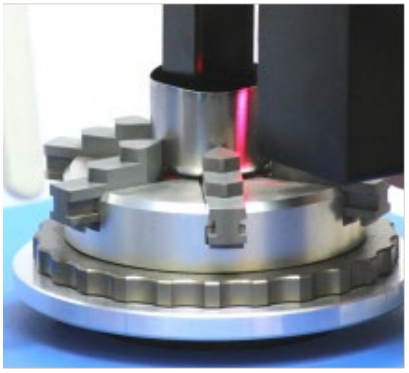
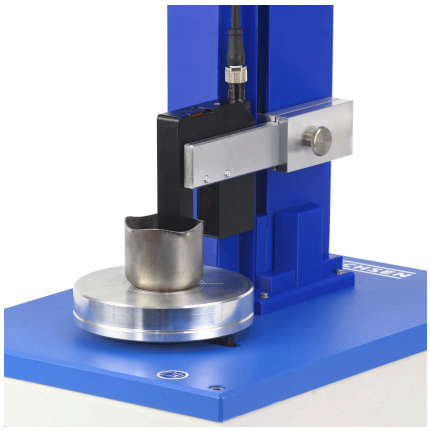


Ear Measuring Instrument 126 Plus-Optic

Ear Measuring Instrument 126 Plus

126 Plus-Optic for contactless ear measuring



Model 126 Plus

Model 126 Plus-Optic

testing equipment for quality management

ERICHSEN
since 1910

Technical Description

Test Evaluation according to DIN EN 1669 and ISO 11531

Measuring Instrument for Deep-Drawn Cups and Raw Cans

Purpose and Application

The **Ear Measuring Instruments, Model 126 Plus and Model 126 Plus-Optic,** are designed for the axial measurement of deep-drawn cups and raw cans.
Typical standards are DIN EN 1669 and ISO 11531.

Design

The **Ear Measuring Instrument, Model 126 Plus,** consists of a turntable and a vertical gauge head with a roller. By a jaw chuck, the cup is centered and fixed. The gauge head can be positioned to different cups heights and diameters.
Once the measurement process has started, the test roller, activated pneumatically, lowers onto the sample and the turntable rotates once. During this rotation, the measuring head records the shape of the cup's edge, known as the earring.

The **Ear Measuring Instrument, Model 126 Plus-Optic**, uses an optical sensor as the measuring unit instead of the length measuring probe, which enables non-contact measurement of ultra-thin aluminum.. The chuck is not required with this option. The cup is magnetically attached to a rotary table. When the measurement starts, the optical sensor automatically moves to the measuring position and detects the earring of the cup during the turnable rotation.

Measurement process

The operator starts the measurement process by PC or directly at the device. The measuring unit lowers towards the sample and detects the edge of the cup during one rotation of the rotary table. After the measurement has been completed, the measuring unit returns to its home position, allowing the sample to be changed quickly.

The operator reads the measured values from the screen and can archive them as a file. Output formats are .pdf, .txt and .csv. The .txt and .csv files can be imported into MS Excel. The measurement protocol will show the following results (among others):

- He_(mm)= Average Earing height
- He,max(mm)= Maximum Earing height
- H_(mm)= Average Cup height
- Z(%)=Average Earing %
- Number of earings
- Date, lot, operator…

Sheet metal anisotropy and deep drawing parameters will result in different earring values.
The detailed determination of parameters discloses tool wear and the quality of the deep-drawing material used. Due to its flexible concept this instrument is also applicable for all similar tasks.

Operation software is included.
A PC is to be supplied by the customer.

Technical Data		
Model	**126 Plus**	**126 Plus-Optic**
Cup diameter:	15-44 mm (other diameter on request)	25-120 mm (other diameter on request)
Cup height:	12-150 mm	15-150 mm
Sample fixation	Jaw chucks	magnetically
Measurement values per revolution:	>5000	~1500
Sensing device:	M2.5 roller	optically
Measurement force:	approx 2.5 N at stroke center	-
Measurement stroke:	50 mm	25 mm
Sensor resolution:	0.0005 mm	0.014 mm
Sensor accuracy:	0.0035 mm	
Subpixel accuracy:	-	0.007 mm
Accuracy of measuring device	±0.02 mm	±0.04 mm
Time per measurement process:	approx. 18 s	approx. 18 s
Test start:	via PC or device	
Results display:	PC screen	
Power supply:	110-240 V AC 50/60 Hz	
Electrical power:	60 VA	
Compressed air	Plug 6x1 mm, 2-6 bar dry, degreased	-
Data connection:	USB	
Housing:	Steel, powder coated	
IP code:	IP20	
Permissible ambient temperature:	10 - 40 °C	
Dimensions:	350 x 250 mm, height max. 550 mm	
Weight:	approx. 12 kg	
Required:	PC, min. WIN 10	
	compressor or compressed air connection	

Order information	
Ord.-No.	**Product Description**
21230131	**Ear Measuring Instrument, Model 126 Plus**
33970131	**Ear Measuring Instrument, Model 126 Plus-Optic**

Technical modifications
reserved. TBE 126 Plus - III/2025

CERTIFIED ISO 9001

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