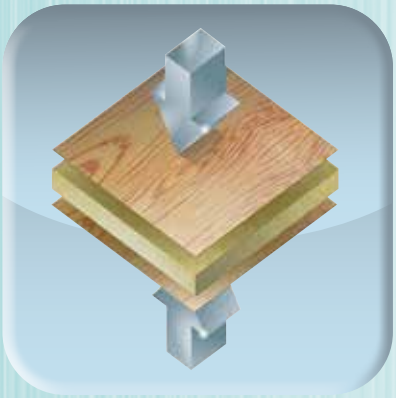
TAURUS CRACO



NPC DIGIT

A R RF

ORMA MACCHINE

NPC DIGIT

*The **ORMAMACCHINE NPC** presses are the result of constant studies in the research of highly functional and reliable machines. The main characteristics of these machines are:*

PRESS STRUCTURE

• Structure entirely made of welded and tool machined beams. The choice to prefer the beam structure instead of the bended steel sheet (economically more viable) has come from the decision to offer to the client a highly reliable product where quality plays the main role.

HYDRAULIC SYSTEM

• The rams are thickness chromed to grant a perfect flowing and a higher working life either of the seal gaskets and of the piston itself.
Even in this case quality has been our main concern, and we have chosen the thickness chromed system instead of the chrome bath which has lower costs but absolutely no lasting guarantee.
• All the cylinders are bolted to the structure, so to be easily removed in case of servicing.
Another possibility is to weld cylinders to the structure but in so doing all the functions of the press would be of a much lower quality.
*• **Hawe** highly reliable hydraulic power unit fitted with a double stage pump, first stage at low pressure and high delivery to move up the platen, second stage at high pressure and low delivery to get the working pressure set by the operator on the keyboard.*
• Hydraulic power unit motor plunged in oil bath to get a better cooling and to reduce noise, and further more to avoid any possible damages caused by accidental shocks.

ELECTRIC SYSTEM

• General switch board from where the operator can set and use all the functions of the press. As a standard equipment all the presses are supplied with the automatic pressure recovery device. This accessory allows to keep the same given pressure, even in case the panel, under the platen thrust, shall lower its thickness.

• The switch board is mounted on a hinged door (with a 180° opening) so all the servicing operations can be easily carried out.
*• On the **Siemens** digital display touchscreen type the operator can set and/or adjust all press functions, particularly:*
- working pressure (kg/cm²)
- working temperature (for presses with electric boiler)
- timer to adjust the pressing time
- automatic switching On of the heating unit (for presses with electric boiler); possibility to set all days of the week
- Automatic pistons shut off according to the dimension of the workpieces setup by the operator. The exclusion is standard on all presses with 8/10 pistons, while it is an option on all presses with 6 pistons)
- possibility to use 50% capacity of the boiler (for boilers over 20 kW)
• Automatic calculation of the pressure in bar according to the specific pressure in kg/cm² which must be used for the panels to be worked.
• The electric switch board is manufactured according the CE rules and the controls are at low voltage.
• On all the NPC Presses as standard fitting there is a perimetral safety emergency cable that allows to stop or block the press platens from any side of the press.

MECHANICAL ELEMENTS

• All the NPC Presses are fitted with a crossed rack system so composed: 2 rack groups for the platen depth and 2 groups for the length all connected between them by torsion shafts so to grant a perfect platen movement.
• Nr. 4 lateral guides, positioned on the 4 interior faces of the press legs. This is a further guarantee of a perfect platen movement during either their opening or closing.
• The press platen flatness is guaranteed by the precision with which the beams are processed. indeed both the platens are made with beams welded between them and after mechanically milled.

NPC A

This version is an automation of the NPC standard press with loading conveyor equipments, motorized belt for the working pieces movement through the press and unloading conveyor. The press can have end or side loading and the movable platen can be the top (downstroke) or the lower one (upstroke). The press line can be further completed with glue spreader, motorized transfer and po-sitioning equipments as well as with different solutions for unloading.

