

Large-area laser protection



Mobile laser, flexible workspaces, changing experiments and even just conventional service tasks pose a particular challenge when it comes to large-area laser protection.

With this in mind, laservision has developed a wide range of large-area laser protection options using various barrier materials and profile systems, so you are guaranteed to find the perfect solution for every application when needing to shield laser work areas or public areas – whether on a temporary or permanent basis.

The individual products differ in terms of their laser resistance, certification, mechanical properties and flexibility.

One of the solutions that laservision offers is a German Design Award-winning mobile barrier solution (E25 modular barrier system) with various laser safety materials.

There is also a miniature, table-top version (TTP) of the E25 system available, which offers a host of features to make working on an optical table much easier.

The barriers from laservision consist of aluminium cover layers with various barrier materials and are all certified in accordance with EN 60825-4 in the NIR range – a key area for industry.

Both sides of the materials can be used, and the panels are individually adaptable – they can be tailored to specific requirements with drill holes and cut-outs.

**laservision products
for large-area laser
protection**
These are available on our
website:



E25

E25 Modular Barrier System

The E25 modular, fully assembled laser protective folding wall system from laservision offers a flexible and quick way to shield laser beams during maintenance and service work on powerful laser. The E25 system can also be set up as a room divider in laboratories or laser-safe partitioning around optical tables, for example.

Thanks to the flexible hinge system, the E25 system takes up very little space in storage. It is secured in its end position with a sturdy strap (supplied).



GERMAN
DESIGN
AWARD
SPECIAL
2021



Premium barrier material for high levels of protection

Further information is available on page 78.

The standard barrier material (M7P06) features an aluminium sandwich structure with coated aluminium cover plates (black). This material has been tested and certified in accordance with DIN EN 60825-4.

Different filling materials from laservision (e.g. plastic windows) can optionally be installed. The plastic windows listed in the table can be found on page 67.

Certified in accordance with 60825-4 T2:

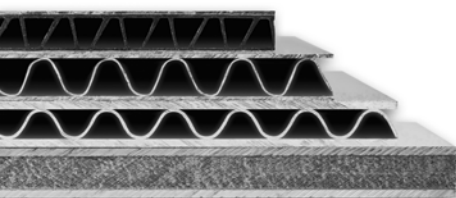
780-1400 nm: $I_{\text{avg}} = 480 \text{ kW/m}^2$ / $I_{0,\text{max}} = 960 \text{ kW/m}^2$

9000-11000 nm: $I_{\text{avg}} = 615 \text{ kW/m}^2$ / $I_{0,\text{max}} = 1.23 \text{ MW/m}^2$

Description	Dimensions	Art. number
Start/end module	1257 × 2100 mm (W × H)	E25.M7P06.1001
Inside module	1257 × 2100 mm (W × H)	E25.M7P06.1002
Window frame kit	On request	E25.FRAME.1001
Available windows	On request	e.g. P1D01, P1L03, P1N01, P1P10, P1P20, P1P21
Transport packaging	Based on cost	E25.VPACK.1000

Optional accessories

Description	Art. number
Accessory set for linear connection of 2-piece E25 folding wall systems	E25.JOINT.1001
Accessory set for attaching an interlock switch to two ends of E25 folding wall systems	E25.ILOCK.1001
Accessory set for creating a door from two ends of E25 folding wall systems	E25.DOORS.1001
Accessory for different window solutions	E25.FRAME.100x (on request)



