

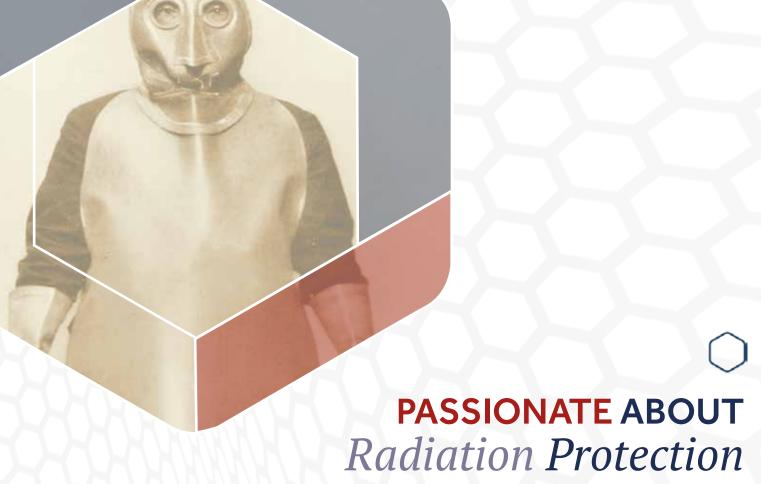




PRODUCT PORTFOLIO

Radiation Protection Equipment & Associated Products

2025 / 26 - EDITION



When it comes to X-ray protection, Rothband is a name you can trust

With over 100 years experience in designing and manufacturing x-ray garments, you can be confident that when you choose us, you are buying from a company who is passionate in providing radiation protection to healthcare professionals.

All Rothband products are manufactured in the UK, to the very highest standards, using the highest quality materials which help us produce some of the most durable products on the market.

Over the years, we have extended our portfolio and in addition to this protection catalogue, we now offer a separate accessories catalogue, which is available from your local Rothband representative.

Our products are manufactured in the UK, to the very highest standards, using the highest quality materials.







We have a dedicated customer services team on hand to talk through any questions you may have about our products

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A Brief History

With a History that stems over 100 Years, Rothband is a name you can trust



Rothband, the first to add lead to rubber for x-ray shielding.

The original radiation protection manufacturer.

Rothband's origins trace back to the early 19th century in Manchester, where the company began by producing waterproof cloth products such as makeup and sponge bags. By the turn of the century, it had expanded into manufacturing rubber sheeting under the "WSRM" trademark, supplying institutions like hospitals, asylums, and schools worldwide.

In the early 20th century, Rothband pioneered the use of x-ray proof cloth, marking its entry into the medical imaging field. This innovation laid the foundation for its current focus on radiation protection. Over the years, Rothband has become a leading UK manufacturer of protective lead aprons and other radiology shielding solutions, serving NHS hospitals and private clinics nationwide.

Today, Rothband operates from its facility in Haslingden, Lancashire, continuing its legacy of over 160 years in medical manufacturing. With a focus on quality, innovation, and customer service, Rothband remains a trusted name in radiation protection, both in the UK and internationally.





Quality Standards

At Rothband, safety and compliance are paramount.

The current European standard IEC 61331-1:2014 BBG* defines how the shielding properties of radiation protection materials must be measured. A key element of this standard is the use of inverse broad beam geometry, which helps identify any secondary fluorescent radiation—particularly relevant for lead-reduced or lead-free materials. These low-energy emissions are biologically active and can pose a significant risk, making strict adherence to the standard essential.

Manufacturers are required to demonstrate consistent protection across the full range of X-ray tube voltages, typically from 50 kV to 110 kV or even up to 150 kV.

This is critical, as protection can significantly drop at both the lower and upper ends of this range, especially when using alternative shielding materials. At Rothband, we rigorously test our garments to ensure full compliance and optimum performance throughout this spectrum.

Our X-ray protective apparel also meets the requirements of EU Directive 2016/425/EEC, which governs personal protective equipment (PPE). It's not enough for products to bear the CE mark—they must also display the four-digit ID of the notified certification body, confirming full regulatory approval.

When you choose Rothband, you're choosing a company that combines over a century of innovation with uncompromising standards. Our commitment to quality ensures that healthcare professionals and patients alike are protected with equipment that meets the highest levels of safety and certification.

