

# WIROMA

YOUR SPECIALIST FOR RADIATION PROTECTION

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Is your X-ray protective clothing still  
up to date?

## General order information

Material

- Standard
- X-light
- Lead free

All three materials are in generally very flexible and robust. The difference is only in weight. The X-light material is approximately 20% lighter and the lead-free one is roughly 25% lighter compared with the standard material.

The protection level is for all materials the same and belongs to the lead equivalent information of 0.25 / 0.35 / 0.50 Pb or more. Wiroma aprons are CE tested for personal protection and are checked between 50 and 150 kV. Of course, all our products can be used as well for patient protection.

Our test centre for CE certificats is BTTG Testing & Certification Ltd. in Manchester with the ID number 0338. The requirements conform to article 11, B, No. 1(c) of Council Directive 89/686/EEC for personal protective equipment. Our products are already tested to new Norm IEC 61331-3:2002 and 61331-1:2014. Our products have also passed the CE-Type Approval.

Sizes

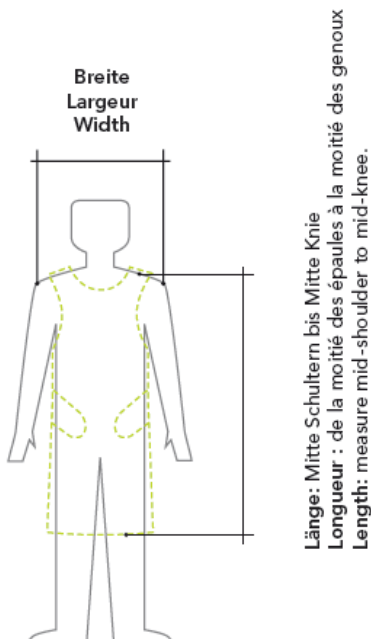
Aprons are available in different sizes; see the price list. Please consult our measurements table below so that we can deliver protective wear in the correct size.

### FRONTSCHÜRZE TABLIER FRONTAL FRONT APRON

Breite =  
von Schulter zu Schulter  
(gemäss Abbildung)

Largeur =  
d'épaule à épaule  
(comme image)

Width =  
from shoulder to shoulder  
(as drawing)

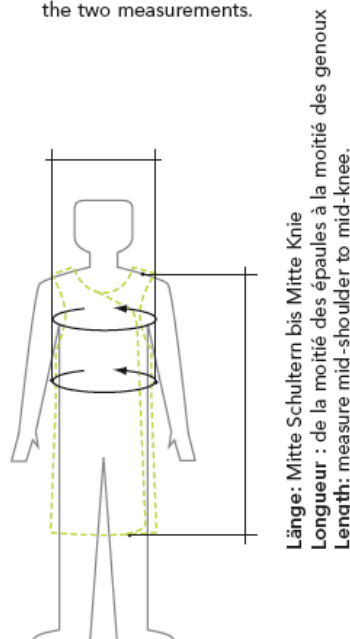


### MANTELSCHÜRZE TABLIER-MANTEAU WRAP AROUND APRON

Brust- oder Bauchumfang.  
Nur das grössere Mass  
angeben.

Tour de la poitrine ou du  
ventre. A retenir que la  
mesure la plus grande.

Measure circumference  
of chest and abdomen.  
State only the larger of  
the two measurements.

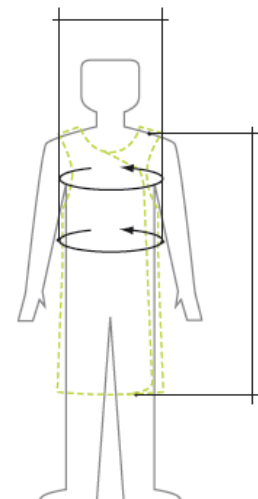


### TOP UND JUPE VESTE ET JUPE TOP AND SKIRT

**Top:** Brust- oder Bauch-  
umfang. Nur das grössere  
Mass angeben.  
**Jupe:** Taille

**Top:** la circonférence de  
la poitrine ou du ventre.  
A retenir que la mesure  
la plus grande.  
**Jupe:** taille

**Top:** measure circum-  
ference of chest and  
abdomen. State only the  
larger of the two measu-  
rements.  
**Skirt:** measure waist



