Anti-Explosion Doors

These doors are recommended for protection against explosion by detonation or deflagration. It is designed under strict criteria in order to meet the requirements of several building types such as refineries, chemical and pharmaceutical industries, hazardous material and ammunition storage locations, and sites targeted by criminal attacks.

Certified for pressures up to 15 PSI
Single or double doors
In conformity with existing safety standards
Anti-Explosion Doors

TECHNICAL DESCRIPTION

Stress and Pressure Specifications

PSI (Pound per Square Inch) is a stress and pressure unit of measure.

<table>
<thead>
<tr>
<th>PSI</th>
<th>Door thickness</th>
<th>Leaf/Leaves</th>
<th>Fire resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 15</td>
<td>44 mm (1-3/4 in)</td>
<td>1</td>
<td>180 min</td>
</tr>
<tr>
<td>1 to 9</td>
<td>44 mm (1-3/4 in)</td>
<td>2</td>
<td>180 min</td>
</tr>
<tr>
<td>1 to 13</td>
<td>44 mm (1-3/4 in)</td>
<td>2*</td>
<td>N/A</td>
</tr>
</tbody>
</table>

* Oversized  
N/A: Not Applicable

Hardware

Doors are shop worked in order to receive a 3 anchorage lock or a mortise lock in conformity with the door opening direction or the source of the deflagration.

LEED®

LMT’s products can contribute to point calculation in order to obtain a LEED® certification.

Fire Resistance

Consult the Stress and Pressure Specifications table of this technical sheet.
CONSTRUCTION SPECIFICATIONS

1. **Scope of work**
   a) Frame must be previously installed in conformity with LMT Group's instructions by a qualified contractor.
   b) In order to respect anti-explosion performances, the LMT Group will supply the door, the frame and the hardware for each Anti-explosion set in conformity with plans and specifications.

2. **Door and frame components**
   a) Door
      i) Door sheet
         16 gauge (1,6 mm) steel sheet complies with a ASTM A653-10 standard stretcher. Galvanizing is applied by wiping and the finish per the ASTM A653-10 standard.
      ii) Door core
         The core is defined according to required pressure (PSI).
   b) Frame
      i) Frame steel
         14 gauge (2 mm) steel.
      ii) Weld
         Continuous weld laid inside the filler. All welds are reworked with a high-zinc finish paint per the CSA W59-03 standard.
      iii) Joints
         Continuous weld miter joints inside the filler. All joints are grinded and buffed to an even finish.
      iv) Reinforcements
         High-frequencies hinge reinforcements are 10 gauge (3,4 mm).

3. **Frame installation**
   a) Frame must first be installed by a qualified contractor.
   b) Frame must be true, straight, levelled and at the appropriate height.
   c) Anchorage and connection items must be fixed to adjoining items of the frame.

4. **Door installation**
   a) Once installed, the following clearances between the four sides of the door, the frame components and the floor must be the following:
      i) Hinge side: 2,5 mm (3/32 in)
      ii) Top: 2,5 mm (3/32 in)
      iii) Lock side: 2,5 mm (3/32 in)
      iv) Finished floor and sill strip: 19 mm (3/4 in).
   b) Hardware must be adjusted to allow easy opening and closing of the door.
   c) One of LMT’s installation team may be available to provide the installation of the door and its hardware or the entire project. Please consult our customer service to check the availability of our installers.

5. **Choice of the frame**
   Consult our frame section to choose a profile among one of those types: 1, 2, 5 or 6.