

Radiation  
Protection  
Apparel

KIRAN<sup>\*</sup>



Protection. Comfort. Style.

We at Kiran have spent **more than three decades** making human life safer, healthier, and brighter, manufacturing some of the **world's best image enhancement accessories and radiation protection products**. This we have achieved with a commitment to innovation and quality.

Medical institutions in **over 160 countries** around the world rely on Kiran for optimal image quality and reliable service.



# Protective apparel that's safe and stylish!

In the early 90's, we undertook the challenge of developing radiation protection apparel of the highest quality. **Fifteen years of research and innovation** has resulted in apparel that is known for being safe, lightweight, ergonomic, and colorful! Today, we design apparel for interventional radiology and cardiology procedures, CT labs, surgery, and general radiology.

Kiran apparel is made with proprietary materials designed to meet varying needs and applications. Our lightweight, lead-free, and leaded range of materials are **ultralite**, **ZeroLead**, and **LEADLITE**.

With Kiran's radiation protection apparel, medical professionals and patients are always in safe hands.





## Certifications & Approvals:

Our Quality Systems are assessed and certified as per the guidelines of ISO 9001:2008 and ISO13485:2003.



Our products conform to the stringent quality norms of CE, as specified by the European Council's Medical Device Directive (MDD) contained in 93 / 42 / EEC as well as Personal Protection Equipment (PPE) contained in 89 / 686 / EEC.

All Kiran apparel are designed as per the guidelines of IEC 61331-3.











## Our Safety Guarantee

**X-ray Technicians, Doctors, and Surgeons** can be assured of protective apparel that is ergonomically designed and lightweight, making it comfortable to wear for long durations. Our lead-free and lightweight range has the same lead equivalence as our leaded range. Available in a range of colors, our apparel adds life to any solemn hospital environment!

**Patients** who are occasionally exposed to radiation can be assured of apparel and shields that are not only safe but also have a perfect fit and are comfortable to wear.

**When you wear Kiran apparel, you get...**

- ✦ Maximum protection against scattered radiation—a key health consideration
- ✦ Protection for the upper body and the sensitive thyroid gland at a lead equivalence of 0.5 mm Pb
- ✦ Basic back protection required for use in CT Scans and cath labs at a lead equivalence of 0.25 mm Pb
- ✦ Solutions for the varying needs of X-ray technicians, medical professionals, and patients
- ✦ Your choice of material, colors, size, and embroidered designs

As per IEC Standards for 80 kV active radiation, our apparel is tested on an 80 kV scattered phantom and radiation on a field size of 50 sq cm for testing active radiation on an Alderson patient phantom.

Lead Equivalence of...	Protects Against Radiation Up To...
0.50 mm Pb	99%
0.35 mm Pb	98%
0.25 mm Pb	96%

(Higher lead equivalence is available on request)

## Our Testing Facilities:

Kiran boasts of its own state-of-the-art Radiographic Testing Center where we scrutinize all of our world-class products. The hub center of Kiran, our facility houses some of the world's best engineers and advisers who subject each Kiran product to a rigorous quality check in a bid to constantly evolve and improve.

# The Secret Ingredients

With Kiran apparel, there is never any compromise on quality. Our range is made from proprietary materials, each designed for specialized purposes. Ask for apparel in the material that suits your needs best.

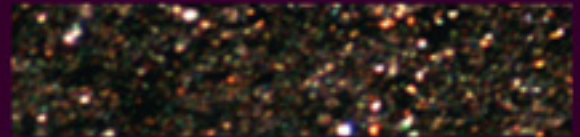
## ultralite™



**The lightest protective sheeting yet!**

Our most popular sheeting brand, Ultralite™ is a weight-optimized sheeting that replaces a large part of lead with a combination of tungsten, bismuth, and antimony. Ultralite™ sheeting provides the same level of protection as leaded sheeting but at a significantly lower weight. Ultralite™ sheeting is ideal for cath labs and intensive surgeries requiring protection apparel to be worn for long periods of time.

