



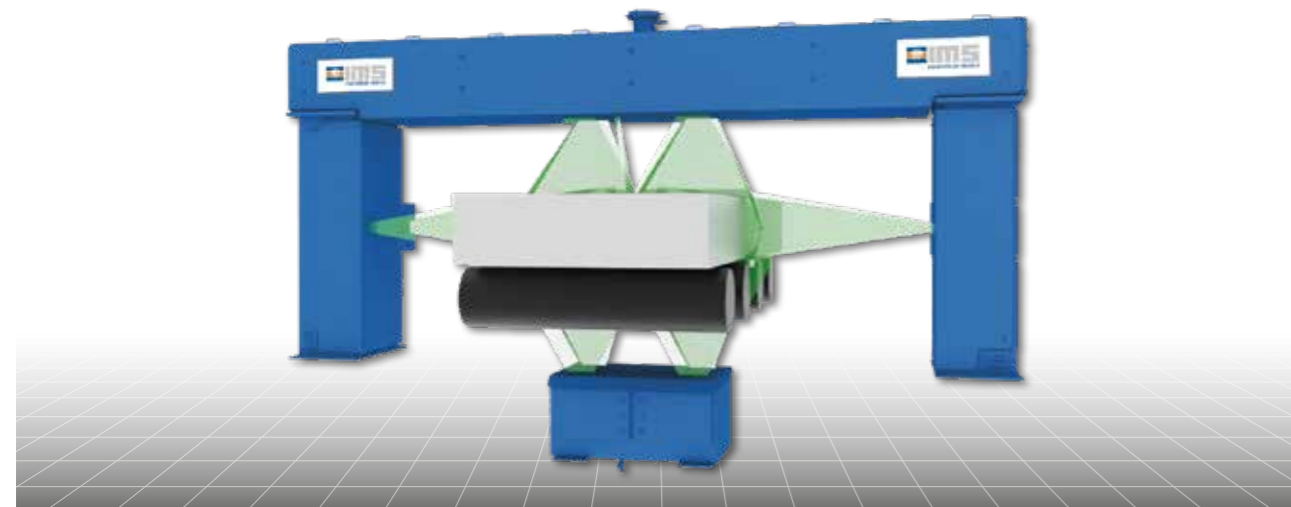
## Rolling Ingot Dimension Measuring System

Rolling ingots are usually produced in an ingot casting process, resulting in high-quality ingots with precise dimensions. Nevertheless, it is still necessary to prepare these ingots for the actual rolling process.

The rolling ingot dimension measuring system records the exact dimension of an ingot in real time, continuously and without contact as it passes through. The system uses the laser light section method, in which lasers scan the surface of the ingot from all four sides. A detailed profile of the surface is created through precise fläche measurement of the reflected laser beams. This

data makes it possible to determine the dimensions of the ingot with great precision. The results are processed and logged immediately, ensuring seamless quality control. The so-called rolling skin of the ingot surfaces is removed by a peeling / milling process, and the head and side surfaces are trimmed to the final dimensions required by an edge cut.

After subsequent heating / homogenisation in deep and / or pusher furnaces, the rolling ingots are fed to the further rolling process.



### Measurement Task

- rolling ingot measurement as specification / result for further production steps

### Special Features

- adjustable design and software
- remote maintainability
- calculation of volume and weight

### Material Data

Typical thickness range:	400 up to 600 mm (but not limited to)
Width:	800 up to 2,700 mm (but not limited to)
Length:	up to 9 m (but not limited to)

### Measuring System Data

Gauge type:	fixed mounted, non-traversable measuring point
Sensor type:	3D sensors consisting of line lasers and CMOS cameras

### Measuring Dynamics

Sampling speed:	25 ms / scan
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### Measuring Accuracy

Width of material (2-Sigma):	+/- 1mm
Length of material (2-Sigma) speed sensor + two light barriers:	± 5 mm plus 0,01% of ingot length
Material thickness profile / contour (2-Sigma):	+/- 0.5 mm