glaser jailer

active laser safety window

The Glaser Jailer system isolates the laser safety input within 50ms of an inadvertent laser window strike, rendering the laser safe.

The Glaser Jailer, failsafe active laser guarding window, enables safe observation of laser processes without CCTV, while preventing the escape of high energy laser radiation, providing a safe working environment.

Glaser Jailer is available in integrated or stand-alone versions

glaser jailer ACTIVE LASER SAFETY WINDOW

ACTIVE GUARDING		
EN 60825-4	IEC 60825-4	
Wavelength λ 900 - 1200 nm		
Beam Area	Average Irradiance	Active Guard Protection Time
mm^2	MW/m^2	ms
4	1250	150
4	250	700
80	62	1000
80	12	4000
2000	2.5	8000
2000	0.5	48000

PASSIVE GUARDING: FILTER WINDOW EN207 & EN12254		
Wavelength nm	EN207:2009+AC:2011 Rating	EN 12254:2010+AC:2011 Rating
180-315	D LB8 + IR LB4	D AB8 + IR AB3
>315-380	D LB4 + IR LB6 + M LB6Y	D AB5 + IR AB6 + M AB6Y
915-1180	D LB6 + IR LB7	D AB5 + IR AB7
2720-2940	DI LB4	D AB2
5000-11000	DI LB3 S	D AB2 + I AB3
CE	lasermet laser safety solutions	Lasermet Ltd www.lasermet.com
Active Guarding Patents	US Patent No. 8 416 820 European Patent No. 2 592 326 CH+LI DE FR GB IE NL SE Australian Patent No: 2012202599	

Active and passive performance levels are shown here

Glaser Jailer is a failsafe, active laser safety window that enables a high powered laser to be switched off virtually immediately if the laser beam inadvertently strikes the window. It is suitable for all laser powers, wavelengths and waveforms.

The window can be fitted within the panels of Lasermet's Laser Castle laser safety cabin or it can be fitted within an appropriate sized aperture in the customer's own laser safety enclosure.

Two sizes are available,
Standard size - approximately 800 x 600mm and
Mini-size - approximately 185 x 170mm
(See drawings overleaf)

Functionality

If the laser beam strikes the window, it first impacts the detecting circuitry which switches the laser off. During the switch-off period any residual laser radiation is prevented from escaping by the passive filter window layer.

The active window includes detector circuits which are constantly monitored by the interlock controller. If the laser strikes the window the electrical characteristics of the window are changed. The controller detects this and isolates the laser safety input shutting off the laser typically within 50ms.

"Glaser Jailer" can be combined with Lasermet's "Laser Jailer" active laser guarding system to provide a complete active solution throughout the entire enclosure. This revolutionary active technology is already proven - and is currently in operation worldwide.

Following a direct hit the window should be replaced but only after an investigation has been completed as to the cause of the direct hit and corrective measures have been implemented to prevent it re-occurring.

Certified

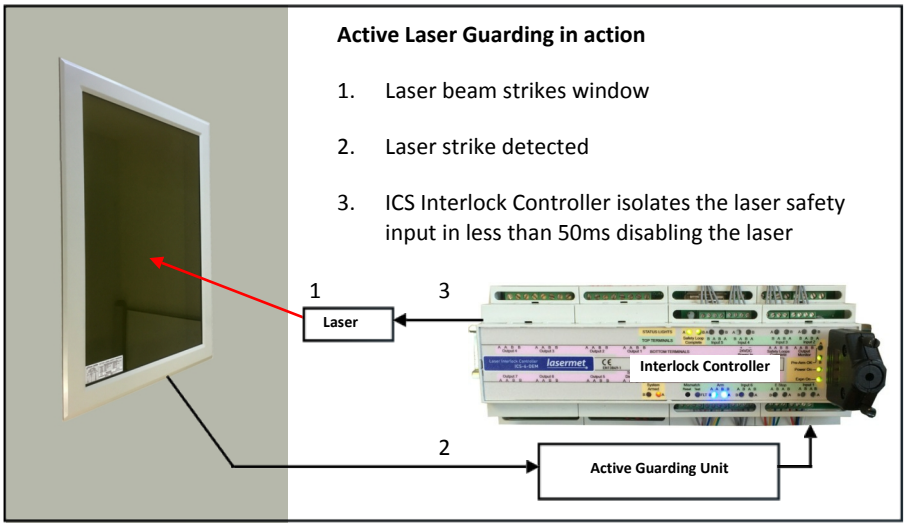
Glaser Jailer can be incorporated into, and form part of, a certified Class 1 Laser Enclosure (for multi-kW Class 4 lasers) conforming to BS EN IEC 60825-1.

