Manufacturing radiation protection and contamination control solutions since 1974
Seattle | Providence | Washington, D.C.
Lancs Industries manufactures custom designed radiation shielding and containment products used to increase safety and reduce risk to workers in Nuclear, Chemical and Bio Hazard work environments throughout the world. Our products successfully mitigate hazards at Commercial Nuclear Sites, Site Remediation, Decommissioning and Demolition, Research Laboratories as well as Naval ships and shipyards in facilities in North America, Europe and Asia.
Custom Protective Clothing

LANCS INDUSTRIES
Custom Protective Clothing

- **Suits**: One-piece, Two-piece, Sack Suit, Wet Suit, Acid Suit, Welders Jacket
- **Hoods**: PVC, Cotton, Poly/Cotton Blend, Urethane-coated Nylon, Endura
- **Shoe Covers**: High Top PVC Bootie, Low Top Overshoe, Cotton Overshoe, Low Top Rubber Bootie, Low Top Rubber Overshoe, Rubber Overshoe with Gaiter, Urethane-coated Nylon with Hypalon Sole
Radiation Shielding
• **Lead Blankets**: Largest manufacturer of lead wool and lead plate blankets.

<table>
<thead>
<tr>
<th>Approximate Dimensions</th>
<th>Density=</th>
<th>48.8 kg/m²</th>
<th>61.1 kg/m²</th>
<th>73.2 kg/m²</th>
<th>97.6 kg/m²</th>
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</thead>
<tbody>
<tr>
<td>300mm x 600mm</td>
<td>LI-202</td>
<td>LI-212</td>
<td>LI-222</td>
<td>LI-232</td>
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<tr>
<td>300mm x 900mm</td>
<td>LI-203</td>
<td>LI-213</td>
<td>LI-223</td>
<td>LI-233</td>
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<tr>
<td>300mm x 1200mm</td>
<td>LI-204</td>
<td>LI-214</td>
<td>LI-224</td>
<td>LI-234</td>
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<tr>
<td>300mm x 1500mm</td>
<td>LI-205</td>
<td>LI-215</td>
<td>LI-225</td>
<td>LI-235</td>
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<tr>
<td>300mm x 1800mm</td>
<td>LI-206</td>
<td>LI-216</td>
<td>LI-226</td>
<td>LI-236</td>
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</table>

<table>
<thead>
<tr>
<th>Lead Wool Density (kg / m²)</th>
<th>Approximate Finished Blanket Thickness (mm)</th>
<th>Lead Sheet Equivalent Thickness(mm)</th>
<th>% Dose Rate Reduction (Co-60)</th>
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</thead>
<tbody>
<tr>
<td>48.8</td>
<td>9.5</td>
<td>3.2</td>
<td>20%</td>
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<tr>
<td>61.1</td>
<td>12.7</td>
<td>4.0</td>
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<tr>
<td>73.2</td>
<td>15.9</td>
<td>4.8</td>
<td>26%</td>
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<tr>
<td>97.6</td>
<td>19.1</td>
<td>6.4</td>
<td>31%</td>
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Radiation Shielding

Pipe Wrap  Pipe Shields  Floor Shields  Blankets
Radiation Shielding

<table>
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<tr>
<th>MATERIAL TYPE</th>
<th>.25</th>
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<th>.75</th>
<th>1</th>
<th>1.25</th>
<th>1.5</th>
<th>1.75</th>
<th>2</th>
<th>2.25</th>
<th>2.5</th>
<th>2.75</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>Tungsten</td>
<td>22%</td>
<td>39%</td>
<td>52%</td>
<td>62%</td>
<td>70%</td>
<td>77%</td>
<td>82%</td>
<td>86%</td>
<td>89%</td>
<td>91%</td>
<td>93%</td>
<td>95%</td>
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<tr>
<td>Bismuth</td>
<td>16%</td>
<td>29%</td>
<td>40%</td>
<td>50%</td>
<td>58%</td>
<td>64%</td>
<td>70%</td>
<td>75%</td>
<td>79%</td>
<td>82%</td>
<td>85%</td>
<td>87%</td>
</tr>
<tr>
<td>Iron</td>
<td>9%</td>
<td>17%</td>
<td>25%</td>
<td>32%</td>
<td>38%</td>
<td>44%</td>
<td>49%</td>
<td>53%</td>
<td>58%</td>
<td>62%</td>
<td>65%</td>
<td>68%</td>
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<tr>
<td>Compared to:</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead Plate</td>
<td>34%</td>
<td>56%</td>
<td>71%</td>
<td>81%</td>
<td>87%</td>
<td>91%</td>
<td>94%</td>
<td>96%</td>
<td>98%</td>
<td>98%</td>
<td>99%</td>
<td>99%</td>
</tr>
</tbody>
</table>
Containments and Tents
This is an example of a Glovebag being used in part of the Transuranic Waste Repacking process. We also supplied bags with BOP filters for retrieving the drums before they were sorted.