NPC R

*Handling properly panels on through feed presses has always been a problem. To improve productivity and to facilitate these operations we designed and manufacture the de-vice **NPC/R**. This device, or rather a double composite conveyor, allows the transfer of boards from the glue spreading machine onto the press lay up table turning them of 90°. The double conveyor, fixed to the press lay up table frame, is composed by a powered system whose knives run orthogonally to the press and by a free wheel conveyor, inserted in the same direction of the press infeed conveyor. Once boards are in unload-ing position on the knife conveyor, acting on a lever, a pneumatic circuit turns up the free wheel conveyor and lets boards slide, for gravity, onto the press lay up table. Through feed press type NPC/R can be chosen among our following standard sizes 2500 x 1300, 3000 x 1300, 3500 x 1300 mm. working pressures range from 40 up to 200 ton.*

TAURUS CRACO

NPC RF

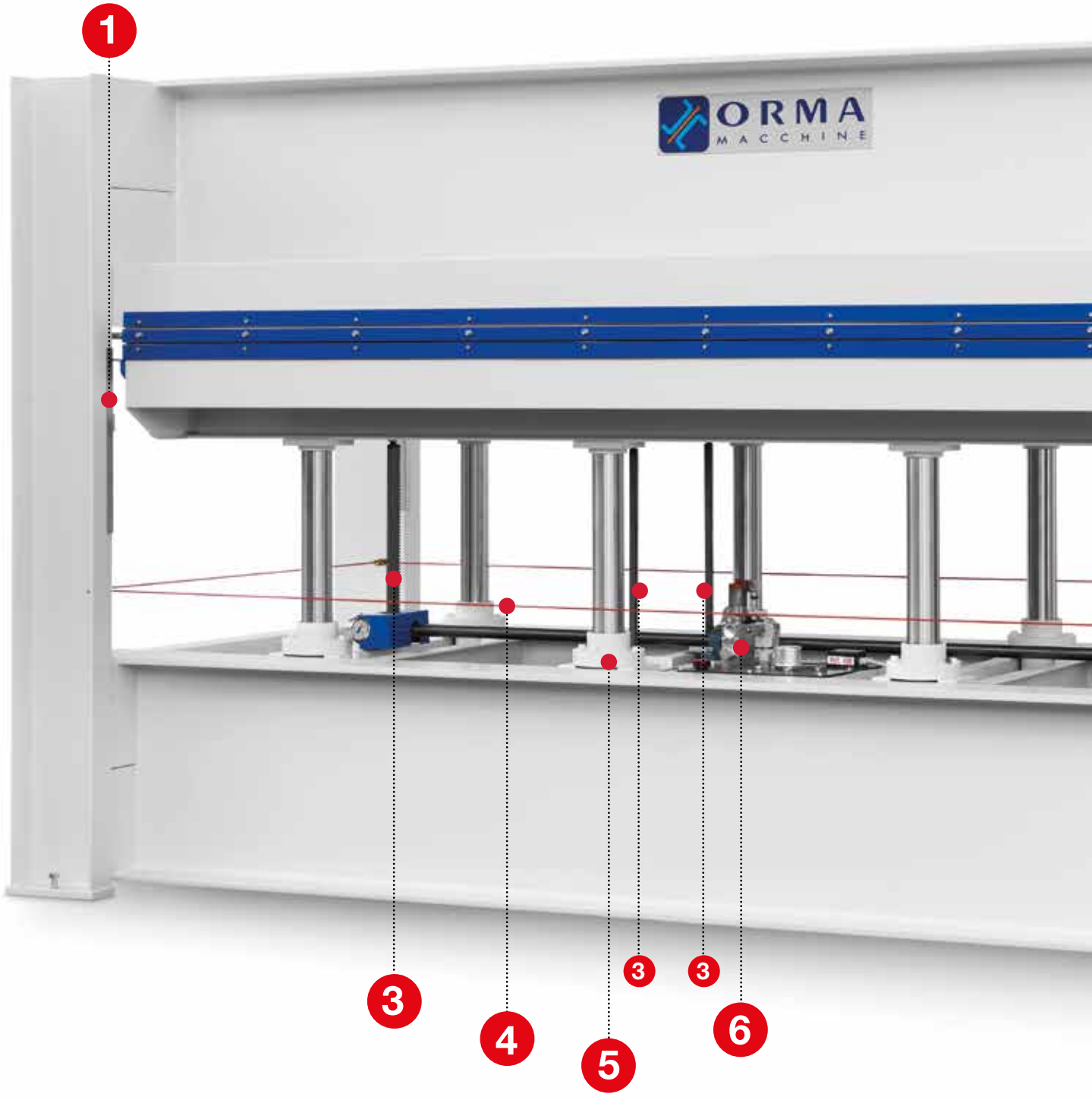
*The Press type **NPC/RF** includes three working units:*

