

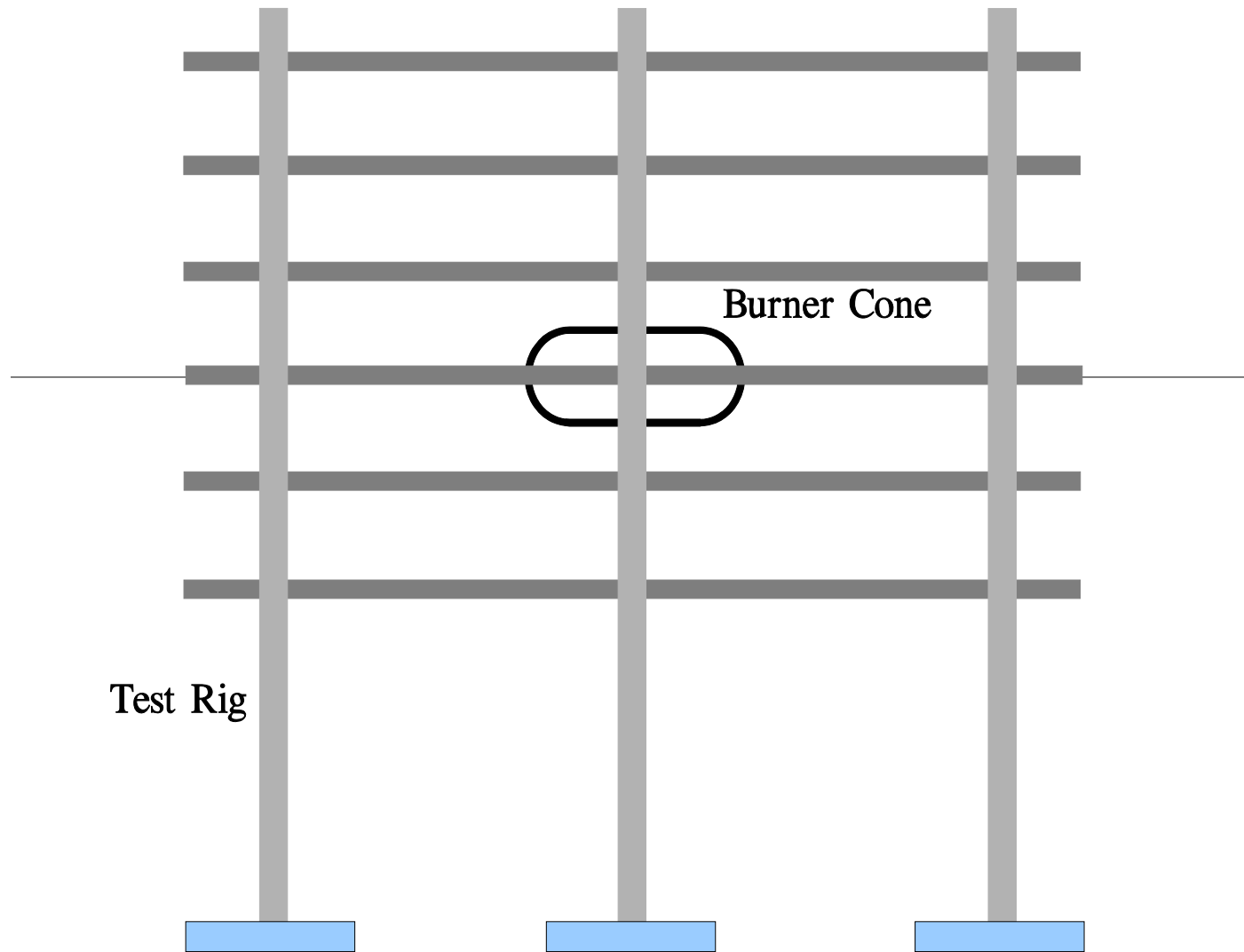
Development of a Calibration Material Sample Holder



