

Thickness gauges for film and sheet extrusion



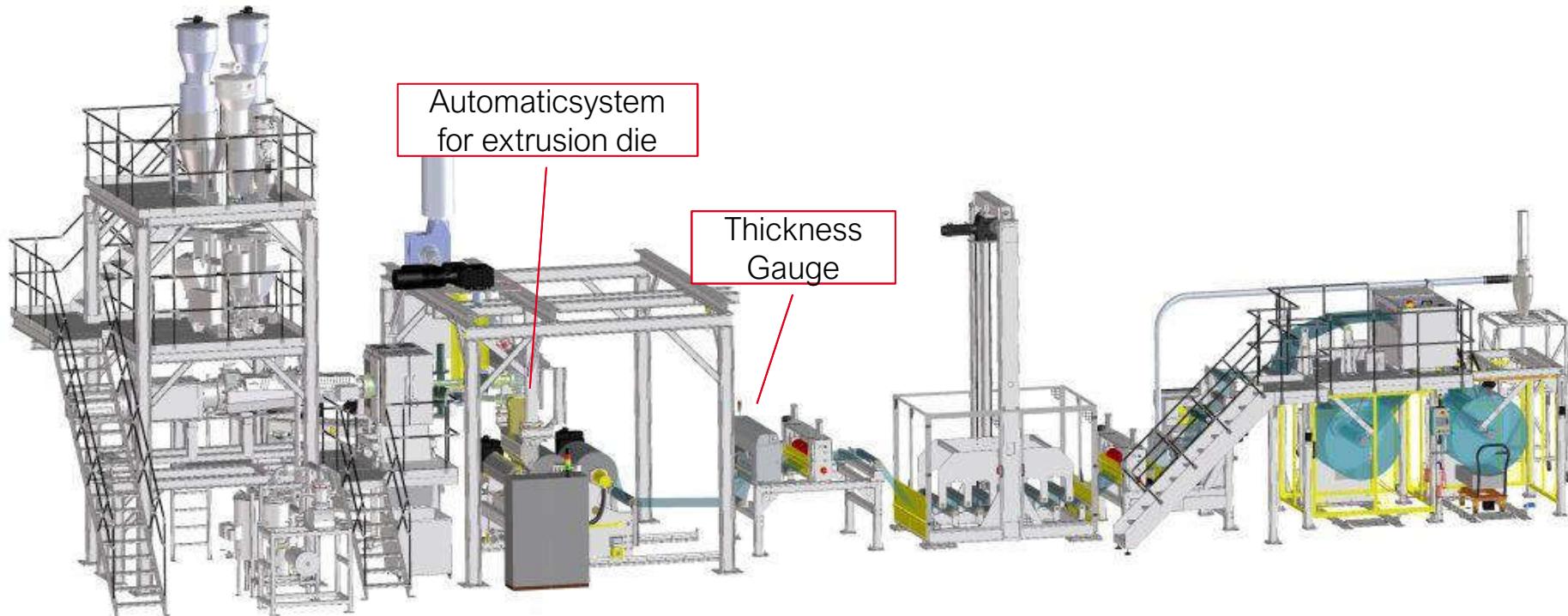
SBI

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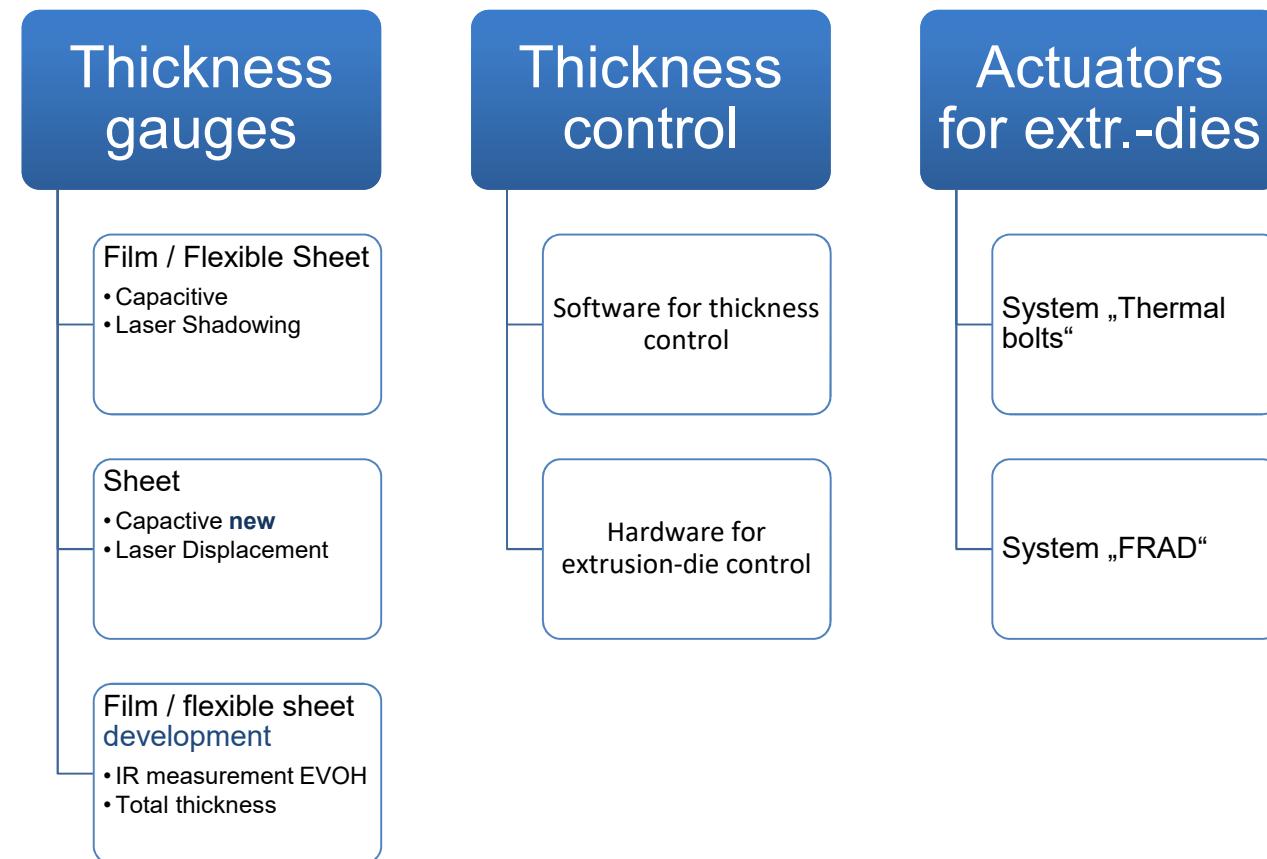
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Thickness gauges and control systems for film and sheet production



Extrusion Line with SBI components

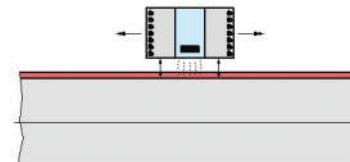
Thickness gauging - Thickness Control - Actuators



Capacitive/Eddy Current Gauging System **KAPA**

Application range:

- Flexible sheets
- 100 – 2000 micron thickness range
- Measuring width 0,5 – 3m

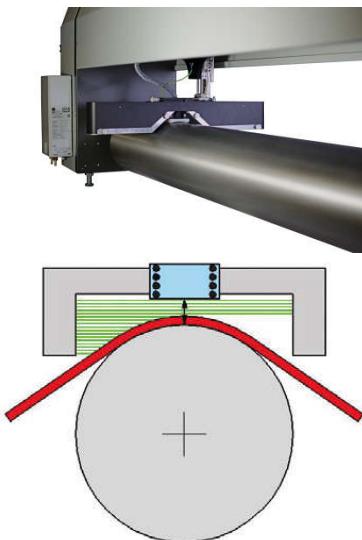


Laser Shadowing/Eddy Current Gauging System **SHADOW**



Application range:

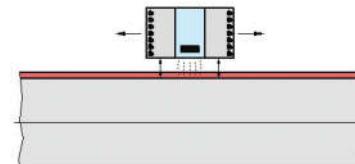
- Flexible sheets
- 100 – 3500 micron thickness range
- Measuring width 0,5 – 3m



