

# Product Catalogue



# KRS rayFit



**macromedics**

rayfit

## MacroMedics® = Vision + Innovation

Our open and direct communication with radiotherapy professionals allows us to anticipate new trends in treatment techniques. This enables us to develop new ideas and visions for unique, high-end quality products and solutions, using modern components, materials and advanced manufacturing techniques.

The focus of our design approach is to create an efficient and effective radiotherapy treatment, based on optimal positioning of the patient. For this we see patient comfort as a crucial element in the set-up and treatment process.

Our individualized approach to the patient, combined with dedicated and innovative positioning products, will provide optimal control of treatment processes and workflow efficiencies.



An example of Vision + Innovation coming together is MacroMedics' Double Shell Positioning System DSPS®, which was nominated for the Dutch Design Award 2013. With this truly innovative positioning system, MacroMedics managed to reach the finalists group for this award.

# DSCP™

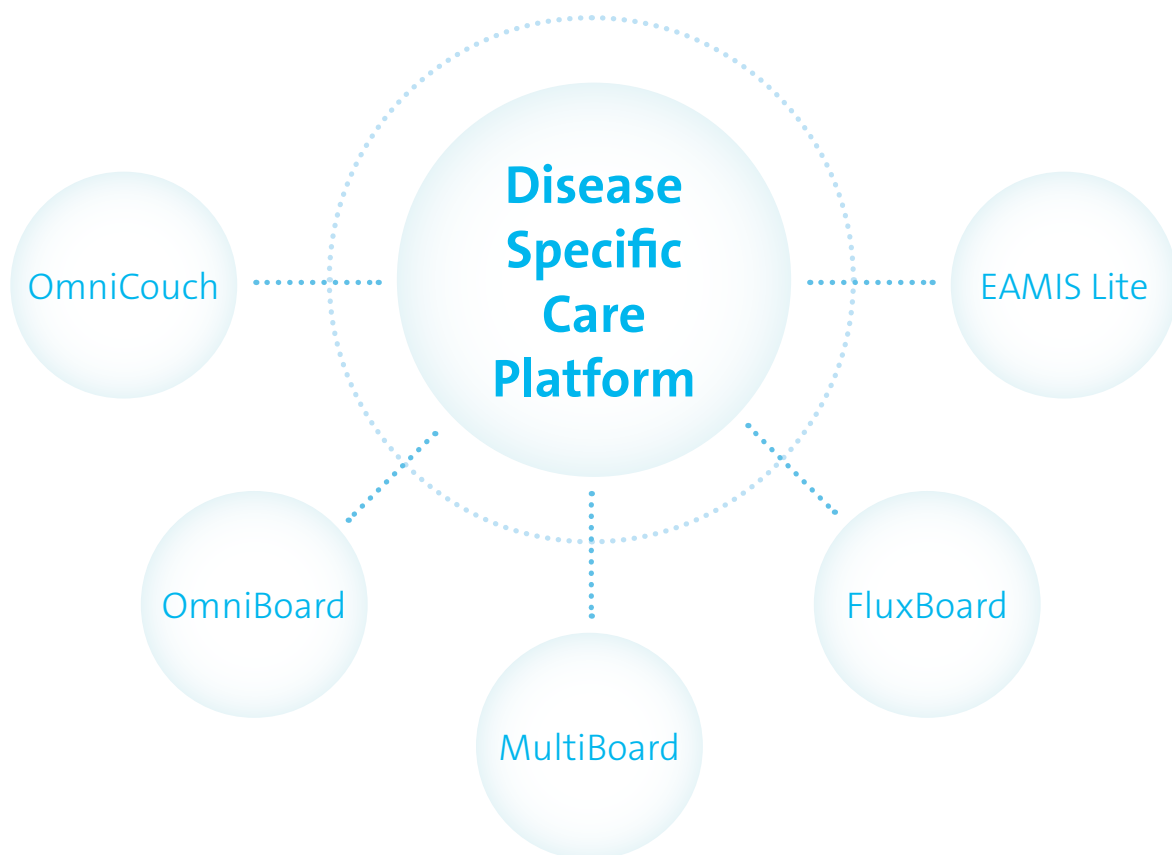
## Disease Specific Care Platform



MacroMedics offers an unique and innovative approach on Disease Specific Care by introducing a contemporary and comprehensive product line dedicated for standard as well as high precision radiotherapy treatment such as hyper fractionation and arc therapy.

The concept of the Disease Specific Care Platform (DSCP) is based on positioning optimization of designated treatment areas and organs by making use of a platform consisting of a number of specific treatment boards or couchtops combined with an extensive set of sophisticated modular positioning accessories.

With these accessories a comfortable full-body support for the patient is created while focusing on the treatment area with advanced positioning products, explicitly designed for the specific treatment area. With only lightweight accessories to attach, there is no need to longer lift heavy, bulky positioning boards on and off the treatment table. The quick accessory attachment results in reduced set-up times and a significant optimization of the workflow for everyday as well as high precision treatment. This makes the Disease Specific Care Platform an excellent product of choice.



# OmniCouch™

## Disease Specific Care Platform



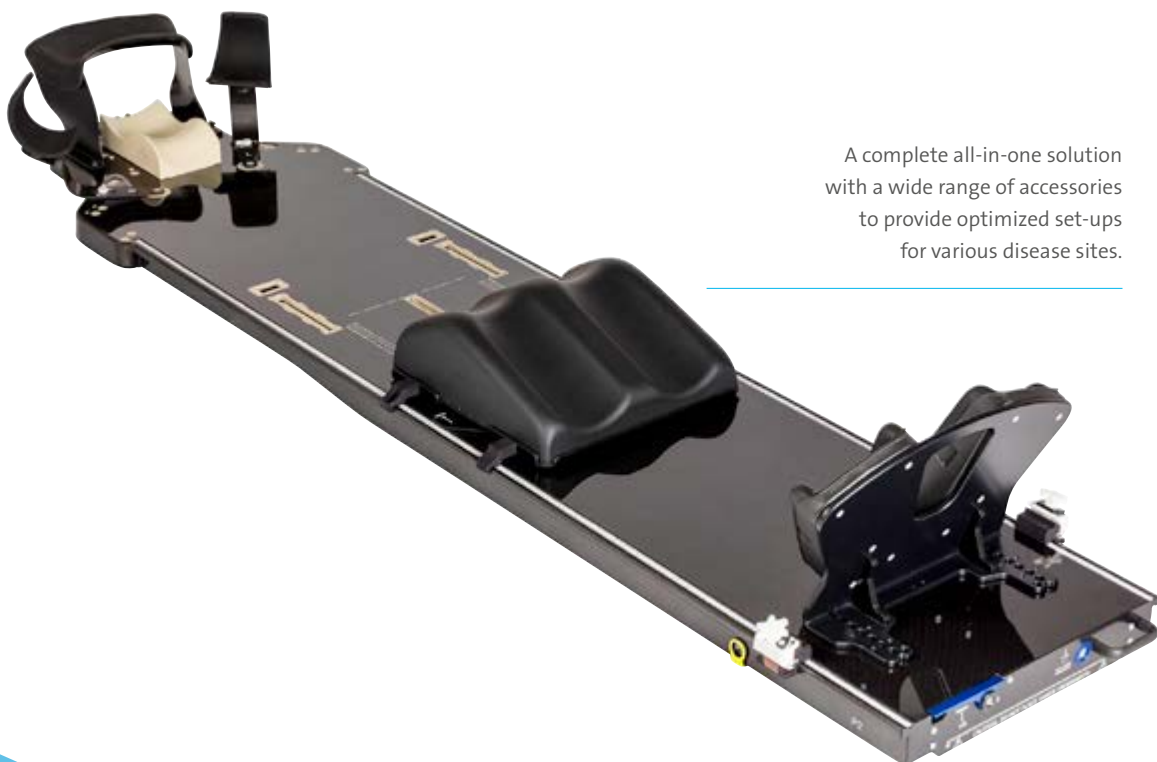
*The evolution continues...* The new MacroMedics® OmniCouch is the latest addition to the MacroMedics Disease Specific Care Platform (DSCP). It offers new innovative solutions in the travel range, allowing to position patients for most common treatments without the necessity of changing modules for adjusting the table length. Modular and easily attachable treatment accessories provide flexibility and a quick change between different patient set-ups.