***A.** Loading conveyor for the prepara-tion and following feeding of material to be pressed into the press platens.*
***B.** The press belongs to the NPC series equipped with a motorization system for the piece movement on the mylar belt. The panels to be pro-cessed are coming from the loading section and throughout the mylar belt are positioned on the hot platens of the press where the pressing cycle will take place. Then the driving de-vice reverses the sense of rotation, unloading, through the mylar belt, the pressed panels from the same side of the loading section, but at a higher level and at the same height of the unloading roller.*
***C.** The unloading free wheel conveyor receives the pieces coming out from the press platens. This free wheel conveyor, during the loading phase is placed in a vertical position not to hamper the movements during the laying up of the panels. Once the pressing is over, automatically, it will position itself horizontally ready to receive the panels.*

NPC DIGIT

TAURUS CRACO

6 good reasons… and not only, to choose it



1 Guides on platens for a perfect movement of the movable pressing platen. (Pag. 12)

2 Control board with **Siemens** touchscreen control system which allows to set all machine functions. (Pag. 13)

3 Double rack system to guarantee a perfect platen movement: no. 2 groups lengthwise and no. 2 groups crosswise connected by a torsion bar (See photo page 12).

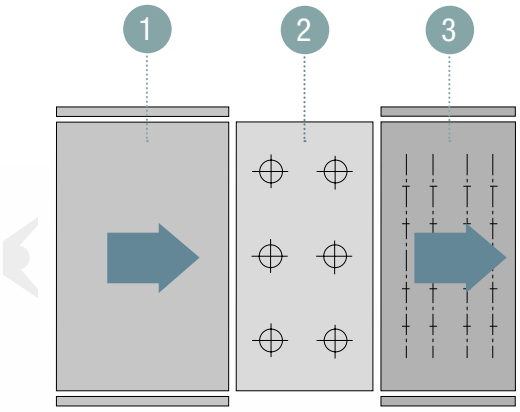
4 Safety switch in rope all around the machine in order to allow to everyone to stop the movement of the movable platen in case of problems.

5 Cylinder fixing system to the press structure. The locking is made by means of bolts to allow a quick maintenance of the cylinder or its replacement.

6 **Hawe** hydraulic unit with double pump and motor in oil bath for longer life, less noise and better lubrication (See photo page 13).

