18+2+2	90	105	•
320	5,0	3,5	30	18+2+2	100	105	•
350	5,0	3,5	30	18+2+2	115	105	•

The central bore of all saw blades can be enlarged up to:  $d_{max} = d_{p max} - 30 \text{ mm}$ 

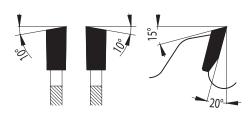




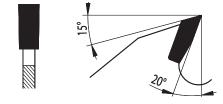
# 94.1 WZ - EFFECTIVE

- » Thin rip saw blades for longitudinal cutting of all types of wood, especially planks and stronger boards. The decrease of the waste will efficiently show in energy savings and increased yield.
- » WZ tooth geometry ensures a smooth, stable cut with a superior quality of the cutting edge, it is suitable for use with a higher quality wood
- » Usage: for multirip machines

D	S	S	d	z	h <sub>max</sub>	d <sub>p max</sub>	•/0
250	2,7	1,8	30	20+2+2	65	110	•
300	2,7	1,8	30	24+2+2	85	120	•
350	3,5	2,5	30	24+2+2+2	110	120	•





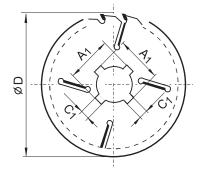


In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

# 94.1 FZ - TOS, RAIMANN, COSTA

- » Specially constructed multirip saw blades for longitudinal cutting of all types of wood, dry and wet, with a standard quality of the cutting edge for multirip machines by TOS SVITAVY
- » Possibility to rip wood up to the clamping flange of the saw blade without losing body stability of the saw blade with a large side strain. Thereby it ensures the maximum utilisation of the machine. With its design of the keyways, it also offers the possibility of a smoother meshing into the cut.

D	S	s	d	z	h <sub>max</sub>	<b>d</b> <sub>p max</sub>	•/0	Opening	4x C1xA1
300	3,2	2,2	80	18+2+2	90	105	•	80	13x90
320	3,2	2,2	80	18+2+2	100	105	•		
350	4,0	2,8	80	18+2+2	115	105	•		
400	4,0	2,8	80	20+2+2	140	105	•		
450	4,4	3,2	80	24+2+2	165	105	•		



#### The central bore of all saw blades can be enlarged up to: $d_{max} = d_{p max} - 30 \text{ mm}$

D - blade diameter [mm], S - tooth width [mm], s - body thickness [mm], d - bore [mm], z - number of teeth,  $H_{max}$  - maximum cut height [mm],  $d_{pmax}$  - max. bore diameter [mm],  $d_{max}$  - max. rebore diameter [mm],  $\bullet$  - in stock,  $\bigcirc$  - made to customer's request

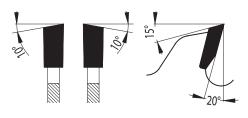




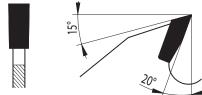


- » Specially designed rip saw blades for longitudinal cutting of all types of wood, dry and wet
- » Possibility to rip wood up to the maximum bore of the saw blade without losing body stability of the saw blade with a large side strain. Thereby it ensures the maximum utilisation of the machine.
- » With its design of the wiper slots, it also offers the possibility of a smoother meshing into the cut.
- » The WZ geometry ensures a smooth, stable cut with a superior quality of the cutting edge and electric energy savings.
- » It is suitable to use for a higher wood quality

D	S	s	d	z	h <sub>max</sub>	$d_{p \max}$	•/0
300	3,2	2,2	30	18+2+2	90	105	٠
320	3,2	2,2	30	18+2+2	100	105	•
350	3,6	2,5	30	18+2+2	115	105	•
400	3,6	2,5	30	20+2+2	140	105	•
450	4,0	2,8	30	24+2+2	165	105	٠







In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

# 94.1 FZ - Angle Tilting Saws

- » Specially designed rip saw blades for angle tilting saws
- » The position and the shape of wiper slots allow for cutting maximum heights while preserving the stability of the saw blades even in long cuts.
- » The blades are designed for vertical and horizontal cutting they are specially hardened for high stability in the cut.

#### STROJCAD

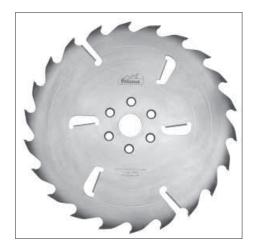
D	S	s	d	z	h <sub>max</sub>	<b>•/</b> 0
450	5,0	3,5	30 + 6/17/96	20+2+2	160	•
450	5,0	3,5	55 + 6/17/112	20+2+2	145	•
500	5,0	3,5	30 + 6/17/96	22+2+2+2	185	•
500	5,0	3,5	55 + 6/17/112	22+2+2+2	170	•
550	5,5	3,5	30 + 6/17/96	24+2+2+2	210	•
550	5,5	3,5	55 + 6/17/112	24+2+2+2	190	•
700	6,5	4,5	55 + 8/17/172	28+2+2+2	240	•

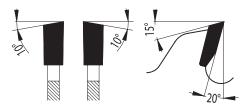
#### WEP

D	S	S	d	z	h <sub>max</sub>	•/0
500	5	3,5	30+8/11/100+2/10/60	22+2+2+2	170	٠
550	5,5	3,5	30+8/11/100+2/10/60	24+2+2+2	190	٠
500	5	3,5	30+8/11/150+2/10/60	22+2+2+2	150	٠
550	5,5	3,5	30+8/11/150+2/10/60	24+2+2+2	170	٠

D - blade diameter [mm], S - tooth width [mm], s - body thickness [mm], d - bore [mm], z - number of teeth, H<sub>max</sub> - maximum cut height [mm], d<sub>pmax</sub> - max. bore diameter [mm], d<sub>max</sub> - max. rebore diameter [mm],  $\bullet$  - in stock,  $\bigcirc$  - made to customer's request







# 94.1 WZ - Angle Tilting Saws

- » the number of teeth is calculated for a maximum cutting height
- » Clearance teeth exactly match the flange of individual machine types, which eliminates cracking of saw blades while ensuring maximum amount of chip removal from the cut
- » the reinforcement and thermal treatment of the saw blades ensures their perfect action in the horizontal cut conditions
- » the tooth geometry is optimised for maximum cutting speed of the saw blades

#### STROJCAD

D	s	s	d	z	•/0
500	5,0	3,5	30	22+2+2+2	•
500	5,0	3,5	55	22+2+2+2	•
550	5,5	3,5	30	24+2+2+2	•
550	5,5	3,5	55	24+2+2+2	•



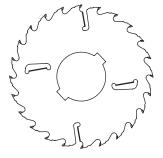


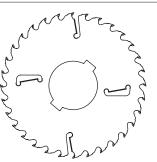
# **TCT Multirip Saw Blades for LINCK Machines**

#### **Characteristics:**

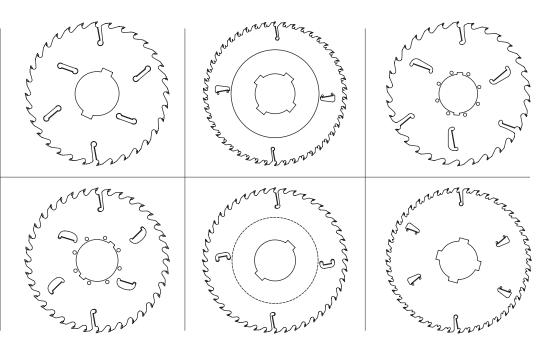
» designed for Linck machines in automated lines for primarily wood processing

													_
D	S	S	d <sub>pmax</sub>	z	d <sub>max</sub>	•/0	D	S	S	d <sub>pmax</sub>	z	d <sub>max</sub>	•/0
390	3,7	2,2-2,9	150	36+2+2	190	0	510	4,2	2,8	150	30+2+2	190	0
410	3,9	2,4-3,1	150	36+2+2	190	0	520	4,6	3	120	28+2+2+2	190	0
410	4	2,8	150	24+2+2	190	0	520	6	4,2	150	28+2+2+2	190	0
420	3,7	2,2-2,9	150	36+2+2	190	0	520	4	2,6	150	28+2+2	270	0
440	3,8	2,5	150	24+2+2	190	0	520	4,8	3,4	150	24+2+2	200	0
440	4	2,6	135	32+2+2	180	0	525	4,2	2,8	150	28+2+2	250	0
440	4,6	3,2	150	28+2+2	190	0	530	3,7	2,2-2,9	150	44+2+2	320	0
450	3,6	2,4	150	32+2+2	190	0	540	4,2	2,8	150	36+2+2+2	270	0
460	3,6	2,4	150	34+2+2	270	0	540	4,2	2,8	210	30+2+2+2	270	0
460	4	2,6	150	28+2+2	190	0	540	4,6	3,2	145	30+3+3	190	0
480	3,5	2,2	150	28+2+2	270	0	540	4,8	3,6	145	30+3+3	190	0
490	3,4	2,2	150	36+2+2+2	270	0	540	4,8	3,6	150	30+3+3	205	0
490	4,4	3	150	32+2+2+2	190	0	540	3,6	2,4-4,2	150	46+2+2	330	0
490	4,4	3	150	24+2+2	190	0	540	3,8	2,6	150	36+2+2+2	320	0
500	5	3,5	145	36+2+2+2	190	0	550	5	3,5	150	20+2+2+2	200	0
500	5,3	3,7	150	32+2+2	200	0	570	4,3	2,9-5,3	150	44+2+2+2	315	0
510	3,9	2,4-3,1	150	40+2+2	190	0	570	4,3	2,9	150	44+2+2+2	315	0
510	4	2,8	150	30+2+2	190	0							

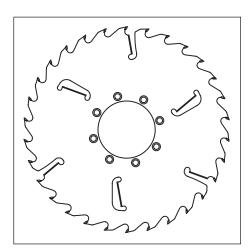


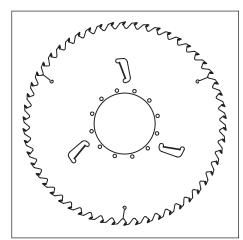


In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.









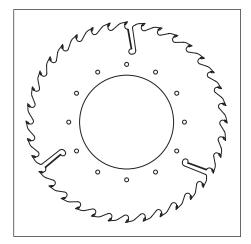
# **Saw Blades for HEINOLA Machines**

#### **Characteristics:**

» designed for Heinola machines in automated lines for primarily wood processing

D	S	s	d	z	d <sub>pmax</sub>	<b>•/</b> 0
451	4,5	3	99,2	28 + 2 + 2	168	0
540	4,6	3,2	145	30 + 3 + 3	190	0
540	4,2	2,8	210	30 + 2 + 2+2	270	0
540	4,8	3,6	145	30 + 3 + 3	190	0
540	4,8	3,6	150	30 + 3 + 3	205	0
556	3,6	2,4	260	34 + 3	370	0
556	4,2	2,8	160	32 + 2 + 2	290	0
556	4,6	3,2	160	32 + 2 + 2	240	0
556	4,6	3,2	160	30 + 2 + 2+2	240	0
600	3,6	2,4	180	54 + 3	240	0
600	3,8	2,4	180	54 + 3	240	0

We produce circular saw blades for machines of all outstanding wood-processing machinery manufacturers



In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.





#### **Characteristics:**

» designed for Linck, EWD and other machines in automated lines for primarily wood processing

	Machine Type	D	S	S	z	Side Orientation	Drawing Number	<b>•/</b> 0
No O O	EWD-FZ 3	555	6,2	5	19		6 02 004-25	0
NO O COL		570	4,5	3,5-5,0	19	L	V25-08-022	0
		570	4,5	3,5-5,0	19	Р	V25-08-023	0
N0000000000000000000000000000000000000	V25	570	4,5	3,5	19	L	V25-08-060A	0
	V25	570	4,5	3,5	19	Р	V25-08-061A	0
N 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		570	4,5	3,5	12	L	V25-08-066	0
		570	4,5	3,5	12	Р	V25-08-067	0
N0000000000000000000000000000000000000		830	4,5	3,5	17	L	V40-19-244	0
	V40	830	4,5	3,5	17	Р	V40-19-245	0
	V40	830	5	4	12	L	V40-19-305	0
		830	5	4	12	Р	V40-19-306	0
Moor	VP34	403	3,5	2,5-5,0	8	Р	VP34-08-055	0
	VP34	403	3,5	2,5-5,0	8	L	VP34-08-056	0
North Contract		411	6,4	4,9	10		6 02 VP48-25L	0
		411	6,4	4,9	10		6 02 VP48-25P	0
NUN O O ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ	VP48	411	6,4	4,9	20		6 02 VP48a-25L	0
Nº O OF	VF4ŏ	411	6,4	4,9	20		6 02 VP48a-25P	0
1 Marco		411	4	3,0-5,0	7	L	VP48-08-028	0
(do do		411	4	3,0-5,0	7	Р	VP48-08-029	0

In case that you did not find the type of segments which you require in our catalogue, please contact us. We will make them upon your specification.

# **TCT Saw Segments for Flakers**



	Machine Type	D	S	S	z	Side Orientation	Drawing Number	•/0
NO OCC		415	3,5	2,5-8,0	11	L	VP48-08-075	0
		415	3,5	2,5-8,0	11	Р	VP48-08-076	0
No co co	VP48	415	6	5	19		6 02 010-25	0
pro o cor		415	8	7	15		VP48-08-084	0
himmer		400	3,5	2,5-8,0	9		6 02 001-25L	0
		400	3,5	2,5-8,0	9		6 02 001-25P	0
ANUT		401	3,5	2,5-8,0	10	Р	VPS-28-052	0
N.U.S.		401	3,5	2,5-8,0	10	L	VPS-28-053	0
	VPS	401	4,5	3,5-8,0	10		6 02 005-25L	0
00-0-		401	4,5	3,5-8,0	10		6 02 005-25P	0
A P P P P		497	3,5	2,5-8,0	8	L	VPS-28-082	0
Poet of the second		497	3,5	2,5-8,0	8	Р	VPS-28-083	0
		497	3,5	2,5-8,0	8	Р	VPS-28-145	0
		497	3,5	2,5-8,0	8	L	VPS-28-146	0
	VM30	730	4,5	3,5-6,0	64	L	VM30-24-473	0
	VINCO	730	4,5	3,5-6,0	64	Ρ	VM30-24-474	0
		530	6,4	5	76	L,P	6 02 014-25	0
NO O ORE		650	6,5	4,5-7,0	60	L	6 02 018-25L	0
		650	6,5	4,5-7,0	60	Ρ	6 02 018-25P	0
		830	6,5	5	57	L	6 02 015-25	0

In case that you did not find the type of segments which you require in our catalogue, please contact us. We will make them upon your specification.

