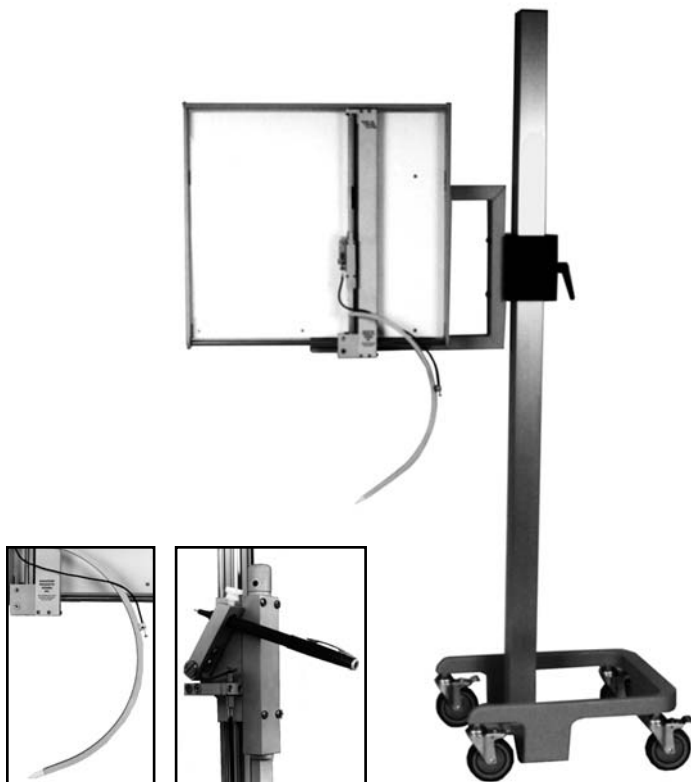


# CONTOURING, BOLUS & COMPENSATION

## MOBILE CONTOUR PLOTTER



- Accepts all types of pens
- Finger plunger engaged pen
- 360° rotatable drawing board
- Counterbalanced drawing board
- Counterbalanced base

The Mobile Contour Plotter was designed as a simple system to accurately and rapidly transfer the patient's surface contour to a sheet of paper while the patient is on a simulator table or treatment table. This contour drawing can then be used on treatment planning computers and in conjunction with CT information for the treatment plan. It can be a permanent part of the patient's record.

The contour plotter has a mechanical mechanism which links a drawing pen to a stylus arm. Upon contact with the body, it translates body contours to an overhead drawing board. When the finger plunger is depressed, engaging the pen, a continuous plot is drawn as the operator follows the physical contour of the patient. Marks can be made along the contour to indicate beam entry and laser light locations.

The pen can be any type of pencil, ball point pen, or fine felt tip marker. The pen is secured in a special holder with a thumb screw so that the pen tip is about 1/2" (1.3 cm) or less from the paper. The pen to paper engagement is made through a cable by a finger controlled plunger or locked in place by a locking screw. The finger engaging system is attached to the aluminum stylus arm, allowing easy engagement of the finger plunger while following the contour with the stylus. The nylon stylus tip is not cold to the touch. It is designed to permit skin contact even in the close spacing between the table top and the patient.

The drawing board can rotate 360°. It can lock at any angle, enabling lateral and sagittal contours. The counterbalanced drawing board is easily adjustable in height to accommodate different patient thicknesses and table heights commonly encountered in radiotherapy departments.

It is recommended that computer plotting paper be used for taking contours due to its paper surface hardness and smoothness (Items 146-900 or 146-902). Other paper with the same characteristics will also work. The paper can be secured to the board with masking tape.

Four 5" (12.8 cm) diameter swivel and locking casters allow the unit to be easily positioned or transported to various areas of the department.

### Maintenance Check

Routinely rotate the stylus arm around a point to check the accuracy of the white plastic tip. There should be no more than a 2 mm wobble. Check for fraying of the counterweight cable in the post once a year.

