

SHIMADZU

PRODUCT DATA

RADspeed Pro

style edition MF Type



GENERAL

RADspeed Pro MF Type is a radiographic system that provides a comfortable examination environment for operator and patient alike.

The TM and ® symbols are omitted in this document.

FEATURES

(1) **Space saving concept**

The compact, space-saving high voltage generator and tube support provides working space and flexible layout.

(2) **50kHz Inverter system**

Microprocessor-controlled, maximum 50kHz High frequency inverter system creates very low ripple kV waveform with high X-ray quantum efficiency, which reduces unwanted X-rays.

(3) **Preset memory**

The preset memory allows the most commonly used techniques to be programmed. By pressing the program selector key, automatic selection can be made for radiographic factor, tube focus, etc.

(4) **Unique Color-coded Status display (option)**

A LED frame of operation console is functioning as color-coded status indicators and it changes color corresponding to the status. Operator can easily confirm when it is ready or when exposed. Illumination color code is selectable from Blue, Turquoise, Red, Purple and Light purple.

Illumination hand switch functions as well.

(5) **Energy saving collimator with a bright irradiation field**

LED is adopted as the light source to indicate the irradiation field. This reduces power consumption and improves brightness levels and durability.

(6) **Dose Management**

A calculated Dose Area Product is available. After the exposure, the calculated Dose Area Product, based on the actual exposure parameters, is displayed.

The measured exposure parameters and calculated Dose Area Product can be displayed on a Generator console and sent to RIS/PACS system. (option)

(7) **Removable Grid**

Removing the grid during radiography allows reducing the exposure dose level in pediatric and orthopedic applications. Radiography is also possible using phototimer.

(8) **Heavy Duty 4-way floating table**

The bucky table can support up to 200kg. Patient positioning is made easier with the extremely smooth-moving tabletop. Only longitudinal slide is available using dedicated switch.

(9) **Upgradable to DR system**

The DR^{*)} system significantly improves diagnostic accuracy and workflow.

^{*)} The DR system is not a component of RADspeed Pro. Please use one belonging to your facility.

SYSTEM CONFIGURATION

The RADspeed Pro MF Type consists of X-ray high-voltage generator, X-ray tube assembly, collimator, and X-ray tube support and if necessary, X-ray radiography table and/or X-ray radiography stand.

System configuration and accompanying documents

Component	Model Name
Whole system	RADspeed Pro
X-ray high voltage generator	80kW type: Operation Panel: GSC-2002S Control cabinet: D150BC-41 65kW type: Operation Panel: GSC-2002S Control cabinet: D150VC-41 50kW type: Operation Panel: GSC-2002S Control cabinet: D150LC-41
X-ray tube assembly	0.6/1.2P324DK-85, 0.6/1.2P364DK-85
	0.6/1.2P164DK-85
	0.6/1.2P323DK-85
	0.6/1.2P38DE-85, 0.6/1.2P33DK-85
	0.6/1.2P18DE-85, 0.6/1.2P13DK-85
	1/2P18DK-85, 1/2P13DK-85
	0.3/0.8P324DK-85
	0.3/0.8P323DK-85
	0.3/0.8P18DK-85
Floor mount X-ray tube support	FH-20HR, FH-21HR
X-ray Bucky stand	BR-120M
X-ray Bucky table	BK-120MK
	BK-12HK
X-ray Collimator	R-20J

