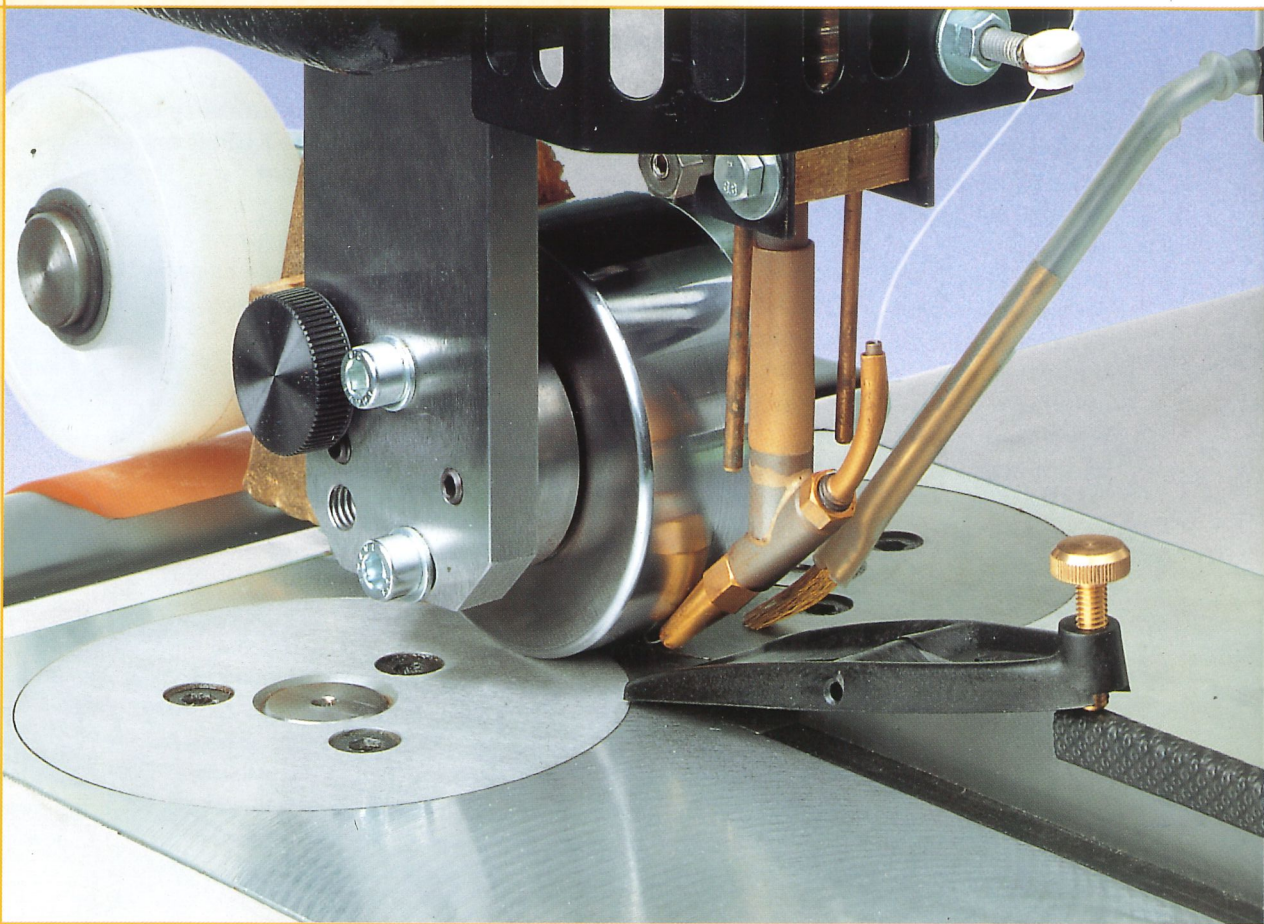


Advanced technology in perfect veneer splicing



The product range

KUPER

Kuper – the better alternative for everyone processing veneers.

Innovative technique made by Kuper.

To improve quality and productivity – for the splicing of veneers you'll find a comprehensive selection of different types of machinery at Kuper. Because the significant developments and steps towards a modern, economical technology of joining veneers are closely connected with the name Kuper.

Veneers are extremely sensitive and valuable natural products which have to be handled with appropriate precision and care. This is why – for many veneer people all over the world – there is no alternative to the unique Kuper veneer splicing systems. Perfect veneer joints which are tight, strong and resistant enhance



your sales prospects in a market which is becoming more and more quality conscious. Your requirements as veneer specialist are our guidelines for a machine program that has the answers for all the different needs – from a small handgluer up to a large crossfeed splicing machine.

Efficient and economical handling with a natural product.

Responsible handling with natural resources has become a necessity. Thus – like all natural products – veneers, too, are becoming scarcer and more expensive.



At the same time higher standards for finished products are set. Therefore, it is necessary that this valuable material is always spliced in a clean, absolutely tight and cost saving manner. For this reason Kuper pro-



duces veneer splicing machines for all kinds of veneer gluing methods: in order to meet your quality standards as well as individual manufacturing conditions.

Furthermore, there are many different species of wood all of which have to be joined in a perfect way. The solution for all those requests: Kuper's wide product range where you will surely find the type of machine which suits your company best – zig-zag gluing machines using special glue thread; crossfeed veneer splicing machines; veneer end splicers and many more.

Consultancy by the KUPER expert team

Do you have a specific manufacturing problem or questions concerning



the production flow of your veneer shop? The Kuper experts will assist you with all the help and advice you need.

Their knowledge is based on the know-how gained by solving manufacturing problems worldwide. It is this continuous dialogue with the end user plus on-going intensive R&D work done at Kuper which will guarantee that your decision for a Kuper veneer splicing machine is the right one.

Competence also in packaging.

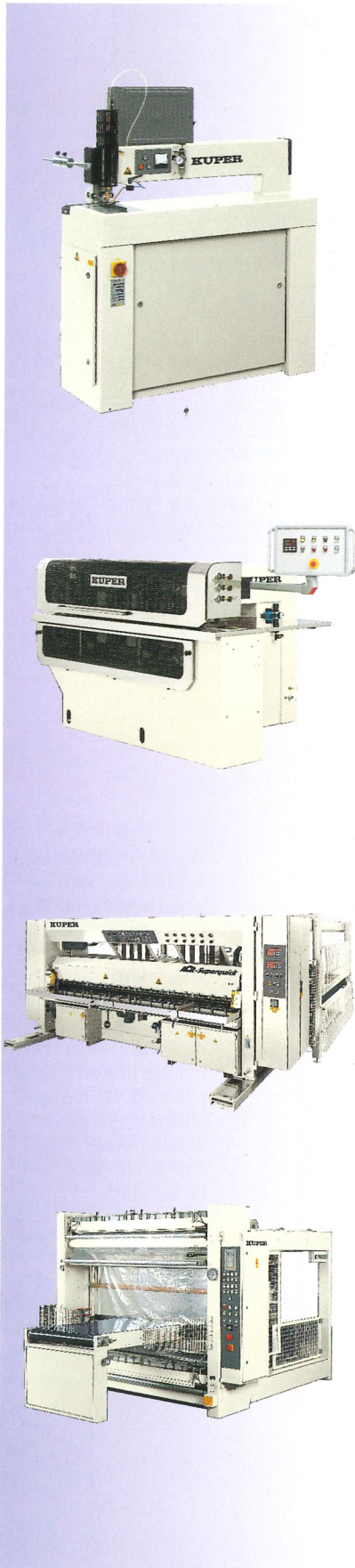
The Kuper shrink-wrap packaging machines prove to be a good investment wherever more efficient and flexible packaging solutions are

called for. For example, the Kuper Triplex system offers up to 9 different foil combinations enabling you to pack your goods on a per order basis.

This highly automated system is a unique feature available only from Kuper.



Contents



<i>„Zig-Zag“-Veneer Splicing Machines</i>	4/5
<i>Butt Joining Machines</i>	6/7
<i>Glue Application Machine</i>	8
<i>Veneer Fanning Machine</i>	8
<i>Crossfeed Veneer Splicer</i>	9/10
<i>Veneer End Gluing Machines</i>	11
<i>Veneer Finger Joint Cutting and Joining Machines</i>	12
<i>Crossfeed Core Stock Composers</i>	13
<i>Veneer Clipper</i>	14
<i>Veneer Jointing Guillotines</i>	15/16/17
<i>Layout Veneer Department</i>	18
<i>Veneer Hand Gluers</i>	19
<i>Luminous Table</i>	19
<i>Glue Application Systems</i>	20
<i>Panel Storage-Rack</i>	20
<i>Shrink-Wrap Packaging Machines</i>	21/22

„Zig-Zag“ Veneer Splicing Machines

FW/Mini 630

Technical Data

FW/Mini 630

FW/Mini 630/table version

FW/Mini 630

with mobile support

Throat depth: 630 mm

Feed speed: ca. 7 m/min.

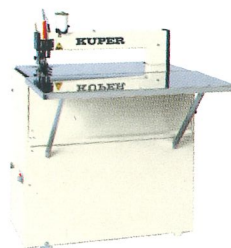
Operating voltage: 230 V

Total connected load: 110 VA

Veneer thickness: ca. 0.4–2 mm



*FW/Mini 630
with mobile support*



A compact Kuper zig-zag gluing machine for efficient splicing of small quantities.

The ideal table model with the technical advantages of the Kuper Zig-Zag machines. Discs with tolerance compensation are guaranteeing an absolutely plane gluing surface even when processing veneers of different thicknesses. The special Kuper-glue thread applied in Zig-Zag fashion guarantees a completely firm and tight joint.

By folding the veneer the machine is also suitable for larger sizes.

FW/J 920

Technical Data

FW/J 920

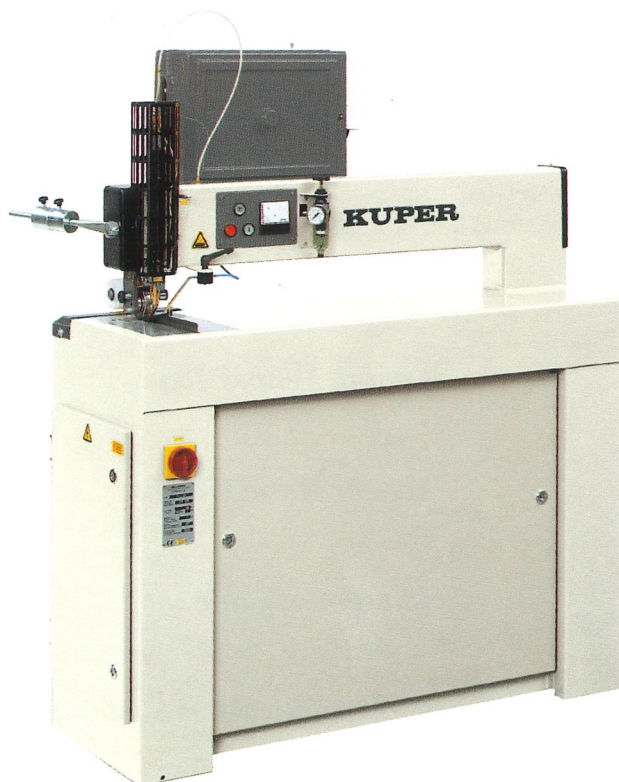
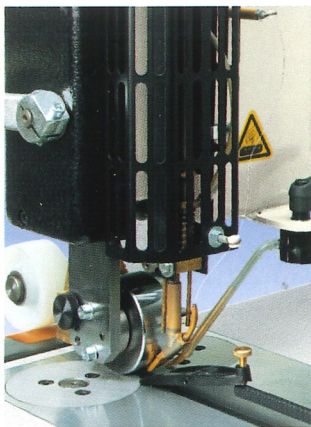
Throat depth: 920 mm

Feed speed: ca. 15 m/min.