We produce saw segments for machines of all outstanding wood-processing machinery manufacturers





In order to enhance the lifespan of the saw blades, we recommend that you have them treated in the following ways:

### **Special Tempering:**

- » thermal treatment of saw blades made on special customer request
- » prevents the occurrence of cracks and tears in the body of the saw blade due to extreme loads during cutting operation
- » increases the lifespan of the saw blade



## **Black Coating:**

- » increases the saw blade lifespan by 20% compared to untreated TCT saw blade
- » treatment of saw blades made on special customer request
- » a thin chemical layer of black colour on the saw blade surface

### **Nickel Coating:**

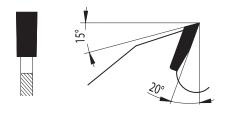
- » a thin layer of milky colour on the saw blade surface
- » friction reduction
- » saw blades are more resistant to resin and other impurities sticking to them
- » protection against corrosion when processing wet wood
- » saw blade temperature reduction **d**uring the cutting operation
- » increase of saw blade lifespan
- » treatment of saw blades made on special customer request

# **TCT Saw Blades HANIBAL**









Material:	massive natural wood
Application:	cutting woods of massive dimension
Machine:	machine feed

# 33.1 FZ

#### **Characteristics:**

- » longitudinal cuts of massive wood dimensions
- » machine feed

D	S	s	d	z	•/0
600	5,5	3,5	30	40	•
700	5,5	3,5	35	40	•
800	6,5	4,5	35	40	•

In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

D - blade diameter [mm], S - kerf [mm], s - body thickness [mm], d - bore diameter [mm], z - number of teeth, • - in stock,  $\bigcirc$  - made to customer's request



# **TCT Saw Blades for Wood Cutting**

Material:	natural woods-soft, hard, wet
Application:	cutting along and across the grain of natural massive wood



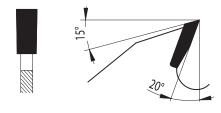


#### **Characteristics:**

- » cutting along the grain of natural massive wood
- » suitable for prismatic beam saws

D	S	S	d	z	•/0
300	4,0	2,8	30	18	٠
350	4,0	2,8	30	20	٠
400	4,4	3,2	30	24	•
450	4,4	3,2	30	28	٠
500	5,2	3,5	30	30	٠
550	5,5	3,5	30	32	٠
600	5,5	3,5	30	36	٠





In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

# 80-40 FZ

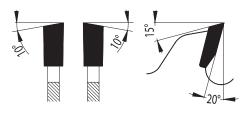
#### **Characteristics:**

» cutting along the grain of natural massive wood

D	S	S	d	z	•/0
200	2,5	1,6	20	16	•
250	3,2	2,2	30	20	•
300	3,2	2,2	30	24	•
350	3,6	2,5	30	28	•
400	3,6	2,5	30	32	•
450	4,0	2,8	30	36	•
500	4,0	2,8	30	40	•
600	5,5	3,5	30	48	•
700	5,5	3,5	35	56	•







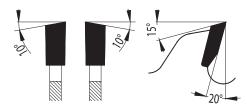
# 81-35 WZ

#### **Characteristics:**

- » cross and longitudinal cutting of natural solid wood
- » cutting of plywood, chipboard and wood fiber insulation boards
- » cross and longitudinal cutting of natural solid wood
- » maximum height of cut 150 mm

D	S	S	d	z •/0
160	2,5	1,6	20	16 •
180	2,5	1,6	20	20 •
200	2,5	1,6	20	24 •
250	3,2	2,2	30	32 •
300	3,2	2,2	30	36 •
350	3,6	2,2	30	40 •
400	3,6	2,2	30	48 •
450	4,0	2,8	30	56 •
500	4,0	2,8	30	64 •
700	4	3	30	60 •





In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

# 81-26 WZ

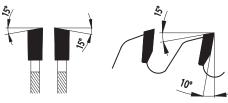
#### **Application:**

- » cutting along and across the grain of natural massive wood
- » cutting plywood, chip-board, wood base panels

D	S	S	d	z •/	/0
160	2,5	1,6	20	16	
180	2,5	1,6	20	20	
200	2,5	1,6	20	24	
250	3,2	2,2	30	32	
300	3,2	2,2	30	36	
350	3,6	2,2	30	40	
400	3,6	2,2	30	48	
450	4,0	2,8	30	56	
500	4,0	2,8	30	64	







# 81-20 WZ

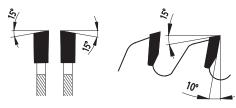
#### **Application:**

- » cutting across the grain of natural massive wood
- » cutting of laminated paper and laminated textiles, thermoplastics

D	S	S	d	z	●/○
160	2,5	1,6	20	24	•
180	2,5	1,6	20	28	•
200	2,5	1,6	20	32	•
250	3,2	2,2	30	40	•
300	3,2	2,2	30	48	•
315	3,2	2,2	30	48	•
350	3,6	2,5	30	54	•
400	3,6	2,5	30	64	•
450	4,0	2,8	30	72	•
500	4,0	2,8	30	84	•
600	5,2	3,5	30	90	•

(LOW-N@ISE)





In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

# 81–16 WZ

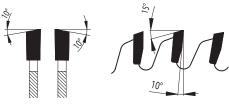
#### **Application:**

» cutting across the grain of natural wood

D	S	S	d	<b>z</b> ●/c
180	2,5	1,6	20	36 •
200	2,5	1,6	20	40 •
250	3,2	2,2	30	48 •
300	3,2	2,2	30	64 •
350	3,6	2,5	30	72 •
400	3,6	2,5	30	84 •







# 81–13 WZ

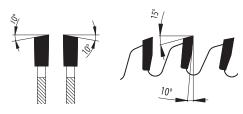


#### **Application:**

» cutting across the grain of natural wood

D	S	s	d	z	/0
160	2,5	1,6	20	36	•
200	2,5	1,6	20	48	•
250	3,2	2,2	30	60	•
250	3,2	2,2	30	64	•
260	2,6	1,8	30	60	•
300	3,2	2,2	30	72	•
350	3,6	2,5	30	84	•
400	3,6	2,5	30	96	•





In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

# 81–11 WZ

# LOW-N©ISE)

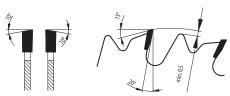
#### **Application:**

- » cutting across the grain of single-side veneered materials, surface machined boards from natural wood and wood-base panels.
- » high quality cutting across the grain of natural massive wood

D	S	S	d	z	•/0
160	2,5	1,6	20	48	•
180	2,5	1,6	20	56	٠
200	2,5	1,6	20	64	٠
250	3,2	2,2	30	72	٠
250	3,2	2,2	30	80	٠
300	3,2	2,2	30	96	•
350	3,6	2,5	30	108	٠
400	3,6	2,5	30	120	•







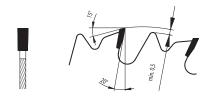
## 83-35 LWZ

#### **Application:**

- » cutting along and across the grain of natural woods
- » saw blade geometry includes a chip thickness limiter

D	S	S	d	z ●/○
250	3,2	2,2	30	24 •
300	3,2	2,2	30	28 •
350	3,6	2,5	30	32 •
400	3,6	2,5	30	36 •
450	4,0	2,8	30	40 •
500	4,0	2,8	30	44 •
600	5,2	3,5	30	54 •





In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

# 83-55 LFZ

#### **Application:**

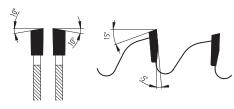
- » longitudinal cutting of natural massive wood
- » single blade machines without machine feed
- » saw blade geometry includes a chip thickness limite

D	S	S	d	z	•/0
300	3,6	2,5	30	18	•
350	4,0	2,8	30	20	•
400	4,0	2,8	30	24	•
600	4,2	2,8	30	36	•
700	4,4	3,2	30	44	•



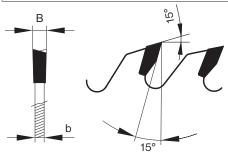
(LOW-N@ISE)





# Saw Blades for Miter Saws





In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.



» trimming

- » swinging cross-cut saw, radial saw with manual feed
- » negative hook angle enables fluent cutting start

D	S	s	d	z ●/○
210	2,8	1,8	30	48 •
210	2,8	1,8	30	60 •
216	2,8	1,8	30	48 •
216	2,8	1,8	30	60 •
216	2,8	1,8	30	80 •
250	2,8	1,8	30	48 •
250	2,8	1,8	30	60 •
250	2,8	1,8	30	80 •

Use: Machine: wood and wood based materials miter saws

# 81 WZ SSW

#### **Characteristics:**

- » saw blades designated for all regular types of miter saws
- » alternatively ground tooth face
- » very high life expectancy of TCT edge plates

D	d	S	S	z	Toothing	•/0
260	2,6	1,8	30	60	WZ	

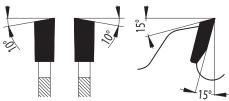
#### Service

We perform the sharpening of the saw blades including the re-straightening of the body









# 81 – Hundegger:

D	S	s	d	z	toothing	•/0
650	5,6	4,2	30	54	WZ	0
650	5,6	4,2	30	96	WZ	0
720	6	4,5	30	48	WZ	0
720	6	4,5	30	72	WZ	0
735	6	4,5	30	48	WZ	0
735	6	4,5	30	72	WZ	0
760	6	4,5	30	48	WZ	0
760	6	4,5	30	72	WZ	0
760	6	4,5	30	96	WZ	0
800	6	4,5	30	48	WZ	0
800	6	4,5	30	80	WZ	0

In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification. **81 WZ OPTI** 

**Characteristics:** 

» for optimising saws made by STÖRI MANTEL, WEINIG, DIMTER, HOLZ-HER, PANHANS and other manufacturers

D	S	S	d	z	•/0
254	2,4	1,8	15,88	60	0
260	2,6	1,8	30	60	0
400	3,8	2,8	30	60	•
400	4,8	3,5	30	60	0
400	5,0	3,5	30	60	0
480	4,2	3,0	70	96	0
500	4,0	2,6	60	72	0
500	4,6	3,2	30	96	0
500	5,2	3,5	30	96	0
500	5	3,4	30	96	•
500	5,2	3,2	30	120	•

» special tooth geometry ensures high cutting performance while maintaining a high

In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.



LOW-N©ISE)





# **Panel Sizing TCT Saw Blades**

Material:	exotic woods, hard woods, laminated chip-board
Application:	cutting of laminated boards
Machine:	panel sizing machines

### 97-11 TFZ L

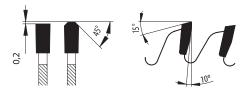


#### **Application:**

- » cutting of laminated chip-boards
- » quality cut is reached when used in combination with split scorer
- » we also manufacture in the HIGH PROFI class, with exceptionally hard KCR blades and exceptional values of body side throw and TCT blades

D	S	S	d	z	•/0
200	3,2	2,2	30	64	•
250	3,2	2,2	30	80	•
300	3,2	2,2	30	96	•
350	3,6	2,5	30	108	•





In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

# 97-13 TFZ L

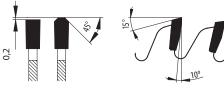
# HIGH PROFI

#### **Application:**

- » cutting of laminated chip-boards
- » we also manufacture in the HIGH PROFI class, with exceptionally hard KCR blades and exceptional values of body side throw and TCT blades

D	S	S	d	z	•/0
250	3,2	2,2	30	60	•
300	3,2	2,2	30	72	•









# 98–11 WZ L

# HIGH PROFI

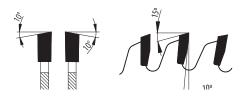


#### **Application:**

- » cutting across the grain of hard woods and exotic woods
- » quality cut is reached when used in combination with split scorer
- » we also manufacture in the HIGH PROFI class, with exceptionally hard KCR blades and exceptional values of body side throw and TCT blades

D	S	S	d	z	•/0
250	3,2	2,2	30	72	•
300	3,2	2,2	30	96	•
350	3,6	2,5	30	108	•





In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

# 98–13 WZ L

# HIGH PROFI

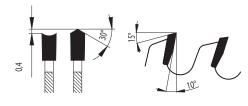
#### **Application:**

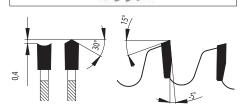
- » cutting across the grain of hard woods and exotic woods
- » quality cut is reached when used in combination with split scorer
- » we also manufacture in the HIGH PROFI class, with exceptionally hard KCR blades and exceptional values of body side throw and TCT blades

D	S	S	d	z	•/0
250	3,2	2,2	30	64	•
300	3,2	2,2	30	72	•
350	3,6	2,5	30	84	•









# **90 DHZ**



#### **Application:**

- » cutting of laminated boards without using of split scoring blade
- » we also manufacture in the HIGH PROFI class, with exceptionally hard KCR blades and exceptional values of body side throw and TCT blades

D	S	S	d	z	•/0
220	3,2	2,2	30	42	•
250	3,2	2,2	30	48	•
303	3,2	2,2	30	60	
350	3,6	2,5	30	72	٠

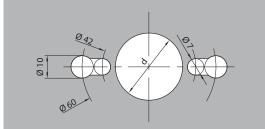
# 90 DHZ N

# HIGH PROFI

#### **Application:**

- » cutting of laminated boards without using of split scoring blade
- » negative hook angle
- » we also manufacture in the HIGH PROFI class, with exceptionally hard KCR blades and exceptional values of body side throw and TCT blades

D	S	S	d	z	<b>•/</b> 0
303	3,2	2,2	30	60	•



All panel sizing saw blades include pinholes.

Parameters of pinholes are listed on picture aside.

If requested by customer, we can also produce version without pinholes.

In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

# **TCT Scoring Saw Blades**







#### Material: laminated Application: reaching a material Machine: panel sizin

laminated boards, chip-boards reaching a high quality of cut on bottom side of laminated material panel sizing saw blade with scoring saw blade

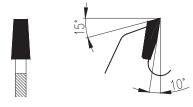
# 93.1 FZ

#### **Application:**

- » panel sizing
- » maximum height of cut 2 mm
- » possibility to set up the kerf with shims
- » the kerf of a scoring saw blade shall be by approx. 0.3 mm wider than the kerf of a panel sizing saw blade

D	S	d	z •,	/0
80	2,8 - 3,6	20 (22)	10 + 10	D
100	2,8 - 3,6	20 (22)	12 + 12	D
120	2,8 - 3,6	20 (22)	12 + 12	D
125	2,8 - 3,6	20 (22)	12 + 12	D
140	2,8 - 3,6	20 (22)	14 + 14	D
160	2,8 - 3,6	20 (22)	16 + 16	D





In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

# 93 KON

#### **Application:**

- » panel sizing saw blades with possibility of adjusting the scoring device
- » maximum height of cut 2 mm

D	S	S	d	z •/*
100	3,0 - 4,0	2,0	22	20 •
100	3,5 - 4,5	2,5	22	20 •
125	3,0 - 4,0	2,0	20	24 •
140	3,0 - 4,0	2,0	20	32 •
200	3,0 - 4,0	2,0	30	32 •
200	4,0 - 5,0	3,0	30	32 •





# **TCT Panel Sizing Saw Blades**

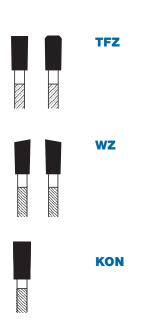
Highlighted items on the list are standard hold on stocked, the other items are manufactured specially on request.

Machine:

Usage

panel sizing saw





In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

#### **Characteristics:**

- » specially designed for cutting chipboard-based materials and MDF
- » in combination with conical scoring saw blade there is excellent cutting performance

chipboard-based materials and MDF coated

- » extremely long life-time of carbide tips
- » TCT Panel Sizing Saw Blades are manufactured specially on request of our customer in particular dimensions