NPC A

TAURUS CRACO



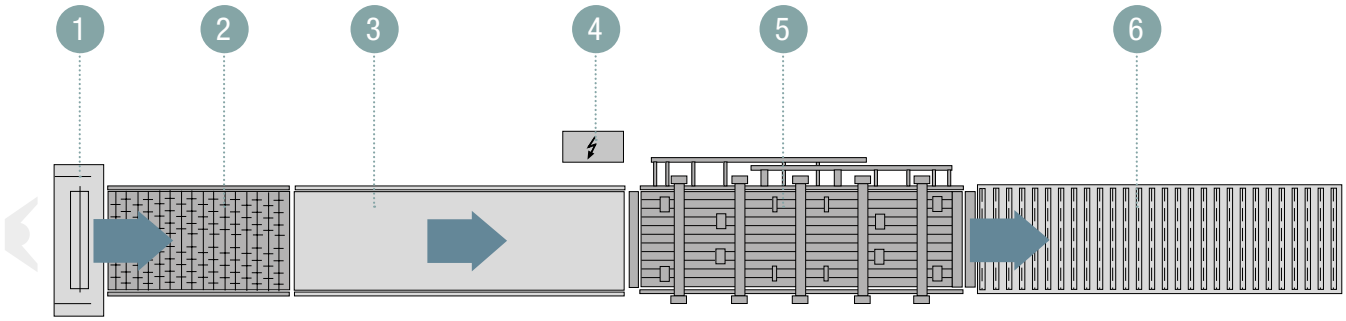
1

1 SIDE LOADING VERSION

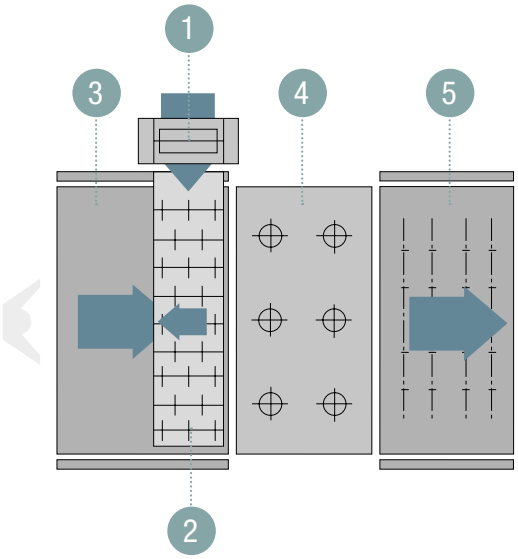
1. Loading belt
2. Press
3. Unloading unit

2 END LOADING VERSION

1. 2 or 4 roller glue spreader
2. Powered disc conveyor
3. Loading belt
4. Main control board
5. NPC/A press
6. Unloading unit



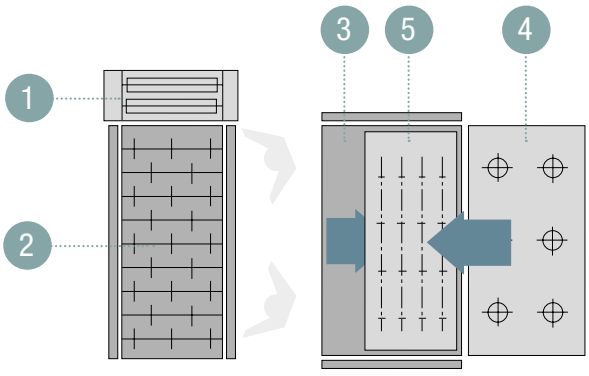
NPC R



1. Glue spreader
2. Powered disc conveyor (with tilting device)
3. Loading belt
4. Press
5. Unloading unit

NPC RF

TAURUS CRACO



1. Glue spreader
2. Powered disc conveyor
3. Loading belt
4. Press
5. Unloading unit

Heating plants

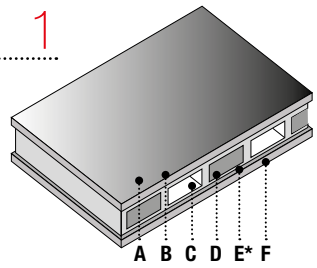
Electric heater for water or thermal oil complete with pump, pipes and open expansion tank.
• Max. temp. for water up to 90 °C and up to 120 °C for thermal oil.

Wood fired boiler for water complete with pump, pipes and open expansion tank.
• Max. temp. up to 90 °C.

• Gasoil or natural gas fired boiler for thermal oil in order to reach high temperatures (up to 250 °C).

Platens

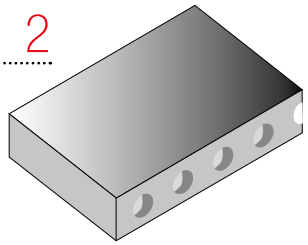
1



FABRICATED ASSEMBLED STEEL PLATEN
Max. temp. up to 120 °C, max. working pressure 3÷5 kg/cm², heating medium pressure 2,5 ate. It is composed by:

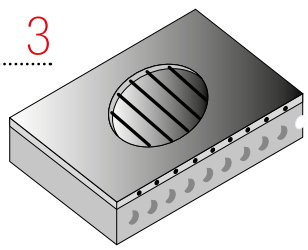
A. *Aluminium covering for a better surface finishing and a better heat diffusion.*
B. *Flat gauged steel sheet.*
C. *Coil of piping for hot water/oil circulation.*
D. *Reinforcement piping.*
E*. *Flat gauged steel plate, only for intermediate platen.* ***F.*** *Insulating material.*

2



DRILLED SOLID STEEL PLATEN
Max. temp. up to 250 °C, max. working pressure 30 kg/cm², heating mudium pressure 10 ate. Platen made of a single thick steel plate which is drilled to obtain the circuit in which the heating medium flows. The pressing surface is normally planed and is delivered with mylar covering; ground and polished pressing surface for special needs available.

