ON-LINE X-RAY MAT DENSITY GAUGE

ISO40X

RADIOMETRIC GAUGE FOR THE TRANSVERSAL SURFACE DENSITY MEASUREMENT

BEST IN CLASS FOR:

WOOD BASED PANELS:
PB/SPB
OSB/LSB/FOSB
MDF/HDF

The system performs an accurate on-line surface density analysis (weight per surface unit) along the cross section of the mat being examined. It is also possible to measure lengthways, selecting a point on the mat where the scanner can be positioned automatically.
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. The solid state crystal receiver, the "state-of-the-art" in terms of X-ray receivers, consents rapid measurement data acquisition and consequently a much faster mat scanning speed with respect to standard systems.

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 • Calibration system for reading belt density • The system may be network connected with TCP/IP protocols, for Siemens S7 and Allen-Bradley ControlLogix • 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. • Extremely fast scanning speed thanks to the solid state crystal receiver.

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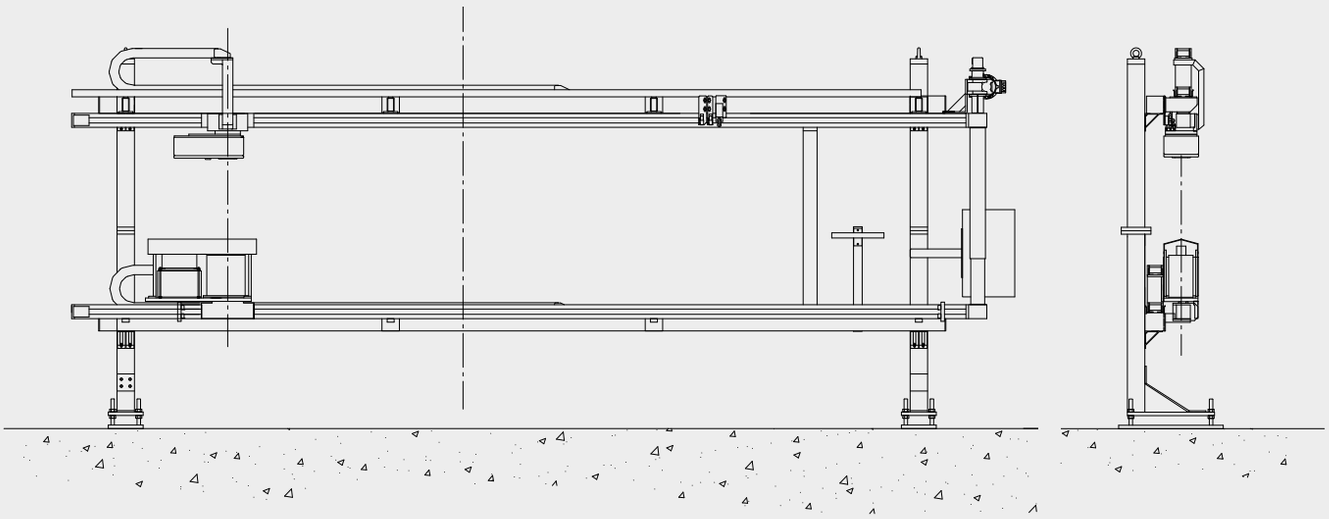
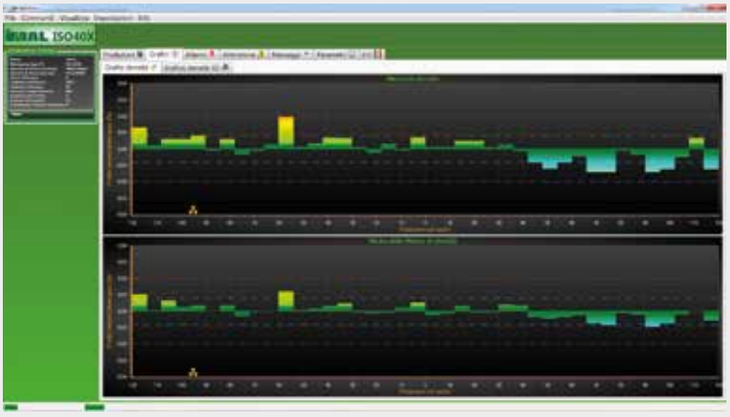
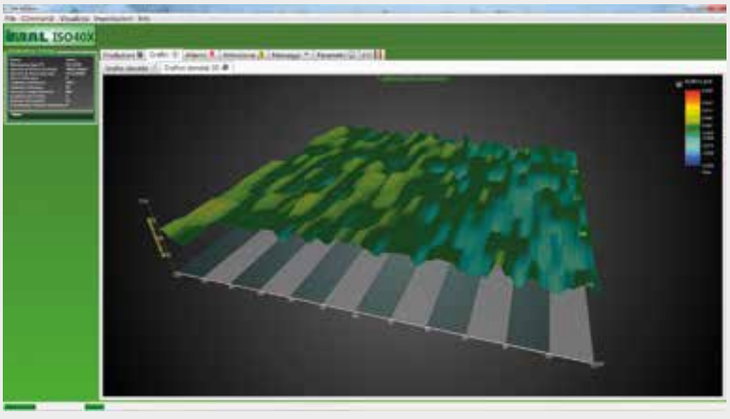


Dimensions will vary on the basis of customer requirements.





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.

TECHNICAL DATA	
MAT WIDTH	as required (4 m maximum)
MAT HEIGHT	800 mm maximum
MEASURING RANGE	0 ÷ 40000 g/m^2
ACCURACY	±0.5%
PRODUCTION SPEED	up to 2500 m/s
OPERATING TEMPERATURE RANGE	5 °C ÷ 45 °C