





# Machine Definitions

These are the currently proposed definitions of IHE machines for testing. The definitions here have been provided by Varian and are in xml format.

Machine Name	IHE_V120	IHE_V120FFF	IHE_ELVHD
Machine Model	Varian 23EX or equivalent	Varian 23EX or equivalent	Elekta VersaHD
Gantry Angle	[0°, 360°] <sup>1)</sup>	[0°, 360°] <sup>2)</sup>	[0°, 360°]
Collimator Angle	[195°, 165°]	[195°, 165°]	[0°, 360°]
Dose Rate	100-1000 MU/min <sup>3)</sup>	100-1400 MU/min <sup>4)</sup>	0-400 MU/min
Electron	9 MeV	9 MeV	9MeV
Photon	6, 18 MV	6, 18 MV	6 MV
<b>MLC</b>			
MLC Model	Millennium 120	Millennium 120	Agility 160
Pairs	60	60	80
Y Offset	-195 to 195 mm	-195 to 195 mm	-197.5 to 197.5 mm
Width	1-10: 10 mm 11-50: 5 mm 51-60: 10 mm	1-10: 10 mm 11-50: 5 mm 51-60: 10 mm	5 mm
<b>X Jaws</b>			
Width			(none)
Position			(none)
<b>Y Jaws</b>			
Width			
Position			
<b>Couch</b>			
Vertical Limits	-710 to 460 mm	-710 to 460 mm	-750 to 500 mm
Longitudinal Limits	150 to 1600 mm	150 to 1600 mm	0 to 800 mm
Lateral Limits	-250 to 250 mm	-250 to 250 mm	-250 to 250 mm
Angle	265-95°	265-95°	260 - 100°
<b>Accessories</b>			
Applicators	Yes	Yes	Yes
Compensators	Yes	Yes	Yes
Wedges	Yes	Yes	Yes
Blocks	Yes	Yes	Yes
Compensators	Yes	Yes	?
XML document	V120 XML	V120FFF XML	ELVHD XML

## Wedges

Machine	Wedge ID (300A,00D4)	Wedge Angle (300A,00D5)	Wedge Orientation (300A,00D6)	Source-to-Wedge Tray Distance (300A,00DA)	Orientation (Varian)	Maximum Field Size	
IHE_V120	W60R15U	60°	90°	57.4 cm	Right	15 cm x 40 cm	
	W60L15U		270°		Left		
	W60IN15U		0°		In		
	W60OUT15U		180°		Out		
	W30R30U	30°	90°		Right	30 cm x 40 cm	
	W30L30U		270°		Left		
	W30IN30U		0°		In		
	W30OUT30U		180°		Out		
	EDW20IN	20°	0°	N/A	In	40 cm x 30 cm	
	EDW20OUT		180°		Out		
	EDW45IN	45°	0°		In		
	EDW45OUT		180°		Out		
IHE_S160	3HBW15						
	4HBW45						
	1RW15						
	2VW45						
IHE_ELVHD	MW	60°	0°	N/A	In	21 cm x 16 cm	

### Blocks

Machine	Block Material ID (300A,00E1)	Block Tray ID (300A,00F5)	Source-to-Block Tray Distance (300A,00F6)	Transmission (300A,0102)
IHE_V120	Block_IHE	User X tray	654 mm	0.01
		User E tray	950 mm	0.0

### Compensators

Machine	Compensator Material ID	Compensator Tray ID	Source-to-Compensator Tray Distance (300A,00E6)
IHE_V120	Comp_IHE	Usr 1X -4	698 mm

### Applicators

Machine	Applicator ID (300A,0108)	Applicator Type (300A,0109)	Applicator Aperture Shape (300A,0432)	Applicator Opening (300A,0433)	Source to Applicator Mounting Position Distance (300A,0436)
IHE_V120	A10	ELECTRON_SQUARE	SYM_SQUARE	100 mm	654 mm
	20mm Cone	PHOTON_CIRC	SYM_CIRCULAR	20 mm	654 mm

<sup>1)</sup>, <sup>2)</sup> can rotate clockwise from -185° to +185°

<sup>3)</sup> Dose rates 800-1000 MU/min indicate SRS primary fluence mode. Do not use for non-SRS beams!

<sup>4)</sup> Dose rates 800-1400 MU/min indicate SRS or FFF primary fluence mode. Do not use for non-SRS beams!

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