SPECIFICATIONS

X-Ray High Voltage Generator 80kW type/65kW type/50kW type

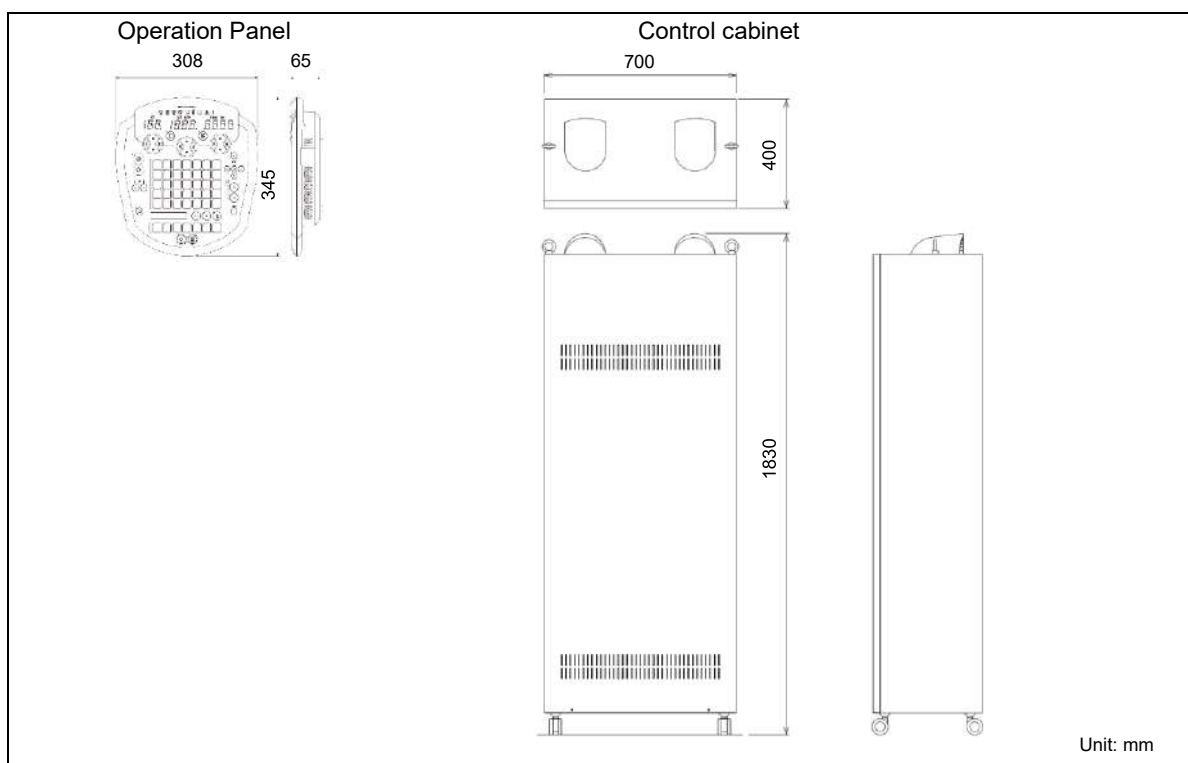
Item			Specifications	
Radiography technique			General radiography, Bucky radiography, Digital radiography	
Number of connectable X-ray tubes			1 tube	
Setting range *1 *2	Radiography	Tube voltage	40 to 150kV	
		Tube current	80kW type : 10 to 1,000mA 65kW type : 10 to 800mA 50kW type : 10 to 630mA	
		mAs	0.5 to 800mAs	
		Time	0.001 to 10sec	
		Nominal supply voltage (50/60Hz)		80kW type, 65kW type : 200/220/240/380/400/415/440/480VAC, 3-phase 50kW type : 200/220/240/380/400/415/440/480VAC, 3-phase or 200/220/240VAC, single-phase
			Factor depending on the waveform: 1.00	
Power input			80kW type, 65kW type : 3-phase AC: 120kVA 50kW type : 3-phase AC: 80kVA or single-phase AC: 95kVA	
Rated output			80kW type : 80kW (100kV, 800mA) 65kW type : 65kW (100kV, 650mA) 50kW type : 50kW (100kV, 500mA) Product of tube voltage and max. current that can flow in 0.1s at 100kV tube voltage	
Short-time rating *1			80kW type : 150kV 500mA, 125kV 630mA, 100kV 800mA, 80kV 1000mA 65kW type : 150kV 400mA, 125kV 500mA, 100kV 650mA, 80kV 800mA 50kW type : 150kV 320mA, 125kV 400mA, 100kV 500mA, 80kV 630mA	
Nominal max. tube voltage and max. tube current that can flow at nominal max. tube voltage *1			80kW type : Short-time rating: 150kV 500mA Long-time rating: 125kV 12mA 65kW type : Short-time rating: 150kV 400mA Long-time rating: 125 kV 9mA 50kW type : Short-time rating: 150kV 320mA Long-time rating: 125kV 9mA	
Max. tube current and max. tube voltage to achieve max. tube current *1			80kW type : Short-time rating: 80kV 1000mA Long-time rating: 75kV 20mA 65kW type : Short-time rating: 80kV 800mA Long-time rating: 125kV 9mA 50kW type : Short-time rating: 80kV 630mA Long-time rating: 125kV 9mA	
Tube voltage and tube current combination for max. electrical output *1			80kW type : Short-time rating: 80kV 1000mA, 100kV 800mA Long-time rating: 75kV 20mA, 125kV 12mA 65kW type : Short-time rating: 100kV 650mA Long-time rating: 125kV 9mA 50kW type : Short-time rating: 80kV 630mA, 100kV 500mA Long-time rating: 125kV 9mA	
Dimensions		Operation panel	308(W) x 345(H) x 65(D)mm	
		Control cabinet	700(W) x 1,830(H) x 400(D)mm	
Mass		Operation panel	2kg	
		Control cabinet	80kW type, 65kW type : 250kg 50kW type : 240kg	

*1: Specifications are limited according to the X-ray tube type.

