

THE AIO SOLUTION®

ALL-IN-ONE PATIENT POSITIONING SYSTEM

NEW THIRD GENERATION AIO SOLUTION

The AIO Solution facilitates and refines treatments by limiting potential changes in the patient position to a minimum.

With one base plate and different sets of cushions and thermoplastic masks, all parts of the body are positioned and immobilized in a comfortable, exact and reproducible way.

These refined immobilization techniques allow IMRT and IGRT procedures in almost any anatomical location, including breast and lung.

Prone breast board (yellow cushions) and belly- and pelvic board cushion sets (green cushions) are under development.

All information on www.orfit.com/aio



Daily patient setup made easy

Position of the cushions is easily reproduced during each fraction. Comprehensive color coding facilitates the use of the cushion combinations.

Make patient comfort a priority

Minimal pressure points and soft, ergonomically designed cushions.

Made to last

A busy radiation therapy department requires high durability devices to withstand rough handling conditions.



Maximize clearance, minimize collision

The full AIO setup fits in small CT-bores and reduces the risk of collision with the gantry.

Immobilize without a base plate

Cushions can be positioned directly on the treatment table without the use of a base plate.



THE AIO SOLUTION - 2ND GENERATION

The 2nd generation AIO Solution continues to be available.

The AIO Solution contains a cushion set for each anatomical region.

- > Brain, head and neck
- > Thorax and abdomen in supine position
- > Prone breast position
- > Belly and pelvis in supine and in prone position

All cushions are easily positioned on the base plate in an indexed way. The cushions have a color code for easy recognition and fast setup of the system:

- > Head supports and knee & leg cushions are in grey
- > Thorax/abdomen cushions for supine are in blue
- > Breast in prone position cushions are in yellow
- > Belly/pelvis cushions are in green

The cushions are made of a low density foam with excellent dosimetric properties. They are coated to assure patient comfort and hygiene.

The extra-cranial cushions can be adapted in width to accommodate all patient sizes. The prone breast cushions can be adapted in height.

Each patient position is reproduced and immobilized by means of an Efficast thermoplastic mask that limits movement of the anatomical area of concern.

The AIO Solution is truly an All-In-One system with a head and neck immobilization system, lung board, breast board, abdominal system and belly- and pelvic board in one single product.



AIO breast and lung board



AIO prone breast board



AIO belly and pelvic board



AIO knee and leg positioning set

AIO CUSHION SETS

BREAST AND LUNG BOARD

The blue cushion set is designed to achieve a comfortable and reproducible supine position of the patient. This position is primarily used for the treatment of malignancies in the thorax and the abdomen. The set consists of wedges, with different angles to increase patient comfort, and arm rests to allow for a comfortable, but reproducible positioning of the arms above the head and out of the treatment fields. Hand grips and head supports will further help in increasing the precision and in finding the correct patient position.



FEATURES AND BENEFITS

5°, 10° and 15° angled wedges lift the upper body of the patients and thereby facilitate breathing.

The coating of the cushions prevents the patient from sliding down.

The armrests (20° and 30° angle) have a flat top to support the total upper arm. This increases the patient's comfort.

Lateral inserts in the cushions allow the positioning of large patients.

Specially developed Efficast masks are used in combination with this set to increase the precision of the treatment. They effectively immobilize the patient in the treated areas by reducing translational and rotational movements.

The indexed head supports position the head in a reproducible way and function as an outstanding reference point for the exact position of the rest of the body.

AIO CUSHION SETS

PRONE BREAST BOARD SOLUTION

The yellow cushion set is designed to obtain a comfortable and reproducible patient position for the “prone breast” treatment technique. This technique keeps the ipsi-lateral breast away from the chest wall and the underlying tissues and reduces the lung, heart and contra-lateral breast tissue volume that is trapped in the treatment fields.

FEATURES AND BENEFITS

The support wedge on the tunnel plate helps in limiting the volume of the sternum and contra-lateral breast tissue that will be caught in the radiation fields.

The use of the elevation cushion increases the total height of the set to 23 cm which allows the treatment of very large pendulous breasts.