Laser protection for optical tables

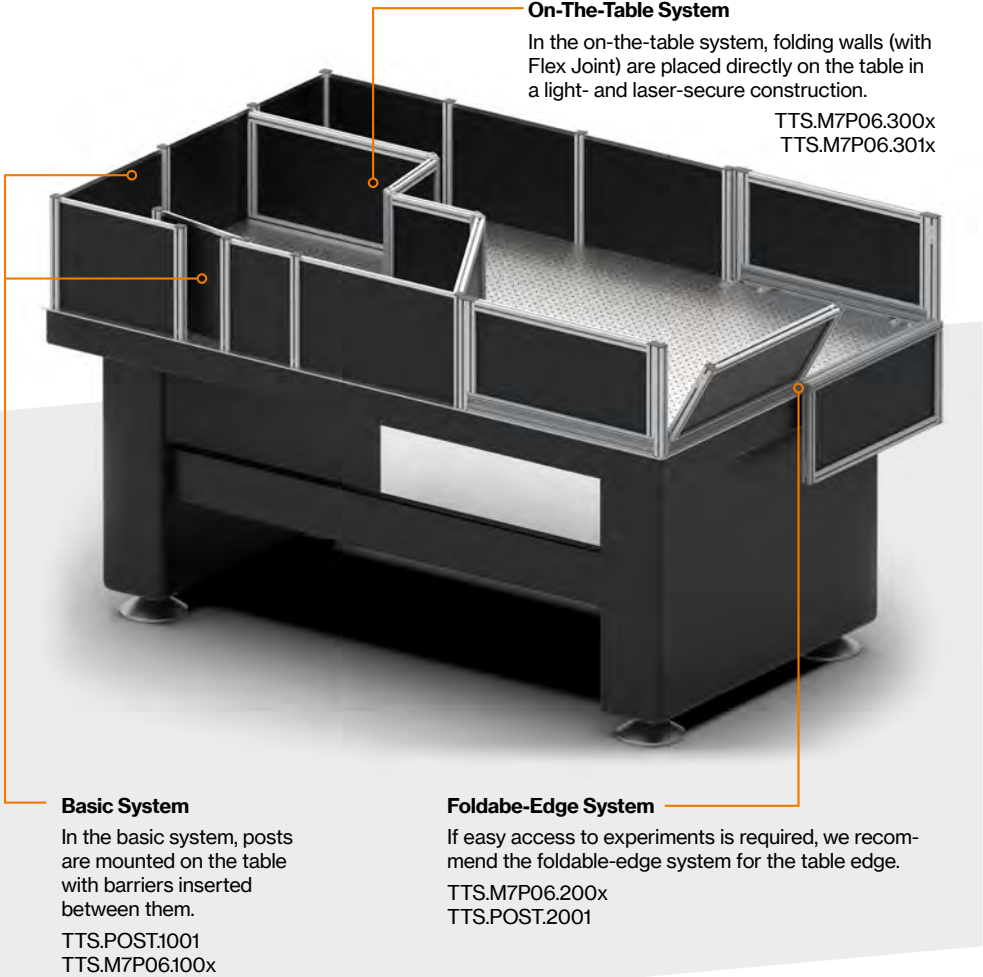
TTS – Table-Top System

Laser protection for optical tables

Available as a basic system, on-the-table system or foldable-edge system

Each of these variants offers a safe laser protection solution with a flexible design for all conventional OT sizes. The well known barrier M7P06 for the NIR range is available in various standard sizes. It has been tested and certified in accordance with DIN EN 60825-4. Other sizes and materials are available on request. The laser protection systems for optical tables (TTS) are based on the E25 folding wall system from laservision.

- Especially suitable for IR lasers
- Maximum flexibility of the structure on optical tables (OT)
- Systems can be combined partly with each other.
- Laser safety barrier (M7P06) available in various standard sizes
- Tested and certified in accordance with DIN EN 60825-4
- Customer-specific sizes available on request
- Also available with materials such as X1P02 and X1P03 on request



The Basic System

Specially developed for optical tables (OT) based on the E25 system

- Maximum flexibility of the structure
- Systems can also be combined
- Laser safety plates (M7P06) available in various standard sizes
- Tested and certified in accordance with DIN EN 60825-4
- Customer-specific sizes available on request
- Especially suitable for IR lasers
- Can be mounted with screw posts on tables with 25-mm grid and M6 holes (TTS.POST.1001)
- Magnetic columns can be freely placed on magnetic tables (TTS.POST.1002)
- M7P06 barrier in standard sizes with edge protection available from stock

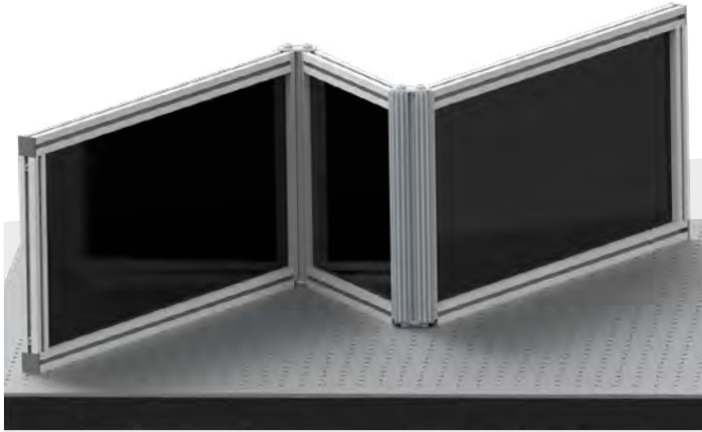


Optional accessories

Basic system	Art. number
Barrier 306 × 208 mm (H × W) – (8x holes)	TTS.M7P06.1001
Barrier 306 × 308mm (H × W) – (12x holes)	TTS.M7P06.1002
Barrier 306 × 383mm (H × W) – (15x holes)	TTS.M7P06.1003
Barrier 306 × 408mm (H × W) – (16x holes)	TTS.M7P06.1004
Barrier 306 × 458mm (H × W) – (18x holes)	TTS.M7P06.1005
Barrier 306 × 508mm (H × W) – (20x holes)	TTS.M7P06.1006

On-The-Table System

A foldable system assembled on the table



The On-The-Table System with Flex Joint for laser-secure shielding of structures on the table