### Modular accessories

The OmniCouch is a complete all-in-one solution with a wide range of accessories to provide optimized set-ups for various disease sites. Due to the modularity of the system, the OmniCouch can be set-up quickly for the next patient, supporting an efficient workflow. Compact size and light weight make the ergonomic accessories easy to handle.

### Features

- Extended travel range
- Modular accessories
- Uniform patient set-up on all modalities



A complete all-in-one solution with a wide range of accessories to provide optimized set-ups for various disease sites.

# KRS rayFit

All regions of interest

A full range of SBRT accessories transforms the OmniCouch quickly into a versatile SBRT platform.

For Breast Treatments, lightweight modules are available that can be attached to the OmniCouch in just seconds.



3-point RealEase™ mask

For Head, Neck and Shoulders the superior OmniCouch section has an integrated design for adaption of the dedicated devices and thermoplastics.



5-point RealEase™ mask

P1 - position



P2 - position



### Extended travel range

The OmniCouch is a 'one-piece couchtap' that can be displaced longitudinally with a high-end mechanical sliding system, offering an optimized travel range for various treatment areas.

With an effortless displacement between the 2 discrete longitudinal positions, the OmniCouch will be customized for the required treatment setting.

### Uniform patient set-up on all modalities

The OmniCouch provides uniformity to your department by offering the same set-up on CT, PET-CT and linac. This allows a smooth transition from imaging to treatment. It also provides you with the flexibility to transfer the patient to another room in case of machine downtimes.



OmniCouch on linac

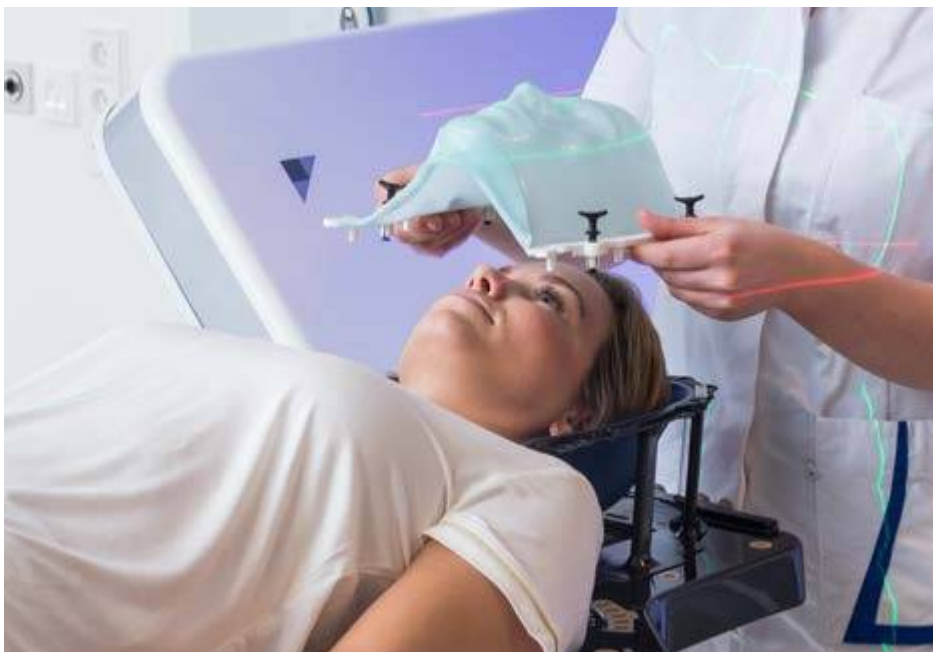


OmniCouch on CT





The OmniCouch provides uniformity to your department by offering the same set-up on CT, PET-CT and linac.



#### Ready for high precision

With the MacroMedics Double Shell mask system attached, the OmniCouch is ready for high precision SRS/SRT Treatments.

The OmniCouch provides uniformity to your department by offering the same set-up on CT, PET-CT and linac.



rayFit

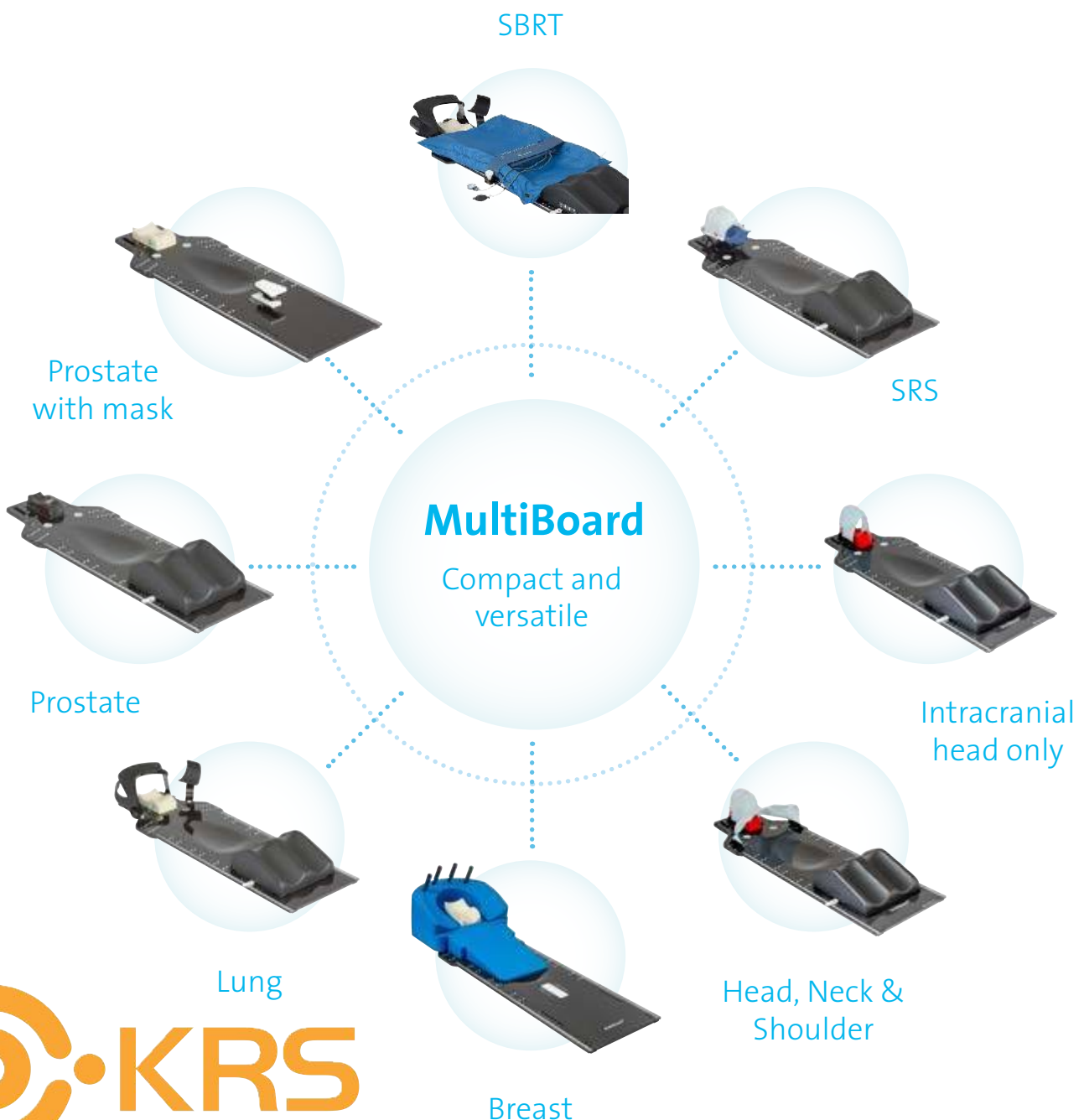
Patient comfort is  
patient control



# MultiBoard™

## Disease Specific Care Platform

The MultiBoard™ is a compact “All in One” patient positioning solution. The modular accessories offer a vast range of different set-up options for adults and pediatrics. They allow a quick transition from one set-up to another, supporting an efficient workflow in the department.



