

ENSHIN Planer Head

KANEFUSA

PowerLock and Bore-Type



Kanefusa - A New Dimension of Performance



JQA-QM3710



JQA-EM3137
Head Office
Factory

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0-27E-10
[Class] [Article] [Revision]

Technology



Advanced Material Technology treated cutting edges stay sharper longer.

The pictures above show the pores of oak after a cutting path of 100m. The HSS cutting edge is already a little blunt and instead of cutting the pores cleanly, it compresses the fibers.

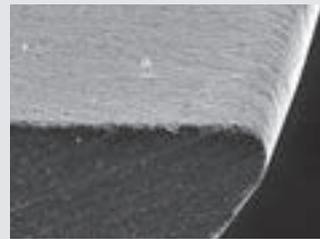
Advanced Material Technology still cuts the pores cleanly, also when cutting against the grain.

An uncoated edge wears out quickly. The blunt cutting edge tears out the grain and does not give a satisfactory cut finish.



Advanced Material Technology is an implantation into a substrate material. In case of planer knives it is applied to the rake face of a HSS substrate.

Advanced Material Technology treated cutting edges stay very sharp for a very long time. Only little traces of wear in form of a chamfer on the back and small rounding on the face appear during the time of use.



HSS cutting edge after cutting 1000m of Spruce



HS-HP cutting edge after cutting 1000m of Spruce

Knives for More User Value

Every knife has two cutting edges in reversible design, which makes the ENSHIN a very economical tooling solution.

Knife quality HS-HP is high speed steel treated with Advanced Material Technology. Advanced Material Technology provides up to 5 times longer edge life compared with regular HSS knives when planing softwoods.

For planing of hard and tropical timber, carbide knives (HW) provide excellent lifetimes in correlation with finest surfaces.



Every knife has a chip breaker for finest surfaces even when cutting against the grain direction.

Every cutting edge is finely lapped, which ensures perfect cutting results even when planing twisted grained timber.

HS-HP knives are for single use. No edge life loss after grinding, no inconsistent cut quality but high process stability and trouble free working.

Sizes

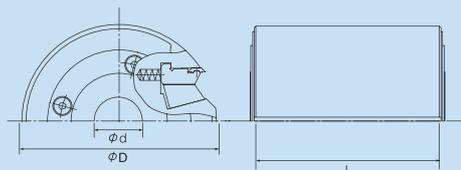
Bore Type Heads



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

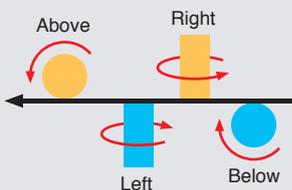
After secure assembly of the arbor and the ENSHIN, the entire system is balanced in order to ensure highest planing quality and work safety.

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



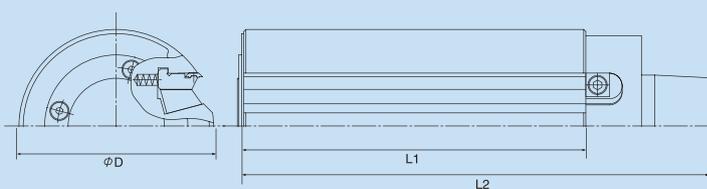
Code No.	(D)	(L)	Size (d)	(Z)	N max
1 789-B375-500	125	100	40	4	8000
2 789-A869-500	125	130	40	4	8000
3 789-B078-500	125	150	40	4	8000
4 789-A868-500	125	180	40	4	8000
5 789-A866-500	125	230	40	4	8000
6 789-B630-500	125	100	1 1/2"	4	8000
7 789-B638-500	125	130	1 1/2"	4	8000
8 789-B637-500	125	150	1 1/2"	4	8000
9 789-B636-500	125	230	1 1/2"	4	8000

PowerLock Heads



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

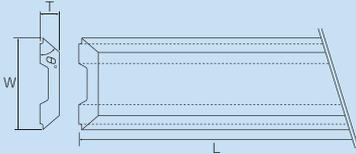
Equipped with HS-HP knives, the outer tool diameter will be 92mm. Because HW knives are wider, the outer tool diameter will be 93.7mm. Either diameter fits Powermat machines.



Code No.	(D)	Size (L1)	(L2)	(Z)	Type	N max
1 788-0000-500	93	80	138	2	Left/Below	12500
2 788-0000-500	93	100	158	2	Left/Below	12500
3 788-0000-500	93	130	188	2	Left/Below	12500
4 788-0000-500	93	150	208	2	Left/Below	12500
5 788-0000-500	93	170	228	2	Left/Below	12500
6 788-0000-500	93	190	248	2	Below	12500
7 788-0000-500	93	210	268	2	Below	12500
8 788-0000-500	93	240	298	2	Below	12500
9 788-0000-500	93	80	138	2	Right/Above	12500
10 788-0000-500	93	100	158	2	Right/Above	12500
11 788-0000-500	93	130	188	2	Right/Above	12500
12 788-0000-500	93	150	208	2	Right/Above	12500
13 788-0000-500	93	170	228	2	Right/Above	12500
14 788-0000-500	93	210	268	2	Above	12500
15 788-0000-500	93	240	298	2	Above	12500