To see our certifications and Declarations of Conformity please visit www.rothband.com

















STANDING OUT FROM THE CROWD



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PATTERNS



BINDING





WE'RE ALWAYS
ADDING NEW
FABRICS
Scan the link
below to see

the full range.



LEAD-LT Lightweight Lead 60 - 150 kV

Standard lead protection material High quality, flexible

Hardwearing vinyl matrix for long lasting protection.

For applications in the upper X-ray tube voltage range, e.g. CT applications

Compliant with standards: IEC 61331-1:2014 BBG*

BILAYER-ETEarth Metal Bilayer

60 - 110 kV

Bilayer construction provides better levels of protection. than composite lead free core materials.

Outstanding rating with regard to weight and radiation protection.

Tested radiation protection in the X-ray tube voltage range of 60 - 110 kV

Compliant with standards: IEC 61331-1:2014 BBG*

BILAYER-LF

Lead Free Bilayer 60 - 110 kV

Bilayer construction provides better levels of protection than composite lead free core materials.

Lead-free protective material Outstanding rating with regard to weight and radiation protection.

Tested radiation protection in the X-ray tube voltage range of 60 - 110 kV

Compliant with standards: IEC 61331-1:2014 BBG*

			{	Sm BBG mm	1		
	Lead Equivalence	60 kVp	70 kVp	90 kVp	110 kVp	150 kVp	Target Weight Kg/M²
5	0.25 mm Pb	0.241	0.241	0.241	0.244	0.246	3.43
LEAD-LT	0.35 mm Pb	0.342	0.344	0.347	0.346	0.349	4.80
=	0.5 mm Pb	0.490	0.492	0.495	0.5	0.496	6.60
FET	0.25 mm Pb	0.250	0.262	0.259	0.244		2.90
BILAYER-ET	0.35 mm Pb	0.425	0.392	0.346	0.345		4.05
BIL	0.5 mm Pb	0.651	0.618	0.572	0.519		5.8
를 를	0.25 mm Pb	0.232	0.272	0.304	0.294		2.83
BILAYER-LF	0.35 mm Pb	0.326	0.386	0.433	0.394		4.12
BIL	0.5 mm Pb	0.575	0.566	0.567	0.518		5.66

Testing in accordance with BS EN 61331-1:2014 BBG* using inverse broad beam geometry.

Figures are for guidance and all materials passed the relevant testing.

For full report, please e-mail sales@rothband.com

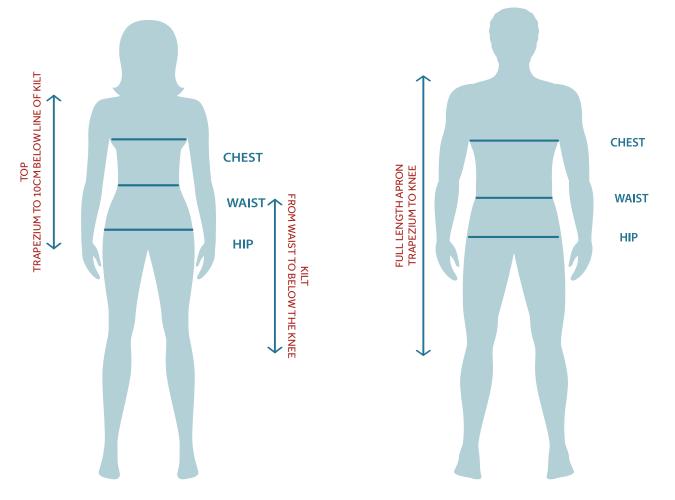
^{*} The response of the ionisation chamber was too low to record a value accurately. This value was extrapolated from a straightline fit of the 70-150kV values.

