



## Tornado Resistant Openings



Rocky Mountain Metals, Inc. offers a complete line of certified and labeled Tornado Openings FEMA 361/ICC 500 Compliant Opening Configurations. These openings are tested as complete assemblies including doors, frames and hardware. Initially the Rocky Mountain Metals, Inc. solutions are certified and labeled with Securitech hardware. This program is under continued development. For up to date information contact Rocky Mountain Metals, Inc.

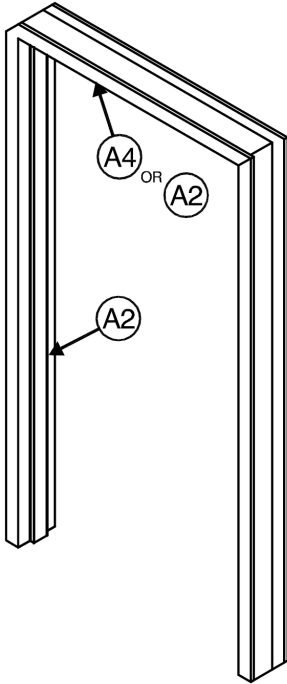
The offerings consists of openings of up to 8 ft. in width and 9 ft. in height for double doors and 4 ft. in width and 9 ft. in height for single doors.

### Frame Details

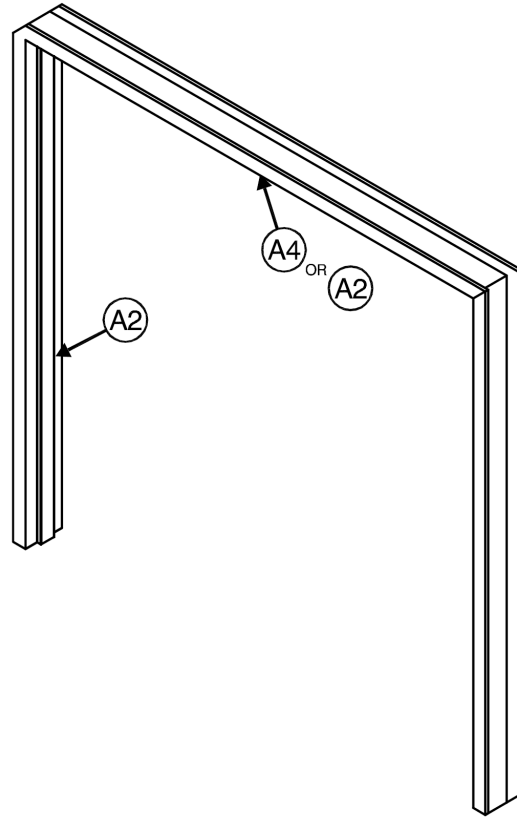
Face Material	Galvannealed A40 or A60 ASTM-A-653
Face thickness	14 Ga.
Construction	Hollow metal with 18 Ga. vertical steel stiffeners (ribs). Space between ribs insulated with glass wool insulation
Door thickness	1 3/4"
Reinforcements	7 Ga. 1 1/4" x 10" joggled hinge reinforcement, drilled and tapped 12 Ga. mortise hardware tabs, drilled and tapped 14 Ga. surface hardware and trim reinforcement, drilled and tapped
Edge reinforcement	Horizontal and vertical edges reinforced with 12 Ga. (min) full length channels spot welded to the face sheets
Vertical edges	Fully welded with no visible seam (for doors up to 10' height and 4' width)
Handing	Doors are handed
Appearance	Faces and edges free of defects, warp and buckle
Finish	Thoroughly cleaned and coated with a rust inhibiting primer meeting requirements as per ANSI/SDI A250.10



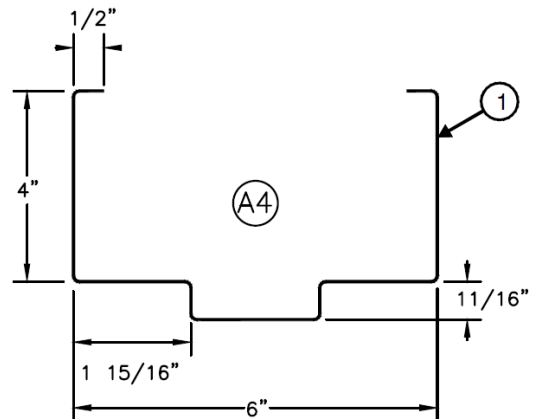
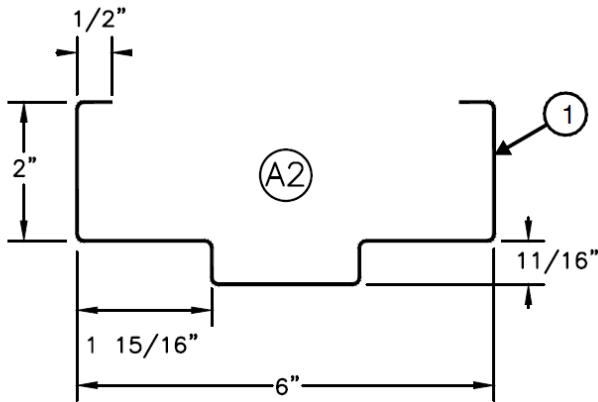
**Tornado Resistant Openings—Frames**