### Specifications

**Drawing Board Size:** 26 7/8" W x 24" H (68.5 x 61 cm)

**Paper Size:** 21" x 24" (54 x 61 cm)

**Mechanical Tolerance:** 2 mm

**Drawing Pen:** Pencil, ball point pen, or felt tip marker with a maximum diameter of 13/32" (1 cm)

**Base Size:** 19" W x 24" L (48.5 x 61 cm)

**Height:** 82.75" (210 cm)

**Weight:** 187 lb (85 kg)

**Shipping Weight:** 230 lb (105 kg)

Item	Description
146-801	Mobile Contour Plotter

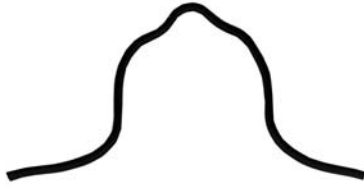
## CONTOUR OR GRAPH PAPER



Item	Description	Sheets
146-900	Plain Contour Paper, 19" x 24" (48 x 61 cm)	100
146-902	Graph Paper cm/mm Grid, 17" x 22" (43 x 56 cm)	50

# CONTOURING, BOLUS & COMPENSATION

## FLEXIBLE CONTOUR DEVICE



The Flexible Contour Device is covered with tough vinyl and is 60 cm long.

Item	Description	Size
149-150	Flexible Contour Device	1 cm Sq x 60 cm L

## CONTOUR WIRE



Item	Lead Contour Wire	Weight
149-080	2 mm (0.08") Dia x 1 Spool	1 lb (0.5 kg)
149-125	3 mm (0.125") Dia x 1 Spool	1 lb (0.5 kg)

## AQUAPLAST™ CONTOUR TUBE



- Combines the ease of lead solder wire with the accuracy of plaster strips

These hollow, low-temperature thermoplastic tubes heat and cool quickly to form rigid contours in minutes. Contour Tubes™ allow for easy application and removal without altering the shape of the finished contour. The shape is retained until reheated. To revise contours, simply reheat and remold the softened Contour Tube™ against the patient's skin.

Item	Aquaplast™ Contour Tube
RT-1100	4.8 mm Dia x 3' (1 m) L

## AQUAPLAST RT® CUSTOM BOLUS



- No mixing, No wet gauze
- Available in sheet or pellet form
- Won't dry out or change shape

Ideal for hard-to-bolus areas such as: chest wall, nose, parotid, groin, ears, and any irregularly surfaced anatomical feature. The attenuation characteristics of this product are comparable to other polymer-based products; however, its physical properties are superior.

The Aquaplast RT® Custom Bolus softens in hot water and becomes moldable just like Aquaplast. It reduces setup time, and unlike other products, it minimizes air gaps and day-to-day variability.

4.8 mm thickness is equivalent to 0.5 cm bolus.  
9.6 mm thickness is equivalent to 1.0 cm bolus.

Item #	Thickness	Dimensions
RT-1908-4	4.8 mm	7 cm x 22 cm (3" x 9")
RT-1909-4	4.8 mm	10 cm x 10 cm (4" x 4")
RT-1910-4	4.8 mm	20 cm x 23 cm (8" x 9")
RT-1913-4	4.8 mm	30 cm x 30 cm (12" x 12")
RT-1917-4	4.8 mm	15 cm x 15 cm (6" x 6")
RT-1930-4	4.8 mm	43 cm x 43 cm (17" x 17")
RT-1931-4	4.8 mm	30 cm x 45 cm (12" x 18")

Item #	Thickness	Dimensions
RT-1910-9	9.6 mm	20 cm x 23 cm (8" x 9")
RT-1913-9	9.6 mm	30 cm x 30 cm (12" x 12")
RT-1930-9	9.6 mm	43 cm x 43 cm (17" x 17")
RT-1931-9	9.6 mm	30 cm x 45 cm (12" x 18")

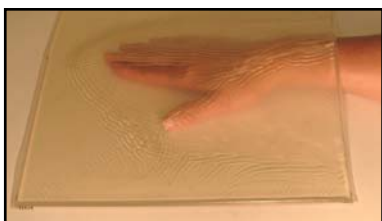
# CONTOURING, BOLUS & COMPENSATION

## SUPER-FLEX TRANSPARENT BOLUS (BOLX)

With (Bolx I) or Without (Bolx II) Transparent Film



Superflex Bolus  
without Film (Bolx II)



