



WOODWORKING MACHINES

● SUPER SURFACER



MARUNAKA TEKKOSHO INC.

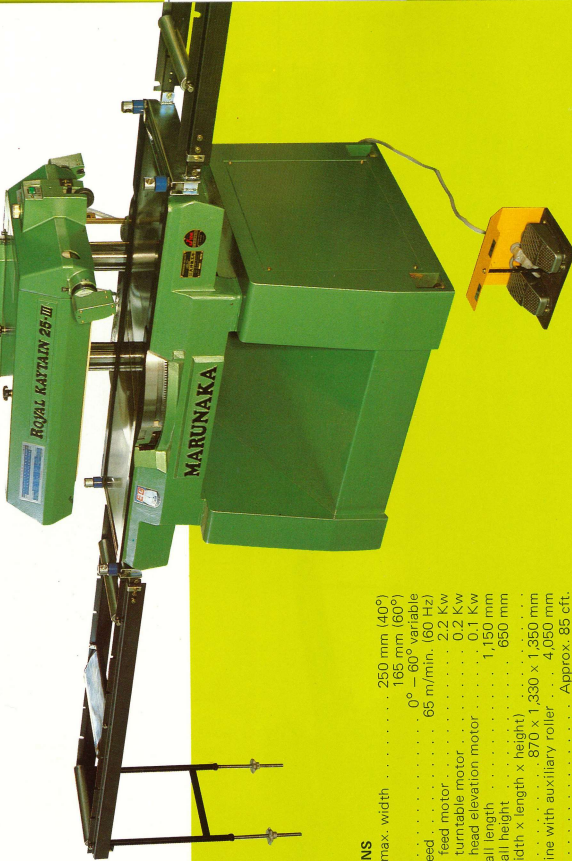
SUPER SURFACER

The super surfer is an essence of our most advanced technology and mechanisms in anticipation of the future. A wide variety of models are available to meet with any application desired.

ROYAL KAYTAIN 25-III RECIPROCATING PLANING TYPE

Just before the reverse turn of the material feed belt, the turntable set with knife contracts to plane in the return cycle, too. With both turntable and machine as a whole made more rigid, the Royal Kaytain 25 III is so improved as to have an increase in material feed capability and to secure a smoothly plane and refined finish.

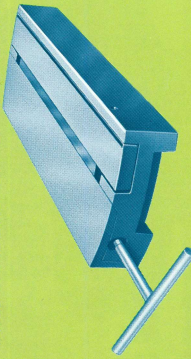
Besides, the Royal Kaytain 25 III is considerably improved in terms of operability, being equipped with an automatic elevation type head, electromagnetic brake, centralized switch panel and many other devices.



SPECIFICATIONS

Work capacity: max. width	250 mm (40°)
	185 mm (60°)
Knife bias angle	0° - 60° variable
Material feed speed	65 m/min. (60 Hz)
Power required: feed motor	2.2 Kw
	turntable motor
	0.1 Kw
head elevation motor	0.1 Kw
overall length	1,150 mm
Machine size (width x length x height)	870 x 1,330 x 1,350 mm
Length of machine with auxiliary roller	4,050 mm
Packing volume	Approx. 85 cft.
Net weight	465 Kg

EG KNIFE STOCK



The EG knife stock is a new device developed by Marunaka. With the nose bar as a reference point of planing fixed, the planing thickness is adjusted by a single touch operation.