Panel saw b	lade	Scoring saw blade	bores	Machine type
250 x 3,2/2,2 x 30	60TFZ L	180 x 3,1 - 4,2/2,5 x 20 36KON/WZ		Höfer PS
250 x 3,2/2,2 x 30	60TFZ L	125 x 3,1 - 4,2/2,2 x 20 24KON	2/10/60+2/7/42	Panhans Euro 5, Euro 5SF
300 x 3,2/2,8 x 75	68TFZ L	125 x 3,1 - 4,2/2,2 x 45 24KON		Giben Fastmatic
300 x 4,4/3,2 x 30	60TFZ L	180 x 4,3 - 5,6/3,2 x 20 36KON/WZ		Höfer PS
300 x 4,4/3,2 x 30	60TFZ L	125 x 4,3 - 5,4/3,2 x 20 24KON		Panhans 693/SH 50
300 x 4,4/3,2 x 30	60TFZ L	200 x 4,3 - 5,1/3,5 x 30 34KON		Panhans Euro 10.1, Euro 10SF
300 x 4,4/3,2 x 30	60TFZ L	200 x 4,3 - 5,1/3,5 x 30 34KON		Panhans 693/SH 70
300 x 4,4/3,2 x 75	60TFZ L	125 x 4,3 - 5,4/3,0 x 45 24KON		Homag Espana CH03
300 x 4,4/3,2 x 75	60TFZ L	150 x 4,3 - 5,6/3,2 x 45 24KON/WZ		Homag Espana CT04
350 x 4,4/3,2 x 30	72TFZ L	200 x 4,3 - 5,1/3,5 x 30 34KON	4/9/100	Panhans Euro30 Panhans Euro30SF Panhans 693/SH90
350 x 4,4/3,2 x 30	72TFZ L	200 x 4,3 - 5,1/3,5 x 20 34KON	4/9/100	Schelling FI, FM
350 x 4,4/3,2 x 30	72TFZ L	160 x 4,3 - 5,6/3,5 x 55 36KON/WZ	4/9/100	SCM Z15, Z32, Z45
350 x 4,4/3,2 x 30	72TFZ L	200 x 4,3 - 5,1/3,5 x 20 34KON	4/9/100	Höfer PM
350 x 4,4/3,2 x 75	72TFZ L	150 x 4,3 - 5,6/3,2 x 45 24KON/WZ		Homag Espana CH06/10
355 x 4,4/3,2 x 75	60TFZ L	125 x 4,3 - 5,4/3,0 x 45 24KON	4/15/105	Giben MK Gamma N
355 x 4,4/3,2 x 75	60TFZ L	125 x 4,3 - 5,4/3,0 x 45 24KON	4/15/105	Giben Trend Gamma ST Giben Gamma SE
380 x 4,4/3,0 x 75	72TFZ L	125 x 4,3 - 5,4/3,2 x 45 24KON		Holzher 6180, 6280, 8380
380 x 4,4/3,0 x 75	72TFZ L	150 x 4,3 - 5,6/3,2 x 45 24KON/WZ		Holzher 6480, 6580, 6680
380 x 4,8/3,5 x 60	84TFZ L	200 x 4,7 - 5,8/3,0 x 45 36KON		Holzma HPP81, HPL81, 91
400 x 4,4/3,2 x 30	72TFZ L	200 x 4,3 - 5,1/3,5 x 20 34KON		Höfer PM
400 x 4,4/3,2 x 30	72TFZ L	200 x 4,3 - 5,1/3,5 x 30 34KON	4/9/100	Panhans 693/SH 110
400 x 4,4/3,2 x 30	72TFZ L	200 x 4,3 - 5,1/3,5 x 20 34KON		Schelling FW/AW, AK
400 x 4,4/3,2 x 60	72TFZ L	180 x 4,3 - 5,6/3,5 x 20 30KON/WZ		Anthon LN (90)
400 x 4,4/3,2 x 60	72TFZ L	-		Anthon Porta 100
400 x 4,4/3,2 x 75	72TFZ L	125 x 4,3 - 5,4/3,0 x 45 24KON	4/15/105	Giben MK 2 Giben G2000
400 x 4,4/3,2 x 75	72TFZ L	160 x 4,3 - 5,6/3,2 x 45 28KON/WZ	4/15/105	Giben Prismatic 101
400 x 4,4/3,2 x 75	72TFZ L	215 x 4,3 - 5,2/3,0 x 50 42KON	4/15/105	Giben Prismatic 201
400 x 4,4/3,2 x 75	72TFZ L	300 x 4,3 - 5,6/3,2 x 50 48KON	4/15/105	Giben Prismatic 201
		150 x 4,3 - 5,6/3,2 x 45 24KON/WZ	4/15/105	Homag Espana CH12
400 x 4,4/3,2 x 80	72TFZ L	200 x 4,3 - 5,6/3,0 x 65 36KON/WZ	2/9/130 +4/19/120	Selco WN 200, WNT 200
430 x 4,4/3,2 x 80	72TFZ L	200 x 4,3 - 5,6/3,0 x 65 36KON/WZ	2/9/130 +4/19/120	Selco WN 200, WNT 200
430 x 4,4/3,2 x 80		200 x 4,3 - 5,6/3,0 x 65 36KON/WZ	2/9/130 +4/19/120	Selco WN 200, WNT 200
450 x 4,4/3,2 x 30		200 x 4,3 - 5,1/3,5 x 20 34KON		Schelling FL/AL
450 x 4,4/3,2 x 30		200 x 4,3 - 5,1/3,5 x 20 34KON		Schelling FL/AL
450 x 4,4/3,2 x 30		-	2/9/130 +4/19/120	Schwabedissen S50, S50CNC
420 x 4,8/3,5 x 60	84TFZ L	180 x 4,7 - 5,8/3,5 x 45 36KON		Holzma HFL02, HPP02, HPP11
450 x 4,8/3,5 x 60		180 x 4,7 - 5,8/3,5 x 45 36KON		Holzma HPP11
470 x 4,4/3,2 x 75		215 x 4,3 - 5,2/3,0 x 50 42KON		Selco WN 200, WNT 200
470 x 4,4/3,2 x 75		300 x 4,3 - 5,6/3,2 x 50 48KON		Giben Prismatic 2
500 x 4,8/3,5 x 60		200 x 4,7 - 5,8/3,0 x 45 36KON	2/11/85	Giben Prismatic 2
550 x 5,0/3,5 x 100		180 x 4,9 - 6,0/3,5 x 55 30KON/WZ		Holzma Type 22
600 x 5,8/4,2 x 60		200 x 5,7 - 6,8/4,2 x 45 34KON		Giben Matic H150
670 x 5,8/4,1 x 60		200 x 5,7 - 6,8/4,2 x 45 34KON		Holzma HFL42, HPP42
680 x 6,2/4,2 x 40		200 x 6,1 - 7,0/4,5 x 20 34KON/WZ		Holzma HFL61, HPP61
700 x 6,2/4,2 x 80	60TFZ L	200 x 6,1 - 7,0/4,5 x 20 34KON/WZ		Schelling AS
700 x 6,2/4,2 x 80	60TFZ L	200 x 6,1 - 7,0/4,5 x 20 34KON/WZ		Anthon LNB (150)

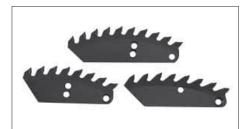
Pinholes can be lasered in any parameters on customer's request.

# TCT Saw Blades and Segments for Hogging Machines



Usage:

For complete flaking (disintegration) of waste material at segment hogging heads



# **50 - Hogging Saw Segments**

#### **Characteristics:**

- » segments are fitted with tungsten carbide tips
- » segments must be installed in complete sets. One set comprises of 6 TCT Segments of a 300-430 mm diameter
- » goods always ordered and packed in complete sets

D	S	S	z	toothing	•/0
300	4,4	2,8	8	FZL	•
300	4,4	2,8	8	FZP	•
350	4,4	2,8	8	FZL	•
350	4,4	2,8	8	FZP	•

Material: Usage: Chipboard and MDF based materials Panel sizing blades for large-scale sizing



In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

### 86 - TCT Hogging Saw Blades

#### **Characteristics:**

- » sizing in combination with a two-sided tenon saw
- » cutting of a single panel or a multiple-layer piles
- » up to the diameter of 355mm, hook angle of 10° and side angel of 15°

D	S	S	d	z	toothing	•/0
305	4,4	2,8	60	48	WS	0
355	4,4	3,0	80	54	WS	0
355	4,4	3,0	80	72	WS	0

D - blade diameter [mm], S - thickness of band saw [mm], s - body width [mm, d - bore diameter [mm], z - number of teeth,

● - in stock, ○ - made to customer's request



# **Grooving TCT Saw Blades**









**Material:** 

natural wood, chip-boards, plastics

Application:

grooving

# 92 FZ

#### **Application:**

» grooving all types of natural wood, furniture materials, plastics

D	S	S	d	z ●/○
150	3,5	2,5	30	12 •
150	4,0	2,5	30	12 •
150	5,0	3,5	30	12 •
150	6,0	3,5	30	12 •
180	4,0	2,5	30	16 •
180	5,0	3,5	30	16 •
180	6,0	3,5	30	16 •
200	4,0	2,5	30	32 •
200	5,0	3,5	30	32 •

# 96 WZ

#### **Application:**

» grooving of various widths in wood

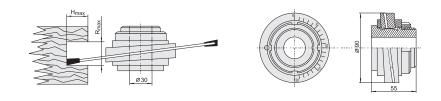
» saw blades for wobble saws

D	S	S	<b>R</b> <sub>max</sub>	H <sub>max</sub>	d	z	•/0
200	3,2	2,2	15	50	50	32	•
250	3,6	2,5	20	70	50	40	•
300	3,6	2,5	22	100	50	48	•

# **5748 Clamping bushes**

#### **Characteristics:**

» clamping bush is made of steel, size of required cutting width is possible to adjust fluently with skew symmetric plates and matrix



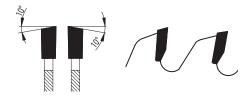
In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

D - blade diameter [mm], S - kerf [mm], s - body thickness [mm], d - bore diameter [mm], z - number of teeth,  $R_{max}$  - max. width of groove [mm],  $H_{max}$  - max. depth of groove [mm],  $\bullet$  - in stock,  $\circ$  - made to customer's request

# **TCT Saw Blades for Electrical Hand Machines**



4	Mar	•
5	(Milling)	5
S.	160x2,6/1,6x20 24WZ n mox. 11900 04/1001358 HW	5
	220V	



Material:	wood and plastics, laminated materials
Application:	sawing with electrical hand machines

# 91 WZ

#### **Characteristics:**

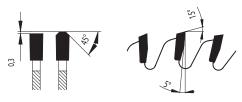
» cutting wood and plastics with electrical hand machines

D	S	S	d	<b>z</b> ●/⊂
127	2,6	1,6	20	10
127	2,6	1,6	20	20
127	2,6	1,6	20	36
130	2,6	1,6	20	10
130	2,6	1,6	20	20
130	2,6	1,6	20	36
140	2,6	1,6	20	10 •
140	2,6	1,6	20	20
140	2,6	1,6	20	42
150	2,6	1,6	20	12 •
150	2,6	1,6	20	24
150	2,6	1,6	20	40
150	2,6	1,6	20	48
160	2,6	1,6	20	12
160	2,6	1,6	20	24
160	2,6	1,6	20	40
160	2,6	1,6	20	48
170	2,6	1,6	30	12
170	2,6	1,6	30	24
170	2,6	1,6	30	40
170	2,6	1,6	30	54
180	2,6	1,6	30	12
180	2,6	1,6	30	24
180	2,6	1,6	30	40
180	2,6	1,6	30	56
184	2,6	1,6	30	12
184	2,6	1,6	30	24
184	2,6	1,6	30	40
184	2,6	1,6	30	56 •
190	2,6	1,6	30	14
190	2,6	1,6	30	24
190	2,6	1,6	30	30 •
190	2,6	1,6	30	40 •
190	2,6	1,6	30	56 •
200	2,8	1,8	30	16
200	2,8	1,8	30	30 •
200	2,8	1,8	30	40 •
200	2,8	1,8	30	64
210	2,8	1,8	30	18 •
210	2,8	1,8	30	32
210	2,8	1,8	30	40
210	2,8	1,8	30	64
216	2,8	1,8	30	24
216	2,8	1,8	30	48
216	2,8	1,8	30	64 •
230	2,8	1,8	30	20 •
230	2,8	1,8	30	34 •
230	2,8	1,8	30	48 •
230	2,8	1,8	30	64

In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.





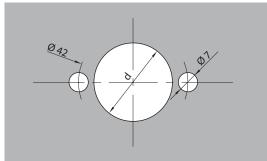


# 91 TFZ L

#### **Characteristics:**

» specially designed for cutting laminated materials

D	S	S	d	z	•/0
160	2,8	1,8	20	48	•
190	2,8	1,8	30	54	•



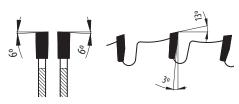
All TCT saw blades for electrical hand machine use include pinholes shown on picture aside.

In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

# **TCT Saw Blades for Building Materials**







# 88 WZ – DRY CUT

#### **Characteristics:**

**Material:** 

**Application:** 

» cutting building materials, thin-walled metal materials, non-ferrous metals, PVC, acrylic glass, sandwich panels

universal usage in building industry

- » special tooth geometry improves resistance against abrasive and mechanical destruction
- » Dry-Cutter, for dry cuts without lubrication

building materials

D	S	d	<b>z</b> ●/○
150	2,2	16 (20)	30 •
160	2,2	16 (20)	30 •
170	2,2	16 (20)	32 •
180	2,2	16 (20)	36 •
190	2,4	16 (20)	38 •
200	2,4	16 (20)	40 •
210	2,4	30	40 •
230	2,4	30	44
235	2,4	30	44 •
250	2,4	30	48 •
300	2,4	30	60 •
300	2,4	30	80 •
305	2,4	25,4	60 •
305	2,4	25,4	80 •
350	2,6	30	80 •
355	2,6	25,4	80



In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

## 88 TZ

#### **Characteristics:**

- » cutting construction wood, chipboard, Heraklit boards, porous concrete without metal
- » special tooth geometry improves resistance against abrasive and mechanical destruction

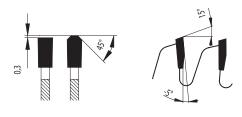
D	S	S	d	z ●/○
250	3,2	2,2	30	18 •
300	3,2	2,2	30	20 •
350	3,6	2,5	30	24 •
400	3,6	2,5	30	28 •
450	4,0	2,8	30	32 •
500	4,0	2,8	30	36 •
600	5,2	3,8	30	42 •

D - blade diameter [mm], S - kerf [mm], s - body thickness [mm], d - bore diameter [mm], z - number of teeth, • - in stock,  $\odot$  - made to customer's request



# TCT Saw Blades for Cutting Non-Ferrous Metals and Plastics

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Material:	non-ferrous metals and plastics
Application:	profiles, mouldings
Machine:	manual feed machines

#### 87–13 TFZ N



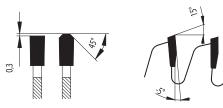
LOW-N@ISE)

#### **Characteristics:**

- » cutting non-ferrous metals, profiles and plastics
- » cross-cut saw with manual feed
- » rigid design with various numbers of teeth
- » suitable for cutting massive materials

D	S	S	d	z ●/○
250	3,2	2,5	30	60 •
300	3,2	2,5	30	72 •
350	3,6	2,8	30	84 •
400	3,6	2,8	30	96 •
450	4,0	3,2	30	108 •
500	4,0	3,2	30	120 •





In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

# 87–11 TFZ N

#### **Characteristics:**

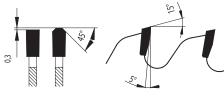
- » cutting non-ferrous metals, profiles and plastics
- » cross-cut saw with manual feed
- » rigid design with various numbers of teeth
- » suitable for cutting massive materials

D	S	S	d	z	•/0
160	2,8	2,2	20	48	•
190	2,8	2,2	30	56	•
200	3,2	2,5	30	60	•
250	3,2	2,5	30	80	•
300	3,2	2,5	30	96	•
350	3,6	2,8	30	108	•
400	3,6	2,8	30	120	•

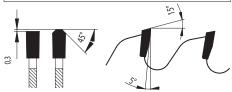
# **TCT Saw Blades for Cutting Non-Ferrous Metals and Plastics**











Material:aluminum, plastics, brass, copper alloyApplication:profiles, solid blocks, mouldingsMachine:mechanical feed machines, CNC machines

#### 87-13 TFZ P



#### **Characteristics:**

- » řcutting aluminum profiles and mouldings, plastic boards, brass, Pertinax
- » suitable for cutting massive materials

D	S	s	d	z •/	/0
200	3,2	2,5	30	48	
250	3,2	2,5	30	60	
300	3,2	2,5	30	72	
350	3,6	2,8	30	84	
400	3,6	2,8	30	96	
450	4,0	3,2	30	108	
500	4,0	3,2	30	120	

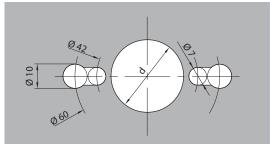
# 87–11 TFZ P



#### **Characteristics:**

- » cutting aluminum profiles and mouldings, plastic boards, brass, Pertinax
- » suitable for cutting thin-walled materials

D	S	S	d	z	•/0
250	3,2	2,5	30	80	٠
300	3,2	2,5	30	96	٠
350	3,6	2,8	30	108	•



All saw blades suitable for cutting non-ferrous metals and plastics include pinholes.

Please see parameters of pinholes on the picture aside.

If requested by customer, we can also produce version without pinholes.

In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.



# TCT Saw Blades for Metal Cutting / Heat and Surface Treatment of Saw Blades









## **TCT Saw Blades for Metal Cutting Heat and Surface Treatment of Saw Blades**

We produce saw blades up to max. diameter of 910 mm.

We also provide servicing of TCT Saw Blades for Metal Cutting. In our Service Centre, we can replace your missing or damaged TCT tips, we can realign your circular saw blades, reinforce them and sharpen their toothing so that it complies with the original geometry.