** Weights are based upon testing up to 110kV and indicative. The test weights up to 150kV are heavier than noted here.



Sizing *Information*

Open Design	Closed Design	Closed Design						
Garment provides full protection in panales with a at each side.		Garment provides double protection at			protection for of the garment.			
Front Only Protection Tabard	Apron Top	Kilt	Apron	Тор	Kilt			
VXR-1 VXR-2 PXR-SC PXR-TH	WXR TXR-W	KXR-W	WXRF	TXR-F	KXR-F			
	TXR-W LI	TE		TXR-B				



SIZE	XXS	XS	S	M	L	XL	2XL	3XL	4XL	5XL
Chest Measurement	70-80	80-90	90-100	100-110	110-120	120-130	130-140	140-150	150-160	160-170
Waist Measurement	48-57	58-68	68-78	78-88	88-98	98-108	108-118	118-128	128-138	138-148
Hip Measurement	70-80	80-90	90-100	100-110	110-120	120-130	130-140	140-150	150-160	160-170

Full Length Garments

Consider all measurements and take the largest

Tops

Consider all measurements and take the largest

Kilts

Consider waist and hip measurements and take the largest

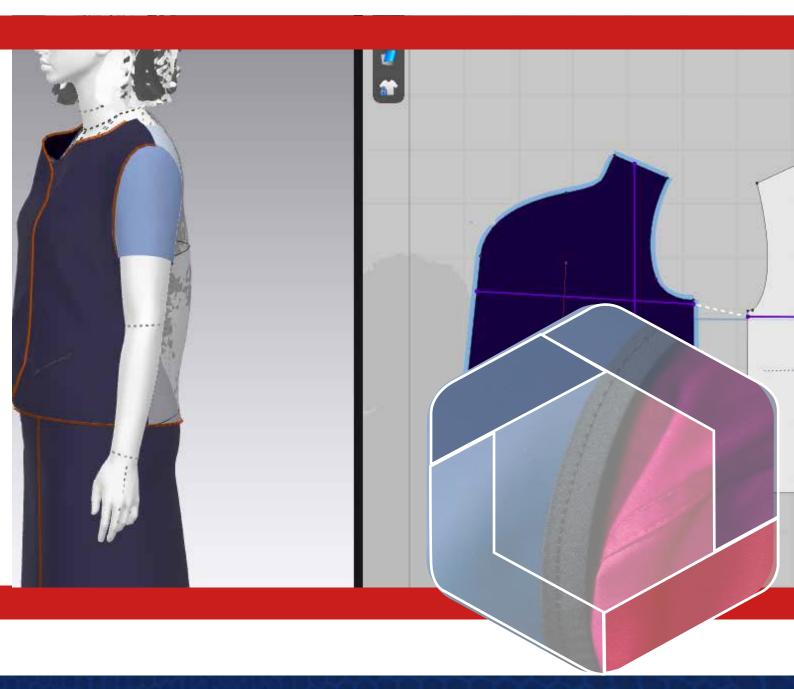




By utilising bespoke, avatar-based garment design software, we have RE-DESIGNED our radiation protection garments to offer a superior fit for ALL healthcare professionals.

This advanced technology has allowed us to closely analyse body coverage and ergonomics, ensuring that our garments provide optimal protection without compromising comfort or mobility.

The precise fit reduces strain during long shifts, while enhanced coverage ensures maximum safety in radiation-intensive environments. As a result, our innovative approach has led to the development of superior radiation protection garments, tailored to the specific needs of those working in the healthcare sector.





VXR-1

The VXR apron range provides modern radiation protection apparel designed to support your active workday with exceptional performance.

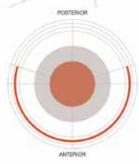
Superior comfort is achieved through elastic sewn into the back panels, ensuring an optimal fit for extended wear.

These aprons are ideal for various applications where only frontal radiation exposure occurs, offering maximum comfort and an excellent fit for the user.

- Optional protective back panels available.
- The VXR aprons are type-tested and certified in compliance with (EU) 2016/425, IEC 61331-1:2014, IEC 61331-3:2014







STANDARD LENGTHS (cm)	STANDARD SIZES	ARM HOLES	LEAD EQUI	CORE MATERIAL	
85	XS	SMALL	FRONT	BACK	LEAD-LT
90	S	REGULAR	0.25 mm	0.25	BILAYER-ET
100	М	LARGE	0.35 mm	0.35	BILAYER-LF
110	\mathcal{L} \mathcal{T}		0.5 mm	0.5	
120	XL				
130 OTHER LENGTHS AND SIZES AVAILABI	XXL				

VXR-2

The VXR-2 apron range provides modern radiation protection apparel designed to be easily fastened.

These aprons are ideal for various applications where only frontal radiation exposure occurs, offering maximum comfort and an excellent fit for the user.