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## Farbcode-Nr. / Nr. De code du coloirs / Colour codes

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Hauptfarbe und Farbe der Brusttasche / Couleur principale et couleur de la poche / Main colour and colour of the brest pocket

### Material Nylon / Matière Nylon / Material nylon

104	petrol
106	dunkelblau/bleu foncé/dark blue
108	blau/bleu/blue
110	dunkelrot/rouge foncé/dark red
112	türkis/turquoise/turquoise

### Material Magic / Matière Magic / Material Magic

204	petrol
208	blau/bleu/blue
209	braunrot/brunrouge/brownred
211	bordeaux/bordeaux/burgundy
213	violett/violet/violet
216	grau/gris/grey
217	olive
218	eisblau/bleu glacé/iceblue

### “Magic”

- Flexible, elasticated and very hard-wearing material. Betadine, Hexaquart plus, blood, contrast media and, to some extent, aggressive fluids can be easily removed with warm soapy water.
- Can be used in surgery, angiography and in all work areas that have an increased risk of contamination.

### “Nylon“

- Mechanically-speaking, it is more robust and more scratch-resistant than Magic.
- Can be used in general medicine and in veterinary practice.

## Monograms

- Up to 21 letters per line possible
- Example: 'Prof. Hansrudolf Müller'  
'Radiology'

## WIROMA Options

- Inner chest pocket for dosimeter
- Affixed logos and monograms
- Transparent insert pocket for name card
- Additional sleeves
- Thyroid collar either sown on or with press studs
- Children's motifs
- Additional fixing ties (Velcro)
- All radiation protection aprons can also be made in special sizes

## WIROMA USP

- Integrated chest pocket (removable)
- Resistant to commercial disinfectants (Hexaquart plus, etc.)
- RFID chip controlled

## Clothing

# Front Aprons

## 413-AWC



	Length
X-SMALL Width 50 cm < 99 cm	XSV 90
	XSS 100
	XSM 110
	SXL 120
	XSE 130
SMALL Width 60 cm Up to ca. 115 cm	SV 90
	SS 100
	SM 110
	SL 120
	SE 130
MEDIUM Width 65 cm Up to ca. 125 cm	MV 90
	MS 100
	MM 110
	ML 120
	ME 130
LARGE Width 75 cm Up to ca. 140 cm	LV 90
	LS 100
	LM 110
	LL 120
	LE 130

Optimal weight distribution is achieved with the AWC apron thanks to the special form.

The front apron is also available with an integrated thyroid collar.

Option: Additional velcro tape to fix the shoulder bands.



# 412-WBT



	Length
X-SMALL Width 50 cm < 99 cm	XSV 90
	XSS 100
	XSM 110
	SXL 120
	XSE 130
SMALL Width 60 cm Up to ca. 115 cm	SV 90
	SS 100
	SM 110
	SL 120
	SE 130
MEDIUM Width 65 cm Up to ca. 125 cm	MV 90
	MS 100
	MM 110
	ML 120
	ME 130
LARGE Width 75 cm Up to ca. 140 cm	LV 90
	LS 100
	LM 110
	LL 120
	LE 130

The WBT apron provides great comfort and is very adaptable due to a wide cross-over belt that has a practical plastic buckle. Less contamination (veterinary surgeon) and very hygienic.

The front apron is also available with an integrated thyroid collar.

Option: Additional velcro tape to fix the shoulder bands.

## 421-SDO



	Length
X-SMALL Width 50 cm < 99 cm	XSV 90
	XSS 100
	XSM 110
	SXL 120
	XSE 130
SMALL Width 60 cm Up to ca. 115 cm	SV 90
	SS 100
	SM 110
	SL 120
	SE 130
MEDIUM Width 65 cm Up to ca. 125 cm	MV 90
	MS 100
	MM 110
	ML 120
	ME 130
LARGE Width 75 cm Up to ca. 140 cm	LV 90
	LS 100
	LM 110
	LL 120
	LE 130

As soon as there is no more radiation in the operating theatre, these aprons can be removed from underneath the operating clothing by undoing the Velcro straps.