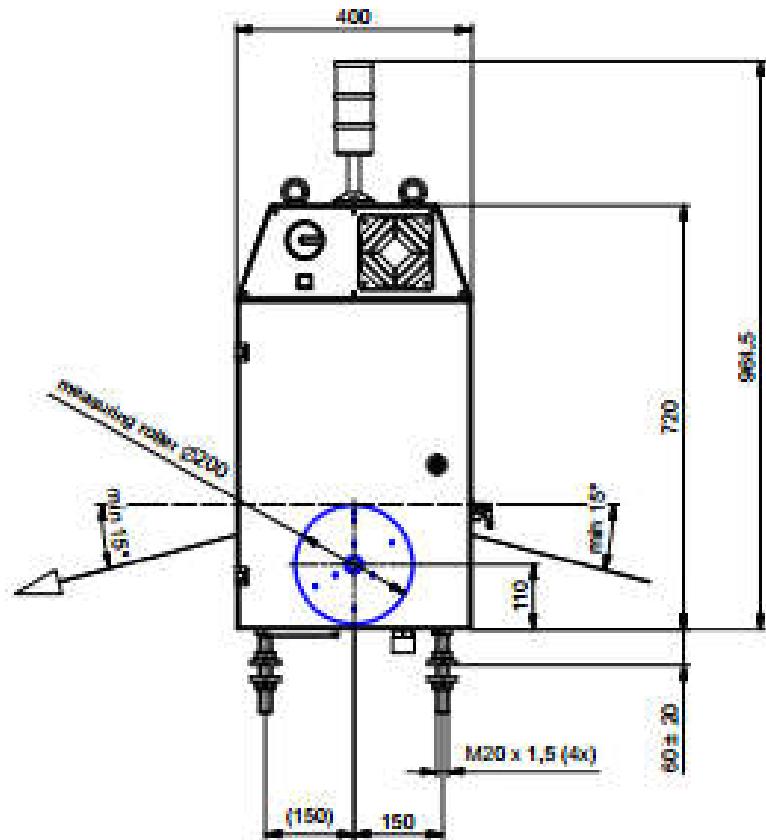
Capacitive/Eddy Current Gauging System **KAPA II**

Application range:

- Sheets (flexible at measurement position)
- Thickness up to 6000 micron
- Measuring width 0,5 – 3m

