



Radiation Protection Products Catalogue



PROTECTION FOR THE PEOPLE WHO PROTECT LIFE

Radiation Protection Products

With over 3 decades of global experience in x-ray and radiation protection, we understand your role as a medical professional along with the risks you take to fulfill it. We know that you deserve the greatest level of protection while enabling efficiency, comfort, and style.

Mermaid Medical and UniRay is your destination for radiation protection products that represent a synergy of technological innovation, applied research and dedicated care. Our products meet and exceed the highest safety standards of the industry.

Equals Safety

When you use UniRay products, you are guaranteed optimum protection against scattered radiation. UniRay products are tested according to IEC 61331-1:2014/ DIN EN 61331-1:2016, which establishes the protection of aprons across a specified range of tube voltages from 60 kV to 150kV.

The new standard IEC EN 61331-1:2014/DIN EN 61331-1:2016, adopted a new testing methodology called "Broad Beam Geometry" (BBG) method to measure all Radiation Protection Aprons including lead, lead-free and lead composite protection materials. This testing methodology determines the lead equivalence of protection material considering fluorescent radiation as well as backscatter by the material itself.

The X-Factor

The radiation protective sheetings are manufactured for perfect uniformity, suppleness and durability.



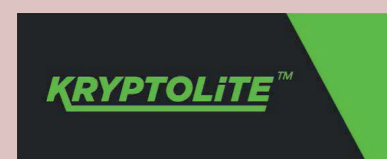
LITELEAD™ is our classic leaded material with proprietary advance binding system.

LEV 0.25mm Pb – weight 3.40 kg/sqm



MaxLite™ uses the substitution technique over a large part of lead in protective sheeting to result in a product that is 20-30% lighter than most composite materials.

LEV 0.25mm Pb – weight 3.10 kg/sqm



KryptoLite™ with its multi-layer technology eliminates fluorescence radiation and back scatter thus providing optimum safety to the user.

KryptoLite™ is at least 15-20% lighter than any other lead-free material in the world. This environmentally friendly lead-free material is formulated with a mixture of bismuth and antimony.

LEV 0.25mm Pb – weight 2.80 kg/sqm

About Mermaid Medical Group

Mermaid Medical Group is a Nordic, privately owned company established in 2007 and headquartered in Copenhagen, Denmark. We develop, manufacture, and distribute medical devices to hospitals and end users across Europe, the U.S., and Asia. We specialize in solutions and devices used in interventional radiology. As a Group, we strive to be the preferred partner for manufacturers as well as hospitals and healthcare professionals.

TABLE OF CONTENT



Skirt & Vest

- Optixx™ & Maxx™ 4-5

Double-Sided Apron

- Optixx™ & Maxx™ 6-7

Backsaver Apron

- Backsaver Skirt & Vest 8-9

Apron

- Coat Apron 10
- Surgical Apron 11

Thyroid Shields & Collars

- All Thyroid Shields 12

Protection

- Lower Body Protection 13
- Head Body Protection 13
- Shoulder Protection 13

Fabrics and Patterns

- Colors & Fabrics 14

Dental Apron

- Panoramic & Dental Apron 15

Inner Fabric

- UNITEX™ & OUTLAST® 16-17

Eye Protection

- Eye Lens & Glasses 18

CT Shield

- Eye, Thyroid, Breast & Pediatric Shields 19

Hand Protection

- Gloves 20

Shields & Drapes

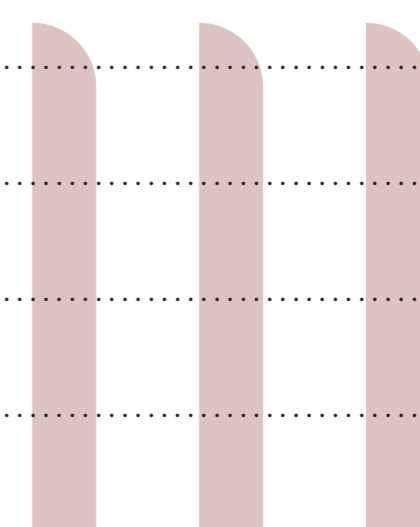
- Radblocks 21

Storage Systems

- Mobile & Wall 22

Overhead & Lower Body Shields

- Overhead, Table & Lower Body Shields 23





Skirt & Vest
Ultimate Protection For User



Optixx™

Features:

- Significant overlap on the front opening of the vest as well as the skirt (covering the waist area) also provides added protection.
- Optimised weight distribution to reduce load on back and shoulders.
- Full overlap on skirt circumference for added lower body protection.