3



ELECTRIC PLATEN or "ENERGY SAVING" ELKOM
Max. temp. up to 120 °C, max. working pressure 7 kg/cm². Platen made of a 12 mm aluminium plate which resistances are inserted in: underneath a chipboard support.

NPC ENERGY SAVING

SAVE THE ENERGY BY ORMAMACCHINE

Why to choose PATENTED

The ***NPC*** *Presses have now a line to electrically heat the platens through a revolutionary system called* ***"ENERGY SAVING"*** *directly designed and conceived by the* ***ORMAMACCHINE*** *R&D Office.*
After several tests, a new platen has been ***patented****, having completely new technical characteristics, in comparison with those actually available in the press field.*
We have realized a platen with built-in electric resistances achieving low energy consumption and with remarkable technical performances.
In this page we will show the main ***"PERFORMANCES"*** *of this system, and we can proudly assert that: the NPC Presses with the* ***"ENERGY SAVING HEATING SYSTEM"*** *in this sector are unique and innovative.*

No noise *during its functioning. The actual heating types are oper-ated by pumps for their heated liquid circulation, something no longer required by our system.* ***A***

Absolutely no problem with fire hazard*. The standards, as far as fires are concerned, rightly, are always more strict and do not allow anymore installation of woodboil-ers inside the joineries or carpen-tries. With this type of heating all these problems are overcome.*

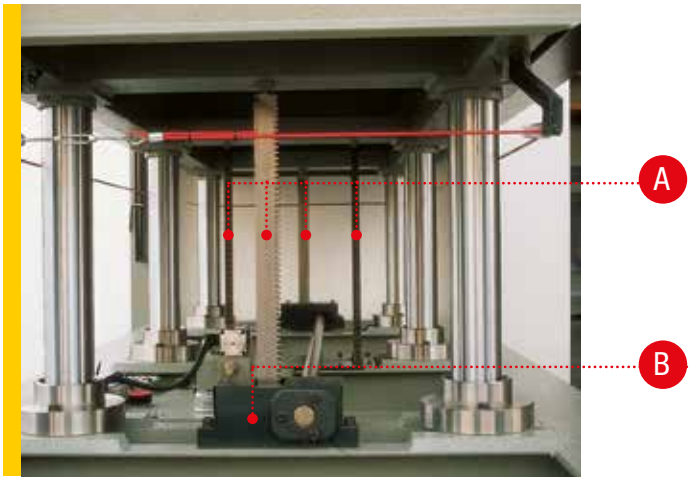
- ***Limited consumptions in com-parison with the traditional elec-tric boiler and electric platens today in available.***
- ***120 °C. max temperature*** *that allows to perform any kind of glue-ing operation in any joinery. The temperature is set by the main control board and can be selected by the operator according to the kind of work to be carried out. Once the set temperature has been reached, automatically the power shall be disconnected; power shall be, always automatically, restored only when temperature drops.*
- *Temperature difference between different platen places is ± 7° C.; so there is a* ***homogeneous temper-ature*** *on the whole platen surface.*

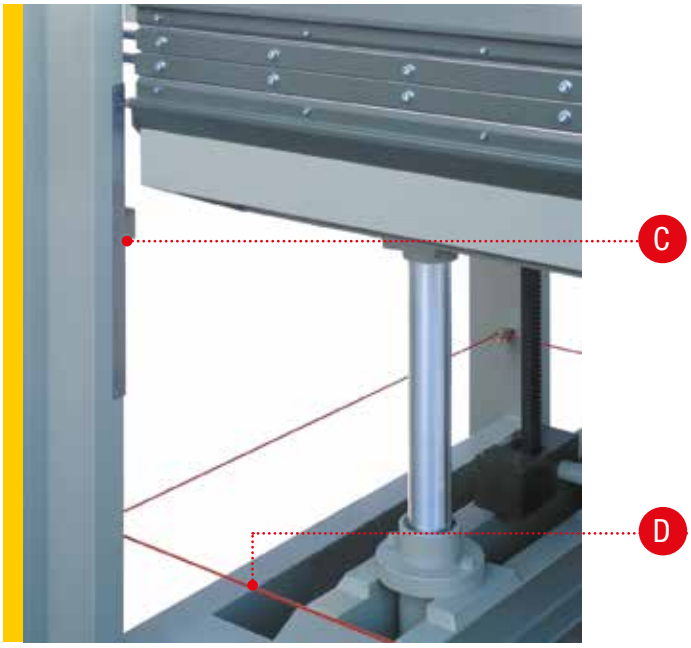
Possibility to set different tem-nerature *between upper and lower platens.*