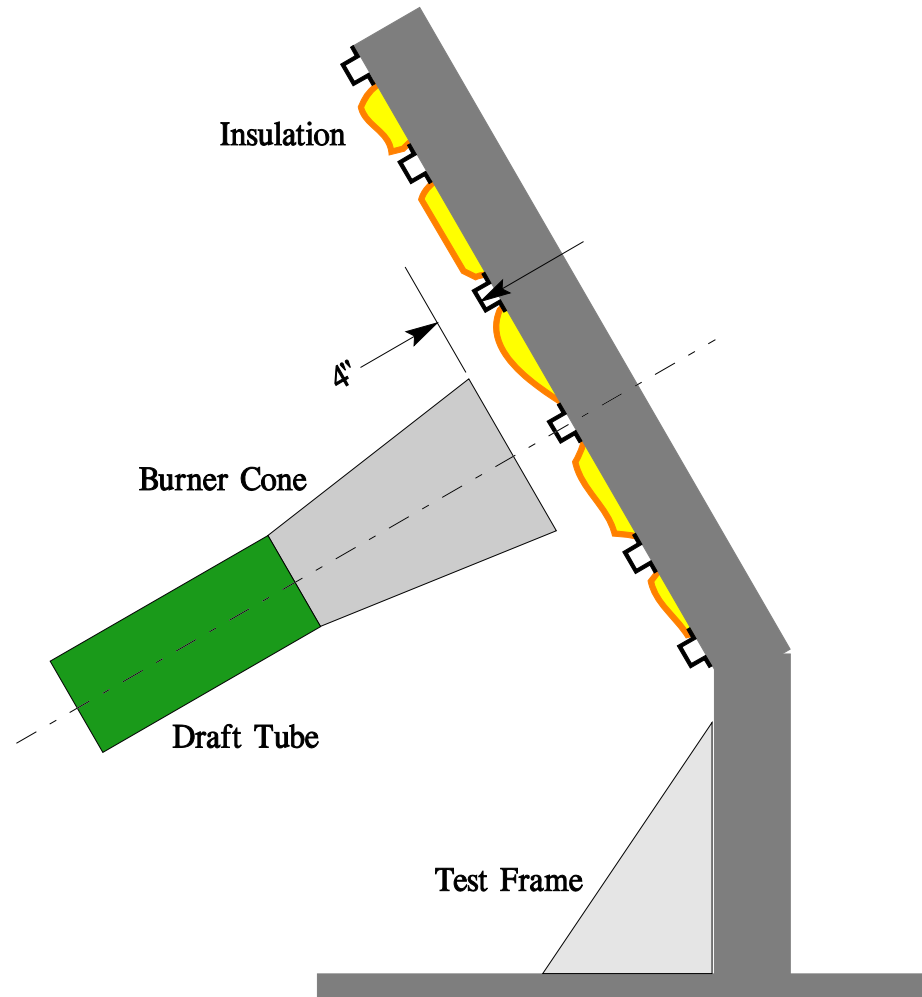
Tim Marker

FAA Technical Center

Location of Burner Cone WRT Original Sample Holder



Location of Burner Cone WRT Original Sample Holder



Location of Greatest Damage to Original Sample Holder



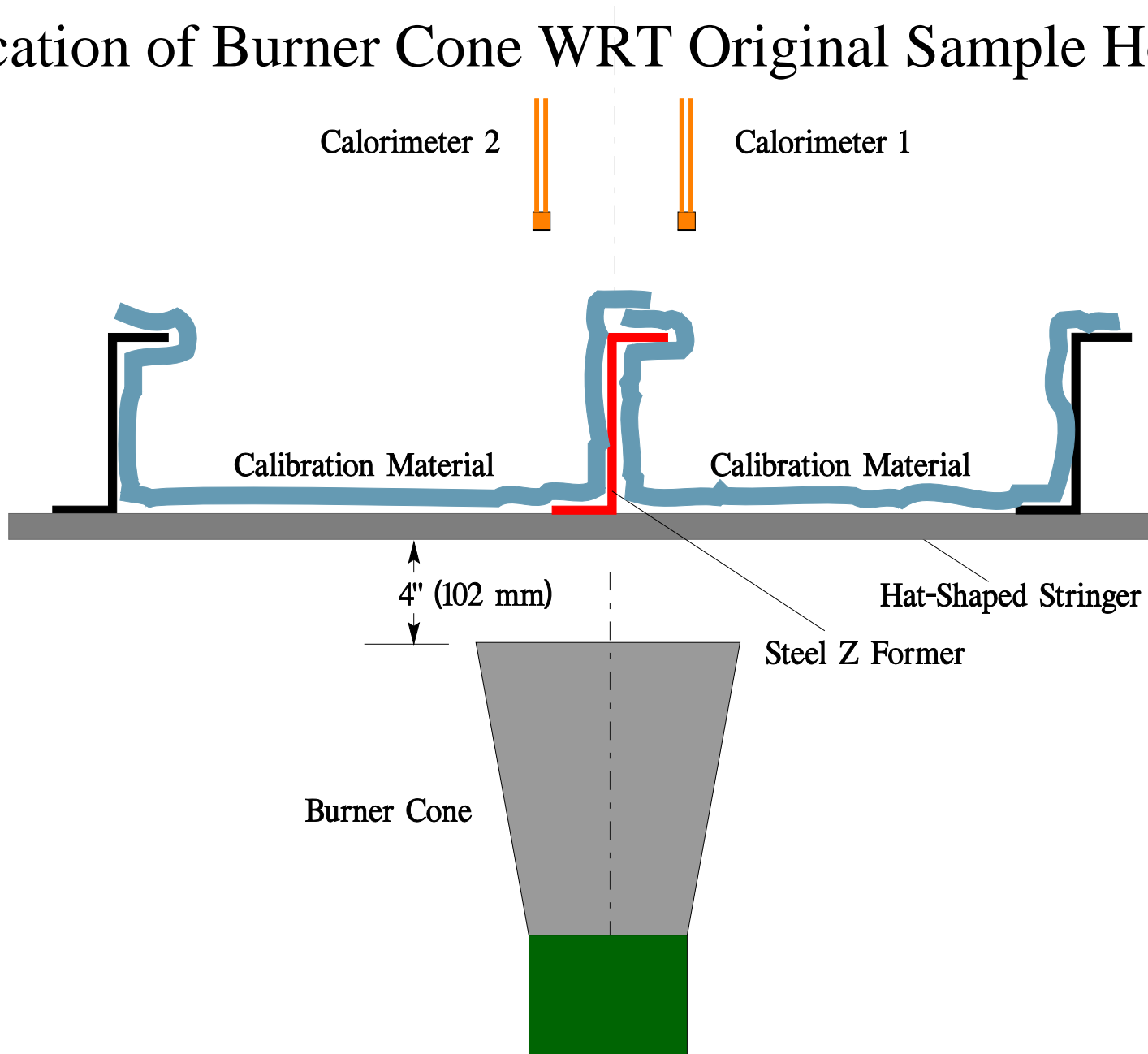
Location of Greatest Damage to Original Sample Holder