Aprons are available in S/M/L/XL and custom sizes
Aprons are available in LEV 0.25, 0.35, 0.5 mm Pb



Maxx™

Features:

- Complete overlap on the front opening of the vest, as well as the overlap of the skirt for added protection.
- Optimised weight distribution to reduce load on the back and shoulders.
- Full overlap on skirt circumference for added lower body protection.





Double-Sided Apron

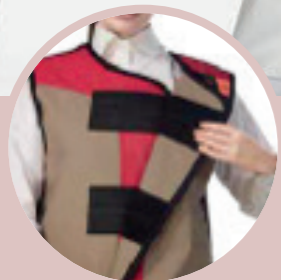
All-round Protection Solution



Optixx™

Features:

- Significant overlap in front for added protection.
- Velcro closure for a perfect fit.
- Flexible belt used as standard option, to release load on back and shoulder.



Maxx™

Features:

- Full overlap in front for total protection.
- Flexible belt used as standard option, to release load on back and shoulder.
- Smart side closure to prevent accidental exposure.



Aprons are available in S/M/L/XL and custom sizes
Aprons are available in LEV 0.25, 0.35, 0.5 mm Pb



Backsaver Apron

Upto 50% Reduction in load on Back

UniRay's **Backsaver** lifts the entire back panel of the apron with use of a membrane. An upthrust is created when pressure is exerted at specific points and directions. The thrust opposes the weight of the apron and sufficiently lifts it, taking the load off the shoulder, back and spine.



- Available in Skirt & Vest.
- Double-Sided and Coat Apron.
- Also available in magnetic closure.



Floatation on shoulder.



Aprons are available in S/M/L/XL and custom sizes
Aprons are available in LEV 0.25, 0.35, 0.5 mm Pb



Built in belt, easy to clean and disinfect.





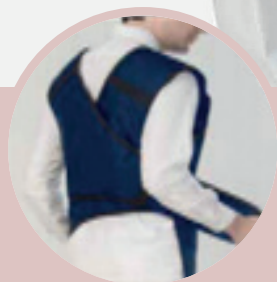
Coat Apron

The Gold Standard for X-ray Rooms



Features:

- Complete frontal protection.
- Smart and flexible insert with velcro closure.
- Built-in shoulder relief pads.



Surgical Apron

Making Surgeries Easier



Features:

- Complete frontal protection.
- Easy drop off from under a surgeon's scrubs when removing.
- Optimised weight distribution.



Aprons are available in S/M/L/XL and custom sizes
Aprons are available in LEV 0.25, 0.35, 0.5 mm Pb



Thyroid Shields & Collars

The Sensitive Gland Protection

All thyroid shields can be affixed to the apron using a push button.



Balance
Unique design to protect the thyroid & sternum



Duplex
All round thyroid protection



Universal
An all time favourite



Elegance
All round thyroid protection

Magnetic closure



Velcro closure



Aprons are available in S/M/L/XL and custom sizes
Aprons are available in LEV 0.5 mm Pb



Lower Body Protection

Patient Apron



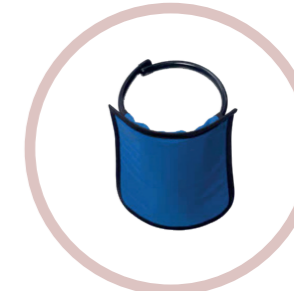
WITH SNAP BUCKLE & VELCRO CLOSURE
LEV 0.5 mm Pb
in set of 4 sizes



WITH METALLIC RING CLOSURE
LEV 0.5 mm Pb
in a set of 4 sizes



NETO FLEXIBLE GONAD SHIELD
LEV 1.0 mm Pb
in set of 4 sizes



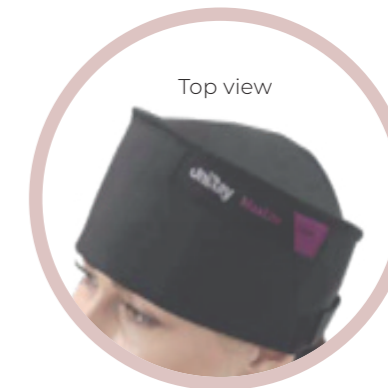
GONAD/OVARIAN SHIELD
LEV 1.0 mm Pb
in set of 3 sizes

