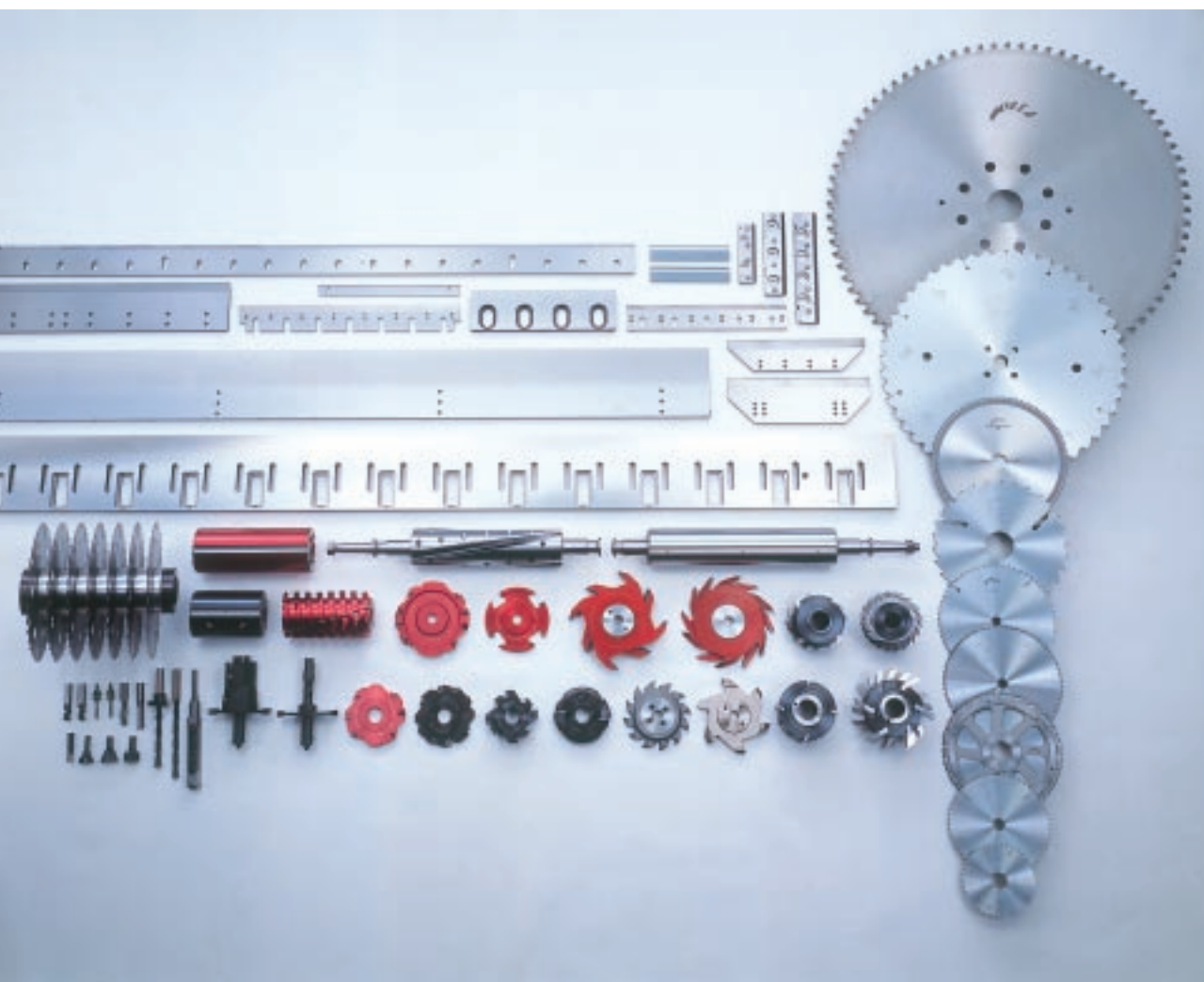


# Catalogue

# Woodworking





Kanefusa is Japan's largest manufacturer of high quality industrial tools used in the metalworking, woodworking, paper and plastic processing industries.

Kanefusa was established as a company in 1896 and since then it has always been our strategy to continuously develop new products and cutting techniques to achieve one goal:

#### Higher User Value

Our saw blades, cutters and machine knives are engineered to the highest industrial standards and satisfied users all around the world testify to the reliability of our products.

Today we have over 1000 employees working at 3 production sites and in 12 domestic and 6 international offices.

## Our Customers



### Primary Woodworking

- Sawmills
- Plywood & Veneer Manufacturing
- Particleboard, MDF, HDF & OSB Manufacturing
- Solid Wood Panel Manufacturing etc.



### Solid Wood Processing

- Planing Mills
- Truss and Beam Manufacturing
- Window and Door Manufacturing
- Staircase Manufacturing
- Furniture Manufacturing
- Chair and Upholstery Manufacturing
- Parquet Floor Manufacturing
- Composite Floor Manufacturing etc.



### Panel Processing

- Kitchen & Bath Room Furniture Manufacturing
- Furniture Component Manufacturing
- Laminate Floor Manufacturing
- Exterior and Interior Door Manufacturing etc.



### Craftsmen

- Carpenter
- Cabinet Maker
- Installer etc.

# Contents

---

## 1 Sawing

---



### Solid Wood

<b>Timber Max</b> Heavy Duty Rip Saw Blade	9
<b>Timber Max TK</b> Thin Kerf Splitting Saw Blade	13
<b>Tough Black</b> Saw Body Coating	15
<b>SF-Saw Blade</b> Glueline Saw Blade	17
<b>Yield Pro</b> Fine Cross Cut Saw Blade	19

### Board Materials

<b>Board Pro III D-Type</b> Heavy Duty Panel Sizing Saw Blade	21
<b>Board Pro III TD-Type</b> Finish Cut Saw Blade	25
<b>Board Pro D-Type</b> Panel Sizing Saw Blade	27
<b>Board Pro BC-Type</b> Panel Sizing Saw Blade	31
<b>Board Pro Scoring</b> Scoring Saw Blade	33
<b>Eco Saw Blade</b> Hollow Face Panel Sizing Saw Blade	39
<b>Table Saw Blade</b> Finish Cut Saw Blade	41
<b>DIA-V-tech</b> Finish Cut Panel Sizing Saw Blade	43
<b>Board Pro DIA</b> Heavy Duty Panel Sizing Saw Blade	45

### Non-ferrous Metals

<b>Sash Pro</b> Heavy Duty Saw Blade	49
<b>Stable Saw Blade</b> Thin Kerf Saw Blade	51

## 2 Finger Jointing

---



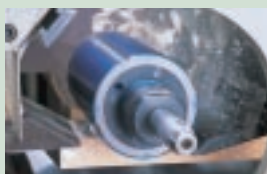
### Structural Joints

<b>TAF-Pro</b> HS-HP tipped Type Finger Joint Cutter	55
<b>TAF-C</b> Finger Joint Cutter Head	57

### Millwork Joints

<b>EN2RO</b> Finger Joint Cutter Head	59
<b>Disc Type Cutter</b> HC-UP tipped Cutter	61

## 3 Planing



<b>ENSHIN</b> Self-Locking Planer Head	65
<b>ENSHIN PowerLock-Type</b> Self-Locking Planer Head	67
<b>ENSHIN</b> Spare Blades	69
<b>ENSHIN</b> Reference Engraver	71
<b>Tersa®-System</b> Spare Blades	73
<b>ST-1</b> Flat Planer Knives	75
<b>ST-1 Planer Head</b> Hydro Planer Head	79

## 4 Profiling



<b>ST-1</b> Corrugated Back Knives	85
<b>ST-1 Knife Head</b> PowerLock Type	89
<b>SF-Splitting Technology</b> HC-UP tipped Cutter	91
<b>SF-Tongue and Groove Cutter</b> HC-UP tipped Cutter	93
<b>SF-Radius and Chamfer Cutter</b> HC-UP tipped Cutter	95
<b>SF-Panel Raise Cutter</b> HC-UP tipped Cutter	97
<b>SF-Profile Cutter</b> HC-UP tipped Cutter	99

## 5 Routing



<b>E-Bit</b> Solid HC-UP Bit	103
<b>SF-Router Bit</b> HC-UP tipped Router Bit	105
<b>Acryl-Bit</b> Mirror Finish Router Bit	109
<b>Cosmo-Bit</b> PCD tipped Router Bit	111

# Contents

---

## 6 Carpentry



<b>Brad Point Drill Bit</b>	115
<b>ACE Counterbore Drill Bit</b>	116
<b>PreCut Tooling</b>	117

## 7 Accessories



<b>Hydraulic Precision Chuck</b> <i>CNC-Router Machine</i>	121
<b>Hydro Mechanical Precison Chuck</b> <i>CNC-Router Machine</i>	121
<b>Hydro Tool Holder</b> <i>Powermat</i>	123
<b>Tool Holder</b> <i>Powermat</i>	123
<b>Hydro Sleeve</b>	125
<b>Locking Ring</b> <i>Safety Part</i>	125

## 8 Industrial Knives



<b>Slicer Knife</b> <i>Veneer Knife</i>	133
<b>Peeling Knife</b> <i>Veneer Knife</i>	133
<b>Clipper Knife</b> <i>Veneer Knife</i>	133
<b>Timber Tec</b> <i>Chipper Knife</i>	134
<b>Flaker Knife</b> <i>Chipboard &amp; OSB Production</i>	135

## 9 *Company Profile*



<b>Business Activities</b>	139
<b>Global Network</b>	141
<b>Quality</b>	143
<b>History</b>	145

## 10 *Technical Information*



<b>Saw Blade Technology</b>	149
<b>Thin Sawing Technology (TST)</b>	150
<b>Advanced Material Technology (<math>\alpha</math>MT)</b>	151
<b>PCD Fusion Technology (V-tech)</b>	152
<b>TAF-C Finger Joint Knives</b>	153
<b>General Technical Information</b>	154
<b>Cutting Edge Materials</b>	158
<b>Saw Blade Specifications</b>	159
<b>Tooth Geometries</b>	160





## Solid Wood

<b>Timber Max</b>	Heavy Duty Rip Saw Blade	9
<b>Timber Max TK</b>	Thin Kerf Splitting Saw Blade	13
<b>Tough Black</b>	Saw Body Coating	15
<b>SF-Saw Blade</b>	Glueline Saw Blade	17
<b>Yield Pro</b>	Fine Cross Cut Saw Blade	19



## Board Materials

<b>Board Pro III D-Type</b>	Heavy Duty Panel Sizing Saw Blade	21
<b>Board Pro III TD-Type</b>	Finish Cut Saw Blade	25
<b>Board Pro D-Type</b>	Panel Sizing Saw Blade	27
<b>Board Pro BC-Type</b>	Panel Sizing Saw Blade	31
<b>Board Pro Scoring</b>	Scoring Saw Blade	33
<b>Eco Saw Blade</b>	Hollow Face Panel Sizing Saw Blade	39
<b>Table Saw Blade</b>	Finish Cut Saw Blade	41
<b>DIA-V-tech</b>	Finish Cut Panel Sizing Saw Blade	43
<b>Board Pro DIA</b>	Heavy Duty Panel Sizing Saw Blade	45

## Non-ferrous Metals

<b>Sash Pro</b>	Heavy Duty Saw Blade	49
<b>Stable Saw Blade</b>	Thin Kerf Saw Blade	51

# Timber Max

## Heavy Duty Rip Saw Blade

### APPLICATION

Heavy duty rip sawing and re-sawing

### MACHINE

Heavy sawmill equipment such as Linck, HewSaw, EWD, Soederhamm

Gang rip saws such as Paul, Raimann

### MATERIAL

Softwoods, hardwoods (green and dry)

### EDGE MATERIAL

HW



## Features & Benefits

- Stable and flat plate enables truer run-out for smoother finish and exact dimensions
- No or only little plate distortion after use reduces time for straightening after sharpening
- Durable and corrosion resistant carbide tips enable to longer edge life
- Saw blades show excellent performance even under heaviest conditions such as active curve sawing

### Available with wipers located in various positions according to the application

In example

$Z = 24+2$  = 24 teeth, 2 wiper outside

$Z = 24+3$  = 24 teeth, 3 wiper outside

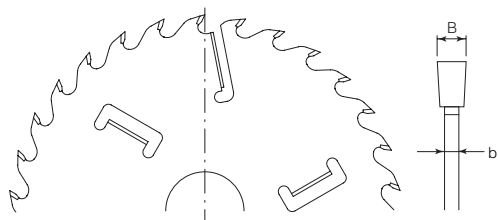
$Z = 24+2+2$  = 24 teeth, 2 wiper outside, 2 wiper inside

$Z = 24+0+2$  = 24 teeth, 0 wiper outside, 2 wiper inside

$Z = 24+2+2+2$  = 24 teeth, 2 wiper outside, 2 wiper inside, 2 wiper further inside

Commonly the saw blades are designed and manufactured according to your application

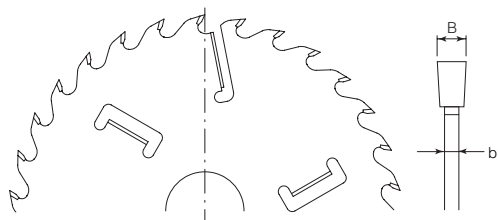
## ► B-Type



Order no.	Size				z	C	Type	Key ways / Pin holes
	D [mm]	B [mm]	b [mm]	d [mm]				
1 684-C580-400	350	× 3.2	× 2.2	× 100	× 24+3+3	–	D	2x12.5x4
2 684-C581-400	350	× 4.2	× 3.0	× 90	× 24+3	6	B	2/13/114
3 684-C582-400	350	× 4.4	× 3.2	× 90	× 24+3	6	B	2/13/114
4 684-C583-400	351	× 3.6	× 2.4	× 70	× 24+2	4	B	1/6.5/90
5 684-C584-400	351	× 3.6	× 2.4	× 70	× 30+2+2	–	B	1/6.5/90
6 684-C585-400	351	× 3.6	× 2.4	× 70	× 30+2+2	4	B	1/6.5/90
7 684-C587-400	351	× 4.0	× 2.8	× 70	× 30+2+2	–	B	1/6.5/90
8 684-C588-400	450	× 4.4	× 3.0	× 100	× 30+3+3	–	B	2x25.5x4
9 684-C589-400	450	× 4.4	× 3.2	× 99	× 30+3+3	–	B	–
10 684-C590-400	450	× 4.5	× 3.0	× $\frac{99.5}{93}$	× 28+2	–	B	Spline Arbor
11 684-C591-400	485	× 4.6	× 3.2	× $\frac{150}{144.5}$	× 24+3	–	B	Spline Arbor
12 684-C592-400	490	× 4.4	× 3.0	× 150	× 36+3+3	–	B	4x37x9
13 684-C593-400	505	× 4.6	× 3.2	× 150	× 36+3+3	–	D	4x37x9
14 684-C594-400	505	× 4.7	× 3.2	× 150	× 30+3+3	–	B	4x37x9
15 684-C595-400	510	× 4.4	× 3.0	× 150	× 36+3+3	–	B	4x37x9
16 684-C596-400	540	× 4.2	× 2.8	× 210	× 30+3+3	–	B	2x20x5+12/12/240
17 684-C597-400	540	× 4.8	× 3.4	× 145	× 30+2+2	–	B	2x20x5+8/12/165
18 684-C598-400	540	× 4.8	× 3.4	× 150	× 24+3	–	B	2x36.5x9
19 684-C599-400	540	× 4.8	× 3.4	× 150	× 30+3+3	–	B	2x36.5x9
20 684-C600-400	540	× 4.8	× 3.6	× 210	× 30+3+3	–	B	2x20x5+12/12/240
21 684-C601-400	560	× 5.0	× 3.8	× 160	× 24+3+3	–	B	2x23x6+6/12/182.5
22 684-C602-400	565	× 3.9	× 2.5	× 160	× 42+3+3	–	B	2x22.5x5.5+6/11.5/182.5 + 6/11.5/288

C = Cooling slots

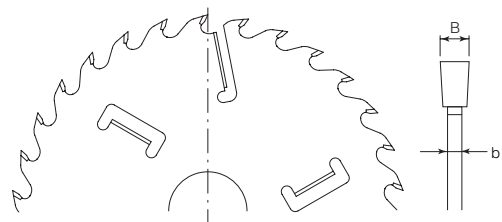
## ► B-Type



Order no.	D [mm]	B [mm]	Size b [mm]	d [mm]	z	Type	Key ways / Pin holes	Machine
23	200	× 3.2	× 2.2	× 100	× 48	B	2x12.5x4	Paul
24	200	× 3.2	× 2.2	× 75	× 48	B	2x16.5x5.5	Paul
25	210	× 3.2	× 2.2	× 60	× 24	B	2x14.5x5.5	Paul
26	250	× 2.8	× 1.8	× 80	× 24	B	2x18.5x3.5 +2/13/100	Raimann
27	250	× 2.8	× 1.8	× 70	× 24	B	2x20x5	
28	250	× 3.2	× 2.2	× 60	× 20	B	2x14.5x5.5	Paul
29	250	× 3.2	× 2.2	× 70	× 20	B	2x20x5	
30	250	× 3.2	× 2.2	× 75	× 24	B	2x16.5x5.5	Paul
31	250	× 3.2	× 2.2	× 75	× 24	B	2x16.5x5.5	Paul
32	250	× 3.2	× 2.2	× 80	× 20	B	2x18.5x3.5 +2/13/100	Raimann
33	300	× 2.8	× 1.8	× 80	× 24	B	2x18.5x3.5 +2/13/100	Raimann
34	300	× 3.2	× 2.2	× 80	× 24	B	2x18.5x3.5 +2/13/100	Raimann
35	300	× 3.2	× 2.2	× 70	× 20	B	2x16.5x5.5	Paul
36	300	× 3.2	× 2.2	× 70	× 24	B	2x16.5x5.5	Paul
37	300	× 3.2	× 2.2	× 70	× 28+2+2	B	2x20x5	
38	300	× 4.2	× 2.6	× 75	× 24	B	2x16.5x5.5	Paul
39	315	× 3.2	× 2.2	× 80	× 28+2	B	2x12.5x4.5	
40	350	× 3.5	× 2.5	× 80	× 28	B	2x18.5x3.5 +2/13/100	Raimann
41	350	× 3.5	× 2.5	× 70	× 28	B	2x20x5	
42	350	× 3.5	× 2.5	× 70	× 20+2+2	B	2x20x5	
43	350	× 3.8	× 2.5	× 80	× 20+2+2	B	2x18.5x3.5 +2/13/100	Raimann
44	350	× 3.8	× 2.5	× 70	× 20+2+2	B	2x20x5	
45	350	× 4.8	× 3.0	× 75	× 24+3	B	2x16.5x5.5	Paul
46	380	× 5.2	× 3.2	× 75	× 24+3	B	2x16.5x5.5	Paul
47	460	× 5.4	× 3.6	× 75	× 24+3	B	2x16.5x5.5	Paul

EDGE MATERIAL
HW

### B-Type



Order no.	D [mm]	B [mm]	Size b [mm]	d [mm]	z	Type	Key ways / Pin holes	Machine
48	500	× 5.8	× 4.0	× 130	× 24	B	2x16.5x8.5	Paul
49	550	× 6.0	× 4.0	× 110	× 24+3	B	2x16.5x8.5	Paul
50	550	× 6.0	× 4.0	× 130	× 24+3	B	2x16.5x8.5	Paul
51	600	× 5.8	× 4.0	× 110	× 20+2	B	2x16.5x8.5	Paul
52	620	× 5.6	× 4.2	× 130	× 20+2	B	2x16.5x8.5	Paul

# Timber Max TK

## Thin Kerf Splitting Saw Blade

### APPLICATION

Cutting solid timber into thin slats used in the production of parquet flooring, blinds, etc.

### MACHINE

Splitting machines such as Weinig, Schroeder, Leadermac

### MATERIAL

Softwoods, hardwoods

### EDGE MATERIAL

HW



## Features & Benefits

- Thin kerf enables a tremendous increase in recovery rates
- No steps at the overlapping area between 2 saw blades due to tight manufacturing tolerances and a very flat and even plate
- All saw blades are custom made according to the application

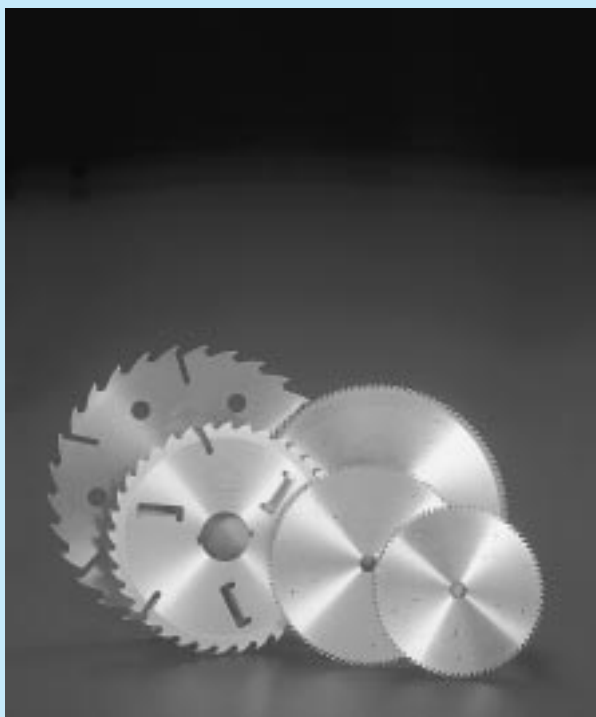


### Lubrication System

We have developed a saw plate lubrication system, which reduces the friction between the saw blade and the material by releasing a very small amount of lubricant from the sleeve directly onto the plate. Centrifugal force distributes the lubricant evenly over the plate

- Fewer saw blades bend, crack or dish due to frictional heating
- Enables higher feed speeds under certain circumstances
- Provides higher process reliability

For more information please contact Kanefusa



# Tough Black

## Saw Body Coating

### APPLICATION

Special coating on the saw blade body to reduce friction between the saw blade body and solid wood

### MATERIAL

Softwoods, hardwoods



## ► Features & Benefits

- Reduces friction between the plate and the material
- Enables to a longer tool life for more machine uptime
- Depending on the application, the saw kerf can be reduced or the feed speed increased
- Tough Black is optional for our rip saw blades up to diameter 770 mm
- Not for use in panel processing





# SF-Saw Blade

## Glueline Saw Blade

### APPLICATION

Ripping solid wood in glueline (super finish) quality

### MACHINE

Gang rip saw, moulder, table saw

### MATERIAL

Softwoods, hardwoods

### EDGE MATERIAL

HC-UP

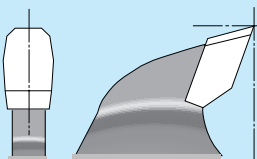


PAT.EP0739697, US6708594, CA2358990

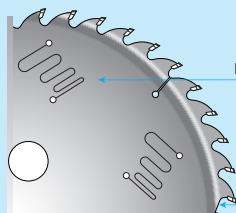
## Features & Benefits

- Special tooth shape enables a nearly knife mark free cut finish
- Subsequent sanding or planing can be reduced or eliminated
- $\alpha$ MT reduces residue adhesion enabling to run consistently high feed rates
- Has proved effectiveness at feed rates of more than 200 m/min on moulders

Negative and positive bevel angles on the teeth



Kanfusa original vibration damping element



HC-UP treatment on the teeth increases the abrasive wear resistance



SF – Saw Blade

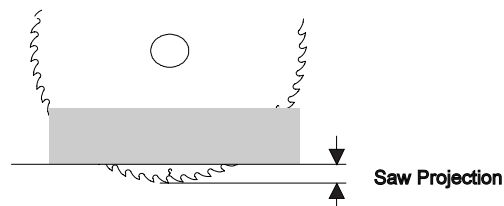
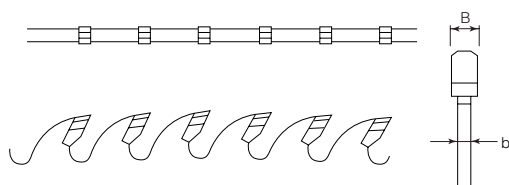


Conventional – Saw Blade

### EDGE MATERIAL

HC-UP

### Z-Type



Order no.	D [mm]	B [mm]	Size b [mm]	d [mm]	z	Type	Pin holes	Saw P. [mm]	Material thickness [mm]
1	250	2.8	1.8	30-80	50	Z		5	<30
2	250	2.8	1.8	30-80	40	Z		5	<40
3	300	2.8	1.8	30-80	50	Z		5	<40
4	300	2.8	2.0	30-80	40	Z		5	<70
5	320	3.0	2.0	30-80	50	Z		5	<40
6	320	3.0	2.0	30-80	40	Z		5	<60
7	320	3.0	2.0	30-80	36	Z		5	<80
8	350	3.0	2.0	30-80	50	Z		5	<50
9	350	3.0	2.0	30-80	40	Z		5	<70
10	350	3.4	2.4	30-80	36	Z		5	<90
11	360	3.0	2.0	30-80	50	Z		5	<50
12	360	3.0	2.0	30-80	40	Z		5	<70
13	360	3.4	2.4	30-80	36	Z		5	<100
14	380	3.6	2.6	30-80	50	Z		5	<50
15	380	3.6	2.6	30-80	40	Z		5	<80
16	380	3.6	2.6	30-80	36	Z		5	<110
17	400	3.8	2.8	30-80	50	Z		5	<50
18	400	3.8	2.8	30-80	40	Z		5	<80
19	400	3.8	2.8	30-80	36	Z		5	<110
20	420	3.8	2.8	30-80	50	Z		5	<50
21	420	3.8	2.8	30-80	40	Z		5	<80
22	420	3.8	2.8	30-80	36	Z		5	<110
23	644-A147-470	250	2.8	2.0	30	40	Z	2/10/60	
24	644-A148-470	300	3.0	2.0	30	50	Z	2/10/60	
25	644-A154-470	350	3.2	2.2	30	60	Z	2/10/60	
26	644-A106-470	225	3.0	2.0	59.96	24	Z	3/9/74	

# Yield Pro

## Fine Cross Cut Saw Blade

### APPLICATION

Cross cutting of solid wood

### MACHINE

Optimizing saws, cut-off saws

### MATERIAL

Softwoods, hardwoods, MDF, HDF with and without lamination

### EDGE MATERIAL

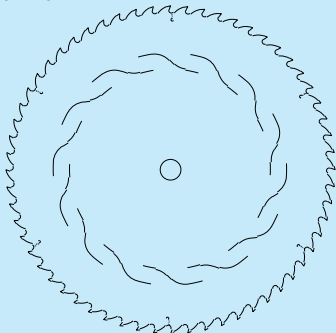
HW



## Features & Benefits

- Thin kerf enable a tremendous increase in recovery rates
- Less waste must be exhausted from the machine
- Runs consistently on cycle times of less than 0.2 sec.
- Thin kerf produces less cutting pressure and therefore it cuts very clean

Yield Pro

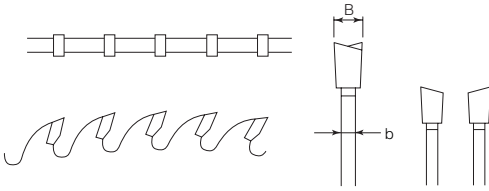


Patented laser slot design allows to reduce the plate thickness without compromising the saw blades lateral stiffness.

EDGE MATERIAL

HW

BC-Type



Order no.	D [mm]	B [mm]	Size b [mm]	d [mm]	z	Type	Pin holes	Machine
1	300	× 2.6	× 1.6	×	84	BC		
2	350	× 2.8	× 1.8	×	96	BC		
3	400	× 3.0	× 2.0	×	114	BC		
4	400	× 3.0	× 2.0	× 30	× 114	BC		Dimter
5	450	× 3.2	× 2.2	×	132	BC		
6	450	× 3.2	× 2.2	× 30	× 132	BC		Dimter
7	500	× 3.4	× 2.4	×	144	BC		
8	500	× 3.4	× 2.4	× 30	× 144	BC	2/10/60	Dimter
9	480	× 3.4	× 2.4	× 70	× 132	BC	6/8/220	Paul 11MKL
10 659-D461-402	500	× 3.4	× 2.4	× 70	× 132	BC	6/8/220	Paul 11MKL
11	550	× 4.0	× 2.8	×	156	BC		
12	550	× 4.0	× 2.8	× 30	× 156	BC		Dimter
13	600	× 4.2	× 3.0	×	174	BC		
14	600	× 4.2	× 3.0	× 30	× 174	BC		Dimter
15 659-C936-400	600	× 4.2	× 3.2	× 120	× 156	BC	6/10/240	Paul C14 MKL
16	600	× 4.2	× 3.2	× 70	× 156	BC	1/8/140	Paul PushCut CX
17 659-D268-400	620	× 4.5	× 3.5	× 120	× 156	BC		Paul
18 659-D378-400	700	× 4.8	× 3.8	× 120	× 132	BC		Paul
19 659-D379-400	700	× 4.8	× 3.8	× 120	× 180	BC		Paul

# Board Pro III

D-Type

## Heavy Duty Panel Sizing Saw Blade

### APPLICATION

Sizing of panel material in single sheets and stacks

### MACHINE

Beam saw

### MATERIAL

Core : Particleboard, MDF, HDF  
Lamination : Melamine, HPL, paper, foil

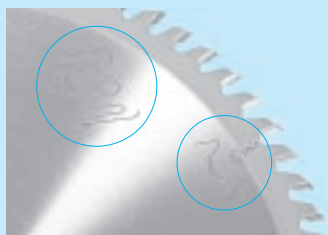
### EDGE MATERIAL

HW



## Features & Benefits

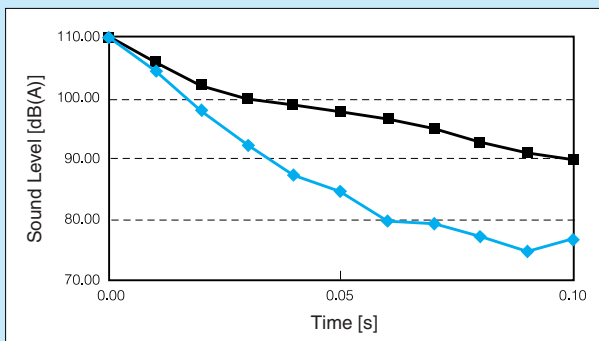
- Special carbide grade outlasts conventional grades 2-3 times enabling more machine run time and lower grinding cost
- Saw blade runs quieter due to vibration damping elements in the plate
- Extreme flat plate and tight manufacturing tolerances enable to a truer run out for a better cut quality



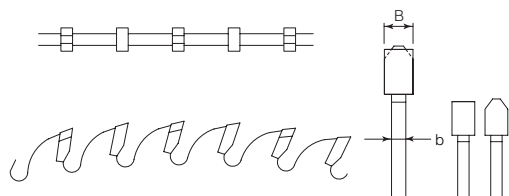
Kanefusa original developed polymer injected laser slits dampen vibration of the saw body. Therefore our saw blades run quieter and micro abrasion of the carbide due to vibrations is suppressed.