- Maximum flexibility of the structure
- Easy to set up on the OT in accordance with individual requirements
- Greater stability thanks to magnets (magnetic table surface required)
- Tested and certified in accordance with DIN EN 60825-4
- Partly combinable with the Basic System and Foldable-Edge System
- Space-saving storage when not in use

Start/end module	Art. number
Barrier 306 × 300mm (H × W)	TTS.M7P06.3001
Barrier 306 × 600mm (H × W)	TTS.M7P06.3002
Barrier 306 × 900mm (H × W)	TTS.M7P06.3003

Extension module	Art. number
Barrier 306 × 300mm (H × W)	TTS.M7P06.3011
Barrier 306 × 600mm (H × W)	TTS.M7P06.3012
Barrier 306 × 900mm (H × W)	TTS.M7P06.3013

Foldable-Edge System

Enables easy access to experiments

- Foldable for easy access to structures on the OT
- Modules available in 2 standard sizes
- Magnets used for locking to the system columns and between the modules
- Construction prevents the modules from falling on the table
- Tested and certified in accordance with DIN EN 60825-4
- Partly combinable with the Basic System and On-The-Table System

Foldable-edge system	Art. number
Barrier 306 × 600mm (H × W)	TTS.M7P06.2001
Barrier 306 × 1200mm (H × W)	TTS.M7P06.2002



The Foldable-Edge System with folding side module



Filling materials for laser safety barriers



The laser safety barriers from laservision are all approx. 6 mm thick, consist of aluminium cover layers with various filling materials and are certified in accordance with EN 60825-4 in the NIR range – a key area for industry. Depending on the construction, there are lightweight plate materials that provide light ($I_{\text{avg}} = 480 \text{ kW/m}^2$) to moderate laser protection ($I_{\text{avg}} = 1.5 \text{ MW/m}^2$) or slightly heavier plate materials for high-power applications up to 8.1 MW/m^2 (I_{avg}).

- Both sides can be used
- Customer-specific dimensions available – including drill holes and cut-outs e.g. for cables
- Certified in accordance with DIN EN 60825-4 (T2)
- Can be used for cabin construction

Barrier material M7P06

- Black
- Special aluminium sandwich structure with coated aluminium cover plates



Protection levels in accordance with 60825-4

780–1400 nm	$I_{\text{avg}} = 480 \text{ kW/m}^2 / I_{0,\text{max}} = 960 \text{ kW/m}^2$
9000–11000 nm	$I_{\text{avg}} = 615 \text{ kW/m}^2 / I_{0,\text{max}} = 1.23 \text{ MW/m}^2$

Protection levels in accordance with EN 12254 in certification

Description	Dimensions (D×W×H)	Art. number
Barrier M7P06	6×1219×2438 mm	BMOM7P065PM1



Barrier material X1P02

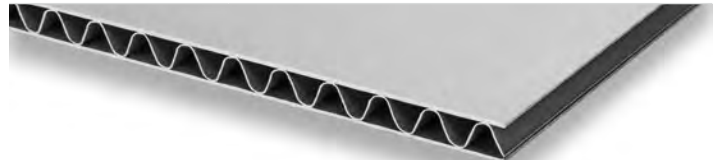
- Made entirely from aluminium
- Grey



Protection levels in accordance with 60825-4

940–1400 nm	$I_{\text{avg}} = 542 \text{ kW/m}^2 / I_{0,\text{max}} = 1.08 \text{ MW/m}^2$
9000–11000 nm	$I_{\text{avg}} = 766 \text{ kW/m}^2 / I_{0,\text{max}} = 1.53 \text{ MW/m}^2$

Description	Dimensions (D×W×H)	Art. number
Barrier X1P02	6×1500×3000 mm	BM0X1P021001



Barrier material X1P03

- Made entirely from aluminium
- Grey



Protection levels in accordance with 60825-4

940–1100 nm	$I_{\text{avg}} = 1.5 \text{ MW/m}^2 / I_{0,\text{max}} = 3.0 \text{ MW/m}^2$
9000–11000 nm	$I_{\text{avg}} = 1.08 \text{ MW/m}^2 / I_{0,\text{max}} = 2.16 \text{ MW/m}^2$

Description	Dimensions (D×W×H)	Art. number
Barrier X1P03	6×1500×3000 mm	BM0X1P031001



Barrier material X1P04

- Passive high-power barrier with graphite filling
- Grey



Protection levels in accordance with 60825-4

940–1100 nm	$I_{\text{avg}} = 8.11 \text{ MW/m}^2 / I_{0,\text{max}} = 16.22 \text{ MW/m}^2$
9000–11000 nm	$I_{\text{avg}} = 1.08 \text{ MW/m}^2 / I_{0,\text{max}} = 2.16 \text{ MW/m}^2$

Description	Dimensions (D×W×H)	Art. number
Barrier X1P04	6.2×1149×2489 mm	BM0X1P041001

