



# Features

- high degree of repeatability and calibration duration compared to other measurement devices like AFM, Dektak or Tullystep
- no need for any prefixed information about the layer like refractive index and absorption coefficient of layer
- works in both light filled and vibrant mediums thanks to its ultra-fast shutter time image acquisition device
- Flexible and size adjustable holder for different shapes of substrates



## Comparison of Thickness

measured by different instruments

Thickness Measured by coating equipment	Profilometer	AFM	Diffractionmeter	FDP-D1
100	80	60	68	66
200	200	----	206	208
300	340	320	335	328
400	366	---	372	380



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# THIN FILM THICKNESS MEASUREMENT DEVICES

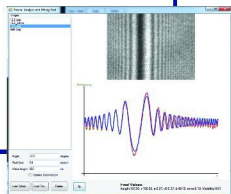
FDP-D1 of Electron Vacuum Technologies Co. is a thickness measurement device for nanometric layers that uses the principles of optical diffractometry of phase step for measurement. The idea of measuring thickness by this method was first proposed by Professor Dr. M. T. Tavassoly of University of Tehran in 2007 and more than 10 students in MSc. and PhD of physics have done their dissertation on this subject and more than 11 international papers are also published on this subject.

This Device is capable of measuring thickness of metallic nanometric layers by precision that has never achieved before by other techniques suitable for metallic thickness measurement like interferometry.



## Specifications

- Measurement range is from 20 nm to 2  $\mu\text{m}$
- Measurement precision less than 5%
- Angel rotation resolution 48 arc second



### System component:

- Laser radiation source with adjustable power (max output power 5 mw cw )
- Double rotation goniometer for sample and CCD rotation (max rotation resolution 48 Arc second)
- Beam collimator with max beam divergent angel of  $10^{-7}$  rad
- Astronomical ultra linear CCD camera with 5.7  $\mu\text{m}$  pixel size
- Controlling and Analysis software

