

# MLCi2

Assured conformance

## The Elekta commitment to Oncology

Elekta product and service development is driven by a commitment to deliver on five core values in order to offer our customers an enhanced partnership for the fight against cancer. MLCi2 delivers against those values in the following ways:

### Innovation

With a history of innovation in MLCs, Elekta's latest MLC delivers low integral dose to improve protection of organs at risk and surrounding tissue.

### Efficiency

With seamless field delivery and potential for interdigitation, MLCi2 requires fewer beams for delivery, resulting in faster treatment times and less time on the table for patients.

### Flexibility

With a wide clearance the gantry is free to rotate between fields without having to move the patient, maximizing achievable non-coplanar beam angles.

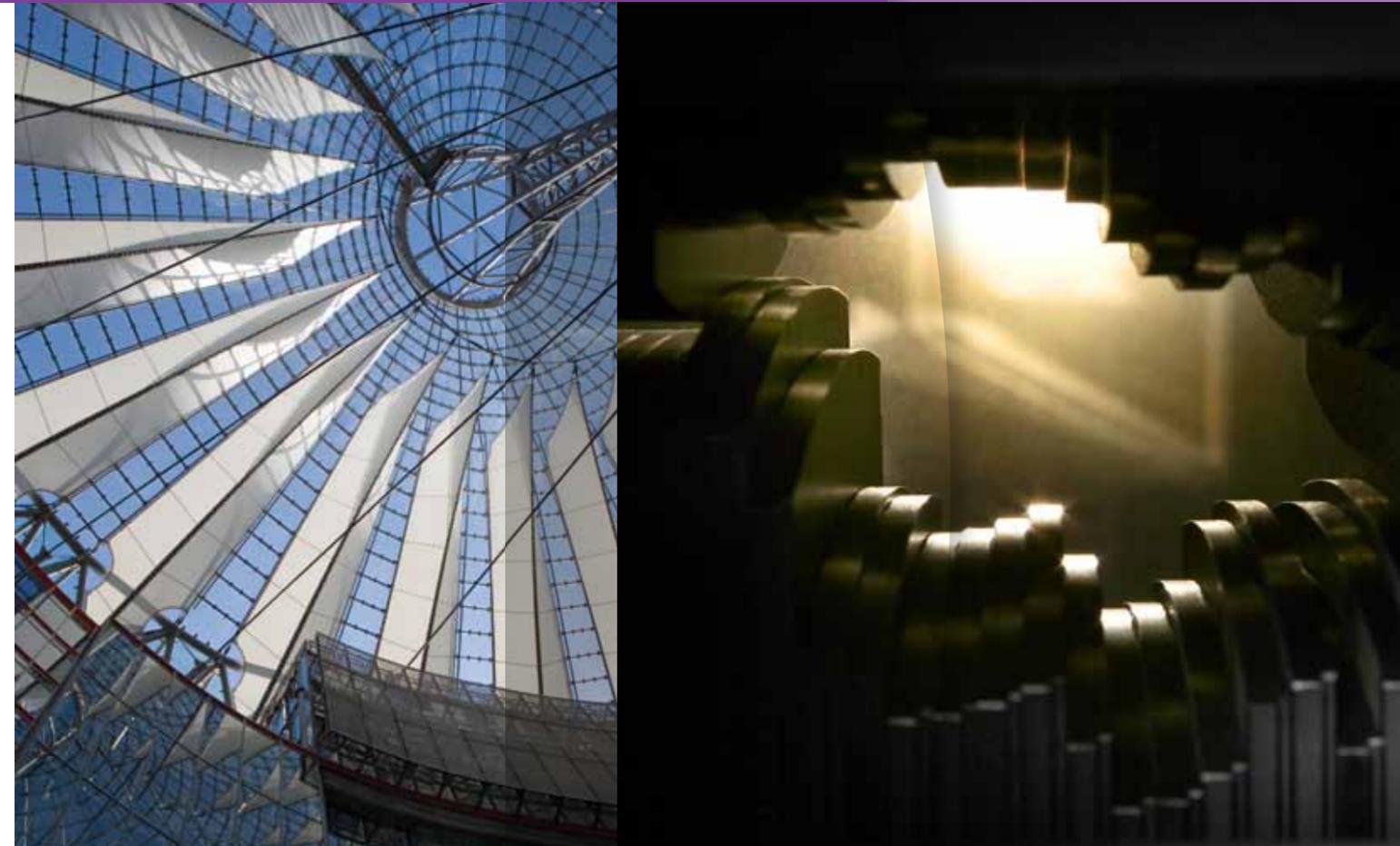
### Evidence

With the first MLC being developed in the 1990s, Elekta continues to research and develop new technologies to create an advanced MLC for advanced treatment techniques.

### Confidence

With integration into a single treatment delivery control system, MLCi2 brings accuracy and confidence in delivery of all treatment prescriptions.

For further information, please visit [www.elekta.com/MLCi2](http://www.elekta.com/MLCi2)



*Reduce integral dose with digitally integrated beam shaping*

[www.elekta.com](http://www.elekta.com)

*Human Care Makes the Future Possible*

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## Do you have confidence in your MLC?

The desire to deliver high doses to the target is finely balanced against the growing need to minimize dose to healthy tissue outside of the target volume. The MLCi2 Multileaf Collimator from Elekta helps you achieve this fine balance through its innovative and integrated design - a design you can trust to provide low integral dose even when using advanced delivery techniques.

Elekta MLCi2 is driven by Elekta's fully integrated single digital control system for both the MLCi2 and linac. Unlike non-digital systems there is no lag in communication of information, ensuring continuous verification and accurate placement of all leaves. This allows faster, safer and more accurate delivery than other non-digital systems.