*2: The various conditions are as follows (conform to IEC-standards):

Tube voltage (within +/-10 %), Tube current (within +/-20 %)

mAs within +/- (10 % + 0.2 mAs), Time within +/- (10 % + 1 ms)

DIMENSIONS

Options

Item	Specifications
Direct phototimer (AEC) radiography option	Combination with a Shimadzu receiver permits phototimer(AEC) radiography. The following types can be used: Xe detector-type phototimer receiver (SPT-XD series) Number of pick up fields: 1/3/4(3 types) Permitted combination: up to three receivers
Communication Unit	Permits communication of radiographic conditions with DR unit

X-Ray Tube Assembly
0.6/1.2P324DK-85 & 0.6/1.2P364DK-85

Item			Specifications	
Nominal X-ray tube voltage		Long-time	125kV	
		Short-time	150kV	
X-ray tube assembly	Max. heat content		1100kJ (1600kHU)	
	Nominal continuous input power		470W (660HU/s) (with fan)	
X-ray tube	Max. anode heat content		280kJ (400kHU)	
	Max. anode heat dissipation rate		1600W (2200HU/s)	
	Max. continuous heat dissipation rate		300W (420HU/s)	
Nominal focal spot			0.6mm	1.2mm
Nominal anode input power (0.1sec, 180Hz)		324DK	38kW	92kW
		364DK	24kW	65kW
Anode Target		Material	Rhenium-tungsten faced molybdenum	
		Angle/ diameter	324DK	12° / 100mm
			364DK	16° / 100mm
Minimum total Filtration			1.7mm Al / 75kV (including added filter)	
Permanent Filtration			1.0mm Al / 75kV	
X-ray radiation field		324DK	350 x 350mm at SID 1m	
		364DK	350 x 350mm at SID 0.65m	
Mass (w/o Support ring and Fan)			21kg	

0.6/1.2P164DK-85

Item		Specifications	
Nominal X-ray tube voltage	Long-time	125kV	
	Short-time	150kV	
X-ray tube assembly	Max. heat content	1100kJ (1600kHU)	
	Nominal continuous input power	470W (660HU/s) (with fan)	
X-ray tube	Max. anode heat content	280kJ (400kHU)	
	Max. anode heat dissipation rate	1600W (2200HU/s)	
	Max. continuous heat dissipation rate	300W (420HU/s)	
Nominal focal spot		0.6mm	1.2mm
Nominal anode input power (0.1sec)	50Hz	12.7kW	34.3kW
	60Hz	13.8kW	37.3kW
Anode Target	Material	Rhenium-tungsten faced molybdenum	
	Angle/diameter	16° / 100mm	
Minimum total Filtration		1.7mm Al / 75kV (including added filter)	
Permanent Filtration		1.0mm Al / 75kV	
X-ray radiation field		350 x 350mm at SID 0.65m	
Mass (w/o Support ring and Fan)		21kg	

0.6/1.2P323DK-85

Item		Specifications	
Nominal X-ray tube voltage	Long-time	125kV	
	Short-time	150kV	
X-ray tube assembly	Max. heat content	1100kJ (1600kHU)	
	Nominal continuous input power	470W (660HU/s) (with fan),	
X-ray tube	Max. anode heat content	210kJ (300kHU)	
	Max. anode heat dissipation rate	1200W (1690HU/s)	
	Max. continuous heat dissipation rate	250W (350HU/s)	
Nominal focal spot		0.6mm	1.2mm
Nominal anode input power (0.1sec, 180Hz)		38kW	92kW
Anode Target	Material	Rhenium-tungsten faced molybdenum	
	Angle/diameter	12° / 100mm	
Minimum total Filtration		1.7mm Al / 75kV (including added filter)	
Permanent Filtration		1.0mm Al / 75kV	
X-ray radiation field		350 x 350mm at SID 1m	
Mass (w/o Support ring and Fan)		21kg	

0.6/1.2P38DE-85 & 0.6/1.2P18DE-85

Item		Specifications	
Nominal X-ray tube voltage	Long-time	125kV	
	Short-time	150kV	
X-ray tube assembly	Max. heat content	1100kJ (1600kHU)	
	Nominal continuous input power	235W (330HU/s) (without fan)	
X-ray tube	Max. anode heat content	140kJ (200kHU)	
	Max. anode heat dissipation rate	640W (900HU/s)	
	Max. continuous heat dissipation rate	210W (300HU/s)	
Nominal focal spot		0.6mm	1.2mm
Nominal anode input power (0.1sec)	50Hz (18DE)	18kW	48kW
	60Hz (18DE)	21kW	53kW
	180Hz (38DE)	37kW	85kW
Anode Target	Material	Rhenium-tungsten faced molybdenum	
	Angle/diameter	12° / 100mm	
Minimum total Filtration		1.7mm Al / 75kV (including added filter)	
Permanent Filtration		1.0mm Al / 75kV	
X-ray radiation field		350 x 350mm at SID 1m	
Mass (w/o Support ring and Fan)		21kg	