## ZeroLead™



**An eco-friendly technological breakthrough**

Kiran fulfills its promise of being a socially responsible company with the development of Zero Lead™, an eco-friendly apparel that replaces lead with a combination of tungsten, bismuth, and antimony. This sheeting not only provides the same protection as leaded sheeting but is also significantly lighter. This masterpiece of Kiran's innovation has been extensively documented in European and American scientific journals.



## LEADLITE™



### The industry standard redefined

Our latest innovation, Leadlite™ is a proprietary leaded sheeting that is the lightest leaded material. This breakthrough in weight optimization is a result of the purest and finest lead particles used together with mineral oils and minimum bonding materials replacing artificial plasticizers. Our special formulation ensures that the material remains supple for several years and is resistant to humidity.

## Hygiena™



### The ultimate health fabric

Kiran's range of apparel has a longer shelf life thanks to our proprietary Hygiena™ covering material that prevents fading and wrinkles. Hygiena™ is a health fabric that is resistant to blood stains and is both water and stain resistant. Hygiena™ is carefully crafted in Italy and is completely breathable.

# Double-Sided Apron:

Complete protection. Classic design.

Lead equivalence: Front: 0.50 mm Pb or 0.35 mm Pb Back: 0.25 mm Pb

## Optima

- \* Frontal overlap of 15 cm
- \* Velcro panels for improved fit
- \* Adjustable in-built elastic belt for reduced back and shoulder stress



- \* Side slits for better mobility



## Size Chart

Select a size from the chart. Then choose the length, depending on the wearer's height.

Custom sizes are available on request.

Step 1: Select size

For Girth Up To... (cm)	Recommended Size
99	Small
100-115	Medium
116-130	Large
131-145	Extra Large



- \* Easily slips on and off
- \* Comfortable to wear for long durations
- \* Anti-skid shoulder pads for added comfort and weight distribution
- \* Uniform front and back protection
- \* Attachable thyroid shield (Thyroid Shield Elegant)
- \* Available in Ultralite™, Zero Lead™, & LeadLite™ materials

## Maxima

- \* Complete frontal overlap for improved fit
- \* Wide adjustable elastic belt for reduced back and shoulder stress
- \* Equal protection on both shoulder panels
- \* Side slit fastener to prevent accidental radiation exposure



Step 2: Select length

For Height Up To... (cm)	Recommended Length (cm)
145-155	90
155-165	100
165-175	110
175-185	120
185-195	130



## Skirt & Vest:

Our most ergonomic design yet!

**Lead equivalence:** Front: 0.50 mm Pb or 0.35 mm Pb Back: 0.25 mm Pb

### Optima

- ✦ Adjustable Velcro panels for a snug fit



### Size Chart

Select a size from the chart. Then choose the length, depending on the wearer's height.

Custom sizes are available on request.

Step 1: Select size

For Girth Up To... (cm)	For Waist Up To... (cm)	Recommended Size
99	80	Small
100-115	81-100	Medium
116-130	101-120	Large
131-145	121-140	Extra Large



- ✱ Specially designed to be worn for long durations
- ✱ Equitable weight distribution on waist and shoulders to prevent fatigue
- ✱ Fully overlapping skirt for added lower body protection
- ✱ Vest overlaps skirt up to 15 cm for additional lower body protection
- ✱ Front opening for ease of wearing
- ✱ Wide overlap on skirt front

## Maxima

- ✱ Complete upper body protection with fully overlapping vest



Step 2: Select length

For Height Up To... (cm)	Recommended Length (cm)	
	Skirt	Vest
145-155	50	50
155-165	57	53
165-175	63	57
175-185	68	62
185-195	72	68



## Coat Apron:

The ideal choice for short durations

**Lead equivalence:** 0.25 mm Pb, 0.35 mm Pb, 0.50 mm Pb

- ✦ Complete frontal protection
- ✦ Padded shoulders for reduced shoulder stress and equitable distribution of weight
- ✦ Wide stretchable insert with Velcro fastening for snug fit



- ✦ Also available with snap lock instead of Velcro
- ✦ Easy to wear and remove



### Size Chart

Select a size from the chart. Then choose the length, depending on the wearer's height.

Custom sizes are available on request.

