



Radiation Products Design, Inc.

5218 Barthel Industrial Drive

Albertville, MN 55301

www.rpdinc.com

Phone: 800-497-2071 Fax: 763-497-2295

**RPD is an
authorized distributor**

RPD Product Information

Item Number Description

300-253-A16 Exradin A16 Slim-Line Microchamber, 0.009 cc



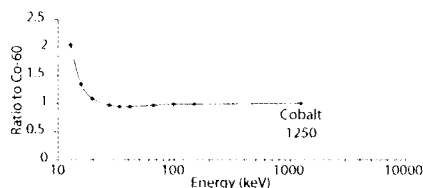
For assessing pinpoint radiation fields for IMRT orthovoltage, x-rays and stereotactic and superficial skin therapy

- Axially symmetric design, homogeneous construction and complete guarding for uniform field lines.
- Extremely small volumes allow for exceptional spatial resolution and exact pinpoint characterization of a small area of the beam and beam profile measurements in a water phantom or water equivalent material.
- Inherently waterproof construction.
- Uniform isotropic response on cylindrical axis measuring volume.
- Models 14 and A14P have two separate, removable stem pieces of 10.1 cm and 12.7 cm that can be coupled together for easy mounting.
- Models A14SL and A16 have a one piece, non-removable 5.6 cm stem.
- The chamber vents through a flexible tube that surrounds the triaxial cable. This vent tube is sealed to the chamber body and open near the connector.
- Capable of measuring extremely small field sizes of 4 x 6 mm for Model 14 and A14SL and 4 x 4 mm for Model A16 allow for accurate measurements without partial volume effects.
- **For detailed technical specifications see the fold-out pages at the back of this brochure.**

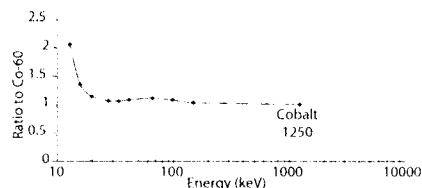
Characterization for A16 Micropoint Chamber

The A16 Micropoint Chamber is designed primarily for applications like IMRT and stereotactic surgery, which use cobalt and higher energy beams. A typical calibration factor for air kerma in a cobalt beam is 3.5×10^{-9} Gy/C

Models 14 & A14SL Characterization Curve



Model 14P Characterization Curve



MODEL 14 [A14, T14]

Microchamber, 0.009 cc

Centroid of Collecting Volume (from tip)	2.0 mm
Outside Diameter	6.0 mm
Collector Diameter and Length	0.3 mm x 1.52 mm
Wall Thickness	1.0 mm
Nominal Leakage	$<10^{-15}$ amps
Maximum Polarizing Voltage	1000 volts

MODEL A14SL

Slim-Line Microchamber, 0.009 cc

Centroid of Collecting Volume (from tip)	2.1 mm
Outside Diameter	6.35 mm
Collector Diameter and Length	0.3 mm x 1.52 mm
Wall Thickness	1.1 mm
Nominal Leakage	$<10^{-15}$ amps
Maximum Polarizing Voltage	1000 volts

MODEL A16

Micropoint Chamber, 0.007 cc

Centroid of Collecting Volume (from tip)	1.8 mm
Outside Diameter	3.4 mm
Collector Diameter and Length	0.3 mm x 1.27 mm
Wall Thickness	0.5 mm
Nominal Leakage	$<10^{-15}$ amps
Maximum Polarizing Voltage	1000 volts

MODEL 14P [A14P, T14P]

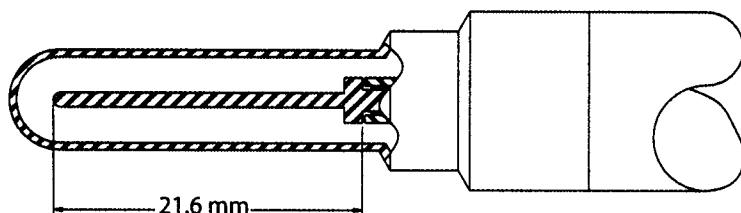
Parallel Plate Microchamber, 0.002 cc

Centroid of Collecting Volume (from tip)	1.5 mm
Outside Diameter	6.0 mm
Collector Diameter	1.5 mm
Window Thickness	1.0 mm
Nominal Leakage	$<10^{-15}$ amps
Maximum Polarizing Voltage	1000 volts

A12

Farmer-Type Chamber Model A12

Collecting Volume: 0.65 cc
Nominal Calibration Factor: 0.05 Gy/nC (TG-51)
Nominal Calibration Factor: 5.0 R/nC (TG-21)
Nominal Calibration Factor: 44.0 Gy/ μ C (Air Kerma)