# MultiBoard™

## Disease Specific Care Platform



The MultiBoard is a versatile Modular Treatment Board and part of MacroMedics® Disease Specific Care Platform (DSCP).

This compact “All in One” patient positioning solution offers flexibility and allows quick and efficient patient set-up through indexed steps. The MultiBoard Base is anatomically shaped for patient comfort and can be indexed on the couchtop where it can remain during daily treatment. It can be used with a vast range of thermoplastic masks for head & neck, also for pediatrics, as well as thorax and pelvic masks. Combined with the modular MacroMedics positioning products, the MultiBoard becomes a dedicated device for head & neck, lung & thorax, liver & lower abdomen as well as SBRT treatments.

### Features

- “All in One” solution for optimized workflow
- Lightweight carbon fiber construction for optimized dosimetry<sup>1</sup>
- Quickly transformed into SBRT platform
- Indexable
- An MR safe version is available



# EAMIS SBRT™

## Disease Specific Care Platform



The EAMIS is part of the of MacroMedics® Disease Specific Care Platform (DSCP). This extremely compact and lightweight rail system offers various set-up possibilities for high precision stereotactic treatments. It is a state of the art solution for lung & thorax, liver and lower abdomen treatments.

### Features

- Extremely compact and lightweight
- Easy handling
- Easy attachment of SBRT Secure Arches
- Respiratory suppression plate to minimize respiratory motion
- Abdominal **Compression Belt** to further stabilize set-up
- Indexable
- An MR safe version is available



EAMIS - our most compact solution for SBRT

## Arm Supports



Rigid



Height adjustable

## Handgrips



## Cushion

Cushion to cover FeetSupport pins	115260	CUSLPB
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## Vacuum Cushion Positioning System



MR Body Coil Holder Arch

New

New

## MR Body Coil Holder Secure Arch

MR Body Coil Holder Secure Arch	176010	SA-CH
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# SSPS®

## Single Shell Positioning System



The MacroMedics® Single Shell Positioning System (SSPS®), is a system that offers increased stability for head, neck & shoulder positioning. Based on an accurate mechanical principle, the SSPS distinguishes itself from existing head, neck & shoulder systems and presents a completely new approach for increased set-up stability in the head & neck region.

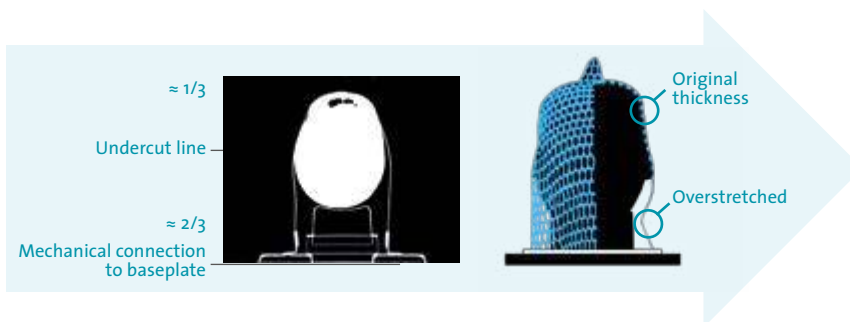
With current thermoplastic mask systems the mask material can become overstretched. This may result in thin material and thus less stable patient set-up. The solution: the Single Shell Positioning System (SSPS) that focuses on the patient's facial contours which are relevant for a precise repositioning, in combination with a very rigid and direct connection to the baseplate.

The ultra-light and extremely rigid cradle can be connected to the baseplate in seconds and forms a strong and rigid link between mask and baseplate. The mask is limited to the relevant boundaries of the patients facial contours. As it only needs to be stretched towards the cradle rim, the mask remains compact and will not be overstretched. This will clearly contribute to the stability of the patient set-up. The SSPS differentiates itself by an improved mechanical approach resulting in better rigidity in the positioning system as a whole. It combines easy handling with increased set-up stability.  
Patent pending

### Features

- Rigid carbon fiber cradle for stable mask set-up
- Compact mask without overstretch
- Special non-shrinking mask material
- Available for various baseplates

### Current situation



### New: ultimate mask stability



## Full flexibility in treatment options and accuracy

Choose the right mask system for your patient

- Traditional masks
  - 3- or 5-point RealEase™ masks
  - S-Type masks (head only or head, neck & shoulder)
- Single Shell masks
- Double Shell masks (see also next page)

### TRADITIONAL



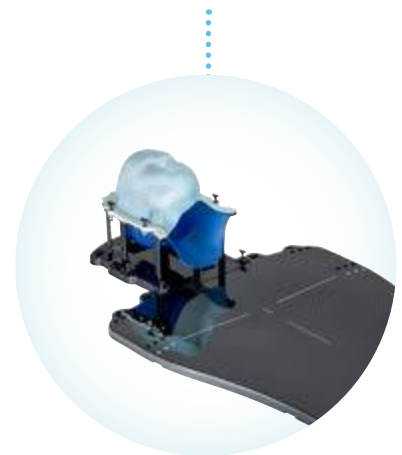
RealEase  
or S-Type



### SINGLE SHELL



### DOUBLE SHELL



Single Shell and Double Shell  
masks are also available as  
head, neck & shoulder masks



# DSPS<sup>®</sup>

## Double Shell Positioning System

The MacroMedics<sup>®</sup> Double Shell Positioning System (DSPS<sup>®</sup>) strikes the perfect balance among the often competing aspects of patient comfort, accuracy<sup>2</sup> and throughput. Docking to most common manufacturer's head & neck baseplates, the DSPS concept is created around an ultra-light carbon fiber cradle with low attenuation.

The DSPS system consists of 2 masks made of special thermoplastic materials: The patented material of the occipital mask is rigid enough to hold the patients head during moulding. There is no need for an additional head support and there is full access to customize the mask around neck and occipital bones. The facial mask is not overstretched and therefore extremely rigid. Both masks do not shrink resulting in a comfortable set-up for the patient.

The advanced double shell design enables the clinician to achieve high precision positioning for stereotactic cases, creating a new standard of accuracy<sup>2</sup> in frameless stereotactic radiosurgery. DSPS is a patented product of MacroMedics.



### Features

- Accurate, individually mouldable system (see table)
- Quick and easy patient set-up
- Comfortable<sup>2</sup> for the patient, also during longer treatments
- Allows fully customized prone positioning
- Different versions available for most common head & neck systems
- MR safe cradles are available





The cradles are available to fit on most common baseplates, please check for availability.

