



Lead Lining Systems for Walls, Doors, and Windows

High-quality and protective shielding solutions for use in radiation protection and general medical imaging applications.

your single source supplier



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Australia's largest and most trusted single source supplier of medical imaging products and accessories.

The Imaging Solutions experience

When people or organisations come into contact with Imaging Solutions, customers, suppliers and employees alike enjoy a consistent and positive experience that promotes a positive outlook, successful outcome and loyalty over the long-term.

Gain access to the world market leaders while enjoying local support

Imaging Solutions has partnered with over 50 world leading brands to bring you the most comprehensive platform of medical imaging products in Australia. All our supplier partners are selected on the criteria of being the best-in-class of their area of expertise. Meaning, with Imaging Solutions, you have access to the very best the world market has to offer and the peace of mind knowing that a locally run organisation can support you if something goes wrong.



PHILIPS **BIODEX** **BEEKLEY**



Our history

Imaging Solutions boasts a proud history. Established in 1992, the company expanded its core distribution business through the acquisition of a number of bolt-on enterprises such that combined, the organisation has over 45 years of history in supporting the Australian and New Zealand medical imaging industry.

Support Australian manufacturing

Imaging Solutions manufactures a range of products in Australia where ever we can add value to our customers in doing so. The RadSafe brand of radiation protection aprons and accessories is just one example of a range that is designed and made in Brisbane, Australia at our world class manufacturing facility. Imaging Solutions also manufactures positioning aids, sandbags, portable radiation protection screens or more. We also design and manufacture turnkey MRI/RF cage and scan rooms.



Australia's widest range of imaging products

It would be difficult to walk through a radiology department and not recognise products from Imaging Solutions in every corner. From positioning aids to diagnostic displays, there is no more complete and comprehensive range of products anywhere in the country. Imaging Solutions is your single source supplier.

your single source supplier

Expert knowledge

Imaging Solutions has been servicing the medical imaging industry for decades. Coupled with our connections to world leading manufacturers and industry experts, Imaging Solutions is well positioned to provide you best practice knowledge and assist you in delivering exceptional imaging outcomes to your patients and customers.

Unrivalled customer satisfaction

Our friendly and knowledgeable customer service team is ready and waiting to help you with whatever your need may be. Call us on the phone or send through an e-mail and our team will go out of their way to ensure you receive a helpful and timely response.

For the most up to date information visit us online at
www.imsol.com.au





Healthcare Shielding Systems

Imaging Solutions is a leading designer, manufacturer and installer of radiation and X-ray shielding solutions in Australia.

We are part of Honey Group which specialises in the design and construction of personal radiation protection and static control walls, windows, and door sets. Imaging Solutions are also Australia's leading supplier of engineered products in lead, with a wide product portfolio covering nuclear power, nuclear medicine, X-ray, electronics, transport, defence, construction and many other industries.

As an established and well respected supplier of turn-key radiation shielding solutions to the imaging market. Imaging Solutions are one of the major installers of lead chevrons for radiotherapy bunkers and lead lined board for lower levels of radiation shielding.

We offer a total X-ray shielding solution package that includes shielding for walls, ceilings and floors. Also, lead lined door sets, lead glass observation windows and lead lined protective screens (fixed or mobile) for the following medical procedures and departments:

- X-ray
- Dental X-ray
- CT scanner
- Gamma Camera
- Fluoroscopy
- Endoscopy
- Theatres
- OPG
- Mammography
- Angiography
- Cath Labs
- Nuclear Medicine

From initial discussions, through to design, manufacture and installation, a dedicated Imaging Solutions Project Manager will work with you to ensure your shielding project is on time, within budget and to your exacting specifications.

An investment in engineering excellence underpins our commitment to providing a comprehensive service to architects, hospital trusts, building contractors and manufacturers of radiotherapy and radiology equipment. With our comprehensive range of X-ray protection products; we will continue to help protect healthcare workers and patients alike.

Why Choose Imaging Solutions?

- We are already an established and respected supplier of radiation shielding solutions to the NHS
- We have a team of highly skilled, dedicated and experienced designers, project managers and installers working to exacting quality standards
- We are ISO 9001:2015, 14001:2015 and OHSAS 18001:2007 certified and Achilles registered
- We have an exceptional reputation for delivering what is required, within budget and on time



For High Energy Radiation Shielding

The high energy X-rays used in radiotherapy and oncology demand heavy duty lead shielding

A major advantage of using lead instead of steel and concrete shielding, is that it can be quickly and cleanly assembled and just as easily disassembled when decommissioned. The lead can then be either reused in another bunker or room or sold as it is a valuable commodity.

