

From January 2024 X-Ray Protective Clothing & Accessories

In the Field of Medical Radiation





# SAFETY SINCE 1921

MADE IN GERMANY

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#### MAVIG looks back on a long history.

Over 100 years of quality, service and innovation, through three family generations that upheld these principles and led motivated employees who subscribed to our vision: right through to the present and into the future. In Germany. In Europe. Worldwide.

We all strive not just to satisfy our customers and partners, but to inspire them. With outstanding service, technical innovations and ongoing developments.

With craftsmanship, know-how, state-of-the-art technology and above all - with enthusiasm.

In this spirit, here's to the next 100 years!

## For over **100 years**, MAVIG has specialised in personal protection at workplaces where people are exposed to radiation.





1921



1960



1972





since 2006



What began in Leipzig in 1921 with the production of protective products for X-ray and welding has now become an internationally successful company with an excellent reputation in the field of radiation protection and medical support systems for hospitals and medical practices.

The family-run company "MAVIG" has always maintained the principles of a modern company:

"The customer and customer satisfaction are the top priority."

Production grew steadily in the decades that followed the founding of the company. Protective products for X-ray and welding were successfully marketed all over the world under the MAVIG<sup>®</sup> trademark. In the post-war years, the company's headquarters and production facilities were relocated to Munich.

#### MAVIG is 100% independent and owner-managed.

#### Quality Management

MAVIG products are designed, manufactured and distributed in strict observance of all laws, regulations and standards.

Every product is tested for its safety and reliability, in some cases applying higher and stricter requirements than are required by law.

#### Certifications

The intended use of our products requires the maximum reliability and quality.

To ensure the highest level of quality, MAVIG applies a consistent quality management system in accordance with

#### DIN EN ISO 13485:2016

for medical devices. Our top priority is to provide our customers with high-quality products that are free from defects and delivered on time.

MAVIG is certified in accordance with DIN EN ISO 13485:2016. The majority of MAVIG products are CE certified: Regulation (EU) 2016/425 for personal protective equipment and (EU) 2017/745 for medical devices. In addition, we have numerous international certificates.



#### DIN EN 61331-1:2016

DIN EN 61331-1:2016 (IEC 61331-1:2014) describes the correct determination of the shielding properties of materials used in protection against radiation.

Of importance here, among other things, is the consideration of inverse broad beam geometry, which detects any fluorescent radiation that may arise using measurement technology. This may occur more frequently in the case of lead-reduced or lead-free radiation protection material. As this low-energy type of radiation type is biologically very active and can pose a risk to the user, the current standard is therefore of great importance.

Furthermore, it is obligatory for every manufacturer to prove the protective effect of the apron over the entire X-ray tube voltage range of 50 kV to 110 kV and/or 150 kV.

This is necessary because the protective effect shows a clear decrease at the lower and upper end of the X-ray tube voltage range, especially in the case of lead-reduced or lead-free protective material.

MAVIG uses for the production of X-ray protective clothing solely materials that are classified according to this standard.

#### **CE Marking of Personal Protective Equipment**

X-ray protective clothing for healthcare staff and for patients falls under the legally binding EU Directive 2016/425/EEC for personal protective equipment (PPE).



Please always check whether the product that you want to use is marked correctly!

The familiar CE symbol alone is not sufficient here; the four-digit registration number issued by the authorised certification agency (notified body) must also be stated.

Naturally, all MAVIG products are correctly certified. With us, you "play it safe" in every respect.

# **C€** 0302

#### In Accordance with the World's Most Comprehensive Standard for PPE – DIN EN 61331-3:2016

The current DIN EN 61331-3:2016 (IEC 61331-3:2014) deals with the design of X-ray protective clothing. In order to meet these requirements, MAVIG X-ray protective clothing has been further developed and additionally optimised in a user-oriented manner.



To protect the sides of the body as well, the front area of the protective clothing must cover **60% of the user's girth at its widest point**. Sophisticated weight-distributing mechanisms are extremely important, as the aprons will consequently have an altered overall weight.

Furthermore, the third part of the series of standards calls for more **transparency regarding the properties of the radiation protection material used**. The **weight per unit area** must be indicated on the apron to make it easier for the user to compare the protective clothing.



The aprons have to be **assigned to the body measurements**, so that it is easier to select the appropriate apron without the need to try them on. (see table)

#### Sizing According to the Standard

The person's height, as well as either circumference of the **chest**, **waist or hip**, depending on which of the three dimensions is the greatest, is used for this purpose.

- A Chest circumference
- B Waist circumference
- C Hip circumference
- D Body height

ALL-ROUND PROTECTION	I		FRONT PROTECTION					
Costume Vest	Coat	Coat	Apron	Apron	Apron	Apron		
BALANCE VICTORIA	SYNERGY	VICTORIA	BASIC	EXTENDED	ERGONOMIC	COMFORT		
RA631 RA631	RA632	RA636	RA640	RA641	RA650	RA660		

#### Overview of the size allocations of the PPE model series from MAVIG

RA631	XS	S	М	L	XL	XXL	3XL
Chest circumference (for vest)	≤ 84 cm	85 - 95 cm	96 - 106 cm	107 - 117 cm	118 - 128 cm	129 - 139 cm	140 - 150 cm
Waist/hip circumference (for skirt)	≤ 86 cm	87 - 97 cm	98 - 107 cm	108 - 118 cm	119 - 129 cm	130 - 140 cm	141 - 151 cm
<b>Lengths</b> (skirt) for a body height of	<b>65 cm</b> 150 - 170 cm	<b>70 cm</b> 170 - 180 cm	<b>75 cm</b> 180 - 190 cm	<b>80 cm</b> 190 - 200 cm			
RA632/RA636	XS	S	М	L	XL	XXL	3XL
Chest circumference	≤ 84 cm	85 - 95 cm	96 - 106 cm	107 - 117 cm	118 - 128 cm	129 - 139 cm	140 - 150 cm
Waist/hip circumference	≤ 98 cm	99 - 108 cm	109 - 119 cm	120 - 130 cm	131 - 141 cm	142 - 152 cm	153 - 163 cm
<b>Lengths</b> (coat)	<b>90 cm</b>	<b>100 cm</b>	<b>110 cm</b>	<b>120 cm</b>	<b>130 cm</b>	<b>140 cm</b>	m
for a body height of	150 - 160 cm	160 - 170 cm	170 - 180 cm	175 - 190 cm	185 - 195 cm	195 cm - 205 c	
RA640/RA641/RA650/RA660	XS	S	м	L	XL	XXL	3XL
Chest circumference	≤ 84 cm	85 - 95 cm	96 - 106 cm	107 - 117 cm	118 - 128 cm	129 - 139 cm	140 - 150 cm
Waist/hip circumference	≤ 91 cm	92 - 102 cm	103 - 112 cm	113 - 123 cm	124 - 134 cm	135 - 145 cm	146 - 156 cm
<b>Lengths</b> (apron)	<b>90 cm</b>	<b>100 cm</b>	<b>110 cm</b>	<b>120 cm</b>	<b>130 cm</b>	<b>140 cm</b>	m
for a body height of	150 - 160 cm	160 - 170 cm	170 - 180 cm	175 - 190 cm	185 - 195 cm	195 cm - 205 c	

# **3x Protection Inside**

#### High Performance Radiation Protection

The quality demands on X-ray protective clothing are now greater than ever. Wearing times of the protective clothing are extended by modern, radiologically supported procedures in diagnostics and treatment. The protection requirement differs widely depending on the intended use.

MAVIG, as the international market leader for radiation protection, offers you a well thought-out variant policy and a sophisticated and wide range of models.

Three different protective materials are used to attenuate X-ray radiation. These are optimally adapted to the required radiation protection with minimal weight.

#### Safety & Control

Through extensive research and testing we ensure a healthy work environment for the users of our products, with the greatest possible ecological and toxicological harmlessness.

This is achieved by the careful selection of the materials as well as our suppliers and strict controls in the production process and the final recycling of the materials.

#### Standard Lead X-Ray Protection Material 50 - 150 kV

- Standard lead protection material
- High quality, flexible
- For applications in the upper X-ray tube voltage range, e.g. CT applications
- Tested radiation protection in the X-ray tube voltage range of 50 - 150 kV
- Compliant with standards: IEC 61331-1:2014 / DIN EN 61331-1:2016 and IEC 61331-3:2014 / DIN EN 61331-3:2016

#### NovaLite<sup>®</sup> X-Ray Protection Material 50 - 110 kV

- Lead-reduced protective material
- Outstanding rating with regard to weight and radiation protection
- Fulfilment of basic work-related physiological requirements
- For workplaces with long wearing times for protective clothing
- Tested radiation protection in the X-ray tube voltage range of 50 - 110 kV
- Compliant with standards: IEC 61331-1:2014 / DIN EN 61331-1:2016 and IEC 61331-3:2014 / DIN EN 61331-3:2016

#### Leadfree X-Ray Protection Material 50 - 110 kV

- Lead-free protective material
- Outstanding rating with regard to weight and radiation protection
- Fulfilment of basic work-related physiological requirements
- For workplaces with long wearing times for protective clothing
- Tested radiation protection in the X-ray tube voltage range of 50 - 110 kV
- Compliant with standards: IEC 61331-1:2014 / DIN EN 61331-1:2016 and IEC 61331-3:2014 / DIN EN 61331-3:2016

#### Absorbtion Values and Weights per Unit of Area of MAVIG X-Ray Protection Inner Materials

Protective materi	al Weight/area	Lead equivalent	X-ray tube voltage					
			50 kV	70 kV	90 kV	110 kV	150 kV	
Standard lead	3.30 kg/m <sup>2</sup>	0.25 mm Pb	99%	96%	91%	87%	80%	
Standard lead	4.60 kg/m <sup>2</sup>	0.35 mm Pb	> 99%	98%	95%	92%	87%	
Standard lead	6.60 kg/m <sup>2</sup>	0.50 mm Pb	> 99%	99%	97%	95%	92%	
NovaLite 0.25	3.05 kg/m <sup>2</sup>	0.25 mm Pb	99%	96%	91%	87%	-	
NovaLite 0.35	4.30 kg/m <sup>2</sup>	0.35 mm Pb	> 99%	98%	95%	92%	-	
NovaLite 0.50	6.10 kg/m <sup>2</sup>	0.50 mm Pb	> 99%	99%	97%	96%	-	
Leadfree	2.95 kg/m <sup>2</sup>	0.25 mm Pb	99%	96%	91%	85%	-	
Leadfree	4.18 kg/m <sup>2</sup>	0.35 mm Pb	> 99%	98%	94%	91%	-	
Leadfree	5.89 kg/m <sup>2</sup>	0.50 mm Pb	> 99%	99%	97%	95%	-	

NEW

# **3x Outside Comfort**

#### Best Wearing Comfort and Modern Processing

Smoothness and flexibility are special quality features of MAVIG X-ray protective clothing.

In order to further optimise the wearing comfort for the user, a special emphasis is placed on selective tailoring and top workmanship in our factory.

For the production of all three outer materials ComforTex® HPMF, ComforTex® HPMF Hybrid, and ComforTex® HPMF Duplex and thanks to a new technology, MAVIG completely bans the use of fluorinated chemicals. This means that the products remain free from harmful PFCs (fluorocarbons or per- and polyfluorinated chemicals) at all stages of their life cycle.

