



WIDTH GAUGE

WIDTH GAUGE FOR CONTINUAL, RELIABLE AND EFFECTIVE WIDTH MEASUREMENT OF HOT STEEL

The key ability of the Width Gauge is to provide continual, accurate and reliable detection of the steel material edges.

The gauge has evolved to be much more than a width gauge and can be configured to provide a range of material measurement functions based on a common platform.

The system can, in its basic form, measure width and centreline deviation, or can be upgraded to include flatness, thermal profile and bar-end shape for crop shear optimisation.

The advanced tools and high specification of the gauge provide a number of benefits over conventional technologies. Primetal Technologies Ltd. are world leaders in non-contact gauging systems.

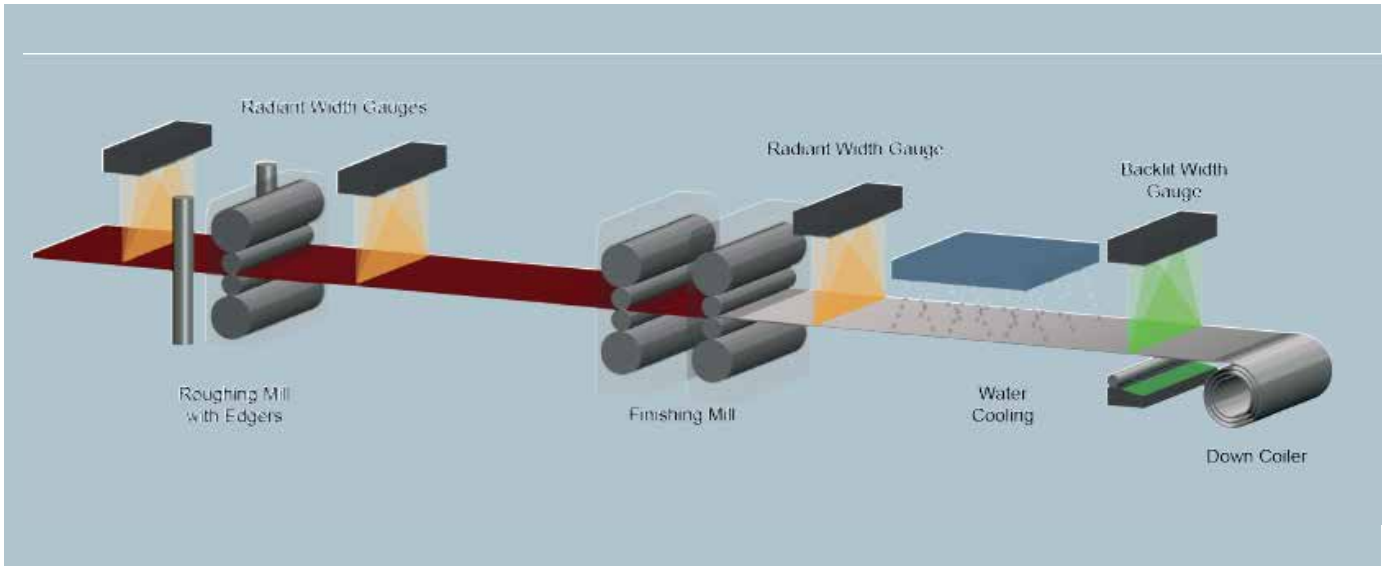
The system utilises a stereoscopic camera housed in a water cooled and air purged enclosure mounted vertically above the strip or plate looking down across the roll table. Two modes of operation are available, either radiant mode using infra-red radiation for steel edge temperatures $> 650^{\circ}\text{C}$ or backlight mode for steel edge temperatures $< 650^{\circ}\text{C}$. The Width Gauge can be upgraded to integrate additional measurement functions.

The stereoscopic arrangement is designed to overcome the inherent problems of hot strip and plate width measurement, such as passline and thickness variations or tilt, lift and bounce of the material, and has a very high immunity to thermal and mechanical stresses.

The Width Gauge is solidly based on over 25 years field experience with over 250 systems installed worldwide. Measurement is based on sensitive, high-resolution, linescan CCD technology. The gauging system may be installed in all locations throughout the hot rolling mill from furnace exit to entry down coiler or plate shears.

REFERENCES

Over 250 gauges installed worldwide.



UTILITIES

Power – 96 - 260 V, 50/60 Hz, 1.5 KVA, Remote peripheral device supplies as necessary

- Water – Stereoscopic camera: 10 litres/min. @ <32 °C, 4 bar
- Air – Stereoscopic camera: 29 to 128.5 Nm³/h @ 5 Bar (dependant on application)

FEATURES

- Stereo camera is factory calibrated
- Advanced edge detection techniques
- Compatible with all previous versions
- Designed especially for harsh mill environments
- Common upgradeable platform
- Includes data logger

ADVANTAGES OF WIDTH GAUGE:

- High Accuracy, Linearity and Reliability
- Low maintenance
- High Availability > 99.85%
- Interface and functionality can be customised
- Upgradeable to include
 - Thermoprofile (Radiant systems only)
 - Camber measurement
 - Crop position optimisation
- No moving or wearable parts
- Long life expectancy: Typically > 15 years
- Ethernet network system configuration

SPECIFICATIONS

	Strip	Plate
Product width	500-2,500 mm	600-5000 mm
Product thickness	0.5-400 mm	0.5-400 mm
Typical accuracy	+/- 0.4 mm to 2 sigma (online)	+/- 1.0 mm to 2 sigma (online)
Measurement frequency	Up to 2,000 width measurements per second	Up to 2,000 width measurements per second
Pixels per camera	2,048 Pixels	2,048 Pixels

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