



YUYANG INDUSTRIAL CO., LIMITED

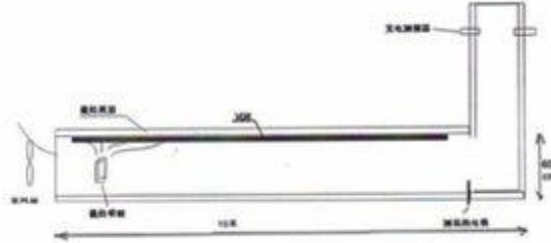
China Manufacturer of Fire Testing Equipment

ASTM E84 Building Materials Surface Burning Characteristics Test Apparatus



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- **Product Details:**

- Place of Origin: **China**
- Brand Name: **YUYANG**
- Certification: **ASTM E84 UL723**
- Model Number: **YY517**

- **Payment & Shipping Terms:**

- Minimum Order Quantity: **1 set**
- Price: **Negotiation**
- Packaging Details: **Plywood Box**
- Delivery Time: **35 work days**
- Payment Terms: **T/T L/C Western Union**
- Supply Ability: **3 sets per quarter**
- Share to :

ASTM E84 Building Materials Surface Burning Characteristics Test Apparatus

Application:

This method is applicable to determine surface burning characteristics of building materials and flame propagation rate of exposed surfaces such as walls and ceilings (including solid plastics), at the same time measure smoke density.

This test method applies to the exposed surface which includes ceiling or walls, provided that the materials or the whole assembly, with its own structural quality or the aspect in which is tested and intended to use is able to support itself in position or being supported during the period of test. The method is used to determine the corresponding burning behavior of the material by observing the flame spread along the test specimen. Reports are made for the flame spread and smoke density developed and it is not necessarily a relationship between the two measurements.

Standard:

ASTM E84: standard test method for surface burning characteristics of building materials

UL723: test for surface burning characteristics of building materials

Parameters:

1. Power: AC380V \pm 10%
2. Max Power: 5KW
3. Test tunnel furnace: length 7.62M, open end cross section 0.45M * 0.3M, firebrick max temperature 2500°C
4. The test chamber is made of 16 isometric observation windows, and one fire observation window, which is a double-layer high-temperature quartz glass, SUS304 stainless steel frame.
5. Adopt water seal structure, the two sides of sample cover plate are broken into the tank during test, in order to sealing performance is better.
6. Air inlet is adjustable shutter, which could control air flow inside furnace more accurately.
7. Thermocouple: K-type, diameter 3mm, 3 sets, Omega USA imported, high precision, long service life, measuring range: \leq 1300 °C
8. Exhaust port: which is from rectangle to round, diameter 406mm
9. Smoke density measurement: install position is distance tunnel furnace 4.9~12.2M.

10. Gas burner installation: the burner shall be spaced 305mm from the fire end of the test chamber, and 190mm below the under surface of the test sample.

11. The light source: two gas burners, around nozzle distance 203mm, energy output 5.3Mj/min.

12. Ignition system: high voltage electronic ignition.

13. Component material and function:

①. Test furnace size: L9456*W1067*H1400, not including flue.

②. Furnace base is made of 100*50 channel steel welded together, surface spray treatment

③. Flue: double-layer flue, the center filled with high temperature asbestos, inner layer SUS304 stainless steel plate, outer layer galvanized sheet with T1.2

④. Sample plate: calcium silicate cement board, high temperature resistant to 1300°C

⑤. Sample cover: T2.0 SUS304 stainless steel

⑥. Control box: adopts T1.2 cold plate, CNC machine tool is formed, arc shape beautiful, surface is white paint.

14. Gas and gas flow control system:

①. Gas: gas (purity 99%), by your own.

②. Gas control system, includes flow meter, U type pressure gauge, pressure gauge, pressure regulating valve.

③. Flow meter: domestic brand, range 2~20L/min, accuracy 2%.

④. U type pressure gauge: original from USA, water column 0~36 inches, analysis degree 0.1 inch.

⑤. Pressure gauge: 0~200Kpa(0~30psi), resolution 5Kpa.

⑥. Pressure regulating valve: 0~10kg/min continuously adjustable.

15. Smoke density measurement system:

①. Light source: imported quartz halogen lamp.

②. Nominal power: 100W.

③. Nominal voltage: 12V.

④. Nominal light return amount: 2000~3000Lm.

⑤. Receiver: spectral response matches light meter of international lighting commissioner (CIE).

⑥. Installation: install at one end of the pipe with length 150, the other end is a dustproof window, inner wall of pipe is glossy black and anti-reflection.