For the rest of the time in the operating theatre you have no need to wear any unnecessary weight.

## Clothing

# Coat Aprons

## 431-LSW



	Length
X-SMALL < 99 cm	XSV 90
	XSS 100
	XSM 110
	SXL 120
	XSE 130
SMALL ~ 100 cm	SV 90
	SS 100
	SM 110
	SL 120
	SE 130
MEDIUM ~ 110 cm	MV 90
	MS 100
	MM 110
	ML 120
	ME 130
LARGE ~ 120 cm	LV 90
	LS 100
	LM 110
	LL 120
	LE 130
X-LARGE ~ 130 cm	XLV 90
	XLS 100
	XLM 110
	XLL 120
	XLE 130

Thanks to its wide stretch belt, the 431-LSW coat apron takes the weight off the shoulders. This model provides optimum shoulder movement and the highest comfort.

The height of the exterior belt is adjustable.



## 431-LSW GI (with inside belt)



	Length
X-SMALL < 99 cm	XSV 90
	XSS 100
	XSM 110
	SXL 120
	XSE 130
SMALL ~ 100 cm	SV 90
	SS 100
	SM 110
	SL 120
	SE 130
MEDIUM ~ 110 cm	MV 90
	MS 100
	MM 110
	ML 120
	ME 130
LARGE ~ 120 cm	LV 90
	LS 100
	LM 110
	LL 120
	LE 130
X-LARGE ~ 130 cm	XLV 90
	XLS 100
	XLM 110
	XLL 120
	XLE 130

This wraparound belongs to all those, that don't want to have a belt outside.

The interior belt is fixed in and cannot be removed.

# 431-LSW\_COM



	Length
X-SMALL < 99 cm	XSV 90
	XSS 100
	XSM 110
	SXL 120
	XSE 130
SMALL ~ 100 cm	SV 90
	SS 100
	SM 110
	SL 120
	SE 130
MEDIUM ~ 110 cm	MV 90
	MS 100
	MM 110
	ML 120
	ME 130
LARGE ~ 120 cm	LV 90
	LS 100
	LM 110
	LL 120
	LE 130
X-LARGE ~ 130 cm	XLV 90
	XLS 100
	XLM 110
	XLL 120
	XLE 130

Thanks to the multi-adjustable Stretch belt the new coat apron 431-LSW\_COM provides optimal weight distribution on shoulder and hip. Comfortable and quick to put on and take off.

The model has the best comfort when standing, moving or sitting.

Options: Additional arm sleeves (left or right) for cardiologists (431-LSW\_COM\_KARD).

**Now also available with magnetic closure instead of velcro.**

# 533-DSW



533-DSW coat aprons give wraparound protection from radiation during special examinations. They are characterised by the overlapping Velcro locking system on the shoulder. Thanks to its wide bottom edge the apron can be fastened to fit different sizes without any problems.

The height of the exterior belt is adjustable.

	Length
X-SMALL < 99 cm	XSV 90
	XSS 100
	XSM 110
	SXL 120
	XSE 130
SMALL ~ 100 cm	SV 90
	SS 100
	SM 110
	SL 120
	SE 130
MEDIUM ~ 110 cm	MV 90
	MS 100
	MM 110
	ML 120
	ME 130
LARGE ~ 120 cm	LV 90
	LS 100
	LM 110
	LL 120
	LE 130
X-LARGE ~ 130 cm	XLV 90
	XLS 100
	XLM 110
	XLL 120
	XLE 130

Clothing

Top and Skirt

# 437 & 537-Top / 538-Skirt



The overlapping Velcro lock at the front (437) and on the shoulder section (537) allow the top to be fastened comfortably and to fit well. Together with the 538-skirt it provides secure wraparound protection from radiation..

Option: Available in different lengths.