Imaging Solutions a market leader in the design, manufacture and installation of radiation shielding for healthcare applications. Our chevron rail system is the industry standard, offering heavy duty lead shielding for high energy radiation used in radiotherapy, oncology and PET/CT facilities and brachytherapy suites.

The lead chevrons interlink to form a complete shielding solution with the elimination of any shine paths. The lead thicknesses range from 10 mm to 50 mm in lengths between 450 mm and 900 mm long and are 100 mm high. The maximum weight per chevron is 26 kg for ease of installation. Where very high energy shielding is required the chevrons can be used to create a freestanding shield structure to any required thickness.



The chevron rails provide additional flexibility, as they can be fixed to existing brick or block walls, or used to create a free-standing shield structure to whatever thickness is required.



Existing Facilities

Where an existing radiotherapy facility is being upgraded, this System ensures minimal intrusion into the room environment. This is particularly important where space is at a premium or installation access is restricted.

Typical examples would be:

- Upgrade to a higher energy machine
- Re-alignment of the Isocentre
- Revised Radiation Protection criteria
- Local conservation rules
- Existing building restrictions

Imaging Solutions as the authorised distributor for Calder Healthcare uses the chevron rail system and is effective where additional shielding is required within existing operational facilities. Installation time can be kept to a minimum and is an ideal alternative to concrete & steel walls which will impact on space.



Greenfield Sites

During the planning and design stage of new bunkers and treatment rooms, space and layout can be optimised and conventional long maze type entrances which require additional floor space can be avoided. Construction, installation and overall civil engineering costs can also be kept to a minimum. Similarly, small confined lobbies combined with sliding or swing shielded doors can greatly improve access and general room ergonomics.

Where higher beam energies are required, a full neutron shielding service is available using Monte Carlo based calculations through to the installation of advanced neutron shielding materials.

Installation techniques will vary depending on thickness and weight. Further details are available on request.



Lead Lined Board Shielding



For Lower Energy X-rays

It is very important to specify the correct thickness of lead for radiation shielding. A Radiation Protection Advisor or other shielding expert will usually do this, and when specifying the thickness of lead required where X-rays are being used for radiology and radiotherapy.

We recommend the use of British Standard BS EN 12588 rolled sheet lead. Other globally recognised sheet lead standards can be supplied on request.

If required we can provide clients with the services of totally independent professional physicist as part of our scope of supply.

When specifying the thickness of lead required to shield a facility where X-rays are being used for radiology or radiotherapy the hospitals RPA usually uses the British Standard code number (see table below)



CODE	3	4	5	6	7	8
THICKNESS	1.32	1.80	2.24	2.65	3.15	3.55
COLOUR CODE	GREEN	BLUE	RED	BLACK	WHITE	ORANGE
WEIGHT (Kg/m2)	15.0	20.4	25.4	30.1	35.7	40.3

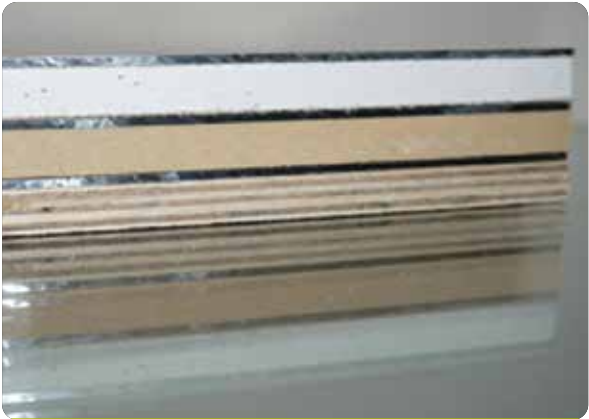
Although only milled lead manufactured to BS EN 12588 uses this thickness coding and colour system, it is always best to also refer to the British Standard when specifying sheet lead.

Wall Shielding

Imaging Solutions' standard panel sizes are 600 mm wide by 2100-2400 mm in length. They are manufactured by bonding under pressure BS EN 12588 lead to plasterboard or plywood. During installation, the panels are mechanically fastened to either an existing wall or stud partition. When installing to an existing wall, a leaded batten is fastened to the wall at 600 mm centres, which the lead panels are then fixed to. On a stud partition a lead strip is bonded to all the vertical studs, before the panels are fixed.

Leaded battens and lead strips are introduced to cover the butt joints of the panels, stopping leakage between the panel edges.

For shielding above 2100-2400 mm in length, a horizontal leaded batten or lead strip is installed, which covers the joint between the panels. These are also used when fixings/penetrations are needed to be shielded. Standard and customised lead lined panels can be supplied for install by others or we offer a guaranteed leak free, on-site installation carried out by our experienced installation technicians.