Head Protection

Superlative Protection Against Hair Fall



Fez
Protection of frontal cortex



Top view

Shoulder Protection

Sleeves

Shoulder sleeves significantly reduce radiation on the shoulder joint. Radiation through armholes is also reduced. UniRay's shoulder sleeves allow complete freedom of hand movement during procedures. Sleeves are available in both Sewn-on and Button-on versions in either only left, only right or both shoulders versions.



Sewn-on sleeve
Factory attached

Also available in full sleeves



Button-on sleeve
Attaches easily to all models of Vests and Double-Sided Aprons



Fabrics and Patterns

Vibrant colors that lift Moods

UNITEX™, is antibacterial, comfortable & stain resistant.
It is invented as a soft & anti-wrinkle covering for all radiation protection apparel.

 Fuschia Joyful	 Cherry Warm	 Royal Blue Energetic	 Navy Blue Classic	 Sakura Pink Optimism
 Lemon Cheerful	 Camel Neutral	 Mountain Grey Stable	 Red Dymatic	 Azure Blue Serenity
 Forest Green Natural	 Aqua Green Nurturing	 Purple Inspiring	 Black Mystery	
 Camouflage	 Butterfly	 Leopard	 Puppies	 Bambino
 Hoop	 Retro			



Dental Apron

Making Dental X-Rays Safe



Panoramic APRON

Perfect for use with standing exposure on panoramic or tele radiographic and for digital volume tomography.



Dental APRON

Total protection for the patient in dentist's chair.

Available in various sizes
Available in 0.25, 0.35 mm Pb



Inner Fabric

UNITEX™ 360°

A futuristic range of apparel lining, made from breakthrough bamboo charcoal fiber. Organic in DNA, cutting edge in process, this new-age fabric scores high on function and fashion.

The Process



Bamboo



Heat



Charcoal

The Benefits

Never before durability



Unparalleled softness & comfort



Water resistance & breathable

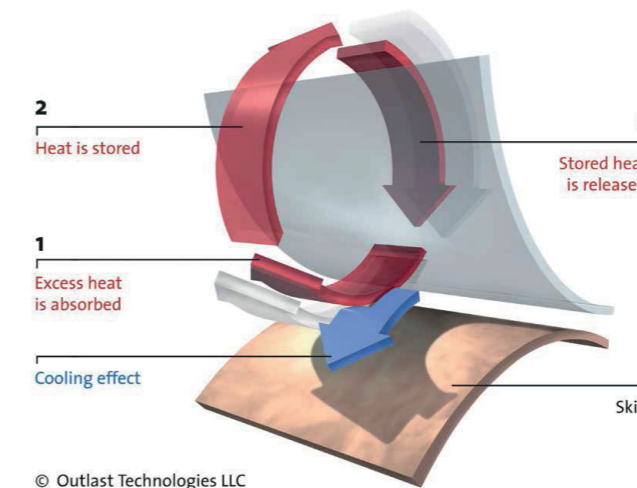


Power of Nano technology

Available only in charcoal black colour

OUTLAST® - A Unique Temperature Regulated Fabric

Outlast® technology uses phase change materials (PCM) to absorb, store and release heat to achieve an optimum heat and moisture management. This gives Outlast® technology the ability to continually regulate the skin's micro climate. As the skin gets hot, the heat is absorbed, and as it cools, that heat is released. Outlast® technology does not only balance temperature fluctuations but reduces moisture.



The Effect:

- PCM changes from solid to liquid and back.
- Absorbs body heat.
- Stores body heat.
- Releases body heat.
- Maintains comfort zone.

The Benefits:

- Less overheating.
- Less chilling.
- Less perspiration.
- More comfort.
- Not too hot, not too cold, just right.

Studies show that Outlast® products can reduce the sweat production average between 30% to 50%.