Operating voltage: 400 V

Total connected load: 0,5 kW

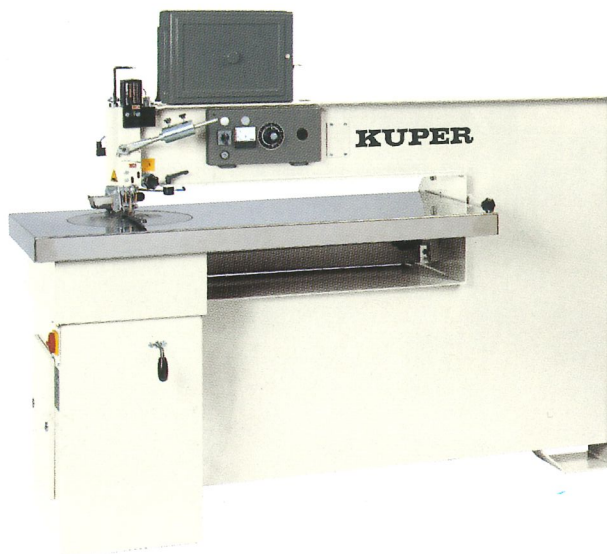
Veneer thickness: ca. 0.4–2 mm



The FW/J 900 fills a gap for requirements of woodworking businesses who, until now, have not been able to afford the large FW for cost or space reasons. An especially low priced machine of high performance, proven a thousandfold. On request, an additional paper taping device, as well as a movable stand, can be supplied.

„Zig-Zag“ Veneer Splicing Machines

For the joining of decorative and constructional veneers. A special Kuper glue thread is used as joining medium, which is applied in zig-zag fashion or in a wavy line along the joints via a heated thread guide. It guarantees tight joints, high adhesion and tear resistance, even on very wavy veneers. Tolerance compensation mechanism. The glued sides are placed down when pressing, therefore no sanding is necessary. Simple operation with high efficiency. The FW 1700 (not shown here) serves to join veneer sheets to extra large widths and is therefore most suitable for the panel industry.



FW 1150 and FW 1700

Technical Data

FW 1150

FW 1700

Throat depth: 1150 mm
1700 mm

Feed speed infinitely variable:
10–30 m/min.

Only for standard heating:
up to 40 m/min on request

Operating voltage: 400 V

Total connected load: 1,5 kW

Veneer thickness: ca. 0.4–3 mm

For the joining of veneers varying in thickness from 0,3 to 3.0 mm. A special Kuper-glue thread is applied via a heating tube in a zig-zag or wavy line pattern. This ensures tight joints, strong adhesion and tear resistance even on very wavy veneers. The spliced layons are then placed face down for pressing, eliminating the need to sand the glue thread. The much higher feed speed of the FW 1200 E compared to the FW 1150 makes it particularly suitable for extremely long veneer sheets.



FW 1200 E

Technical Data

FW 1200 E

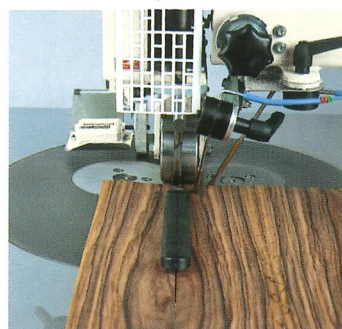
Throat depth: 1200 mm

Feed speed infinitely variable:
ca. 35–60 m/min.

Operating voltage: 400 V

Total connected load: 1,35 kW

Veneer thickness: ca. 0.3–3 mm



Distinguishing feature of all Kuper Veneer Splicing Machines: The disc-drive system with the tolerance-compensating mechanism. Possible tolerances in the material thickness are compensated automatically during the splicing process.

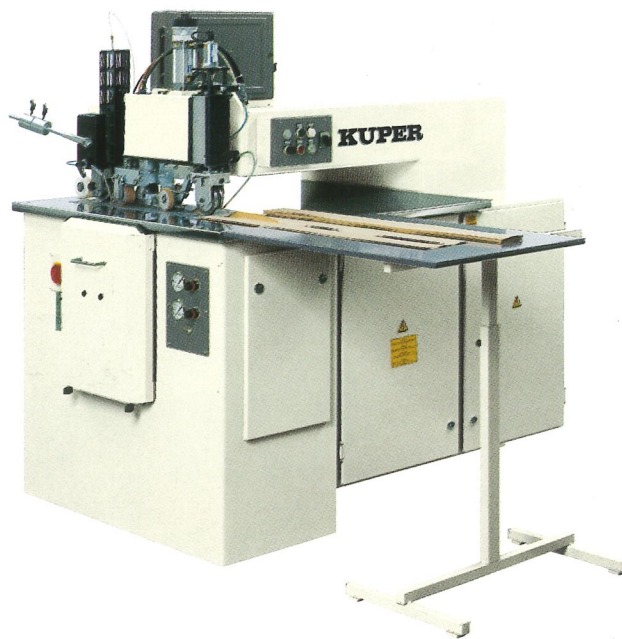
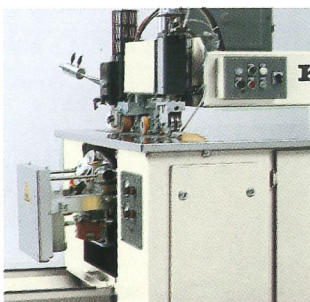
ences in the material thickness are compensated automatically during the splicing process.

Butt Joining Machines

FW/L 920

Technical Data FW/L 920

Throat depth:	920 mm
Feed speed:	ca. 15 m/min.
Operating voltage:	400 V
Total connected load:	2,5 kW
Veneer thickness:	ca. 0.4–1.5 mm



For the longitudinal splicing of flat veneers from about 0.4 to 1.5 mm thickness.

A special PVAc glue and the proven Kuper special glue thread are used as a joining medium. This is applied in an extra thin quality (high efficiency).

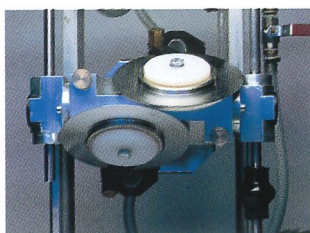
The PVAc glue is a rapid hardening, joint filling white glue. Strong adhesion by means of combined use of PVAc glue and glue thread. Sensitive working by tolerance compensating mechanism.

Simple operation of the machine and good access to the gluing device. Simple cleaning. Permanent circulation of the glue provides long pot life.

FW/L 1200

Technical Data FW/L 1200

Throat depth:	1200 mm
Feed speed:	appr. 10–30 m/min.
Operating voltage:	400 V
Total connected load:	3,6 kW
Veneer thickness:	ca. 0.4–2 mm



The gluing aggregate can be pulled out.



For the longitudinal splicing of flat veneers from about 0.4 up to 2 mm thickness.

A special PVAc glue and the proven Kuper special glue thread are used as a joining medium. This is applied in an extra thin quality (high efficiency).

The PVAc glue is a rapid hardening, joint filling white glue. Strong adhesion by means of combined use of PVAc glue and glue thread. Sensitive working by tolerance compensating mechanism. Simple operation of the machine and good access to the gluing device. Simple cleaning. Permanent circulation of the glue provides long pot life.

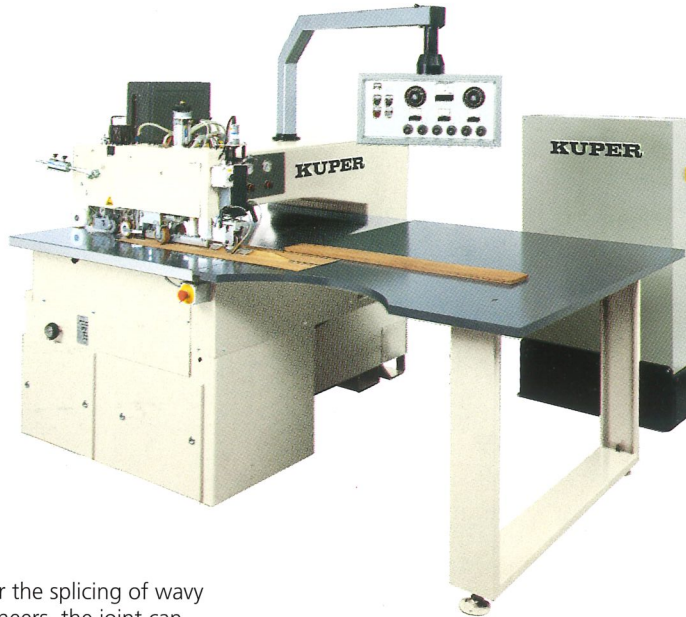
Butt Joining Machines

For the longitudinal splicing of veneers with preglued edges from about 0.4 up to 2.0 mm thickness.

As joining medium a special PVAc glue is used, which has been applied to the veneer edges in a separate gluing device before (Kuper KLM).

By means of a special heating system in the FW/L-1200 V the glue is re-activated while the sensitive feed discs are pulling the veneer edges together. The PVAc glue is a rapid hardening, joint filling white glue.

For the splicing of wavy veneers, the joint can be reinforced by simultaneous application of the proven Kuper glue thread. Special features of the FW/L-1200 V are high throughfeed speed and easy operation.



FW/L 1200 V

Technical Data FW/L 1200 V

Throat depth:	1200 mm
Feed speed:	ca. 10–50 m/min.
Operating voltage:	400 V
Total connected load:	7,5 kW
Veneer thickness:	ca. 0.4–2 mm

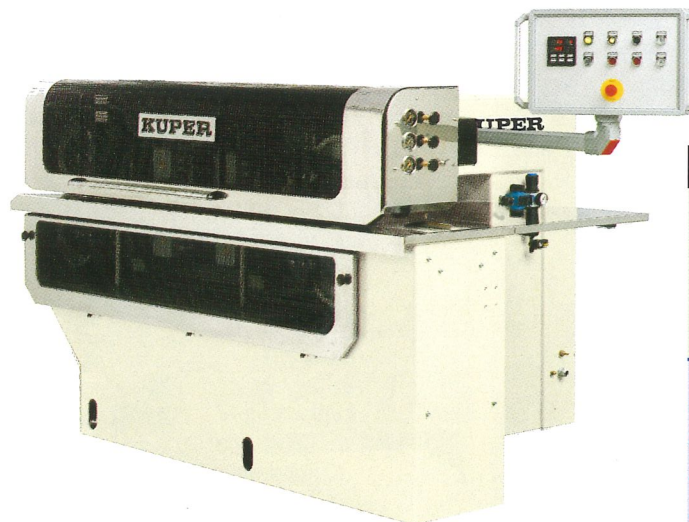
The FL/Innovation is the latest model within the wide range of the Kuper Glueing Machines.

