

# User Value



<http://www.kanefusa.net>

A leading manufacturer of structural and sub-structural timber in Austria analyzed the benefits of ST-1 knives in detail.

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 the following advantages

- Enormous annual gain in machine uptime
- Increase of feed rate by 8 m/min
- Drastic reduction of the 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 knives run very quietly



ST-1 knives are used for planing and profiling of softwoods, hardwoods and glued timbers.

They are efficiently used on any machine of any make at high and low feeding rates.

For the best performance, the use of hydro heads or PowerLock heads is recommended.

ST-1 knives can be jointed.

Continuous working in the glue line will shorten the tool life.

### 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

### PT. KANEFUSA INDONESIA

EJIP Industrial Park, Plot 8D, Cikarang Selatan, Bekasi 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.

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

### KANEFUSA USA, INC.

621 Dolwick Drive Erlanger, KY 41018, USA  
Tel : +1 859 283 1450  
Fax: +1 859 283 5256  
E-mail : sales@kanefusa-na.com

### KANEFUSA CHINA CORPORATION

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

### TIANJIN Office

Sanjinglu No.5 Dongli economic development zone Tianjin city CHINA  
Tel : +86 22 5823 7633  
Fax: +86 22 5823 7632  
E-mail : tjkc03@kanefusa-cn.com

### KANEFUSA INDIA PRIVATE LIMITED

Plot No.232, Sector-8, IMT Manesar, Gurgaon, Haryana PIN 122-050 India  
Tel : +91 124 420 8440  
Fax: +91 124 420 8441  
E-mail : info@kanefusa.co.in

### KANEFUSA DO BRASIL LTDA.

Rua Joaquim de Almeida,75,Sao Paulo,SP,Brasil,CEP04050-010  
Tel : +55 11 2372 7664  
Fax: +55 11 2372 7663  
E-mail : vendas@kanefusa.net.br

### Malaysia Office

Suite 839 Level 8, Pavilion KL 168 Jalan Bukit Bintang 55100 Kuala Lumpur, Malaysia  
Tel : +60 3 92057721  
Fax: +60 3 92057720  
E-mail : kanefusamal@myjaring.net



# ST-1

## Planer and Corrugated Back Knives



*Kanefusa - A New Dimension of Performance*



Specifications and appearance are subject to change without notice. Photographs and illustrations may vary from actual products. If necessary, please contact us.

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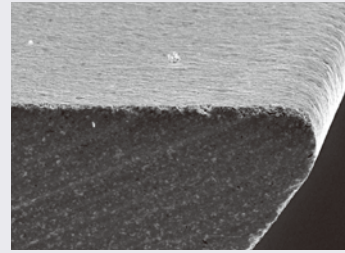


# Advanced Material Technology

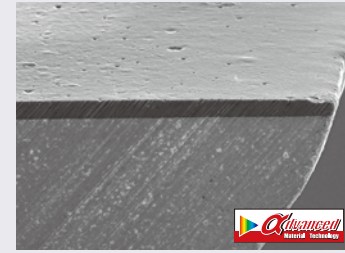


Kanefusa is the pioneer and worldwide leader in the development of advanced cutting edge materials for the woodworking industry. The result of extensive research and development has been a revolutionary new material called Advanced Material Technology.

Advanced Material Technology is implanted onto a High Speed Steel substrate and changes the wear characteristics of the cutting edge and reduces residue adhesion.



A conventional High Speed Steel cutting edge is already round after cutting only 1000 m of Spruce.



The Advanced Material Technology treated cutting edge is still sharp after 1000 m.

The top of the cutting edge stays sharp, only traces of wear, which look like a chamfer from jointing, can be found.

While regular knives tear-out the grain, ST-1 knife steel provides a smooth finish throughout the entire run-time.

Advanced Material Technology is applied to the front of planer steel, which allows regrinding of the back edge with conventional equipment.

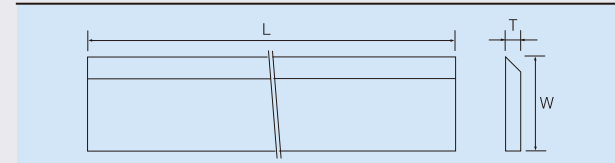


### The User Value of Advanced Material Technology at a glance

- Significant gain in machine run-time because of fewer head removals
- Drastic reduction of the grinding cost
- Reduction or elimination of subsequent sanding
- The power consumption of the motor stays low over the entire run time
- Possible to increase the feed rate
- It is easier to grind ST-1 knives than carbide knives
- ST-1 knives run very quietly

