

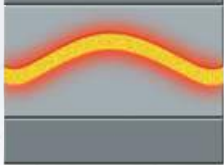
Product range:  
Wood

# Joos-Quality-Press

PRESSEN



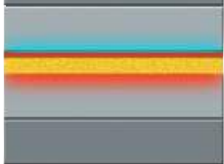
FORMEN



STANZEN



TEMPERIEREN



**Joos-Quality**  
**is the difference**  
Details that matter.

PRESSEN + TECHNOLOGIE



GOTTFRIED JOOS MASCHINENFABRIK

# In the lead by innovations

At first glance the presses might be similar, but you know from your own experience that different manufactures construct different machines.

The expert sees very fast if

- the quality of processing
- the high reliability
- the long life
- the high ease of operation
- a matured technique
- an economical working

is guaranteed.

The Joos-Quality has been regarded as the standard for the manufacture of presses.

**Check the 12 most important differences in quality and ask for solutions by Joos.**

## Model HP 115 with special equipment



... made in Germany ...

### 1. The hydraulic unit

The hydraulic unit - the heart of the Joos hydraulic press - is mounted securely in the middle of the lower part of the press.

This design excludes any possibility of damage to the motor, pump and other aggregates.

Technical improvements prevent the penetration of air into the hydraulic pipes and cylinders, considerably increasing operating safety. In Joos-Quality-Products the motor, valves and two-stage high-pressure pump are maintenance-free. The oversized hydraulic oil tank avoids any excessive heating and consequently aging of the oil.

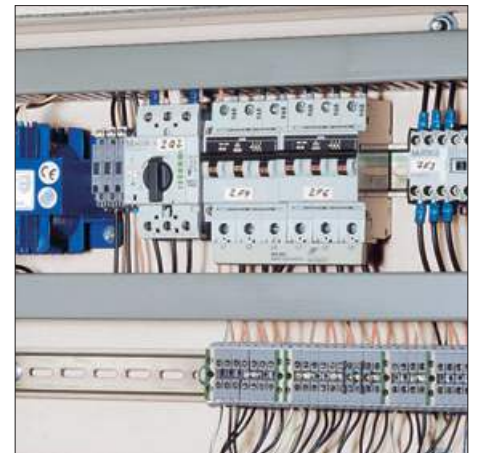
### 2. The dynamic piston bearing

Even when incorrectly loaded, Joos-Presses offer maximum operating safety. In the unique Joos design the pistons are not bolted to the pressing table but instead dynamically act on a planed connecting surface under the table. A column guide prevents the platen from tilting or being displaced. Synchronous operating of the pressing table is provided by a high-precision toothed rack parallel guide system. This technique provides the pressing table with a full range for expansion in all directions.

### The electronic control system

The exact control of commands is the precondition for perfect veneering. Therefore, Joos-Quality-Products are exclusively provided with checked components, such as:

- contactors with periodical contact monitoring in the safety path
- double motor contactor with mutual locking
- automatic circuit breaker with phase monitoring instead of screw type retainer





## 5. The best possible heating

Perfect veneering demands an absolute reliable heating system that meets the requirements. In close co-operation with the leading manufacturer of heating platens, the company Elkom, Joos offers following possibilities:

- **Electric heating platens (110°C / 130°C)**  
 captivate because of their very short warming-up phase and regeneration phase, and therefore guarantee the greatest possible flexibility in production. You have the choice of two variations:
  - a) up to maximum 110°C operation temperature or
  - b) up to maximum 130°C operation temperature
- **Ökotherm-heating platens (90°C / 110°C / 130°C)**  
 are heated by fluid media such as water, steam, or thermo oil. Due to its patented design, it is a very light heating platen and therefore offers an enormous energy saving potential. Furthermore, it guarantees an optimum and fast temperature distribution and high temperature constancy on the heating platen surface.

Ökotherm-heating platen can be connected to the company's heating circuit and heated either external or in combination. A reduction in energy costs up to 60 % can be realized.

**Inform yourself about the different systems. We would be pleased to work out the best solution together with you.**

## 4. The design of the table

As for veneer pressing the table design has to meet two important conditions:

The high pressures have to be distributed with absolute uniformity over the whole table.

Therefore, in Joos-Quality-Products the T-sections, that are machined several times over, are welded with reduced root opening and this results in Joos stability.

The steam, that is produced during the veneering process, has to escape out of the pressing material. Therefore, Joos developed an open table construction and installs special fibre plates.



# Details which make the difference.



## 6. Joos-A.B.S.-Safety System

The A.B.S.-Safety System is exclusively installed into Joos-Quality-Presses. (D.B.G.M.8714804.8)

The idea: Incorrectly loaded or forgotten parts are registered immediately by microsensors. On a control command the Joos-Quality-Press opens automatically again. This Joos invention prevents the costly consequences of damage to the pressing table, the valuable hydraulics and / or the expensive heating platens. Due to the Joos-A.B.S.-Safety-System the life and operating safety of your veneer press will be decisively increased.