- Z Easy to fasten at the front facilitating simple removal
- Optional protective back panels available.
- The VXR aprons are type-tested and certified in compliance with (EU) 2016/425, IEC 61331-1:2014, IEC 61331-3:2014



OVERLAP





STANDARD LENGTHS (cm)	STANDARD SIZES	ARM HOLES	LEAD EQU	IVALENCE	CORE MATERIALS
85	XS	SMALL	FRONT	BACK	LEAD-LT
90	S	REGULAR	0.25 mm	0.25	BILAYER-ET
100	М	LARGE	0.35 mm	0.35	BILAYER-LF
110			0.5 mm	0.5	
120	XL				
130 OTHER LENGTHS AND SIZES AVAILAB	XXL				TI



				VALENCE	CORE MATERIALS	
	XS	SMALL	FRONT	ВАСК	LEAD-LT	
	S	REGULAR	0.25 mm	0.25	BILAYER-ET	
	М	LARGE	0.35 mm	0.35	BILAYER-LF	
	L		0.5 mm	0.5		
	XL					
	XXL					
)		S M L XL XXL	S REGULAR M LARGE L XL XXL	S REGULAR 0.25 mm M LARGE 0.35 mm L 0.5 mm XL XXL	S REGULAR 0.25 mm 0.25 M LARGE 0.35 mm 0.35 L 0.5 mm 0.5 XL XXL	

PXR-TH

Our PXR-SC apron is a re-engineering of the classic tabard design, offering enhanced comfort and fit around the axilla.

Available in multiple configurations, including single or double shoulder clip designs, it ensures a customisable experience tailored to individual preferences.

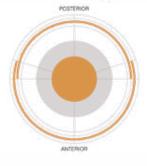
This essential piece in the lead apron range allows departments to maintain a versatile selection that accommodates a wide range of personnel while providing reliable radiation protection.

- Range of different fastenings available. Including a height adjustable elasticated belt.
- The PXR aprons are type-tested and certified in compliance with (EU) 2016/425, IEC 61331-1:2014, IEC 61331-3:2014.





OVERLAP





STANDARD SIZES	ARM HOLES	LEAD EQUI	VALENCE	CORE MATERIALS
XS	SMALL	FRONT	BACK	LEAD-LT
S	REGULAR	0.25 mm	0.25	BILAYER-ET
М	LARGE	0.35 mm	0.35	BILAYER-LF
		0.5 mm	0.5	
XL				
XXL				
	XS S M L XL	XS SMALL S REGULAR M LARGE L XL	XS SMALL FRONT S REGULAR 0.25 mm M LARGE 0.35 mm L 0.5 mm	XS SMALL FRONT BACK S REGULAR 0.25 mm 0.25 M LARGE 0.35 mm 0.35 L 0.5 mm 0.5 XL XL 0.5 mm



WXR-F

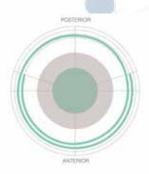
The WXR-F apron is a full-length garment designed with overlapping zones across the front to deliver the labelled level of protection when properly overlapped.

This innovative design reduces the need for excess core material while still providing comprehensive coverage across 60% of the body's girth.

The unique panelling simplifies wear, making it a comfortable and efficient choice for those requiring full protection without the added bulk. Ideal for extended use, this apron

- The front sections have areas that overlap to acheive the labelled protection, allowing the garment to have a lower weight.
- The WXR-F aprons are type-tested and certified in compliance with (EU) 2016/425, IEC 61331-1:2014, IEC 61331-3:2014





STANDARD LENGTHS (cm)	STANDARD SIZES	ARM HOLES	LEAD EQUI	VALENCE	CORE MATERIALS
85	XS	SMALL	FRONT	ВАСК	LEAD-LT
90	S	REGULAR	0.25 mm	0.25	BILAYER-ET
100	М	LARGE	0.35 mm	0.35	BILAYER-LF
110	T		0.5 mm	0.5	
120	XL				
130	XXL				
CUSTOM SIZES AVAILABLE					

WXR

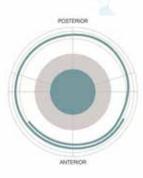
Our WXR apron is designed for enhanced protection, featuring double-layered coverage where the apron overlaps.

The variation in overlap ensures a tailored fit for different body types, while multiple armhole sizes optimise protection around the axilla.

