Virtual Mold Room

“The Future of Custom Radiation Therapy Devices”

Safety  Quality  Savings
Safety

• Lead (a component of cerrobend) is an OSHA regulated hazardous material.

• Accidental exposure to lead poses a health risk to patients and staff.

• The need for cerrobend in the clinic has fallen dramatically, but the requirements for regulatory compliance have increased.

Quality

• Common OSHA and State violations include:
  o Failure to record air monitoring
  o Failure to provide or utilize required Personal Protective Equipment
  o Failure to have written Hazardous Materials Procedures
  o Failure to implement or record Hazardous Materials Training Records for all employees
  o Failure to inform (in writing) employees of the harmful effects of lead exposure

Savings

• Eliminate health and regulatory risk with .decimal copper electron cut outs.
Virtual Mold Room
“The Future of Custom RT Devices”

**Safety**
- **.decimal® is an FDA compliant manufacturer.** All .decimal® devices have 510K approval.

**.decimal® qualifications:**
- Longevity - 30 years serving the radiation oncology community
- Over 47,000 patients treated with .decimal® custom devices
- Over 250,000 custom devices manufactured
- ISO Certifications: 9001 (manufacturing); 14001 (medical device); 13485 (environmental)
- Over 500 centers utilize .decimal custom devices across the US

**Quality**
- **Unparalleled accuracy:** All .decimal® devices are computer designed and precision milled or manufactured to meet your exact specifications.

**Savings**
- **Copper electron cut outs are better:**
  - Research shows the blocking power of copper is equal to that of cerrobend
  - Copper offers better protection to healthy tissue outside the treatment area
  - Copper eliminates regulatory risk associated with cerrobend cut outs
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**Safety**

• Today, mold/block rooms are utilized primarily for electron treatments, usually only 5-10% of an average clinic’s patient load.

• Regulatory compliance is expensive and requires valuable resources:
  - money
  - time
  - personnel
  - clinic space

**Quality**

• Non-compliance fines are even more expensive! Infractions are difficult to avoid and fines can total many thousands of dollars.

• Don’t waste valuable resources on something that carries unnecessary risk and expense.
Virtual Mold Room

Custom devices are designed at your clinic using your TPS and .decimal® p.d software.

Device files are sent to .decimal® electronically for manufacturing.

Custom devices arrive at your clinic within 24 - 48 hours.

Devices are shipped FedEx overnight.
Conclusions

“Using custom milled copper inserts for electron beam therapy planned with standard commissioning data measured using Cerrobend inserts results in minimal in-field dosimetric differences (<2%) for standard clinical applicators (2x2-20x20 cm²).

The largest dosimetric differences (>2%) result from the lower out-of-field dose for copper inserts due to a reduction in bremsstrahlung production as compared to Cerrobend. Clinically, this dosimetric difference is insignificant, as the use of copper inserts could reduce the dose received by healthy tissue outside of the planned treatment volume.”

Full Research Poster (AAPM 2014) can be found at:

www.dotdecimal.com
Client Testimonials:

“We use .decimal blocks, e-cutouts and bolus as they are wonderful tools for our physicians and staff. The blocks and e-cutouts have allowed us to confidently do away with our block room and the boluses have helped us on numerous challenging cases. The .decimal software is very user-friendly and accommodating for challenging and time sensitive cases.”

~ AJ Carper, Medical Physicist, Midwestern Regional Cancer Center, Zion, IL

“We use .decimal for manufacturing of shield devices for electron beam therapy to eliminate the on-going safety requirements required by regulatory agencies, i.e Labor and Industries, Department of Health, and JCH. The service has been excellent...high quality, safe, shielding products. The precision cut of the devices are noticeably better than those we ever constructed...”

~ Sue Smiley, Manager-Radiation Oncology, Evergreen Health, Kirkland, WA
# Electron Cut Outs

<table>
<thead>
<tr>
<th>Machine Type</th>
<th>Field Size (cm) / Description</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siemens</td>
<td>4 Round / Electron Cut Out</td>
<td>$100</td>
</tr>
<tr>
<td>Varian / Elekta</td>
<td>6 x 6 / Electron Cut Out</td>
<td>$100</td>
</tr>
<tr>
<td>Varian</td>
<td>6 x 10 / Electron Cut Out</td>
<td>$100</td>
</tr>
<tr>
<td>Varian / Siemens / Elekta</td>
<td>10 x 10 / Electron Cut Out</td>
<td>$100</td>
</tr>
<tr>
<td>Elekta</td>
<td>14 x 14 / Electron Cut Out</td>
<td>$125</td>
</tr>
<tr>
<td>Varian / Siemens</td>
<td>15 x 15 / Electron Cut Out</td>
<td>$125</td>
</tr>
<tr>
<td>Varian / Siemens / Elekta</td>
<td>20 x 20 / Electron Cut Out</td>
<td>$150</td>
</tr>
<tr>
<td>Varian / Siemens / Elekta</td>
<td>25 x 25 / Electron Cut Out</td>
<td>$200</td>
</tr>
<tr>
<td>Varian / Siemens / Elekta</td>
<td>Cerrobend Photon Blocks</td>
<td>$100</td>
</tr>
<tr>
<td>Varian / Siemens / Elekta</td>
<td>Cerrobend TBI Blocks (per field)</td>
<td>$150</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Machine Type</th>
<th>2015 MPFS Global (Freestanding)</th>
<th>CMS Nat. Avg.</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>77334 Complex Device</td>
<td>2015 HOPPS Technical (Hospital)</td>
<td>$162.32</td>
<td>$215.54</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Safety</th>
<th>Quality</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>No lead exposure to patients or staff</td>
<td>Computer designed and precision manufactured for 100% accuracy</td>
<td>No risk of fines for non-compliance (OSHA and other regulatory agencies)</td>
</tr>
<tr>
<td>No compliance headaches</td>
<td>Copper electron cuts outs are proven safe and effective</td>
<td>No costly mold room maintenance</td>
</tr>
</tbody>
</table>

Let .decimal® show you how to eliminate expense and risk!

121 Central Park Place  
Sanford, FL 32771  
1.800.255.1613

For more details or a mold room compliance checklist visit:  
www.dotdecimal.com
Ordering Process
How to Order

- .decimal provides software for ordering

- Cut out files can be created two ways: in the TPS, or, by clinical set up.

- The following slides will illustrate both methods
Designed within TPS

- Create aperture in planning system as usual
- DICOM RT export beam / aperture to .decimal p.d software
Select “Order Wizard” to upload file to .decimal’s secure ordering site.
Clinical Set Up

- Draw opening on a special .decimal provided template
- Scan the template on a flat bed scanner and save as a bit map file (.bmp)
- Open file in p.d software
Clinical Set Up

- Digitize drawing of opening
- Save digitized file
Select “Order Wizard” to upload file to .decimal’s secure ordering site
Same Day / Next Day Shipping
.decimal®... Your Virtual Mold Room

- Electron Cut Outs
- Custom Bolus
- TBI Blocks
- Photon Blocks
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Contact Mary or Henry with questions or to arrange a no obligation trial order.