The slope in the head cushion allows the arms to drop and thereby reduce the tension in the shoulders during longer imaging and treatment sessions to increase the patient’s comfort.



Lateral inserts in the cushions are used for large patients.

Specially developed Efficast masks increase the precision of the treatment. They effectively immobilize the patient in the treated areas by reducing translational and rotational movements.

The head can be positioned by means of two types of head supports:

- A soft head support in the form of a ring that allows for a comfortable positioning of the head in prone position or sideways.
- A support that fixes the head rigidly in prone position. This support can be adjusted to fit the anatomy of the patient’s face.

AIO CUSHION SETS

BELLY AND PELVIC BOARD

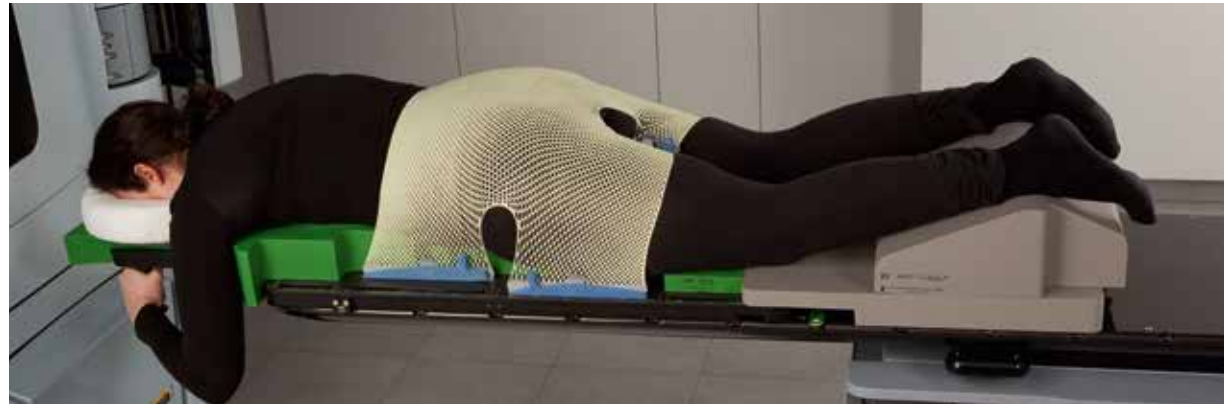
The purpose of the belly board is to keep the intestines of the patient out of the radiation fields for treating malignancies in the pelvis area. The opening in the cushion is meant to accommodate the belly of the patient and thereby effectively separate the small bowels from the area to be treated.

FEATURES AND BENEFITS

The opening in the belly board can be fitted with three sizes of belly inserts for different sized patients. These inserts are made of a soft foam to increase comfort in the rib cage area.

Lateral inserts in the cushions allow the positioning of large patients.

The head part of the cushion is designed to drop the shoulders of the patient and reduce stress. The hands of the patient can be placed under the base plate with the use of 2 hand grips.



The head can be positioned by means of two types of head supports:

- A soft head support in the form of a ring that allows for a comfortable positioning of the head in prone position or sideways.
- A support that fixes the head rigidly in prone position. This support can be adjusted to fit the anatomy of the patient's face.

Pelvicast thermoplastic masks are used to reduce the translational and rotational movements of the patients. A specially designed Leg Separator can be inserted after the patient has mounted the cushion, to fix a 6-points Pelvicast mask.

This type of mask will further increase the reproducibility and precision of the treatment.

CLINICAL STUDIES

Lec, J.A. (2014), Interfractional variability in intensity-modulated radiotherapy of prostate cancer with or without thermoplastic pelvic immobilization, *Strahlenther. Onkol*, 190, 94-99

Tekkendra Singh, T. (2015), Treatment setup errors in pelvic patient comparing Orfit-AIO Solution and Vaclocks immobilization devices, *Radiotherapy and Oncology*, 115 (S1), S584

AIO CUSHION SETS

KNEE AND LEG POSITIONING SET

An exact and comfortable position of the patient's legs is obtained by using the indexable knee and leg positioning set.