※HSK type

Knives



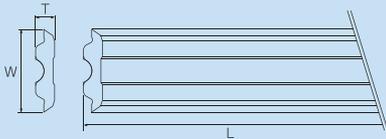
Grade Specifications

HS-HP : High Speed Steel with
Advanced Material
Technology treatment

HW : Solid Tungsten Carbide

	Code No.	Size			Grade
		(L)	(W)	(T)	
1	797-A483-611	80	12	2.6	HS-HP
2	797-1022-611	100	12	2.6	HS-HP
3	797-1329-611	130	12	2.6	HS-HP
4	797-1527-611	150	12	2.6	HS-HP
5	797-1725-611	170	12	2.6	HS-HP
6	797-1824-611	180	12	2.6	HS-HP
7	797-1923-611	190	12	2.6	HS-HP
8	797-2129-611	210	12	2.6	HS-HP
9	797-2327-611	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-A443-900	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-A351-900	230	12.7	2.6	HW
20	797-A481-900	240	12.7	2.6	HW

Knives for Tersa® – System Planer Heads



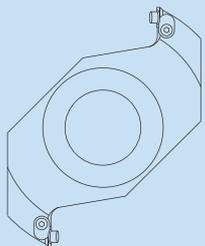
	Code No.	Size			Grade
		(L)	(W)	(T)	
1	797-A516-611	130	10	2.3	HS-HP
2	797-A518-611	180	10	2.3	HS-HP
3	797-A517-611	230	10	2.3	HS-HP
4	797-7955-611	650	10	2.3	HS-HP

※Other lengths are available upon request.

Tersa® is a registered trademark of Samvaz S.A.

Kanefusa Corporation makes no claim of ownership to this trademark

Rebating Reference Engraver Head



In combination with
ENSHIN bore type
heads

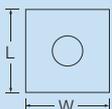
	Code No.	Size			
		(OD)	(L)	(d)	(Z)
1	877-C055-400	140	12	40	2
2	877-0000-400	140	12	1 1/2"	2

Replacement Knives

781-1210-901 12 x 12 x 1.5 four (4) sided solid carbide knife
with Advanced Material Technology treatment.

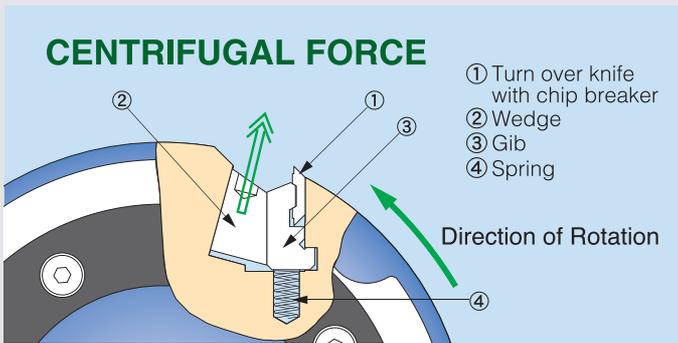
※Other specifications are available upon request.

Knives for Reference Engraver



	Code No.	Size			Grade
		(L)	(W)	(T)	
1	781-1210-901	12	12	2	HC-UP

Body for More User Value



Unique and easy to handle centrifugal self-locking system accurately locks the knives in place.

Run out less than 0.04 mm. Surface finish is superior especially when used in conjunction with PowerLock-System.



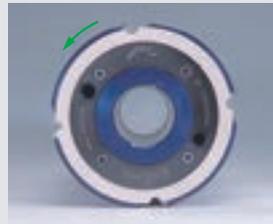
PowerLock ENSHIN is a mono-block tooling in steel for highest rigidity, excellent runout, longest use life and tested for RPM of up to 12500min⁻¹.

Bore-type ENSHIN is made of Aluminum for light weight, but with high durability and longest use life and tested for RPM of up to 8000 min⁻¹.

Closed round shaped body ensures a quiet work environment.



Tap the wedge gently



Turn the safety stopper ring



Slide out the knife

Application



N (rpm)	Z	S.R. (mm)	F (mm/min)								
			1	5	10	15	20	25	30	35	
6000	2	0,5	Orange	Green							
		1	Orange	Green							
		1,5	Orange	Green							
		2	Orange	Green							
		2,5	Orange	Green							
	4	3	Orange	Green							
		3,5	Orange	Green							
		4	Orange	Green							
		4,5	Orange	Green							
		5	Orange	Green							

N (rpm)	Z	S.R. (mm)	F (mm/min)							
			1	5	10	15	20	25	30	35
8000	2	0,5	Orange	Green						
		1	Orange	Green						
		1,5	Orange	Green						
		2	Orange	Green						
		2,5	Orange	Green						
	4	3	Orange	Green						
		3,5	Orange	Green						
		4	Orange	Green						
		4,5	Orange	Green						
		5	Orange	Green						

Orange Ultra fine planing Green Fine planing Yellow Rough planing

Knife Grade	Material	Regrinding
HS-HP	Softwoods	Can not be reground
HW	Hardwood, Tropical wood	0.7 mm at the back side (grinding fixture available)

Due to the knife features, all heads are suitable to cut hardwoods as well as softwoods. Different hook angles for different materials are not required.

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