

MarShield™

CUSTOM RADIATION SHIELDING PRODUCTS



MARSHIELD MEDICAL

When Protection And Safety Must Be Absolutely Assured



www.marshield.com



LEAD LINED CABINETS



APPLICATIONS

DECAY CABINETS

UNIT DOSE CABINETS

PREPARATION ENCLOSURE

BASE CABINETS

RADIOISOTOPE

STORAGE CABINETS

WASTE CABINETS

PET UNIT DOSE CABINETS

PHANTOM CABINETS

MarShield manufactures a wide range of standard or custom designed lead lined laboratory furniture suitable for nuclear medicine or radiochemistry laboratories. Our comprehensive line is tailored and designed to meet your specific requirements.

FEATURES & BENEFITS

- Standard models are available with three optional lead thicknesses: $\frac{1}{4}$ " , $\frac{1}{2}$ " or 1"
- Custom models available with lead thicknesses: $\frac{1}{4}$ " to 6" or more
- All lead used in the fabrication of our cabinets is ASTM B-29 pure lead 99.94% minimum
- All sides of cabinet including the cupboard door and drawer face are lead lined with encapsulated lead
- Adjustable shelves with multiple height selection
- Step down notch in drawers for optimum shielding protection
- Each cabinet is designed with 4+" high adjustable legs to make it easier to install or move with a forklift
- All shelves and drawers offer 100 lb capacity with drawer or shelf fully extended
- Removable easy glide drawers for cleaning and decontamination
- All standard models have an option for 304 stainless steel surface with a #4 finish and 4" high backsplash
- Individual, key locked drawers and doors to prevent unauthorized use
- Heavy duty hinges and locks





"...we work extensively to ensure that our designs are functional with their surroundings."



SHEET LEAD



APPLICATIONS

DENTAL OFFICES

X-RAY ROOMS

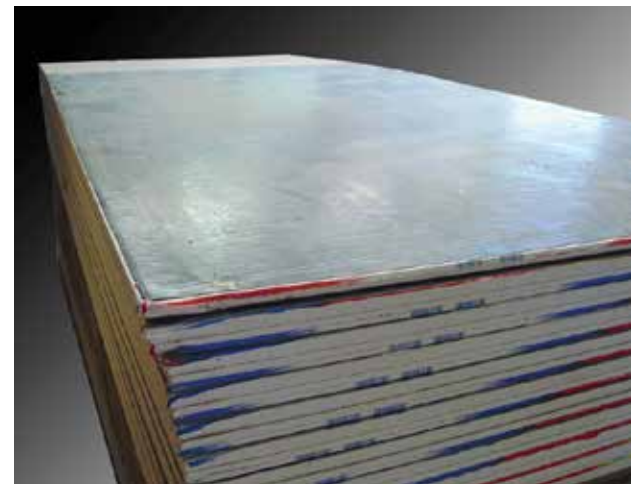
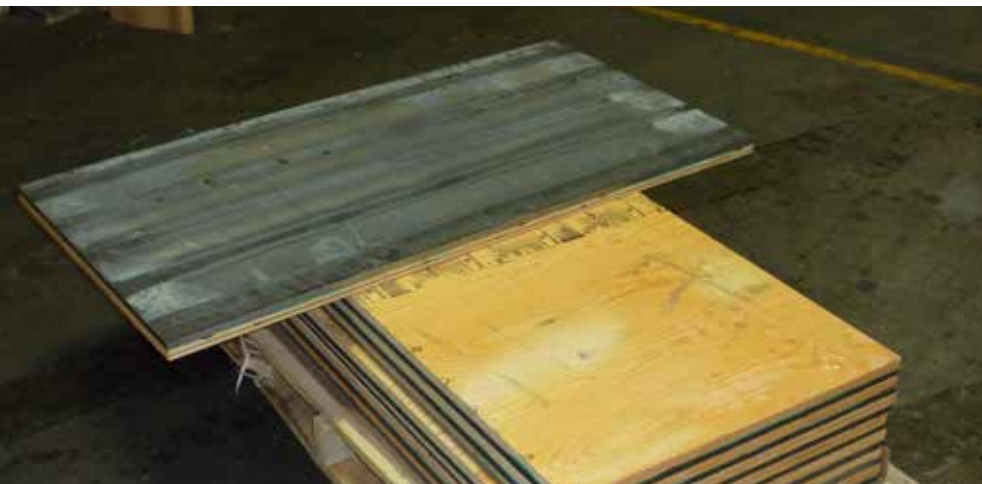
CHIROPRACTIC OFFICES