**Top now also available with magnetic closure instead of velcro.**

## TOP

Girth	Length
X-SMALL < 95 cm Umfang	XSM 60
SMALL ~ 100 cm Umfang	SM 60
MEDIUM ~ 110 cm Umfang	MM 60
LARGE ~ 120 cm Umfang	LM 60
X-LARGE ~ 130 cm Umfang	XLM 60

## SKIRT

Girth	Length
X-SMALL < 89 cm Umfang	XSM 60
SMALL ~ 95 cm Umfang	SM 60
MEDIUM ~ 105 cm Umfang	MM 60
LARGE ~ 110 cm Umfang	LM 60
X-LARGE ~ 120 cm Umfang	XLM 60

## 437 – TOP - KARD

**!! Arm part also available with Wraparound apron 431-LSW\_COM KARD !!**

- Enlargement the shoulder
- Removable arm parts (left / right)
- Additional protection at longer work in x-ray beam



### 458-ARM KARD

Item-Nr.	One Size	Lead equivalent in X-Light material
45800200		0.25 mm Pb
45800300		0.35 mm Pb
45800400		0.50 mm Pb



## Clothing

# Thyroid Shield

The soft collar is used in areas where the user is exposed to X-ray radiation over a long period of time, like, for example: cardiac catheter, angiography, intramedullary bone nailing, femoral neck, etc.



### 4534 - TS

Thyroid shield to protect thyroid glands. Its comfortable design guarantees protection and easy wearing. With Velcro strap / one size

### 4534 - TSG

Can be fixed onto front or coat aprons or attached with press buttons.

### 4534 - TSM

With magnetic fastening.

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## HYGIENIC MOLTON COVER

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Composition: 68% molleton and 32 % PU (made to be antibacterial),  
More hygienic, washable at 40 °C

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## ONEWAY HYGIENIC COVER

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Oneway Hygienic cover for TS in a practical Box.  
100pieces per box.

## Accessories

# Gloves

### Gloves with opening for grip



One size for right and/or left hand. This article is available in different colours and lead values.

Available in: 0.35 / 0.50 / 0.75 mm Pb

### Lead full-fingered gloves



Manufactured out of highly flexible lead vinyl. The exterior material is easy to maintain and made from artificial leather. The interior glove can be separated.

These gloves are available in one size, as a pair or individual items and in grey or blue: 0.50 mm Pb.

### Surgical gloves



These sterilised disposable gloves have a rough surface.

Interventions suitable for radiology, orthopaedics, etc.

These gloves are available as a pair.

## 403 - X-ray head cover

Our **Wiroma** X-ray head cover is available in 3 different sizes, Small, Medium and Large including Velcro system for quick fastener. Available in lead-equivalent 0.25 mm and 0.35 mm Pb. Quality: Standard material.

The head cover can use in different departments:

- **Cardiology**
- **Diagnostic radiology**
- **Angiography**
- **Radiology intervention**
- **etc.**



## Accessories

# Radiation protection glasses

Using radiation protection glasses considerably reduces the ocular lens' exposure to radiation. 90-99 % of scattered rays at 80 kV are already absorbed by a lead equivalent value of 0.50 mm. We offer different glasses designs to protect eyes. These glasses can also be ordered with correcting glass, with single vision or bifocal lenses (additional charge). Please ask for our special form for the ophthalmologist to place these kinds of orders.



### **UNIVISTA TYP II 0.75mm Pb**

Art. Nr. 31700901

Can be worn over glasses, the angle and length of temple can be adjusted.  
Weight: 96g



### **UNIUNITE 0.75mm Pb**

White Art. Nr. 31700902 / Blue Art Nr. 31700903

Can be worn over glasses, good shielding with cheek/brown protection.  
Available in white and blue. Weight: 76g



### **UNICRUISER 0.75mm Pb**

Art. Nr. 31700125

Good shielding with this sporty plastic frame.

Weight: 74g



### **UNISURFER 0.75mm Pb**

Art. Nr. 31700126

Good shielding with this sporty plastic frame, high quality x-ray protective spectacles.

Weight: 79g



### **UNICHARGER 0.75mm Pb**

Art. Nr. 31700127

Softer nose piece and temple ends.

Weight: 77g



#### **UNIPAL 0.75mm Pb**

Art. Nr. 31700130

The angle and length of the temple can be adjusted, correction in single vision and multi vision. Can be worn over glasses.