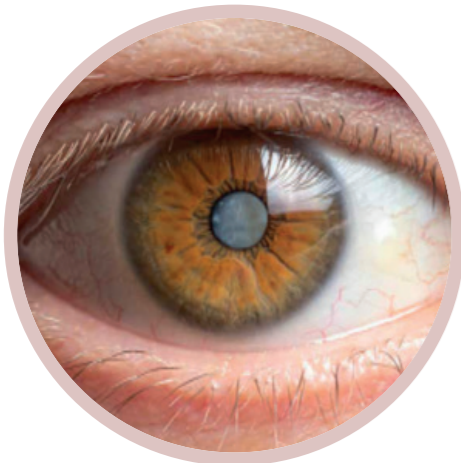


Eye Protection

Clear Vision

European Standards 2013/59/Euratom has reduced the annual eye lens dose limit from 150 mSv/year to 20 mSv/year for medical staff.

Available with 0.75mm Pb frontal and 0.5mm Pb lateral protection.
Optical corrections are available as single-vision, bifocal and progressive lenses.



Without Eye Protection



With Eye Protection



Fit Over

A universal solution to fit over the user's eye-wear with complete clarity and protection



Tokyo

The eye-wear has been designed to protect the eyes from scattered radiation from all angles of incidence



Sporty

Wraparound style of these frames helps protect the complete eye, with no danger of lateral radiation



Front & Side

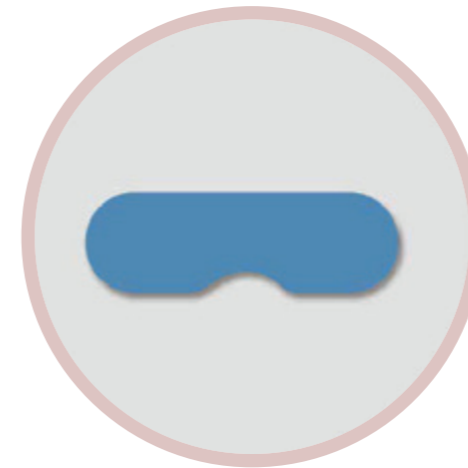
The user from frontal as well as lateral radiation



CT Shield

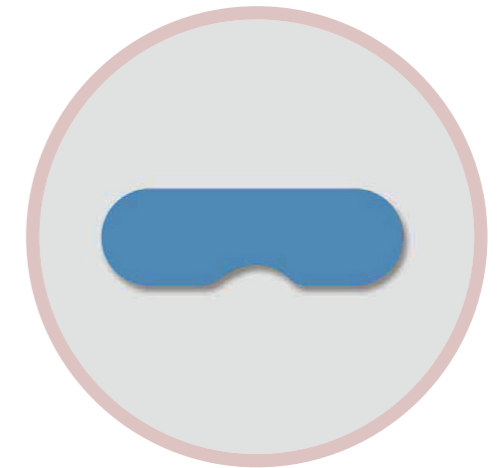
Managing radiation doses during CT scans is key to avoid potential cancer risks and radiation damage to the sensitive tissues of the breast, thyroid gland and eyes.

Optical corrections are available as single-vision, bifocal and progressive lenses.



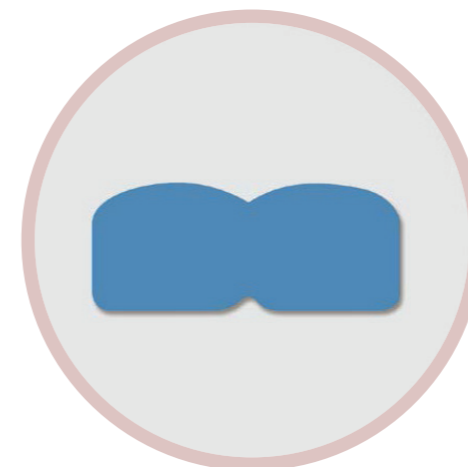
Eye Shield

Reduces over 60% radiation to the eye from the CT scanner



Thyroid Shield

Provides over 65% protection to the sensitive thyroid gland and prevents tissue damage



Breast Shield

Reduces cancer risk during CT scan by providing over 67% protection to the sensitive tissues of the breast



Pediatric Shield

Protects children who are more sensitive to radiation than adults



Hand Protection

Protect Hands From Scattered Radiation

Each disposable glove is manufactured in our bacteria-free, state of the art dipping facility.

