



Thorwesten Explosion Doors

R-3.1

INTRODUCTION

Thorwesten Air-Cushioned Explosion Doors provide a self-re-closing vent for process equipment. This feature can mitigate fire damage in vessels protected with these devices.

CONCEPT

Thorwesten explosion doors open against one or more baffle plates to provide an air cushion to absorb the shock of the explosion. After venting, the door re-closes and the unique door catches reseal the vent opening. Standard vents allow increased air supply to the protected vessel increasing the damage potential to a vessel such as a dust collector. But the Thorwesten Explosion Doors after re-closing, deprives the vessel of air through the opening, mitigating the damage from fire.

BENEFITS

- √ Lower cost of operation.
- √ Short down time.
- √ Self re-closure mitigates fire damage.
- √ Good insulation - no condensation
- √ Low Mass allows high effective area.

DESCRIPTION

The Thorwesten Air-Cushioned Explosion Doors come in two basic configurations, Round and Rectangular to handle most industrial applications. The round Explosion Doors are ideal for silos and other vessels requiring top mounting. The rectangular explosion doors are available in configurations for heavy industrial and light industrial environments. The units can be mounted in a horizontal or vertical position. The heavy industrial explosion doors are used on vessels such as dust collectors. The light in-

dustrial units are used on buildings etc. Because of the rapid venting and re-closing of the Thorwesten Explosion Doors, in tight vessels a vacuum can be created causing damage if not protected with a method of breaking it. Thorwesten round explosion doors are optionally available with integrated vacuum breakers. For installations using doors, Thorwesten has available optional pressure equalization valves. Consult a sales representative for your application.



Thorwesten Explosion Door Size Chart

TYPE DOOR	VENT AREA	EFFECTIVE VENT AREA
TT 600 Uni K	3.00 ft ²	> 2.70 ft ²
TT 800 Uni K	5.38 ft ²	> 4.80 ft ²
TT 1150 Uni K	11.20 ft ²	> 10.12 ft ²
TT 1400 Uni K	16.58 ft ²	> 14.96 ft ²
TT 1500 Uni K	18.73 ft ²	> 17.11 ft ²
RLE 800X1300	10.76 ft ²	> 9.80 ft ²
RLE 1000X2000	21.53 ft ²	> 19.59 ft ²
RLE - S 0.5	5.38 ft ²	> 4.84 ft ²
RLE - S 1.0	21.53 ft ²	> 9.80 ft ²

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