Veneers which are exposed to high temperatures and tensions during the further processing (e.g. wrapping or membrane-press technology) are joined preferably with urea glue.

To fulfil this task a special process of heat supply and simultaneous pressure over a longer transport section is necessary.

The FL/Innovation combines innovation with proven technology:

- Disc-drive infeed
- Stainless steel quality hinge band chain
- solid spur gear with drive shafts
- six individually adjustable heating elements
- Integrated glueing device as standard feature



FL/Innovation

Technical Data FL/Innovation

Throat depth:	1000 mm
Feed speed:	ca. 10–50 m/min.
Operating voltage:	400 V
Total connected load:	9,3 kW
Veneer thickness:	ca. 0.3–2.5 mm

Glue Application Machine

KLM

Technical Data

KLM

Length of veneer package:
from 400 mm

Width of veneer package:
50–400 mm

Height of veneer package: from 5 mm

Feed speed: ca. 28 m/min.

Operating voltage: 400 V

Total connected load: 2,0 kW

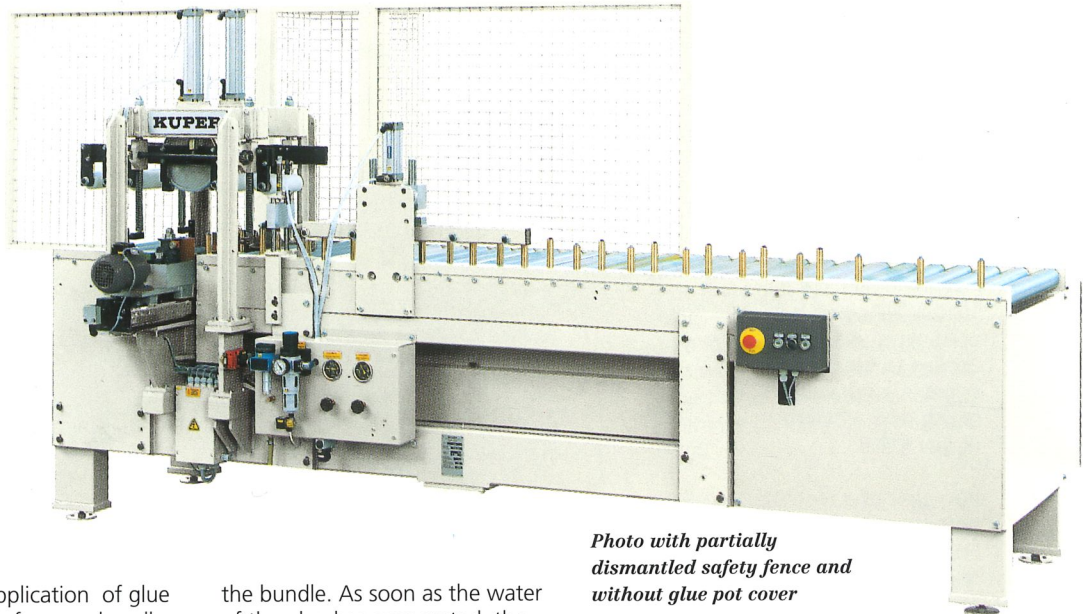


Photo with partially dismantled safety fence and without glue pot cover

For precise application of glue to the edges of veneer bundles the Kuper KLM is employed. Veneers are cut parallel as usual by an ordinary guillotine. The operator places the veneer bundles onto the roller conveyor which is then feeding it to the gluing heads. Aligning of the veneer bundle and setting of the gluing heads according to the veneer width is automatically done in one process. By passing the rollers, a thin film of glue is precisely applied to the edges of

the bundle. As soon as the water of the glue has evaporated, the veneers can be processed in the Kuper butt joint splicers. PVAc as well as urea type glues can be applied with the KLM. The Kuper KLM can also be used replacing the special gluing guillotines. In this case the cutting of veneer-bundles with a two-knife guillotine is recommended.

Veneer Fanning Machine

FFM

Technical Data

Veneer Fanning Machine FFM

Veneer width max.: 400 mm

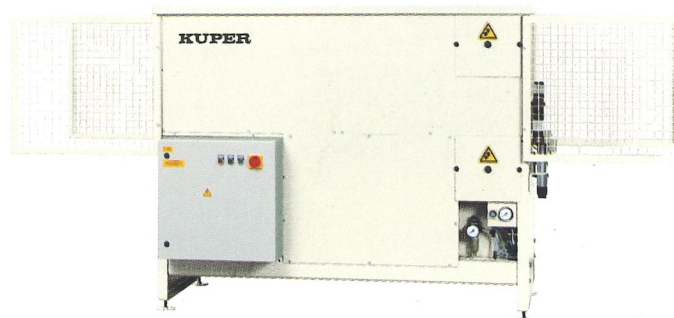
Veneer bundle thickness:
ca. 8–20 mm

Veneer thickness of single sheets:
ca. 0.4–1.5 mm

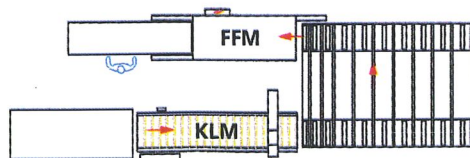
Feed speed: 28 m/min.

Operating voltage: 400 V

Total connected load: 1 kW



With the FFM Kuper offers a solution for the usually time consuming and unprecise manual fanning. Pre-glued veneer bundles coming from e.g. the pregluing machine Kuper KLM are transported through a tunnel of upper and lower transport belts which due to their special arrangement are providing the fanning effect. The FFM can be employed as single machine as well as part of a line with other transportation systems in front of the cross-speed-splicing machine.



This installation example shows Kuper fanning machine in connection with Kuper glue application machine KLM and rectangular transfer

Crossfeed Veneer Splicers

ACR-2300/3100

„Superquick“

Technical Data

ACR 2300

ACR 3100

Max. working width in grain direction: ca. 2350 mm
ca. 3100 mm

Min. working width in grain direction: ca. 600 mm

Width of veneers across the grain: from ca. 75 mm

Veneer thickness: ca. 0.4–2 mm

Feed speed: 28 m/min.

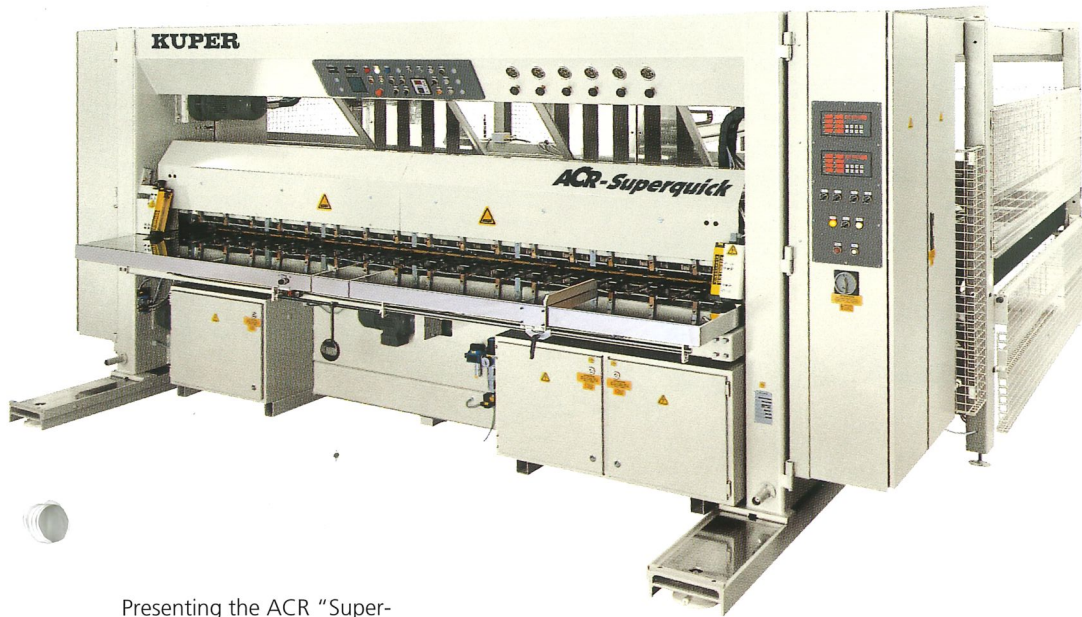
Pressing time for joints: 0.2–3 sec.

Pressure beam stroke when operating: 12 mm

Installed heating capacity: 5,5 kW
7,5 kW

Operating voltage: 400 V

Total connected load: 19 kW
22 kW



Presenting the ACR "Superquick" Kuper now offers the favourable solution for an economic and perfect method of producing the glue-spliced joint. Utilizing a new technology the ACR "Superquick" is splicing jointed and preglued veneer strips to required veneer sizes. White glue (PVAc) as well as urea glues can be used. The integrated cut-to-size clipper cuts the "endless" veneer carpet to the preselected size. A possible alternative to the "endless" splicing is the bookmatching method by preselection of a certain number of veneer strips.

All functions at one glance

- The operator places the veneer strip onto the conveying belts, set into the working table, which pull the veneer precisely into the splicing section. Aligning and exact positioning is done automatically and carefully by means of a patented friction-shaft system.
- The sensitive operation mode of the automatic transport and pressure mechanism ensures a perfect joint and a durable tightness over the full length.

- Individually adjustable joint pressure and pressing time as well as the short heating-beam-stroke result in a remarkably fast working-cycle.

- By means of the extremely narrow heating bar of the ACR "Superquick" tensionless splicing is achieved. The well-proportioned application of heat to the joint area prevents the veneers from any excessive drying out.

- The modern construction of the ACR enables the operator to have an unhindered view of the stacking device of the machine, thus providing the possibility of constant quality control of the spliced layons.

- The integrated cut-to-size clipper cuts the "endless" veneer carpet to the pre-selected size. A possible alternative to the "endless" splicing is the book-matching method by pre-selection of a certain number of veneer strips.

- The spliced layons are accurately stacked by the automatically working stacking device.

- All veneers preglued with customary PVAc or urea glues can be processed.



The digital displays ensure that the operator has constant control of the temperature of the heating elements, which can be readjusted when required.