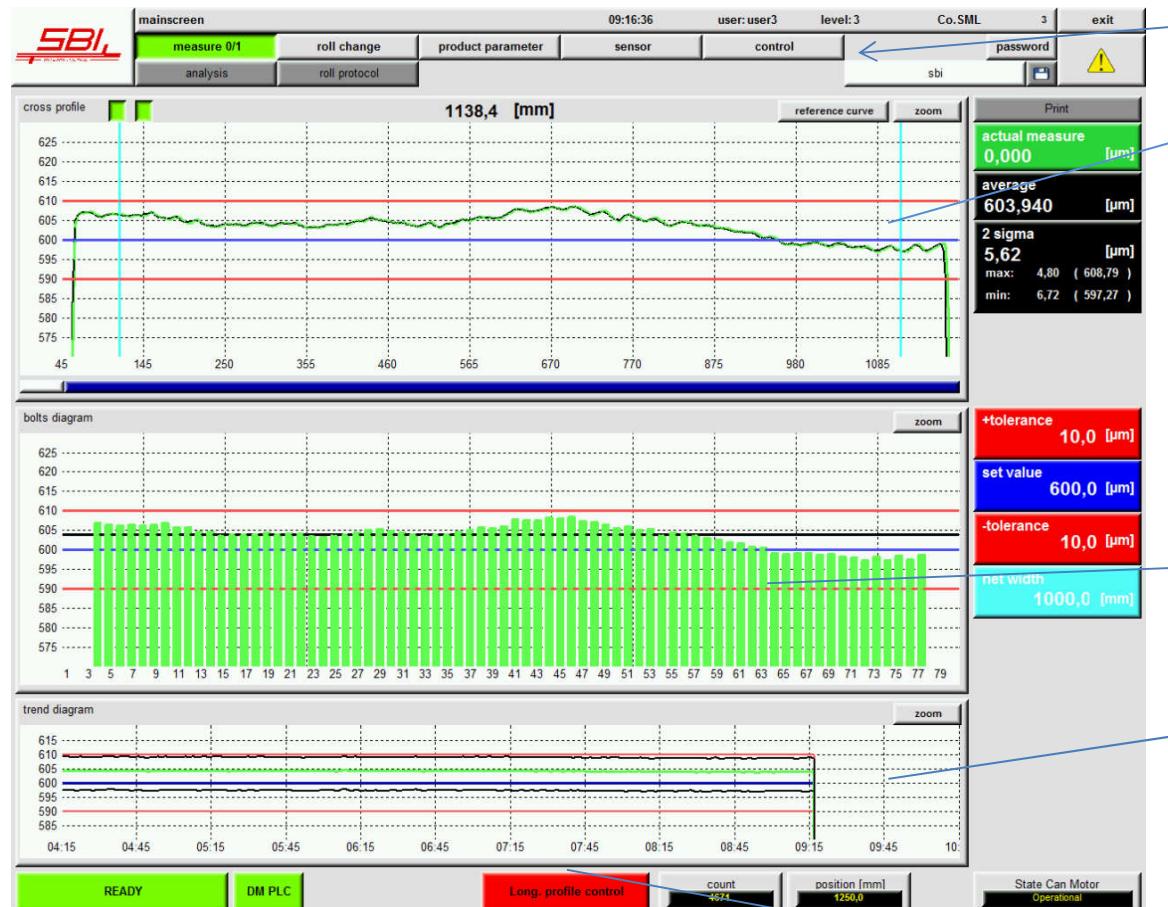


Capacitive/Eddy Current Gauging System **KAPA**



Thickness gauges > inlet – outlet angle

Thickness gauges for film and sheet extrusion



Links to other pages

Thickness over width

Green: actual
Black: average last 5 scans
Grey: frozen reference
Blue: target thickness
Red: set tolerances
Light blue: position of edge trimming