# Heat and Surface Treatment of Saw Blades

#### **Special tempering:**

- » thermal treatment of saw blades made on special customer request
- » prevents the occurrence of cracks and tears in the body of the saw blade due to extreme loads during cutting operation
- » increases the lifespan of the saw blade

#### **Black coating:**

- » increases the saw blade lifespan by 20% compared to untreated TCT saw blade
- » treatment of saw blades made on special customer request
- » a thin chemical layer of black colour on the saw blade surface

#### PVD coating (TiN, TiCN, AITiN, TiAIN)

- » the coating is several times harder than hardened steel; it prolongs the lifespan of the TCT saw blades
- » its very low coefficient of friction significantly decreases the risk of material chips and resin sticking to the surface of the saw blade and therefore also the risk of overheat and deformation of the saw blade
- » in order to preserve the hardness of the cutting edge coating, the saw blades are only sharpened on the front
- » this surface treatment is suitable for all types of saw blades

#### Other coating types

- » Teflon coating
- » Nickel coating
- » Chromium coating





# **TCT Saw Blades for Production of Plastic Windows**

#### **Characteristics:**

- » a complete range of saw blades designed for cutting plastic profiles used in windows and doors production including saw blades for glazing bars
- » produced in positive and negative tooth geometry designs

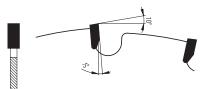


# TCT Saw Blades for Cutting of Mineral Fibres

#### **Characteristics:**

- » cutting along and across the grain of mineral fibres
- » specially designed saw body improves resistance against abrasive wear

TCT saw blades for cutting mineral fibres are produced in all dimensions on request of our customers.

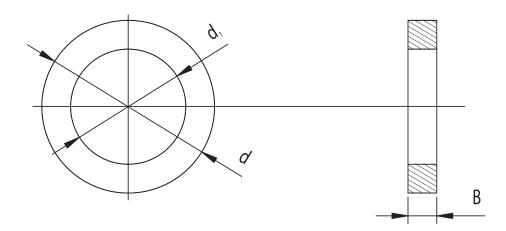




Due to our expertise and our modern production technologies we produce saw blades to your specifications including saw blades for specialised applications. We carry out:

- » adjustments to fixing bores for saws by various manufacturers
- » production of saw blades and segments based on customer's drawing documentation up to the 1 000 mm diameter
- » development and production based on the cutting conditions and requirements of individual wood processing companies
- » development and production of saw blades in cooperation with wood-processing machinery manufacturers





d	20	20	20	22	25	25	25,4	25,4	30	30	30	30	30	30	30	30	30	30
d <sub>1</sub>	12,75	15	16	20	20	20	16	20	12,75	15	16	18	20	20	22	24	25	25,4
В	1,4	1,4	1,4	1,4	1,4	1,5	1,4	1,8	1,4	1,8	1,8	1,8	1,8	2,2	1,8	1,8	1,8	1,8
d	32	:	32	32	32		32	35	3	5	40	40		40	40	50	C	50
d <sub>1</sub>	20	:	25	25,4	25,4	1	30	30	3	2	30	32		32	35	30	C	30
В	2,2		2,2	1,8	2,2		2,2	2,2	2	,2	2,2	2,2		3,5	2,2	2,	2	2,2





Before renovation

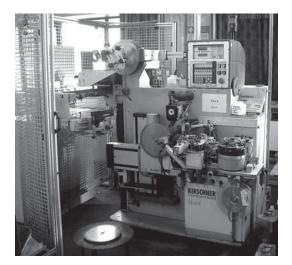
After renovation

#### In our Service Centre, we carry out complete renovation of TCT saw blades:

- » saw blade cleaning removal of impurities which stuck to the surface of the blade during the cutting operation
- » re-straightening and retensioning of the saw blade body
- » replacement of the tungsten-carbide tips unbrazing the damaged tips, re-grinding the saddle and installation (soldering) of new cutting tips.
- » sharpening the cutting tips of saw blades

#### We offer:

- » cutting capabilities of the renovated saw blades comparable to the capabilities of new blades for a favourable price
- » servicing TCT saw blades of all outstanding brands
- » pre-calculations of repair price so that it can be assessed whether blade renovation is going to be profitable
- » reception and purchase of saw blades by collect on delivery method
- » collecting and distributing a larger amount of goods by means of sales representatives









# **Basic Assembly OPK 630**

- » it resharpens circular sawblades 140 700 mm
- » electric motor of the spindle 3x 380 V 250 W
- » diamond charged grinding wheel 150 mm
- » both front and back are sharpened by one grinding wheel
- » sharpening is performed with coolant, this method enhances quality of sharpened surface and long tool life of the grinding wheel
- » hand control, fast adjustment (to 5 minutes)
- » easy maintenance
- » dimensions: width 900, depth 800, height 1200 mm (1450 mm)
- » weight 125 kg (140 kg)
- » the sharpening machine can be used for all usual geometry of circular sawblades

# Assembly OPK 630 EKO

The economic variant is suitable only foro ccasional operation. Opposed to the basic assembly it does not have the stand, the cooling arrangement and the bath fors plashing fluid. Weight 71 kg.

# Assembly OPK 630 A

The machine operates automatically during sharpening.

#### **Auxiliary Device**

**MOP** – device for small diameter of circular saws – 80 – 160 mm. Destined for sharpening of pre – cutting wheels.

**MOF** – indexing device (head) for sharpening of high speed tool steel tipped milling cutter or carbid tipped milling cutter for wood. Destined for milling cutter from 100 mm up and up to width 40 mm, number of teeth 2 - 3 - 4 - 6 - 8 - 12, diameter of clamping hole 30 mm.



## Type OBZ 700

After reparation of carbide tipped circular sawblades it is necessary to resharpen flanks of teeth. For this object is destined flank grinding machine OBZ700. Grinding is leaded by diamond grinding wheel.

- » it resharpens sawblades 80 700 mm
- » diameter of clamping hole 12.7 100 mm
- » electric motor 250 W / 3 x 380 V
- » diamond grinding wheel 125 mm
- » sharpening is performed with coolant
- » hand control
- » fast adjustment (in 5 minutes)
- » easy maintenance
- » weight 115 kg

This sharpening machine is destined especially for services for reparation and resharpening of circular sawblades. It completes resistance brazing device PPK 770.





# **Assembly PPK 700**

In the course of usage of TCT circular sawblades comes to pass that TCT tip is broken. It is necessary to exchange new tip. For this object is destined resistance brazing device PPK 770.

- » diameter of circular sawblade 100 700 mm
- » diameter of clamping hole 12,7 100 mm
- » hand control
- » fast adjustment (in 5 minutes)
- » easy maintenance
- » weight 58 kg 220V/2KVA

# PCD Tools

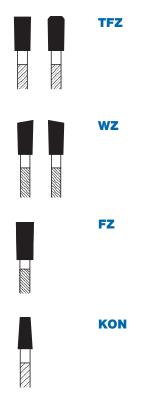


# DIAMOND LINE









**Material:** 

coated and uncoated chip-boards, coated and uncoated MDF, various plastic materials

Machine:

panel sizing saws

DIAMOND LINE is new type of PILANA saw blades. Saw blades are tipped with special tips made from polycrystalic diamonds (PCD).

#### **PCD Panel Sizing Saw Blades**

D	S/s	d	Z	Tooth Geometry	•/0
315	3,2/2,2	30	96	TFZ, WZ	0
315	3,2/2,2	30	84	TFZ, WZ	0
315	3,2/2,2	30	72	TFZ, WZ	0
305	3,2/2,2	30	96	TFZ, WZ	0
305	3,2/2,2	30	84	TFZ, WZ	0
305	3,2/2,2	30	72	TFZ, WZ	0
305	3,2/2,2	30	60	TFZ, WZ	0
300	3,2/2,2	30	96	TFZ, WZ	●TFZ
300	3,2/2,2	30	84	TFZ, WZ	0
300	3,2/2,2	30	72	TFZ, WZ	●TFZ
300	3,2/2,2	30	60	TFZ, WZ	0
250	3,2/2,2	30	48	TFZ, WZ	0
200	3,2/2,2	30	36	TFZ, WZ	0

#### **PCD Scoring Saw Blades**

The scoring saw blades are suitable for cutting applications together with panel sizing saw blades as stated above.

D	S	d	z	Tooth Geometry	<b>•/</b> 0
125	2,8 - 3,6	20 (22)	12+12	FZ, WZ	0
120	2,8 - 3,6	20 (22)	12+12	FZ, WZ	●FZ
100	2,8 - 3,6	20 (22)	12+12	FZ, WZ	0
80	2,8 - 3,6	20 (22)	10+10	FZ, WZ	0

#### **PCD Large Diameter Panel Sizing Saw Blades**

The saw blades are suitable for panel sizing applications of single boards as well as packages.

D	S/s	d	z	Tooth Geometry	●/○
450	4,8/3,5	30	60	TFZ, WZ	0
450	4,4/3,2	30	72	TFZ, WZ	●TFZ
450	4,4/3,2	30	60	TFZ, WZ	●TFZ
430	4,8/3,5	30	84	TFZ, WZ	0
430	4,8/3,5	30	72	TFZ, WZ	0
430	4,8/3,5	30	60	TFZ, WZ	0
400	4,4/3,2	30	84	TFZ, WZ	0
400	4,4/3,2	30	72	TFZ, WZ	0
400	4,4/3,2	30	60	TFZ, WZ	0
350	4,0/3,0	30	72	TFZ, WZ	0
350	4,0/3,0	30	60	TFZ, WZ	0

#### **PCD Conical Scoring Saw Blades**

The scoring saw blades is suitable for cutting applications together with panel sizing saw blades as stated above.

D	S	d	z	Tooth Geometry	●/○
215	4,4-5,6	30	24	KON	0
200	4,4-5,6	30	24	KON	0
180	4,4-5,8	20	24	KON	•
150	4,4-5,6	30	20	KON	0
125	4,4-5,6	30	20	KON	0

In case that you did not find the type of saw blades which you require in our catalogue, please contact us. We will make them upon your specification.

D - blade diameter [mm], S - kerf [mm], s - body thickness [mm], d - bore diameter [mm], z - number of teeth,

• – in stock,  $\bigcirc$  – made to customer's request



# **PCD Shank Cutters / PCD Tools Servicing**



Туре	''Ekonom''	"TURBO"
Advantages	Low purchase cost	Maximum performance
Width of diamond cutting edge	2,8 mm	4 mm
Use	CNC machines	CNC machines
Max. feed speed	2 m/min	30 m/min
Number of permitted re-sharpening procedures	4 - 6	9 - 11
Processed material	MDF, laminated chipboards	MDF, laminated chipboards

#### Shank Milling Cutter "Ekonom" - Dimensional Series

Number	D (mm)	L1 (mm)	L (mm)	dxL2 (mm)	Z	•/0
P2001225/1	12	25.4	70	12x35	1+1	•
P2001235/1	12	35	90	16x45	1+1	0
P2001625/1	16	25.4	85	16x45	1+1	0
P2001635/1	16	35	95	16x45	1+1	0
P2001843/1	18	43	100	16x45	1+1	0
P2001835/20	18	35	105	20x55	1+1	0
P2001843/20	18	43	100	20x55	1+1	0
P2001835/2	18	35	105	25x55	1+1	•
P2001843/2	18	43	110	25x55	1+1	•
P3001835/20	18	35	100	20x55	2+1	•
P3001825/20	18	25	100	20x55	2+1	•

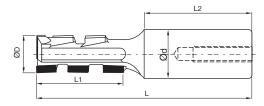
# Shank Milling Cutter "TURBO" - Dimensional Series

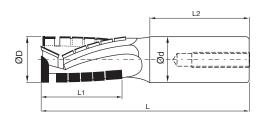
Number	D (mm)	L1 (mm)	L (mm)	dxL2 (mm)	Z	•/0
1.	20	25	85	20x50	3	0
2.	20	25	95	25x55	3	0
3.	20	33	95	20x50	3	0
4.	20	33	100	25x55	3	0
5.	25	25	100	25x55	3	0
6.	25	33	105	25x55	3	0
7.	25	45	115	25x55	3	0
8.	25	52	120	25x55	3	0

We sharpen and replace diamond tips for the following PCD tools:

- » Circular saw blades
- » Shank milling cutters
- » Cylindrical cutters
- » Hogging segments

We use precision optical devices to measure the parameters of individual cutting tips. This allows us to sharpen the tools so that they comply with the factory specified cutting parameters. Therefore, there is no need for concern that the cutting performance or the quality of the processed surface might be decreased due to incorrect sharpening. A top-of-the-range sharpening centre of the Vollmer company ensures that the cutting edges of your tools are sharpened with minimum reduction of the diamond tip width.





In case that you did not find the type of shank milling cutter which you require in our catalogue, please contact us. We will make them upon your specification.

# **Servicing PCD Tools**



Address Nadrazni 804, Hulin 768 24, Czech Republic Phone: +420 573 328 250, Fax:+420 573 328 141 E-mail: sales@pilana.cz www.pilana.com

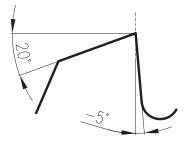
# **Alloy Saw Blades For Wood Cutting**





Alloy saw blades for wood cutting are manufactured from carbon steel 75 Cr1 (DIN 1.2003). All saw bodies up to 3mm thickness are hardened to 44 – 48 HRc and bodies over 3mm thickness to 42 – 46 HRc. Saw blades are delivered straightened, tensioned, set and sharpened. Maximum cutting speed marked on each saw blade refer to circumferential speed 60 m/sec for smaller blade thickness and 80 m/sec for bigger blade thickness. It is possible to manufacture any other parameters on request i.e. with different tooth number, tooth geometry etc. It is also possible to rebore all the saw blades according to the customer's request and supply a reduction ring together.





#### 5309-56 KV5°

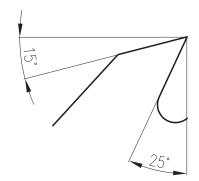
#### **Characteristics:**

- » alloy saw blade with wolf type of tooth geometry
- » negative hook angle 5°
- » alternating bevelled grinding 75°
- » cutting across the grain of soft and hard wood
- » maximum tooth setting 1/3 blade thickness of the blade on each side

D	b	d	z	m
200	1,2	25	56	0,25
200	1,6	25	56	0,35
250	1,8	25	56	0,63
300	1,6	30	56	0,84
300	2,0	30	56	1,00
350	2,2	30	56	1,55
400	2,0	30	56	1,85
400	2,5	30	56	2,25
450	2,2	30	56	2,55
450	2,8	30	56	3,20
500	2,5	30	56	3,54
500	3,0	30	56	4,25
600	2,8	30	56	5,70
600	3,5	30	56	7,10







# 5310-56 KV25°

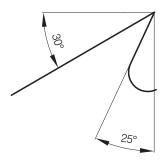
#### **Characteristics:**

- » alloy saw blade with wolf type of tooth geometry
- » positive hook angle
- » cutting along and across the grain of soft and hard wood
- » maximum tooth setting 1/3 blade thickness of the blade on each side

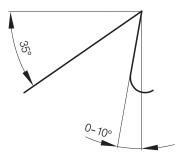
D	b	d	z	m
200	1,2	25	56	0,25
200	1,6	25	56	0,35
250	1,6	25	56	0,55
250	1,8	25	56	0,63
250	2,2	25	56	0,78
300	1,6	30	56	0,84
300	1,8	30	56	0,90
300	2,0	30	56	1,00
300	2,4	30	56	1,22
350	1,8	30	56	1,25
350	2,2	30	56	1,55
350	2,8	30	56	1,94
400	2,0	30	56	1,85
400	2,5	30	56	2,25
400	3,0	30	56	2,71
450	2,0	30	56	2,29
450	2,2	30	56	2,55
450	2,8	30	56	3,20
450	3,5	30	56	4,00
500	2,2	30	56	3,11
500	2,5	30	56	3,54
500	3,0	30	56	4,25
500	3,5	30	56	4,95
550	2,2	30	56	3,76
550	2,5	30	56	4,30
550	3,0	30	56	5,20
550	3,5	30	56	6,00
600	2,8	30	56	5,70
600	3,5	30	56	7,10
600	4,0	30	56	8,15
700	3,2	35	56	8,90
700	3,5	35	56	9,7
700	4,0	35	56	11,1
800	3,5	40	56	12,70
800	4,0	40	56	14,50
900	4,5	50	56	20,60
1000	5,0	50	56	28,30







# 916ma 200x1.8x25 100NV // 9.03379



## 5312-80 NV25°

#### **Characteristics:**

- » alloy saw blade with triangle fine tooth geometry
- » positive hook angle 25°
- » cutting soft and hard wood of smaller thickness
- » maximum tooth pitch 1/3 blade thickness of the blade on each side

D	b	d	z	m
200	1,2	25	80	0,22
200	1,6	25	80	0,39
250	1,6	25	80	0,42
250	1,8	25	80	0,48
250	2,0	30	80	0,54
300	1,6	30	80	0,84
300	1,8	30	80	0,95
300	2,0	30	80	1,04
350	1,8	30	80	1,28
350	2,2	30	80	1,57
350	2,8	30	80	2,02
400	2,0	30	80	1,89
400	2,5	30	80	2,20
450	2,2	30	80	2,57
450	2,8	30	80	3,16
500	2,5	30	80	3,54
500	3,0	30	80	4,25
550	2,5	30	80	4,46
550	3,0	30	80	5,35
600	2,8	30	80	5,94
600	3,5	30	80	7,10

# 5314-NV

#### **Characteristics:**

- » alloy saw blade with triangle fine tooth geometry
- » hook angle 0° 10°
- » cutting along and across the grain of thin wood and plastics
- » maximum tooth setting 1/3 blade thickness of the blade on each side

D	b	d	γ	z	m
80	0,9	10	0°	90	0,04
100	0,9	10	0°	90	0,06
120	0,9	16	0°	90	0,08
140	1,0	16	15°	60	0,08
140	1,0	16	0°	120	0,08
160	1,0	16, 20	0°	90	0,16
200	1,8	25	8°	100	0,42
250	1,8	25	8°	120	0,60
300	1,8	30	10°	140	0,97
350	1,8	30	10°	140	1,30
400	2,0	30	10°	140	1,90





# He 360

# 5311-36 KV36°

#### **Characteristics:**

- » alloy saw blade with wolf tooth geometry
- » positive hook angle 36°
- » rip saw blades are designed for cutting along the grain of soft and hard wood
- » saw blades are also suitable for multi-rip machines
- » maximum tooth setting 1/3 blade thickness of the blade on each side

D	b	d	Z	m
200	1,6	30	36	0,38
250	1,8	30	36	0,66
250	2,2	30	36	0,81
300	2,0	30	36	1,04
300	2,4	30	36	1,27
300	3,0	30	36	1,60
350	2,2	30	36	1,60
350	2,8	30	36	2,00
350	3,2	30	36	2,30
350	3,5	30	36	2,53
400	2,0	30	36	1,90
400	2,5	30	36	2,30
400	3,0	30	36	2,60
400	3,5	30	36	3,30
450	2,8	30	36	3,20
450	3,5	30	36	4,18
500	3,0	30	36	4,41
500	3,5	30	36	5,15
550	3,0	30	36	5,35
600	3,5	30	36	7,42
600	4,0	30	36	8,50





## **5311 A – With Reduced Number of Teeth** for Multirip Machines

#### **Characteristics:**

Changes to central bores, wedge-shaped, clearing and cooling grooves are subsequently laser-burnt into the saw machines as per customer's request.