### Damping Effect of MS-P

- Normal Slit
- MS-P Slit

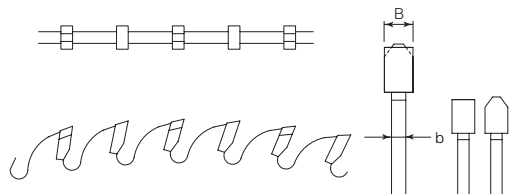


## ► D-Type



Order no.	D [mm]	B [mm]	Size b [mm]	d [mm]	z	Type	Pin holes	Machine
1 691-E259-403	300	× 4.4	× 3.0	× 30	× 60	D	2/10/60	Panhans Euro 10
2 691-E260-403	300	× 4.4	× 3.0	× 75	× 72	D		Homag CH03
3 691-D933-403	303	× 3.0	× 2.2	× 30	× 48	D	2/10/60+2/7/42	Striebig
4 691-D934-403	303	× 3.0	× 2.2	× 30	× 60	D	2/10/60+2/7/42	Striebig
5 691-D935-403	303	× 3.0	× 2.2	× 30	× 100	D	2/10/60	Striebig
6 691-D936-403	303	× 3.2	× 2.2	× 30	× 100	D	2/10/60	Striebig
7 691-D937-403	305	× 3.2	× 2.2	× 30	× 60	D		Scheer FM16
8 691-D938-403	305	× 4.4	× 3.0	× 30	× 60	D		Mayer ; Panhans
9 691-D939-403	305	× 4.4	× 3.2	× 60	× 60	D		
10 691-E261-403	305	× 4.0	× 2.8	× 30	× 54	D		Mayer
11 691-E262-403	305	× 4.4	× 3.0	× 30	× 60	D	2/10/60	
12 691-E263-403	320	× 4.4	× 3.2	× 75	× 72	D	3/13/95	Giben Smart 65
13 691-D940-403	350	× 3.2	× 2.2	× 30	× 80	D		
14 691-D941-403	350	× 3.2	× 2.0	× 30	× 108	D		
15 691-E264-403	350	× 4.4	× 3.0	× 30	× 54	D	2/10/60	SCM ; Panhans EURO12 ; Mayer ; Schelling
16 691-D942-403	350	× 4.4	× 3.2	× 30	× 72	D	2/10/60	SCM ; Panhans EURO12 ; Mayer ; Schelling
17 691-D943-403	350	× 4.4	× 3.0	× 80	× 72	D	4/8.5/100+2/14/ 110+2/7/110	Gabbiani Prima ; SCM Alpha ; Scheer FM21
18 691-D944-403	350	× 4.4	× 3.2	× 30	× 54	D	2/12/80	SCM
19 691-D945-403	350	× 4.4	× 3.2	× 75	× 72	D	2/10/120	Giben
20 691-E265-403	355	× 4.0	× 3.0	× 30	× 54	D		
21 691-D946-403	355	× 4.4	× 3.0	× 80	× 72	D		SMA ; Zerspaner
22 691-D947-403	355	× 4.4	× 3.2	× 75	× 60	D		Giben
23 691-E266-403	355	× 4.4	× 3.2	× 75	× 72	D		Giben
24 691-E267-403	355	× 4.4	× 3.2	× 30	× 72	D	2/10/60	Panhans
25 691-E268-403	355	× 4.4	× 3.2	× 80	× 72	D	4/8.5/100+2/7/ 110+2/14/110	Gabbiani

## ► D-Type



Order no.	D [mm]	B [mm]	Size b [mm]	d [mm]	z	Type	Pin holes	Machine
26 691-E269-403	360	× 4.4	× 3.2	× 65	× 72	D	2/9/110	Selco EB100
27 691-E270-403	370	× 4.4	× 3.2	× 30	× 72	D		Schelling FM/H
28 691-E271-403	380	× 4.4	× 3.2	× 60	× 72	D	2/14/100	
29 691-D948-403	380	× 4.8	× 3.5	× 60	× 72	D	2/14/100	Holzma
30 691-D949-403	400	× 3.5	× 2.4	× 30	× 72	D		
31 691-D950-403	400	× 4.3	× 3.2	× 30	× 72	D		Scheer
32 691-D951-403	400	× 4.4	× 3.2	× 30	× 72	D		Panhans, Schelling, Scheer
33 691-D952-403	400	× 4.4	× 3.0	× 60	× 72	D		Anthon
34 691-D955-403	400	× 4.4	× 3.2	× 80	× 72	D	2/7/110+2/ 8.3/130	
35 691-D956-403	400	× 4.4	× 3.2	× 80	× 72	D	2/14/110+4/9/ 110+2/7/110	
36 691-D957-403	400	× 4.4	× 3.2	× 80	× 72	D	4/19/120+2/ 8.4/130	Selco WN/EB
37 691-D958-403	400	× 4.8	× 3.5	× 60	× 72	D		Holzma Type01
38 691-D959-403	420	× 4.8	× 3.5	× 60	× 72	D		Holzma
39 691-E273-403	420	× 4.8	× 3.5	× 60	× 84	D	3/14/76	Holzma
40 691-D960-403	430	× 4.4	× 3.2	× 30	× 72	D		
41 691-D961-403	430	× 4.4	× 3.2	× 60	× 72	D	2/11/85	Anthon
42 691-D962-403	430	× 4.4	× 3.2	× 75	× 72	D	4/15/105	
43 691-D963-403	430	× 4.4	× 3.2	× 75	× 96	D	4/15/105	Giben Prismatic2
44 691-D964-403	430	× 4.4	× 3.2	× 80	× 72	D	4/19/120+2/ 9/130	Selco WN
45 691-D965-403	430	× 4.4	× 3.2	× 80	× 72	D	2/8.3/130	
46 691-E274-403	430	× 4.4	× 3.2	× 80	× 72	D	2/9/130+4/ 19/120	Selco
47 691-D966-403	450	× 4.4	× 3.2	× 30	× 72	D	2/8.5/60	Schelling, Scheer FM22
48 691-D968-403	450	× 4.8	× 3.5	× 60	× 72	D	2/14/125	Holzma
49 691-D969-403	450	× 4.8	× 3.5	× 80	× 72	D	4/19/120+2/ 9/130	Selco WN





# Board Pro III

## TD-Type

### Finish Cut Panel Sizing Saw Blade

#### APPLICATION

Sizing of panel material in single sheets and stacks

#### MACHINE

Beam saw

#### MATERIAL

Core : Particleboard, MDF, HDF  
Lamination : Melamine, HPL

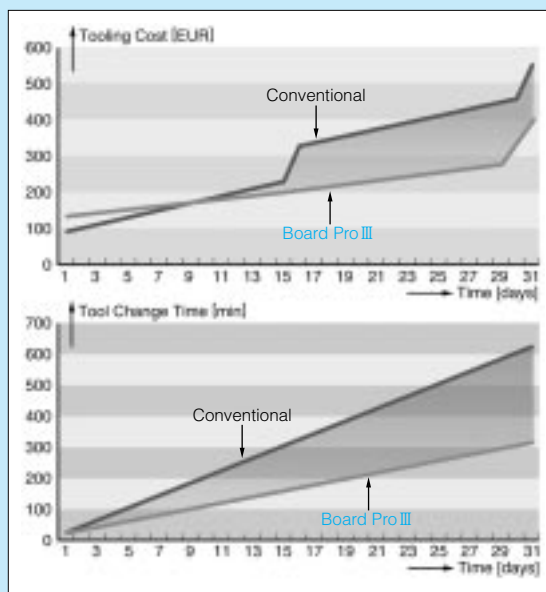
#### EDGE MATERIAL

HW



### Features & Benefits

- TD - type tooth shape enables finish cut quality
- Saw blade runs quieter due to vibration damping elements in the plate
- Extreme flat plate and tight manufacturing tolerances enable to a truer run out for a cleaner cut surface



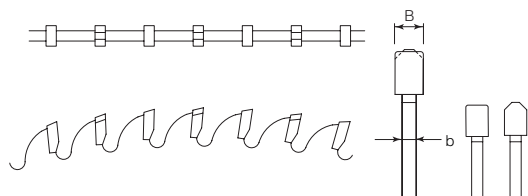
At various major furniture manufacturers from Ukraine to Germany, Turkey to England, Board Pro saw blades clearly outlasted saw blades of other quality brands.

The graphs aside demonstrate what that means to the tooling cost and machine uptime.

The figures are based on experience at a large furniture part manufacturer in Southern Germany.

Machine : Holzma Powerline  
Feed rate : 28 m/min  
Material : Melamine laminated particleboard  
40mm thick  
Saw blade : Board Pro 450 x 4.8 x 3.5 x 60  
x 72z TD  
Edge life : Conventional saw blade = 1 day  
Board Pro saw blade = 2 - 3 days

## ►TD-Type



Order no.	D [mm]	B [mm]	Size b [mm]	d [mm]	z	Type	Pin holes	Machine
1 699-J802-403	300	× 4.4	× 3.0	× 30	× 60	TD	2/10/60	Panhans Euro 10
2 699-J803-403	300	× 4.4	× 3.0	× 75	× 72	TD		Homag CH03
3 699-J804-403	305	× 4.4	× 3.0	× 30	× 60	TD	2/10/60	
4 699-J976-403	350	× 4.4	× 3.2	× 30	× 54	TD	2/10/60	SCM ; Panhans EURO12 ; Mayer ; Schelling
5 699-J805-403	355	× 4.4	× 3.2	× 75	× 72	TD		Giben
6 699-G046-403	380	× 4.8	× 3.5	× 60	× 72	TD	2/14/100	Holzma
7 699-J806-403	380	× 4.8	× 3.5	× 60	× 84	TD	2/14/100	Holzma
8 699-J975-403	400	× 4.3	× 3.2	× 30	× 72	TD		Scheer
9 699-J974-403	400	× 4.4	× 3.2	× 30	× 72	TD		Schelling ; Mayer ; Irion ; Scheer
10 699-G871-403	400	× 4.4	× 3.2	× 75	× 72	TD	4/15/105	Giben Prismatic1 ; Giben Starmatic ;
11 699-G801-403	400	× 4.4	× 3.2	× 80	× 72	TD	2/14/110+4/9/ 110+2/7/110	Gabbiani
12 699-J973-403	420	× 4.8	× 3.5	× 60	× 72	TD	2/10/80	Holzma
13 699-G048-403	450	× 4.8	× 3.5	× 60	× 72	TD	2/14/125	Holzma
14 699-G873-403	450	× 4.8	× 3.5	× 80	× 72	TD	4/19/120+2/ 9/130	Selco WN

# Board Pro

## Panel Sizing Saw Blade

### APPLICATION

Sizing of panel material in single sheets and stacks

### MACHINE

Beam saw

### MATERIAL

Core : Particleboard, MDF, HDF  
Lamination : Melamine, HPL, paper, foil

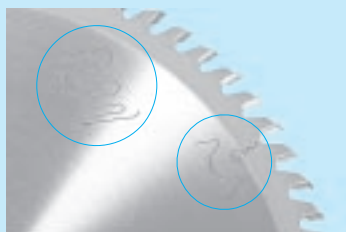
### EDGE MATERIAL

HW



## Features & Benefits

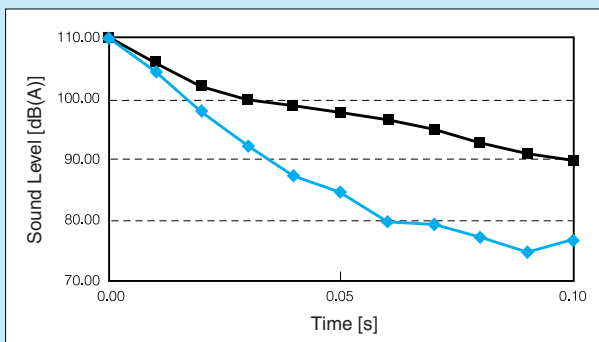
- Saw blade runs quieter due to vibration damping elements in the plate
- Extreme flat plate and tight manufacturing tolerances enable to a truer run out for a better cut quality



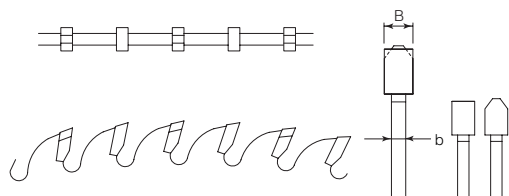
Kanefusa original developed polymer injected laser slits dampen vibration of the saw body. Therefore our saw blades run quieter and micro abrasion of the carbide due to vibrations is suppressed.

### Damping Effect of MS-P

- Normal Slit
- ◆ MS-P Slit

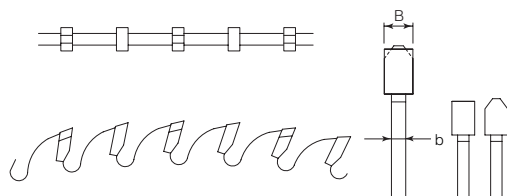


## ► D-Type



Order no.	D [mm]	B [mm]	Size b [mm]	d [mm]	z	Type	Pin holes	Machine
1 691-E252-403	220	× 3.2	× 2.2	× 30	× 64	D	2/7/42+2/9/ 46.5+2/10/60	
2 691-E253-403	230	× 3.2	× 2.2	× 30	× 64	D	2/7/42+2/9/ 46.5+2/10/60	
3 691-E254-403	240	× 3.2	× 2.2	× 30	× 54	D	2/6/42	
4 691-E255-403	250	× 3.2	× 2.2	× 30	× 60	D	2/7/42+2/9/ 46.5+2/10/60	
5 691-E256-403	250	× 3.2	× 2.2	× 30	× 80	D	2/7/42+2/9/ 46.5+2/10/60	
6 691-E257-403	280	× 3.2	× 2.2	× 30	× 60	D	2/7/42/2/9/ 46.5+2/10/60	
7 691-C719-403	300	× 3.2	× 2.2	× 30	× 72	D	2/10/60	
8 691-C706-403	300	× 3.2	× 2.2	× 30	× 96	D	2/10/60	
9 691-B086-403	303	× 3.2	× 2.2	× 30	× 100	D	2/10/60	
10 691-A628-403	305	× 4.4	× 3.0	× 30	× 60	D		
11 691-A153-403	350	× 3.2	× 2.2	× 30	× 80	D	2/10/60	
12 691-A660-403	350	× 3.2	× 2.2	× 30	× 108	D	2/10/60	
13 691-B583-403	350	× 4.4	× 3.2	× 75	× 72	D		Giben
14 691-E258-403	400	× 3.5	× 2.4	× 30	× 120	D	2/7/42+2/10/60	
15 691-A473-403	400	× 4.4	× 3.2	× 30	× 72	D		Schelling, Mayer
16 691-D994-403	460	× 4.6	× 3.2	× 30	× 72	D		
17 691-D995-403	470	× 4.4	× 3.2	× 75	× 96	D	4/15/105	Giben Prismatic3
18 691-D996-403	480	× 4.4	× 3.2	× 30	× 80	D		Schelling FL
19 691-D997-403	480	× 4.8	× 3.5	× 80	× 72	D	4/19/120+2/ 9/130	Selco WN
20 691-D998-403	500	× 4.4	× 3.0	× 75	× 60	D		Giben
21 691-D999-403	500	× 4.4	× 3.2	× 80	× 60	D		Teutomatic
22 691-E001-403	500	× 4.4	× 3.2	× 80	× 72	D		SMA ; Teutomatic
23 691-E002-403	500	× 4.4	× 3.2	× 80	× 72	D	4/8.5/100+2/14/ 110+2/7/110	Gabbiani A/10
24 691-E003-403	500	× 4.7	× 3.4	× 30	× 60	D		
25 691-E004-403	500	× 4.8	× 3.5	× 60	× 60	D	2/11/115	Holzma Typ21

## ► D-Type



Order no.	D [mm]	B [mm]	Size b [mm]	d [mm]	z	Type	Pin holes	Machine
26 691-E005-403	500	× 4.8	× 3.5	× 60	× 72	D	2/11/115	Holzma Typ 22
27 691-E006-403	520	× 4.8	× 3.5	× 60	× 60	D		Holzma
28 691-E007-403	530	× 5.0	× 3.5	× 30	× 60	D		Schelling
29 691-E008-403	530	× 5.8	× 4.0	× 60	× 60	D	1/11/85	Anthon
30 691-E009-403	550	× 5.0	× 3.5	× 40	× 72	D		Schelling
31 691-E010-403	550	× 5.0	× 3.5	× 80	× 72	D		Teutomatic
32 691-E011-403	550	× 5.0	× 3.5	× 100	× 72	D		Giben
33 691-E012-403	570	× 4.8	× 3.5	× 60	× 60	D		Holzma
34 691-E013-403	570	× 5.8	× 4.0	× 60	× 96	D		Holzma Typ 42
35 691-E014-403	580	× 5.5	× 4.0	× 40	× 60	D		Schelling
36 691-E015-403	600	× 5.8	× 4.0	× 60	× 72	D	2/19/120+2/ 11/115	Holzma Typ 42
37 691-E016-403	600	× 6.2	× 4.0	× 80	× 72	D		SMA
38 691-E017-403	620	× 6.2	× 4.0	× 40	× 72	D		Schelling FT
39 691-E018-403	650	× 6.2	× 4.0	× 40	× 72	D		Schelling
40 691-E020-403	670	× 6.2	× 4.0	× 40	× 72	D		Schelling
41 691-E021-403	680	× 6.2	× 4.2	× 40	× 60	D		Schelling AS
42 691-E022-403	700	× 6.2	× 4.4	× 80	× 60	D	2/17/110	Anthon



# Board Pro

## Panel Sizing Saw Blade

### APPLICATION

Sizing of panel material in single sheets and stacks

### MACHINE

Beam saw

### MATERIAL

Core : Particleboard, MDF, HDF, plywood, OSB

Lamination : Paper, foil, veneer

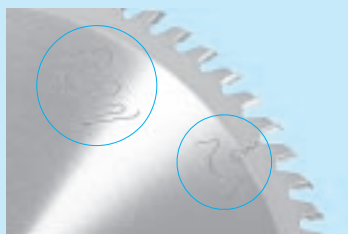
### EDGE MATERIAL

HW



## Features & Benefits

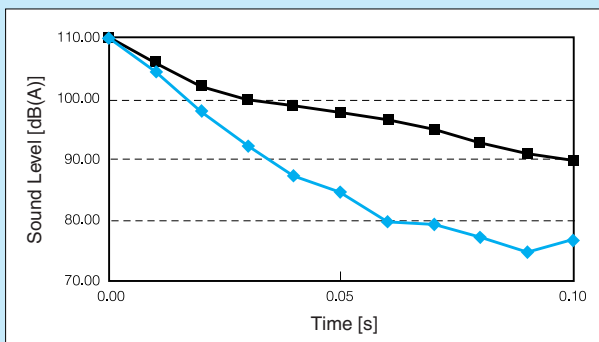
- Saw blade runs quieter due to vibration damping elements in the plate
- Extreme flat plate and tight manufacturing tolerances enable to a truer run out for a better cut surface



Kanefusa original developed polymer injected laser slits dampen vibration of the saw body. Therefore our saw blades run quieter and micro abrasion of the carbide due to vibrations is suppressed.

### Damping Effect of MS-P

- Normal Slit
- ◆ MS-P Slit

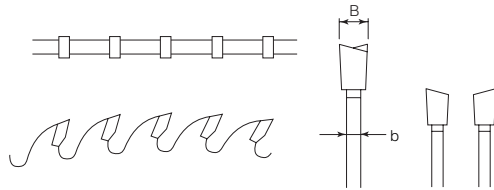




EDGE MATERIAL

HW

BC-Type



Order no.	D [mm]	B [mm]	Size b [mm]	d [mm]	z	Type	Pin holes	
1 659-A719-403	250	× 3.2	× 2.2	× 30	× 80	BC	2/10/60	
2 659-C636-401	300	× 3.2	× 2.2	× 30	× 72	BC	2/10/60	
3 659-C673-401	300	× 3.2	× 2.2	× 30	× 96	BC	2/10/60	
4 659-A836-403	300	× 3.2	× 2.2	× 30	× 60	BC	2/10/60	
5 659-A715-403	300	× 3.2	× 2.2	× 30	× 72	BC	2/10/60	
6 659-A720-403	300	× 3.2	× 2.2	× 30	× 96	BC	2/10/60	
7 659-A608-403	350	× 3.5	× 2.5	× 30	× 54	BC	2/10/60	
8 659-A718-403	350	× 3.2	× 2.2	× 30	× 72	BC	2/10/60	
9 659-A712-403	350	× 3.2	× 2.2	× 30	× 84	BC	2/10/60	
10 659-D978-403	355	× 4.4	× 3.2	× 30	× 54	BC	2/10/60	
11 659-D979-403	355	× 4.4	× 3.2	× 30	× 72	BC	2/10/60	

# Board Pro Scoring

## Scoring Saw Blade

### APPLICATION

Scoring of laminated panel material to avoid tear outs on the bottom side

### MACHINE

Beam saw, vertical panel saw, table saw

### MATERIAL

Core : Particleboard, MDF, HDF

Lamination : Melamine, paper, foil

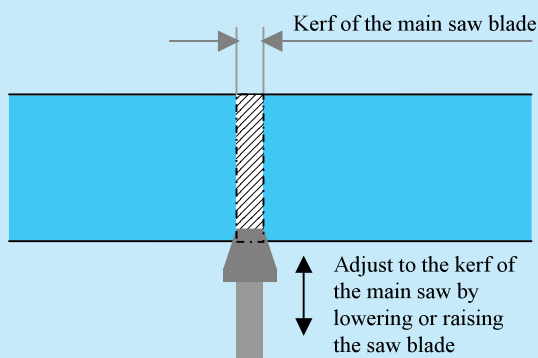
### EDGE MATERIAL

HW

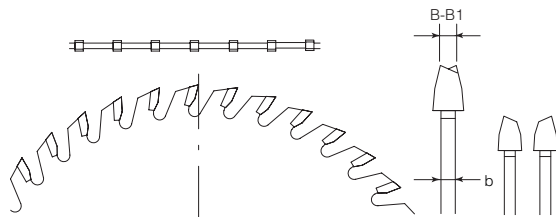


## Features & Benefits

- Optimum scoring depth is 1.5 mm — 2.5 mm
- Cutting width of CA-type is adjusted with shims

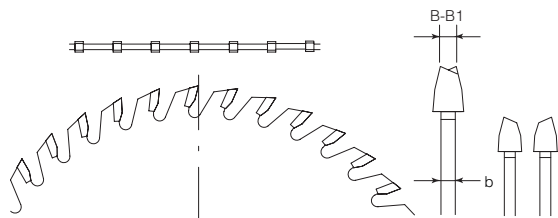


## ▶ TP-Type



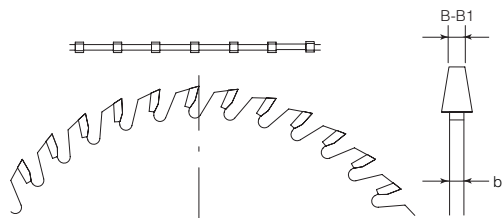
Order no.	Size						Type	Pin holes	Machine
	D [mm]	B [mm]	B1 [mm]	b [mm]	d [mm]	z			
1 699-J807-403	100	× 3.0	× 4.0	× 2.6	× 20	× 20	TP		Schelling
2 699-E376-403	100	× 2.8	× 3.6	× 2.0	× 22	× 24	TP		
3 699-J808-403	120	× 3.1	× 4.3	× 2.8	× 20	× 24	TP		
4 699-J809-403	125	× 3.1	× 4.3	× 2.8	× 20	× 24	TP		Panhans 693, Euro 5
5 699-J810-403	125	× 4.4	× 5.6	× 3.4	× 20	× 24	TP		Panhans 692, Euro 5
6 699-J811-403	125	× 3.1	× 4.3	× 2.8	× 22	× 24	TP		Martin T83, T84
7 699-J812-403	125	× 4.4	× 5.6	× 3.4	× 45	× 24	TP		Homag
8 699-E517-403	125	× 4.4	× 5.2	× 3.2	× 45	× 20	TP		
9 699-F179-403	125	× 4.4	× 5.45	× 2.8	× 20	× 24	TP		Panhans
10 699-J813-403	127	× 4.4	× 5.6	× 3.4	× 22	× 24	TP		Martin T83, T84
11 699-J814-403	127	× 3.8	× 5.0	× 2.8	× 45	× 24	TP		Giben
12 699-J815-403	127	× 4.0	× 5.2	× 3.4	× 45	× 24	TP		Giben, Mayer Lombach
13 699-D175-403	127	× 4.3	× 5.6	× 3.3	× 45	× 24	TP		PS 3 + 7 Giben
14 699-J816-403	140	× 3.1	× 4.3	× 2.8	× 16	× 32	TP	1/6/33	Scheer FM 9+15
15 699-J817-403	140	× 4.4	× 5.6	× 3.4	× 45	× 28	TP		Euromac (Holz Her)
16 699-J818-403	150	× 3.0	× 4.0	× 2.6	× 30	× 28	TP		
17 699-J819-403	150	× 4.0	× 5.2	× 3.4	× 30	× 28	TP		SCM Z45
18 699-J820-403	150	× 4.2	× 5.4	× 3.4	× 30	× 28	TP		Irion + Denz PPA+PPQ
19 699-J821-403	150	× 4.4	× 5.6	× 3.4	× 30	× 28	TP		Mayer Lombach PS2
20 699-J822-403	150	× 4.4	× 5.6	× 3.4	× 45	× 28	TP		Homag Espana CH06/10
21 699-E129-403	150	× 4.4	× 5.6	× 3.2	× 30	× 24	TP		
22 699-J823-403	160	× 3.1	× 4.0	× 2.6	× 20	× 32	TP		Langzauner
23 699-J824-403	160	× 4.4	× 5.6	× 3.2	× 30	× 28	TP		
24 699-J825-403	160	× 4.4	× 5.6	× 3.2	× 45	× 28	TP	3/11/70	Giben
25 699-J826-403	160	× 4.4	× 5.6	× 3.4	× 55	× 36	TP	3/7/66	Gabbiani

## ▶ TP-Type

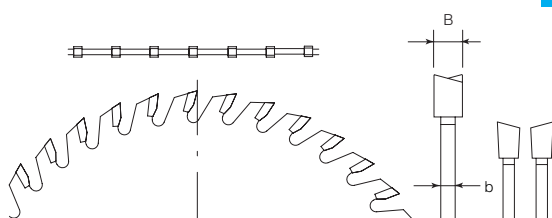


Order no.	Size						Type	Pin holes	Machine
	D [mm]	B [mm]	B1 [mm]	b [mm]	d [mm]	z			
26 699-E560-403	160	4.4	5.45	3.0	45	36	TP	3/11/70	Giben Prismatic
27 699-J827-403	175	4.6	5.8	3.5	45	28	TP		Holzma
28 699-J828-403	180	3.1	4.3	2.8	16	42	TP	1/6/33	Scheer FM 10/11/12
29 699-J829-403	180	4.4	5.6	3.4	20	28	TP		Schelling, Anthon
30 699-J830-403	180	4.4	5.6	3.4	30	28	TP	2/7/42+2/10/60	Panhans 693, Euro 12/32
31 699-G318-403	180	4.8	5.8	3.5	45	36	TP		Holzma
32 699-J151-403	180	4.4	5.6	3.2	45	36	TP		Holzma
33 699-J831-403	180	6.8	7.8	5.0	20	36	TP		Anthon, Schelling
34 699-G319-403	200	4.8	5.8	3.5	45	36	TP		Holzma
35 699-J832-403	200	5.9	6.9	3.5	45	36	TP		Holzma
36 699-J833-403	200	6.2	7.2	4.2	45	36	TP		Holzma Typ 66
37 699-J834-403	200	3.2	4.3	2.8	30	60	TP		Scheer FM 16
38 699-J835-403	200	4.4	5.6	3.2	30	36	TP	2/8.5/60	Scheer FM 14/21/22
39 699-J836-403	200	4.8	5.8	3.5	30	36	TP	2/8.5/60	Scheer FM 22
40 699-J837-403	200	4.0	5.2	3.4	20	24	TP		Schelling
41 699-E989-403	200	4.4	5.6	3.2	20	36	TP		Schelling
42 699-J838-403	200	4.4	5.6	3.4	20	24	TP		Schelling
43 699-A876-403	200	4.6	6.0	3.2	20	34	TP		Schelling
44 699-J839-403	200	5.0	5.8	3.5	20	36	TP		Schelling
45 699-J840-403	200	5.5	6.6	3.8	20	36	TP		Schelling FS, AS
46 699-J841-403	200	6.2	7.2	4.2	20	36	TP		Schelling FS, AS
47 699-J842-403	200	4.4	5.6	3.2	65	36	TP	2/9/110+2/9/100	Selco
48 699-E803-403	200	4.8	5.8	3.2	65	34	TP	2/8.5/110+2/ 8.4/100	Selco
49 699-J843-403	200	4.0	5.2	3.4	30	36	TP		Panhans 700
50 699-J844-403	200	4.4	5.6	3.2	50	42	TP	3/13/80	Giben Smart 65

## ► F-Type



## ► BC-Type

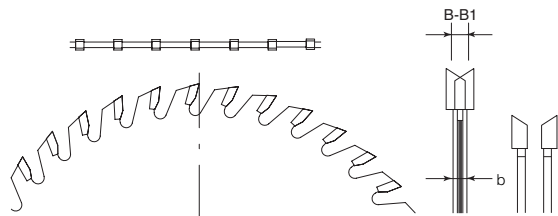


Order no.	Size						Type	Pin holes	Machine
	D [mm]	B [mm]	B1 [mm]	b [mm]	d [mm]	z			
51 699-J845-403	215	4.4	5.6	3.2	50	42	TP	3/15/80	Giben
52 699-J846-403	300	4.4	5.6	3.5	50	48	TP	3/15/80	Giben

Order no.	Size						Type	Pin holes	Machine
	D [mm]	B [mm]	B1 [mm]	b [mm]	d [mm]	z			
1 699-D888-403	120	3.2	4.5	2.2	22	24	F		
2 699-F521-403	120	3.1	4.22	2.2	20	24	F		
3 699-E214-403	125	3.2	4.5	2.2	22	24	F		Martin
4 699-D960-403	125	4.4	5.6	3.2	45	24	F		Homag
5 699-D782-403	180	4.4	5.8	3.0	30	34	F		
6 699-D557-403	200	4.3	5.6	3.0	20	24	F		Schelling

Order no.	Size					Type	Pin holes	Machine
	D [mm]	B [mm]	b [mm]	d [mm]	z			
1 659-D974-403	280	5.0	3.5	45	84	BC30°		Holzma Typ 82
2 659-D975-403	300	4.6	3.2	65	72	BC10°	2/9/110+2/9/100	Selco
3 659-D976-403	340	5.0	3.5	45	48	BC30°	3/14/65	Holzma
4 659-D977-403	340	5.0	3.5	45	108	BC30°	3/14/65	Holzma

## ► CA-Type



Order no.	Size						Type	Pin holes	Machine
	D [mm]	B [mm]	B1 [mm]	b [mm]	d [mm]	z			
1	80	× 2.8	× 3.6	×	20	× 2x10	CA		Felder
2	100	× 2.8	× 3.6	×	22	× 2x12	CA		Altendorf Striebig, Score
3 699-F059-403	100	× 2.8	× 3.6	×	20	× 2x12	CA		Panhans 684+685/A MartinT70, Schelling KS
4	110	× 2.8	× 3.6	×	20	× 2x12	CA		GMC KGS 610S
5 699-C641-403	120	× 2.8	× 3.8	×	22	× 2x12	CA		Altendorf, Martin T70
6 699-D611-403	120	× 2.8	× 3.6	×	20	× 2x12	CA		Holz Her, SCM S 1
7	120	× 2.8	× 3.8	×	22	× 2x12	CA	2/4.6/39+2/ 4.5/42	Martin T 72 A
8	120	× 2.8	× 3.6	×	50	× 2x12	CA	4/6.2/62	Altendorf
9	120	× 2.8	× 3.8	×	50	× 2x12	CA	4/6.2/62	Altendorf, Griggio, SCM
10	120	× 4.0	× 5.0	×	50	× 2x12	CA	4/6.2/62	Altendorf, Griggio, SCM
11	120	× 4.0	× 4.8	×	22	× 2x12	CA		Martin
12	125	× 2.8	× 3.6	×	20	× 2x12	CA		Paoloni
13	125	× 2.8	× 3.6	×	22	× 2x12	CA		
14	125	× 2.8	× 3.8	×	50	× 2x12	CA		Panhans
15	125	× 4.0	× 4.8	×	45	× 2x12	CA		Giben, Mayer
16	125	× 4.0	× 5.0	×	50	× 2x12	CA		Paolini, Panhans, Kolle
17	160	× 2.8	× 3.6	×	30	× 2x16	CA		Bauerle
18	180	× 2.8	× 3.6	×	30	× 1x18	CA		Kolle
19	180	× 4.0	× 4.8	×	20	× 2x20	CA		Schelling
20	180	× 4.4	× 5.6	×	45	× 2x20	CA		Holzma
21	200	× 4.0	× 5.0	×	50	× 2x28	CA		SCM 450 Postforming



# ECO Saw Blade

## Hollow Face Panel Sizing Saw Blade

### APPLICATION

Sizing of panels in single sheets and stacks in finish cut quality

### MACHINE

Vertical panel saw without scoring saw blade

### MATERIAL

Core : Particleboard, MDF, HDF

Lamination : Paper, foil, veneer, melamine

### EDGE MATERIAL

HW



## Features & Benefits

- Special carbide grade outlasts conventional grades 2-3 times
- Saw blade runs quieter due to vibration damping elements in the plate
- DH tooth type for cutting of raw particleboard and MDF as well as paper and veneered panels
- DHC tooth type for cutting plastic laminated particleboard or MDF

### Comparison with another quality make

Type A 303 x 3.5 x 2.5 x 30 x 60Z DH

Work Material

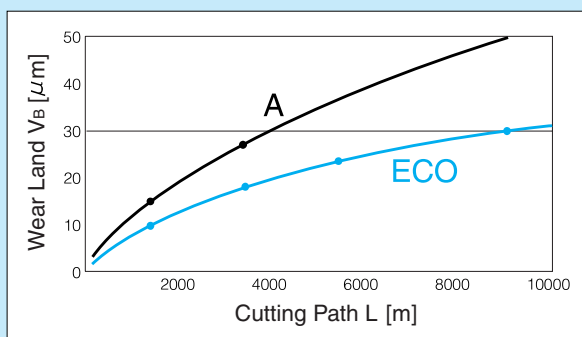
Melamine laminated MDF 18 mm thick

Cutting Conditions

N = 4750 rpm F = 10 m/min

### Test Result - Evaluation

Lifetime of ECO Saw Blade is about 2.5 times longer than the other make. Cutting noise is lower and cut quality significantly better than the other make.