DSPS with masks for prone positioning



# rayFit



Interfractional movement / Set-up correction

	Lat (mm)	Lng (mm)	Vrt (mm)	Pitch (°)	Rtn (°)	Roll (°)
$\mu$	0.1	-0.2	0.4	0.3	0.0	-0.3
$\Sigma$	1.1	2.0	2.1	0.5	0.6	0.3
$\delta$	1.1	2.1	4.3	0.5	0.5	0.3

Intrafractional movement

	Lat (mm)	Lng (mm)	Vrt (mm)	Pitch (°)	Rtn (°)	Roll (°)
$\mu$	0.0	0.1	0.0	0.0	0.1	0.0
$\Sigma$	0.2	0.1	0.0	0.1	0.2	0.0
$\delta$	0.5	0.2	0.1	0.1	0.3	0.1

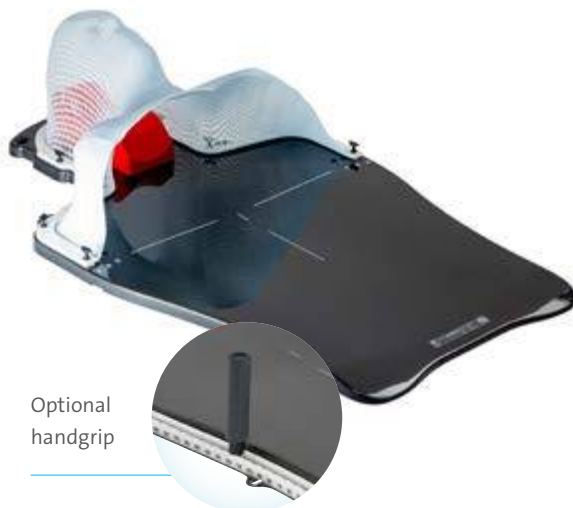
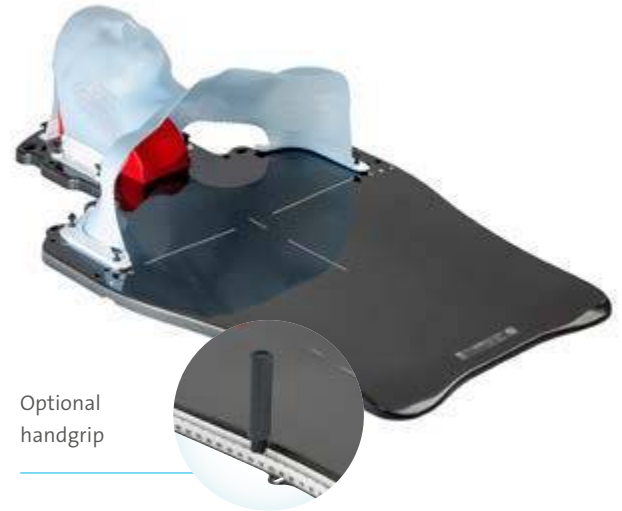
$\mu$  = mean-of-means  $\Sigma$  systematic  $\delta$  random



# Head & Neck baseplates

## RealEase™ baseplates

MacroMedics® RealEase baseplates are ergonomically shaped for patient comfort. They are indexed on the couchtop with 2 CouchStrips to ensure a reproducible positioning. RealEase profiles with easy to handle plungers offer improved fixation, stability and release of 3- or 5-point masks. Shoulder profiles are anatomically shaped. RealEase baseplates are prepared for attachment of hand grips (optional) to bring the patients shoulders as much as possible out of the treatment area.

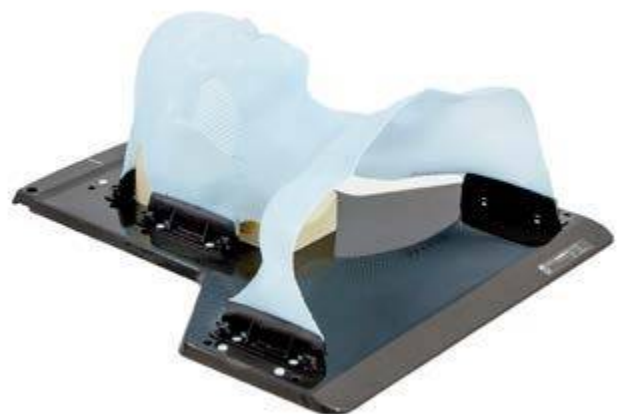


## S-Type baseplates

MacroMedics® S-Type baseplates are ergonomically shaped for patient comfort. They are indexed on the couchtop with 2 CouchStrips to ensure a reproducible positioning. MacroMedics S-Type baseplates are prepared for attachment of hand grips (optional) to bring the patients shoulders as much as possible out of the treatment area.

## ExaFix™ baseplates

MacroMedics® ExaFix baseplates have a compact design. The ExaFix-3 baseplate is designed for head positioning, the ExaFix-5 baseplate for head, neck & shoulder positioning. Acrylic MR safe versions and pediatric versions of the ExaFix baseplate are available. All ExaFix baseplates can be indexed to the couchtop with a CouchStrip.



# IMRT & Tilting baseplates

IMRT baseplate  
for Varian IGRT



IMRT baseplate for  
Elekta iBEAM® evo



## IMRT baseplates

Intensity Modulated Radiation Therapy requires reliable and accurate high precision patient-set-up. MacroMedics® offers IMRT baseplates specifically designed to support these requirements. The cantilevered design offers a '360 degrees angle of freedom' around the region of interest. The IMRT Baseplates are available for RealEase, S-Type and ExaFix mask systems. They are fit for several types of treatment couches as well as for CT, PET-CT and MR. Please check with us for an overview of available types.

### Features

- Better target coverage
- Easily hooked onto cranial end of treatment couch
- Low tolerances in attenuation and dosimetry
- Uniformity on all treatment modalities
- An MR safe version is available

## Tilting baseplates

Tilting baseplates are available for RealEase, S-Type and ExaFix mask systems. They can be quickly clicked onto head & neck baseplates and offer angulation of up to 25° or 35° in 5 or 7 steps. Tilting baseplates avoid overstretch of masks as sometimes seen with wedges or blocks. This results in a less overstretched and more stable mask that benefits repositioning.



# MaxSupport™

## Head supports, blocks and wedges

The MacroMedics® MaxSupport head supports provide stable and comfortable support during treatment in the head- and neck region. The foam MaxSupports are covered with a coating for easy cleaning. The wideshaped MaxSupports nicely fit and support the patients head and offer extra stability on the lateral sides of the head as well as in the neck area. The wideshaped MaxSupports are made of low density foam for minimal attenuation. MaxSupports are also available for prone positioning and in a special version for pediatrics. All foam MaxSupports are MR safe.

For situations where extra stability and reproducibility is desired, MacroMedics developed two sets of carbon fiber MaxSupports. These head supports consists of a very thin layer of carbon fiber combined with a low density foam part for low attenuation. For special treatment requirements low attenuation carbon fiber elevation blocks and wedges are available in various heights and angles.

MaxSupports



MaxSupport Prone



MaxSupports wideshaped



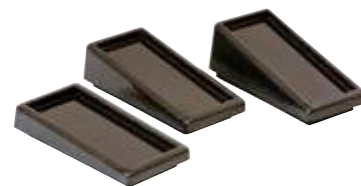
MaxSupport Pediatric



MaxSupports carbon fiber



Carbon fiber wedges



MaxSupports S-line, carbon fiber



Carbon fiber blocks





# rayFit

# DSPS® & SSPS®

## Thermoplastic masks

For our innovative DSPS and SSPS head and neck positioning systems, MacroMedics® and a leading thermoplastics manufacturer have developed a new generation of thermoplastic masks with unique properties:

- Ray-Pro: the thermoplastic material used for the facial masks, which offers increased rigidity and does not shrink.
- The dark blue Ray-Oc: the only thermoplastic material available on the market to create a mould of the back of the head that holds the patient without the need of an additional head support.

