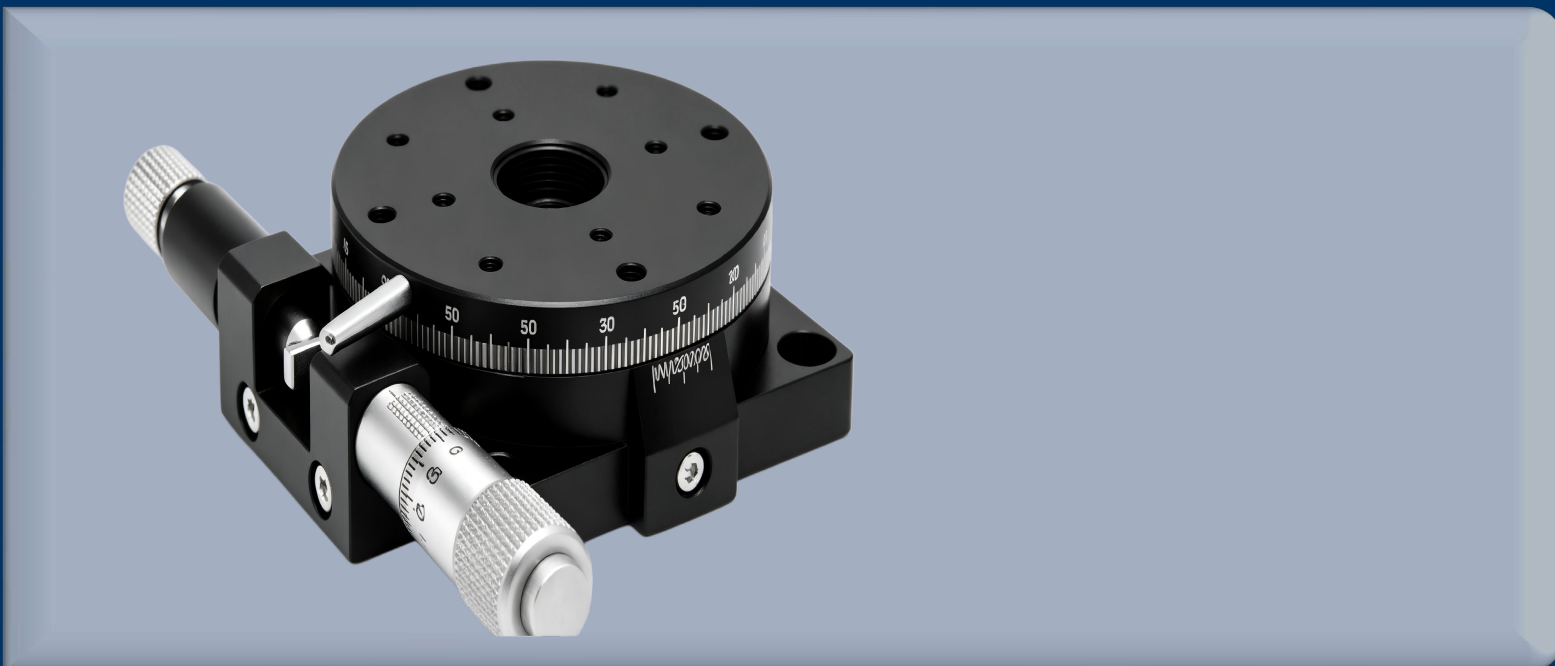


Manual Rotation Stage

VL-Manual Rotary Stage

Universal rotation positioning solution

- Precision Worm Gear: High-precision lapped pairing, high-res angular fine-tuning, self-locking & no backsliding.
- Versatile Lineup: Full size range 40 – 160mm, including Lite direct-drive & industrial heavy-duty configurations.



One Platform Many Possibilities

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Overview

Precision in Every Degree

Venus Polaris™ Series: Ideal for angular positioning. High-rigidity black anodized aluminum body with precision-machined core drive components. Delivers smooth, jolt-free rotation and reliable long-term stability for polarimetric optical fine-tuning and rapid industrial inspection sample positioning.