These saws are tempered during the production process. The tempering reduces undesirable tension in the saw machines and thus allows their use in the most demanding conditions.

For this treatment, a blue/black hue of the saw is typical.

The teeth number reduction leads to better cutting performance of the saw blade.

It does not get jammed with material chips. Therefore, it does not overheat.

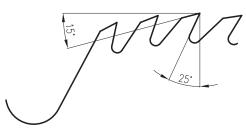


D	b	d	Z	h <sub>max</sub>	d <sub>p max</sub>
250	2,2	30 - 80	18	55	120
250	2,2	30 - 80	24	55	120
300	2,4	30 - 80	18	75	120
300	2,4	30 - 80	24	75	120
300	3,0	30 - 80	18	75	120
300	3,0	30 - 80	24	75	120
350	2,8	30 - 80	18	85	140
350	2,8	30 - 80	24	85	140
350	3,2	30 - 80	18	85	140
350	3,2	30 - 80	24	85	140
350	3,5	30 - 80	18	85	140
350	3,5	30 - 80	24	85	140
400	2,5	30 - 80	24	100	170
400	3,0	30 - 80	24	100	170
400	3,5	30 - 80	24	100	170
450	2,8	30 - 80	24	120	170
450	3,5	30 - 80	24	120	170
500	3,0	30 - 80	28	140	170
500	3,5	30 - 80	28	140	170

1	
23°	
	220







### 5333-40 KV25H

#### **Characteristics:**

- » saw blade type "HANIBAL" with group setting for ripping
- » positive hook angle 25°
- » cutting along the grain of soft and hard wood, round timber logs
- » maximum tooth setting 1/3 blade thickness of the blade on each side
- » recommended only for mechanical feed

D	b	d	z	m
400	3,0	30	8 x 5	2,50
450	2,8	30	8 x 5	3,80
500	3,0	30	8 x 5	4,50
500	3,5	30	8 x 5	5,00
550	3,0	30	8 x 5	5,00
600	3,5	30	8 x 5	7,40
600	4,0	30	8 x 5	8,00
700	3,5	35	8 x 5	9,30
700	4,0	35	8 x 5	10,70
800	3,5	40	8 x 5	14,00
800	4,0	40	8 x 5	15,40
800	4,5	40	8 x 5	16,80
900	4,5	50	8 x 5	19,00
1000	5,0	50	8 x 5	30,00

It is possible to make saw blades of other parameters if requested by our customer.

D - blade diameter [mm], b - body thickness [mm], d - bore diameter [mm],

z - number of teeth, m - weight [kg]

Kontaktní údaje PILANA TOOLS a.s., Nádražní 804, Hulín, 768 24, Česká republika Tel.: +420-573 328 240, Fax: +420-573 328 141 E-mail: prodej@pilana.cz www.pilana.cz

# Band Saw Blades for Wood Cutting Gang Saw Blades





#### **Dimensions:**

Dimensions of band saw blade depend on the machine type and material type.

Width of the band saw blade type 22 5340 – C75 or 22 5340 – UDD is determined by the smallest radius that is cut in the material. Otherwise the width may be by max.10 mm wider than width of common discs of the particular machine.

Minimum radius [mm]	25	50	100	150	200	300	400	500	600	700
Width of blade [mm]	6	10	15	20	25	30	35	40	45	50

Band saw blades type 22 5340 - WM1, 22 5340 - WM2 or 22 5340 - WM3 the width of blade is determined by machine builder and it is calculated from common coils. Thickness of band saw blade must not exceed value S1 because material of band saw blade would be too strained while bending and mechanical damage could happen.

S1=diameter of welded coil [mm] 1000

When choosing the right tooth pitch, the height of cutting material must be considered. We recommend 3 - 5 teeth to be in cut.

**Working conditions:** Maximum cutting speed of band saw blade is recommended by the machine builder. Usually the speed is between 20 – 35 m/sec. General rule is that the harder cutting material, the lower cutting speed we use.

#### **General rules for usage:**

- 1. Before you start cutting check if the band saw blade is properly sharpened, set and whether it is not damaged or heated up. Band saw heating can be recognized if blade is purple color even after cooling.
- 2. Band saw blade must be properly straightened. Please be aware not to straighten the blade too much. This could cause disruption of the blade.

Maximum recommended values of straightening the band saw blade.

Type: 22 5340 C75, 22 5340 UDD						
Dimensions H x S x T [mm]	Tensile stress [Mpa]	Tensioning strength [N]				
6 × 0,5 × 4	25	105				
8 x 0,5 x 5	25	142,5				
10 x 0,6 x 6	25	211,5				
12 x 0,6 x 7	30	320				
15 x 0,6 x 7	30	428				
16 x 0,6 x 7	30	464				
20 x 0,6 x 8	30	585				
25 x 0,6 x 8	30	893				
25 x 0,7 x 8	30	1006				
30 x 0,7 x 10	30	1245				
35 x 0,8 x 10	40	1702				
40 x 0,7 x 10	45	2190				
40 × 0,8 × 10	45	2550				
45 x 0,9 x 12	50	3564				
50 x 0,9 x 12	50	4014				

#### Type: 22 5340 WM1, 22 5340 WM2, 22 5340 WM3

Dimensions H x S x T [mm]	Tensile stress [Mpa]	Tensioning strength [N]
32 x 0,9 x 22	40	1840
32 x 1,0 x 22	40	2040
32 x 1,1 x 22	40	2240
35 x 0,9 x 22	40	2050
35 x 1,0 x 22	40	2280
35 x 1,1 x 22	40	2510
40 x 0,9 x 22	45	2700
40 x 1,1 x 22	40	2930
50 x 1,1 x 22	50	4760

- 3. Guidance of blade and guiding wheels must be clean from chips and resin. Allowance between guiding and band saw blade may be maximum 0,2mm. The distance between the top guidance from the cutting material should be as little as possible so that blade rigidity is as big as possible.
- 4. Hold the cutting material with both hands so that your body is not in the same level as the cutting blade. Do not cut material using extra strength.
- 5 Start cutting after the proper cutting speed is achieved. Do not shorten or slow down the cutting period by friction of the blade against the side of material or slowing against cutting material.
- 6. While cutting big dimensions it is important to use fixed guidance. While finish sizing the material it is important to use holding device.
- 7. It is necessary to replace the band saw blade and set it away (even if not dull). Mechanical attributes of band saw blade will remain the same.
- 8. Do not let the band saw to heat up by any means. If this happens, set away the blade immediately and after cooling set and sharpen it again. You can also check the straightness. To prevent heating it is better to sharpen the blades in time and follow the right cutting conditions.
- 9. Replace the band saw blade if any break off occurs.
- 10. After finishing cutting process do not leave the band saw blade straightened in the machine, always loosen it.

#### Service:

Tooth setting is done to 1/2 to 2/3 tooth height and is set by 1/2 to 1/3 over the size of band saw thickness. Tooth setting can be even bigger for soft woods but there must never happen that a piece of wood remains in between the teeth. Please keep the same distance while tooth setting the whole band saw blade. Pay special attention to regularity of setting (max. 0,1 mm). If not, run in of blade might occur on the side where the bigger tooth set is.

Tooth sharpening is done ceramic disc with medium grain roughness. Tooth face is sharpened. If the blade is extra dull, it is possible to sharpen the tooth back as well. Prevent the tooth to become black from annealing (unwanted stage). While grinding it is needed to keep the radius on tooth bottom. Sharp edge on tooth bottom could cause blade breakage.



# **Recommendations How to Use Band Saw Blades**

The most common causes of trouble while cutting with band saw blades is wrong choice of band saw blade type, dimensions of blade or wrong tooth pitch for particular material. The second most common problem is wrong performance of cutting conditions and usage of insufficiently set or dull band saw blade.

In the below tab you can find most common problems and their possible solution.

Most common problem	Probable reason	Solution
	Wrong tooth pitch	Choose a blade with tooth pitch so that 3-5 teeth are in cut
	Overstressing of blade	Lower the blade straightness between circling wheels
	Feed is too high	Lower down-force of material on the blade
Broken/ fissured blade	<ul> <li>Teeth are in contact with material before cutting</li> </ul>	Adjust allowance between blade/material to minimum 10mm before cutting
	<ul> <li>Diameter of guiding wheels is too small</li> </ul>	Use a thinner blade
	<ul> <li>Side press on band saw</li> </ul>	Adjust manually
	<ul> <li>Blade friction against carrier wheels</li> </ul>	Adjust parallelity of wheels
	High feed	Lower the feed speed
	<ul> <li>Insufficient blade straightness</li> </ul>	Straighten the blade
Undercutting	<ul> <li>Damaged top tooth line</li> </ul>	Use a blade with harder teeth (hardened)
	<ul> <li>Big allowance between guiding wheels and blade</li> </ul>	Lower the guiding wheels
	<ul> <li>Big distance between guidance and material</li> </ul>	Adjust distance from guidance
Rough cut	High feed	Adjust cutting conditions
Rough cut	Wrong tooth pitch	Use correct tooth pitch
Blunting of blade	Cutting with tooth backs	Turn over the band saw blade
Bidining of blade	High cutting speed	Lower the cutting speed
	High pressure on blade	Lower the feed speed
Tooth breaking off	<ul> <li>Wrong choice of tooth pitch</li> </ul>	Use correct tooth pitch
Toolin breaking on	<ul> <li>Cutting with tooth backs</li> </ul>	Turn over the band saw blade
	Dirt in cutting material	Do not cut in places where dirt occurs (stones, metals etc.)
Twisting of blade	Blade stuck in cut	Lower the feed speed
	Free guiding of blade	Adjust the blade guiding

# Safety rules for band saw blade usage

#### **Application:**

Band saw blades are used for splitting, cutting off wood logs, woodbase materials and light metal alloys. Band saw blades can be used for mechanical or manual feed speed while following the recommended safety rules.

#### Unwrapping/packing:

When unwrapping/packing and during manipulation (i.e. when setting up into the machine) please proceed with maximum caution! Danger of getting hurt by very sharp objects!

#### Transport:

Move the tools in an appropriate packing! Danger of getting hurt!

#### **Application:**

Nepřekračovat maximální napínací sílu! Pečlivě čistěte oblast napínacích kol a vodítek.

#### Tool:

Check the cutting edge. Check the machine set up.

#### **Machine:**

It is necessary to stop the machine while tool replacement.

#### Tool set up:

Set up the tool into the machine and secure it following the manufacturer's specification. Follow the manufacturer's safety rules.

#### Service:

Follow the valid safety rules. Right function and safety will be preserved only if service is provided according to valid specification of PILANA TOOLS.

#### How to service the tool:

- · Follow the valid regulations
- Unskilled usage and usage out of purpose is forbidden.
- If not required by national law, use specific objects to protect your eyes, ears and mouth.
- Never leave the machine unattended without monitoring!

• Please clean the band saw blades in time and remove resin. Clean blades have longer life-time and are therefore more economical.

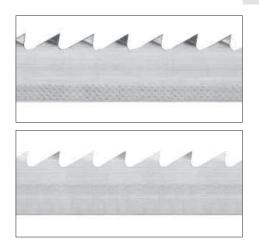
#### **Sharpening/servicing:**

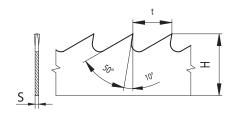
Well-timed sharpening and cleaning the blade are basic conditions how to keep the quality and follow the safety rules. It is important to have these activities done by an expert.

Tools are often covered by resin and dust etc. Any dirt negatively influences the cutting performance. To clean the machine use only convenient objects, which do not cause rust or chemical damage to band saw blades.

# **Band Saw Blades for Wood – Joinery Types**







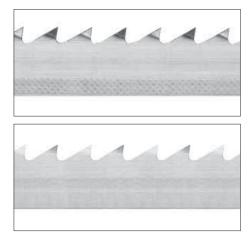
Material:	natural wood
Application:	joinery, carpentry
Machine:	joining band saw machines

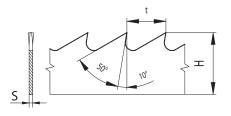
# 40-C 75

#### **Characteristics:**

- » it is possible to deliver band saw blades toothed, set, sharpened, hardened
- » band saws are delivered in coils of 25 m or welded to a particular machine length
- » material type is carbon steel C 75 material hardness 38 44 HRC

HxSxt [mm]	C 75 set	C 75 set and sharpened	C 75 set, sharpened and hardened
6x0,5x4	•	•	•
8x0,5x5	•	•	•
10x0,6x6	•	•	•
12x0,6x7	•	•	•
15x0,6x7	•	•	•
20x0,6x8	•	•	•
25x0,6x8	•	•	•
25x0,7x8	•	•	•
30x0,7x10	•	•	•
35x0,7x10	•	•	•
40x0,7x10	•	•	•
45x0,9x12	•	•	•
50x0,9x12	•	•	•





#### 40-UDD

#### **Characteristics:**

- » it is possible to deliver band saw blades toothed, set, sharpened, hardened
- » band saws are delivered in coils of 25 m or welded to a particular machine length
- » material type is carbon steel C 75 material hardness 38 44 HRC

H x S x t [mm]	UDD set	UDD set and sharpened
10x0,6x6	•	•
16x0,6x7	•	•
20x0,6x8	•	•
25x0,7x8	•	•
30x0,7x10	•	•
35x0,8x10	•	•
40x0,8x10	•	•



# Band Saw Blades for Wood – up to 50 mm Width

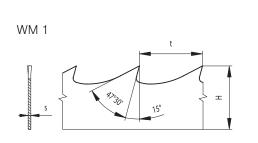
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Material:	natural wood
Application:	cutting massive natural wood
Machine:	mobile band saw machines

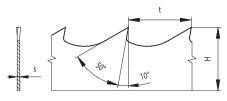
## 40 WM

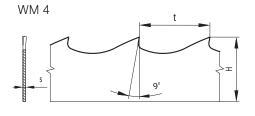
#### **Characteristics:**

- » We supply band saw blades welded to requested length or in packages (coils) of 25, 50 or 100 m
- » band saw blades are manufactured/welded to the requested length (also sharpened if needed) or packed by 25 m/coil
- » band saw blades type WM1 are for cutting soft woods
- » band saw blades type WM2 are for cutting hard woods
- » band saw blades type WM4 are for cutting very hard woods



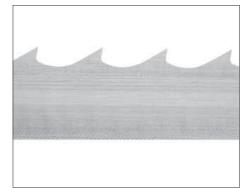
WM 2





HxS	t	type	toothed	toothed, set	toothed, set, hardened	toothed, set, sharpened	toothed, set, sharpened, hardened
32 x 0,9			•	•	٠	•	•
32 x 1,0			•	•	•	•	•
32 x 1,1		WM 1	•	•	•	•	•
35 x 0,9		VVIVI	•	•	•	•	•
35 x 1,0	22		•	•	•	•	•
35 x 1,1	22		•	•	•	•	•
40 x 0,9		WM 2	•	•	•	•	•
40 x 1,0		VVIVI Z	•	•	•	•	•
40 x 1,1			•	•	•	•	•
50 x 1,1			•	•	•	•	•
32 x 0,9			•	•	•	•	•
32 x 1,0			•	•	٠	•	•
32 x 1,1			•	•	•	•	•
35 x 0,9			•	•	•	•	•
35 x 1,0	22,2	WM 4	•	•	•	•	•
35 x 1,1	22,2	VVIVI 4	•	•	•	•	•
40 x 0,9			•	•	•	•	٠
40 x 1,0			•	•	•	•	٠
40 x 1,1			•	•	٠	•	٠
50 x 1,1			•	•	•	•	•





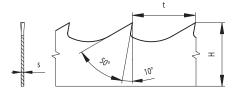
# **40 Bimetal**

#### **Characteristics:**

» The Bimetal type band saw blades are designed for cutting very hard wood

HxS	t	Туре	set, sharpened, hardened
35 x 0,9	22,2	Bimetal	•

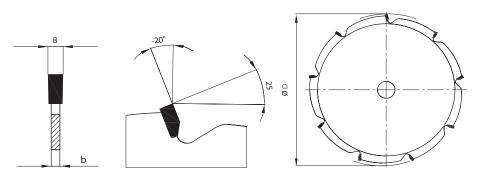
Bimetal





# 80 - Scoring Saw Blades for Band Saws

Scoring saw blades remove the contaminated bark from the logs in the cutting place. Therefore, the saw band remains sharp for a prolonged period of time and its lifespan increases.