Floors and Ceilings

For shielding on floors and ceilings, panels are manufactured using plywood (normally 12 mm) as this provides added strength. For ceiling installations, panel sizes are reduced so that the weight is easier to handle.

X-ray Protective Doors

Fully customisable for radiation protection

Our doorsets are all bespoke to your specific requirements, with a range of types available:

- Single doorset – built to suit a clear opening with oversized leaves available for wheelchair or trolley access
- Double or Leaf & Half doorsets – double doors are made for openings up to 2000mm wide access
- Sliding doors – an ideal alternative to swing doors, and can be manually or automatically operated. The design allows doors to be supplied in any lead equivalence, with concealed running gear

Options

Offering maximum protection combined with an attractive look, our purpose-built lead lined and non lead lined door sets are available in a choice of real wood veneer, primed or plastic laminate finish. Each set is craftsmanmanufactured and extra door furniture can be factory-fitted in advance. Frames are made from hardwoods.

Hardware

All our doorsets feature heavy duty hinges to cope with the weight of lead lined doors while offering easy fitting and maintenance. Door closers, handles, kick plates and other hardware can be factory fitted to meet any specification.

Finishes

Our doorsets can be supplied unfinished, primed, lacquered or finished in a wide range of laminates.

Vision & Privacy Panels

Vision panels can be incorporated into any door, with the equivalent lead protection where necessary, and can be fire-rated, toughened, acoustic, tinted, contain an integral blind and be single or double glazed.



Fire Doors

We can supply fire-rated doorsets complete with vision panels.

Summary

- Lead lined and non lead lined door sets manufactured to the latest NHS HTM infection control regulations
- Approved by UK Radiation Protection Advisors
- Choice of finishes to match existing decor
- Finish choices include impact-resistant and antibacterial
- Available as an off-the-shelf kit or fully bespoke
- Fast delivery

Nuclear Medicine



Imaging Solutions distribute a wide range of products for radioisotopes

Isotope Pots

Imaging Solutions offers lead pots to safely store and transport radioactive isotopes used for diagnosis, treatment and research.

Using the latest technology we produce them in our dedicated manufacturing robot cell, enabling us to produce the high volumes required quickly and cost effectively. Our pots can be supplied painted, unpainted or plastic coated.

Pipe Shielding

Our comprehensive lead casting and extrusion facilities enable the manufacture of bespoke pipe, penetration and cyclotron trench shielding in healthcare facilities.

Each segment of pipe shielding has specially profiled mating faces to prevent shine paths forming. Once joined together onsite, the segments produce a complete radiation barrier around active pipe runs.

Hot Cells

In collaboration with our supplier partners, Imaging Solutions is able to source turn-key solutions. Contact us for more information on our design and manufacturing capabilities to meet your radiopharmaceuticals needs.



Cycle of Service

No other lead manufacturer offers such a one-stop solution

Imaging Solutions is unique in offering an in-house service encompassing design, machining, fabrication, assembly work, project management and on site installation of all our lead healthcare shielding products. Every lead product is manufactured and custom made in-house. No other specialist radiation protection supplier manufacturer offers such a one-stop solution. At each stage our engineers and designers work closely with our clients to ensure quality, cost and delivery are precisely managed.

Imaging Solutions offers a complete start to finish lead shielding solution. From initial discussions, through design and manufacture to installation, a Imaging Solutions Project Manager will ensure your project is on time, within budget and to your exacting specifications.

Consultation

At the very earliest stage of a project, our specialist team will provide guidance on the issues to be considered, when planning the shielding of a medical radiation facility. Many years of experience have helped us define best practice, in this highly technical process.

Project Management

An experienced Project Manager is assigned to each project. From initial consultation to final installation, there will be one point of contact, who will work closely with you and other involved parties, to ensure the successful design, supply and installation of your project.

Solution

Each shielding project presents its own individual design and installation challenges. The scope and complexity of radiotherapy



and oncology equipment is always increasing. Identifying the best solution to an unexpected problem is vital to the performance of a treatment room. We will use our knowledge to overcome any shielding challenges.

Design

Integrating powerful medical equipment into a safe, functional and effective treatment suite, while accommodating real world constraints, can be time consuming and complex. Our Project Managers' invaluable expertise will help to simplify this crucial task.

Manufacture

Our dedicated Project Management Team will ensure that all components are manufactured to the precise specifications required.

Installation

Our installation teams are highly skilled in the on-site fabrication of radiation and X-ray shielding in healthcare facilities. They recognise the critical nature of what they do and that the health and safety of both staff and patients depends on the quality of their work.





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