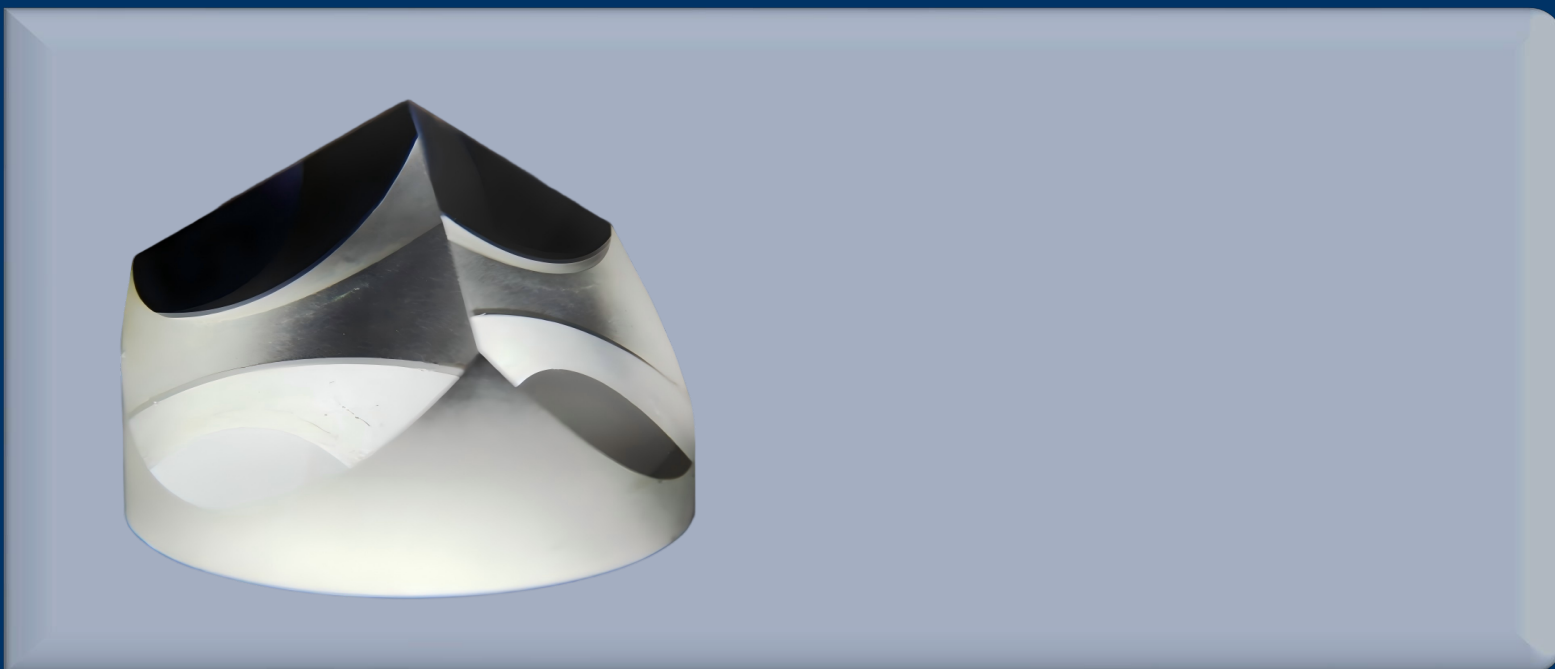


Optical Prisms

Corner Cube Prism

Precision retroreflector for alignment-free parallel light reflection.

- Alignment Insensitivity
- High Beam Parallelism
- Wide Acceptance Angle
- TIR or Coated Options



One Platform Many Possibilities

Contact Us sales@venuslabtech.com

Get a Quote



Get Expert Advice
+658099 5547 (WhatsApp)



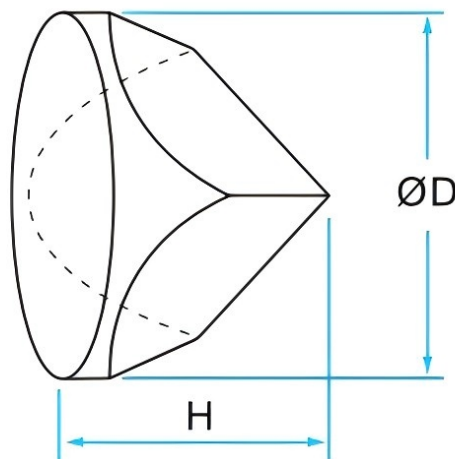
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Overview

Automatic Return: Alignment-Insensitive 180° Reflection

Corner Cube Prisms, also known as Retroreflectors, feature three mutually perpendicular reflecting surfaces similar to the corner of a cube. This unique geometry ensures that **regardless of the angle of incidence** (within the clear aperture), the exiting beam is reflected back exactly parallel to the source. This **insensitivity to angular misalignment** solves the strict alignment challenges associated with flat mirrors. Even if the mounting platform tilts, moves, or vibrates, the Corner Cube maintains a stable return signal. This makes them indispensable components in Laser Ranging (LIDAR), surveying targets, FTIR spectrometers, and long-distance interferometry systems where precision and stability are paramount.

