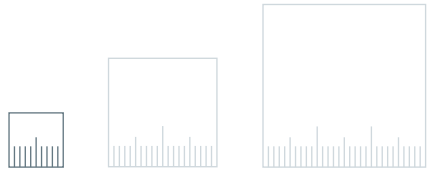
Detector Selection Tree

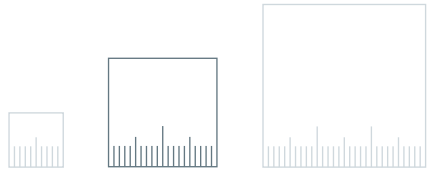
Minimum field size required 1 cm x 1 cm



	10 x 10		20 x 20		30 x 30		40 x 40	
MAXIMUM field size (cm) required:								
Type of measurement:	Absolute dose & output factors	Profiles & PDDs	Absolute dose & output factors	Profiles & PDDs	Absolute dose & output factors	Profiles & PDDs	Absolute dose & output factors	Profiles & PDDs
Suitable detectors:	Diode E Diode SRS Diode P Diamond microLion	Diode E Diode SRS Diode P Diamond microLion	Diode P Diamond microLion	Diode P Diamond microLion	Diode P	Diode P	Diode P	Diode P
Recommended detectors:	Diode SRS (6 MV or less) Diode E (more than 6 MV)	Diode SRS (6 MV or less) Diode E (more than 6 MV)	microLion	microLion	Diode SRS or E for fields smaller than 10 cm x 10 cm Semiflex 0.125 for larger fields	Diode SRS or E for fields smaller than 10 cm x 10 cm Semiflex 0.125 for larger fields	Diode SRS or E for fields smaller than 10 cm x 10 cm Semiflex 0.125 for larger fields	Diode SRS or E for fields smaller than 10 cm x 10 cm Semiflex 0.125 for larger fields
Remarks	As the keV energy response is of lesser relevance, the smallest detector, the unshielded diode, can be used.		The microLion chamber is an excellent compromise betwen small size and good water equivalence for precise dose determination in larger fields. This also applies to the Diamond detector. As a natural resource, this detector is, however, more difficult to provide.		Though Diode P is well suited for measurements over the entire range from 1 cm x 1 cm to 40 cm x 40 cm, we recommend using a combination of two detectors for utmost precision. This applies to ANY shielded diode.		Though Diode P is well suited for measurements over the entire range from 1 cm x 1 cm to 40 cm x 40 cm, we recommend using a combination of two detectors for utmost precision. This applies to ANY shielded diode.	

