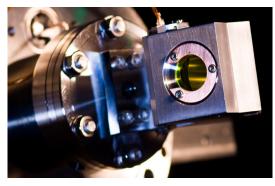
ESRF Vacuum-compatible beam viewers

Beam diagnostics is of prime importance when initially aligning a modern beamline. A visible image is often useful to understand component behavior and also allows optimisation, which leads to improved performance and stability.

Two pneumatically driven vacuum-compatible beam viewing devices are available, based on diamonds for white beam applications and YAG screens for pink/monochromatic beam applications.

- Fully integrated system mounted on CF100 flange
- Water-cooled diamond scintillator for white beam
- Water-cooled YAG/vitreous carbon for pink beam
- Un-cooled YAG for monochromatic beam
- Integrated diode to measure intensity





On the left: monochromatic beam viewer with its two alignment supports. **On the right:** zoom of the 300 μm YAG:Ce scintillator.

Characteristics

Description	Scintillator	Cooling	Intensity diode	Camera	Materials
WBV-d	Optical grade CVD diamond (300µm)	yes	yes	Balser GigE Monochrome	OFHC copper/Stainless steel/PEEK
WBV-p	YAG:Ce (100μm) glued on vitreous carbon (500μm)	yes	yes	Balser GigE Monochrome	OFHC copper/Stainless steel/PEEK
MBV	YAG:Ce (300μm)	no	yes	Balser GigE Monochrome	Al 7075/OFHC copper/ Stainless steel/PEEK

EQUIPMENT