## Type BPP 120

The grinder is designed for sharpening of band saw blades with a width of 18–50 mm in a semi-automatic mode. A change in the tooth shape is performed by setting the cams and rods, namely, very simply and quickly. The grinder has two electromotors. One drives the grinding disc and the other ensures band saw blade travel. The band travel speed can be set continuously. The grinder is equipped with cooling of the grinding disc. The grinder is designed for grinding of regularly used tooth shapes; however, a modification for any tooth shape is possible.

#### **Basic Technical Data:**

- » Width of sharpened band saw blades
- » Length of sharpened band saw blades
- » Height of sharpened teeth
- » Tooth pitch
- » Band travel speed continuously adjustable
- » Grinding disc travel motor input
- » Band saw blade travel motor input
- » Pump performance
- » Grinding disc dimensions
- » Grinder dimensions
- » Grinder weight

18-50 mm 2000-5000 mm 3-8 mm 4-30 mm 0-37 teeth/min 120 W 40 W 240 I/hr 175 x 6(5) x 20 mm 320 x 320 x 1300 mm 35 kg

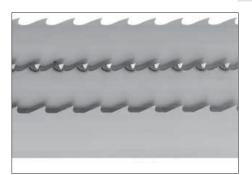


# Wide Band Saw Blades for Wood – from 80 mm Width

**Material:** 

**Application:** 





# Machine:wide band saw machines5343 (NV) - Triangular Type of Teeth5344 (KV) - Wolf Type of Teeth5345 (PV) - Round Type of Teeth

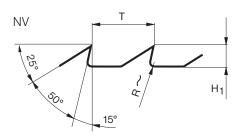
5345–PVI (PVI) – Curved Toothing PVI

cutting massive natural wood

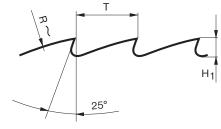
natural wood

**Application:** Soft and hard woods. For hard wood it is necessary to choose smaller tooth pitch and for soft wood bigger tooth pitch.

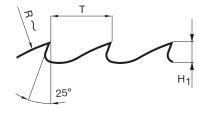
KV T 15° 4 H1

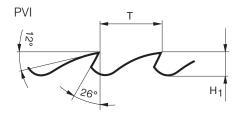


PV (up to tooth pitch 30 mm)



PV (from tooth pitch 30 mm)





Wide band saw blades are manufactured from material 80NiCr11 or from Uddeholm with hardness 43±2 HRc. The welded blade coils are provided in stelitte-tipped, swaged or set versions. A standard treatment is weld straightening and blade mill-rolling. Band saw blades delivered in coils are always provided toothed.

Standard dimensions of wide band saw blades

Width [mm]	Thickness [mm]	Weight (kg/1m)
80	1,0	0,65
90	1,0	0,70
100	1,1	0,80
120	1,1	1,04
140	1,2	1,23
160	1,4	1,66
180	1,4	2,00
200	1,4	2,20
210	1,4	2,35
235	1,6	3,00
265	1,6	3,39

Standard tooth heights for certain tooth pitches and types.

	Tooth depth [mm]			
Tooth pitch	225343 - NV	225344 – KV	225345 – PV	
20	9	-	7,5	
25	11,5	-	9,0	
30	13,5	10	10,5	
35	16	11	12,0	
40	18	12	11	
45	21	13	12,0	
50	23,5	14	13	

If stelitte-tipping it is needed to request the right tooth sharpening (soft or hard woods).

When welding wide band saws the total length must be dividable by chosen tooth pitch. When milling the wide band saws it is needed to specify the type of milling or type of the machine for future usage.



- » maximum cutting speed of each individual band saw blade is specified by the band saw manufacturer
- » the harder is the material which you cut, the lower cutting speed shall be used
- when cutting soft wood types, it is recommended to use larger tooth pitch; when cutting hard wood types, it is recommended to use smaller tooth pitch
- » before you start cutting, check that the band saw blade is properly sharpened, set and whether it is not damaged or heated up (such heating-up is characterised by purple colour which remains even when it has cooled down)
- » before you use a new band saw blade for the first time, it is necessary to let it "run in" (operate it for 20 minutes with no work load)
   then it must "rest" for 24 hours
- » if a heat-up of band saw blade occurs during cutting operation, it is necessary to put it out of operation, leave it to cool down and then re-sharpen it and check its flatness
- » heat-up is best prevented by timely sharpening of blades and by compliance with specified cutting conditions
- » it is necessary to regularly replace the band saw blades even if the toothing is not dull – thus they keep their mechanical characteristics for a prolonged period of time
- » band saw blades must be adequately and evenly tensioned in the machine (however, not excessively, otherwise they may break – comply with the machine manufacturer's specifications)
- » the blade must be always operating in full rotating speed when cut-

# occur on the blade, discard it » in case that cracks occur on the blade, do not continue cutting when you finish work, never leave the saw blade tensioned in the

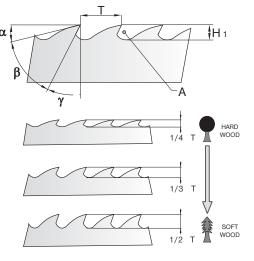
 machine, always loosen it
 band saw blades are tools particularly sensitive to a good quality grinding of its teeth. It is necessary to use a grinding disc with medium-fine grains, do not overheat the blade material, wet-grind with surface roughness of Ra < 3.2</li>

ting - be particularly careful to comply with this instruction in the

beginning and in the end of cutting procedure. In case that cracks

- » all angles must be measured with a sextant. Do not rely on the grinder setting.
- » cracks between the teeth occur in grooves made by the grinding disc
- » band saw blades and wheels of the machine must be constantly oiled during the cutting operation. Material chips must never get between the band and wheel
- » there must be no free play in the wheel bearings and the maximum run-out must not exceed 0.03 mm for radial value and 0.1 mm for axial value
- » The blade tensioning system must be maintained in a flawless condition so that it allows thermal expansion of the blade (the band saw blade length under load increases by 1 mm when heated up by 15°C)
- » wheel profile shall maintain the recommended parameters if excessive wear and tear is apparent, expert servicing is necessary

Wood Type	<b>T</b>	<b>T</b>		<b>登</b>
	hard, frozen, high density	hard, not frozen, medium density	hard, soft, low density	soft, low density
Recommended hook angle (γ)	15°	20°	25°	30°
Tooth pitch (T)	20-25 mm	25-30 mm	30-35 mm	≥ 35 mm
Recommended feed speed	<8 m/min	8-27 m/min	27-46 m/min	>50 m/min
Recommended tooth side dressing	1/3 of the band saw blade thickness	1/3 of the band saw blade thickness	1/3 to 1/2 of the band saw blade thickness	1/2 of the band saw blade thickness



#### Key:

T - tooth pitch (width of the gaps between teeth); H1 - depth of the gap between teeth;

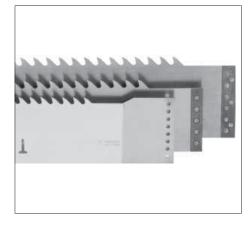
A – total volume of the gap between teeth,  $\gamma$  – hook angle;  $\beta$  – tooth blade angle;  $\alpha$  – tooth back angle

Most common problems	Probable reason	Solution
	Allowance in bearings of wheels	Adjust the allowance, change bearings
	Dirt between wheel and blade	Clean the wheels, service regularly
Tooth cracking	Long cutting process without break	Use blades max. 2hours / leave resting for 24hours then
	Too long grinding	Grind very smoothly, wet grind, surface roughness max. Ra < 3,2
	Blade is dull	Sharpen, measure
Tooth breaking off	Hook angle is too big	Lower the hook angle
Tooth breaking on	Tooth setting is too big	Lower the tooth setting
	Small hook angle	Make bigger hook angle
Uneven cutting	Wrong choice of tooth pitch	Choose the right tooth pitch
	Bad condition of straightening device	Check the machine by expert / fix
	Asymmetrical setting/ press	Adjust the grinding machine

# Values for correct choice of band saw blades



# **Machine Gang Saw Blades for Rip Cutting**



# 5360.1 (KV) – Wolf Type of Teeth 5360.01 (NV) – Triangular Type of Teeth

**Application:** For cutting soft and hard woods. While cutting with wolf teeth geometry you can reach more precise geometrical accuracy of cutting material. While cutting with triangular tooth geometry you can reach better surface quality – suitable for small diameter of logs.

**Standard delivery:** Machine gang saw blades are delivered in straightened and tensioned stage.

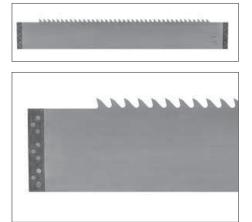
**Side finish:** Standard gang saw blades are delivered with hardened guide gibs of 35, 30, 25 mm width, with straight punching (Esterer hanges) and also blades without guide gibs.

Dimensions of gang saws	Tooth pitch
140 x 1,8	
140 × 2,0	
140 x 2,2	
160 x 2,0	22, 25, 26, 30
160 x 2,2	
180 x 2,2	
180 x 2,4	

Gang saw blades are manufactured from material 75Cr1 (DIN 1.2003) with hardness 48 + / - 2Hrc. We can also produce gang saws coated with hard-chrome (surface of 10, 15 and 20microns). Hardchrome surface improves the resistance against tool wear. It is also resistant against high temperatures and protects against rust.

We are able to manufacture also other types of toothing (tooth pitch, shape) together with other types of guide gibs and pinholes on the request of our customers.

# **Machine Gang Saw Blades – Tempered**



#### 5362.1 (KV) – Wolf Type of Teeth

**Application:** For cutting hard and soft woods. Tempered gang saw is more efficient then the one with set teeth. Its advantage is a better stability of the tool, possibility to increase the feed speed and removing half size of chip when comparing with tooth set gang saw.

**Standard delivery:** Machine gang saw blades are delivered in straightened and tensioned stage.

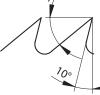
**Side finish:** Standard gang saw blades are delivered with hardened guide gibs of 35, 30, 25 mm width, with straight punching (Esterer hanges) and also blades without guide gibs.

Dimensions of gang saws	Tooth pitch
140 x 2,2	
160 x 2,2	22, 25, 26, 30
180 x 2,2	

Gang saw blades are manufactured from material 75Cr1 (DIN 1.2003) with hardness 42 +/ – 2Hrc. We are able to manufacture also other types of toothing (tooth pitch, shape) together with other types of guide gibs and pinholes on the request of our customers.

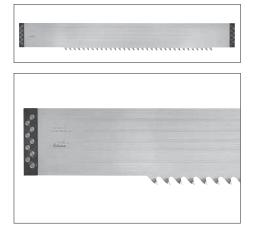
ΚV







# Machine Gang Saw Blades Stelitte - Tipped





# 5366.1 (KV) – Wolf Type of Teeth

**Application:** Hard and soft woods. It is needed to know while ordering.

**Standard delivery:** Gang saw blades are delivered straightened and tensioned.

**Side finish:** Standard gang saw blades are delivered with hardened guide gibs of 35, 30, 25 mm width, with straight punching (Esterer hanges) and also blades without guide gibs.

Dimensions of gang saws	Tooth pitch
140 x 1,8	
140 × 2,0	
140 x 2,2	
160 x 2,0	22, 25, 26, 30
160 x 2,2	
180 x 2,2	
180 x 2,4	

Gang saw blades are manufactured from material 75Cr1 (DIN 1.2003) with hardness 48 +/ – 2Hrc. Welding and stelitte grinding is performed on Vollmer machines.

#### Main Advantages of Stelitte-Tipped Gang Saws:

- 1. Long life time of tips (5 10 x more than normal version).
- 2. Lower energy intensiveness while cutting.
- 3. Lower tendency to tip damage due to dirt (compared TCT tools).
- 4. Higher surface quality of cutting material.
- 5. Higher dimensional and formal accuracy of cutting material.
- 6. Possibility to adjust tip geometry to particular cutting conditions (machine type, type of cutting material, cutting conditions etc.).
- 7. Due to higher cutting power enable lower thermal cutting stress of tip.
- Possibility to re-tip the tool after grinding off the whole layer of previous welding (after 15 – 20 sharpening).
- 9. Minimizing the stand-time when changing the dull tools in machines.
- 10. Increasing the cutting performance by faster feed speed when tempered gang saws are replaced with stelitte tipped.

Gang saw blades are manufactured with tooth number and side finish according to our general types or to customer's requirements. We are able to manufacture also other types of toothing (tooth pitch, shape) together with other types of guide gibs and pinholes on the request of our customers.

We can provide service of all gang saw blades with tooth pitch 26 and 30 mm.



Usage:

Due to their perfect cutting capabilities, the J-type saw blades are suitable for all types of toothing



#### **Characteristics:**

These saw blades have a special offset on their upper side which reliably eliminates undesirable tension in the blades. This technical solution is patented and registered at the Industrial Property Office in the Czech Republic, Slovakia and Poland.

