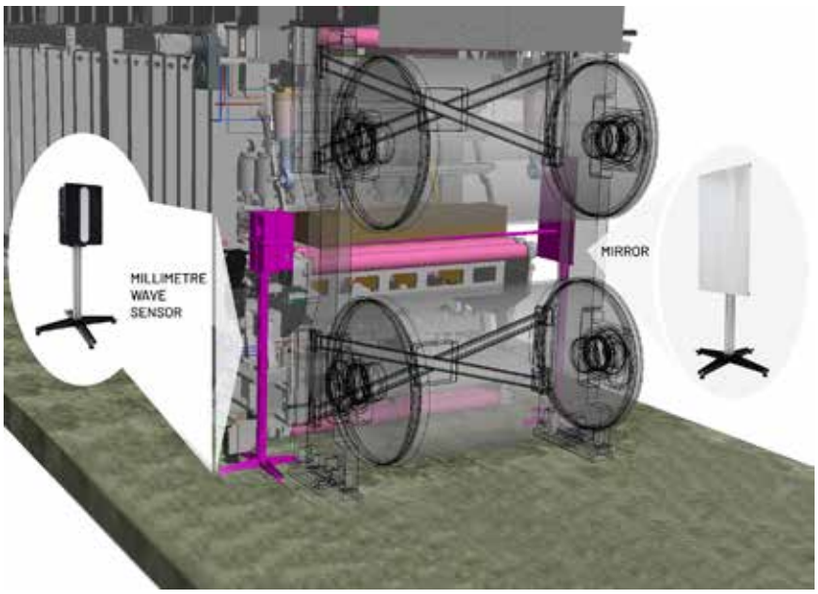
SAFE PRESS FEED SYSTEM

SPF

TO DETECT MAT OVER THICKNESS/CURVING AT PRESS INFEED



BEST IN CLASS FOR:

WOOD BASED PANELS:
MDF/HDF
PB/SPB

The SPF – Safe Press Feed system has been designed to control the mat at the infeed to the continuous press.
The SPF provides a continuous and rapid control of the mat as it goes into the press to promptly warn if the mat is not straight or has curved upwards in which case permanent and expensive damage could be caused to the press.

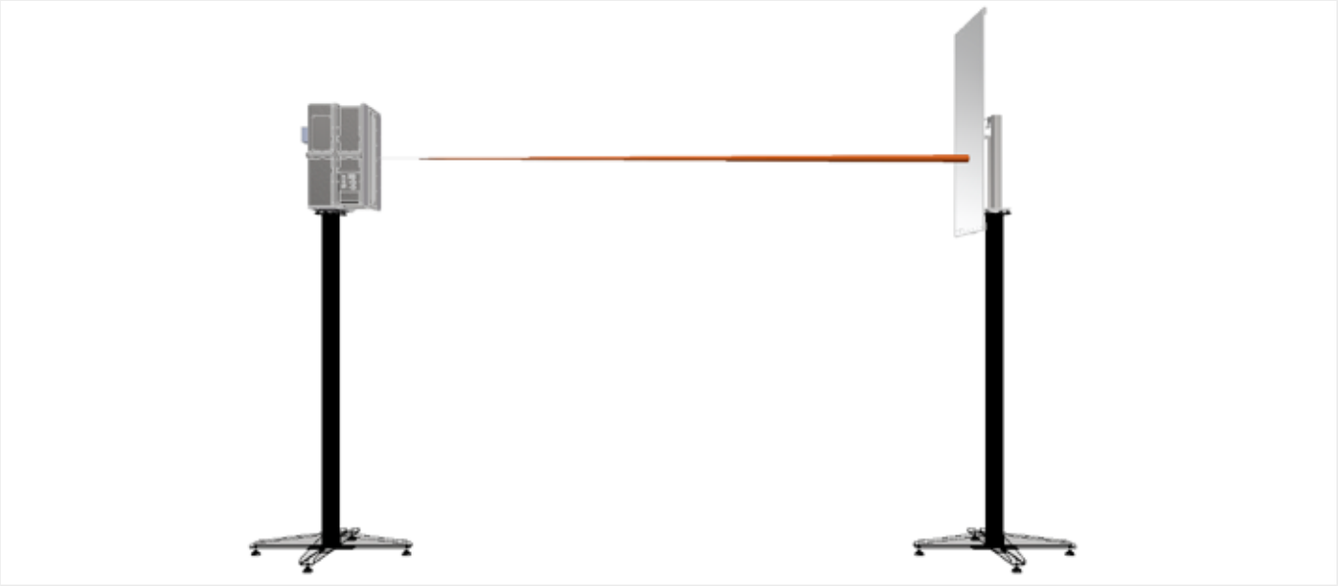
FUNCTIONING PRINCIPLE

The system consists of a SFHH (Safe For Human Health) millimetre wave sensor with ISM band (61.00 – 61.50GHz) controlled by a PLC system to ensure a real time response. The millimeter wave band is reflected to the sensor by a mirror placed opposite the production line. The position of the sensor is essential for deducing the conditions in which it is to operate and it requires a rapid response, but above all an accurate (real-time) response to collect and process the data. The millimetre wave band will therefore be at a slightly higher level to that of the mat. The maximum response time of the complete system is equivalent to 300ms. When mat thickness reaches the pre-set alarm threshold, the PLC enables a hardware signal to signal the hazard and provide a contact which may be used to discharge the high pressure circuit of the press cylinders. The sensor is positioned on a vertical linear support to be installed next to press infeed just a couple of mm higher than the mat. The sensor is positioned automatically at the height set on the relative production page in the software.

Movement and sensor have been designed to work safely in an environment where dust and vapours are present. A smooth aluminium mirror is placed on the other side of the line.

MAIN FEATURES

• No contact with the mat • No radioactive sources (full intrinsic safety) • Real time measurement.



The SPF system works with millimetre waves and so it is completely safe for human health and can be operated without the need for any special permit from Health and Safety authorities or similar, unlike systems involving the use of X-rays

TECHNICAL DATA	
MAXIMUM GUARANTEED RESPONSE TIME	300 MS
MINIMUM HEIGHT FOR DETECTING OVER THICKNESS	20 mm
ENVIRONMENTAL TEMPERATURE	5 - 40°C
MAX AIR HUMIDITY	85 %