

Thermoplastics

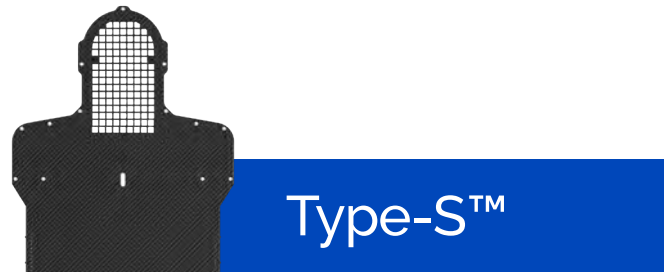
for enhanced positioning + immobilization

Explore Head & Neck Best Practices while Earning ASRT CE Credit
See back cover for details!



CIVCO
Radiotherapy™
a better way

Choosing a Head & Neck Positioning System



Type-S™

The Type-S system was designed for IMRT and conformal treatments and is intended to provide minimal attenuation throughout 360° of treatment angles. Type-S thermoplastic masks offer the greatest variety of IMRT patterns, materials and frame type. Masks are sold in boxes of five and are disposable unless otherwise noted. [Pages 5–7.](#)

Compatibility	CT, MR, Photon
Thermoplastic Material	Standard White, ZENTEC™
Special Features	Pre-cut eye and mouth Open-face, surface tracking IMRT Reinforced™ Larynx extension Neck relief Pediatric option

Frame Continuous



Posifix®

Posicast® thermoplastic masks were specifically formulated for use with CIVCO RT's Posifix Patient Positioning System. They are drape-style which requires less stretching, therefore resulting in less shrinkage. Drape-style masks allow for closer attachment of the mask to the patient. Masks are sold in boxes of ten and are disposable. [Page 8.](#)

Compatibility	CT, MR, Photon
Thermoplastic Material	Posicast
Special Features	Open-face Larynx extension Smooth coating

Frame Drape

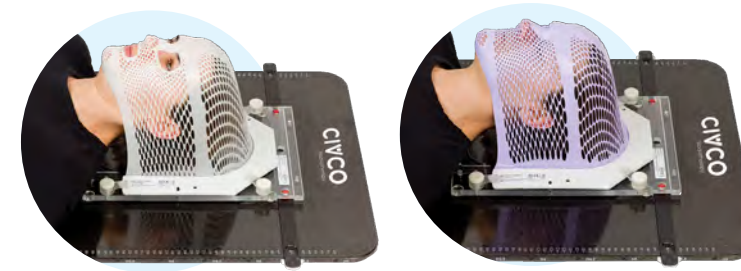


Uni-frame®

The Uni-frame system is CIVCO RT's legacy line and has become an industry standard solution for head-only thermoplastic masks. They are available in a variety of standard and IMRT patterns, including Tranquility Series masks and the highly conformal ZENTEC™ material. Masks are sold in boxes of five and are disposable unless otherwise noted. [Pages 9–10.](#)

Compatibility	CT, MR, Photon
Thermoplastic Material	Standard White, ZENTEC
Special Features	Pre-cut eye and mouth Open-face, surface tracking IMRT Reinforced

Frame Continuous



ProForm™

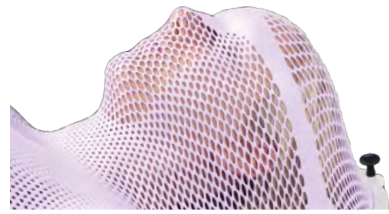
The ProForm Head & Neck system features geometry that allows for direct access to effectively treat CNS patients. ProForm accepts a dedicated thermoplastic mask, available in many styles, designed to meet the unique requirements of proton therapy. Masks are sold in boxes of five and are disposable. [Pages 11–12.](#)

Compatibility	CT, MR, Photon, Proton
Thermoplastic Material	Standard White
Special Features	Pre-cut eye and mouth Open-face, surface tracking IMRT Reinforced Hair openings Solid with Perforated Nose Pediatric option (coming soon)

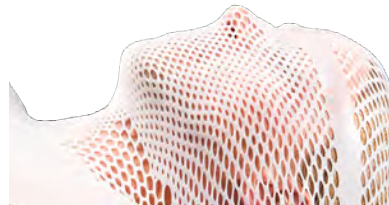
Frame Continuous, Drape



Material Types



ZENTEC™ requires less heating time than standard white thermoplastics and have an established reputation of being highly conforming masks. The 2.4 mm thickness masks provide a lighter feeling, which offers a more pleasant experience for anxious patients. The 3.2 mm thickness offers a similarly conforming mask with the added benefit of being CIVCO RT's most rigid continuous frame mask.