Using the J-type saw blade brings about the following advantages:

- » as far as the tensioning of the blades is concerned, the saws are maintenance free; it is only necessary to adjust potential humps
- » the price is the same as the price of an ordinary gang saw blade
- » due to the fact that no rolling traces are present, the material is not disrupted or reduced – therefore no breakage into the rolling trace may occur
- » it can be sharpened by basically all types of ordinary grinding machines
- » you can attach it to the standard hangs which you currently have
- » we supply it in any length from 1000 to 1600 mm, in widths and thicknesses identical to ordinary gang saw blades
- » they can be fitted with standard as well as atypical guide gibs, the pinholes (perforation) suitable for ESTERER hangs
- » hard-chrome coating, stelitte-tipped teeth



# **Standard Gibs for Gang Saw Blades**

Туре	Picture	Specifications	Туре	Picture	Specifications
L118x25		Thickness: 2,9 mm Pinholes: 5 spacing 25 mm Bevel: 60° Hardness: 36±2 HRc Standard use for: gang saws of 140 mm width	L118x35		Thickness: 2,9 mm Pinholes: 9 spacing 25/25 mm Bevel: 60° Hardness: 36±2 HRc Standard use for: gang saws of 140 mm width
L138x25	138 0 0 0 0 0 18	Thickness: 2,9 mm Pinholes: 5 spacing 25 mm Bevel: 60° Hardness: 36±2 HRc Standard use for: gang saws of 160 mm width	L138x35	138 00000 kg	Thickness: 2,9 mm Pinholes: 9 spacing 25/25 mm Bevel: 60° Hardness: 36±2 HRc Standard use for: gang saws of 160 mm width
L158x25	158 0 0 0 0 0 18	Thickness: 2,9 mm Pinholes: 6 spacing 25 mm Bevel: 60° Hardness: 36±2 HRc Standard use for: gang saws of 180 mm width	L158x35		Thickness: 2,9 mm Pinholes: 9 spacing 25/50 mm Bevel: 60° Hardness: 36±2 HRc Standard use for: gang saws of 180 mm width
L118x30		Thickness: 2,9 mm Pinholes: 9 spacing 25/25 mm Bevel: 60° Hardness: 36±2 HRc Standard use for: gang saws of 140 mm width	L95x35 Lipowski	95 00000 98 000	Thickness: 2,9 mm Pinholes: 7 spacing 25/25 mm Bevel: 60°, radius R~600 Hardness: 36±2 HRc Standard use for: Various types
L138x30		Thickness: 2,9 mm Pinholes: 9 spacing 25/25 mm Bevel: 60° Hardness: 36±2 HRc Standard use for: gang saws of 160 mm width	L118x25 OZUB T3		Thickness: 2,9 mm Pinholes: 5 spacing 25 mm Bevel: No, toothing type 3 Hardness: 36±2 HRc Standard use for: gang saws of 140 mm width
L158x30		Thickness: 2,9 mm Pinholes: 9 spacing 25/50 mm Bevel: 60° Hardness: 36±2 HRc Standard use for: gang saws of 180 mm width	L138x25 OZUB T3		Thickness: 2,9 mm Pinholes: 5 spacing 25 mm Bevel: No, toothing type 3 Hardness: 36±2 HRc Standard use for: gang saws of 160 mm width
L98x35	98 0000 %	Thickness: 2,9 mm Pinholes: 7 spacing 25/25 mm Bevel: 60° Hardness: 36±2 HRc Standard use for: gang saws of 120 mm width	L138x30 3xOT6		Thickness: 2,9 mm Pinholes: 9 spacing 22/22 mm 3 + 13 mm Bevel: 60° Standard use for: gang saws of 160 mm width

# Other types of fixing gib designs (atypical designs for extra charge)

- » gibs with no bevel
- » arched gibs (radius R~600 mm, different external dimension than the dimensions specified in the chart above)
- » gibs with toothing (different from the above specified)
- » divided gibs (gib is divided in an asymmetric or symmetric manner into 2 or more parts)

#### Saw blades with no gibs

- with straight pinholes (perforation) suitable for the Esterer, Jansen, ASS hangs
   holes of 8.3 diameter, spacing 17 millimetres
- » with atypical holes based on customer's specifications
- » gang saw blades with no perforation

Address Nadrazni 804, Hulin 768 24, Czech Republic Phone: +420 573 328 250, Fax:+420 573 328 141 E-mail: sales@pilana.cz www.pilana.com

# **Industrial Knives**

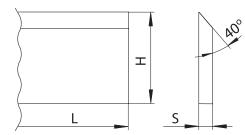
HSS 18% W

# **Planing Knives**



Material:	HSS 6 % W – 1.3343 – M2, HSS 18 % W – 1.3355 – T1, HLS 13 % Cr – 1.2379 – D2, DS – 1.2067 – TOOL STEEL
Use:	machining of wood boards and balks.
Machine:	planer and thicknesser





#### **Characteristics:**

- » material: 1.3355 for hardwood, 1.3343 for hard- and softwood, 1.2379 for softwood, 1.2067 for softwood
- » planing knives are manufactured in metric system and in inches
- » custom-made coated planing knives with extended life-span
- » hardness of planing knives 59 to 64 HRC
- » heat treatment made in a special computer-controlled furnace
- » customized manufacture of planing knives of any dimensions

#### Most common planing knives - table of dimensions

[L x H x S]					
100 x 35 x 3.0	100 x 30 x 3.0	100 x 25 x 3.0	100 x 20 x 3.0	100 x 25 x 2.5	100 x 20 x 2.5
120 x 35 x 3.0	120 x 30 x 3.0	120 x 25 x 3.0	120 x 20 x 3.0	120 x 25 x 2.5	120 x 20 x 2.5
130 x 35 x 3.0	130 x 30 x 3.0	130 x 25 x 3.0	130 x 20 x 3.0	130 x 25 x 2.5	130 x 20 x 2.5
150 x 35 x 3.0	150 x 30 x 3.0	150 x 25 x 3.0	150 x 20 x 3.0	150 x 25 x 2.5	150 x 20 x 2.5
180 x 35 x 3.0	180 x 30 x 3.0	180 x 25 x 3.0	180 x 20 x 3.0	180 x 25 x 2.5	180 x 20 x 2.5
210 x 35 x 3.0	210 x 30 x 3.0	210 x 25 x 3.0	210 x 20 x 3.0	210 x 25 x 2.5	210 x 20 x 2.5
240 x 35 x 3.0	240 x 30 x 3.0	240 x 25 x 3.0	240 x 20 x 3.0	240 x 25 x 2.5	240 x 20 x 2.5
260 x 35 x 3.0	260 x 30 x 3.0	260 x 25 x 3.0	260 x 20 x 3.0	260 x 25 x 2.5	260 x 20 x 2.5
310 x 35 x 3.0	310 x 30 x 3.0	310 x 25 x 3.0	$310 \times 20 \times 3.0$	310 x 25 x 2.5	310 x 20 x 2.5
$400 \times 35 \times 3.0$	$400 \times 30 \times 3.0$	400 x 25 x 3.0	400 x 20 x 3.0	400 x 25 x 2.5	400 x 20 x 2.5
410 x 35 x 3.0	410 x 30 x 3.0	410 x 25 x 3.0	410 x 20 x 3.0	410 x 25 x 2.5	410 x 20 x 2.5
450 x 35 x 3.0	450 x 30 x 3.0	450 x 25 x 3.0	450 x 20 x 3.0	450 x 25 x 2.5	450 x 20 x 2.5
500 x 35 x 3.0	500 x 30 x 3.0	500 x 25 x 3.0	500 x 20 x 3.0	500 x 25 x 2.5	500 x 20 x 2.5
510 x 35 x 3.0	510 x 30 x 3.0	510 x 25 x 3.0	510 x 20 x 3.0	510 x 25 x 2.5	510 x 20 x 2.5
530 x 35 x 3.0	530 x 30 x 3.0	530 x 25 x 3.0	530 x 20 x 3.0	530 x 25 x 2.5	530 x 20 x 2.5
610 x 35 x 3.0	610 x 30 x 3.0	610 x 25 x 3.0	610 x 20 x 3.0	610 x 25 x 2.5	610 x 20 x 2.5
640 x 35 x 3.0	640 × 30 × 3.0	640 x 25 x 3.0	640 x 20 x 3.0	640 x 25 x 2.5	640 x 20 x 2.5
710 x 35 x 3.0	710 x 30 x 3.0	710 x 25 x 3.0	710 x 20 x 3.0	710 x 25 x 2.5	710 x 20 x 2.5
810 x 35 x 3.0	810 x 30 x 3.0	810 x 25 x 3.0	810 x 20 x 3.0	810 x 25 x 2.5	810 x 20 x 2.5
910 x 35 x 3.0	910 x 30 x 3.0	910 x 25 x 3.0	910 x 20 x 3.0	910 x 25 x 2.5	910 x 20 x 2.5
$1000 \times 35 \times 3.0$	1000 x 30 x 3.0	1000 x 25 x 3.0	1000 x 20 x 3.0	1000 x 25 x 2.5	1000 x 20 x 2.5
1010 x 35 x 3.0	1010 x 30 x 3.0	1010 x 25 x 3.0	1010 x 20 x 3.0	1010 x 25 x 2.5	1010 x 20 x 2.5
1050 x 35 x 3.0	1050 x 30 x 3.0	1050 x 25 x 3.0	1050 x 20 x 3.0	1050 x 25 x 2.5	1050 x 20 x 2.5
1220 x 35 x 3.0	1220 x 30 x 3.0	1220 x 25 x 3.0	1220 x 20 x 3.0	1220 x 25 x 2.5	1220 x 20 x 2.5

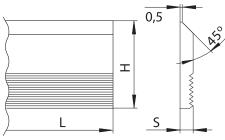


Material:	HSS 6 % W - 1.3343 - M2, HSS 18 % W - 1.3355 - T1, HLS 13 % Cr - 1.2379 - D2
Use:	profile cutting, machining of wood boards and balks
Machine:	shapers, multisided profile cutting millers, planers and thicknessers



#### **Characteristics:**

- » material: 1.3355 for hardwood, 1.3343 for hard- and softwood, 1.2379 for softwood
- » serrated back knives in metric and inch sizes
- » customized manufacture of serrated back knives of any dimensions
- » hardness: 58 to 63 HRC, at customer's request other hardness
- » heat treatment made in a special computer controlled furnace
- » 60° and 90° serration
- » angle of cutting edge: standard 45° + peripheral land 0.5 mm, other angle at customer's request
- » bevel angle 45°, other angle at customer's request



#### Table of dimensions

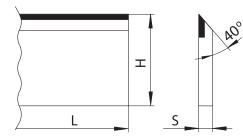
				[L x H x S]				
30x50x8	30x60x8	30x40x8	30x80x8	30x40x6	30x50x6	30x60x6	30x30x4	30x40x4
40x50x8	40x60x8	40x40x8	40x80x8	40x40x6	40x50x6	40x60x6	40x30x4	40x40x4
50x50x8	50x60x8	50x40x8	50x80x8	50x40x6	50x50x6	50x60x6	50x30x4	50x40x4
60x50x8	60x60x8	60x40x8	60x80x8	60x40x6	60x50x6	60x60x6	60x30x4	60x40x4
70x50x8	70x60x8	70x70x8	70x80x8	70x40x6	70x50x6	70x60x6	70x30x4	70x40x4
80x50x8	80x60x8	80x70x8	80x80x8	80x40x6	80x50x6	80x60x6	80x30x4	80x40x4
100x50x8	100x60x8	100x70x8	100x80x8	100x40x6	100x50x6	100x60x6	100x30x4	100x40x4
130x50x8	130x60x8	130x70x8	130x80x8	130x40x6	130x50x6	130x60x6	130x30x4	130x40x4
150x50x8	150x60x8	150x70x8	150x80x8	150x40x6	150x50x6	150x60x6	150x30x4	150x40x4
180x50x8	180x60x8	180x70x8	180x80x8	180x40x6	180x50x6	180x60x6	180x30x4	180x40x4
210x50x8	210x60x8	210x70x8	210x80x8	210x40x6	210x50x6	210x60x6	210x30x4	210x40x4
230x50x8	230x60x8	230x70x8	230x80x8	230x40x6	230x50x6	230x60x6	230x30x4	230x40x4
260x50x8	260x60x8	260x70x8	260x80x8	260x40x6	260x50x6	260x60x6	260x30x4	260x40x4
500x50x8	500x60x8	500x70x8	500x80x8	500x40x6	500x50x6	500x60x6	500x30x4	500x40x4
600x50x8	600x60x8	600x70x8	600x80x8	600x40x6	600x50x6	600x60x6	600x30x4	600x40x4
635x50x8	635x60x8	635x70x8	635x80x8	635x40x6	635x50x6	635x60x6	635x30x4	635x40x4
650x50x8	650x60x8	650x70x8	650x80x8	650x40x6	650x50x6	650x60x6	650x30x4	650x40x4



## Carbide Tipped Planing and Serrated Back Knives

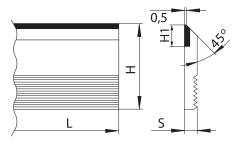
## Carbide Tipped Planing Knives





## Carbide Tipped Serrated Back Knives





Material:	high-performance tungsten carbide with sufficient hardness specially made for machining of wood
Use:	broaching and thicknessing of hardwood boards, board with adhesives and for high-performance cutting
Machine:	planer and thicknesser

#### **Characteristics:**

- » planing knives with cutting edged of tungsten carbide have shank made of structural steel in which the tungsten carbide cutting tip is brazed with silver and copper
- » tungsten carbide planing knives in metric and inch sizes
- » customized manufacture of carbide tipped planing knives of any dimensions

#### **Table of dimensions**

	[L x H x S]				
100 x 35 x 3.0	310 x 35 x 3.0	810 x 35 x 3.0	210 x 30 x 3.0	500 x 30 x 3.0	1050 x 30 x 3.0
120 x 35 x 3.0	400 x 35 x 3.0	1050 x 35 x 3.0	240 x 30 x 3.0	510 x 30 x 3.0	180 x 25 x 3.0
130 x 35 x 3.0	410 x 35 x 3.0	100 x 30 x 3.0	260 × 30 × 3.0	530 × 30 × 3.0	210 x 25 x 3.0
150 x 35 x 3.0	510 x 35 x 3.0	120 x 30 x 3.0	310 x 30 x 3.0	610 x 30 x 3.0	260 x 25 x 3.0
180 x 35 x 3.0	530 x 35 x 3.0	130 x 30 x 3.0	400 x 30 x 3.0	640 x 30 x 3.0	310 x 25 x 3.0
210 x 35 x 3.0	610 x 35 x 3.0	150 x 30 x 3.0	410 x 30 x 3.0	710 x 30 x 3.0	810 x 25 x 3.0
240 x 35 x 3.0	640 x 35 x 3.0	180 x 30 x 3.0	450 x 30 x 3.0	810 x 30 x 3.0	1050 x 25 x 3.0

Material:	High-performance tungsten carbide with sufficient hardness specially made for machining of wood materials
Use:	profile cutting, machining of wood boards and balks
Machine:	shapers, multisided profile cutting millers, planers and thicknessers

#### **Characteristics:**

- » serrated back knives with tungsten carbide cutting tips have shank made of tool steel in which the tungsten carbide tip is brazed with silver and copper
- » carbide tipped serrated back knives in metric and inch sizes
- » thickness of tungsten carbide tips H1: 15, 20, 25, 30 mm
- » customized manufacture of carbide tipped serrated back knives of any dimensions The most common tungsten carbide tipped serrated back knives – table of dimensions

## The most carbide tipped blankets with fixation grooving – table of dimensions

[L x H x S]						
50 x 40 x 8	50 x 50 x 8	50 x 60 x 8	50 x 70 x 8			
80 x 40 x 8	80 x 50 x 8	80 x 60 x 8	80 x 70 x 8			
100 x 40 x 8	100 x 50 x 8	100 × 60 × 8	100 x 70 x 8			
130 x 40 x 8	130 x 50 x 8	130 x 60 x 8	130 x 70 x 8			
180 x 40 x 8	180 x 50 x 8	180 x 60 x 8	180 x 70 x 8			
230 x 40 x 8	230 x 50 x 8	230 x 60 x 8	230 x 70 x 8			
650 x 40 x 8	650 x 50 x 8	650 x 60 x 8	650 x 70 x 8			

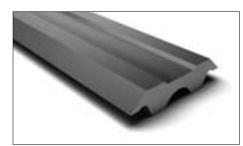


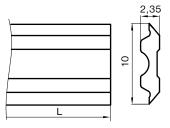
Usage:

wood board and balk machining

Machine:

planer and thicknesser





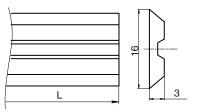
### System Tersa

Material: HLS 13%Cr – 1.2379 – D2, HSS 18% W – 1.3355 – T1, 1.3247 – M42, tungsten carbide (TC)

#### **Characteristics:**

- » Application: material 1.2379 for soft wood, 1.3355 for hard and soft wood, TC for hard wood and high cutting performance
- » planing knives are supplied in 60 650 mm lengths
- » the knives can be supplied PVD coated which increases their lifespan



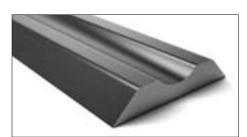


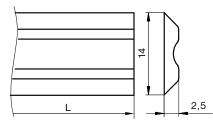
#### System Centrolock

Material: HSS 18% W - 1.3355 - T1, tungsten carbide (TC)