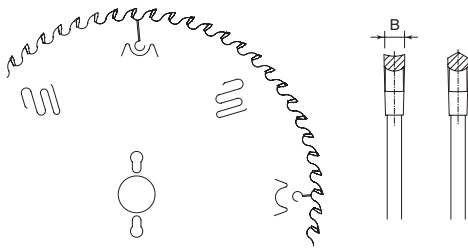




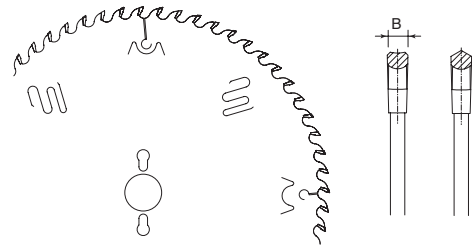
## EDGE MATERIAL

HW

### DH-Type



### DHC-Type



Order no.	D [mm]	B [mm]	Size b [mm]	d [mm]	z	Type	Pin holes	Hook angle [°]
1 645-A083-403	200	× 2.8	× 1.8	× 30.0	× 36	DH	2/7/42+2/9/ 46.5+2/10/60	10
2 645-A084-403	220	× 3.2	× 2.2	× 30.0	× 40	DH	2/7/42+2/9/ 46.5+2/10/60	10
3 645-A085-403	220	× 3.2	× 2.2	× 30.0	× 48	DH	2/7/42+2/9/ 46.5+2/10/60	10
4 645-A078-403	250	× 3.2	× 2.2	× 30.0	× 48	DH	2/7/42+2/9/ 46.5+2/10/60	10
5 645-A056-403	303	× 3.2	× 2.2	× 30.0	× 60	DH	2/7/42+2/9/ 46.5+2/10/60	10
6 645-A065-403	350	× 3.2	× 2.2	× 30.0	× 72	DH	2/7/42+2/9/ 46.5+2/10/60	10
7 645-A086-403	400	× 3.2	× 2.2	× 30.0	× 78	DH	2/7/42+2/10/60	10

Order no.	D [mm]	B [mm]	Size b [mm]	d [mm]	z	Type	Pin holes	Hook angle [°]
1 645-A048-403	250	× 3.2	× 2.2	× 30.0	× 48	DHC	2/7/42+2/9/ 46.5+2/10/60	10
2 645-A058-403	303	× 3.2	× 2.2	× 30.0	× 60	DHC	2/7/42+2/9/ 46.5+2/10/60	10
3 645-A066-403	350	× 3.2	× 2.2	× 30.0	× 72	DHC	2/7/42+2/9/ 46.5+2/10/60	10

Order no.	D [mm]	B [mm]	Size b [mm]	d [mm]	z	Type	Pin holes	Hook angle [°]
1 645-A087-403	220	× 3.2	× 2.2	× 30	× 40	DH	2/7/42+2/9/ 46.5+ 2/10/60	-5
2 645-A088-403	250	× 3.2	× 2.2	× 30	× 48	DH	2/7/42+2/9/ 46.5+2/10/60	-5
3 645-A075-403	303	× 3.2	× 2.2	× 30	× 60	DH	2/7/42+2/9/ 46.5+2/10/60	-5
4 645-A090-403	350	× 3.2	× 2.2	× 30	× 72	DH	2/7/42+2/9/ 46.5+2/10/60	-5
5 645-A091-403	400	× 3.5	× 2.4	× 30	× 78	DH	2/7/42+2/10/60	-5

# Table Saw Blade

## Finish Cut Saw Blade

### APPLICATION

Sizing of panel material in single sheets in finish cut quality

### MACHINE

Table saw

### MATERIAL

Core : Particleboard, MDF, HDF,  
Lamination : Paper, foil, veneer, melamine, HPL

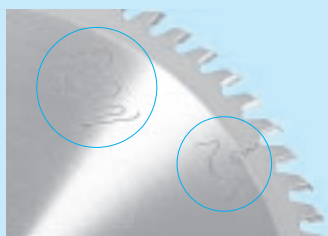
### EDGE MATERIAL

HW



## Features & Benefits

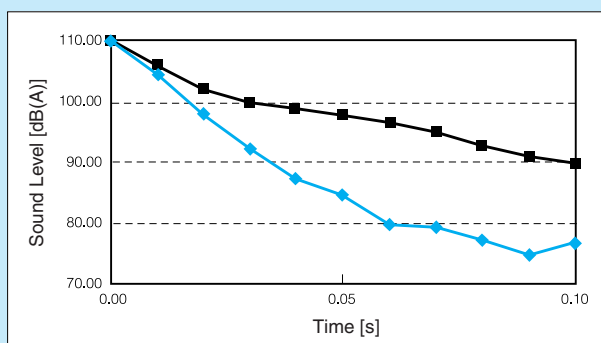
- Saw blade runs quieter due to vibration damping elements in the plate
- Extreme flat plate and tight manufacturing tolerances enable to a truer run out for a better cut surface quality



Kanefusa original developed polymer injected laser slits dampen vibration of the saw body. Therefore our saw blades run quieter and micro abrasion of the carbide due to vibrations is suppressed.

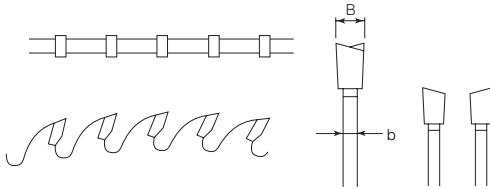
### Damping Effect of MS-P

- Normal Slit
- ◆ MS-P Slit

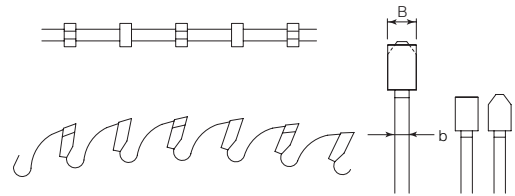


EDGE MATERIAL
HW

## BC-Type



## D-Type



Order no.	D [mm]	B [mm]	Size b [mm]	d [mm]	z	Type	Pin holes	
1 659-C636-401	300	× 3.2	× 2.2	× 30	× 72	BC	2/10/60	
2 659-C673-401	300	× 3.2	× 2.2	× 30	× 96	BC	2/10/60	
3 691-C719-403	300	× 3.2	× 2.2	× 30	× 72	D	2/10/60	
4 691-C706-403	300	× 3.2	× 2.2	× 30	× 96	D	2/10/60	

# DIA V-tech

## Finish Cut Panel Sizing Saw Blade

### APPLICATION

Sizing of panel material in single sheets and stacks in finish cut quality

### MACHINE

Vertical panel saw with and without scoring saw blade, beams saws, table saws

### MATERIAL

Core : Particleboard, MDF, HDF,  
Lamination : Paper, foil, melamine veneer

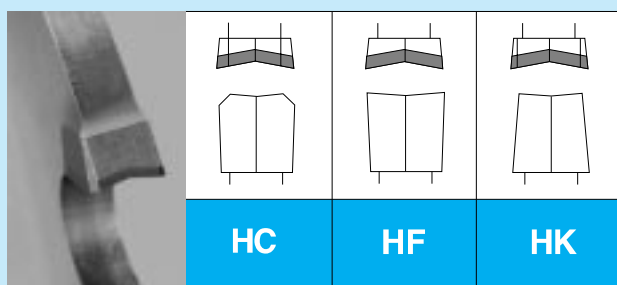
### EDGE MATERIAL

DP



## Features & Benefits

- Cutting forces are well in balance allowing a truer run out and better cut quality
- Because of the aggressive cutting edge, good cut quality on the bottom side of the board is obtained



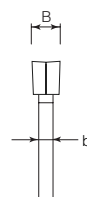
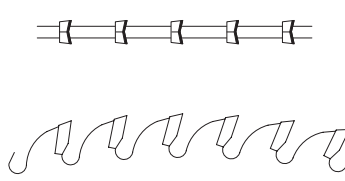
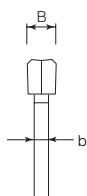
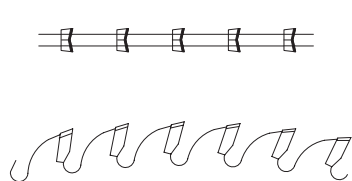
Tooth type HC is suitable to cut melamine laminated board material.

Tooth type HF is suitable to cut paper or veneer laminated board material.

Tooth type HK is for use as a scoring saw blade on beam, panel and table saws.

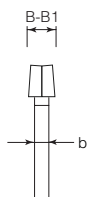
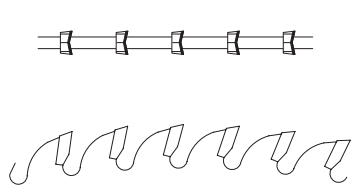
► HC-Type

► HF-Type



Order no.	D [mm]	B [mm]	Size b [mm]		d [mm]	z	Type	Pin holes	
1	303	× 3.2	× 2.2	× 30	× 50	HC	2/7/42+2/10/60		
2	303	× 3.2	× 2.2	× 30	× 60	HC	2/7/42+2/10/60		
3	303	× 3.2	× 2.2	× 30	× 72	HC	2/7/42+2/10/60		
4	380	× 4.4	× 2.2	× 60	× 60	HC	2/14/100		
5	450	× 4.8	× 3.5	× 60	× 72	HC	2/11/125		
6	303	× 3.2	× 2.2	× 30	× 50	HF	2/7/42+2/10/60		
7	303	× 3.2	× 2.2	× 30	× 60	HF	2/7/42+2/10/60		
8	303	× 3.2	× 2.2	× 30	× 72	HF	2/7/42+2/10/60		
9	380	× 4.4	× 2.2	× 60	× 60	HF	2/14/100		
10	450	× 4.8	× 3.5	× 60	× 72	HF	2/11/125		

► HK-Type



Order no.	D [mm]	B [mm]	Size B1 [mm]		b [mm]	d [mm]	z	Type	Pin holes	
11	100	× 3.2	× 4.2	× 2.2	× 22	× 10	HK			
12	120	× 3.2	× 4.2	× 2.2	× 22	× 10	HK			
13	125	× 4.4	× 5.4	× 3.2	× 20	× 10	HK			
14	125	× 4.8	× 5.8	× 3.5	× 45	× 10	HK			
15	160	× 4.4	× 5.4	× 3.2	× 45	× 20	HK			
16	180	× 4.8	× 5.8	× 3.5	× 20	× 24	HK			
17	180	× 4.4	× 5.4	× 3.2	× 30	× 24	HK			
18	200	× 4.8	× 5.8	× 3.5	× 45	× 24	HK			
19	215	× 4.4	× 5.8	× 3.2	× 50	× 24	HK			

# Board Pro DIA

## Heavy Duty Panel Sizing Saw Blade

### APPLICATION

Sizing of panel material in single sheets and stacks

### MACHINE

Beams saws, gang rip saws

### MATERIAL

Core : Particleboard, MDF, HDF,  
 Lamination : Paper, foil, melamine  
 Else : Cement-fiber board, various plastics

### EDGE MATERIAL

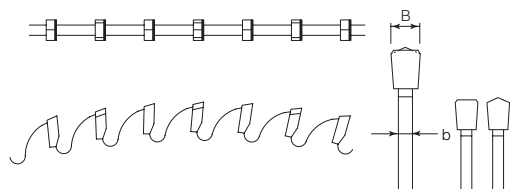
DP



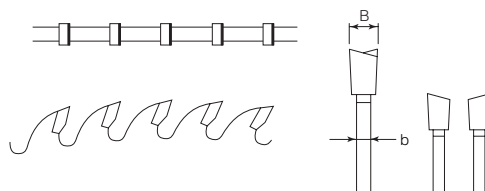
## Features & Benefits

- Saw blade runs quieter due to vibration damping elements in the plate
- High quality PCD grades from leading PCD manufacturer enable longer edge life
- Available tooth geometries
  - ▶ J-Type (Inverted V) is suitable for finish and rough cutting of panel materials with hard lamination on both sides, mineral board and various plastics
  - ▶ BC-Type is suitable to cut plywood, raw particleboard and MDF
  - ▶ Other tooth geometries are available upon demand and according to the application

► J-Type

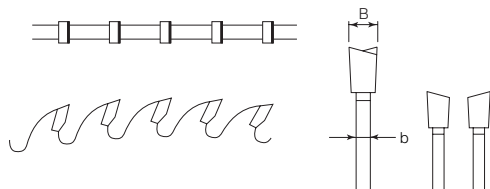


► BC-Type



Order no.	D [mm]	B [mm]	Size b [mm]	d [mm]	z	Type	Pin holes	
1	303	× 3.2	× 2.2	× 30	× 50	J	2/10/60	
2	303	× 3.2	× 2.2	× 30	× 60	J	2/10/60	
3	303	× 3.2	× 2.2	× 30	× 72	J	2/10/60	
4	380	× 4.4	× 3.2	× 60	× 60	J	2/14/100	
5	380	× 4.4	× 3.2	× 60	× 72	J	2/14/100	
6	400	× 4.4	× 3.2	× 75	× 60	J	4/15/105	
7	400	× 4.4	× 3.2	× 75	× 72	J	4/15/105	
8	400	× 4.8	× 3.5	× 30	× 60	J		
9	400	× 4.8	× 3.5	× 30	× 72	J		
10	420	× 4.4	× 3.2	× 60	× 60	J	2/10/80	
11	420	× 4.4	× 3.2	× 60	× 60	J	2/10/80	
12	430	× 4.4	× 3.2	× 75	× 60	J	4/15/105	
13	430	× 4.4	× 3.2	× 75	× 72	J	4/15/105	
14	430	× 4.4	× 3.2	× 60	× 60	J	2/10/80	
15	430	× 4.8	× 3.5	× 60	× 72	J	2/10/80	
16	430	× 4.8	× 3.5	× 30	× 60	J		
17	430	× 4.8	× 3.5	× 30	× 72	J		
18	450	× 4.8	× 3.5	× 60	× 60	J	2/14/125	
19	450	× 4.8	× 3.5	× 60	× 72	J	2/14/125	
20	303	× 3.2	× 2.2	× 30	× 50	BC	2/10/60	
21	303	× 3.2	× 2.2	× 30	× 60	BC	2/10/60	
22	303	× 3.2	× 2.2	× 30	× 72	BC	2/10/60	
23	380	× 4.4	× 3.2	× 60	× 60	BC	2/14/100	
24	380	× 4.4	× 3.2	× 60	× 72	BC	2/14/100	
25	400	× 4.4	× 3.2	× 75	× 60	BC	4/15/105	

► BC-Type



Order no.	D [mm]	B [mm]	Size b [mm]	d [mm]	z	Type	Pin holes	
26	400	× 4.4	× 3.2	× 75	× 72	BC	4/15/105	
27	400	× 4.8	× 3.5	× 30	× 60	BC		
28	400	× 4.8	× 3.5	× 30	× 72	BC		
29	420	× 4.4	× 3.2	× 60	× 60	BC	2/10/80	
30	420	× 4.4	× 3.2	× 60	× 60	BC	2/10/80	
31	430	× 4.4	× 3.2	× 75	× 60	BC	4/15/105	
32	430	× 4.4	× 3.2	× 75	× 72	BC	4/15/105	
33	430	× 4.4	× 3.2	× 60	× 60	BC	2/10/80	
34	430	× 4.8	× 3.5	× 60	× 72	BC	2/10/80	
35	430	× 4.8	× 3.5	× 30	× 60	BC		
36	430	× 4.8	× 3.5	× 30	× 72	BC		
37	450	× 4.8	× 3.5	× 60	× 60	BC	2/14/125	
38	450	× 4.8	× 3.5	× 60	× 72	BC	2/14/125	





# Sash Pro

## Heavy Duty Saw Blade

### APPLICATION

Cutting of extruded profiles, thin sheets and bars

### MACHINE

Cut-off machines, beam saws, miter saws

### MATERIAL

Non-ferrous metals such as aluminum or brass




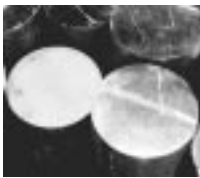

### EDGE MATERIAL

HW

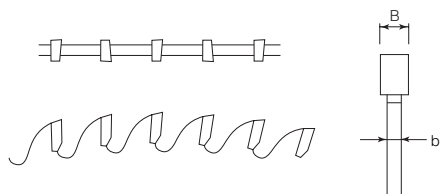


## Features & Benefits

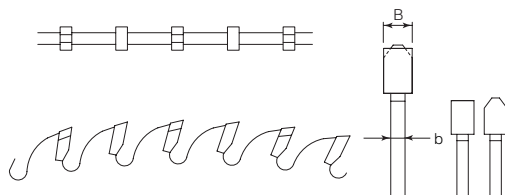
- Runs very quiet due to vibration damping element MS-P in the plate
- Excellent lifetime and cut quality due to flat and even plate
- Special selected carbide quality guarantees long edge life

Application	Tooth type	Features
Extruded Profiles 	BC5 	<ul style="list-style-type: none"> <li>■ Doesn't create high cutting forces and therefore it cuts very light</li> <li>■ Cuts cleaner than 3DX or D5</li> <li>■ Almost no bending of the material especially when cutting thin walled material such as lamellas or radiator fins</li> <li>■ When cutting thick walled material (&gt; 4mm) vibrations can occur and the cut quality deteriorates</li> </ul>
	D5 	<ul style="list-style-type: none"> <li>■ Due to symmetric tooth geometry, the saw blade runs very straight</li> <li>■ Very suitable when cutting thick walled material (&gt; 4mm)</li> <li>■ Cut quality is inferior to BC5 and 3DX</li> </ul>
Rods 	D 	<ul style="list-style-type: none"> <li>■ Due to a symmetric tooth geometry, the saw blade runs very straight</li> <li>■ Cut quality is inferior to BC5 and 3DX</li> </ul>

## ► BC5-Type



## ► D-Type



Order no.	D [mm]	B [mm]	Size b [mm]	d [mm]	z	Type	Pin holes	Hook angle [°]
1 691-B480-405	350	× 3.0	× 2.4	× 32	× 108	BC5	2/14/64	5
2 691-A630-405	400	× 3.5	× 3.0	× 30	× 120	BC5		5
3 691-B114-405	500	× 3.5	× 3.0	× 30	× 120	BC5	2/14/64	5
4 691-B482-405	530	× 4.0	× 3.4	× 30	× 140	BC5	2/14/64	5
5 691-C432-405	215	× 2.2	× 1.6	× 30	× 60	D		-5
6 691-D207-405	250	× 3.0	× 2.4	× 32	× 80	D	2/11/63	5
7 691-B207-405	300	× 3.0	× 2.4	× 30	× 96	D	2/10/60+2/10.5/70	5
8 691-C604-405	300	× 3.0	× 2.4	× 32	× 96	D	2/11/63	5
9 691-A495-405	300	× 3.2	× 2.4	× 30	× 72	D		5
10 691-A792-405	300	× 3.2	× 2.4	× 30	× 96	D	2/12/63	5
11 691-D805-405	350	× 3.0	× 2.4	× 32	× 108	D	2/11/63	5
12 691-D137-405	350	× 3.0	× 2.5	× 40	× 84	D	2/11/63	5
13 691-A578-405	350	× 3.6	× 2.8	× 30	× 108	D	2/10/60	5
14 691-D428-405	352	× 3.6	× 2.8	× 30	× 108	D	2/10/60	5
15 691-A791-405	400	× 4.0	× 3.2	× 30	× 96	D	2/12/64	5
16 691-A580-405	420	× 4.0	× 3.2	× 30	× 100	D		5
17 691-C628-405	430	× 3.0	× 2.5	× 30	× 60	D		5
18 691-A551-405	450	× 4.0	× 3.2	× 30	× 108	D	2/12/64	5
19 691-D804-405	450	× 4.0	× 3.4	× 32	× 140	D		5
20 691-A925-405	500	× 4.0	× 3.4	× 30	× 120	D	2/10/60+2/13/70	5

# Stable Saw Blade

## Thin Kerf Saw Blade

### APPLICATION

Cutting of extruded profiles and bars

### MACHINE

Cut-off machines, beam saws, miter saws,

### MATERIAL

Non-ferrous metals such as aluminum or brass

### EDGE MATERIAL

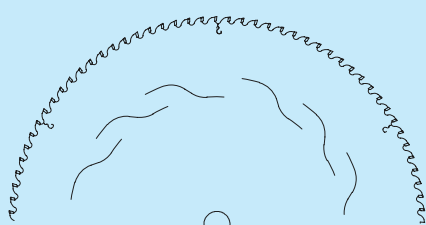
HW



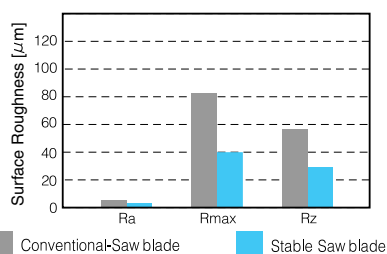
## Features & Benefits

- Thin kerf improves the material recovery rates and reduces the cost for swarf disposal
- Thin kerf reduces the cutting pressure enabling a better cut quality
- In average, Stable Saw Blades are 20% thinner than conventional saw blades

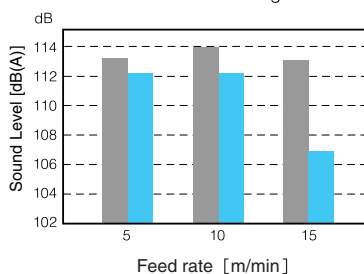
Stable Saw Blade



Patented laser slot design allows to reduce the plate thickness without compromising the saw blades lateral stiffness.



Reduction of cutting noise

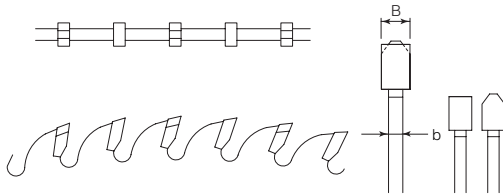


Saw blade  
510 x 3.5 x 3.0 x 40 x 120  
n = 3000rpm  
V<sub>f</sub> = 10m /min  
Cutting material = A6063

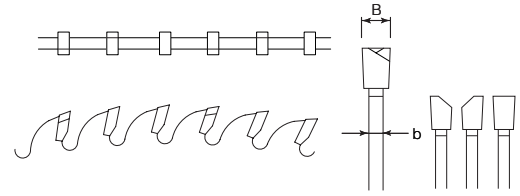
## EDGE MATERIAL

HW

### D-Type



### 3DX-Type



Order no.	D [mm]	B [mm]	Size b [mm]	d [mm]	z	Type	Pin holes	fl [mm]	RPM [1/min]
1	300	× 3.0	× 2.0	×	30	D		93	2700
2	350	× 3.5	× 2.5	×	36	D		108	3200
3	400	× 3.5	× 2.5	×	42	D		124	2800
4	450	× 3.5	× 2.5	×	48	D		140	2500
5	500	× 3.5	× 2.5	×	54	D		155	2250
6	550	× 4.0	× 3.0	×	60	D		170	2000
7	600	× 4.0	× 3.0	×	66	D		186	1850
8	300	× 2.0	× 1.5	×	72	3DX		93	5100
9	350	× 2.5	× 2.0	×	84	3DX		108	4350
10	400	× 2.5	× 2.0	×	96	3DX		124	3800
11	450	× 2.5	× 2.0	×	108	3DX		140	3400
12	500	× 2.5	× 2.0	×	120	3DX		155	3000
13	550	× 3.0	× 2.5	×	132	3DX		170	2800
14	600	× 3.0	× 2.5	×	138	3DX		186	2500

fl=flange diameter



# 2

## Finger Jointing

KANEFU S A

Finger  
Jointing

### Structural Joints

**TAF-Pro** HS-HP tipped Type Finger Joint Cutter ————— 55

**TAF-C** Finger Joint Cutter Head ————— 57

### Millwork Joints

**EN2RO** Finger Joint Cutter Head ————— 59

**Disc Type Cutter** HC-UP tipped Cutter ————— 61



# TAF-Pro

## HS-HP tipped Type Finger Joint Cutter

### APPLICATION

Structural finger joints

### MACHINE

Batch feed and through feed machines

### MATERIAL

Softwoods

### EDGE MATERIAL

HS-HP



PAT.EP0739697

## Features & Benefits

- $\alpha$ MT cutting edges outlast conventional tooling 3-5 times enabling longer machine run time and less grinds per month
- Less or no trim saw adjustment guarantees high process reliability
- Cuts cleaner than regular HSS cutters

Maximum timber height [mm] which can be cut according to the number of cutters

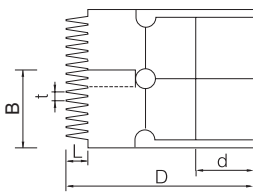
Pitch	3.8	6.2
Number of tools	TAF-Pro	TAF-Pro
1	24	28
2	51	59
3	77	90
4	104	121
5	131	152
6	157	183
7	184	214
8	210	245
9	237	276
10	264	307
11	290	338
12	317	



EDGE MATERIAL

HS-HP

► TAF-Pro Cutters



Order no.	Size				Finger joint length L [mm]	Pitch t [mm]	Number of fingers
	D [mm]	B [mm]	d [mm]	z			
1	120	28.6	40	2+2	15/15	3.8	7
2	160	28.6	50	2+2	10/10	3.8	7
3	160	28.6	50	3+3	10/11	3.8	7
4	170	28.6	50	2+2	15/15	3.8	7
5	170	28.6	50	2+2	15/16.5	3.8	7
6	250	28.6	50	3+3	10/11	3.8	7
7	260	28.6	50	3+3	15/16.5	3.8	7
8	180	33.0	50	2+2	20/20	6.2	5
9	260	33.0	50	3+3	20/20	6.2	5
10	260	33.0	50	3+3	20/22	6.2	5

# TAF-C

## Finger Joint Cutter Head

### APPLICATION

Structural finger joints

### MACHINE

Batch feed and through feed machines

### MATERIAL

Softwoods

### EDGE MATERIAL

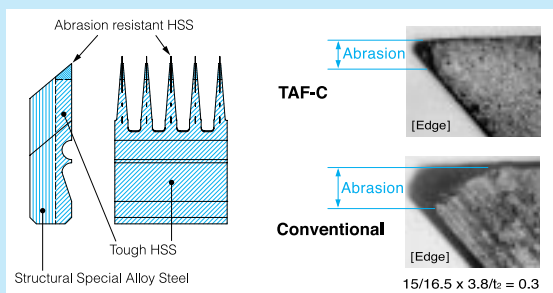
HS-HP

PAT.EP0739697, EP1043129, US6644896, CNZL02815463



## Features & Benefits

- αMT cutting edges outlast conventional tooling 3-5 times enabling longer machine run time and less grinds per month
- Less or no trim saw adjustment guarantees high process reliability
- TAF-C knives (inserts) are built from multi-layered material and outlast conventional tooling



The new TAF-C finger joint knives are built from multi-layered steel. The top of the finger is made from highly abrasion resistant High Speed Steel, while the bottom has a higher toughness. This structure is forged on special alloy steel with high shock resistance. The inserts are furthermore treated with αMT. In result, the inserts outlast conventional αMT cutter and are less subject to breakage. Only inserts are available in TAF-C quality.