Step 1: Select size

For Girth Up To... (cm)	Recommended Size
99	Small
100-115	Medium
116-130	Large

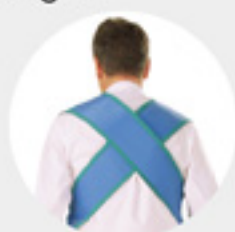


# Surgical Apron:

## The exclusive design for surgeons

**Lead equivalence:** 0.35 mm Pb and 0.50 mm Pb

- \* Specially designed for the surgical theater
- \* Easily slides out from under a surgeon's scrubs when discarding
- \* Maximum frontal protection
- \* Adjustable Velcro panels for improved fit
- \* Ergonomic design equitably distributes weight



Step 2: Select length

For Height Up To... (cm)	Recommended Length (cm)
145-155	90
155-165	100
165-175	110
175-185	120
185-195	130



# Customize Your Order

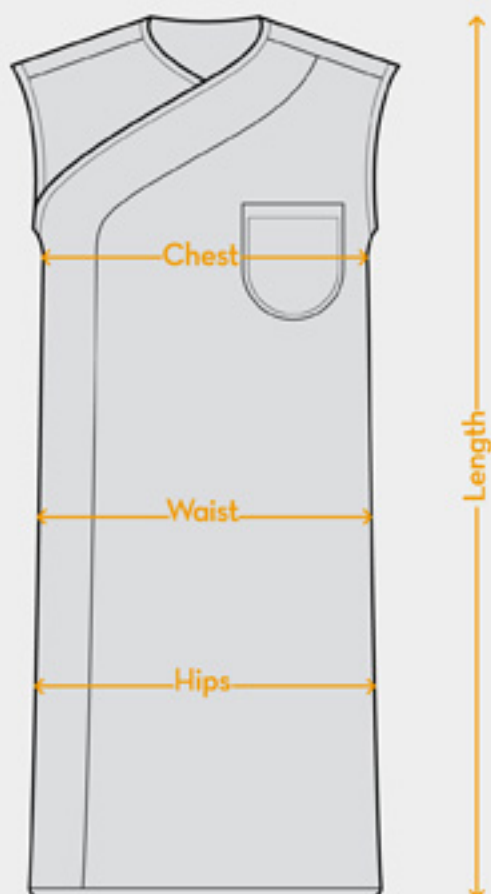
Most of our products can be customized in terms of size, color, and embroidery patterns.

## Sizes

All apparel is available in made-to-order sizes for that perfect fit. Follow the measurement guidelines below when sending us your orders.

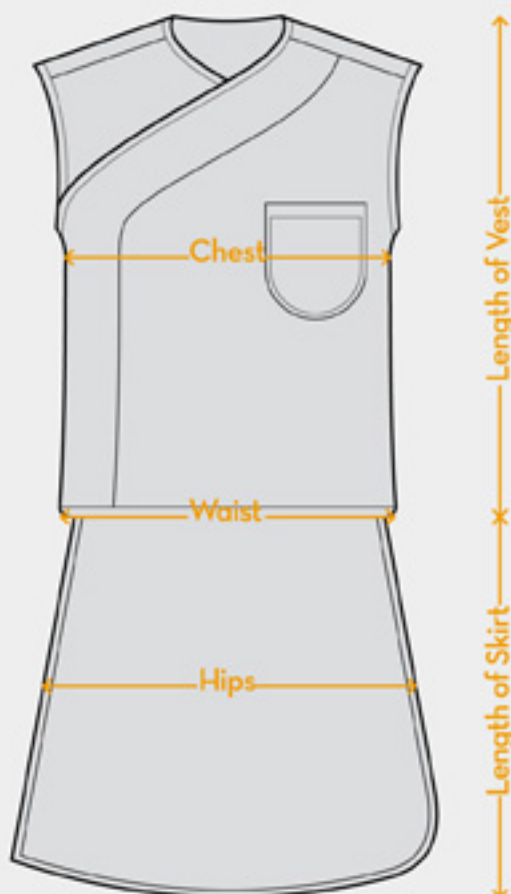
## How To Measure

### Apron



**Length of the apron** is measured from the mid-point of the shoulder to the knees

### Skirt & Vest



**Length of the vest** is measured from the mid-point of the shoulder to the waist

**Length of the skirt** is measured from waist to knees

**Chest** measurement is the distance between the two underarms

**Girth** is the circumference of the chest measured by wrapping the tape around the torso just below the armpits

For custom orders, please provide measurements of the chest, waist, hips, length, and girth.



