The FBC200 has been designed to detect unglued, delaminated, blown or low density areas, bubbles, cracks and other flaws inside any type of board (PB, MDF, OSB or Plywood).

Unlike earlier systems that had a limited number of measuring channels and as a result were only able to guarantee a maximum board coverage of 30%, this system is able to detect defects over the whole board. It is possible to grade the quality of the production in progress and to adjust the product parameter to avoid rejects and maximize customer satisfaction.

The system is composed of a sturdy aluminium beam, installed around the conveyor, complete with the electrical and pneumatic plant. It is possible to slide the system out to perform maintenance and repair. The full bond/blister classifier (FBC) measuring sensors are mounted on the top and bottom beams on the board outfeed side. Since the sensors do not come into direct contact with the board, typical problems related to material wear are eliminated.

The automatic calibration and dirt accumulation control ensure an efficient and highly reliable measuring control system. The operator interface for setting up the plant parameters and those for the single productions is simple and straightforward to use and the formulas may be stored and retrieved at a later date. The display can be customised by choosing from the numerous high resolution 3D colour graphs available. Numerical indications are also given. The parameters are stored in an SQL database and can be used to display and/or print reports on the desired productions, based on user determined choice criteria (date of production, shift, production name). The microprocessor is equipped with a digital oscilloscope which is seen on the monitor and which displays the ultrasound transmission and receiver signals one by one when the need arises. In addition to being user friendly and extremely intuitive to consent a prompt and immediate interpretation of the data collected, the software also provides detailed diagnostic screen pages to enable maintenance operators or Imal engineers carrying out remote assistance, to perform a full diagnosis of the equipment. A powerful microcontroller is mounted inside the receiver to transmit the data for the signal measured, to the CPU via Data Bus. The system may be network connected with TCP/IP protocols, for Siemens S7 and Allen-Bradley ControlLogix.
The elevated scanning accuracy over the whole board ensures that all kinds of defects are analysed and not just blisters, blows, delaminated areas.

The steel belt joint and repairs produce different pressures and cure to the board which the FBC200 is able to identify.

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOARD COVERAGE</td>
<td>100%</td>
</tr>
<tr>
<td>BLISTER RESOLUTION</td>
<td>25 mm</td>
</tr>
<tr>
<td>MAX THICKNESS</td>
<td>60 mm</td>
</tr>
<tr>
<td>MAX BOARD SPEED</td>
<td>210 m/min</td>
</tr>
<tr>
<td>MAX BOARD TEMPERATURE</td>
<td>180 °C</td>
</tr>
<tr>
<td>MAX READ OUT WID</td>
<td>up to 4000 mm</td>
</tr>
</tbody>
</table>

**MAIN FEATURES**

- Sturdy mechanical assembly of the structure and sensors
- Easy to use
- Clear and comprehensive software
- Operator is warned of an approaching blistered board, with the consequent optimization of process parameters, reduction of board defects and rejects
- Easy installation in on line processes and/or after saws.

**Example:**

- Only 32% of a 2500 mm wide board is actually analysed with 16 channels
- 100% coverage with the IMAL system

**Traditional /competitor systems:**

- Measuring width: 50 mm per sensor
- Maximum coverage possible: around 35%

**Graph:**

- Area analysed/coverage (%) vs Number of detectors

- 100% coverage with the IMAL system

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Not binding data. IMAL-PAL Group reserves the right to make any modifications to the contents herein without prior notice. We kindly ask you to contact our technical department for eventual updates on the information provided.