Standard White features standard perforation and are available in a variety of lengths and thicknesses. The 3.2 mm thickness is intended for a strong hold. The 2.4 mm thickness provides a lighter feeling which offers a more pleasant experience for anxious patients. Narrower, reloadable frame and masks are available to accommodate pediatric patients.



Posicast-Lite feels like a traditional thermoplastic with a smooth coating on both sides of the mask. It is a drape-style design that requires less stretching which results in minimal shrinkage during cooling.

Posicast-Plus has a soft polyurethane coating on the patient-contacting side for comfort, while the other side features a smooth coating to facilitate marking treatment fields on the mask. It is a drape-style design that requires less stretching which results in minimal shrinkage during cooling.

Special Features



FreedomView™ features pre-cut eye and mouth openings, increasing patient comfort and setup efficiency



ClearVision™ 2 are open face masks designed to use with vision/camera systems; compatible with Vision RT's Align RT® camera system



IMRT Reinforced™ feature a combination of perforated and solid thermoplastic in the mask design to provide rigidity and secure immobilization for IMRT treatments. By providing solid bands in areas where a secure hold is essential while maintaining perforation elsewhere, these masks provide a balance of immobilization and comfort.

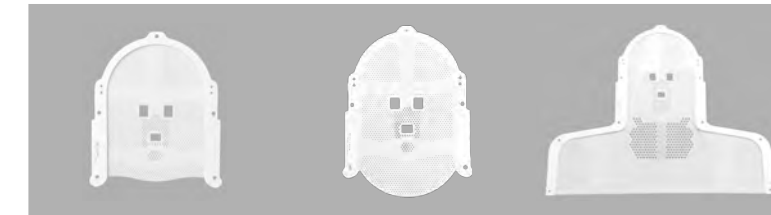
Tranquility Series Thermoplastics

Type-S™



FreedomView™ IMRT Reinforced™

Style 18, Head Only	3.2 mm	MTAPUID1832CL
Style 18, Head Only, Radius 13"	3.2 mm	MTAPUID1832CLRD
Style 27, Head, Neck & Shoulders w/ Neck Relief	3.2 mm	MTAPSID27NR32CL



MTAPUID1832CL

MTAPUID1832CLRD

MTAPSID27NR32CL



ClearVision™



ClearVision, Head Only	3.2 mm	MTVRT20
ClearVision 2, Head Only	3.2 mm	MTAPUID1832SG
ClearVision 2, Head, Neck & Shoulders	3.2 mm	MTAPSID2732SG



MTVRT20

MTAPUID1832SG

MTAPSID2732SG



PureVision™

Head Only (requires reloadable frame)	3.2 mm	MTVRTR
Reloadable frame	-	MTCFHN001

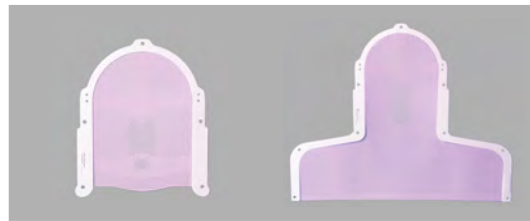


MTVRTR



ZENTEC™ IMRT Reinforced™

IMRT Style 18, Head Only	2.4 mm	MTAPUID1824VT
IMRT Style 18, Head Only	3.2 mm	MTAPUID1832VT
IMRT Style 27, Head, Neck & Shoulders	2.4 mm	MTAPSID2724VT
IMRT Style 27, Head, Neck & Shoulders	3.2 mm	MTAPSID2732VT