## Embroidery

Embroider the name of a medical professional, department, or hospital on a detachable strip that snaps onto all our apparel



You can also choose from our range of embroidery designs, which can be added to the front or to the pockets of your apparel to add that personal touch to your healthcare facility.



If you work in a pediatric facility, you can opt for an embroidery pattern to be added to your apparel. These are just some examples from our vast library of designs.

## Colors

The right equipment and apparel can give a drab, intimidating hospital a vibrant and welcoming environment. We understand how the right colors can calm apprehensive patients and project the right image of your healthcare facility.

All our apparel can be ordered in any of our wide range of colors. Choose one that best represents the personality of your medical facility!

Each color is accompanied with piping in a complementary color.

**Coal Grey:**  
Powerful | Reassuring | Stable

**Purple:**  
Inspiring | Purifying | Healing

**Aqua Green:**  
Soothing | Nurturing | Wise



**Burgundy:**  
Warm | Unconventional | Strong

**Royal Blue:**  
Reassuring | Confident | Trustworthy

**Forest Green:**  
Soothing | Natural | Harmonious

**Fuschia:**  
Joyful | Healthy | Feminine

**Navy Blue:**  
Youthful | Energetic | Masculine



# Thyroid Shields

The thyroid gland is especially sensitive to radiation. Our range of thyroid shields provide complete protection to the neck and sternum so that you never have to feel unsafe.

**Lead equivalence:** 0.35 mm Pb or 0.50 mm Pb



## Harmony

- ✦ Popular new design
- ✦ Patented collar design perfectly fits thyroid gland
- ✦ Wide coverage
- ✦ One size fits all



## Classic

- ✦ All-time popular design
- ✦ Wide coverage area
- ✦ One size fits all



## Elegant

- ★ Our classic thyroid shield improved with an enhanced design and features
- ★ Adjustable fastener
- ★ Easily attaches to our Double Sided Apron and Vest



## Slimline

- ★ Provides perfect fit and protection
- ★ Easily attaches to Dental Apron

# More Protective Shields



## Head Shield

The head and ears stay safe from radiation inside Kiran head gear

- ★ Snug fit
- ★ Complete protection to head and ears
- ★ Flexible and supple
- ★ Designed for ease of wear and removal

**Lead equivalence:** 0.175 mm Pb

## Patient Shields

- ★ Offer protection to any part of the body
- ★ Customized sizes and shapes available on request
- ★ Vibrant colors to cheer any patient!

**Lead equivalence:**

0.35 mm Pb, 0.50 mm Pb, 1.00 mm Pb





## Gonad Shields

Ideal to protect the male reproductive organ

- ✱ Available in one-size-fits-all size and child size
- ✱ Designed for ease of wear and removal
- ✱ Adjustable Velcro panels for good fit

**Lead equivalence:**  
1.00 mm Pb

## Ovarian Shields

Ideal to protect the female reproductive organ

- ✱ Available in one-size-fits-all size and child size
- ✱ Designed for ease of wear and removal
- ✱ Adjustable belt for good fit

**Lead equivalence:**  
1.00 mm Pb

# More Protective Apparel



## Patient Aprons

A colorful range of aprons for patients of all sizes

- ★ Complete lower body protection
- ★ Universal use as gonad and ovarian shields
- ★ Designed for ease of wearing
- ★ Adjustable back strap for snug fit
- ★ Vibrant colors to cheer any patient!

### Lead equivalence:

0.35 mm Pb, 0.50 mm Pb, 1.00 mm Pb

Length (cm)	Width (cm)	Recommended Size
30	30	Small
40	40	Medium
50	50	Large

Customized sizes available on request.