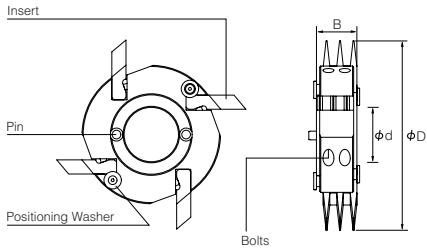
Maximum timber height [mm] which can be cut according to the number of cutters

Pitch	3.8	6.2
Number of tools	TAF-C	TAF-C
1	31	24
2	69	62
3	107	99
4	145	136
5	183	173
6	221	210
7	259	248
8	297	285
9	335	322

EDGE MATERIAL

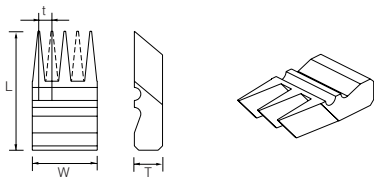
HS-HP

► Heads



Order no.	Size				Finger joint length L [mm]	
	D [mm]	B [mm]	d [mm]	z		
1 887-A105-500	160	× 38	× 50	× 4	10/10	
2 887-A020-500	160	× 38	× 50	× 4	10/11	
3 887-A072-500	170	× 38	× 50	× 4	15/15	
4 887-A036-500	170	× 38	× 50	× 4	15/16.5	
5 887-A205-500	180	× 37.2	× 50	× 4	20/20	
6 887-A206-500	180	× 37.2	× 50	× 4	20/22	
7 887-A004-500	250	× 38	× 50	× 6	10/11	
8 887-A207-500	250	× 38	× 50	× 6	10/10	
9 887-A022-500	260	× 38	× 50	× 6	15/15	
10 887-A021-500	260	× 38	× 50	× 6	15/16.5	

► Inserts



Order no.	Size			Finger joint length L [mm]	Pitch t [mm]	Number of fingers*
	W [mm]	L [mm]	T [mm]			
1 779-0034-611	35	× 45	× 13	10/10	3.8	10
2 779-0068-611	35	× 45	× 13	10/11	3.8	10
3 779-0042-611	35	× 50	× 13	15/15	3.8	10
4 779-1503-611	35	× 50	× 13	15/16.5	3.8	10
5 779-0050-611	32.5	× 55	× 13	20/20	6.2	6
6 779-0109-611	30	× 55	× 13	20/22	6.0	6

\*Number of fingers when set in the head

# EN2RO

## Finger Joint Cutter Head

### APPLICATION

Millwork finger joints

### MACHINE

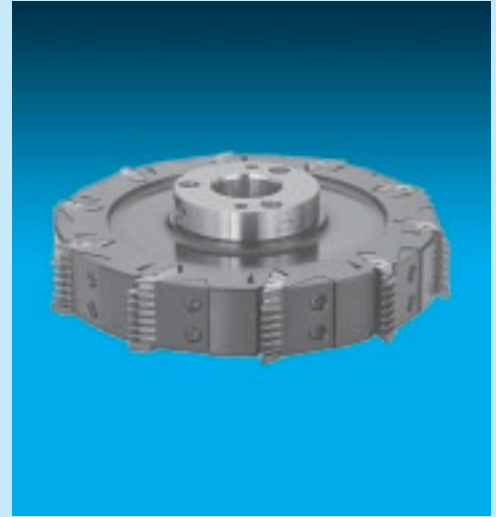
Through feed machines

### MATERIAL

Softwoods, hardwoods

### EDGE MATERIAL

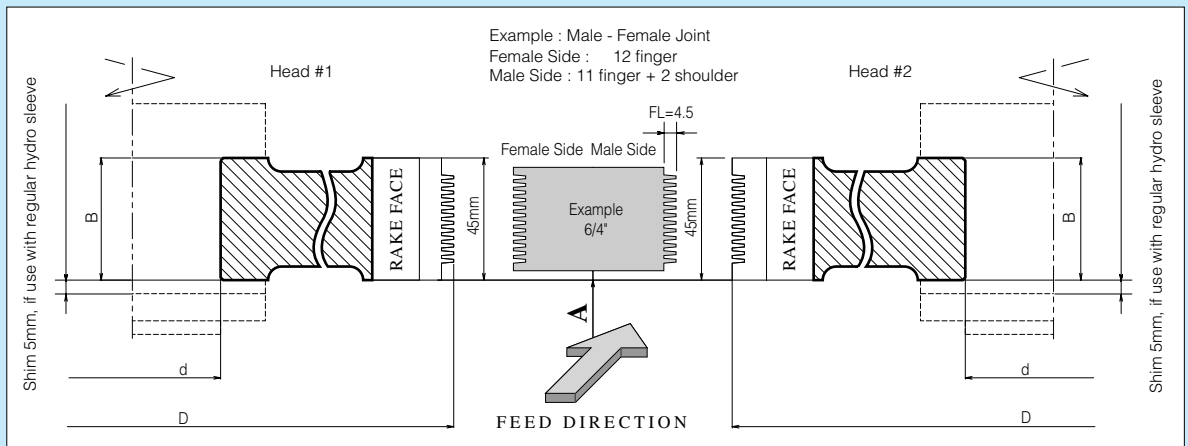
HS-HP



PAT.EP0739697, EP0938956, EP1043129, US6644896

## Features & Benefits

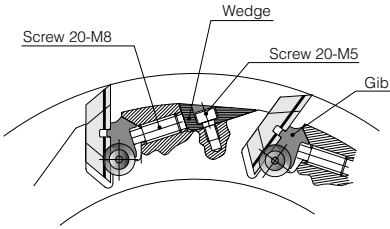
- Automatic reposting of knives to the exact same cutting circle
- Quick and safe knife change
- Knives in turn over design with 2 cutting edges reduce the grinding cost
- αMT cutting edges outlast conventional tooling 3-5 times enabling longer machine run time and less grinds per month
- Because the finger joint length does not grow longer less or no trim saw adjustments are necessary



## EDGE MATERIAL

HS-HP

### Accessories



#### Tool Parts

Item	Size
Balancing Wedge	12 x 30 x 43mm
Gib	45 x 15 x 12mm
Screw	20 x M8
Screw	20 x M5

#### Other Parts

Item	Size
Locking Ring	98 x 25 x 1-13/16"
Hydro Sleeve	1-13/16" x 65 x 85mm
Shim	100 x 10 x 65mm
Decoy Knives	45 x 40 x 9.5mm

### Heads

	D [mm]	d [mm]	Finger joint length L [mm]	B [mm]	z
1	266.7, 10.5"	65	4-6.35	45	10
2	266.7, 10.5"	65	6.35-10	45	10

### Inserts

	Profile Number	Material thickness	Joint type	Finger joint length L	No of fingers Head#1	No of fingers Head#2	Projection A [mm]
1	R440	4/4"(25.4mm)	Reverse	4.0mm	7+1	7+1	9.80(0.385")
2	R540	5/4"(31.75mm)	Reverse	4.0mm	9+1	9+1	6.63(0.261")
3	R640	6/4"(38.1mm)	Reverse	4.0mm	12+1	12+1	3.45(0.136")
4	R740	7/4"(44.45mm)	Reverse	4.0mm	14+1	14+1	2.03(0.068")
5	R445	4/4"(25.4mm)	Reverse	4.5mm	8+1	8+1	9.80(0.385")
6	R545	5/4"(31.75mm)	Reverse	4.5mm	10+1	10+1	6.63(0.261")
7	R645	6/4"(38.1mm)	Reverse	4.5mm	12+1	12+1	3.45(0.136")
8	R745	7/4"(44.45mm)	Reverse	4.5mm	14+1	14+1	1.50(0.058")
9	R4635	4/4"(25.4mm)	Reverse	1/4"(6.35mm)	5+1	5+1	9.80(0.385")
10	R5635	5/4"(31.75mm)	Reverse	1/4"(6.35mm)	7+1	7+1	6.63(0.261")
11	R6635	6/4"(38.1mm)	Reverse	1/4"(6.35mm)	9+1	9+1	3.45(0.136")
12	R7635	7/4"(44.45mm)	Reverse	1/4"(6.35mm)	11+1	11+1	1.50(0.058")
13	R5935	5/4"(31.75mm)	Reverse	3/8"(9.53mm)	6+1	6+1	6.63(0.261")
14	R6935	6/4"(38.1mm)	Reverse	3/8"(9.53mm)	8+1	8+1	3.45(0.136")
					Female side	Male side	
15	M440	4/4"(25.4mm)	Male Female	4.0mm	8	7+2	9.80(0.385")
16	M540	5/4"(31.75mm)	Male Female	4.0mm	10	9+2	6.63(0.261")
17	M640	6/4"(38.1mm)	Male Female	4.0mm	12	11+2	3.45(0.136")
18	M445	4/4"(25.4mm)	Male Female	4.5mm	8	7+2	9.80(0.358")
19	M545	5/4"(31.75mm)	Male Female	4.5mm	10	9+2	6.63(0.261")
20	M645	6/4"(38.1mm)	Male Female	4.5mm	12	11+2	3.45(0.136")
21	M4635	4/4"(25.4mm)	Male Female	1/4"(6.35mm)	6	5+2	9.80(0.358")
22	M5635	5/4"(31.75mm)	Male Female	1/4"(6.35mm)	8	7+2	6.63(0.261")
23	M6635	6/4"(38.1mm)	Male Female	1/4"(6.35mm)	9	8+2	3.45(0.136")

# Disc Type Cutter

## HC-UP tipped Cutter

### ▶ APPLICATION

Millwork finger joints

### ▶ MACHINE

Batch feed and through feed machines

### ▶ MATERIAL

Hardwoods, tropical woods

### ▶ EDGE MATERIAL

HC-UP



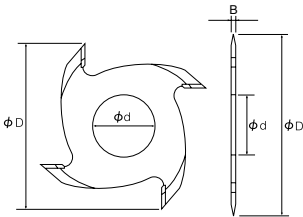
PAT.EP0739697

## ▶ Features & Benefits

- Heat treated body withstands bending
- αMT cutting edges outlast conventional tooling 3-5 times enabling longer machine run time and less grinds per month
- Cuts cleaner because of αMT

EDGE MATERIAL
HC-UP

Cutters



Order no.	Size				Finger joint length L [mm]	Pitch t [mm]	
	D [mm]	B [mm]	d [mm]	z			
1 450-A298-470	160	× 3.8	× 70	× 4	10/11	3.8	
2 450-A653-470	160	× 3.8	× 70	× 2	10/11	3.8	
3 450-A662-470	160	× 7.6	× 70	× 4	10/11		
4 450-A663-470	160	× 11.4	× 70	× 4	10/11		
5 450-A615-470	250	× 3.8	× 70	× 6	10/11	3.8	
6 450-A664-470	250	× 15.2	× 70	× 6	10/11		





# 3

## Planing

<b>ENSHIN</b> Self-Locking Planer Head	65
<b>ENSHIN PowerLock-Type</b> Self-Locking Planer Head	67
<b>ENSHIN</b> Spare Blades	69
<b>ENSHIN</b> Reference Engraver	71
<b>Tersa®-System</b> Spare Blades	73
<b>ST-1</b> Flat Planer Knives	75
<b>ST-1 Planer Head</b> Hydro Planer Head	79



# ENSHIN

## Self-Locking Planer Head

### APPLICATION

Fine and rough planing

### MACHINE

4-side planer, moulder, powermat



## Features & Benefits

- Unique centrifugal self locking system accurately locks the knives in place
- System is easy to handle and a complete knife change does not take longer than 2-3 min
- ENSHIN heads with chamfer or radius knives are available upon request



Tap the wedge gently



Turn the safety stopper ring



Slide out the knife



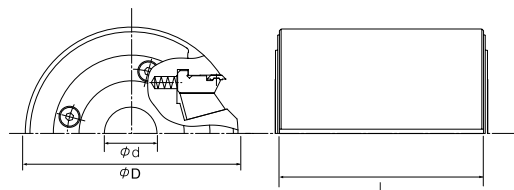
Clamp the setting block between head and clamping wedge to slide in the knife

N (rpm)	Z	S.R (mm)	F (m/min)							
			1	5	10	15	20	25	30	35
6000	2	0.5								
		1								
		1.5								
		2								
		2.5								
		3								
		3.5								
		4								
		4.5								
		5								
	4	0.5								
		1								
		1.5								
		2								
		2.5								
		3								
		3.5								
		4								
		4.5								
		5								

N (rpm)	Z	S.R (mm)	F (m/min)							
			1	5	10	15	20	25	30	35
8000	2	0.5								
		1								
		1.5								
		2								
		2.5								
		3								
		3.5								
		4								
		4.5								
		5								
12000	2	0.5								
		1								
		1.5								
		2								
		2.5								
		3								
		3.5								
		4								
		4.5								
		5								

- Ultra fine planing
- Fine planing
- Rough planing

## ► ENSHIN Bore Type



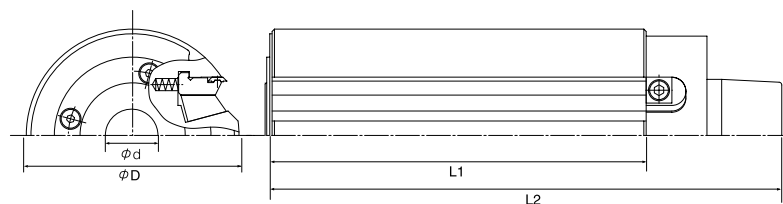
Order no.	Size				n max [1/min]
	D [mm]	L [mm]	d [mm]	z	
1 789-B375-500	125	100	40	4	8000
2 789-A869-500	125	130	40	4	8000
3 789-B078-500	125	150	40	4	8000
4 789-A868-500	125	180	40	4	8000
5 789-A866-500	125	230	40	4	8000
6 789-B630-500	125	100	1 1/2"	4	8000
7 789-B638-500	125	130	1 1/2"	4	8000
8 789-B637-500	125	150	1 1/2"	4	8000
9 789-B636-500	125	230	1 1/2"	4	8000

For up to 8000 RPM it is also possible to mount a regular bore type ENSHIN onto an arbor with PowerLock interface.

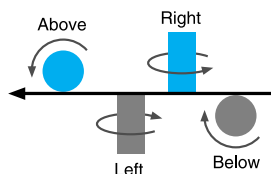
After secure assembly of the arbor and the ENSHIN, the entire system is balanced in order to ensure highest planing quality and work safety.

Regular arbors and hydro arbors are available. For more details please contact Kanefusa.

## ▶ ENSHIN PowerLock-Type

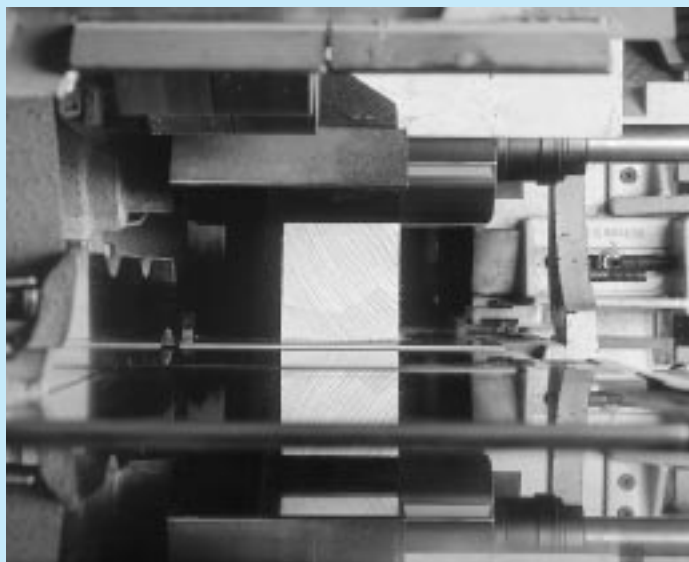


Order no.	Size				n max [1/min]	Type
	D [mm]	L1 [mm]	L2 [mm]	z		
1 788-1213-500	90	80	138	2	12500	Left/Below
2 788-1255-500	90	100	158	2	12500	Left/Below
3 788-1073-500	90	130	188	2	12500	Left/Below
4 788-1297-500	90	150	208	2	12500	Left/Below
5 788-1114-500	90	170	228	2	12500	Left/Below
6 788-1338-500	90	190	248	2	12500	Below
7 788-1370-500	90	210	268	2	12500	Below
8 788-1156-500	90	240	298	2	12500	Below
9 788-1239-500	90	80	138	2	12500	Right/Above
10 788-1271-500	90	100	158	2	12500	Right/Above
11 788-1081-500	90	130	188	2	12500	Right/Above
12 788-1312-500	90	150	208	2	12500	Right/Above
13 788-1122-500	90	170	228	2	12500	Right/Above
14 788-1396-500	90	210	268	2	12500	Above
15 788-1164-500	90	240	298	2	12500	Above



The body diameter (D) of the PowerLock ENSHIN is 90 mm. The mono-block body is pre-manufactured by Weinig S.A. of Switzerland and completed by Kanefusa Corporation Japan. This ensures a highest standard in precision and quality.

Equipped with HS-HP knives, the outer tool diameter will be 92 mm. Because HW knives are wider, the outer tool diameter will be 92.7 mm. Either diameter fits Powermat machines.



# ENSHIN

## Spare Blades

### APPLICATION

For use in ENSHIN planer heads

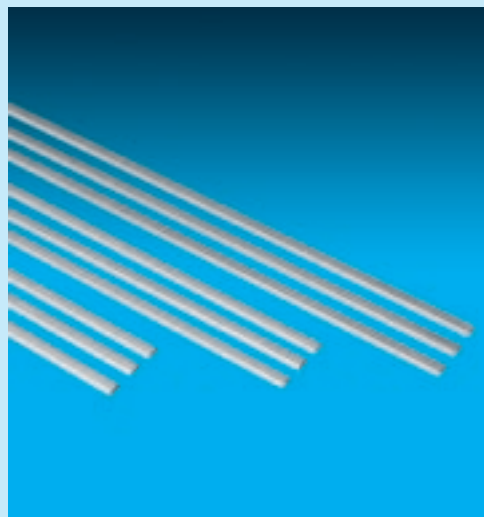
### MATERIAL

Softwoods, hardwoods, tropical woods,  
Plastic resin

### EDGE MATERIAL

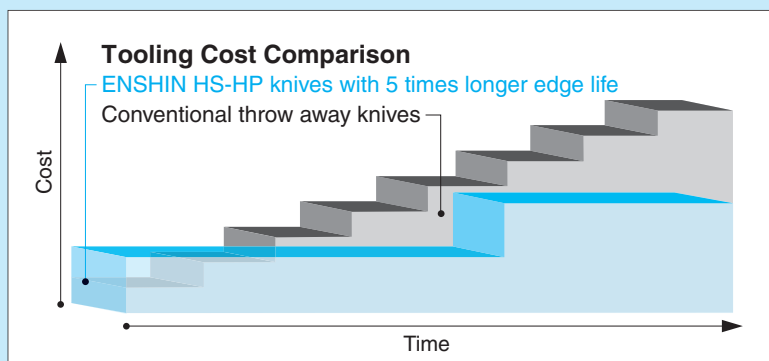
HS-HP (softwoods)

HW (hardwoods, tropical woods, Plastic resin)



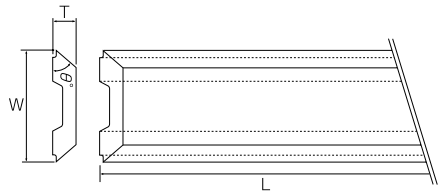
## Features & Benefits

- Every knife has two cutting edges of reversible design, which makes the ENSHIN a very economical tool
- Knife quality HS-HP provides up to 5 times longer edge life compared with regular HSS knives
- For planning of hardwoods and tropical timber, carbide knives provide excellent lifetime in correlation with smooth surfaces
- Every knife has a chip breaker and fine lapped cutting edge for smooth surfaces even when cutting against the grain
- HS-HP knives are for single use. No edge life loss after grinding no inconsistent cut quality but high process reliability



EDGE MATERIAL
HS-HP, HW

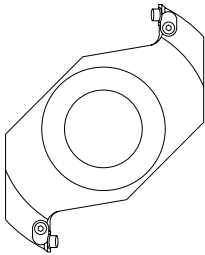
► ENSHIN Knives



Order no.	L [mm]	Size W [mm]	T [mm]	Grade
1 797-A483-611	80	12	2.6	HS-HP
2 797-A336-611	100	12	2.6	HS-HP
3 797-A298-611	130	12	2.6	HS-HP
4 797-A320-611	150	12	2.6	HS-HP
5 797-1725-611	170	12	2.6	HS-HP
6 797-A300-611	180	12	2.6	HS-HP
7 797-A341-611	190	12	2.6	HS-HP
8 797-A391-611	210	12	2.6	HS-HP
9 797-A299-611	230	12	2.6	HS-HP
10 797-2434-611	240	12	2.6	HS-HP
11 797-A423-900	80	12.7	2.6	HW
12 797-A452-900	100	12.7	2.6	HW
13 797-A435-900	130	12.7	2.6	HW
14 797-A512-900	150	12.7	2.6	HW
15 797-A528-900	170	12.7	2.6	HW
16 797-A436-900	180	12.7	2.6	HW
17 797-A470-900	190	12.7	2.6	HW
18 797-A505-900	210	12.7	2.6	HW
19 797-A439-900	230	12.7	2.6	HW
20 797-A481-900	240	12.7	2.6	HW

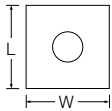
EDGE MATERIAL
HC-UP

► Rebating Reference Engraver Head



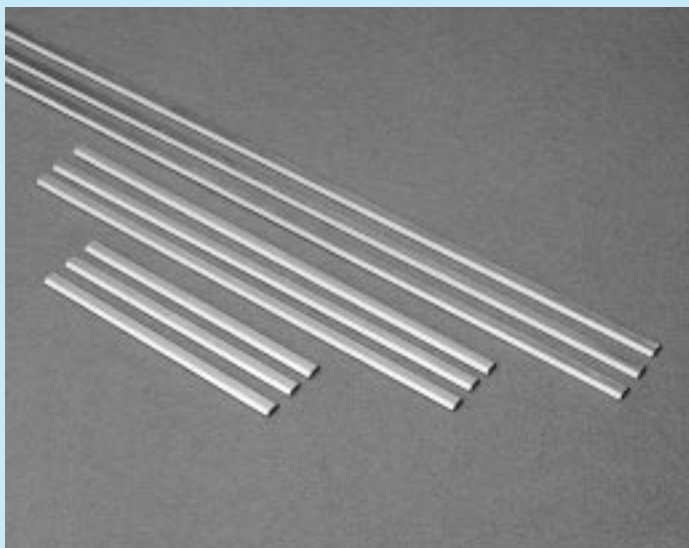
Order no.	Size							
	D [mm]	B [mm]	d [mm]	z				
1 877-C055-400	140	×	12	×	40	×	2	
2 877-D529-400	145	×	12	×	1 1/2"	×	2	

► Knives for Reference Engraver



Order no.	Size			Grade
	L [mm]	W [mm]	T [mm]	
1 781-1210-901	12	× 12	× 1.5	HC-UP





# Tersa® -System

## Spare Blades

### APPLICATION

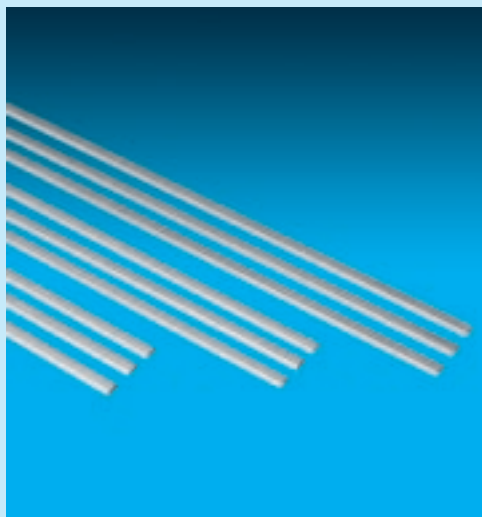
For use in planer heads

### MATERIAL

Softwoods, hardwoods, tropical woods

### EDGE MATERIAL

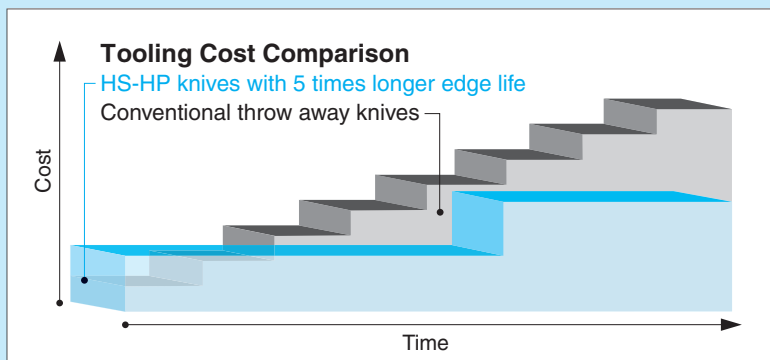
HS-HP (softwoods)



Tersa® is a registered trademark of Samvaz S.A.  
Kanfusa Corporation makes no claim of ownership to this trademark

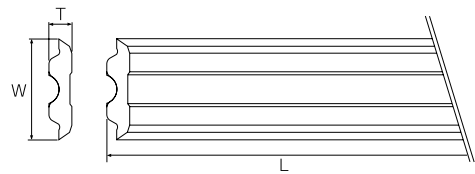
## Features & Benefits

- Every knife has two cutting edges of reversible design, which makes very economical tool
- Knife quality HS-HP provides up to 5 times longer edge life compared with regular HSS knives
- Every knife has a chip breaker and fine lapped cutting edge for smooth surfaces even when cutting against the grain
- HS-HP knives are for single use. No edge life loss after grinding no inconsistent cut quality but high process reliability



EDGE MATERIAL
HS-HP

► Knives for Tersa®-System Planer Heads



Tersa® is a registered trademark of Samvaz S.A.  
Kanafusa Corporation makes no claim of ownership to this trademark

Order no.	Size			Grade
	L [mm]	W [mm]	T [mm]	
1 797-A516-611	130	10	2.3	HS-HP
2 797-A518-611	180	10	2.3	HS-HP
3 797-A517-611	230	10	2.3	HS-HP
4 797-A533-611	650	10	2.3	HS-HP

# ST-1

## Flat Planer Knives

### APPLICATION

High speed planing and regular planing

### MATERIAL

Softwoods, hardwoods

### EDGE MATERIAL

HS-HP



## Features & Benefits

- Knife quality HS-HP provides up to 5 times longer edge life compared with regular HSS knives
- Longer lifetime increases machine run time and reduces grinding cost
- Because of it's self-resharpening properties, consistent high surface quality is achieved which allows reducing or even eliminating subsequent sanding
- Provides high process reliability

### Efficiency study at a user in Austria

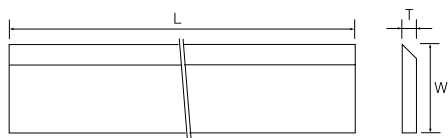
Knife Grade	HSS	ST-1	Knife Grade	HSS	ST-1
Head removals per week	15	3	Regrinds per week	15	3
Set up time [min.]	15	15	Time per regrind [min.]	90	90
Set up time per week [min.]	225	45	Grinding time per week [min.]	1350	270
Set up time per year [hours] (46 weeks)	172.5	35	Grinding time per year [hours] (46 weeks)	1035	207
Time saving per year [hours]		138	Time saving per year [hours]		828

**Total time saving per year = 966 hours**

### The user identified following advantages

- Enormous annual gain in machine uptime
- Increase of feed rate by 8 m /min
- Drastic reduction of grinding cost
- High process reliability and better coordination of work flow due to less machine stops for head removal
- Much better surface finish

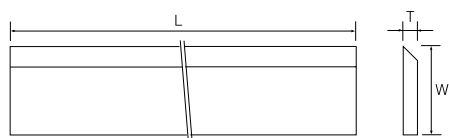
## ► ST-1 Flat Knives



Order no.	L [mm]	Size W [mm]	T [mm]
1 030-C676-619	100	30	3
2 030-C551-619	110	30	3
3 030-C722-619	120	30	3
4 030-D466-619	125	30	3
5 030-C721-619	130	30	3
6 030-C011-619	150	30	3
7 030-D381-619	155	30	3
8 030-C415-619	160	30	3
9 030-C550-619	170	30	3
10 030-C269-619	180	30	3
11 030-C825-619	185	30	3
12 030-B980-619	190	30	3
13 030-C510-619	200	30	3
14 030-C010-619	210	30	3
15 030-C804-619	215	30	3
16 030-B464-619	220	30	3
17 030-C359-619	230	30	3
18 030-C182-619	235	30	3
19 030-C459-619	240	30	3
20 030-C514-619	250	30	3
21 030-C369-619	255	30	3
22 030-C135-619	260	30	3
23 030-D410-619	265	30	3
24 030-B979-619	270	30	3
25 030-C723-619	280	30	3

Order no.	L [mm]	Size W [mm]	T [mm]
26 030-C517-619	300	30	3
27 030-C358-619	310	30	3
28 030-C994-619	320	30	3
29 030-C495-619	330	30	3
30 030-C979-619	380	30	3
31 030-C985-619	410	30	3
32 030-D072-619	420	30	3
33 030-C806-619	460	30	3
34 030-E138-619	480	30	3
35 030-C265-619	510	30	3
36 030-D294-619	60	30	3
37 030-C317-619	600	30	3
38 030-C561-619	635	30	3
39 030-C706-619	660	30	3
40 030-B515-619	75	30	3
41 030-B461-619	80	30	3
42 030-B514-619	90	30	3
43 030-C379-619	100	35	3
44 030-C218-619	110	35	3
45 030-D344-619	120	35	3
46 030-C700-619	130	35	3
47 030-C476-619	135	35	3
48 030-C362-619	150	35	3
49 030-C382-619	160	35	3
50 030-E139-619	170	35	3

## ► ST-1 Flat Knives



Order no.	L [mm]	Size W [mm]	T [mm]
51 030-C461-619	180	× 35	× 3
52 030-C738-619	185	× 35	× 3
53 030-D423-619	190	× 35	× 3
54 030-D312-619	200	× 35	× 3
55 030-C475-619	210	× 35	× 3
56 030-C848-619	220	× 35	× 3
57 030-C250-619	230	× 35	× 3
58 030-C101-619	235	× 35	× 3
59 030-C708-619	240	× 35	× 3
60 030-D177-619	255	× 35	× 3
61 030-C050-619	260	× 35	× 3
62 030-D422-619	270	× 35	× 3
63 030-C552-619	300	× 35	× 3
64 030-E140-619	303	× 35	× 3
65 030-B932-619	310	× 35	× 3
66 030-C493-619	320	× 35	× 3
67 030-C134-619	330	× 35	× 3
68 030-D619-619	370	× 35	× 3
69 030-D209-619	380	× 35	× 3
70 030-D384-619	40	× 35	× 3
71 030-C773-619	400	× 35	× 3
72 030-D202-619	410	× 35	× 3
73 030-D037-619	480	× 35	× 3
74 030-C264-619	500	× 35	× 3
75 030-D244-619	510	× 35	× 3

Order no.	L [mm]	Size W [mm]	T [mm]
76 030-C345-619	520	× 35	× 3
77 030-C796-619	530	× 35	× 3
78 030-D260-619	549	× 35	× 4
79 030-D259-619	599	× 35	× 4
80 030-C877-619	60	× 35	× 3
81 030-C560-619	635	× 35	× 3
82 030-E147-619	660	× 35	× 3
83 030-B457-619	80	× 35	× 3



# ST-1 Planer Head

## Hydro Planer Head

### APPLICATION

Knife carrier for ST-1 flat knives

### MACHINE

Moulder



## Features & Benefits

- Body is made from Steel
- Reduces the play between spindle and head enabling a truer running of the head
- Pressurized with a grease pump

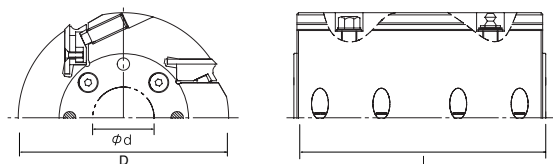
		Cut Quality		
		Rough	Medium	Fine
170				
160	Z 16			
150				
140			Z 16	
130				
120	Z 12			Z 16
110				
100	Z 10		Z 12	
90				
80			Z 10	Z 12
70	Z 6			
60				Z 10
50			Z 6	
40	Z 4			Z 6
30			Z 4	
20				Z 4
10				