FEATURES AND BENEFITS

An elevated position of the legs reduces stress in the patient's back during the daily treatment fractions.

Can be used as a knee support in supine and as an ankle support in prone treatment position.

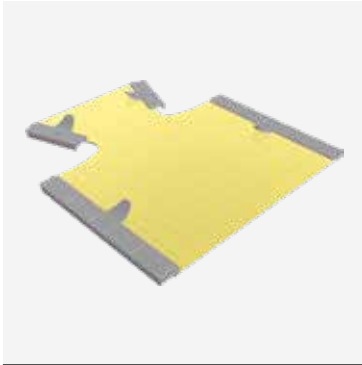
These cushions are also used as a reference point for setting up the other AIO Solution cushion sets.

The position of the cushion is easily reproduced by means of the centimeter scale and letter combinations.



AIO ANTIBACTERIAL MASKS

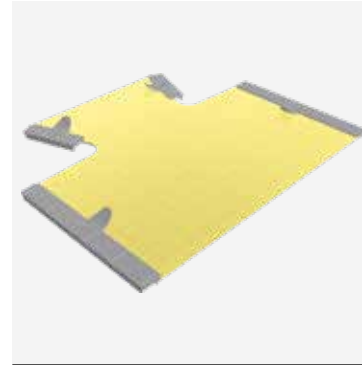
LUNG, BREAST, THORAX AND ABDOMEN



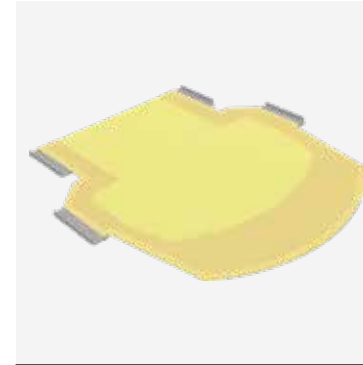
Art. N° 33715/2MA
4-points thorax supine mask
small size



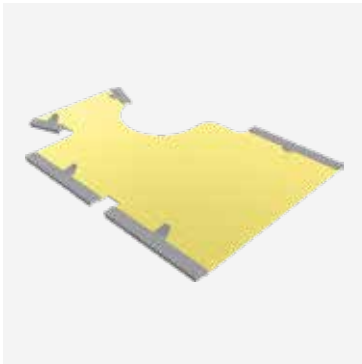
Art. N° 33716/2MA
4-points thorax supine mask
medium size



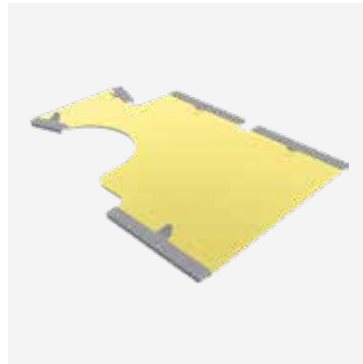
Art. N° 33717/2MA
4-points thorax supine mask
large size



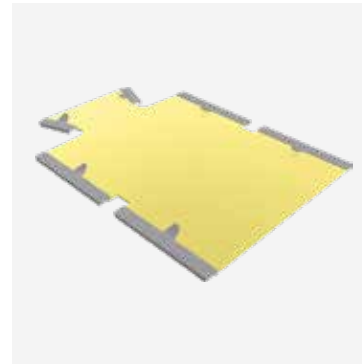
Art. N° 33775/2MI/12MI+N
4-points hybrid lung mask



Art. N° 33723/32MA/L
5-points assymetric breast supine mask
left side



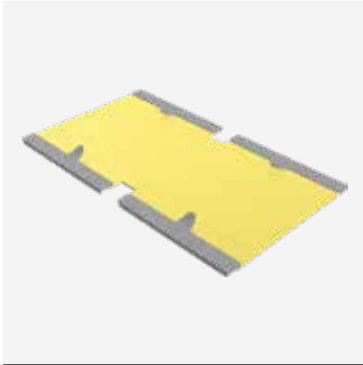
Art. N° 33723/32MA/R
5-points assymetric breast supine mask
right side