All our gloves are Gamma sterilized and feature:

- A lead-free proprietary hypoallergenic formulation.
- Maximum contact and tactile sensitivity.
- Textured surface for perfect grip.
- 100% sterile and powder-free.
- Elimination of finger fatigue with a unique design.
- Ease of wear and removal with rolled and beaded cuff.
- Latex or Latex free.



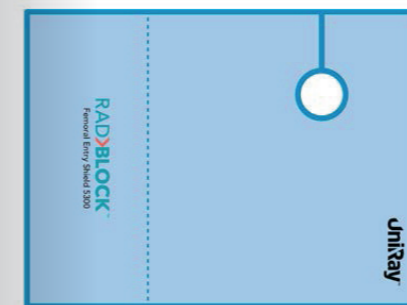
RADIATION ATTENUATION - Tested as per IEC 61331-1:2014 - (BBG Method)			
Direct Beam Energy Level	Latex Gloves		Latex Free Gloves
	Prime	Sheer	Prime
60 KV	69.6%	46.8%	63.1 %
80 KV	60.9%	39.2%	54.4 %
100 KV	53.8%	33.5%	47.4 %
120 KV	48.2%	29.0%	42.0 %
LE, mm Pb, 60 to 120 kV	0.047	0.024	0.039



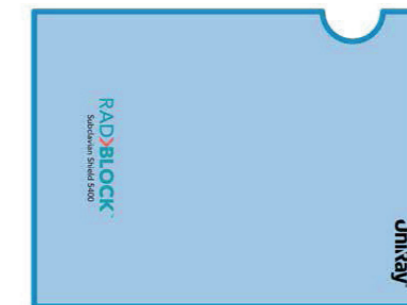
Shields & Drapes

Radiation Protection at Source

RadBlock provides protection at source when placed on the patient by creating a shade around the surgeon. Protection ranges between 75% to 96% of different types. RadBlock is available in a variety of protection levels. The BrainSaver cap provides upto 90% protection.



RADBLOCK - FEMORAL ENTRY SHIELD 5300



RADBLOCK - SUBCLAVIAN SHIELD 5400



RADBLOCK - MULTIPURPOSE SHIELD 5511

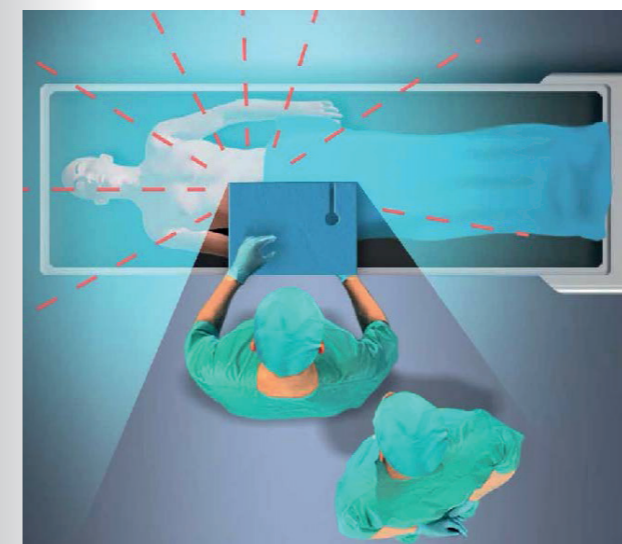


RADBLOCK - PERIPHERAL SHIELD 5110



RADBLOCK - BRAIN SAVER 9100

SHADE WITH RADBLOCK DRAPES AND COVERS



APPLICATION	PROCEDURE
INTERVENTIONAL RADIOLOGY	Dialysis
	Liver Biopsy
CARDIAC CATH LAB	Chemo Immobilisation
	Biliary Drainage
	Vertebroplasty
	Balloon Angioplasty
	Cardiac Catheterization
ENDOVASCULAR SURGERY	Rotational Atherectomy
	Trans catheter Aortic Valve Replacement
	Carotid angioplasty and Stenting
ELECTROPHYSIOLOGY (EP) LAB	Endovascular Aneurysm Repair
	Cardiac Mapping
	Cardiac Ablation
	Device Implantation



Storage Systems

Compact and Efficient

Our perfectly crafted range of storage system

Mobile Hangers

- A lead-free proprietary hypoallergenic formulation.
- Maximum contact and tactile sensitivity.