MAVIG's innovative textiles were developed in accordance with the relevant requirements of DIN EN 13795-1:2019. This series of standards sets vital, reasonable safety requirements for the necessary quality of surgical textiles for the protection of patients and staff from infections. The following requirements were used as a basis for performance capability:

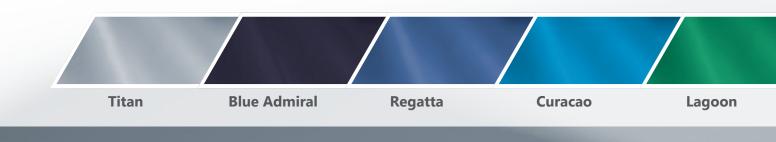
- Protection for the staff and the patients
- High barrier function
- Optimal hygiene/cleaning
- Low particle release
- Material strength
- Protection against electrostatic charge

#### ComforTex<sup>®</sup> HPMF Robust, Protective, Safe

Our proven ComforTex® HPMF offers you the highest level of wearing comfort in everyday working life: whether as a body-hugging material for our Hybrid or as the entire surface for your X-ray protective clothing.

Additionally, our ComforTex<sup>®</sup> HPMF, as well as the two more advanced textiles ComforTex<sup>®</sup> HPMF Hybrid and Duplex, offers safety and protection against electrostatic charge, which could affect the proper functioning of sensitive medical devices.





### **ComforTex® HPMF Hybrid** and ComforTex<sup>®</sup> HPMF Duplex

In order to best meet your needs in everyday working life, you can choose from several variants of our ComforTex® HPMF outer material.

With our ComforTex® HPMF variant Hybrid and Duplex, we combine maximum comfort for the wearer with optimum hygienic and cleaning properties.

In the Hybrid material, the side in contact with the body is manufactured with ComforTex® HPMF, so the well-known wearing comfort is maintained. At the same time, the surface on the outside of the protective clothing shows significantly improved hygienic and cleaning properties thanks to a special coating.

For this reason, our Hybrid material is particularly suitable in areas with high fluid volumes.

Selected MAVIG products can be ordered with ComforTex<sup>®</sup> HPMF Duplex. Here the special coating of ComforTex® HPMF Hybrid is used on both sides.

#### **Colour Selection** and Special Design

A fresh look, a pleasant feel and comfort for the wearer are the first impressions of the current X-ray protection collection by MAVIG.

These demands are also reflected in the constantly evolving colour palette of our collection.

The range includes a total of eight colours for the outer materials of ComforTex® HPMF, ComforTex® HPMF Hybrid, and ComforTex® HPMF Duplex.

Our children's design "Happy" is exclusively available in the outer material ComforTex® HPMF.



Mandarin

Orchidee

**Baccara** 

(only ComforTex® HPMF)

Please note that for printing reasons, the colours in the photos may differ from the original product co

### LEVIO<sup>®</sup> EDITION

# Revolution

#### The Levio<sup>®</sup> Concept Simple. Effective.

For some time now, the focus has been on reducing the weight of personal protective equipment. Until now, the X-ray apron has protected the front of the body from the neck down to the knees with a uniform lead equivalent.

The MAVIG Levio Edition addresses both challenges – it optimises the weight/protection ratio and protects where protection is particularly effective.

MAVIG Levio

#### Scientifically Based. Proven. Certified.

Latest scientific studies show that approximately **80% of the effective dose** for the examiner is in the area from the **chest to below the gonads** because the organs that are particularly sensitive to radiation, such as the colon, stomach, bladder, gonads, lungs and large parts of the active bone marrow, are located there.

R



#### For Optimised Protection. Lead Equivalent. Protection Factor.

The effective dose can be effectively reduced if the radiation protective material is concentrated in the predetermined area – from above the chest to below the gonads.

MAVIG is the first manufacturer of radiation protective clothing (PPE) to develop an **approved and certified apron collection** that implements this concept – the new **Levio Edition**.

The details of the publications and results can be found in our scientifically prepared brochure. You can find it online on our website or on request.

www.mavig.com/levio

#### Levio-Panel. More Protection. Less Weight.

The basis for the Levio Edition is always an X-ray protection apron with a standard-compliant lead equivalent value of 0.25 mm Pb (front or all-round protection, depending on the type). You have the choice of how high the **additional shielding** (Levio panel) **for the most radiation-sensitive organs** from the chest to below the gonads should be.

The area with the reinforced protective material is clearly visible in colour (for example, coat RA632, inside in the colour Regatta – see fig. A and B).

The Levio Edition is available for selected models of MAVIG's portfolio of X-ray protective clothing.



Optimised Protection Concept



#### **Advantages**

Increased protection for the centre of the body (0.42 mm Pb)

Same weight (compared to classic 0.35 mm Pb)

- Personalized X-ray protection based on the respective body dimensions
- Type-examination certificate according to (EU) 2016/425, IEC 61331-1:2014 / DIN EN 61331-1:2016 and IEC 61331-3:2014 / DIN EN 61331-3:201
- Available for selected MAVIG aprons



#### **Advantages**

- Equal protection of the centre of the body (0.50 mm Pb)
- More than 10% weight reduction (compared to classic 0.50 mm Pb)
- Personalized X-ray protection based on the respective body dimensions
- Type-examination certificate according to (EU) 2016/425, IEC 61331-1:2014 / DIN EN 61331-1:2016 and IEC 61331-3:2014 / DIN EN 61331-3:201
- Available for selected MAVIG aprons

## Outlast<sup>®</sup> Inlay

#### Included with Head Wear. Optional for all Apron Models.

Keep a cool head – always!

#### Outlast<sup>®</sup> Inlay. Patented Temperature Regulation.

Optionally, all MAVIG aprons can now be completed with an inlay material that has been tried and tested for years. For our head wear the Outlast<sup>®</sup> inlay is included.

The Outlast<sup>®</sup> technology enhances textiles by providing the intelligent benefit of a dynamic, proactive temperature regulation.

The Outlast<sup>®</sup> inlay material absorbs heat specifically, stores and releases it again when needed, to achieve an ideal temperature for well-being. The result: Greater comfort.

Not too hot, not too cold, but just right. The advantages at a glance:

- Active temperature regulation
- Even heat distribution
- Less overheating
- Reduced perspiration
- More comfort



#### Convenient Climate. Phase Change Materials (PCM).

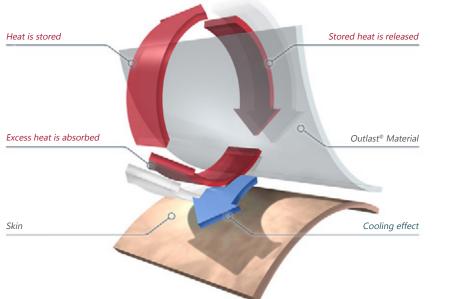
In contrast to other materials and insulations, Outlast<sup>®</sup> products continuously and proactively regulate the temperature to maintain a balanced climate.

#### Decades of Experience. Environmentally Friendly Quality.

Over 30 years of profound experience are within Outlast<sup>®</sup> materials. These are ecologically harmless, free of harmful substances and certified according to Oeko-Tex<sup>®</sup> Standard 100.



Outlast Temperature Regulation





## RACOOL

#### Vest with Temperature Regulating Outlast® Material

The RACOOL vest offers a close-to-the-body cooling layer made with the temperature regulating Outlast® technology.

As a retrofit option the cooling vest was developed for MAVIG radiation protective clothing (user) without integrated Outlast<sup>®</sup> layer and can be worn comfortably under all models of our collection.

- For all apron models without integrated Outlast<sup>®</sup> layer
- Application: to be worn under the regular X-ray protective apron/coat/costume
- Sizes / Weight: all sizes from XS up to 3XL / ca. 280 g (size M)
- · Hook and loop fasteners on both sides for convenient closure
- Washable at gentle wash: 40°C

**HINT:** No X-ray protective material inside.

Temperature Regulating Vest With ComforTex MF outer material, only available in the colour Titan.

## Balance RA631

### All-round Protection: Vest & Skirt

The two-part design optimally counteracts any stress on the body caused by heat or weight.

- Completely overlapping front parts achieve the selected lead equivalent value in the front
- 🐓 Ideal fit and amazing wearing comfort
- 🐓 Perfect for long wearing times
- 🐓 Clearly reduced weight on the spine
- 🖌 Standard features include shoulder pads
- In the lower area, the skirt is additionally secured with a snap closure
- Type testing and certification in accordance with (EU) 2016/425, IEC 61331-1:2014 / DIN EN 61331-1:2016 and IEC 61331-3:2014 / DIN EN 61331-3:2016

Optionally, the vest can be fitted with a 16 cm wide, **button-on stretch belt**. This provides even more weight relief for the shoulders and also supports the back.

Alternatively, the costume can be combined with our shoulder relief system **BRYGGA** (see page 32).

An elastic insert in the rear of the skirt makes it easy for the user to hold their posture and can be easily replaced if necessary, thanks to a zip.

High-quality hook-and-loop fasteners to close the vest and skirt are, of course, standard.



#### Protection/Lead Equivalent Standard Collection

NovaLite, Leadfree or Standard lead



Front: 0.25 mm Pb, 0.35 mm Pb or 0.50 mm Pb Back generally: 0.25 mm Pb

#### Protection/Lead Equivalent Levio Edition

NovaLite, Leadfree or Standard lead



Total value Levio-Panel: 0.42 mm Pb or 0.50 mm Pb (outside 0.25 mm Pb) Back generally: 0.25 mm Pb





Optimised Protection Concept



BRYGGA Shoulder Relief



Outlast Temperature Regulation

In order to ensure protection during

movement (e.g when bending over),

the vest has sufficient length and it

#### contrasting (Titan) safety zones on the sides

**Patented Safety** 

and in the shoulder area. These are equipped with the full lead equivalent value of the front part and give you the certainty of being optimally protected in all situations.

Ideal radiation protection is provided by colour-

If the front wing is within this clearly recognisable zone when the protective clothing is closed, you are covering the full 60% of the girth with the selected protective value.

#### Higher Protection – Levio Edition

The area with the reinforced protective material is clearly recognisable by its colour.

#### Back Relief

The elastic insert in the back of the skirt makes it easier for users to maintain their posture in daily routines.



Outer Material

Colours (pages 10/11)



*Optional:* ComforTex<sup>®</sup> HPMF, ComforTex<sup>®</sup> HPMF Hybrid Sizes from XS to 3XL (page 7)



*Skirt lengths:* from 65 - 80 cm (page 7) **Optional** (pages 14, 32-37)

Free Movement

For greater freedom of movement,

the skirt has a cut-out in the back.

protected at the front and sides.

Of course, the knees are still optimally



On request: Outlast® BRYGGA® Sleeves Stretch belt (external) Breast pocket Embroidery Made-to-measure protection

### overlaps the skirt.

**Overlapping Area** 



#### **Accessories/Replacement**

Bolero (page 34) Thyroid/sternum protection



Stretch insert: (Adjustment via zip) Stretch belt: (Adjustment via snap fastener) RA631

NEW

# Victoria RA631

### All-round Protection: Vest Especially for the Female Body

The two-part design optimally counteracts any stress on the body caused by heat or weight.