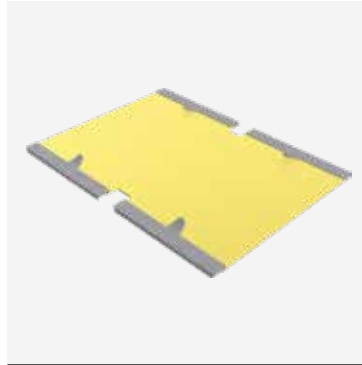
Art. N° 33724/32MA
6-points thorax and abdomen supine mask

AIO ANTIBACTERIAL MASKS

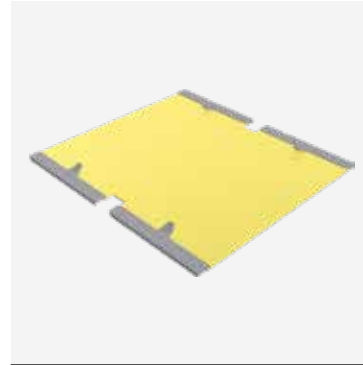
PELVIS



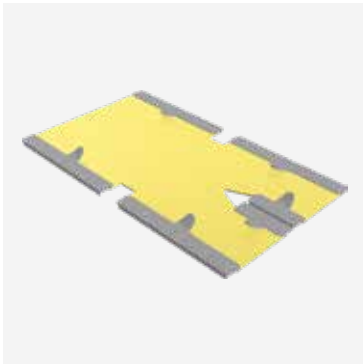
Art. N° 35788/32MA
4-points pelvic mask - small
prone and supine



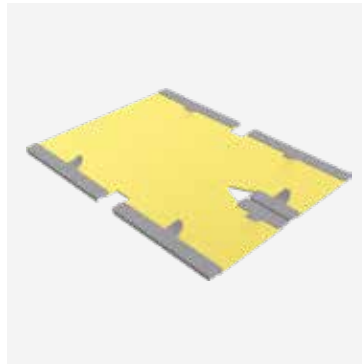
Art. N° 35787/32MA
4-points pelvic mask - medium
prone and supine



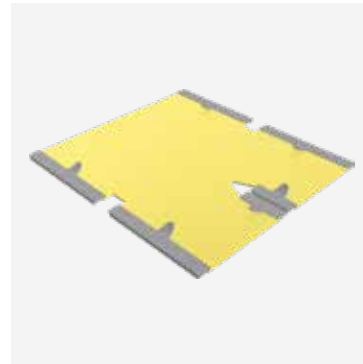
Art. N° 35784/32MA
4-points pelvic mask - large
prone and supine



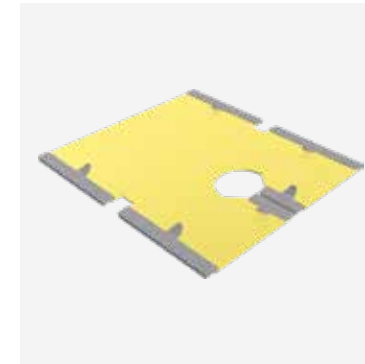
Art. N° 35710/32MA
6-points pelvic mask - small
for use with leg separator
prone and supine



Art. N° 35711/32MA
6-points pelvic mask - medium
for use with leg separator
prone and supine



Art. N° 35712/32MA
6-points pelvic mask - large
for use with leg separator
prone and supine



Art. N° 35780/32MA
6-points pelvic mask - large
for use with leg separator
supine

AIO BASE PLATES

The AIO “long board” base plates ensure a reproducible positioning of all body regions. The base plates remain on the treatment couch - irrespective of the type of radiation treatment - or simulation couch throughout the day.

The AIO carbon fiber laminate base plate is made of a low density carbon fiber laminate sandwich structure with excellent dosimetric properties. It can be extended over the edge of the couch when using IMRT techniques for a 360° free gantry rotation space around the head and neck area.