Crossfeed Veneer Splicers

FW/Q

Technical Data

Zig-Zag Crossfeed Veneer Splicers

FW/Q 1800

FW/Q 2800

FW/Q 3600

Max. working width in grain direction:
1900 mm
2800 mm
3700 mm

Min. working width in grain direction:
ca. 550 mm
ca. 550 mm
ca. 900 mm

Width of veneers across the grain:
from 65 mm

Veneer thickness:
ca. 0.4–2.5 mm

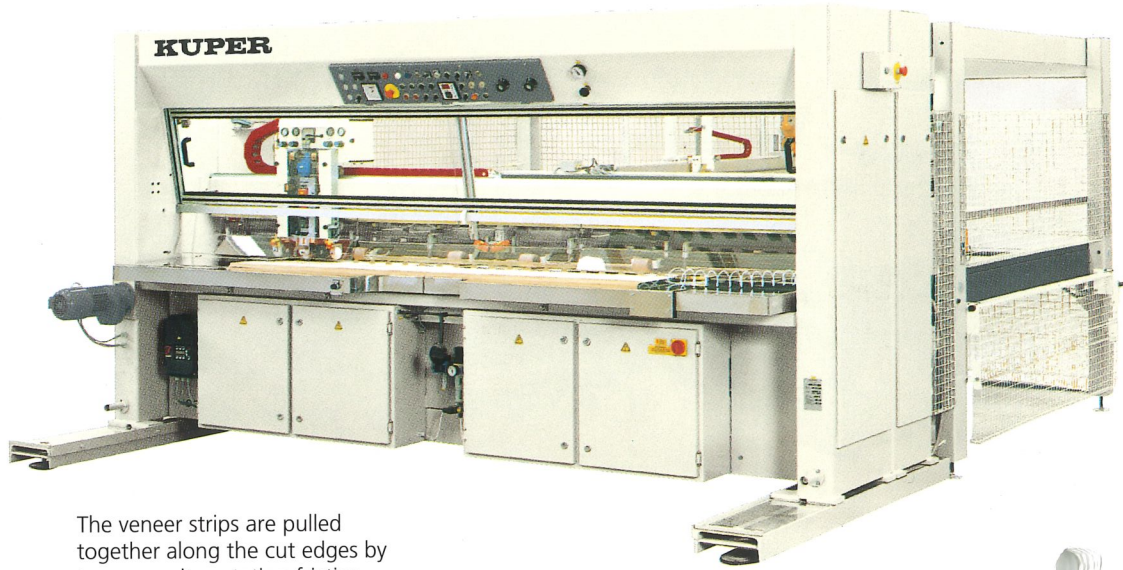
Feed speed of glueing aggregate, 7 speeds:
ca. 40–70m/min.

Stacking height measured from floor:
930 mm

Operating voltage:
400 V, 3 Ph, 50 Hz

Total connected load:
ca. 10 kW

Effective power consumption:
ca. 2 kW
ca. 2.1 kW
ca. 2.3 kW

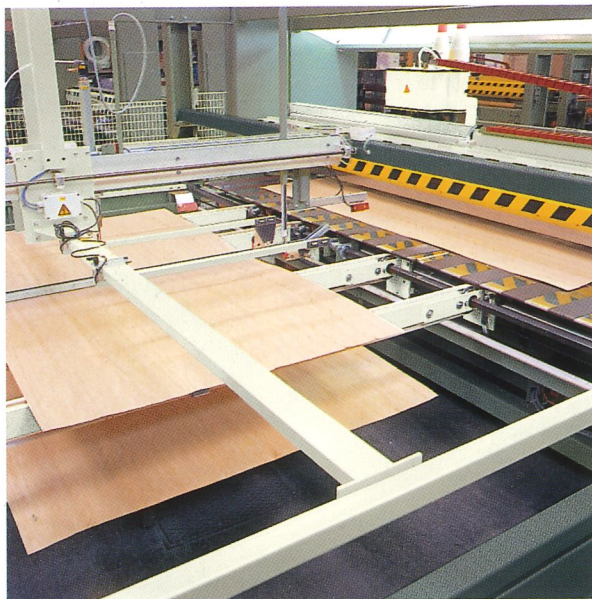


The veneer strips are pulled together along the cut edges by two opposite-rotating friction shafts. These are tightly joined with a special Kuper glue thread. The veneers are transported through the machine across the grain and spliced together to an endless carpet. An integrated clipper cuts the carpet to sheets of preselected length, which are then automatically stacked in a stacking unit set up behind the Zig-Zag-Crossfeed-Splicer. The photocell-controlled guillotine cuts exactly the preselected length from the endless veneer sheet. This method results in a considerably increased material yield.

An integrated automatic stacking device behind the bending and cutting zone stacks all cut-to-size sheets carefully onto a pallet-carriage, which can easily be taken for further processing. On request, the machine can be supplied with an additional middle fence for double-track splicing of short veneers.

The superior precision has become a trade mark for all Kuper machines. Worldwide. It is essential for a troublefree operation in non-stop working conditions.

The FW/Q can also be equipped with Kuper veneer clipper type FC which is located in front of the joining station. This version provides full automation and can usually be found in the plywood industry to splice peeled decorative veneers.



An automatic stacking device integrated behind the bonding and cutting zone carefully stacks all the dimensioned sheets onto a pallet carriage. They are then easily removed onto the next operation.

End Gluing Machines

EMZ/2-M

Technical Data EMZ/2-M

Working width: 420–2800 mm

Working width of special version:

up to max. 3800 mm

Feed speed infinitely variable:
ca. 15–35m/min.

Veneer thickness with trimming: ca. 0.3–1 mm

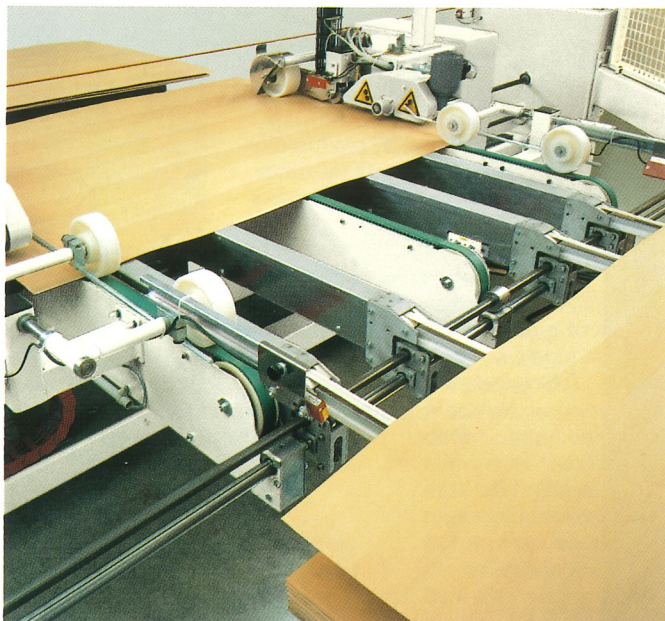
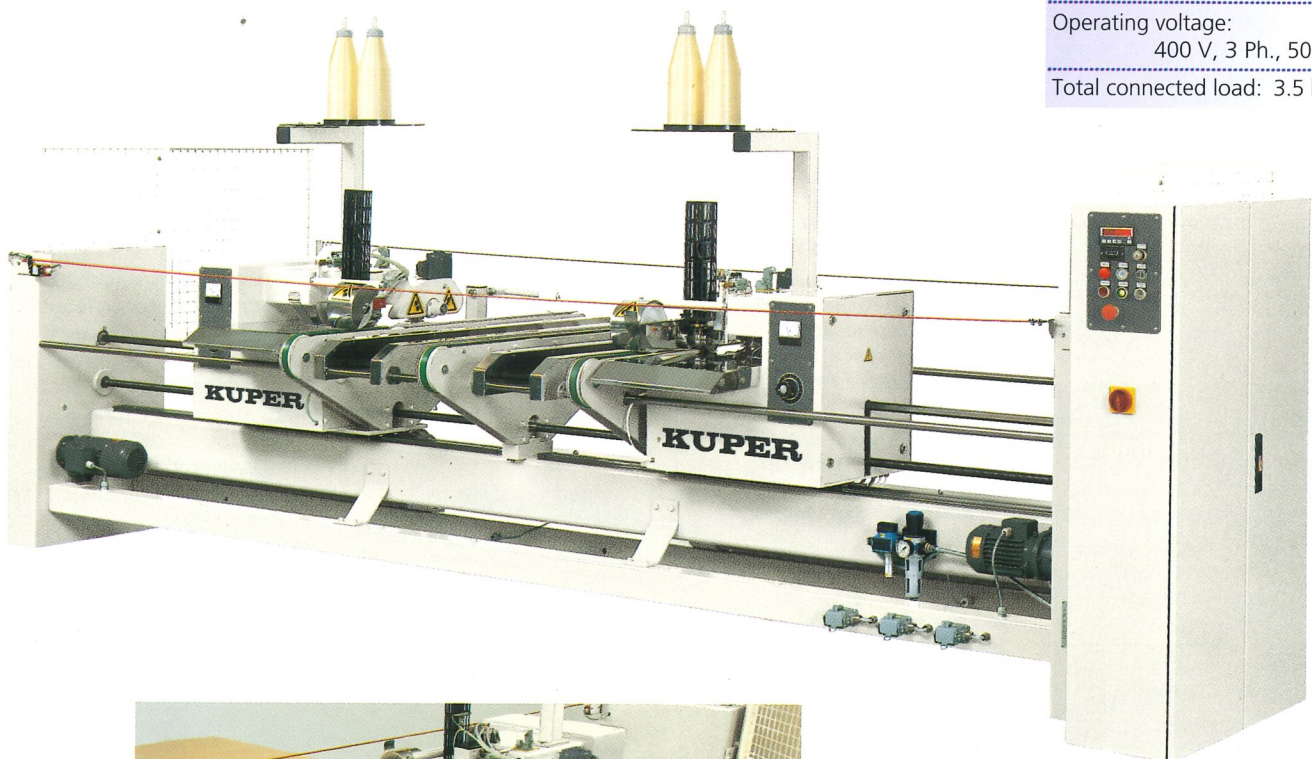
Veneer thickness without trimming: ca. 0.3–2 mm

Operating voltage:
400 V, 3 Ph., 50 Hz

Total connected load: 3.5 kW

The EMZ/2-M is a further development of the Kuper veneer end binder series. By means of this machine the ends of length-wise joined veneer carpets are reinforced with glue thread and are simultaneously cut parallel. The gluing and cutting devices are mounted on supports which can be moved on precision ball guides. Operation width is pre-selected via spindles with digital measure display. A passing width

of each 350 mm into the throat at both sides allows the cutting of oversizes down to cut-to-size layons. The EMZ/2-M is equipped with standard heating tube system. A special Kuper glue thread with expansion-free core is used as gluing medium. The trimm cut is achieved by long life circular blades.