Transuranic Waste Repacking video
Pine Bluff Arsenal

- We collaborate with PBA and provide products for their individual and collective chemical protection / decon systems and munition production. They also use our products as part of their chemical & biological defense operations training program.
Hanford Site, Tank Farms

- This glovebag was used in part of Hanford Tank Farms sampling and inspection operation.
Brookhaven National Lab

- This project involved the dismantling of the Brookhaven Graphite Research Reactor. It consisted of several large containments covering thousands of square feet.
Hanford Site

- At Hanford Tank Farm a preassembled tent is being crane lifted into place so workers can perform work on a leaking tank.
EnergySolutions

- At Humboldt Bay, components are being decommissioned from Unit 3. This shows an example of the ventilation equipment we can provide with our tents.
Large Containment Tents

Designed for rapid installation. Withstand 100 km/hr winds. Complete with electrical distribution, HVAC, lighting and HEPA Filtration.

At Palo Verde, components are stored outside of Containment Building during Refueling Outages. This shows design of the Large Tent we designed for their Site.
Duradeck Flooring

**Module Size:**
- Length: 8’ / 2.44 m
- Width: 4’ / 1.22 m, 3’ / 0.914 m, 2’ / 0.609 m
- Module Size: 32 sq/ft / 2.973 sq/meters
- Thickness: ½” thick mat + 3/8” cleat

**Module Weight:**
- Weight: 86 lbs / 39.01 kg
- Per Square Foot: 2.69 lbs / 43 oz / 1.22 kg / 1219 grams
- Per Square Meter: 28.60 lbs / 12.97 kg

**Colors:**
- Black, White.
- Custom colors available (minimum order required).

**Material:**
Black High-Density Polyethylene (HDPE) post-industrial recycled plastic, naturally UV resistant due to the carbon black used for color. While mats available.

**Compressive Strength:**
ASTM D695-02a: 2,840psi

**Flammability Resistance:**
UL-94 HB Rating

**Tread Pattern:**
- DD1: Double-traction tread design includes two parallel traction treads positioned at a 90-degree angle to adjacent double traction tread sets.
- DD2: Rugged double-traction tread on one side/Pedestrian tread one side
- DD3: Pedestrian tread on one side/Smooth (no tread) on one side
- DD4: Rugged double-traction tread on one side/Smooth (no tread) on one side

**Support Structure:**
Metling incorporates multi-directional structural support (cleat design) allowing for distribution or dispersion of PSI weight factors. Not intended for bridging.

**Weight Loading:**
Varies, depending on sub-surface, up to 80 tons capacity.

**Ground surface:**
DuraDeck mats are designed to be used with no ground preparation over grass, gravel, soil, concrete, asphalt, mud and sandy soil conditions.

**Connection System:**
DuraDeck mats have six holes (in each corner and in the center line) to create multi-directional roadways or nearly any size or shape. Mats can be connected using metal DuraLink connectors. DuraLinks do not require tools to install.

**Warranty:**
7 years against cracking and breaking under normal use.
Portable AC/Heat/Filtration

- Ambient Operating Range: 45-115°F
- Design Supply Air CFM: 8,000
- Supply Air Fan HP: 5
- Total Weight: 2150 lbs
- Minimum Circuit Amps: 57.8 Amps
- Cooling Only: 51.6 Amps
- Refrigeration Circuits: 2
- Supply Air ESP: 1.0" 
- Unit Dimensions (LxWxH): 91" x 36" x 94"
- Power Connections: Camloc - Power In & Out
- Electric Heat: 45 kW
- MCA (Heating Only): 78.8 Amps

*** 100% Return Air w/ no Positive Air Pressure (Filtered)
Power Temp Systems portable power distribution system which includes all Nema 3R Transformer, 120/208V and 480V Distribution Panels, Cam-Lok and Wetguard Extension Cables, GFCI & Wetguard Quad Boxes

400A Metal Halide High Bay Lighting Fixtures

Complete system is plug and play.
Supplies and Accessories
Supplies and Accessories

- **Filters**: HEPA filters, Pancake Filter Cartridges, Metal Housings, Plastic Housings, BOP Filters

- **Glovebag /Tent**
  - **Accessories**: Frames, Glove Ring and Clamp, Tie-offs, Transfer Cylinder Assemblies, Bag-out Rings, Drain Assemblies, Adhesives

- **Other**: Signage, Barriers (Tape & Rope), Spill Kit, Poly Bottles
Respiratory Equipment
Respiratory Equipment

• **Air Fed Hood:** Supplied Air Respirator (SAR), NIOSH approved

• **Air Hose:** Braided rubber hose, available in 25’ lengths up to 300’ max

• **Fittings:** Hansen, Foster, Schrader, Snap Tite and CEJN
Sleeving, Bags & Roll Goods
Sleeving, Bags & Roll Goods

• **Sleeving:** Multiple materials and lengths, heat-sealed lap seam or seamless tubing

• **Bags:** Multiple materials and dimensions, may include flaps, snaps, grommets, bungee cord, O-rings, zip lock, Velcro, handles, pockets, filters

• **Roll Goods:** We can provide large quantities of film or sheet for any of the materials we stock
Headquarters & Manufacturing

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