Superflex Bolus  
with Film (Bolx I)

- Latex Free
- Calibrated
- Equivalent to soft tissue in radiation interaction
- Transparency allows visual beam location
- May be cut with scissors and stacked to increase thickness
- Unaffected by one million rads of radiation
- Non-allergenic and non-toxic
- Conforms to body contours with minimal change to thickness
- Easily cleaned with soap and water or alcohol
- 1.03 density
- 1.02 electron density

Item	Superflex Bolus without Film (Bolx II)
486-405	0.5 cm T x 35 cm sq
486-410	1.0 cm T x 35 cm sq
486-415	1.5 cm T x 35 cm sq
486-420	2.0 cm T x 35 cm sq
486-425	2.5 cm T x 35 cm sq
486-430	3.0 cm T x 35 cm sq
486-440	4.0 cm T x 35 cm sq

Superflex material is calibrated with photon and electrons in the energy range greater than 1 MeV. This assures accurate measurement and administration of the prescribed dose of radiation. Close quality control of the thickness promotes quality results time after time. The materials do not flow, creep, or sag out of shape and may be cut with scissors to fit the patient and layered as required to build up the thickness.

### Ultrasound

Super-Flex is used because of its excellent ability to conform to body surfaces. As a transducer array stand off it makes a smoother surface and acts as a separator in near-surface imaging, making the imaged objects appear clearer.

### Radiation Therapy

In the energy range greater than 1 MeV using photons or electrons, Super-Flex calibrations curves are available. Calibration allows greater accuracy in dosimetry and in therapy. In use, a bolus is placed over or around the irradiated area to provide build-up, energy reduction/attenuation, or extra scattering. Super-Flex conforms well to most human surfaces without significant change in thickness. The soft tissue equivalence density, approximately 1.03, results from its chemical composition which is mostly carbon, oxygen, and hydrogen.

### Miscellaneous

Super-Flex is nearly the ideal material for use as the matrix for test-object phantoms. The material can also be used as missing tissue or as internal heterogeneity compensation in x-ray imaging techniques that require the compensator to be on or near the patient.

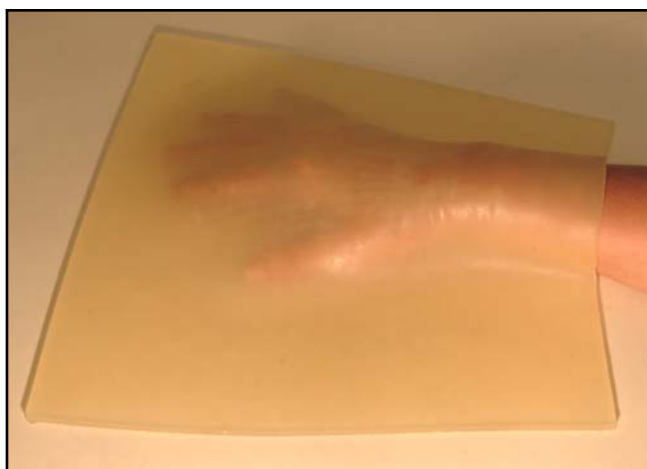
Item	Superflex Bolus with Film (Bolx I)
486-505	0.5 cm T x 30 cm sq
486-510	1.0 cm T x 30 cm sq
486-515	1.5 cm T x 30 cm sq
486-520	2.0 cm T x 30 cm sq
486-525	2.5 cm T x 30 cm sq
486-530	3.0 cm T x 30 cm sq

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# CONTOURING, BOLUS & COMPENSATION

## SUPERFLAB BOLUS MATERIAL

Density: 1.02 g/cm<sup>3</sup>



Superflab comes in thicknesses which provide maximum dose buildup for relevant photon energies. It does not suffer inelastic strain for normal stresses and does not have to be bagged or wrapped in plastic film to maintain its shape. It can be washed with soap and water followed by an application of talcum powder or it can be wrapped.