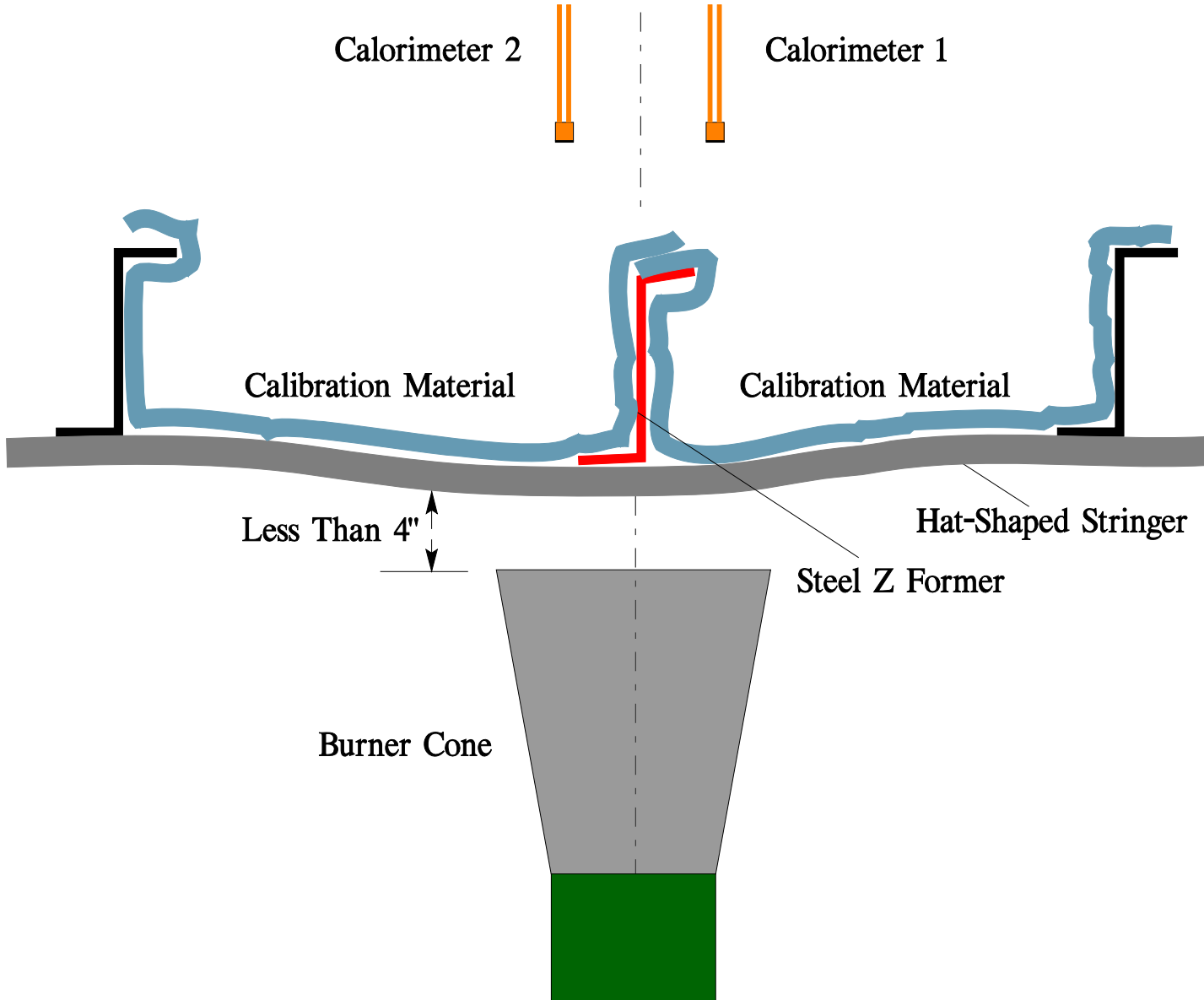
Location of Greatest Damage to Original Sample Holder



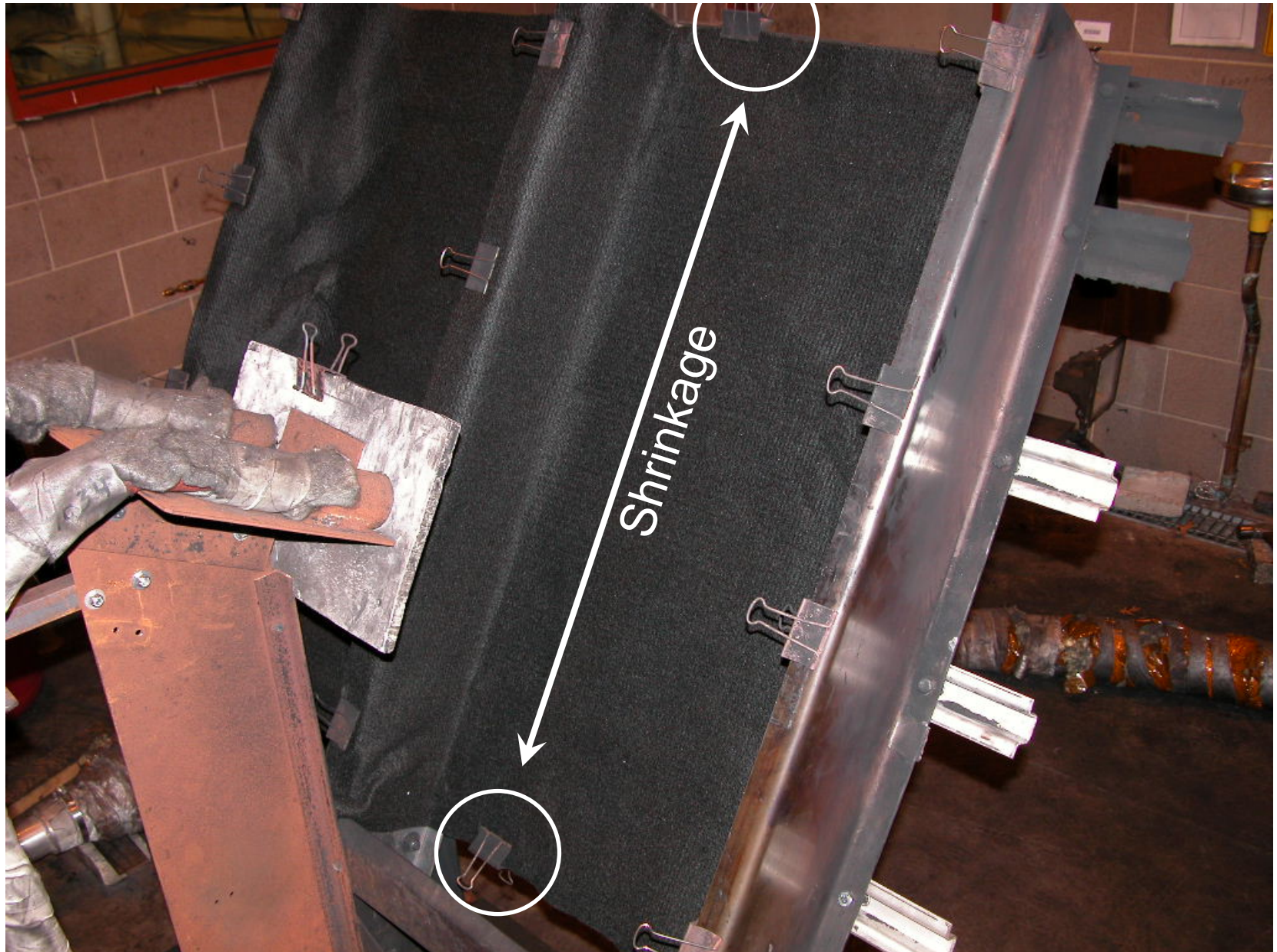
Location of Burner Cone WRT Original Sample Holder