Recommended number of teeth of the head at 6000 RPM

Values apply for jointed knives

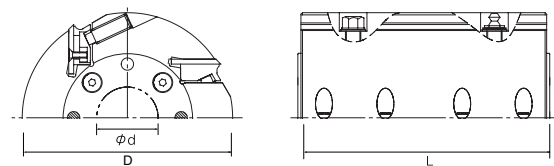


► For Knife Size 35x3



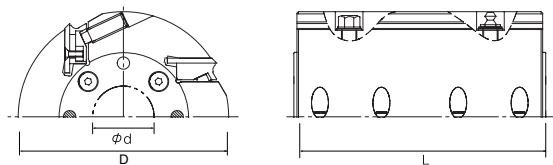
Order no.	Size				n max [1/min]
	D [mm]	L [mm]	d [mm]	z	
1	180	100	45	8	7200
2	180	160	45	8	7200
3	180	230	45	8	7200
4	180	100	45	10	7200
5	180	160	45	10	7200
6	180	230	45	10	7200
7	203	100	50	6	6400
8	203	160	50	6	6400
9	203	230	50	6	6400
10	203	320	50	6	6400
11	203	100	50	8	6400
12	203	160	50	8	6400
13	203	230	50	8	6400
14	203	320	50	8	6400
15	203	100	50	10	6400
16	203	160	50	10	6400
17	203	230	50	10	6400
18	203	320	50	10	6400
19	203	100	50	12	6400
20	203	160	50	12	6400
21	203	230	50	12	6400
22	203	320	50	12	6400
23	225	100	45	10	5800
24	225	160	45	10	5800
25	225	230	45	10	5800

► For Knife Size 35x3



Order no.	Size				n max [1/min]
	D [mm]	L [mm]	d [mm]	z	
26	225	100	45	12	5800
27	225	160	45	12	5800
28	225	230	45	12	5800

► For Knife Size 30x3



Order no.	Size				n max [1/min]
	D [mm]	L [mm]	d [mm]	z	
1	143	160	40	4	9100
2	143	230	40	4	9100
3	163	100	50	4	8000
4	163	130	50	4	8000
5	163	160	50	4	8000
6	163	230	50	4	8000
7	163	260	50	4	8000
8	163	100	50	6	8000
9	163	130	50	6	8000
10	163	160	50	6	8000
11	163	230	50	6	8000
12	163	260	50	6	8000
13	163	100	50	8	8000
14	163	160	50	8	8000
15	163	230	50	8	8000
16	203	230	50	8	6400
17	203	150	50	10	6400



# 4

## Profiling

<b>ST-1</b> <i>Corrugated Back Knives</i>	85
<b>ST-1 Knife Head</b> <i>PowerLock Type</i>	89
<b>SF-Splitting Technology</b> <i>HC-UP tipped Cutter</i>	91
<b>SF-Tongue and Groove Cutter</b> <i>HC-UP tipped Cutter</i>	93
<b>SF-Radius and Chamfer Cutter</b> <i>HC-UP tipped Cutter</i>	95
<b>SF-Panel Raise Cutter</b> <i>HC-UP tipped Cutter</i>	97
<b>SF-Profile Cutter</b> <i>HC-UP tipped Cutter</i>	99



# ST-1

## Corrugated Back Knives

### APPLICATION

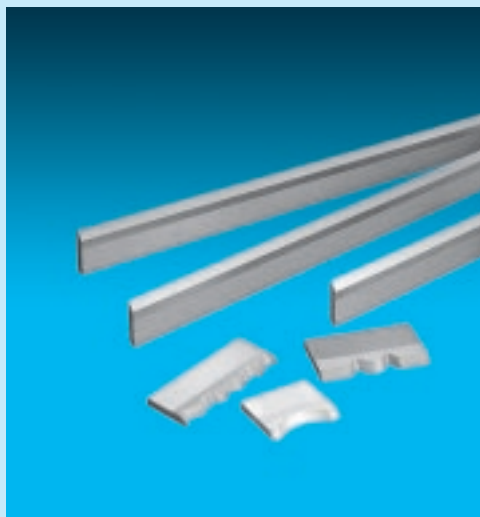
Profiling

### MATERIAL

Softwoods, hardwoods

### EDGE MATERIAL

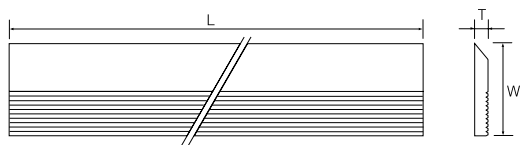
HS-HP



## ► Features & Benefits

- Knife quality HS-HP provides up to 5 times longer edge life compared with regular HSS knives
- Longer lifetime increases machine run time and reduces grinding cost
- Because of its self-resharpening properties, consistent high surface quality is achieved which allows reducing or even eliminating subsequent sanding
- Guarantees high process reliability
- Easier to grind than carbide knives

## ►ST-1 Corrugated Back Knives



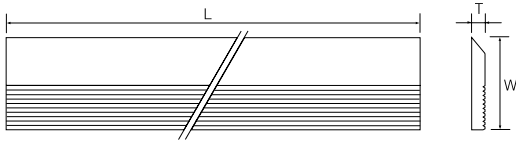
Order no.	L [mm]	Size W [mm]	T [mm]
1 777-A268-619	180	30	4
2 777-A447-619	635	35	4
3 777-A483-619	60	27	5
4 777-A484-619	80	27	5
5 777-A485-619	100	27	5
6 777-A486-619	130	27	5
7 777-A487-619	150	27	5
8 777-A488-619	160	27	5
9 777-A489-619	180	27	5
10 777-A490-619	230	27	5
11 777-A491-619	260	27	5
12 777-A492-619	280	27	5
13 777-A493-619	310	27	5
14 777-A494-619	330	27	5
15 777-A495-619	640	27	5
16 777-A496-619	60	38	5
17 777-A497-619	80	38	5
18 777-A498-619	100	38	5
19 777-A499-619	130	38	5
20 777-A500-619	150	38	5
21 777-A501-619	170	38	5
22 777-A502-619	190	38	5
23 777-A503-619	210	38	5
24 777-A504-619	240	38	5
25 777-A288-619	635	45	5

Order no.	L [mm]	Size W [mm]	T [mm]
26 777-A279-619	635	50	5
27 777-A272-619	150	45	6
28 777-A273-619	150	50	6
29 777-A506-619	635	50	6
30 777-A239-619	150	40	8
31 777-A277-619	240	40	8
32 777-A269-619	40	50	8
33 777-A251-619	60	50	8
34 777-A249-619	80	50	8
35 777-A221-619	100	50	8
36 777-A464-619	130	50	8
37 777-A465-619	150	50	8
38 777-A508-619	180	50	8
39 777-A467-619	210	50	8
40 777-A468-619	260	50	8
41 777-A469-619	310	50	8
42 777-A470-619	460	50	8
43 777-A245-619	635	50	8
44 777-A270-619	40	60	8
45 777-A228-619	60	60	8
46 777-A271-619	80	60	8
47 777-A212-619	100	60	8
48 777-A140-619	130	60	8
49 777-A280-619	150	60	8
50 777-A471-619	180	60	8

EDGE MATERIAL

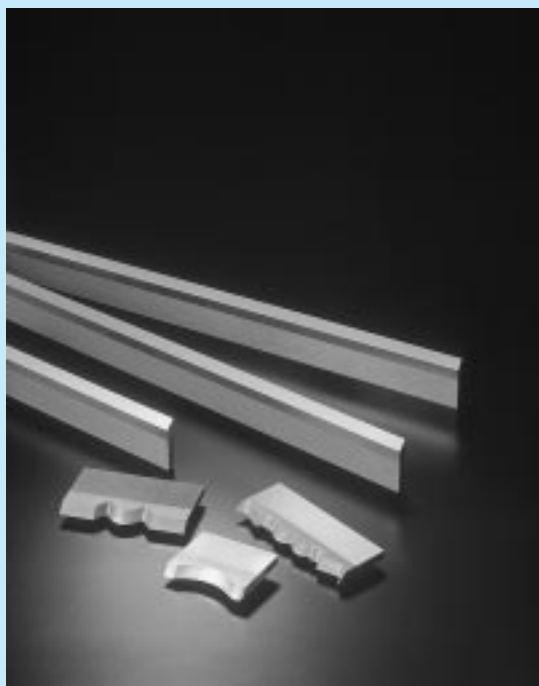
HS-HP

► ST-1 Corrugated Back Knives



Order no.	Size				
	L [mm]		W [mm]		T [mm]
51 777-A472-619	210	×	60	×	8
52 777-A473-619	260	×	60	×	8
53 777-A474-619	310	×	60	×	8
54 777-A475-619	460	×	60	×	8
55 777-A243-619	635	×	60	×	8
56 777-A158-619	60	×	70	×	8
57 777-A476-619	80	×	70	×	8
58 777-A477-619	100	×	70	×	8
59 777-A320-619	130	×	70	×	8
60 777-A478-619	150	×	70	×	8
61 777-A479-619	180	×	70	×	8
62 777-A480-619	210	×	70	×	8
63 777-A481-619	310	×	70	×	8
64 777-A482-619	460	×	70	×	8





# ST-1 Knife Head

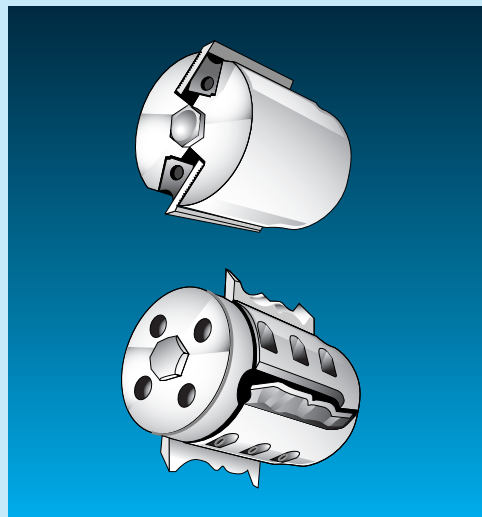
## PowerLock Type

### APPLICATION

Knife carrier for ST-1 corrugated back knives

### MACHINE

Powermat



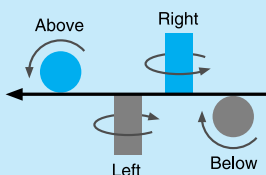
Head are manufactured by Michael Weing AG

## CentroLock Head

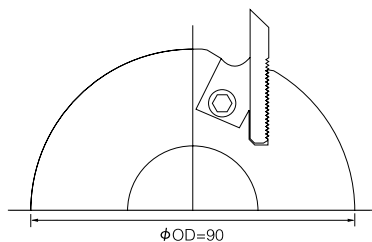
- For use with ST-1 knives
- Available with hook angle 20° for softwood and 12° for hardwood
- Maximum allowable operation speed is 12000 rpm
- Quick and easy knife change
- Tool run out is less then 0.01 mm when the knives are ground inside the head

## Planing and Profiling Head

- For use with ST-1 knives
- Available with hook angle 20° for softwood and 12° for hardwood
- Maximum allowable operation speed is 12000 rpm
- Tool run out is less then 0.005 mm when the knives are ground inside the head

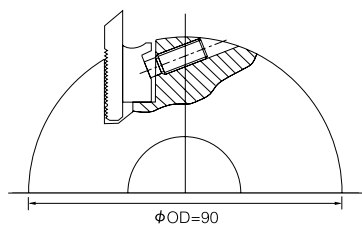


## ► CentroLock Planing and Profiling Heads



Order no.	D [mm]	Size L [mm]	z	
1	90	60	2 & 4	
2	90	80	2 & 4	
3	90	100	2 & 4	
4	90	130	2 & 4	
5	90	150	2 & 4	
6	90	170	2 & 4	
7	90	190	2 & 4	
8	90	210	2 & 4	
9	90	240	2 & 4	

## ► Planing and Profiling Heads



Order no.	D [mm]	Size L [mm]	z	
1	90	60	2	
2	90	80	2	
3	90	100	2	
4	90	130	2	
5	90	150	2	
6	90	170	2	
7	90	190	2	
8	90	210	2	
9	90	240	2	

# SF-Splitting Technology

## HC-UP tipped Cutter

### APPLICATION

Profiling of a single piece, which is cut into multiple pieces on the last spindle of a moulder

### MACHINE

Moulder

### MATERIAL

Softwoods, hardwoods

### EDGE MATERIAL

HC-UP

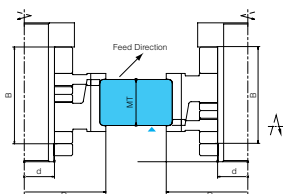
PAT.EP0739697



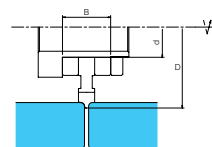
## Features & Benefits

- Combination of SF-saw blade and profile cutter
- Finish cut quality allows to reduce subsequent planing or sanding, which relates to tremendous cost savings
- Works perfectly at feed rates over 100m /min
- Should be used with hydro sleeve

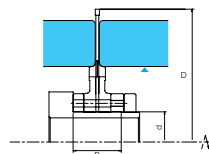
### 1<sup>st</sup> vertical profiling of the left and right side



### 2<sup>nd</sup> horizontal profiling top side



### 3<sup>rd</sup> horizontal profiling bottom side and splitting



# EDGE MATERIAL

HC-UP

## SF-Splitting Technology

Vertical Profiling Cutter		D [mm]	d [mm]	Size B [mm]	z	Material thickness [mm]
1	Radius 3mm	180	× 59.96	× 50	× 4+4	25.4-44.5
2	Chamfer 3mm x 45°	180	× 59.96	× 50	× 4+4	25.4-44.5
3	Radius 3mm	180	× 59.96	× 50	× 8	38.1
4	Chamfer 3mm x 45°	180	× 59.96	× 50	× 8	38.1
5	Radius 3mm	180	× 59.96	× 50	× 8	44.5
6	Chamfer 3mm x 45°	180	× 59.96	× 50	× 8	44.5

Horizontal Profiling Cutter		D [mm]	d [mm]	Size B [mm]	z	
1	Radius 3mm	180	× 59.96	× 50	× 4	
2	Chamfer 3mm x 45°	180	× 59.96	× 50	× 4	
3	Radius 3mm	180	× 59.96	× 50	× 8	
4	Chamfer 3mm x 45°	180	× 59.96	× 50	× 8	

Horizontal Splitting and Profiling Cutter		D [mm]	d [mm]	Size B [mm]	z	Kerf SF-saw [mm]	Material thickness [mm]
1	Radius 3mm	250	× 59.96	× 50	× 4+20+4	× 3	25.4-44.5
2	Chamfer 3mm x 45°	250	× 59.96	× 50	× 4+20+4	× 3	25.4-44.5
3	Radius 3mm	225	× 59.96	× 50	× 8+24+8	× 3	38.1
4	Radius 3mm	250	× 59.96	× 50	× 8+24+8	× 3	44.5
5	Chamfer 3mm x 45°	225	× 59.96	× 50	× 8+24+8	× 3	38.1
6	Radius 3mm	250	× 59.96	× 50	× 4+20+4	× 3	25.4-44.5
7	Chamfer 3mm x 45°	250	× 59.96	× 50	× 4+20+4	× 3	25.4-44.5
8	Radius 3mm	225	× 59.96	× 50	× 8+24+8	× 3	38.1
9	Radius 3mm	250	× 59.96	× 50	× 8+24+8	× 3	44.5
10	Chamfer 3mm x 45°	225	× 59.96	× 50	× 8+24+8	× 3	38.1

# SF-Tongue and Groove Cutter

## HC-UP tipped Cutter

### APPLICATION

Solid wood floor and wainscot manufacturing

### MACHINE

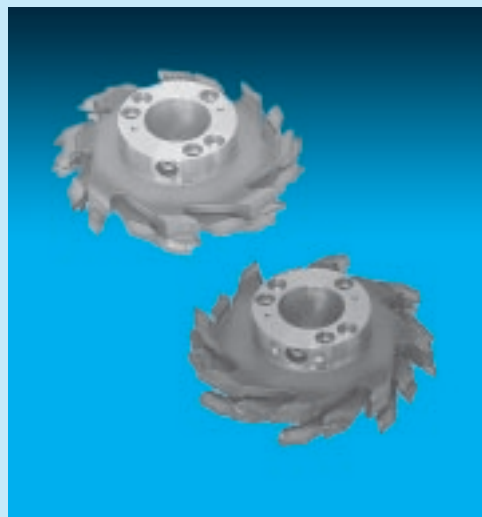
Moulder

### MATERIAL

Softwoods, hardwoods

### EDGE MATERIAL

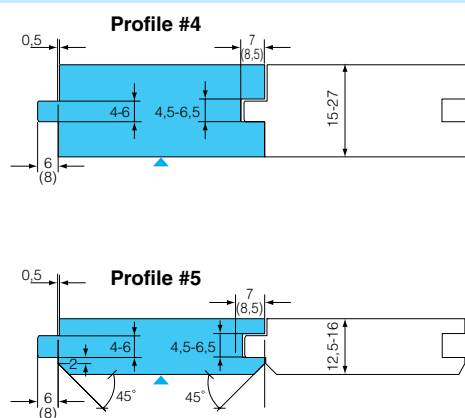
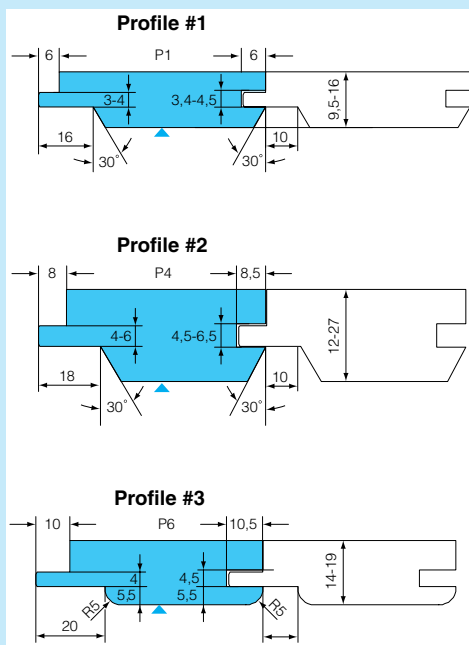
HC-UP



PAT.EP0739697

## Features & Benefits

- Outlasts conventional tooling 3-5 times enabling longer machine run times and fewer regrinds
- Cuts cleaner than conventional tooling allowing to reduce further sanding
- Should be used with a hydro sleeve



EDGE MATERIAL
HC-UP

## ►SF-Tongue and Groove Cutter

Profile no.	D [mm]	Size d [mm]	z	Material thickness [mm]	Feed rate* [m/min]	RPM* [1/min]
<b>1</b>	1	180 × 60 × 6+6		9.5–16	30–45	6000
<b>2</b>	2	180 × 60 × 6+6		12.0–27.0	30–45	6000
<b>3</b>	3	180 × 60 × 6+6		12.0–19.0	30–45	6000
<b>4</b>	4	180 × 60 × 6+6		15–27	30–45	6000
<b>5</b>	5	180 × 60 × 6+6		12.5–16	30–45	6000

\* Recommended

※other specifications are available upon request.

# SF-Radius and Chamfer Cutter

## HC-UP tipped Cutter

### APPLICATION

Wainscot manufacturing

### MACHINE

Moulder

### MATERIAL

Softwoods, hardwoods

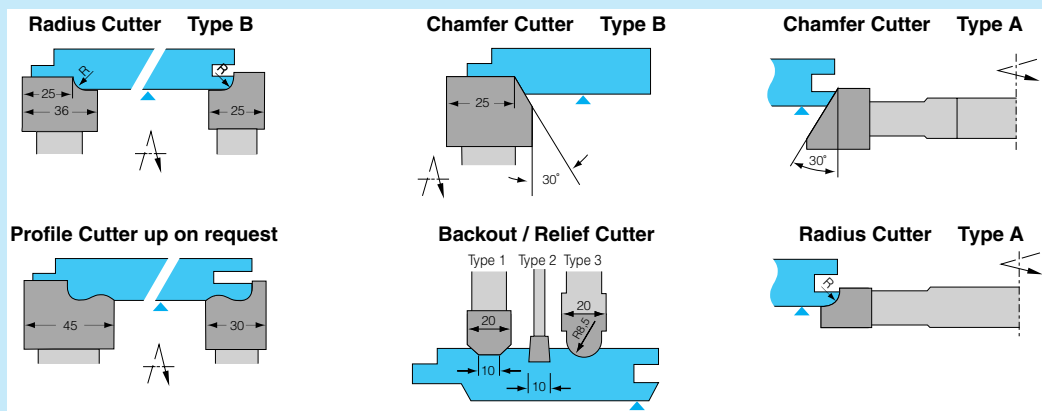
### EDGE MATERIAL

HC-UP

PAT.EP0739697

## Features & Benefits

- Outlasts conventional tooling 3-5 times enabling longer machine run times and fewer regrinds
- Cuts cleaner than conventional tooling, allowing to reduce further sanding
- Should be used with a hydro sleeve





EDGE MATERIAL
HC-UP

## ►SF-Radius and Chamfer Cutter

		Size				Feed rate* [m/min]	RPM* [1/min]			
		D [mm]	B [mm]	d [mm]	z					
Chamfer Cutter Type A										
1		240	×	30	×	60	×	6	30–50	6000
Radius Cutter Type A										
1	R5	240	×	20	×	60	×	6	30–50	6000
2	R6	240	×	20	×	60	×	6	30–50	6000
3	R7	240	×	20	×	60	×	6	30–50	6000
4	R8	240	×	20	×	60	×	6	30–50	6000
Backout/Relief Cutter										
1	Type1	200	×	20	×	60	×	6	30–50	6000
2	Type2	200	×	10	×	60	×	12	30–50	6000
3	Type3	200	×	20	×	60	×	6	30–50	6000
Chamfer Cutter Type B										
1		200	×	35	×	60	×	6	30–50	6000
Radius Cutter Type B										
1	R5–groove side	200	×	20	×	60	×	6	30–50	6000
2	R6–groove side	200	×	20	×	60	×	6	30–50	6000
3	R7–groove side	200	×	20	×	60	×	6	30–50	6000
4	R8–groove side	200	×	20	×	60	×	6	30–50	6000
5	R5–tongue side	200	×	35	×	60	×	6	30–50	6000
6	R6–tongue side	200	×	35	×	60	×	6	30–50	6000
7	R7–tongue side	200	×	35	×	60	×	6	30–50	6000
8	R8–tongue side	200	×	35	×	60	×	6	30–50	6000

\* Recommended

※other specifications are available upon request.

# SF-Panel Raise Cutter

## HC-UP tipped Cutter

### APPLICATION

Panel raising in exterior door, interior door and cabinet door manufacturing

### MACHINE

Moulder, Tenoner

### MATERIAL

Softwoods, hardwoods

### EDGE MATERIAL

HC-UP



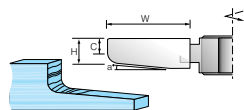
PAT.EP0739697

## Features & Benefits

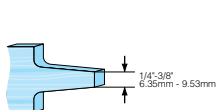
- Outlasts conventional tooling 3-5 times enabling longer machine run times and fewer regrinds
- Cuts cleaner than conventional tooling allowing to reduce further sanding
- Should be used with a hydro sleeve

### Standard Profiles

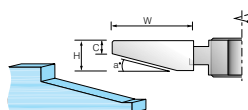
Profile # 1-S



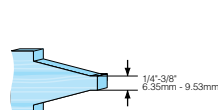
Profile # 1-D



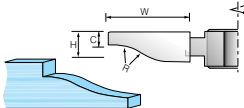
Profile # 2-S



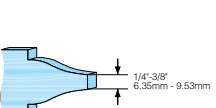
Profile # 2-D



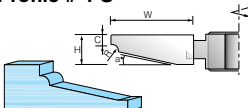
Profile # 3-S



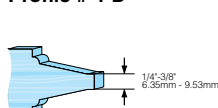
Profile # 3-D



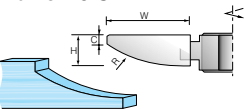
Profile # 4-S



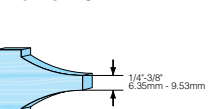
Profile # 4-D



Profile # 5-S



Profile # 5-D



EDGE MATERIAL
HC-UP

## ►SF-Panel Raise Cutter

Profile no.	Sense of rotation	Size				Feed rate* [m/min]	RPM* [1/min]
		D [mm]	B [mm]	d [mm]	z		
<b>1</b> 1-S	counter clockwise	200	× 22.5	× 60	× 6	15-20	6000
<b>2</b> 2-S	counter clockwise	200	× 22.5	× 60	× 6	15-20	6000
<b>3</b> 3-S	counter clockwise	200	× 22.5	× 60	× 6	15-20	6000
<b>4</b> 4-S	counter clockwise	200	× 22.5	× 60	× 6	15-20	6000
<b>5</b> 5-S	counter clockwise	200	× 22.5	× 60	× 6	15-20	6000
<b>6</b> 1-S	clockwise	200	× 22.5	× 60	× 6	15-20	6000
<b>7</b> 2-S	clockwise	200	× 22.5	× 60	× 6	15-20	6000
<b>8</b> 3-S	clockwise	200	× 22.5	× 60	× 6	15-20	6000
<b>9</b> 4-S	clockwise	200	× 22.5	× 60	× 6	15-20	6000
<b>10</b> 5-S	clockwise	200	× 22.5	× 60	× 6	15-20	6000

Profile no.	Adjustment range [mm]	Size				Feed rate* [m/min]	RPM* [1/min]
		D [mm]	B [mm]	d [mm]	z		
<b>11</b> 1-D	5	200	× 50	× 60	× 6+6	15-20	6000
<b>12</b> 2-D	5	200	× 50	× 60	× 6+6	15-20	6000
<b>13</b> 3-D	5	200	× 50	× 60	× 6+6	15-20	6000
<b>14</b> 4-D	5	200	× 50	× 60	× 6+6	15-20	6000
<b>15</b> 5-D	5	200	× 50	× 60	× 6+6	15-20	6000

\* Recommended

※other specifications are available upon request.

# SF-Profile Cutter

## HC-UP tipped Cutter

### APPLICATION

Profiling of solid wood

### MACHINE

Moulder, tenoner

### MATERIAL

Softwoods, hardwoods

### EDGE MATERIAL

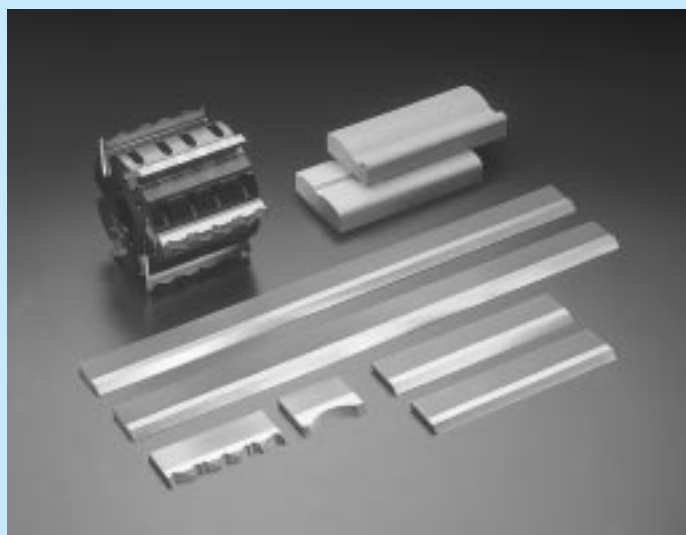
HC-UP



PAT.EP0739697

## Features & Benefits

- Outlasts conventional tooling 3-5 times enabling longer machine run times and fewer regrinds
- Cuts cleaner (Super Finish) than conventional tooling allowing to reduce further sanding
- Should be used with a hydro sleeve





# 5

KANEFUS A

## Routing

<b>E-Bit</b> <i>Solid HC-UP Bit</i>	103
<b>SF-Router Bit</b> <i>HC-UP tipped Router Bit</i>	105
<b>Acryl-Bit</b> <i>Mirror Finish Router Bit</i>	109
<b>Cosmo-Bit</b> <i>PCD tipped Router Bit</i>	111



Routing

# E-Bit

## Solid HC-UP Bit

### APPLICATION

Precutting of solid wood

### MACHINE

CNC router machine

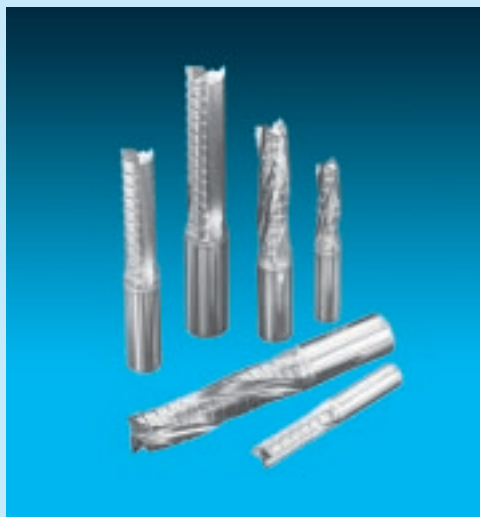
### MATERIAL

Softwoods, hardwoods

### EDGE MATERIAL

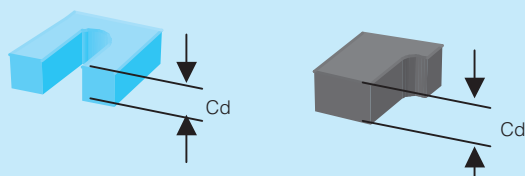
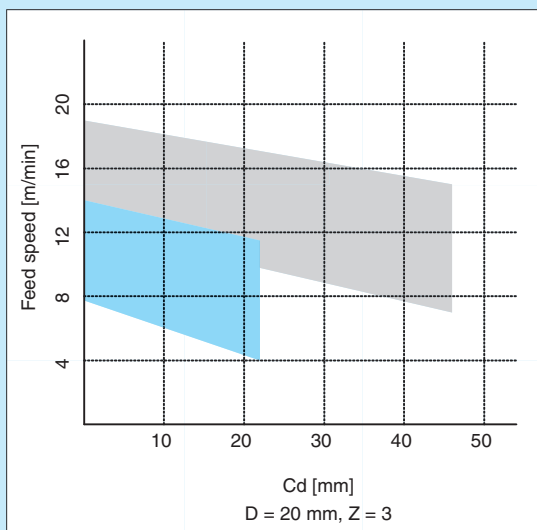
HC-UP

PAT.EP0739697



## Features & Benefits

- Outlasts conventional bits between 3-5 times
- Due to less residue adhesion and the self-resharpening effect of  $\alpha$ MT higher feed rates are possible
- Unique tooth design enables large stock removal but a very smooth finish at the same time
- Best performance when used with Hydro-Mechanical Precision Chuck



RPM: 14000 1/min – 18000 1/min

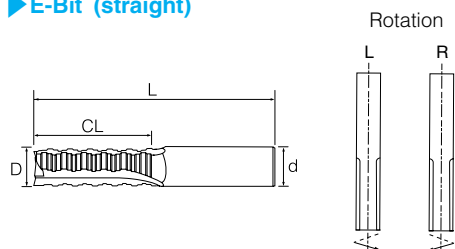
Values are only guidelines!  
For maximum performance, accurate clamping of the tool and the work material as well as good machine condition and chip exhaustion are absolutely essential.