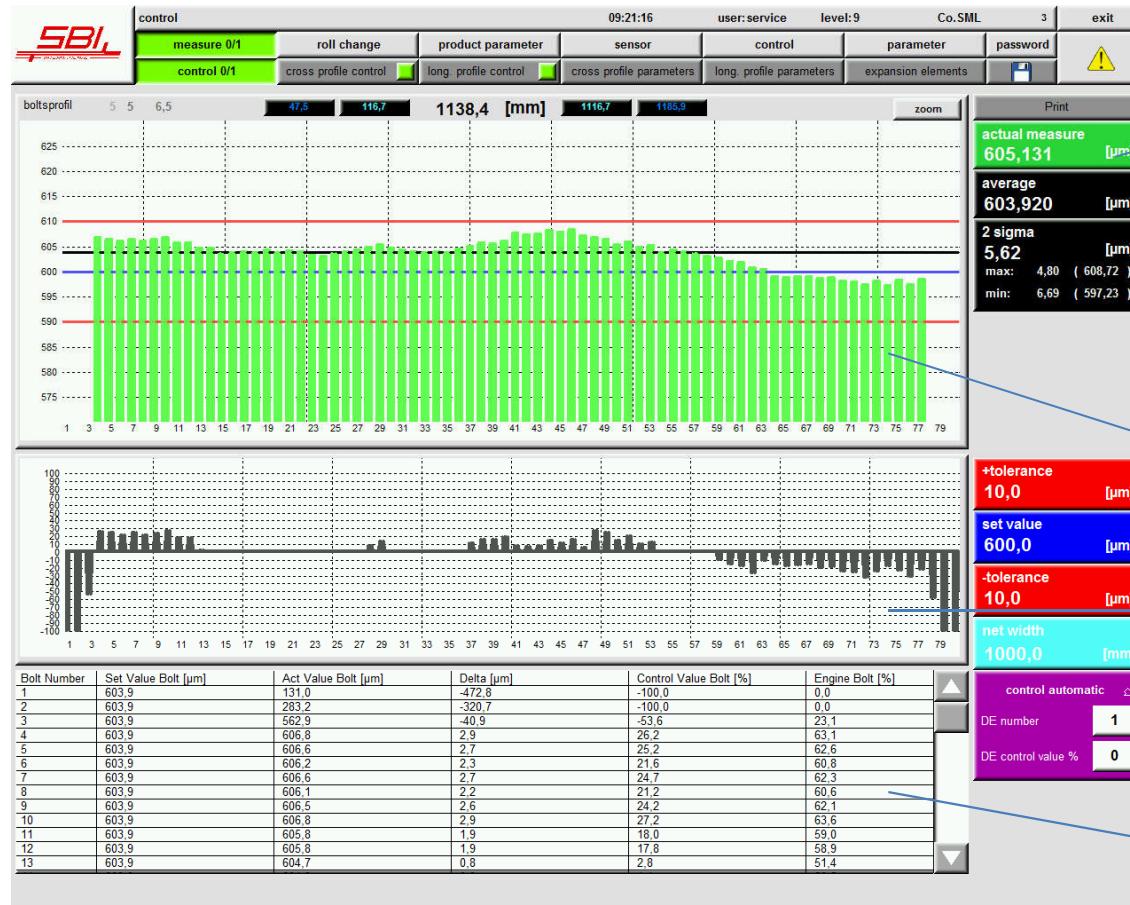
Thickness over die-bolt number

Average
Maximum
Minimum
tolerances

Length profile control on/off

Thickness gauges Mainscreen (monitoring only)

Thickness gauges for film and sheet extrusion



Links to other pages

Numeric:

Green: actual
 Black: average last 5 scans
 Blue: target thickness
 Red: set tolerances
 Light blue: position of edge trimming

Thickness over die-bolt number

Controlling variable over bolt number

+100: heating of thermal bolts 100%
 -100: heating of thermal bolts 0%

Control details per bolts

Different target thickness per bolt set-able (uneven set profile)

IR Multilayer Gauging System

Still under development



Application range:

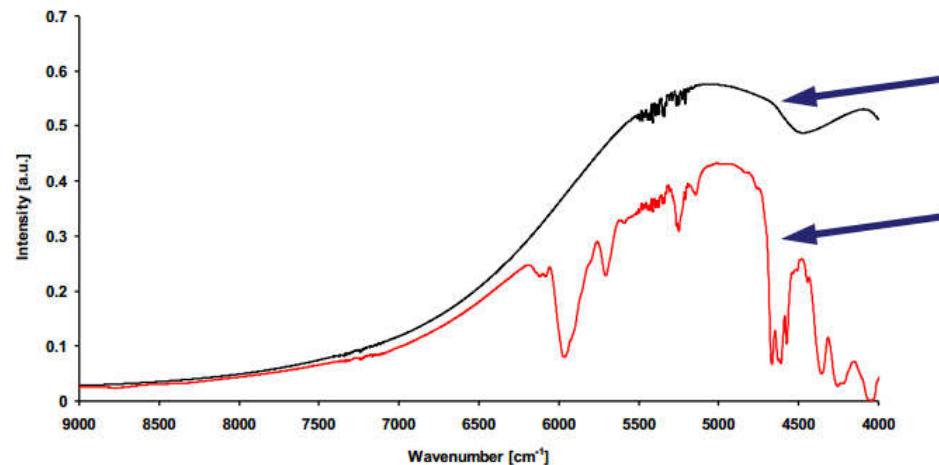
- Film / flex. sheets
- Thickness up to 1500 micron
- Measuring width 0,5 – 3m



IR Multilayer Gauging System

Still under development

Absorption of IR light with different wavelength



Next steps

- Multivariate data analysis
For user-friendly operation
- Performance of IR source
For thicker and dark coloured sheet