Since Superflab has both an electron build-up characteristic and a density closer to that of water than polystyrene, it is widely used in radiotherapy clinics. Superflab is not tissue equivalent at diagnostic x-ray energies.

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Item	Superflab Bolus
486-302	0.2 cm T x 30 cm sq
486-303	0.3 cm T x 30 cm sq
486-305	0.5 cm T x 30 cm sq
486-310	1.0 cm T x 30 cm sq
486-315	1.5 cm T x 30 cm sq
486-320	2.0 cm T x 30 cm sq
486-325	2.5 cm T x 30 cm sq
486-330	3.0 cm T x 30 cm sq
486-340	4.0 cm T x 30 cm sq

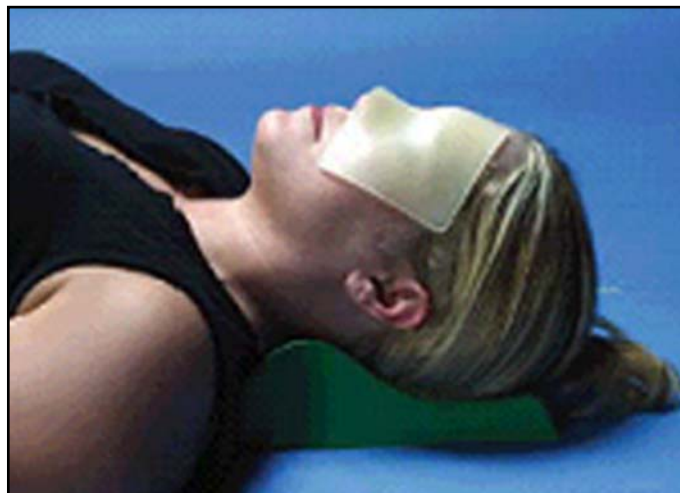
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- Latex Free
- Conforms to patient's contour
- Tissue equivalent
- Flexible, will not dry out

This material is a synthetic oil gel with a specific gravity of 1.02. It is based on vinyl plastic containing a large amount of di-isodecyl phthalate. It contains only materials approved by the FDA for human contact.

## ELASTO-GEL

Density 1.20 gm/cm<sup>3</sup>



Materials are frequently used in high-energy radiation therapy in order to deliver the prescribed dose to the patient's skin surface. Elasto-gel is easy to work with, reusable on the same patient, is mildly adhesive, and conforms exceptionally well to body contours. It may be easily cut with a scissors to the desired size and shape. Standard backing is stretch cloth on one side and clear plastic on the other. The stretch backing may be removed by first moistening with a damp cloth and then peeling the cloth from the gel. Because of the self-adhesive nature of the gel pieces, they may be layered together for various thicknesses. **Note:** Single patient use only - Not to be used on multiple patients.

Item	Elasto-Gel
486-970	0.5 cm T x 30 cm sq
486-971	1.0 cm T x 30 cm sq
486-980	0.5 cm T x 20 cm x 40 cm
486-981	1.0 cm T x 20 cm x 40 cm

# CONTOURING, BOLUS & COMPENSATION

## ADAPT-IT™ THERMOPLASTIC PELLETS



Adapt-It™ Pellets soften quickly in hot water for easy shaping. Fabricate custom bolus, build-up, and bite blocks with these easy-to-mold pellets. Just pour them into a strainer (Item 878-163) then place strainer with pellets into hot water and allow pellets to turn clear. The pellets will form into a solid mass.

The mass, in its solid state, will bond to any head and neck mask or breast support to form a permanent fixture. Thus, allowing for better positioning and repositioning of bolus or build-up material.

To mold softened pellets in the patients mouth, place the pellets in a sealed plastic bag before insertion to prevent accidental bonding to dental compounds.

Item	Description	Pounds
RT-7001	Adapt-It™ Thermoplastic Pellets	1
RT-7003	Adapt-It™ Thermoplastic Pellets	3

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## SUPER STUFF BOLUS MATERIAL

Density: 1.02 g/cm<sup>3</sup>



Super Stuff Bolus Material has a density of 1.02g/cm<sup>3</sup>. Each ounce of powder is packaged in a plastic bag with a black water fill line indicated on the bag. After mixing, Super Stuff takes on the consistency of Jello®. Wrap with plastic wrap and shape to fit the patient.