## EDGE MATERIAL

HC-UP

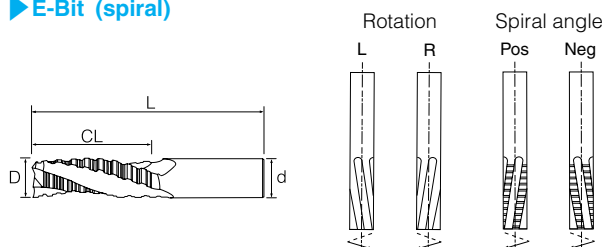
### ► E-Bit (straight)



Order no.	d [mm]	D [mm]	Size L [mm]	CL [mm]	z	Type	Rotation
1 866-A645-901	10	10	80	30	2	Straight	R
2 866-3793-901	12	12	85	35	3	Straight	R
3 866-A603-901	12	12	95	45	3	Straight	R
4 866-A533-901	12	16	85	25	3	Straight	R
5 866-A638-901	16	16	95	45	3	Straight	R
6 866-A662-901	16	16	110	55	3	Straight	R
7 866-A721-901	18	18	120	55	3	Straight	R
8 866-A564-901	20	20	110	55	3	Straight	R
9 866-A686-901	20	20	120	60	3	Straight	R
10 866-A688-901	20	20	135	75	3	Straight	R

※other specifications are available upon request.

### ► E-Bit (spiral)



Order no.	d [mm]	D [mm]	Size L [mm]	CL [mm]	z	Type	Rotation
11 866-A568-901	12	12	95	45	3	Spiral	R/Pos.
12 866-A566-901	16	14	165	30	3	Spiral	R/Pos.
13 866-A690-901	16	16	110	55	3	Spiral	R/Pos.
14 866-A565-901	20	20	110	55	3	Spiral	R/Pos.
15 866-A753-901	20	20	120	60	3	Spiral	R/Pos.
16 866-A579-901	20	20	135	75	3	Spiral	R/Pos.

※other specifications are available upon request.

# SF-Router Bit

## HC-UP tipped Router Bit

### APPLICATION

Chair and furniture production

### MACHINE

CNC router machine

### MATERIAL

Softwoods, hardwoods

### EDGE MATERIAL

HC-UP



PAT.EP0739697

## Features & Benefits

- Cuts the fibers clean and smooth even when machining end grain
- Outlasts conventional tooling 3-5 times
- Guarantees high process reliability and better quality rates
- Best performance when used with a Hydro-Mechanical Precision Chuck

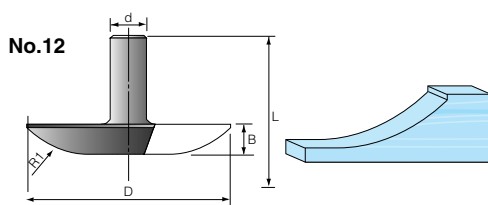
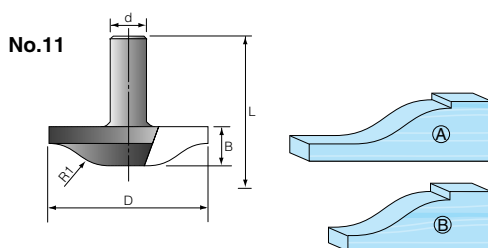
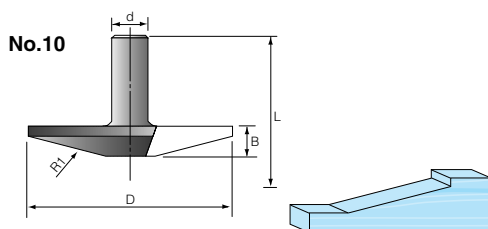
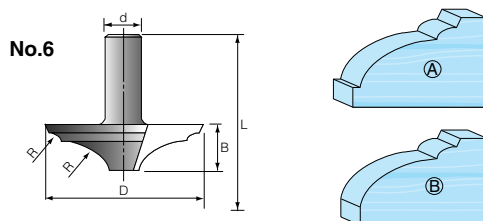
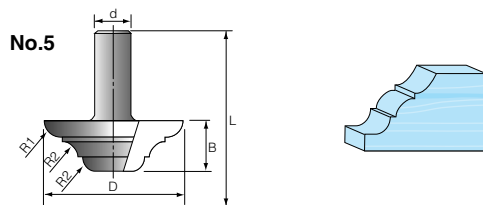
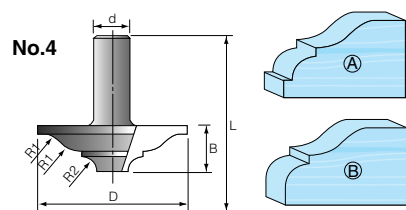
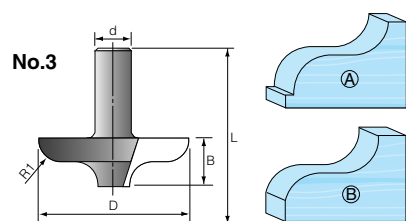
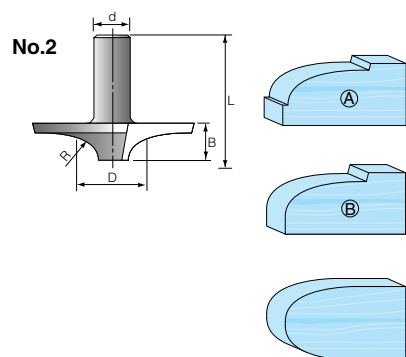
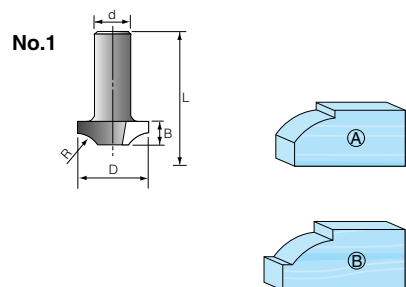
EDGE MATERIAL
HC-UP

## ►SF-Router Bit

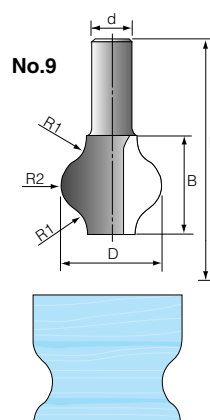
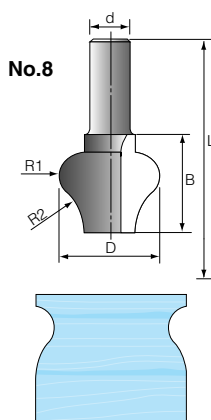
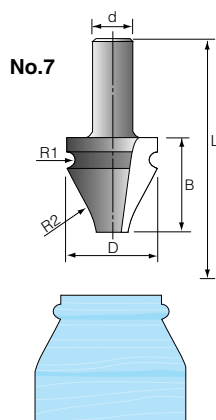
Profile no.	Size								
	D	a	R1 [mm]	R2 [mm]	B [mm]	B1 [mm]	d [mm]	L [mm]	
<b>1</b>	1	38.0 ×	×	×	×	10.0 ×	×	20.0 ×	76.0
<b>2</b>	2	70.0 ×	×	16.0 ×	×	30.0 ×	×	20.0 ×	90.0
<b>3</b>	3	70.0 ×	×	9.5 ×	×	25.0 ×	×	20.0 ×	90.0
<b>4</b>	4	70.0 ×	×	9.5 ×	6.35 ×	30.0 ×	×	20.0 ×	90.0
<b>5</b>	5	70.0 ×	×	×	6.35 ×	35.0 ×	×	20.0 ×	100.0
<b>6</b>	6	70.0 ×	×	×	27.8 ×	30.0 ×	×	20.0 ×	90.0
<b>7</b>	7	38.0 ×	×	15.0 ×	15.1 ×	38.0 ×	×	20.0 ×	86.0
<b>8</b>	8	38.0 ×	×	9.5 ×	25.4 ×	38.0 ×	×	20.0 ×	86.0
<b>9</b>	9	38.0 ×	×	9.5 ×	12.7 ×	38.0 ×	×	20.0 ×	86.0
<b>10</b>	10	86.0 ×	15° ×	×	×	13.0 ×	7.9 ×	20.0 ×	86.0
<b>11</b>	11-A	86.0 ×	×	19.0 ×	×	20.0 ×	7.9 ×	20.0 ×	90.0
<b>12</b>	11-B	86.0 ×	×	22.0 ×	×	20.0 ×	9.5 ×	20.0 ×	90.0
<b>13</b>	13	86.0 ×	×	14.0 ×	×	13.0 ×	×	20.0 ×	86.0

※other specifications are available upon request.

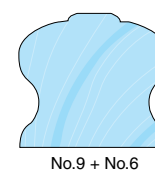
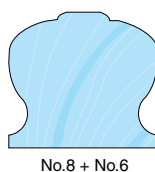
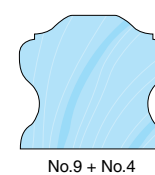
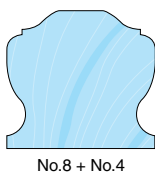
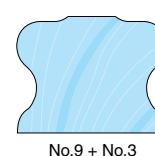
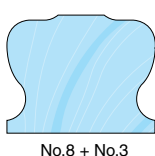
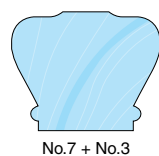
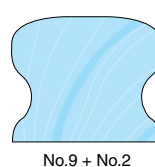
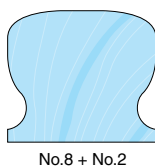
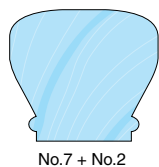
► Standard Profiles



► Standard Profiles



**12 different handrail patterns**



# Acryl-Bit

## Mirror Finish Router Bit

### APPLICATION

Routing and plunging

### MACHINE

CNC router machine

### MATERIAL

PMMA

### EDGE MATERIAL

HW



## Features & Benefits

- Absolute transparent cut finish reduces subsequent polishing
- Best performance when used with Hydro-Mechanical Precision Chuck

### Field study

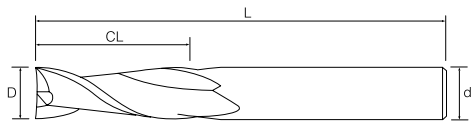
Work piece material : clear acrylic

	Time Conventional method [min.]	Time Acryl-Bit [min.]
Rough cutting with saw blade	2	0
Rough cutting with CNC	0	2
Finish cutting with CNC	0	4
Sanding by hand(#360,600,800)	30	0
Sanding by hand(#360,600,800)	2	2
Total time	34	8

Decrease of production time by 75%.

EDGE MATERIAL
HW

► Acryl-Bit



Order no.	d [mm]	D [mm]	Size L [mm]	CL [mm]	z	Rotation
1 827-9194-900	4	4	70	15	2	R/Pos.
2 827-9201-900	5	5	70	15	2	R/Pos.
3 827-9219-900	8	8	70	20	2	R/Pos.
4 827-9235-900	10	10	80	30	2	R/Pos.
5 827-9227-900	12	12	85	35	2	R/Pos.

# Cosmo-Bit

## PCD tipped Router Bit

### APPLICATION

Routing, grooving and rabbeting

### MACHINE

CNC router machine

### MATERIAL

Core : MDF, particleboard

Lamination : Paper, melamine, HPL

Else : Various plastics, mineral boards

### EDGE MATERIAL

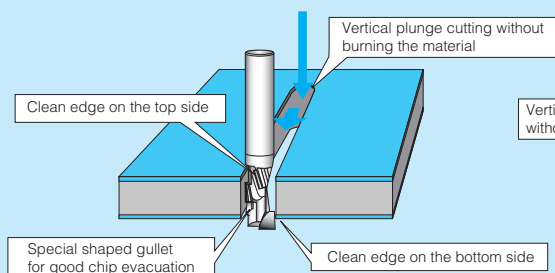
DP



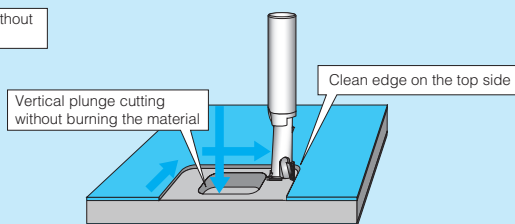
## Features & Benefits

- Positive and negative shear angle allow tear out free edges on both sides of the material
- The regrinding area is 1mm
- Best performance when used with a Hydro-Mechanical Precision Chuck

Standard type



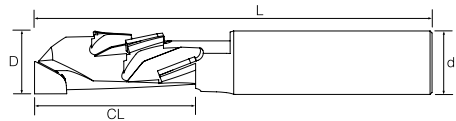
Special type for latch hole machining is available upon request





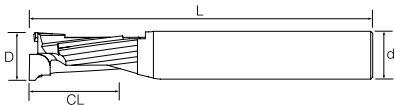
EDGE MATERIAL
DP

► Cosmo-Bit (Standard Type)



Order no.	d [mm]	D [mm]	Size L [mm]	CL [mm]	z	Rotation
1 890-1200-350	12	12	70	10	1+1	R
2 890-A011-350	12	12	75	15	1+2	R
3 890-1268-350	12	12	85	25	1+4	R
4 890-A347-350	16	16	70	11.4	1+1	R
5 890-1622-350	16	16	75	16	1+2	R
6 890-1648-350	16	16	80	21.5	1+3	R
7 890-A764-350	16	16	85	27	1+4	R
8 890-1705-350	16	16	95	32.5	1+5	R
9 890-1721-350	16	16	100	38	1+6	R
10 890-1755-350	16	16	100	40	1+6	R
11 890-A765-350	20	20	70	12	1+1	R
12 890-A766-350	20	20	80	19	1+2	R
13 890-2042-350	20	20	85	26	1+3	R
14 890-2068-350	20	20	95	33	1+4	R

► Cosmo-Bit (Special Type)



Available upon request



# 6

## Carpentry

KANEFU S A

Brad Point Drill Bit	115
ACE Counterbore Drill Bit	116
PreCut Tooling	117



Carpentry

# Brad Point Drill Bit

## APPLICATION

Truss, beam manufacturing

## MACHINE

Joinery machines such as Nishijima, Heian, Miyagawa, Hundegger

## MATERIAL

Softwoods, hardwoods

## EDGE MATERIAL

HW

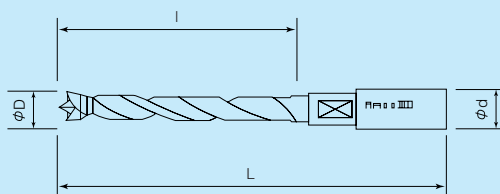
PAT.CA2198736



## Features & Benefits

- Hardened body withstands bending even under heaviest loads
- Coated flutes lead to an excellent chip evacuation

Available Sizes :  $D = 12 \text{ mm} - 30 \text{ mm}$   
 $L \leq 380 \text{ mm}$



# ACE Counterbore Drill Bit

## With Brad Point Drill Bit

### APPLICATION

Truss, beam manufacturing

### MACHINE

Joinery machines such as Nishijima, Heian, Miyagawa, Hundegger

### MATERIAL

Softwoods, hardwoods

### EDGE MATERIAL

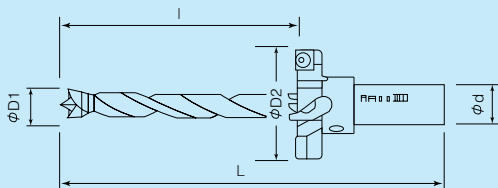
HW



PAT.EP0805006, PAT.US5897274

## Features & Benefits

- Hardened body withstands bending even under heaviest loads
- Due to a special cutting edge design, it cuts wood fibers clean and tear out free



D1	D2	L	d	l	Machine
[mm]	[mm]	[mm]	[mm]	[mm]	
15	60	215	20	133	SHODA
15	60	224	16	154	MIYAGAWA
15	60	234	16	176	MIYAGAWA
15	65	235	16	150	NAKAJIMA
15	60	280	16	200	MARUNAKA
15	65	250	16	165	NAKAJIMA
16	60	260	20	163	HEIAN
18	60	279	18	177	SINX
18	60	290	20	208	KIKUKAWA

Other sizes are available upon request

# PreCut Tooling

## APPLICATION

Truss and beam manufacturing

## MACHINE

Joinery machines such as Hundegger, Nishijima, Heian, Miyagawa

## MATERIAL

Softwoods, hardwoods

## EDGE MATERIAL

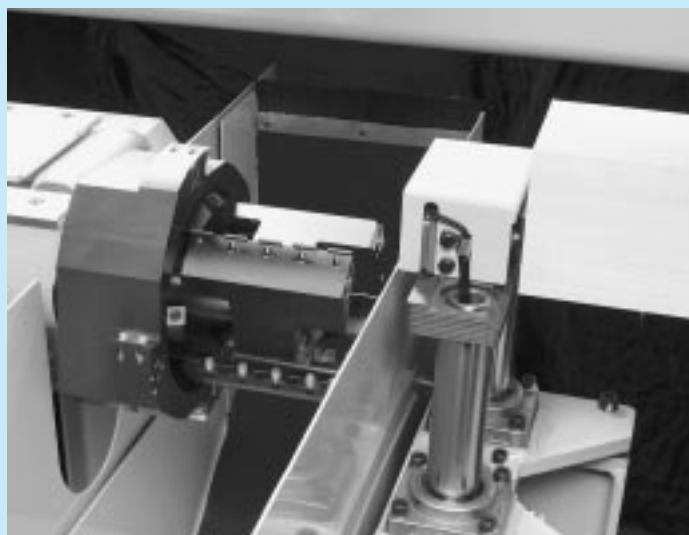
HS / HW / HC-UP



## Features & Benefits

- We manufacture a wide range of cutter and router and chisel mortiser used in truss and beam manufacturing
- For further information please contact Kanefusa





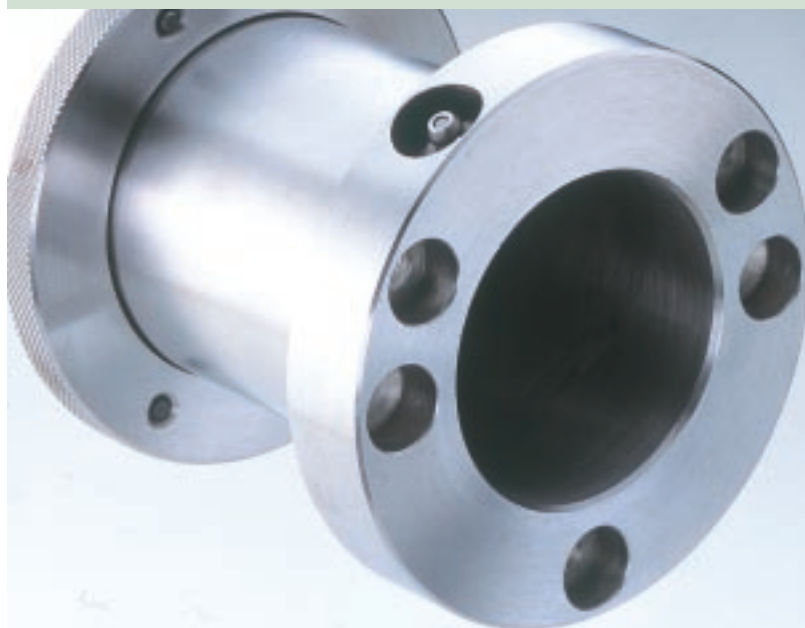




# 7

## Accessories

<b>Hydraulic Precision Chuck</b>	<i>CNC-Router Machine</i>	121
<b>Hydro Mechanical Precison Chuck</b>	<i>CNC-Router Machine</i>	121
<b>Hydro Tool Holder</b>	<i>Powermat</i>	123
<b>Tool Holder</b>	<i>Powermat</i>	123
<b>Hydro Sleeve</b>		125
<b>Locking Ring</b>	<i>Safety Part</i>	125



# High Precision Chucks

## CNC-Router machines

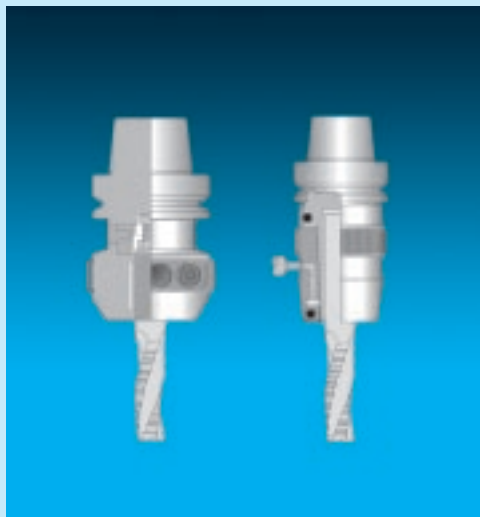
### APPLICATION

High precision tool holder for shank type tooling

### MACHINE

CNC router machines

The maximum allowable speed is 25000 RPM. Both holder can be used for right hand and left hand rotation. Both types are available for shaft type: HSK 63F, SK30, SK40, BT30, BT40, SCM 30, CMS30



## Features & Benefits

### Type 1 Hydraulic Precision Chuck

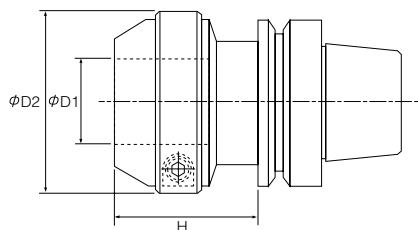
The hydraulic clamping system is user friendly. Tightening up or loosening the pressure screw activates and deactivates it. The tool shank must have a length adjustment screw

### Type 2 Hydro-Mechanical Precision Chuck

The chuck holds the tool shank mechanically. This means there is no hydraulic influence when running the router. An external oil pump is used for clamping and releasing. The chuck transmits very high torques and enables high feeding rates. It is the perfect partner for the E-Bit, Acryl-Bit, Cosmo-Bit or SF-Profile Router Bits. In comparison to shrink fit and power fit holder the advantages are :

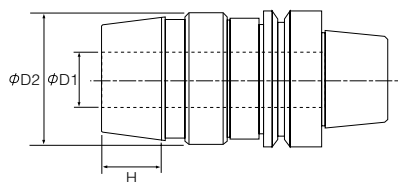
- Tolerance grade 7 is accepted, compared to grade 6 for shrink fit holders
- Changing the tool will take about 20 sec. compared to several minutes
- The equipment is less expensive and easier to handle
- It gives you the possibility to adjust the tool, in z-direction, exactly since you have at least one hand free when clamping
- No limitations to the outer tool diameter or to the material of the shank

## ►Type1 Hydraulic Precision Chuck



Order no.	Size D1 [mm]	D2 [mm]	H [mm]	
1	12	55	45.5	
2	16	58	51.5	
3	20	63	59.5	
4	25	87	67	
5	1/2"	55	47	
6	5/8"	58	51.5	
7	3/4"	63	58	
8	1"	67	67	

## ►Type2 Hydro-Mechanical Precision Chuck



Order no.	Size D1 [mm]	D2 [mm]	H [mm]	
1	12	34	8	
2	16	41.5	8.5	
3	20	53	10.5	
4	25	62.5	12	
5	1/2"	34	8	
6	5/8"	41.5	8.5	
7	3/4"	53	10.5	
8	1"	62.5	12	

# Hydro Tool Holder

## Powermat

### APPLICATION

For use of bore-type tooling on Powermat moulders

### MACHINE

Powermat



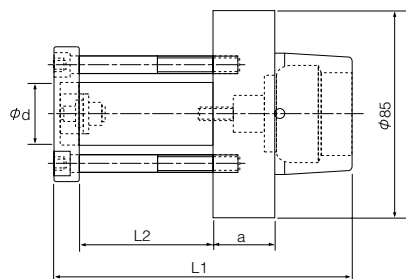
## Features & Benefits

- In order to use bore type tooling on Powermat machines the cutter must be clamped on an arbor with HSK taper
- Hydro arbors reduce the play between the cutter and the arbor enabling a better cut finish and longer tool life
- Can be exchange between tools



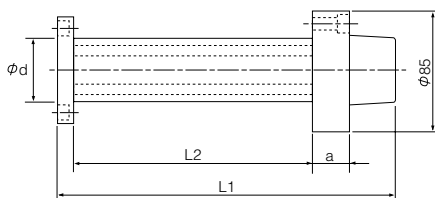
Regular tool holder without hydro clamping are available.

## ► Hydro Tool Holder Short



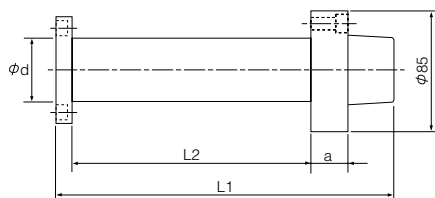
Order no.	Size				
	D [mm]	d [mm]	L2 [mm]	L1 [mm]	a [mm]
1	85	× 30	× 40	× 108	× 26
2	85	× 30	× 55	× 123	× 26
3	85	× 30	× 100	× 168	× 26
4	85	× 40	× 55	× 123	× 26

## ► Hydro Tool Holder Long



Order no.	Size				
	D [mm]	d [mm]	L2 [mm]	L1 [mm]	a [mm]
1	85	× 40	× 170	× 238	× 26
2	85	× 40	× 240	× 308	× 26
3	85	× 50	× 210	× 278	× 26

## ► Tool Holder



Order no.	Size				
	D [mm]	d [mm]	L2 [mm]	L1 [mm]	a [mm]
1	85	× 30	× 25	× 50	× 26
2	85	× 30	× 50	× 75	× 26
3	85	× 30	× 75	× 100	× 26
4	85	× 40	× 130	× 155	× 26
5	85	× 40	× 170	× 195	× 26
6	85	× 40	× 240	× 265	× 26

# Hydro Sleeve

## APPLICATION

Reduces play between spindle and arbor

## MACHINE

Moulder, tenoner, finger joint machines



## Features & Benefits

- Hydraulic sleeves reduce the play between the cutter and the machine arbor and enable concentric running of the tool. A good run-out leads to a better cut finish and longer edge life
- The hydraulic sleeve Types B and BI are provided with a threaded knurled ring nut and are easily exchangeable between tools
- Type A and B are pressurized with a grease pump
- Type AI and BI are closed systems and pressurized by tightening a pressure screw with a T-wrench

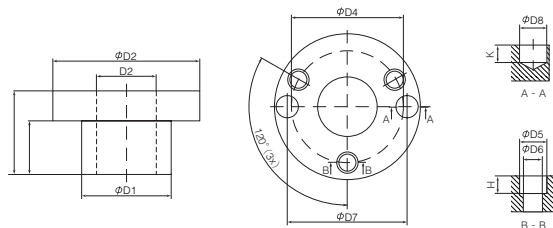
## Locking Ring



On open-ended spindles like on horizontal finger joint machines, it is essential to fit safety locknut or a well-secured safety ring to the spindle end.

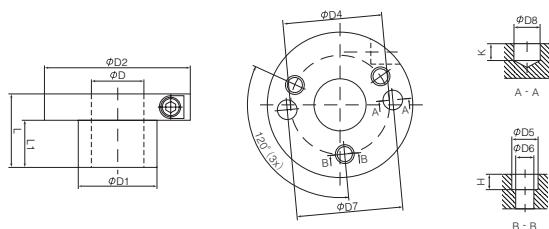
Spindle Diameter
1 1/4"
1 13/16"
2 1/8"
2 3/16"
60 mm

► Hydro Sleeve Type A - Pressurized with a grease pump



Order no.	Type	Size												
		D [mm]	D1 [mm]	D2 [mm]	D4 [mm]	D5 [mm]	D6 [mm]	D7 [mm]	D8 [mm]	H [mm]	K [mm]	L [mm]	L1 [mm]	Weight [kg]
1	A-1	30	40	83	64	10	6.0	65	15	5.5	10	55	35	0.8
2	A-2	30	50	83	64	10	6.0	65	15	5.5	10	55	35	1.0
3	A-3	35	50	83	64	10	6.0	65	15	5.5	10	55	35	0.9
4	A-4	40	50	83	64	10	6.0	65	15	5.5	10	55	35	0.8
5	A-5	35	60	93	74	14	10.5	75	15	8.5	10	55	35	1.3
6	A-6	40	60	93	74	14	10.5	75	15	8.5	10	55	35	1.2
7	A-7	45	60	93	74	14	10.5	70		8.5		55	35	1.1
8	A-8	50	60	93	74	14	10.5	75	15	8.5	10	55	35	0.9
9	A-9	40	60	93	74	14	10.5	75	15	8.5	10	75	55	1.5
10	A-10	45	60	93	74	14	10.5	75		8.5		75	55	1.3
11	A-11	50	60	93	74	14	10.5	75		8.5	10	75	55	1.1
		[inch]												
12	A-12	1 1/4"	40	75	55	15	10.5	55	15	9	10	55	35	0.7
13	A-13	1 13/16"	60	93	74	15	10.5	75	15	8.5	10	55	35	1.1
14	A-14	1 13/16"	65	98	80	15	10.5	80	15	9	10	55	35	1.4
15	A-15	2 1/8"	65	98	80	15	10.5	80	15	9	10	55	35	1.1

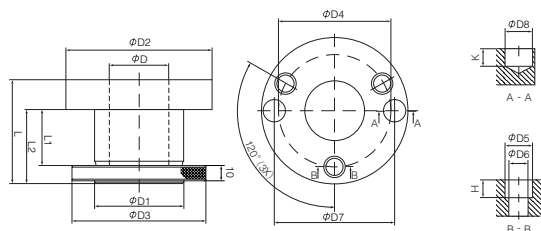
► Hydro Sleeve Type AI (Closed system) - Pressurized with a T-wrench



Order no.	Type	Size												
		D [mm]	D1 [mm]	D2 [mm]	D4 [mm]	D5 [mm]	D6 [mm]	D7 [mm]	D8 [mm]	H [mm]	K [mm]	L [mm]	L1 [mm]	Weight [kg]
1	AI-1	30	40	80	55	15	8.5	55	9	8.5	10	55	35	1.0
2	AI-2	30	50	83	64	10	6	65	15	5.5	10	55	35	1.2
3	AI-3	35	50	83	64	10	6	65	15	5.5	10	55	35	1.1
4	AI-4	40	50	83	64	10	6	65	15	5.5	10	55	35	1.1
5	AI-5	35	60	93	74	14	10.5	75	15	8.5	10	55	35	1.4
6	AI-6	40	60	93	74	15	10.5	75	15	8.5	10	55	35	1.3
7	AI-7	45	60	93	74	15	10.5	70		8.5		55	35	1.2
8	AI-8	50	60	93	74	14	10.5	75	15	8.5	10	55	35	1.0
9	AI-9	50	65	98	80	15	10.5	80	15	8.5	10	55	35	1.3
10	AI-10	40	60	93	74	15	10.5	75	15	8.5	10	75	55	1.7
11	AI-11	45	60	93	74	15	10.5	70		8.5		75	55	1.5
12	AI-12	50	60	93	74	14	10.5	75	15	8.5	10	75	55	1.2
		[inch]												
13	AI-13	1 1/4"	40	83	55	15	10.5	55	15	9	10	55	35	1.0
14	AI-14	1 1/2"	50	93	64	15	10.5	65	15	8.5	10	55	35	1.1
15	AI-15	1 13/16"	60	93	74	15	10.5	75	15	8.5	10	55	35	1.2
16	AI-16	1 13/16"	65	98	80	15	10.5	80	15	8.5	10	55	35	1.5
17	AI-17	2 1/8"	65	98	80	15	10.5	80	15	8.5	10	55	35	1.3