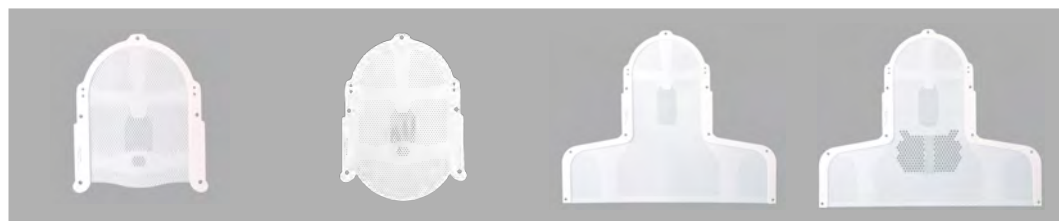
MTAPUID1824VT

MTAPSID2724VT



Standard White IMRT Reinforced

IMRT Style 18, Head Only	2.4 mm	MTAPUID1824
IMRT Style 18, Head Only	3.2 mm	MTAPUID1832
IMRT Style 18, Head Only, 13" Radius	3.2 mm	MTAPUID181332RD
IMRT Style 27, Head, Neck & Shoulders	2.4 mm	MTAPSID2724
IMRT Style 27, Head, Neck & Shoulders	3.2 mm	MTAPSID2732
IMRT Style 27, Head, Neck & Shoulders w/ Neck Relief	2.4 mm	MTAPSID27NR24
IMRT Style 27, Head, Neck & Shoulders w/ Neck Relief	3.2 mm	MTAPSID27NR32



MTAPUID1824

MTAPUID181332RD

MTAPSID2724

MTAPSID27NR24

The Neck Relief feature provides larger perforation around the neck. This increases patient comfort and may also make working around a tracheostomy tube easier.



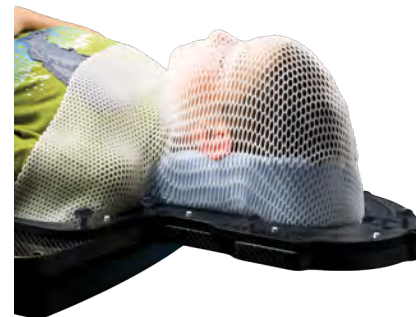
Standard Perforation

Head Only	2.4 mm	MTAPUD2.4
Head Only	3.2 mm	MTAPUD
Head, Neck & Shoulders	2.4 mm	MTAPSD2.4
Head, Neck & Shoulders	3.2 mm	MTAPSD3.2



MTAPUD2.4

MTAPSD2.4



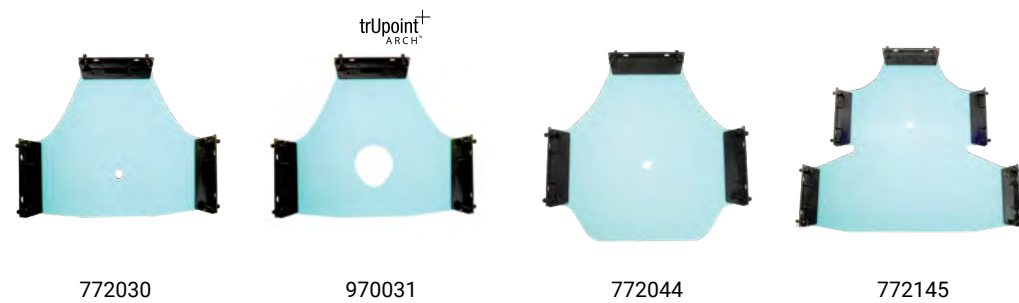
Pediatric

Standard Perforation Head, Neck & Shoulders (requires reloadable frame)	2.4 mm	MTAPSP2.4
Reloadable Frame	-	20CFHNPSUB1P



Posicast-Lite

Head Only	2.3 mm	772030
Head Only with Open-face (Compatible with trUpoint ARCH™ SRS/SRT System)	2.3 mm	970031
Head Only with Larynx Extension	2.3 mm	772044
Head, Neck & Shoulders	2.3 mm	772145



