

FAR FLAMMABILITY CHAMBER

FEATURES

This method of test is used to assess burning behaviour of internal materials used in aircraft or other related vehicles. It is used to determine the flame propagation and after flame time of materials when subjected to a small flame. The modular design of the instrument allows testing in the horizontal, vertical and also at 45° to the datum plane. A 60° cable test is also included.

A high quality chamber and all sample holders and supports are manufactured from brushed stainless steel.

The instrument Includes:

- An adjustable burner with offset gas entry to avoid clogging of burner. Precision stainless steel needle valve.
- Specimen Holders and Support Systems to perform all four of the small scale tests which are contained in FAR Part 25 Appendix F Part 1, namely, 45°, 60°, Horizontal and Vertical Tests.
- Digital timer, which automatically controls gas flow and features auto-starting of the test as soon as the burner is placed into the test position.
- The adjustable timer allows the burner gas to be applied for the required application time, then resets to zero to start recording the after flame time automatically during the test.
- Although the gas is switched off automatically at the end of the flame application time, it can also be physically moved away from the sample, as this requirement is mandatory in some test methods.
- The apparatus is bench mounted, ergonomically designed and simple to use. It is ideal for use in quality control applications.
- A wall mounted variable speed extraction hood is also available as an option to assist in evacuating the contents of the chamber during and after testing.



SPECIFICATIONS

FAR Part 25 Appendix F:

Part I(b)(4) Vertical Flammability Tests

Part I(b)(5) Horizontal Test

Part I(b)(6) 45° Flammability Test

Part I(b)(7) 60° Flammability Test

AITM 2.0002, 2.0003, 2.0004 & 2.0005

BSS 7230: F-1, F-2, F-3, F-4, F-5 & F-7

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TECHNICAL DATA

Electrical:

230 volts AC 50Hz, 2 Amp / 115volts AC 60Hz, 4 Amp.

Ambient Temperature:

Operating 10°C to 35°C

Dimensions:

752mm (W) x 832mm x (H) x 330mm (D)



SERVICES REQUIRED

Burner Gas Supply:

The preferred fuel gas used in the test is methane with a minimum purity of 99%. The pressure required to obtain flame stability is approximately 17.2 kPa (2.5 PSI). Other gases may be used but they must have a calorific value of approximately 38 MJ/m³.

Effluent removal:

An extraction hood is recommended to be situated above the chamber to take away any smoke effluent produced during testing. We advise a variable flow extraction rate adjustable between of 0-300 m³/hour. The minimum hood size 850mm wide x 400mm deep is recommended. The chamber can also be placed inside a fume cupboard if required.

A wall mounted variable speed extraction system is available as an option to assist in evacuating the contents of the chamber during and after testing. Please ask us for further details.