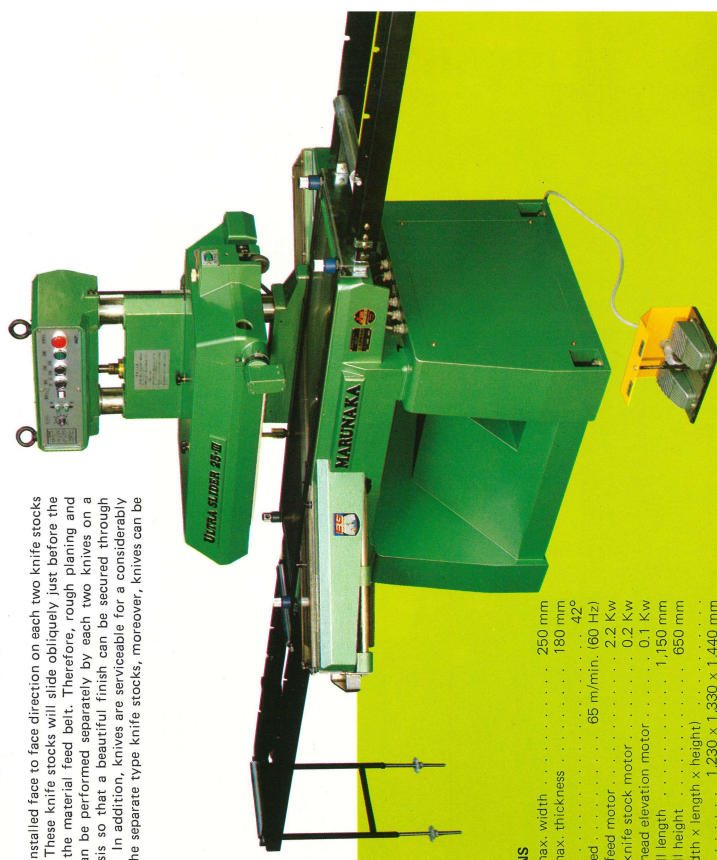
Since the adjustment can be made without removing the knife stock, labor will be saved. Merely turning an adjustment screw will achieve a precision of up to 1/100 mm in adjusting knife edge projection. Thus, the EG knife stock provides an ideal adjustment system.

MICROSETTING-GAUGE FOR SUPER SURFACER KNIFE

- 1 Put on the back knife and push it lightly with the upper gauge to return it to the original position. Secure it with the set screws.
- 2 Turn the micrometer to adjust "0" to the vertical red line.
- 3 Place the knife face downward on the base and push it lightly with the under gauge so that the cutting edge will touch the basic plates. Secure it with the set screws.
- 4 Set the micrometers at a proper distance with the material to be used. Examples: 2 - 3 for hard wood 2.5 - 3.5 for soft wood
- 5 Pull the back knife to your side until its back end touches the micrometers.
- 6 Set up the knife, and the back knife with screws. Loosen the set screws on the under gauge and take out the assembled knife.

ULTRA SLIDER 25-III RECIPROCATING PLANING TYPE

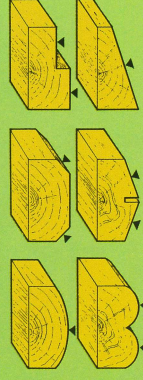
Two knives are installed face to face direction on each two knife stocks set in a line. These knife stocks will slide obliquely just before the reverse turn of the material feed belt. Therefore, rough planing and finish planing can be performed separately by each two knives on a reciprocating basis so that a beautiful finish can be secured through speedy working. In addition, knives are serviceable for a considerably long time. On the separate type knife stocks, moreover, knives can be replaced easily.



SPECIFICATIONS

Work capacity: max. width	250 mm
	max. thickness
	190 mm
Knife bias angle	42°
Material feed speed	65 m/min. (60 Hz)
Power required: feed motor	2.2 Kw
	knife stock motor
	0.1 Kw
head elevation motor	0.1 Kw
overall length	1,150 mm
Machine size (width x length x height)	1,230 x 1,330 x 1,440 mm
Packing volume	Approx. 120 cft.
Net weight	530 Kg

PROFILE STOCK



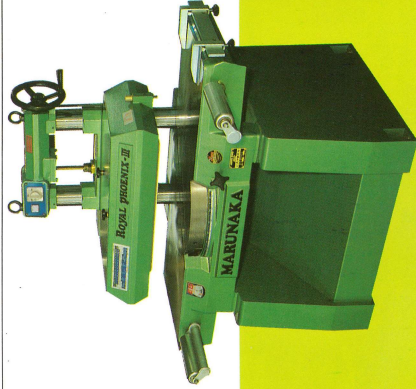
This photo shows the demonstration scene of the Royal FX at international machinery fair held in Hanover, West Germany. The machine with the Royal Up and combination with the Royal Up and highly appraised by many attendants from all parts of the world.



