ST-1

Planer and Corrugated Back Knives

Kanefusa - A New Dimension of Performance

ISO 9001
JQA-QM3710

ISO 14001
JQA-EM3137
Head Office
Factory

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[Class] [Article] [Revision]

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.

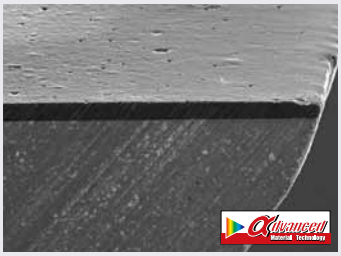
Advanced Material Technology is implanted onto a High Speed Steel substrate and changes the wear characteristics of the cutting edge and reduces residue adhesion.

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.

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



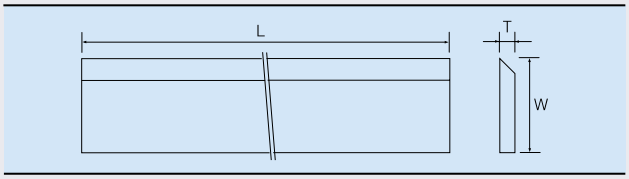
The Advanced Material Technology treated cutting edge is still sharp after 1000 m.

The 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

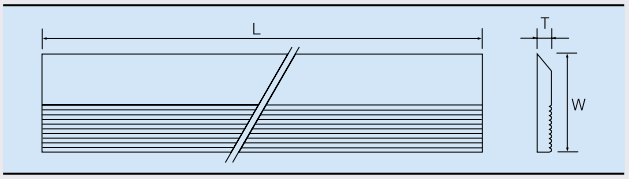
Flat Planer Knives - ST-1 Revo



	Ident No.	L [mm]		W [mm]		T [mm]	Type
1	030E826619	100	x	30	x	3	ST-1 REVO
2	030E828619	120	x	30	x	3	ST-1 REVO
3	030E829619	130	x	30	x	3	ST-1 REVO
4	030E830619	150	x	30	x	3	ST-1 REVO
5	030E790619	160	x	30	x	3	ST-1 REVO
6	030E833619	180	x	30	x	3	ST-1 REVO
7	030E749619	230	x	30	x	3	ST-1 REVO
8	030E575619	235	x	30	x	3	ST-1 REVO
9	030E840619	240	x	30	x	3	ST-1 REVO
10	030E843619	260	x	30	x	3	ST-1 REVO
11	030F050619	270	x	30	x	3	ST-1 REVO
12	030E846619	310	x	30	x	3	ST-1 REVO
13	030E847619	320	x	30	x	3	ST-1 REVO
14	030E849619	410	x	30	x	3	ST-1 REVO
15	030E850619	510	x	30	x	3	ST-1 REVO
16	030E851619	635	x	30	x	3	ST-1 REVO
17	030E852619	660	x	30	x	3	ST-1 REVO
18	030E917619	75	x	35	x	3	ST-1 REVO
19	030E859619	130	x	35	x	3	ST-1 REVO
20	030E789619	160	x	35	x	3	ST-1 REVO
21	030E750619	230	x	35	x	3	ST-1 REVO
22	030E796619	235	x	35	x	3	ST-1 REVO
23	030E867619	260	x	35	x	3	ST-1 REVO
24	030F493619	280	x	35	x	3	ST-1 REVO
25	030E869619	310	x	35	x	3	ST-1 REVO
26	030E870619	320	x	35	x	3	ST-1 REVO
27	030E871619	330	x	35	x	3	ST-1 REVO
28	030E873619	380	x	35	x	3	ST-1 REVO
29	030E880619	635	x	35	x	3	ST-1 REVO
30	030E629619	177.8	x	50.8	x	3.96	ST-1 REVO
31	030F418619	228.6	x	50.8	x	3.96	ST-1 REVO
32	030E522619	254	x	50.8	x	3.96	ST-1 REVO
33	030E521619	304.8	x	50.8	x	3.96	ST-1 REVO
34	030E519619	330.2	x	50.8	x	3.96	ST-1 REVO
35	030E566619	381	x	50.8	x	3.96	ST-1 REVO

Other lengths are available upon request.