- У X-ray protective vest especially for women
- 🐓 Ideal fit and amazing wearing comfort
- 🎺 Does not require a full overlap at the front
- For combination with the regular X-ray protective skirt (see pages 16-17 / costume RA631)
- Perfect for long wearing times
- Type testing and certification in accordance with
   (EU) 2016/425, IEC 61331-1:2014 / DIN EN 61331-1:2016
   and IEC 61331-3:2014 / DIN EN 61331-3:2016

Alternatively, the Victoria vest can be combined with our shoulder relief system **BRYGGA** (see page 32).

*Optionally, a 10 cm wide, button-on stretch belt can be added to the vest.* 

This ensures even better weight relief for the shoulders and support for the back.



#### Protection/Lead Equivalent Standard Collection

NovaLite, Leadfree or Standard lead



Front: 0.25 mm Pb, 0.35 mm Pb or 0.50 mm Pb Back generally: 0.25 mm Pb

#### Protection/Lead Equivalent Levio Edition

NovaLite, Leadfree or Standard lead



Total value Levio-Panel: 0.42 mm Pb or 0.50 mm Pb (outside 0.25 mm Pb)

> Back generally: 0.25 mm Pb

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... is innovative X-ray protection that takes the female anatomy into account.

With specially adapted armholes, the Victoria RA631 vest offers ideal protection for the sensitive breast tissue without compromising the freedom of movement.

Princess seams (longitudinal dividing seams for a close-fitting cut) on the front ensure an ideal fit, while a stretch insert in the back ensures an optimal adaptation to the body shape. The future of X-ray protection - developed by women for women: Discover comfort and functionality in perfect balance. Rely on the Victoria collection - a protective shield that perfectly combines safety and aesthetic design.

#### Hint:

Please note that sleeves cannot be attached to the Victoria vest due to the adapted armholes. Please combine the Victoria vest with the bolero RA637 (page 34).





BRYGGA Shoulder Relief



Outlast Temperature Regulation

#### Higher Protection – Levio Edition

The area with the reinforced protective material is clearly recognisable by its colour.

**Optimised Armholes** Ideal protection for sensitive breast tissue **Dividing Seams in the Front** For a good fit but with full radiation protection *Stretch Insert* For a comfortable fit



**Outer Material** 

Colours (pages 10/11)



*Optional:* ComforTex<sup>®</sup> HPMF, ComforTex<sup>®</sup> HPMF Hybrid



Sizes from XS to 3XL (page 7)





Optional (pages 14, 32-37)



On request: Outlast® BRYGGA® Stretch belt (external) Breast pocket Embroidery Made-to-measure protection Accessories/Replacement

Bolero (page 34) Thyroid/sternum protection



Stretch belt: (Adjustment via snap fastener)

# Synergy RA632



### All-round Protection: Coat

The simple, convenient way of putting it on adds to the comfort. The coat is simply closed with a hook-and-loop fastener at chest level and sits correctly right away.

- Completely overlapping front parts achieve the selected lead equivalent value in the front
  - 🖊 Ideal fit, maximum comfort for the wearer
- Continuous support thanks to the wide elastic stretch belt (16 cm wide, included)
- 🖋 Standard features include shoulder pads
- In the bottom area, the coat is additionally secured with a snap closure
- Type testing and certification in accordance with (EU) 2016/425, IEC 61331-1:2014 / DIN EN 61331-1:2016 and IEC 61331-3:2014 / DIN EN 61331-3:2016

For additional shoulder relief, the coat can be combined with our **BRYGGA** shoulder relief system (see page 32).

Optimal adjustment to your waist height is ensured by a variable snap button fastener of the belt.

This allows it to be attached variably in height and to be buttoned to the coat on one or both sides.



#### Protection/Lead Equivalent Standard Collection

NovaLite, Leadfree or Standard lead



Front: 0.25 mm Pb, 0.35 mm Pb or 0.50 mm Pb Back generally: 0.25 mm Pb

#### Protection/Lead Equivalent Levio Edition

NovaLite, Leadfree or Standard lead



Total value Levio-Panel: 0.42 mm Pb or 0.50 mm Pb (outside 0.25 mm Pb) Back generally: 0.25 mm Pb





Optimised Protection Concept



BRYGGA Shoulder Relief



Outlast Temperature Regulation

#### Higher Protection – Levio Edition

A Safe Fit

protected in all situations.

Colour-coded (Titan) contrasting safety zones give you the certainty of being optimally

If the front panel is within this clearly recognisable

zone when the protective clothing is closed, then you are covering the full 60% of the girth

with the maximum protective value.

The area with the reinforced protective material is clearly recognisable by its colour.

#### Safety Zone

This zone (colour-contrasted in Titan) ensures a risk free, seamless and safe closing of the coat RA632.

#### Back Relief

The wide elastic stretch belt makes it easier for you to keep your posture in daily routines.

#### Free Movement

For greater freedom of movement, the coat has a cut-out in the back. Of course, the knees are still optimally protected at the front and sides.



Outer Material

Colours (pages 10/11)



*Optional:* ComforTex<sup>®</sup> HPMF, ComforTex<sup>®</sup> HPMF Hybrid Sizes from XS to 3XL



Coat lengths: from 90 - 140 cm (page 7) Optional (pages 14, 32-37)



On request: Outlast® BRYGGA® Sleeves Breast pocket Embroidery Made-to-measure protection

#### Accessories/Replacement

Bolero (page 34) Thyroid/sternum protection



Stretch belt: (Adjustment via snap fastener)

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NEW

# Victoria RA636

### All-round Protection: Coat Especially for the Female Body

The simple, convenient way of putting it on adds to the comfort. The coat is simply closed with a hook-and-loop fastener and sits correctly right away.

- 🐓 X-ray protective coat especially for women
- 🐓 Ideal fit, maximum comfort for the wearer
- 🐓 Does not require a full overlap at the front
- Continuous support thanks to the elastic stretch belt (width 10 cm, included)
- 🖊 Standard features include shoulder pads
- Type testing and certification in accordance with (EU) 2016/425, IEC 61331-1:2014 / DIN EN 61331-1:2016 and IEC 61331-3:2014 / DIN EN 61331-3:2016

Alternatively, the Victoria coat can be combined with our shoulder relief system **BRYGGA** (see page 32).

Optimal adjustment to your waist height is ensured by a variable snap button fastener of the belt.

This allows it to be attached variably in height and to be buttoned to the coat on one or both sides.



#### Protection/Lead Equivalent Standard Collection

NovaLite, Leadfree or Standard lead



Front: 0.25 mm Pb, 0.35 mm Pb or 0.50 mm Pb Back generally: 0.25 mm Pb

#### Protection/Lead Equivalent Levio Edition

NovaLite, Leadfree or Standard lead



Total value Levio-Panel: 0.42 mm Pb or 0.50 mm Pb (outside 0.25 mm Pb) Back generally: 0.25 mm Pb





#### The Victoria Collection ...

... represents more than just protection - it embodies a modern, sophisticated solution tailored to the needs of the female anatomy. Get ready for the next generation of innovative X-ray protection.

With specially adapted armholes, the Victoria RA636 coat offers ideal protection for the sensitive breast tissue without compromising the freedom of movement.

Princess seams (longitudinal dividing seams for a close-fitting cut) on the front ensure an ideal fit, while a stretch insert in the back ensures an optimal adaptation to the body shape. Discover the new fusion of functionality and style that combines safety and aesthetic design to meet the needs and demands of women in interventional radiology.

#### Hint:

Please note that sleeves cannot be attached to the Victoria coat due to the adapted armholes. Please combine the Victoria coat with the bolero RA637 RA637 (Seite 34).



Optimised Protection Concept



BRYGGA Shoulder Relief



Outlast Temperature Regulation

For greater freedom of movement,

the coat has a cut-out in the back.

Of course, the knees are still optimally protected at the front and sides.

Free Movement

#### Higher Protection – Levio Edition

The area with the reinforced protective material is clearly recognisable by its colour.

**Optimised Armholes** Ideal protection for sensitive breast tissue **Dividing Seams in the Front** For a good fit but with full radiation protection



Outer Material

Colours (pages 10/11)



*Optional:* ComforTex<sup>®</sup> HPMF, ComforTex<sup>®</sup> HPMF Hybrid



Sizes from XS to 3XL



Coat lengths: from 90 - 140 cm (page 7)



Optional (pages 14, 32-37)



On request: Outlast® BRYGGA® Breast pocket Embroidery Made-to-measure protection



Bolero (page 34) Thyroid/sternum protection



*Stretch belt:* (Adjustment via snap fastener) RA632

# **Comfort RA660**



Our RA660 range offers up-to-date radiation protection clothing which accompanies your active working day and provides outstanding service. The extraordinarily good wearing comfort is supported by the wide stretch insert integrated in the back panels.

- Suitable for a wide range of applications with only frontal radiation exposure
- 🐓 Ideal fit, maximum comfort for the wearer
- 🖋 Suitable for long wearing times
- Optionally "without protection" in the back, for a reduced weight of the apron
- 🖉 Standard features include shoulder pads
- Type testing and certification in accordance with (EU) 2016/425, IEC 61331-1:2014 / DIN EN 61331-1:2016 and IEC 61331-3:2014 / DIN EN 61331-3:2016

The stretch insert running across the entire width of the back ensures a good fit and shoulder relief even when the X-ray protective clothing is worn for long periods.



#### Protection/Lead Equivalent Standard Collection

NovaLite, Leadfree or Standard lead



Front: 0.25 mm Pb, 0.35 mm Pb or 0.50 mm Pb Back generally: 0.25 mm Pb

#### Protection/Lead Equivalent Levio Edition

NovaLite, Leadfree or Standard lead



Total value Levio-Panel: 0.42 mm Pb or 0.50 mm Pb (outside 0.25 mm Pb) Back generally:

Back generally: 0.25 mm Pb







Our customers report that this model is their favourite front apron. This is because it can be put on and taken off easily, fits the body well, stays in place well and provides excellent shoulder relief.

#### **Closure System**

MAVIG uses only top quality, low-wear hook-and-loop fasteners.





Outlast Temperature Regulation

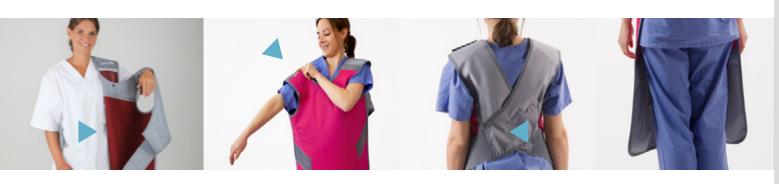
#### Higher Protection – Levio Edition

The area with the reinforced protective material is clearly recognisable by its colour.

#### User Friendly

The sophisticated design of the RA660 front protection apron makes it easy and quick to put on or take off. *Special Feature The stretch insert offers ideal relief especially* 

for long periods of wear.



Outer Material Colours

(pages 10/11)



Optional: ComforTex<sup>®</sup> HPMF, ComforTex<sup>®</sup> HPMF Hybrid Sizes from XS to 3XL



*Lengths:* from 90 - 140 cm (page 7) **Optional** (pages 14, 35-37)



On request: Outlast® Sleeves Breast pocket Embroidery Made-to-measure protection Accessories Bolero (page 34) Thyroid/sternum protection



# **Ergonomic RA650**



### Front Protection Apron

Front protection in its pure form: Model RA650 offers full-body protection over the entire front section covering the required 60% of the girth.