FEATURES AND BENEFITS

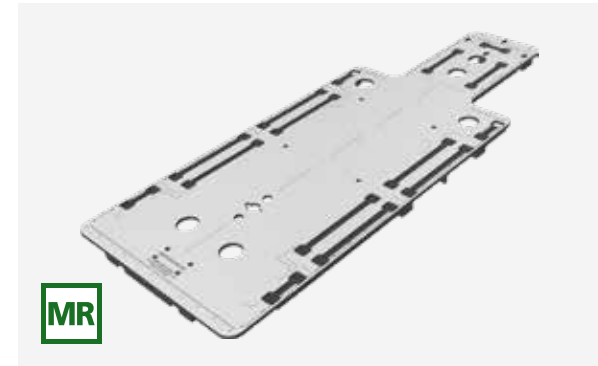
The plate is color marked for easy and fast setup for the different cushion sets.

Indexing bars can be fitted for indexing vacuum cushions and alpha cradles.

The mask fixation slots (for Efficast masks) are identical as in all other High Precision Base Plates, assuring complete compatibility between all Orfit products.



Art. N° 32301
AIO base plate
Carbon fiber laminate
Available for Elekta HexaPOD™ evo RT System (Art. N° 32301/HX)



Art. N° 32204
AIO base plate
High pressure laminate

AIO BASE PLATES

Art. N°	Product description
32301	AIO base plate in carbon fiber laminate
32204	AIO base plate in high pressure laminate - MR compatible
32301/NOLS	AIO base plate in carbon fiber laminate - no leg separator
32301-PED	AIO pediatric base plate in carbon fiber laminate
32204-PED	AIO pediatric base plate in high pressure laminate - MR compatible
32301-PED/NOLS	AIO pediatric base plate in carbon fiber laminate - no leg separator
32301-PED/SS	AIO pediatric base plate in carbon fiber laminate - narrow shoulder slots
32301-PED/SS/NOLS	AIO pediatric base plate in carbon fiber laminate - narrow shoulder slots and no leg separator
32301/MR	AIO base plate - MR compatible

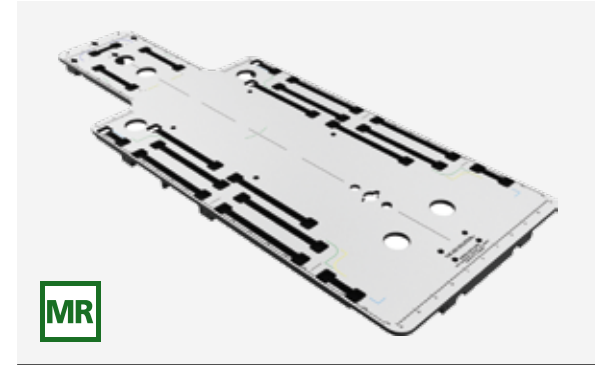
AIO BASE PLATES



Art. N° 32301/NOLS
AIO base plate
Carbon fiber laminate
No leg separator



Art. N° 32301-PED
AIO pediatric base plate
Carbon fiber laminate



Art. N° 32204-PED
AIO pediatric base plate
High pressure laminate



Art. N° 32301-PED/NOLS
AIO pediatric base plate
Carbon fiber laminate
No leg separator



Art. N° 32301-PED/SS
AIO pediatric base plate
Carbon fiber laminate
Narrow shoulder slots



Art. N° 32301-PED/SS/NOLS
AIO pediatric base plate
Carbon fiber laminate
Narrow shoulder slots and no leg separator

AIO HEAD SUPPORTS, BLOCKS AND WEDGES

The main goal in the positioning of patients with head and neck tumors is a very precise and reproducible positioning and immobilization of the head and upper torso of the patient. To achieve this, a combination of the AIO hardware and Efficast thermoplastic masks provides an ideal solution.

The AIO base plate allows for a reproducible and comfortable positioning of the patient, reducing stress and anxiety.

Efficast 3-points masks assure a precise immobilization of the head and 5-points masks of the head, neck and shoulders.