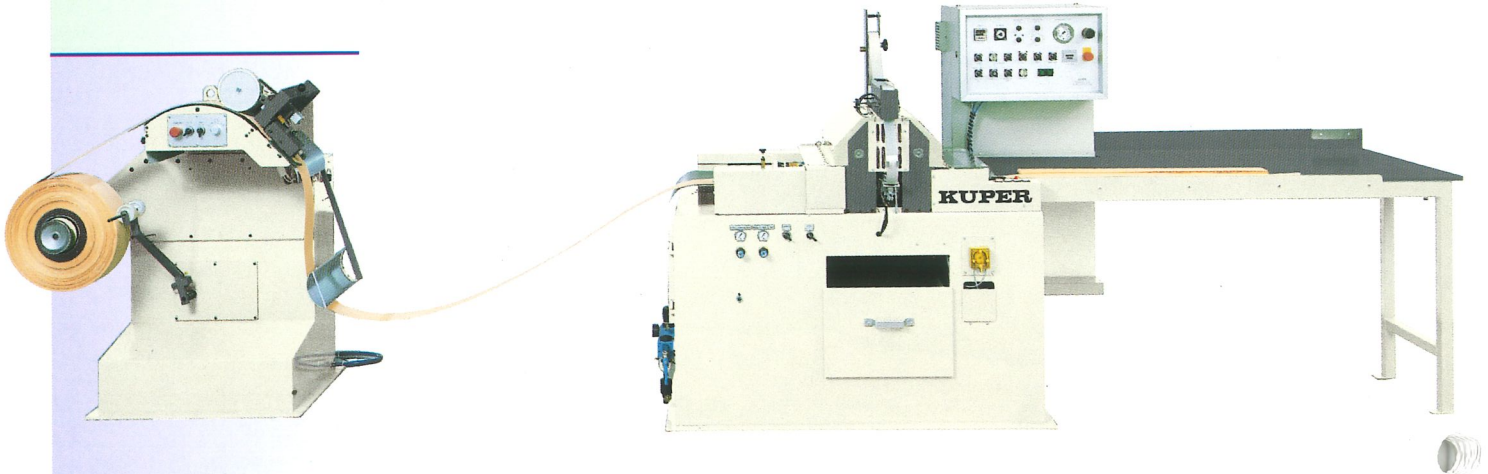
The EMZ/2-MA is a further development of the Kuper veneer end binder series. The integrated stacker allows the one-man-operation of the machine, also for the larger sizes.

Up to 5 stacker arms transport the veneer carpet out of the machine and stack it precisely

Veneer Finger Joint Cutting and Joining Machines

ZI/ZU

to finger joint veneers for rolls and fixed length



The product range:

F

For fixed veneer lengths, with electrical length preselection and guillotine.

R

For veneer in roll form, with separate winder.

F/R

Combined machine for fixed veneer lengths and for veneers in roll form, accordingly equipped as well with the electronic length preselection and guillotine as with the separate winder.

-P

Machines with pneumatic control.

-E

Machines with electrical control.

-M

Machines with special equipment for micro veneers.

ZU-Butt

Machines without finger jointing punching dies, for butt joinings only, with or without winder, with or without angle cut knives.

Top: Finger jointing punching dies with VARIO die form make possible an even more invisible joining by a curved line form.

Middle: Finger jointing punching dies with staggered fingers, tightness of fingers and visual perfect face veneer joinings.

Down: Butt veneer joining with tight joint from the ZU-Stumpf 330 F-P with angle cut knives. For fixed lengths only like for example veneer paquetry or furniture fronts.



For more than 20 years we have been delivering machines for the production of veneers in roll form. Nearly 400 machines delivered by us are being operated world-wide. The industrial knowledge and experiences collected here are at your disposal. Through the years more and more possibilities of the use for lengthened veneers occurred.

- The production of veneer edges in roll form was the beginning.

- Then veneer fixed lengths for wall- and ceiling panels appeared.

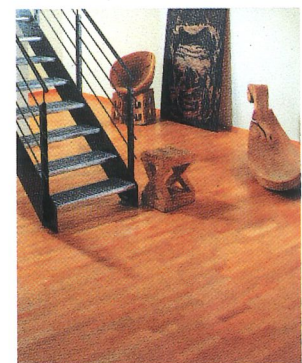
- Veneer rolls or fixed lengths for the wrapping of profiled lippings are in a great demand today. For the inductive working method fixed lengths in roll form with signal strips can be produced on the Kuper ZI/ZU with the option for butt joining or on the Kuper ZU-Butt 330.

- The use of veneer off-cuts/ veneer remainders for lower quality parts (e.g. back walls for cabinets, shelves, carcase insides) is getting more and more interesting due to increasing veneer prices.

- This is also valid for thicker core veneers for plywood panels and even for plywood mouldings.

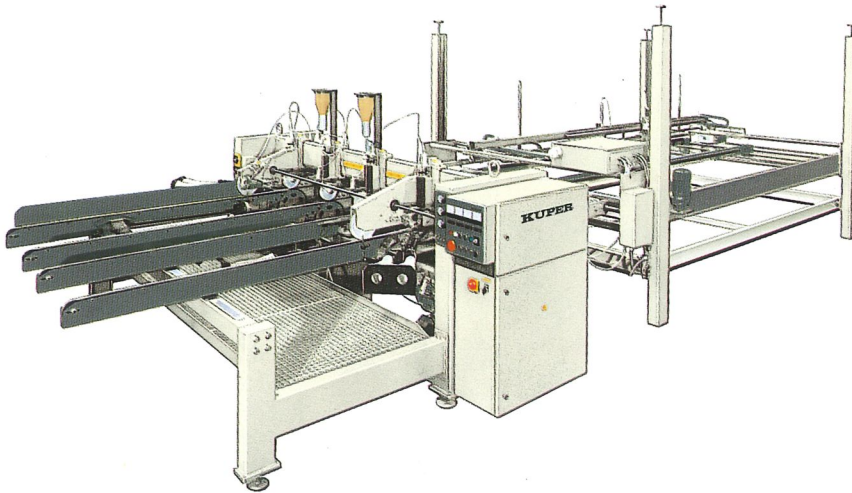
- In some countries very thin veneers (micro veneers) are used mainly for profile wrappings. These thin veneers can as well be jointed and joined, thus „lengthened“ or put in roll form.

We have adapted ourselves to the different requirements with various ZI/ZU.



Assembled with Kuper ZU-Butt. Veneers get into paquetry.

Crossfeed Core Stock Composers



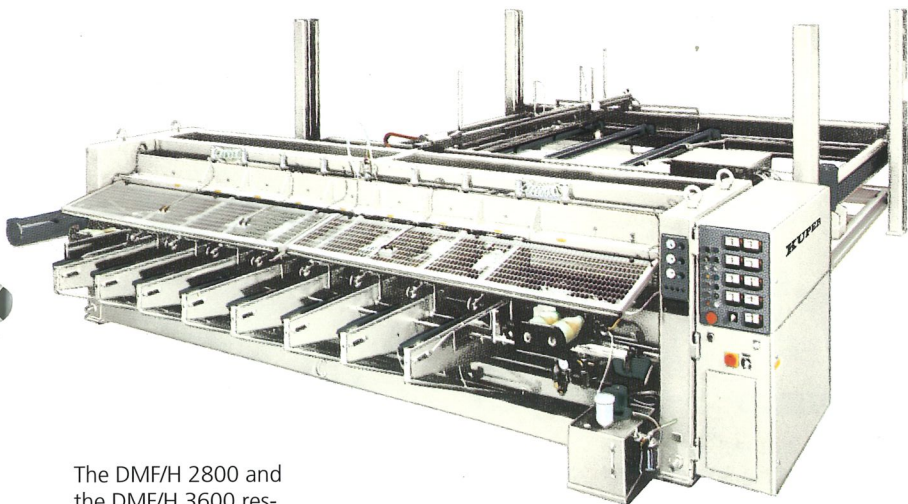
The machine is suitable for the composing of jointed and unjointed core veneers. Single veneer sheets are composed to a flexible carpet by applying special KUPER glue threads across the grain. The two outer top and bottom glue threads are crossed within the joint between each veneer strip by means of the

patented double thread turner. This prevents overlapping of the individual veneer strips. Two extra glue-thread aggregates for centre top and bottom gluing can be installed. An integrated clipper cuts the endless carpet to the pre-selected size. The composed carpets are then deposited by an automatic stacking device.

DMF/H 1800

Technical Data DMF/H 1800

Max. working width in grain direction:	1950 mm
Min. working width in grain direction:	800 mm*
Feed speed 2 speeds:	ca. 20 and 40 m/min.
Operating voltage:	400 V
Veneer thickness:	ca. 1.4–6 mm
Total connected load:	8 kW
*less working widths on demand	



The DMF/H 2800 and the DMF/H 3600 respectively have been developed for the same purpose as the DMF/H 1800. These larger machines are equipped with 7 respectively 9 patented double thread turners. The spools turn 180° after a veneer strip has passed through and form a "thread turning" between the two veneers. By means of those thread turnings which

are formed between every joint of a veneer carpet an extremely tight and resistant quality is achieved. The double thread turners of the DMF/H 2800 and 3600 are mounted at a fixed distance to each other.

All DMF/H models can be combined with the Veneer

Clipper FC which is the first step to cutting the single veneer sheets parallel.

A scanner registers defects and holes and eliminates them automatically. The waste material is sorted out before the veneers are spliced in the DMF/H.

DMF/H 2800

DMF/H 3600

Technical Data DMF/H 2800 DMF/H 3600

Working width:	ca. 900–2850 mm ca. 900–3600 mm
Feed speed 2 speeds:	20 and 40 m/min.
Operating voltage:	400 V
Total connected load:	10 kW 12 kW
Max. veneer thickness:	ca. 1.4–6 mm

Veneer Clipper

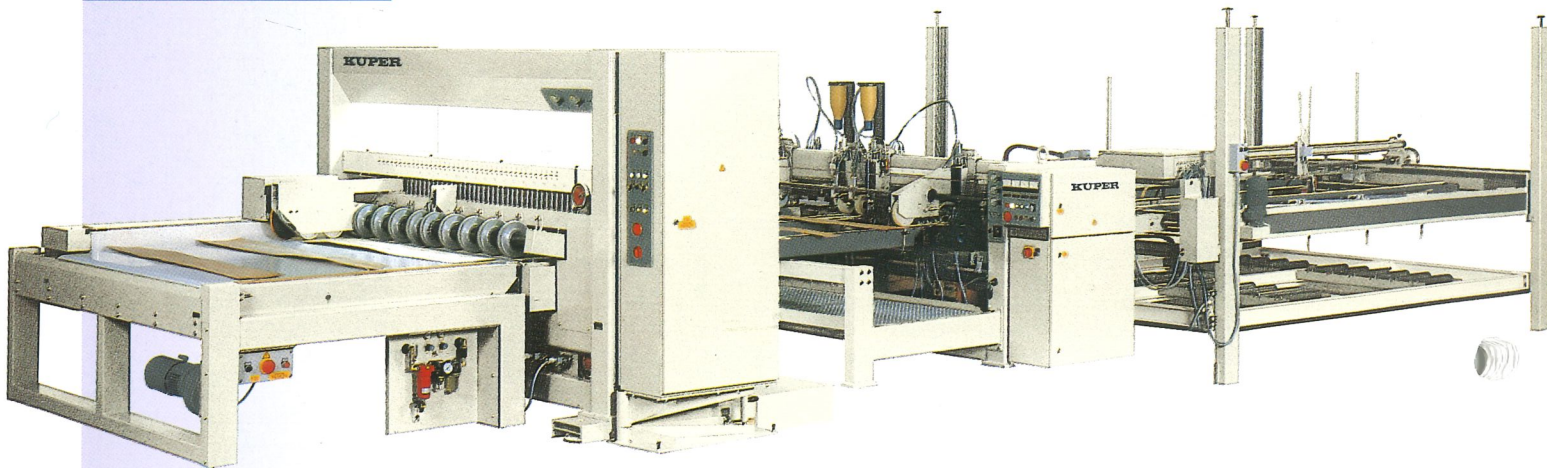
FC 1800

FC 2800

Technical Data

FC 1800

FC 2800



Veneer Clipper with DMF/H 1800

Max. working width in
grain direction: 1950 mm
2800 mm

Min. working width in
grain direction: 800 mm
900 mm

Width of the veneer strips
across the grain:
min. 100 mm

Veneer thickness: 1.4–4 mm*

Feed speed:
ca. 35 m/min

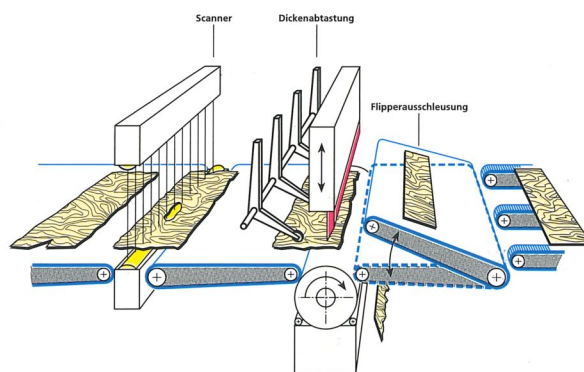
Distance between detecting
rollers: ca. 250 mm/minimum

Number of detecting rollers:
max. 8

Operating voltage: 400 V

Total connected load: 8,5 kW

*less with certain species of
veneer



The Kuper Veneer-Clipper FC can be combined with the Kuper Cross-feed Core Stock Composer DMF/H or with the Crossfeed Veneer Splicer type FW/Q for face veneers. The individual veneers are cut parallel by the clipper, and waste material is sorted out before the veneers are joined together in the DMF/H or FW/Q. Defects and holes are automatically cut out and sorted.

