
ROTARY WEDGE

SCANNER

Laser Mechanisms' Rotary Wedge Scanner head delivers fully programmable X-Y motion control for laser welding and drilling applications. A working envelope of more than 250 mm in diameter is possible – or choose a < 2 mm diameter envelope for ultra-fine trepanning inside the nozzle tip. The Rotary Wedge Scanner easily adapts to the shapes you need to produce.

The Rotary Wedge Scanner has the simplicity, flexibility and program control to allow easy integration to any laser process. Simpler and more easily programmed than a galvo-based system, the Rotary Wedge Scanner provides rugged beam steering for your laser process.

Placed above a welding lens, it can produce an array of spot welds and shaped seam welds. Carry the welding unit with a robot for remote-welding shapes. Install low angle wedges and place it above a drilling unit and the system can trepan precision round and shaped holes with less taper.



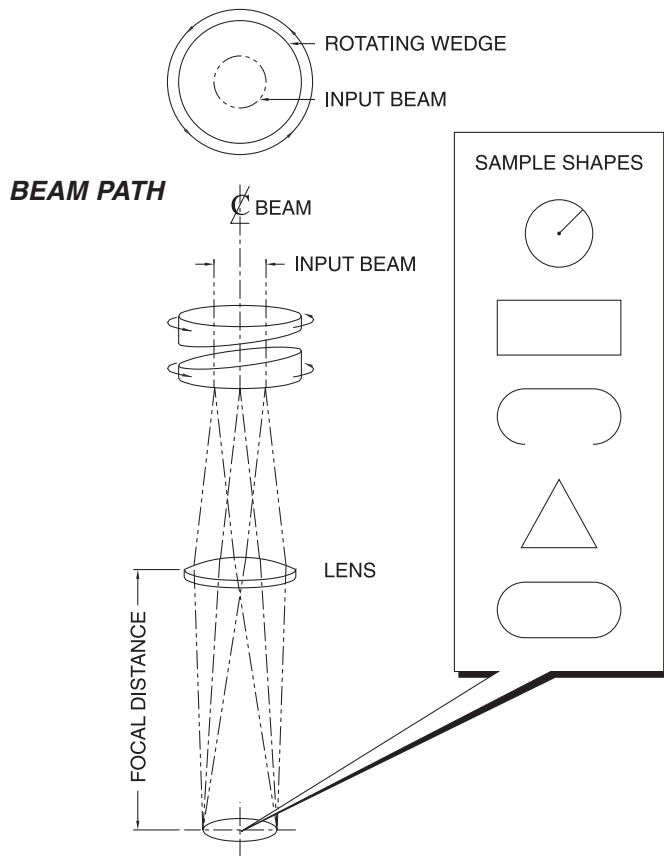
Rotary Wedge Scanner shown with optional handheld terminal

Features

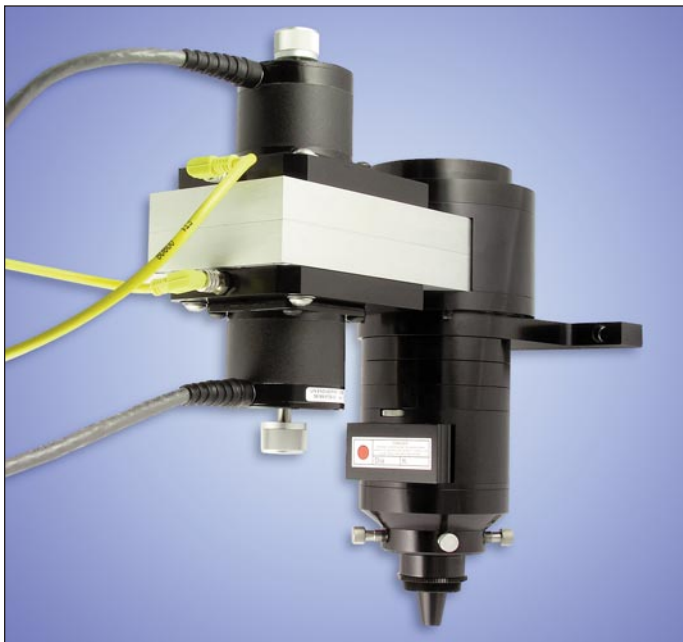
- Easily adapts to either CO₂, YAG or Fiber Lasers
- Remote welding
- Shaped hole drilling
- Marking components
- G-Code (XYIJ) shape programming
- Mates to a variety of processing heads
- Simple setup screens on optional handheld terminal control
- Analog and digital I/O (optional analog diameter control)
- Sealed beam path keeps optics debris free
- Engineered for the harsh factory floor environment

Specifications

Clear Aperture	48 mm
Diameter Of Travel (X-Y)	< 2 mm to over 250 mm
Speed	up to 30 revs/sec
Inputs/Outputs	8 digital 5-28V sinking or sourcing inputs, 8 digital 5-30V sourcing inputs, 12-bit A/D 0-5V inputs, RS-232, Ethernet for PC or CNC integration
Laser Power	up to 10 kW at ~1 μm, up to 4 kW at 10.6 μm
Weight	2.75 kg

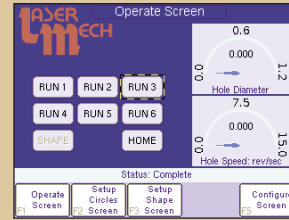


The Rotary Wedge Scanner is capable of producing a multitude of high-speed circles and shapes



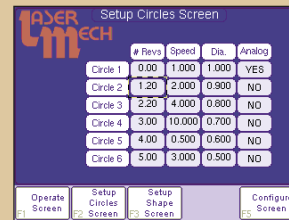
Rotary Wedge Scanner shown in standard trepanning configuration

OPTIONAL HANDHELD TERMINAL



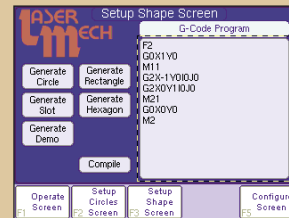
OPERATE SCREEN

- Quick activation of programmed circles, shape and homing
- Dial readout of hole diameter and speed
- Display of operating status



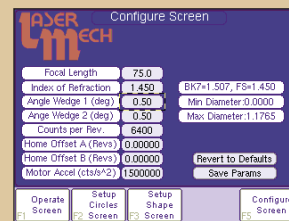
SETUP CIRCLES SCREEN

- Setup canned circles for activation via the Operate screen or via discrete I/O (setting the number of revolutions to zero will allow continuous rotation until I/O is turned off)



SETUP SHAPE SCREEN

- G-Code editor supporting: F, G0, G1, G2, G4, M-codes for I/O
- Absolute programming only



CONFIGURE SCREEN

- Configure controller for specific optical configuration
- Minimum and maximum circle diameters are calculated from specified parameters



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