IR Multilayer Gauging System



Thickness gauges > EVOH Layer gauging

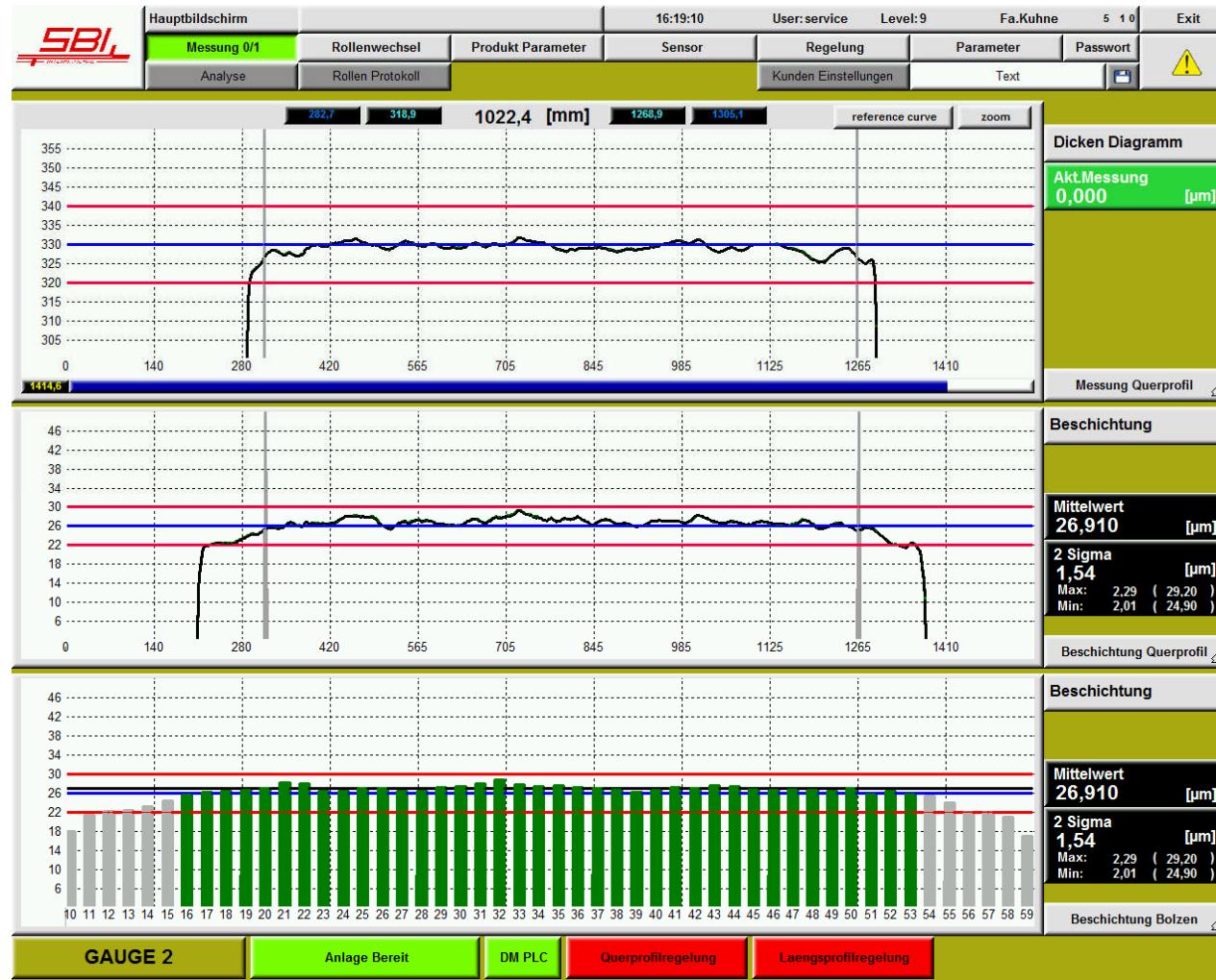
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Thickness gauges for film and sheet extrusion



Thickness gauges Mainscreen (monitoring only)

Thickness gauges for film and sheet extrusion



Thickness gauges > extrusion coating

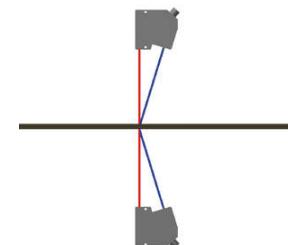
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Laser Displacement sensors