Mounted Wall Racks

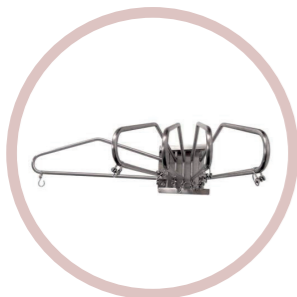
- Stainless steel swivel hangers for ease of use.
- Space saver racks in 1,3,5 or other types are available.



HANGER WALL SYSTEM



HANGER WALL SYSTEM



HANGER WALL SYSTEM



LOWER BODY METALLIC RING STORAGE



DETACHABLE HOOK



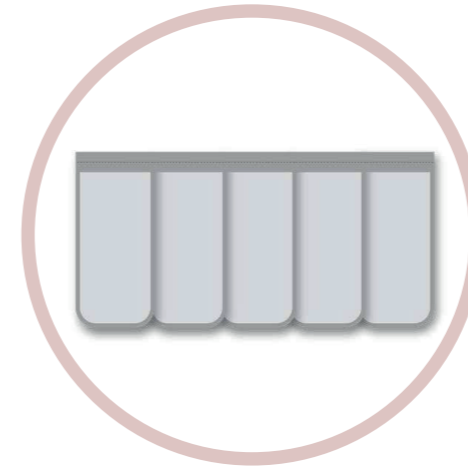
5 OR 10 HANGER MOBILE STORAGE RACK



Overhead & Lower Body Shields

Safe & Durable

Designed with strong, durable and overlapping lead panels 0.5mm Pb. Multiples designs and custom shields can be made for every type of equipment. All shields can be fabricated in any length or width.



Overhead Shield

Panels that overlap with a fold-up center part

A fold-up center part.
70cm (height) X 100cm (width).

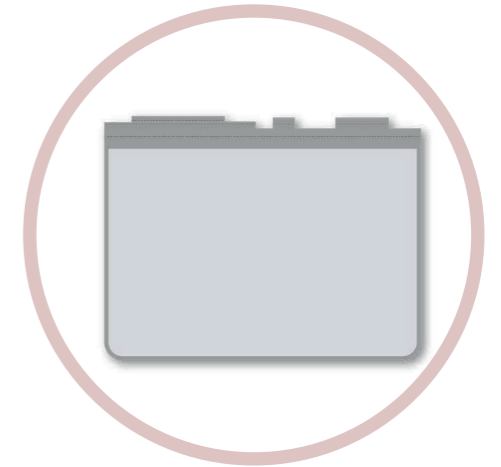
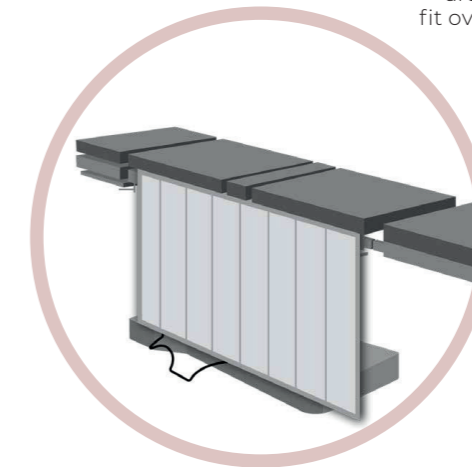


Table Shield

Shields can be swiveled or moved laterally

Flexible curtains
70cm (height) X 92cm (width)
are used as shields to
fit over C-arm equipment.



Lower Body Shield

Flexible overlapping panels
Each panel is
70cm (height) X 20cm (width)



mermaid medical®

Testing & Approvals

UniRay x-ray protective products conform to stringent quality norms of REGULATION (EU) 2016/425 on personal protective equipment (PPE).

The quality systems at UniRay are assessed and certified as per the guidelines of EN ISO13485:2016 and products are tested as per strict guidelines of IEC / EN61331-1:2014.

Every UniRay apron has a four-digit registration number issued by the authorized notified **body SGS-Fimko (Finland)**.



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