- Suitable for a wide range of applications with only frontal radiation exposure
- 🕩 Ideal fit, maximum comfort for the wearer
- Possiblility to slip off the apron
- Optionally "without protection" in the back, for a reduced weight of the apron
- 🖊 Standard features include shoulder pads
- Type testing and certification in accordance with (EU) 2016/425, IEC 61331-1:2014 / DIN EN 61331-1:2016 and IEC 61331-3:2014 / DIN EN 61331-3:2016

Comfortable, wide crossbands allow the apron to be slid off easily by opening the hook-and-loop fasteners in the side area.



#### Protection/Lead Equivalent Standard Collection

NovaLite, Leadfree or Standard lead



Front: 0.25 mm Pb, 0.35 mm Pb or 0.50 mm Pb Back generally: 0.25 mm Pb





**Closure System** 

MAVIG uses only top quality, low-wear hook-and-loop fasteners.



Fast, Simple and Convenient

The apron can be slid off by simply opening the hook-and-loop fasteners in the side area, even through the sterile surgical gown.

#### Shoulder Relief

Thanks to the extra-wide, comfortable crossbands, the load is optimally distributed over the entire shoulder area.



**Outer Material** 

Colours (pages 10/11)



*Optional:* ComforTex<sup>®</sup> HPMF, ComforTex<sup>®</sup> HPMF Hybrid Sizes from XS to 3XL (page 7)



*Lengths:* from 90 - 140 cm (page 7) **Optional** (pages 14, 35-37)



On request: Outlast® Breast pocket Embroidery Made-to-measure protection Accessories Bolero (page 34) Thyroid/sternum protection



# **Extended RA641**

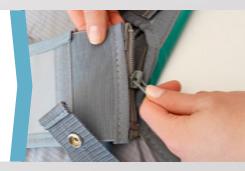


### Front Protection Apron for Applications in a Sitting Position

Radiation protection aprons are already part of the standard equipment in various specialized applications, such as urology, anaesthesiology, etc. Most aprons commonly used these days are designed for working in standing positions. However, especially in the examples mentioned, interventions are often carried out in a seated position.

- Suitable for various, seated applications with only frontal radiation exposure
- Integrated gonad protection for the sitting position
- 🖋 Ideal fit, maximum comfort for the wearer
- Standard features include shoulder pads
- Closure options: Straps with snap buckle (standard, in the front) or two snap buckles (optional, in the back)
- Type testing and certification in accordance with (EU) 2016/425, IEC 61331-1:2014 / DIN EN 61331-1:2016 and IEC 61331-3:2014 / DIN EN 61331-3:2016

Well thought-out relief, exchangeable – the innovative, elastic belt, located on the inside of the front protection, supports most of the apron's weight on the hips. This relieves stress on the back and shoulders.



#### Protection/Lead Equivalent Standard Collection

NovaLite, Leadfree or Standard lead



Front: 0.25 mm Pb, 0.35 mm Pb or 0.50 mm Pb Back generally: 0.25 mm Pb



#### For Sitting Positions Especially

In order to ensure sufficient protection even when sitting, a gonad protection has been attached to the inside of the apron. This hangs protectively in front of the gonads, while the apron rests on the legs.

The new design effectively prevents the apron from slipping down the legs and exposing them. The larger side panels in the lower part keep the apron in position also during movement.

When you are standing, the RA641 also guarantees complete X-ray protection from neck to knees, if the size is chosen correctly.

#### **Closure Systems**

The RA641 model offers two different variants for closing the apron.



Strap closure with snap buckle Standard, in the front



Double snap buckle closure Optional, in the back

Outlast Temperature Regulation

#### **Removable Gonad Protection**

The gonad protection which is attached with a hook-and loop fastener can be simply removed for weight reduction while standing.









The side flaps of the lower part of

the apron can simply be fastened

together in the back, so that they

do not interfere with movement

**Outer Material** 

Colours (pages 10/11)



Optional: ComforTex® HPMF, ComforTex® HPMF Hybrid

Sizes from XS to 3XL



Lengths: from 90 - 140 cm (page 7)

Optional (pages 14, 35-37)



On request: Outlast<sup>®</sup> Sleeves Breast pocket Embroidery Made-to-measure protection

#### **Accessories/Replacement**

Side Flaps

Bolero (page 34) Thyroid/sternum protection



Inner belt (Adjustment via zip) Gonad protection (Adjustment via hook-and-loop fastener)

# **Basic RA640**

### Front Protection Apron

The basic RA640 model has proven effective for years and is used as front protection usually for short and seldom wearing times in conventional X-ray situations without fluoroscopy.

- 🐓 Ideal fit, maximum comfort for the wearer
- 🐓 Ideal for short and infrequent wear
- 🖊 Standard features include shoulder pads
- Various closure types to choose from
- Type testing and certification in accordance with (EU) 2016/425, IEC 61331-1:2014 / DIN EN 61331-1:2016 and IEC 61331-3:2014 / DIN EN 61331-3:2016

For model RA640 it is also possible to choose whether a protection of 0.25 mm Pb should be maintained in the back panels or not, in order to reduce the weight of the apron.



#### Protection/Lead Equivalent Standard Collection

NovaLite, Leadfree or Standard lead



Front: 0.25 mm Pb, 0.35 mm Pb or 0.50 mm Pb Back generally: 0.25 mm Pb



#### Different Closure Types – You can choose ...

We offer different closure systems for this apron model. Choose your favourite:



**Snap fastener closure** Elastic band with snap fasteners for closing in the back.



**Crossband closure** Crossbands with hook-andloop fastening for closing in the back.



**Strap closure** Straps with snap buckle closure for closing in the front.



**Snap buckle closure** Two webbing straps with snap buckles for closing in the back.



Outlast Temperature Regulation



#### **Outer Material**

Colours (pages 10/11)



*Optional:* ComforTex<sup>®</sup> HPMF, ComforTex<sup>®</sup> HPMF Hybrid

Sizes from XS to 3XL



*Lengths:* from 90 - 140 cm (page 7)

**Optional** (pages 14, 35-37)



On request: Outlast® Sleeves Breast pocket Embroidery Made-to-measure protection

#### Accessories/Replacement

Bolero (page 34) Thyroid/sternum protection



Crossband closure (Adjustment via snap fastener)

## ACCESSORIES

# BRYGGA®

### Shoulder Bridge

#### For Individual Weight Relief

Wearing a BRYGGA shoulder brace under the protective X-ray apron is an easy-to-use and efficient way to reduce the weight load on the shoulders and prevent muscle fatigue.

- For MAVIG vest model RA631 and coat RA632
- 🐓 Four sizes: S, M, L and XL, individually adjustable
- Promotes an ergonomically correct posture
- Significantly reduces the risk of tension and numbness in the arms
- Full freedom of movement for neck and arms
- Easy cleaning



### **Optimum Weight Distribution**

The patented invention from Sweden distributes the weight more evenly and relies primarily on the bone structure rather than the muscles and nerves in the shoulder area. This proves to be particularly advantageous when the protective clothing has to be worn for long periods of time.

As an option, our MAVIG X-ray protective aprons and BRYGGA can now be connected to each other in a slip-resistant manner by means of a hook and loop fastener. This means that your individual adjustments are retained even after taking off the apron.

For this purpose, order your X-ray protective apron with the corresponding hook and loop system for BRYGGA instead of the shoulder pads – at no extra cost, of course.

#### **Modular Structure**

The 5-piece construction allows for individual adjustment to the respective user and ensures a pleasant and comfortable wearing experience in an easy and uncomplicated manner.

#### Shoulder Weight Relief

The optimum distance between the shoulder and the bridge under load conditions is about 1 cm. It is important that BRYGGA does not touch anywhere between the upper part of the shoulder to below the collarbone.

#### Hook-and-loop Fasteners (optional)

Our aprons and BRYGGA can now be connected by means of hook and loop fasterners for easier handling.



#### Webvideo

Scan QR code to view:



MAVIG website: www.mavig.com/product/ ra-brygga/ Material Robust,



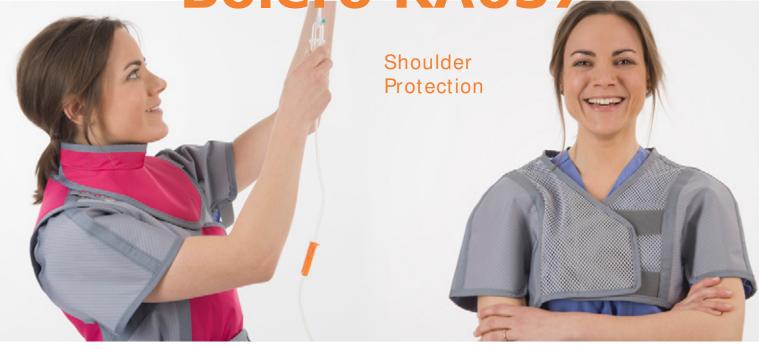
*Foam padding:* Exterior: Evazote Interior: Polyethylene **Sizes** S, M, L and XL Individually adjustable



*Structure:* 5-piece

## ACCESSORIES

## **Bolero RA637**



#### **Shoulder Protection – Bolero**

Thanks to Bolero as an alternative to the sleeves, the radiation exposure due to scattered radiation for the shoulder joint can be significantly reduced. Freedom of movement is maintained to the greatest extent possible with the design, which is open underneath the arm.

At the same time, the design considerably reduces the scattered radiation coming in from the sides via the armholes.

The "Bolero" shoulder protection is available for all models and is therefore ideal for combination with MAVIG all-round protection or front protection aprons.

It is worn directly under the X-ray protection and is simply closed with a hook-and-loop fastener in the front.

The standard lead equivalent value is 0.25 mm Pb. This ensures good mobility during the daily working routine.

The shoulder protection is always manufactured in the colour "Titan". The correct size as well as the protective material depend on the chosen X-ray protective clothing.

#### **Protection/Lead Equivalent**

NovaLite, Leadfree or Standard lead



As standard: 0.25 mm Pb On request: 0.35 mm Pb or 0.50 mm Pb Outer Material Titan colour only (pages 10/11)



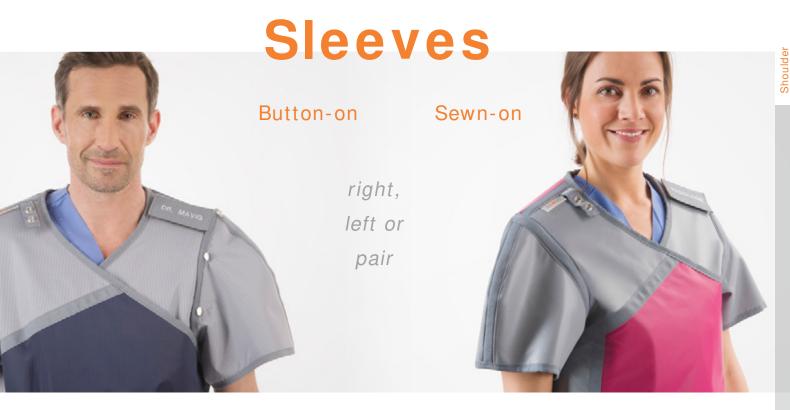
*Optional:* ComforTex<sup>®</sup> HPMF, ComforTex<sup>®</sup> HPMF Hybrid Sizes from XS to 3XL (matching the PPE)



**Optional** (pages 36-37)



*Embroidery:* Text at the left sleeve hem



#### **Shoulder Protection – Sleeves**

For all model ranges (except Victoria collection RA631V and RA636 as well as RA650), you can optionally choose sleeves in order to extend the radiation protection\*.

