

μ S DIAMOND Microfocus Source for Macromolecular Crystallography

● Breathtaking Performance without Maintenance

The extreme hardness of diamond has allowed crystallographers to study materials at pressures greater than at the core of the Earth. Now, the extremely high heat conductivity of diamond gives crystallographers a new X-ray source without equal: the μ S DIAMOND. Diamond conducts heat five times more efficiently than any other known material, making it perfect to cool the intense heat loads in a modern microfocus source. The μ S DIAMOND sets new standards for brightness, stability, reliability and ease of use.

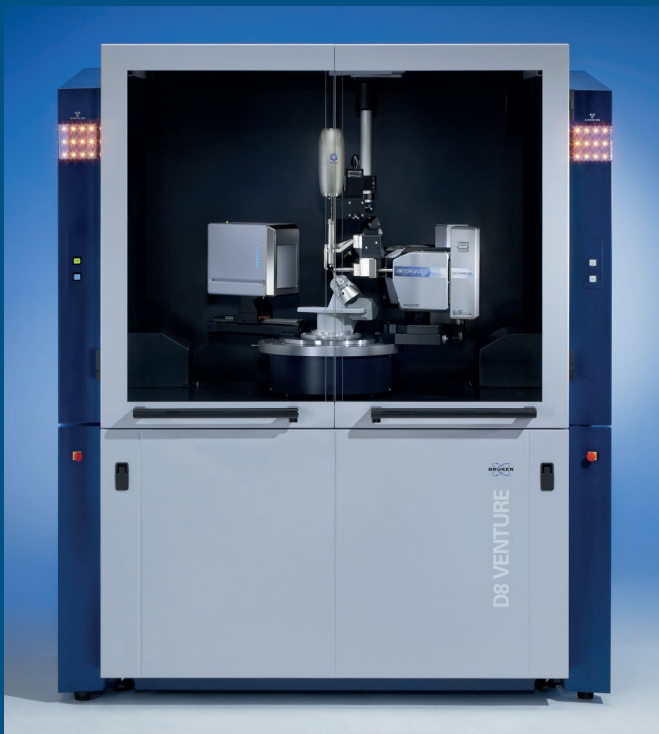
The μ S DIAMOND delivers higher average intensities than microfocus rotating anode generators. In contrast to rotating anode generators the μ S DIAMOND is fully air-cooled, has extraordinarily long up-times and does not require any routine maintenance.

Performance better than a rotating anode – without downtime and hassles: no filament changes, no anode refurbishments, no ferro seal or water seal replacements ... Extreme intensity when you need it – all day every day.

The INCOATEC Diamond Source – Simply brilliant.

1 μ S DIAMOND

Unprecedented
brightness,
stability, and
reliability—without
maintenance



The 1 μ S DIAMOND Microfocus Source is INCOATEC's latest advancement in X-ray source technology, delivering modern rotating anode performance without the headache of high running costs and without routine maintenance.



99%
uptime
guaranteed



Intensity

Average intensity is 20% higher than that of a microfocus rotating anode source.

Optics

The best optics put all the X-rays on the sample for up to 10 times lower scattered X-ray background.

Maintenance costs

Maintenance free operation.

Uptime

Unique 99% uptime guarantee.

Reliability

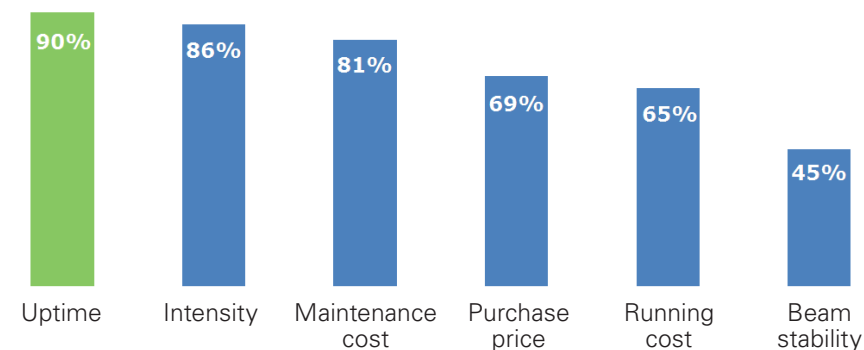
It is an IµS – which means the highest reliability and longest tube lifetimes.

Operating costs

With low energy consumption and no cooling water, the IµS DIAMOND is easy on your wallet and the environment.

Stability

10 times better stability than rotating anodes – for the best data quality.



Features most important to crystallographers

µS DIAMOND

Rotating Anode Generator

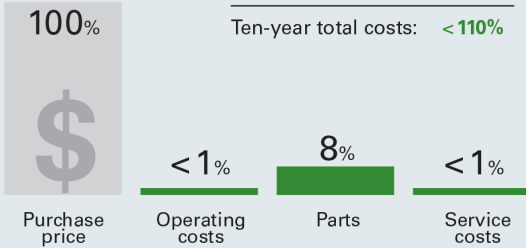
Lowest Cost of Ownership

< 10%

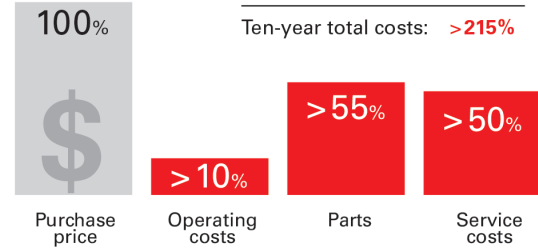


Ten-Year Cost of Ownership

> 115%



No maintenance and low running costs amount to less than 10% of the purchase price over ten years. Use your money to drive your research.



For a rotating anode system, the high running and maintenance costs can easily exceed the purchase price. No funds remain to invest in new technology.

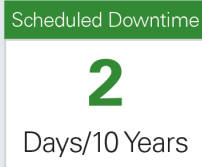
Best Productivity

2 Days



Downtime

~4 Months



2 days in 10 years – that’s all.



A rotating anode system requires about 115 days of scheduled downtime for maintenance.

Overview of Features and Benefits

Uptime	≥ 99%	High reliability, X-rays when you need them, where you need them
Intensity compared to microfocus rotating anodes	> 20% higher average intensity	Best-in-class performance
Beam stability compared to microfocus rotating anodes	10 times more stable	
Power consumption	< 150 W, single phase power	Environmentally friendly
Cooling	No cooling water, air-cooled	
No routine maintenance	No moving parts under vacuum	Low costs of ownership

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