The standard elasticated belt allows for lifting the apron's weight off the shoulders, improving comfort during extended use and making this a popular choice for those

- Easy to wear.
- Option to have different levels of protection in the front and back panels.
- The WXR aprons are type-tested and certified in compliance with (EU) 2016/425, IEC 61331-1:2014, IEC 61331-3:2014

OVERLAP







CORE MATERIALS	IVALENCE	LEAD EQU	ARM HOLES	STANDARD SIZES	STANDARD LENGTHS (cm)	
LEAD-LT	BACK	FRONT	SMALL	XS	85	
BILAYER-ET	0.25	0.25 mm	REGULAR	S	90	
BILAYER-LF	0.35	0.35 mm	LARGE	М	100	
	0.5	0.5 mm		244	110	
				XL	120	
$ \swarrow $				XXL	130	

TXR-W-LITE

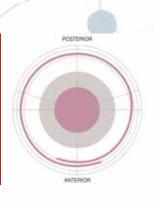
The TXR-W LITE design is a modification on the TXRW design offering all the design advantages and fit of the base model.

It has been re-RE-DESIGNED to reduce overlap at the front which helps save up to 15% of the overall weight of the TXRW.

Were the TXR-W designs offer more flexibility for fitting a number of different inividuals, the TXRW-LITE is more suited for those who require a personal lead apron.

- Optional, different protection levels in the front and back.
- The TXR-W aprons are type-tested and certified in compliance with (EU) 2016/425, IEC 61331-1:2014, IEC 61331-3:2014





STA	STANDARD LENGTHS (cm)		STANDARD SIZES	ARM HOLES	LEAD EQU	IVALENCE	CORE MATERIALS	
ТОІ	P (TXR)	KILT (KXR)	XS	SMALL	FRONT	ВАСК	LEAD-LT	
	50	53	S	REGULAR	0.25 mm	0.25 mm	BILAYER-ET	
	58	58	М	LARGE	0.35 mm	0.35 mm	BILAYER-LF	
eg	60	60	11		0.5 mm	0.5 mm		
_	65	65	XL		1.0 mm			
	70	70	XXL					
OTHE	R LENGTHS A	ND SIZES AVAILAE	BLE ALL					

TXR-W

The TXR-W design is part of a two-piece protective garment designed to evenly distribute weight between the shoulders and hips, enhancing comfort during extended wear.

Its overlapping design offers double protection over vital areas.

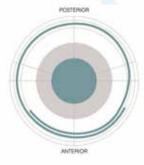
As one of our most popular designs, the TXR-W has been re-RE-DESIGNED for a better fit around the armholes, providing improved comfort and mobility. seeking reliable, comfortable radiation protection.

- The ~30cm overlap zone allows the TXR-W to accommodate a range of sizes.
- Optional, different protection levels in the front and back.
- The TXR-W aprons are type-tested and certified in compliance with (EU) 2016/425, IEC 61331-1:2014, IEC 61331-3:2014



STANDARD WRAP KILT









STANDARD LENGTHS (cm)		STANDARD SIZES	ARM HOLES	LEAD EQU	LEAD EQUIVALENCE		
TOP (TXR)	KILT (KXR)	XS	SMALL	FRONT	BACK	LEAD-LT	
50	53	S	REGULAR	0.25 mm	0.25 mm	BILAYER-ET	
58	58	М	LARGE	0.35 mm	0.35 mm	BILAYER-LF	
60	60			0.5 mm	0.5 mm		
65	65	XL		1.0 mm			
70	70	XXL				Γ	

TXR-B

The TXR-B design is part of a two-piece protective garment designed to distribute weight evenly between the shoulders and hips, enhancing comfort during use.

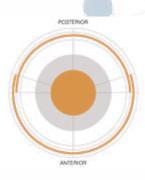
It has been re-RE-DESIGNED for a better fit around the armholes, and with hundreds of combinations available, it ensures a perfect fit for both men and women.

A unique feature of the TXR-B is its elasticated back, which provides a supportive and snug fit, making it one of the most comfortable designs in our range.