#### **Characteristics:**

- » Application: material 1.3355 for hard and soft wood, TC for hard wood and high cutting performance
- » planing knives are supplied in 20 650 mm lengths
- » the knives can be supplied PVD coated which increases their lifespan





#### **System Terminus**

Material: HSS 18% W - 1.3355 - T1, tungsten carbide (TC)

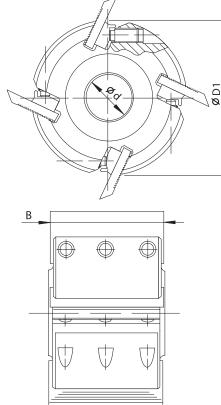
#### **Characteristics:**

- » Application: material 1.3355 for hard and soft wood, TC for hard wood and high cutting performance
- » planing knives are supplied in 60 660 mm lengths
- » the knives can be supplied PVD coated which increases their lifespan



## **Safety Profile Cutter Head**





#### **Characteristics:**

**Application:** 

**Machine:** 

- » only for machine feed
- » maximum revolutions n = 9000 rev/min

#### Safety profile cutter head - dimensional table

and thicknessers

D	В	d	z	m
		40	4 or 2	3,4
		60	4 or 2	5,1
	40	80	4 or 2	6,9
122		100	4 or 2	8,6
		130	4 or 2	11,2
		150	4 or 2	12,9
		180	4 or 2	15,5
		230	4 or 2	19,8

shaping, broaching and thickening

shapers, multilateral profile millers, surfacers

## **Universal Cutter Head and Profile Cutters**







#### **Characteristics:**

**Application:** 

**Machine:** 

» with limiters for hand feed and without limiters for machine feed

shapers, multilateral profile millers

» clamping with automatic centring of cutters

shaping

#### **Universal Profile Cutter Head**

D	d	в	n	Manual feed MAN	Machine feed MEC	Steel version
93	30	40	7000 - 9000	•	•	•
93	30	52	7000 - 9000	•	•	•
120	30	40	7000 - 9000	•	•	•
120	30	52	7000 - 9000	•	•	•

We supply spare parts for this product

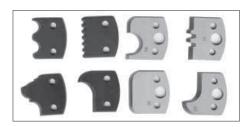
#### Wooden Cabinet for Cutter Head, Profile Cutters, and Limiters

- » Suspended cabinet with dimensions 600 x 900 x 150 mm (including a promo area above the glassed part)
- » Glassed face with lockable doors
- » 48 pivots for profile cutters and limiters
- » 1 pivot for profile cutter head

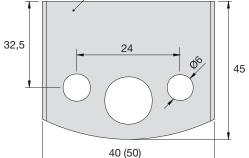
#### Wooden Cassette for Cutter Head, Profile Cutters and Limiters

- » in versions for 6, 12, 24 and 36 sets
- » knife profile option by the customer's request





## Thickness / Dicke / tloušťka = 4



#### **Characteristics:**

- » width 40 mm, thickness 4 mm
- » knives can operate with limiters (manual shift) or without (machine shift)
- » knife material HSS (tool steel), SP
- » limiter material structural steel, SP
- » the limiter prevents tool "kicking" at manual feed
- » the limiter has a profile cut 0,8 mm deeper

#### Semiproducts for Profile Cutter Cut

- » Semiproducts of both limiters and profile knives are in the same dimensions
- » For maximum profile depth up to16 mm

You'll find more information in the PILANA catalog – Milling and planning heads, blankets and cutting knives



## **Flaker Knives for Chipboards**

Material of knives:	special chipper steel developed for manufacture of chipper and flaker knives, DS tool steel
Use:	final operation for two-stage or single-stage manufacture of chips to be use for chipboards
Machine:	ring and drum flaker of brands Pallmann, Maier, Klöckner, Pessa and in the first disintegration stage of wood on Hombak machines

#### **Characteristics:**

- » flaker knives of hardness 55 to 57 HRC, at customer's request also other hardness
- » heat treatment made in a special computer-controlled furnace
- » angle of cutting edge 35° 44° as per type of machine

#### The most often used flaker knives for chipboard - table of dimensions

		[L x H x S]		
Hombak	Klöckner	Maier	Pallmann	Pessa
306,9 x 57 x 4	403 × 90 × 4	334 x 100 x 5	299 x 100 x 5	599 x 100 x 5
363,1 x 57 x 4	489 x 90 x 4	464 x 100 x 5	449 x 100 x 5	
365,6 x 75 x 4	501 x 90 x 4	464 x 90 x 5	524 x 100 x 5	
370,2 x 57 x 4			449 x 90 x 5	
525,5 x 62 x 4			449 x 85 x 3	
533,4 x 75 x 4			299 x 75 x 5	
539,3 x 57 x 4			449 x 90 x 3	
547,3 x 74 x 4				



Material of knives:	special chipper steel developed for manufacture of chipper and flaker knives
Use:	in the first and second stage of wood disintegration in the manufacture of OSB
Machine:	flaker of Pallmann, Maier, Klöckner and CAE brand



#### **Characteristics:**

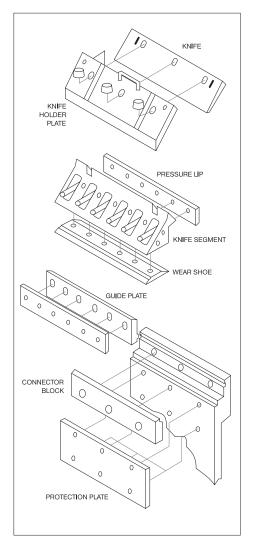
- » OSB knives hardness 55 58 HRC, other hardness at customer's request
- » heat treatment made in a special computer-controlled furnace

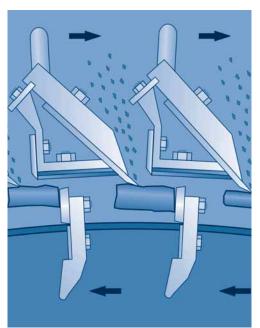
#### The most often used flaker knives for OSB - table of dimensions

[L x H x S]				
CAE	Pallmann			
469,9 x 69,85 x 5	603 x 83 x 5			
726,85 x 82,5 x 6,35	680 x 83 x 5			
	728 x 83 x 5			
	803 x 83 x 5			



Material of knives:	special chipper steel developed for manufacture of chipper and flaker knives, DS tool steel, holders of structural steel
Use:	final operation for two-stage or single-stage manufacture of chips to be used for chipboards
Machine:	ring flaker of Pallmann, Maier, Klöckner, Pesa and Hombak brand





#### We manufacture:

- » knife
- » knife holder plate
- » pressure lip
- » knife segment
- » wear shoe
- » guide plate
- » connector block



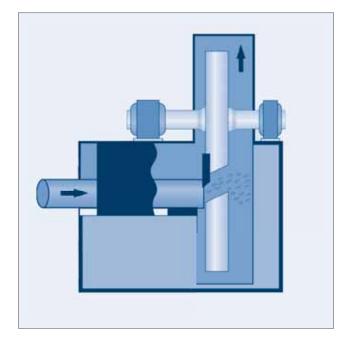
Material of knives:	special chipper steel developed for manufacture of chipper and flaker knives
Use:	crushing of waste timber, cutting timber to chips intended for flaking
Machine:	chippers

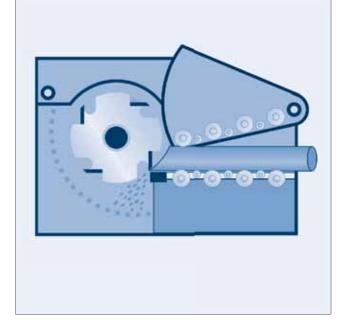
**Chipper Knives** 

#### **Characteristics:**

- » chipper knives of hardness 52 to 58 HRC
- » heat treatment made in a special computer-controlled furnace
- » angle of cutting edge: 26° to 40° as per type of machine and sort and condition of wood
- » manufacture of any knife as per drawing documentation or according to a sample
- » beside knives, we deliver also counter-knives, pressure bars and other components, depending on type of machine

Ahlstrom	Bush	Esterer	Jenz	Murraray	Segem
Altec	CAE	EWD	Klöckner	Murrary	Schlising
Ari	Camura	Ferrari	KMW	NHS	Schmidt
Asplundh	Canadac	Fujikogio	Kockum	Nicolson	Siba
Bandit	Candac	Fulghum	Kone Wood	Olathe	Sjolins
Berkli	Carthage	Gustin Som	LGU	Pallmann	Soderhamn
Bezner	Comact	Hedlund	Linck	Pessa	Tunissen
Blafl Clawson	Demuth	Heinola	Linder	Pezzolato	Vecoplan
Bongioann	Dosco	Hewsaw	Maier	Precision	Vermeer
Bruks	Ducker	Husky	Mitts	Rauma	Wayne
Brush	Erjo	Jensen	Morbark	Rudnick	Zeno





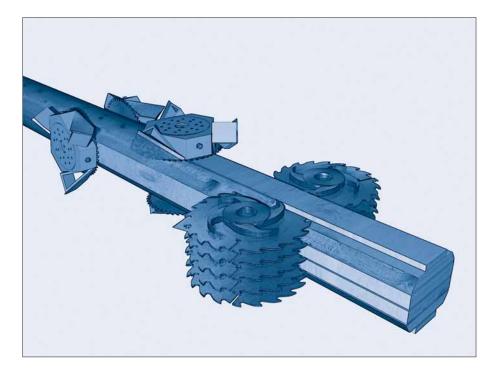




Material of knives:	special chipper steel developed for manufacture of chipper canter and slabber knives
Use:	the knives are used in canter and slabber units which are part of sawmilling lines

#### **Characteristics:**

- » heat treatment made in a special computer-controlled furnace
- » manufacture of any knife as per drawing documentation or according to a sample
- » beside knives, we deliver also counter-knives, pressure bars and other components, depending on type of machine

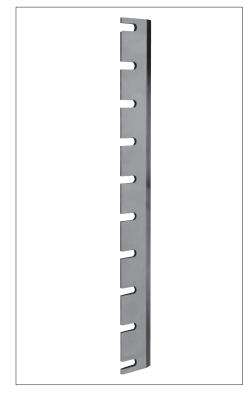


Ahlström	EWD	Linck	Segem
Bongioanni	Forano	Linder	Söderhamn
CAE	Heinola	Mem	Wurster
Comact	Hew saw	Sawqiup	
Esterer	LBL	Schenck	



## **Veneer Knives**

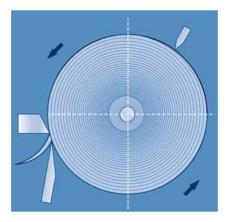
Material of knives:	special chipper steel developed for manufacture of			
	chipper, veneer slicing and flaker knives, CHIPPER			
	- 1.2362, 1.2631 - A8 in Solid design			
Use:	slicing, peeling and cutting of veneer			
Machine:	peeling and slicing machines, veneer slicers			

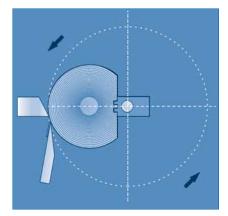


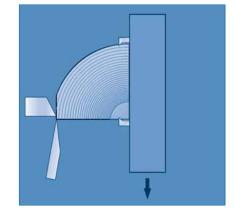
#### **Characteristics:**

- » veneer slicing knives of hardness 57 to 60 HRC heat treatment made in a special computer-controlled oven
- » angle of cutting edge: approx. 20°
- » besides knives, we also supply other components: pressure bars and other components depending on the type of machine

AEW	Derouleuse	Chambon	Minami	Shonai	Uroko
Arizun	Derulor	John	Monguzi	Sodeme	Valette
Brugg	Fezer	Josting	Muller	Tai-Hei	Victor
Capital	Fisher	Jusan	Nishigami	Tai-Yuan	Watarai
COE	FRF	Kaiser	Peller	Takekana	Weitina
Colombo	Fudder	Kelner	PMI	Tanouchi	Zuen Kwan
Corali	Fukushima	KPS	Rapidex	Temil	
Cremona	Hasimoto	Marunaka	Raute	Thoms/ Benate	0
Dahol	Hattori	Meinan Aristo	RFR	Tromag	









 Material of knives:
 HSL - 1.2379 - D2, carburized DS tool steel,

 chipper - 1.2362 - A8

 Use:
 crushing of waste materials in plastics processing industry

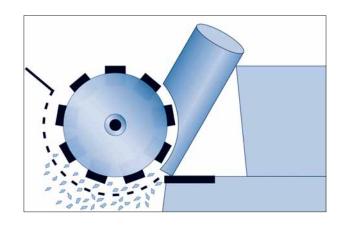
 Machine:
 crushing machines

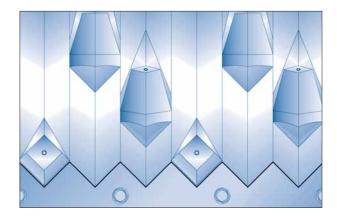


#### **Characteristics:**

- » shredder knives most often of square or circular shape
- » shredder knives of hardness 52 to 59 HRC, lower hardness recommended for materials with admixture of metals
- » heat treatment made in a special computer-controlled furnace
- » other components for crushing machines: stator knives and holders

Bano	Haas	Reinbold	Untha	Weima	Zeno
BMH	Miller	TPA	Vecoplan	Weis	







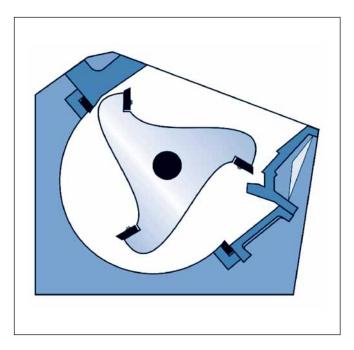
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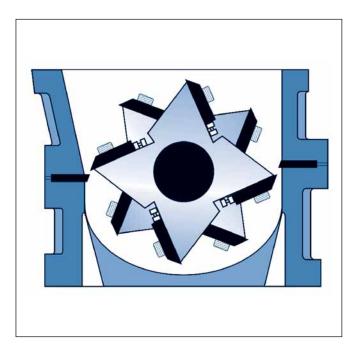
# Material of knives:HLS - 1.2379 - D2, CHIPPER - 1.2362 - A8Use:crushing of waste materials in plastics processing industryMachine:crushing machine

#### **Characteristics:**

- » granulator knives of hardness 56 59 HRC
- » heat treatment made in a special computer-controlled oven
- » angle of cutting edge: around 50° as per type of machine and depending on the sort of waste material
- » manufacture of any plastics processing knife as per drawing documentation or a sample

Alpine	Corcoran	Gloncester	Lodi	Rainville	Tria
Alsteele/Entoleter	Cumberland	Granutec	Mitts/Merrill	Ramco R&S	Triple S
Berlyn	Dreher	Gruendler	Nelmor	Rapid	Wortex
Black Friar	Dryflo	Herbold	Pallmann	Rotogran	
СМВ	Falzoni	Hydraclaim	Polymer	Sorema	
Conair	Flinchbaugh (FPI)	IMS	Previero	Sprout Waldren	I
Condux	Foremost	Intrapala	Process Control	Taylor Styles	





## **Other and Special Knives**



Material of knives:special chipper steel developed for knives manufacturingMachine:different machines

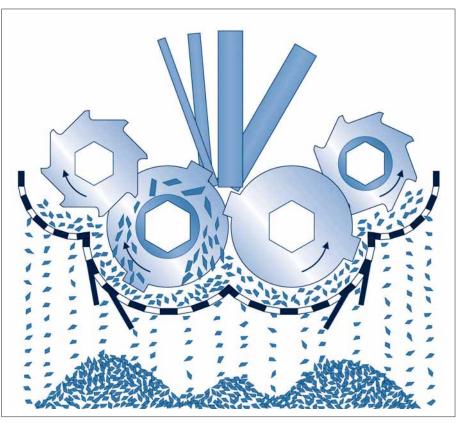
#### **Knives for**

- » tyre recycling
- » leather
- » metalworking
- » grass
- » agriculture
- » pulp and paper
- » cigarettes
- » tabacco
- » rugs
- » textile
- » meat
- » polygrafy
- » recycling
- » food processing
- » packaging» rubber

#### **Characteristics:**

- » heat treatment made in a special computer-controlled furnace
- » manufacture of any knife as per drawing documentation or according to a sample
- » beside knives, we deliver also counter-knives, pressure bars and other components, depending on type of machine

#### **Recycling schema**



You'll find more information in the PILANA catalog - Industrial knives







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