

#### **Radiation Products Design Inc**

#### **INSTRUCTIONS**

## **RPD INFORMATION**

Address 5218 Barthel Industrial Drive

Albertville, MN 55301

Website www.rpdinc.com
Email sales@rpdinc.com

**Phone** 763-497-2071 or 800-497-2071

**Fax** 763-497-2295

# **RPD PRODUCT INFORMATION**

#### Item Number Description

970-542 Combination FSD Shielded Round Ovoid Long

Handle Applicator with Stainless Steel Pivot and Delclos Mini-Ovoid Long Handle Applicator with Stainless Steel Pivot Set, Includes

Sterilization Tray

THIS PRODUCT IS NOT STERILE AND IS TO BE USED BY AUTHORIZED PERSONNEL ONLY.

RADIATION PRODUCTS DESIGN INC assumes no liability for consequential damages of any kind for this material when used or for any direct or indirect consequences of its use or misuse by their customer.

# COMBINATION FSD SHIELDED ROUND OVOID LONG HANDLE APPLICATOR AND DELCLOS MINI-OVOID LONG HANDLE APPLICATOR



# **ITEM 970-542 INCLUDES**

- (1) FSD Shielded Round Ovoid Long Handle Applicator with Stainless Steel Pivot and Two Bucket Carriers
- (2) 2.5 cm Diameter Nylon Ovoid Cap
- (2) 3.0 cm Diameter Nylon Ovoid Cap
- (1) Delclos Mini-Ovoid Long Handle Applicator with Stainless Steel Pivot and Two Bucket Carriers
- (4) Stainless Steel Tandems and Caps (15°, 30°, 45°, and 60°)
- (1) Cervical Stop
- (2) Flagged Cervical Stops
- (1) 3/32" Allen Wrench
- (4) Plastic Tandems and Pushers for Sources
- (1) Sterilization Tray

#### **IMPORTANT**

The density of the stainless steel FSD Shielded Round Ovoid Long Handle Applicator is 7.916 g/cm<sup>3</sup> and the tungsten density is 19.3 g/cm<sup>3</sup>. However, it is strongly recommended that you obtain your own isodose curves before using the applicator for treatment purposes.

The density of the stainless steel Delclos Mini-Ovoid Long Handle Applicator is 7.916 g/cm<sup>3</sup>. However, it is strongly recommended that you obtain your own isodose curves before using the Applicator for treatment purposes. The optional high temperature plastic ovoid caps have tungsten shields: density 19.3 g/cm<sup>3</sup>.

## **DESCRIPTION**

FSD Shielded Round Ovoid Long Handle Applicator with Stainless Steel Pivot employs the same features as the Rectangular Handle Fletcher-Suit Afterloading applicator but is less bulky, lighter, and has an easier source loading procedure. The lead (density 11.35 g/cm³) shields were replaced with high density 19.3 g/cm³ tungsten. The handle is 19 cm long to the ovoid center. The ovoid's are 20 mm in diameter, 30 mm high, have a 15° angle. The ovoid's have immovable tungsten shielding for bladder and rectal protection. The handle is stainless steel for durability with a lightweight titanium knob and lightweight titanium ovoid handle caps. The handle is completely Heli-Arc welded at all joints including pivot and locking for

unbreakable joints. The applicator bucket carriers accommodate Cesium 137 sources up to 3.2 mm diameter x 20 mm long. A hole in the bucket carrier allows the user to push the source out, if the source gets stuck inside the bucket carrier. Ovoid caps increase the diameter of the ovoid. Four ovoid caps, (2) 2.5 cm and (2) 3.0 cm diameter are furnished with the applicator. The stainless steel tandems are marked every 2 cm over a 12 cm range.

The Delclos Mini-Ovoid Long Handle Afterloading Applicator Set with Stainless Steel Pivot was designed for the patient with a narrow or tortuous vault that will not accommodate the round ovoid of the standard Fletcher-Suit Applicator. The ovoid is flattened medially to accommodate a very small anatomy. The flattened area results in an increased dose to the cervix. The handle is 19 cm long to the ovoid center. The ovoid's are 12.8 mm in width, 30 mm high, have a 15° angle and do not have shielding. The handle is stainless steel for durability with a lightweight titanium knob and lightweight titanium ovoid handle caps. The handle is completely Heli-Arc welded at all joints including pivot and locking for unbreakable joints. The applicator bucket carriers accommodate Cesium 137 sources up to 3.2 mm diameter x 20 mm long. A hole in the bucket carrier allows the user to push the source out, if the source gets stuck inside the bucket carrier. The stainless steel tandems are marked every 2 cm over a 12 cm range.

Optional items available include Stainless Steel Tandem Support Bracket with 1/16" Allen Wrench (Item 970-229), 2.0 cm, 2.5 cm and 3.0 cm diameter Tungsten Shielded High Temperature Plastic Ovoid Caps (Items 970-650-40 to 970-650-45), Cesium 137 Tube Sources (Items 067-6510 to 067-6540) and Tungsten Dummy Sources (Item 985-030).

# **STERILIZATION INSRUCTIONS**

**Applicator, Ovoid Caps and Tandems** 

Cleaning: Use detergent similar to Klenzyme®,

Manu-Klenz® or NpH-Klenz® and water.

Ultrasound cleaner may be used.

Sterilization: Steam Autoclave.

Sterilization Tray

Sterilization: Steam Autoclave at normal cycle.

Warning:

**DO NOT** Flash Steam Sterilize, may cause nylon coating to flake off. Not certified for Sterrad.

## **BUCKET CARRIER INSERTION INSTRUCTIONS**

A. Hold the bucket carrier horizontally with the flat area of the handle facing up. The bucket will hang down, allowing the radiation source to be loaded.