The KUPER Swivel Table Sort-Out System

Ordinary veneer clippers do not provide the sorting of the waste strips subsequent to the cutting motion of the knife. However, when running an automatic composing line with integrated clipper this function is absolutely necessary. Kuper solved the problem by integrating a device that sorts out the waste strips fast and safely. The transport tables

installed at the outfeed side are fastened to a swivelling shaft which is moved shock-free and without jerks. The conveyor belts on these tables have proven to be advantageous. Different veneer lengths can be transported without any difficulties.

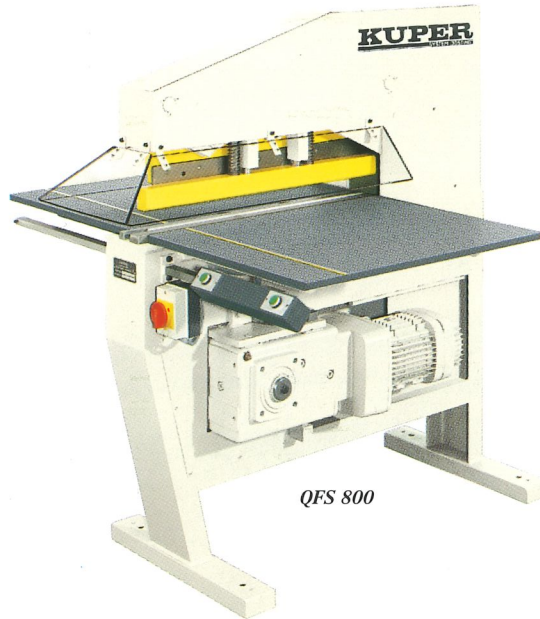
Cross Cutting Veneer Clipper



QFS 850

Both machines are most suitable for quick and economic cutting to length of veneer packs. Due to narrow construction, open C-shape of QFS 800 and the special design of the pressure bar an excellent view of the veneer and of the area of cut is made possible. The green-coloured light line clearly indicates the cutting line. The lengths are indicated on 2 measuring tapes embedded in the working tables.

Brake motor, gear drive and crank gear guarantee quick and powerful operation of the knife.



QFS 800

The drawing cut is actuated by a two-hand push-button control at the right or at the left-hand side adjacent to the area of cut. Included in the delivery is a safety-orientated electric control system, a plexiglass-guard and plug-in

type angular stops. On request we also deliver work tables of greater lengths with intermediate supports and length stops.

QFS 800

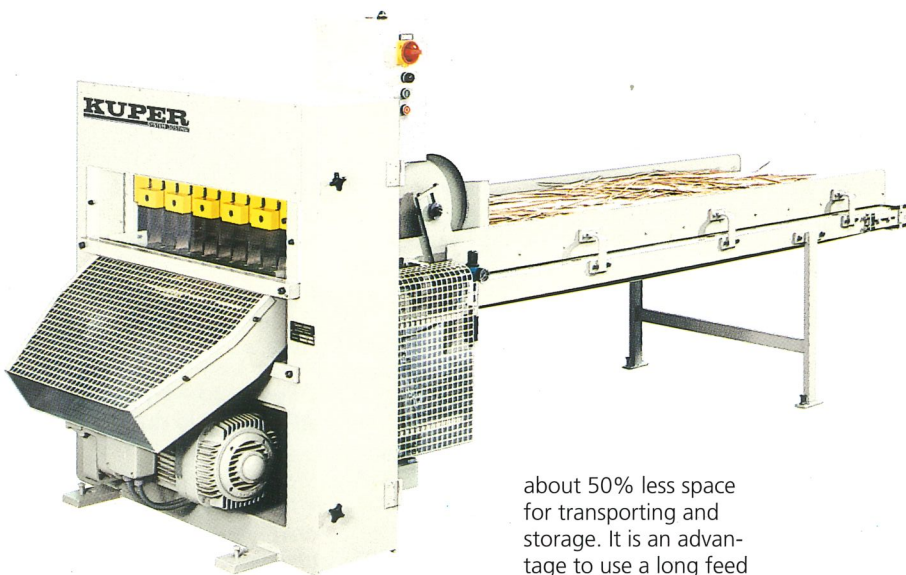
QFS 850

Technical Data

QFS 800 System Josting

QFS 850 System Josting

Cutting width:	800 mm
	850 mm
Insertion height:	60 mm
Operating voltage:	400 V
max. thickness sheet for sliced and peeled veneers:	ca. 2 mm
	ca. 3 mm
Running time of knife per cut:	1.6 sek.
Motor output:	2.8 kW
	3.5 kW



FAZ 100

Technical Data

Veneer Waste Chopper

FAZ 100 System Josting

Cutting width x cutting height:	700 x 90 mm
Conveyor area:	2320 x 700 mm
Number of cuts:	53/min.
Step measure of conveyor:	10-25 mm
Step measure of conveyor without longitudinal knives:	50 mm
Processing quantity:	3-4 m ³ per hour
Motor rating:	8 kW
Conveyor feed:	Compressed air supply 6 bar

The FAZ 100 is a low-noise chopping machine for waste veneer strips and veneer pack trimmings. Veneer scrap produced in the course of cutting veneer to size can be put to profitable use as a heating fuel. Conventional rotary refuse grinders are unsuitable, for the

chopping of veneer (high level of noise, veneer strips become tangled.) Machine loading and unloading can be adapted to the specific conditions of production. A vacuum extractor unit can be installed on the slide. Chopping reduces the volume of waste by half, i.e. chopped veneer waste needs

about 50% less space for transporting and storage. It is an advantage to use a long feed conveyor to collect the veneer waste from several cutting machines. The chopping machine's conveyor can be lowered on request to enable nearfloorlevel feeding.

Veneer Jointing Guillotines

EFS

Technical Data

EFS System Josting

Cutting length

EFS 2300L:	2300 mm
EFS 2800L:	2800 mm
EFS 3200L:	3230 mm
EFS 3600L:	3600 mm
EFS 4200L:	4200 mm
EFS 4500L:	4500 mm

Insertion height: 80 mm

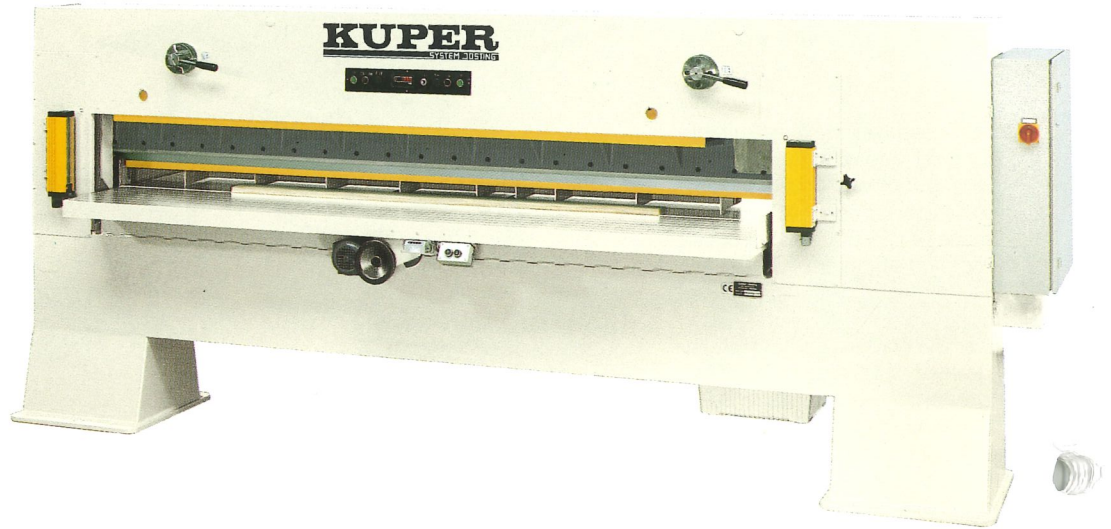
Parallel fence range:
20-720 mm
(upon request different range possible)

Pressure bar:
hydraulic cylinder,
2 pressure stages

Cutter bar:
brake motor, gearing,
crank drive

Parallel fence:
Three-phase a.c. motor,
positioning drive

Connected load: 7,7 kW
(electric controls on left if requested)



Straight and parallel cutting of the veneers is the efficiency "plus" of the machines type Kuper EFS 2300L – 4500L. Maximum precision in cutting ensures the tight-joint splicing after the cut for all kinds of veneer.

The positioning controller for the parallel fence features a digital width gauge, a numeric keypad, a cut counter and pushbuttons for selecting the various operating modes. Single and incremental dimensions are adopted by the machine automatically when the start button is pressed. A total of 99 width dimensions can be saved in the

memory. Changing over from mm to inch units is possible. Veneer edge lippings are cut by step-by-step adjustment of the parallel fence.

- Cuts of highest quality thanks to the swinging and powerful motion of the knife at an angle of approx. 20°

- Parallel fence with high-speed motordriven positioning, fine adjustment and digital gauge for cutting parallel face veneers and edge lippings.

- Clearly visible marking of the cutting line by means of a green guide light.

- Guide markings and an angular fence on the machine table for easier alignment of the veneer.

- Broad pressure bar for pressing even wavy veneer flat and level prior to cutting

- Finishing cut facility with hydraulic adjustment of the cutter bar by 0.9 mm. Pre-cutting and finish-cutting of the pressed veneer pack produces right-angled cut faces.

- Powerful crank drive enables the cutting of veneer across the grain.

- High pressing and cutting forces are reliably absorbed by the heavy-duty construction.