## Aprons for Children

Getting an X-ray is comfortable and friendly even for children with just a little bit of help from us. Our children's range of aprons feature colorful prints, lightweight materials, and ergonomic designs in various child sizes.

Age	Width (cm)	Length (cm)
3 - 5 yrs	40	60
6 - 8 yrs	45	70
9 - 12 yrs	50	80

Customized sizes available on request.



## Panoramic Apron

Designed for being X-rayed at the Panoramic X-ray machine.

**Lead equivalence:** 0.35 mm Pb



## Dental Apron

Designed for complete protection while being X-rayed in a dentist's chair.



# Protective Gloves

Kiran protective gloves are a must when hands are in the active beam field, for instance, during radioscopy procedures. Made of soft, pliable material, Kiran gloves are protective, comfortable, and usable.

**Lead equivalence:** 0.25 mm Pb, 0.35 mm Pb, and 0.5 mm Pb



## Seamless

Our standard glove model has a seamless surface that does not allow any radiation to leak in. Convenient to wear and discard, this extremely flexible glove allows hands to move comfortably without any cracks or damage to the material.

## Duo

Our dual-layered gloves have a seamless external covering and an internal lining, all of which can be dismantled and cleaned.

## Mittens

One of our best-sellers, this model allows wearers the mobility of using their bare hands directly in the beam field, thanks to the protective mitten design and snug internal strap.

# Lead-free Radiation Protection Gloves

Specially designed for intervention procedures, cardiology, and similar applications.

Unlike most other gloves in the market, Kiran gloves have been designed keeping in mind the unique needs of doctors and X-ray technicians.



- ✦ Easily disposable material for one-time use
- ✦ Composed of a proprietary mixture of lead-free elements, making them safe for the environment and for users
- ✦ Flexible material for comfort and durability
- ✦ Proprietary hypoallergenic formulation for complete protection

Produced at our independent sterilization facility, each glove is subjected to rigorous contamination control and is 100% sterilized using the latest gamma sterilization equipment

Kiran gloves are registered with the US FDA and are CE certified. Our quality management systems adhere to the guidelines of EN and ASTM standards.

**For more information on our radiation protection gloves, ask for the catalog!**

# Eye Protection

The Kiran range of eyewear is specially designed to protect the sensitive human eye from the harmful effects of radiation. With complete protection to the entire eye, we ensure that our eyewear never exposes patients to accidental radiation.

When you buy Kiran eyewear, you can expect...

- ✱ Light and comfortable moulded frames for ease of wearing for long durations
- ✱ Finely-ground European lead glass that absorbs 99% radiation
- ✱ A wide range of models designed for differing applications

**Lead equivalence:** 0.75 mm Pb

We are constantly adding new models!



## Front

This ever-popular model is comfortable and provides perfect frontal protection with its wide coverage. No wonder it is our most popular model to date.

### **Available lenses:**

Single, Bifocal, Progressive





## Front & Side

The unique design of this pair of eyeglasses protects wearers from frontal as well as lateral radiation. Rapidly becoming our most popular model!

### **Available lenses:**

Single, Bifocal, Progressive



## Maxx 10

The Maxx 10 has padding for the temples and bridge of the nose. It comes with a semi-rigid case, adjustable strap, and Rx prescription.



## Maxx 30

This unisex sports model from Maxx exceeds ASTM F803 impact resistance standards. The Maxx 30 has padding on the temples and bridge of the nose and comes in a size that fits all faces and shapes. The patented eye rim assembly allows for a wide range of prescription lens powers. The Maxx 30 comes with a semi-rigid case, adjustable strap, Rx prescription, and 6 base lens curvatures.



## Illusion

The sophisticated rimless Illusion model has comfort-grip soft temple padding and a classic rectangular lens shape. A metal logo plaque, classic rich colors, and premium scratch-proof hard coat make this a striking piece that is also durable. All Illusion models come with a semi-rigid case, adjustable cord, cleaning cloth, and Rx prescription.



## Aviators

These wraparound style eyeglasses are as protective as they are stylish. Their wrapped frame helps protect the complete eye, with no danger of lateral radiation. The molded frame snugly fits the nose.