Structural Diagram:



Qualification

Technical Specifications

Parameter	Specification
Material	K9 (N-BK7 Equivalent)
Beam Deviation	< 5 arc sec (Standard)
Surface Flatness	/4 @ 632.8 nm
Surface Quality	40-20 Scratch-Dig
Clear Aperture	> 85% of Diameter
Reflection	Total Internal Reflection (TIR)
Coating	Uncoated (Standard) or Metal Coated (Back)
Bevel	0.25 mm x 45°
Diameter Tolerance	+0.0 / -0.1 mm
Height Tolerance	± 0.1 mm

Selection Chart

Standard Specifications

Item No.	H(mm)	Surface Flatness	Beam Deviation	Material
VLCC10	8.6	/4 @ 632.8nm	< 5 arc sec	K9 (N-BK7)
VLCC15	11.4	/4 @ 632.8nm	< 5 arc sec	K9 (N-BK7)
VLCC20	15.6	/4 @ 632.8nm	< 5 arc sec	K9 (N-BK7)
VLCC25	19	/4 @ 632.8nm	< 5 arc sec	K9 (N-BK7)
VLCC30	22.7	/4 @ 632.8nm	< 5 arc sec	K9 (N-BK7)
VLCC50	36.5	/4 @ 632.8nm	< 5 arc sec	K9 (N-BK7)

Service & Support

We are dedicated to delivering exceptional optoelectronic solutions to every client. From precision manufacturing and secure delivery to full-lifecycle technical support, we are here to ensure a seamless and reliable experience at every step.

1. Warranty Policy

Quality First, Worry-Free Operation

Warranty Period: We offer a **two-year** warranty service for all of our core optoelectronic products, effective from the date of shipment.

Coverage: We provide free repair or replacement services for malfunctions caused by material defects or workmanship errors under normal operating conditions.

Rapid Response: Upon receiving a warranty claim, we guarantee to initiate the assessment process within **24 hours** to minimize your equipment downtime.

2. Technical Support

Expert Team, Full-Process Guidance

Technical Consultation: Our team of senior optical engineers provides **24/7 online support** to assist with installation, commissioning, optical path alignment, and parameter optimization.

Scheduled Maintenance: We offer full-lifecycle maintenance recommendations, including firmware upgrades, optical component cleaning guidelines, and precision calibration services.

Training Services: We provide customized remote or on-site operational and safety training to ensure your team can operate the equipment efficiently and safely.

3. Logistics & Delivery

Precision Packaging, Global Reach

Professional Packaging: Given the fragile nature of optical instruments, we utilize industrial-grade shockproof, anti-static, and moisture-proof vacuum packaging to ensure zero damage during transit.

Logistics Partners: We partner with top-tier global logistics providers (**DHL / FedEx / UPS / SF Express**) to offer reliable shipping with real-time tracking.

Shipping Insurance: All shipments are fully insured to eliminate logistics risks.

4. Compliance & Certification


Strict Standards, Total Compliance

Quality Certification: Our manufacturing process is **ISO 9001 certified**, and our products comply with international standards such as **CE** and **RoHS**.

Export Compliance: "Committed to environmental responsibility, all our products comply with **RoHS 2.0** and **REACH** standards, ensuring safety and global compliance."

Explore Series

Model	Surface Flatness	H(mm)	Material	Beam Deviation
VLCC10	/4 @ 632.8nm	8.6	K9 (N-BK7)	< 5 arc sec
VLCC15	/4 @ 632.8nm	11.4	K9 (N-BK7)	< 5 arc sec
VLCC20	/4 @ 632.8nm	15.6	K9 (N-BK7)	< 5 arc sec
VLCC25	/4 @ 632.8nm	19	K9 (N-BK7)	< 5 arc sec
VLCC30	/4 @ 632.8nm	22.7	K9 (N-BK7)	< 5 arc sec
VLCC50	/4 @ 632.8nm	36.5	K9 (N-BK7)	< 5 arc sec

 Get in touch with our team to explore configurations, request a quote, or learn more about customized solutions tailored to your needs.

Let us help you move science forward—faster and smarter.

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