SUPER SURFACER

ROYAL PHOENIX-III

The Royal Phoenix III has a large and spacious turntable relatively to the length of the knife. As a result, wood shavings can be discharged very smoothly in both forward and reverse operation. Besides, the surfacer is not clogged with shavings nor has any inferior grain due to shavings clogged but ensures a lustrous surface finish. Employing an open side system and an EG knife stock together with the powerful material feeding and cutting capabilities facilitates to handle the Royal Phoenix III.



SPECIFICATIONS	
Work capacity: max. width	250 mm (40°), 165 mm (60°)
max. thickness	180 mm
Knife bias angle	0° — 60° variable
Material feed speed	54 m/min. (50 Hz), 65 m/min. (60 Hz)
Power required (feed motor)	1.5 Kw/2.2 Kw, 200V, 3 phase
Table size (overall length x overall height)	1,150 mm x 650 mm
Machine size (width x length x height)	850 x 1,245 x 1,270 mm
Net weight / Packing volume	405 Kg / Approx. 75 cft.

ROYAL PHOENIX CUSTOM-III

The Royal Phoenix Custom III, which is provided with a photo-switch (material passage detector), allows working without any mistake through the automatic return mechanism. To smoothly return a long workpiece, moreover, an auxiliary roller table is also provided. The head employed an automatic elevation system.



SPECIFICATIONS	
Work capacity: max. width	250 mm (40°), 165 mm (60°)
max. thickness	180 mm
Knife bias angle	0° — 60° variable
Material feed speed	54 m/min. (50 Hz), 65 m/min. (60 Hz)
Power required (feed motor)	2.2 Kw, elevation motor 0.1 Kw
Table size (overall length x overall height)	1,150 x 650 mm
Machine size (width x length x height)	860 x 1,330 x 1,350 mm
Length of machine with auxiliary roller	4,050 mm
Net weight / Packing volume	450 Kg / Approx. 75 cft.

MICRO-LAPPER GLE-500 · 600

Since the grinding wheel and lapping wheel are arranged in line, neither the firm nor backward movement of the wheel head is required when proceeding to lapping work. The top face grind-and-lap permits visually checking the approach of the wheel and progress of lapping work, thus eliminating the necessity of guesswork. Furthermore, water cooling system dissolves troubles concerned. This machine well meets the requirement of highly accurate lapping of cutting tools.

SPECIFICATIONS	
Max. work length (knife length)	500 (640) mm
Size of grinding wheel (OD x thickness x arbor hole dia.):	
Grinding	φ 255 x 16 x φ 25.4 mm
Lapping	φ 100 x 50 x φ 15.88 mm
RPM of wheel (grinding & lapping)	1,400 (50 Hz), 1,700 (60 Hz)
Motors: Grinding / Lapping	0.75 Kw, 4P / 0.4 Kw, 4P
Pump	60 W or 40 W, 2P
Overall width x length x height	1,820 x 690 x 1,335 mm
	(1,960 x 690 x 1,335)
Packing volume	Approx. 89 (92) cft.
Weight	250 (290) Kg

ROYAL-14FX

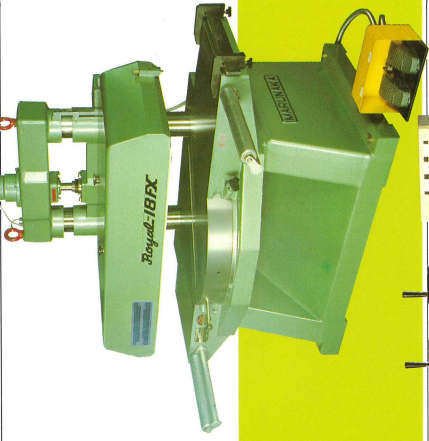
The Royal 14FX, an open side type surfacer, is capable of working even a wider material than the table width. This facilitates machine adjustment and maintenance as well as operation. The turntable permits the bias angle to vary from 0° to 60° according to the material. Among many other features, a height-fixed table is employed in the Royal 14FX. In addition, it is considerably easy to operate with switches gathered in a switch box on your side.