The radiation on the shoulder joint is significantly reduced by the sleeves. Likewise, incident radiation on the side via the armholes is considerably reduced.

The standard lead equivalent value is 0.25 mm Pb. This ensures good mobility during the daily working routine. The shoulder protection is always manufactured in the colour "Titan".

The correct size as well as the protective material depend on the chosen X-ray protective clothing.

MAVIG offers the sleeves both as a button-on solution or firmly sewn-on. You can also choose whether you want only one sleeve, on the right or left, or a pair.

> \*Please note: The protective surface of the front (surface without pinholes) ends at the seams. This also applies to the sewn-on sleeves. With the button-on sleeves, a continuous protective surface is ensured by the overlap.

#### Protection/Lead Equivalent

NovaLite, Leadfree or Standard lead



As standard: 0.25 mm Pb On request: 0.35 mm Pb or 0.50 mm Pb Outer Material Titan colour only (pages 10/11)



*Optional:* ComforTex<sup>®</sup> HPMF, ComforTex<sup>®</sup> HPMF Hybrid Sizes from XS to 3XL (matching the PPE)



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## Personalise

### Your Protective Equipment

#### **Embroidery**

In many cases, it is useful to assign X-ray protection clothing to an individual or a department using an embroidery.

The accessories can also be embroidered on request when ordered.

- (1) On an adaptable area approx. 5 x 10 cm below the left shoulder seam
- 2 Sewn-on tape below the left shoulder seam
- 3 Line of text or logo on an optional breast pocket
- 4 Line of text on a tape on the skirt
- 5 Text or logo on the bib of the thyroid and sternum protector
- 6 Text on the collar of the thyroid and sternum protector
- (7) Text on the sleeve hem of the Bolero
- (8) Text on the left hand side of the head cover

Whatever you decide, you give us the text and we will produce a top quality embroidery. Due to their good readability, block letters are used as a standard. The font height is determined by the length of the text and the number of lines.

We are happy to offer logo embroidery in all colours as a special solution.

#### Pocket

The breast pocket (9a/b) is designed as a regular insertion pocket away from the body. For all-round protection (9a) the position is on the right, for front protection (9b) on the left, both from the user's point of view.

The skirt pocket is designed as a standard insertion pocket on the right side away from the body.









## ACCESSORIES

# Model RA614

### Thyroid & Sternum Protection

#### With Different Closures

**Hook-and-loop fastener** (RA614KL) Standard size fits neck sizes of 32 - 45 cm.

**Magnetic closure** (RA614MA) Standard size fits neck sizes of 32 - 45 cm.

**Exchangeable hook-and-loop fastener** (RA614AK) Standard size fits neck sizes of 37 - 50 cm.

Protection/Lead Equivalent

NovaLite, Leadfree or Standard lead



*As standard:* 0.50 mm Pb

Outer Material Colours (pages 10/11)



Optional: ComforTex<sup>®</sup> HPMF, ComforTex<sup>®</sup> HPMF Hybrid Neck Sizes Uniform Depending on the model

AVIG



**Optional** (pages 36-37)



On request: Embroidery Made-to-measure protection

### Accessories/Replacement

Hygienic cover (RA614HF)



Spare hook-and-loop fastener (RA614AKV, adjustment via snap buttons)



#### **Thyroid and Sternum Protection**

The thyroid is a radiation-sensitive organ of the human body and therefore in particular need of protection. Wearing an appropriate shield should therefore be a matter of course.

Our thyroid and sternum protector variants are characterised by a first-class cut and the best fit, taking into account all aspects of radiation protection.



**Snap button connection** It allows for a secure adjustment of the thyroid and sternum protection on MAVIG X-ray protective clothing.



#### Accessories: Hygienic cover

To meet the hygienic requirements in everyday life, we recommend using our washable hygienic cover in the colour Titan made of the special ComforTex® MF material.

#### **Model Variants RA614**

The thyroid and sternum protector with snap button connection to the vest/coat/apron is suitable for all model series.

As a standard, it is manufactured with a firmly sewn-on hook-and-loop fastener. The other closure types, magnetic closure and exchangeable hook-and-loop fastener, are available as options.

All variants provide enough room for adjustment.



**Closure type – via magnet** The thyroid and sternum protection is also available with a practical magnetic closure (variant RA614MA).



Closure type - exchangeable

As a third alternative, an exchangeable closure can be chosen (RA614AK). Please note the different neck sizes here.

## ACCESSORIES

# RA611 & RA612



#### Protection/Lead Equivalent

NovaLite, Leadfree or Standard lead



*Optional:* 0.25 mm Pb, 0.35 mm Pb or 0.50 mm Pb Outer Material Colours (pages 10/11)



AS standard: ComforTex<sup>®</sup> HPMF Suitable for head circumferences



**Optional** (pages 36-37)



On request: left side **Included** Outlast<sup>®</sup> Temperature regulation



### X-RAY PROTECTION FOR THE CRANIUM



RA611, RA612

Outlast Temperature Regulation

#### **Radiation Protection Head Wear**

Working in interventional radiology can entail risks. Currently, the likelihood of medical personnel being exposed to radiation and developing a brain tumour is the subject of a lively debate among experts.

Without effective on-site upper table scatter radiation protection, the cranium may well be exposed to high levels of radiation, depending on the procedure and fluoroscopy time.



#### **RA611 With Breathable Insert**

A breathable insert is incorporated into the top of the cap, ensuring very good heat dissipation.



MAVIG, therefore, has developed two different

the individual needs of the user. The respective

Temperature-regulating Outlast material is now

included in both models for a more comfortable

models differ in the size of the desired protection

radiation protective head coverings to meet

area and amount of heat elimination.

and cooler feeling (pages 14/15).

#### RA612 – Closed Cap

With a closed cap, the cranium is shielded frontally, on the sides and completely from above. However, this limits heat dissipation via the top of the skull.





## ACCESSORIES

# Model HS100

X-Ray Protective Gloves

Lead equivalent: 0.045 mm Pb

Low-protein natural rubber

Excellent gripping ability and great touch sensitivity

Available in many sizes

High elasticity and tear resistance

Powder-free

Lead free Non-toxic Sterile

The idea of optimisation in radiation protection dictates that every possible measure should be taken to minimise the dose from radiation exposure. Outstanding usage properties and an optimised fit now make it easy to comfortably protect yourself better.

Legal regulation within the EU Sterile gloves for protection against X-rays are categorized as personal protective equipment (PPE), as well as a medical device (MD). Thus, the CE-conformity to both relevant certifications PPE regulation (EU) 2016/425 and 93/42/EEC are mandatory for these products.

### X-RAY PROTECTION FOR THE HANDS

#### **Sterile Gloves With Protection Against X-Rays**

Significantly reducing the equivalent dose for occupationally exposed medical staff is a must, not only because of the lowered limits for the effective dose.

Sterile protective gloves from MAVIG with shielding effect against scattered X-rays enable optimisation of the radiation protection measures for the medical staff.

The product is classified as a powder-free sterile glove, which features the additional benefit of X-ray protection properties on top of its core material characteristics of impermeability and protection against chemicals and microorganisms.

MAVIG offers with the sterile gloves HS100 an efficient way for a reduction of radiation exposure to the hands. Last but not least, this has contributed to the inclusion of sterile protective gloves with shielding effect against scattered X-ray radiation in the recommendations of DIN 6815:2021 as protective equipment for radiation users.

Of course, our gloves HS100 are certified and CE-compliant.

### Application

The protective gloves HS100 are exclusively intended for use in the scattered radiation field. As a sterile product, they are intended for single use only.

#### **Properties**

With the development of these gloves, MAVIG has succeeded in synthesising traditionally opposing features:

- Powder-free, sterile
- Low-protein natural rubber
- High shielding effect against scattered radiation (average attenuation for scattered X-ray radiation of 45 - 55%, for example in the X-ray tube voltage range of 60 - 80 kV)
- Metal oxides Lead free
- · High elasticity and tear-resistant
- Excellent gripping ability, great touch sensitivity

A great elasticity in combination with an excellent anatomical fit allows for optimal working conditions, bringing it in the same category of high quality surgical gloves, while additionally offering efficient protection against secondary X-ray radiation (scattered radiation).

The gloves convince with its high touch-sensitivity and dexterity. The micro-textured surface provides a secure grip, even in moist conditions. The soft, stretchable material with its anatomical form prevents fatigue and provides optimal ergonomic features.

The gloves are easy to put on and are especially tear-resistant due to their elasticity. In addition, the rolled edge counteracts tearing when pulled over.

#### Sizes and Order Numbers

Size 6.5 = HS10065 Size 7.0 = HS10070 Size 7.5 = HS10075 Size 8.0 = HS10080 Size 8.5 = HS10085 Size 9.0 = HS10090

The sales unit is a practical dispenser box containing five pairs of gloves of one size.

Each pair is sterile and securely packed in a peel pack with an additional inlay.

> Jse under sterile conditi is guaranteed.

Average Measured Values for the Attenuation of X-ray Radiation

X-ray scatter radiation (skin dose reduction)

60 kV / **55 %** 

80 kV / **45 %** 100 kV / **39 %** 

120 kV / **35 %** 

The reduction parameters have been determined in the broad beam, according to DIN EN 61331-1:2016 (IEC 61331-1:2014).

# **BR & BRV Models**

X-Ray Protective Glasses/Visors



Our individual program with different designs for an optimal fit can be found in our separate catalog.







#### **Eye Protection** for Medical Use of Radiation

The sensitivity of the human eye to radiation exposure is classified as very high. X-ray protective glasses for the radiation user provide protection from scattered radiation. This is secondary radiation, primarily emitted by the irradiated patient volume.

The correct fit is especially important in the case of protective glasses. Therefore, the differing facial geometries from person to person require a corresponding diversity of models.

Virtual Fitting on our website:

www.mavig.com/virtual-mirror/

#### **Cataract Risk** and Lens Opacity

It has been known for years that radiation-induced lens opacity can occur due to exposure to ionising radiation in the workplace.



According to current knowledge, the initial stages can already occur from a radiation exposure of only 0.5 Gy. Regardless of whether the dose is acute or protracted, the effect is cumulative, meaning individual doses are added up.

### RADIATION PROTECTION COVERS (DRAPES)



## **ST Drapes**



Femoral Drape ST-FS5AMM



Radial Drape ST-RZ5AMM

#### Reusable Radiation Protection Drapes

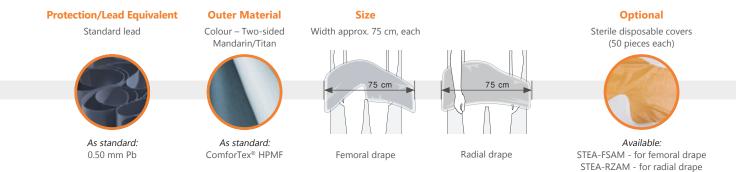
The optimally adapted size of our economic, reusable drapes ensures constant excellent protection for the examiner and maximum comfort for the patient.