"...our high quality Sheet Lead is manufactured from pure lead."

MarShield provides the highest quality sheet lead available, with up to 99.94% purity. Sheet lead is the most malleable of common metals and can be easily shaped, formed, bent and cut to suit a variety of applications. We provide an option of laminated drywall and plywood for new build applications.

FEATURES & BENEFITS

- Standard stock thicknesses of 1/32", 1/16", 1/8" in 4'x10' and 4'x8'
- Superior in shielding rooms from radiation against x-rays and gamma radiation
- Manufactured from pure lead conforming to ASTM B-29, B-749 and Federal QQ-L-201F, QQ-L-171E
- Resistant to corrosion from the atmosphere, saltwater and most natural chemicals
- Fire rated Lead Laminated Drywall and Lead Laminated Plywood available
- Available in rolled or sheet form
- Custom CNC machined parts available



LEAD THICKNESS CHART

THICKNESS FRACTIONS	DECIMAL EQUIVALENT	MM EQUIVALENT	LBS. PER SQ. FT
1/64	.0156	0.3969mm	1#
1/32	.0313	0.795mm	2#
1/24	.042	1.067mm	2 1/2#
3/64	.047	1.193mm	3#
1/16	.0625	1.587mm	4#
5/64	.078	1.981mm	5#
3/32	.094	2.387mm	6#
1/8	.125	3.175mm	8#
5/32	.156	3.967mm	10#
3/16	.1875	4.762mm	12#
1/4	.250	6.35mm	16#
3/8	.375	9.525mm	24#
1/2	.500	12.7mm	30#
3/4	.750	19.05mm	46#
1	1.00	25.4mm	60#
1-1/2	1.50	38.1mm	90#
2	2.00	50.8mm	120#





MODULAR RADIATION BARRIERS AND WALLS



APPLICATIONS

DIAGNOSTIC IMAGING

INTERVENTIONAL RADIOLOGY

NUCLEAR MEDICINE

"...we can work with you to design a custom solution in a virtual CAD environment."

MarShield leaded modular radiation barriers, walls and rooms are a cost effective alternative to stick built construction. Most barriers can be installed in an hour or two with minimal disruption of operations and no construction mess to clean up!

FEATURES & BENEFITS

- Common configurations available to simplify design process
- Custom configurations available to meet customers' needs
- Every order manufactured to customers' specifications
- Typically, panels extend from floor to 84", 96" or greater, ensuring effective protection
- Viewing panels are lead safety glass (laminated glass with interlayer - shatter resistant and meets the requirements of ANSI Z97.1-1984 & 16 CFR 1201 Cat. II)
- Continuous window panes up to 6' X 8' available
- Durable solid lead-lined panels available with 1/32", 1/16", 1/8" or more lead equivalency
- Quick, clean and simple installation with a built to last solid steel powder coated frame



MODULAR X-RAY ROOMS

“...full body units shield personnel from harmful secondary radiation.”

MarShield's custom x-ray rooms are built to suit your individual application, based on architectural specs or a custom concept we help you create. With our manufactured lead panels, doors and windows we are able to design and construct the entire package.

