



## AVI Library Showcase

Blast Analysis

Courtesy

X3DCAE LLC

### AVI Library Blast Section

40 – 40a [<http://www.feainformation.com>]

**X3Dcae LLC** [<http://www.X3Dcae.com>]

#### Model Information:

Name: Blast Analysis

Units: mm, Mg, sec, N, MPa, N-mm

#### Blast Analysis Information:

- **ENCLOSURE Info**
  - steel protective enclosure
  - containing 16 breathable-compressed-air bottles for use in coal mines
  - dimensions: 3 meters x 2 meters x 0.75 meters
  - enclosure thickness: several gauges
  - blasted surface thickness : 4.75mm
  - blasted surface supported by 7.90mm vertical c-channels
  - enclosure material: MAT24 AISI1045HR
  - assembly mass: 4195 kg (enclosure + 16 bottles with breathable compressed air)
- **BLAST Info**
  - 20 kg C-4 (22.8 kg TNT)
  - semispherical ground level explosion
  - 1 meter in front of the enclosure

X3Dcae LLC is the first and only CAE firm in West Virginia performing Finite Element Analysis with LS-DYNA since 2006

The services provided by X3Dcae LLC are LS-DYNA Analysis for Product Development and Industrial R&D, FEA training for CAE teams and High Quality Meshing

**Analysis Software: LS-DYNA (LSTC)**

**Pre/Post Software: ANSA/μETA (BETA CAE)**

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