

Mark V ProVis™

SPECIFICATIONS

Medrad® reserves the right to change product designs and specifications at any time in the continuing effort to improve their products. The following specifications refer to new units operating at room temperature (approximately 70 degrees F or 21 degrees C).

INJECTOR HEAD

Load Speed	Forward or reverse 5-10 ml/sec.
Syringe Heater	37° C (98° F) nominal
Syringes	Disposable: 60 ml, 150 ml or 200 ml
Automatic Mechanical Stop	Automatically sets higher than the selected volume before each injection: 1.5 ml with a 60 ml syringe 2.5 ml with a 150 ml syringe 4.0 ml with a 200 ml syringe

WEIGHT

Pedestal System (total)	213 lbs (97 kg)
Injector Head	21.5 lbs (9,8 kg)
Pedestal System (without head)	191.5 lbs (87,2 kg)
Control Room Console (excluding head)	45 lbs (20,4 kg)
Remote Control Panel (without cable)	10.5 lbs (4,8 kg)

POWER REQUIREMENTS

Available:

95-105 VAC, 50 or 60 Hz, 8 A typical 10 amp max
105-120 VAC, 50 or 60 Hz, 8 A typical 10 amp max
120-125 VAC, 50 or 60 Hz, 8 A typical 10 amp max
190-210 VAC, 50 or 60 Hz, 4 A typical 5 amp max
210-240 VAC, 50 or 60 Hz, 4 A typical 5 amp max
240-250 VAC, 50 or 60 Hz, 4 A typical 5 amp max
(Typically defined at 15 ml/s with pressure of 600 psi)

ELECTRICAL LEAKAGE

Earth	<100 MA at 120 VAC <300 MA at 240 VAC
Chassis	<100 MA
Patient	<10 MA
Protection Against Electrical Shock	Per EN 60601-1, designated as Class 1 equipment with CF applied parts
EMI/RFI	Classified as Group 1, Class B equipment per EN 60601-1-2