Patents

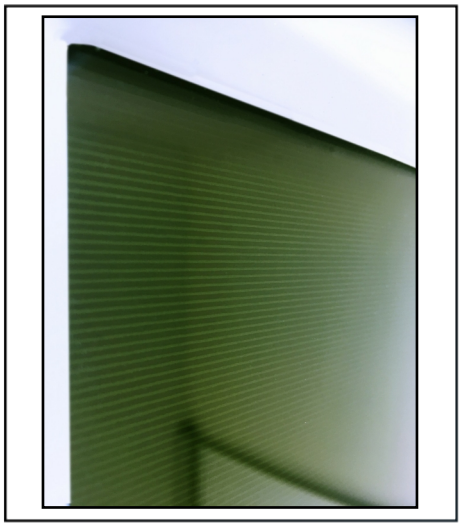
Glaser Jailer uses Lasermet's Active Laser Guarding Technology which has the following patents:-
US Patent No. 8 416 820
European Patent No. 2 592 326 CH+LI DE FR GB IE NL SE
Australian Patent No. 2012202599

lasermet
laser safety solutions

glaser jailer
active laser safety window



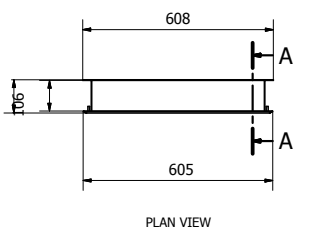
The Glaser Jailer operational sequence of events

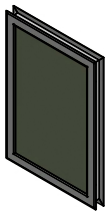


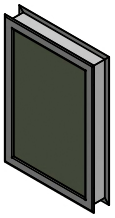
Close up, magnified view of Glaser Jailer window showing the detector circuits

The Glaser Jailer standard window dimensions are shown below

Two options of depth are available: 106mm and 56mm




ISOMETRIC VIEW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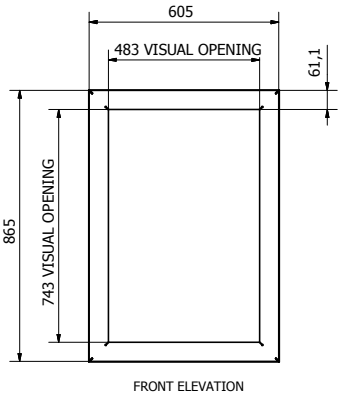
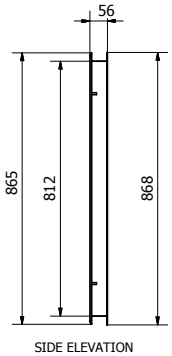
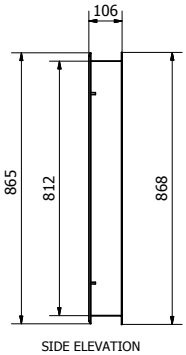
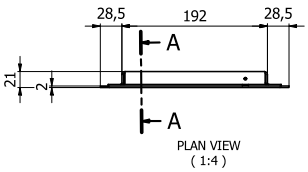


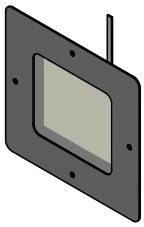




The Glaser Jailer Mini Window

This version measures 21mm deep

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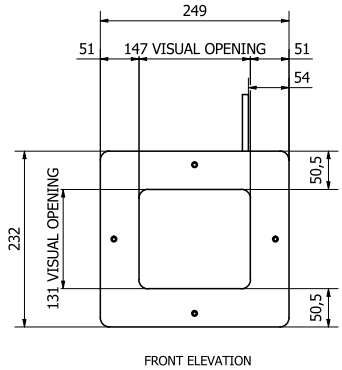

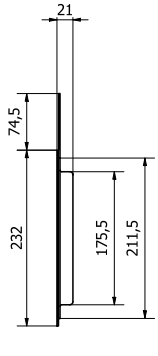

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Brochure v6

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