Item	Super Stuff Bolus Material
489-050	1 oz (0.03 kg) Packages, 50
489-100	10 lb (4.5 kg) Package, 1

## RED ROPE WAX



### Specifications

**Size:** 3/16" Dia x 11" L (0.5 x 28 cm)

**Quantity:** 55 Strips

**Specific Gravity (H<sub>2</sub>O = 1):** 0.90

**Package Weight:** 0.5 lb (0.23 kg)

Item	Description
488-001	Red Rope Wax

## DENTAL BASE PLATE WAX



### Specifications

**Size:** 0.15 x 7.5 x 15.2 cm

**Quantity:** 28 sheets

**Specific Gravity (H<sub>2</sub>O = 1):** 0.90

**Weight:** 1 lb (0.5 kg)

Item	Description
933-120	Dental Base Plate Wax

# CONTOURING, BOLUS & COMPENSATION

## BEES WAX PELLETS



At 25° C or solid state, Density is 0.954 g/cc.

### Specifications

**Color:** Bleached White

**Package Weight:** 5 lb (2.3 kg)

## CLEAR PLASTIC WRAP



- Made of 100% polyethylene
- High cling; low tangle

The high-cling properties of this film enables wrapping with an extraordinarily tight seal that stays in place. Low-tangle properties ensure that it won't ball up when being handled. Carton has convenient metal tear-off bar.

### Specifications

**Size:** 12" W x 100' L (30.5 cm x 30.5 m)

Item	Description
488-005	Bees Wax Pellets

Item	Description
119-750	Clear Plastic Wrap

## SIEMENS WEDGE CODING PLUGS FOR .DECIMAL® BRASS COMPENSATORS

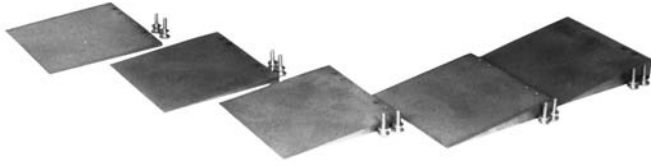


Item	Description	Quantity
1884-10-11R	Siemens 3 3/8" Wedge Coding Plug with Threaded Holes for Block Tray Slot, Specify code 1 to 18	Single
1884-10-11R-32771-01	Siemens Wedge Coding Plug S2N01 for Brass Compensator	Single
1884-10-11R-32771-02	Siemens Wedge Coding Plug S2N02 for Brass Compensator	Single
1884-10-11R-32771	Siemens Wedge Coding Plugs for Brass Compensators	Set of 18

**Other Codes Available, Specify Code**

# CONTOURING, BOLUS & COMPENSATION

## CUSTOM BRASS COMPENSATOR WEDGES



The Brass Compensator Wedges are custom made for Varian, Siemens, AECL, Philips, Toshiba, ATC, Mitsubishi, and ADAC accelerators.

### Specifications

**Density:** 8.515 g/cm<sup>3</sup>

**Composition:** 61.5% Copper, 35.5% Zinc, 3.0% Lead

Item	Custom Brass Compensator Wedges
243-415	15° x W x L x H
243-420	20° x W x L x H
243-430	30° x W x L x H
243-440	40° x W x L x H
243-445	45° x W x L x H
243-450	50° x W x L x H
243-460	60° x W x L x H

Extra Charge for Compensator Trays

## STORAGE CART FOR VARIAN BRASS COMPENSATORS



The Storage Cart for Varian brass compensators stores up to 88 compensators on Varian wedge trays from 9.75" wide to 10.75" wide (25 to 27.5 cm). The depth of the cart allows for the placement of two trays in each slot. The front of each rail has a mechanical stop that prevents the trays from sliding out.

The cart comes complete with sturdy handle, four corner bumpers, and four 5" (12.75 cm) lockable swivel casters.