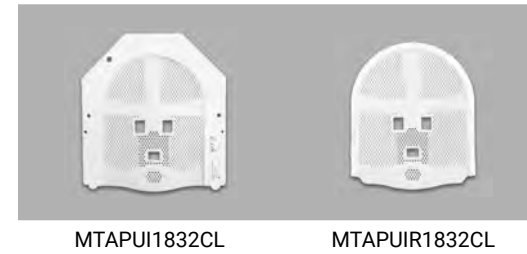
Posicast-Plus

Head Only	2.3 mm	930030
Head, Neck & Shoulder	2.3 mm	930145
Head Only with Larynx Extension	2.3 mm	930044
Pediatric Head, Neck & Shoulders	2.3 mm	930055
Pediatric Head Only	2.3 mm	930033



FreedomView™ IMRT Reinforced™

Style 18, Head Only	3.2 mm	MTAPUI1832CL
Style 18, Head Only (requires reloadable frame)	3.2 mm	MTAPUIR1832CL
Reloadable frame	-	MTAPUR1



ClearVision™

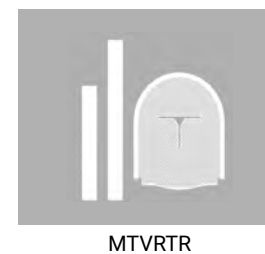


ClearVision, Head Only	3.2 mm	MTVRTW
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PureVision™

Head Only (requires reloadable frame)	3.2 mm	MTVRTR
Reloadable frame	-	MTAPUR1





ZENTEC™ IMRT Reinforced™

Style 18, Head Only	2.4 mm	MTAPUI1824VT
Style 18, Head Only, Wide	2.4 mm	MTAPUIW1824VT
Style 18, Head Only, Wide	3.2 mm	MTAPUIW1832VT

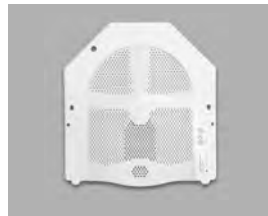


MTAPUI1824VT

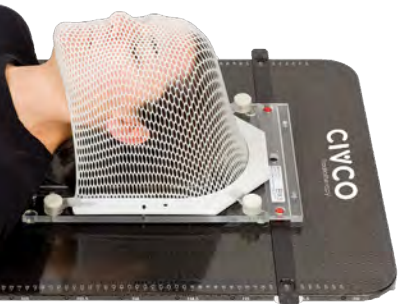


Standard White IMRT Reinforced

Style 18, Head Only	2.4 mm	MTAPUI1824
Style 18, Head Only	3.2 mm	MTAPUI1832

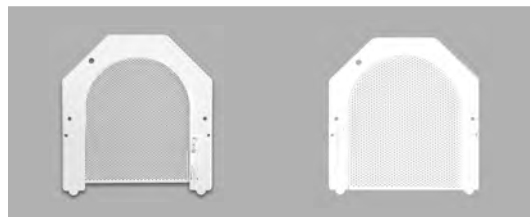


MTAPUI1824



Standard Perforation

Head Only	2.4 mm	MTAPU2.4
Head Only, Wide	2.4 mm	MTAPUW2.4
Head Only	3.2 mm	MTAPU
Head Only, Wide	3.2 mm	MTAPUW



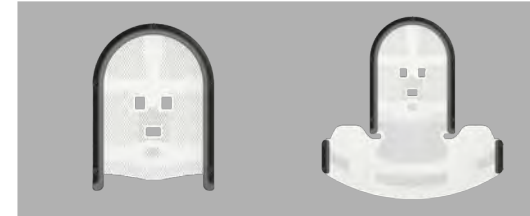
MTAPU2.4

MTAPUW2.4



FreedomView™ IMRT Reinforced™

Style 18, Head Only	3.2 mm	PRO330IM1832CL
Style 18, Head, Neck & Shoulders	3.2 mm	PRO331IM1832CL
Style 18, Head, Neck & Shoulders, Narrow	3.2 mm	PRO331IM1832CLN



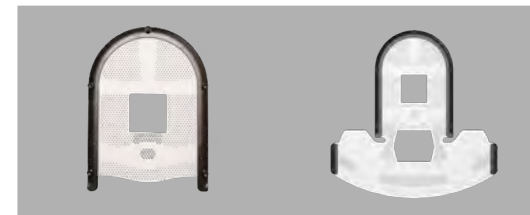
PRO330IM1832CL

PRO331IM1832CL

ClearVision™ 2

visionrt COMPATIBLE

Head Only	3.2 mm	PRO330IM1832SG
Head, Neck & Shoulders	3.2 mm	PRO331IM1832S
Head, Neck & Shoulders, Narrow	3.2 mm	PRO331IM1832SGN



