

TrueBeam System – VARIAN

The TrueBeam accelerator is designed to deliver therapeutic beams of X-rays and electrons for a wide range of conventional and advanced radiotherapy techniques.

It is equipped with a 120 Multi-leaf Collimator and an embedded 3D kV CBCT imaging system.

It is equipped by a MV imager with $30 \times 40 \text{ cm}^2$ amorphous silicon.

Truebeam system includes two High-Intensity modes at 6 and 10 MV.

The system includes a carbon radiotransparent patient support system.



X-ray Configuration			
Nominal Energy	Minimum output dose rates	Maximum output dose rates	Field sizes
6 MV	$5 \text{ cGy} \cdot \text{min}^{-1}$ at D_{\max}	$6 \text{ Gy} \cdot \text{min}^{-1}$ at D_{\max}	5 mm^2 to $40 \times 40 \text{ cm}^2$
8 MV	$5 \text{ cGy} \cdot \text{min}^{-1}$ at D_{\max}	$6 \text{ Gy} \cdot \text{min}^{-1}$ at D_{\max}	5 mm^2 to $40 \times 40 \text{ cm}^2$
10 MV	$5 \text{ cGy} \cdot \text{min}^{-1}$ at D_{\max}	$6 \text{ Gy} \cdot \text{min}^{-1}$ at D_{\max}	5 mm^2 to $40 \times 40 \text{ cm}^2$
18 MV	$20 \text{ cGy} \cdot \text{min}^{-1}$ at D_{\max}	$6 \text{ Gy} \cdot \text{min}^{-1}$ at D_{\max}	5 mm^2 to $40 \times 40 \text{ cm}^2$
6 MV high intensity mode	$4 \text{ Gy} \cdot \text{min}^{-1}$ at D_{\max}	$14 \text{ Gy} \cdot \text{min}^{-1}$ at D_{\max}	5 mm^2 to $40 \times 40 \text{ cm}^2$
10 MV high intensity mode	$4 \text{ Gy} \cdot \text{min}^{-1}$ at D_{\max}	$24 \text{ Gy} \cdot \text{min}^{-1}$ at D_{\max}	5 mm^2 to $40 \times 40 \text{ cm}^2$
Electrons Configuration			
Nominal Energy	Minimum output dose rates	Maximum output dose rates	Maximum static field size of $25 \times 25 \text{ cm}^2$
6 MeV	0	$10 \text{ Gy} \cdot \text{min}^{-1}$	Electron applicators 6x6, 6x10, 10x10, 15x15, 20x20 et 25x25 cm^2
9 MeV	0	$10 \text{ Gy} \cdot \text{min}^{-1}$	
12 MeV	0	$10 \text{ Gy} \cdot \text{min}^{-1}$	
18 MeV	0	$10 \text{ Gy} \cdot \text{min}^{-1}$	
22 MeV	0	$10 \text{ Gy} \cdot \text{min}^{-1}$	