



欢迎微信咨询



微信公众号:星庆聊光学

XQ25-GI 250mm大口径立式激光平面干涉仪

XQ25-GI 250mm Vertical Laser Plane Interferometer



继承并发扬XQ15-GIII激光平面干涉仪的实用性和耐用性优势，该仪器能够更广泛地适用于大批量生产单位的生产车间，进行大口径平面及棱镜平面度检测、高精度平行度（角度）测量，还特别适合大平板生产流水线中的快速筛选应用。

Inheriting and Advancing the Practicality and Durability of the XQ15-GIII Laser Plane Interferometer, this Instrument finds Broader Application in Production Workshops of Mass Production Units. It is Utilized for the Detection of Flatness in Large-Aperture Planes and Prism Surfaces, High-Precision Parallelism (Angle) Measurement, and is Especially Suited for Rapid Screening Applications in Large Plate Production Lines.

XQ34-GIII

340mm 大口径卧式激光平面干涉仪

XQ34-GIII 340mm Large Aperture Horizontal Laser Plane Interferometer



该型号仪器采用卧式干涉检测方案，有效解决了大口径高精度平面最终检测的难题。设备采用单通道设计，不仅显著降低了制造成本，还最大限度地提升了设备性能。此设备能够满足高精度测量的需求，并具备多种扩展功能。用户可选配移相分析系统或调谐激光器，以确保高可靠性和重复性的高精度测量。此外，通过选配偏振动态相机及专用光机系统，该设备在进行大口径干涉仪的高精度测量时可提供卓越的防震性能。设备结构设计经济合理，在保证测量精度的同时有效控制了制造成本，为生产厂家提供了非接触测量的可行解决方案。

规格及参数 Technical Data

产品型号 Model	XQ60-GI	XQ34-GI
通光口径 Clear Aperture	600mm	340mm
主结构 Interferometer Configuration	菲索干涉原理	
光源方式 Light Source	稳频氦激光(可选配可调谐激光器)	
相机有效像素 Camera Effective Pixels	优于1280x1024, 可选更高像素(可选配偏振动态相机及相应光机配置)	
光学中心高 Optical Center Height	415mm	305mm
标准面指标 Transmission Specifications	熔石英 PV: 优于λ/10	
测试方式 Test Method	标配干涉条纹分析软件，实现数字化测量。	
Pv重复性 PV Repeatability	<0.01λ	
RMS重复性 RMS Repeatability	<0.002λ	
电源 Power Supply	AC100-240V 50/60Hz	
推荐气浮平台尺寸 Air Floating Platform Size	6.0*2.0米	3.0*1.5米

技术参数 Technical Parameters

第一标准平面(A面) Transmission Flat (A)	工作直径D=Φ250mm，平面的面形偏差小于0.045μm(λ/15) Working dia. D=Φ250mm, PV<0.045μm(λ/15)
第二标准平面(B面) Reference Flat (B)	工作直径D=Φ250mm，平面的面形偏差小于0.045μm(λ/15) Working dia. D=Φ250mm, PV<0.045μm(λ/15)
准直系统 Optical Collimation System	工作直径Φ250mm，焦距 f = 590mm，波象差<λ/10 Working dia. D=Φ250mm, focal length f=590mm,wavefront aberration<λ/10
工作室尺寸 Working Space Size	550×400×300mm
光源规格 Light source	激光ZN260 (He-Ne) (632.8nm) Laser ZN260 (He-Ne) (632.8nm)
仪器的外形尺寸 Instrument Size	590×450×1150mm(H)
仪器质量 Instrument Weight	200kg

XQ15-GI 通用型激光平面干涉仪

XQ15-G I General Laser Plane Interferometer



用途
Purpose

该仪器适用于工厂计量室、光学车间及科研院所实验室等场所，能够执行多种精密测量任务。具体应用涵盖：光学平面的平面度测量、光学平板的高精度角度测量、光学材料的均匀性评估以及光学薄板的波前误差检测。



特点
Feature

该仪器具备卓越的防震性能，具有极高的条纹锁定精度，视场清晰度优异。其生产环境适应性优于市场同类产品，大容量工作室为大批量生产企业的大镜面检测提供了极大的便利。

Application: This instrument is ideally suited for use in factory metrology laboratories, optical workshops, and research laboratory environments, where it performs precise measurement tasks. Applications encompass the evaluation of flatness in optical planes, high-precision angular measurements of optical components, assessment of homogeneity in optical materials, and detection of wavefront errors in thin optical plates.

Features: This instrument boasts superior shock resistance, exceptional fringe locking precision, and outstanding field of view clarity. Its adaptability to production environments surpasses that of similar products available on the market. The high-capacity working chamber facilitates efficient large mirror detection for mass production enterprises.

技术参数 Technical Parameters

第一标准平面(A面) Transmission Flat (A)	直径D1=Φ146mm, 平面的面形偏差 (PV)小于0.03μm(λ/20) working dia. D=Φ 146mm, PV<0.03μm(λ/20, @632.8nm)
第二标准平面(B面) Reference Flat (B)	直径D2=Φ140mm, 平面的面形偏差 (PV)小于0.03μm(λ/20) working dia. D=Φ140mm, PV<0.03μm(λ/20, @632.8nm)
准直系统 Optical Collimation System	工作直径Φ146mm, 焦距f=400mm working dia. D=Φ146mm, focal length f=400mm
光源规格 Light Source	激光ZN260(He-Ne) / 稳频半导体激光器 Laser ZN260(He-Ne)
干涉室尺寸 Working Space Size	Φ300x180mm

XQ15-GIII 实用型激光平面干涉仪

XQ15-GIII Practical Laser Plane Interferometer



特点: 在保留XQ15-G I激光平面干涉仪原有用途及特点的基础上，进一步提升其实用性和适用范围。该仪器不仅适用于大批量生产单位的生产车间和平面度、高精度平行度（角度）测量，还特别适合大平板生产流水线中的快速筛选应用。

Feature: On the Basis of Retaining the Original Functionalities and Characteristics of the XQ15-GI Laser Plane Interferometer, its Practicality and Application Scope have been Significantly Enhanced. This Instrument is Suitable Not Only for Production Workshops in Mass Production Units and for Measuring Flatness and High-Precision Parallelism (Angles), but Also Particularly for Rapid Screening Applications on Production Lines of Large-Scale Flat Surfaces.

技术参数 Technical Parameters

第一标准平面(A面) Transmission Flat (A)	直径D1=Φ146mm, 平面的面形偏差 (PV)小于0.03μm(λ/20) working dia. D=Φ 146mm, PV<0.03μm(λ/20@632.8nm)
第二标准平面(B面) Reference Flat (B)	工作直径D=Φ140mm, 平面的面形偏差小于0.03μm(λ/20) working dia. D=Φ 140mm, PV<0.03μm(λ/20@632.8nm)
准直系统 Optical Collimation System	工作直径Φ146mm, 焦距f=400mm working dia. D=Φ146mm, focal length f=400mm
光源规格 Light Source	激光ZN260(He-Ne) Laser ZN260(He-Ne)
最大适用尺寸 Working Space Size	Φ500x250mm