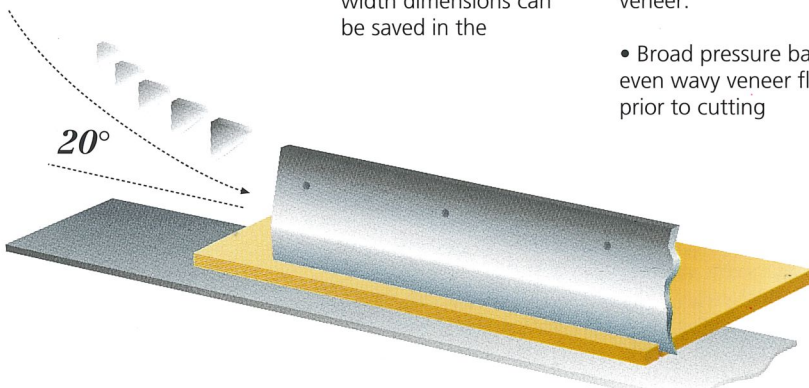
- Precise and permanent parallel guidance of machine components.

- Knife with 30 mm grinding allowance for longest possible use.

- Intermittent operation of the drives results in a low energy requirement and a low level of noise.

- Occupational safety regulations are met by a light barrier safety device, two-hand operation, electric safety control system and protective gratings at the rear.

- The machine also cuts paper, foil, plastic and other materials.



Double Knife Veneer Guillotine

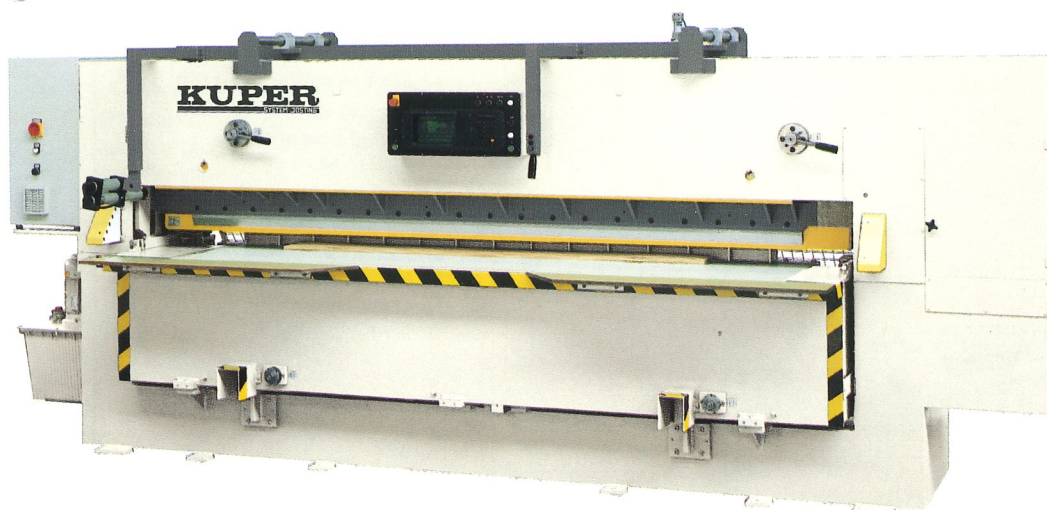
All machine types – from ZFS 2800 to ZFS 3800 – cut veneer packs exactly parallel and straight on two sides with a top and bottom knife. Tight-jointed splicing of all types of veneer is possible without difficulty. With an adjustable optimization laser the quantity of veneer scrap will be reduced to a minimum.

The machine table with the bottom knife can be adjusted by means of a high-speed positioning drive in order to obtain the required width dimensions. After the

pack is clamped in position, the top knife cuts downwards the table and the bottom knife cuts upwards towards the pressure bar. One more advantage is the easy and safe operation of this machine.

The veneer pack is placed on the machine table against the limit stop. The guide light is clearly showing the rear cutting line. Once the cutting width is selected the cutting cycle is executed automatically: the table moves into cutting position. The pressure bar clamps the veneer

pack in place, the top and bottom knife cut both sides ready for joining. Then the table returns to the alignment position. Pre-cutting and finish-cutting are possible for high-stress veneer. Veneer strips are cut only with the top knife in incremental mode.



ZFS

Technical Data ZFS System Josting

Cutting length	
ZFS 2800:	2800 mm
ZFS 3200:	3210 mm
ZFS 3800:	3810 mm

Insertion height: 80 mm

Cutting width: 20-470 mm

Machine table:

Positioning drive,
2 ball-screw-assembly

Pressure bar:

3 hydraulic cylinders,
2 pressure stages

Top knife:

brake motor, gearing,
crank drive

Bottom knife:

1 hydraulic cylinder

Limit stop:

compressed air
connection 6 bar

Total connected load:

9.5 kW

- Swinging and powerful drawing motion of the knives are guaranteeing cuts of high quality.

- Telescreen positioning control system for diverse modes of operation and storable program operations.

- An adjustable optimization laser reduces the amount of veneer scrap.

- Simultaneous cutting by the top and bottom knife results in fast production cycles.

- Inserting, aligning, cutting and removing the veneer - the machine has a cutting capacity of approx. 2-3 packs/min

- Precise and permanent parallel guidance of the pressure bar and table.

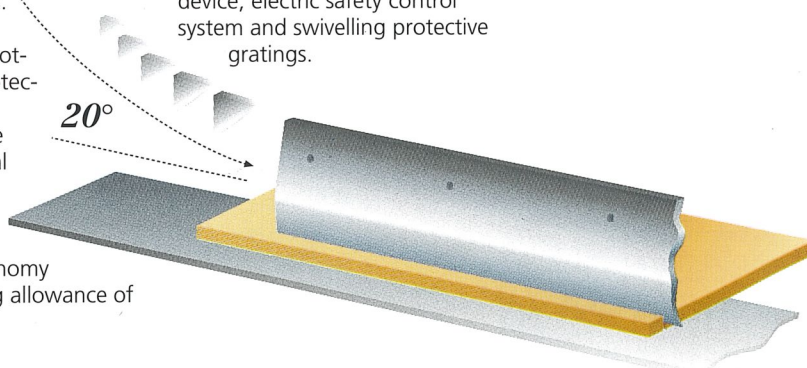
- The rugged design of all machine components absorbs the high pressing and cutting forces.

- The top knife, bottom knife and protective coverings for table and pressure bar are of identical size and can be interchanged.

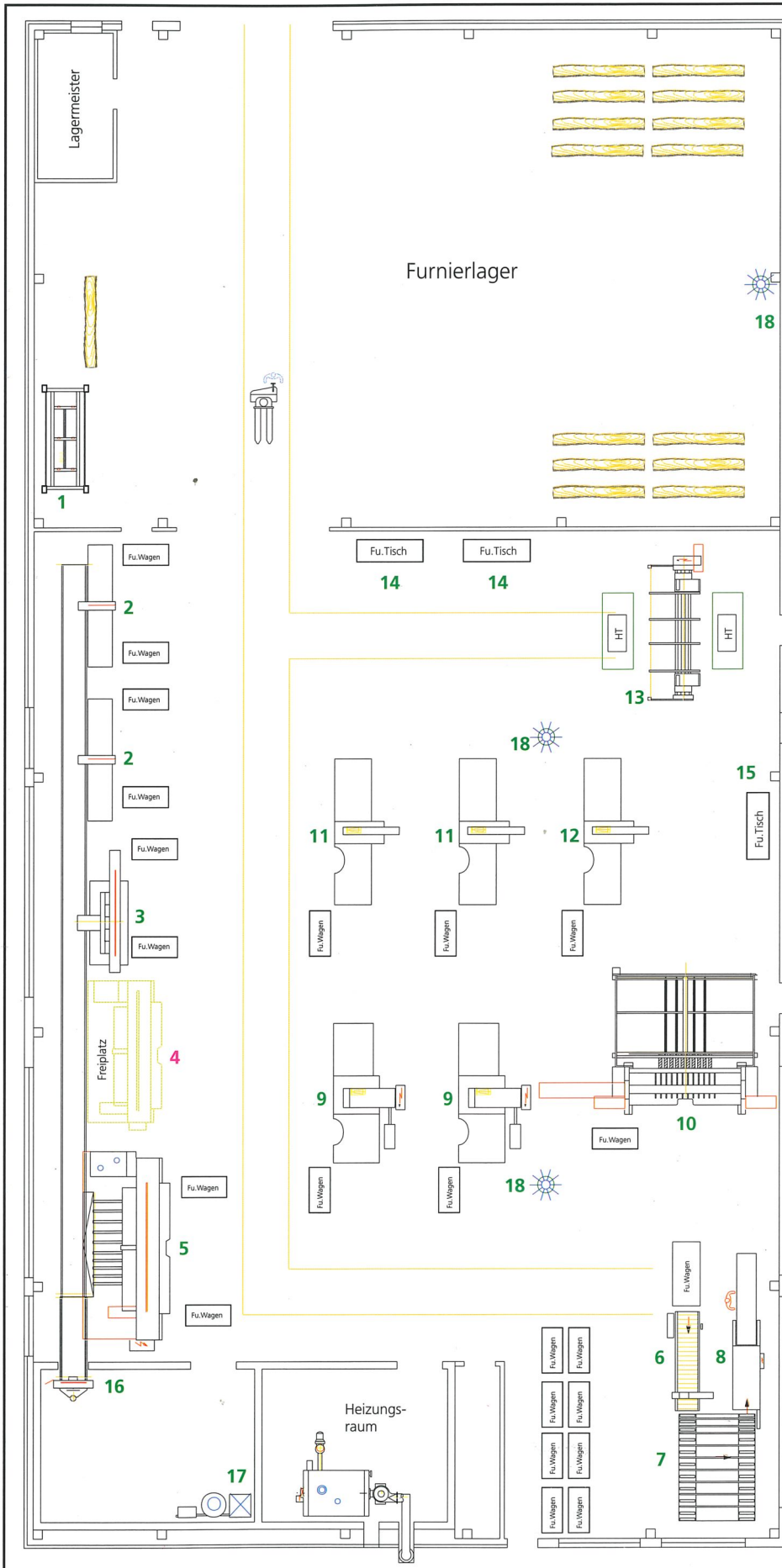
- Good knife economy thanks to grinding allowance of 30 mm.

- Low energy requirement and low level of noise due to intermittent operation of all the drives.

- Occupational safety regulations are met by a light barrier safety device, electric safety control system and swivelling protective gratings.