0.6/1.2P33DK-85 & 0.6/1.2P13DK-85

Item		Specifications	
Nominal X-ray tube voltage	Long-time	125kV	
	Short-time	150kV	
X-ray tube assembly	Max. heat content	1100kJ (1600kHU)	
	Nominal continuous input power	235W (330HU/s) (without fan)	
X-ray tube	Max. anode heat content	140kJ (200kHU)	
	Max. anode heat dissipation rate	640W (900HU/s)	
	Max. continuous heat dissipation rate	210W (300HU/s)	
Nominal focal spot		0.6mm	1.2mm
Nominal anode input power (0.1sec)	50Hz (13DK)	12.5kW	34.5kW
	60Hz (13DK)	14kW	37.5W
	180Hz (33DK)	24kW	65kW
Anode Target	Material	Rhenium-tungsten faced molybdenum	
	Angle/diameter	16° / 100mm	
Minimum total Filtration		1.7mm Al / 75kV (including added filter)	
Permanent Filtration		1.0mm Al / 75kV	
X-ray radiation field		350 x 350mm at SID 0.65m	
Mass (w/o Support ring and Fan)		21kg	

1/2P18DK-85

Item		Specifications	
Nominal X-ray tube voltage	Long-time	125kV	
	Short-time	150kV	
X-ray tube assembly	Max. heat content	1100kJ (1600kHU)	
	Nominal continuous input power	235W (330HU/s) (without fan)	
X-ray tube	Max. anode heat content	140kJ (200kHU)	
	Max. anode heat dissipation rate	640W (900HU/s)	
	Max. continuous heat dissipation rate	210W (300HU/s)	
Nominal focal spot		1mm	2mm
Nominal anode input power (0.1sec)	50Hz	35kW	68.5kW
	60Hz	39kW	75kW
Anode Target	Material	Rhenium-tungsten faced molybdenum	
	Angle/diameter	12° / 100mm	
Minimum total Filtration		1.7mm Al / 75kV (including added filter)	
Permanent Filtration		1.0mm Al / 75kV	
X-ray radiation field		350 x 350mm at SID 1m	
Mass (w/o Support ring and Fan)		21kg	

1/2P13DK-85

Item		Specifications	
Nominal X-ray tube voltage	Long-time	125kV	
	Short-time	150kV	
X-ray tube assembly	Max. heat content	1100kJ (1600kHU)	
	Nominal continuous input power	235W (330HU/s) (without fan)	
X-ray tube	Max. anode heat content	140kJ (200kHU)	
	Max. anode heat dissipation rate	640W (900HU/s)	
	Max. continuous heat dissipation rate	210W (300HU/s)	
Nominal focal spot		1mm	2mm
Nominal anode input power (0.1sec)	50Hz	27.5kW	64kW
	60Hz	30kW	70W
Anode Target	Material	Rhenium-tungsten faced molybdenum	
	Angle/diameter	16° / 100mm	
Minimum total Filtration		1.7mm Al / 75kV (including added filter)	
Permanent Filtration		1.0mm Al / 75kV	
X-ray radiation field		350 x 350mm at SID 0.65m	
Mass (w/o Support ring and Fan)		21kg	

0.3/0.8P324DK-85

Item		Specifications	
Nominal X-ray tube voltage	Long-time	125kV	
	Short-time	150kV	
X-ray tube assembly	Max. heat content	1100kJ (1600kHU)	
	Nominal continuous input power	470W (660HU/s) (with fan),	
X-ray tube	Max. anode heat content	280kJ (400kHU)	
	Max. anode heat dissipation rate	1600W (2200HU/s)	
	Max. continuous heat dissipation rate	300W (420HU/s)	
Nominal focal spot		0.3mm	0.8mm
Nominal anode input power (0.1sec, 180Hz)		11kW	54kW
Anode Target	Material	Rhenium-tungsten faced molybdenum	
	Angle/diameter	12° / 100mm	
Minimum total Filtration		1.7mm Al / 75kV (including added filter)	
Permanent Filtration		1.0mm Al / 75kV	
X-ray radiation field		350 x 350mm at SID 1m	
Mass (w/o Support ring and Fan)		21kg	

