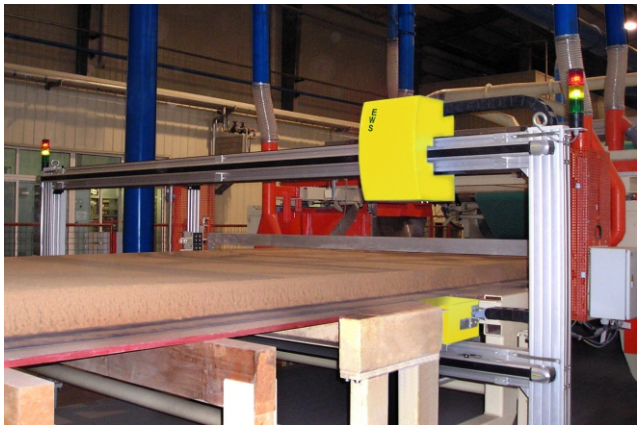
Traversing Area Weight Gauge

MASS-SCAN X MultiEnergy

Finding out the unrealized potential through the use of weight per unit area gauges.

One of the most vital factors in the production of wood panels is the constant spreading of material.

If tolerances are exceeded, higher material and energy consumption are the consequences. MASS-SCAN X, which constantly moves back and forth across the mat before it enters the hot press, maintains tolerances within the optimum range. The result is homogeneous forming in lengthwise and crosswise directions.



The enormous technical developments of "Weight per Unit Area Gauges" of the past years are physically not visible.

What are the previous limitations of weight per unit area gauges? The x-ray tube needed a cooling device. This resulted in a reduced lifetime. Electronic Wood Systems developed a detector with extremely high sensitivity – probably unmatched in the world. Due to this new detector the net power could be reduced to a small portion of the permitted power. The result: The x-ray tube does not need any cooling. No problems with condensation water anymore. Therefore: Long lifetime, increased availability. Another improvement: In the past calibration took place on board samples with known weight per unit area. And today? Electronic Wood Systems explored the specific characteristics of wood based panel boards carefully and implemented these influences in the evaluation software. Subsequently no (!) calibration is required – neither during start-up nor during maintenance. Thanks of the MultiEnergy technology this new system can be measured low area weight and high area-weight boards with high accuracy. This is of advantage if thin and thick (light and heavy) boards are produced on the same line.

Furthermore, it becomes possible to early correct the imbalance resulting from the incoming material tilting against the belt by using precise area weight measuring.

Features

- No cooling of x-ray tube required
- Long lifetime of x-ray tube
- No further calibrations required after start-up
- Influences from environment are automatically compensated

Installation Locations

- in the forming line
- before or after pre-press (depending on material)
- between the forming heads (e.g. Particleboard)

Technical Data

MASS-SCAN X (MultiEnergy)

	Measuring range	Resolution
1	1 - 10 kg/m² [3.28 - 32.8 oz/ft²]	6 - 11 g/m² [0.02 - 0.03 oz/ft²]
2	10 - 23 kg/m² [32.8 - 75.44 oz/ft²]	14 - 27 g/m² [0.04 - 0.08 oz/ft²]
3	23 - 40 kg/m² [75.44 - 131.20 oz/ft²]	31 - 40 g/m² [0.09 - 0.12 oz/ft²]

Technology:	x-ray
X-ray tube:	< 35kV / 1watt
Operation modes:	traversing, stepwise, stationary
Max. clearance:	420mm [16.5"]
Ambient temperature:	0 – 45°C [32 - 113°F]
Traversing speed:	10 - 30m/min. [33 - 100ft/min.]
Relay outputs:	2x relays for plus tolerances (+1, +2) 2x relays for minus tolerances (-1, -2) 1x optocoupler for life signal
Calibration:	automatic
Compensation of changing measuring conditions:	automatic
Life time of x-ray tube:	> 3 years
Remote control:	"EWS Online-Support“