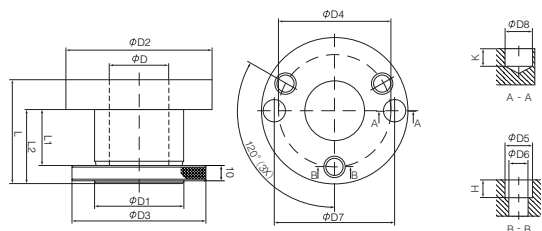


## ► Hydro Sleeve Type B - Pressurized with a grease pump



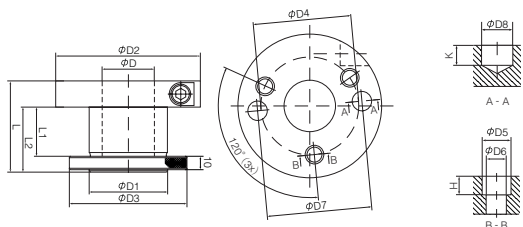
Order no.	Type	Size														
		D	D1	D2	D3	D4	D5	D6	D7	D8	H	K	L	L1	L2	Weight
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]
1	B-1	30	50	83	83	64	10	6.0	65	15	5.5	10	75	40	55	1.5
2	B-2	35	50	83	83	64	10	6.0	65	15	5.5	10	75	40	55	1.4
3	B-3	35	50	83	83	64	10	6.0	65	15	5.5	10	115	80	95	1.6
4	B-4	35	50	83	83	64	10	6.0	65	15	5.5	10	165	130	145	2.0
5	B-5	35	60	93	90	74	14	10.5	75	15	8.5	10	75	40	55	1.9
6	B-6	35	60	93	90	74	14	10.5	75	15	8.5	10	115	80	95	2.5
7	B-7	35	60	93	90	74	14	10.5	75	15	8.5	10	140	105	120	2.8
8	B-8	35	60	93	90	74	14	10.5	75	15	8.5	10	165	130	145	3.0
9	B-9	40	50	83	83	64	10	6.0	65	15	5.5	10	75	40	55	1.2
10	B-10	40	50	83	83	64	10	6.0	65	15	5.5	10	115	80	95	1.3
11	B-11	40	50	83	83	64	10	6.0	65	15	5.5	10	140	105	120	1.5
12	B-12	40	50	83	83	64	10	6.0	65	15	5.5	10	165	130	145	1.6
13	B-13	40	50	83	83	64	10	6.0	65	15	5.5	10	190	155	170	1.7
14	B-14	40	60	93	90	74	15	10.5	75	15	8.5	10	75	40	55	1.7
15	B-15	40	60	93	90	74	15	10.5	75	15	8.5	10	95	60	75	2.0
16	B-16	40	60	93	90	74	15	10.5	75	15	8.5	10	115	80	95	2.2
17	B-17	40	60	93	90	74	15	10.5	75	15	8.5	10	140	105	120	2.5
18	B-18	40	60	93	90	74	15	10.5	75	15	8.5	10	165	130	145	2.8
19	B-19	40	60	93	90	74	15	10.5	75	15	8.5	10	215	180	195	3.4
20	B-20	45	60	93	90	74	15	10.5	70		8.5		75	40	55	1.5
21	B-21	45	60	93	90	74	15	10.5	70		8.5		95	60	75	1.7
22	B-22	45	60	93	90	74	15	10.5	70		8.5		115	80	95	1.9
23	B-23	45	60	93	90	74	15	10.5	70		8.5		140	105	120	2.1
24	B-24	45	60	93	90	74	15	10.5	70		8.5		190	155	170	2.6
25	B-25	45	60	93	90	74	15	10.5	70		8.5		240	205	220	3.1

## ► Hydro Sleeve Type B - Pressurized with a grease pump



Order no.	Type	Size														
		D	D1	D2	D3	D4	D5	D6	D7	D8	H	K	L	L1	L2	Weight
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]
26	B-26	50	60	93	90	74	15	10.5	75	15	8.5	10	75	40	55	1.3
27	B-27	50	60	93	90	74	15	10.5	75	15	8.5	10	95	60	75	1.4
28	B-28	50	60	93	90	74	15	10.5	75	15	8.5	10	115	80	95	1.6
29	B-29	50	60	93	90	74	15	10.5	75	15	8.5	10	140	105	120	1.7
30	B-30	50	60	93	90	74	15	10.5	75	15	8.5	10	190	155	170	2.1
31	B-31	50	60	93	90	74	15	10.5	75	15	8.5	10	230	195	210	2.4
32	B-32	50	60	93	90	74	15	10.5	75	15	8.5	10	240	205	220	2.5
		[inch]														
33	B-33	1 1/4"	40	75	75	55	15	10.5	55	15	9	10	85	50	65	1.1
34	B-34	1 1/4"	40	75	75	55	15	10.5	55	15	9	10	135	100	115	1.2
35	B-35	1 1/2"	50	83	83	64	15	10.5	64	15	9	10	85	50	65	1.2
36	B-36	1 1/2"	50	83	83	64	15	10.5	64	15	9	10	135	100	115	1.6
37	B-37	1 1/2"	50	83	83	64	15	10.5	64	15	9	10	185	150	165	2.0
38	B-38	1 13/16"	60	93	90	74	15	10.5	75	15	8.5	10	75	40	55	1.5
39	B-39	1 13/16"	60	93	90	74	15	10.5	75	15	8.5	10	115	80	95	1.8
40	B-40	1 13/16"	60	93	90	74	15	10.5	75	15	8.5	10	140	105	120	2.0
41	B-41	1 13/16"	60	93	90	74	15	10.5	75	15	8.5	10	190	155	170	2.5
42	B-42	1 13/16"	65	98	98	80	15	10.5	80	15	9	10	85	50	65	2.1
43	B-43	1 13/16"	65	98	98	80	15	10.5	80	15	9	10	135	100	115	2.7
44	B-44	1 13/16"	65	98	98	80	15	10.5	80	15	9	10	185	150	165	3.4
45	B-45	1 13/16"	65	98	98	80	15	10.5	80	15	9	10	235	200	215	4.0
46	B-46	2 1/8"	65	98	98	80	15	10.5	80	15	9	10	85	50	65	1.7
47	B-47	2 1/8"	65	98	98	80	15	10.5	80	15	9	10	135	100	115	2.1
48	B-48	2 1/8"	65	98	98	80	15	10.5	80	15	9	10	185	150	165	2.5
49	B-49	2 1/8"	65	98	98	80	15	10.5	80	15	9	10	235	200	215	2.9
50	B-50	2 1/8"	65	98	98	80	15	10.5	80	15	9	10	285	250	265	3.3

## ► Hydro Sleeve Type BI (Closed system) - Pressurized with a T-wrench



Order no.	Type	Size														
		D	D1	D2	D3	D4	D5	D6	D7	D8	H	K	L	L1	L2	Weight
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]
1	BI-1	35	50	100	83	64	15	10.5	65	15	8.5	10	75	40	55	1.5
2	BI-2	35	60	102	90	74	15	10.5	75	15	8.5	10	75	40	55	2.1
3	BI-3	40	50	100	83	64	15	10.5	65	15	8.5	10	75	40	55	1.3
4	BI-4	40	60	102	90	74	15	10.5	75	15	8.5	10	75	40	55	1.9
5	BI-5	40	60	108	90	74	15	10.5	75	15	8.5	10	95	60	75	2.1
6	BI-6	40	60	108	90	74	15	10.5	75	15	8.5	10	115	80	95	2.4
7	BI-7	40	60	114	90	74	15	10.5	75	15	8.5	10	140	100	115	3.3
8	BI-8	45	60	102	90	74	15	10.5	70		8.5		75	40	55	1.7
9	BI-9	45	60	108	90	74	15	10.5	70		8.5		95	60	75	1.9
10	BI-10	45	60	108	90	74	15	10.5	70		8.5		115	80	95	2.1
11	BI-11	45	60	114	90	74	15	10.5	75		8.5		140	100	115	2.9
12	BI-12	50	60	102	90	74	15	10.5	75	15	8.5	10	75	40	55	1.5
13	BI-13	50	60	108	90	74	15	10.5	75	15	8.5	10	95	60	75	1.6
14	BI-14	50	60	108	90	74	15	10.5	75	15	8.5	10	115	80	95	1.8
15	BI-15	50	60	114	90	74	14	10.5	75	15	8.5	10	140	100	115	2.5
		[inch]														
16	BI-16	1 1/2"	50	100	83	64	15	10.5	65	15	8.5	10	85	50	65	1.7
17	BI-17	1 1/2"	50	106	83	64	15	10.5	65	15	8.5	10	135	100	115	1.8
18	BI-18	1 13/16"	60	102	90	74	15	10.5	75	15	8.5	10	75	40	55	1.7
19	BI-19	1 13/16"	60	108	90	74	15	10.5	75	15	8.5	10	95	60	75	1.9
20	BI-20	1 13/16"	60	108	90	74	15	10.5	75	15	8.5	10	115	80	95	2.1
21	BI-21	1 13/16"	60	114	90	74	15	10.5	75	15	8.5	10	140	100	115	2.8
22	BI-22	1 13/16"	65	108	98	80	15	10.5	80	15	9	10	85	50	65	2.3
23	BI-23	1 13/16"	65	117	98	80	15	10.5	80	15	8.5	10	135	95	110	3.5
24	BI-24	2 1/8"	65	108	98	80	15	10.5	80	15	9	10	85	50	65	1.9
25	BI-25	2 1/8"	65	117	98	80	15	10.5	80	15	8.5	10	135	95	110	2.8



# 8

KANEFU S A

## Industrial Knives

<b>Slicer Knife</b>	<i>Veneer Knife</i>	133
<b>Peeling Knife</b>	<i>Veneer Knife</i>	133
<b>Clipper Knife</b>	<i>Veneer Knife</i>	133
<b>Timber Tec</b>	<i>Chipper Knife</i>	134
<b>Flaker Knife</b>	<i>Chipboard &amp; OSB Production</i>	135



Industrial  
Knives

# Veneer Knives

## APPLICATION

Peeling, slicing and clipping of veneer

## MACHINE

Rotary lathe, stay log, horizontal slicer machine, vertical slicer machine, clipper

## MATERIAL

Softwoods, hardwoods, tropical woods

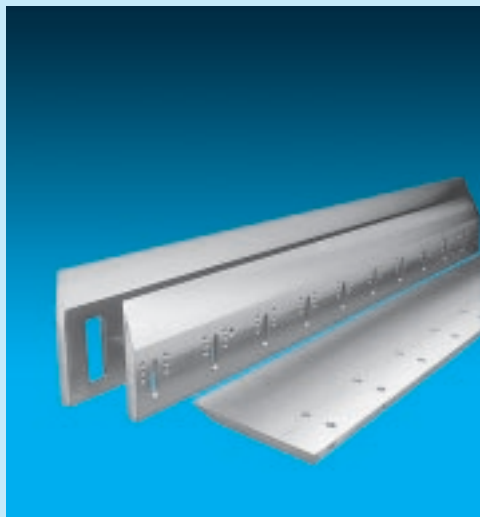
## EDGE MATERIAL

Alloy Steel (inlaid)

High Alloy Steel (inlaid and solid)

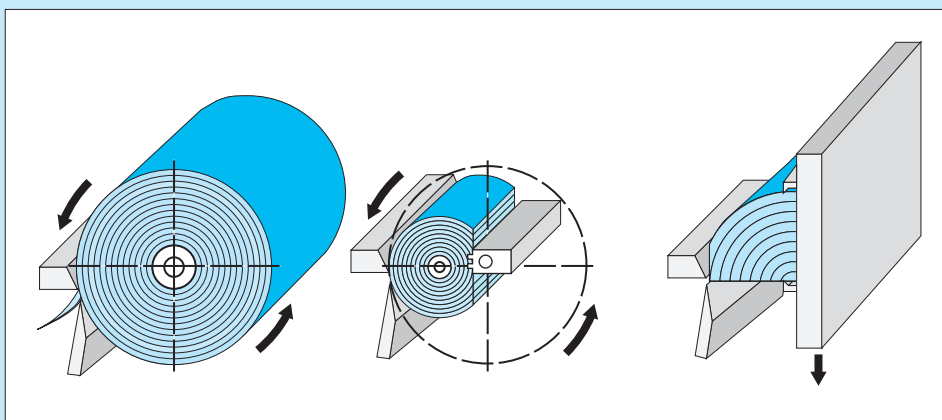
Semi-High Speed Steel (inlaid)

High Speed Steel (inlaid)



## Features & Benefits

- We have perfected the manufacturing of veneer knives. Extreme flatness, parallelism and edge holding ability provide hours of continuous veneer cutting to closely controlled thickness requirements
- Provides maximum stain resistant and shock resistant properties
- The knives are manufactured per drawing or according to a sample



# Timber Tec

## Chipper Knife

### MACHINE

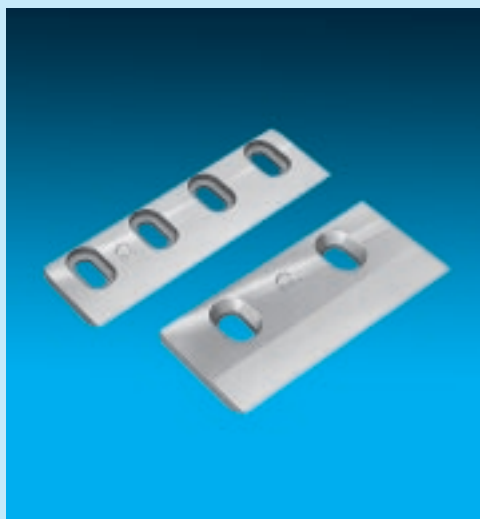
Chipper machine

### MATERIAL

Softwoods, hardwoods

### EDGE MATERIAL

Special HSS (solid)



## Features & Benefits

- TimberTec Chipper Knives are made from a new grade of special high speed steel which is very tough but at the same time hard enough to outlast conventional knives by more than 2 times
- The included angle may vary between 26° and 40° according to machine and condition of the timber
- Besides knives, we also deliver counter-knives, pressure bars, lapping stones and other accessories made from die steel and alloy steel
- Chipper knives in Tool Steel (solid), High Alloy Steel (solid) and Semi-HSS (inlay) are available
- The knives are manufactured per drawing or according to a sample

### Efficiency Study at a User in South East Asia

	Timber Tec Chipper Knife		Conventional Chipper Knife	
	Run time [h]	Chip production [t]	Run time [h]	Chip production [t]
1	1 : 14	378.55	0 : 46	179.45
2	1 : 58	445.18	0 : 38	116.79
3	1 : 57	469.64	0 : 44	152.95
4	2 : 05	583.05	0 : 42	144.05
5	1 : 51	538.54	0 : 47	171.38
6	0 : 54	251.87	0 : 36	136.88
7	2 : 46	657.33	0 : 52	196.07
○	1 : 49	474.88	0 : 43	156.80

Machine : Metso Paper  
 Model : Camura GS  
 Material : Mixed hardwood  
 Knife Angle : 28° + 14°  
 Hardness : HRC 56~57

# Flaker Knives

## APPLICATION

Chipping of timber for use in  
OSB or particleboard production

## MACHINE

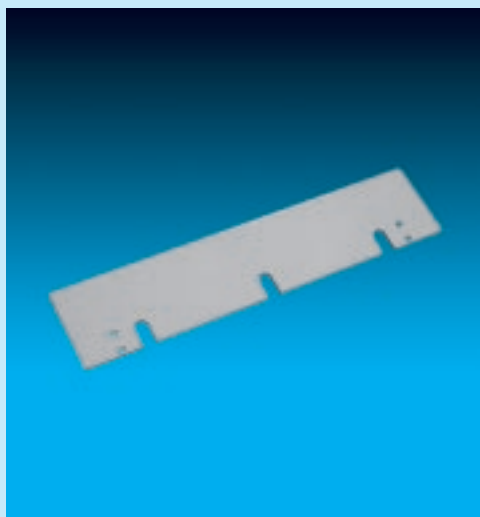
Ring and drum flaker such as Pallmann, Maier

## MATERIAL

Softwoods, hardwoods

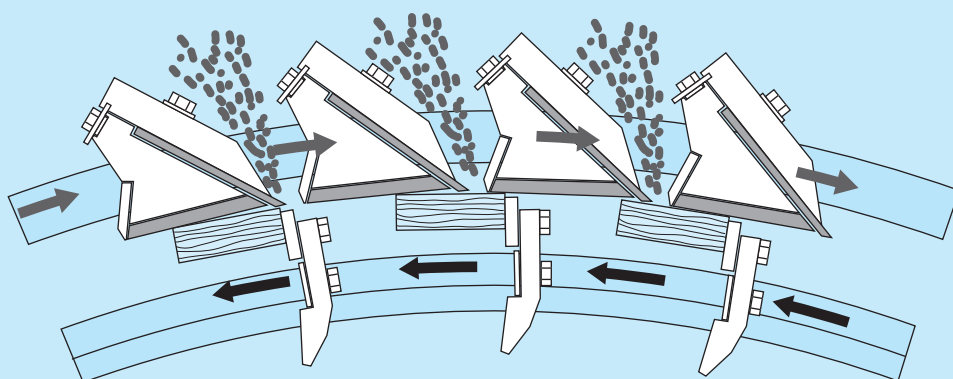
## EDGE MATERIAL

Tool steel (solid)  
Semi-High Speed Steel (inlayed)

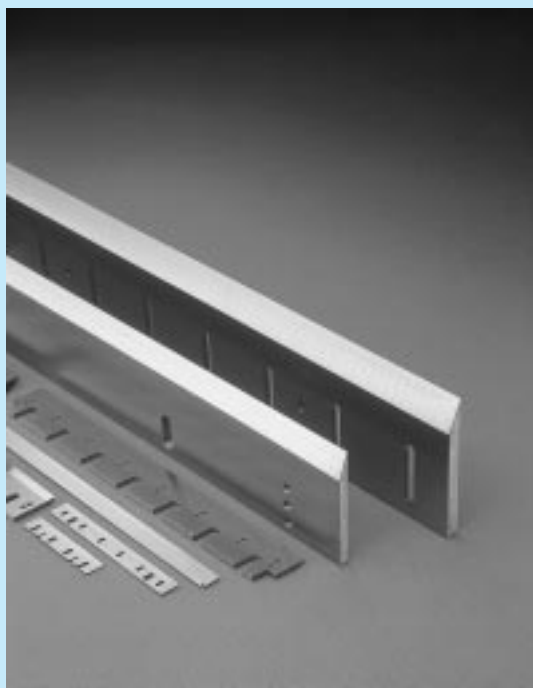


## Features & Benefits

- Besides knives, we also deliver consumable parts of ring flakers such as wear shoes, knife holder plates, guide shoes, etc
- The knives are manufactured per drawing or according to a sample









# Company Profile

*KANEFU S A*

<b>Business Activities</b>	139
<b>Global Network</b>	141
<b>Quality</b>	143
<b>History</b>	145



# Business Activities

Cutting tools are an essential part in the manufacturing process of almost any product in any industry all around the world. Productivity, product quality, quality rates and the effective use of resources depend on the quality of the tools used.

Kanefusa develops, manufactures and supplies value-added tools and services to users in the woodworking, metalworking, plastic and paper industries.

## Woodworking Industry



## Metalworking Industry



## Research & Development

In August 1995, the new Technical Center for enhanced research and development activities was completed. To carry out intense research activities in areas of material science, cutting and grinding technology, state of the art equipment such as scanning electron microscope (SEM), experimental furnaces, CNC-router machines, moulder and various sawing machines are available to our devoted engineers.

## Activities

- Developing products with clear user value and testing of tooling in respect to performance, safety and function
- Joint research, development and experimentation with users and machine builders
- Research and development of cutting and grinding technologies
- Rapid prototyping

## Manufacturing Techniques

Our motto is "quality products arrive from quality equipment and techniques". We have been proactively developing various manufacturing technologies. Parallel fulfillment of the in-depth pursuit of quality and reduction of cost are our focus when developing equipment. Awareness of further improvements leads to in-house development of machines designed with the originality and ingenuity of our engineers. Approximately 40% of equipment used at our factory has been developed by our engineers. We are dedicated to supplying reliable tools and service by further development of equipment and manufacturing techniques aimed at improved quality, reduction of costs higher precision and better function.

## Sales Activities

Knowledge, responsiveness and reliable customer support have become key drivers in today's business. It is therefore of utmost importance to transfer the technical know-how of our R&D Center as well as commercial information into our subsidiaries and distributor network. Besides providing appropriate literature and demonstration models, hands-on seminars have proven to be one of the most effective ways of enhancing the competence of our Distribution Network. We offer seminars and practical training courses for all knowledge levels, from the beginner to the professional.

On a regular basis we inform the consumer as well as our sales network through our website newsletter of the participation in trade shows and the organization of conferences about newly developed products and technologies, market news and intra-company information. Opinion and experience exchanges are vital parts in our development of new products, technologies and services.

### Paper Industry



### Plastic Industry & Special Projects



# Global Network

Our world-spanning network guarantees local user satisfaction

P.T. KANEFUSA INDONESIA, and KANEFUSA CHINA CORPORATION are offshore manufacturing sites. To ensure highest product quality, raw materials and semi-finished products are supplied from Japan and processed on state of the art machinery from Germany and Japan.

KANEFUSA USA, INC., KANEFUSA EUROPE B.V., Malaysia Office, P.T. KANEFUSA INDONESIA and KUNSHAN KANEFUSA CORPORATION support our distributor network in commercial and technical issues and carry out grinding services in order to ensure highest user satisfaction and customer retention.



**KANEFUSA EUROPE B.V.**  
Main Office (The Netherlands)  
German Office



**KANEFUSA CHINA CORPORATION**  
**KUNSHAN KANEFUSA CORPORATION**



**KANEFUSA USA, INC.**



**KANEFUSA CORPORATION JAPAN**

- Nagoya Head Office & Factory
- Osaka Office
- Tokyo Office
- Sapporo Office
- Sendai Office
- Hiroshima Office
- Fukuoka Office

Malaysia Office



**P.T. KANEFUSA INDONESIA**  
Surabaya Service Center

## North America

- **KANEFUSA USA, INC.**  
2762 Circleport Drive, Erlanger, KY, 41018 U.S.A.  
TEL: +1 859 283 1450 FAX: +1 859 283 5256  
E-mail: [kanefusa@hotmail.com](mailto:kanefusa@hotmail.com)

## Europe

- **KANEFUSA EUROPE B.V. Main Office**  
De Witbogt 12, 5652 AG, Eindhoven, The Netherlands  
TEL: +31 40 2900901 FAX: +31 40 2900908  
E-mail: [rocky.hayashi@kanefusa.nl](mailto:rocky.hayashi@kanefusa.nl)
- **KANEFUSA EUROPE B.V. German Office**  
Radlerstrasse 78, D-87600 Kaufbeuren, Germany  
TEL: +49 8341 95 59 659 FAX: +49 8341 95 59 661  
E-mail: [office@kanefusa.de](mailto:office@kanefusa.de)

## China

- **KANEFUSA CHINA CORPORATION**  
No. 50 Zhuzhu Road, Lujia Town Kunshan city, Jiangsu, China  
TEL: +86 512 57875072 FAX: +86 512 57875073  
E-mail: [yy@kfcn.szbnet.com](mailto:yy@kfcn.szbnet.com)
- **KUNSHAN KANEFUSA CORPORATION**  
No. 50 Zhuzhu Road, Lujia Town Kunshan city, Jiangsu, China  
TEL: +86 512 57875072 FAX: +86 512 57875073  
E-mail: [yy@kfcn.szbnet.com](mailto:yy@kfcn.szbnet.com)

## Southeast Asia

- **P.T. KANEFUSA INDONESIA**  
EJIP Industrial Park, Plot 8D, Cikarang Selatan, 17550, West Java, Indonesia  
TEL: +62 21 897 0360 FAX: +62 21 897 0286 / 0287  
E-mail: [sales@kanefusa.co.id](mailto:sales@kanefusa.co.id)
- **Surabaya Service Center**  
Jl. Berbek Industri  
VII/5.B. Kepuhkiriman, Waru Sidoarjo 61256  
TEL: +62 31 8491784 FAX: +62 31 8492784
- **Malaysia Office**  
Level 36, Menara Citibank 165, Jalan Ampang, 50450 Kuala Lumpur, Malaysia  
TEL: +60 3 21697720 / +60 3 21697721 FAX: +60 3 21697722  
E-mail: [kanefusamal@myjaring.net](mailto:kanefusamal@myjaring.net)

# Quality

**Quality is when the customer comes back and not the product**

Kanefusa is recognized throughout the world as a premium tool manufacturer and satisfied users testify to the reliability of our products and services.

It is also acknowledged by the market that we are continually striving to improve our company (Kaizen) and the quality of our processes, products and services. An essential factor in improving quality is the employee and the key words here are learning, knowledge and motivation. By way of regular seminars and training, our employees are updated with the latest machine, process, product, market and management knowledge enabling them to respond flexibly to the ever-changing market demands and ensuring the highest product and service quality.

Each department forms a Quality Improvement Team, which is part of the Kanefusa Quality Circle. The teams compete with each other, which keeps motivation high and ensures that the continuous improvement process does not stop. Occasionally, the teams compete with teams from other companies.



Technical Seminar



Kaizen Discussion



Quality Circle Team



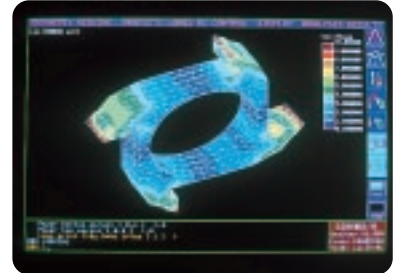
Besides highly qualified and motivated employees, we are constantly investing in the latest machine and manufacturing equipment, computer systems and R&D equipment. If there is no technology available that satisfies our needs, we develop it. Our dedicated engineers develop about 40 % of our equipment.

Another part of our commitment to quality is to invent, produce and sell only products that are safe to use. One very important sales point of our products is that they run quieter, produce less dust, are easier to handle and have higher durability than other makes.

Naturally we are ISO 9001 and ISO 14001 certified.



Grinding Centre



Tool Structure Analysis by FEM-technology



JQA-QM3710



JQA-EM3137

Head Office Factory

# History

- |             |                                                                                                                                                                                                                               |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1896</b> | The blacksmith Kankichi Kamiya establishes "Uchihamonoshi Kanefusa" (Forging Master of Agricultural Tools) in Goheizou, Nagoya.                                                                                               |
| <b>1931</b> | Suzuo Watanabe, son of the founder, succeeds the business of his father and makes extensive improvements to High Speed Steel machine knives.                                                                                  |
| <b>1937</b> | Kanefusa Hamono Ltd. is established.                                                                                                                                                                                          |
| <b>1948</b> | A new factory is built in Rokuban-cho, Atsuta-ku, Nagoya and the company is renamed to Kanefusa Hamono Kogyo Co., Ltd.                                                                                                        |
| <b>1957</b> | Suzuo Watanabe travels to Europe to research European knife manufacturing and steel refining technologies.                                                                                                                    |
| <b>1959</b> | Kanefusa is the first Japanese machine tool manufacturer to use a High Frequency Induction Heating System for mass production of quality knives.                                                                              |
| <b>1964</b> | A new state of the art factory is built in Ohguchi-cho, Niwa-gun, Aichi Prefecture.                                                                                                                                           |
| <b>1965</b> | The main factory in Ohguchi-cho receives JIS certification ( JIS = Japan Industrial Standards ).                                                                                                                              |
| <b>1967</b> | The first Research and Development Center is completed.                                                                                                                                                                       |
| <b>1968</b> | For product distribution, Kanefusa Knife & Saw Co., Ltd. is established.                                                                                                                                                      |
| <b>1969</b> | Kanefusa receives the Contribution Award from the Minister of International Trade and Industry.                                                                                                                               |
| <b>1970</b> | The capacity of the heat treatment facility is largely increased.                                                                                                                                                             |
| <b>1971</b> | Suzuo Watanabe is inaugurated as chairman of the Japan Saw Blade & Knife Industrial Association (JSK).<br>Kanefusa receives the Contribution Award from the Minister of International Trade and Industry for the second time. |
| <b>1972</b> | The production capacity of the T.C.T. saw blade plant is expanded.                                                                                                                                                            |
| <b>1976</b> | The Ministry of International Trade and Industry acknowledges Kanefusa Hamono Ltd. as a factory of superior industrial standard.                                                                                              |
| <b>1981</b> | Hiroshi Watanabe becomes President.<br>Suzuo Watanabe becomes Chairman.<br>The production of PCD tooling begins.                                                                                                              |
| <b>1982</b> | A new cold saw blade plant is completed.<br>Production and sales of the ACE insert tooling system starts.                                                                                                                     |



Kankichi Kamiya



Inside the factory in Rokuban-cho (1957)



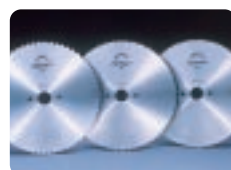
Prayer for safety before construction of the Main Factory (Early 1960's)



20th Anniversary (1968)



Suzuo Watanabe



TA Cold Saw Blade

<b>1985</b>	The production capacity of the cold saw blade plant is expanded. The Head Office moves to Ohguchi-cho, where the Main Factory is located.
<b>1986</b>	P.T. Kanefusa Indonesia, the first offshore production facility, is established in Jakarta, Indonesia. An office in Singapore is set up.
<b>1990</b>	Kanefusa Hamono Ltd. and Kanefusa Knife and Saw Co., Ltd. merge to become KANEFUSA CORPORATION. A new T.C.T. saw blade production site is completed.
<b>1995</b>	Kanefusa Corporation is listed at the Nagoya Stock Exchange, Second Section. The production capacity of P.T. Kanefusa Indonesia is sharply increased.
<b>1996</b>	The new Technical Center for comprehensive Research and Development is completed.
<b>1998</b>	A liaison office in Eindhoven, The Netherlands, is set up.
<b>1999</b>	Kanefusa U.S.A. is established. Kanefusa Head Office and factory receive ISO 9001 certification.
<b>2000</b>	Masato Watanabe becomes President. Hiroshi Watanabe becomes Chairman.
<b>2001</b>	Kanefusa EUROPE B.V. is founded in Eindhoven, The Netherlands.
<b>2002</b>	Kanefusa China Corporation, the second offshore production facility, is established in Kunshan city, near Shanghai.
<b>2003</b>	Kunshan Kanefusa Corporation is set up. Kanefusa Head Office and Factory receive ISO 14001 certification.
<b>2004</b>	Kanefusa China Corporation receives ISO 9001 certification. The office in Singapore moves to Kuala Lumpur, Malaysia. A liaison office in Germany, which is under the jurisdiction of Kanefusa Europe B.V., is established. P.T. Kanefusa Indonesia receives ISO 9001 certification.
<b>2005</b>	Kanefusa China Corporation receives ISO 14001 certification.
<b>2006</b>	Kanefusa Corporation is listed at the Tokyo Stock Exchange, 2nd Section. Kunshan Kanefusa Corporation acquires sales rights in China.



Outside view of KFI (1986)



R&D Technical Center (1996)



Hiroshi Watanabe



Masato Watanabe



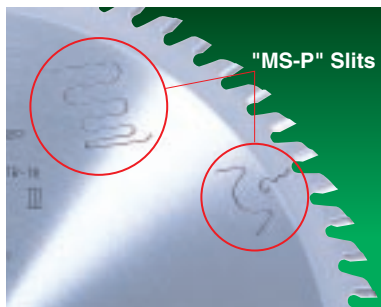
Saw Blade Technology	149
Thin Sawing Technology (TST)	150
Advanced Material Technology ( $\alpha$ MT)	151
PCD Fusion Technology (V-tech)	152
TAF-C Finger Joint Knives	153



General Technical Information	154
Cutting Edge Materials	158
Saw Blade Specifications	159
Tooth Geometries	160

# Saw Blade Technology

## Kanefusa Original Technology



All Kanefusa saw blades are engineered to the absolute highest engineering standards. We believe in “Kaizen” and continuously innovate saw blade design, saw blade components, manufacturing technologies and quality control standards to achieve one goal. Higher user value.