In combination, these thermoplastic masks result in increased patient comfort and improved initial set-up accuracy.<sup>2</sup>

### DSPS®



Supine



Long hair



Open face



Prone

Ray  
Fit

#### 2,3 mm thickness, set of 5

DSPS Mask Set Supine head only	114510	DSPS-FOS
DSPS Mask Set Supine head only for long hair	114560	DSPS-FOSL
DSPS Mask Set Prone head only	114530	DSPS-FOP
DSPS Mask Set Supine head only, Type-VRT, open face	114410	DSPS-FOSVR
DSPS Mask Set Supine head only, Type-VRT, open face, for long hair	114460	DSPS-FOSVRL



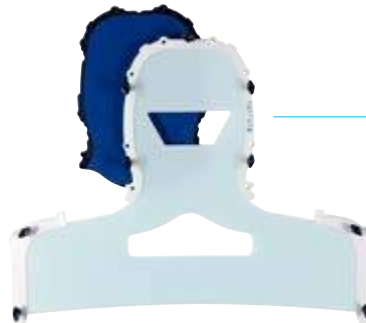
ExaFix



Type-O



Type-S or  
RealEase



Open face

**2,3 mm thickness, set of 5**

DSPS Mask Set for ExaFix (MacroMedics) Supine head and shoulder	114520	DSPS-FSOS
DSPS Mask Set for ExaFix (MacroMedics) Supine head and shoulder for long hair	114570	DSPS-FSOSL
DSPS Mask Set Type-O Supine head and shoulder	114620	DSPS-FSOSO
DSPS Mask Set Type-O Supine head and shoulder for long hair	114670	DSPS-FSOSOL
DSPS Mask Set Type-S or RealEase Supine head and shoulder	114320	DSPS-FSOSS
DSPS Mask Set Type-S or RealEase Supine head and shoulder for long hair	114370	DSPS-FSOSSL
DSPS Mask Set Type-VRT Supine, open face, head and shoulder, S-profiles	114420	DSPS-FSOSVRS
DSPS Mask Set Type-VRT Supine, open face, head and shoulder for long hair, S-profiles	114470	DSPS-FSOSVRSL





Supine



Open face

**2,3 mm thickness, set of 5**

SSPS Mask head only	115510	SSPS-F
SSPS Mask head only, Type-VRT, open face	115810	SSPS-FVR

Same as depicted left for DSPS, only without dark blue occipital mask

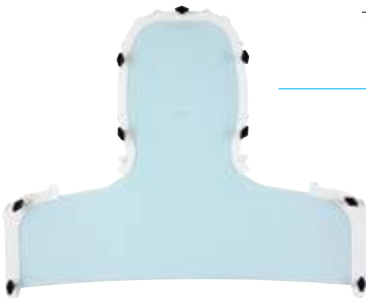
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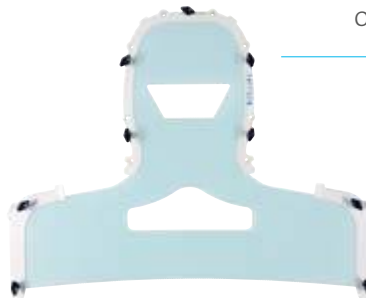
ExaFix



Type O



Type-S or  
RealEase



Open face

**2,3 mm thickness, set of 5**

SSPS Mask ExaFix head and shoulder	115520	SSPS-FS
SSPS Mask Type-O head and shoulder	115620	SSPS-FSO
SSPS Mask Type-S or RealEase head and shoulder	115720	SSPS-FSS
SSPS Mask Type-VRT Supine, open face, head and shoulder, S-profiles	115820	SSPS-FSVRS

# MacroCast™

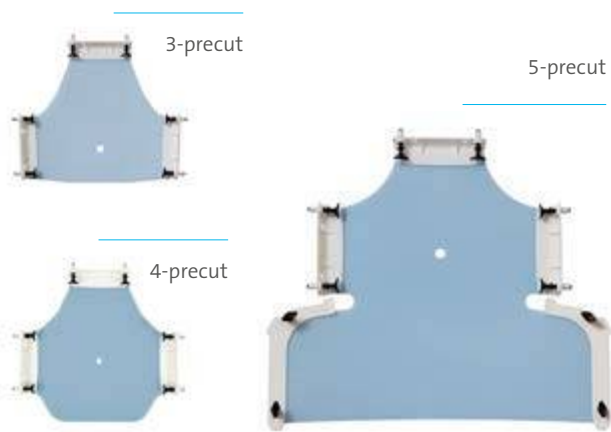
## Thermoplastic masks



MacroCast is a proven thermoplastic material, offering high rigidity, low shrinkage and near transparency while processing the material. MacroCast is available in different perforations, coatings and shapes, with and without L-profiles attached. The most common types are listed below.

**Additional shapes are available, please check with us on details.**

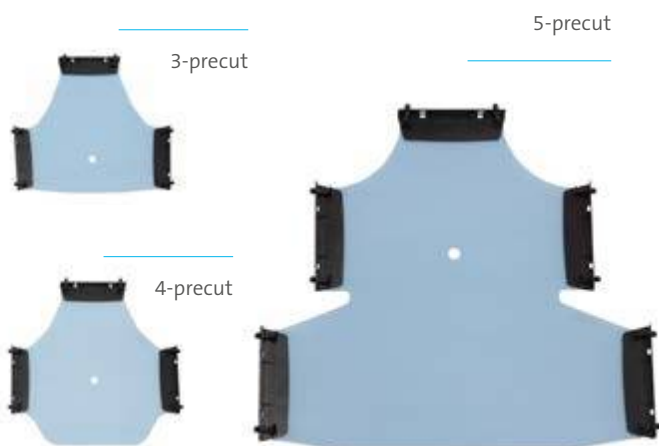
### RealEase profiles



#### 2,3 mm thickness, set of 10

MacroCast fine perfo, 3-precut, RealEase profiles	359530	REMCF-3
MacroCast fine perfo, comfort, 3-precut, RealEase profiles	357530	REMCFC-3
MacroCast non perfo, 3-precut, RealEase profiles	359730	REMCN-3
MacroCast fine perfo, 4-precut, RealEase profiles	359540	REMCF-4
MacroCast fine perfo, comfort, 4-precut, RealEase profiles	357540	REMCFC-4
MacroCast non perfo, 4-precut, RealEase profiles	359740	REMCN-4
MacroCast fine perfo, 5-precut, RealEase profiles	359550	REMCF-5
MacroCast fine perfo, comfort, 5-precut, RealEase profiles	357550	REMCFC-5
MacroCast non perfo, 5-precut, RealEase profiles	359750	REMCN-5

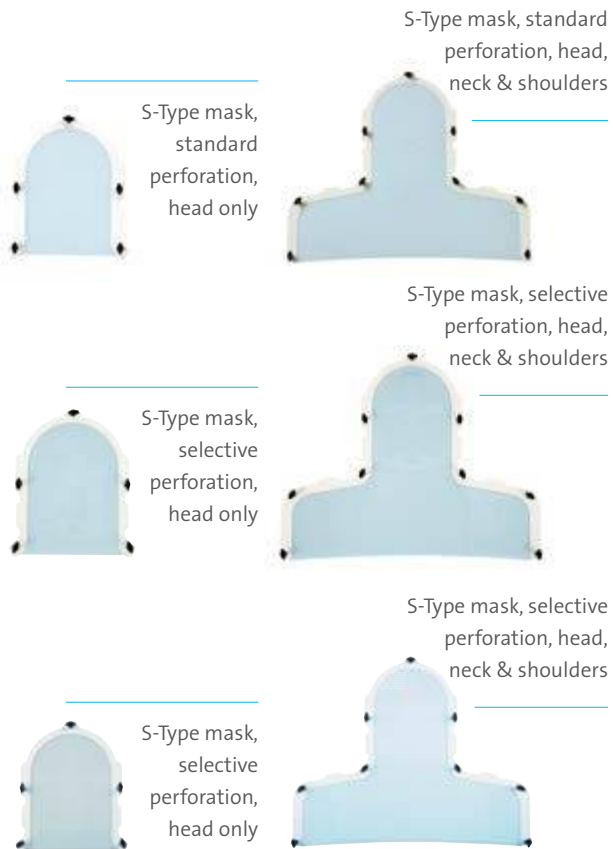
### L-profiles



#### 2,3 mm thickness, set of 10

MacroCast fine perfo, 3-precut, L-profiles	119530	LMCF-3
MacroCast fine perfo, comfort, 3-precut, L-profiles	117530	LMCFC-3
MacroCast non perfo, 3-precut, L-profiles	119730	LMCN-3
MacroCast fine perfo, 4-precut, L-profiles	119540	LMCF-4
MacroCast fine perfo, comfort, 4-precut, L-profiles	117540	LMCFC-4
MacroCast non perfo, 4-precut, L-profiles	119740	LMCN-4
MacroCast fine perfo, 5-precut, L-profiles	119550	LMCF-5
MacroCast fine perfo, comfort, 5-precut, L-profiles	117550	LMCFC-5
MacroCast non perfo, 5-precut, L-profiles	119750	LMCN-5