No maintenance *required. In comparison with any other heating system, where mainte-nance is always necessary, with this system such operation does not exist anymore.*

The max. platen ***resistance*** *to the pressure is 10 Kg/cm². Taking in consideration that with the NPC Presses the max used pressure is 5 -7 Kg/cm² (sufficient pressure to carry out any kind of work), there is a remarkable safety margin.*

Features





A - *Double rack system to guarantee a perfect platen movement. Nr. 2 groups on the length and Nr. 2 groups on the width connected between them by a torsion bar.*

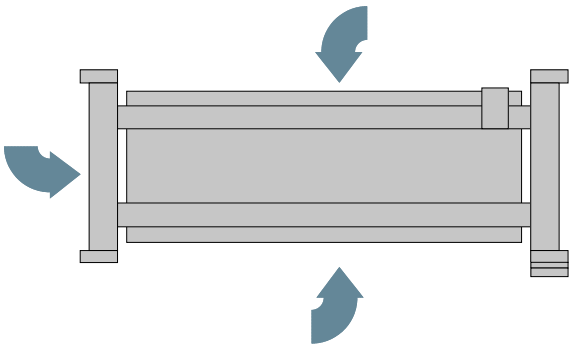
B - *Particular protection system of the racks gearings device.*

C - *Lateral guides on platens for a perfect movement further safety feature of the pressing platen.*

D - *International safety standard. Pulling the cable the operator stops the platen mouvement.*

• *The press **structure** is totally made of tool machined welded beams. The press frame, once assembled, turns out to be a single body granting a perfect resistance and time durability. A quality selection, where the main concern is towards the press reliability as far as time and ruggedness are concerned.*

***FRONT VIEW** - By this view it is highlighted the heavy duty structure of the press made out of steel beams.*



***PLAN VIEW** - By this view it is highlighted the 3 side loading possibility. The operator can load the material to be processed from one of the 3 sides of the machine. Further advantage is the possibility to press panels longer than the press platens.*

TAURUS CRACO

1

1 **NEW CONTROL BOARD**

Control board with 7" SIEMENS KTP700 BASIC COLOR TOUCH-SCREEN, equipped with Ethernet for connection with remote assistance (access to customer's net plus assistance contract to be provided). Setting and control of all functions including:

1) setting and digital display of working pressure;
2) setting and digital display of working temperature (for presses with electric boiler);
3) setting and digital display of pressing time;
4) digital setting of automatic switching on of heating system (for presses with electric boiler) with the possibility to set any day of the week;
5) possibility to divide the power consumption of the boiler automatically when the set temperature is reached (for presses with electric boiler); working only for machines with boiler higher than 20 kW;
6) automatic adjustment of the requested pressure in bar obtained by setting the working pieces area and the desired specific pressure; data of last pressing are kept in memory;
7) automatic exclusion of a cylinder couple depending on the size of the elements to be pressed (active only if the press is provided with at least one electric exclusion);
8) possibility to store up to 20 working recipes (temperature, specific pressure, pressing time, panel dimensions);
9) diagnostic for reporting malfunctions.

2

2 **NEW HYDRAULIC UNIT**

- *Hydraulic plant consisting of HAWE hydraulic unit with double pump in oil bath.*
- *Control group with the function of automatically switching the high capacity low pressure pump for quick closing to the low capacity high pressure pump for slow getting into pressure. Both pumps are protected by a pressure relief valve. This system requires the use of relatively small engines and therefore allows a reduction of energy consumption to the advantage of the global efficiency of the system.*
- *Unit complete with mechanic safety valves and control electric valves mounted on top of the oil tank*

DNV·GL

CERTIFICAZIONE DI SISTEMA QUALITÀ DNV·GL ISO 9001

OFFICIAL CERTIFICATION

	Heating curve [°C/min]	Heating consumption [A]	Keeping consumption [A]	ΔT Platen uniform temperature [°C]	ΔT / n. Number of pressing cycle [°C/pressata]	Max. instantaneous power consumption [kW]
Piano Energy Saving Energy Saving surface	1,837	19,7	19,32	13	0,3	13,614
Piano ELKOM® ELKOM® heating surface	4,346	34,4	16,56	17	-0,3	23,624
Piano a Serpentine Coil heating surface	1,182	25,3	25,42	17	0,05	17,739