PRO330IM1832SG

PRO331IM1832S



Standard White IMRT Reinforced™

Style 18, Head Only	3.2 mm	PRO330IM1832
Style 18, Head, Neck & Shoulders	3.2 mm	PRO331IM1832
Style 18, Head, Neck & Shoulders, Narrow	3.2 mm	PRO331IM1832N
Style 18, Head Only w/ Hair Openings	3.2 mm	PRO330IM1832PT



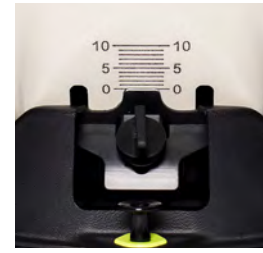
Standard Perforation

Head Only	3.2 mm	PRO330
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Solid with Perforated Nose

Head Only	3.2 mm	PRO330SPN32
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0 to 10 pitch indexing



Pitch at 0 (chin down)



Pitch at 10 (chin up)



Solstice™ SRS Immobilization System

The Solstice SRS system provides unique corrective pitch capability and positioning flexibility. The system is comprised of a glass fiber head support, customizable cushion and dedicated thermoplastic mask designed for secure and simple attachment. These components create a highly customizable and comfortable head and neck immobilization system for precise treatment to improve patient outcomes. Masks are sold in boxes of five and are disposable.

ClearVision™ visionrt COMPATIBLE

Standard	3.2 mm	MTAPCID1832SG
Narrow	3.2 mm	MTAPCIN1832SG



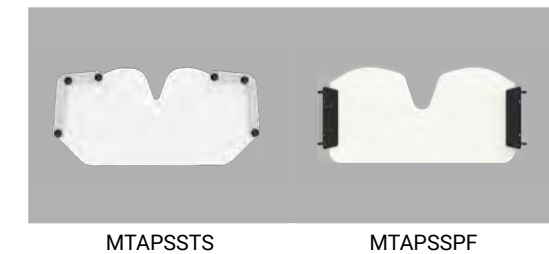
IMRT Reinforced™

Style 18, Standard	3.2 mm	MTAPCID1832
Style 18, Narrow	3.2 mm	MTAPCIN1832



Shoulder Thermoplastic

Type-S Standard White, Solid	3.2 mm	MTAPSSTS
Posifix Standard White, Solid	3.2 mm	MTAPSSPF



Breast and Hip & Pelvic Thermoplastic



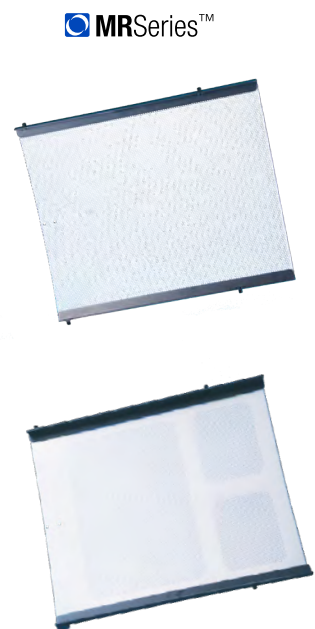
Standard Breast Thermoplastics

These standard white thermoplastics for breast positioning require two reusable handles that mount to the MT-350 and C-Qual™ Breastboards. They are available in Standard Perforated and IMRT Reinforced™ perforation styles and sold in quantity of one.

	2.4 mm	3.2 mm
Standard Perforated (White)	MTRFX9182.4	MTRFX918
IMRT Reinforced (White)	MTRFI9182.4	MTRFI918
Breast Support Handle System, Qty 2		MTRFH3

HipFix® Thermoplastics

HipFix Thermoplastics, 18 x 22" (45.7 cm x 55.8 cm), are available in standard white material with reloadable or disposable handles with solid, standard perforated or IMRT Reinforced perforation styles. The handles and groin piece secure to the HipFix board, providing an indexable setup. They are sold in boxes of 5.