## S-Type masks



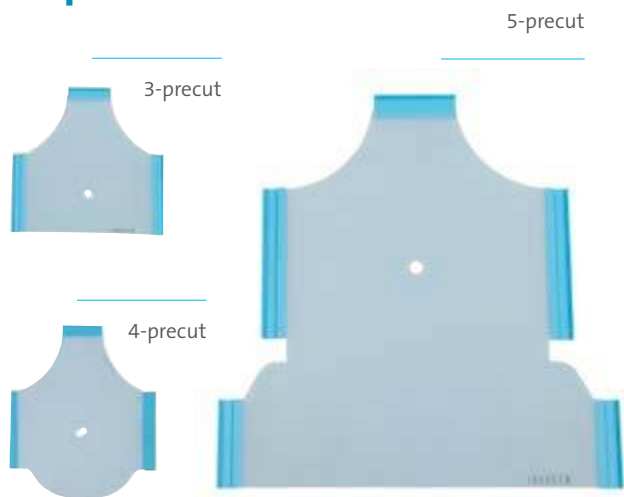
### Premium S-Type masks, 2,3 mm, set of 10

S-Type mask, standard perforation, head only	364110	TSS-HO
S-Type mask, standard perforation, head, neck & shoulders	364410	TSS-HNS
S-Type mask, selective perforation, head only	364130	TSRP-HO
S-Type mask, selective perforation, head, neck & shoulders	364430	TSRP-HNS

### Premium S-Type masks, 3,0 mm, set of 10

MacroCast fine perfo, 3-precut, RealEase profiles	363150	TSMP3-HO
MacroCast fine perfo, comfort, 3-precut, RealEase profiles	363450	TSMP3-HNS
MacroCast non perfo, 3-precut, RealEase profiles	363130	TSRP3-HO
MacroCast fine perfo, 4-precut, RealEase profiles	363430	TSRP3-HNS
MacroCast fine perfo, comfort, 4-precut, RealEase profiles	367110	TSNP3-HO
MacroCast non perfo, 4-precut, RealEase profiles	367410	TSNP3-HNS

## O-profiles



### 2,3 mm thickness, set of 10

MacroCast fine perfo, 3-precut, O-profiles	129530	OLMCF-3
MacroCast fine perfo, comfort, 3-precut, O-profiles	127530	OLMCFC-3
MacroCast non perfo, 3-precut, O-profiles	129730	OLMCN-3
MacroCast fine perfo, 4-precut, O-profiles	129540	OLMCF-4
MacroCast fine perfo, comfort, 4-precut, O-profiles	127540	OLMCFC-4
MacroCast non perfo, 4-precut, O-profiles	129740	OLMCN-4
MacroCast fine perfo, 5-precut, O-profiles	129550	OLMCF-5
MacroCast fine perfo, comfort, 5-precut, O-profiles	127550	OLMCFC-5
MacroCast non perfo, 5-precut, O-profiles	129750	OLMCN-5

## U-frame masks



U-frame mask,  
standard perforation

### 2,3 mm thickness, set of 10

U-Frame mask, standard perforation	376410	TUSS
U-Frame mask, standard perforation, wide	376510	TUSSW
U-Frame mask, standard perforation, neck extension	376480	TUNES
U-Frame mask, selective perforation	373430	TURS



U-frame mask,  
selective perforation

### 3 mm thickness, set of 10

U-Frame mask, multi perforation	377450	TUSS3
U-Frame mask, multi perforation, wide	377550	TUSSW3
U-Frame mask, multi perforation, neck extension	377480	TUNES3
U-Frame mask, selective perforation	374430	TURS3

# MacroBath™

## Water bath



The stainless steel MacroBath water bath type 3 has been specifically designed for use with MacroCast™ thermoplastic materials. The MacroBath water bath is electronically controlled and digitally adjustable to ensure the desired temperature for optimal moulding characteristics of MacroCast materials.

Available accessories include a MacroBath Trolley which brings the MacroBath to a convenient work position and the EasyGrip™. It assists in an easy and efficient way the handling of 5-points MacroCast masks, allowing them to be removed from the MacroBath by just one person.



### MacroBath 3

External dimensions 54 x 66 x 35 cm  
(incl handgrips)

Working plane 50.5 x 61 cm  
(maximum thermoplastic mask size)



EasyGrip

# BreastBoard SX™



The BreastBoard SX is the elementary model of the MacroMedics® breast treatment line. It has a straightforward design for quick, easy and efficient patient set-up. It is a cost-effective and modern solution, manufactured to conform with the latest requirements in patient treatment.

The BreastBoard SX provides a coreless single layer carbon fiber treatment zone without grid to obtain low attenuation, maximal homogeneity and rigidity. It is a light and ergonomic breast treatment device securing reproducible day to day patient set-up.

## Features

- Rigid, homogeneous and low-attenuation IGRT treatment zone
- Inclination from 5° to 15° in 2.5° steps
- Optional height adjustable arm supports
- Ergonomic and rigid bottomstop
- Optional high version available for shorter patients
- Compatible with 3-point MacroCast™ RealEase™ head masks
- Breast support masks available
- Indexable



# BreastBoard LX™

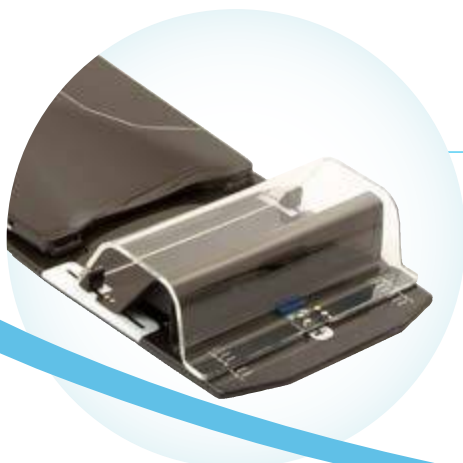


The BreastBoard LX is the premium, stand-alone breastboard. Utilizing a coreless, single-layer carbon fiber treatment zone, the BreastBoard LX provides an IGRT treatment zone with minimal attenuation and maximal homogeneity and stability. The stable, easy to adjust arm supports on the BreastBoard LX address many of the adjustment challenges with other breast board arm supports, providing quick, customizable set-ups for patient comfort and clearance. The BreastBoard LX further addresses common patient comfort issues by incorporating a contoured lumbar area and an optional bottomstop adapter for shorter patients.



## Features

- Rigid, homogeneous and low-attenuation IGRT treatment zone
- Inclination from 5° - 20° in 2.5° steps
- Adjustable head support
- Stable and easy to adjust arm supports
- Various arm positions possible with optional accessories: hand grips, high bridge support, 90 degree arm support



High bottomstop



Handgrips

# EagleBoard™

The MacroMedics® EagleBoard offers quick and easy patient set-up for treatment of breast, lung and thorax. A variety of indexed supports and grips for head and arms ensure comfortable as well as reproducible set-up for lung and thorax treatments. The EagleBoard provides full support of the upper arms which reduces the need for additional devices such as vacuum cushions.

The tapered design for maximum CT bore clearance and the use of MR safe materials make the EagleBoard an ideal choice for all imaging modalities. The EagleBoard is a compact and cost-effective solution for quick and comfortable patient positioning.