Weight: 78g



#### **MIRAGE / PERSOL 0.75 mm Pb**

Art. Nr. 463210

Correction in single vision, bifocal and multi vision.

Weight: 92g



#### **UNICLASS / URBAN 0.75 mm Pb**

Art. Nr. 462570

Good shielding with this sporty plastic frame, stylish and high quality.

Weight: 72g



#### **UNIPRO / CASUAL 0.75 mm Pb**

Art. Nr. 461830

With side splash guard, correction in single vision and multi vision.

Weight: 71g



#### **UNICAJA / CASUAL Light 0.75 mm Pb**

Art. Nr. 461850

With side splash guard, correction in single vision and multi vision.

Weight: 71g



#### **UNIFRESH 0.75 mm Pb**

Available in 4 different Colors

Art. Nr. AH10572 blue-grey

Art. Nr. AH10573 grey-transparent

Art. Nr. AH10574 smoke-green

Art. Nr. AH10575 red

With side splash guard, correction in single vision and multi vision.

Weight: 71g



## Patient Protection

# Dental Aprons

## 417 – OPT



417-OPT for panoramicradiography	
Lead value	Girth x Length
0.25 mm Pb	60 x 60
0.35 mm Pb	60 x 60
0.50 mm Pb	60 x 60

Patient protection for panorama x-ray examination for children and adults.

## 420 – DTL

Our poncho is easy to put over the patient.



420-DTL for normal radiography	
Lead value	Girth x Length
0.35 mm Pb	60 x 88
0.50 mm Pb	60 x 88

## 418 – DTC



Patients' apron **with** thyroid collar

418-DTC for normal radiography	
Lead value	Girth x Length
0.25 mm Pb	60 x 88
0.35 mm Pb	60 x 88
0.50 mm Pb	60 x 88



Patients' apron **without** thyroid collar

419-DTL for normal radiography	
Lead value	Girth x Length
0.25 mm Pb	60 x 88
0.35 mm Pb	60 x 88
0.50 mm Pb	60 x 88

## Patient Protection

# Half Aprons

To protect patients' gonads during X-ray examinations for thorax and the upper abdominal area.



with velcro strap

442-HSV with velcro strap	
Umfang x Länge	
0.50 mm Pb	30 x 30
	40 x 30
	60 x 45
	60 x 60



with plastic buckle

440-ASB with plastic buckle	
Umfang x Länge	
0.50 mm Pb	30 x 30
	40 x 30
	60 x 45
	60 x 60



with hip wire

443-RSV With hip wire	
Umfang x Länge	
0.50 mm Pb	30 x 30
	40 x 30
	60 x 45
	60 x 60

## Patient Protection

# Childrens' aprons



### 488-Skirt:

For our smallest patients to protect the gonads during X-ray examinations of the thorax and upper abdominal area.

### 487-Top:

The overlapping Velcro strap makes this top easy to close and fit snugly on children.

### 483-AWC

Front apron for children. Cross-over Velcro strap with stretch over the hips.

### 480-FCW (LSW)

Coat apron for children made from highly flexible multi-layered protective material with very durable top fabric.

### 477-OPT

Children's dental apron. Protects patients during dental radiography, particularly on the dental chart.

All designs are available in lead equivalent values of 0.35 mm Pb or 0.50 mm Pb.

### Motifs:



## Patient Protection

# Patient Cover / Wrap



All-round radiation protection with Velcro straps to cover and wrap patients.  
Shape made to order!



Lead vinyl mattress for covering patients during diagnosis and for use in therapy.  
Shape made to order.



Special wrap for patients  
0.35 mm Pb / X-light or normal material  
Pad: 55 x 60 cm,  
Cover: 85 x 35 cm  
Adjustable for slight and larger patients.



## Patient Protection

# CT – Eye and Thyroid Shields

Studies have revealed that the lens is apparently more sensitive to radiation than previously thought. According to estimations the point at which demonstrable opacity of the lens occurs is during only one short exposure at 0.5-2 Gy. The point at which visual impairment occurs (cataract) is at 5 Gy.