# Line Up

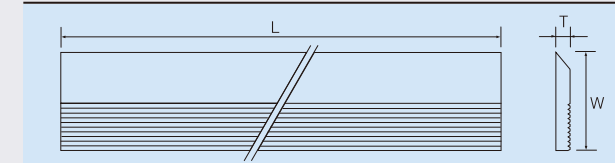
## Flat Planer Knives



Ident No.	L (mm)	W (mm)	T (mm)	Ident No.	L (mm)	W (mm)	T (mm)		
1	030-E824-619	60	x 30	x 3	31	030-E866-619	240	x 35	x 3
2	030-E825-619	80	x 30	x 3	32	030-E867-619	260	x 35	x 3
3	030-E826-619	100	x 30	x 3	33	030-E869-619	310	x 35	x 3
4	030-E828-619	120	x 30	x 3	34	030-E873-619	380	x 35	x 3
5	030-E829-619	130	x 30	x 3	35	030-E875-619	410	x 35	x 3
6	030-E790-619	160	x 30	x 3	36	030-E890-619	635	x 35	x 3
7	030-E832-619	170	x 30	x 3	37	030-E573-619	130.2	x 50.8	x 3.96
8	030-E833-619	180	x 30	x 3	38	030-E523-619	165.1	x 50.8	x 3.96
9	030-E836-619	200	x 30	x 3	39	030-E520-619	203.2	x 50.8	x 3.96
10	030-E837-619	210	x 30	x 3	40	030-E522-619	254	x 50.8	x 3.96
11	030-E749-619	230	x 30	x 3	41	030-E521-619	304.8	x 50.8	x 3.96
12	030-E840-619	240	x 30	x 3	42	030-E519-619	330.2	x 50.8	x 3.96
13	030-E843-619	260	x 30	x 3	43	030-E506-619	381	x 50.8	x 3.96
14	030-E845-619	300	x 30	x 3					
15	030-E846-619	310	x 30	x 3					
16	030-E848-619	330	x 30	x 3					
17	030-E850-619	510	x 30	x 3					
18	030-E851-619	635	x 30	x 3					
19	030-E854-619	60	x 35	x 3					
20	030-E856-619	80	x 35	x 3					
21	030-E856-619	100	x 35	x 3					
22	030-E858-619	120	x 35	x 3					
23	030-E859-619	130	x 35	x 3					
24	030-E861-619	150	x 35	x 3					
25	030-E789-619	160	x 35	x 3					
26	030-E896-619	170	x 35	x 3					
27	030-E862-619	180	x 35	x 3					
28	030-E863-619	190	x 35	x 3					
29	030-E866-619	210	x 35	x 3					
30	030-E750-619	230	x 35	x 3					

Other lengths are available upon request.

## Corrugated Back Knives



Ident No.	L (mm)	W (mm)	T (mm)	
1	777-A269-619	40	x 50	x 8
2	777-A251-619	60	x 50	x 8
3	777-A249-619	80	x 50	x 8
4	777-A221-619	100	x 50	x 8
5	777-A464-619	130	x 50	x 8
6	777-A465-619	150	x 50	x 8
7	777-A509-619	180	x 50	x 8
8	777-A467-619	210	x 50	x 8
9	777-A468-619	260	x 50	x 8
10	777-A245-619	635	x 50	x 8
11	777-A270-619	40	x 60	x 8
12	777-A228-619	60	x 60	x 8
13	777-A271-619	80	x 60	x 8
14	777-A272-619	100	x 60	x 8
15	777-A140-619	130	x 60	x 8
16	777-A280-619	150	x 60	x 8
17	777-A471-619	180	x 60	x 8
18	777-A472-619	210	x 60	x 8
19	777-A473-619	260	x 60	x 8
20	777-A243-619	635	x 60	x 8
21	777-A158-619	60	x 70	x 8
22	777-A476-619	80	x 70	x 8
23	777-A477-619	100	x 70	x 8
24	777-0000-619	130	x 70	x 8
25	777-A478-619	150	x 70	x 8
26	777-A479-619	180	x 70	x 8
27	777-A480-619	210	x 70	x 8
28	777-A211-619	635	x 70	x 8

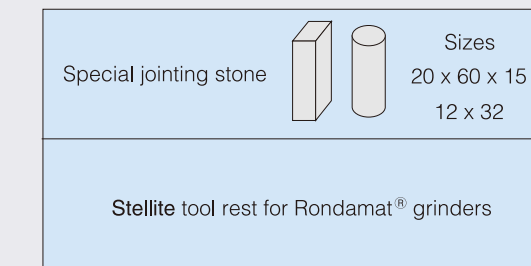
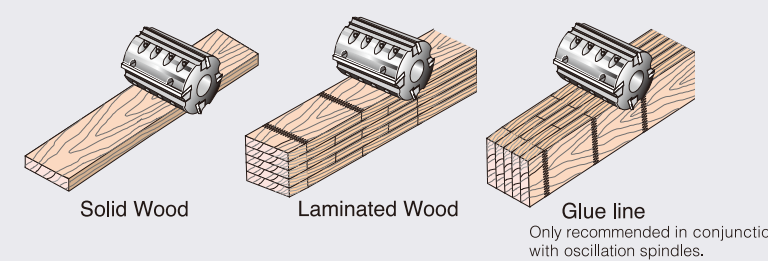
Other lengths are available upon request.

## Accessories

ST-1 knives can be jointed. For the best performance we recommend using Kanefusa jointing stones.

When sharpening the knives, we recommend using a tool rest made of Stellite instead of Carbide.

ST-1 knives are used for planing and profiling of softwoods, hardwoods and laminated woods. Continuous working in the glue line will shorten the tool life.



# Profiling



Tungsten carbide profile knives require experience, know-how and the right equipment, for grinding and jointing.

Because ST-1 knives are HSS based, it's easier and faster to grind profiles into ST-1 knives than into carbide knives. Instead of diamond wheels, inexpensive borazon wheels can be used.

ST-1 corrugated back knives provide a smooth and tear out free surface, which reduces and in some cases even eliminates subsequent sanding.

Because of the wear characteristics of the ST-1 knives, the profile does not change during the time of use.

ST-1 knives combine the sharpness of HSS steel with the durability of tungsten carbide.

They are the perfect choice for short and long runs.



# Superior Cut Quality

Advanced Material Technology treated cutting edges stay sharper longer. The pictures show the pores of oak after a cutting path of 100m. The High Speed Steel cutting edge is already a little blunt and instead of cutting the pores cleanly, it compresses the fibers. Advanced Material Technology still cuts the pores cleanly, even cutting against the grain.

The surface which was measured by "Stylus Surface Profile Measuring Apparatus" evidently explains the differences in cut quality between conventional cutting edges and Advanced Material Technology treated cutting edges. A better cut surface eliminates or reduces subsequent finishing processes and leads to a higher product quality.

