ON-LINE X-RAY MAT DENSITY GAUGE

ISO30X
RADIOMETRIC GAUGE FOR THE TRANSVERSAL SURFACE DENSITY MEASUREMENT

The system performs an accurate on-line surface density analysis (weight per surface unit) along the cross section of the mat being examined. The analysis is conducted without any contact with the material by exploiting the X-ray control theory and the use of non-destructive testing techniques.

MAIN FEATURES
• Well collimated and suitably screened X-ray beam • Engineering aimed at minimizing scattered radiation. • Elevated sensitivity and measuring repeatability • No contact with the mat • Device controlled by remote PC • Average profile of the last “x” scans • Graph printing management • Alarm management • Deviation ranges [+-/- and +/-] shown on graph for instantaneous values [and on the averages graph] as the mat is being scanned, in relation to the average value of the last scan made • Possibility of linking up with Siemens H1 PLC • Able to operate with any kind of belt (even those with irregular density) thanks to the calibration system • System may be customized to suit customer requirements • Suitable for any kind of wood based panel.

ADVANTAGES
• The device is not equipped with radioactive isotopes: no radiogenic emission without power supply • Real time monitoring of production quality • Low maintenance costs.
Dimensions will vary on the basis of customer requirements.

SURFACE DENSITY PROFILE GRAPH
The bar graph shows the surface density profile along the transversal section of the line; each bar corresponds to the average value of the measurements taken at a minimum distance of 5 cm. This graph is continually updated as the board moves forward. It is also possible to see the average graph which gives the average of the last ”x” scans, where ”x” is a programmable parameter.

<table>
<thead>
<tr>
<th>TECHNICAL DATA</th>
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<tbody>
<tr>
<td><strong>MAT WIDTH</strong></td>
<td>As required (4 m maximum)</td>
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<tr>
<td><strong>MAT HEIGHT</strong></td>
<td>800 mm</td>
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<tr>
<td><strong>PRODUCTION SPEED</strong></td>
<td>35 - 1800 mm/s</td>
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<tr>
<td><strong>OPERATING TEMPERATURE RANGE</strong></td>
<td>+5 ÷ 50 °C</td>
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<tr>
<td><strong>ACCURACY</strong></td>
<td>± 0.5%</td>
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<tr>
<td><strong>MAX SCANNING SPEED</strong></td>
<td>4 m/min</td>
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