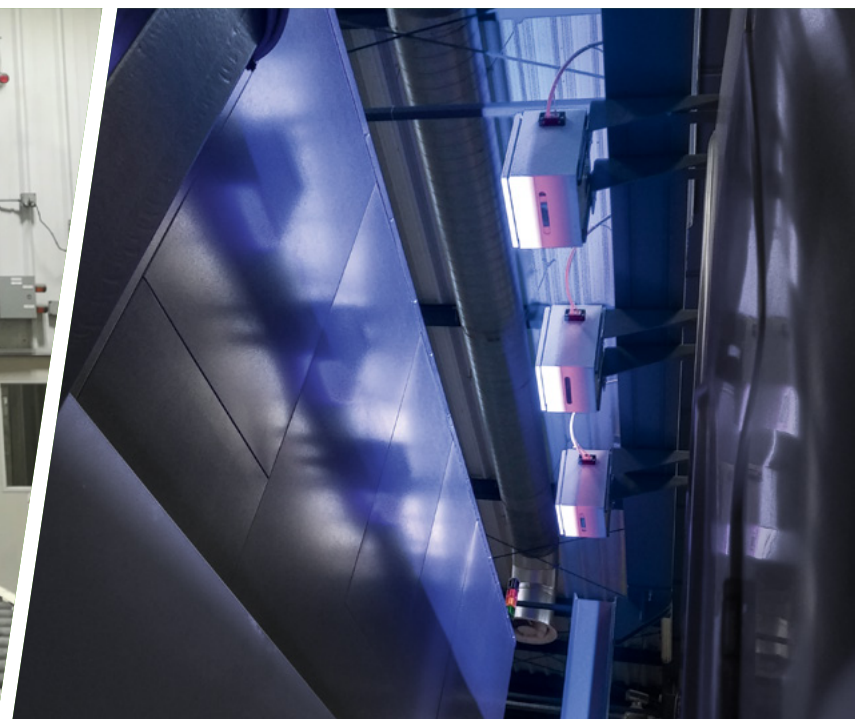


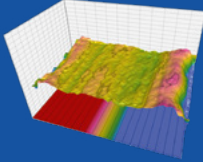

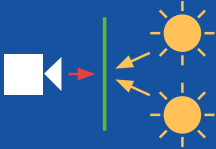
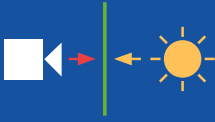

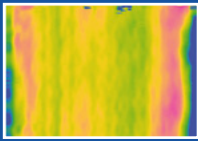
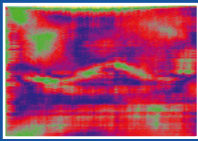
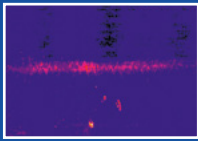


NEW
PRODUCT:
**ROLLER
WAVE!**

Temper Scanner 5D

Complete metrology scanner after furnace exit:
Rollerwave, Edgekink, Anisotropy, White Haze,
Scratches and Coating defects

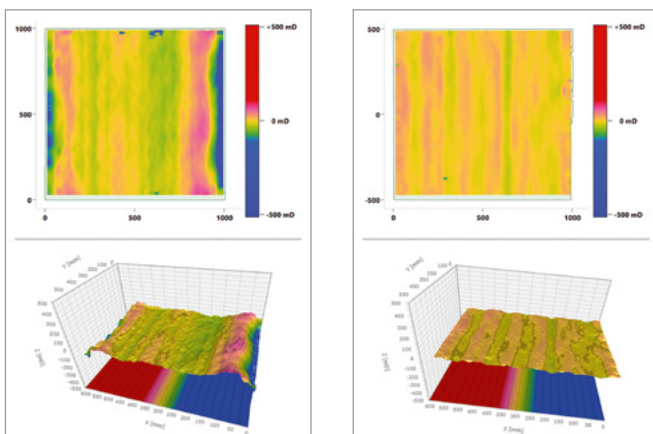


Temper Scanner 5D

WORKING PRINCIPLE					
Illuminations and camera channels	Rollerwave channel  Measurement of optical distortions	Anisotropy channel  Simulation of polarised sunlight	Haze channel  Simulation of lateral sunlight	Brightfield channel transmission  Simulation of a bright diffuse sky	Brightfield channel reflection  Simulation of direct light reflection
	Measurements and detection with focus to:  Waviness and edge kink	 Anisotropies	 White Haze	 Scratches, flaws, inclusions etc.	 Coating defects

OBJECTIVES

- Create process stability and a reliable quality standard with regard to optical distortion / edge kink, white haze, anisotropies and typical glass and coating defects
- System designed to allow for the optimization of the tempering process and ensure reliable results
- Store complete detailed record of each lite scanned for reference or audit purposes to avoid costly liability issues



Measurement results of strong (left) and weak (right) optical distortion and edge kink

SYSTEM

- Modular complete metrology system, as well as glass defect detection after furnace exit
- Novel measurement method based on innovative geometric metrology techniques
- Measurement of optical distortion / edge kink of tempered glass and display of results in Milli Diopter
- Optional anisotropy channel, which meets the requirements under ASTM C1901 21 / DIN SPEC 18198 for the measurement of optical retardation of architectural glass
- Optional white haze channel can be added
- Optional brightfield channel to detect high contrasted defects with a precise contour
- Optional reflection channel to detect coating defects
- Different special and intuitive user interfaces for operators and supervisors
- Comprehensive documentation and statistics for every glass sheet
- Detailed analysis tools allow for furnace optimization

WE ARE SETTING THE STANDARDS