The special shape of the drapes is designed for the corresponding purpose:

- ST-FS5AMM with cut-out for femoral puncture
- ST-RZ5AMM without cut-out for radial puncture

At the same time the unique cuts of the drapes prevent their protrusion into the area to be imaged when the X-ray source is angled.

Sterile disposable covers for the drapes allow placement above the sterile patient cover. They ensure fast placement and easy removal in an emergency situation as well as continuous position monitoring.



#### 46



# **ST-ER Drape**

### **ERCP** Drape

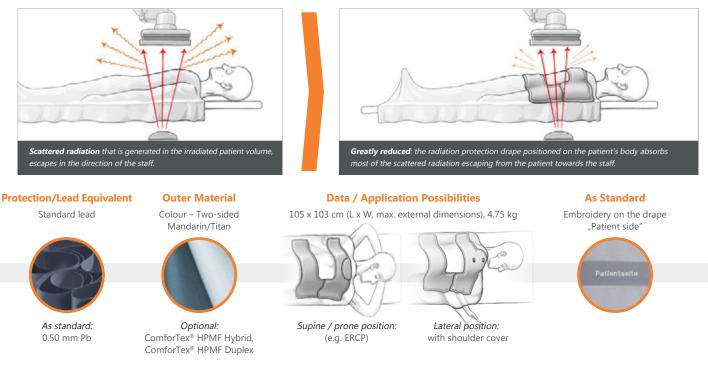
- Minimisation of scattered radiation by up to 90%
- Can be used in prone and lateral position
- Secure positioning due to individual adjustment options
- 🖌 Adaptable to the type of examination
- Cut-out for endoscopes
- Optional cover to protect the shoulder joint
- 🖌 Sustainable, as it is reusable



## Radiation Protection Drape with Variable Cut-out ST-ER

The MAVIG ST-ER drape is designed to minimise scatter radiation from the patient's body, thus protecting staff.

The variable opening of the drape, which can be placed on the patient exactly in line with the useful radiation zone, significantly reduces the scattered radiation. A classic example of application is ERCP\* but, in principle, a large number of other areas of application in which work is carried out with a fixed beam direction are possible.



### PATIENT COVERS

## **RP648, RP689**

## **CT** Guard

### Protection During CT Examinations

Reduction of radiation exposure for:

- Thyroid gland by about 65 %
- Sternum by about 80 %
- Chest and shoulder joints by about 90 %

#### **RP648 – Patient Protection for CT Examinations**

The patient protection for CT examinations from MAVIG provides ideal X-ray protection. The drape can be put on quickly and remains securely in the desired position.

Optimally implemented in the RP648 patient CT drape: The patient protection is easy to apply and position without any additional aids or closure systems.

An additional thyroid protector can be folded into position if required.

## Drape



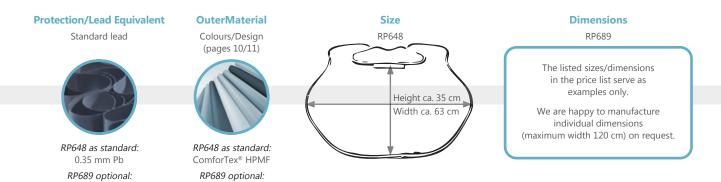
TIP: Don't be too "well-meaning" when choosing the size of your patient drape. Bear in mind that the drape also has to be moved by you and the size is directly related to the weight.

#### **RP689 – Patient Drape**

This versatile patient drape is a must in every radiology practice. You can choose the format, depending on your intended use. Additional equipment like hook-and-loop fasteners or an individual cut according to your needs are also possible at any time.

Effective radiation protection for your patients concerns the areas of the body adjacent to the diagnostic field; so in most cases you will benefit from a stock of several smaller drapes, which you can then use in combination.

For an easier cleaning, our patient drape is also available in ComforTex HPMF Duplex.\*



\* Outer material with special coating (ComforTex HPMF Hybrid) on both sides

ComforTex® HPMF, ComforTex® HPMF Duplex\*

0.50 mm Pb or 1.00 mm Pb

### **RP643**

# **Gonad Protection**



For an easier cleaning, our gonad aprons RP643 are optionally also available in ComforTex HPMF Hybrid.

#### RP643 – Gonad Apron

An article of daily use has specific requirements in terms of material quality and workmanship, but also the functionality for a user-friendly use must be given.

The MAVIG RP643 series gonad aprons offer you this and more.

Even with the high patient flow in today's radiology practices, the RP643 is ideally suited, as the X-ray protection is quick and practical to put on and take off.

It couldn't be easier than with the flexible tension strap of our RP643 series. The radiation protection for your patients is perfect and the fit is just right. In producing our gonad aprons, we use only high quality, flexible standard lead material. The best radiation protection properties are, of course, a basic requirement.

For gentle and proper storage of your gonad aprons, we recommend the use of the specially designed wall hanger AW417.

With everything clearly arranged, you can determine the right size for your patient at a glance and easily take the matching apron out of the wall system, without having to remove the one in front or behind.



#### Protection/Lead Equivalent

Standard lead



As standard: 0.50 mm Pb **Outer Material** 

Colours/Design



Optional: ComforTex<sup>®</sup> HPMF, ComforTex<sup>®</sup> HPMF Hybrid

#### Sizes

Recommended for:

- apron size 20 x 25 cm (H x W) M Children,
- apron size 30 x 30 cm (H x W) L Adult,
- apron size 37 x 40 cm (H x W)

S

XL Adult, apron size 45 x 50 cm (H x W) **Optional** Wall hanger AW417



**RP664** 

# Basic<sup>Mini</sup> – RP664

### Children's Front Protection Apron

This children's apron is especially designed for universal use and therefore the optimal front protection for your little patients.

The generously cut, overlapping back panels provide a balanced fit.

- High quality, flexible NovaLite material with lead equivalent values of 0.50 mm Pb in the front and 0.25 mm Pb in the back
- Ideal fit for children
- Adjustable snap buckle closure
- Type testing and certification in accordance with (EU) 2016/425 and (EU) 2017/745, as well as IEC 61331-1:2014 / DIN EN 61331-1:2016 and IEC 61331-3:2014 / DIN EN 61331-3:2016



**Protection/Lead Equivalent** 

NovaLite



Front generally: 0.50 mm Pb Back generally: 0.25 mm Pb





Children's X-ray protection in particular, should be easy to put on and take off.

The model RP664 can be easily closed in the front with a variable snap buckle closure leaving enough room for adjustments for an exact fit.

Children's X-ray protection is manufactured by MAVIG with the innovative NovaLite radiation protection material to achieve the best possible weight ratio and thus impose only the most necessary physical strain on the children.

Available sizes, recommended for:

SMALL	Length: 59 cm, Width: 35 cm
	for children aged approx. 3 - 5 years
MEDIUM	Length: 67 cm, Width: 43 cm
	for children aged approx. 6 - 8 years
LARGE	Length: 84 cm, Width: 45 cm
	for children aged approx. 9 - 12 years



#### **Outer Material**

Colours/Design (pages 10/11)



As standard: ComforTex<sup>®</sup> HPMF Sizes SMALL, MEDIUM and LARGE







### **RP668**

# Classic<sup>Mini</sup> – RP668





**Protection/Lead Equivalent** 

NovaLite



Front generally: 0.50 mm Pb Back generally: 0.25 mm Pb



Children's X-ray protection, in particular, must be easy to put on and take off. Small patients rarely have enough patience for long actions. Therefore our RP668 children's coat can be adjusted quickly and closed securely using the hook-and-loop fasteners in the front.

Children's X-ray protection is manufactured by MAVIG with the innovative NovaLite radiation protection material to achieve the best possible weight ratio and thus impose only the most necessary physical strain on the children.

Available sizes, recommended for:

SMALL	Length: 60 cm Hip circumference: 68 - 75 cm
	for children aged approx. 3 - 5 years
MEDIUM	Length: 80 cm
	Hip circumference: 76 - 83 cm
	for children aged approx. 6 - 8 years
LARGE	Length: 84 cm
	Hip circumference: 84 - 95 cm
	for children aged approx. 9 - 12 years

**Outer Material** 

Colours/Design (pages 10/11)



As standard: ComforTex<sup>®</sup> HPMF Sizes SMALL, MEDIUM and LARGE



Accessory

Thyroid/sternum protection for small patients (page 62)



## **RP679**



#### **Ovary Protection** with Elastic Belt – RP679

The patient shield RP679 protects the ovaries during X-rays of standing patients.

It is also ideally suited for children as patient protection for X-rays in medical diagnostics in the appropriate size set for paediatrics.

The stretch belt\* with snap buckle closure makes it easy to put on and take off and ensures convenient size adjustment.

\* For patients with a circumference over 128 cm, a special-sized belt is available as an option.



Standard lead



*As standard:* 1.00 mm Pb



As standard: ComforTex® HPMF

Adults



Easy and quick to put on

hook-and-loop fastener

Convenient size adjustment via the stretch belt with snap buckle closure and hygienic cover

in each of the following sizes: Small, Medium, Large

Set consisting of the belt and one protector

Protectors adaptable to the belt by means of

М	18 x 13 cm	Mandarin	L
L	20 x 19 cm	Regatta	
			E
S	7 x 6 cm	Orchidee	L
M	9 x 8 cm	Lagoon	L
M	9 x 8 cm 10 x 10 cm	Lagoon Curacao	



**Size Sets** 

The ovary protector is available as a set with protectors in three sizes and an adjustable stretch belt.

## RP278, RP276, RP280



# **Testes Safety**



Extensive research provided the basis for the size and position relationship between the fixation point "Spinae iliacae anteriores" and the ovarian protection used.

The two radiolucent control marks ensure a correct and uncomplicated placement.

#### **RP278 – Ovary Protection**

The concept of this MAVIG ovarian shield is unsurpassed and meets all the requirements of radiological practice. Radiation exposure of the female gonads is significantly reduced without compromising the diagnostic technique.

For optimal fine adjustment, each model can be varied again by means of the modular principle. The RP278 is, of course, easy to clean and disinfect.

A complete set offers you the best possible protection for all your supine patients.

**Outer Material** 

RP278 und RP276

Soft PVC cover

in light grey

RP280

Skin-friendly

coating in medico-white



#### **RP276 – Testes Protection**

This male gonad protection model covers the penis and scrotum all around with a lead equivalent of 1.00 mm Pb.

Of course, MAVIG has made sure that there is no risk of injury to the patient when using the protection.

The hook-and-loop fastener provides a good hold when adjusted correctly. For cleaning and disinfection, this model series can be unfolded using the snap buttons.

We also offer suitable disposable hygiene bags.



#### **RP280 – Testes Protection**

The penis and scrotum are protected with a lead equivalent of 1.00 mm Pb.

The padded, elastic pouch closure provides gentle pressure for a secure and correct fit throughout the examination. The rounded design poses no risk of injury to the patient.

It is easy to put on and the skin-friendly coating of the MAVIG RP280 testicle capsules offers seamless hygiene inside and out. Cleaning and disinfection are easy.