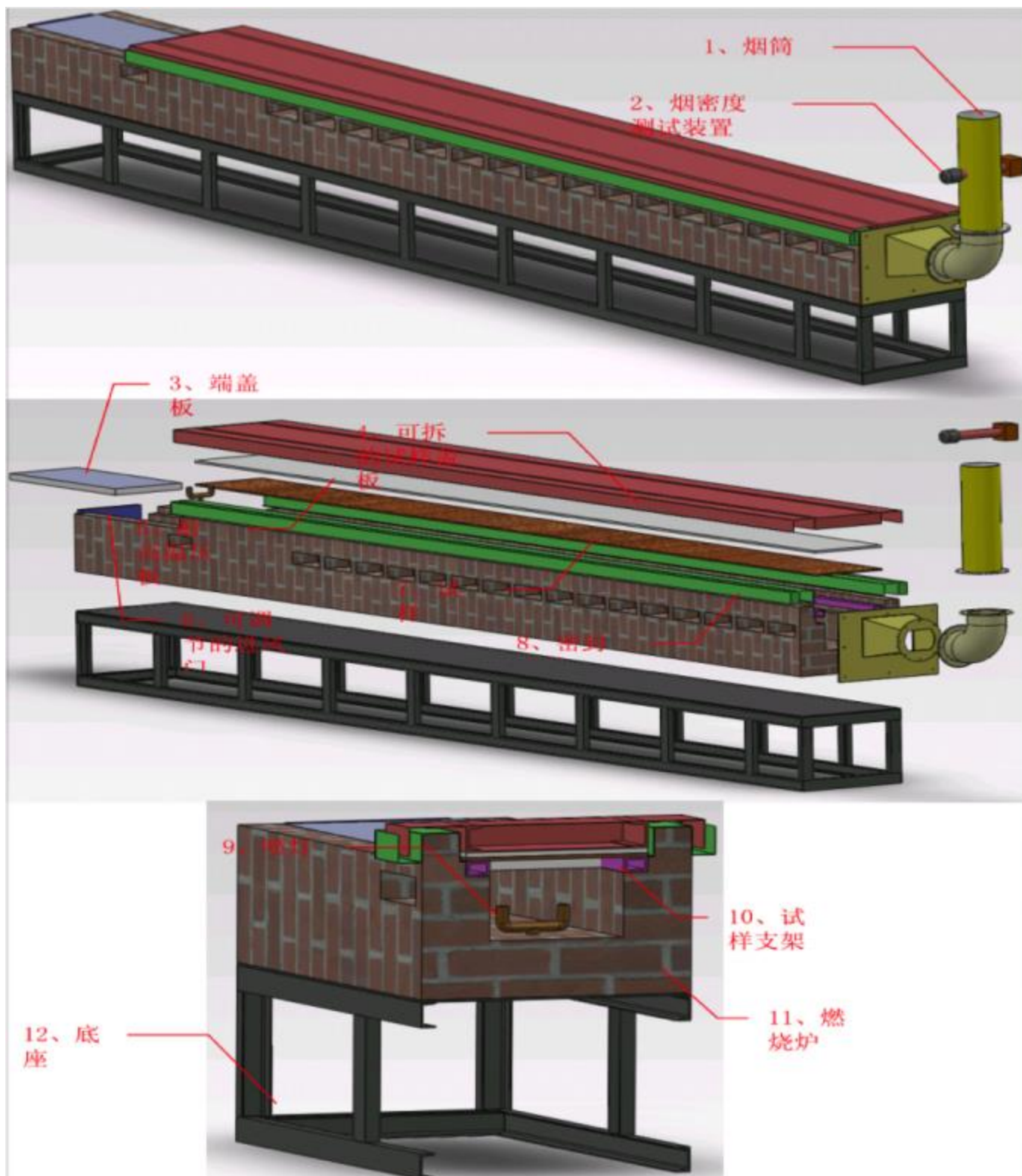
⑦. Light transmittance 0% means no light passing, 100% means without shade, all pass through.

Control system:

1. It adopts computer control system, includes PC and printer, Windows XP operate system.
2. It also includes light transmittance measurement software, which could output curves and reports. (curves as Figure 1)



3. All electronic originals are domestic leading brands, and all of them are directly manufacture by supplier, which could guarantee quality better.
4. The equipment has the following safety protection devices: power overload, short circuit protection and overload protection of control circuit.



1. Chimney 2. Smoke density measurement device 3. Panel
4. Removable sample cover 5. Refractory panel 6. Adjustable air inlet

7. Sample 8. Seal 9. Gusher 10. Sample holder
11. Combustion furnace 12. Foundation