		2.4 mm	3.2 mm
MRSeries™	Solid Reloadable	MTHFX18222.4S	MTHFX1822S
	Solid Disposable*	-	MTPLHA0201
MRSeries™	Perforated Reloadable	MTHFX18222.4	MTHFX1822
	Perforated Disposable*	-	MTPLHA0202
MRSeries™	IMRT Reinforced Reloadable	MTHFI18222.4	MTHFI1822
	IMRT Reinforced Disposable*	-	MTPLHA10203

*Groin piece sold separately
All disposable thermoplastics are MRI compatible

Reloadable Handles (x2) & Groin Piece	MTPLHA01
Groin Piece for use with disposable thermoplastics	MTPLVCSUB8
HipFix Baseplate	MTPLVC04MR
Split-Leg Vac-Lok	VL71FC

Head & Neck Positioning Solutions



MRSeries™ ProtonSeries™



GrayDuck Oral Positioning Stents

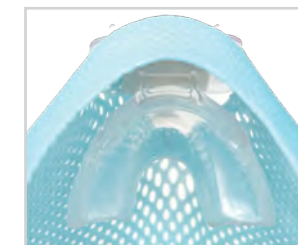
GrayDuck oral positioning stents are currently the only custom fitted bite block system that can position the tongue in one of several positions; laterally (left or right), depressing (downward) or a combination thereof.

- Tongue-displacing and immobilizing oral stent
- Capable of providing repeatable tongue deviation and immobilizing in several directions
- Designed to provide repeatable immobilization and tissue sparing during radiotherapy
- Ergonomically developed to be a quick, easy-to-fit custom oral stent
- Usually requires less than 15 minutes to custom-fit a patient
- Can be secured to any CIVCO RT thermoplastic mask

Medium, Qty 4	GDS001
Small, Qty 4	GDS002

CE MARKED, 510(K) CLEARED
US PATENT #9,504,537 AND OTHER PATENTS PENDING

MRSeries™



Precise Bite™

The Precision Bite attaches easily to a thermoplastic cast and conforms to the teeth and/or maxilla to aid in effective and repeatable positioning. The Precision Bite with tongue depressor assists in tongue displacement and provides an airway opening for easy breathing.

- Softens in warm water and comfortably conforms to the patient's dental contours
- Precision Bite docking plate simply snaps on top to secure the bite to the thermoplastic mask
- Compatible with Uni-frame®, Type-S™, Posicast® and Solstice™ thermoplastic frame types
- Warmer softens Precision Bite without a microwave or water bath

Standard, Qty 5	MTCBPBITE
Standard w/ Tongue Depressor, Qty 5	MTCBPBITETD
Small, Qty 5	MTCBPBITES
Small with Tongue Depressor, Qty 5	MTCBPBITETDS
Warmer, 110 volt	MTCBPBITEWRM

WARMER HAS NOT BEEN CE MARKED

Head & Neck Positioning Solutions



Customizable Head Support

The Customizable Head Support's deep bowl shape provides a deeper head capture than using a cushion alone or a standard head support.

Posifix®	CHS01
Type-S™	CHS02

AccuForm™ Cushions

AccuForm Cushions are ideal for high-precision head and neck treatments when enhanced comfort, stability and repositioning accuracy are key.



15 x 20 cm	MTACL1520
20 x 35 cm Chamfered	MTACL2035
20 x 35 cm Chamfered, Half Fill	MTACL2035HF
20 x 25 cm	MTACL14242



Vac-Lok™ Cushions

Vac-Lok Cushions create a rigid and secure support around the patient when a vacuum is drawn through a self-sealing quick-release valve.

Type-S	VLTY01CX
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Spacers & Wedges

Spacers & Wedges are available in a variety of heights and angles to provide positioning offset of the patient for unique treatment needs.

Posifix® compatible. Set of four includes: Wedges 2.5 and 5°, Spacers 20 and 30 mm	107106
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Visit CivcoRT.com for many compatible headrest options and even more solutions!



Water Baths & Reinforcement Thermoplastic Strips



Water Bath

The Water Bath accommodates all thermoplastic sizes including Type-S head, neck and shoulders and HipFix thermoplastics.