FEATURES & BENEFITS

- Quick, clean, and easy installation. No demolition needed
- Attractive neutral décor with clean lines
- Durable solid lead-lined panels and solid steel frame are built to last
- Customized to individual application with CAD support available
- Designed to accommodate future modifications and expansions. Can be removed or relocated, if required



APPLICATIONS

OPERATING ROOMS

FLUOROSCOPY ROOMS

CT ROOMS





LEAD LINED STORAGE CONTAINERS



APPLICATIONS

RADIOACTIVE MATERIAL
TRANSPORTATION

VIAL PIGS FOR PET AND OTHER
HIGH ENERGY RADIONUCLIDES

UNIT DOSE FOR
RADIOPHARMACEUTICALS

"...we can supply any configuration to best address your requirements."

MarShield manufactures a comprehensive line of custom designed lead-lined storage containers designed to meet your exact requirements. We employ a fully qualified design team to help with every step of the process.

FEATURES & BENEFITS

- Manufactured from A36 or 44W carbon steel with a stainless steel option available
- Lead lined or filled with ASTM B-29 pure lead, 99.94% grade
- All lead fully encapsulated with no exposure lead
- Lead shielding thickness from 1/32" to over 2"
- Heavy duty hinges and locks



ROLLING RADIATION BARRIERS



“...the versatility of the rolling barriers provide a safe workspace for the operator.”

MarShield manufactures standard and custom designed rolling radiation shielding barriers. These full body shielding units are designed to shield medical personnel and patients from harmful secondary radiation.

FEATURES & BENEFITS

- Viewing panels are lead safety glass (laminated glass with interlayer - shatter resistant and meets the requirements of ANSI Z97.1-1984 & 16 CFR 1201 Cat. II)
- Durable solid lead-lined panels available with 1/32", 1/16", 1/8" or more lead equivalency
- Built to last with solid steel powder coated frame
- Hospital grade casters – 2 locking
- Standard 36" & 48" wide barriers available from stock – Custom sizes available



APPLICATIONS

OPERATING ROOMS

FLUOROSCOPY ROOMS

CT ROOMS



LEAD BRICKS



APPLICATIONS

HOT CELLS

RADIOACTIVE MATERIAL
TRANSPORTATION

TEMPORARY SHIELDING

"...ideal for new construction to reduce wall or ceiling thickness to achieve space savings."

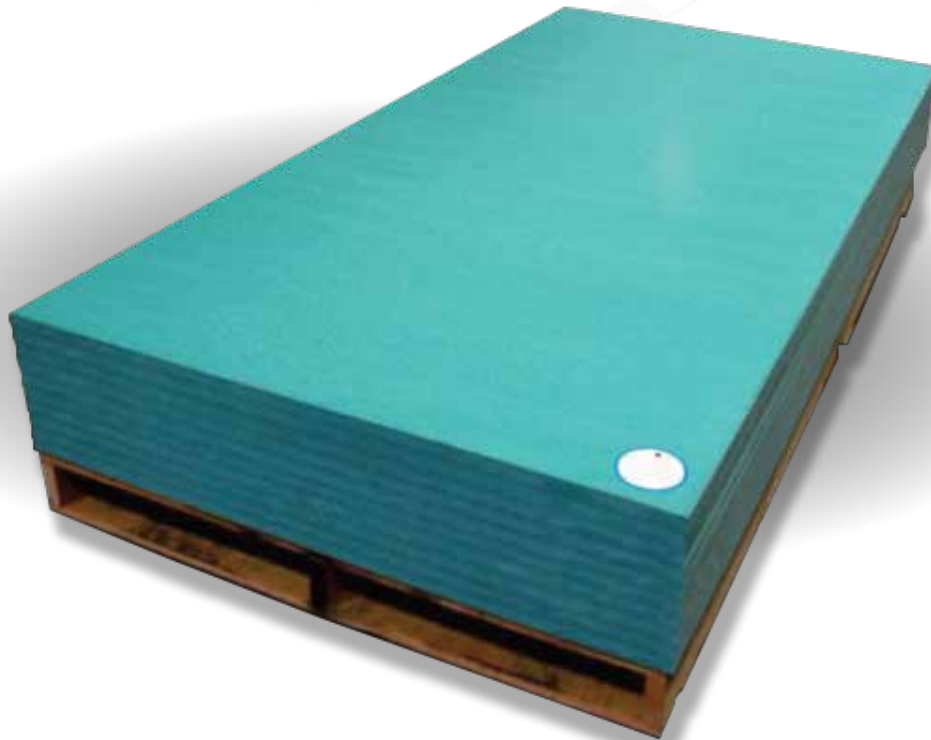
MarShield manufactures straight and interlocking lead bricks from 99.9% pure lead for radiation shielding. Bricks are commonly used when sheet lead is impractical or unavailable in required sizes – typically for lead equivalencies of $\frac{3}{4}$ " and up. Bricks are also an excellent choice for temporary construction because they can be readily removed and reused.