## 7. The gold heating platen

The „Gold anodizing decor DBGM“ system renders the surface of the valuable heating platens extremely hard.

The underlying advantages:

No furrow build-up, reduced separating agent consumption, shorter operating time, no wear and tear on foil and better quality veneering.

All versions of our presses are also available with heating platens for low- or high-pressure steam, or for warm and hot water, or thermo oil.



## 9. The capacity extension

The veneering capacity of Joos-Quality-Presses can be extended economically by installing additional daylight heating platens.

So, all standard models can be easily extended with two cantilever heating platens up to three daylight heights altogether. Naturally, requirements that differ from this can be carried out.

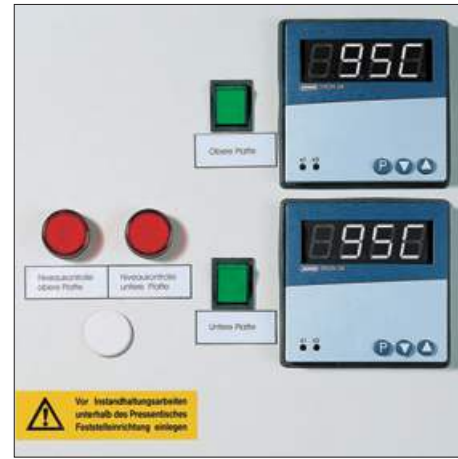
On request, the Joos-Quality-Press will be prepared so that a later extension is possible at low extra costs.



## 11. The temperature control systems

The conventional temperature control is effected by the liquid-in-glass thermometer in the edge area of the heating platen.

The better solution is the electronic temperature control R 3.1 by Joos. In this system an electronic controller measures in the centre of the heating platen and controls the current temperature demand. The heating platens are protected against overheating by an additional safety thermostat installed into the edge area. A selection of four different temperature control systems is available.



... consistent economical, consistent reliable

## 8. The extendable support

An adequate design of the press is the precondition to guarantee free access to the pressing surface from all sides.

The open construction of the Joos-Quality-Press allows to veneer even over-sized parts by repeatedly insertion of the work piece. Jutting work pieces have to be supported during the pressing process. For this, Joos constructed an extendable support that constantly keeps the pressing material in horizontal position during the process.



## 10. The variable hoist limiting

Opening and closing of the press is time-consuming and depends on the opening width of the pressing tables. In case of thin work pieces it is possible to reduce the necessary time if the press stroke is limited.

With the adjustable limit switch by Joos you can determine the stroke width and therefore reduce the time required.

Thus you can save time and reduce production costs.



## 12. The operating elements

The idea of Joos is that the operator can always have an eye on the pressing material while the press is opening and closing.

With our products you are not bound to face or longitudinal control. The Joos-Swivelling-Control-Box guarantees the best control of the entire pressing process.



# Perfection in Press Building ...

Joos has been realising Perfection in Press Building for more than 80 years with great success. A whole series of technical innovations and impulses has originated from Joos. Then as now, our uppermost principle is to introduce to the market only those products that meet the highest requirements of economy, ease of operation, safety and reliability.

This requirement is emphasized by the wide range of products. The variety of types and model variations of Joos-Quality-Products allow each customer to select the machine appropriate to his tasks.

The product range contains:



The **Joos-Junior-Press** (Europe-patent 0634253) is the entry level machine in the Joos-Quality-Program. This press is designed for young entrepreneurs, educational establishments and businesses with different veneering requirements. Three sizes of our pneumatic models permit the veneering or laminating in ones own business. The electrical heated Joos-Junior-Press can be easily moved and therefore, can be variable used.



The **Joos-Quality-Press HP** is our best-known product. A lot of formative innovations has originated from Joos. To name only some examples: The Joos-A.B.S.-Safety-System, the dynamic piston bearing, or the gold anodized heating platens. Worldwide extended registered design and patents show the permanent innovations. Joos was the first and only manufacturer of presses to receive the Bavarian State Prize Gold Medal in 1976 and in 1990 that was awarded for the clear conception in technique and the high preparedness for innovations.



The series of the **Joos-Throughfeed-Press DLP Economic System 2000** (Europe-patent 0512300) was developed from the experiences in industrial production. The machines are manufactured either with face or longitudinal loading. The conception as up-stroke press offers an optimum cost effectiveness and therefore, these machines are also very interesting for the trade. Even with only two days a week of veneering, a fast amortization and therefore, economical success can be achieved.



Especially during industrial veneering the press is exposed to very high requirements due to the long working times and very short pressing cycles. Outages cause unusual high costs. Therefore, absolute reliability and high ease in operation have the uppermost priority. This standard goes also for the **Joos-Throughfeed-Presses DLP/OK Industrial Line**, that are realized as complete units from the automatic charging to the stacking of the finished parts.