Dimensions (W x D x H)*

Overall: 31.25"W x 24"D x 13"H (79.37 cm x 60.96 cm x 33.02 cm)

Internal: 25 x 19 x 5" (63.5 x 48.3 x 12.7 cm)

120V	MTRH1500
230V	MTRH1500EX
Pan Liner, Large, Qty 2	MTCBPLLG

Water Bath Cart

The Water Bath Cart provides an easy, efficient way to transfer a water bath between treatment rooms. Load capacity 500 lbs (227 kg).

Dimensions (W x D x H, height includes handle)

Overall: 25.5 x 43 x 38" (64.8 x 109.2 x 96.5 cm)



MTMC01003

Reinforcement Thermoplastic Strips

1.375 x 24" (3.5 x 70 cm), Qty 1	MTAPS18391
1.375 x 9.75" (3.5 x 24 cm), Qty 5	MTAPS25
1.375 x 13.75" (3.5 x 35 cm), Qty 5	MTAPS35

*Dimensions do not include shut off valve mounted on side.

Thermoplastic Tips

Basic Workflow

Some patients experience anxiety or claustrophobia during setup and treatment, so be sure to discuss this with the patient prior to placing the mask. Consider the FreedomView™ or an open-face mask for patients who express concerns or demonstrate significant anxiety.

- 1 Place the thermoplastic in the waterbath for the time and temperature specified in the table above.
- 2 Setup the patient for simulation with head support, Vac-Lok™, Kneefix™ or other options to encourage a comfortable starting position to be used both during simulation and subsequent treatments.
- 3 Remove the mask from the bath and quickly remove excess water for patient comfort.
- 4 Place mask on the patient, ensuring proper alignment for chin and nasion capture (see forming thermoplastics). Note: If additional thermoplastic strips are used for reinforcement they should be added at this time.
- 5 Ensure the mask has adequately cooled to near room temperature prior to imaging for simulation.
- 6 Note all positioning setup information during this time to encourage a repeatable patient setup for subsequent treatment visits.
- 7 Acquire the simulation image.
- 8 Remove and store the mask and other patient-specific products according to your standard procedures.

Forming Thermoplastics

When thermoplastic has been in the waterbath for the appropriate amount of time, pull it out of the bath and remove excess water from the thermoplastic.

Carefully form the thermoplastic over the patient and dock the mask onto the baseplate. Gently form the thermoplastic around the bony anatomy of the patient such as the nasion and chin. Make sure the thermoplastic is lying evenly on the patient's skin and the patient is still in the desired position for treatment.



Heating Times and Temperatures

Thermoplastic Type	WATERBATH		DRY HEAT OVEN	
	Temperature	Heating Time	Temperature	Heating Time
• ZENTEC™ IMRT Reinforced™ (violet)	75° C / 165° F	2–3 min	n/a	n/a
• Standard Perforation (white) Head Only • Thermoplastic Strips (white)	75° C / 165° F	4 min	75° C / 165° F	4–7 min
• Standard Perforation (white) Head, Neck & Shoulders • Breast Support Thermoplastic	75° C / 165° F	6 min	75° C / 165° F	4–8 min
• IMRT Reinforced (white) Head Only	75° C / 165° F	5 min	75° C / 165° F	8–11 min
• IMRT Reinforced (white) Head, Neck & Shoulders • HipFix® Thermoplastic	75° C / 165° F	7–9 min	75° C / 165° F	8–11 min
• Posicast® (green)	70° C / 158° F	1 min	75° C / 165° F	5–9 min

NOTE: Temperatures and times for dry heat oven may vary depending on model. Testing was completed using a Klarity AirFlow Model Kel-1300 (120Volt).

Explore Head & Neck Best Practices while Earning ASRT CE Credit

CIVCO Radiotherapy provides an extensive line of high-quality thermoplastics for head, neck & shoulder positioning and immobilization that are comfortable, easy to use and cost effective from imaging through treatment.

Let us help

It can be difficult to know which thermoplastics and devices generate the best outcomes for your patients.

We'll come to you

We'll demonstrate industry-wide best practices in a clinical, hands-on setting.

What you'll learn

- The challenges of head and neck thermoplastics and immobilization procedures.
- The functions, strengths, and weaknesses of current patient positioning techniques.
- The direction of future head and neck positioning techniques and devices.



Earn 1 ASRT CE Credit - U.S. Only

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Radiotherapy™



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