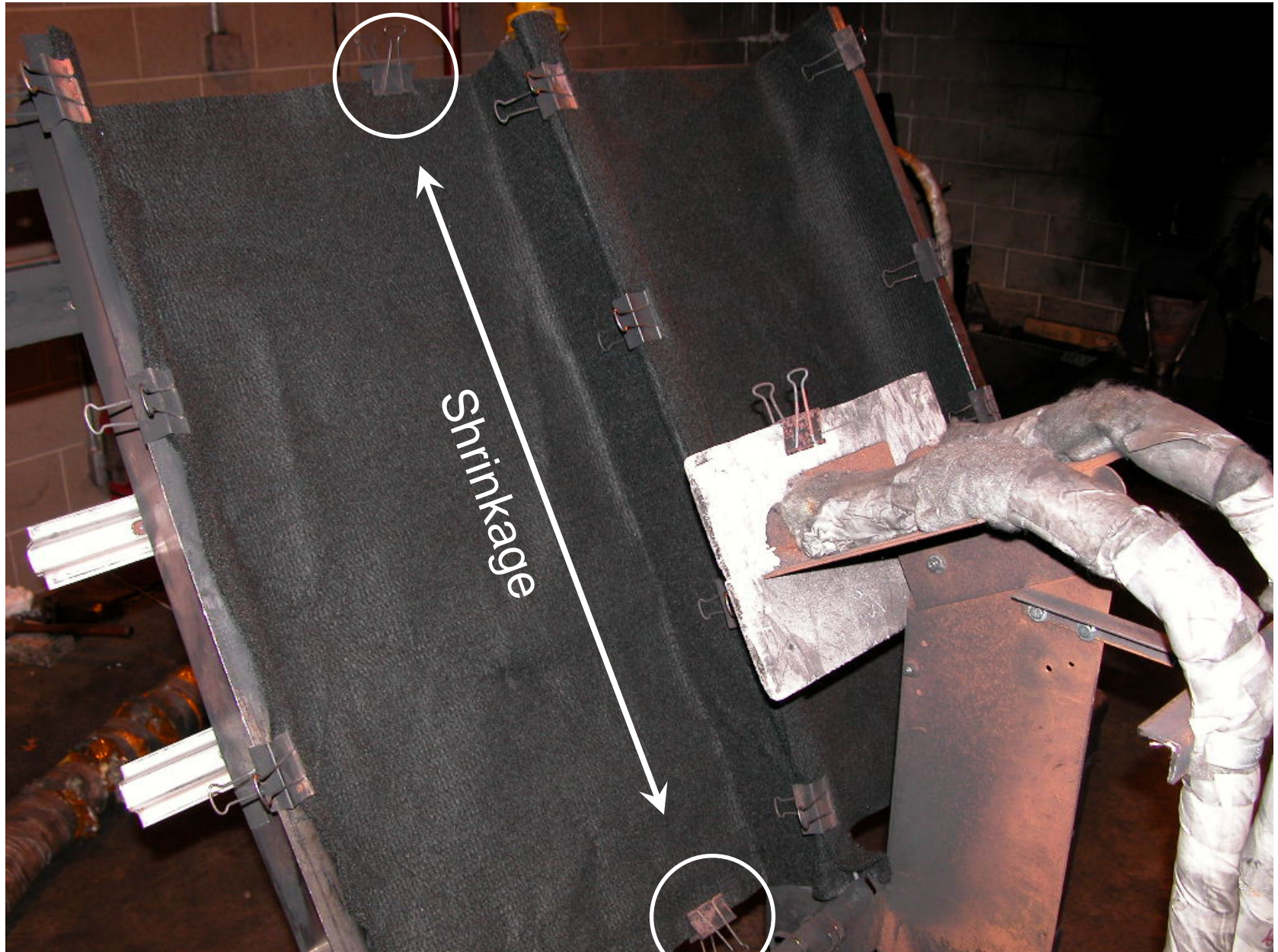
Typical Displacement of Original Sample Holder



Restraint and Shrinkage of Proposed Calibration Materials



Restraint and Shrinkage of Proposed Calibration Materials



Original Test Frame Sample Holder

Burner correlation testing often requires continuous use of test rig, with majority of tests run for 4 minutes.

Excessive use causes warpage and displacement of center vertical former.

Frequent maintenance of sample holder is required to obtain optimum test results.

Additional clipping of calibration materials required to prevent “parachuting”.

Shrinkage of material between clips causes stretching of material; varying amounts of stretching leads to inconsistent results.

Development of a Calibration Material Sample Holder

Design of frame to minimize influence of components (i.e., isolate material).

Minimize influence of shrinkage of proposed materials.

Make use of current blanket size if possible.