**The CT Eye Shield has been specially developed to protect the lens.**

- Clear reduction and optimisation of the dose during the CT scan and other X-ray procedures.
- The fitted spacer reduces artefacts to an absolute minimum.
- Hypoallergenic adhesive ensures that the shield consequently stays on.
- Material made from barium sulphate can be disposed of with normal waste without danger.



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## CT Thyroid Shield

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The CT Thyroid Shield was designed to ensure a reduced dose on sensitive thyroid glands. It has a lead equivalent value of 0.125 mm Pb.

- A dose reduction of practically over 40 % during CT scans or general X-ray examinations.
- Over 60% reduction in the dose with transmissions of 50 kV to 150 kV.
- Material made from barium sulphate can be disposed of with normal waste without danger.



## Patient Protection

# Spez. Organ-Articles

### 448 - MAMMO

For convering and protection of the left and the right breast during mammography.

#### Mammo-SMALL



#### Mammo-LARGE



### Ovarian protection



To protect female organs.  
The ovarian shield is available in sizes M and L.  
The centre pin makes it easier to handle.  
1.00 mm Pb  
Choice of colour.

### Gonad protection



Gonad capsules to protect male organs.  
Available in sizes M and L.  
1.00 mm Pb Leadfree.



Triangle to protect male and female organs. Diameter:  
24 x 24 cm with 2 ties for fastening.  
1.00 mm Pb  
Choice of colour.

## Accessories

# Suspension arrangement

### 5-Arm swivel bracket or 10-Arm swivel bracket



Out of stainless steel with moveable hangers (right and left). Lets you store your radiation protection wear while saving space and protecting the material. Includes fitting to make mounting it onto the wall easier.

With welded-on hooks.

### Mobile suspension device



Made from sturdy stainless steel with moveable hangers. Lets you store your radiation protection wear while saving space, in a way that is both mobile and which protects the material.

With welded-on hooks.

for 5 aprons

Dimensions: 60 x 55 x 165 cm  
(WxDxH)

for 10 aprons

Dimensions: 88 x 70 x 155 cm  
(WxDxH)

Made

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## Hanger

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**Wooden hanger** Hanger made from solid beech wood. The defined shape of the hanger makes it suitable for all front and coat aprons, as well as tops and skirts.



### **Clothes hanger INOX**

Hanger made from stainless steel. Fully welded. No moveable parts and struts. It is therefore very hygienic and easy to clean.  
Specially suited to operating theatres.

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## Protective curtain

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Protective curtain for windows and room partitions, mobile design, made to measure. The curtains are available with a lead equivalent value of 0.25 mm – 1.00 mm Pb. We will gladly advise you on sizes and colours.

### Possible uses:

- Gangways
- Entrance to control room
- Round curtain
- Shielding patients during X-ray procedures in the room
- Dividing different work places
- Covering up windows
- Double and multiple curtains