Centroid of Collecting Volume: 12.9 mm from tip of shell
Outside Diameter of Shell Collecting Volume: 7.1 mm
Collector Diameter: 1.0 mm **Shell Wall Thickness:** 0.5 mm
Shell, Collector and Guard Material:

A12 – C552 Shonka air-equivalent plastic

Stem: 12.7 mm OD black phenolic two-piece 10.1 cm + 12.7 cm long; removable

Waterproof: Yes, as furnished; no sheath required

Venting: Through Tygon® PVC tubing secured to chamber body and running the full length of the triaxial cable; cable is inside tubing

Buildup Cap Included with Chamber: Co-60 cap made of C552; 2.8 mm wall thickness

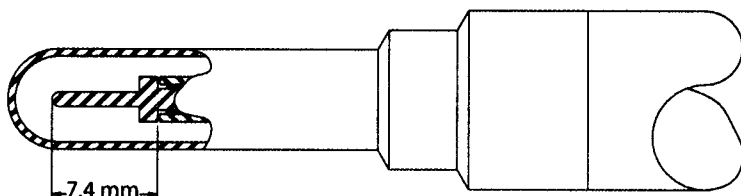
Additional Buildup Caps Available: Delrin-4 MeV (10.5 mm); 6 MeV (15.8 mm); 10 MeV (25.7 mm); 12 MeV (30.5 mm); 15 MeV (37.4 mm); 18 MeV (44.0 mm) Brass-4 MeV (2.3 mm); 6 MeV (3.4 mm); 10 MeV (5.2 mm); 12 MeV (6.0 mm); 15 MeV (7.1 mm); 18 MeV (8.1 mm); 23 MeV (9.5 mm); 25 MeV (10.1 mm)

Options: CRS stem; RSVP Phantom adaptation

A12S

0.25 cc Farmer-Type Chamber Model A12S

Collecting Volume: 0.25 cc
Nominal Calibration Factor: 14 R/nC (TG-21)
Nominal Calibration Factor: 123.1 Gy/ μ C (Air Kerma)



Centroid of Collecting Volume: 5.8 mm from tip of shell
Outside Diameter of Shell Collecting Volume: 7.1 mm
Collector Diameter: 1.0 mm **Shell Wall Thickness:** 0.5 mm
Shell, Collector and Guard Material:

A12S – C552 Shonka air-equivalent plastic

Stem: 12.7 mm OD black phenolic two-piece 10.1 cm + 12.7 cm long; removable

Waterproof: Yes, as furnished; no sheath required

Venting: Through Tygon® PVC tubing secured to chamber body and running the full length of the triaxial cable; cable is inside tubing.

Buildup Cap Included with Chamber: Co-60 cap made of C552; 2.8 mm wall thickness

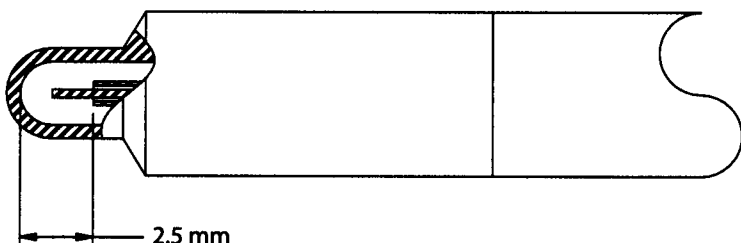
Additional Buildup Caps Available: Delrin-4 MeV (10.5 mm); 6 MeV (15.8 mm); 10 MeV (25.7 mm); 12 MeV (30.5 mm); 15 MeV (37.4 mm); 18 MeV (44.0 mm) Brass-4 MeV (2.3 mm); 6 MeV (3.4 mm); 10 MeV (5.2 mm); 12 MeV (6.0 mm); 15 MeV (7.1 mm); 18 MeV (8.1 mm); 23 MeV (9.5 mm); 25 MeV (10.1 mm)

Options: CRS stem; RSVP Phantom adaptation

A16

Micropoint Chamber Model A16

Collecting Volume: 0.007 cc
Nominal Calibration Factor: 400 R/nC (TG-21)
Nominal Calibration Factor: 3.5 Gy/nC (Air Kerma)



Centroid of Collecting Volume: 1.8 mm from tip of shell
Outside Diameter of Shell Collecting Volume: 3.4 mm
Collector Diameter: 0.3 mm x 1.27 mm length
Shell Wall Thickness: 0.5 mm

Shell, Collector and Guard Material:

A16 – C552 Shonka air-equivalent plastic

Stem: 6.4 mm OD aluminum one-piece 5.6 cm long; not removable

Waterproof: Yes, as furnished; no sheath required

Venting: Through Tygon® PVC tubing secured to chamber body and running the full length of the triaxial cable; cable is inside tubing.

Buildup Caps Included with Chamber: Co-60 made of C552; wall thickness of 2.5 mm

Options: RSVP Phantom adaptation