0.3/0.8P323DK-85

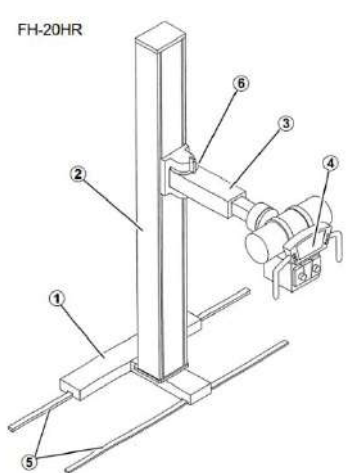
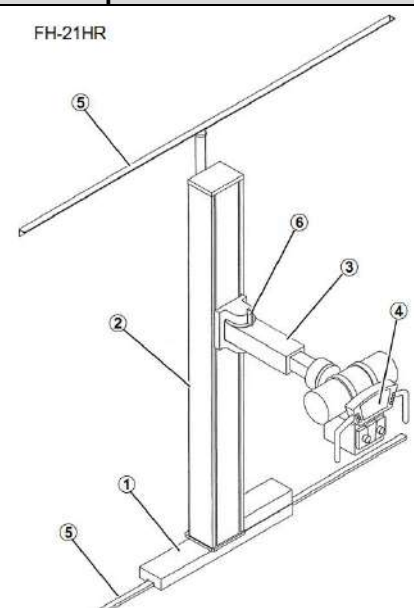
Item		Specifications	
Nominal X-ray tube voltage	Long-time	125kV	
	Short-time	150kV	
X-ray tube assembly	Max. heat content	1100kJ (1600kHU)	
	Nominal continuous input power	470W (660HU/s) (with fan),	
X-ray tube	Max. anode heat content	210kJ (300kHU)	
	Max. anode heat dissipation rate	1200W (1690HU/s)	
	Max. continuous heat dissipation rate	250W (350HU/s)	
Nominal focal spot		0.3mm	0.8mm
Nominal anode input power (0.1sec, 180Hz)		11kW	54kW
Anode Target	Material	Rhenium-tungsten faced molybdenum	
	Angle/diameter	12° / 100mm	
Minimum total Filtration		1.7mm Al / 75kV (including added filter)	
Permanent Filtration		1.0mm Al / 75kV	
X-ray radiation field		350 x 350mm at SID 1m	
Mass (w/o Support ring and Fan)		21kg	

0.3/0.8P18DK-85

Item		Specifications	
Nominal X-ray tube voltage	Long-time	125kV	
	Short-time	150kV	
X-ray tube assembly	Max. heat content	1100kJ (1600kHU)	
	Nominal continuous input power	235W (330HU/s) (without fan)	
X-ray tube	Max. anode heat content	140kJ (200kHU)	
	Max. anode heat dissipation rate	640W (900HU/s)	
	Max. continuous heat dissipation rate	210W (300HU/s)	
Nominal focal spot		0.3mm	0.8mm
Nominal anode input power (0.1sec)	50Hz	6kW	28kW
	60Hz	6.4kW	31.2kW
Anode Target	Material	Rhenium-tungsten faced molybdenum	
	Angle/diameter	12° / 100mm	
Minimum total Filtration		1.7mm Al / 75kV (including added filter)	
Permanent Filtration		1.0mm Al / 75kV	
X-ray radiation field		350 x 350mm at SID 1m	
Mass (w/o Support ring and Fan)		21kg	

X-Ray Tube Support

FH-20HR/21HR

Item	Specifications
FH-20HR  ① Base ② Column ③ Arm ④ Control Panel ⑤ Guide rail	FH-21HR  ③ Arm ⑥ Rotation lock/release lever
Maximum supportable weight	35kg
Balancing system	Counter weight-balanced type
Vertical travel	400 – 1,950mm (floor to focus)
Longitudinal travel	2,500mm
Transverse travel	250mm
Rotation around horizontal axis	±180°, continuous (click stops at 90° intervals)
Rotation of X-ray tube unit (longer axis)	90° upward 10° downward continuously variable
Rotation around vertical axis	stop at three points -90°, 0°, +90°
Operation	Manual, electromagnetic lock(off lock)

Item	Specifications
Ceiling height	FH-20HR : 2,300mm FH-21HR : 2350 – 2900mm
Required space for installation	1,600(W) x 3,600(L) mm
Mass	140kg (excluding X-ray tube assembly and collimator)
Power source	Single phase, AC100V, 0.3kVA, 50/60Hz