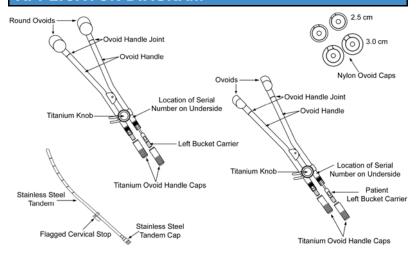
IMPORTANT: Load source in a protected area, then transport to patient area.

B. Remove the ovoid handle caps from the patient applicator. Remove the patient left carrier marked "L" on the flat area of the handle, from the portable safe. Hold the bucket carrier in a downward angle and rotate the bucket carrier 180 degrees so the flat area marked "L" is down. Now the bucket is straight with the carrier handle and can be inserted into the patient left applicator ovoid handle tube easily. After inserting 3 cm, rotate the bucket carrier 180 degrees so the flat area marked "L" is up. Continue to insert the bucket carrier until it touches the tubing bend. Rotate the handle CW or CCW slightly while applying light forward pressure until the bucket goes past the tubing bend and into the ovoid head, DO NOT FORCE. The bucket flat area marked "L" is up and the carrier handle groove will then align with the end of the ovoid handle tube. Replace the ovoid handle cap on the applicator. A spring inside of the ovoid handle cap ensures that bucket carrier is always pushed forward into the ovoid head.

Repeat steps for the patient right bucket carrier marked "R" on the flat area of the handle.

To remove the bucket carrier, rotate the handle CW or CCW slightly to get past the tubing bend, **DO NOT FORCE**. Then place in portable safe. Replace the ovoid handle caps on the applicator.

## **APPLICATOR DIAGRAM**



## **INSPECTION TEST**

Separate the applicator Colpostat into two halves and conduct PRESSURE TEST on each half as follows:

#### PRESSURE TEST

Conduct this test on each half of the Colpostat:

- Remove the ovoid handle cap from the end of the ovoid handle.
- 2. Remove the bucket carrier.
- Stand the colpostat in a beaker of water to a depth above the ovoid handle joint.
- 4. Apply slight air pressure on the open end of the colpostat handle (using for example, a 20cc syringe connected to surgical tubing connected to the colpostat handle), and look for air bubbles escaping from the ovoid or ovoid handle joint. If bubbles are seen, Test fails. If Test passes, the ovoid is solidly attached to the ovoid handle and no immediate action is necessary.

**IF TEST FAILS STOP USING APPLICATOR FOR PATIENT THERAPY.** Send complete unit in for repair, including bucket carriers, to Radiation Products Design, Inc.

#### **TANDEM TEST**

Visually inspect each tandem for any signs of corrosion.

## **OPTIONAL OVOID CAP TEST**

Visually inspect each ovoid cap inside for loose half cylinder. If loose, return for repair. Tungsten may have fallen out.

The above tests can be conducted at Radiation Products Design, Inc. for a minimal charge.

REPLACEMENT PARTS	
Item #	Description
970-000	12 Plastic Tandems and Pushers
970-010	12 Plastic Tandems
970-020	12 Plastic Pushers
970-201	# 1 Tandem, 15° Standard with Cap
970-202	# 2 Tandem, 30° Standard with Cap
970-203	# 3 Tandem, 45° Standard with Cap
970-204	# 4 Tandem, 60° Standard with Cap
970-212	Cap for Tandem
970-216	Cervical Stop
970-217	Flagged Cervical Stop
970-218	Screw for Cervical Stop #4-40x5/16" Socket Head
970-220	3/32" Allen Wrench
970-360-32	Locking Knob, #6-32, Titanium
970-360-30	Titanium Cap for Ovoid Handle
970-541-2	FSD Shielded Round Ovoid, SS Pivot Applicator
	With Caps ONLY
970-541-40	Left Bucket Carrier - Stainless Steel
970-541-42	Right Bucket Carrier - Stainless Steel
970-541-50	2.5cm Left/Right Nylon Ovoid Cap
970-541-52	3.0cm Left/Right Nylon Ovoid Cap
970-550-2	Delclos Mini-Ovoid Long Handle Applicator with
	Stainless Steel Pivot
970-645-06	Sterilization Tray w/Steam Autoclave Nameplate

OPTIONAL ITEMS	
Item #	Description
067-6510	Cs-137 Tube Source, 10 mg Ra Equivalent-Red
067-6515	Cs-137 Tube Source, 15 mg Ra Equivalent-Black
067-6520	Cs-137 Tube Source, 20 mg Ra Equivalent-White
067-6525	Cs-137 Tube Source, 25 mg Ra Equivalent-Blue
067-6530	Cs-137 Tube Source, 30 mg Ra Equivalent-Orange
067-6535	Cs-137 Tube Source, 35 mg Ra Equivalent-Green
067-6540	Cs-137 Tube Source, 40 mg Ra Equivalent-Gray
970-101	DVD on Fletcher Colpostat Technique
970-200	Straight Standard Stainless Steel Tandem with
	Сар
970-229	Stainless Steel Tandem Support Bracket with
	1/16" Allen Wrench
970-650-40	2.0cm Right Mini Ovoid HTP Cap with Tungsten
970-650-41	2.0cm Left Mini Ovoid HTP Cap with Tungsten
970-650-42	2.5cm Right Mini Ovoid HTP Cap with Tungsten
970-650-43	2.5cm Left Mini Ovoid HTP Cap with Tungsten
970-650-44	3.0cm Right Mini Ovoid HTP Cap with Tungsten
970-650-45	3.0cm Left Mini Ovoid HTP Cap with Tungsten
985-030	Tungsten Dummy Source, 3.0mm Dia. x 20mm L

# **End of Document**