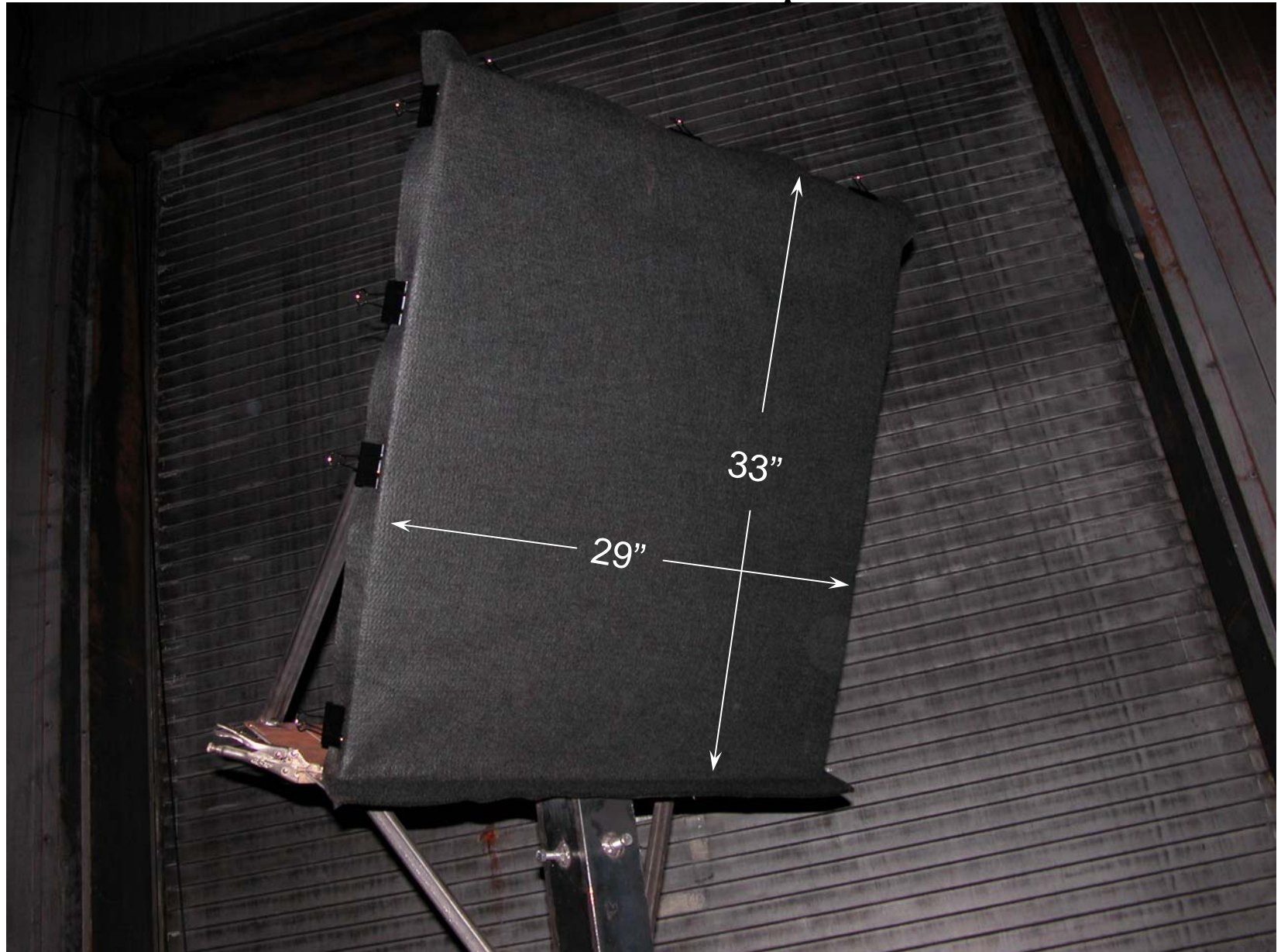
Calibration Material Sample Holder #1



Calibration Material Sample Holder #1



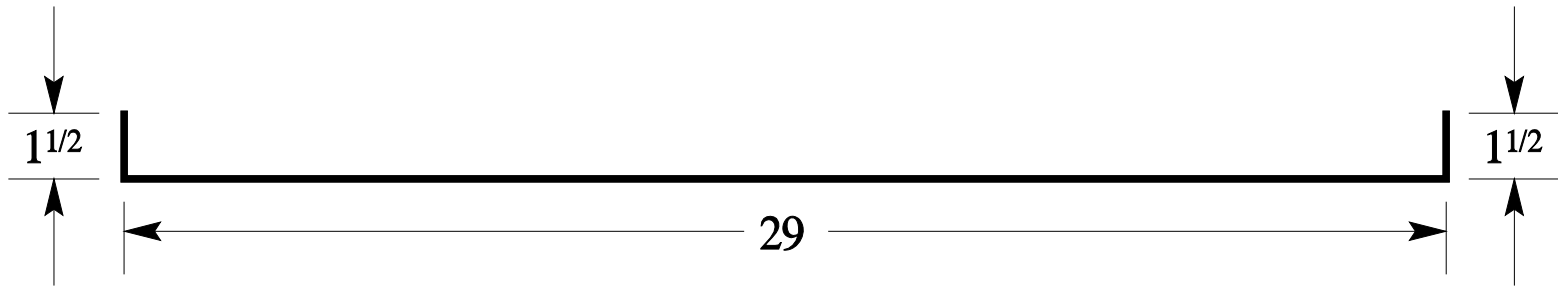
Calibration Material Sample Holder #1



Calibration Material Sample Holder #1

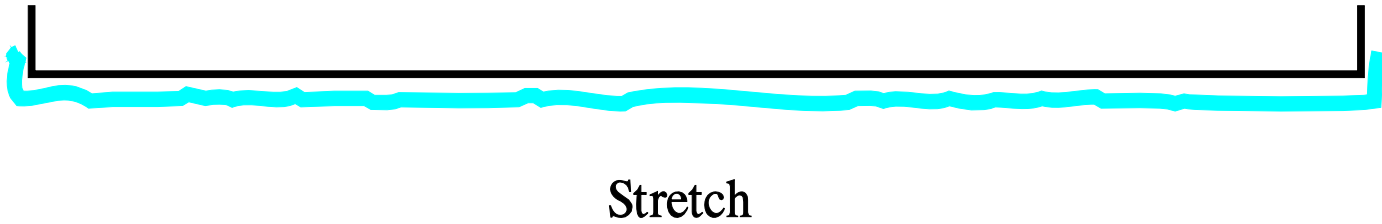


Calibration Material Sample Holder #1



Calibration Material Sample Holder #1

Stretching of Test Sample affects test results!



