

## 2-D LASER PATTERN PROJECTION SYSTEMS

representing precision  
products from Z-Laser



positioning lasers  
for industrial and technical  
applications of all types

wood • stone • solid surface  
metal • glass • textiles

# INCREASE PRECISION • ACCURACY SPEED • PRODUCTIVITY

for cnc machining and all types of positioning tasks

## Improve your bottom line at the speed of light.

Translate CAD data directly to your work surface

Reduce set-up time

Reduce scrap

Today's market challenges require streamlining of your work processes. Your customers are demanding more variety, with shorter production runs and reduced lead times. To be competitive you need to extract all unproductive activities from your manufacturing workflow and output goods in the most efficient and cost-effective manner.

The Carter CPS 2-D precision laser positioning system will help you deliver higher-quality products; on-time and on-budget. You'll get more parts and more production from the same number of man-hours. When your machinery is standing still, it can't make money for you. The Carter CPS system helps you keep your valuable machine tools moving.

- Position complex contour shapes
- Set part blanks and verify size
- Instantly place part holddown fixtures or pods
- Ready components for assembly
- Set up new jobs quickly
- Achieve repeatability every day and every shift.

By translating CAD data directly to your work surface - eliminating inefficient measuring, plotting and expensive templates - you'll work more efficiently.

Carter CPS lasers are ideal for use in CNC manufacturing to place fixtures and position material. They are also perfect where component positioning is critical for assembly or additional manufacturing processes.

Carter laser projectors easily translate your CAD drawings to full-size production guidelines visible on the table of your CNC machine, assembly area, or other surface. The benefits to your business will begin as soon as you program your first job.

### how does the CPS system assist in streamlining manufacturing?

Many plants still rely on time-consuming, manual measuring or plotting costly templates to prepare for production. This increases the opportunity for error and material waste.

The Carter CPS precision laser positioning system projects a beam of light directly from industry-standard DXF files. This allows easy positioning of fixtures the CNC router bed and precise placement of material. You can outline several parts on large blanks, align individual assembly components, precisely match features in stacked material for multi-layer machining, and accurately position barcode stickers and part labels.

### it's easy to project future savings

With the productivity gains realized using the CPS, many customers report that their laser investment is fully paid back in less than six months. Few products give you such a powerful competitive advantage, and faster return, than the Carter CPS 2-D precision laser positioning system.

The basic system control is a desktop computer with the projection software running on the Windows® operating system. You can purchase a computer with the system, or utilize an existing machine. The software can also be run directly on the PC-based controller of your CNC machining center or other equipment. The laser projection unit contains the rest of the components; the lasers, mirrors, galvanometers, power supply and motor-control computer. Typical mounting hardware, power and data cables are included.



**"The Carter laser projector is the biggest improvement in efficiency and material yield that we have ever implemented."**

### what types of files can we use?

The CPS system directly projects HPGL plotter language files and industry-standard DXF files produced by AutoCAD and similar programs. Optional filters are available to interpret a variety of G-code formats.

### how is the system adapted to my plant?

The straightforward installation process is built into the operation software. It will guide you through calibrating the projector for the real-world conditions of your workplace. Communication and data transmission is through standard Ethernet network protocols.

### what about other production circumstances?

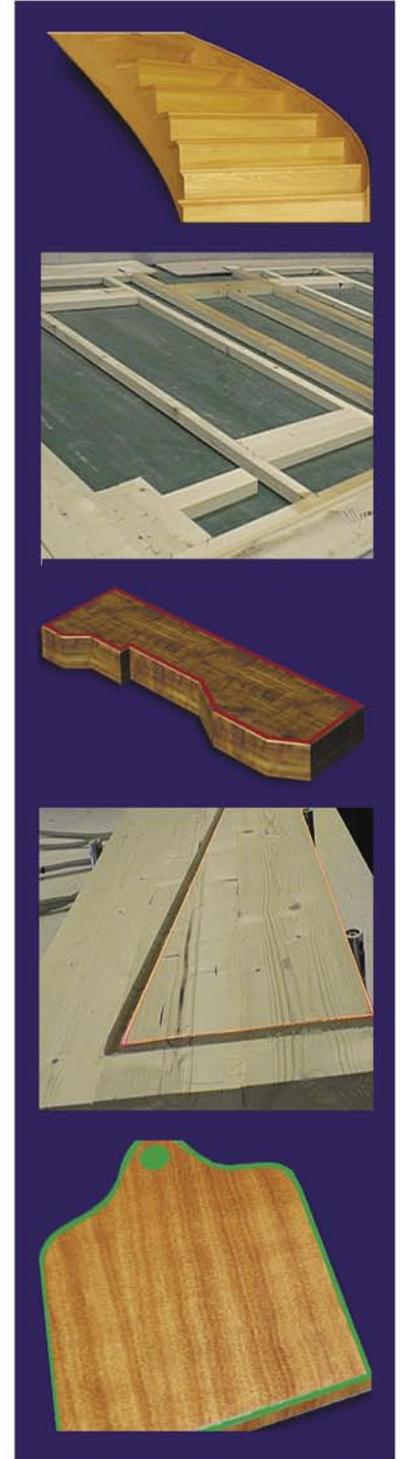
**Exceptionally Large Work Areas:** The basic CPS unit can effectively cover a work area of approximately 20'x 20'. The advanced system allows a single computer to control multiple projection heads operating in tandem to create very large patterns.

**Twin Table Router:** Identical patterns can be projected on both tables alternately.

### getting started

Call Carter Products today: 616-847.3380. Let's discuss how you can start making more money with the CPS 2-D precision laser positioning system.

- Woodworking
- Metalworking
- Stone
- Solid Surface
- Textiles
- Modular Housing
- Recreational Vehicles
- Concrete Fabrication
- Framing & Trusses
- Thermofoiling
- Glass
- Aerospace
- Boat Building



## 2-D LASER TECHNICAL SPECIFICATIONS

representing precision  
products from Z-Laser



	CPS RED	CPS GREEN
PROJECTION	Polygons	Polygons
PROJECTION ACCURACY	Typically +/- 1mm	Typically +/- 1mm
LASER OUTPUT POWER	15 mW	20 mW
WAVELENGTH	Red: 635	Green: 532
MAXIMUM SCAN ANGLES	80° x 80°	80° x 80°
DIMENSION IN MM	800 x 300 x 180	800 x 300 x 180
LASER CLASS	3A	3A
WORKING TEMPERATURE	0° to 40°C (Options 50° & 80°)	0° to 40°C (Options 50° & 80°)
STANDARD DATA FILES	HPGL   HPGL2   DXF	HPGL   HPGL2   DXF
INTERFACE	Ethernet	Ethernet
PROTECTION CLASS	1 - Grounded	1 - Grounded
PROTECTION	IP54	IP54



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