

**NEW**

# InduBond<sup>®</sup> Press

## Inductive Bonding Machine

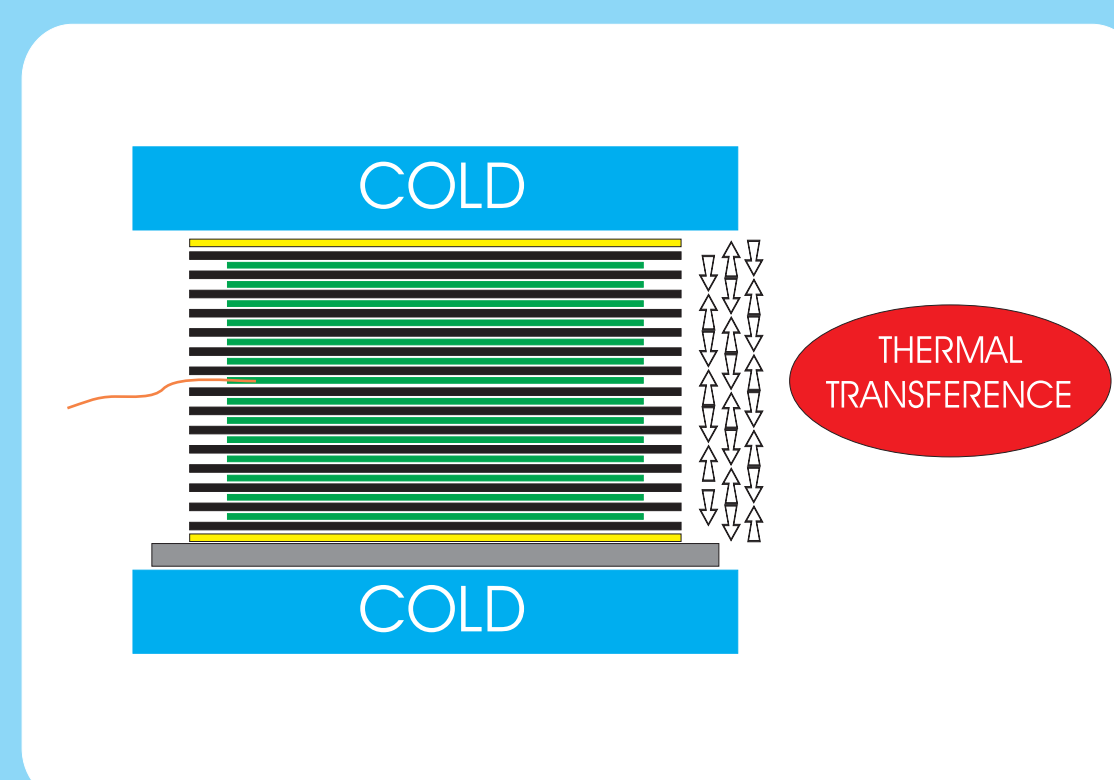
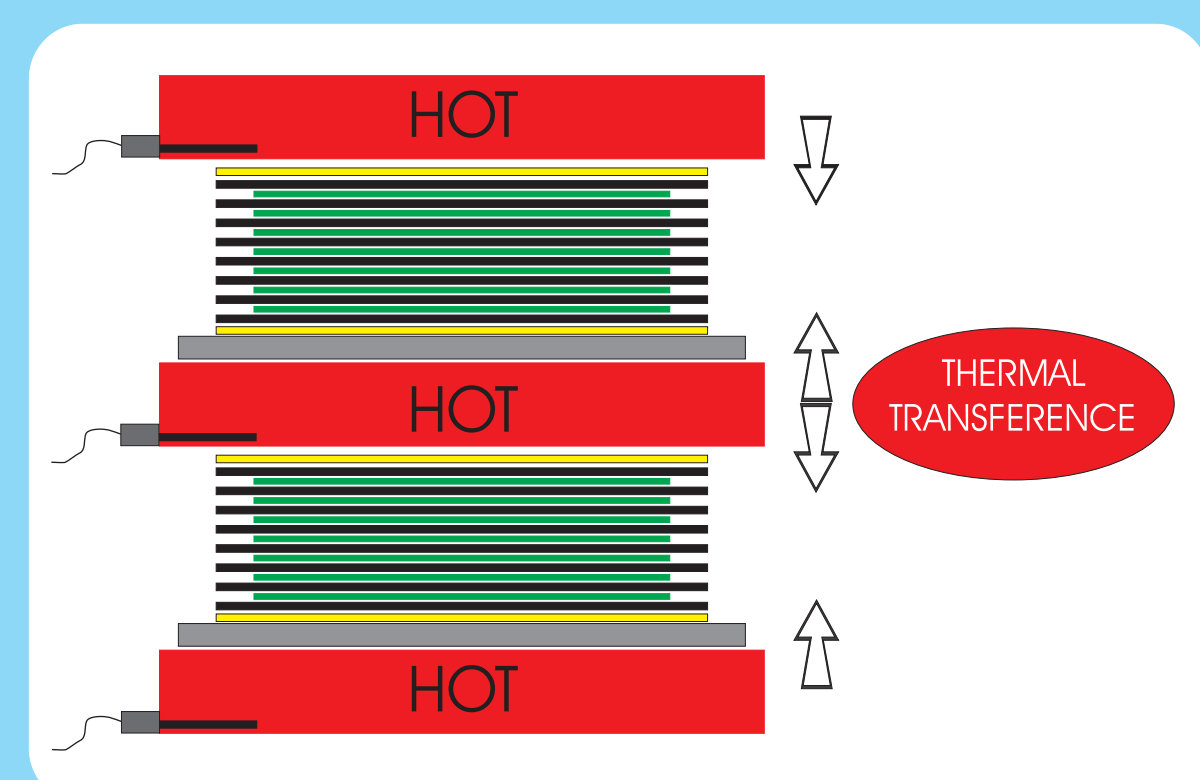
- High Thermal Increases. (ΔT): 15°C/min.
- High Temperature: 300°C
- High Hydraulic Pressure levels : 100Tn (max. Area)
- High Vacuum Levels: >95%
- Máx. Press Area: 620x530mm
- Máx. Opening Gap: 140mm
- Hydraulic Cylinder Diameter : 250mm
- Max. Pressure Hydraulic Pump : 250 bar.
- Machine Dimensions : 1300x1200x2750mm
- Load Height : 1200mm
- Net Weight : 4Tn
- Electric Cabinet Dimensions : 900x1200x1300mm
- Power Supply : 400V ac 50Hz (3F+TT)
- Max Power Installation : 25Kw
- Water Consumption : 200l/h In Temp. <18°C
- Average Power Consumption/cycle (30 panel):<5Kwh