FEATURES & BENEFITS

- Cast from 99.9% pure lead
- Standard and custom sizes available
- Interlocking bricks use chevron "V" shape tongue and groove to prevent leakage
- Versatile to be re-used for other applications after initial use
- Widest size range in industry



BORATED POLYETHYLENE



“...a simple solution to temporarily reduce exposure to harmful neutron radiation.”

Borated high density polyethylene is a lightweight, cost effective solution to attenuate and absorb neutron radiation.

FEATURES & BENEFITS

- 5% borated polyethylene stocked in 1" X 48" X 96" sheets
- Consistent density and homogeneity
- Durable over a wide temperature range
- Easy installation and fabrication
- Custom cutting and CNC machining services available
- Low density polyethylene also available with no boron content



APPLICATIONS

HOT CELLS

STORAGE CONTAINERS

DETECTION SYSTEMS



LEAD GLASS

APPLICATIONS

X-RAY ROOMS

DENTAL CLINICS

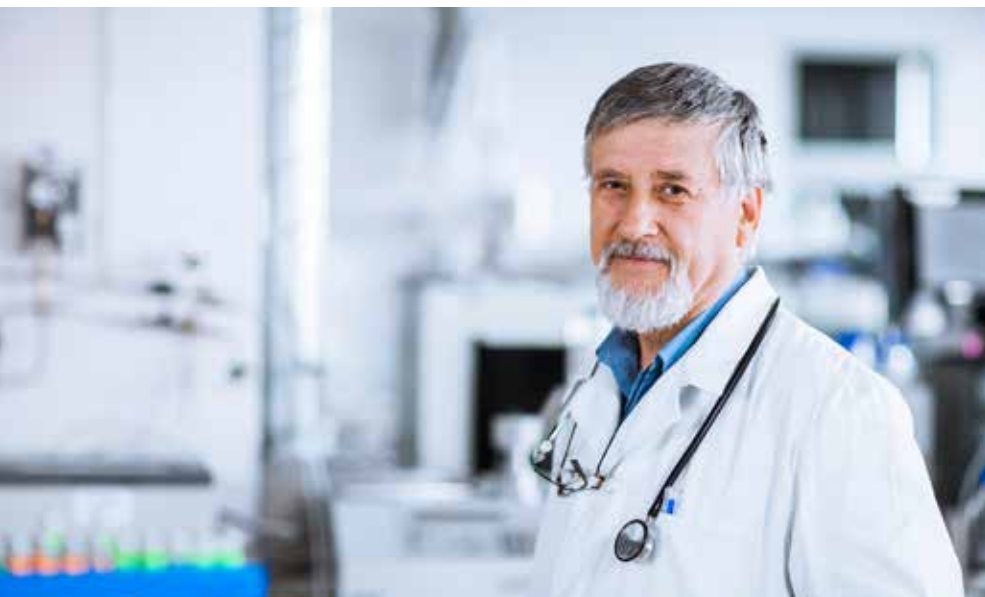
RADIATION THERAPY ROOMS

"...a high quality, transparent, protective shield against x-ray radiation."

MarShield carries x-ray shielding lead glass made of high quality optical grade material. There are multiple options available with standard lead glass, lead safety glass, lead free radiation shielding glass and ultra-high lead-oxide content glass for high dose applications.