#### Protection/Lead Equivalent

RP278, RP276 Standard lead RP280 Lead rubber single layer



As standard: 1.00 mm Pb

	Recommended for:							
RP2781S RP2781M RP2781L	Small Medium Large	Height 7 cm Height 9 cm Height 12 cm						
RP2761E RP2761K	for men Dimensions 155 x 120 x 90 m for boys Dimensions 110 x 90 x 65 mm							
RP2801E RP2801K	for men Dimensions for boys	135 x 105 x 60 mm						
	Dimensions 105 x 85 x 55 m							

Sizes

#### **Hygiene Bags Testes Protection**

RP-HYG-CE Set of 100 in men's size RP-HYG-CK Set of 100 in boys' size

**RP-HYG-CEK** 

Set of 100 each in men's size and 100 each in boys' size Patient

### **RP276, RP274**

# **Children Protection**



## RP276 – Testes Protection as a Set of 3 for Children

The model is intended to protect the male gonads of young patients in paediatrics during X-rays for medical diagnostics.

The design avoids any risk of injury to the patient. For cleaning and disinfecting, the protection can be unfolded via snap buttons.

The complete size set includes one testes protection each for infants, toddlers and children from 1 to approx. 10 years of age.

#### RP274 – Gonad Protection Pants Set

The gonad protection pants comfortably ensure complete protection of the gonads of your smallest patients.

The practical hook-and-loop fastening makes them quick and easy to put on and remove and enable convenient size adjustment.

The complete size set includes one pair of pants each for babies, toddlers and children from 1 to approx. 6 years of age.



Each size of both sets is adjustable by means of a hook-and-loop fastener.

#### Note

Both the testes protection for children and the gonad protection pants are only available as a set:

RP2761G6212 3 sizes for children

RP2741G6212 3 sizes for children

## RP271, RP270



# Mammary Gland Safety

#### **RP271 – Mammary Gland Protection** for Paediatrics

The patient protection product for paediatrics reliably protects the mammary glands of your little patients during X-rays in medical diagnostics.

The children's chest protector can be conveniently adjusted to the respective size required.

- Reduction of radiation exposure in the area of the mammary glands by about 80%
- ؇ Hygienically clean, skin-friendly outer cover
- ✔ Reusable, not a disposable product
- ✔ Comfortable, non-pressing neoprene stoppers
- Yractical adjustment

#### RP270 – Mammary Gland Protection for Women

The mammary gland shield efficiently protects your patients during mammograms.

The shield consists of two equal parts, each  $18 \times 40$  cm (W x H), connected by a lengthadjustable hook-and-loop fastener for comfortable donning and easy adjustment.



Height each approx. 40 cm Width each approx. 18 cm

# Dental<sup>All-round</sup> RD639





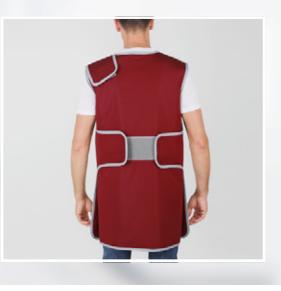
#### Patient All-round Protection for Digital Volume Tomography (DVT)

The RD639 all-round protective apron offers optimum radiation protection in digital volume tomography.

The patient is protected at the front as well as the back with the full lead equivalent of 0.50 mm Pb.

The convenient hook-and-loop fastener on the shoulder allows the apron to be put on comfortably from the side. The circumference can be easily adjusted by means of the hook-and-loop fasteners in the back.

The integrated thyroid protection is height adjustable, so that it does not interfere with the imaging.



Protection/Lead Equivalent

Standard lead, Leadfree



As standard: 0.50 mm Pb (front and back) Outer Material Colours/Design (pages 10/11)



*Optional:* ComforTex<sup>®</sup> HPMF, ComforTex<sup>®</sup> HPMF Hybrid Sizes/Dimensions Recommended for:

Small 80.0 x 60.0/60.0 cm (Length x Width front/back)

Medium 80.0 x 70.0/60.0 cm (Length x Width front/back)



## Dental<sup>Panorama</sup> RD635



#### Patient X-Ray Apron for Panorama Shots While Standing

The RD635 protective apron for patients offers optimum radiation protection for standing X-ray exposures on panoramic or teleradiographic units.

The protective clothing is particularly comfortable to put on, as it can be individually adjusted to the patient's body circumference with a quick and easy movement.

The closure system in the front prevents parts of the protective clothing from entering the image-relevant area if the clothing is not closed properly. The back lies smooth and flat against the body.



#### **Protection/Lead Equivalent**

Standard lead,



As standard: 0.50 mm Pb (front and back) Outer Material Colours/Design (pages 10/11)



*Optional:* ComforTex<sup>®</sup> HPMF, ComforTex<sup>®</sup> HPMF Hybrid

### Sizes/Dimensions

Recommended for:

Adults Front: 80.0 x 60.0 cm (L x W)

Children Front: 60.0 x 45.0 cm (L x W)

#### Accessory

Thyroid/sternum protection for patients (page 62)



# Dental<sup>Chair</sup> RD642



#### Patient X-Ray Apron for X-Rays in a Seated Position

The MAVIG patient protective apron RD642, which is used for dental X-rays in a seated position, is flexible and comfortable to wear.

The high-quality hook-and-loop fasteners are conveniently placed in the shoulder area, making it precise, secure and quick to put on and remove.



Protection/Lead Equivalent Standard lead,



As standard: 0.50 mm Pb (front) Outer Material Colours/Design (pages 10/11)

*Optional:* ComforTex<sup>®</sup> HPMF, ComforTex<sup>®</sup> HPMF Hybrid Sizes/Dimensions Recommended for:

Adults Front: 80.0 x 60.0 cm (L x W)

children Front: 60.0 x 45.0 cm (L x W)

#### Accessory

Thyroid/sternum protection for patients (page 62)





# Dental<sup>Bicolour</sup> RD644



Just like the classic dental apron (RD642), this model offers high flexibility and wearing comfort.

In addition to the large-area protection up to the gonads, the thyroid gland is also covered when taking X-rays of the seated patient.

The practical hook-and-loop fastener in the back of the neck of the thyroid protection collar ensures a snug, secure and quick fit.

Loops on the back allow an easy attachment to the dental chair.



#### CAN BE USED ON BOTH SIDES Model RD644 is designed as a reversible

X-ray apron for patients.

The design thus allows you to choose between a one-colour or two-colour model. Two-colour combinations are available in "Curacao with Orchidee" and "Blue Admiral with Baccara".

#### Protection/Lead Equivalent

Standard lead,



As standard: 0.50 mm Pb (front) Outer Material Colours/Design (pages 10/11)



*Optional:* ComforTex<sup>®</sup> HPMF, ComforTex<sup>®</sup> HPMF Hybrid Sizes/Dimensions Recommended for:

Adults

Front: 80.0 x 60.0 cm (L x W)

Children Front: 60.0 x 45.0 cm (L x W)

#### Optional

Also available in two-colour design



*Optional:* Curacao with Orchidee *or* Blue Admiral with Baccara

# Model RD614



#### Thyroid and Sternum Protection for Patients

The thyroid is a radiation-sensitive organ of the human body and therefore in particular need of protection.

The MAVIG thyroid sternum protection for patients is optimally cut and has the best fit, and, of course, it also takes all radiation protection aspects into account.



RD614 Children Size in Design Happy

#### **Protection/Lead Equivalent**

Standard lead, Leadfree



*As standard:* 0.50 mm Pb

#### Outer Material Colours/Design

(pages 10/11)



Optional: ComforTex<sup>®</sup> HPMF, ComforTex<sup>®</sup> HPMF Hybrid

Sizes According to Fastener Type						
Recommended for:						
netic/hook-and-loop fastener						

Magnetic/hook-and-loop fastener:						
Adults	Standard size fits neck sizes of 32 - 45 cm					
Children	Standard size fits neck sizes of 28 - 36 cm					
Exchangeable hook-and-loop fastener:						
Adults	Standard size fits neck sizes of 37 - 50 cm					
Children	Standard size fits neck sizes of 28 - 36 cm					

#### Accessories/Replacement

Hygienic cover Embroidery



Spare Hook-and-loop fastener (Adjustment via snap buttons)



#### With Different Fasteners

An uncomplicated magnetic or hook-and-loop fastener, which can also be replaced as an option, provides sufficient scope for adjustment.

#### Hook-and-loop Fastener (KL)

Standard sizes fit neck sizes of 32 - 45 cm for adults and neck sizes of 28 - 36 cm for children.



RD614 with normal hook-and-loop fastener

#### Magnetic Closure (MA)

Standard sizes fit neck sizes of 32 - 45 cm for adults and neck sizes of 28 - 36 cm for children.



RD614 with uncomplicated magnetic closure

#### Exchangeable Hook-and-loop Fastener (AK)

Standard sizes fit neck sizes of 37 - 50 cm for adults and neck sizes of 28 - 36 cm for children.



RD614 with exchangeable hook-and-loop fastener

### **Optimum Protection**

In order to meet hygiene requirements, we recommend that you use our washable hygienic cover made from special ComforTex® MF material in colour "Titan".



Optional hygienic cover available

# Safekeeping

#### Storage Systems for X-Ray Protection Clothing – A Daily Helper

This type of aid must fulfil a number of basic criteria to be of use to you in your daily work practice.

- Convenient & uncomplicated access
- Low space requirement
- Easy to assemble

- 💙 Clear arrangement
- Proper and protective storage

With these aspects in mind, we have designed the MAVIG storage systems for you. Functional, partly modular technology that offers you the greatest possible scope in spatial planning.





With this practical wall system, your radiation protection product is always at hand, stored carefully and in a space-saving manner.

Especially recommended for the following items: Dental Protection, CT Protection RP648 or Drapes ST-FS, ST-RZ and ST-ER

Functional metal construction
 For one radiation protection product

- 140 x 500 x 160 mm (H x W x D)
- Lacquered in the colour "medico-white" (RAL 9002)
- Max. 10.0 kg weight capacity
- Empty weight: 1.5 kg



The right solution for storing your RP643 gonad aprons.

With the clear arrangement, you can determine the right apron size for your patient at a glance and take the right apron out of the wall system in one go, without having to remove any apron in front or behind it.

Heavy duty metal construction
 For one set of gonad aprons (4 sizes)

- 80 x 365 x 215 mm (H x W x D)
- In the colour "cool white" (RAL 9016)
- Max. 5.0 kg weight capacity
- Empty weight: 1.3 kg



Ž



#### Mobile System AW423

The AW423 mobile system is easy, comfortable and safe to move. It has brakes for stabilisation.

It is available in two versions for the safe storage of 5 (AW423/5) or 10 (AW423/10) garments.

Functional metal construction

- For X-ray protection clothing (5 or 10 pcs.)
- AW423/5: 1540 x 550 x 610 mm (H x W x D) AW423/10: 1540 x 900 x 610 mm (H x W x D)
- Lacquered in colour medico-white (RAL 9002)
- Chrome-plated swivel brackets (630 mm projection)
  - Max. weight capacity: 45.0 kg (AW423/5) 90.0 kg (AW423/10)
- Empty weight:

20.0 kg (AW423/10) 20.0 kg (AW423/5) 25.0 kg (AW423/10)



Mobile System AW425

With the AW425, your X-ray protective clothing is safely stored using the MAVIG special hangers, included with every apron free of charge.

The smooth-running storage system with 4 heavy load casters (2 with brakes) offers storage space for up to twelve aprons.

- Convenient & simple access
- Clear arrangement for up to 12 pieces of clothing (up to 120 cm apron length)
- Optional Basket for accessories AW425K
- AW42512: 1000 x 1540 x 600 mm (H x W x D)
- Colouring: Stainless steel / RAL 9010
- Max. weight capacity: 130.0 kg
  - Empty weight: 15.2 kg (AW42512) 2.0 kg (AW425K - basket)



#### Special Hanger AW106

The MAVIG hanger made of heavy-duty and material (100% recycled) with a special shape is ideal for storing individual aprons, coats or costumes.