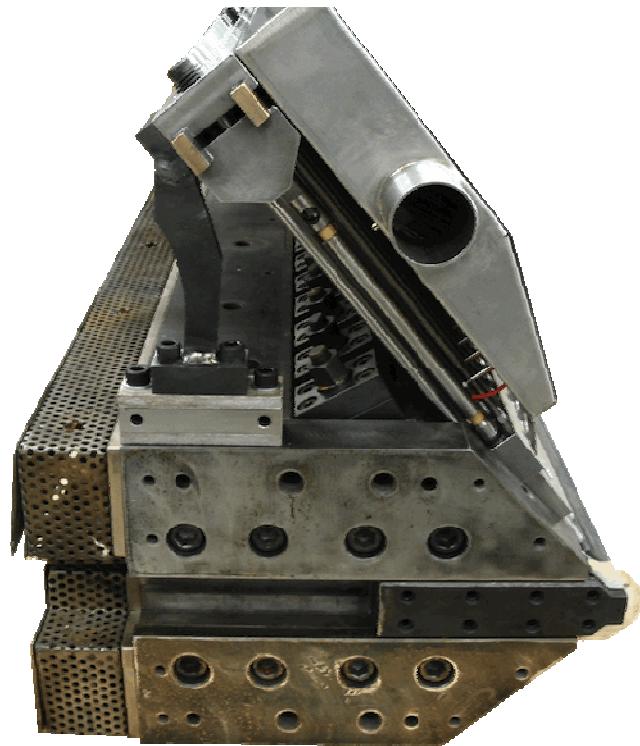


Application range:

- Sheets
- 0,5 - 40 mm thickness range
- Measuring width 0,5 – 3m

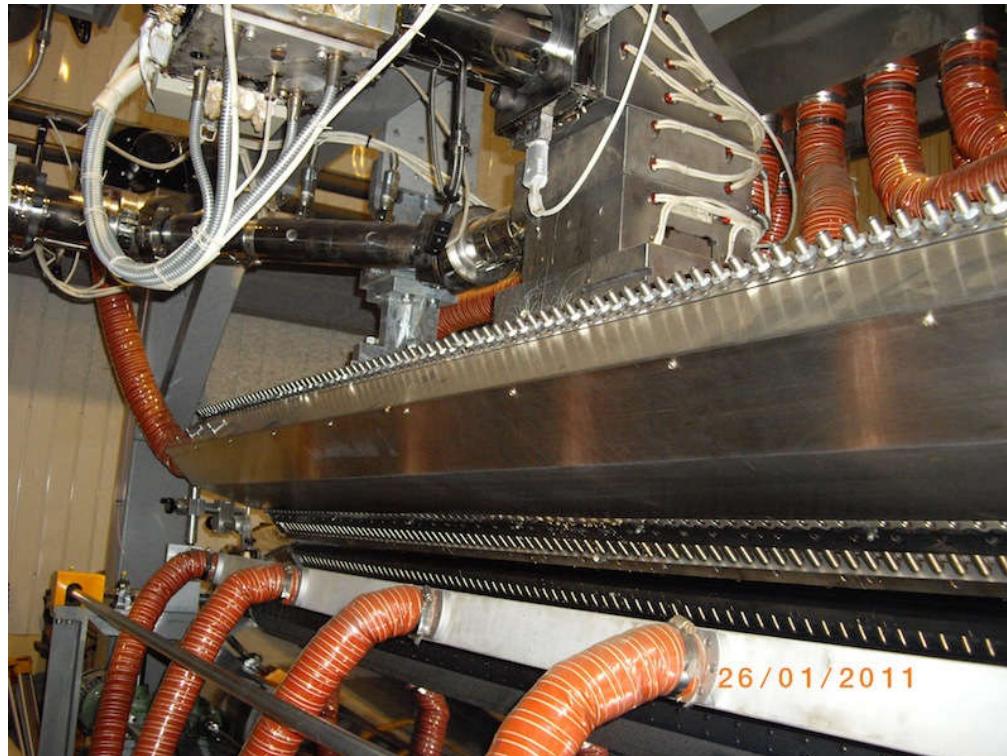


SBI system: FRAD



Retrofitted extrusion-die
Existing extrusion-die retrofitted
with FRAD

SBI system „Thermal Bolts“



SBI thermal bolts on
extrusion-die for cast film

Die manufacturer
GMA

SBI components enhance quality in sheet extrusion



SBI has trust by all major extrusion-line manufacturers in Europe

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