Detector Selection Tree

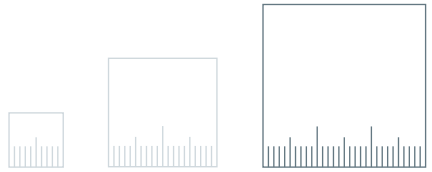
Minimum field size required 2 cm x 2 cm



	10 x 10		20 x 20		30 x 30		40 x 40	
Type of measurement:	Absolute dose & output factors	Profiles & PDDs	Absolute dose & output factors	Profiles & PDDs	Absolute dose & output factors	Profiles & PDDs	Absolute dose & output factors	Profiles & PDDs
Suitable detectors:	Diode E Diode SRS Diode P Diamond microLion PinPoint 0.015 PinPoint 0.03 PinPoint 3D	Diode E Diode SRS Diode P Diamond microLion PinPoint 0.015 PinPoint 0.03	Diode P Diamond microLion PinPoint 0.015 PinPoint 0.03 PinPoint 3D	Diode P Diamond microLion PinPoint 0.015 PinPoint 0.03 PinPoint 3D	Diode P PinPoint 0.015 PinPoint 0.03 PinPoint 3D	Diode P PinPoint 0.015 PinPoint 0.03 PinPoint 3D	Diode P	Diode P
Recommended detectors:	PinPoint 0.015	microLion	PinPoint 0.015	microLion	PinPoint 0.015 for fields less or equal than 10 cm x 10 cm Semiflex 0.125 for larger fields	microLion for fields less or equal than 20 cm x 20 cm Semiflex 0.125 for fields larger than 20 cm x 20 cm	Diode SRS or E for fields smaller than 10 cm x 10 cm Semiflex 0.125 for larger fields	microLion for fields less or equal than 20 cm x 20 cm Semiflex 0.125 for fields larger than 20 cm x 20 cm
Remarks	The PinPoint 0.015 is best suited for absolute dose measurements as it does not need to be cross-calibrated. Due to its high spatial resolution, the microLion is the preferred detector for profile and PDD measurements. This also applies to the Diamond detector. As a natural resource, this detector is, however, more difficult to provide.		The microLion chamber and Diamond detector are both suitable for absolute dose and output factor measurements. However, whereas these two detectors must be cross-calibrated, the PinPoint 0.015 chamber can be directly applied according to IAEA 398 and DIN 6800-2. Due to its high precision in penumbra regions, we recommend using the microLion chamber for profile measurements. This also applies to the Diamond detector. As a natural resource, this detector is, however, more difficult to provide.		Though the PinPoint chambers and Diode P are well suited for measurements over the entire range from 2 cm x 2 cm to 30 cm x 30 cm, we recommend using a combination of two detectors for utmost precision.		Though Diode P is well suited for measurements over the entire range from 1 cm x 1 cm to 40 cm x 40 cm, we recommend using a combination of two detectors for utmost precision. For precise penumbra measurements in fields smaller or equal than 20 cm x 20 cm, a detector smaller than the Semiflex 0.125 should be used.	

Detector Selection Tree

Minimum field size required 3 cm x 3 cm



	10 x 10		20 x 20		30 x 30		40 x 40	
Type of measurement:	Absolute dose & output factors	Profiles & PDDs	Absolute dose & output factors	Profiles & PDDs	Absolute dose & output factors	Profiles & PDDs	Absolute dose & output factors	Profiles & PDDs
Suitable detectors:	Diode E Diode SRS Diode P Diamond microLion PinPoint 0.015 PinPoint 0.03 PinPoint 3D Semiflex 0.125	Diode E Diode SRS Diode P Diamond microLion PinPoint 0.015 PinPoint 0.03 PinPoint 3D	Diode P Diamond microLion PinPoint 0.015 PinPoint 0.03 PinPoint 3D Semiflex 0.125	Diode P Diamond microLion PinPoint 0.015 PinPoint 0.03 PinPoint 3D Semiflex 0.125	Diode P PinPoint 0.015 PinPoint 0.03 PinPoint 3D Semiflex 0.125	Diode P PinPoint 0.015 PinPoint 0.03 PinPoint 3D Semiflex 0.125	Diode P Semiflex 0.125	Diode P Semiflex 0.125
Recommended detectors:	Semiflex 0.125	microLion	Semiflex 0.125	microLion	Semiflex 0.125	microLion for fields less or equal than 20 cm x 20 cm Semiflex 0.125 for fields larger than 20 cm x 20 cm	Semiflex 0.125	microLion for fields less or equal than 20 cm x 20 cm Semiflex 0.125 for fields larger than 20 cm x 20 cm

Remarks

The Semiflex 0.125 is best suited for absolute dose measurements as it does not need to be cross-calibrated.

Due to its high spatial resolution, the microLion is the preferred detector for profile and PDD measurements. This also applies to the Diamond detector. As a natural resource, this detector is, however, more difficult to provide.

The microLion chamber and Diamond detector are both suitable for absolute dose and output factor measurements. However, whereas these two detectors must be cross-calibrated, the PinPoint 0.015 chamber can be directly applied according to IAEA 398 and DIN 6800-2.

Due to its high precision in penumbra regions, we recommend using the microLion chamber for profile measurements. This also applies to the Diamond detector. As a natural resource, this detector is, however, more difficult to provide.

Though the PinPoint chambers and Diode P are well suited for measurements over the entire range from 2 cm x 2 cm to 30 cm x 30 cm, we recommend using a combination of two detectors for the most precise profile and PDD measurements.

Though Diode P are well suited for measurements over the entire range from 3 cm x 3 cm to 40 cm x 40 cm, we recommend using a combination of a large and small field detector for utmost precision.

For precise penumbra measurements in fields smaller or equal than 20 cm x 20 cm, a detector smaller than the Semiflex 0.125 should be used.