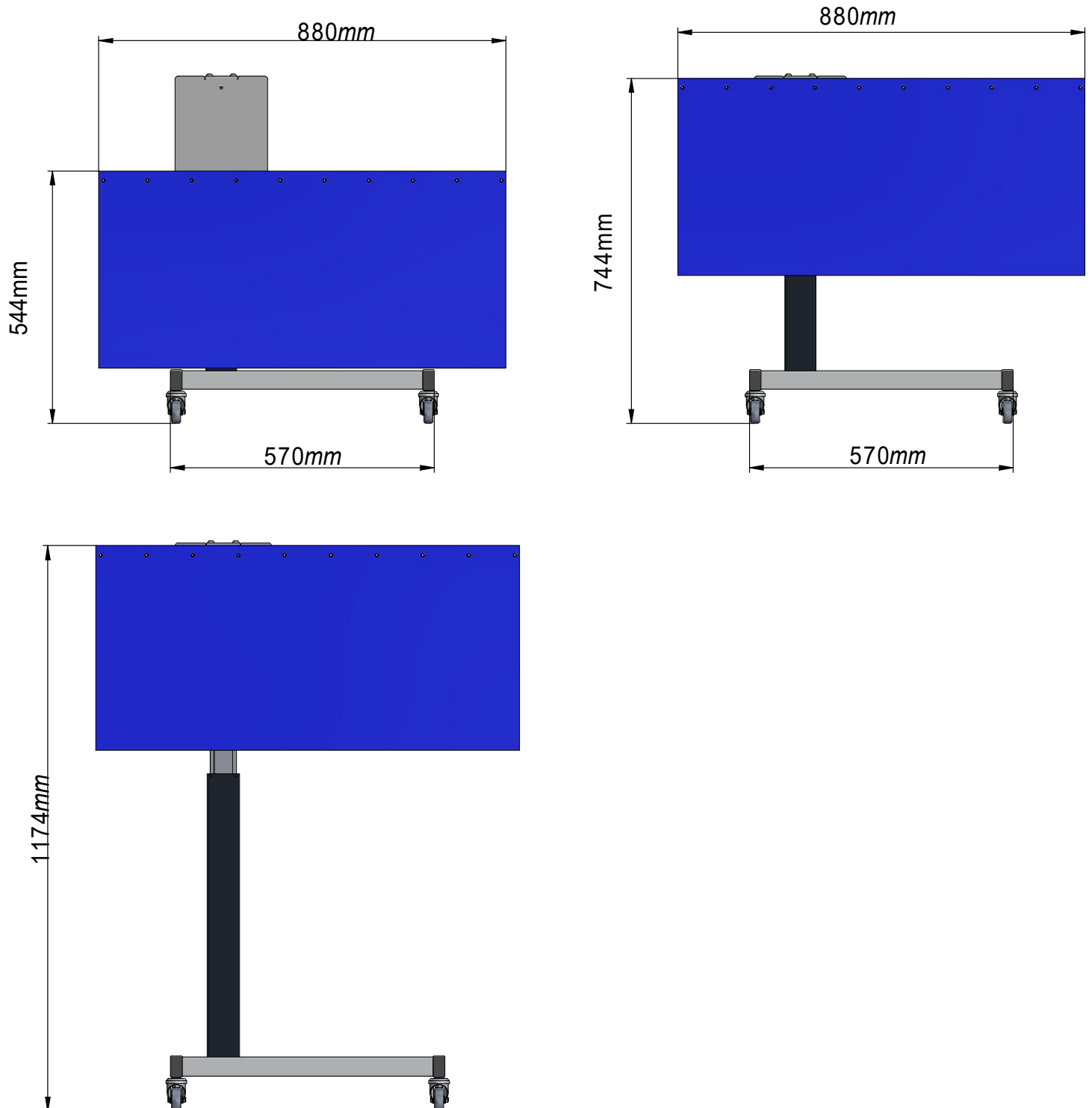
Mobile racks available in different sizes.



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## Mobile X-ray protection height adjustable

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## Foldable X-ray protection wall

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### Measurements:

Closed:	1.05m x 1.81m
One side open:	2.06m x 1.81m
Completely open:	3.06m x 1.81m

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## Dunn-Rippstein System

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petrol NYLON  
Best / com / ord / No. 104

dunkelblau – bleu foncé -  
dark blue NYLON  
Best / com / ord / No. 106

blau – bleu – blue NYLON  
Best / com / ord / No. 108

dunkelrot – rouge foncé -  
dark red NYLON  
Best / com / ord / No. 110

türkis – turquoise – NYLON  
Best / com / ord / No. 112

petrol MAGIC  
Best / com / ord / No. 204

dunkelblau – bleu foncé  
dark blue MAGIC  
Best / com / ord / No. 206

blau – bleu – blue MAGIC  
Best / com / ord / No. 208

braunrot – brunrouge –  
brownred MAGIC  
Best / com / ord / No. 209

bordeaux – burgundy MAGIC  
Best / com / ord / No. 211

violett – violet MAGIC  
Best / com / ord / No. 213

grau – gris – grey MAGIC  
Best / com / ord / No. 216

olive MAGIC  
Best / com / ord / No. 217

eisblau – bleu glacé – iceblue MAGIC  
Best / com / ord / No. 218

kupfer – cuivre – copper MAGIC  
Best / com / ord / No. 220

