Japan Quality Company

YAMABUN®

Contact Type

Film-Sheet
Automatic Thickness Gauge

TOF-4R	TOF-5R	TOF-6R
(For sheets)	(For films)	(For thin films)

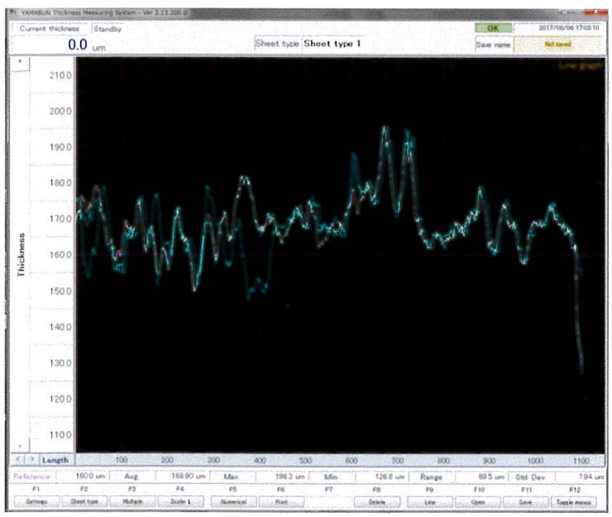
Easy! Measure the thickness automatically just by connecting to the PC.

Speedy! Max. speed of approx. 8 seconds per meter by automatic feed mechanism.

Compact! Measurement unit width is approx. 200 mm.

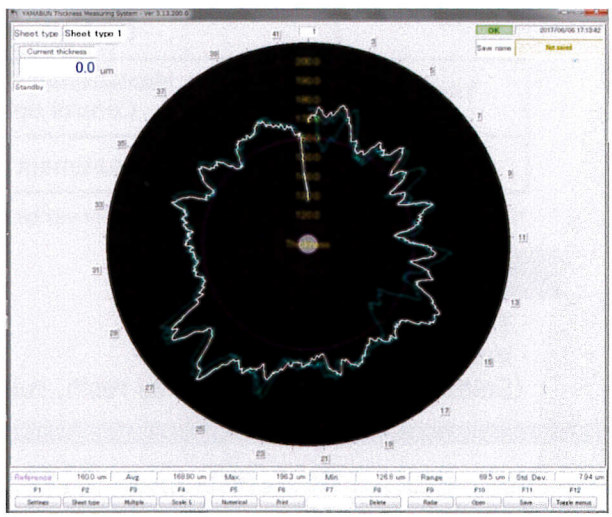
Display screen images

■ Measurement screen



Measurement data is displayed in real time. In addition, it has many functions such as comparing the measurement data of our online thickness gauge on the same screen, noise removal, bolt display, and thickness standard value setting.

■ Cobweb chart screen



Cobweb chart screen is very popular at the production site for blown film.

Specifications

1) Measurement Technical Specifications

Applications	TOF-4R/5R:Plastic Sheets, Films, Papers etc. TOF-6R:Thin, high precision films such as optical films
Measurement range	TOF-4R:30～3,000 μm TOF-5R:20～200 μm TOF-6R:5～100 μm *The measurement range depends on the object. Please contact us.
Measurement length	10～10,000 mm
Measurement pitch	TOF-4R:1 mm TOF-5R/6R:0.1 mm
Feed speed	TOF-4R :Approx. 17 s/m TOF-5R:Approx. 8 s/m TOF-6R: Approx. 47 s/m

Measurement accuracy

Type	Resolution	Accuracy (at 20℃)	Measuring force	Repeatability
TOF-4R	0.5 μm	±1.5 μm	0.6±0.1 N	0.5 μm
TOF-5R	0.1 μm	±(0.8+0.1) μm	0.3±0.01 N	0.2 μm
TOF-6R	0.01 μm	±0.2 μm	0.19 N(0.12 N)	0.03 μm

*The indication accuracy is for the sensor alone.
*As for the synthetic precision, the error of the machine part and the quantization error of the digital change part are added to the above value.
*Repeatability: Value obtained by repeating the sensor up and down.

2) Range of supply

①TOF-4R/5R:Measurement unit・Control unit
TOF-6R:Measurement unit (Built-in power supply)
②Communication cable, Power cable
③Special software (including protection key for Windows)
※The personal computer for operation and a gauge block is not attached.

3) Common Technical Specifications

Power supply	AC100～240 V 50/60 Hz
Ambient environment	Humidity:35～80% (No condensation) Temperature:5～40℃ (TOF-4R/5R) , 10～40℃ (TOF-6R) No dust, corrosive gas, and vibration.
Power consumption	50 VA (Excluding PC)

Dimension・Weight

Type	Dimension (mm)	Weight (kg)
TOF-4R	Measurement unit:W225×D390×H360 Control unit:W100×D210×H105	Approx.18 kg
TOF-5R	Measurement unit:W200×D325×H325 Control unit:W100×D210×H105	Approx.20 kg
TOF-6R	Measurement unit:W270×D385×H355	Approx.35 kg

*Dimensions and specifications of the equipment will be changed without notice.

4) Options

・The personal computer
・Various contact chips
(Select a contact chip such as resin, ruby, diamond, etc. according to the measurement object)

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