Collimator

R-20J

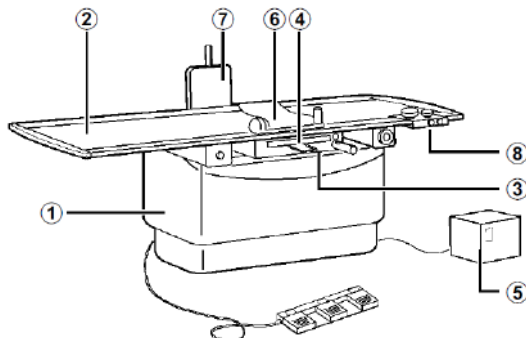
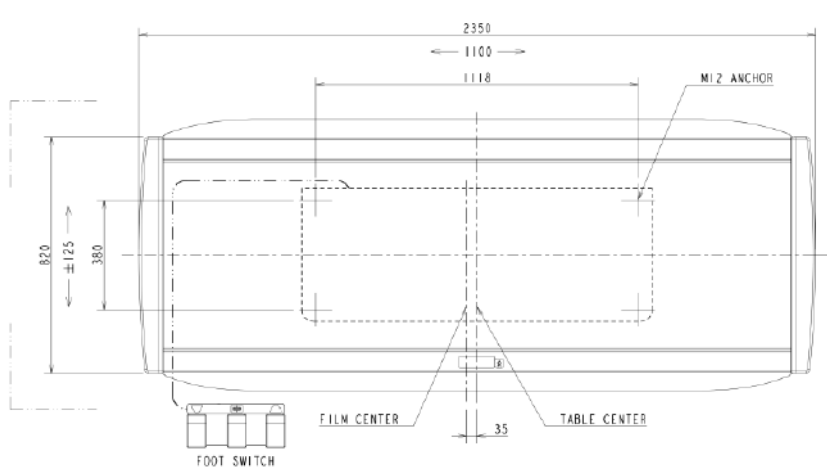
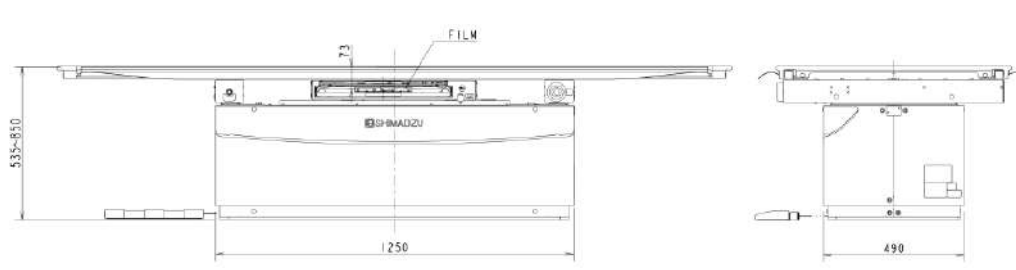
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Item		Specifications
Max. voltage used for applicable X-ray tube		150kV
Radiation field	Shape	Rectangular
	Maximum field	43 x 43cm @SID 100cm
	Minimum field	0 x 0cm
Radiation field indication	Average brightness	160lx @SID 100cm
	Accuracy	Less than 2% of SID
	Center of the field	Dark hair cross
	Light source	LED
	Period of indication	30 sec (timer-controlled)
Opening indication	SID	1, 1.5, 2m
	Field size indication	20,23,25,28,30,36,43cm 8,9,10,11,12,14,17inch
Drive of leaves		Manual
Lead equivalent of leaves	Shielding leaves(H and V-leaves)	3mm Pb eq.
	Middle leaves	2mm Pb eq.
Filtration	Inherent filtration	1.0 mm Al eq. / 75kV
	Additional filter	0.5mm Al. plate
Turning mechanism		+/- 45°
External dimensions		224(W) x 271(D) x 221(H)mm
Mass		6kg
Power supply		AC 12V : 50/60Hz : 100VA or DC24V 100VA

Options

Item	Description
Line marker	Used to align the center positions of the Bucky device and the equipment, and to set the radiography position for long view radiography
Detent	Fitted at the home position of the turning mechanism and serves to confirm the home position when the collimator is turned.
DAP adapter for VACUTEC	This is an adapter kit for DAP meter manufactured by VACUTEC. DAP can be displayed on the console of DAP meter.

**X-ray Radiography Table
BK-120MK**

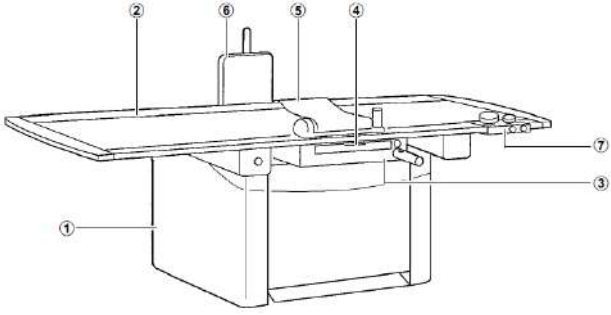
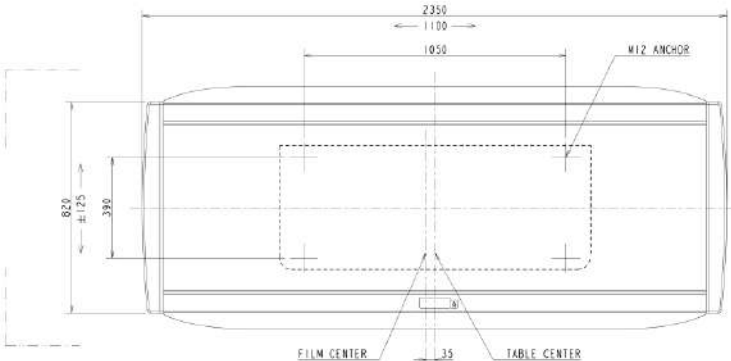
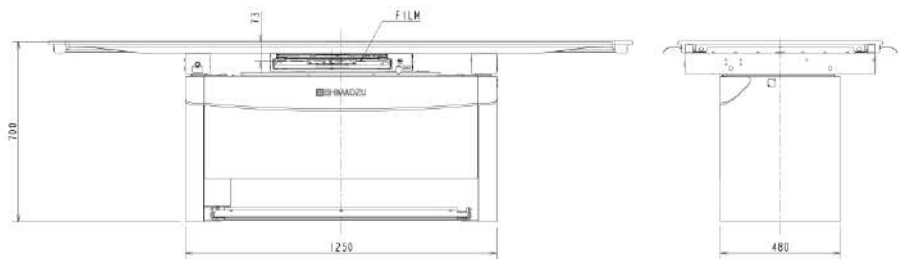
Item		Specifications
① Main Body ② Floating Table Top Assembly ③ Bucky device ④ Grid indicator ⑤ Transformer unit Optional Items ⑥ Compression belt ⑦ Lateral cassette holder ⑧ Grip switch ⑨ Drip holder (not shown) ⑩ CFRP table top (not shown)		 unit:mm  
Main Body	Size of Tabletop	810(Width) x 2,350(Length)mm
	Material of tabletop	Wood CFRP(option)
	Attenuation equivalent for table	1.7mmAl. eq. (Wood) 0.7mmAl. eq. (CFRP)
	Longitudinal movement	1,100mm Manual operation
	Lateral movement	+/- 125mm Manual operation
	Tabletop Lock	Electromagnetic lock (off-lock)
	Vertical moving range	315mm Motor drive
	Distance between tabletop and floor	535 to 850mm (The tabletop stops once at Approx. 700mm.) *1
	Distance between tabletop and a film	73mm
	Maximum allowable load	200kgf

