## Solstice™ SRS Immobilization System

CIVCO Technical Data Sheet



Product Name	Solstice SRS Immobilization System			
Product Number	CHS03	Solstice, Posifix		
	CHS04	Solstice, Type-S		
Kits that Include this Product	CHS03SGK	CHS04SGK	CHS03K	CHS04K
General Description	The Solstice system provides unique corrective pitch capability and positioning flexibility. The system is comprised of a carbon fiber head support, customizable cushion and dedicated thermoplastic that create a highly customizable and comfortable head and neck immobilization system for precise treatment to improve patient outcomes.			
Indications for use	Solstice SRS with AccuForm™  The device is indicated to position and/or immobilize adult and pediatric patients undergoing radiation therapy of the head, brain, and neck, including Stereotactic Radiosurgery (SRS), Stereotactic Radiotherapy (SRT), Surface Guided Radiation Thearpy (SGRT) and electron, photon, and proton treatments. The device is also used during image acquisition, including Computed Tomography (CT), to support treatment planning.			
	Solstice SRS with Headrest The device is indicated to position and/or immobilize adult and pediatric patients undergoing radiation therapy of the head, brain, and neck, including Surface Guided Radiation Therapy (SGRT) and electron, photon, and proton treatments. The device is also used during image acquisition, including Computed Tomography (CT), to support treatment planning.			
MRI Compatible	No			
Integration	For use with Posifix or Type-S extensions, baseplates and overlays			and overlays
FDA Clearance	Yes			
CE Marked (EU DOC)	Yes			
Other Country Registrations	Available upon request			
Country of Manufacture	USA			



# Technical Details

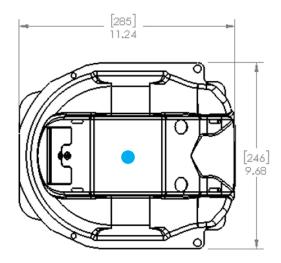
Primary Materials	Bowl: Carbon Fiber Base: Kydex-T
Weight (approx)	1.5 lbs (0.68 kg)
Dimensions (mm)	Posifix®: 285 L x 246 W x 131 H (max) Type-S™: 320 L x 263 W x 131 H (max)

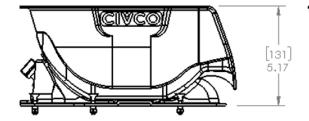
### **Dosimetric Properties**

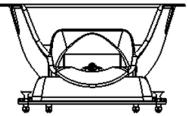
Location	Field	Attenuation	Attenuation
	Size	6 (MV)	18 (MV)
Bottom of bowl base	8 cm x 8 cm	1.64%	1.08%

Performance Specifications are for reference only, values may vary based on setup and equipment.