SPECIFICATIONS	
Work capacity: max. width	350 mm (45°), 250 mm (60°)
max. thickness	180 mm
Knife bias angle	0° — 60° variable
Material feed speed	30 — 60 m/min. (60 Hz)
Power required (feed motor)	3.7 Kw, 200 V, 3 phase
Table size (overall length x overall height)	1,170 x 680 mm
Machine size (width x length x height)	1,030 x 1,330 x 1,400 mm
Net weight / Packing volume	630 Kg / Approx. 113 cft.

ROYAL-18FX

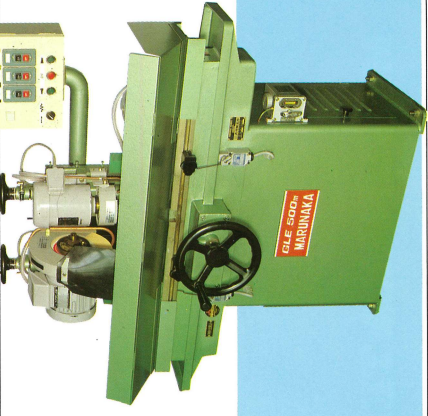
To strengthen the material feeding capability, the Royal 18FX has an enlarged body of rigid construction. With the material feed area so expanded, the Royal 18FX is capable of cutting a 450 mm wide work at the maximum with stability. And the large spacious table as compared with the knife length allows shavings to be discharged smoothly.



SPECIFICATIONS	
Work capacity: max. width	450 mm (45°), 320 mm (60°)
max. thickness	180 mm
Knife bias angle	0° — 60° variable
Material feed speed	45 — 90 m/min. (60 Hz)
Power required	feed motor: 5.5 Kw, head elevation motor 0.4 Kw
Table size (overall length x overall height)	1,500 x 680 mm
Machine size (width x length x height)	1,300 x 1,600 x 1,730 mm
Net weight / Packing volume	1,100 Kg / Approx. 230 cft.

MICRO-LAPPER GLE-500m · 600m

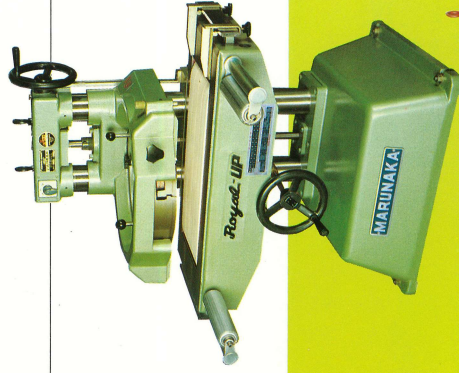
These machines are improved version of the GLE-500 and GLE-600, and newly equipped with the automatic traveling knife setting bed which permits the operator to leave his machine unattended for a long-time operation. Since the feed speed is constant, uniform and sharp grind-and-lapping effect can be obtained. Inching is possible to facilitate setting of knives to be worked.



SPECIFICATIONS	
Max. work length (knife length)	500 mm (600 mm)
Size of grinding wheel (OD x thickness x arbor hole dia.):	
Grinding/Lapping	φ 255 x 19 x φ 25.4 mm / φ 100 x φ 15.88 mm
RPM of wheel: Grinding & lapping	1,410 (50 Hz), 1,690 (60 Hz)
Feed speed	3.5 m/min. (50 Hz), 4.2 m/min. (60 Hz)
Motor: Grinding / Lapping	0.75 Kw, 4P / 0.4 Kw, 4P
Pump / Feed	40 W, 2P / 0.4 Kw, 4P
Overall width x length x height	1,520 (1,800) x 600 x 1,336 mm
Packing volume	Approx. 92 cft. (96 cft.)
Net weight	310 Kg (350 Kg)
* Specifications in parentheses are for the GLE-600m.	

