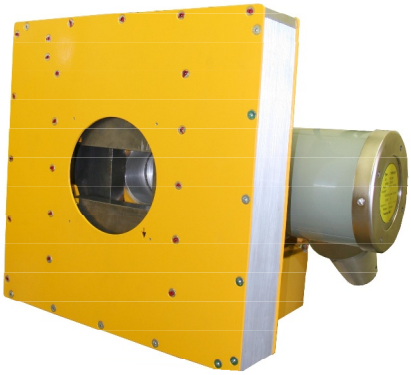
Tube Collimator

X-ray beam size and shape is defined by the inherent construction of the Tube. The way the target is positioned, the shielding and housing designs are largely influencing the beam cone, but this is fixed and sometimes not adequate to the imaging detector or Shielding environment. The use of a collimator is then very useful when you want to precisely control the cone shape and extent.

The collimator acts as a mobile window reducing or defining the limits of the beam to the detector sizes or portion of area to be covered.

Made out of highly absorbing material, shutters are remotely moved with electric motors operated from the control room.



Independent or dependent shutters

Up to 4 shutters can be placed into the Collimator. Shutters can be moved 2 to 2, or independently to create a decentralized window if needed.
Shutters are made out of lead and the thickness is calculated to be corresponding to the tube type and current. Shutters are operated through joystick type controls or with the help of a Software module that is to be integrated into Systems.

Robust and reliable

Only High grade components are used t provide long time and reliable operations. Shutters are designed to also provide sufficient shielding thicknesses for preheating operations. All plates are assembled by screws and bolts to provide the user with service possibilities if needed.
The Maximum possible shutter opening allows a maximum beam penetration.

Intelligent control unit

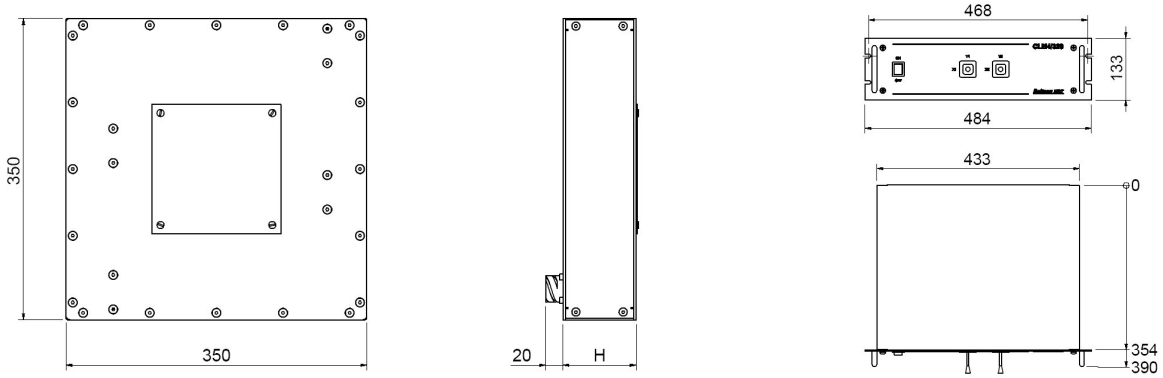
The majority of our control units are holding a torque control system that will limit the effort in case of resistance avoiding to burn motors in case of excessive efforts. Units can be equipped with encoders (option) to accurately monitor or set the positioning of each shutter when this is required in systems.

Universal

Our collimators can be assembled on the majority of tubes available in the Industry with few or no adaptations. The control unit is simple and rack mounted for systems integration. It can be replaced by a Bay model integrated into the Image Intensifier module.

Specifications

Mechanical



Collimator height (H*) depends on lead shutter thickness
Lead shutter thickness depends on the X-ray tube

Control Unit

Combinations

4 lead shutters – 4 engines	CLMT–4–4
4 lead shutters – 2 engines	CLMT–4–2
2 lead shutters – 2 engines	CLMT–2–2
2 lead shutters – 1 engine	CLMT–2–1

Collimator

Lead shutter edge machined (perfect contact) Lead shutter driven by DC motors (with driver)* 2 mm Al filter fixed (with a screw) on the front side	Connector to Control Unit build on backside Collimator fixed on the X-Ray tube with 4 screws Red painted lead shutter

Control Unit**

Mains:		230 VAC (± 10%) – 50/60 Hz
Consumption	A	2
19" type box size	inches - U	19
Collimator/Control Unit connection cable length	m	20

Main power switch and light
Joystick with potentiometer leads shutters opening
Connector to collimator build on backside
**If integrated in a system, the control unit could be slightly different

Optional accessories

*Position encoder for lead shutters, others front filter material, other cable lengths

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