Optoblok

Optical Table Laser Guarding System - an NPL / Lasermet joint venture product

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Lasermet and NPL have produced this joint venture product, Optoblok, the latest safety equipment for use in optical laboratories.

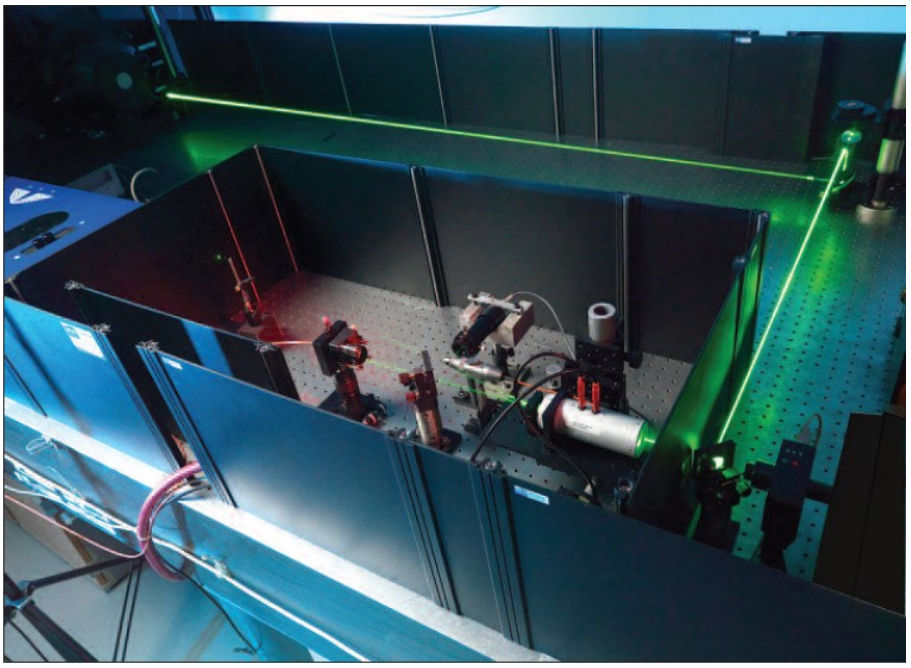
Optoblok, the Optical Table Laser Guarding System is designed specifically to reduce the risk of stray laser beams being inadvertently directed at personnel in the laser optics laboratory. This new modular system fits neatly on to optical tables to provide an 11.8 inches high wall. The system comprises certified laser blocking walled panels, posts (to screw into the table) and channel posts which are either straight or right angled to connect the wall panels together.

Modular design

The modular system is easily constructed by screwing the posts into the table, then slotting the straight or corner channel posts over the round posts and then simply placing the wall panels in position. Once the panels are inserted they can be secured by a retaining screw and washer on top of the post if required. Panel sections are available in optical table unit lengths of 2,3,4,5,8,12 and 16 thereby minimising and optimising the quantity required.

Metric and imperial tables accommodated

The system is compatible with both metric and imperial optical tables using metric or imperial screw threads and spacing, making this truly a worldwide compatible product covering both the US and European markets in one.



Optoblok's modular design enables areas of the table to be segregated

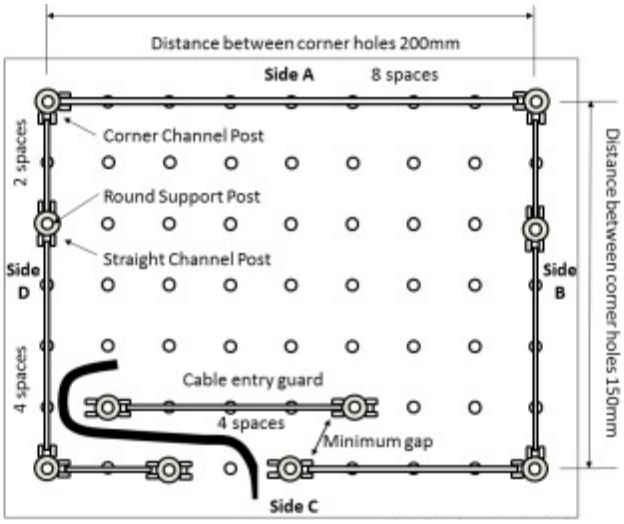
Optoblok enables cable entry using a labyrinth

Maintaining operator access

The 11.8 inches high wall around the perimeter of the table maximizes the opportunity for safe working while at the same time allowing virtually unlimited access to the table and its components. The opportunity for an engineers' hand or arm to accidentally interfere with the laser beam is reduced as it now takes a deliberate act to access the table.

Easy cable entry system with Optoblok designer software

One of the key benefits of Optoblok is that it provides a safe, adaptable, simple laser blocking walled system that enables cable entries to be made and then changed easily for the next set-up. It can easily handle, for example, large diameter control cables. These are easily provided for within the Optoblok system as there are three advised options to select from as recommended by the Optoblok designer aid software, which is freely available to potential customers to design and specify Optoblok to their requirements.



Example

This example shows the provision of a labyrinth system enabling a cable entry at the bottom of the diagram.

(sketch only - not to scale)

The three labyrinth options are for small, medium and large cable entry ways to be made using the minimum number of components. A labyrinth system is proposed in the designer program to provide the optimum (usually the minimum) number of components to enable the cabling to enter the table, thus maximising the curvature radius of the cables while minimising the entry gap to eliminate any line-of-sight route that could be used by a laser beam. This ensures there is no line of sight laser beam exit point up to a height of 300mm.

Simple-to-use parts list compiler

Lasermet's Optical Table Guarding Designer program is a parts list compiler that enables customers to specify the Optoblok system they require without compromising safety.

Simple to use, this program lists all the components for the containment including the facility to specify the number and size of access cable gateways while preventing line of sight corridors and therefore preventing the escape of laser light.
All you need to do is decide on the overall dimensions of the four sided Optoblok laser guarding system you require and then decide on the number and size of cable entry points you need for each wall.

The program will then display a list of the straight and right angled posts and the wall panels you need with their respective sizes.

The system carries the CE marking as shown here

Safety Specification

Optoblok conforms to EN 60825-4:2006.
Suitable for all laser wavelengths.

Irradiated Area	PEL (T3) 10 s	PEL (T2) 100 s
4 mm²	30 MW/m²	17 MW/m²
2000 mm²	1.4 MW/m²	0.8 MW/m²

Ordering information (parts/parts no.)

16 space panels	00764-03-016
12 space panels	00764-03-012
8 space panels	00764-03-008
5 space panels	00764-03-005
4 space panels	00764-03-004
3 space panels	00764-03-003
2 space panels	00764-03-002
Straight Channel Posts	00754-03-306
Corner Channel Posts	00755-03-306
Round Support Posts, M6	00756-03-305
Round Support Posts, UNC	00842-03-305

RT Technologies Inc.
2391 Briarleigh Way
Dunwoody, GA 30338

Telephone: *770-332-0092*
Fax: *770-332-0092*
Email: *contact@rtlasersafety.com*
Web: *www.rtlasersafety.com*

RT Technologies
World Class Laser Safety