Calibration Material Sample Holder #1

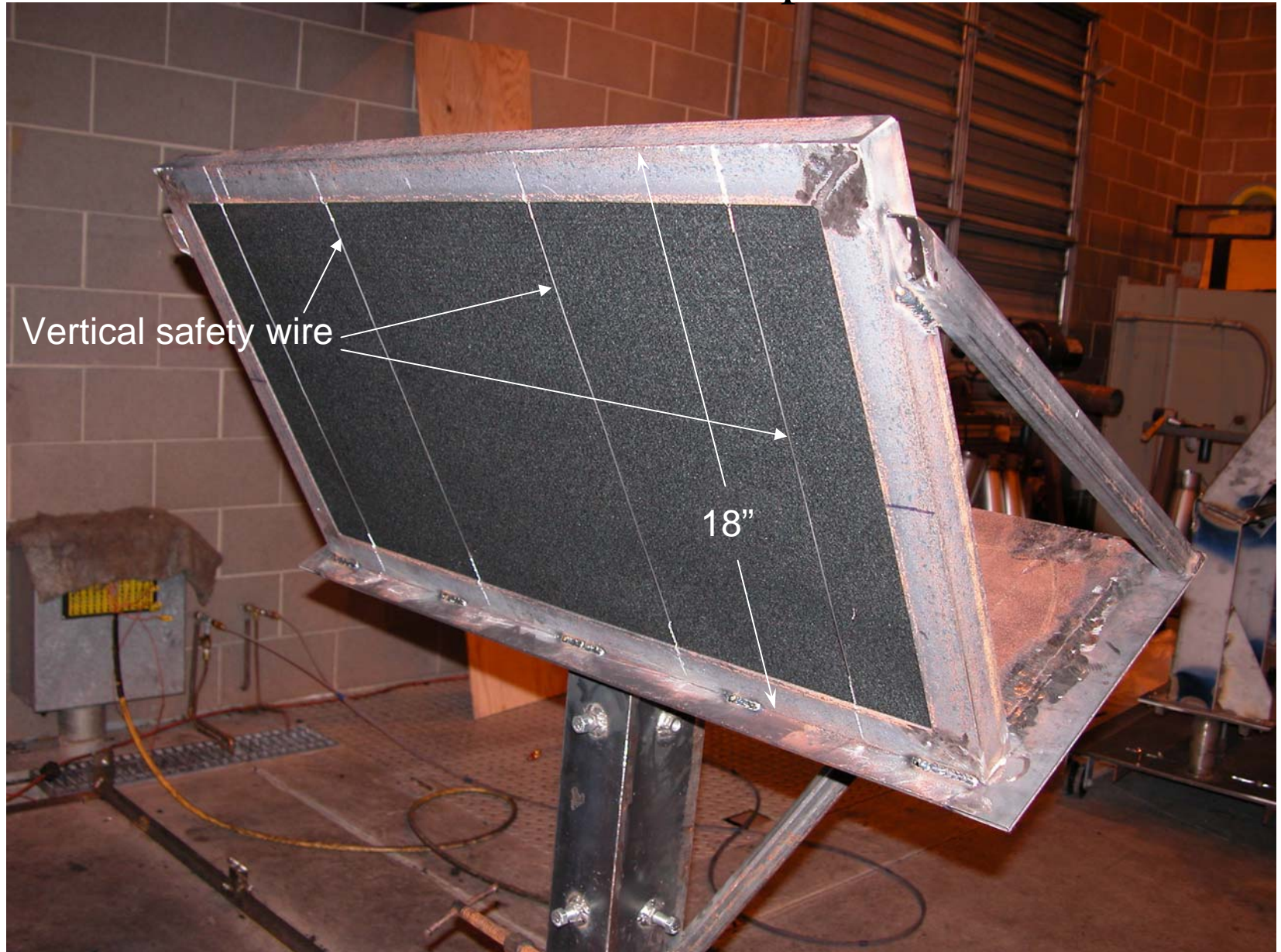
Stretching of Test Sample affects test results!