FEATURES & BENEFITS

- Lead Equivalencies up to 1/8" (3.3mm)
- Glass thicknesses from 9mm to 17mm – stock sizes up to 48" X 96"
- No discoloration due to exposure from UV rays or cleaning chemicals
- Hard, polished surface provides superior scratch resistance
- Comparable weight to standard non-lead glass



LEAD ACRYLIC



"...a unique, versatile, transparent plastic that contains 30% lead by weight."

MarShield carries leaded acrylic as a shatter resistant, versatile answer to all x-ray shielding needs. A transparent plastic containing 30% lead by weight combines effective radiation protection and superb light transmission.

FEATURES & BENEFITS

- Sizes available up to 72"x96" with thicknesses from 8mm to 46mm
- Can be cut, drilled or machined using standard plastic handling techniques
- Creates an open environment for personnel and patients



APPLICATIONS

X-RAY ROOMS

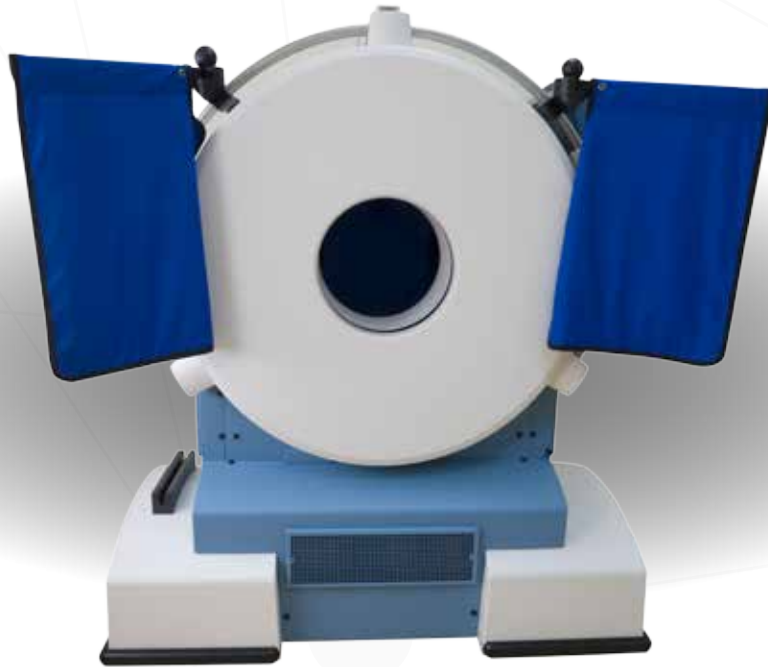
DENTAL CLINICS

DIAGNOSTIC SCREENS





LEAD CURTAINS



APPLICATIONS

PATIENT DIVIDERS

ISOTOPE SHIELDING

TRAUMA SUITES

“...ideal for areas with secondary or low level radiation.”

MarShield's lead lined curtains are an economical solution to provide radiation shielding in areas where a permanent wall is not practical. These are ideal for areas with secondary or low level radiation. Tailored to your unique requirements, our lead curtains are available in a variety of lead equivalencies, colors, sizes and configurations.

FEATURES & BENEFITS

- Available in lead equivalencies of .25, .30, .35, .50, 1.0 and 1.5 mm
- Individual panels (max 48" wide) attach using Velcro to create custom widths
- Easy to clean and maintain
- Optional 12 gauge enclosed steel roller track and 12 gauge rollers with steel wheels available

LEAD LINED DOORS AND WINDOWS



"...designed and constructed with the highest quality craftsmanship and materials available."

MarShield offers a premium line of lead lined doors and windows manufactured to have an equal appearance to architecturally designed doors and frames. Each lead lined door, frame and window is custom designed and built to your specifications.

FEATURES & BENEFITS

- Doors come in metal, wood and plastic laminate finish options
- Custom neutron and gamma doors available
- Split window frames allow installers to fit each side of frame to wall and fasten together to form a solid assembly

APPLICATIONS

PET ROOMS

CT ROOMS

X-RAY ROOMS



TRUSTED FOR OVER 35 YEARS.



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