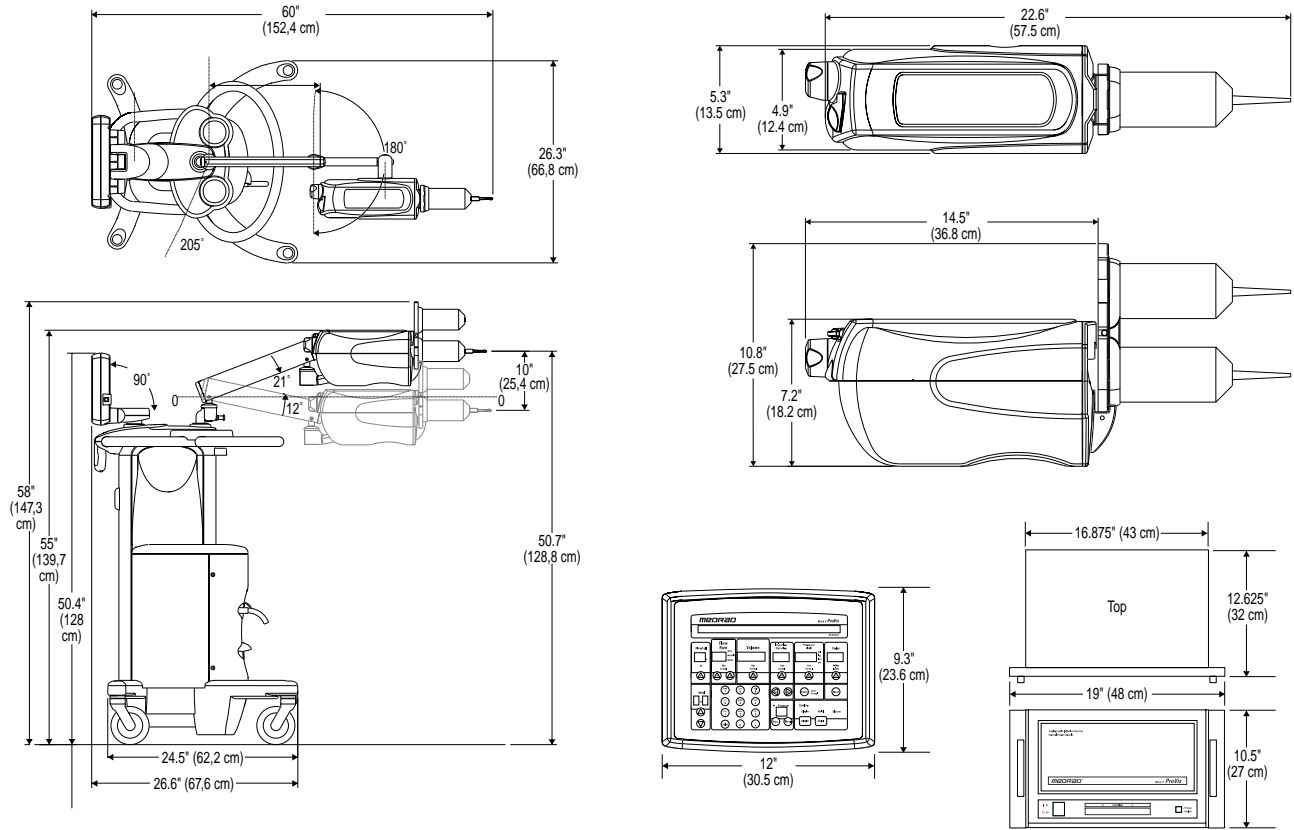
CORD LENGTHS

Power Cord Rack Mount	11 ft (3,3 m)
Pedestals	15 ft (4,6 m)
Film Changer Extension Cable RMC 100 I	25 ft (7,6 m)
Auxillary Handswitch and Cable KMA 550IR	25 ft (7,6 m)
Handswitch with Coiled Cable RPA 550IR	25 ft (7,6 m)
Injector Head Cable	7 ft (2,13 m) pedestal std. 10 ft (3,05 m) Rack Mount std. in Americas/Asia 15 ft (4,6 m) std. in Europe and Japan

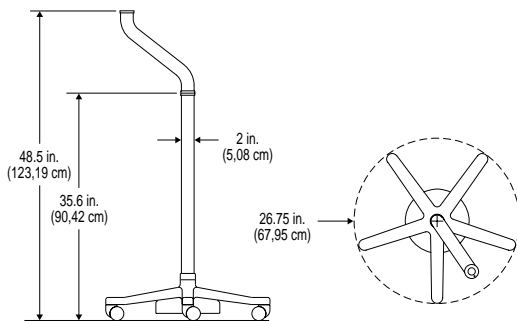
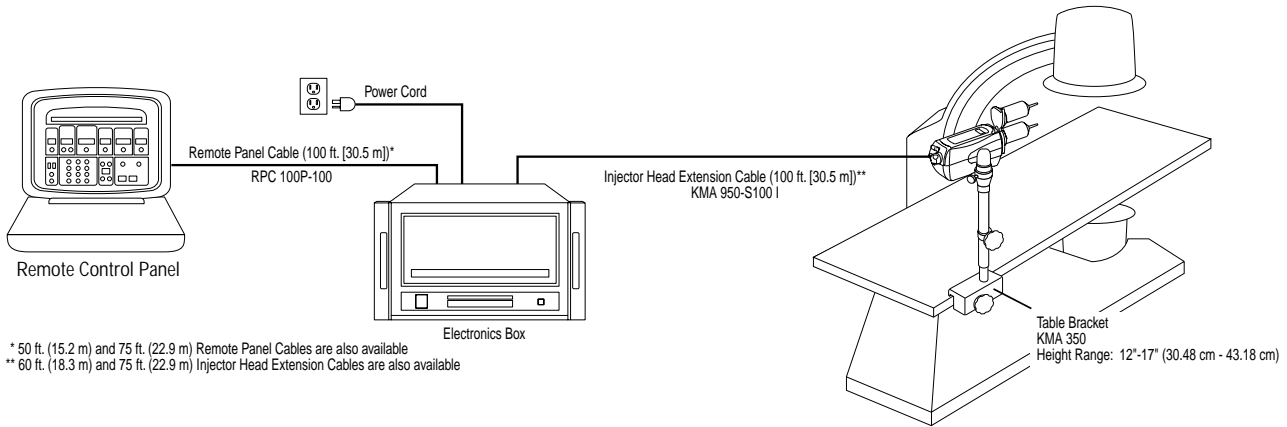
INJECTOR