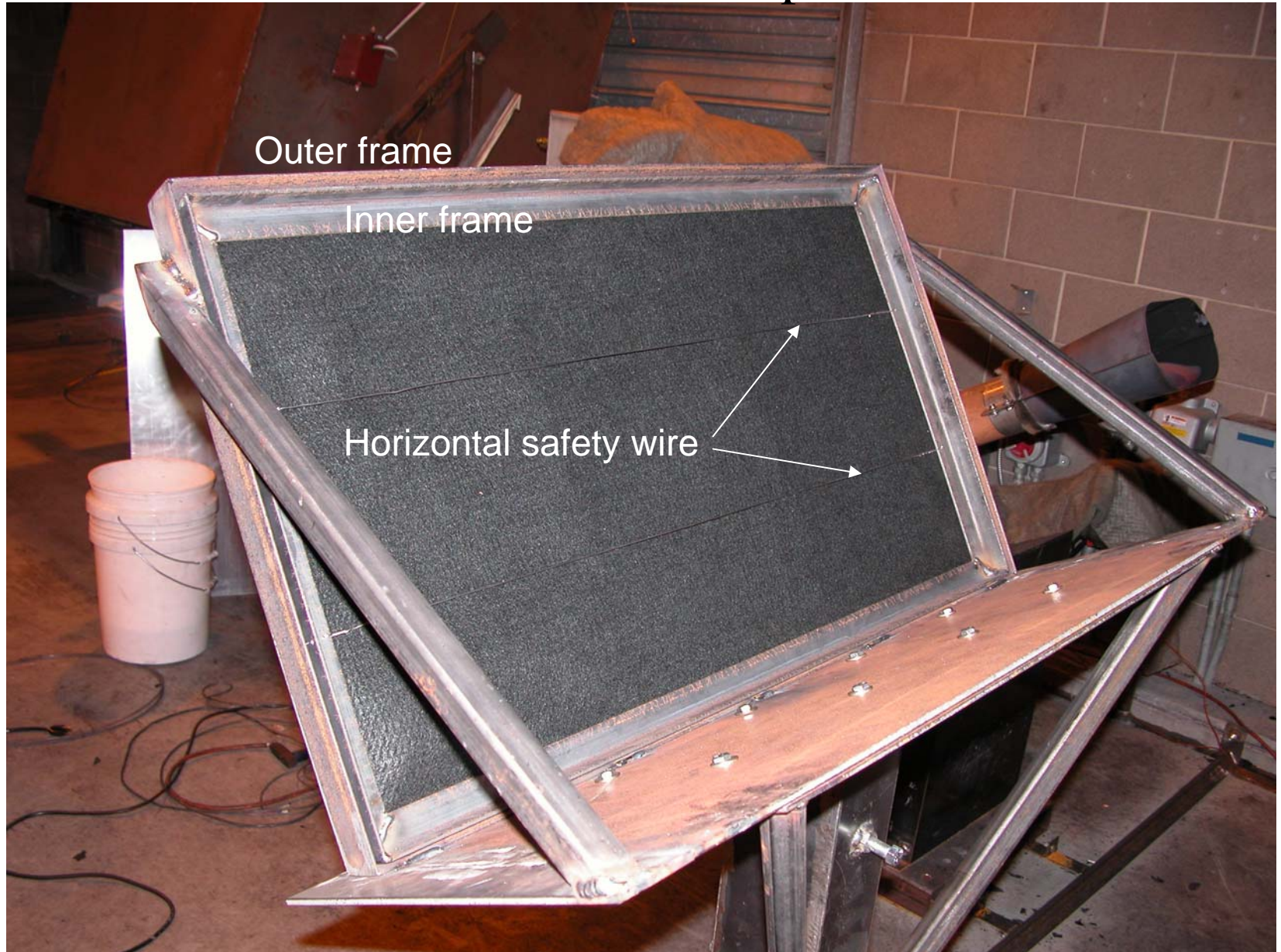
Calibration Material Sample Holder #2



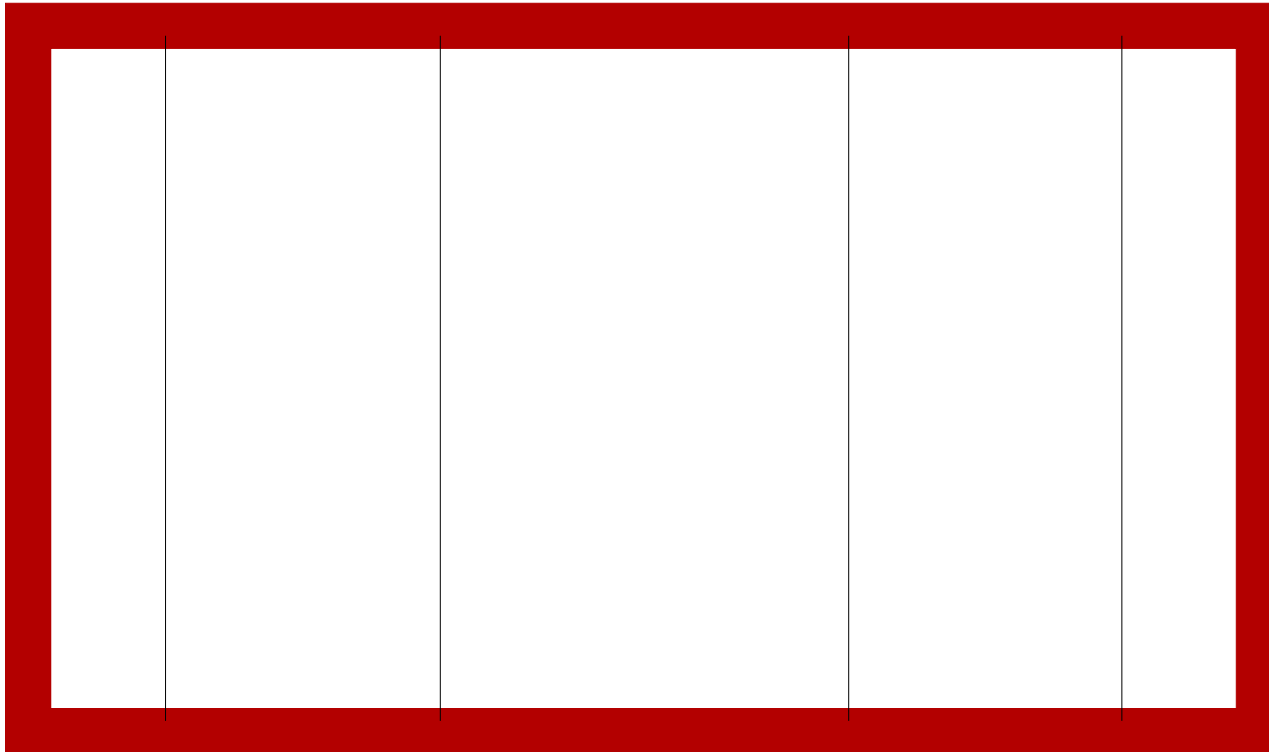
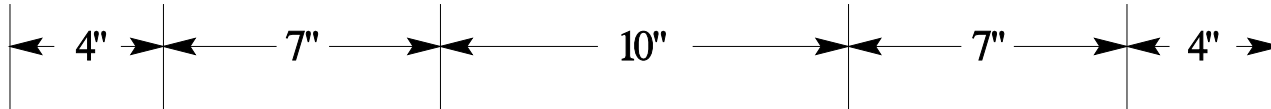
Calibration Material Sample Holder #2