### Specifications

**Overall Dimensions:** 48.75" W x 50.4" H x 24" D  
(124.25 x 128.5 x 61 cm)

**Weight:** 230 lb (105 kg)

**Density:** 1.20 gm/cm<sup>3</sup>

Item	Description
880-9896	Storage Cart for Varian Brass Compensators

## STORAGE CART FOR SIEMENS BRASS COMPENSATORS



The Storage Cart for Siemens brass compensators stores up to 88 compensators on Siemens wedge trays 8.75" (22.3 cm) wide. The depth of the cart allows for the placement of two trays in each slot. The front of each rail has a mechanical stop that prevents the trays from sliding out.

The cart comes complete with sturdy handle, four corner bumpers, two 5" (12.75 cm) lockable swivel casters, and two fixed casters.

### Specifications

**Overall Dimensions:** 39.25" W x 50.5" H x 24" D  
(100 x 129 x 61 cm)

**Weight:** 250 lb (114 kg)

Item	Description
880-9897	Storage Cart for Siemens Brass Compensators

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# CONTOURING, BOLUS & COMPENSATION

## BEAM SPOILER FRAME AND BEAM SPOILERS



The Beam Spoiler Frame holds a beam spoiler for Total Body Irradiation. The frame is made of 1" (2.54 cm) square and 1.25" (3.18 cm) square steel tubing. The vertical legs are telescoping to allow a 13" (33 cm) vertical range of movement. Two hangers welded on the top horizontal bar are positioned to hold a beam spoiler in either the vertical or horizontal direction. The frame can support 1" (2.54 cm) thick (2 plates for Photons) weight up to 250 pounds (114 kg). Four 6" (15.25 cm) diameter swivel locking casters allow for easy movement of the Beam Spoiler. The frame can be dismantled for storage.

The Beam Spoiler is available in acrylic or polycarbonate in 0.375" (0.95 cm) or 0.50" (1.27 cm) thickness. The beam spoiler has two key holes on the 60" (152 cm) side and on the 80" (203 cm) side to allow for positioning on the frame in either direction. The key holes can also be used to hang the beam spoiler from wall hooks for storage.

### Specifications

#### Item 495-004 Beam Spoiler Frame for TBI

**Overall Size:** 94" L x 24" W x 81" to 94" H (238.8 x 61 x 205.7 to 238.8 cm) not including casters

**Finish:** Durable tan textured polyurethane enamel paint

### Beam Spoilers

**Size:** 80" L x 60" H (203 x 152.5 cm)

Item	Description
495-004	Beam Spoiler Frame for TBI

Item	Beam Spoiler	Thickness	Weight
495-005	Polycarbonate	0.375" (0.95 cm)	77 lb (35 kg)
495-006	Polycarbonate	0.50" (1.27 cm)	103 lb (47 kg)
495-007	Acrylic	0.375" (0.95 cm)	77 lb (35 kg)
495-008	Acrylic	0.50" (1.27 cm)	103 lb (47 kg)
495-010	Crating Charge for Beam Spoiler		

## SELF HOLDING BEAM SPOILER WITH FLEXIBLE ARM



The Self Holding Beam Spoiler has a flexible 18" (45.7 cm) or 24" (61 cm) arm that manually adjusts for easy use. The acrylic plate has an arm rotation lock that secures the acrylic plate to the desired position. The acrylic plate is 30 cm square x 0.25" (0.64 cm) or 0.375" (0.95 cm) thick and is mounted at the end of the flexible arm. The whole assembly attaches to the table rail with a rail clamp.

### Specifications

**Acrylic Density:** 1.185 g/cm<sup>3</sup>

Item	Description
495-053-20	Siemens Flexible 18" Beam Spoiler
495-053-32	Varian Flexible 18" Beam Spoiler
495-053-50	Philips Flexible 18" Beam Spoiler
495-054-20	Siemens Flexible 24" Beam Spoiler
495-054-32	Varian Flexible 24" Beam Spoiler
495-054-50	Philips Flexible 24" Beam Spoiler

**Customer to Specify Acrylic Thickness**