Flow Rate	<u>Syringe Size</u>	<u>Flow Rate</u>
	60 ml syringe	0.3 to 10 ml/s, ml/min, ml/hr in 0.1 increments 10 to 20 ml/s, in 1 ml increments 10 to 59 ml/min, ml/hr in 1 ml increments
	150 ml and 200 ml syringes	0.3 to 10 ml/s, ml/min, ml/hr in 0.1 increments 10 to 50 ml/s in 1 ml increments 10 to 59 ml/min, ml/hr in 1 ml increments
Accuracy	± 5% and ± .25 ml/s and ml/min ± 10% and ± .25 ml/hr	
Rise/Fall Time	Flow Rate 0.0 to 9.9 secs in 0.1 s increments	
Volume	Maximum programmable Volume is limited only by syringe capacity. Minimum programmable Volume: 60 ml syringe 0.5 ml minimum, 150 ml and 200 ml syringe 1.0 ml minimum 0.1 ml increments with either syringe size.	
Pressure Limit	In ml/s Flow scale, Pressure can be set to the following limits:	
	<u>60 ml syringe</u>	<u>150 ml syringe</u> <u>200 ml syringe</u>
	100-1100 psi	100-1200 psi 100-1000 psi
	6-75 ATU (bar)	6-82 ATU (bar) 6-68 ATU (bar)
	7-77 kg/sq cm	7-84 kg/sq cm 7-70 kg/sq cm
	689-7584 kPa	689-8274 kPa 689-6895 kPa
	Pressure can be selected in increments of 1 for any scale (1 psi, 1 ATU (bar), etc.)	
	In ml/min or ml/hr Flow scales, the maximum selectable Pressure is:	
	700 psi	
	48 atu (bar)	
	49 kg/sq. cm	
	4826 Kpa	
Delay Timer	0-99.9 seconds in increments of 0.1 second	
X-Ray Control	Pair of normally-open isolated contacts rated to switch 10 A maximum at 28 VDC	
Program Control	Up to 49 Single-Level injections, or 33 Multiple-Level injections	
Level Control	Up to 4 levels (Flow Rate and Volume changes) per injection (single Flow scale only).	