## Features

- Tapered design for maximum CT bore clearance
- Easy adjustable positioning of the T- or U-Grip
- Grips can be fixed in two directions for a wide range of positions
- Adjustable, indexed position of MaxSupport 1 head support
- Indexable
- Fully MR safe

# ThoraxSupport™

EagleBoard T-Grip



EagleBoard U-Grip



# KneeSupport™

KneeSupports are used to raise the patient's legs, flattening the lumbar spine to support a comfortable position for the patient.

MacroMedics offers 3 different types of KneeSupports:

- A lightweight foam version with a smooth coating for easy cleaning.
- A durable plastic version with an integrated handgrip
- A low plastic version for paediatric, small or elderly patients

All KneeSupports can be indexed directly on the couchtop and can be placed in 4 different positions.

KneeSupport foam



KneeSupport plastic



KneeSupport plastic, low



To further lift the knees of tall patients or patients with greater spine curvature, KneeSupport LiftBlocks can be placed underneath the KneeSupports, offering an additional elevation of 5 cm.

KneeSupport LiftBlock



# FeetSupport™

When lying in a relaxed position, feet naturally point outward. The FeetSupport places the patient's feet in this natural position for comfort and to assist stabilising the patient set-up. The FeetSupport cushions have a smooth coating for easy cleaning.



There are two types of FeetSupport:

- Fixed FeetSupport which hold the feet at a set angle
- Rotatable FeetSupport which can be indexed directly on the couchtop and allow the feet to be positioned at 4 different indexed angles

FeetSupport



FeetSupport rotatable



FeetSupport fixed



# LEPS™

The MacroMedics® Lower Extremity Positioning System (LEPS) is a modular solution that supports the comfortable positioning of the patient's pelvic region and lower extremities. The system consists of a lightweight baseplate which provides indexed positions for KneeSupport™, LiftBlock™ and FeetSupport™. The system can be upgraded with an optional shoulder retractor.

## New

A compact short version of the LEPS baseplate which allows indexing of the FeetSupport in small increments. It can be used, for example, in combination with the MultiBoard or BreastBoard.

## Features

- Indexed positions:
  - KneeSupport in 4 steps
  - FeetSupport in 11 steps
- Upgrade with an optional shoulder retractor
- Indexable
- The LEPS is MR conditional



Shoulder retractor detail



LEPS

LEPS with fixed FeetSupport



LEPS short



# Pelvic Prone Board™



The MacroMedics® Pelvic Prone Board is an anatomically shaped prone positioning device for patients undergoing treatment in the pelvic region. It offers a patient friendly, comfortable design. An optional indexed Pron Pillo helps to further increase patient support and set-up reproducibility. The Pelvic Prone Board is lightweight, rigid and indexable. The region of interest (R.O.I.) consists of a specifically designed low attenuation carbon fiber sandwich construction with optimized dosimetric properties<sup>1</sup> to allow 'arc' techniques. With the Pelvic Prone Board, it is possible to obtain a significant reduction of the irradiated small bowel volume.<sup>3</sup>

## Features

- Special carbon fiber sandwich construction in R.O.I. for optimal dosimetry for arc techniques
- Integrated arm rests for patient comfort
- Optional indexable Pron Pillo
- Indexable
- An MR safe version is available



Pelvic Prone Board



Pelvic Prone Board, MR safe with Pron Pillo

# Lex-Ultra™



The LEX-Ultra is a user friendly solution that provides support in positioning of the lower extremities. The LEX-Ultra is designed to create unobstructed radiation beam access in the region of interest (R.O.I.) and allows to position the unaffected extremity out of the treatment area. The low density baseplate in combination with carbon fiber elements in the lower leg region provides an adjustable, flexible and easy to use support and creates optimal positioning of the treated extremity.

## Features

- A lightweight baseplate
- Individual leg supports, height-adjustable in 7 indexed positions
- Optional middle block to position upper legs
- Integrated fixation points for various thermoplastic masks
- Indexable
- An MR safe version is available



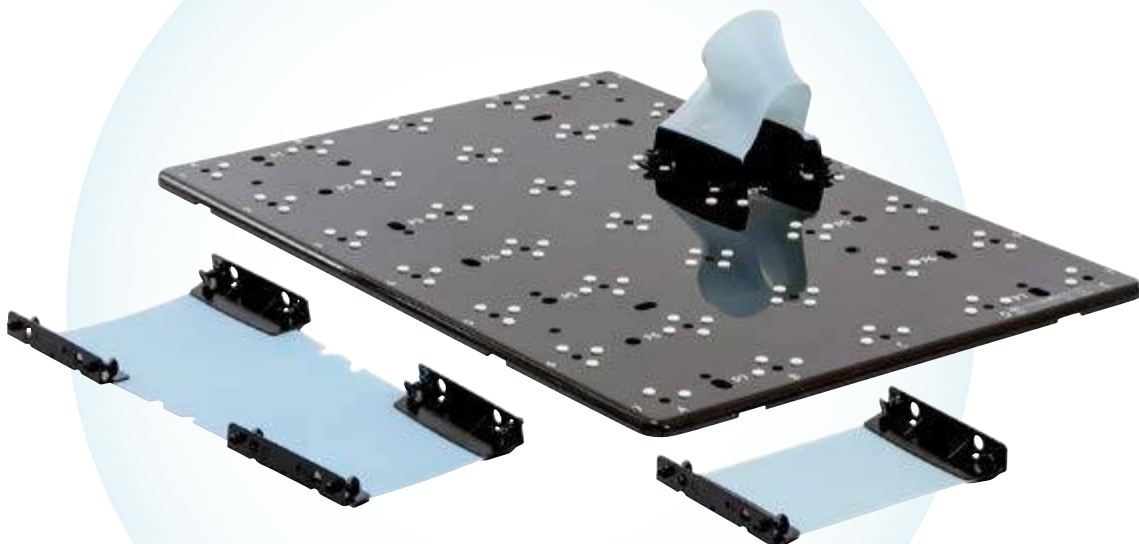
# UniqFix™

The UniqFix is a multifunctional carbon fiber baseplate, offering countless possibilities for the positioning of extremities. Dedicated thermoplastic mask shapes have been designed for positioning of arms, hands, legs and feet in straight or bent position. The UniqFix can be indexed on the couchtop in two perpendicular directions, allowing for arm positioning extended from the couchtop.



## Features

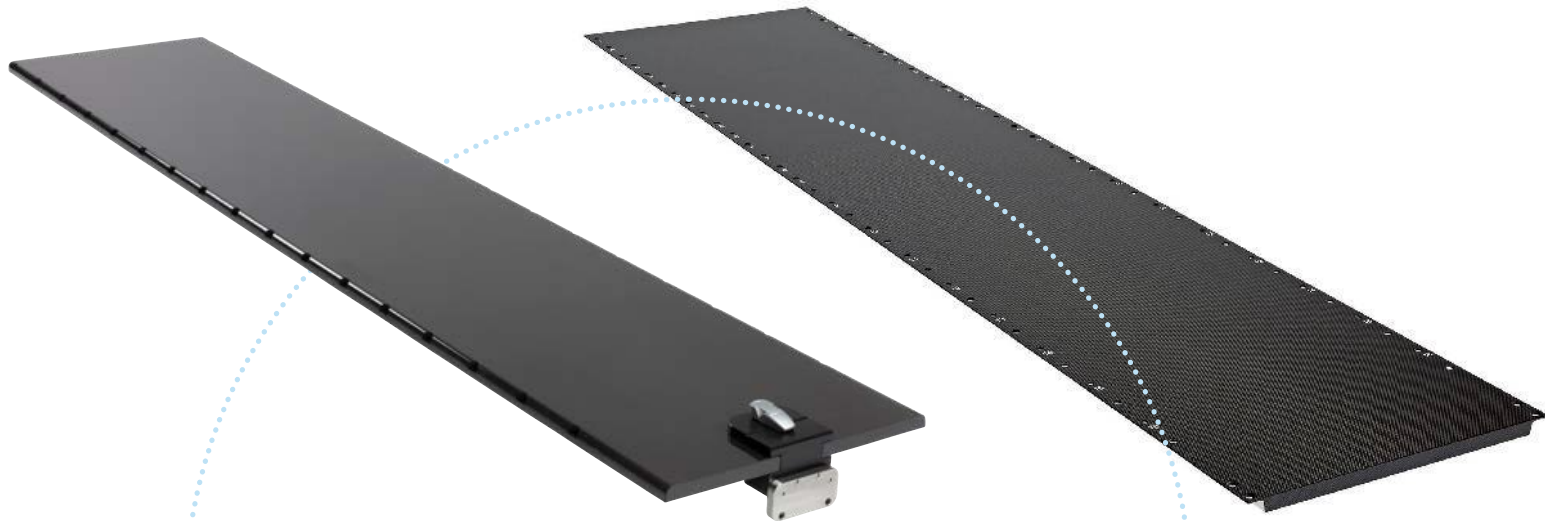
- Multifunctional baseplate
- Various thermoplastics available for extremity positioning
- Indexable
- An MR safe version is available