**Joos-Shape-Part-Presses** are manufactured in accordance with the individual requirements as down-stroke or up-stroke presses. This example shows two shape-part-presses manufactured in reflected-image for the production of chairs and its back parts in several daylight.



Varied aspects say for the use of a **Joos-Gluespreader**:

Thin and delicate veneers or plastics require an even glue film that cannot be achieved manually. The glue application by machine guarantees an even and thin glue film. You reduce the glue consumption and increase the veneer quality and capacity at the same time.



**Handling devices from Joos** are used for the optimised procedure and handling before and after the pressing process. Joos-Gluespreader can be combined with roller-conveyor in front of it and cutter-disc-conveyor that is situated after it. Automatic charging equipment such as scissors lifting tables, brushing machines and stacking units also rationalize the passages.



Worldwide, **Joos-Quality-Presses as individual solutions** are used in various areas of the wood-working and plastics processing industry. From the automobile industry and aircraft construction, the sports article industry to the recycling technique. In order to realize the best solution for the problem, each individual machine is projected in accordance with the customer's requirements. Talk to Joos about forming, pressing, stamping and tempering of plastics.



The life of a used machine can be considerably increased by an experienced service, improving decisively both veneer quality and operator safety. Due to 80 years of experience, we have the knowledge for occurring problems even with foreign products. Thanks to our big stock for spare parts and heating platens, you can rely on fast help by the **Joos-Customer-Services** if needed.



Type			HP 45	HP 65	HP 80	HP 100	HP 100/1	HP 115	HP 115/1	HP 120	HP 140	HP 150
Pressing surface	mm		1800 900	2200 1100	2500 1300	2550 1350	2550 1600	3000 1350	3150 1350	3150 1600	3300 1350	3800 1600
	feet		5 x 3	7 x 3	8 x 4	8 x 4	8 x 5	9 x 4	10 x 4	10 x 5	10 x 4	12 x 5
Total pressing force	kN		430	650	800	1000	1000	1150	1150	1200	1400	1500
Daylight opening	mm		400	400	400	400	400	400	400	400	400	400
Number and diameter of cylinders			4x80	4x80	4x80	4x90	4x90	6x80	6x80	6x80	6x90	8x80
Spec. pressure at 100 % capacity	daN/cm <sup>2</sup>		2,8	2,7	2,4	2,9	2,5	2,8	2,8	2,4	3,1	2,5
Spec. pressure at 70 % capacity	daN/cm <sup>2</sup>		3,9	3,8	3,4	4,1	3,5	4,0	4,0	3,4	4,5	3,5
Operating pressure	bar		224	323	398	393	393	381	381	398	367	373
Required power	kW		1,1	1,1	1,1	1,1	1,1	2,2	2,2	2,2	2,2	2,2
Closing time	approx. sec.		16	16	16	16	16	16	16	16	16	16
Basic dimensions	overall length approx.	mm	2200	2600	2900	2950	2950	3480	3620	3620	4000	4550
	overall width approx.	mm	1100	1300	1500	1560	1840	1570	1570	1840	1630	1880
	overall height approx.	mm	1950	1970	2080	2200	2200	2240	2240	2350	2450	2500
Weight of the press with two electric heating platens	approx. kg		1980	2500	3100	3800	4100	4700	5200	6300	7150	9950
<b>Technical data for the heating</b>												
<b>Electric heating platen</b>												
Thickness of lower/upper combi heating platen	approx. mm		51	51	51	51	51	52	52	52	52	52
Connected load per heating plates	approx. kW		5,3	6,6	8,9	10,0	11,5	12,7	12,9	14,5	13,2	17,0
Hourly consumption per 3 min. pressing time	approx. kWh		2,1	3,0	4,1	4,5	5,4	5,7	5,9	6,8	6,0	7,7
Heating-up time up to 90°C	approx. min.		16	16	16	16	16	16	16	16	16	16
Connected load per daylight heating platen	approx. kW		-	7,7	10,2	13,2	13,5	14,8	15,0	16,5	17,5	20,0
Normal working temperature up to 90°C depending on load and pressing time. Higher heating output against extra charge:												

**Steam/water heating platens - Specifications on request**

All values specified in this brochure are approximate. Subject to change and all rights reserved.

10 kN  $\hat{=}$  ca. 1 t; 1 daN/cm<sup>2</sup>  $\hat{=}$  ca. 1 kg/cm<sup>2</sup>; 1 bar  $\hat{=}$  ca. 1 atü, oder 14,6 psi; 4.186 kJ  $\hat{=}$  1 kcal; 1 cm<sup>2</sup>  $\hat{=}$  0,155 in<sup>2</sup>; F° = C° x 1,8 + 32°

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- Moulding Presses
- Joos-Special-Presses
- Joos - Service
- Joos-Gluespreaders
- Handlinggeräte

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PRESSEN + TECHNOLOGIE



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