The special hanger is included with every apron/coat/costume from MAVIG.

🖌 Heavy duty

- 100% recycling material
- For X-ray protective clothing (1 pc.)
- 90 x 520 mm (H x W)
- Colour: black
- Max. 9.0 kg weight capacity
- Empty weight: 0.2 kg

# Safekeeping

#### Tip

Increase the life of your X-ray protective clothing by making sure it is stored correctly from the start:



Clothing should never be folded, placed over edges, or hung on inappropriate hooks! It should also not be in the direct proximity of heat sources. The use of damaged radiation protective clothing is dangerous! This is particularly critical because damage to the internal radiation protection material is usually not noticed or is noticed very late.

So make sure to check that the protective effect is intact at regular intervals!



#### Wall System AW421/1

If you want to store a garment with the smallest projection, this system is recommended.



#### Wall System AW421/2 & AW421/3

Depending on the version, a wall system for the proper storage of two or three garments.

You can fan the hangers apart up to 180° and fold a maximum of two hangers flat to one side against the wall.

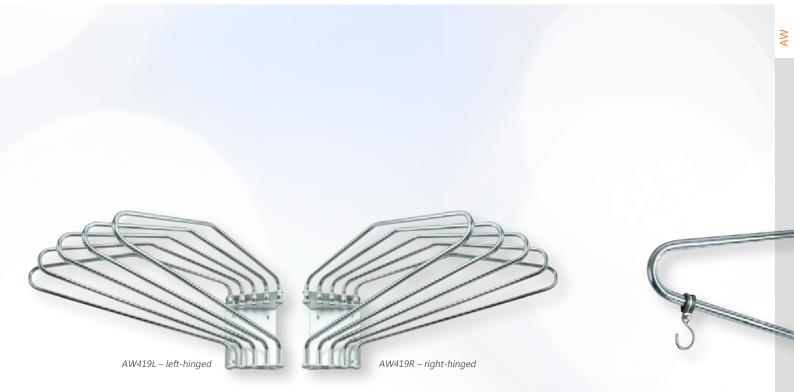
Functional metal construction
 For X-ray protection clothing (1 pc.)

- Base plate: 205 x 85 mm (H x W)
- Lacquered in colour medico-white (RAL 9002)
- Chrome-plated swivel hanger (630 mm projection)
- Max. 12.0 kg weight capacity
- Empty weight: 1.2 kg

Functional metal construction

- For X-ray protection clothing (2 or 3 pcs.)
- ✔ Available with a the right- or left-side hinge
- Base plate: 205 x 85 mm (H x W)
- Lacquered in colour medico-white (RAL 9002)
- Chrome-plated swivel hangers (630 mm projection)
- Max. weight capacity: 24.0 kg (AW421/2) 36.0 kg (AW421/3
- Empty weight: 1.7 kg (AW421/2)
  - 2.2 kg (AW421/3)





#### Wall System AW419

The wall system with top marks for user-friendliness and storage space. The five swivelling chrome hangers offer you a radius of action of 180°. Folded parallel to each other against the wall, the hangers create space in the room again.

Do you need a wall system for up to 10 garments with optimal space utilisation and best user comfort? Then the combination of the AW419-R and AW419-L systems is just the right thing for you. The base plate shape allows seamless mounting of the two systems side by side.

✓ Functional metal construction

- For X-ray protection clothing (5 pcs.)
- ✔ Available with a right- or left-side hinge
- Base plate: 205 x 148 mm (H x W)
- Lacquered in colour medico-white (RAL 9002)
- Chrome-plated swivel hangers (670 mm projection)
- Max. 60.0 kg weight capacity
- Empty weight: 4.3 kg

#### Skirt Hook AW427

To store costume skirts, please add our MAVIG special hooks to the systems AW419, AW421 and AW423.

These can be easily fitted to the chrome hangers, even retrospectively.

However, please check first whether your costume skirt is also equipped with loops. Unfortunately, this is not the case with all manufacturers.

## AZ187

## **Protective Material**

#### Lead Rubber Rolls AZ187

There are many possible uses for this robust lead rubber material, which is easy to cut by hand. Unlike with rolled lead, you do not touch any exposed metallic surfaces. Moreover, there are no sharp edges to worry about.

If used on site, please note that the material is only suitable for indoor use.

You can glue, clamp or screw the lead rubber when you further process it.

The high-quality AZ187 material has an easy-to-clean rubber coating on both sides. On the visible side the coating is in the colour "medico-white" (on the reverse side, colour deviations are possible due to the process).

The fabric insert in the centre of the material makes the lead rubber particularly robust.

Naturally, the radiation-absorbing additives are distributed absolutely homogeneously. We offer you the material in different lead equivalent values.

The usable width of the rolls is 90 cm (the edge protrusions on the right and left, each approx. 12.5 cm, cannot be used). They are delivered with untrimmed edges with a minimum purchase of 0.5 running metres.

Customised cuts are possible on request for an additional charge.

Protection/Lead Equivalent Lead rubber

**Outer Material** 

Medico-White

Coatina:

on both sides



*Optional:* 0.50 mm Pb, 1.00 mm Pb, 1.50 mm Pb, or 2.00 mm Pb

#### Sizes/Dimensions

Available as rolls with a usable width of 90 cm, edges untrimmed

#### **Technical Specifications**

Thickness	Weight
2.90 - 3.30 mm	7.5 kg/m <sup>2</sup>
4.56 - 5.16 mm	13.5 kg/m <sup>2</sup>
6.00 - 6.80 mm	19.5 kg/m <sup>2</sup>
7.90 - 8.90 mm	27.0 kg/m <sup>2</sup>
	2.90 - 3.30 mm 4.56 - 5.16 mm 6.00 - 6.80 mm

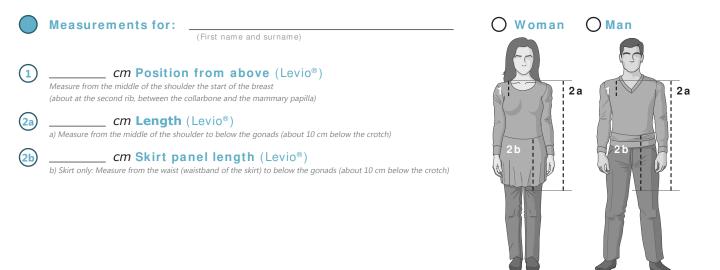


## Levio® Edition - 2 Measurements

With the help of this template and a standard measuring tape, you can easily determine your body measurements. Based on the measurements an optimised Levio Edition apron will be made or, if needed, your MAVIG clothing size is determined. Before you use the measuring tape, please note the following:

The requested measurements should be body measurements, measured without any additions but also without being constricting. Correct values <u>cannot</u> be determined if you measure yourself. The measurements must always be taken by another person. The person being measured should stand straight with arms hanging to the sides.

#### Please fill in the following points.



	Model	Õ F	RA631 Levio Cost RA632 Levio Coat RA660 Levio Apro				Inner Material Pb Levio Panel:		<ul> <li>NovaLite</li> <li>Leadfree</li> <li>Standard Lead</li> </ul>					
		_	RA631 Levio / Vic RA636 Levio / Vic						(Base layer: 0.25 mm Pb)					
	Size	(	O xs O s O xL O xxL	$\tilde{}$	м ( ЗXL	) L	<b>Outer</b>		Material	ComforTex <sup>®</sup> HPMF Hybrid ComforTex <sup>®</sup> HPMF			-	
	Length (Coat/Apron		<ul> <li>○ 90 cm</li> <li>○ 110 cm</li> <li>○ 130 cm</li> </ul>	Õ	100 ст 120 ст 140 ст	ר		In the	Colour:	<u> </u>	(Colour name or colour code)			
	Length (Skirt)		<ul><li>○ 65 cm</li><li>○ 75 cm</li></ul>	Š	70 cm 80 cm									
V	Sleeves (optional)	Õ	Right / O Le Sewn-on / O Bu Pb: mm (Standard: 0.25 mr	ttone	<u> </u>		<b>IV</b>	O Leadfree   O Standard Lead   Pb Levio Panel:		⊖ Shoulder ⊖ Skirt				
	<b>Bolero</b> (optional)	in P	(Standard: 0.25 mm	ı Pb)							(Please write leg	bly, in	capital letters)	
$\bigcirc$	Measur	ed	by:			(Nar	ne)	on:				(Dat	e)	
70		From	n/by: OHo	spita	1/		plier		MAVIG em	ploye	e			

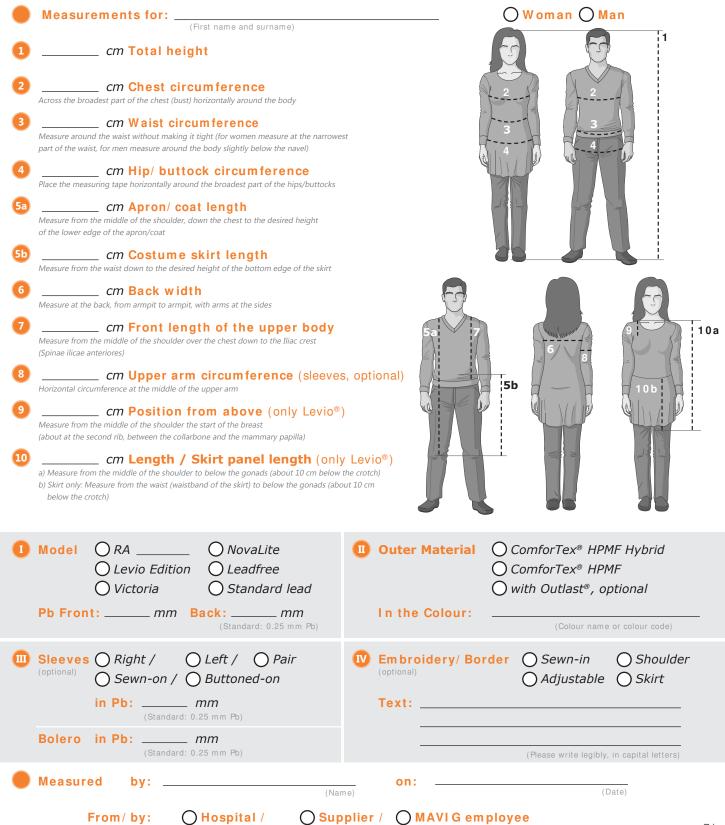


## **Tailor Made Orders**

With the help of this template and a standard measuring tape, you can easily determine your body measurements. Based on the measurements, a made-to-measure apron will be manufactured. Before you use the measuring tape, please note the following:

The requested measurements should be body measurements, measured **without any additions** but also without being constricting. Correct values <u>cannot</u> be determined if you measure yourself. The measurements must always be taken by another person. The person being measured should stand straight with arms hanging to the sides. The length of the X-ray protection clothing should be selected in accordance with the German Radiation Protection Ordinance (RöV) and DIN EN 61331-3:2016 so that the front of the body is covered from the base of the neck to at least the kneecaps (MAVIG recommends coverage to below the knee for complete protection).

### Please fill in the following points completely.







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