### Available lenses:

Single: -0.00 to -.250 & +0.00 to +2.50

Bifocal: +1.50 to +2.50



## Fit Over

These eyeglasses are specially for doctors and technicians with prescription eyeglasses. The unique design enables them to fit perfectly over the wearer's existing eyeglasses with no compromise on clarity of vision and, of course, protection.





## Storage Systems

Poor storage reduces the shelf life of protective apparel and also takes up excessive space. Our perfectly crafted range of storage systems can help safely store multiple pairs of apparel and accessories in a compact unit that is space efficient and easy to install.

### Mobile Storage System with Hangers

- ✱ Convenient mobile storage system with brakes
- ✱ Stainless steel hangers for hygienic storage
- ✱ Compact unit for storing apparel, gloves, and shields
- ✱ Detachable hooks for more storage options

#### **Available models:**

5 Hangers & Glove Holder: Stores up to 5 pairs of apparel

10 Hangers & Glove Holder: Stores up to 10 pairs of apparel

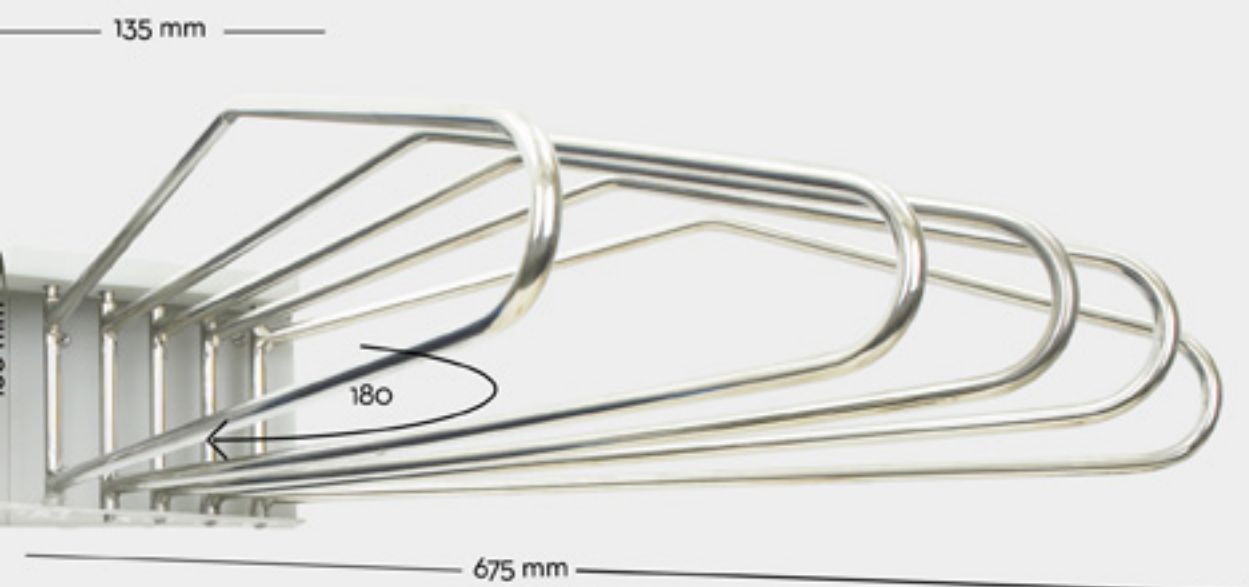


Glove holder and hooks are available for fixing on the mobile system.



**Available Models:**  
Wall racks with One, Two,  
Three, and Five Hangers





## Mounted Wall Racks

- ✦ Swivel hangers for ease of hanging and removing
- ✦ Stainless steel hangers for hygienic storage
- ✦ Space-saving racks store apparel close to a wall
- ✦ Wall bracket can be right or left sided for optimum use of space



Hooks are available  
for fixing on all wall racks

# The Kiran Range

Ask for more information on our other image enhancement accessories and radiation protection products!

**More Radiation Protection Products from Kiran:**  
Radiation Protection Gloves

## Get In Touch!

We look forward to hearing from you.

### Kiran Medical Systems

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