Item		Specifications	
Bucky Device	Cassette fixing position	Center position	
	Bucky device moving stroke	380mm (+/- 190mm)	
	X-ray grid (Moving grid)	Dimensions	438mm x 479mm
		Intermediate material	Al
		Density, ratio Note) Select one of the listed Grids	40 lines/cm 10:1 100cm 40 lines/cm 10:1 150cm
		Mounting/removing grid	Possible
Installation Conditions	Required space for installation	5,000(W) x 3,500(L)mm (to combine with the X-ray support device)	
	Mass	320kg	
	Power Supply	Single-phase AC200, 220, 230, 240V 1.0kVA, 50/60Hz	

*1 When installing, the stop position can be adjusted within a height range of 600 to 700mm.

Options

Item	Description
Compression belt	This belt to be attached to the sides of the tabletop secures the patient's radiography region to the tabletop
Lateral cassette holder	This holder to be attached to the side of the tabletop holds a cassette in lateral radiography.
Grip switch	This switch to be attached to the side of the tabletop operates the floating tabletop.
CFRP tabletop	This tabletop is made of CFRP (Carbon Fiber Reinforced Plastic).
Hand grip	Equipped with tabletop side and grasped by patient so that the patient position keeps steady.
Drip stand	Attached to the tabletop side and suspends the drip bins.
FPD rotation tray	The FPD tray can be rotated 90 degree to change the orientation of FPD. (Portrait↔Landscape) This option is only for 14 x 17 inch (35 x 43 cm) FPD.

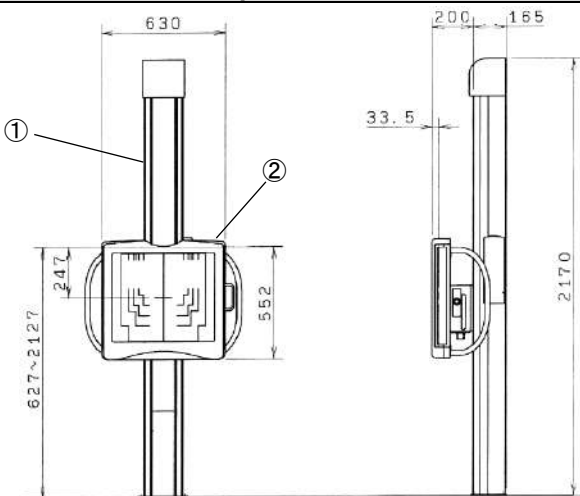
Item		Specifications	
① Main Body ② Floating Table Top Assembly ③ Bucky device ④ Grid indicator Optional Items ⑤ Compression belt ⑥ Lateral cassette holder ⑦ Grip switch ⑧ Drip holder (not shown) ⑨ CFRP table top (not shown)		 unit:mm  	
Main Body	Size of Tabletop	810(Width) x 2,350(Length)mm	
	Material of tabletop	Wood CFRP(option)	
	Attenuation equivalent for table	1.7mmAl. eq. (Wood) 0.7mmAl. eq. (CFRP)	
	Longitudinal movement	1100mm Manual operation	
	Lateral movement	+/- 125mm Manual operation	
	Tabletop Lock	Electromagnetic lock (off-lock)	
	Vertical moving range	315mm Motor drive	
	Distance between tabletop and floor	700mm	
	Distance between tabletop and a film	73mm	
	Maximum allowable load	200kgf	
	Cassette fixing position	Center position	
Bucky Device	Bucky device moving stroke	380mm (+/- 190mm)	
	X-ray grid (Moving grid)	Dimensions	438mm x 479mm
		Intermediate material	Al
		Density, ratio Note) Select one of the listed Grids	40 lines/cm 10:1 100cm 40 lines/cm 10:1 150cm