DIMENSIONS



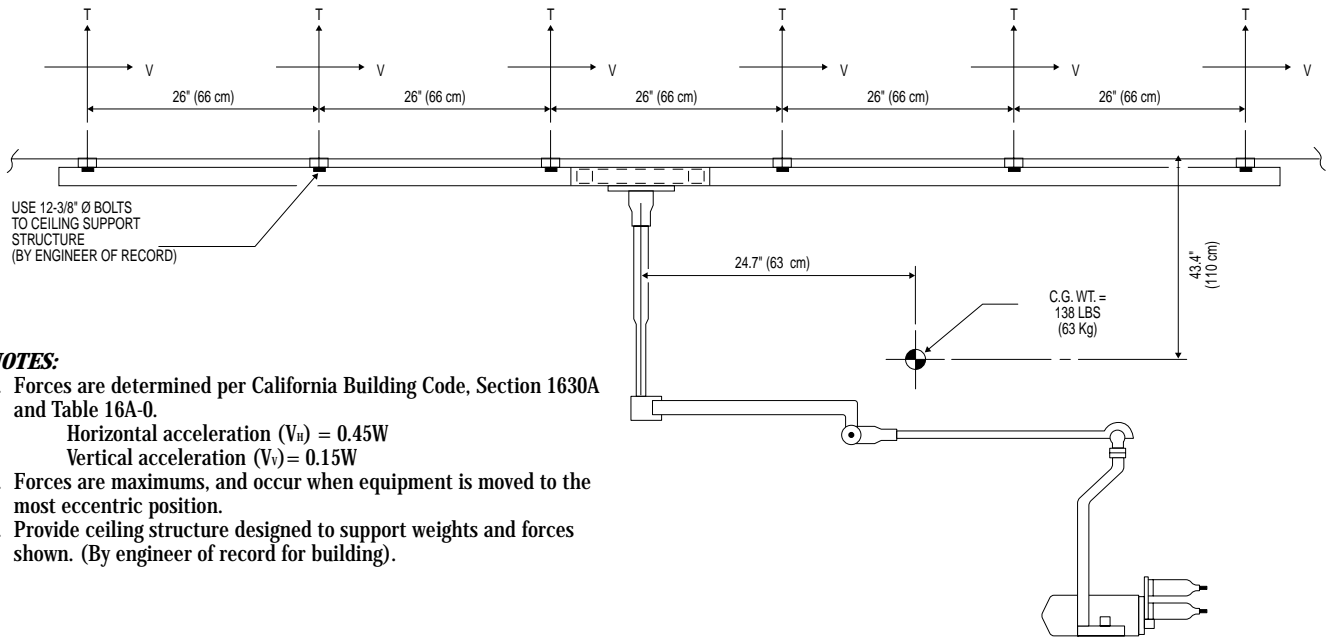
HEAD MOUNTING SYSTEMS



▲ **Injector Head Pedestal**
KMA 320 RT

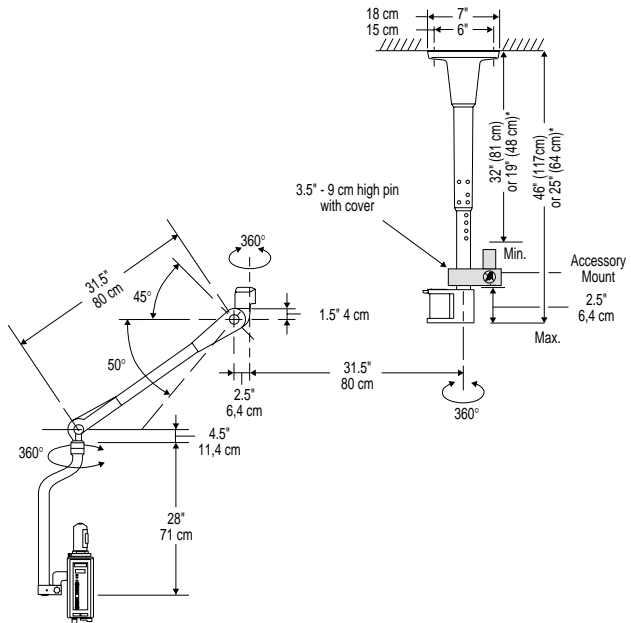
▲ **Table Bracket**
KMA 350
Accommodates rails 7/8" – 1-1/4" wide
(1.91 cm – 3.18 cm)

HEAD MOUNTING SYSTEMS



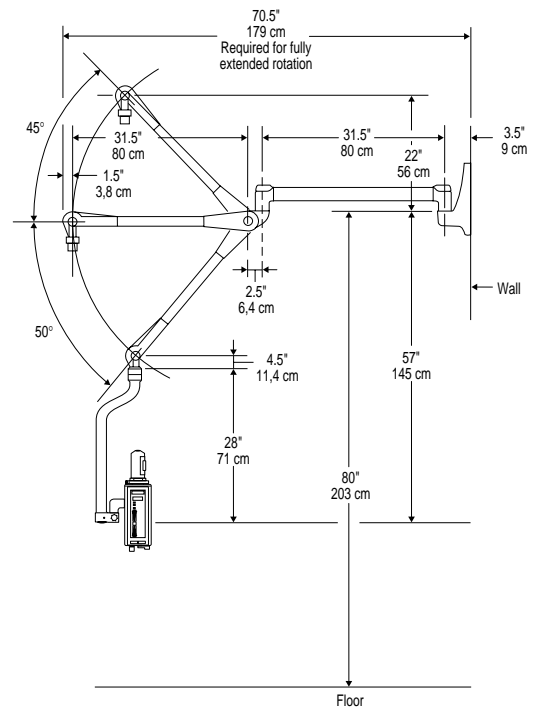
NOTES:

1. Forces are determined per California Building Code, Section 1630A and Table 16A-0.
 Horizontal acceleration (V_H) = 0.45W
 Vertical acceleration (V_V) = 0.15W
2. Forces are maximums, and occur when equipment is moved to the most eccentric position.
3. Provide ceiling structure designed to support weights and forces shown. (By engineer of record for building).



▲ **Ceiling Mounted Counterpoise**
 OCS 115A Weight: 27 kg (60 lbs)

▶ **Support Arm Only**
 OCS 135A
 Weight: 16 kg (35 lbs)
 Used when an existing ceiling column is in place.



▲ **Wall Mounted Counterpoise**
 OCS 125A Weight: 18 kg (40 lbs)

▶ **Mobile Ceiling Mounted Counterpoise**
 OCS 155A
 Weight: 44 kg (97 lbs)

All weights are without injector head.

**with optional short ceiling mount*

MEDRAD®

The only source for Medrad Engineering, Medrad Quality, Medrad Service and Medrad Support.

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