ROYAL-UP

This is a decisive hit among the machines employed in a line. The Royal Up which employs an epock-making upper-positioned blade mechanism is capable of finishing while overlooking the surface to be planned. With the turntable and the knife set facing down, and over, the finished surface is free from damage due to shavings and a beautifully worked skin is available. Besides, the table can be moved up and down, thus allowing a simultaneous planing both of top and bottom surface when coupled with any super surfacer as well as the sister machine Royal Phoenix III.



SPECIFICATIONS

Work capacity: max. width 250 mm (40°), 165 mm (60°)
 max. thickness 220 mm (table length, 640 mm)
 Knife bias angle 0° — 60° variable
 Material feed speed 60 m/min. (60 Hz)
 Power required (feed motor) 2,2 Kw
 Table size (overall length x overall height) 800 x 640 — 860 mm
 (variable, with wooden base)
 Machine size (width x length x height) 800 x 880 x 1,175 mm
 Net weight / Packing volume 450 Kg / Approx. 54 cft.

ROYAL-EIGHT

The Royal Eight is an ultra-economical model provided with all the features in the Royal Series, e.g. turntable reverse mechanism or the like. The table is of height-fixed type and can turn to permit to obtain the optimum knife angle for the workpiece to be machined. With the high performance of the Royal Phoenix Series made effective use of as it is, the Royal Eight is further rationalized in every aspect.



SPECIFICATIONS

Work capacity: max. width 200 mm (30°), 116 mm (60°)
 max. thickness 180 mm
 Knife bias angle 0° — 60° variable
 Material feed speed 65 m/min. (60 Hz)
 Power required (feed motor) 1,5 Kw
 Table size (overall length x overall height) 800 x 860 mm
 Machine size (width x length x height) 575 x 890 x 1,168 mm
 Net weight / Packing volume 200 Kg / Approx. 46 cft.

DIAMOND-LAPPER GLO-500

The three-head and three-motor grind-and-lapping system permits speedy grind-and lapping work on all kinds of knife blades including high speed steel blades and cemented carbide blades without necessity of replacement of the wheels. Each head turns at an optimum speed independent of other heads. The wheels can tilt resulting in the increase of work accuracy. Lapping work can be done without changing the inclination of the knife setting bed.

SPECIFICATIONS

Max. work length (knife length) 500 mm
 Size of grinding wheel (OD x thickness x arbor hole dia.) 15,88 mm
 Grinding / Lapping ϕ 255 x 16 x ϕ 25,4 / ϕ 100 x 50 x ϕ 15,88 mm
 Lapping on cemented carbide blades ϕ 100 x 17,00 (60 Hz)
 RPM or wheel: Grinding & lapping 1.700 (60 Hz)
 Motors: Grinding on cemented carbide blades 3,000 (60 Hz)
 Cemented Carbide blade lapping wheel 0,75 Kw / 0,55 Kw, 2P / 40W, 2P
 Overall width x length x height 1,575 x 670 x 1,350 mm
 Packing volume / Net weight Approx. 85 cft. / 345 Kg



COMPAK 6

The Royal Compak 6 is a new type super surfacer constructed in a compact size. It carries out a refined finish while plating at a high speed. The knife edge protrusion can be easily adjusted by turning the adjust screw. A folding auxiliary table is also provided so that the Royal Compak 6 can afford easy work on long materials.

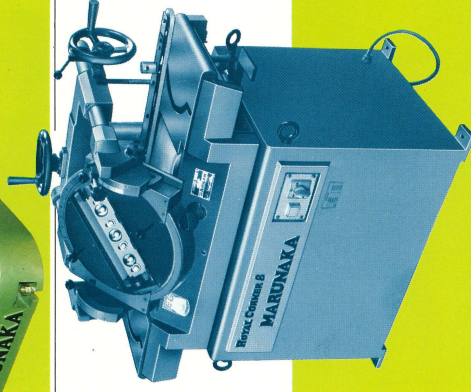


SPECIFICATIONS

Work capacity: max. width 165 mm (0°), 150 mm (28°)
 max. thickness 150 mm
 Knife bias angle 0° — 50° variable
 Material feed speed 52 m/min. (60 Hz)
 Power required (feed motor) 1,5 Kw
 Machine size (width x length x height) 445 x 543 x 620 mm
 (But 1,240 mm length with folding auxiliary table)
 Net weight / Packing volume 115 Kg / Approx. 10 cft.