- Optional, different protection levels in the front and back
- The TXR-B aprons are type-tested and certified in compliance with (EU) 2016/425, IEC 61331-1:2014, IEC 61331-3:2014







STANDARD LENGTHS (cm)		STANDARD SIZES	ARM HOLES	LEAD EQUIVALENCE		CORE MATERIALS	
TOP (TXR)	KILT (KXR)	XS	SMALL	FRONT	BACK	LEAD-LT	
50	53	S	REGULAR	0.25 mm	0.25 mm	BILAYER-ET	
58	58	М	LARGE	0.35 mm	0.35 mm	BILAYER-LF	
60	60			0.5 mm	0.5 mm		
65	65	XL		1.0 mm			
70	70	XXL					

TXR-F

The TXR-F design is part of a two-piece protective garment designed to distribute weight between the shoulders and hips, maximizing comfort for the wearer.

Its overlapping design meets the requirements of IEC 61331-3:2014, ensuring fully labelled protection when properly overlapped.

The TXR-F has been re-RE-DESIGNED for a better fit around the armholes, with hundreds of combinations available to ensure a perfect fit for both men and women.

- Optional, different protection levels in the front and back.
- The TXR-F aprons are type-tested and certified in compliance with (EU) 2016/425, IEC 61331-1:2014, IEC 61331-3:2014



OVERLAP



STANDARD L	ENGTHS (cm)	STANDARD SIZES	ARM HOLES	LES LEAD EQ	JIVALENCE	CORE MATERIALS	\neg
TOP (TXR)	KILT (KXR)	XS	SMALL	FRONT	BACK	LEAD-LT	
50	53	S	REGULAR	0.25 mm	0.25 mm	BILAYER-ET	$\overline{}$
58	58	М	LARGE	0.35 mm	0.35 mm	BILAYER-LF	
60	60			0.5 mm	0.5 mm		
65	65	XL		1.0 mm			~
70	70	XXL				$f \rightarrow f$	
OTHER LENGTH	S AND SIZES AVAIL	ABLE					

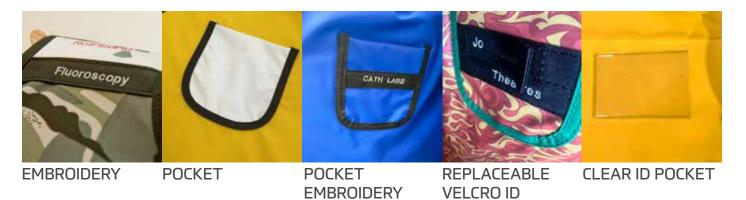
THYROID COLLARS



ANCILLARY



PERSONALISATION



OPTIONAL EXTRAS







ADDITIONAL PROTECTION DURING SURGICAL PROCEDURES

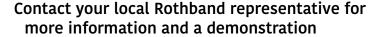
The global topic of axilla & breast protection is currently at the forefront of radiation safety as some procedures can expose clinicians to ionising radiation in this anatomical area.

This is where the mammo-SHIELD™ comes in. Specially designed to sit comfortably under the arm and move with the wearer to help provide protection in this vulnerable area.

DEVELOPED WITH HEALTHCARE PROFESSIONALS

We have worked alongside leading orthopaedic surgeons to develop the mammo-SHIELD™- our solution for enhanced axillary protection, offering added peace of mind.

Our simple yet robust design seamlessly integrates with most lead aprons & tops. The flexible configuration ensures adequate axilla coverage in a variety of arm positions.









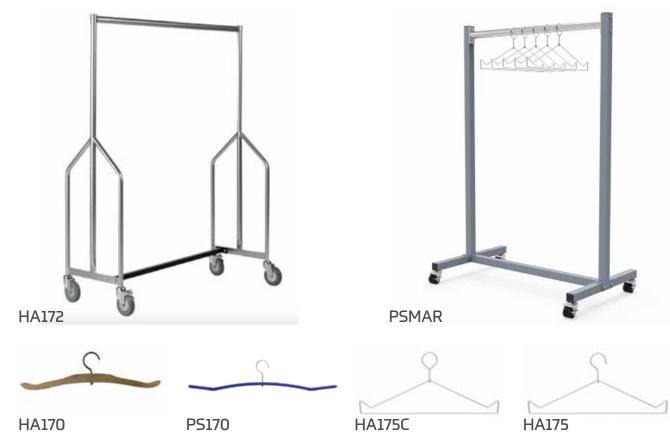






STORAGE

RAILS



SWINGARM



W





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