## **Technical Drawing (CHS03)**

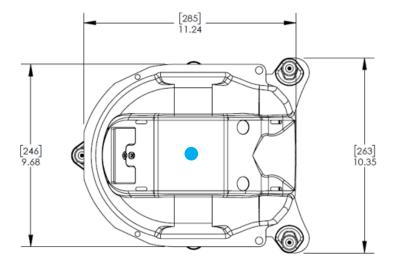


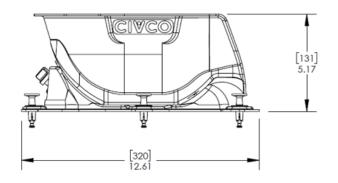


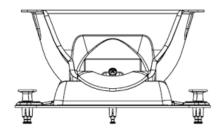




## Technical Drawing (CHS04)



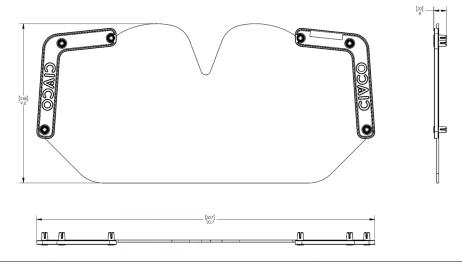






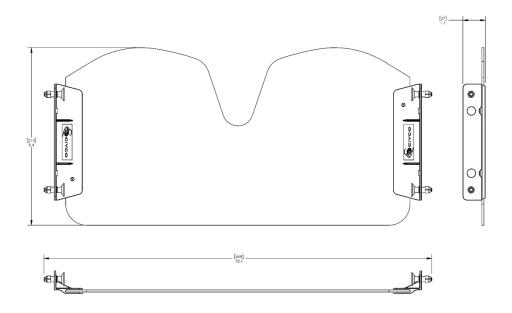
Product Name	Shoulder Thermoplastic, Standard White Solid, Type-S™	
Product Number	MTAPSSTS	
Primary Materials	Polycaprolactone, Polycarbonate, Delrin	
Weight (approx)	0.46 kg/ 1.02 lbs	
Dimensions (mm)	248 L x 527 W x 20 H	

## **Technical Drawing**



Product Name	Shoulder Thermoplastic, Standard White Solid, Posifix®
Product Number	MTAPSSPF
Primary Materials	ABS - Black, Polycaprolactone, Polycarbonate, Nylon
Weight (approx)	0.29 kg/ 0.65 lbs
Dimensions (mm)	214 L x 468 W x 27 H

## **Technical Drawing**





## Standard White IMRT Reinforced™ Style 18



#### Standard White ClearVision™

**Primary Materials** 



#### Technical Details 3.2 IMRT Reinforced, ClearVision and Shoulder Thermoplastic

Polycaprolactone, Polycarbonate

Attenuation (Unstretched Mask)**	<b>6MV:</b> 1.03% <b>18MV:</b> 0.21%	(solid region) (solid region)	
Thickness	3.2 mm (.125)		
Perforation (surface)	Varies (IMRT Pa	attern)	
Density	1.145 g/cm <sup>3</sup>		
Surface feeling	Smooth		
Color	White		
Odor	None		
Biocompatible	Yes		
Transparent when activated	Yes		
	Waterbath		Dry Heat Oven
Activation temperature	75° C / 165° F		75° C / 165° F
Activation time, Head-Only	5 min		8-11 min
Activation time, Shoulder	7-9 min		8-11 min
Molding time (maximum)*a	1 min 30 sec		N/A
Hardening time*	8 min 30 sec		N/A
Time to completion (minimum)*	10 min		10 min



## Test Procedures used to Acquire Data

#### **Definitions\***

- a. **Molding Time** the time frame available from when the mask is removed from the waterbath to the time that the mask can no longer be molded or formed.
- b. **Hardening Time** the time between the molding and completion time where the mask should be cooling and hardening on its own without being manipulated or molded.
- c. **Time to Completion** the total time from when the mask is taken out of the waterbath or dry heat oven to when the mask can be removed from the patient.

#### Photon Attenuation Test Conditions\*\*

a. 100 cm SAD

b.10 x 10 cm Field Size

c. 6 MV Dmax = 1.5 cm18 MV Dmax = 3.0 cm

# Packaging

Unit Pack	Each
Units / Box	One
Shelf Life	n/a
Warranty	See CIVCO website for Product Warranty Statement
Sterilization	Non-Sterile
Launch Date	September 2018

## Accessories

<u> </u>	<b>~</b> · · · · ·	
Svetam	Customization	
OVSICIII	Oustonneation	

Thermoplastic

MTAPCID1832 Solstice™ Thermoplastic IMRT Reinforced Style 18

MTAPCIN1832 Solstice Thermoplastic IMRT Reinforced Style 18, Narrow

MTAPCID1832SG Solstice Thermoplastic ClearVision™

MTAPCIN1832SG Solstice Thermoplastic ClearVision, Narrow

AccuForm™ Cushions

MTACL2035 20 x 35 cm Chamfered

MTACL2035HF 20 x 35 cm Chamfered Half Fill

Headrests

CHS40K Headrest Kit (includes B,C & F), Qty 3

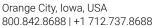
CHS40 Headrest B, Qty 1 CHS41 Headrest C, Qty 1 CHS42 Headrest F, Qty 1

Precise Bite™

MTCBPBITE Standard, Qty 5 MTCBPBITES Small, Qty 5

**MTCBPBITETD** Standard with Tongue Depressor, Qty 5 **MTCBPBITETDS** Small with Tonue Depressor, Qty 5





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