TYPICAL SINGLE HOLLOW METAL FRAME



TYPICAL DOUBLE HOLLOW METAL FRAME



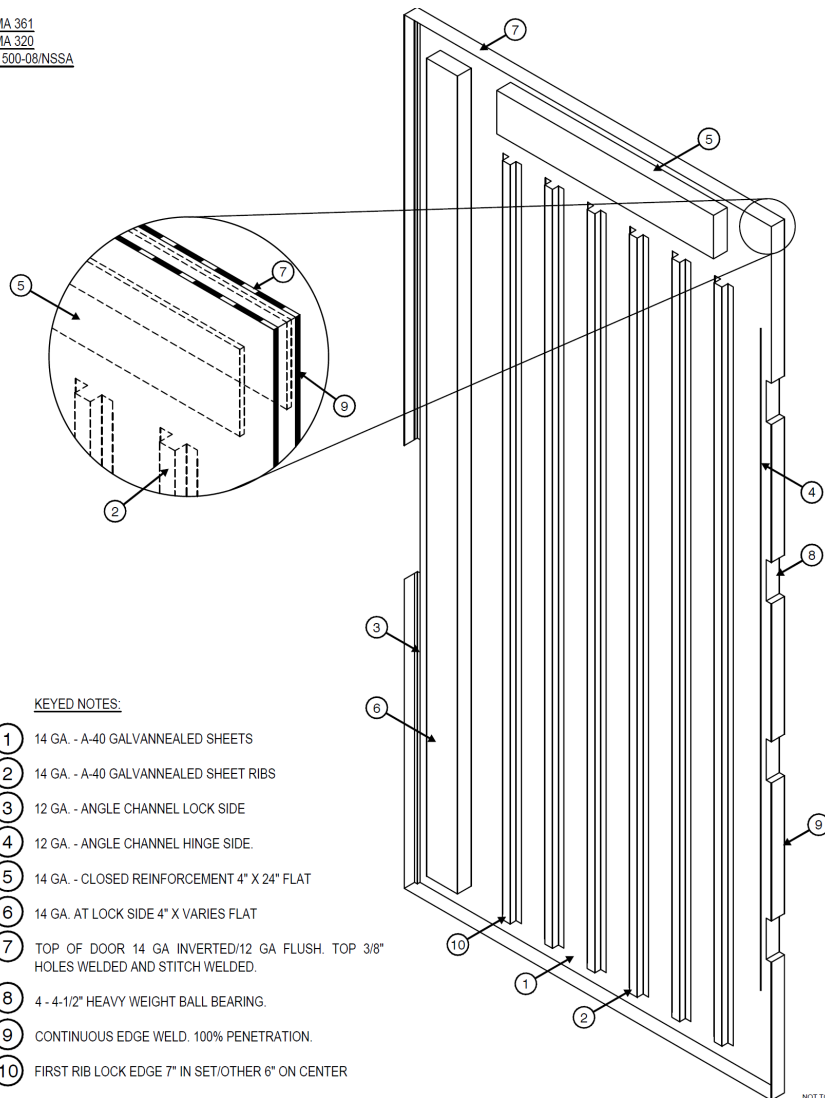


*Rocky Mountain Metals, Inc.*

## 1400 Door for Tornado Resistant Openings

Face Material	Galvannealed A40 or A60 ASTM-A-653
Face thickness	14 Ga.
Construction	Hollow metal with 18 Ga. vertical steel stiffeners (ribs). Space between ribs insulated with glass wool insulation
Door thickness	1 3/4"
Reinforcements	7 Ga. 1 1/4" x 10" joggled hinge reinforcement, drilled and tapped 12 Ga. mortise hardware tabs, drilled and tapped 14 Ga. surface hardware and trim reinforcement, drilled and tapped
Edge reinforcement	Horizontal and vertical edges reinforced with 12 Ga. (min) full length channels spot welded to the face sheets
Vertical edges	Fully welded with no visible seam (for doors up to 10' height and 4' width)
Handing	Doors are handed
Appearance	Faces and edges free of defects, warp and buckle
Finish	Thoroughly cleaned and coated with a rust inhibiting primer meeting requirements as per ANSI/SDI A250.10

FEMA 361  
FEMA 320  
ICC 500-08/NSSA



KEYED NOTES:

- ① 14 GA. - A-40 GALVANNEALED SHEETS
- ② 14 GA. - A-40 GALVANNEALED SHEET RIBS
- ③ 12 GA. - ANGLE CHANNEL LOCK SIDE
- ④ 12 GA. - ANGLE CHANNEL HINGE SIDE.
- ⑤ 14 GA. - CLOSED REINFORCEMENT 4" X 24" FLAT
- ⑥ 14 GA. AT LOCK SIDE 4" X VARIES FLAT
- ⑦ TOP OF DOOR 14 GA. INVERTED/12 GA. FLUSH. TOP 3/8" HOLES WELDED AND STITCH WELDED.
- ⑧ 4 - 4-1/2" HEAVY WEIGHT BALL BEARING.
- ⑨ CONTINUOUS EDGE WELD. 100% PENETRATION.
- ⑩ FIRST RIB LOCK EDGE 7" IN SET/OTHER 6" ON CENTER