Applications

- Polarization: Adjustment of the angles between polarizers and wave plates.
- Prism Alignment: Axial positioning of prisms and crystals.
- Sample Rotation: Full circumferential scanning of samples in microscopic imaging or detection.
- Mounting: Construction of multi-dimensional spatial filtering or beam deflection systems.

Technical Specifications

Table 1: Venus Polaris™ Precision Series

Description: High-precision manual rotary stages featuring a worm gear drive for 360° continuous rotation and fine adjustment. Ideal for polarizing optics and crystal alignment.

| VenusLab SKU | Product Name | Table Diameter | Drive Mechanism | Adjustment Range | Sensitivity / Resolution | Load Capacity | Key Features |
|---------------|---------------------------------|----------------|---------------------|--------------------|--------------------------|---------------|---|
| VL-MRS-40-P | Polaris™ Precision Rotary Stage | 40 mm | Precision Worm Gear | 360° Coarse / Fine | 1° / 5' (Vernier) | 2 kg | Compact size, High resolution |
| VL-MRS-60-P | Polaris™ Precision Rotary Stage | 60 mm | Precision Worm Gear | 360° Coarse / Fine | 1° / 5' (Vernier) | 5 kg | Lab Standard, Lockable |
| VL-MRS-60-P-H | Polaris™ Hollow Rotary Stage | 60 mm | Precision Worm Gear | 360° Coarse / Fine | 1° / 5' (Vernier) | 5 kg | Central Aperture for light transmission |
| VL-MRS-80-P | Polaris™ Precision Rotary Stage | 80 mm | Precision Worm Gear | 360° Coarse / Fine | 1° / 5' (Vernier) | 8 kg | Mid-size, High stability |
| VL-MRS-90-P | Polaris™ Precision Rotary Stage | 90 mm | Precision Worm Gear | 360° Coarse / Fine | 1° / 5' (Vernier) | 10 kg | Mid-size, High stability |
| VL-MRS-100-P | Polaris™ Precision Rotary Stage | 100 mm | Precision Worm Gear | 360° Coarse / Fine | 1° / 5' (Vernier) | 12 kg | Large platform, Precision control |
| VL-MRS-125-P | Polaris™ Precision Rotary Stage | 125 mm | Precision Worm Gear | 360° Coarse / Fine | 1° / 5' (Vernier) | 15 kg | Extra large platform, Precision control |

Table 2: Venus Polaris™ Lite Series (Compact)

Description: Slim-profile rotary stages with manual direct drive. Designed for rapid, coarse angular positioning in space-constrained setups.

| VenusLab SKU | Product Name | Table Diameter | Drive Mechanism | Adjustment Range | Resolution | Load Capacity | Key Features |
|--------------|----------------------------|----------------|---------------------|------------------|------------|---------------|------------------------------|
| VL-MRS-60-L | Polaris™ Lite Rotary Stage | 60 mm | Manual Direct Drive | 360° Coarse | 2° Scale | 2 kg | Ultra-Slim, Rapid Adjustment |
| VL-MRS-90-L | Polaris™ Lite Rotary Stage | 90 mm | Manual Direct Drive | 360° Coarse | 2° Scale | 3 kg | Ultra-Slim, Rapid Adjustment |
| VL-MRS-125-L | Polaris™ Lite Rotary Stage | 125 mm | Manual Direct Drive | 360° Coarse | 2° Scale | 5 kg | Ultra-Slim, Large Platform |

Table 3: Venus Polaris™ Standard Series (Heavy-Duty)

Description: Rugged, heavy-duty rotary stages with reinforced bearing systems. Designed to support heavy loads such as microscopes or large optical assemblies.