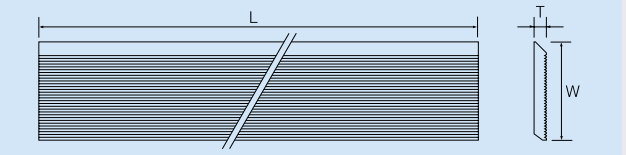
Corrugated Back Knives for Moulder



	Ident No.	L [mm]		W [mm]		T [mm]	Type
1	777A433619	635	x	40	x	5	
2	777A343619	635	x	40	x	6	
3	777A288619	635	x	45	x	5	
4	777A519619	635	x	50.8	x	7.94	
5	777A279619	635	x	50	x	5	
6	777A256619	635	x	50	x	6	
7	777A566619	635	x	50	x	8	
8	777A521619	635	x	57.15	x	7.94	
9	777A562619	635	x	60	x	8	
10	777A594619	635	x	70	x	8	

Other lengths are available upon request.

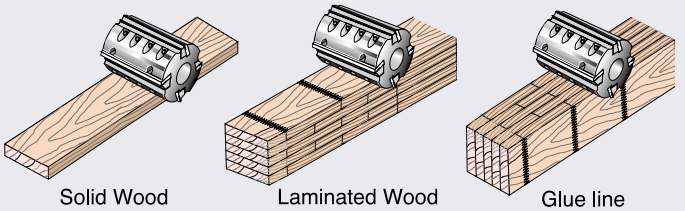
Corrugated Back Knives for High Producion Planer



	Ident No.	L [mm]		W [mm]		T [mm]	Type
1	034A005619	177.8	x	31.75	x	3.9	ST-1 REVO
2	034A016619	635	x	35	x	4	
3	034A014619	165.1	x	38.1	x	3.96	
4	034A017619	215.9	x	38.1	x	3.96	
5	034A009619	317.5	x	38.1	x	3.96	ST-1 REVO
6	034A021619	635	x	38.1	x	3.96	ST-1 REVO
7	034A020619	635	x	40	x	5	

Other lengths are available upon request.

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.



Solid Wood

Laminated Wood

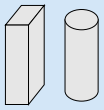
Glue line

Only recommended in conjunction with oscillation spindles.

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.

Special jointing stone 	Sizes 20 x 60 x 15 12 x 32
Stellite tool rest for Rondamat® grinders	

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.

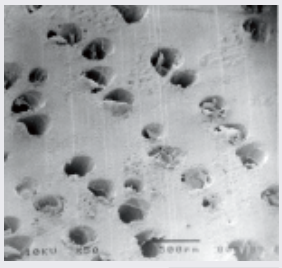
ST-1 knives combine the sharpness of HSS steel with the durability of tungsten carbide.

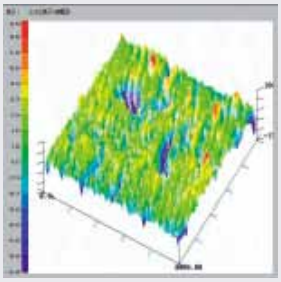
They are the perfect choice for short and long runs.

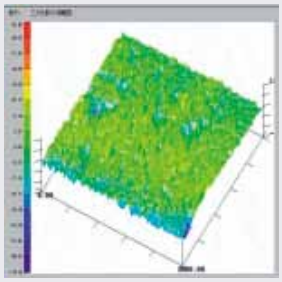
Superior Cut Quality

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.







User Value

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
- Drastic reduction of the grinding cost
- Much better surface finish
- ST-1 knives run very quietly
- Increase of feed rate by 8 m/min
- High process reliability and better coordination of work flow due to less machine stops for head removal

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.