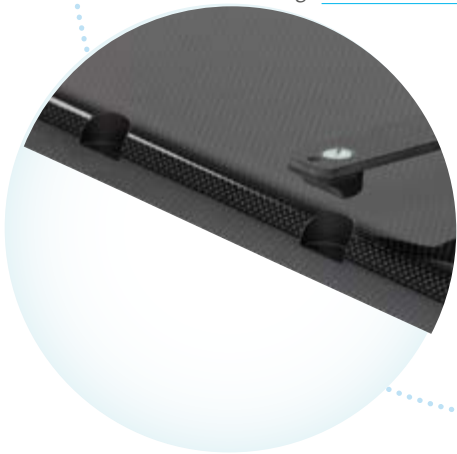
# Couchtops

To overcome the problems caused by the difference in geometry between concave scanner couchtops and flat simulator and linear accelerator couchtops MacroMedics® offers lightweight removable couchtops for various types of scanners. All MacroMedics couchtops simply lock onto the cradle of the scanner with a clamping mechanism which allows the couchtop to be easily removed at any time. As all carbon fiber MacroMedics products, the diagnostic couchtops are developed and produced with state of the art 3-D molding- and production techniques. Different indexing options are available.

CT Couchtop



Exact indexing



Medical Intelligence indexing



# CouchStrips™



All MacroMedics® baseplates can be indexed on couchtops to provide set-up reproducibility. Most of the baseplates use two CouchStrips to support a stable position on the couchtop: one CouchStrip assembled with side pieces that are compatible with the indexing system of the couchtop (e.g. Exact, iBeam...) to secure the position longitudinally, and a second CouchStrip with sliding side pieces to prevent lateral movement - particularly important for longer baseplates and vacuum cushions which shrink when the vacuum is formed.

## CouchStrips™

CouchStrips normally have 2 pins that attach to the patient positioning products for indexing. However, MR CouchStrips have 3 indexing points to prevent MR incompatible devices from erroneously being used in an MR environment. There are two main types of CouchStrips: fixed positioning CouchStrip which are the most commonly used (available in carbon fibre, and glass fibre for MR); and transverse CouchStrips which allow lateral displacement of the patient positioning products (available in carbon fibre, aluminium, and glass fibre for MR). CouchStrips are available in different lengths: narrow and medium. MacroMedics and our distributors will help you to find the right CouchStrip and side piece combination for your couchtop.



### New

CouchStrip™ with directly attached Exact sidepieces.

## Side pieces

To complete the CouchStrips, side pieces for various couchtop indexing styles are available, most of them also in a MR safe version:

### Fixed / indexing side pieces

Exact



iBeam



Prodigy



Prodigy 2



### Side pieces for sliding

Sliding



Sliding narrow



# Vacuum cushions

MacroMedics® vacuum cushions are manufactured from durable and easy to clean materials. They have an easy-to-use valve that does not leak. The vacuum cushions can be easily indexed on the couchtop with a carbon fiber vacuum cushion positioning strip. To mould the vacuum cushions, a basic single function pump is available. The dual function pump offers a wireless hand or foot remote control for quick adjustment during moulding. It can be carried easily as it is compact and battery operated.

## Features

- Ultra-durable, high-quality polyamide
- Blue colour distinguishable in optical imagers
- Radiotranslucent
- Cost-effective
- MR conditional
- Adapters available for pumps with CPC connector



Vacuum cushion

Vacuum cushion  
with positioning strip



Dual function  
vacuum pump



Vacuum cushion,  
head & shoulder  
support, T-shape



Vacuum pump with inflating  
connector and tube

# ExaFlex™

## and thermoplastic bolus



ExaFlex is a flexible, homogeneous bolus material that conforms nicely to the patient anatomical contours. ExaFlex is made from a tissue-equivalent gel with a density of 1.03 g/cm. It is available in various sizes and thicknesses and can be cut with a pair of scissors to fit the patients contours. ExaFlex can be build up in layers when required to obtain the desired build-up thickness.

ExaFlex is available in an easy to clean version with skin or a skinless version that will stick to the patients contours and allow stacking.

ExaFlex is calibrated with photon and electrons beams in the energy range of more than 1 MeV. ExaFlex is 100% latex free.

MacroMedics® also offers thermoplastic bolus which can be custom-moulded to the patients anatomy.

Bolus without skin



Bolus with skin



Thermoplastic bolus



# Products for use in MR

MR imaging in radiotherapy is becoming more important and is showing an increasing value in the patient treatment processes. MacroMedics® has developed a whole range of MR safe and MR conditional products for various treatment areas that provide the same product settings between all diagnostic and treatment modalities.

DSPS® and SSPS® cradles are available in MR safe versions.

A few samples of our product range for MR imaging are shown below, please check with your distributor for the full range available.



MaxSupports, glass fiber, MR safe



Elevation blocks, glass fiber, MR safe



Wedges, glass fiber, MR safe



DSPS cradle, MR safe



EagleBoard, MR safe



ThoraxSupport Short, MR conditional



Exatilt, MR safe



Pelvic Prone Board, MR safe



LEPS, MR conditional



Contact MacroMedics® or your local distributor for detailed information or an on-site product demonstration.



EN ISO 13485:2016

MacroMedics products are CE marked as a class 1 medical device in accordance with the Medical Device Directive 93/42/EEC.

MacroMedics BV is an FDA registered company and has received FDA 510(k) clearance for most MacroMedics patient positioning devices.

MacroMedics BV is an EN ISO13485:2016 certified company.

MacroMedics, SSPS and DSPS are registered trademarks of MacroMedics BV.

All other trademarks are property of their respective owners.

DSPS is a patented system in Europe (EP13723068.6), US patent pending.

SSPS is patent pending.

## References

- 1 Dosimetric properties of MacroMedics products have been measured and are available on the MacroMedics website.
- 2 Data on DSPS accuracy and comfort:
  - EP-1506: Evaluation of cranial setup accuracy: a double shell positioning system versus an in-house 3-point mask solution Van der Meer, S. et al. Radiotherapy and Oncology, Volume 115, S819 - S820
  - OC-0077: Comparison of setup accuracy, intrafraction movement and comfort for two stereotactic masks Meunier, C. et al. Radiotherapy and Oncology, Volume 123, S40.
 This data is available for download on the MacroMedics® website.
- 3 Reduction of irradiated small bowel volume and accurate patient positioning by use of a bellyboard device in pelvic radiotherapy of gynecological cancer patients Olofsen-van Acht, Manouk et al. Radiotherapy and Oncology, Volume 59, Issue 1, 87 - 93 Systematic review of the role of a belly board device in radiotherapy delivery in patients with pelvic malignancies Wiesendanger-Wittmer, Esther M. et al. Radiotherapy and Oncology, Volume 102, Issue 3, 325 - 334.



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SOLUTIONS IN RADIOTHERAPY

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