| VenusLab SKU | Product Name | Table Diameter | Drive Mechanism | Adjustment Range | Sensitivity / Resolution | Load Capacity | Key Features |
|--------------|----------------------------------|----------------|----------------------|--------------------|--------------------------|---------------|---------------------------------|
| VL-MRS-85-S | Polaris™ Heavy-Duty Rotary Stage | 85 mm | Reinforced Worm Gear | 360° Coarse / Fine | 1° / 5' (Vernier) | 15 kg | High Rigidity, Heavy Load |
| VL-MRS-100-S | Polaris™ Heavy-Duty Rotary Stage | 100 mm | Reinforced Worm Gear | 360° Coarse / Fine | 1° / 5' (Vernier) | 20 kg | Industrial Grade, Max Stability |
| VL-MRS-110-S | Polaris™ Heavy-Duty Rotary Stage | 110 mm | Reinforced Worm Gear | 360° Coarse / Fine | 1° / 5' (Vernier) | 25 kg | High Rigidity, Heavy Load |
| VL-MRS-160-S | Polaris™ Heavy-Duty Rotary Stage | 160 mm | Reinforced Worm Gear | 360° Coarse / Fine | 1° / 5' (Vernier) | 30 kg | Max Load Capacity, Large Format |

Table 4: Venus Ring™ & Dial Series (Mounts & Micrometer Stages)

Description: Specialized rotation mounts for filters/polarizers and high-precision rotary stages driven by micrometers.

| VenusLab SKU | Product Name | Specification | Drive Type | Application |
|--------------|-------------------------------------|-----------------|-----------------|---------------------------------|
| VL-RMT-56 | Venus Ring™ Rotation Mount | 56 mm (Outer) | Manual Dial | Holding Polarizers / Waveplates |
| VL-RMT-73 | Venus Ring™ Rotation Mount | 73 mm (Outer) | Manual Dial | Holding Polarizers / Waveplates |
| VL-RMT-82 | Venus Ring™ Rotation Mount | 82 mm (Outer) | Manual Dial | Holding Polarizers / Waveplates |
| VL-RMT-82-A | Venus Ring™ Rotation Mount (Type A) | 82 mm (Outer) | Manual Dial | Alternative Mounting Holes |
| VL-DRS-29 | Venus Dial™ Micrometer Rotary Stage | 29 mm Platform | Micrometer Head | High-Resolution Fine Tuning |
| VL-DRS-50 | Venus Dial™ Precision Stage | 50 mm Platform | Precision Scale | Direct Angle Reading |
| VL-DRS-100 | Venus Dial™ Micrometer Rotary Stage | 100 mm Platform | Micrometer Head | High-Resolution Fine Tuning |

Table 5: Accessories

Description: Essential mounting accessories for Venus Polaris™ series.

| VenusLab SKU | Product Name | Spec | Description |
|--------------|-------------------------|--------------|---|
| VL-ACC-BP-43 | Mounting Base Plate | 43mm spacing | For vertical mounting or base fixation. |
| VL-KTP-406 | Kinematic Tilt Platform | 40x40 mm | Prism table with tip/tilt adjustment. |

Table 6: Venus Manual Linear Stages Specifications

| VenusLab SKU | Product Name | Travel | Table Size | Load | Res./Drive |
|-----------------|-------------------------------------|--------|-------------------|-------------|-------------------------|
| VL-LGS-15-150-R | Venus Glide™ Long Travel Rail (150) | 150 mm | Standard Width | Medium Load | Rack & Pinion / Sliding |
| VL-LGS-15-300 | Venus Glide™ Long Travel Rail (300) | 300 mm | Standard Width | Medium Load | Rack & Pinion / Sliding |
| VL-MTS-100 | Venus Vega™ Manual Stage (100) | 100 mm | Standard Platform | High Load | Micrometer Head |
| VL-MTS-100-D | Venus Vega™ Digital Stage (100) | 100 mm | Standard Platform | High Load | Digital Micrometer |

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.

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

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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 | Graduation | Load Capacity | Self Weight |
|--------------|------------|---------------|-------------|
| VL-MRS-60-P | 1° | 5 kg | 0.2 kg |
| VL-MRS-60-L | 2° | 2 kg | 0.1 kg |
| VL-MRS-100-S | 1° | 20 kg | 1.1 kg |

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