Layout Veneer Department



- 1 Flattening press
- 2 Veneer cross-cut guillotine QFS
- 3 Single knife guillotine EFS
- 4 Free space for double knife guillotine
- 5 Double knife guillotine ZFS
- 6 Glue applicator KLM
- 7 Rectangular transfer
- 8 Veneer fanning machine FFM
- 9 Butt joint splicer FW/L
- 10 Crossfeed splicer ACR
- 11 Zig-zag splicer FW 1150
- 12 Zig-zag splicer FW 1200 E
- 13 End gluing machine EMZ/2-M
- 14 Luminous table & KHL hand gluer
- 15 Working table
- 16 Veneer waste chopper FAZ
- 17 Compressor
- 18 Air humidifier

KUPER
Holzbearbeitungsmaschinen

33397 Rietberg

Veneer Hand Gluers



KHL/1



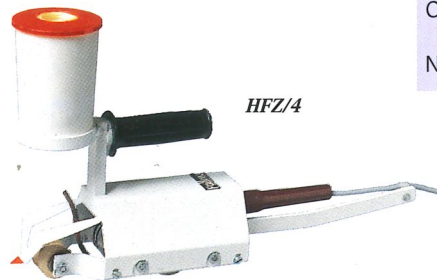
KHL/2

KHL/1: The Kuper Hand Gluer uses Kuper glue thread as a bonding medium. An ideal device to repair and cross-bond split veneers. Due to the practical design all the advantages offered by glue thread splicing can be fully utilized. The easy handling of this gluer makes it a valuable tool. The integrated temperature regulator ensures that the glue applicator is permanently ready for use, after a warm-up time of approx. 5 min. The pressure applied with this gluer is suffi-

cient to fix and flatten the glued thread onto the veneer. Upon completion of the bonding process, quickly pull the hand gluer back; this will accurately cut the glue thread from the glued veneer.

KHL/2: A further development of the KHL/1. This gluer simultaneously applies two glue threads, resulting in a very good bonding effect. An ideal device to repair and join very buckled and thick veneer sheets.

HFZ/4: All the advantages of the Kuper glue thread. An ideal device for zig-zag joining small quantities of veneer in an efficient and clean way. Easy and simple handling. Ready for immediate use, low power consumption.



HFZ/4

KHL 1 / KHL 2

Technical Data

KHL/1

working with one
single thread

KHL/2

working with two threads

Operating voltage: 230 V, AC

Special voltages:

from 110 to 235 V, AC

Net weight:

1.27 kg

1.55 kg

HFZ/4

Technical Data

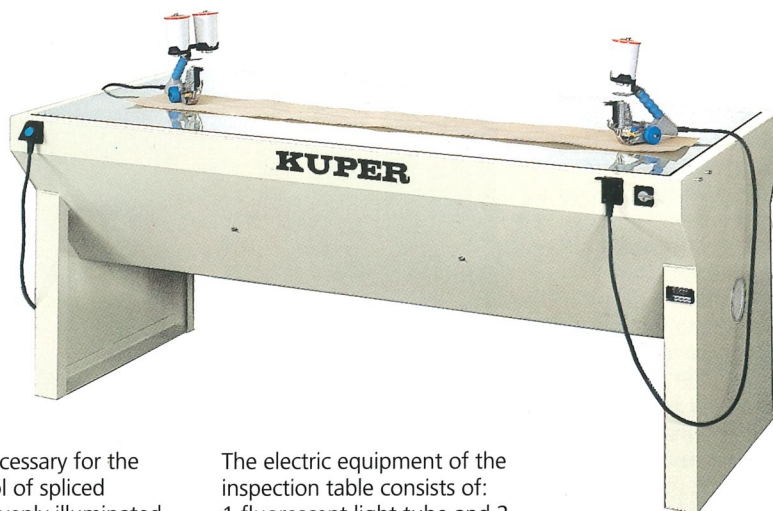
HFZ/4

(POLLMA-Veneer hand
gluer in Kuper Licence,
German and foreign
patents)

Operating voltage: 230 V, AC

Net weight:

1.9 kg



Absolutely necessary for the quality control of spliced veneers. An evenly illuminated inspection area is achieved by the funnel-shaped reflector shell in conjunction with an opaque glass panel.

The electric equipment of the inspection table consists of: 1 fluorescent light tube and 2 built-in sockets for the Kuper hand gluer.

Luminous Table

Luminous Table

Technical Data

Standard size

Special size

Size:

1500 x 750 x 850 mm height

2000 x 1000 x 850 mm height

Illuminated 1380 x 630 mm

Surface: 1880 x 880 mm

Operating voltage:

220 V, AC

Glue Application Systems

TS-Boy

Technical Data
Container TS-Boy
for glues, paints and easily vaporizing liquids

Capacity TS-Boy: 0.9–1.5 l
 Capacity Mini-Boy: 0.45 l



The air tight lid prevents drying of glues and other easily vaporizing liquids, which are applied with a brush.

Glue Star

Technical Data
Glue Star

Capacity: approx. 8 l
 Operating pressure: max. 6 bar

Handy, exact dosage, for glues of various viscosities which do not set when cut off from air. The comprehensive nozzle range – including special nozzles – makes the Glue Star universally applicable.

Many advantages by taking the glue directly from the supplier's glue container: time savings, no glue losses due to refilling, no emptying, no cleaning, clean operation, no maintenance.

Glue Boss 4

Technical Data
Glue pressure pump
Glue Boss 4

Feeding capacity at 3 bar depending on viscosity
 75 dPas: 2 l/min.

Outlets for 4 glue guns



Glue Star



Glue Boss 4

Panel Storage Rack

MPW

Technical Data
Mobil panel storage rack
MPW

Bottom plate length
 Standard size: 4400 mm
 Special size: 2400 mm
 2800 mm
 3200 mm
 3600 mm

Bottom plate width: 2100 mm

Track width: 3600 mm

Capacity: approx. 15 m³

The mobile Kuper panel storage-rack MPW eliminates the danger of accidents caused by panels falling over and provides a tidy workshop with a minimum space requirement. The material being stored is placed on a smooth plastic-coated base plate between metal bars forming four compartments of 400 mm width each. The total capacity is approx. 15 m³, irrespective of the panel dimensions. Smaller panels can be stored without problems due to the movable horizontal bars. Only one person is required to operate the rack. The panel tray can be easily moved forward and backward on fixed



installed rails by means of a ratchet. In this way the compartment to be emptied is brought in front of the feeding roller of the vertical panel saw.

The Kuper panel storage rack is also available as a stationary rack in different sizes.

Shrink-Wrap Packaging Machines

The efficient reliable shrink-wrap packaging machine for secure, attractive packaging. Based on its long experience in packaging with films, Kuper can offer you optimum, tailor-made solutions. You can get a standard half-automatic wrapping-machine, but also a fully automated packaging line, for virtually all large and bulky goods that have to be packed (e.g. furniture, doors, windows, bicycles, radiators, etc.). The modular design system gives the possibility to select between 5 different widths and 3 different heights. For shrink wrapping only non-polluting/non-hazardous polyethylene films are used. After the product has been wrapped in film, it is transported into the shrinking tunnel.

By constantly circulating hot air the film is heated up to 115 °C and the film shrinks until it encloses the goods tightly, although the temperature of the article itself might increase by only 8 °C at most. Thus it is also possible to use the machine for packaging goods that are sensitive to heat. The machines are designed for goods with a maximum height of 950 mm and foils with a maximum width of 3100 mm. Alternatively the KFE can be supplied with a sealing device from the side. This guarantees that the product is tightly sealed on all sides. On request the product can additionally be shrink-wrapped.

KFE

KFE Tandem

Technical Data
KFE 1100/250-
KFE 3100/950

Due to the wide range of the Kuper wrapping equipment we are not showing individual technical features.



Compared to the standard version the KFE Tandem consists of two (or more) film-wrapping stations placed behind each other. Each station is equipped with a double-welding system and mechanically operated cutting device. The advantages are obvious: individual, non-stop packaging of goods with different film widths, thicknesses and colours. This will reduce costs since it

enables a continuous packaging process. In addition you can save a lot of material by automatically optimized choice of film widths. Thus, also the KFE-Tandem proves to be strong in respect of economical as well as technical features.

- Stored-programme controlled system
- Welding cycles adjustable to film thickness, film quality, etc.

- Electronically controlled film unreeling system

- Mechanical film cutting device for all kinds of film

- Film widths up to 3100 mm infeed height up to 950 mm depending on the machine design

- Additional stations are possible due to modular design principle

Shrink-Wrap Packaging Machines

KFE Duplex

KFE Triplex

Technical Data
KFE 1100/250-
KFE 3100/950

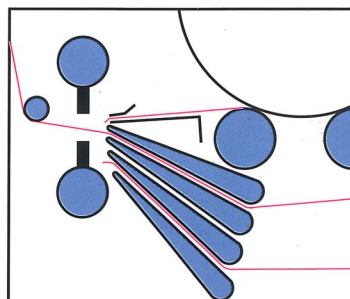
Due to the wide range of the Kuper wrapping equipment we are not showing individual technical features.



A machine for the automatic packaging of goods with changing dimensions. The KFE-Duplex permits up to four and the KFE-Triplex up to six different widths of film. Up to nine different combinations can be achieved with the Triplex machine. These machines automatically select the required film width for the various product dimensions via scanning

or according to the data entered manually. This unique feature allows neat and clean packaging with the minimum use of film. The automatic quick-change unit enables a change of film-width in only 6-10 seconds. Thus packaging of individual items on a per-order basis is possible without interruptions. Since the coils are placed behind one ano-

ther, these shrinkwrap packaging machines do not need any more space than other standard machines and can therefore replace them. These KFE-machines are also available in a simplified version as Duplex-Triplex half-automatic machines with manual change of films.



Financing, leasing – you can count on us.

Tailor-made financing plans

Our consultancy service does not end with the machine selection. We will support and advice

you in finding the correct financing decision for which ever type of payment fits your company best. The Kuper financial plan is absolutely attractive

and rounds up the picture of the full service package.



Service and maintenance



Our experienced service technicians are always in your reach.

Our wellknown outstanding customer service, naturally also includes the qualified installation of your Kuper machines. Our experienced team of service technicians are

always in your reach. No place is too far – hardly any problem is too difficult.

After-Sales-Service comes first at Kuper!
A strong team you can rely on.

... and if you do need spare parts?

Kuper veneer splicers are well manufactured for their long life. Important spare parts can still be delivered for machines from the first generation. The clear documents are basic conditions for the fast identification of the spare parts. Our opera-

ting manuals are exemplary in this respect.

We know what machine standstill costs – that is why we are prepared.

A well organised spare parts management – from the stock up to the distribution guarantees short delivery times.

This guarantee belongs to a better understand-

ing for customer service and has harvested us world wide recognition for our wellknown customer service.



A well worth visit: the KUPER machine market.



We show what you need to make your production more economic. In addition to our own production, which is shown in this brochure, we also have in stock nearly all standard machines from leading manufacturers. The KUPER machine market is a permanent exhibition with an exceptionally wide range of modern production technology for the wood working industry. It offers you the possibility to gather information, consulting service and onhands demonstrations.

KUPER – First choice in used machines.

- over 2.500 used machines are in stock
- repairing, re-building and converting to the latest technics with the same guarantee as for new machines
- from a single standard machine to the complete production line

A large, bold, blue logo of the word "KUPER" is mounted on the side of a building with a corrugated metal facade. The letters are thick and stylized, with a slight shadow effect. The building is angled upwards from the bottom left towards the top right, set against a clear blue sky.

KUPER

Heinrich KUPER GmbH & Co. KG
Bruchstraße 13-19
33397 Rietberg
Germany

Telephone ++49 (0) 52 44 / 9 84-0
Telefax ++49 (0) 52 44 / 9 84-2 01
E-Mail kuper-export@t-online.de
Internet www.KUPER.de