Item		Specifications	
		Mounting/removing grid	Possible
Installation Conditions	Required space for installation	5,000(W) x 3,500(L)mm (to combine with the X-ray support device)	
	Mass	120kg	
	Power Supply	Single-phase AC100V, 0.1kVA, 50/60Hz	

Options

Item	Description
Compression belt	This belt to be attached to the sides of the tabletop secures the patient's radiography region to the tabletop
Lateral cassette holder	This holder to be attached to the side of the tabletop holds a cassette in lateral radiography.
Grip switch	This switch to be attached to the side of the tabletop operates the floating tabletop.
CFRP tabletop	This tabletop is made of CFRP (Carbon Fiber Reinforced Plastic).
Hand grip	Equipped with tabletop side and grasped by patient so that the patient position keeps steady.
Drip stand	Attached to the tabletop side and suspends the drip bins.
FPD rotation tray	The FPD tray can be rotated 90 degree to change the orientation of FPD. (Portrait↔Landscape) This option is only for 14 x 17 inch (35 x 43 cm) FPD.

**X-Ray Radiography Stand
BR-120M**

Item		Specifications	
① Stand ② Bucky Device			
Bucky device	Distance between Bucky device guathal hub and floor	h = 627(643) – 2,127(2,143)mm (Manual operation) (Figures in parentheses are dimensions when mounted on a base plate)	
	Operation	Manual Electromagnetic lock (off lock)	
	Distance between Bucky device guathal hub and center of detector	247mm	
	Distance between Bucky device front face and a film	33.5mm	
	Cassette fixing position	Center reference, Top reference or bottom reference	
	X-ray grid (Moving grid)	Dimensions	438mm x 479mm
		Interspacer material	Al
		Density, ratio Note) Select one of the listed Grids	40 lines/cm 10:1, 150cm 40 lines/cm 12:1, 170cm 40 lines/cm 12:1, 180cm
		Mounting/removing	Possible
	Attenuation equivalent for front panel	0.63mm Al eq.	
Installation conditions	Required space	650mm(L) x 400mm(D)	
	Required ceiling height	2,350mm	
	Mass	120kg	
	Power Supply	Single-phase AC100V, 0.2kVA, 50/60Hz	

Options

Item	Description
Overhead hand grip	For lateral chest exam to grip overhead, adjust the height by the position of gripping.
Cassette holder	Cassette unit is attached on bucky device and holds a film cassette.
Base plate	Base plate is installed when the equipment cannot be mounted in the standard holes.
Wall mounting option	Fix the top of column to wall. Use when the fixation to floor is difficult.
Side hand grips	For P-A chest exam. to grip both hands, a pair of left and right.
Compression belt	This belt fixes the radiography area of a patient on the Bucky device.

Operation Environment

Item	Specifications
Ambient temperature	10 to 40 degree C
Relative humidity	30 to 85% (non condensing)
Atmospheric pressure	800 to 1060hPa

Power Supply

Item	Specifications
Phase	3-phase, single-phase
Frequency	50/60Hz
Standard voltages	3-phase 200/220/240/380/400/415/440/480V Single-phase 200/220/230/240V
Permitted voltage range	+/- 10% of standard voltage
Supply capacity (Digital Radiography system is not included.)	80kW / 65kW type: 3-phase 120kVA Single-phase 8.5kVA 50kW type: 3-phase 80kVA Single-phase 8.5kVA or Single-phase 95kVA

Remarks

- * Every value in this Product Data Sheet is a standard value, and it may vary a little from the actual at each site.
- * The appearances and specifications are subject to change for reasons of improvement without notice.
- * Certain configurations may not be available pending regulatory clearance. Contact your Shimadzu representative for information on specific configurations.

LABEL Description: RADspeed Pro

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Shimadzu Corporation Medical Systems Division has been certified by TÜV Rheinland as a manufacturer of medical systems in compliance with ISO9001:2015 Quality Management Systems and ISO13485:2016 Medical Devices Quality Management Systems.

Remarks:

- Every value in this document is a standard value, and it may vary a little from the actual at each site.
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- Items and components in the photos may include optional items. Please confirm with your sales representative for details.
- Certain configurations may not be available pending regulatory clearance.
- Contact your sales representative for information on specific configurations.
- Before operating this system, you should first thoroughly review the Instruction Manual.