I dati riportati si riferiscono alle presse con piani da 3 x 1,3 mt
Technical information according to 3 x 1,3 m. platen

Optionals

- *Device to shut off one or more sets of pistons. The exclusion can be done by the keyboard. On Presses with 8 pistons and more the exclusion of one set of pistons is standard.*

- *Safety device by means of a sensor. By blocking the press movement, this accessory avoids damages to the platen structure, in case an incorrect loading operation should take place with panels of different thickness.*

- *The NPC Presses, to increase the production capacity, may be equipped with intermediate platens.*
- *Detail of the "demountable press" option. In this case the press structure is bolted instead of welded. This option is advisable either in case of places having difficult access or in case of shipment in container.*

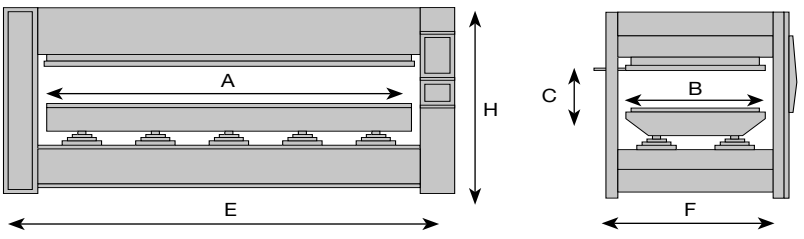
NPC A

- *"**Ionising bar"** option for the press upper mylar belt. Necessary in case of pressing panels with plastic laminate.*

Technical feature

Type	Platen size mm A-B	Total Thrust Ton	Cylinders N.	Pistons Ø mm	Stroke mm C	Pressure 80% kg/cm²	Motor HP	Woodboiler kcal/h •	Boiler kW •	Electric Platens ELKOM kW •	NPC ENERGY EFFICIENCY kW •	Overall * mm E-F-H	Net Weight kg
NPC|DIGIT 4/40	2500x1300	40	4	70	400/650	1,5	2	20.000	18	17,8	9,4	3300 1550 1800	2400
NPC|DIGIT 4/70	2500x1300	60	4	70	400/650	2	2	20.000	18	17,8	9,4	3300 1550 1800	2800
NPC|DIGIT 6/90	2500x1300	90	6	70	400/650	3,3	2	20.000	18	17,8	9,4	3300 1550 1900	3150
NPC|DIGIT 6/100	2500x1300	120	6	85	450/650	4,5	3	20.000	18	17,8	9,4	3450 1550 2050	3500
NPC|DIGIT 3000/S	3000x1300	70	6	70	400/650	2,2	2	20.000	18	25,4	13,5	3800 1550 1800	3300
NPC|DIGIT 6/95	3000x1300	90	6	70	400/650	2,8	2	29.900	18	25,4	13,5	3800 1550 1900	3600
NPC|DIGIT 6/110	3000x1300	120	6	85	450/650	3,7	3	29.900	18	25,4	13,5	3950 1550 2050	4000
NPC|DIGIT 8/120	3000x1300	160	8	85	450/650	5	4	29.900	18	25,4	13,5	3950 1550 2050	4500
NPC|DIGIT 3500/S	3500x1300	90	6	70	400/650	2,4	2	29.900	21	28,8	16	4300 1550 1900	4150
NPC|DIGIT 8/110	3500x1300	110	8	70	400/650	2,9	3	29.900	27	28,8	16	4350 1550 1900	4600
NPC|DIGIT 6/120	3500x1300	120	6	85	450/650	3,2	3	29.900	27	28,8	16	4450 1550 2100	4700
NPC|DIGIT 8/160	3500x1300	160	8	85	450/650	4,2	4	29.900	27	28,8	16	4450 1550 2200	5200
NPC|DIGIT 10/200	3500x1300	200	10	85	450/650	5,3	5,5	29.900	27	28,8	16	4550 1600 2200	6500

- *The characteristics are not binding and may be modified or changed without notice from the manufacturer.*



- They differ according to the type of platen and possible intermediate platens

* Heating system excluded