### User Value

- Less noise or cutting dust, for a better and safer work environment.
- Better performance for more machine uptime and less grinding cost.
- Constant and repeatable performance for a stable manufacturing process.
- Better cut quality for better products.
- Better recovery rates for higher material utilization.

Our saw blades outlast and outperform the conventional and offer more value than the conventional.

Satisfied customers attest to the reliable performance of Kanefusa saw blades worldwide.

### Features for Reliable Performance

■ Kanefusa uses only the very best steel for its saw blades. After heat treatment, the saw plate is very flat. Kanefusa's proprietary flattening and surface grinding processes ensure plates that are distortion free and have uniform thickness. A good plate with high stiffness is essential for straight running of the saw.

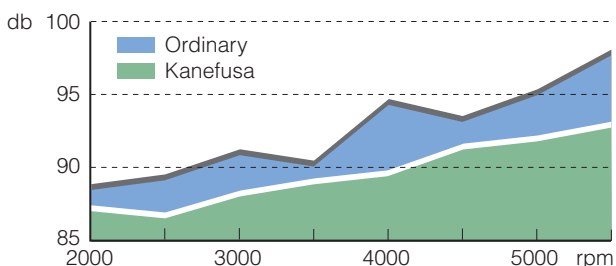
■ Kanefusa Board Pro series have polymer injected vibration damping elements incorporated into the plate.

Vibrations are responsible for

- high tone noise which causes hardness of hearing which is identified as one of the most common occupational diseases in woodworking and irreparable.
- bad performance, due to structural damages to the carbide grain.
- bad cut quality because of edge chipping or a waving cut.

■ Special carbide, which is exclusively available to Kanefusa, was developed in cooperation with a leading carbide manufacturer. The carbide was designed for cutting of board materials and clearly outlasts conventional carbides.

■ The Kanefusa grinding process is a painstaking one. Each tooth is perfectly honed. Proprietary cooling methods assist with creating mirror-like finishes on the carbide teeth, that guarantees perfect cut finishes.



Noise comparison between a Kanefusa Board Pro saw blade and an ordinary saw blade

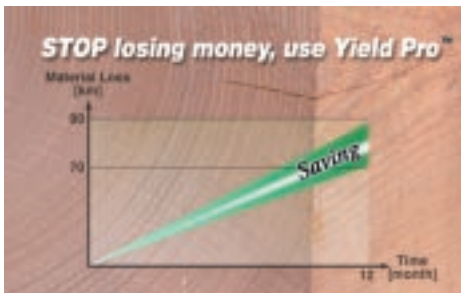
# Thin Sawing Technology

Kanefusa Original Technology



Kanefusa's proprietary flattening and surface grinding methods ensure plates are distortion free and have a uniform thickness.

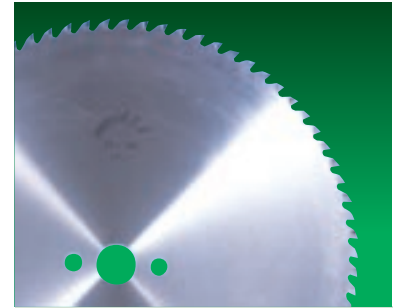
In addition to these features, after years of research, we have developed a laser slot pattern that allows reduction of the plate thickness, without compromising its lateral rigidity and ability to run straight. Polymers are injected into the laser slots and this reduces the vibration that causes high tone noise, structural damage of the carbide grain and a waving cut.



On average the kerf of a Yield Pro saw blade is 20% thinner compared to regular saw blades. This also creates less cutting pressure, which relates to better material recovery rates, cut surface quality, noise and tool life. Yield Pro saw blades are used on optimizing saws or cut off saws to cut solid timber.

## Dimensions

	Yield Pro	Conventional	
D [mm]	Saw Blade Kerf [mm]	Saw Blade Kerf [mm]	Difference [%]
300	2.6	3.2	18.8
350	2.8	3.5	20.0
400	3.0	4.0	25.0
450	3.2	4.4	27.3
500	3.4	4.4	22.7
550	4.0	4.8	16.7
600	4.2	5.2	19.2



## User Value

- Significant annual material savings.
- Better cut quality since a thinner kerf generates less cutting pressure which greatly reduces the grain tear-out.
- Enables you to run consistently faster cycle

### Calculation example:

Kerf reduction = 0.7 mm.  
 Material = Softwood  
 50 cycle/min. = 3.5 cm fiber saving/min.  
 Effective working hours per day = 6  
 Effective working days per year = 250

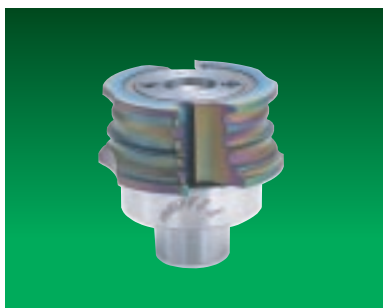
**Annual fiber saving = 3150 m**





# Advanced Material Technology

Kanefusa Original Technology



## User Value

- 3-15 times longer edge life depending on the application leads to a better machine utilization for more output and less grinding cost due to less regrinds per year
- Smooth and tear-out free cut surface
- Reduction of manufacturing costs due to higher process stability and significant lower rejection rates due to torn grain and other defects
- Due to less residue adhesion, permanent higher feed speed can be realized
- Tools run quieter and power consumption does not increase significantly during run time

Kanefusa is the pioneer and worldwide leader in the development of advanced cutting edge materials for the wood working industry.

The first product treated with  $\alpha$ MT where ST-1 planer knives, which we started selling in 1995.

Today we have two treatments for different substrate materials.

HS-HP is applied to cutting edges with a High Speed Steel substrate.

HC-UP is applied to cutting edges with a Tungsten Carbide base.

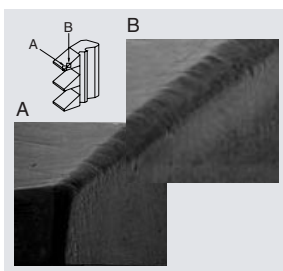
Both treatments change the wear characteristics of cutting edges. The result are extensively longer edge life and outstanding surface finishes when machining solid wood. Tools treated with advanced material technology can be re-sharpened multiple times with conventional grinding equipment.



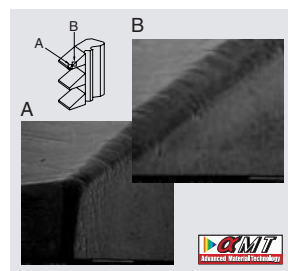
HSS Knife



ST-1 Planer Knife



HSS Finger Joint Cutter



TAF-C Finger Joint Cutter



# PCD Fusion Technology

Kanefusa Original Technology



Polycrystalline Diamond (PCD) is considerably harder and wear resistant than tungsten carbide enabling tremendous longer tool life. However, due to the brittleness of the PCD, the cutting edge geometry of a PCD saw blades is less aggressive compared to that of a Tungsten Carbide Tipped saw blade. In result, the cut quality is inferior to that of a T.C.T. saw blade.

We have developed a V-shaped rake side tooth geometry for PCD tipped saw blades, which cuts aggressive like a T.C.T. saw blade. In result the tool life is 30 to 40 times longer and the saw blades cuts tear out free laminated particleboard or MDF.



In order to manufacture such a tooth shape, it was necessary to invent a technology that allows fusing single PCD elements together. After years of research, we have successfully developed this technology. The first product available with two single pieces of PCD fused into a V-shaped tip is the V-tech PCD saw blade.

V-tech saw blades are very suitable for use on vertical panel saws and table saws to cut plastic or paper laminated MDF and particleboard.

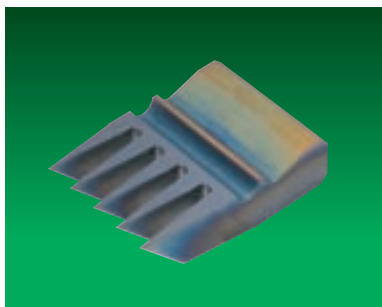


## User Value

- Longer edge life than a T.C.T. saw blade and an excellent cut finish allows tremendous cost savings in the manufacturing process
- DIA V-tech saw blades can be re-sharpened several times
- Runs very straight because the cutting forces are in balance

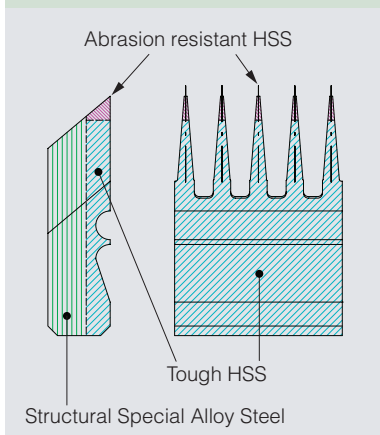
# TAF-C Finger Joint Knives

Kanefusa Original Technology



## User Value

- 50% longer tool life than regular HP-treated finger joint cutters leads to better machine utilization and less grinds per year
- Less stock removal during grinding relates to faster grinding and a longer use life of the finger joint cutter
- Because the cutting edge stays sharp, the knife cuts cleaner, which relates to a truer cut profile



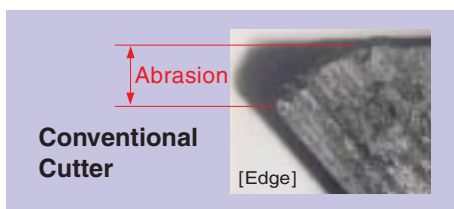
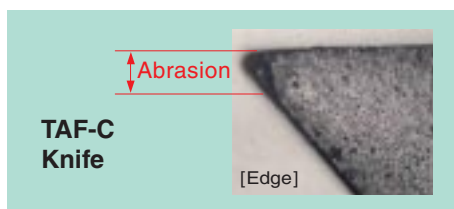
Chipping and rounding of the cutting edge of finger joint cutters leads to tremendous losses in machine run time, high grinding costs and excessive spending on new tooling.

The cutting edge is often a solid single layered material. At Kanefusa we have developed a multi-structured material that clearly outperforms ordinary tooling.

The multi-structure takes into account that the top and bottom finger are exposed to different forces and wear. The top of the cutter is made of a highly abrasion resistant High Speed Steel (HSS), which slows down the rounding process and minimizes chipping of the cutting edge.

The bottom is built from hard but flexible steel to reduce breakage of the fingers due to excessive cutting forces. This structure is built on an alloy steel substrate with a high shock resistance.

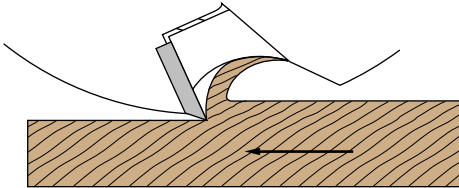
TAF-C finger jointing knives (inserts) are used to cut softwood in the production of engineered wood with a length of 15/15, 15/16.5, 20/20 and 20/22 mm.



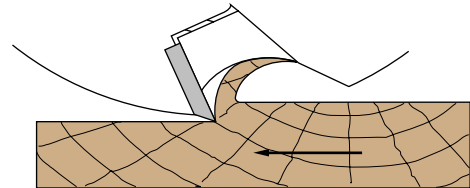
# General Technical Information

Kanefusa Original Technology

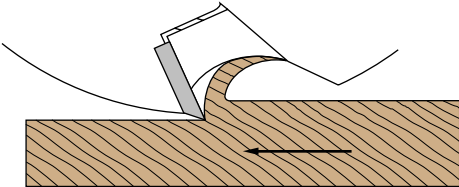
**Cutting with grain** leaves a smooth surface.



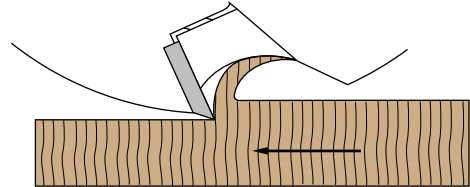
**Cutting across grain** is easily done but leaves a rough finish.



**Cutting against grain** gives a raw surface due to pre-splitting of the wood in front of the cutting edge.

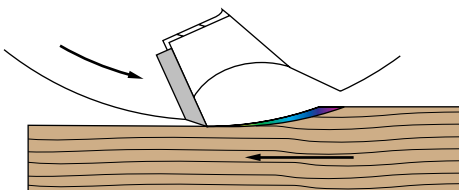


**Cutting end grain** requires most horsepower and gives rough finish.



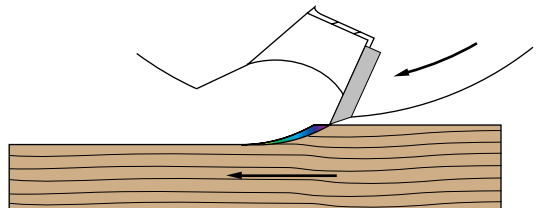
## Abrasive Cutting / Cutting against the feed

In abrasive cutting the cutting edge motion is against the feed direction of the material. The cutting edge enters into the work piece shaving and pushing. The cutting process creates a long chip with increasing thickness. The direction of the cutting force is up from the table, trying to lift up the work piece. Especially when machining against the grain, tear-outs are inevitable.



## Climb Cutting / Cutting with the feed

In climb cutting the cutting edge motion is with the feed direction of the material. The cutting edge enters into the work piece. The cutting process creates a short chip with decreasing thickness. The direction of the cutting forces are into the material and pre-splitting of the grain is omitted. Smooth surface even when machining against the grain can be achieved.



# General Technical Information

## Cutting Speed $V_c$

The cutting speed is the velocity of the blade at its outmost diameter. It is an important performance characteristic of tooling. The cutting speed of the tool should match material cut. The cutting speed can be manipulated by changing the spindle speed or outer tool diameter.

$$V_c = \frac{D \times \pi \times n}{1000 \times 60} \text{ [m/s]}$$

D = Outer tool diameter [mm]

$\pi$  = Pi (3.141592...)

n = Spindle speed [RPM]

Recommended cutting speeds [m/s]

Type of tool	Cutter	Saw Blades
Cutting edge material	HS-HP, HC-UP HW, DP	HW, HC-UP DP
Softwood	60 - 90	70 - 100
Hardwood	50 - 90	70 - 90
Particleboard, MDF	60 - 90	60 - 90
Laminated boards	40 - 70	60 - 100

## Chipload $f_z$

The chipload is another important performance characteristic. It describes the feed rate per tooth. In a simplified way, the feed rate per tooth is used to describe the cut quality. The feed rate, number of teeth and spindle speed can manipulate the feed per tooth and therefore also the cut quality. In actual situation, the obtained surface is a one-knife finish, since there are many tolerances in the machine, tool and interface, that don't allow running all teeth on the exact same cut circle. Hydro sleeves and jointing enable to reduce the difference between the max and min swing of the knives of a cutter enabling a better cut finish or to run higher feed rates.

$$f_z = \frac{v_f \times 1000}{n \times z} \text{ [mm]}$$

$v_f$  = Feed rate [m/min]

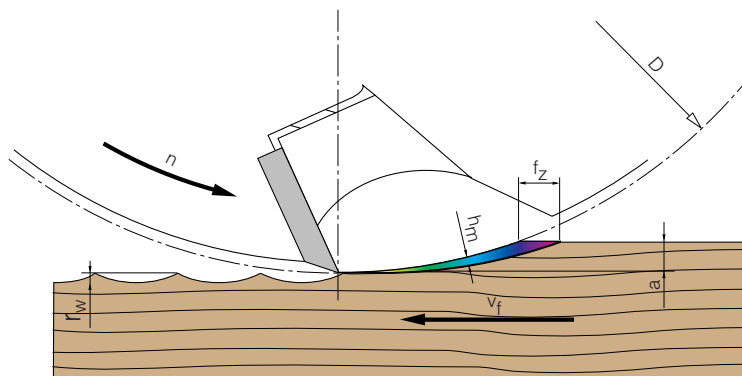
Z = Number of teeth

n = Spindle speed [RPM]

Recommended chiploads [mm]

Type of tool	Cutter	Saw Blades
Solid wood along the grain	0.6 - 2.5	0.2 - 1.5
Solid wood across the grain	0.3 - 0.8	0.1 - 0.2
Particleboard, MDF	0.8 - 1.5	0.05 - 0.2
Plastic laminated board	0.6 - 1.2	0.03 - 0.06

# General Technical Information



## Cutting Arc Depth

$$r_w = \frac{f_z^2}{4 \times D} \text{ [mm]}$$

$f_z$  = Chipload [mm]

$D$  = Outer tool diameter [mm]

## Average Chip Thickness $h_m$

$$h_m = f_z \times \sqrt{\frac{a}{D}} \text{ [mm]}$$

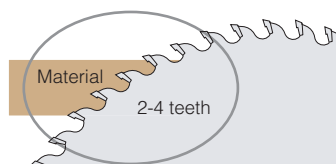
$f_z$  = Chipload [mm]

$D$  = Outer tool diameter [mm]

$a$  = Cutting depth [mm]

## Number of Teeth in the Cut

As a rule of the thumb, in case of a saw blade, there should be not more or less than 2-4 teeth at the same time in the material.



## Tooth Pitch & Number of Teeth

$$t = \frac{h \times 1.45}{k} \text{ [mm]}$$

$t$  = Tooth pitch [mm]

$h$  = Thickness of the material

$k$  = Number of teeth in cut

$$Z = \frac{D \times \pi}{t}$$

$z$  = Number of teeth

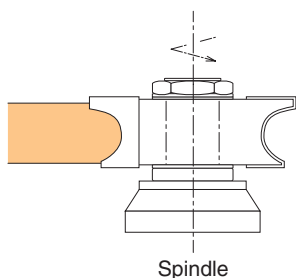
$t$  = Tooth pitch [mm]

$D$  = Outer diameter of the saw blade [mm]

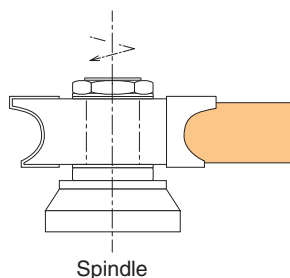
$\pi$  = Pi (3.141592 )

# General Technical Information

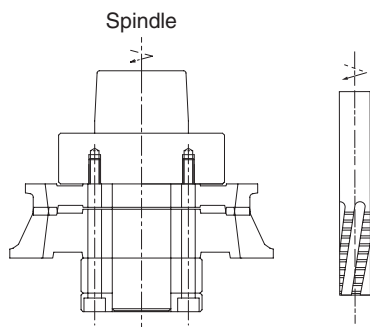
**Counterclockwise rotation**



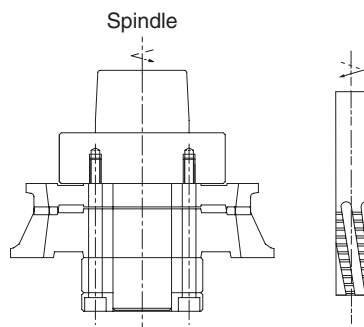
**Clockwise rotation**



**Clockwise rotation**

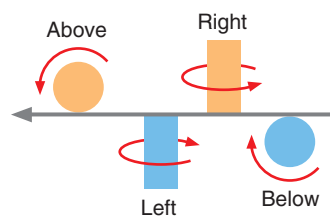
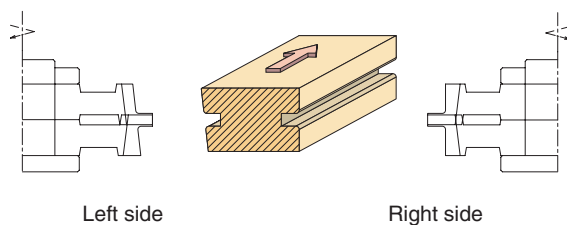


**Counterclockwise rotation**





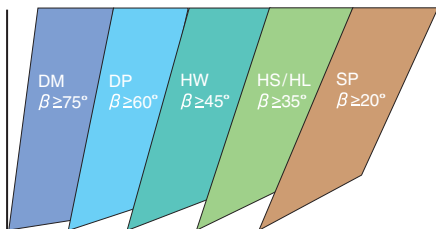
## Tool Position

The position of the spindle is always defined from the in-feed side of the machine.

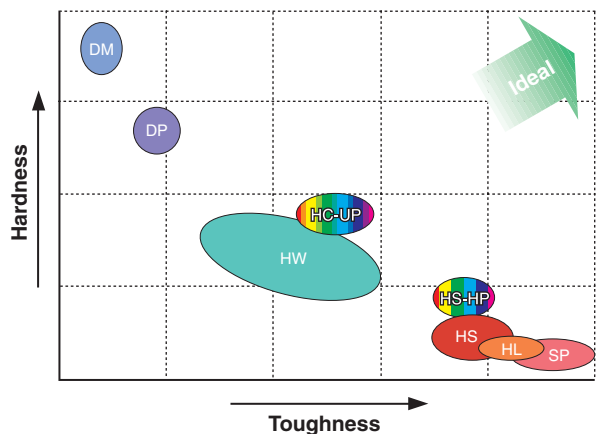


# Cutting Edge Materials

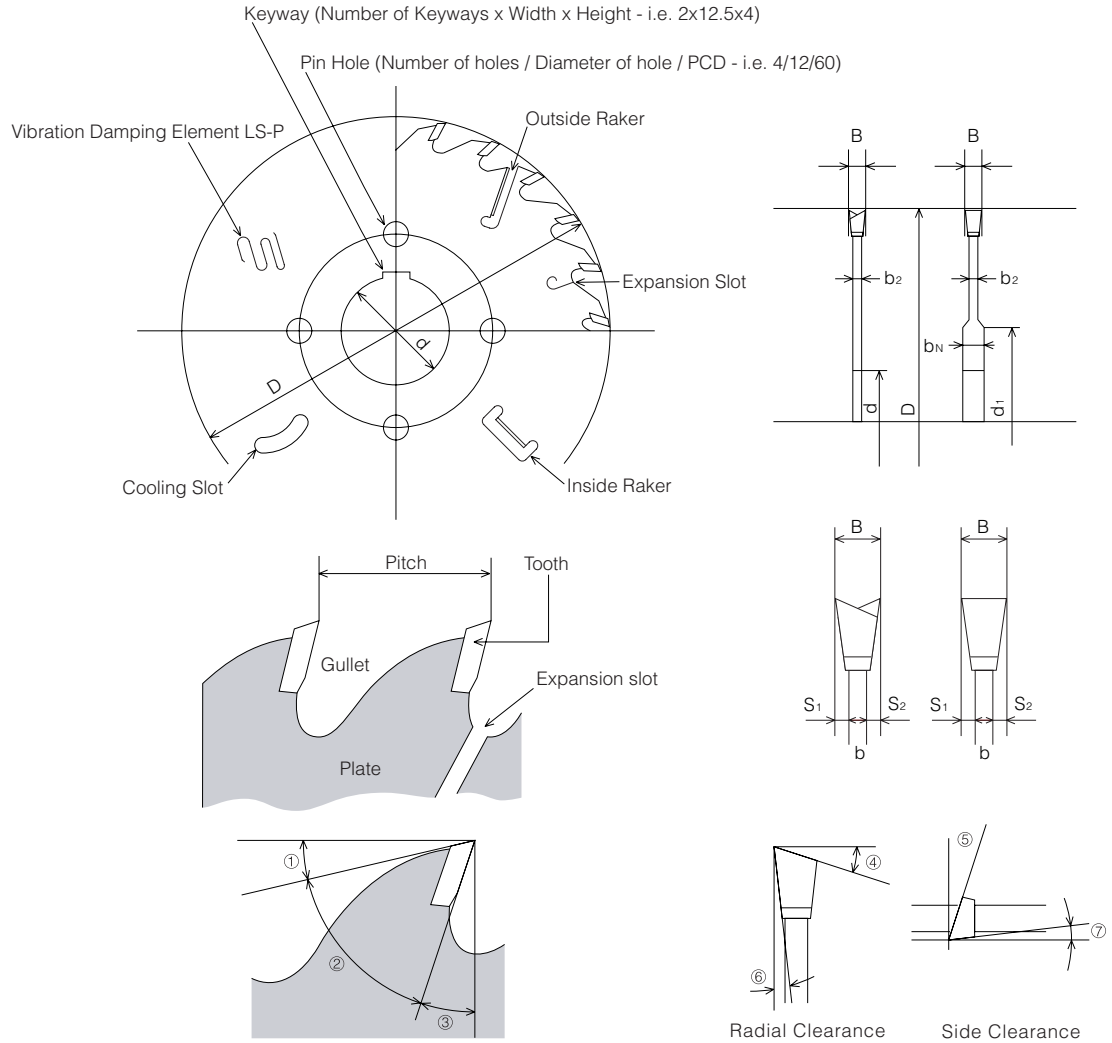
Abbreviation	Material	Area of Application	Kanefusa' s Product Range
DM	Single Crystal Diamond (MCD)	Laminate flooring Machining plastics like PMMA	Custom made tooling
DP	Polycrystalline Diamond (PCD)	Various flooring materials Panel based furniture Cement-fiber board Various plastics Non-ferrous metals	Board Pro DIA saw blades DIA-Vtech saw blades Cosmokit router bits Cutters Routers
HC-UP 	$\alpha$ MT treated Tungsten Carbide	Solid wood based products such as - Furniture and chairs - Stairs and windows - Structural lumber	SF-saw blades E-Bit router bits Finger joint cutters Profile cutters and routers
HW	Tungsten Carbide	Panel based products Solid wood products Non-ferrous metals Various plastics	Board Pro saw blades Timber Max saw blades Sash Pro saw blades Yield Pro saw blades
HS-HP 	$\alpha$ MT treated High Speed Steel	Planing, profiling and finger jointing of solid wood	ST-1 knives ENSHIN knives Finger Joint Cutters
HS	High Speed Steel (HSS)	Veneer and chip production	Industrial knives
HL	Alloy Steel	Veneer and chip production	Timber Tec Knives Industrial knives
SP	Tool Steel	Veneer and chip production	Industrial knives



Suitable included angle  $[\beta]$  according to cutting edge material



# Saw Blade Specifications



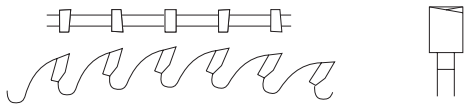
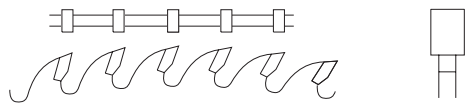
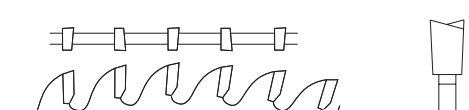
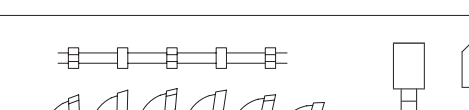
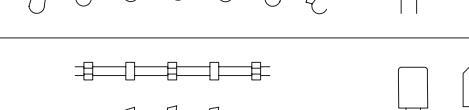
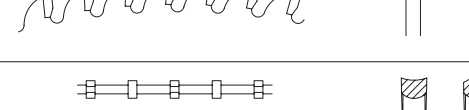


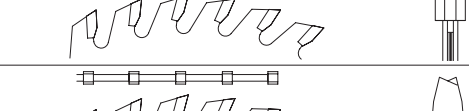

## Angle Designation

- ① Clearance Angle  $[\alpha]$
- ② Included Angle  $[\beta]$
- ③ Hook Angle  $[\gamma]$
- ④ Top Bevel Angle  $[\varepsilon]$
- ⑤ Face Bevel Angle  $[\lambda]$
- ⑥ Radial Clearance Angle  $[\alpha_r]$
- ⑦ Tangential Clearance Angle  $[\alpha_t]$

Diameter	$D$
Bore	$d$
Hub Diameter	$d_1$
Kerf	$B$
Plate Thickness	$b$
Hub Thickness	$b_N$
Number of Teeth	$z$
Side Clearance	$S_1, S_2$



# Tooth Geometries

		Abbreviation	Description
		A-type	<b>Alternate top bevel with raker</b> Used on vertical panel saws to cut various panel materials, plywood etc. Very aggressive
		B-type	<b>Flat tooth</b> Used for ripping solid wood
		BC-type	<b>Alternate Top Bevel</b> Used for cutting solid wood across and along the grain, raw panels, paper or veneer laminated panels, thin wall extruded material
		D-type	<b>Triple chip tooth alternating with flat tooth</b> Used for cutting of plastic laminated panel material, various plastics and non-ferrous metals
		TD-type	<b>Triple chip tooth with additional chamfer on the flat tooth</b> Used for finish cutting of plastic laminated particleboard and MDF on beam saws
		DH-type	<b>Hollow face tooth (flat tooth alternates with inverted V tooth)</b> Used for cutting paper, foil or veneer laminated panel materials
		DHC-type	<b>Hollow face tooth (flat tooth with chamfer alternates with inverted V tooth)</b> Used for cutting of plastic laminated panel materials
		CA-type	<b>Split design (one side bevel)</b> Scoring saw blade that cuts very aggressive
		TP-type	<b>Conical tooth with alternative bevel</b> Multipurpose conical type scoring saw blade.
		F-type	<b>Conical flat tooth</b> Conical type scoring saw blade to cut plastic laminated panels



<http://www.kanefusa.net>

## **KANEFUSA CORPORATION**

### **Head Office / Factory**

1-1 Nakaoguchi, Ohguchi-cho, Niwa-Gun  
Aichi-ken, Japan, Postal Code 480-0192  
Tel : +81 587 95 7221  
Fax : +81 587 95 7226  
E-mail: sales-ex@kanefusa.co.jp

---

## **P.T. KANEFUSA INDONESIA**

EJIP Industrial Park, Plot 8D, Cikarang Selatan,  
17550, West Java, Indonesia  
Tel : +62 21 897 0360  
Fax: +62 21 897 0286  
+62 21 897 0287  
E-mail : sales@kanefusa.co.id

---

## **KANEFUSA EUROPE B.V.**

### **Europe Office**

De Witbogt 12, 5652 AG, Eindhoven, The Netherlands  
Tel : +31 40 2900901  
Fax: +31 40 2900908  
E-mail : rocky.hayashi@kanefusa.nl

### **German Office**

Radlerstrasse 78 - D-87600 Kaufbeuren, Germany  
Tel : +49 8341 95 59 659  
Fax: +49 8341 95 59 661  
E-mail : office@kanefusa.de

---

## **KANEFUSA USA, INC.**

2762 Circleport Drive, Erlanger, KY 41018, USA  
Tel : +1 859 283 1450  
Fax: +1 859 283 5256  
E-mail : kanefusa@hotmail.com

---

## **KANEFUSA CHINA CORPORATION KUNSHAN KANEFUSA CORPORATION**

NO.50 Zhuzhu Road, Lujia Town Kunshan city, Jiangsu, China  
Tel : +86 512 57875072  
Fax: +86 512 57875073  
E-mail : yy@kfcn.szbnet.com

---

## **MALAYSIA OFFICE**

Level 36, Menara Citibank 165, Jalan Ampang  
50450 Kuala Lumpur, Malaysia  
Tel : +60 3 21697720, +60 3 21697721  
Fax: +60 3 21697722  
E-mail : kanefusamal@myjaring.net

---