Simultaneous Measurement of Differential Pressures

Three tip configurations:
- 145° Pigtail
- Multipurpose A2
- Straight Selective
**LANGSTON® Deployment Steps for Measuring Pressure Gradient**

- **Set Up:** Flush both ports with heparnized sterile solution. Turn the outer lumen stopcock “Off.” Load the distal portion of the Langston catheter over a ≤ 0.038" (0.965mm) guidewire. Insert the Langston catheter through an already positioned introducer sheath of appropriate size.

- **Step #1.** Remove guidewire, open stopcock, flush and connect both ports to transducers. Level, zero and calibrate both ports before crossing the aortic valve/lesion.

- **Step #2.** Re-insert guidewire and cross aortic valve/lesion. Remove guidewire, flush both ports, re-check zeros, and record simultaneous pressure measurements. If desired, continue recording while performing pullback to re-confirm pressure tracing accuracy.

**Please see the Langston dual lumen catheter Instructions for Use for a complete listing of the deployment steps.**
Langston dual lumen catheters offer accurate and responsive pressure measurements through two lumens in a coaxial design:

- **Outer lumen for AO pressure measurement**
- **Inner lumen for high pressure delivery of contrast medium and LV pressure measurement**

With braided catheter construction and low-profile crossing.

### Langston Dual Lumen Tip Configurations

- **Straight Selective with radiopaque marker band***
- **Multipurpose A2 with bumper tip**
- **145° Pigtail**

*Marker band location 1cm distal to outer lumen sideholes*
Langston dual lumen catheters are indicated for delivery of contrast medium in angiographic studies and for simultaneous pressure measurement from two sites. This type of pressure measurement is useful in determining transvascular, intravascular and intraventricular pressure gradients.

### Langston Dual Lumen Catheters*

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Catheter Description</th>
<th>Length</th>
<th>O.D.</th>
<th>Inner Lumen</th>
<th>Proximal Marker Band</th>
<th>Guidewire</th>
<th># Outer Lumen Sideholes</th>
<th># Inner Lumen Sideholes</th>
<th>Inner Lumen M.P.R.**</th>
<th>Max Flow Rate***</th>
</tr>
</thead>
<tbody>
<tr>
<td>5500</td>
<td>145º Pigtail</td>
<td>125cm</td>
<td>8F</td>
<td>5F</td>
<td>No</td>
<td>≤ 0.038&quot;</td>
<td>8</td>
<td>5</td>
<td>1200psi</td>
<td>19ml/sec</td>
</tr>
<tr>
<td>5515</td>
<td>145º Pigtail</td>
<td>125cm</td>
<td>7F</td>
<td>5F</td>
<td>No</td>
<td>≤ 0.038&quot;</td>
<td>8</td>
<td>5</td>
<td>1200psi</td>
<td>19ml/sec</td>
</tr>
<tr>
<td>5540</td>
<td>145º Pigtail</td>
<td>110cm</td>
<td>6F</td>
<td>4F</td>
<td>No</td>
<td>≤ 0.038&quot;</td>
<td>8</td>
<td>5</td>
<td>1000psi</td>
<td>15ml/sec</td>
</tr>
<tr>
<td>5550</td>
<td>Multipurpose A2</td>
<td>100cm</td>
<td>6F</td>
<td>4F</td>
<td>No</td>
<td>≤ 0.038&quot;</td>
<td>8</td>
<td>2</td>
<td>1000psi</td>
<td>15ml/sec</td>
</tr>
<tr>
<td>5560</td>
<td>Straight Selective</td>
<td>110cm</td>
<td>6F</td>
<td>4F</td>
<td>Yes</td>
<td>≤ 0.038&quot;</td>
<td>2</td>
<td>2</td>
<td>1000psi</td>
<td>15ml/sec</td>
</tr>
</tbody>
</table>

* Packaged in quantities of 5 units per box. Individual units not sold separately.
** Maximum Pressure Rating
*** Flow rates achieved at 10.5cP. Actual results may vary.