AIO HEAD SUPPORTS, BLOCKS AND WEDGES

HEAD SUPPORTS

LOW DENSITY

Art. N° 32704 (set)

Set of 6 low density head supports (all sizes)



Art. N° 35755



Art. N° 35765



Art. N° 35753



Art. N° 35753ZF



Art. N° 35752



Art. N° 35752ZF

PRONE



Art. N° 32393

Prone head support

adjustable in size

Movable forehead cushion

REGULAR DENSITY

Art. N° 32702-MD (set)

Set of regular density head supports (all sizes)



Art. No. 35758-MD



Art. No. 35758ZF-MD



Art. No. 35713-MD



Art. N° 35713ZF-MD



Art. N° 35714-MD



Art. N° 35714ZF-MD

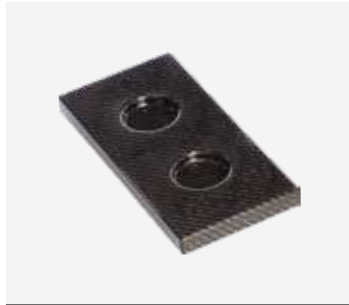
AIO HEAD SUPPORTS, BLOCKS AND WEDGES

POSITIONING BLOCKS AND WEDGES

LOW DENSITY

Art. N° 32700 (set)

Set of low density blocks and wedges - CFL



Art. No. 35703
20 mm



Art. N° 35706
40 mm



Art. N° 35704
9°



Art. N° 35707
18°

HIGH DENSITY



Art. N° 35754/8 (set)

Set of high density blocks and wedges - rigid PE



Art. N° 35754/1
20 mm



Art. N° 35754/2
40 mm



Art. N° 35754/3
9°



Art. N° 35754/4
18°

AIO ACCESSORIES

AIO STORAGE CABINET

The AIO Storage Cabinet has 5 vertical sliding panels, and can store a complete AIO cushion set, as well as all fixation devices and an AIO board. The panels slide out completely, allowing easy access to the cushions. The cabinet is designed to efficiently store the AIO Solution components in the simulation or treatment room while taking up limited space (width x depth x height = 1600 x 690 x 1980 mm).

Every AIO part has its own dedicated place so that it can easily be found. This reduces patient setup time and makes inventory control easy in the event of misplaced parts.

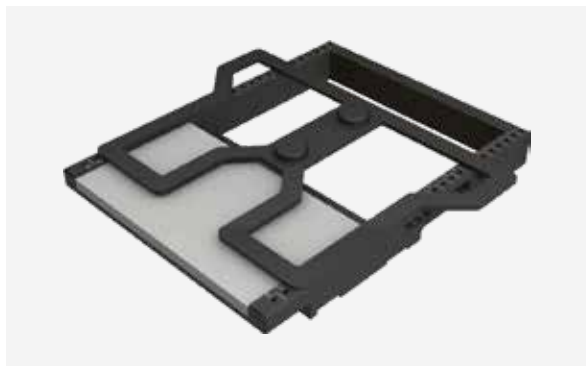
The cabinet is made of laminated pressed wood boards, which are easy to clean. It is easy to assemble, but at the same time sturdy to make it long-lasting. The cushions are stored in such a way that they remain well protected from possible damage.



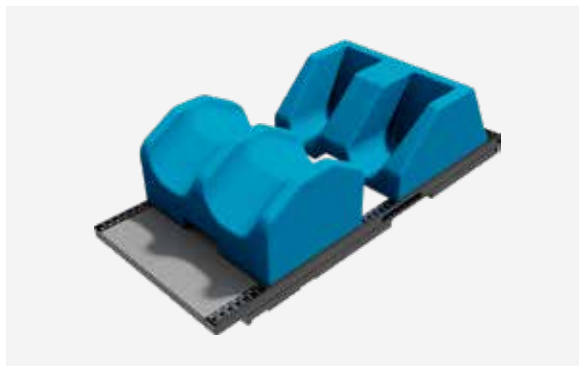
Art. N° 29100
AIO storage cabinet

AIO ACCESSORIES

INDEXABLE KNEE AND FOOT SOLUTIONS



Art. N° 29053
AIO indexable knee frame - short



Art. N° 29054
AIO indexable knee and foot frame



Art. N° 29055
AIO indexable knee frame - long

THE AIO
SOLUTION®

POSITIONING PLATE



Art. N° 32291
Positioning plate for prone head support