Each individual feature in the MLCi2 works together to ensure the system can be trusted and that dose to healthy tissue is reduced.

## Why MLCi2?

High dose conformance

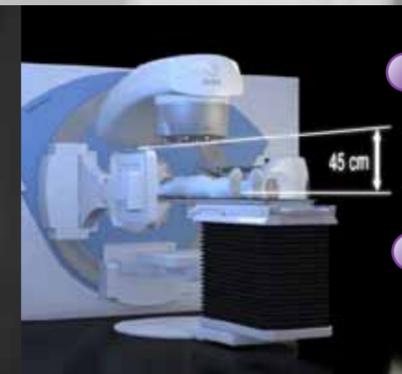
Active leakage reduction

Accurate leaf positioning

Dynamic movements

Ability to interdigitate

Seamless large field delivery



### Assurance

The active leakage reduction mechanism in the Elekta MLCi2, uses diaphragms in both directions to automatically track the trailing leaf, thus minimizing transmission. This feature plays a valuable role in reducing integral dose to the patient and therefore reducing the risk of induced secondary cancer.

### Accuracy

Using real time optical readout technology, a video display of actual leaf position can be seen at the treatment console or on the treatment room monitor. This unique technology instantaneously confirms that all 80 leaves are accurately positioned.

### Control

Accuracy is derived from the integration of the MLCi2 with the digital control system, which results in smooth delivery of all treatment prescriptions. During delivery the control system intelligently checks the position of each leaf, ensuring that all quick or large changes in the prescription geometry are completed accurately and efficiently.

### Efficiency

With a continuous 40x40 cm field size there is no need for split fields when large field sizes are required, resulting in seamless field delivery. Combined with potential for interdigitation, it eliminates complex planning workarounds for large treatment areas and efficiently optimizes the treatment shape.

### Flexibility

Elekta's unrivalled patient clearance is maintained with the MLCi2, giving significantly greater flexibility in the setup and delivery of both coplanar and non-coplanar treatments. Once again, Elekta provides a proven upgrade path so existing customers with Elekta linear accelerators can benefit from the enhanced features of MLCi2.