### Brief Description

InduBond Press technology, characterized in that the heat required for polymerization of the resins is generated in the same material being pressed and not in the great press plates of traditional systems, which big metallic masses must be heated continuously through thermal oil or electrical resistors, afterwards the heat is transmitted by thermal conduction to the production panels. Therefore we achieve a remarkable increase of the energetic efficiency.

### Energy Performance



Suppose to heat up both systems from 25°C (ambient) to a 220°C being M1=35kg and M3=2kg of Fe. Thermal conductivity 120J/Kg °C

M1 → HOT COLD  
M3 → COLD  
M2 → COLD  
M1 → HOT COLD

Traditional  $Q = (220 - 25^\circ C) \cdot (35 + 35kg) \cdot (120J / Kg \cdot ^\circ C) = 1\ 638MJ$

InduBond<sup>®</sup> Press  $Q = (220 - 25^\circ C) \cdot (2 + 2kg) \cdot (120J / Kg \cdot ^\circ C) = 93.6KJ$

Traditional system spend **17.5** Times more energy to do the same job.

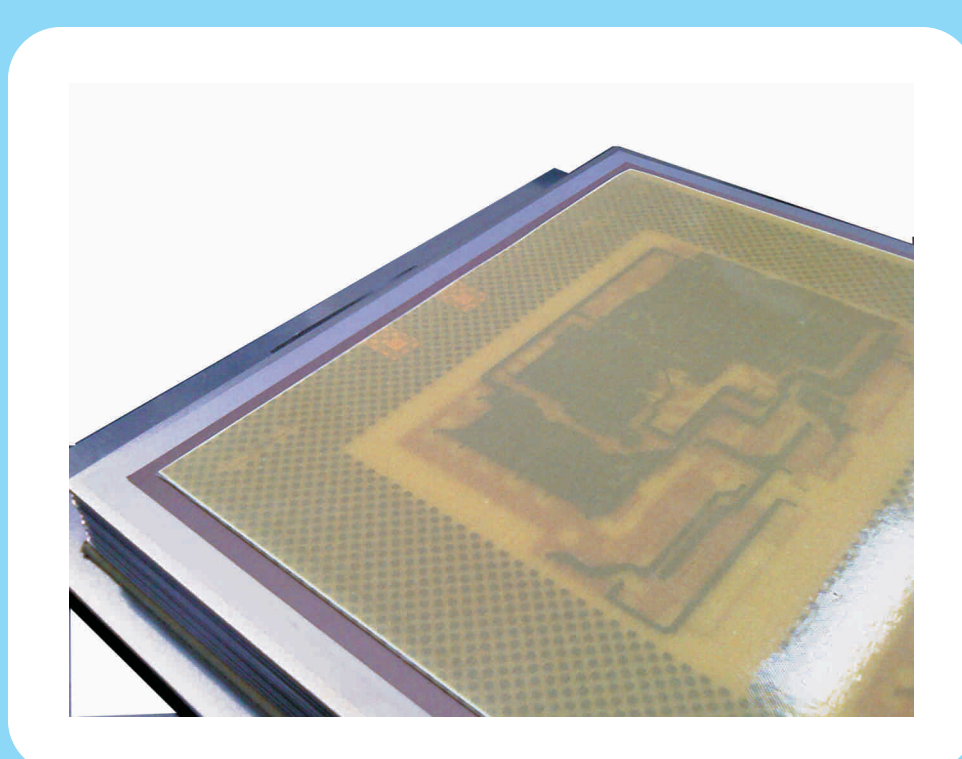
Energy Performance Example



Control and software detail

Due to this innovative technology which allows to heat the panels individually, you get real control of the energy it receives each panel from the load by a thermal control by means of temperature probes that are placed in the middle of the load to be pressed, and NOT in the press plates as traditional technologies do. Therefore the scheduled press cycle is transmitted to each of the panels of the press load identically, getting a quality product repetitive and very precisely controlled.

InduBond Press technology offers unprecedented flexibility, allowing to press from only 1 panel, up the maximum that allows the opening of the press (140mm), which provide for about 30 panels 1.6mm thick.



Stack preparation detail

All quantities of pressing cycles (temperature, time, pressure, vacuum level ...) are placed in an advanced PC software that manages the operation of the press in a very intuitive way.

The press uses conventional pressing plates, hardened steel alloy of high hardness and surface quality, compatible with those used in traditional systems.



Hydraulic trolley detail



Press load detail