ROYAL CORNER 8

Since the head can tilt down 55° to the left of the machine while the head slides down, surface finishing of 45° to 60° can easily be made. The maximum machining width of level or inclined surface is as large as 200 mm. Also, sliding down of head permits open use of cutting edge over full length of the cutting wheel. With the change-over switch, which reverses the cutting tool, feeding of work feeding in the cross-grain direction can be prevented. Also, twofold-speed quick feed of plane as well as chamfering are possible.



SPECIFICATIONS

Work size: Max. width 200 mm (30°), 116 mm (60°)
 Max. thickness 180 mm
 Knife bias angle 0° — 60° variable
 Tilt of head 0° — 55° to left
 Feed speed 67 m/min. (60 Hz), 56 m/min. (50 Hz)
 Motor 1,5 Kw
 Overall width x length x height 1,000 x 1,100 x 1,100 mm
 Packing volume Approx. 60 cft.
 Net weight 150 Kg

DIAMOND DOUBLE LAPPER GLP-600m

This machine is equipped with double grind-and-lap unit separately used for grind-and-lap work on high speed steel blades and cemented carbide blades. The two units, each of which is composed of a grinding head and a lapping head driven independently by the motor and set in a line to accomplish grinding and lapping on the blade successively without replacing the wheels, are arranged back to back with the rotary support of heads in between so that they can be easily reversed for their own job. The machining can be clearly viewed due to the up-face grind-and-lap method.



SPECIFICATIONS

Max. work length (knife length) 500 mm
 Size of grinding wheel (OD x thickness x arbor hole dia.) 15,88 mm
 Grinding / Lapping ϕ 225 x 16 x ϕ 25,4 / ϕ 100 x 50 x ϕ 15 mm
 C.C.T. of wheel: Grinding / lapping ϕ 125 x 52 x ϕ 25 / ϕ 100 x 40 x ϕ 25 mm
 RPM of wheel: Grinding & lapping 1,410 (50 Hz), 1,690 (60 Hz)
 C.C.T. grinding & lapping 2,840 (50 Hz), 3,410 (60 Hz)
 Feed speed (2 speeds) 5,8 — 2,9 m/min. (50 Hz), 7,0 — 3,5 m/min. (60 Hz)
 Motors: Grinding / Lapping 0,75 Kw, 4P / 0,4 Kw, 2P
 C.C.T. grinding / lapping 40W, 2P / 0,4 Kw, 4 (8P) / 60W, 100V
 Pump / Feed / Lamp 40W, 2P / 0,4 Kw, 4 (8P) / 60W, 100V
 Overall width x length x height / Weight 1,340 x 1,110 x 1,360 mm / 525 Kg

MARUNAKA Believes in Technological Innovations

A machine which has made a debut as a new product becomes an old product at that very moment. Based on this way of thinking, we on the part of Marunaka Tekkosho Inc. have been tackling with many-sided studies to cover electricity, electronics, aerodynamics, human engineering, hydraulics, etc. On the other hand, we are also making efforts to settle the present-days' problems, such as those relative to environmental sanitation, labor hygiene, noise and resource preservation.

We believe that good products will be welcomed internationally and will contribute not only to the economic cooperation, but also to the success of deepening of mutual understanding among the peoples and confidence in each other.



Marunaka possesses over 200 of patented mechanisms! This will be enough to show that Marunaka's policy aims at technological innovation.

PATENTS REGISTERED

Japan : No. 1038649	U. S. A. : No. 13783917
1044459	Canada : No. 973779
1065410	955830
442691	Italy : No. 931259
966958	957779
689945	Poland : No. 84752
England: No. 1382457	W. Germany: No. 7114918
1376485	Rumania : No. 61648
U. S. A. : No. 37276457	Spain : No. 196474
3727654	402565



AGENT:



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