



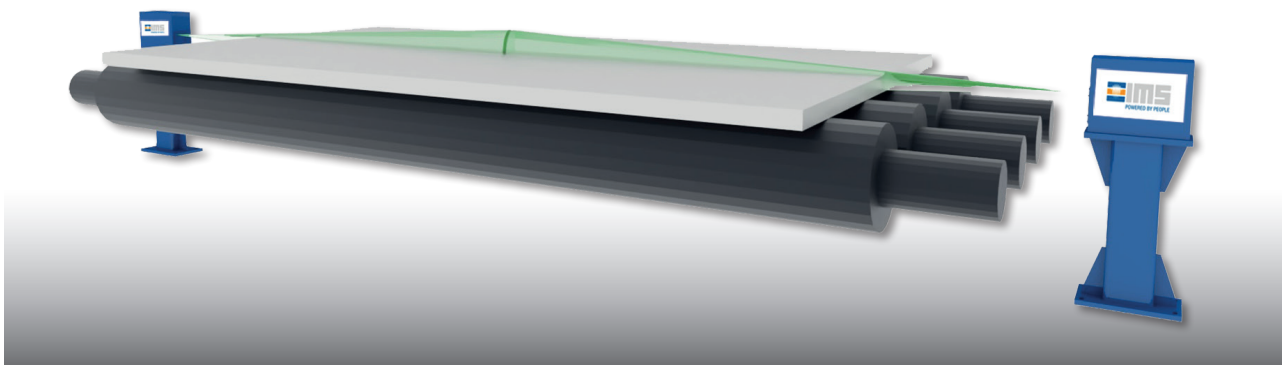
## Radar Width Measuring System

The radar width measuring system consists of two columnar system units positioned outside the roller table on opposite sides of the material to be measured.

Each unit has a radar sensor in which electromagnetic waves are generated and which are emitted by means of an antenna. The radar beams of both units are aimed at the outer edge of the material.

A part of the electromagnetic waves emitted is reflected by the material and received by two further, identical antennas.

The radar waves are frequency modulated. The difference in frequency between the radar waves emitted and received thus results in the distance to the reflection point or the exact distance to the material.



### Measurement Task

- measurement of material width
- measurement of centreline deviation

### Special Features

- gauges are installed at a sufficient distance from the roller table (low temperature influence)
- no need to build over the roller table
- insensitive to water, steam and dust (outstanding advantage over optical measuring systems)
- harmless to humans (in contrast to laser radiation)
- maintenance-free measuring device

## Material Data

Typical thickness range:	> 5 up to 400 mm
Speed:	> 0 - 3 m/s
Width:	up to 4,000 mm

## Measuring System Data

Gauge type:	radar unit
Sensor:	radar sensor, carrier frequency 60 GHz

## Measuring Dynamics

Cycle time data output:	$\geq 1$ ms
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## Measuring Accuracy

Reproducibility:	$\leq 0.1$ %
Long term drift (10 hrs):	$\leq 0.05$ %
Measuring accuracy:	$\leq \pm 0.5$ mm