Calibration Material Sample Holder #2



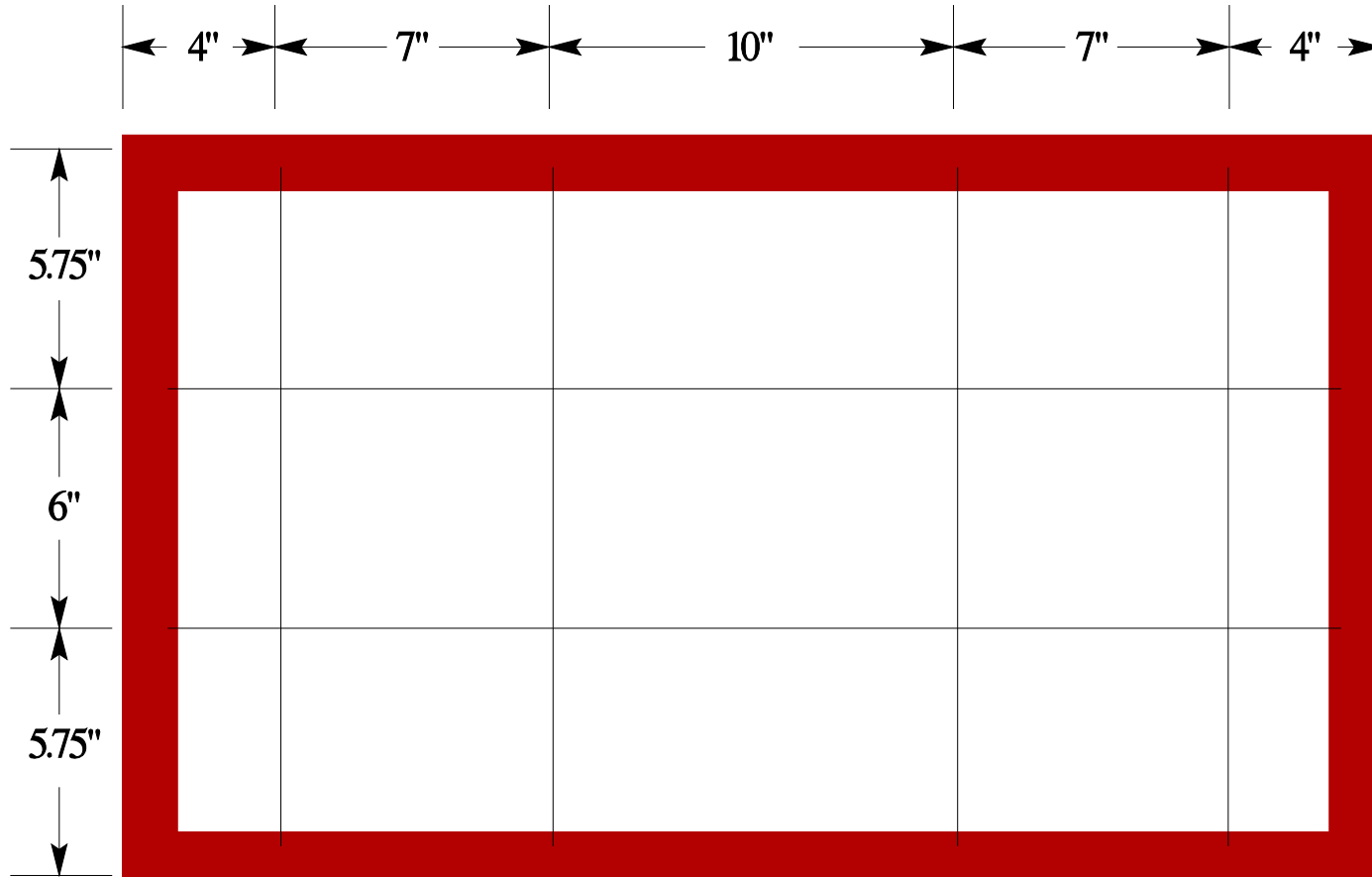
Calibration Material Sample Holder #2



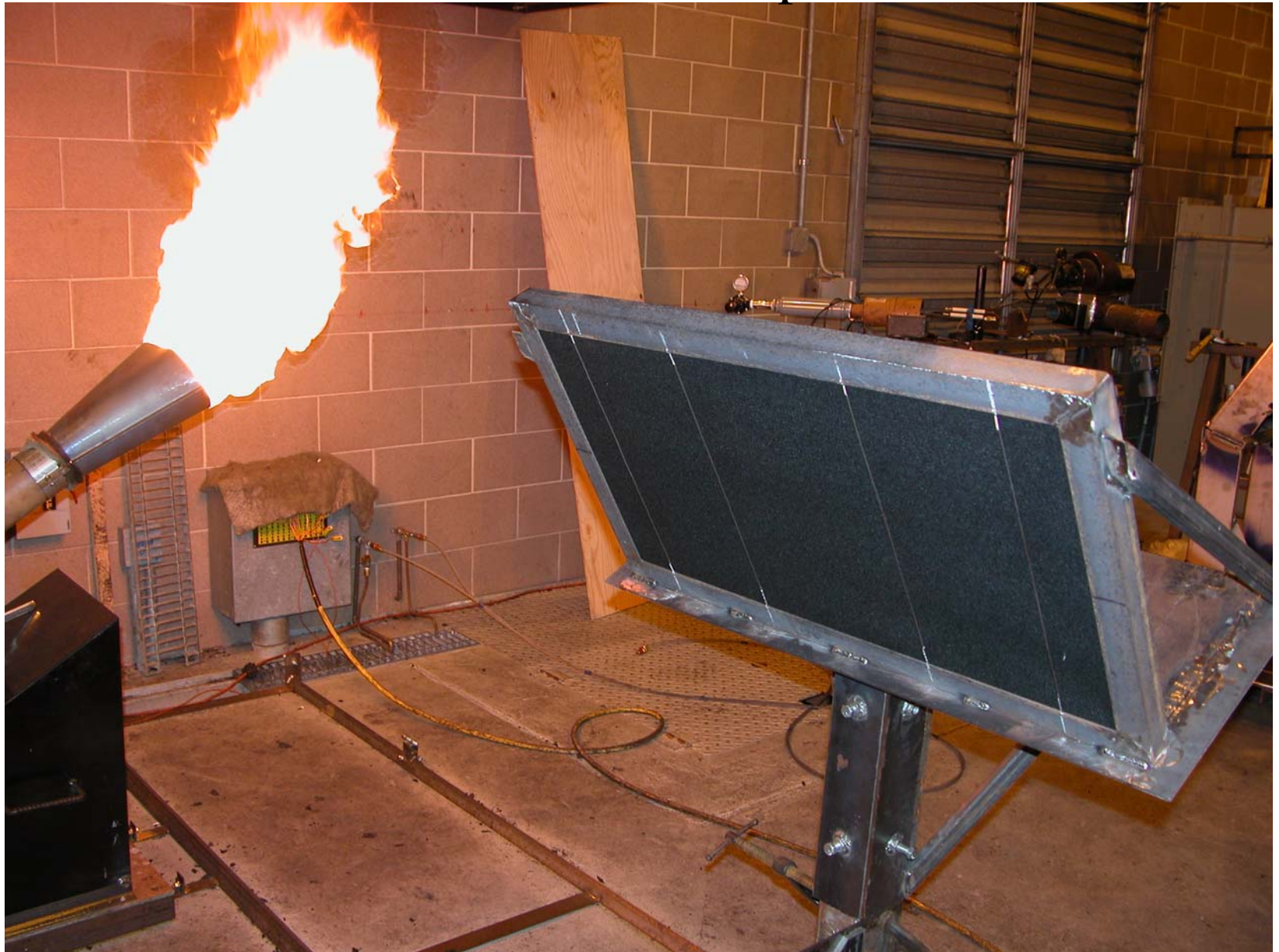
Calibration Material Sample Holder #2



Calibration Material Sample Holder #2



Calibration Material Sample Holder #2



Calibration Material Sample Holder #2



Calibration Material Sample Holder #2



Calibration Material Sample Holder #2



Calibration Material Sample Holder #2



Calibration Material Sample Holder #2



Calibration Material Sample Holder #2



Calibration Material Sample Holder #2



Calibration Material Sample Holder #2

Blankets 15948B-8611R #41-46 (Halves)			
sample	NG1 DAY 1	NG1 DAY 2	FAA PARK
1	247	245	227
2	242	231	229
3	252	241	231
4	240	245	228
AVG	245.3	240.5	228.8
STD DEV	5.4	6.6	1.7
% SD	2.2	2.7	0.7